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CSIRO
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GEOCHEMICAL EXPLORATION IN COMPLEX LATERITIC ENVIRONMENTS OF THE YILGARN CRATON, WESTERN AUSTRALIA

P240A Final Report
Volume 2 - Appendices

R.R. Anand, R.E. Smith, C. Phang, J.E. Wildman,
I.D.M. Robertson and T.J. Munday

CRC LEME OPEN FILE REPORT 58

November 1998

(CSIRO Division of Exploration Geoscience Report 442R, December 1993.
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CRC LEME is an unincorporated joint venture between The Australian National University, University of Canberra, Australian Geological Survey Organisation and CSIRO Exploration and Mining
Headquarters: CRC LEME c/o CSIRO Exploration and Mining, Private Bag, PO Wembley, Western Australia, 6014

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 58) is a First revision (second printing) of CSIRO, Division of Exploration Geoscience Restricted Report 442R, first issued in 1993, which formed part of the CSIRO/AMIRA Project P240A.

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PREFACE TO THE SECOND IMPRESSION
R. E. Smith and R.R. Anand, 1st October 1998.

This final report is one of two companion volumes (CRC LEME Open File Reports 50 and 58) which bring together the results of the CSIRO-AMIRA projects 'Laterite Geochemistry' and its extension 'Yilgarn Lateritic Environments' which, in total, ran from July 1987 to December 1993.

These summary and final reports synthesise 25 reports and three field guides which cover the project components, including multidisciplinary studies of several 'type' districts, across the Yilgarn Craton of Western Australia and many geochemical dispersion studies about concealed gold deposits.

Although the main focus of the project concentrated on gold exploration, the knowledge, regolith mapping methods, regolith stratigraphy, models and evolution are applicable to exploration for a wide range of commodities (including base metals, rare metals and diamonds) and the geochemical data are comprehensively multi-element.

In this second impression (second printing), the senior authors made the decision to produce the two reports as they were except for the correction of a small number of typographical errors, minor omissions and some additional acknowledgments.

We direct readers' attention to the following correlation of terms used for regolith-landform regimes developed in later work:

This Report		Terminology used in 1994 onwards
Residual regime As defined in Section 2.4.3, page 12, Open File Report 50	equivalent to:	*Relict regime* Anand and Smith (1993)

Comment on use of regolith-landform regimes

The first step is to make an objective map of the regolith-landform units present in an area, with little or no genetic bias. Such a factual map forms the basis of derivative or interpretative maps based on genetic grouping of the regolith and associated geomorphic features. It should also be pointed out that ferruginous materials have formed both in *in-situ* and transported materials. Laterite residuum, formed by residual enrichment in the weathering of parent rocks, is included with the relict regime. Iron cemented sands and gravels (ferricretes) are different because there is no direct genetic relationship between these ferricretes and the underlying bedrocks. Therefore, they are included with the depositional regime.

Although focus of the research presented here is on the Yilgarn Craton of Western Australia and its periphery, the research findings have wider application. Sponsors have used the research findings in other parts of Australia (Northern Territory and Queensland) and in appropriate terrain overseas, including western Africa, southern Asia and South America. However, having said this, we stress the importance of carrying out systematic research, including orientation studies, in each of these more distant areas.

We hope the approaches we have found helpful in the Yilgarn, translated generically, will be a guide to approaches that can be used in other lateritic terrains around the world.

Reference:

Anand, R.R. and Smith, R.E. (1993). Regolith distribution, stratigraphy and evolution of the Yilgarn Craton. In: P.R. Williams and J. A. Haldane (Compilers), An International Conference on Crustal Evolution, Metallogeny and Exploration of the Eastern Goldfields. Kalgoorlie 1993. Australian Geological Survey Record 1993/54. pp187-193.

PROJECT LEADERS' PREFACE

R.E. Smith and R.R. Anand

This project, AMIRA P240A, with a shortened title *Yilgarn Lateritic Environments* was a two year extension of its precursor, AMIRA P240 (*Laterite Geochemistry*). The research was carried out from July 1991 to June 1993, and the results were summarised and synthesised in the final report entitled 'Geochemical exploration in complex lateritic environments of the Yilgarn Craton' by Anand *et al.* Volume I, 1993 (CSIRO Division of Exploration and Mining Restricted Report 442R Volume I, December 1993). Volumes II and III contain all the data generated by the project. A floppy disk of the geochemical data together with sample type and location is included in standard format to enable users to have easy access and readily manipulate the data for their required purposes. Volumes I, II and III of report 442R should be considered together.

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CSIRO/AMIRA REPORT 442R

APPENDIX X

Matt Dam Data

APPENDIX X Matt Dam Data

sampno	Easting	Northing	Sampgp	Samptype	Depth	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	LOI	TOTAL
					m	%	%	%	%	%	%	%	%	%	%
07-2281A	10300	7400	LAG	M	0	6.9	8.10	78.70	0.200	0.260	0.050	<0.06	1.010	2.72	98.0
07-2281B	10300	7400	LAG	NM	0	16.4	11.70	64.80	0.230	0.280	0.090	<0.06	0.710	5.02	99.3
07-2282/1	10300	7400	SU300	<75um	0.2	32.2	11.50	6.57	4.220	17.400	0.910	0.820	1.080	25.42	100.1
07-2282/2	10300	7400	SU300	710-2000um	0.2	14.4	9.28	66.30	0.610	1.760	0.120	0.080	1.450	6.24	100.2
07-2283	10300	7400	MZ	MZ100	1.5	12.6	10.10	69.80	0.170	0.110	0.130	0.080	1.500	5.74	100.2
07-2284A	10350	7400	LAG	M	0	6.8	8.05	79.10	0.180	0.340	0.090	<0.06	1.110	2.46	98.2
07-2284B	10350	7400	LAG	NM	0	10.1	10.90	69.97	0.270	0.650	0.090	<0.06	0.850	5.23	98.1
07-2285/1	10350	7400	SU300	<75um	0.2	33.5	10.30	5.95	4.160	17.900	0.670	0.770	1.030	25.76	100.0
07-2285/2	10350	7400	SU300	710-2000um	0.2	15.6	8.72	64.50	0.780	2.490	0.090	0.080	1.500	6.68	100.4
07-2286	10350	7400	MZ	MZ100	1.5	21.5	11.10	55.00	0.340	0.050	0.180	0.100	1.210	9.99	99.5
07-2287A	10400	7400	LAG	M	0	12.4	10.50	71.70	0.180	0.230	0.060	0.030	0.689	2.19	98.0
07-2287B	10400	7400	LAG	NM	0	5.8	7.43	79.30	0.180	0.200	0.060	<0.06	1.010	4.03	98.0
07-2288/1	10400	7400	SU300	<75um	0.2	33.7	12.20	7.75	3.060	15.200	0.840	0.800	1.150	25.39	100.1
07-2288/2	10400	7400	SU300	710-2000um	0.2	14.2	9.25	68.50	0.300	0.440	0.090	0.060	1.550	4.65	99.0
07-2289	10400	7400	MZ	MZ100	1.5	23.9	18.30	44.20	0.160	0.050	0.140	<0.06	1.610	11.81	100.2
07-2290	10400	7400	MZ	MZ100	4.5	22.3	16.40	44.60	0.210	0.020	0.100	<0.06	1.600	14.81	100.0
07-2291A	10450	7400	LAG	M	0	6.1	7.86	80.90	0.140	0.150	0.050	<0.06	1.060	2.37	98.7
07-2291B	10450	7400	LAG	NM	0	11.3	10.20	72.30	0.130	0.130	0.080	<0.06	0.809	3.99	99.0
07-2292/1	10450	7400	SU300	<75um	0.35	41.1	14.40	7.25	2.370	11.400	0.670	0.930	1.330	20.42	99.9
07-2292/2	10450	7400	SU300	710-2000um	0.35	10.8	8.91	74.40	0.240	0.380	0.070	0.050	1.610	3.72	100.2
07-2293	10450	7400	MZ	MZ100	1.5	17.5	11.50	61.40	0.200	0.050	0.120	0.050	1.380	7.36	99.6
07-2294	10450	7400	MZ	MZ100	2.5	34.3	12.60	40.50	0.370	0.040	0.190	0.110	1.390	10.57	100.1
07-2295A	10500	7400	LAG	M	0	6.7	9.73	78.80	0.170	0.250	0.060	<0.06	0.845	2.47	99.0
07-2295B	10500	7400	LAG	NM	0	8.6	11.40	73.90	0.150	0.210	0.060	<0.06	0.671	3.37	98.4
07-2296/1	10500	7400	SU300	<75um	0.2	38.0	12.30	5.89	3.060	14.900	0.160	0.710	1.170	23.44	99.6
07-2296/2	10500	7400	SU300	710-2000um	0.2	9.9	8.83	73.70	0.450	1.270	0.030	0.050	1.340	4.25	99.8
07-2297	10500	7400	MZ	MZ100	1.5	9.0	9.94	75.30	0.150	0.070	0.110	0.017	1.390	4.28	100.2
07-2298	10500	7400	MZ	MZ100	2.5	30.6	15.20	41.80	0.330	0.050	0.220	0.100	1.530	10.34	100.2
07-2299	10525	7400	CA200	CA204	0.2	12.7	4.79	7.58	9.840	27.200	0.100	0.130	0.420	36.27	99.0
07-2300A	10525	7400	LAG	M	0	5.8	8.26	80.40	0.190	0.460	0.060	<0.06	0.690	2.58	98.5
07-2300B	10525	7400	LAG	NM	0	7.1	8.70	70.50	1.360	3.260	0.090	<0.06	0.574	6.51	98.1
07-2301/1	10525	7400	SU300	<75um	0.2	37.8	12.60	5.97	2.590	15.600	0.160	0.650	1.230	23.65	100.3
07-2301/2	10525	7400	SU300	710-2000um	0.2	9.6	8.52	70.90	0.810	2.390	0.040	0.017	1.170	5.84	99.3
07-2302	10525	7400	MZ	MZ100	1.5	10.3	9.97	71.60	0.510	0.810	0.120	0.017	1.200	5.71	100.2
07-2303	10525	7400	MZ	MZ100	3.5	23.7	13.40	49.30	0.290	0.040	0.120	0.070	1.340	11.44	99.7
07-2304	10550	7400	CA200	CA204	0.2	12.8	5.13	10.60	12.900	21.000	0.110	0.110	0.430	35.50	98.6
07-2305A	10550	7400	LAG	M	0	6.2	8.57	78.00	0.530	0.900	0.060	<0.06	0.708	3.32	98.3
07-2305B	10550	7400	LAG	NM	0	8.3	9.18	60.40	3.390	5.610	0.100	0.050	0.518	10.53	98.1
07-2306/1	10550	7400	SU300	<75um	0.2	37.3	13.00	6.04	2.580	14.900	0.180	0.640	1.190	24.16	100.0
07-2306/2	10550	7400	SU300	710-2000um	0.2	17.0	10.80	57.00	1.340	3.400	0.060	0.080	1.240	9.00	99.9
07-2307	10550	7400	MZ	MZ100	1.5	22.4	14.90	50.20	0.640	0.440	0.190	0.070	1.310	9.31	99.5
07-2308	10550	7400	MZ	MZ100	3.5	28.4	14.70	42.20	0.440	0.030	0.260	0.090	1.280	12.58	100.0

APPENDIX X Matt Dam Data

sampno	Easting	Northing	Sampgp	Samptype	Depth	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	LOI	TOTAL
					m	%	%	%	%	%	%	%	%	%	%
07-2309/1	10600	7400	SU300	<75um	0.2	45.1	18.70	7.69	1.680	5.930	0.140	1.000	1.220	18.53	100.0
07-2309/2	10600	7400	SU300	710-2000um	0.2	20.1	10.50	58.90	0.640	1.670	0.040	0.100	1.060	6.76	99.8
07-2310	10600	7400	MZ	MZ100	1.5	20.8	13.50	53.30	0.290	0.100	0.270	0.050	1.160	10.32	99.8
07-2311	10600	7400	MZ	MZ100	2.5	36.2	13.10	40.50	0.150	0.040	0.170	0.160	0.840	8.79	100.0
07-2312A	10650	7400	LAG	M	0	22.1	13.20	54.60	0.470	0.860	0.280	0.100	0.654	5.76	98.0
07-2312B	10650	7400	LAG	NM	0	30.0	14.90	41.60	0.430	1.110	0.120	0.050	0.574	10.03	98.8
07-2313/1	10650	7400	SU300	<75um	0.2	42.3	13.00	5.95	2.310	12.500	0.400	0.740	0.980	21.87	100.1
07-2313/2	10650	7400	SU300	710-2000um	0.2	32.8	11.70	42.40	0.540	2.160	0.080	0.160	1.000	9.02	99.9
07-2314A	10700	7400	LAG	M	0	26.7	11.90	51.20	0.650	1.060	0.460	0.110	0.666	5.37	98.1
07-2314B	10700	7400	LAG	NM	0	32.1	10.70	36.70	1.270	4.510	0.480	0.080	0.483	12.22	98.5
07-2315/1	10700	7400	SU300	<75um	0.2	26.3	7.14	3.52	6.450	23.800	0.720	0.470	0.650	30.15	99.2
07-2315/2	10700	7400	SU300	710-2000um	0.2	28.3	11.30	20.70	5.290	11.400	0.180	0.440	0.890	21.08	99.6
07-2316A	10750	7400	LAG	M	0	42.4	11.50	34.80	0.840	0.980	0.400	0.210	0.499	5.79	97.4
07-2316B	10750	7400	LAG	NM	0	50.9	10.80	25.70	0.730	1.760	0.450	0.120	0.449	7.93	98.8
07-2317/1	10750	7400	SU300	<75um	0.2	40.6	14.00	4.75	3.030	12.900	0.360	0.730	1.000	22.90	100.3
07-2317/2	10750	7400	SU300	710-2000um	0.2	45.2	12.80	17.30	1.910	5.960	0.140	0.500	1.000	14.81	99.6
07-2318A	10800	7400	LAG	M	0	9.6	10.64	69.90	0.690	1.050	0.140	0.120	1.340	4.84	98.3
07-2318B	10800	7400	LAG	NM	0	15.5	13.20	56.00	0.790	2.250	0.140	0.080	1.150	10.38	99.5
07-2319/1	10800	7400	SU300	<75um	0.25	38.3	15.90	6.42	3.230	12.100	0.690	0.840	1.270	20.93	99.7
07-2319/2	10800	7400	SU300	710-2000um	0.25	20.3	14.60	45.80	1.030	3.610	0.110	0.170	1.960	12.28	99.9
07-2320A	10400	7700	LAG	M	0	7.7	7.56	79.30	0.290	0.250	0.070	0.040	1.080	2.30	98.6
07-2320B	10400	7700	LAG	NM	0	22.0	10.05	58.80	0.530	0.340	0.100	0.050	0.883	4.86	97.6
07-2321/1	10400	7700	SU300	<75um	0.2	36.5	15.10	7.60	4.770	12.200	0.530	0.910	1.390	20.60	99.6
07-2321/2	10400	7700	SU300	710-2000um	0.2	19.7	8.37	64.00	0.540	0.410	0.080	0.060	1.560	4.59	99.3
07-2322	10400	7700	MZ	MZ100	1.5	28.7	8.57	55.90	0.130	0.060	0.060	0.017	1.410	4.91	99.7
07-2323/1	10450	7700	SU300	<75um	0.2	45.7	19.40	9.52	2.620	3.670	0.160	1.270	1.470	16.16	100.0
07-2323/2	10450	7700	SU300	710-2000um	0.2	22.4	9.53	59.00	0.680	0.660	0.050	0.110	1.600	5.68	99.7
07-2324	10450	7700	MZ	MZ100	1.5	23.2	10.20	59.00	0.460	0.150	0.100	0.060	1.540	5.49	100.2
07-2325	10450	7700	MZ	MZ100	3.5	14.5	8.53	67.20	0.230	0.040	0.080	0.017	0.900	8.39	99.9
07-2326/1	10500	7700	SU300	<75um	0.2	48.8	21.00	10.70	1.760	0.490	0.300	1.480	1.580	13.58	99.7
07-2326/2	10500	7700	SU300	710-2000um	0.2	35.8	11.60	42.60	0.850	0.270	0.100	0.240	1.340	6.99	99.8
07-2327	10500	7700	MZ	MZ100	1.5	23.3	12.60	49.70	1.090	0.610	0.190	0.017	1.460	10.12	99.1
07-2328A	10550	7700	LAG	M	0	11.3	9.99	71.30	0.220	0.320	0.100	0.040	0.734	4.22	98.2
07-2328B	10550	7700	LAG	NM	0	17.6	14.20	58.00	0.190	0.280	<0.007	0.030	0.611	7.49	98.4
07-2329/1	10550	7700	SU300	<75um	0.2	39.3	15.60	6.37	2.780	11.000	0.340	0.850	1.330	20.98	98.6
07-2329/2	10550	7700	SU300	710-2000um	0.2	23.6	13.50	47.90	0.980	2.150	0.080	0.080	1.160	10.10	99.6
07-2330	10550	7700	MZ	MZ100	1.5	22.8	17.10	47.30	0.220	0.120	0.190	0.017	1.510	11.15	100.4
07-2331	10550	7700	MZ	MZ100	4	22.9	16.70	47.30	0.120	0.030	0.160	0.017	2.410	10.70	100.3
07-2332A	10600	7700	LAG	M	0	10.8	9.95	71.30	0.350	0.570	0.100	0.050	0.597	4.17	97.9
07-2332B	10600	7700	LAG	NM	0	13.4	11.80	59.10	1.220	2.510	<0.007	0.030	0.488	9.01	97.6
07-2333/1	10600	7700	SU300	<75um	0.2	38.3	16.50	6.31	2.820	10.900	0.710	1.010	1.160	22.28	100.0
07-2333/2	10600	7700	SU300	710-2000um	0.2	22.3	14.90	44.40	1.750	3.290	0.100	0.110	0.950	12.07	99.9

APPENDIX X Matt Dam Data

sampno	Easting	Northing	Sampgp	Samptype	Depth	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	LOI	TOTAL
					m	%	%	%	%	%	%	%	%	%	%
07-2334	10600	7700	MZ	MZ100	1.5	16.7	15.30	55.00	0.690	0.730	0.130	0.017	0.770	10.17	99.5
07-2335A	10630	7700	LAG	M	0	21.8	15.20	53.50	0.360	0.850	0.200	0.110	0.505	5.94	98.5
07-2335B	10630	7700	LAG	NM	0	23.6	17.80	43.70	0.270	1.510	<0.007	0.030	0.402	11.18	98.5
07-2336A/1	10630	7700	SU300	<75um	0.2	38.8	14.40	6.89	2.170	12.900	0.140	0.970	1.200	22.02	99.5
07-2336A/2	10630	7700	SU300	710-2000um	0.2	23.5	12.20	23.80	4.110	12.700	0.070	0.130	0.640	22.52	99.7
07-2336B	10630	7700	CA200	CA204	0.2	19.6	14.80	32.10	2.080	10.400	0.070	0.017	0.610	20.19	99.9
07-2337A	10650	7700	LAG	M	0	20.8	14.80	54.30	0.620	1.160	0.270	0.140	0.525	5.51	98.1
07-2337B	10650	7700	LAG	NM	0	21.5	13.50	40.50	3.050	5.050	0.080	0.060	0.427	14.01	98.2
07-2338A/1	10650	7700	SU300	<75um	0.2	35.2	11.80	6.41	4.890	14.600	0.540	0.870	1.140	24.45	99.9
07-2338A/2	10650	7700	SU300	710-2000um	0.2	23.9	8.76	20.20	7.750	13.700	0.160	0.240	0.710	24.46	99.9
07-2338B	10650	7700	CA200	CA204	0.2	13.1	7.13	15.50	10.300	20.100	0.140	0.100	0.460	32.73	99.6
07-2339	10650	7700	MZ	MZ100	1.5	23.2	14.20	46.50	0.880	0.730	0.170	0.110	1.090	13.13	100.0
07-2340A	10660	7700	LAG	M	0	17.3	13.80	58.50	0.320	0.570	0.150	0.070	0.658	6.88	98.2
07-2340B	10660	7700	LAG	NM	0	21.8	14.70	49.80	0.250	0.290	0.080	0.040	0.517	11.13	98.6
07-2341A/1	10660	7700	SU300	<75um	0.2	40.8	15.40	8.63	2.120	10.500	0.310	0.940	1.450	19.57	99.7
07-2341A/2	10660	7700	SU300	710-2000um	0.2	26.6	11.60	30.40	1.750	10.200	0.100	0.210	0.960	18.30	100.1
07-2341B	10660	7700	CA200	CA204	0.2	18.8	12.60	44.70	0.710	5.340	0.080	0.050	0.950	16.43	99.7
07-2342A	10675	7700	LAG	M	0	20.9	15.60	53.70	0.320	0.510	0.140	0.060	0.665	6.97	98.9
07-2342B	10675	7700	LAG	NM	0	23.5	16.20	46.30	0.210	0.110	<0.007	<0.06	0.634	11.79	98.8
07-2343/1	10675	7700	SU300	<75um	0.15	38.7	16.00	7.42	2.120	11.600	0.230	0.730	0.980	21.69	99.5
07-2343/2	10675	7700	SU300	710-2000um	0.15	37.1	11.80	12.60	1.850	13.200	0.110	0.480	0.900	21.39	99.4
07-2344	10675	7700	MZ	MZ100	1.5	43.5	14.10	28.10	0.870	1.170	0.180	0.090	1.040	10.84	99.9
07-2345/1	10675	7700	SU300	<75um	0.05	51.1	19.40	10.90	1.230	0.700	0.200	0.890	2.130	12.91	99.5
07-2345/2	10675	7700	SU300	710-2000um	0.05	25.9	14.70	47.80	0.280	0.300	0.040	0.060	1.240	9.92	100.2
07-2346A	10700	7700	LAG	M	0	23.8	12.80	52.60	0.650	1.130	0.270	0.210	0.620	5.97	98.1
07-2346B	10700	7700	LAG	NM	0	26.9	12.60	39.90	1.280	4.350	0.050	0.080	0.564	12.44	98.2
07-2347A/1	10700	7700	SU300	<75um	0.2	39.1	13.50	6.14	3.180	12.600	1.270	0.720	1.300	22.42	100.2
07-2347A/2	10700	7700	SU300	710-2000um	0.2	28.0	12.60	37.50	1.650	5.000	0.140	0.100	1.170	13.34	99.5
07-2347B	10700	7700	CA200	CA204	0.2	27.5	10.50	35.50	1.670	7.870	0.280	0.017	0.910	15.53	99.8
07-2348	10700	7700	MZ	MZ100	1.5	45.3	13.40	30.30	0.360	0.300	0.120	0.017	1.190	8.62	99.6
07-2349A	10750	7700	LAG	M	0	17.3	16.00	56.50	0.420	0.430	0.260	0.390	0.934	6.66	98.9
07-2349B	10750	7700	LAG	NM	0	20.2	19.90	43.50	0.550	0.860	0.160	0.230	0.851	11.75	98.0
07-2350/1	10750	7700	SU300	<75um	0.2	40.2	17.70	9.05	2.130	8.670	1.040	0.930	1.330	18.65	99.7
07-2350/2	10750	7700	SU300	710-2000um	0.2	27.8	15.30	42.20	0.550	1.690	0.150	0.200	1.410	10.32	99.6
07-2351/1	10800	7700	SU300	<75um	0.2	45.5	18.90	9.11	2.050	4.910	0.400	1.080	1.380	16.72	100.1
07-2351/2	10800	7700	SU300	710-2000um	0.2	41.8	13.00	32.70	0.660	2.020	0.100	0.270	1.370	8.42	100.3
07-2352	10800	7700	MZ	MZ100	1.5	34.5	19.50	30.60	0.260	0.480	0.170	1.250	1.720	11.18	99.7
07-2353/1	10850	7700	SU300	<75um	0.2	48.8	19.20	9.98	1.980	2.850	0.510	1.000	1.350	14.38	100.1
07-2353/2	10800	7700	SU300	710-2000um	0.2	40.2	10.70	38.10	0.500	1.170	0.110	0.260	1.370	7.32	99.7
07-2354	10800	7700	MZ	MZ100	1.5	59.0	10.60	22.10	0.180	0.070	0.090	0.650	1.520	5.82	100.0

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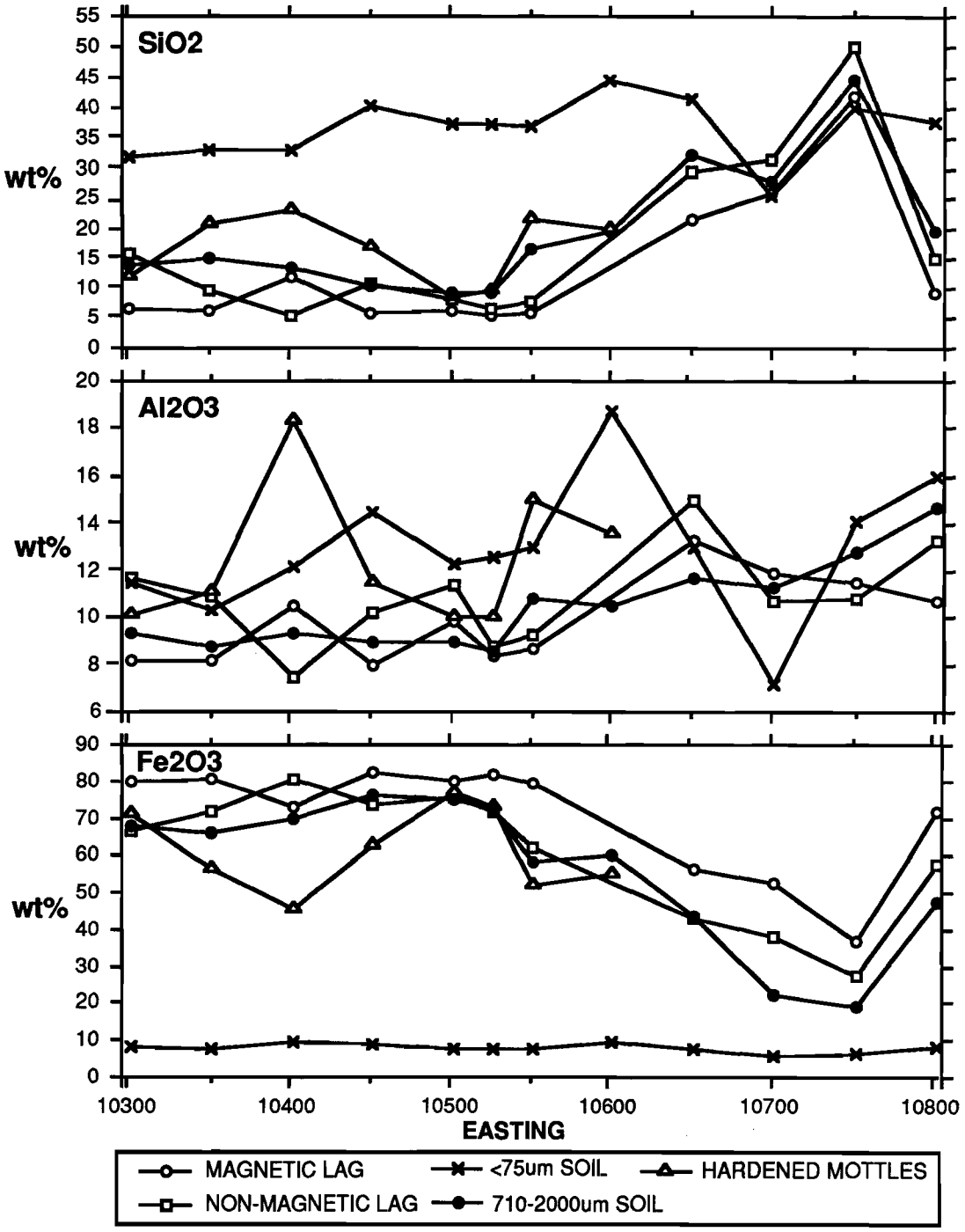
sampno	Mn	Cr	V	Cu	Pb	Zn	Ni	Co	As	Sb	Bi	Mo	Ag	Sn	Ge	Ga	W	Ba	Zr	Nb	Se	Be	Au	Ce
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm
07-2281A	723	6850	1380	43	21	20	175	17	191	9	2	2	0.4	3	<2	40	10	98	113	2	5	<1	<5	30.2
07-2281B	663	5550	1270	64	20	19	222	19	223	10	<2	<1	0.5	<2	<2	33	16	123	93	3	6	<1	<5	24.5
07-2282/1	337	583	142	52	5	41	119	18	27	1	<2	1	0.9	2	<2	14	5	165	156	7	<2	1	38	38.2
07-2282/2	497	4780	1330	64	32	24	187	20	209	8	<2	<1	0.6	4	<2	29	6	319	114	4	7	1	<5	40
07-2283	224	4780	1260	44	22	10	144	14	192	10	<2	<1	0.6	4	<2	37	<4	269	123	2	10	1	<5	12.7
07-2284A	775	7470	1470	41	16	27	185	19	193	10	2	<1	0.4	3	<2	41	6	103	115	3	4	<1	<5	30.9
07-2284B	874	5640	1350	68	15	25	230	28	235	7	<2	<1	0.4	5	<2	35	9	109	89	6	4	<1	<5	31.3
07-2285/1	313	521	128	50	6	40	104	15	27	1	<2	2	0.5	<2	<2	14	<4	207	151	8	<2	1	50	37.1
07-2285/2	510	4780	1290	66	33	30	196	19	211	12	<2	<1	0.6	<2	<2	31	14	166	113	2	2	1	<5	39.1
07-2286	119	3370	960	47	10	10	160	20	201	5	<2	3	0.7	4	<2	28	7	73	115	6	19	<1	<5	4.57
07-2287A	640	6960	1290	36	17	22	198	20	178	10	<2	1	0.4	4	<2	40	5	123	116	3	4	<1	21	28.5
07-2287B	649	6680	1410	51	18	19	247	21	192	11	<2	<1	0.4	2	<2	32	<4	144	105	3	7	<1	<5	29.7
07-2288/1	272	739	159	49	4	41	120	15	40	<0.2	<2	1	0.3	<2	<2	16	<4	321	148	7	2	1	75	31.4
07-2288/2	435	5390	1340	65	35	23	206	22	227	11	2	<1	0.7	2	2	29	11	323	113	3	6	1	<5	37
07-2289	96	2700	911	42	11	6	144	18	153	6	2	3	0.6	<2	<2	41	7	103	166	5	6	1	9	9.86
07-2290	116	1220	1070	53	14	<2	73	18	153	12	<2	2	1.0	<2	<2	51	10	119	186	6	3	<1	<5	24.1
07-2291A	526	7060	1490	45	28	20	168	18	212	10	<2	<1	0.4	2	<2	44	9	77	129	8	3	<1	39	40
07-2291B	545	5640	1470	61	25	17	165	15	258	10	2	3	0.5	2	<2	39	7	69	109	4	5	<1	20	33.3
07-2292/1	336	588	134	55	10	52	131	19	27	1	<2	2	0.6	4	<2	20	<4	226	183	11	<2	1	1010	61.4
07-2292/2	416	5410	1380	69	44	25	199	18	230	8	<2	<1	0.8	3	<2	34	9	107	130	2	3	1	99	51.6
07-2293	144	4740	1150	48	15	9	140	16	201	10	<2	<1	0.6	<2	<2	32	12	95	135	<2	10	<1	13	11.3
07-2294	128	2060	710	49	11	11	138	18	161	8	<2	2	0.6	2	<2	29	5	77	151	7	4	<1	<5	7.17
07-2295A	473	5230	1420	49	38	13	140	9	276	11	<2	1	0.5	6	<2	42	10	70	157	4	7	<1	<5	35.3
07-2295B	368	4820	1370	52	35	7	135	8	297	11	<2	2	0.7	<2	<2	49	9	61	145	6	4	<1	<5	32.9
07-2296/1	301	449	115	52	9	45	98	17	22	<0.2	<2	1	0.4	<2	<2	16	<4	192	184	9	<2	1	676	54
07-2296/2	457	4330	1310	67	54	23	173	14	239	10	<2	<1	0.8	<2	<2	34	7	92	144	7	6	1	34	49.4
07-2297	133	5760	1310	36	30	<2	133	13	254	13	2	1	0.9	2	<2	42	5	86	145	<2	11	<1	46	18.2
07-2298	155	2660	848	48	16	6	131	19	156	8	<2	<1	0.8	4	<2	36	8	166	192	9	10	1	15	20.5
07-2299	59	803	139	19	3	10	37	7	27	1	<2	<1	0.6	<2	<2	7	<4	78	59	3	<2	1	160	9.68
07-2300A	419	5790	1370	41	36	5	123	8	236	13	<2	2	0.6	5	<2	36	7	63	154	4	3	<1	<5	25.6
07-2300B	323	4690	1190	37	36	<2	111	7	230	11	<2	2	0.5	<2	<2	36	<4	54	153	4	<2	<1	24	19.2
07-2301/1	307	505	115	44	7	40	92	15	19	2	<2	3	0.4	<2	<2	17	<4	170	201	8	<2	1	217	37.2
07-2301/2	372	3910	1210	48	42	16	126	11	235	12	<2	<1	0.6	3	<2	35	6	78	143	2	3	1	27	38
07-2302	140	4500	1260	38	26	5	112	11	266	11	<2	2	0.5	6	<2	42	6	200	156	5	10	<1	15	18.3
07-2303	135	1850	1030	53	15	5	103	23	191	6	<2	4	0.4	3	<2	34	<4	1550	163	6	10	<1	<5	13
07-2304	59	706	192	18	5	10	40	7	32	2	<2	<1	0.2	<2	<2	10	<4	90	65	2	<2	1	65	10.2
07-2305A	398	5050	1330	36	41	<2	105	7	235	12	<2	1	0.5	2	<2	42	<4	88	165	4	3	<1	<5	24.9
07-2305B	257	3980	1090	34	30	<2	104	6	192	11	<2	1	0.5	4	<2	38	<4	79	146	4	2	<1	<5	15.8
07-2306/1	267	467	115	45	6	35	92	15	23	2	<2	2	0.3	3	<2	16	4	192	210	9	<2	1	152	29.7
07-2306/2	313	3290	1030	45	37	17	120	13	199	9	<2	<1	0.5	4	<2	36	6	88	158	4	2	1	48	25.8
07-2307	88	3020	939	39	31	6	126	15	166	10	<2	2	0.6	2	<2	36	7	225	170	7	2	1	<5	13.7
07-2308	93	1480	901	45	13	5	94	19	141	7	<2	2	0.4	<2	<2	28	4	1500	158	3	5	<1	<5	4.77

APPENDIX X Matt Dam Data

sampno	Mn	Cr	V	Cu	Pb	Zn	Ni	Co	As	Sb	Bi	Mo	Ag	Sn	Ge	Ga	W	Ba	Zr	Nb	Se	Be	Au	Ce
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm
07-2309/1	668	393	141	52	6	46	116	17	34	1	<2	1	0.5	2	2	22	6	246	162	10	<2	1	57	35
07-2309/2	548	2930	1160	55	37	15	98	10	203	10	<2	<1	0.4	<2	<2	33	8	314	132	2	3	1	<5	33.7
07-2310	71	1310	1180	26	6	<2	66	9	154	6	<2	7	0.3	2	<2	21	7	948	111	6	14	<1	<5	3.62
07-2311	50	986	851	42	6	<2	31	6	255	6	<2	3	0.4	2	3	27	6	86	99	<4	9	<1	<5	5.28
07-2312A	1220	1350	1040	90	11	34	100	13	273	5	<2	2	0.3	2	2	32	29	719	123	2	4	<1	<5	24.6
07-2312B	1380	805	933	157	12	28	78	12	339	6	<2	2	0.2	2	5	32	29	393	106	2	2	<1	<5	22.4
07-2313/1	559	367	101	45	5	37	79	15	26	<0.2	<2	1	0.7	3	2	16	7	228	151	7	<2	1	127	26.2
07-2313/2	684	1300	889	93	17	22	89	11	244	6	<2	<1	0.5	2	4	31	17	261	118	5	5	1	17	31.7
07-2314A	1130	1230	864	77	13	51	126	28	674	7	<2	<1	0.3	<2	<2	26	60	879	99	2	<2	<1	<5	18.5
07-2314B	898	926	678	105	<2	47	111	25	1177	5	<2	<1	0.2	2	2	23	54	370	66	2	<2	<1	76	10.9
07-2315/1	233	469	87	39	1	23	57	10	103	2	<2	1	0.7	<2	<2	7	8	291	93	5	3	<1	182	14.1
07-2315/2	351	695	513	67	7	26	77	18	765	2	<2	<1	0.9	<2	2	18	41	217	71	3	3	1	63	14.4
07-2316A	799	1120	604	52	9	54	133	19	492	5	<2	<1	0.1	<2	<2	23	26	742	70	2	<2	<1	<5	25
07-2316B	879	930	538	76	9	42	127	19	476	4	<2	<1	0.1	<2	<2	21	19	239	61	3	<2	<1	<5	21.1
07-2317/1	406	308	97	47	4	46	109	24	40	1	<2	1	0.8	<2	<2	13	8	159	128	5	<2	1	81	27.3
07-2317/2	382	732	389	65	7	31	108	19	245	3	<2	<1	0.8	<2	<2	16	14	180	81	3	<2	1	51	24.4
07-2318A	799	2100	1270	36	6	18	67	8	269	7	<2	<1	0.5	4	2	61	8	258	159	8	4	<1	<5	12.7
07-2318B	530	2060	1140	63	7	16	72	14	318	9	<2	1	0.4	<2	<2	47	12	111	150	6	9	<1	<5	11.1
07-2319/1	608	465	122	48	7	49	112	22	22	<0.2	<2	1	0.6	<2	<2	17	7	143	178	6	2	1	72	25.1
07-2319/2	712	1540	942	63	11	23	93	15	224	4	<2	<1	0.4	<2	5	45	11	104	152	6	4	1	9	33
07-2320A	1110	5600	1440	48	32	30	221	26	216	10	<2	1	0.3	3	<2	42	14	363	108	2	2	<1	<5	41.5
07-2320B	958	3940	1180	78	27	28	255	35	258	9	<2	2	0.3	2	<2	33	7	464	89	6	2	<1	<5	36
07-2321/1	709	587	157	67	7	66	194	31	36	2	<2	1	0.3	2	<2	16	5	299	164	8	2	1	53	75.1
07-2321/2	662	3810	1300	62	44	24	201	23	195	6	<2	<1	0.4	2	4	37	11	513	109	2	9	1	<5	52.2
07-2322	305	3590	1080	43	<2	14	135	17	191	8	<2	4	0.5	<2	na	na	na	251	na	na	na	<1	<5	13.8
07-2323/1	987	666	173	80	15	90	236	34	41	<0.2	<2	1	0.3	2	<2	23	6	214	181	10	<2	1	59	75.1
07-2323/2	1260	3650	1200	72	39	37	213	23	185	6	<2	<1	0.4	<2	<2	30	9	205	110	3	3	1	<5	63.5
07-2324	970	3920	1210	80	24	20	195	25	238	10	<2	2	0.5	<2	<2	34	11	299	116	3	8	1	<5	38.8
07-2325	127	5000	1260	43	8	9	118	16	241	12	<2	1	0.4	3	<2	29	5	68	72	4	11	<1	<5	3.1
07-2326/1	1100	631	194	82	13	90	228	31	55	2	<2	1	0.4	<2	<2	25	7	227	177	12	<2	1	37	45.9
07-2326/2	1280	1960	870	76	27	44	189	21	204	5	<2	<1	0.3	<2	<2	29	6	122	100	4	<2	<1	12	53.7
07-2327	894	1340	1040	95	24	22	231	57	310	8	2	1	0.4	3	<2	31	8	636	96	2	8	<1	<5	35.9
07-2328A	915	3080	1440	53	22	22	124	8	465	9	<2	<1	0.3	<2	<2	35	11	99	112	5	3	<1	<5	27.4
07-2328B	655	2140	1400	77	19	11	108	6	515	10	<2	1	0.3	2	<2	31	8	46	102	<2	6	<1	<5	21.4
07-2329/1	531	541	114	51	9	47	122	16	32	1	<2	1	0.5	<2	<2	20	5	149	181	8	<2	1	452	47.5
07-2329/2	503	1850	1080	83	26	22	122	10	352	5	<2	<1	0.3	4	<2	26	9	72	102	2	3	1	73	35.2
07-2330	65	1660	1480	39	7	<2	79	6	489	7	<2	1	0.3	3	3	31	6	51	103	6	3	<1	206	<2
07-2331	32	1350	990	36	6	<2	89	6	418	7	2	2	0.2	2	3	31	11	44	111	7	3	<1	19	4.31
07-2332A	1820	3060	1420	65	22	22	124	8	493	8	<2	<1	0.5	3	<2	33	6	99	111	<4	3	<1	<5	25.6
07-2332B	1350	2520	1260	74	18	10	98	6	534	9	<2	1	0.3	3	<2	33	6	55	93	2	4	<1	<5	12
07-2333/1	1100	542	111	56	8	51	122	18	32	<0.2	<2	1	0.2	<2	<2	17	<4	164	181	10	<2	1	115	39.3
07-2333/2	1250	1900	968	92	23	23	134	12	378	6	<2	<1	0.4	<2	<2	26	<4	77	98	4	<2	1	15	31.5

APPENDIX X Matt Dam Data

sampno	Mn	Cr	V	Cu	Pb	Zn	Ni	Co	As	Sb	Bi	Mo	Ag	Sn	Ge	Ga	W	Ba	Zr	Nb	Se	Be	Au	Ce
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm
07-2334	73	2540	1140	66	5	1.67	81	1.67	615	9	<2	<1	0.2	<2	2	38	7	31	77	5	3	<1	22	5.64
07-2335A	3160	2180	993	123	28	30	191	16	664	8	<2	<1	0.2	2	<2	26	4	158	75	4	3	<1	<5	23.6
07-2335B	2350	1630	787	161	26	15	167	18	783	7	<2	<1	0.2	<2	<2	27	5	86	66	3	4	<1	<5	8.39
07-2336A/1	1360	590	105	64	8	42	143	21	53	1	<2	1	0.5	2	<2	16	4	127	174	6	<2	1	178	34.5
07-2336A/2	950	1080	419	97	11	20	127	15	310	3	<2	<1	0.3	<2	<2	14	<4	64	68	<4	<2	1	59	15.2
07-2336B	122	1210	463	114	10	12	106	15	477	5	<2	<1	0.4	<2	<2	17	<4	24	50	<2	4	1	54	4.7
07-2337A	2090	2440	1010	123	23	34	190	11	749	9	<2	<1	0.1	<2	<2	27	<4	186	78	6	3	<1	<5	13.2
07-2337B	1670	1930	842	142	14	19	148	8	626	3	<2	<1	0.2	2	<2	23	4	110	64	2	2	<1	<5	14.9
07-2338A/1	793	550	105	54	3	40	111	16	50	1	<2	1	0.1	<2	<2	12	<4	161	160	7	3	1	114	29.3
07-2338A/2	726	998	373	74	8	24	101	14	212	1	<2	<1	<0.1	<2	<2	12	<4	94	71	2	<2	1	58	18.9
07-2338B	230	646	302	77	3	19	71	8	169	2	<2	<1	<0.1	<2	<2	13	<4	52	38	<4	<2	1	58	6.8
07-2339	312	2290	837	143	6	23	166	12	952	6	<2	<1	0.4	<2	<2	26	<4	77	68	<4	<2	1	13	3.72
07-2340A	1650	2910	930	127	20	53	292	19	805	7	<2	<1	0.2	2	<2	30	7	245	84	3	<2	<1	<5	12.3
07-2340B	997	2370	908	175	12	33	223	12	1007	7	<2	<1	0.1	<2	<2	28	<4	99	67	2	<2	<1	<5	12.8
07-2341A/1	795	623	136	53	9	45	145	20	72	1	<2	<1	0.3	3	<2	16	4	214	189	7	2	1	96	33.3
07-2341A/2	554	1990	528	94	14	24	139	15	473	3	<2	<1	0.4	<2	<2	19	<4	129	75	<2	<2	1	25	17.5
07-2341B	282	2330	881	166	8	24	207	9	1048	4	<2	<1	<0.1	<2	<2	24	<4	201	61	<4	<2	1	19	3.58
07-2342A	1360	2960	864	125	10	47	250	20	342	7	<2	<1	0.2	<2	<2	34	4	254	80	5	<2	<1	<5	15.3
07-2342B	588	2440	882	152	9	35	158	11	380	5	<2	<1	0.2	<2	<2	32	<4	50	60	2	<2	<1	<5	8.86
07-2343/1	660	472	111	69	na	44	150	23	na	na	na	na	0.3	na	na	na	na	185	na	na	na	1	na	na
07-2343/2	481	844	204	62	na	36	117	18	na	na	na	na	0.2	na	na	na	na	157	na	<4	<2	1	na	na
07-2344	104	1320	469	57	4	17	72	6	572	3	<2	<1	<0.1	3	<2	19	5	114	52	2	3	<1	<5	<2
07-2345/1	1170	838	166	53	11	62	187	30	41	<0.2	<2	<1	0.4	3	<2	24	5	247	247	11	2	1	31	35.2
07-2345/2	475	2650	834	104	17	33	166	13	257	3	<2	<1	0.5	<2	<2	31	4	75	77	8	<2	1	11	18.7
07-2346A	2410	2560	828	85	15	65	295	28	302	6	<2	2	0.4	4	<2	32	<4	547	79	3	<2	<1	<5	24.5
07-2346B	1940	2190	756	119	11	56	238	23	372	5	<2	<1	0.2	2	<2	32	<4	124	65	<2	2	<1	<5	15.2
07-2347A/1	476	503	104	45	3	47	137	22	31	3	<2	1	<0.1	2	<2	11	4	167	151	7	<2	1	51	20.2
07-2347A/2	909	2140	731	85	17	41	185	23	290	4	<2	<1	0.2	2	4	23	<4	103	76	3	2	1	13	26.5
07-2347B	1050	1680	701	99	11	73	217	23	427	4	<2	<1	<0.1	2	<2	23	<4	91	49	<4	3	1	84	12.9
07-2348	223	1790	496	55	7	48	137	14	273	4	<2	<1	0.5	<2	<2	23	<4	50	59	4	4	<1	<5	5.64
07-2349A	1240	2280	1020	86	21	41	137	17	486	10	<2	<1	0.4	2	2	44	14	509	148	8	3	<1	<5	33.4
07-2349B	929	1570	858	118	14	36	115	13	532	9	<2	1	0.4	3	2	43	18	230	147	5	<2	<1	<5	24.8
07-2350/1	668	484	164	58	9	57	137	23	55	2	<2	2	0.3	<2	<2	18	4	219	155	7	<2	1	77	29.9
07-2350/2	903	1710	871	109	21	39	143	18	343	6	<2	<1	<0.1	2	2	33	10	137	107	8	3	1	<5	35.1
07-2351/1	558	469	170	59	10	72	124	20	66	<0.2	<2	1	0.4	<2	2	22	9	245	182	6	<2	1	76	34.6
07-2351/2	918	1280	637	68	22	46	102	18	322	6	<2	<1	<0.1	2	5	28	20	213	127	2	3	1	<5	41.1
07-2352	351	1460	622	99	16	176	142	10	536	5	<2	1	0.2	2	5	35	35	654	89	5	7	1	<5	11.4
07-2353/1	624	630	184	65	8	58	144	23	67	<0.2	<2	<1	0.3	2	<2	21	6	204	160	7	<2	1	119	29.6
07-2353/2	1000	1780	702	157	20	90	138	21	403	3	<2	<1	0.2	<2	2	30	25	180	103	2	5	1	46	37.8
07-2354	216	1370	436	70	1	42	133	6	74	2	<2	<1	<0.1	2	2	24	4	378	71	4	7	<1	<5	2.59


SiO2
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Al2O3
wt%
Fe2O3
wt%
EASTING
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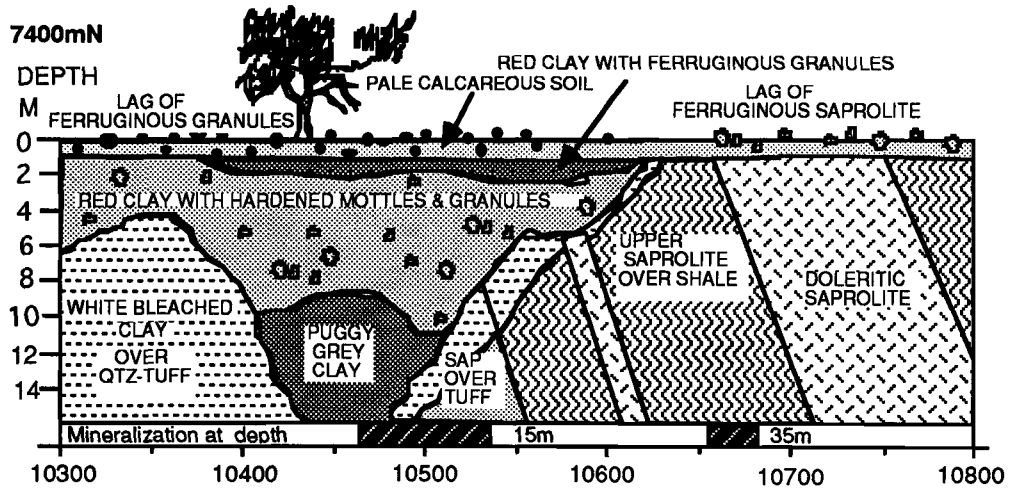
NON-MAGNETIC LAG
<75um SOIL
710-2000um SOIL
HARDENED MOTTLES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DEPTH
M
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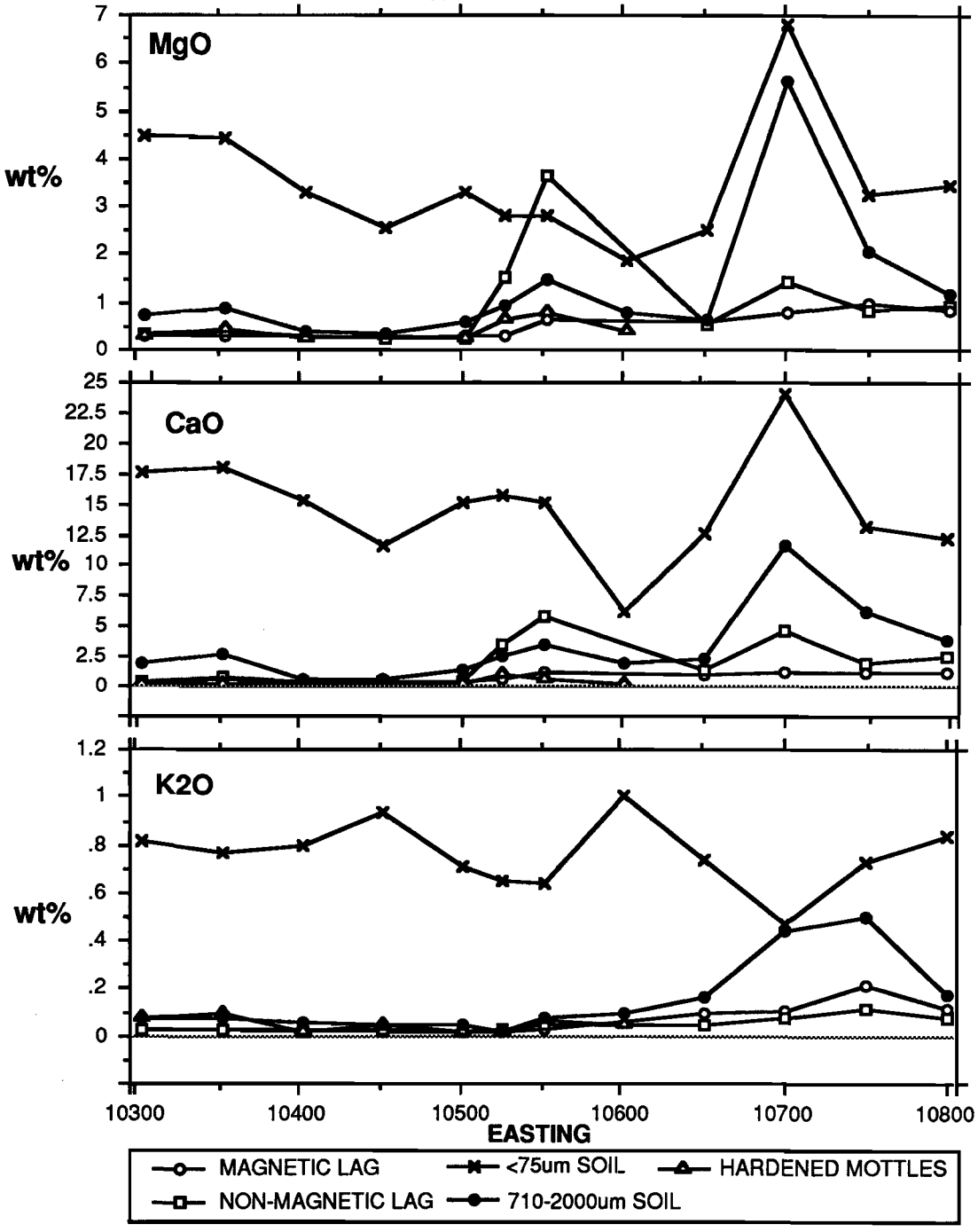
PALE CALCAREOUS SOIL
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
Mineralization at depth
15m
35m
EASTING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CaO
wt%
K2O
wt%
10300
10400
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10600
10700
10800
EASTING
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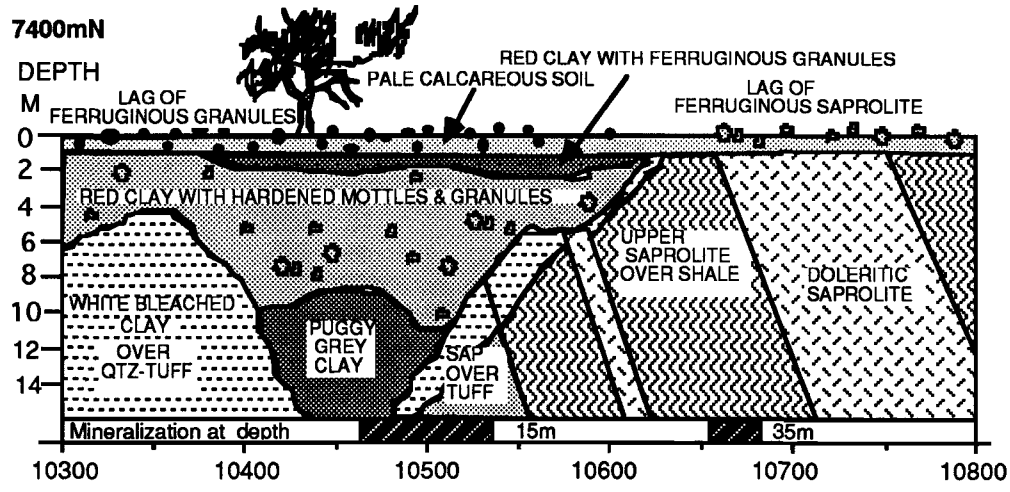
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL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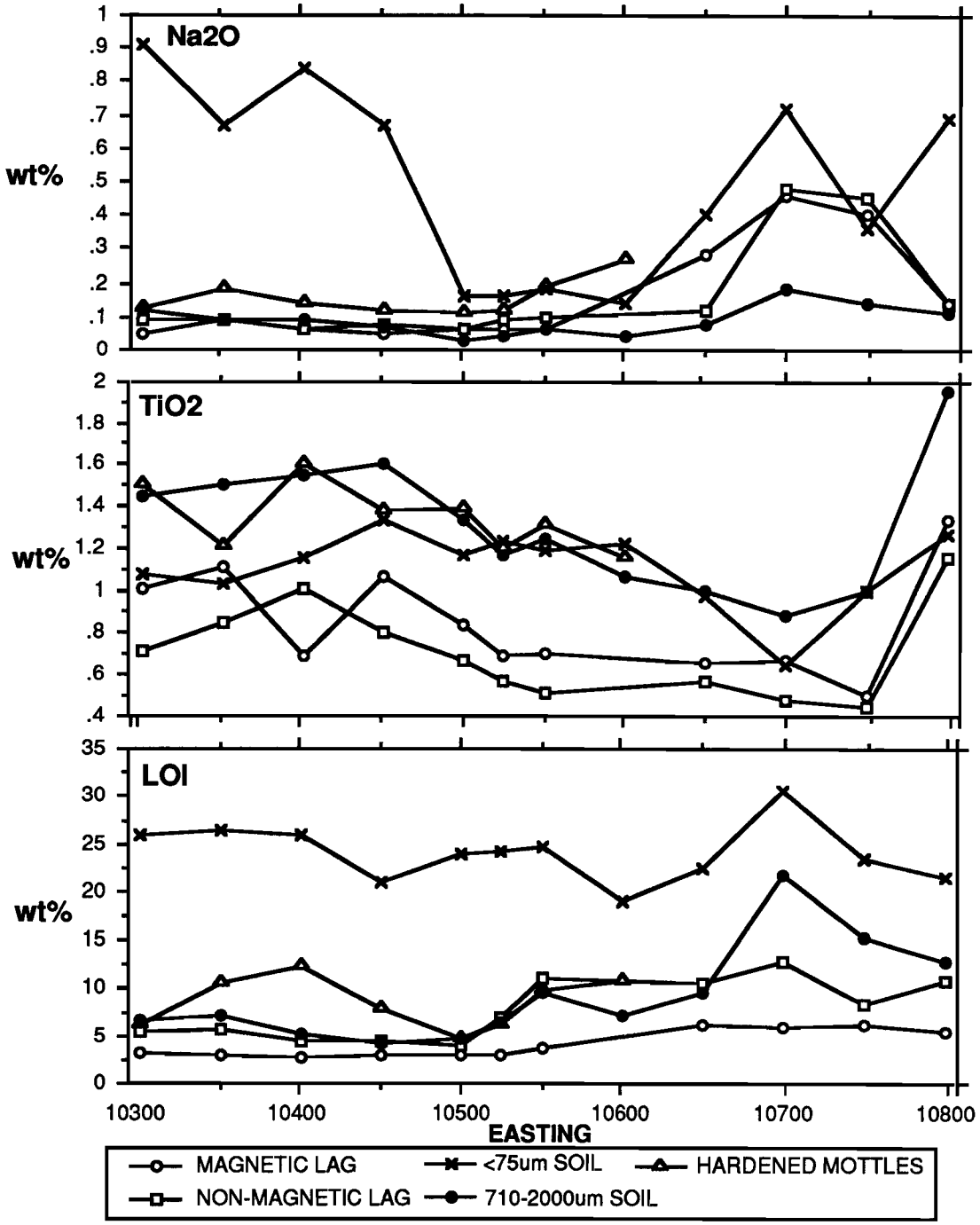
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
10300
10400
10500
10600
10700
10800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wt%
TiO2
wt%
LOI
wt%
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10800
EASTING
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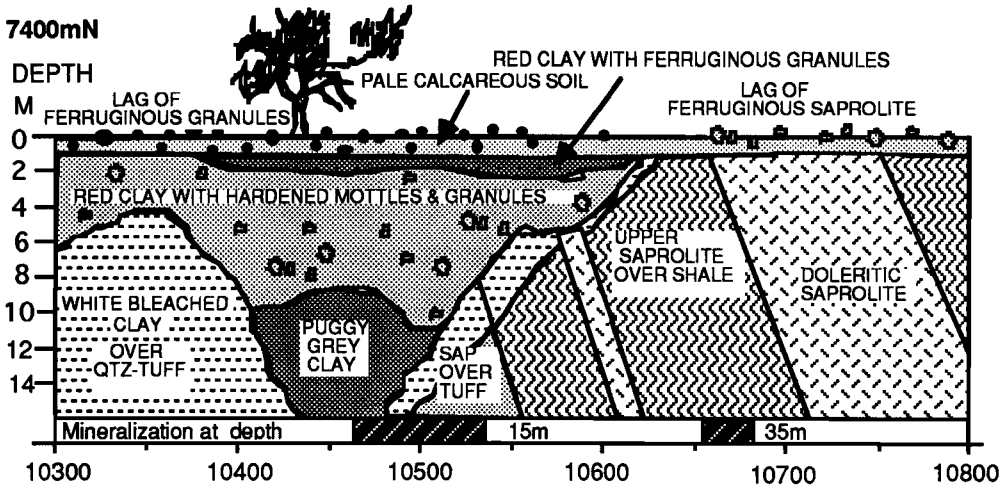
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL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DEPTH
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RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
10300
10400
10500
10600
10700
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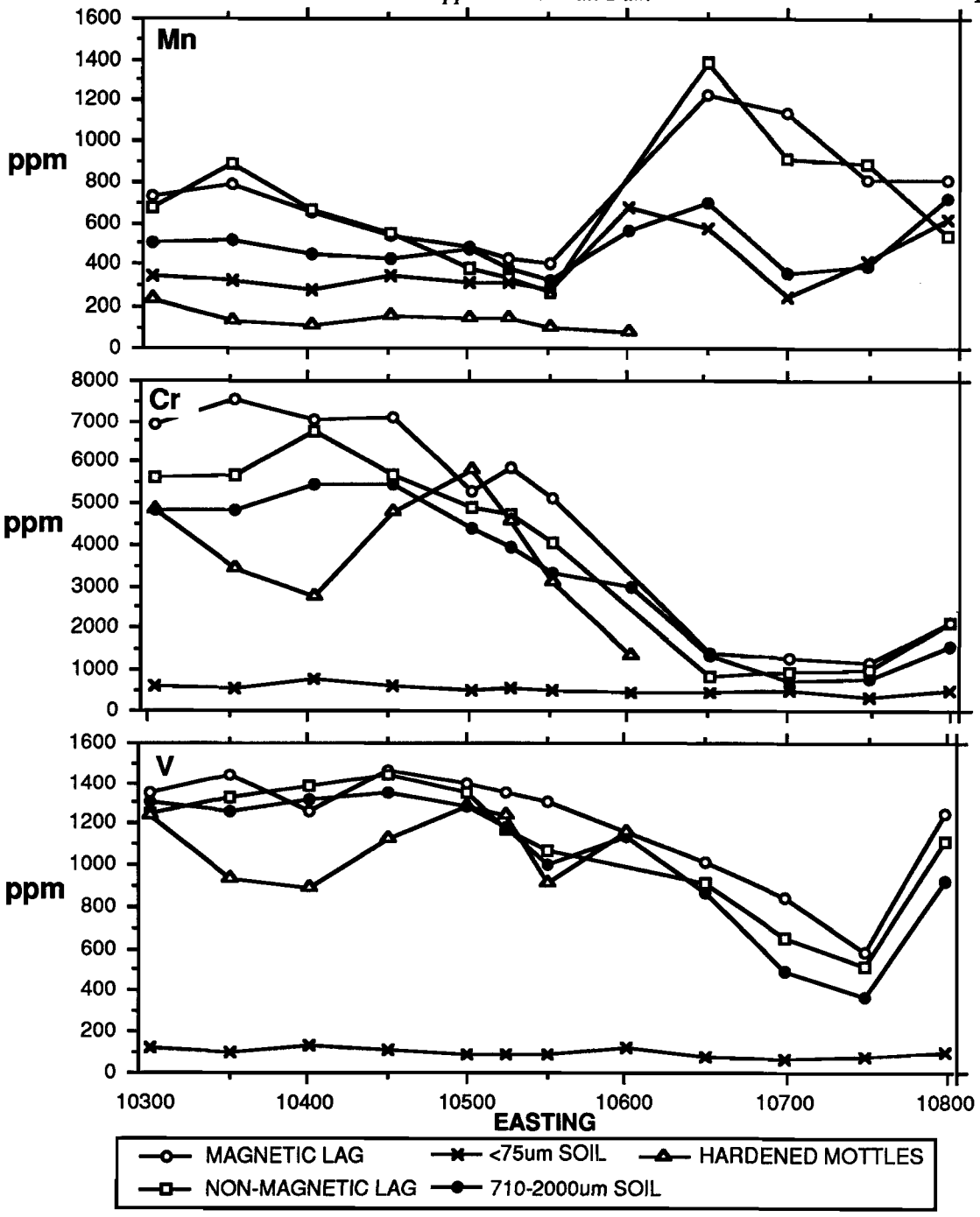
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2000
1000
0
V
ppm
1600
1400
1200
1000
800
600
400
200
0
10300
10400
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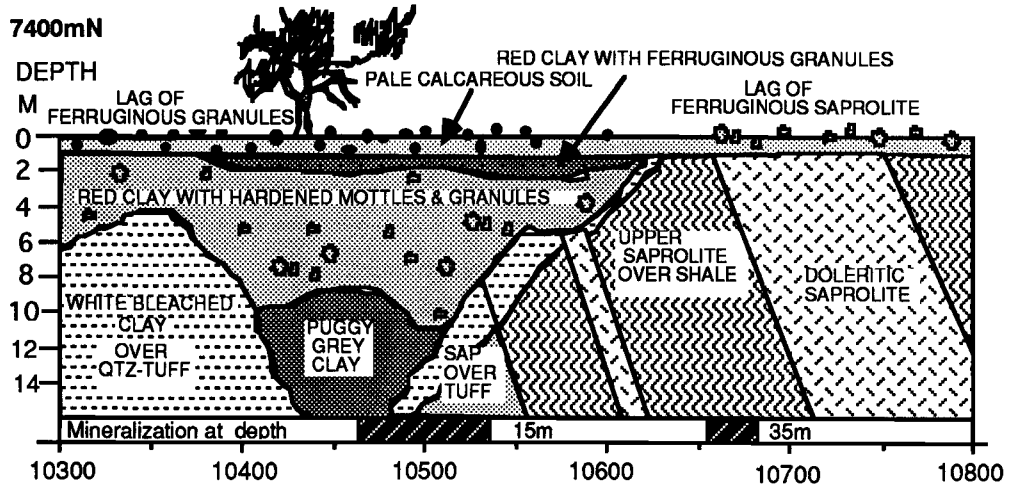
710-2000um SOIL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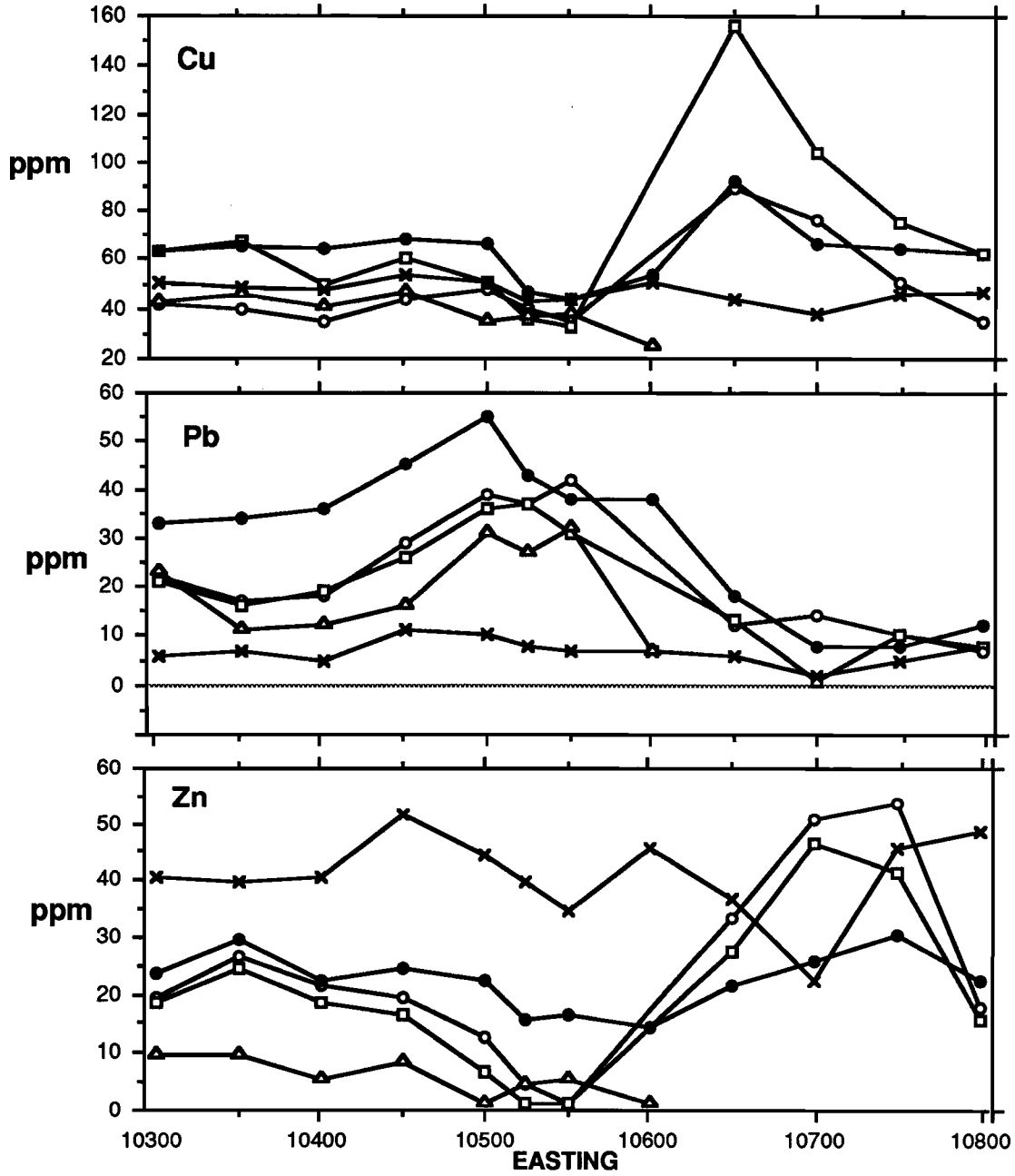
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
0
2
4
6
8
10
12
14
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
10300
10400
10500
10600
10700
10800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Pb
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Zn
ppm
60
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40
30
20
10
0
10300
10400
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EASTING
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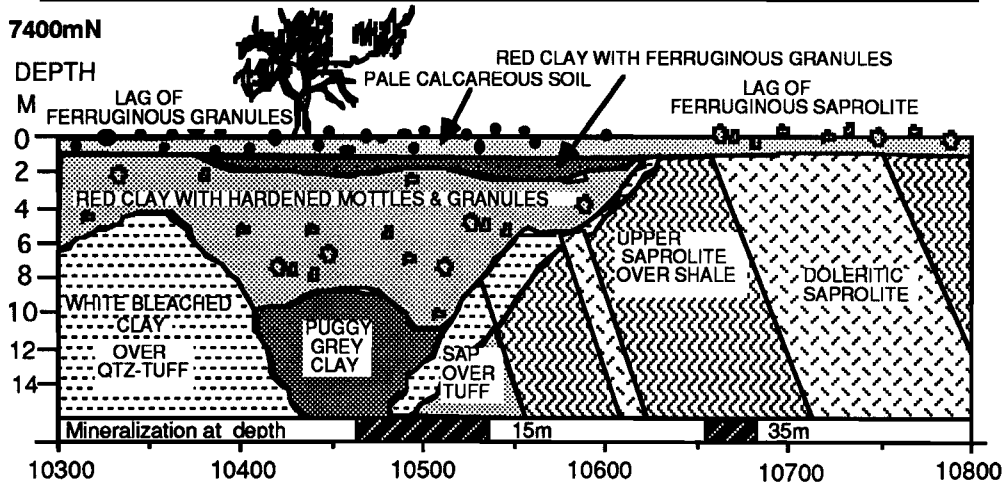
NON-MAGNETIC LAG
<75um SOIL
710-2000um SOIL
HARDENED MOTTLES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DEPTH
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PALE CALCAREOUS SOIL
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
0
2
4
6
8
10
12
14
10300
10400
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10600
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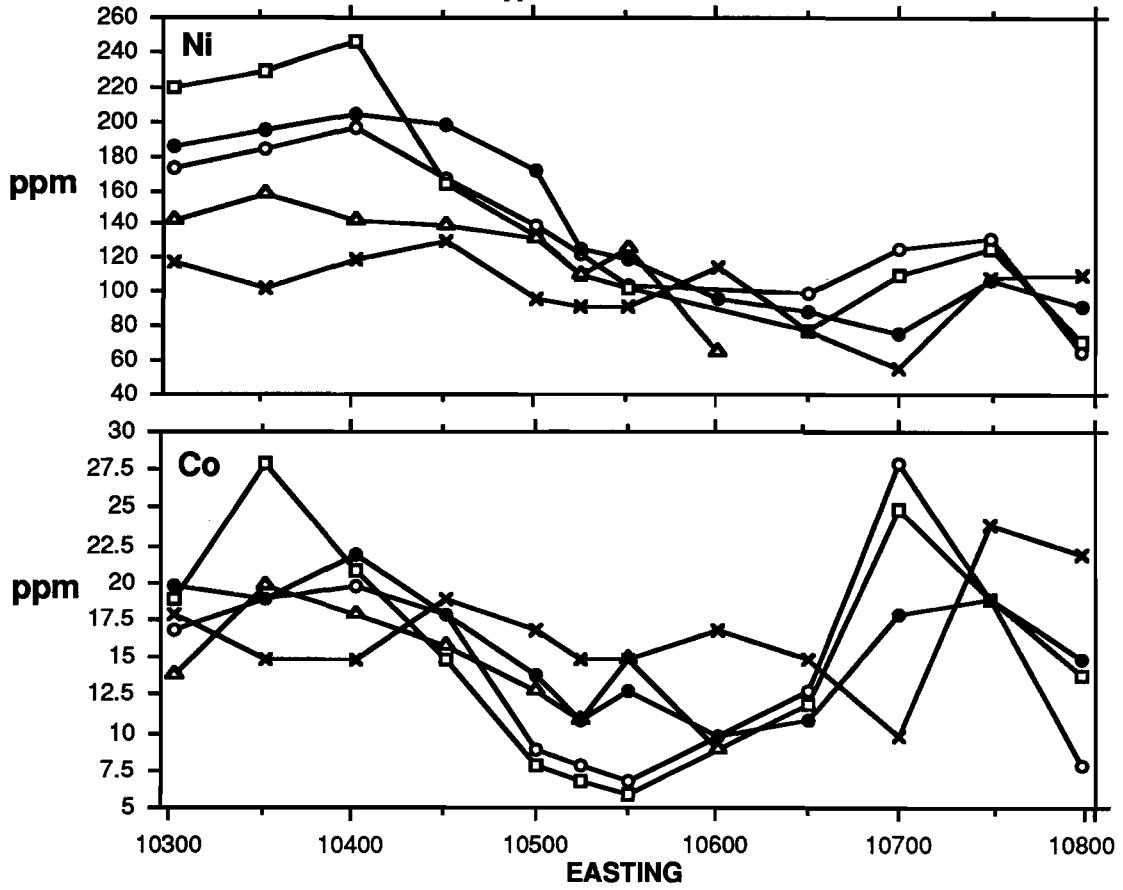
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100
80
60
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Co
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30
27.5
25
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20
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15
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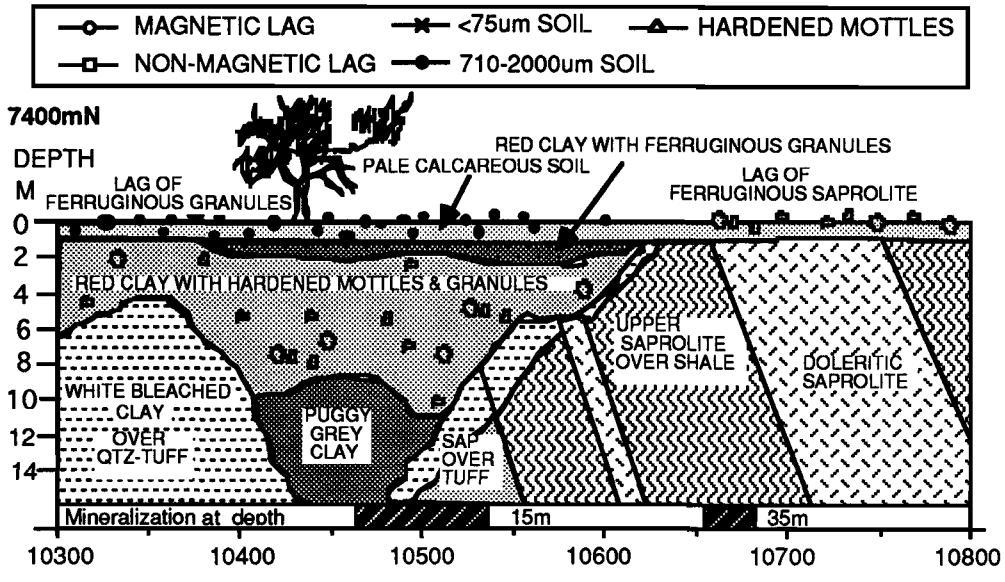
EASTING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HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7400mN
DEPTH
M
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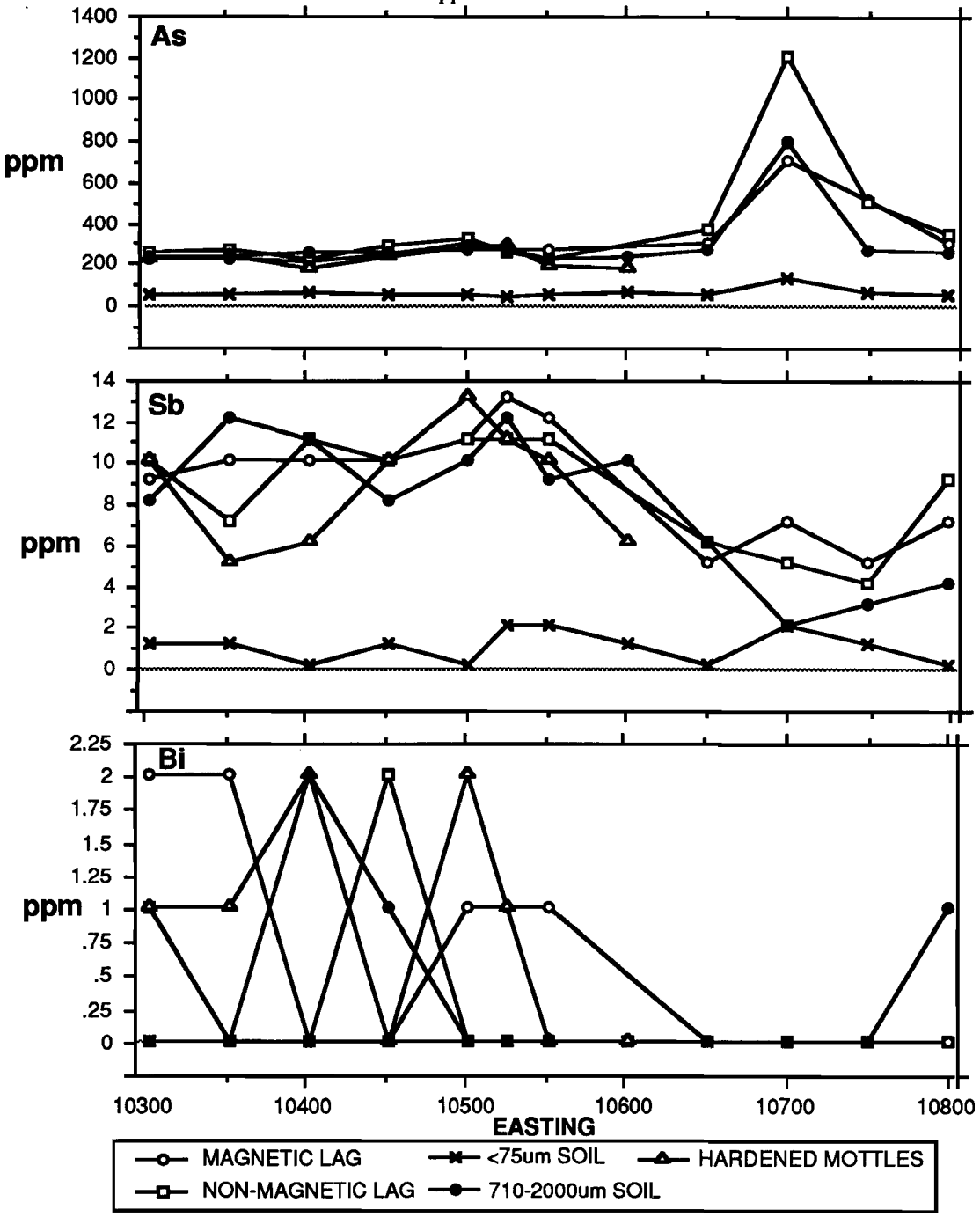
2
4
6
8
10
12
14
LAG OF FERRUGINOUS GRANULES
PALE CALCAREOUS SOIL
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
10300
10400
10500
10600
10700
10800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Bi
ppm
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2
1.75
1.5
1.25
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.75
.5
.25
0
10300
10400
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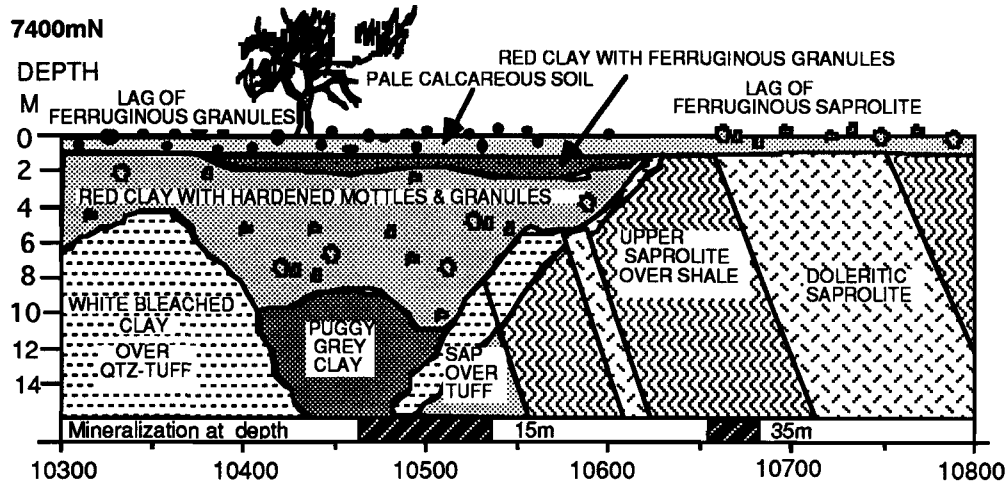
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RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
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35m
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4
6
8
10
12
14
10300
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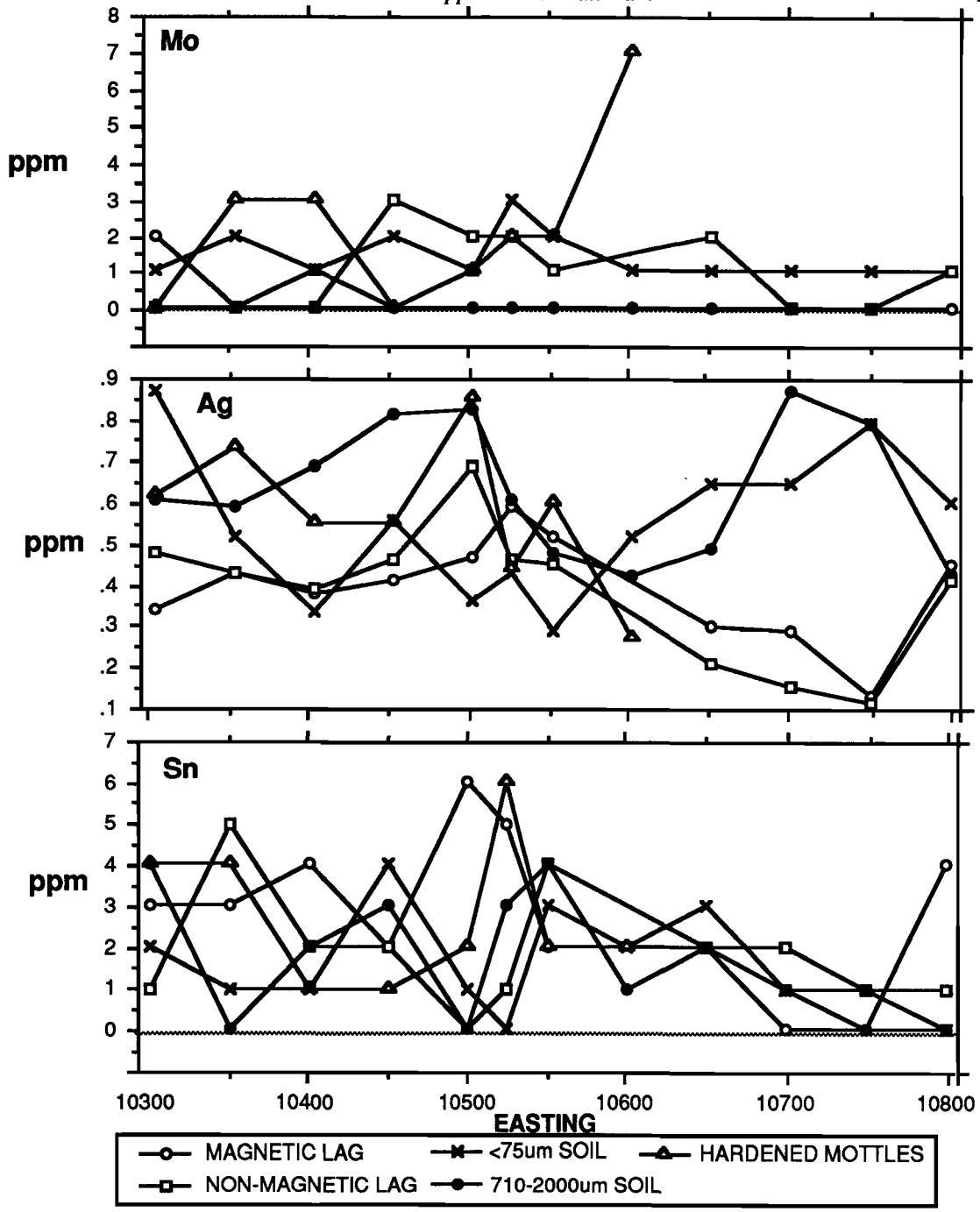
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Ag
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Sn
ppm
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HARDENED MOTTLES
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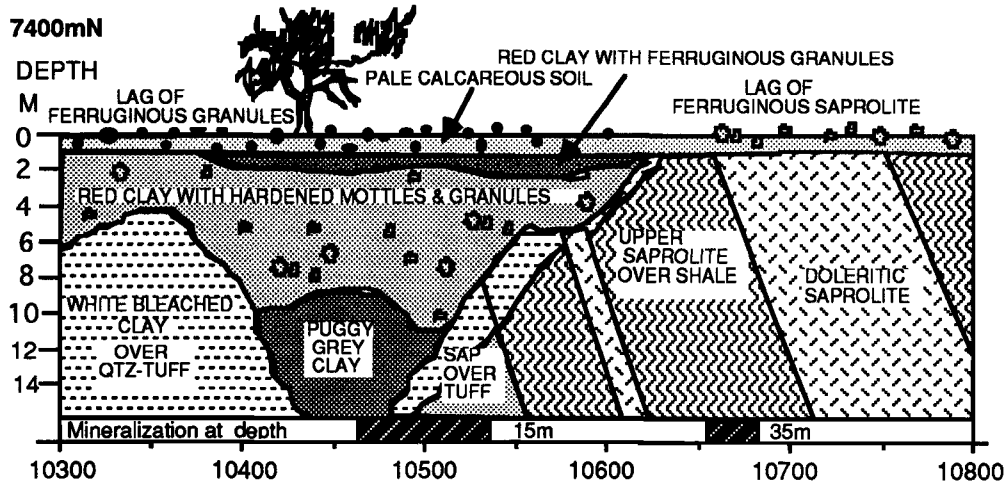
710-2000um SOIL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RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
10300
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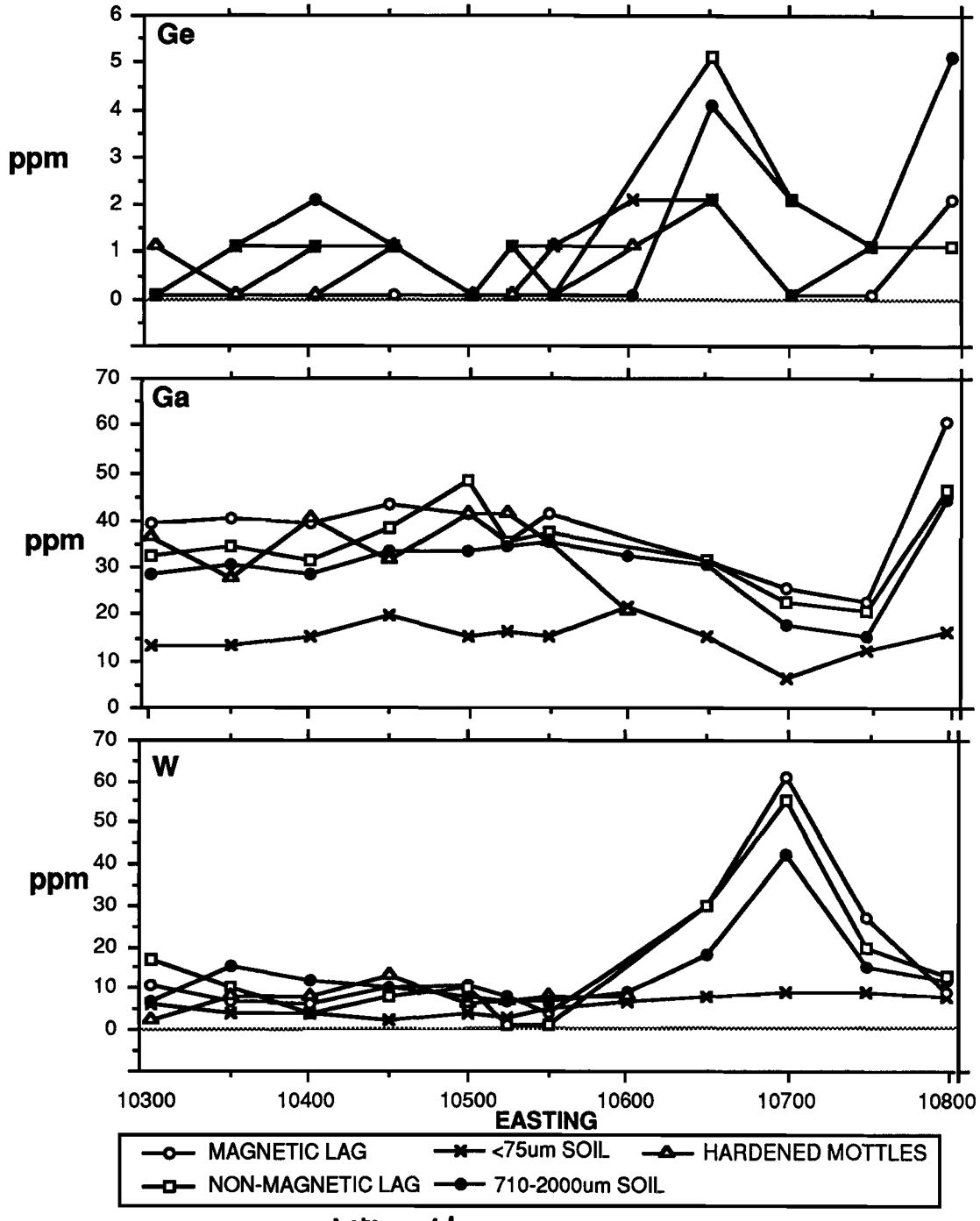
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ppm
Ga
ppm
W
ppm
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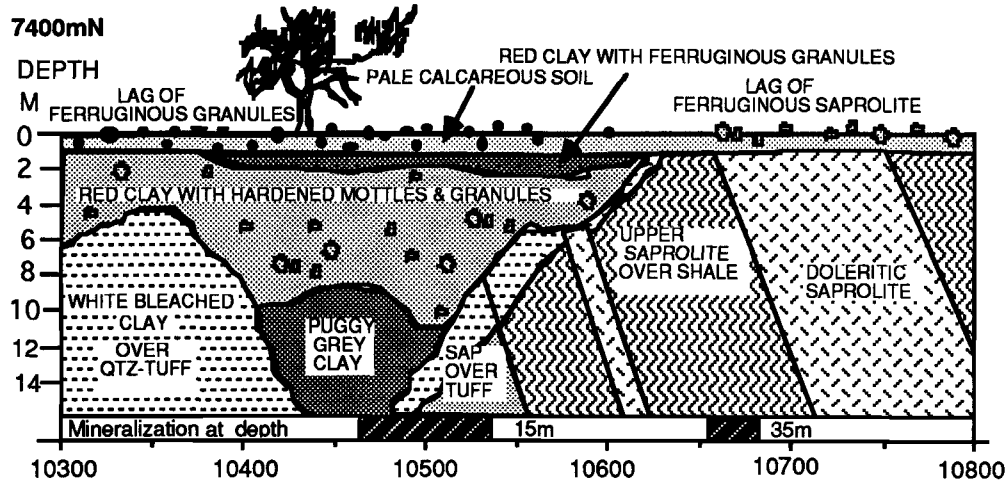
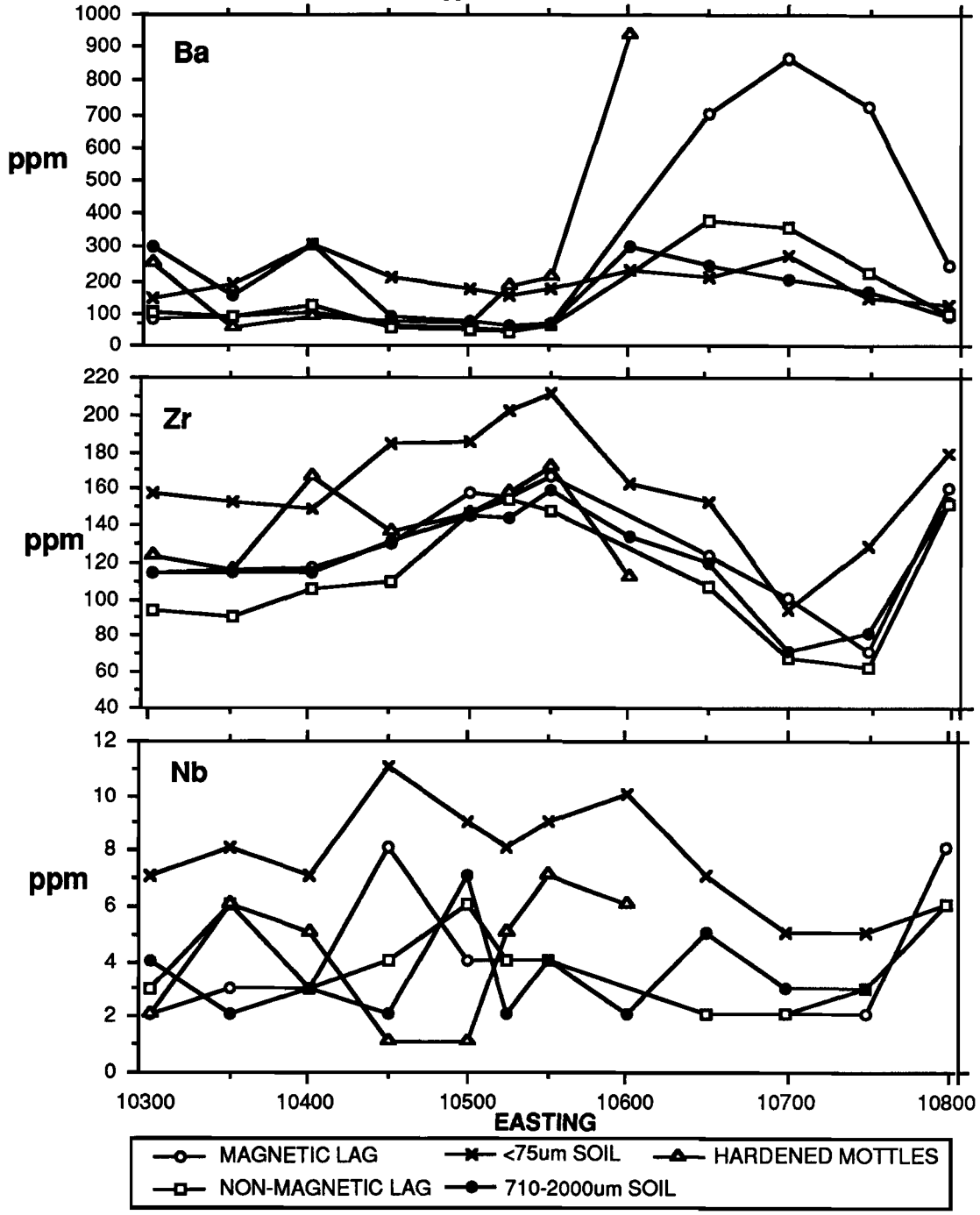
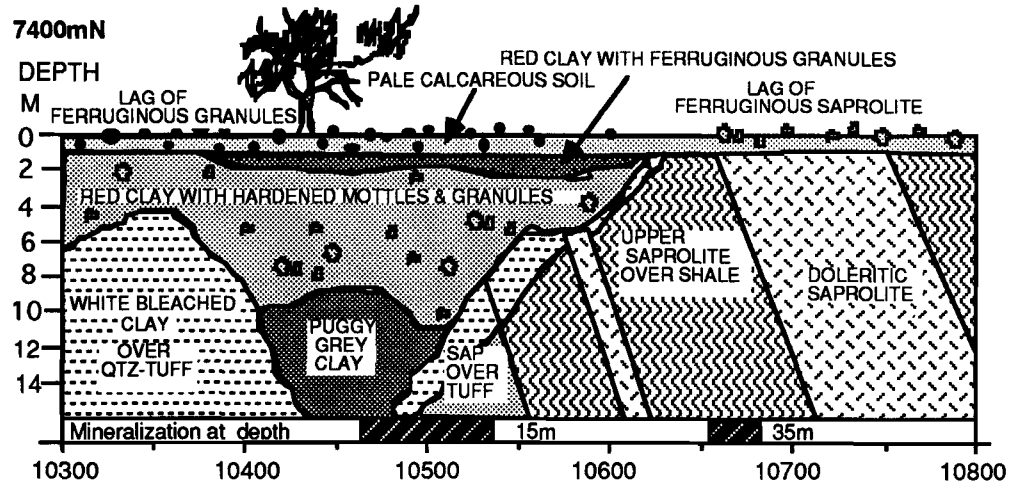
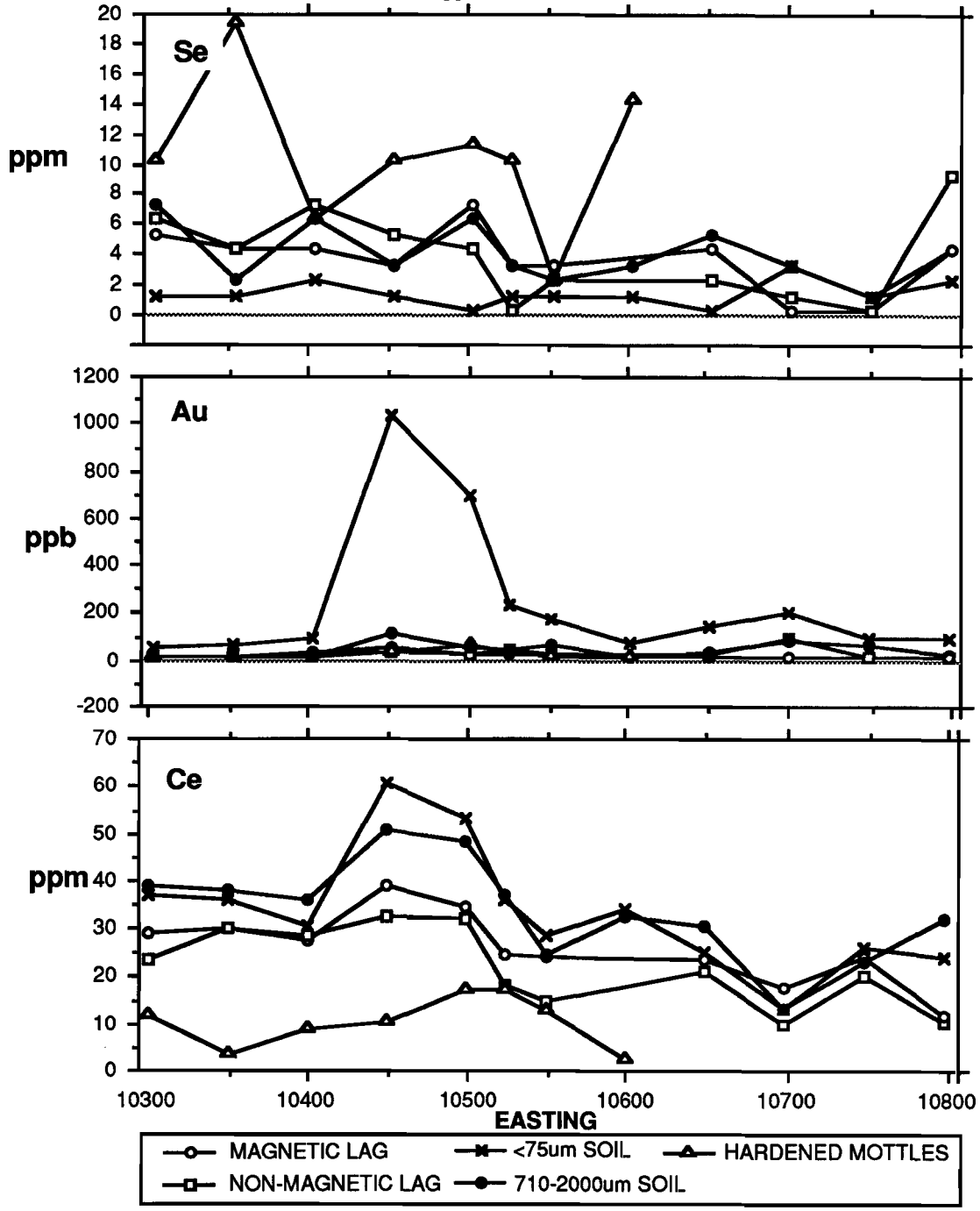
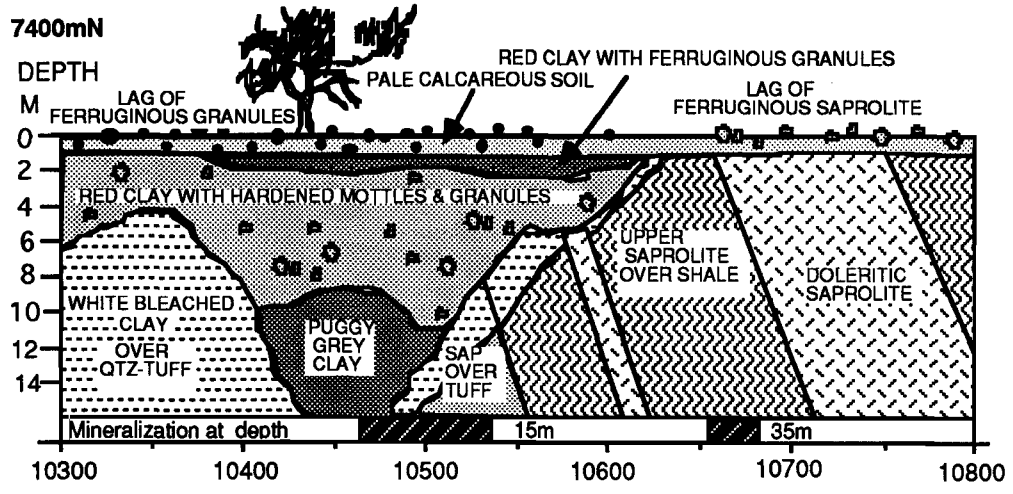
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL

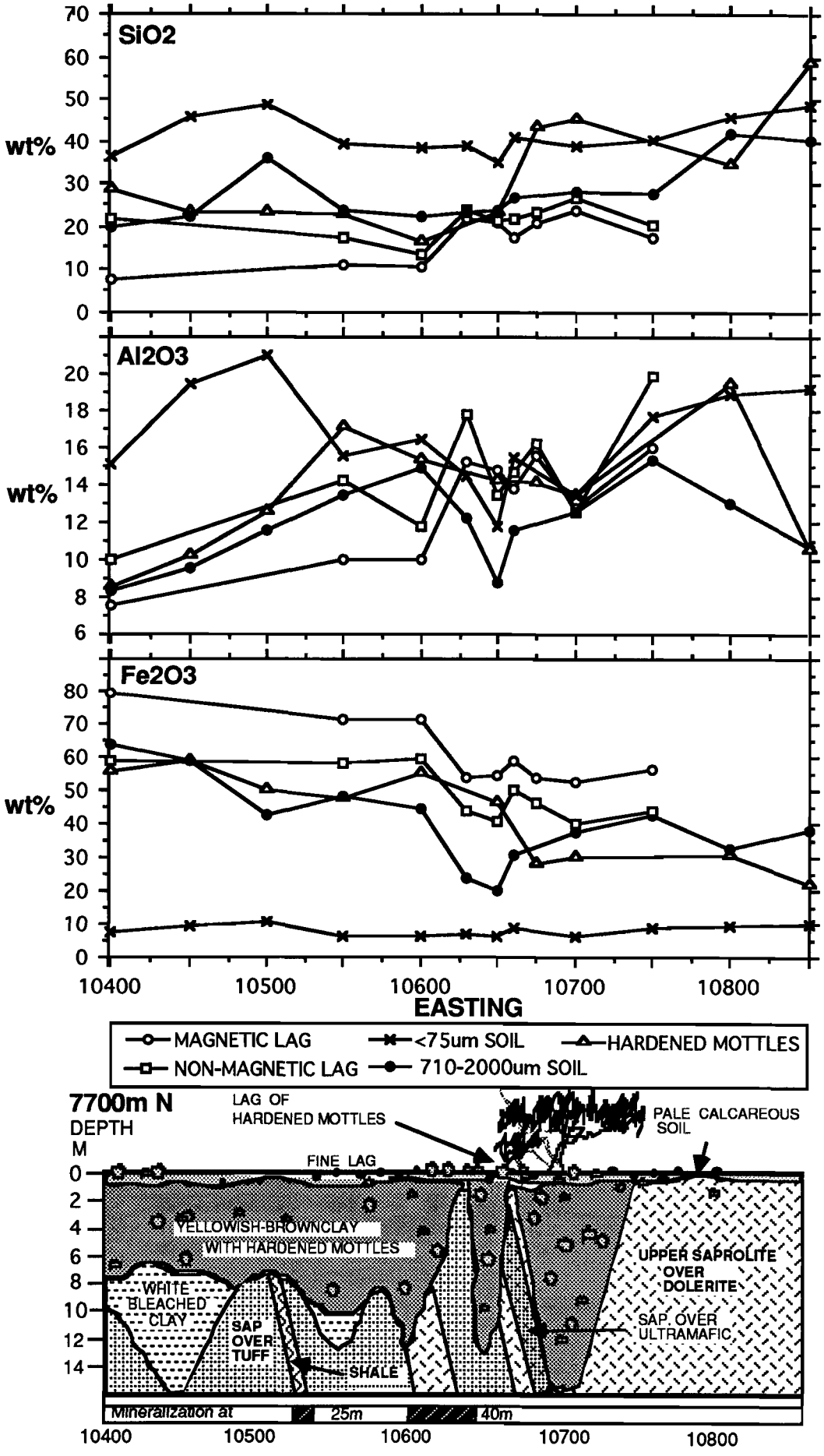

7400mN
DEPTH
M
LAG OF FERRUGINOUS GRANULES
PALE CALCAREOUS SOIL
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
10300
10400
10500
10600
10700
10800

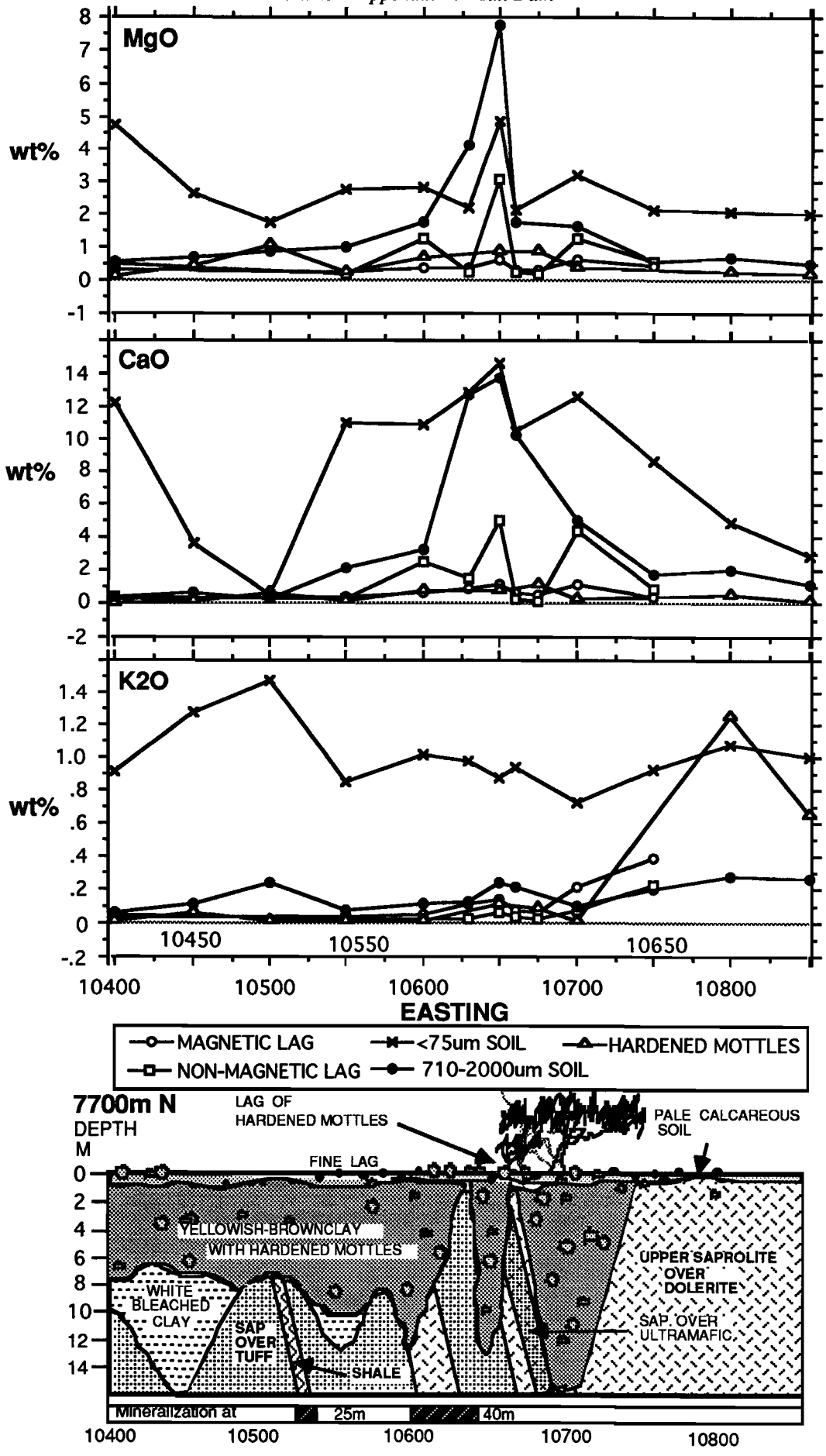

Ba
ppm
1000
900
800
700
600
500
400
300
200
100
0
Zr
ppm
220
200
180
160
140
120
100
80
60
40
Nb
ppm
12
10
8
6
4
2
0
10300
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL

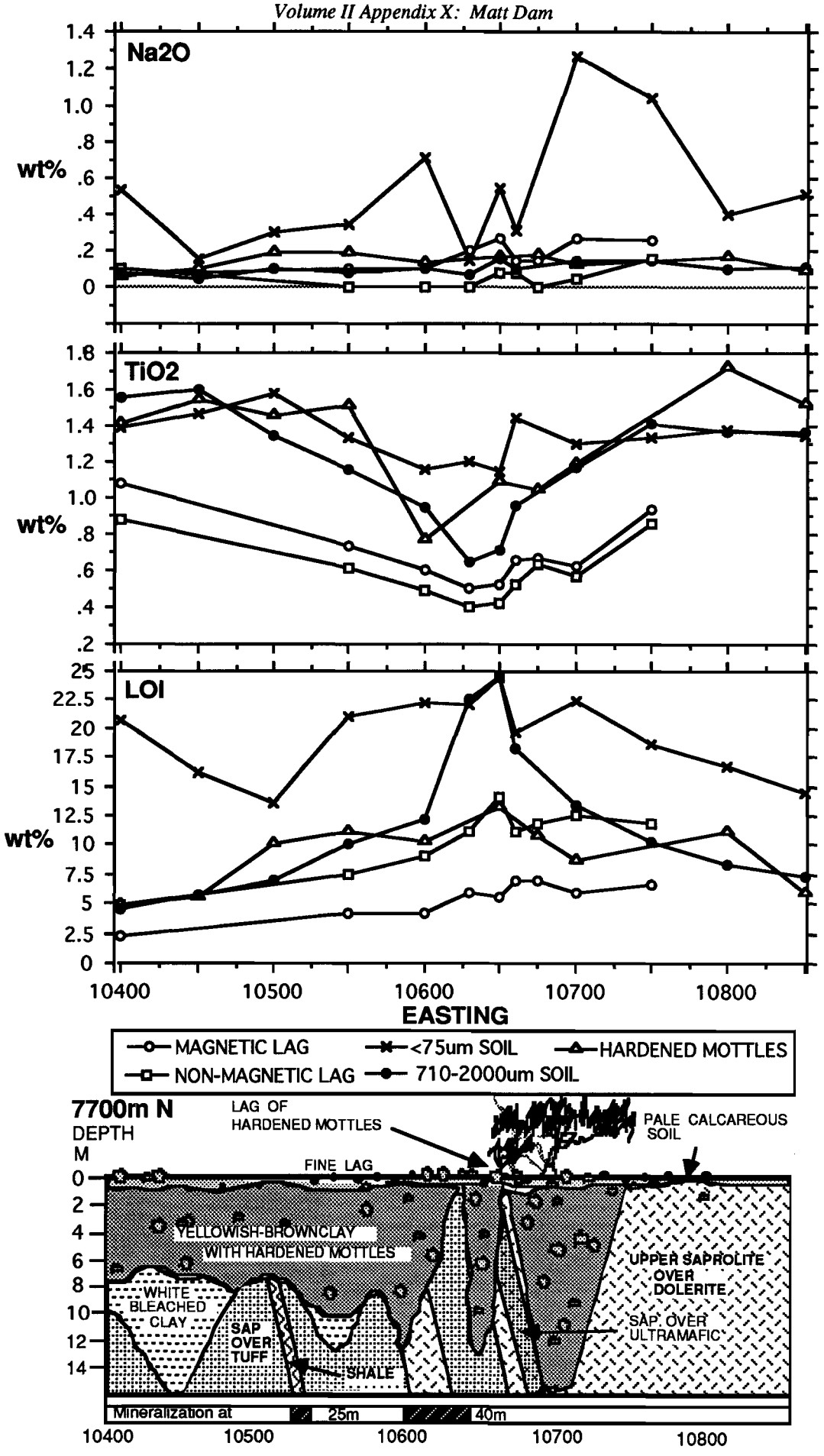

7400mN
DEPTH
M
LAG OF FERRUGINOUS GRANULES
PALE CALCAREOUS SOIL
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m
0
2
4
6
8
10
12
14
10300
10400
10500
10600
10700
10800

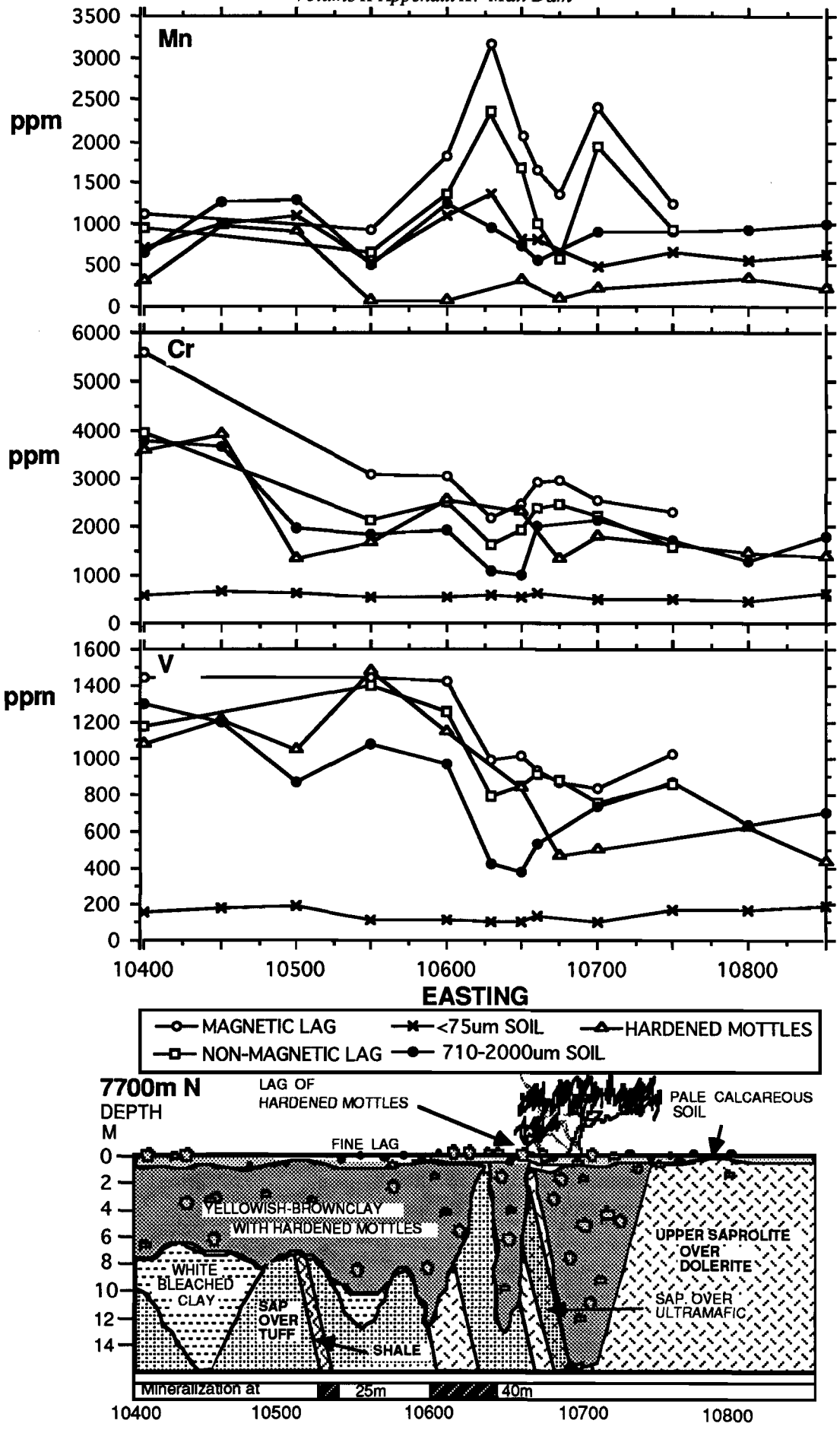

Se
ppm
Au
ppb
Ce
ppm
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL

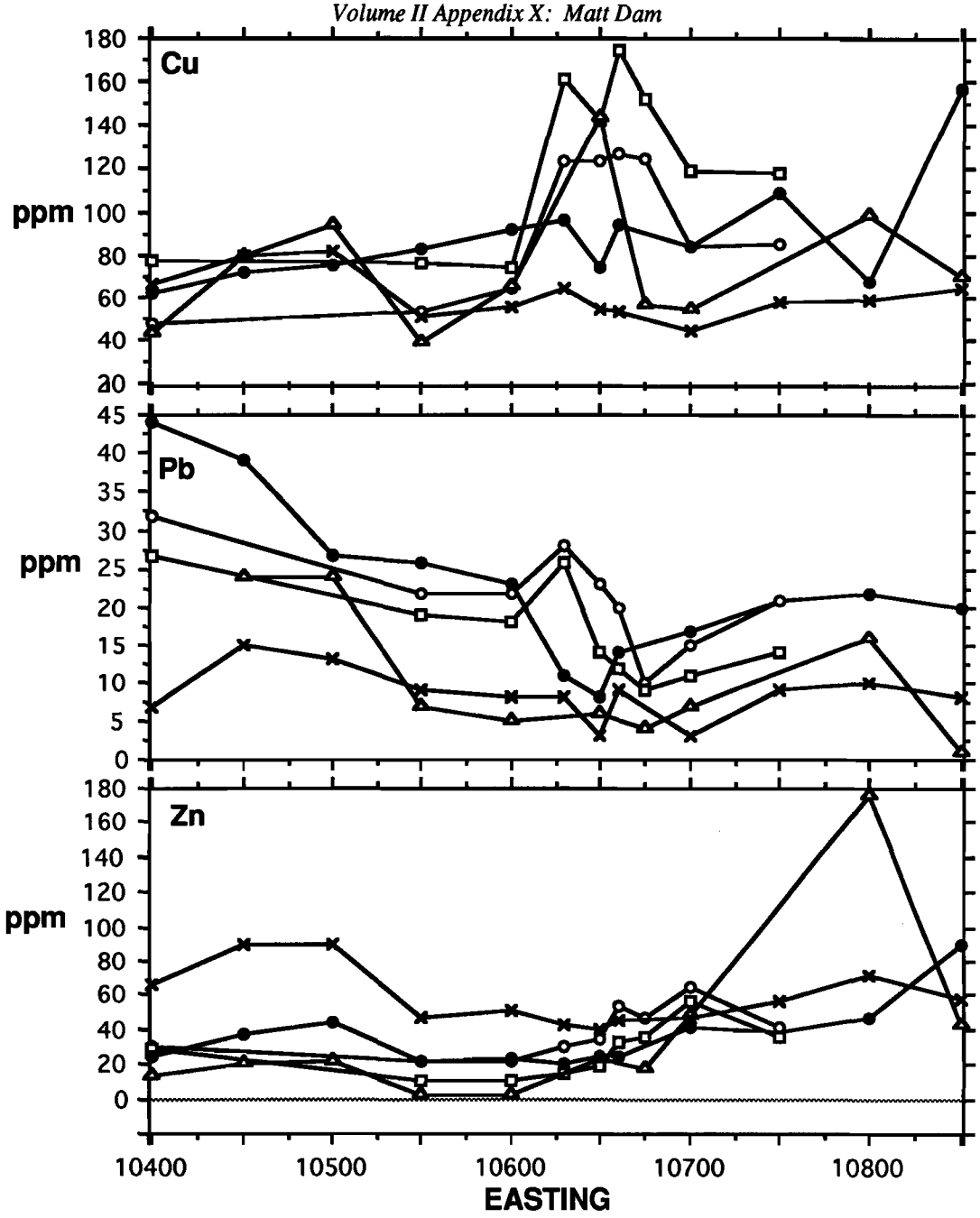

7400mN
DEPTH
M
LAG OF FERRUGINOUS GRANULES
PALE CALCAREOUS SOIL
RED CLAY WITH FERRUGINOUS GRANULES
LAG OF FERRUGINOUS SAPROLITE
RED CLAY WITH HARDENED MOTTLES & GRANULES
UPPER SAPROLITE OVER SHALE
DOLERITIC SAPROLITE
WHITE BLEACHED CLAY OVER QTZ-TUFF
PUGGY GREY CLAY
SAP OVER TUFF
Mineralization at depth
15m
35m

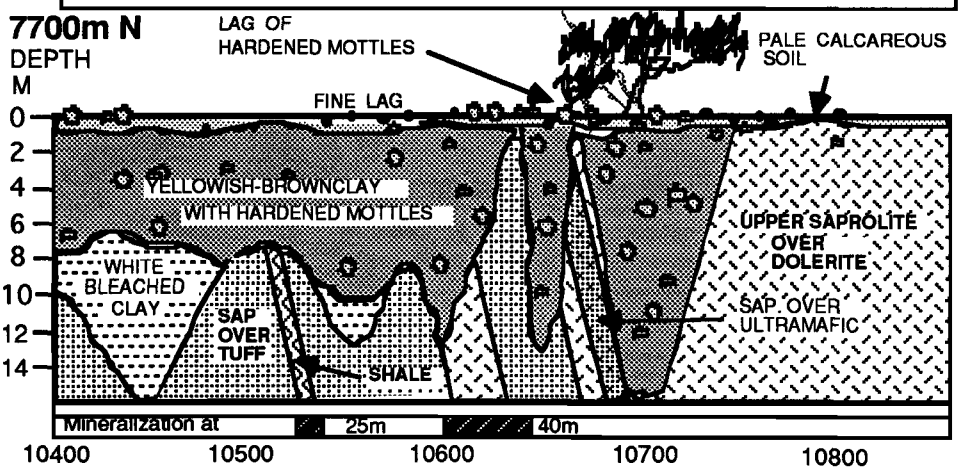

SiO2
wt%
Al2O3
wt%
Fe2O3
wt%
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP. OVER
ULTRAMAFIC
Mineralization at
25m
40m

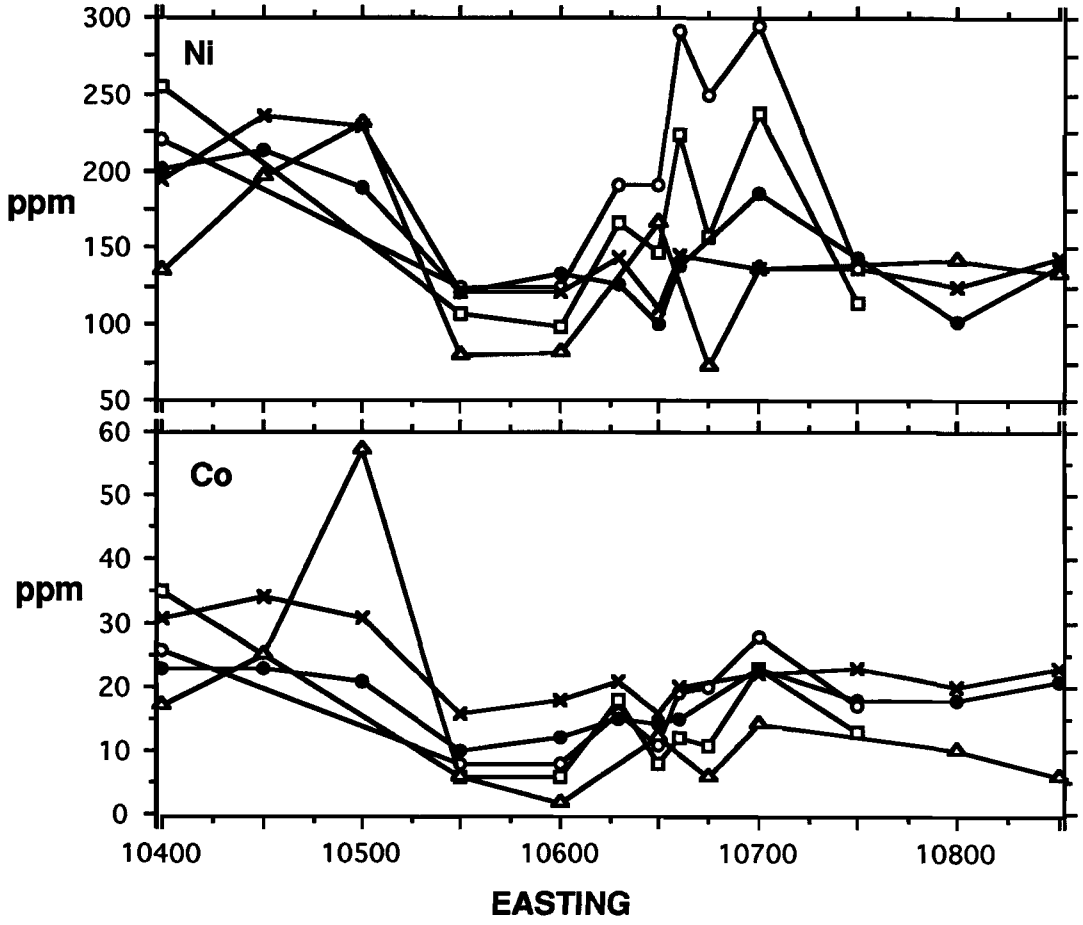

MgO
wt%
CaO
wt%
K2O
wt%
10450
10550
10650
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m

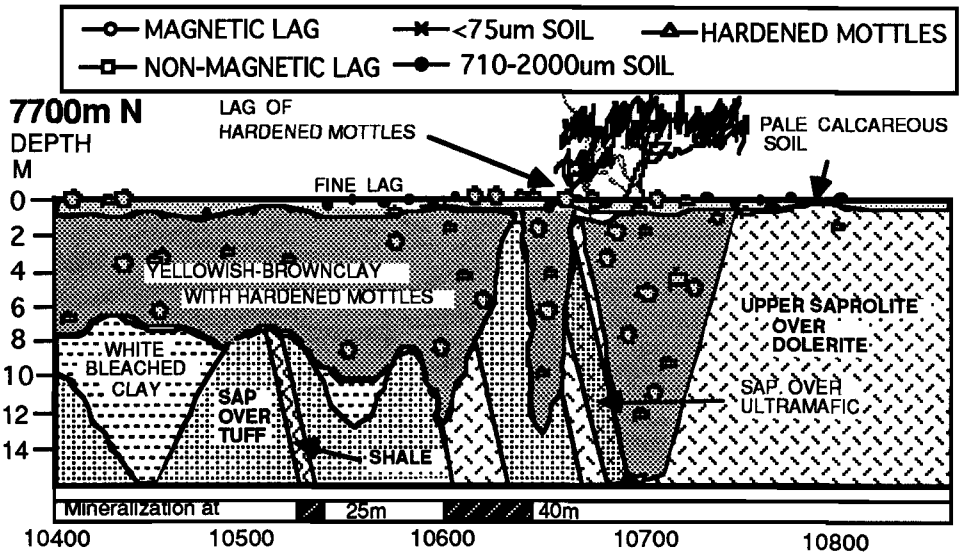

Na2O
wt%
1.4
1.2
1.0
.8
.6
.4
.2
0
TiO2
wt%
1.8
1.6
1.4
1.2
1.0
.8
.6
.4
.2
LOI
wt%
25
22.5
20
17.5
15
12.5
10
7.5
5
2.5
0
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
PALE CALCAREOUS
SOIL
FINE LAG
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m
0
2
4
6
8
10
12
14
10400
10500
10600
10700
10800

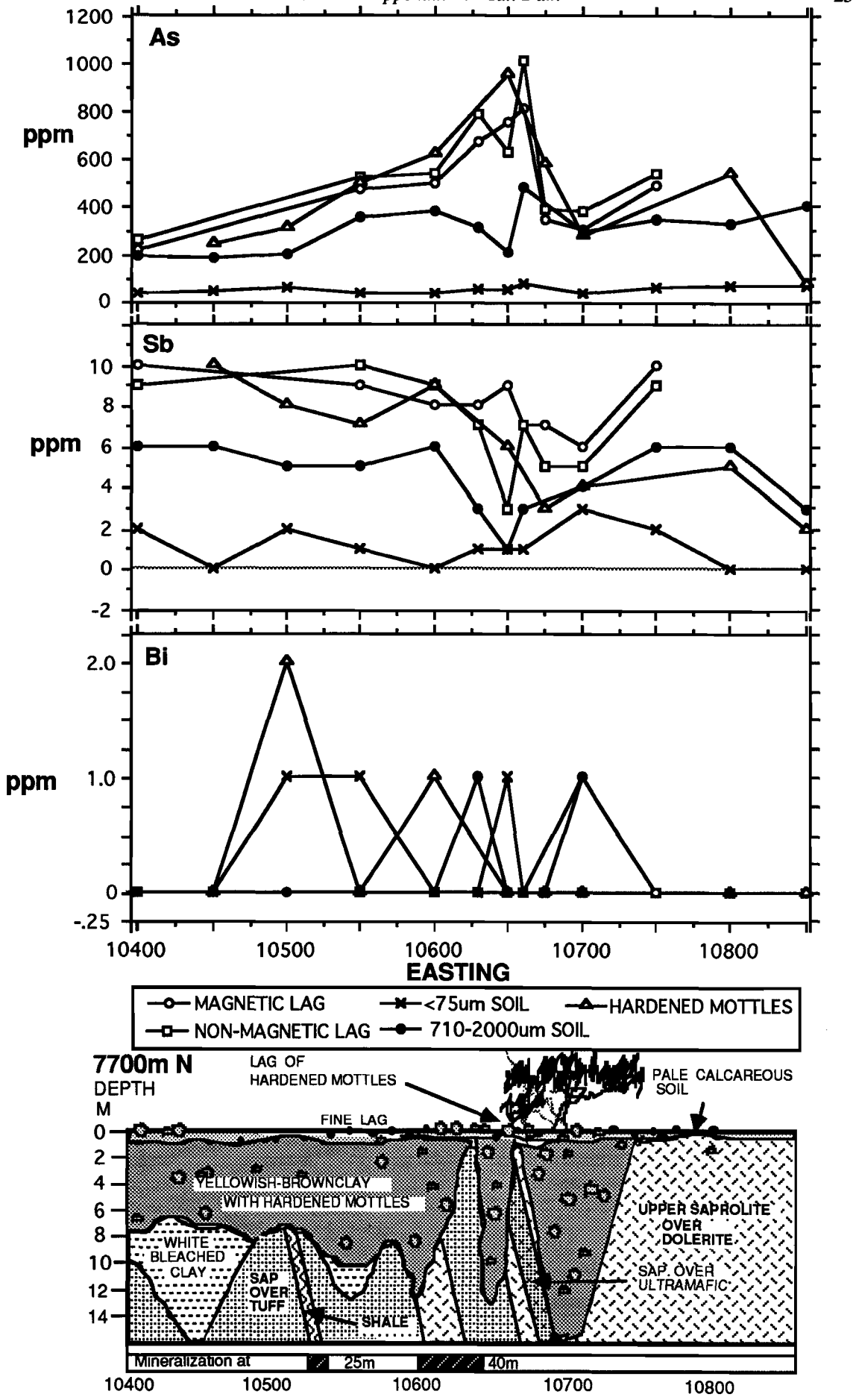

Mn
ppm
3500
3000
2500
2000
1500
1000
500
0
Cr
ppm
6000
5000
4000
3000
2000
1000
0
V
ppm
1600
1400
1200
1000
800
600
400
200
0
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP. OVER
ULTRAMAFIC
Mineralization at
25m
40m
0
2
4
6
8
10
12
14
10400
10500
10600
10700
10800

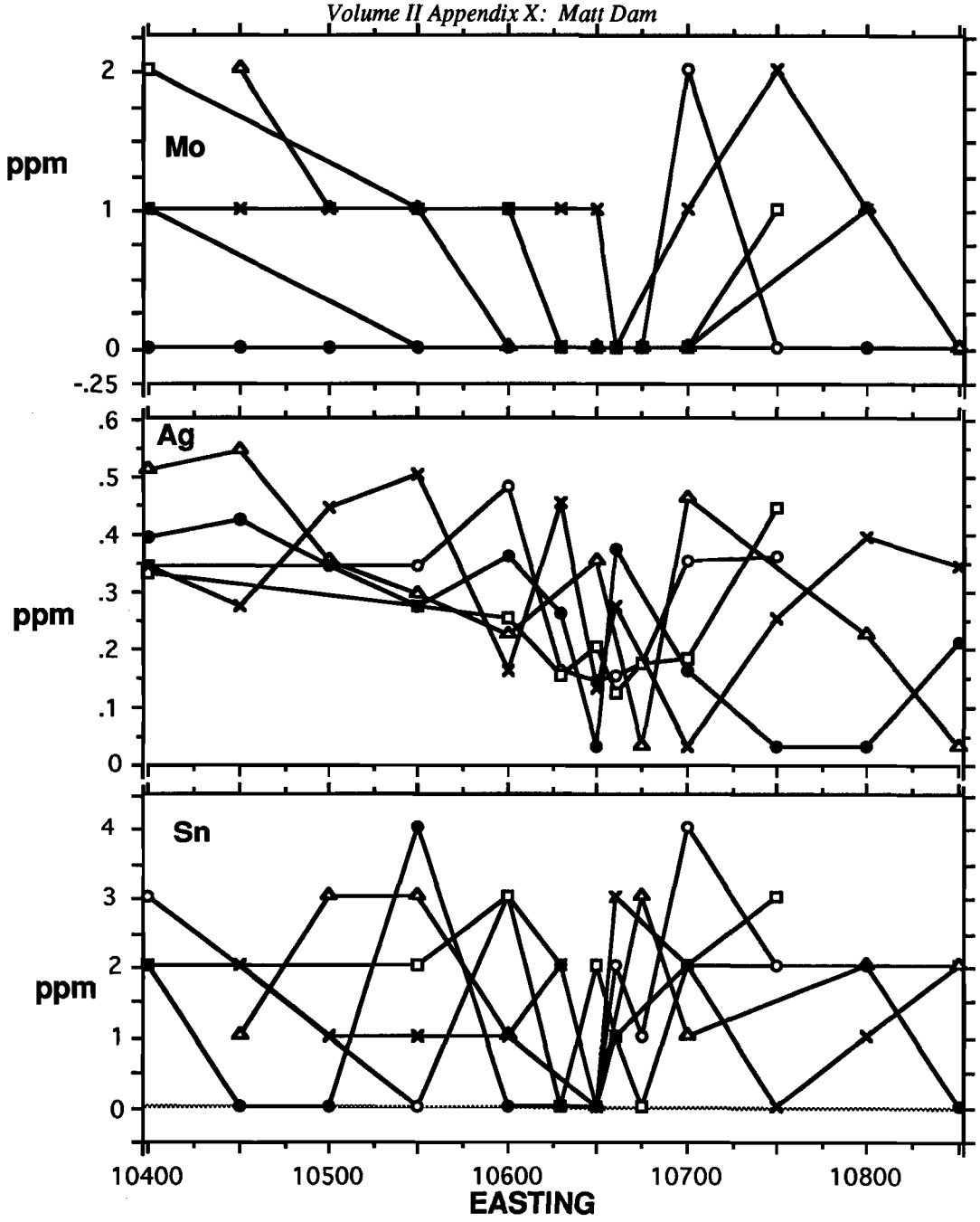

Cu
ppm
Pb
ppm
Zn
ppm
EASTING
10400
10500
10600
10700
10800
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL

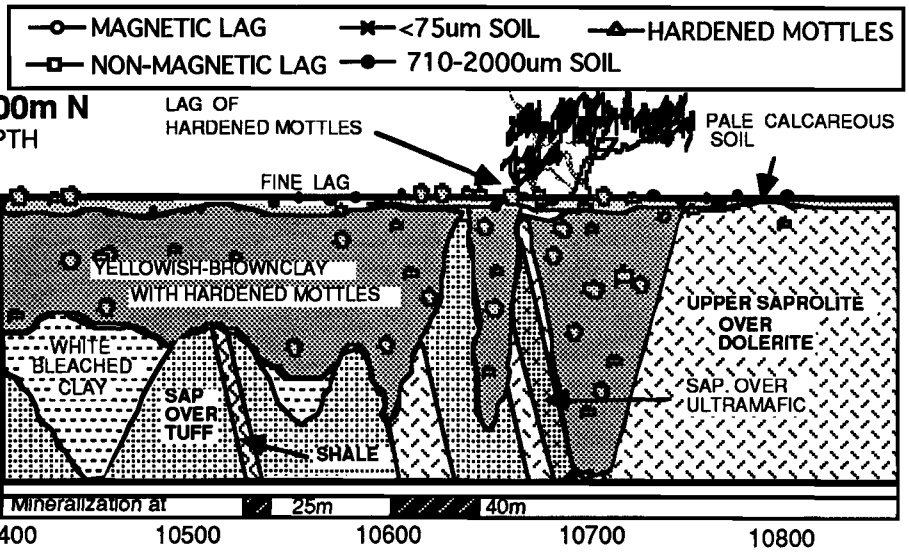

7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m
10400
10500
10600
10700
10800

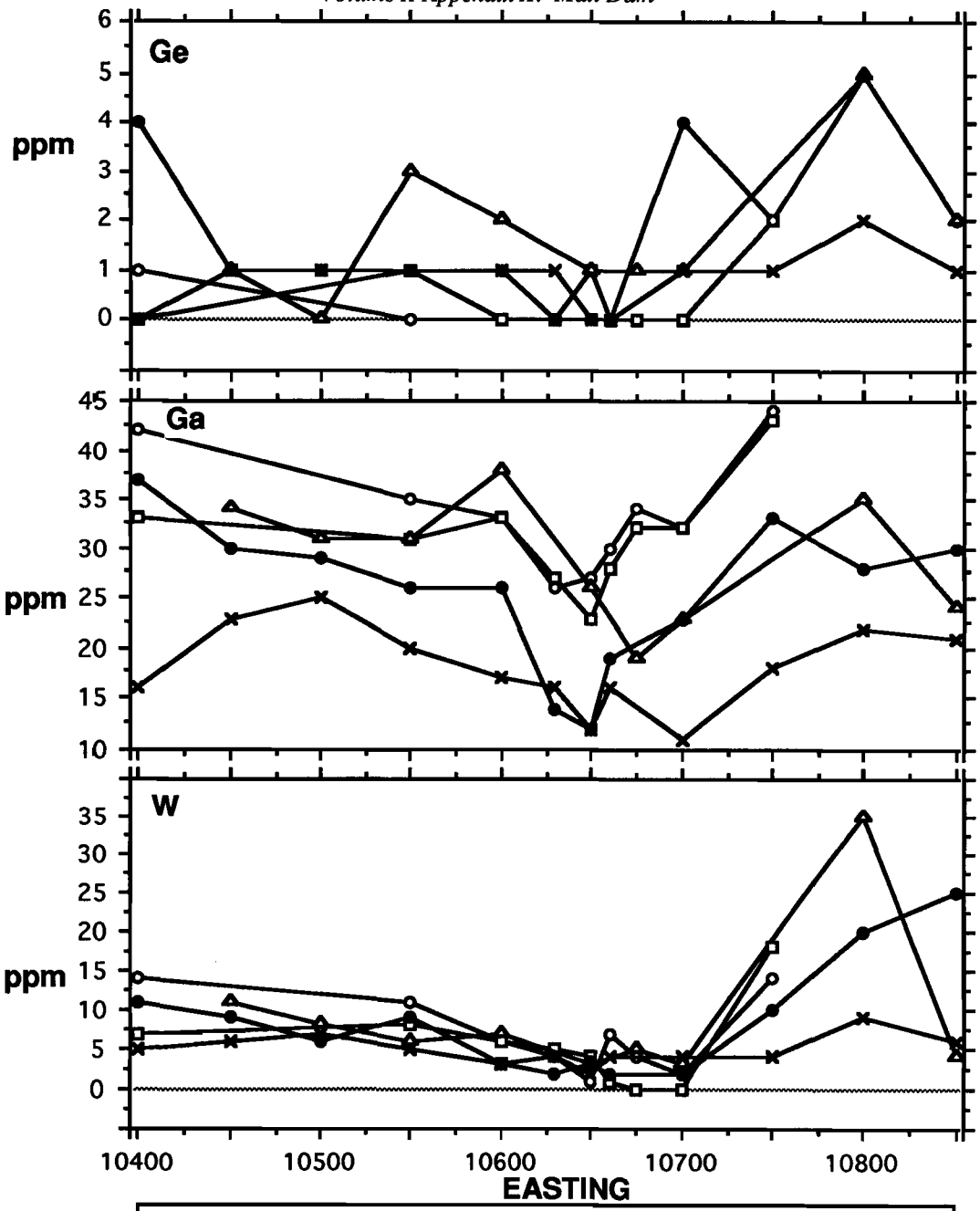

Ni
ppm
300
250
200
150
100
50
Co
ppm
60
50
40
30
20
10
0
10400
10500
10600
10700
10800
EASTING

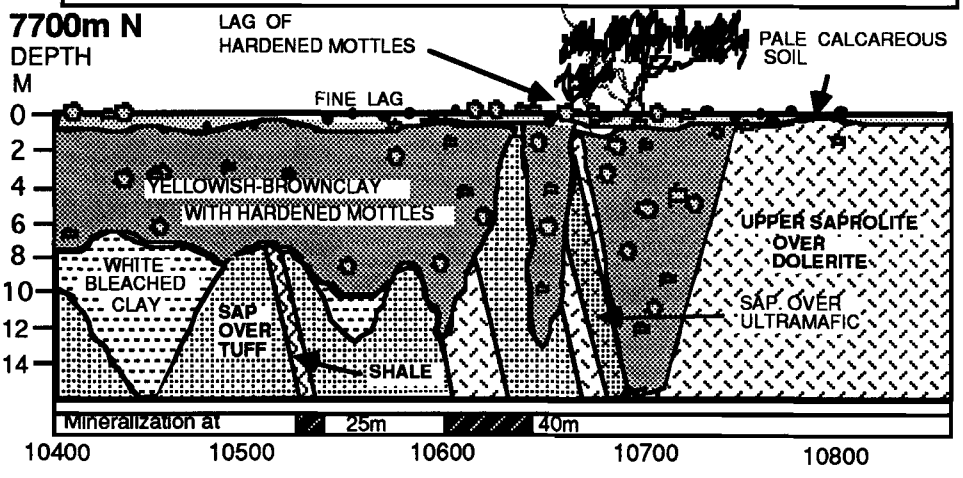

MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
PALE CALCAREOUS
SOIL
FINE LAG
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m
0
2
4
6
8
10
12
14
10400
10500
10600
10700
10800

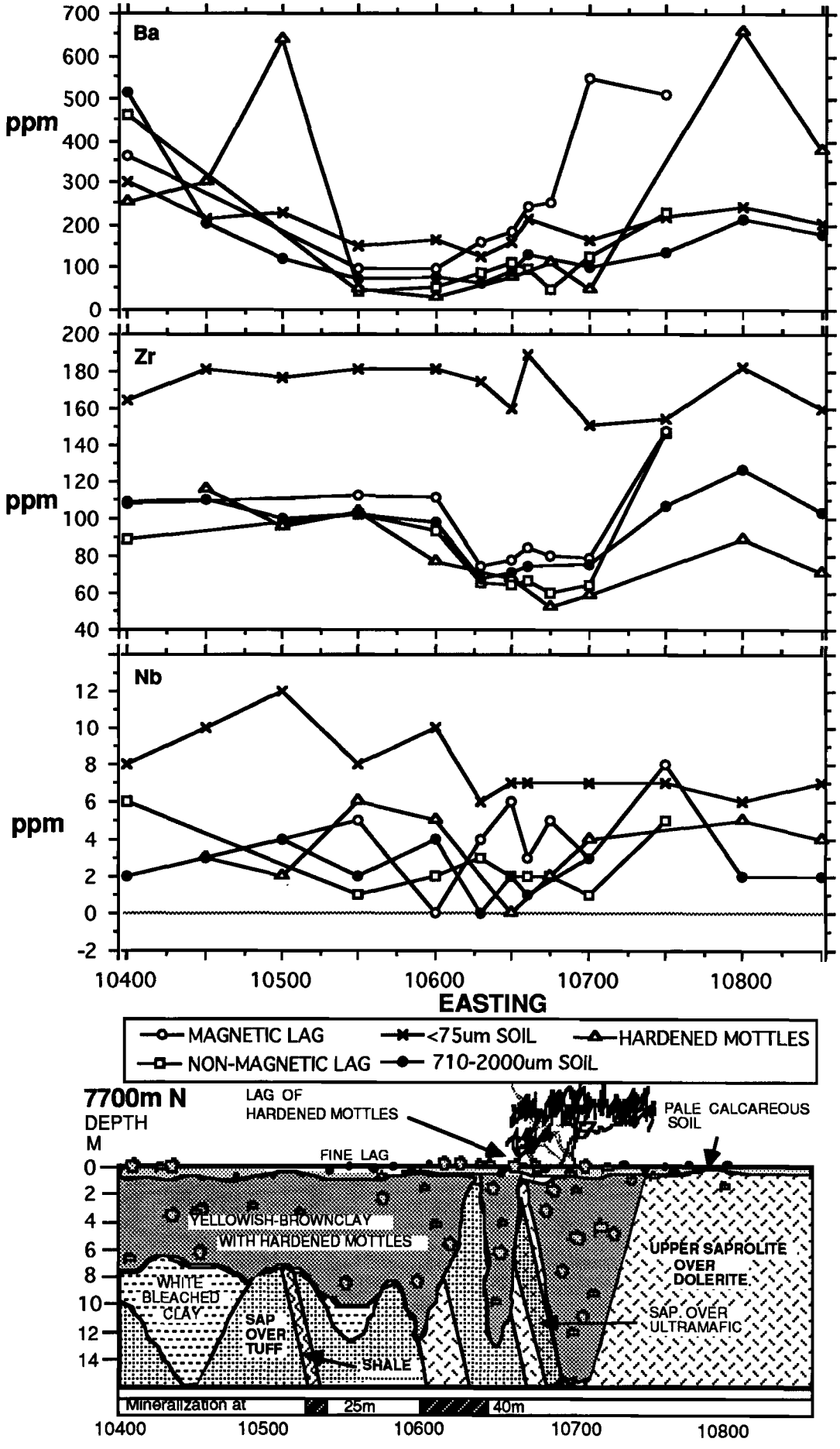

As
ppm
1200
1000
800
600
400
200
0
Sb
ppm
10
8
6
4
2
0
-2
Bi
ppm
2.0
1.0
0
-.25
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m
0
2
4
6
8
10
12
14
10400
10500
10600
10700
10800

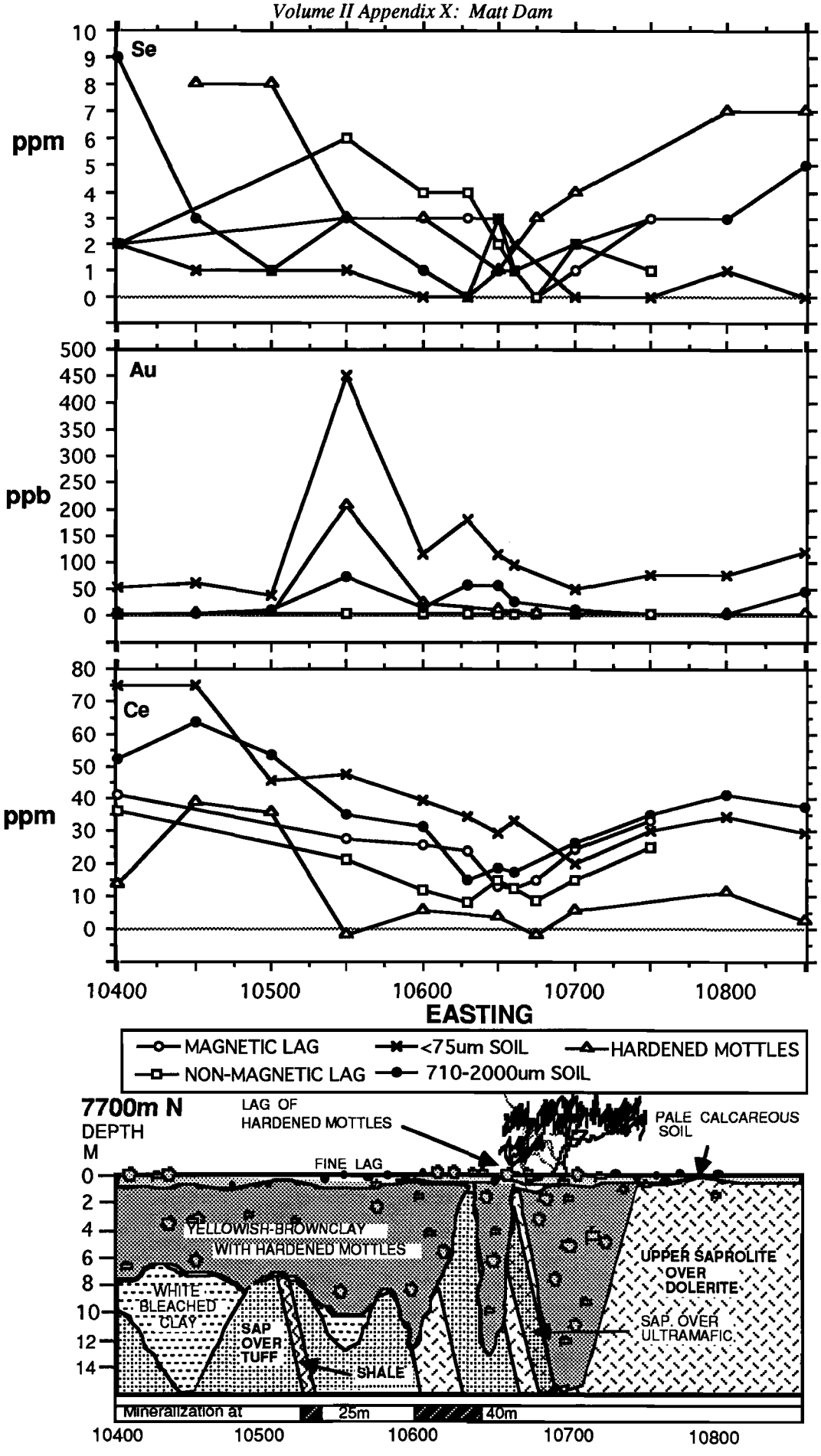

Mo
ppm
2
1
0
-.25
Ag
ppm
.6
.5
.4
.3
.2
.1
0
Sn
ppm
4
3
2
1
0
10400
10500
10600
10700
10800
EASTING


MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
PALE CALCAREOUS
SOIL
FINE LAG
0
2
4
6
8
10
12
14
YELLOWISH-BROWN CLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP. OVER
ULTRAMAFIC
Mineralization at
25m
40m
10400
10500
10600
10700
10800


Ge
ppm
Ga
ppm
W
ppm
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL

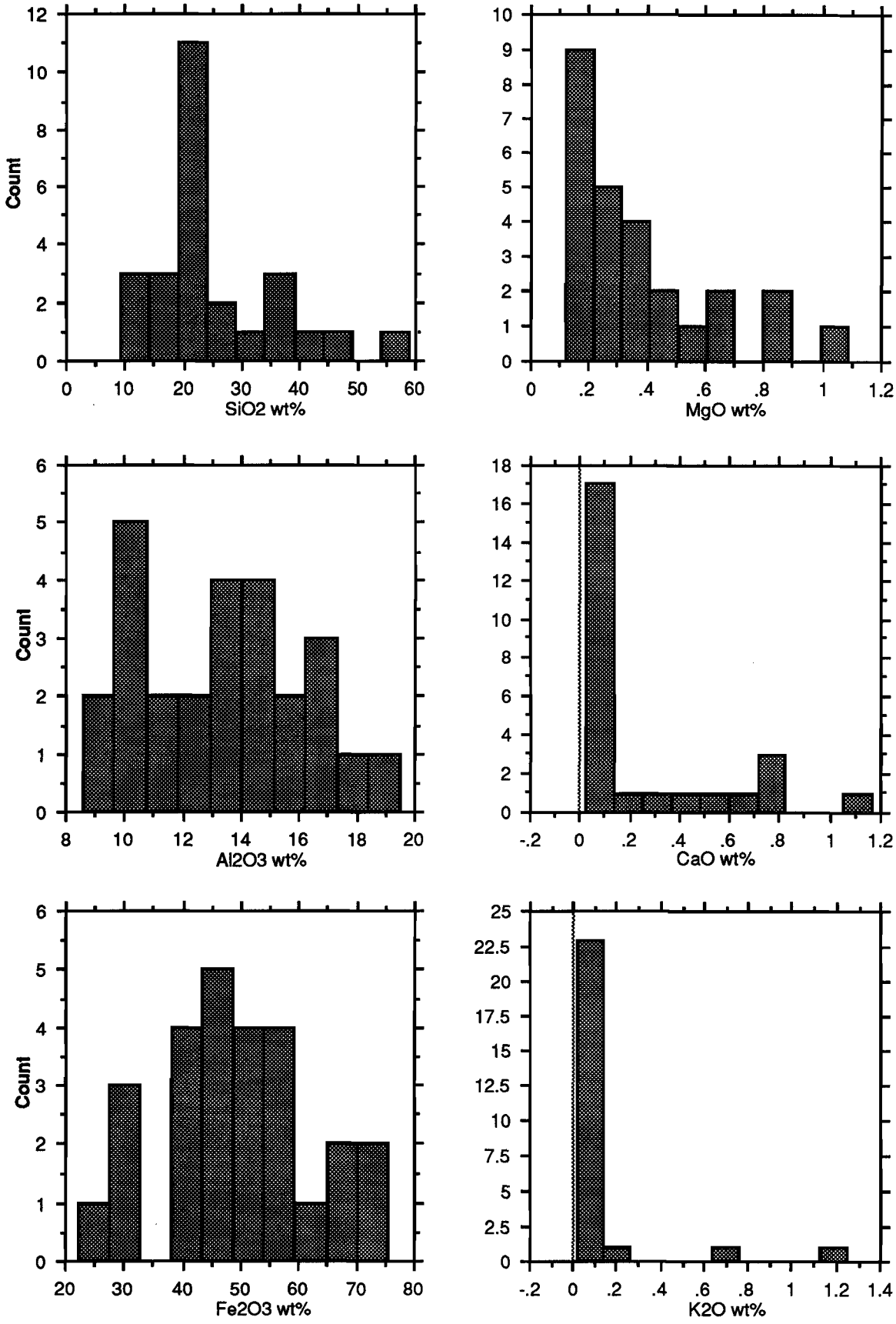

7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m
10400
10500
10600
10700
10800


Ba
ppm
700
600
500
400
300
200
100
0
Zr
ppm
200
180
160
140
120
100
80
60
40
Nb
ppm
12
10
8
6
4
2
0
-2
10400
10500
10600
10700
10800
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
PALE CALCAREOUS
SOIL
FINE LAG
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP OVER
ULTRAMAFIC
Mineralization at
25m
40m
0
2
4
6
8
10
12
14
10400
10500
10600
10700
10800


Se
ppm
Au
ppb
Ce
ppm
EASTING
MAGNETIC LAG
<75um SOIL
HARDENED MOTTLES
NON-MAGNETIC LAG
710-2000um SOIL
7700m N
DEPTH
M
LAG OF
HARDENED MOTTLES
FINE LAG
PALE CALCAREOUS
SOIL
YELLOWISH-BROWNCLAY
WITH HARDENED MOTTLES
WHITE
BLEACHED
CLAY
SAP
OVER
TUFF
SHALE
UPPER SAPROLITE
OVER
DOLERITE
SAP. OVER
ULTRAMAFIC
Mineralization at
25m
40m

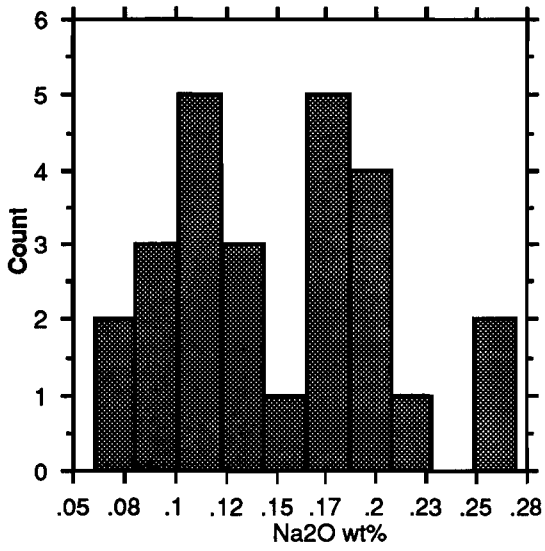
Matt Dam mottles

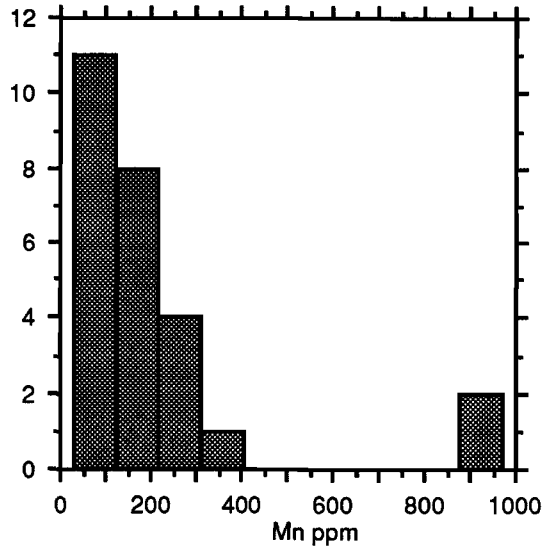
N=26

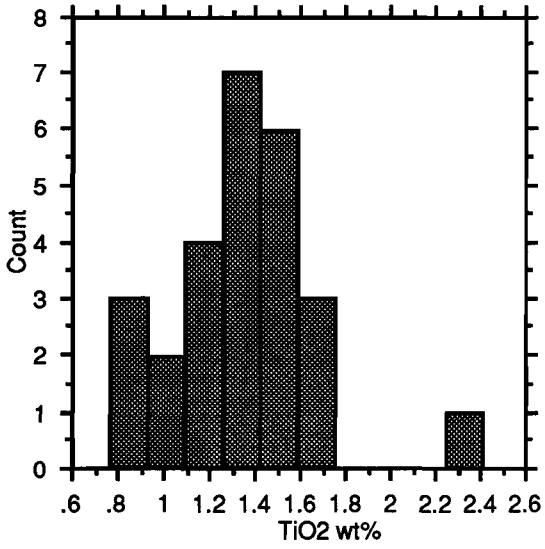


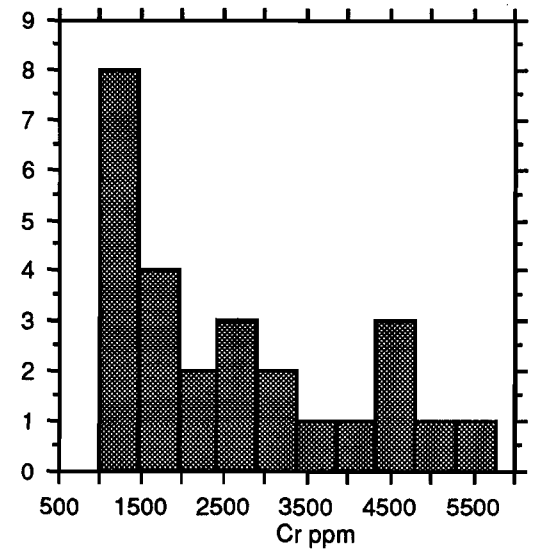
Matt Dam mottles

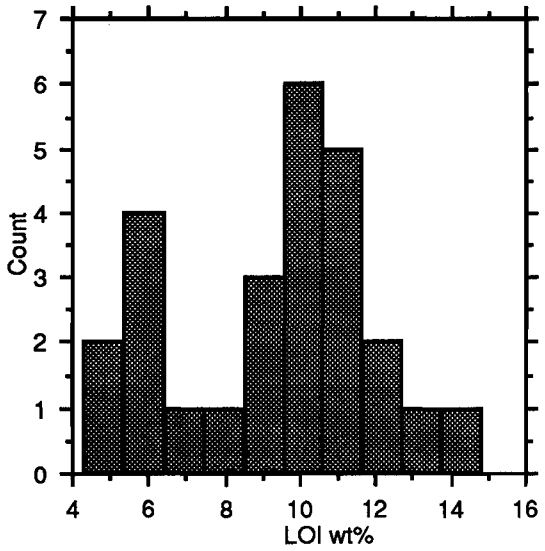
N=26

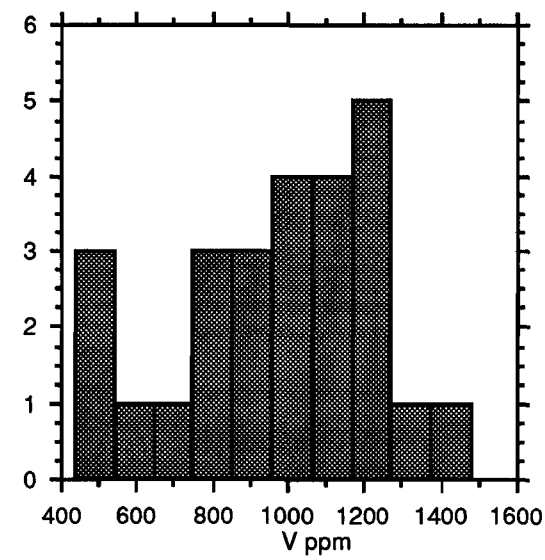






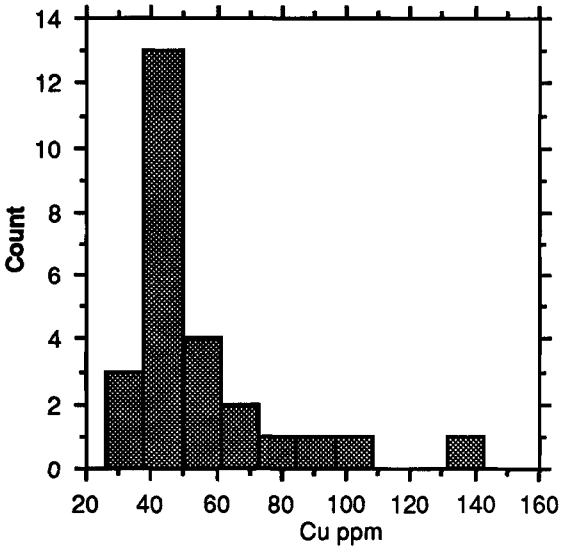


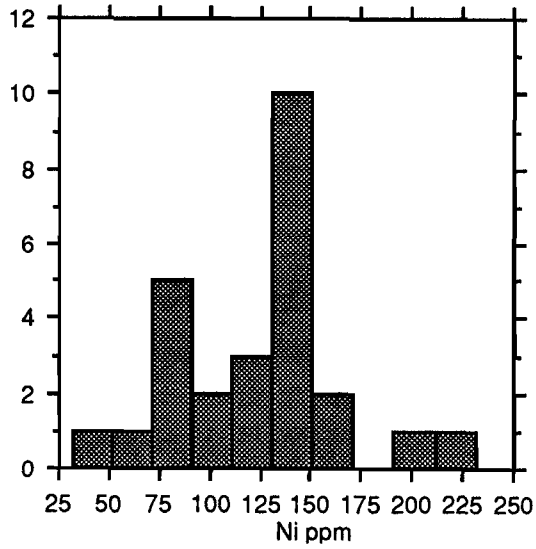


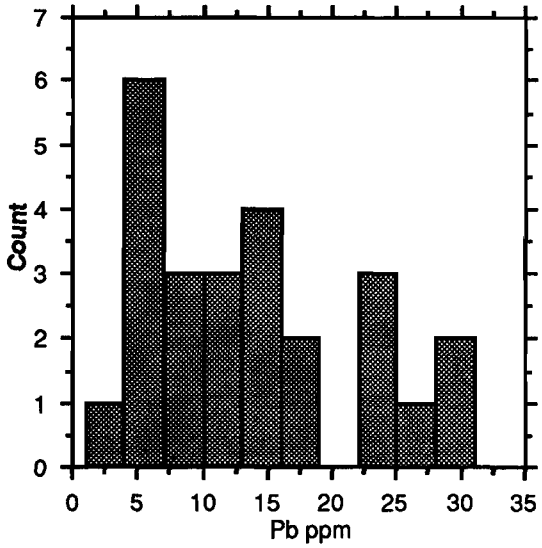


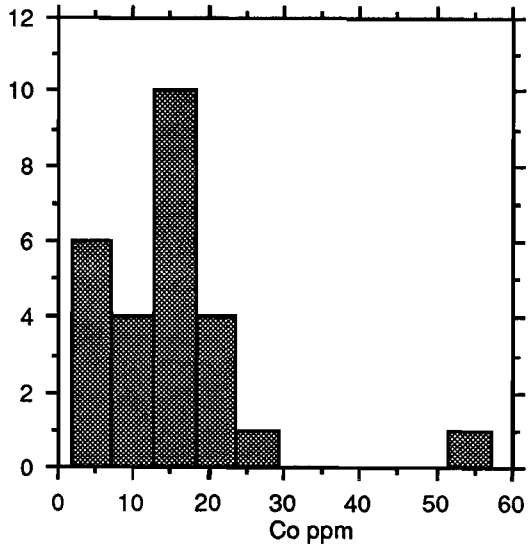
Matt Dam mottles

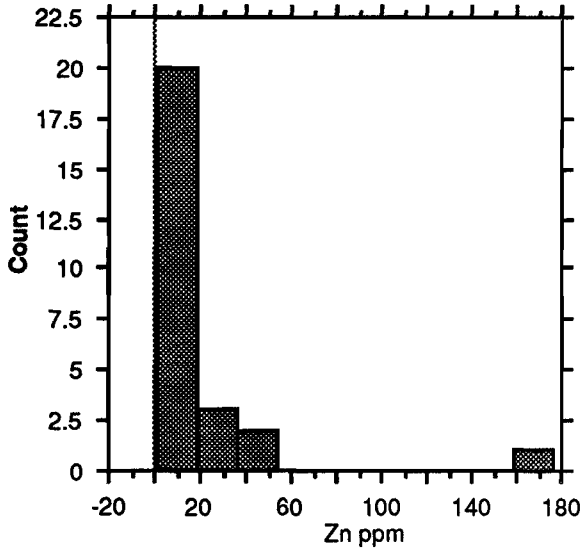
N=26

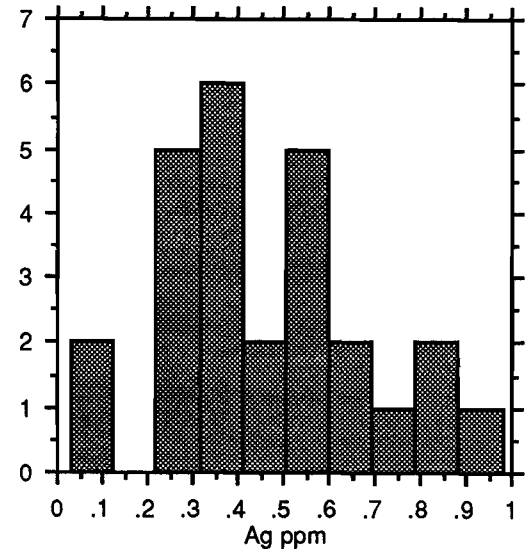






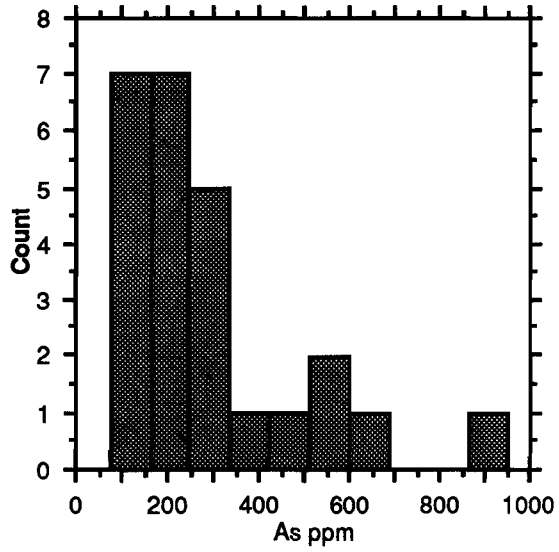


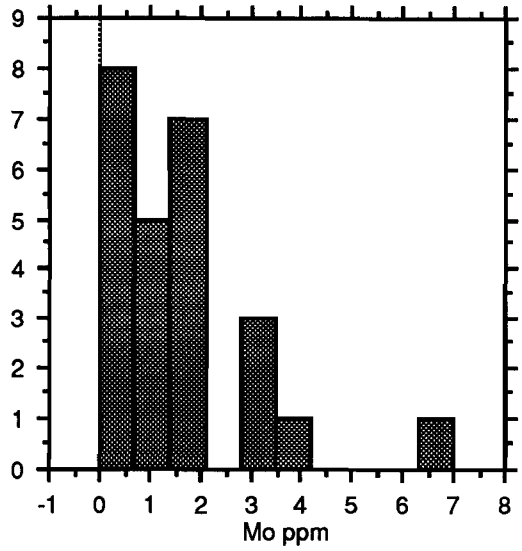


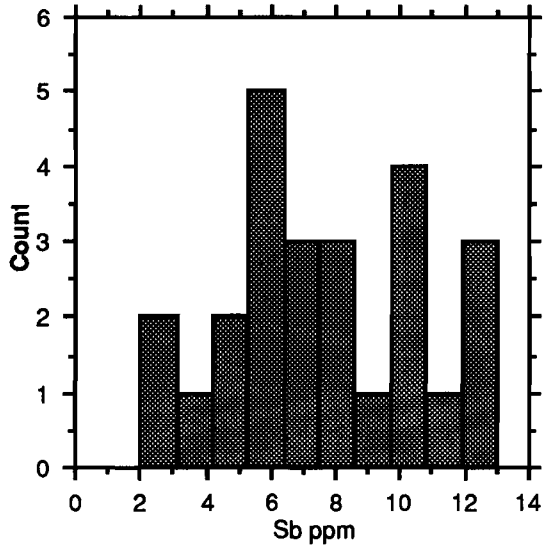


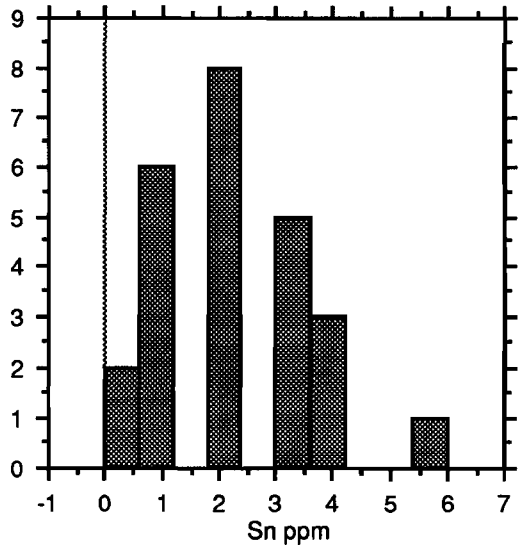
Matt Dam mottles

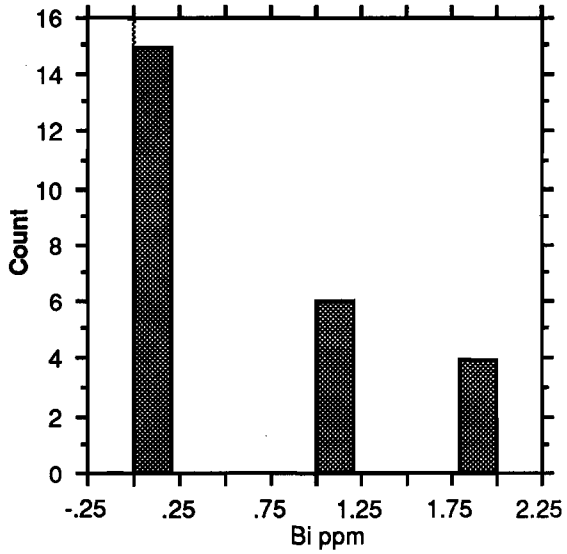
N=26

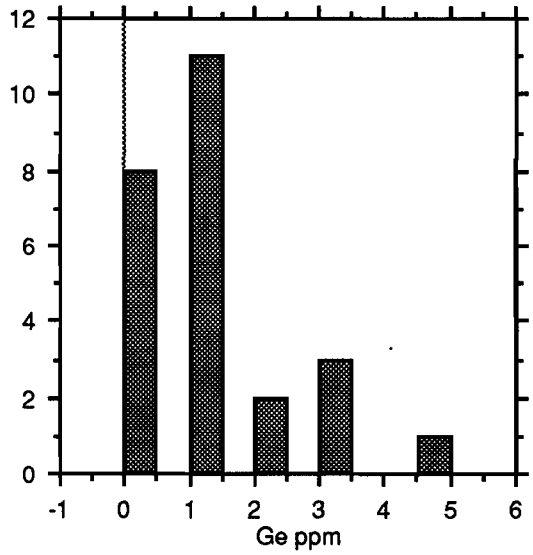






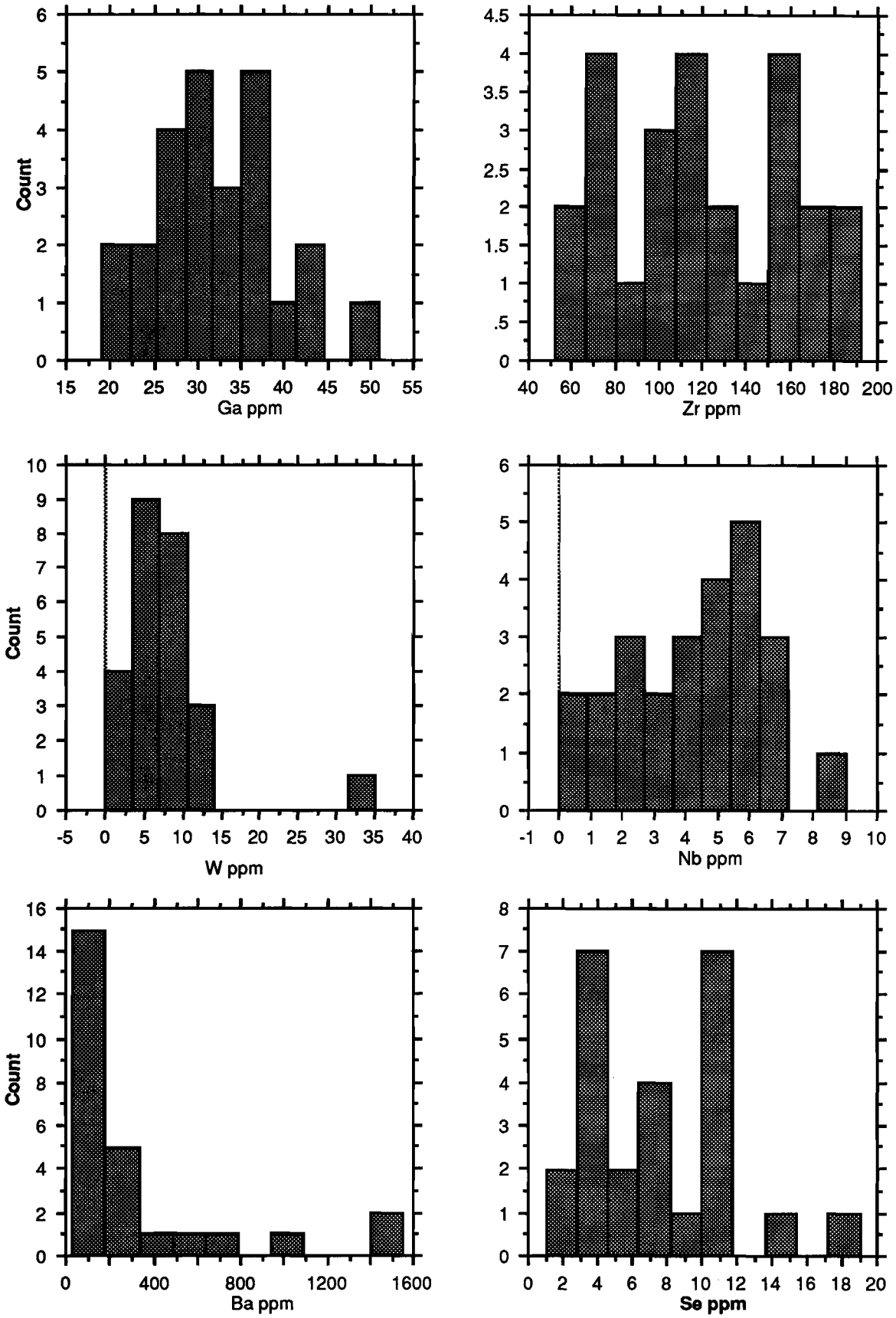






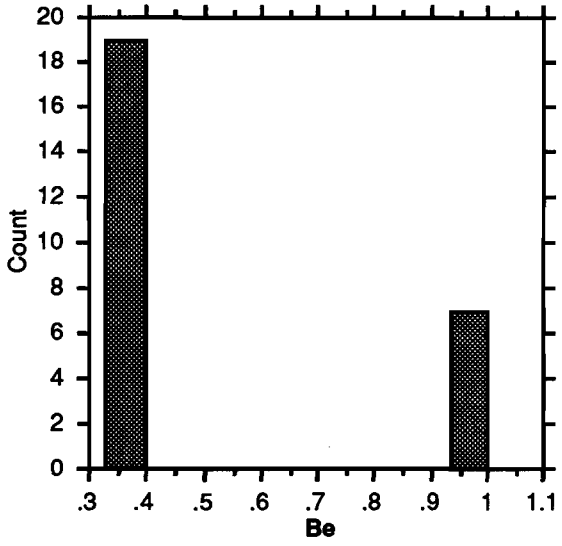
Matt Dam mottles

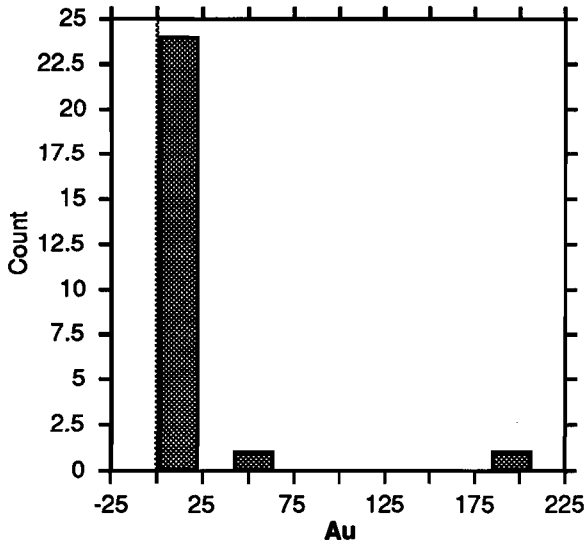
N=26

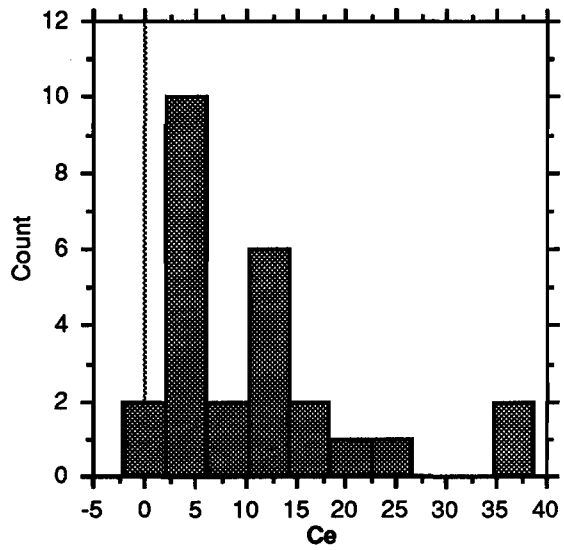


Matt Dam mottles

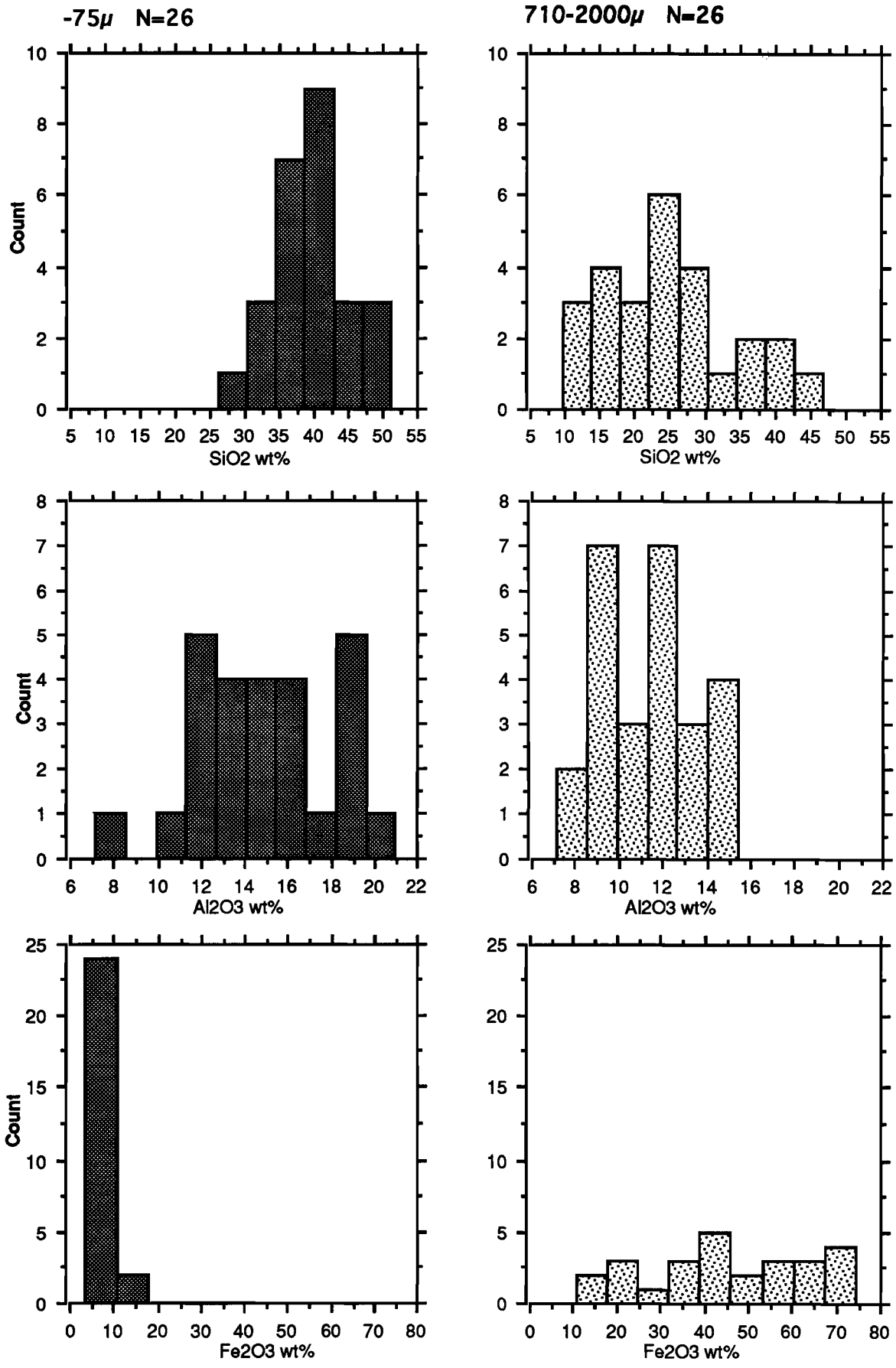
N=26





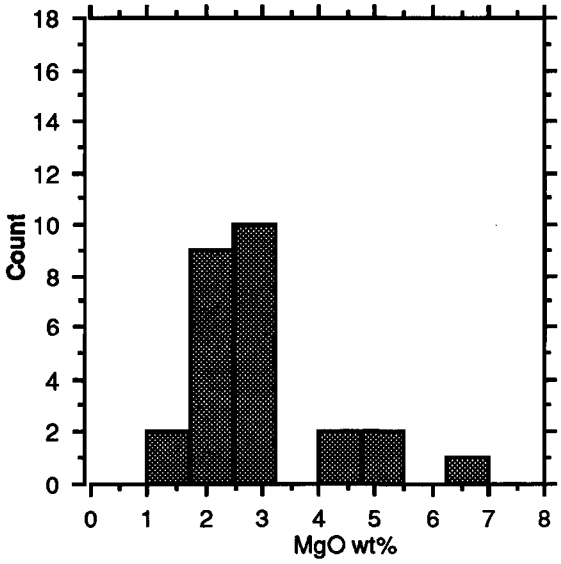


Matt Dam soils

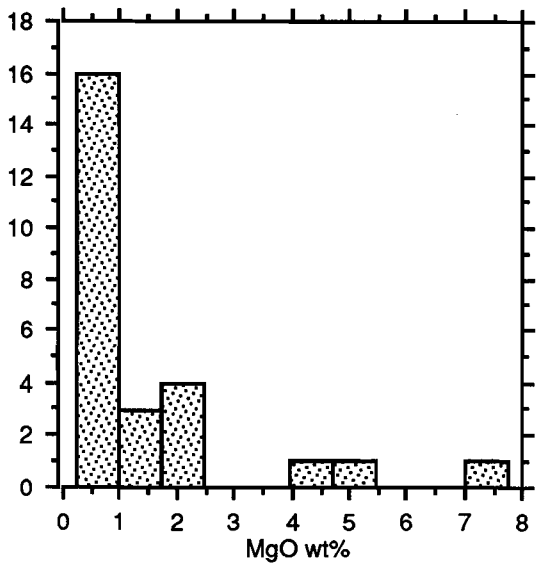


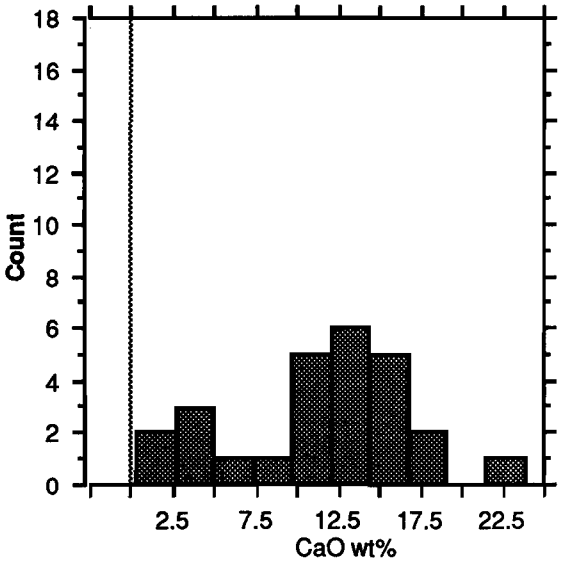
Matt Dam soils

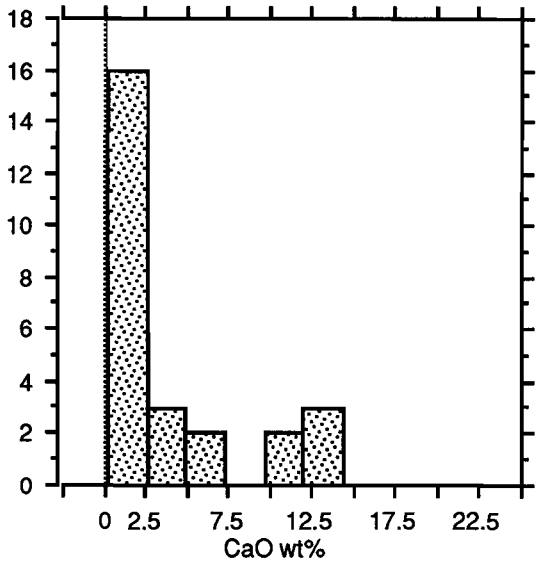
-75μ N=26

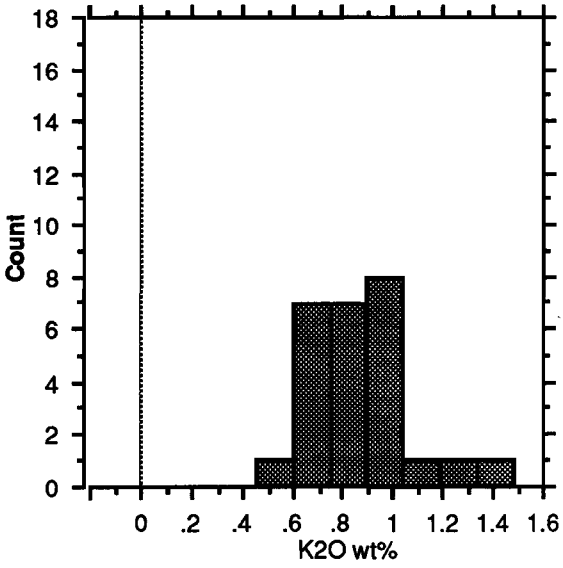


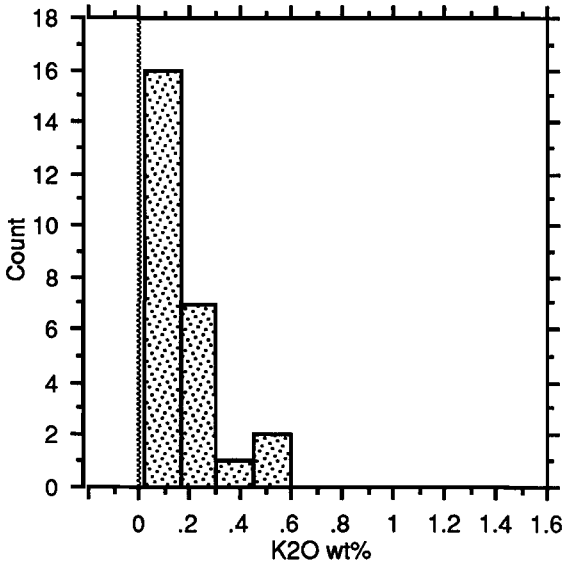
710-2000μ N=26



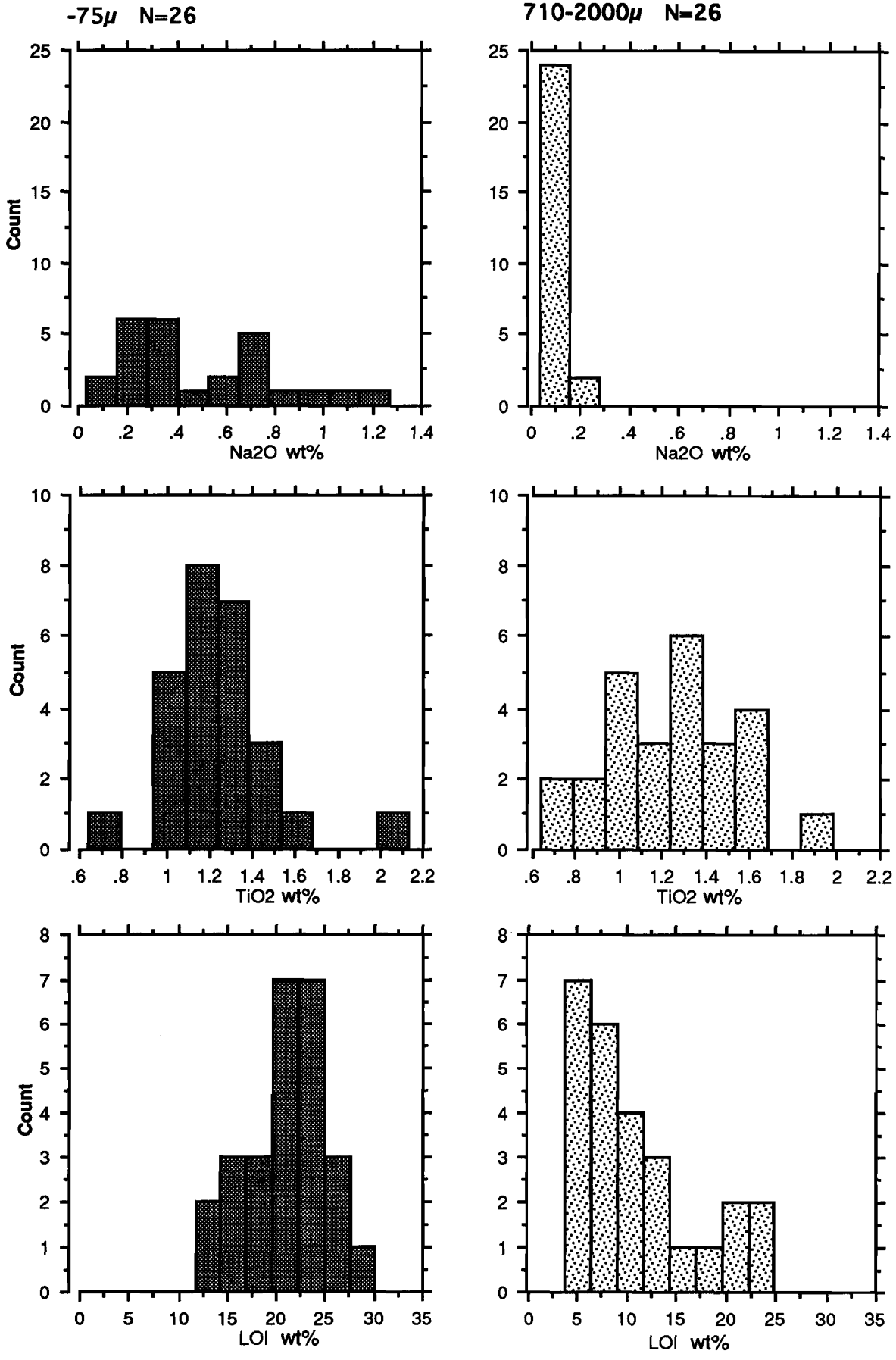




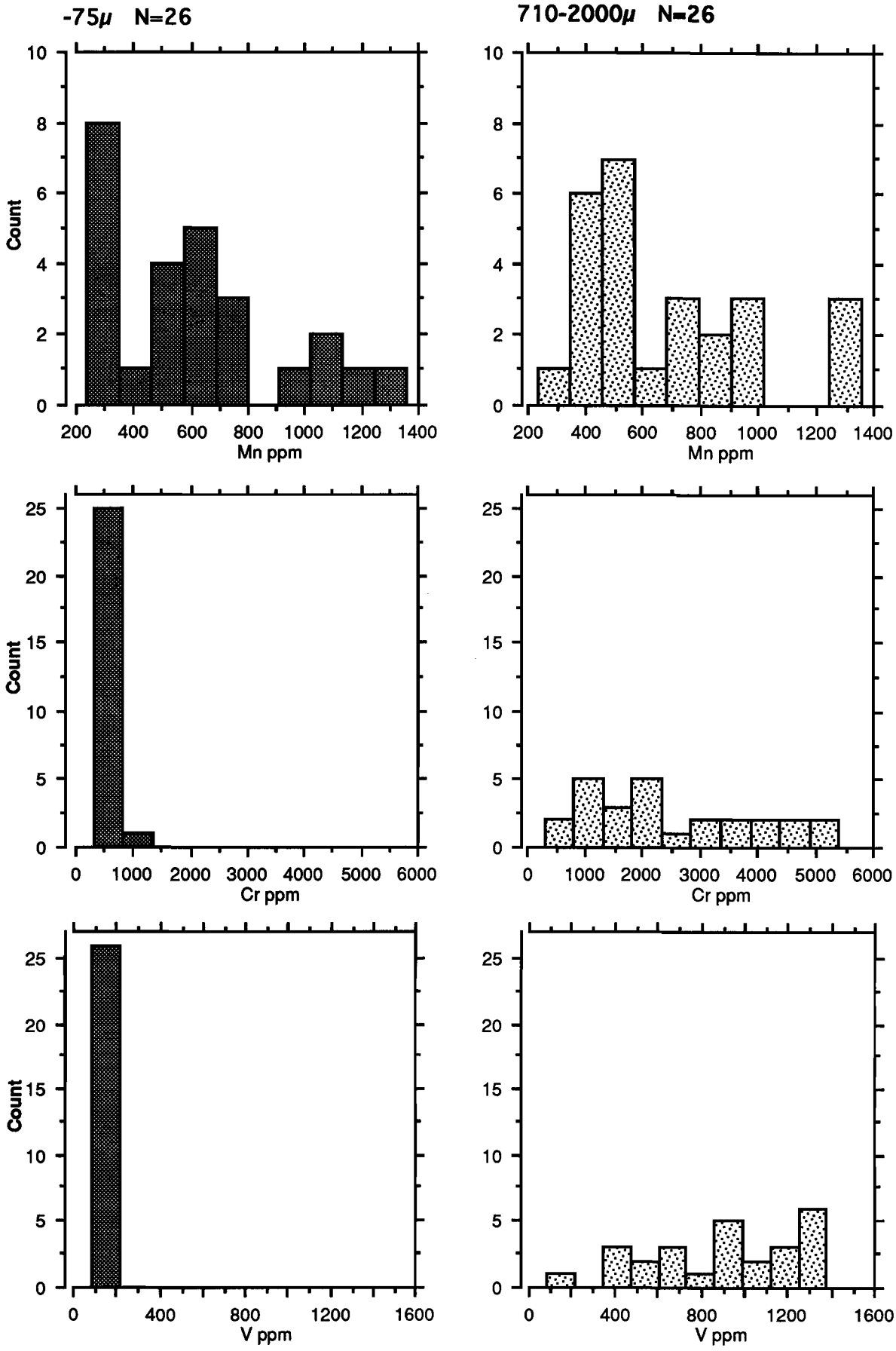




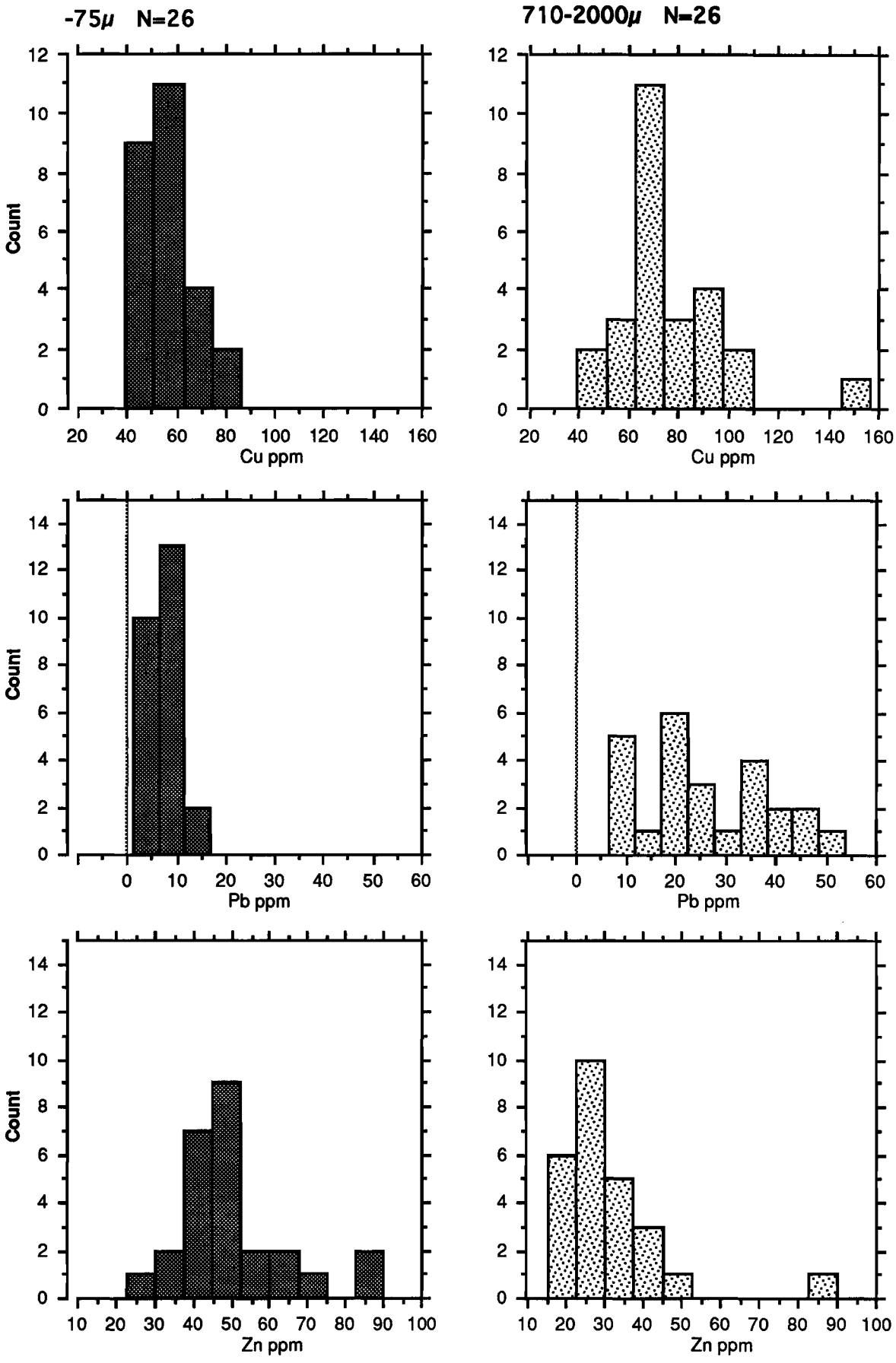
Matt Dam soils



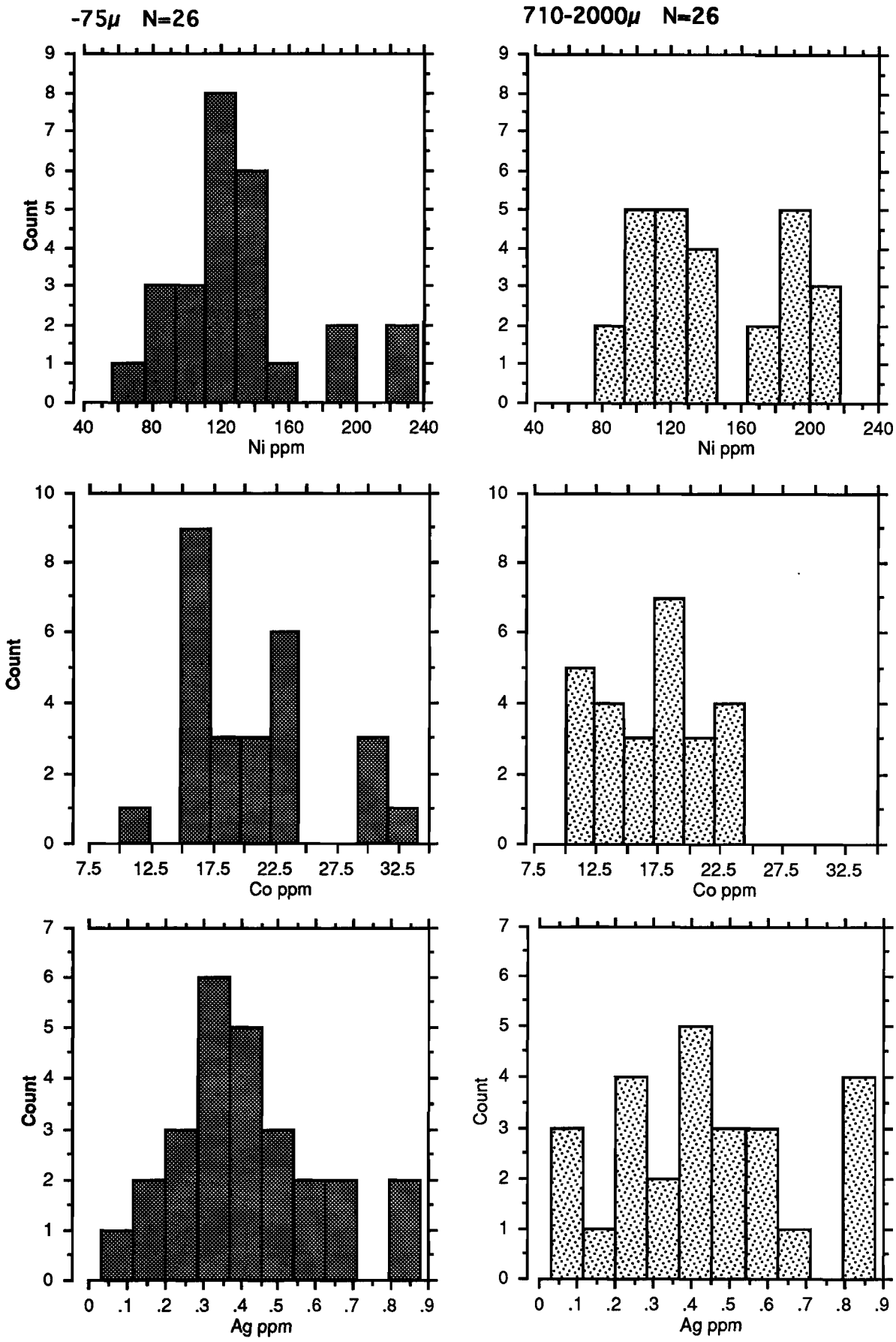
Matt Dam soils



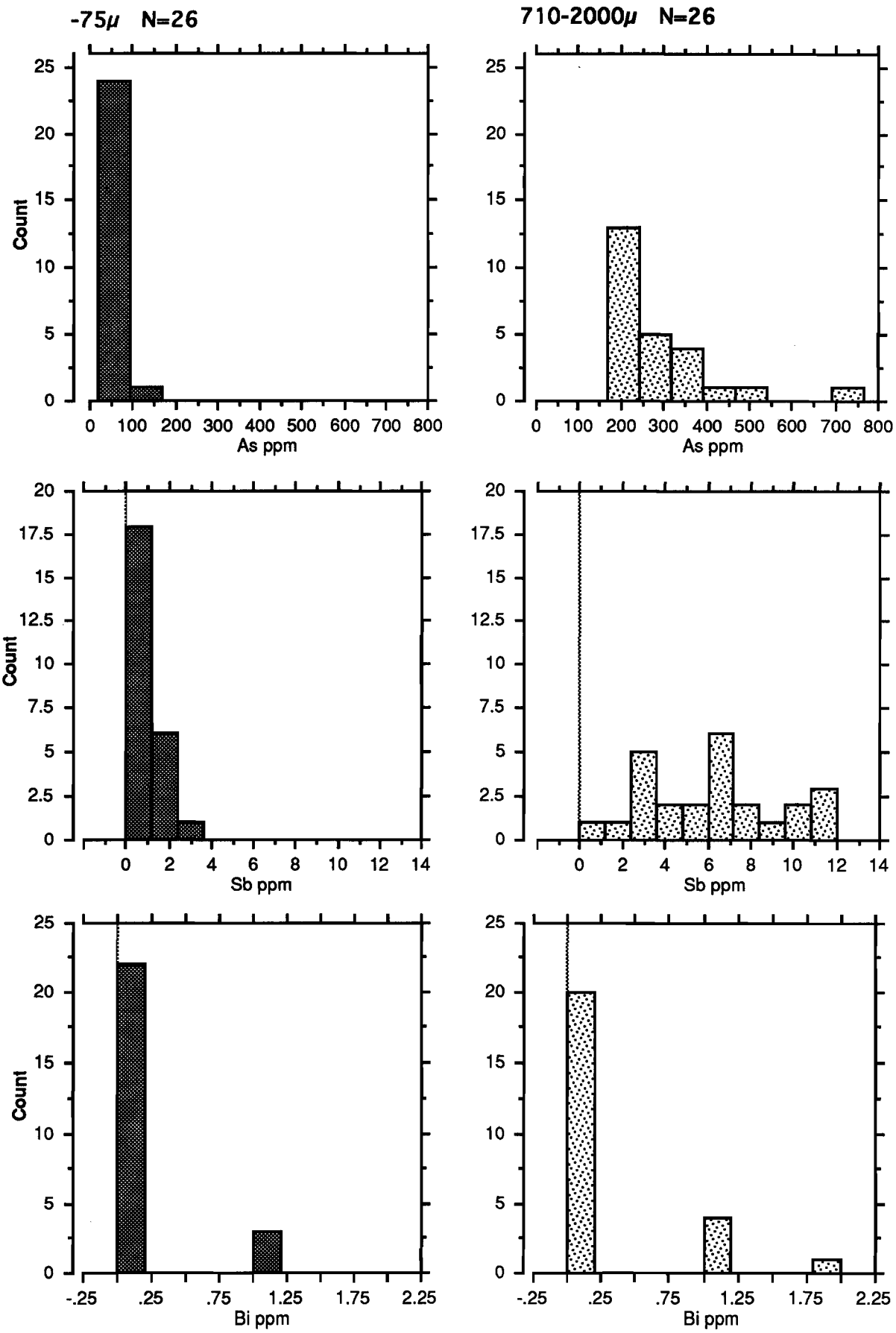
Matt Dam soils



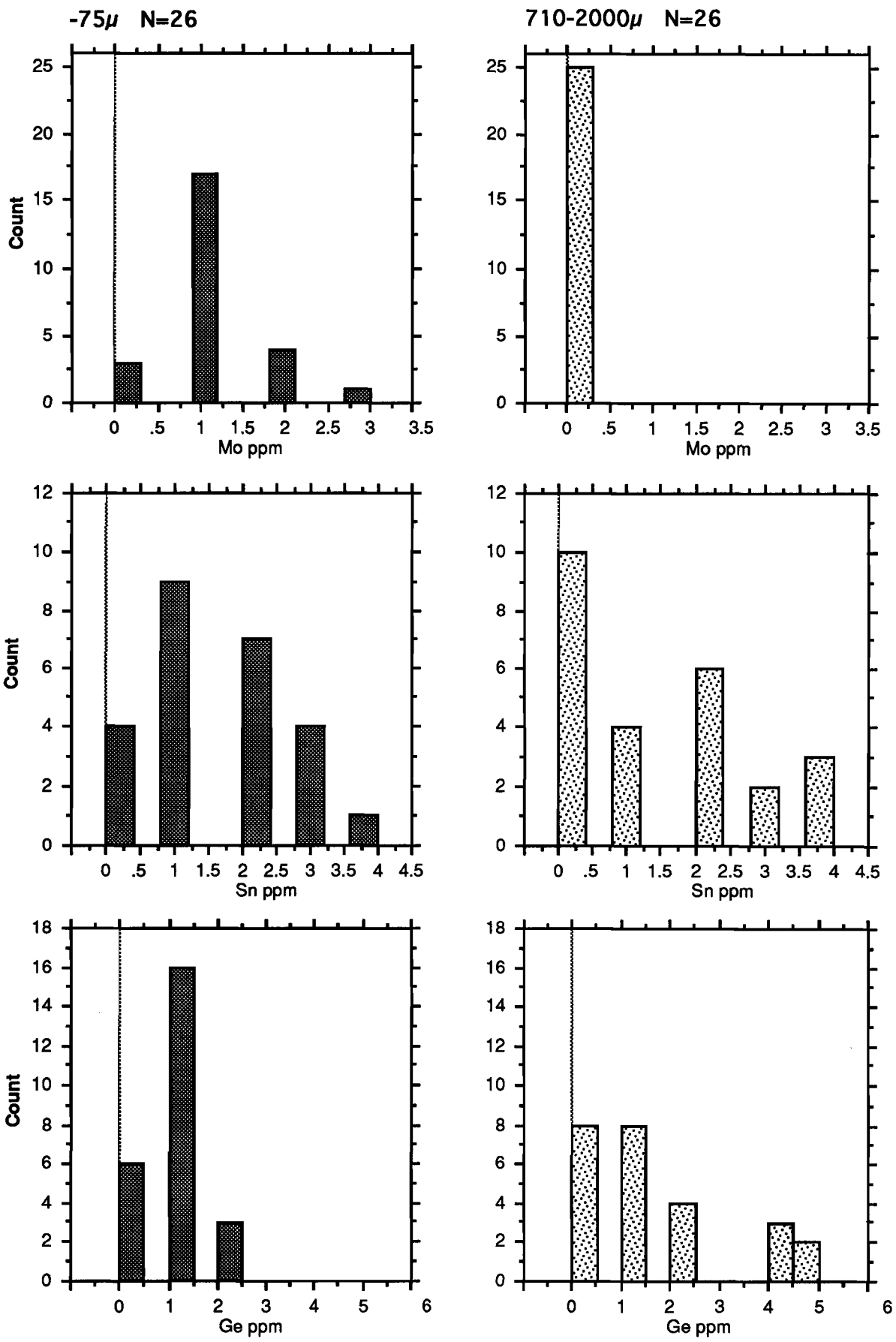
Matt Dam soils



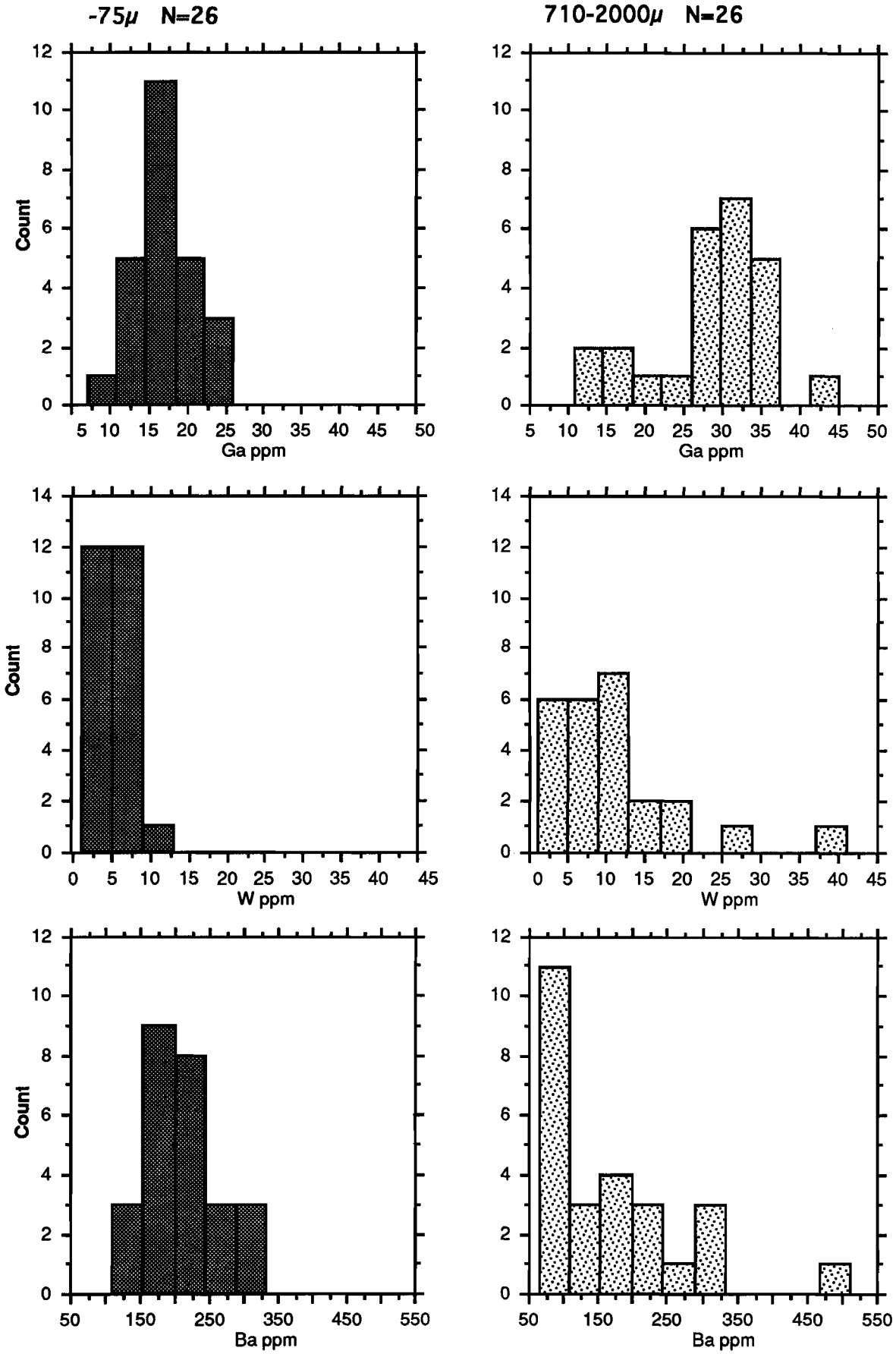
Matt Dam soils



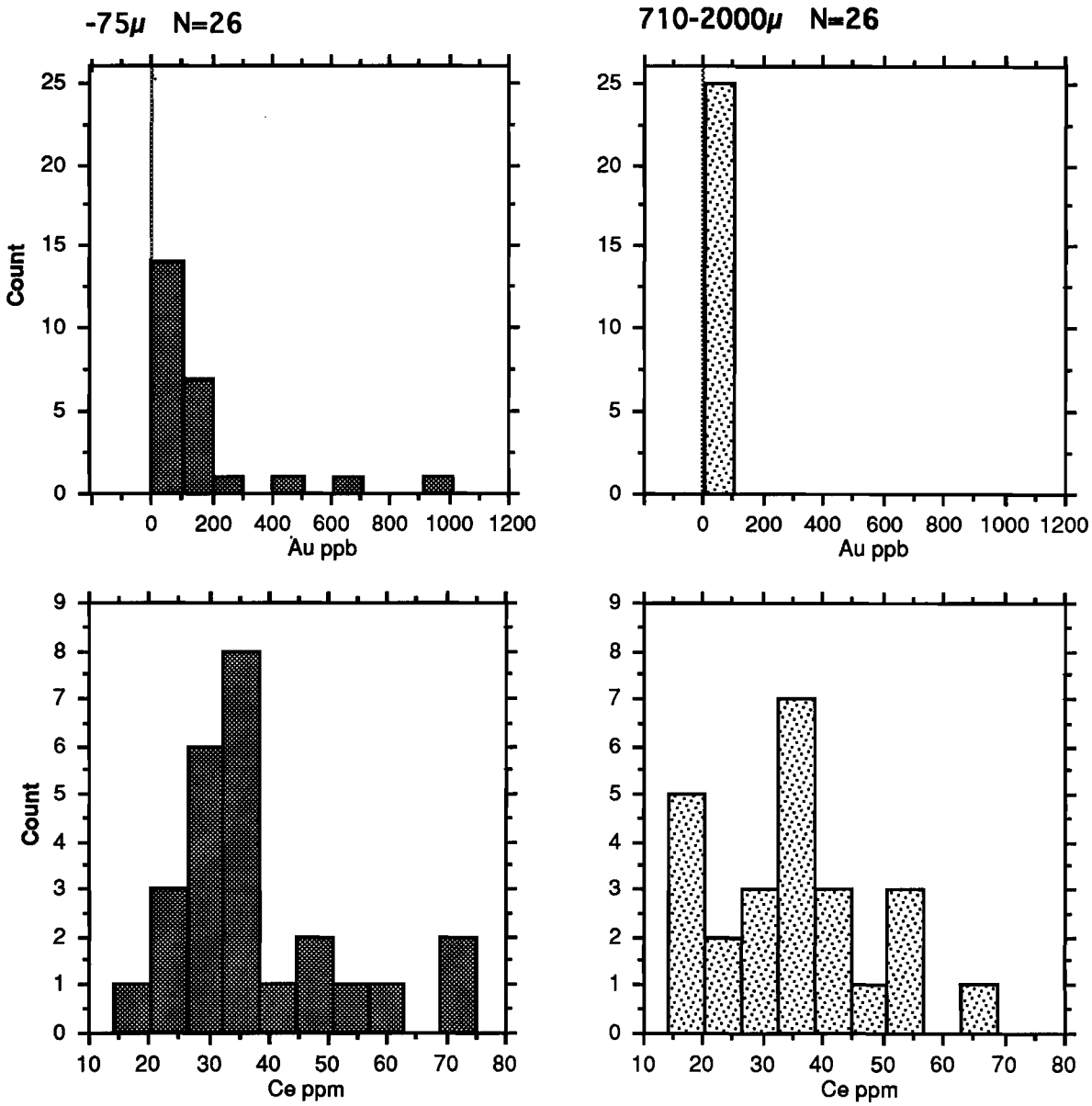
Matt Dam soils



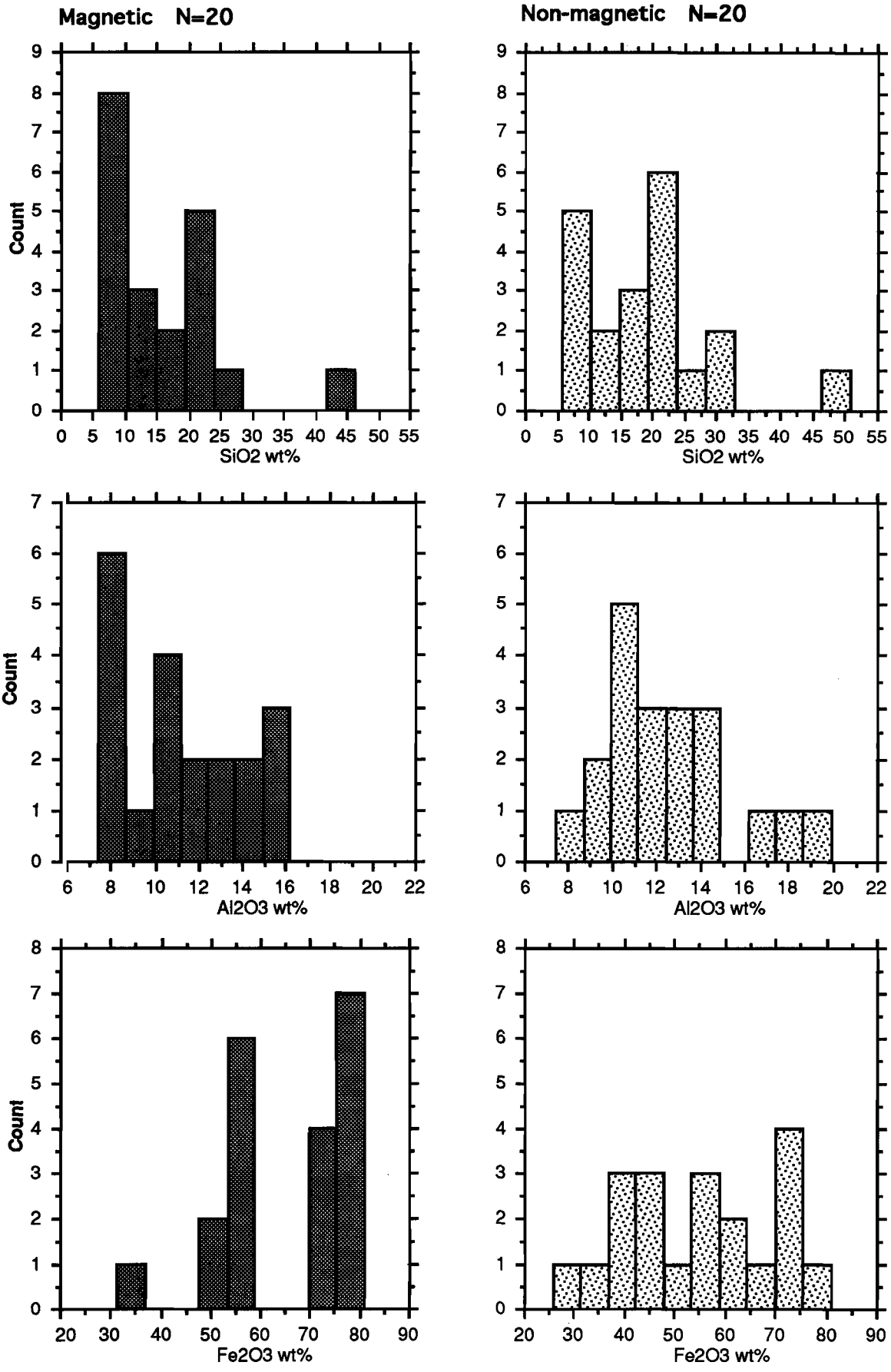
Matt Dam soils



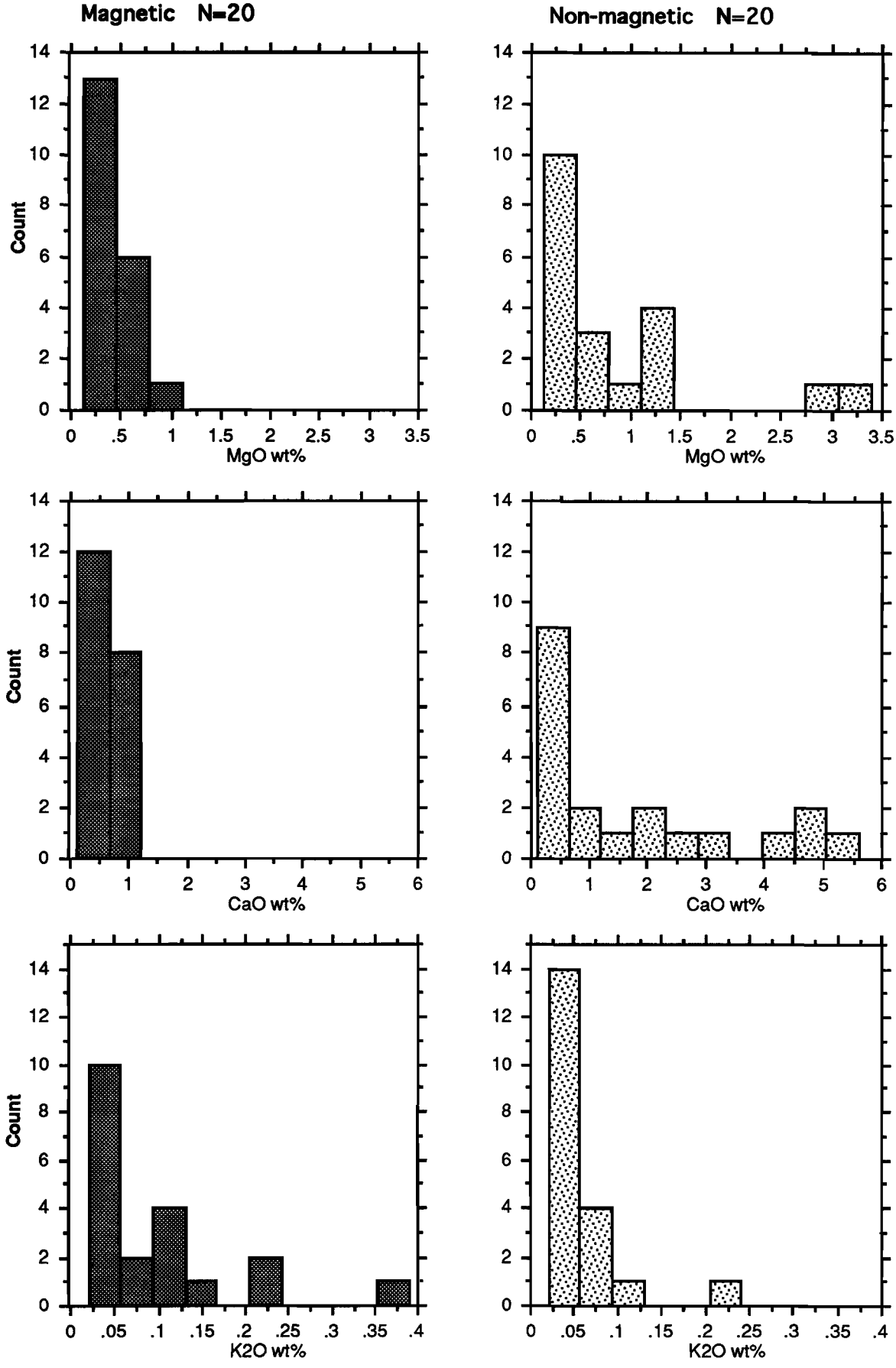
Matt Dam soils



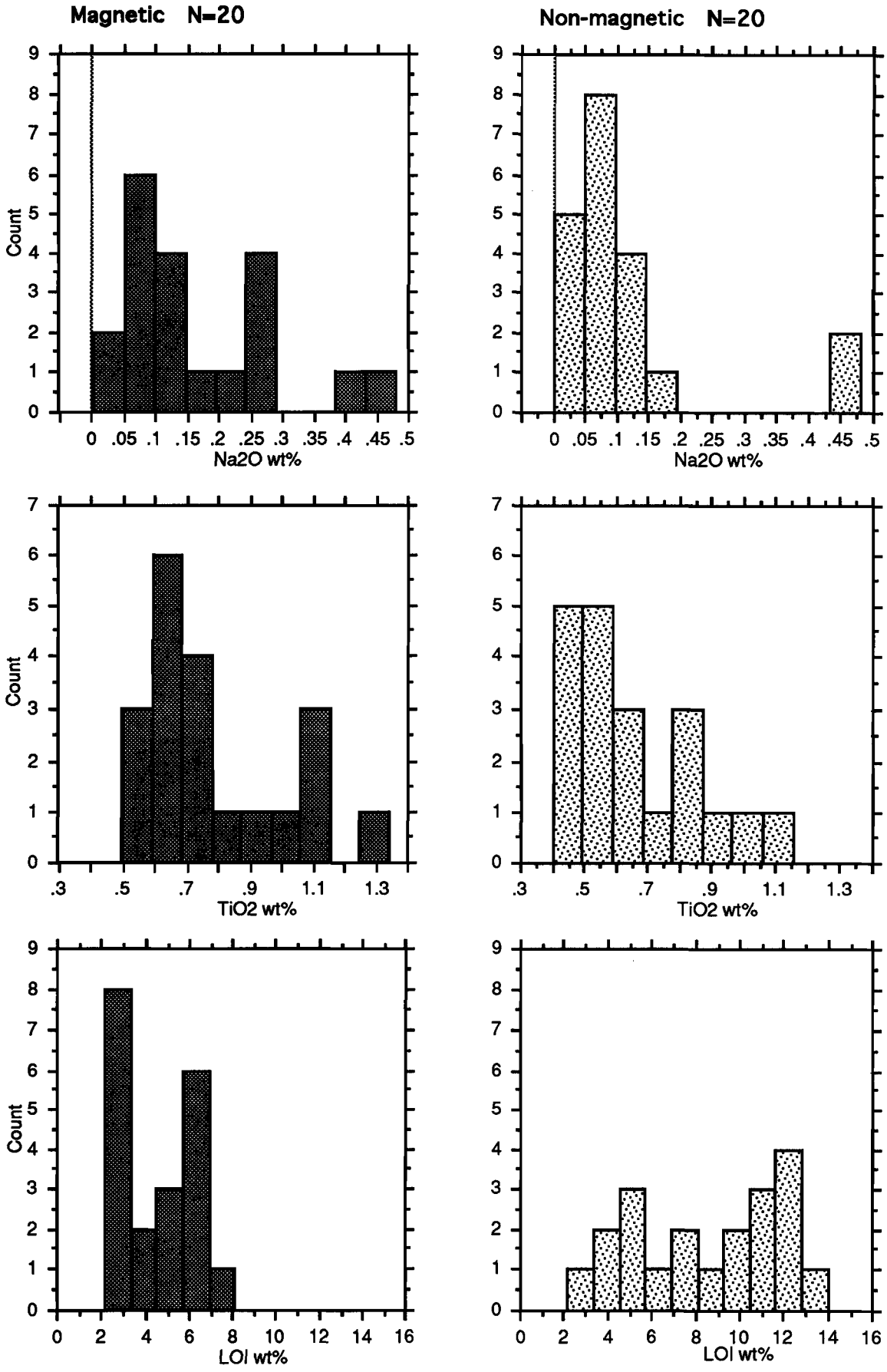
Matt Dam lags



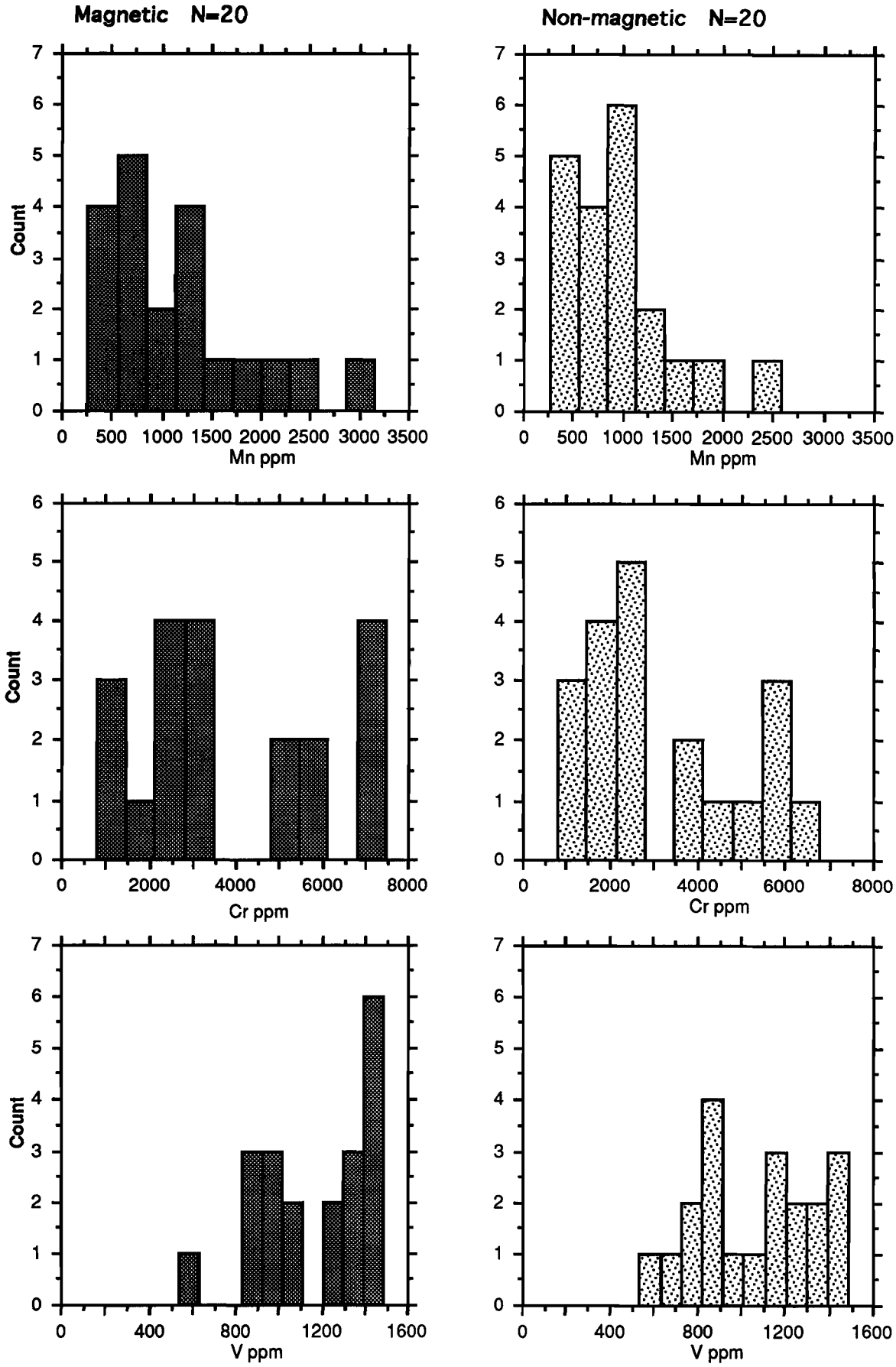
Matt Dam lags



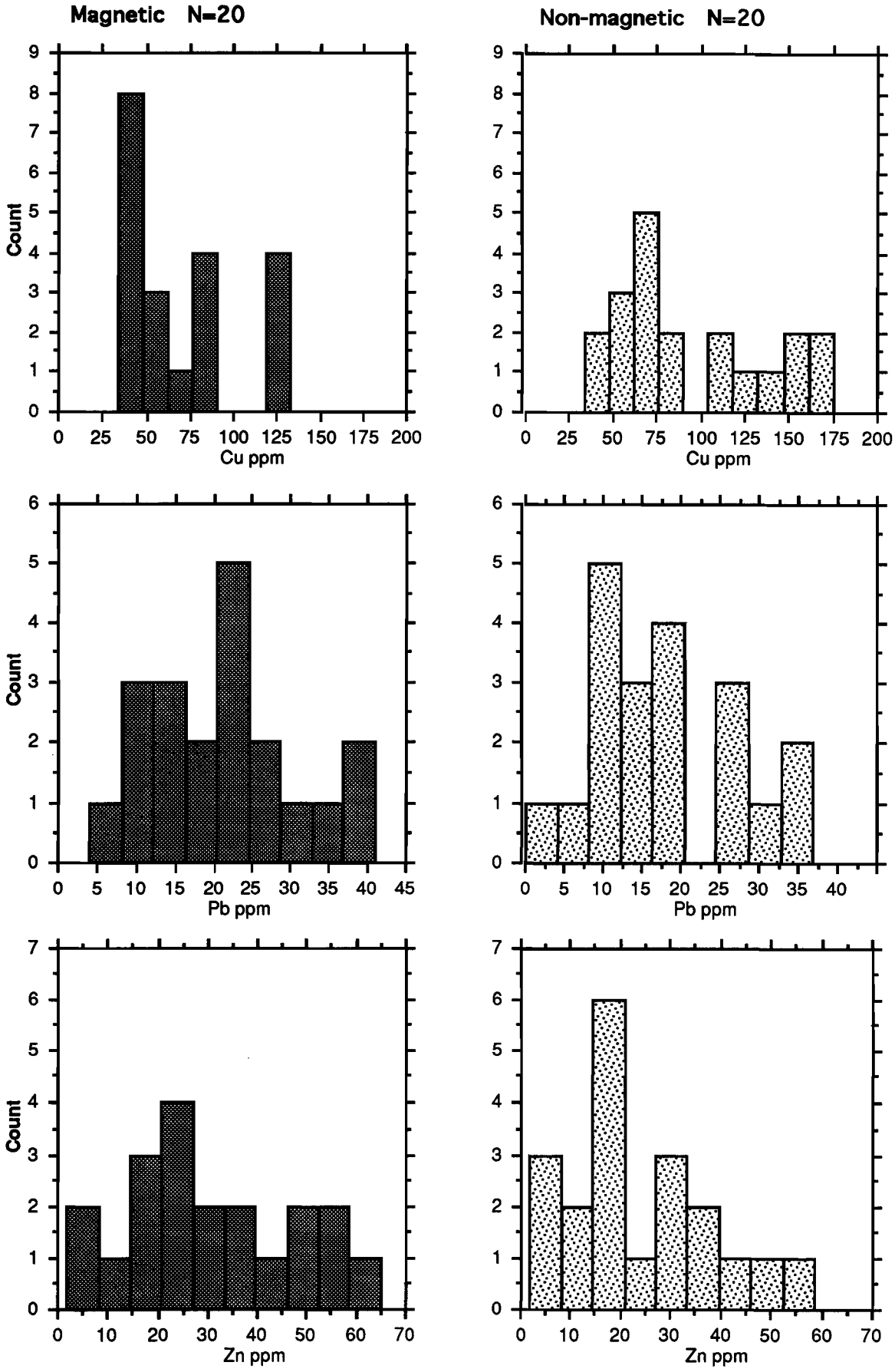
Matt Dam lags



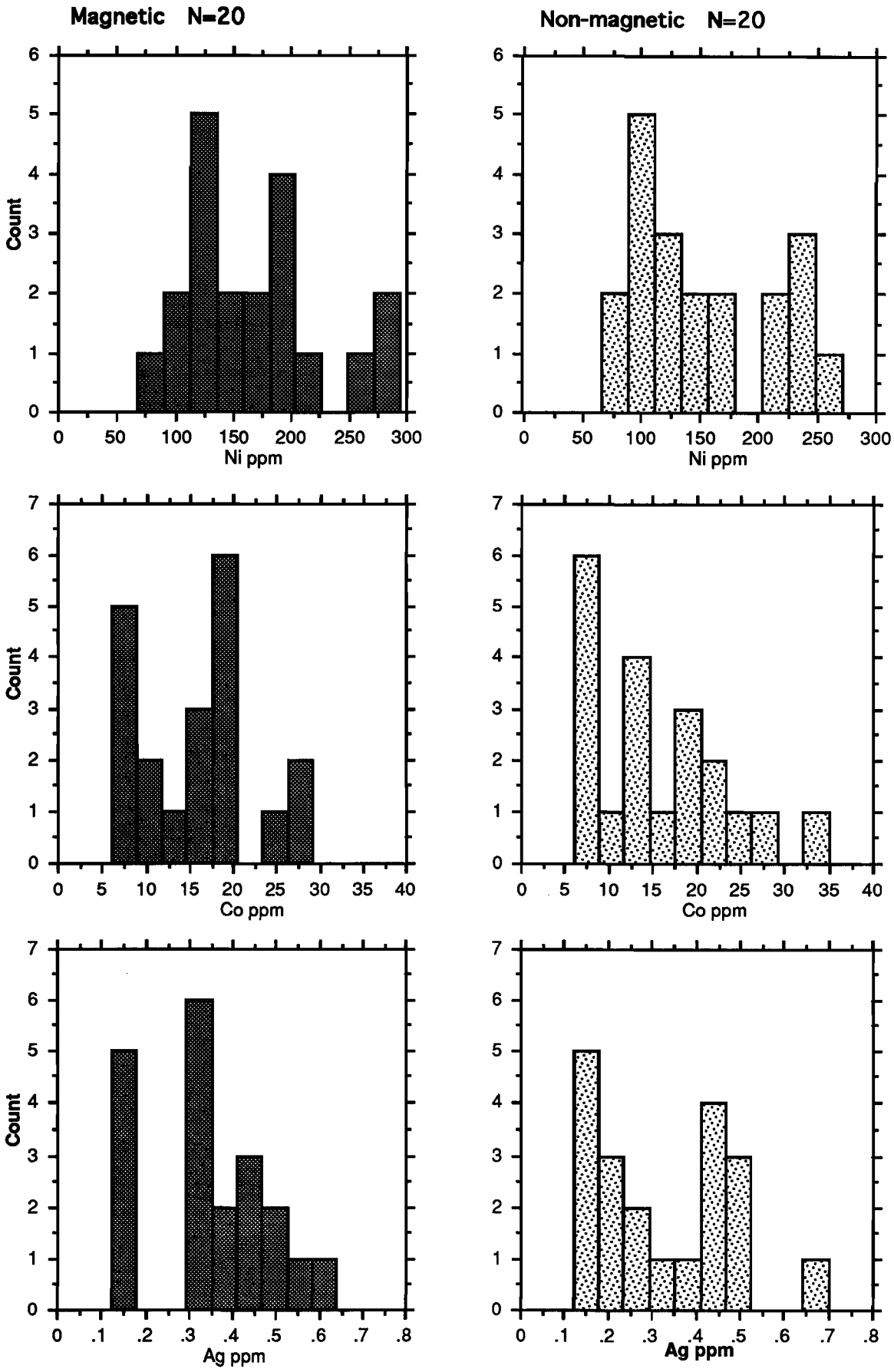
Matt Dam lags



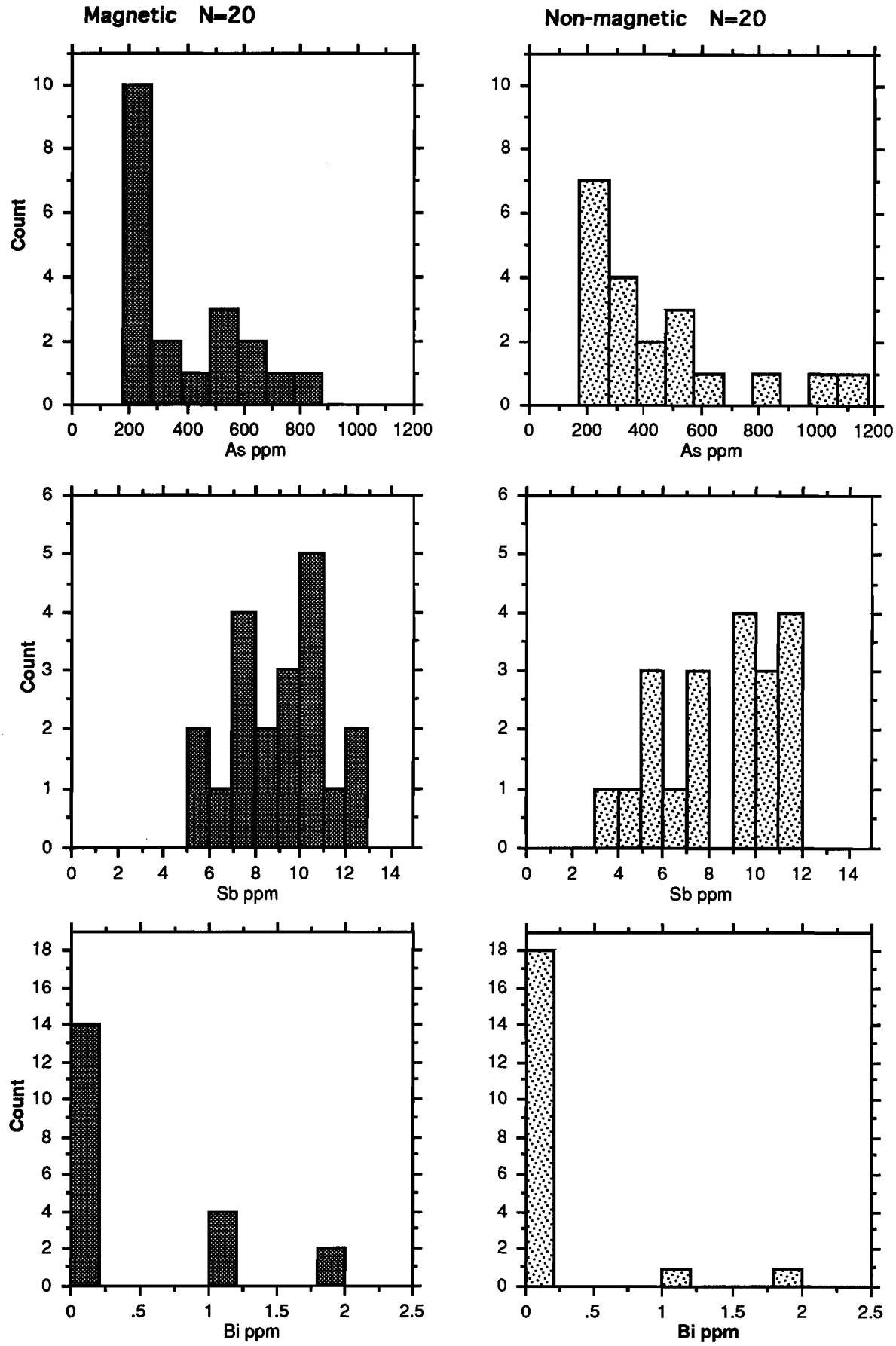
Matt Dam lags



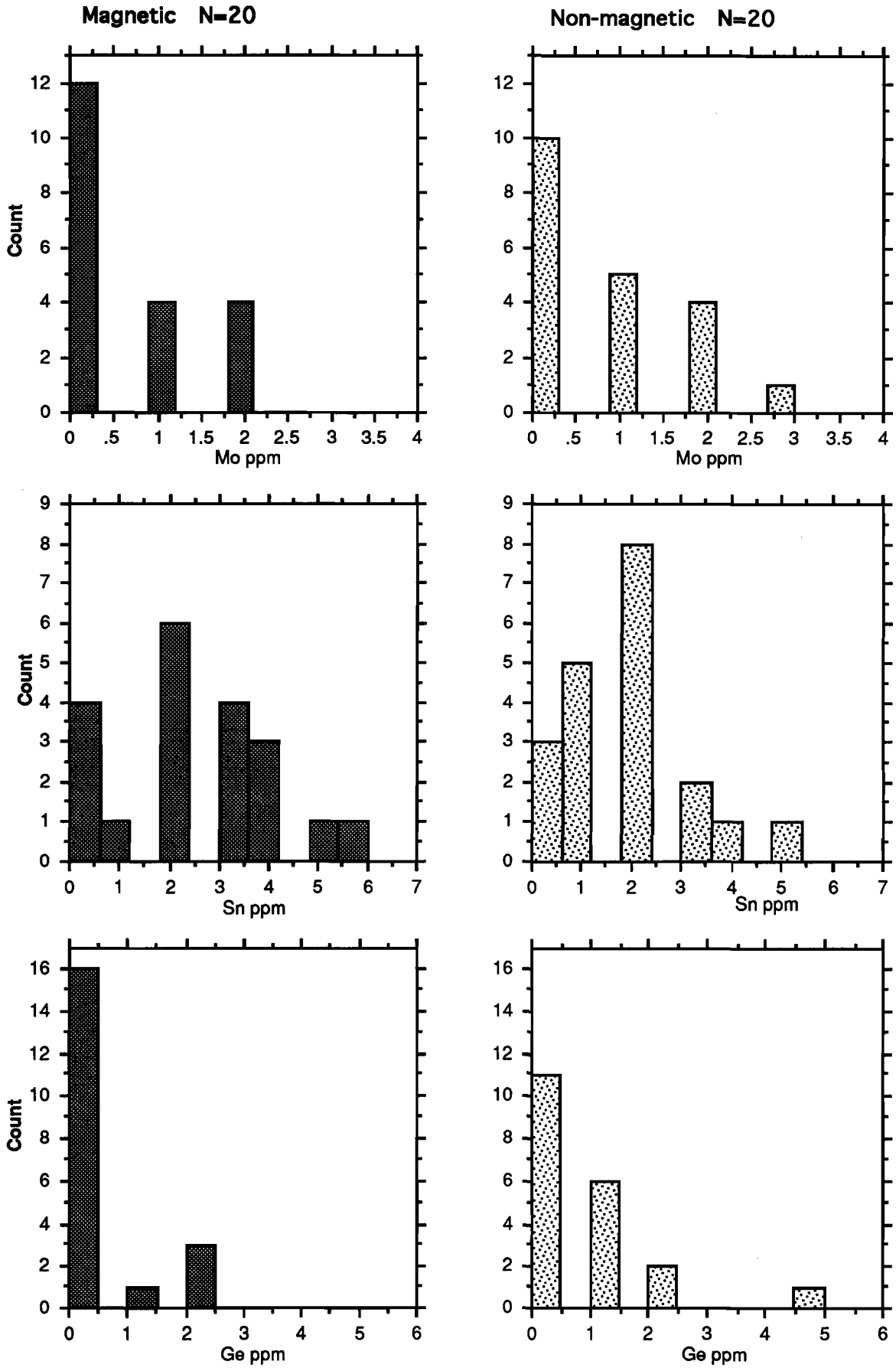
Matt Dam lags



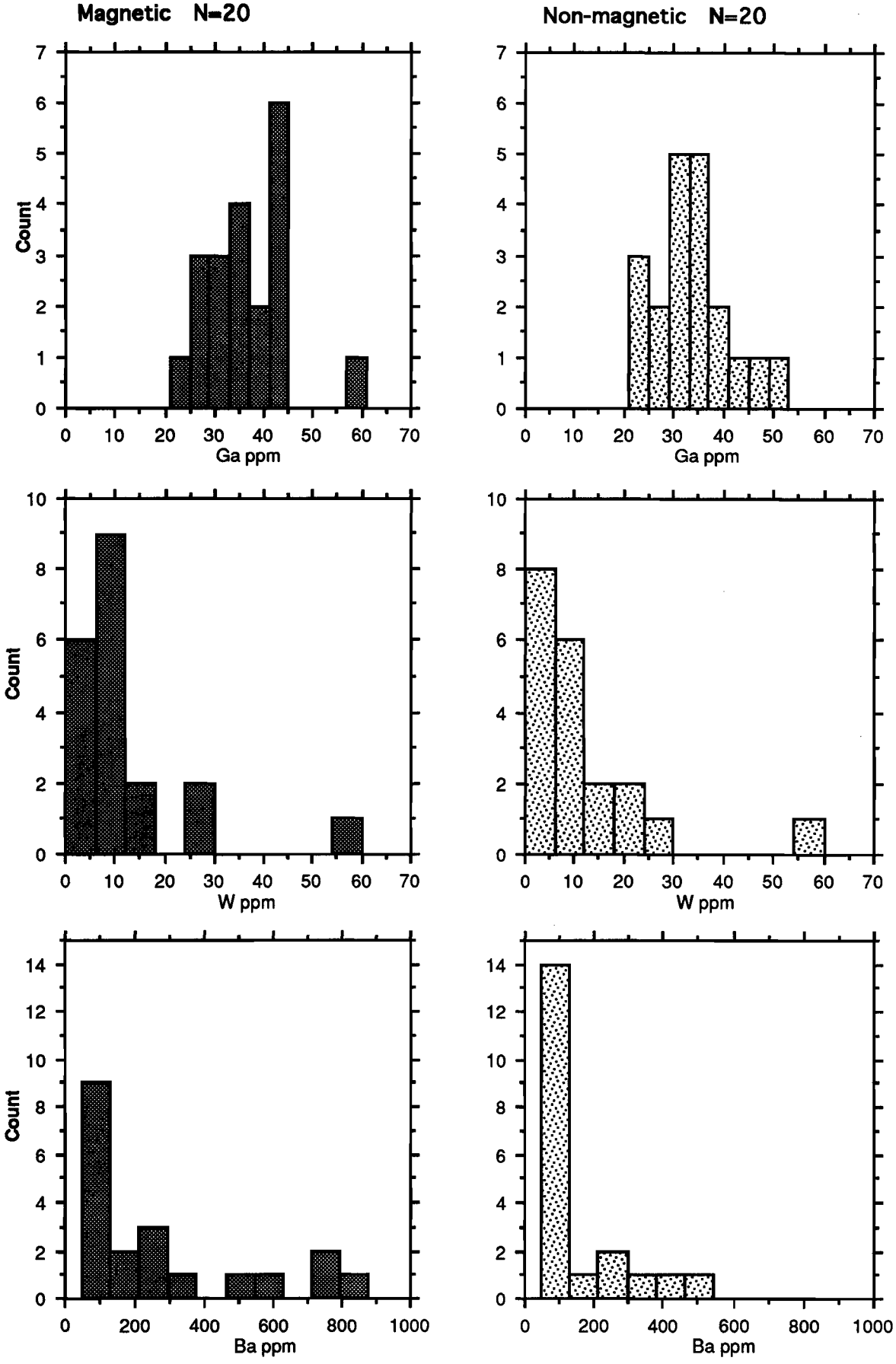
Matt Dam lags



Matt Dam lags



Matt Dam lags



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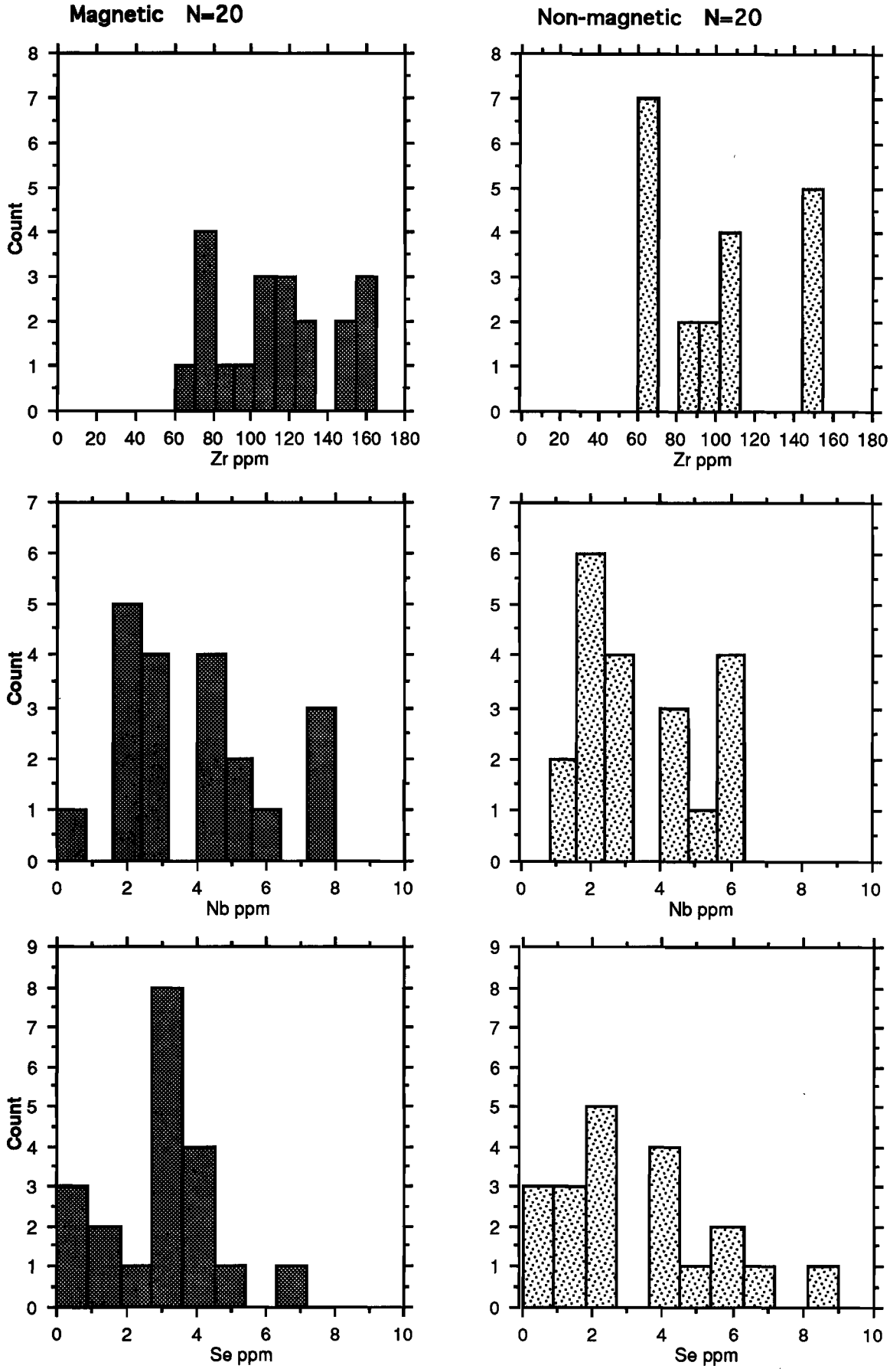
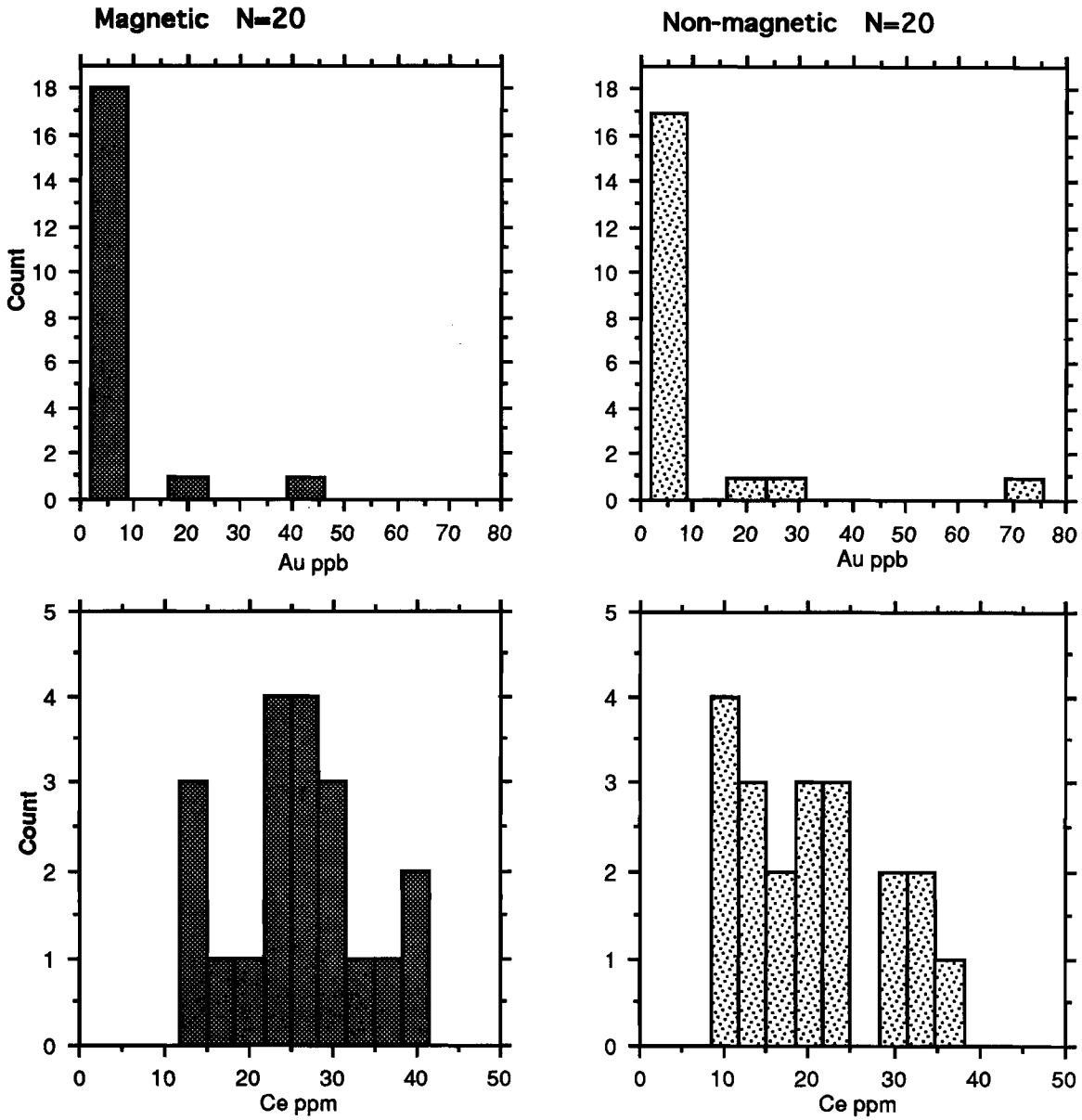
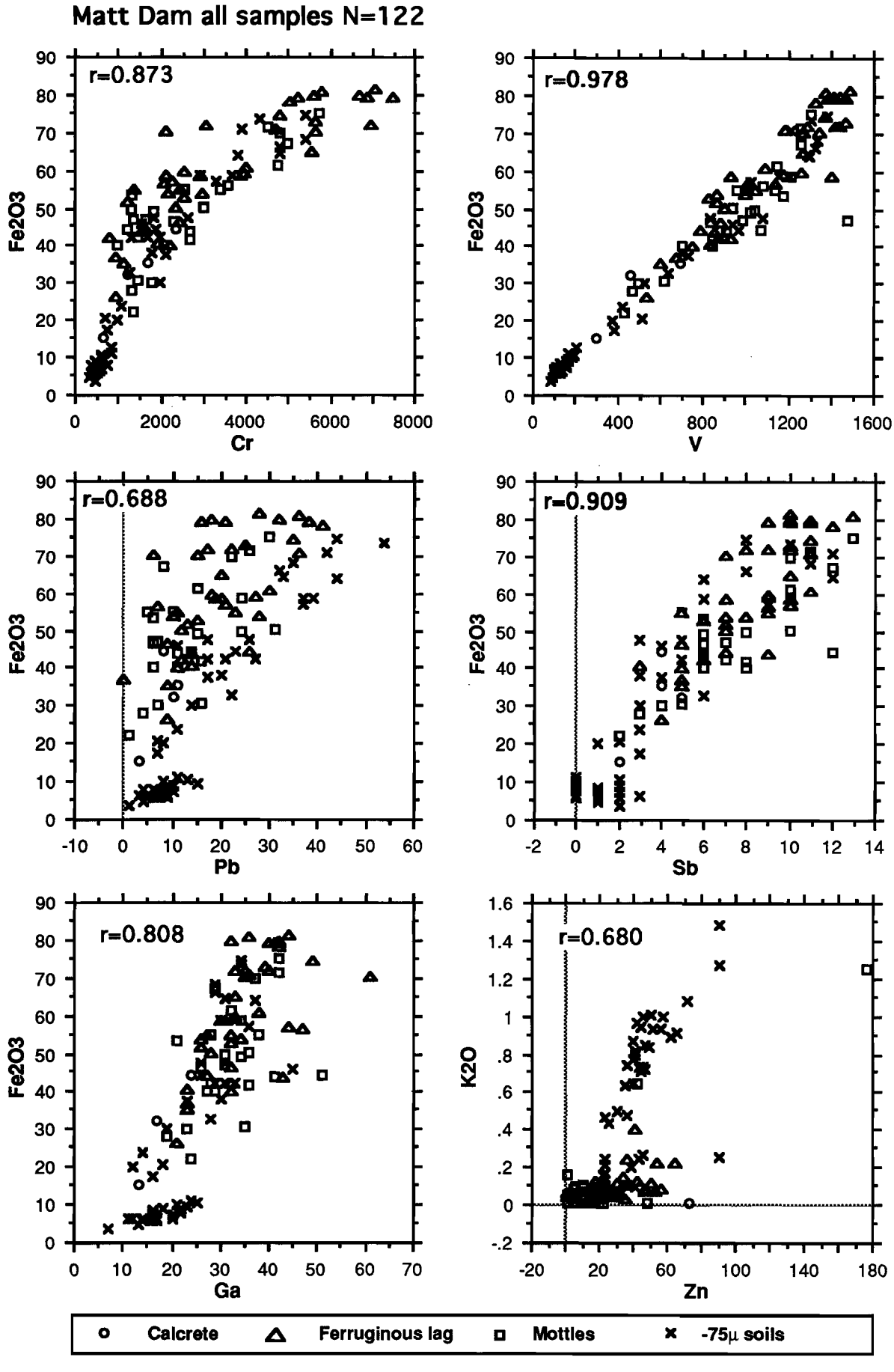


Matt Dam lags

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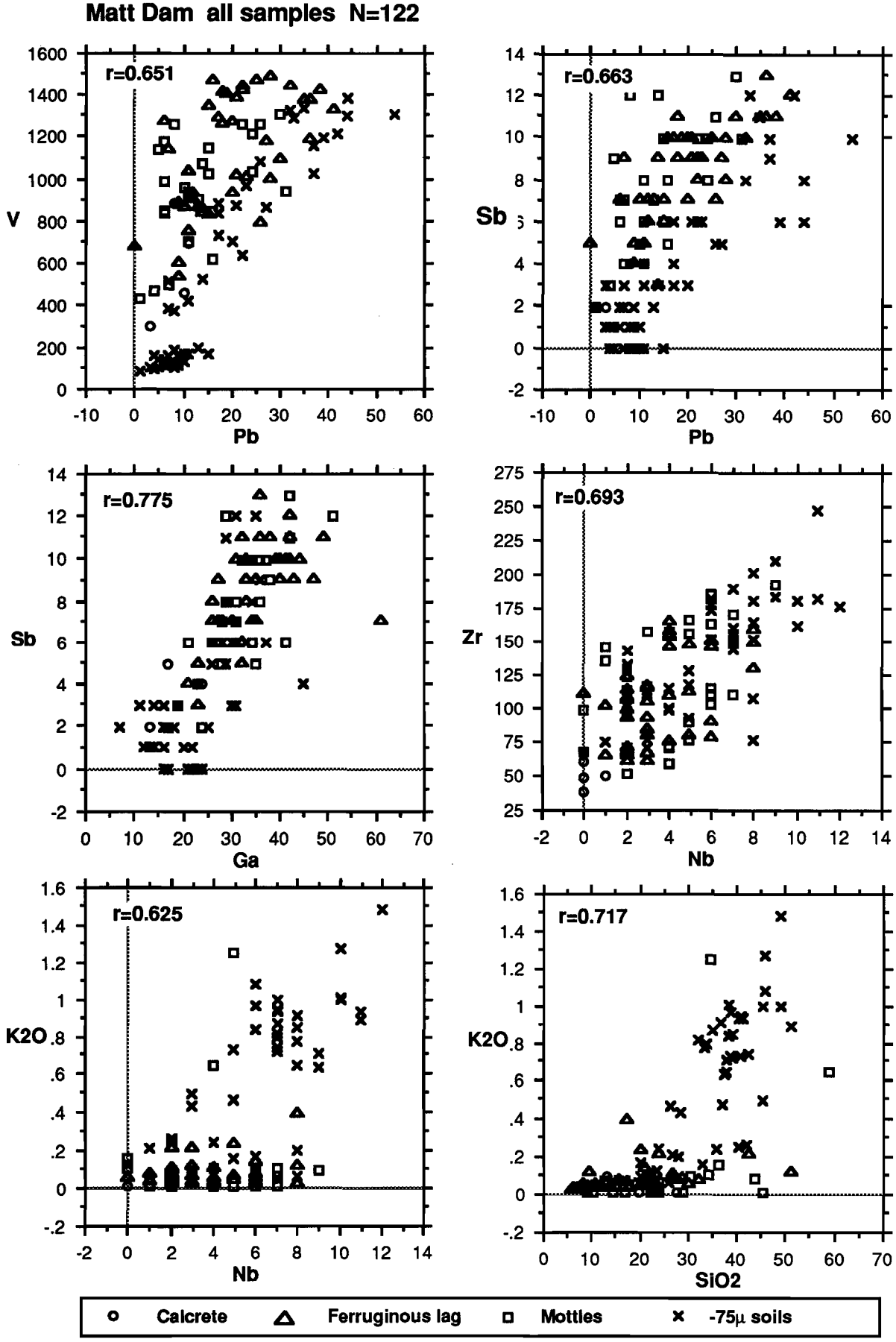
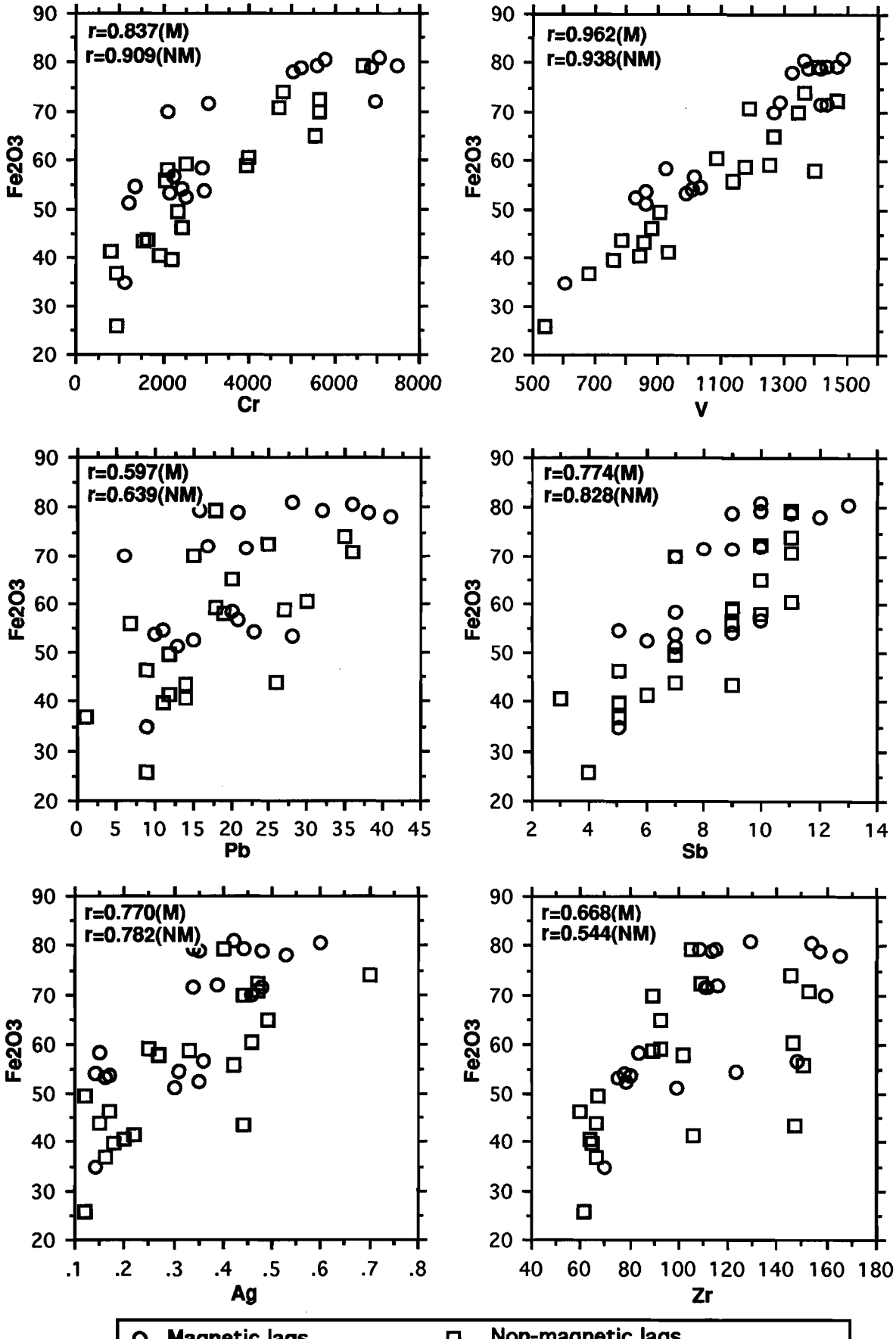
r=0.873
Fe2O3
Cr
r=0.978
V
r=0.688
Pb
r=0.909
Sb
r=0.808
Ga
r=0.680
K2O
Zn
Calcrete
Ferruginous lag
Mottles
-75µ soils


Matt Dam all samples N=122
r=0.651
V
Pb
r=0.663
Sb
Pb
r=0.775
Sb
Ga
r=0.693
Zr
Nb
r=0.625
K2O
Nb
r=0.717
K2O
SiO2
Calcrete
Ferruginous lag
Mottles
-75μ soils

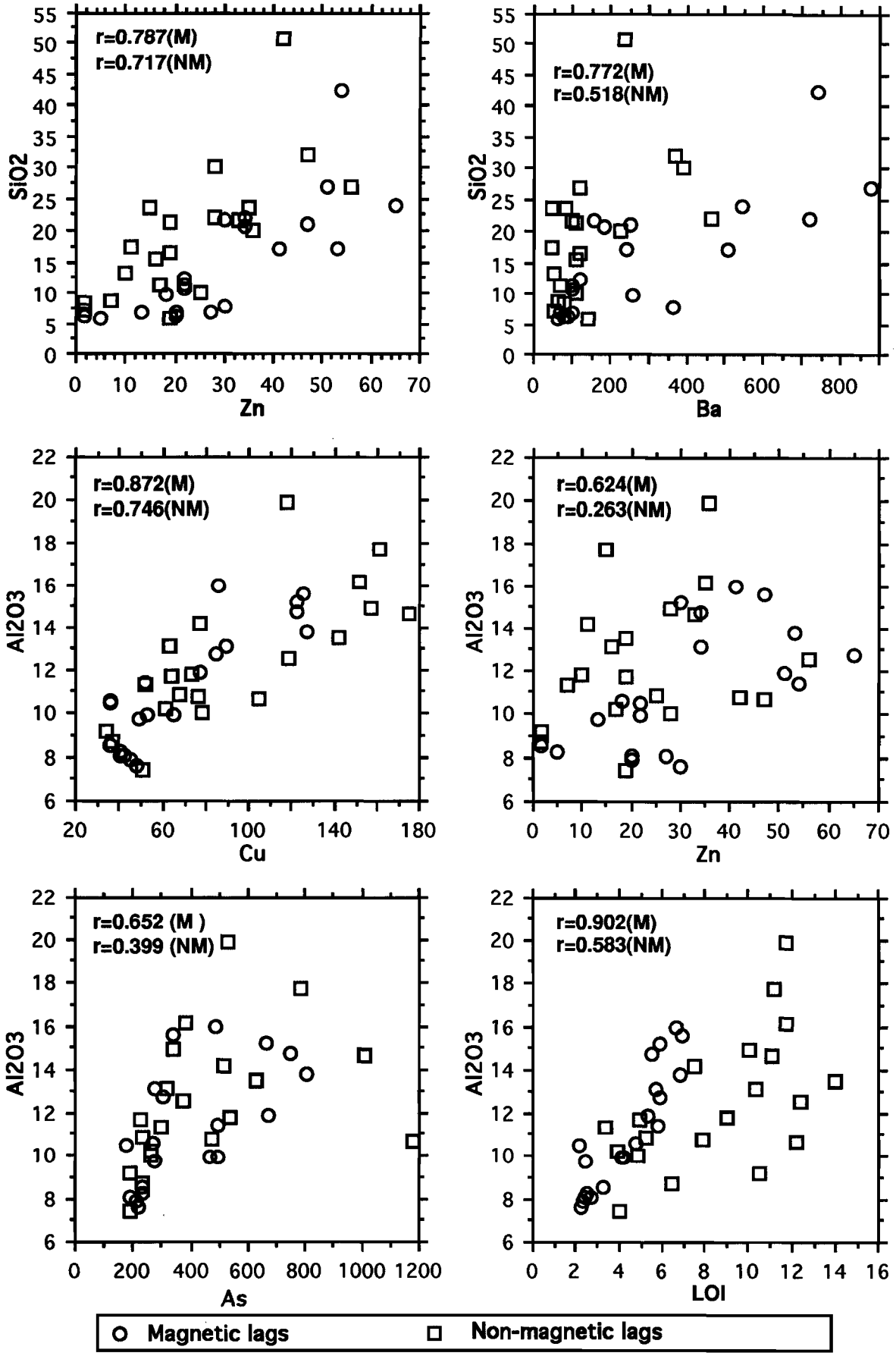
Matt Dam lags

N=20



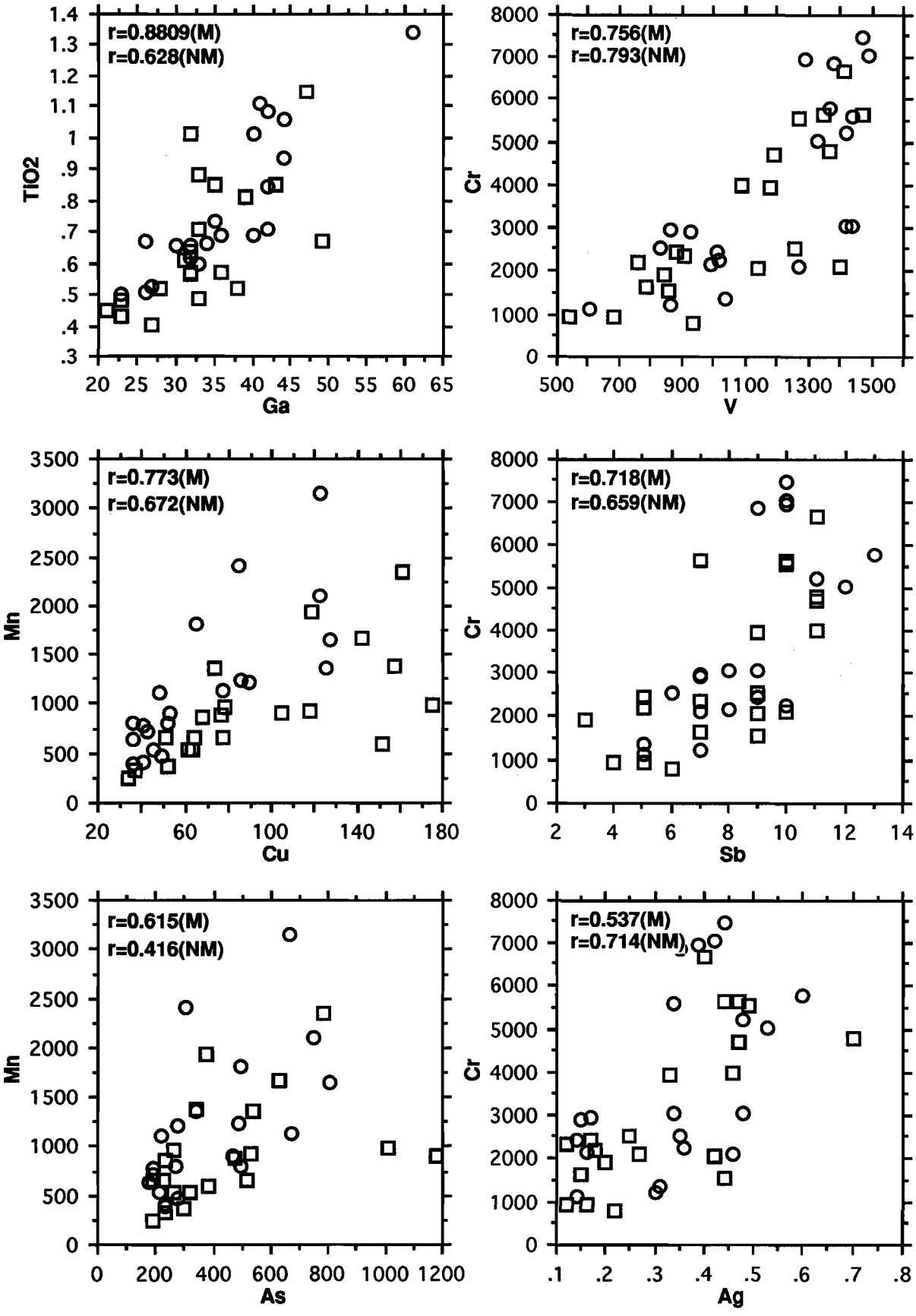
Matt Dam lags

N=20



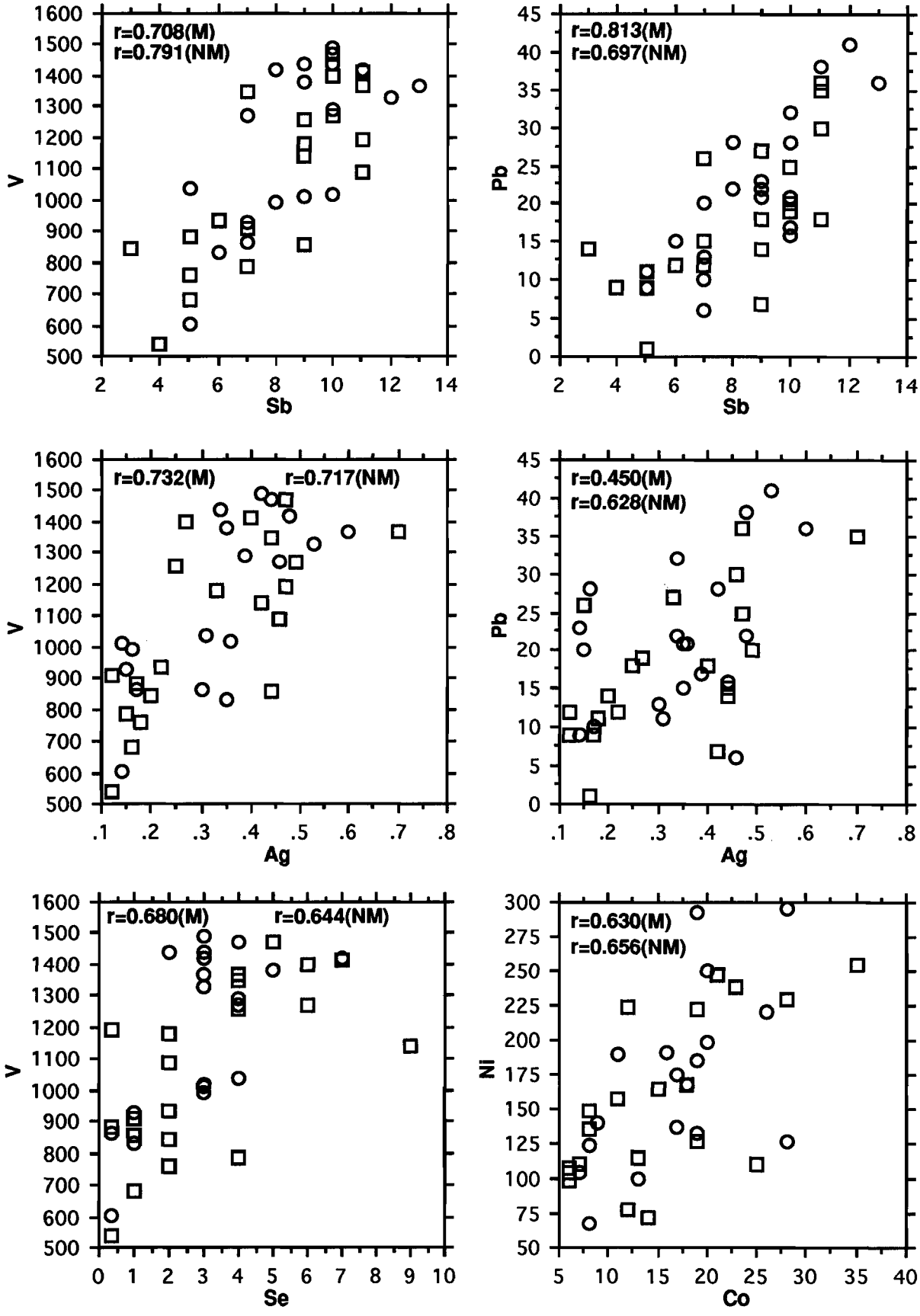
Matt Dam lags

N=20



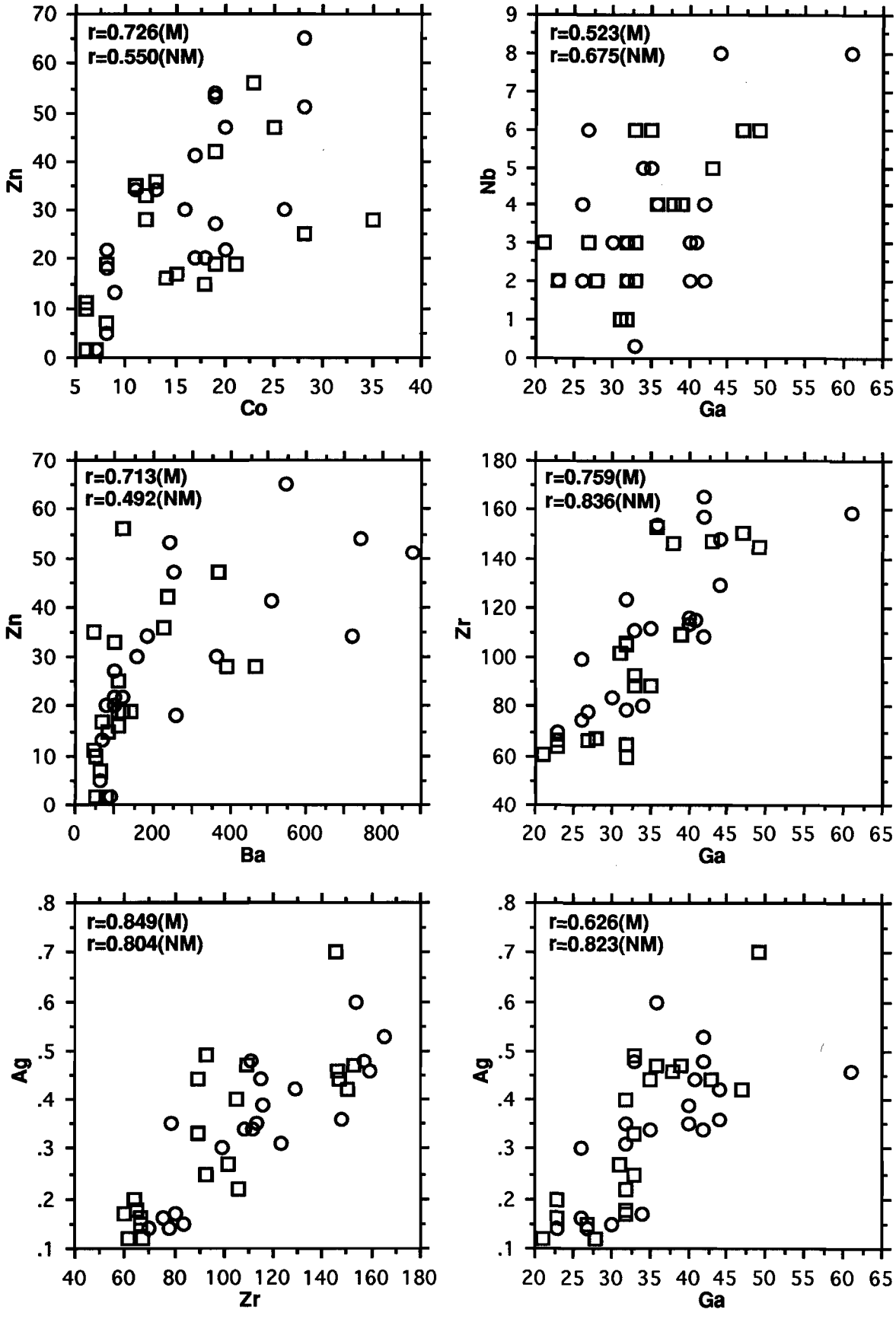
Matt Dam lags

N=20



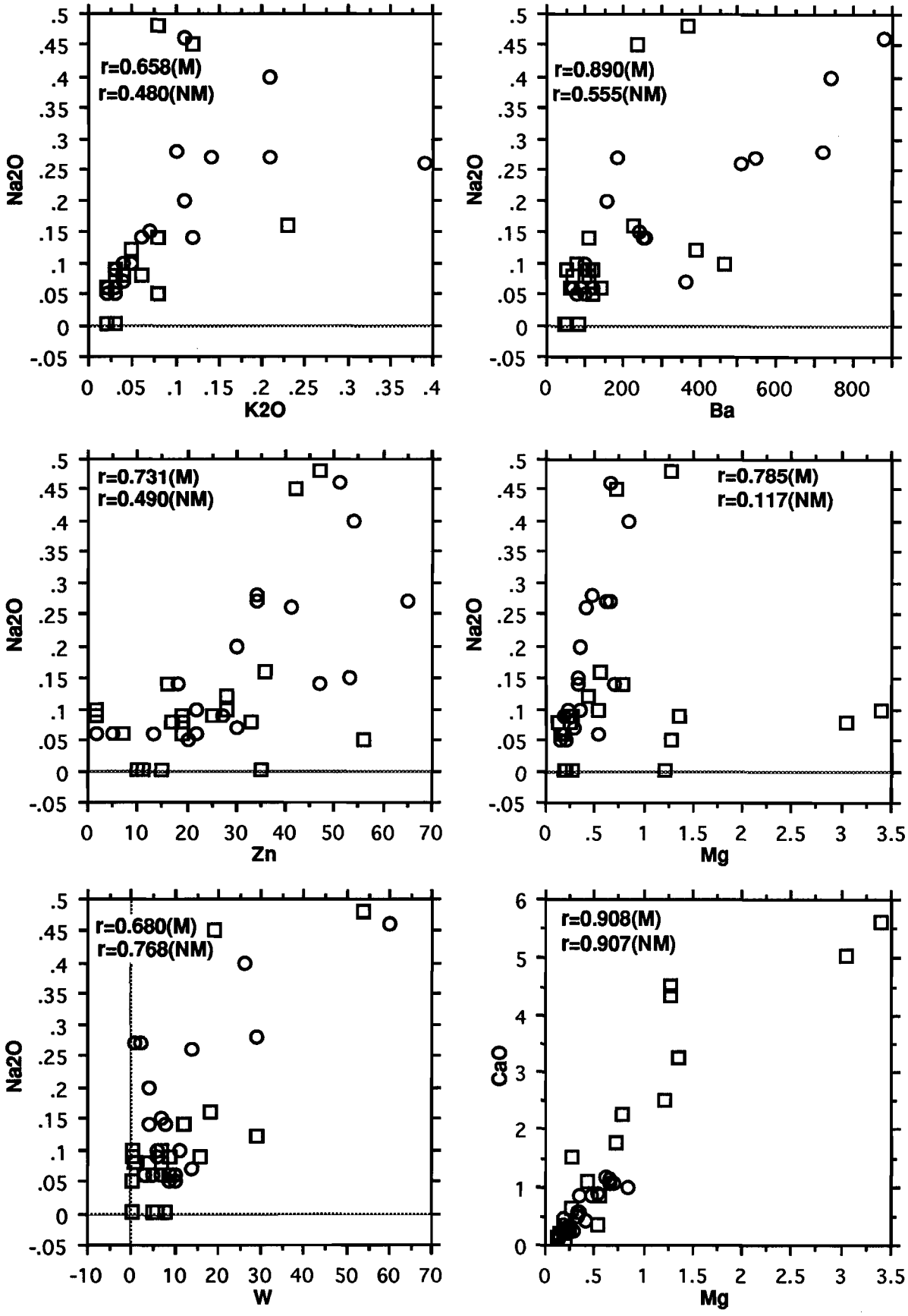
Matt Dam lags

N=20

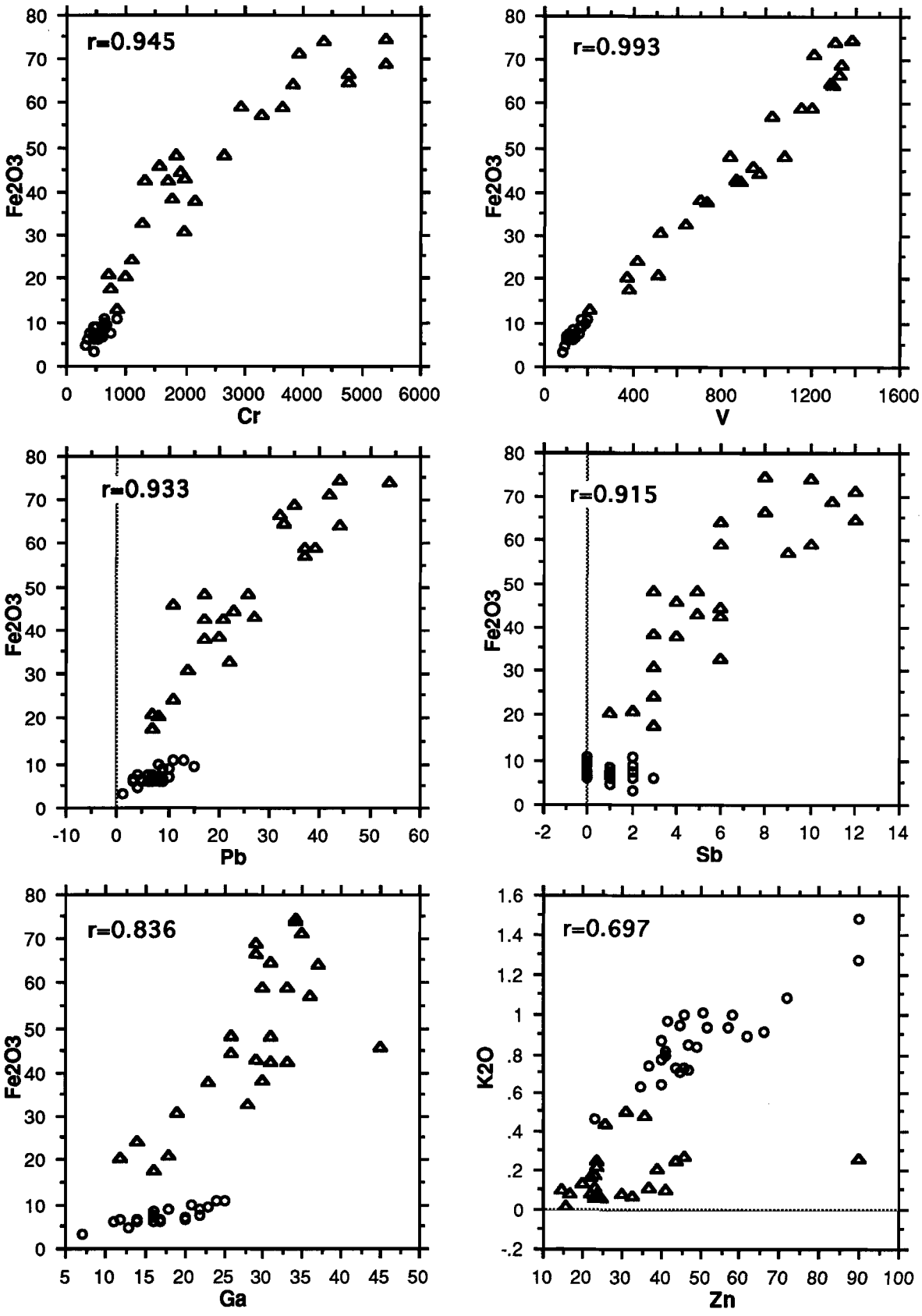


Matt Dam lags

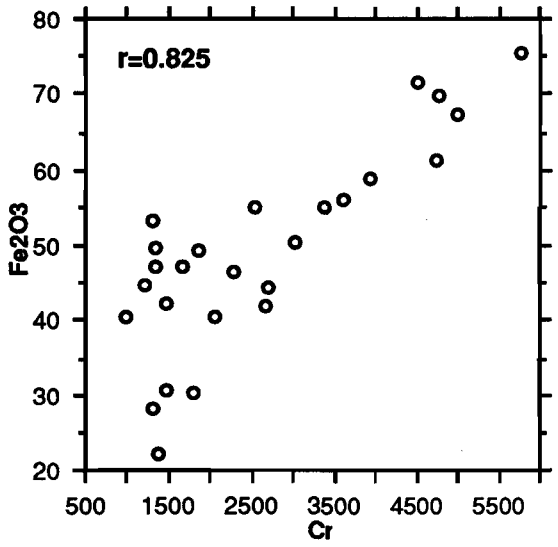
N=20

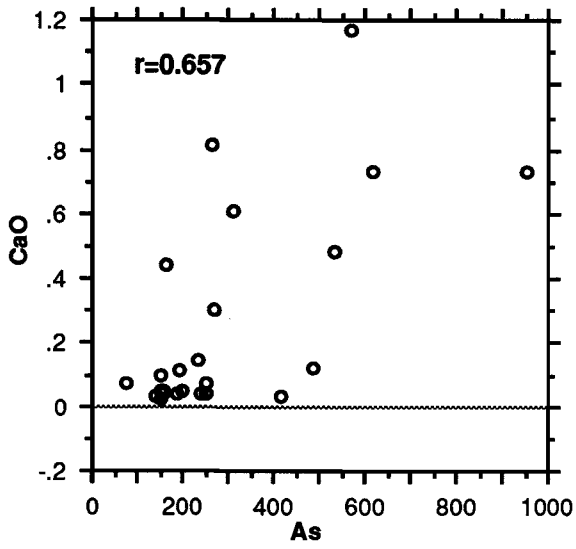


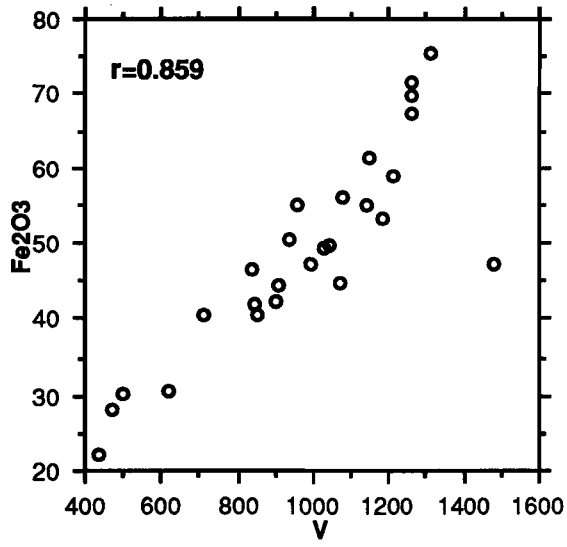
Matt Dam Soils N=52

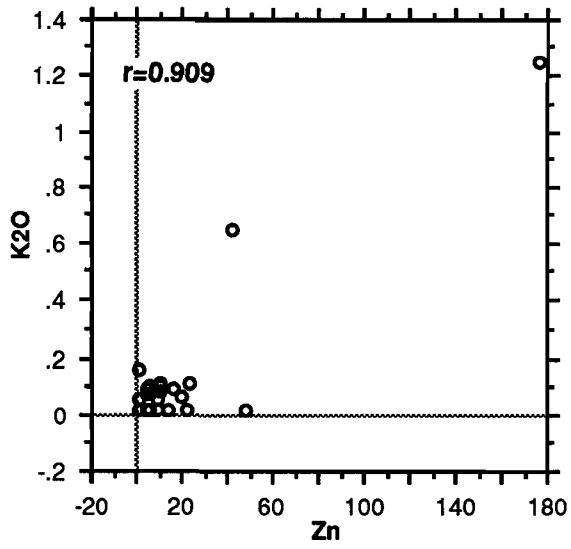


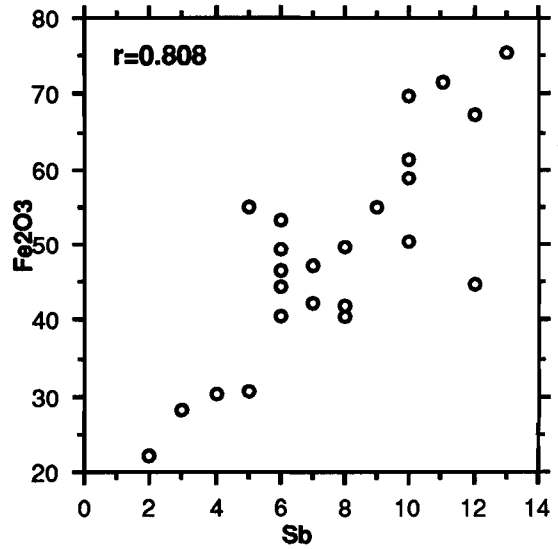
Matt Dam mottles N=25

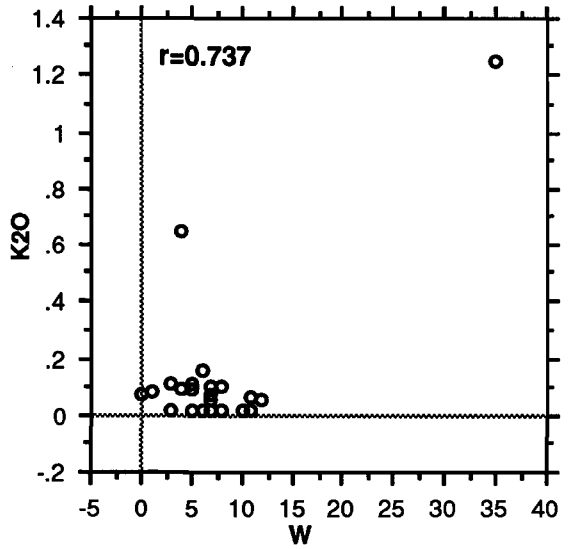




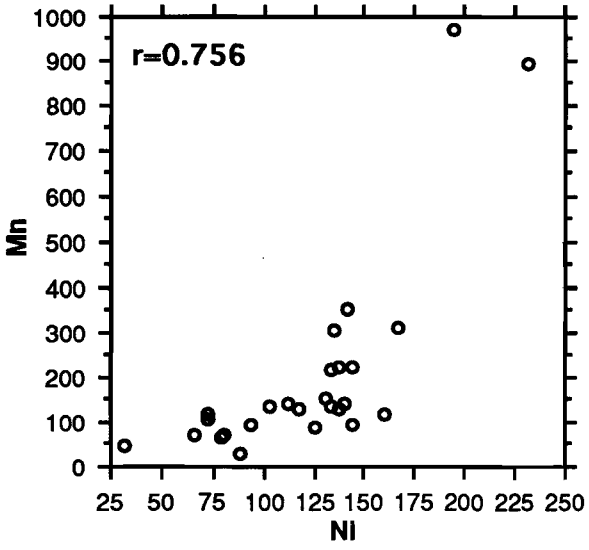


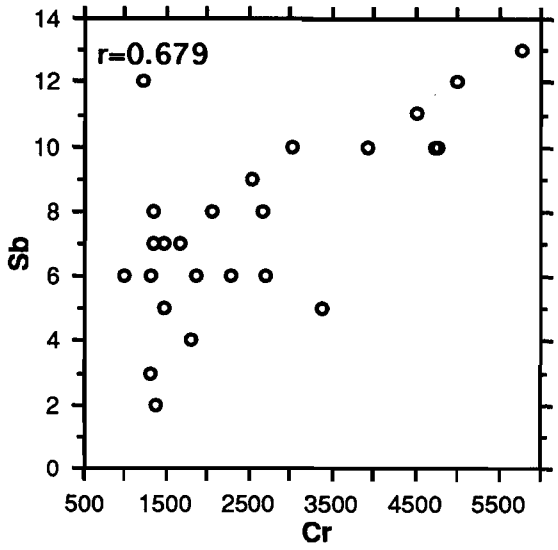


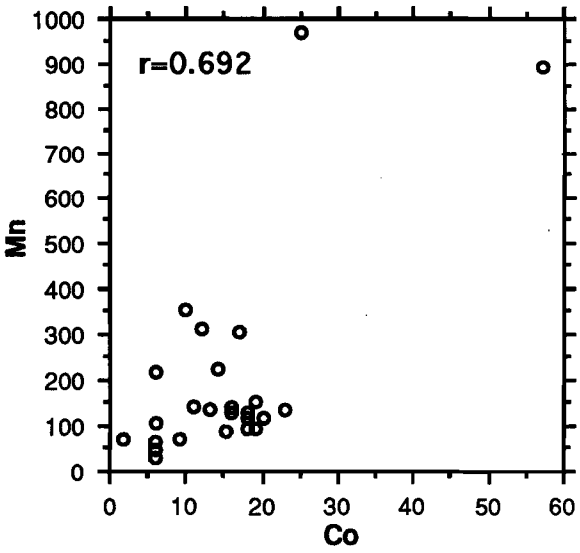


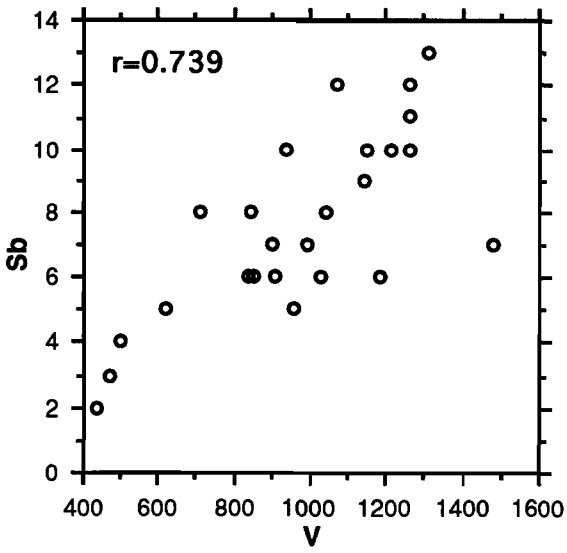


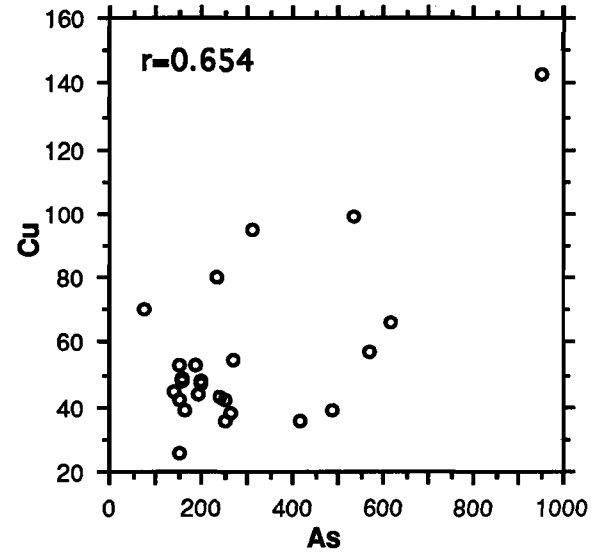
Matt Dam mottles N=25

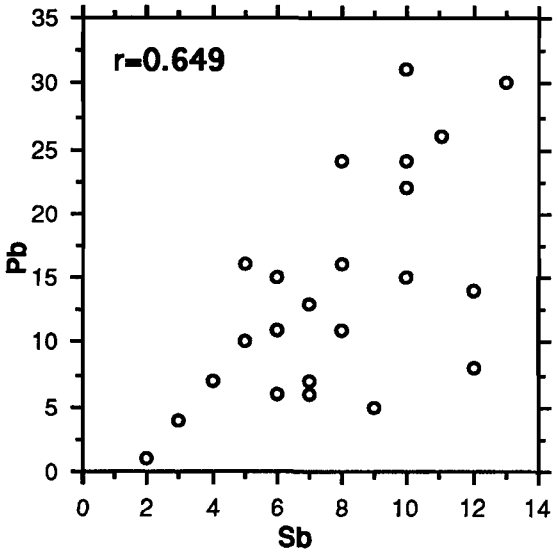












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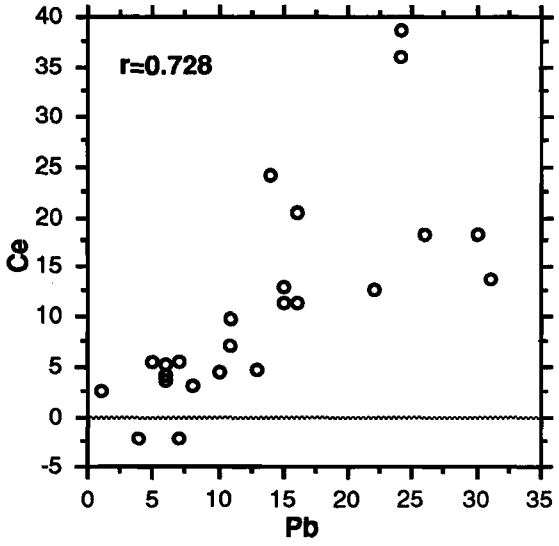
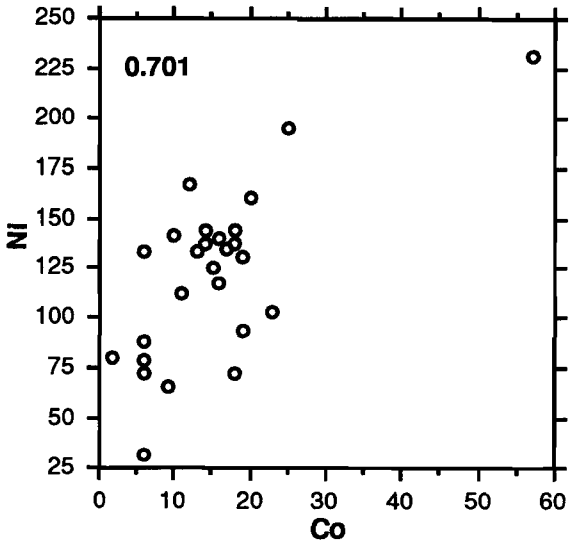
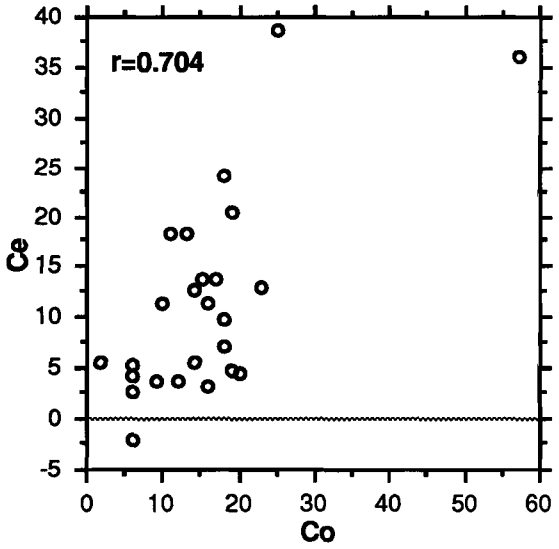
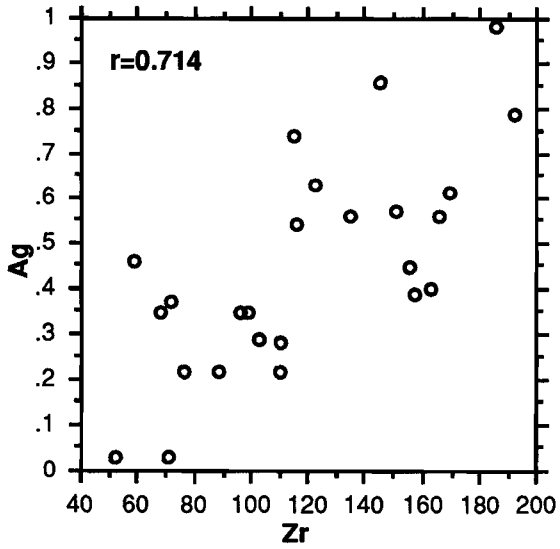
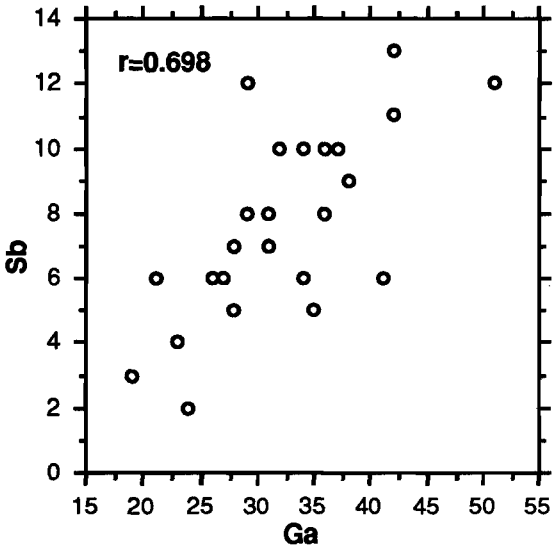
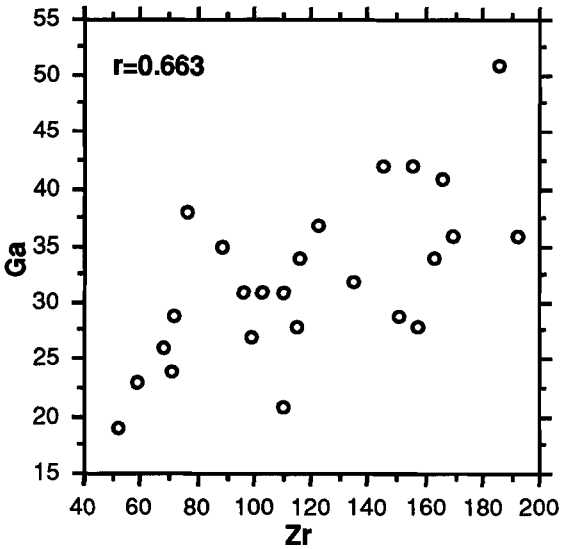












CSIRO/AMIRA REPORT 442R

APPENDIX X

Kanowna Belle Data

APPENDIX X Kanowna Belle Data

sampno	refno	samptype	Depth m.	Easting	Northing	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	LOI	TOTAL
						%	%	%	%	%	%	%	%	%	%
07-1669	338401G	granules	0-1m	8550E	2600N	14.2	7.44	73.10	0.260	0.260	0.090	0.370	0.780	2.8	99.3
07-1709	338411G	granules	0-1m	8550E	2650N	13.9	7.55	72.90	0.270	0.370	0.100	0.460	0.799	2.8	99.1
07-1719	338421G	granules	0-1m	8550E	2700N	16.5	7.69	70.50	0.240	0.230	0.120	0.400	0.783	2.8	99.3
07-1729	338431G	granules	0-1m	8550E	2750N	14.9	7.65	72.10	0.240	0.230	0.110	0.370	0.801	2.8	99.2
07-1739	338441G	granules	0-1m	8550E	2800N	14.3	7.88	72.90	0.220	0.180	0.140	0.370	0.702	2.9	99.6
07-1747	338449G	granules	0-1m	8550E	2850N	15.9	7.92	71.10	0.240	0.220	0.110	0.360	0.771	2.9	99.6
07-1757	338459G	granules	0-1m	8550E	2900N	14.2	7.82	72.60	0.270	0.280	0.100	0.400	0.749	2.9	99.3
07-1767	338469G	granules	0-1m	8550E	2950N	15.0	8.07	71.90	0.280	0.330	0.110	0.450	0.779	2.8	99.7
07-1778	338480G	granules	0-1m	8550E	3000N	16.4	8.74	69.10	0.270	0.350	0.100	0.460	0.745	3.2	99.4
07-1790	338492G	granules	0-1m	8810E	3250N	18.6	7.31	69.50	0.200	0.160	0.070	0.290	0.716	2.7	99.6
07-1800	333702G	granules	0-1m	8810E	3200N	14.6	6.29	74.40	0.230	0.210	0.100	0.270	0.800	2.8	99.7
07-1808	333710G	granules	0-1m	8810E	3150N	15.3	6.69	72.30	0.260	0.270	0.090	0.380	0.740	2.7	98.7
07-1818	333720G	granules	0-1m	8810E	3100N	16.7	7.19	70.10	0.240	0.280	0.100	0.380	0.723	2.9	98.6
07-1828	333730G	granules	0-1m	8810E	3050N	14.8	6.68	72.60	0.250	0.260	0.090	0.350	0.743	2.9	98.6
07-1833	333735G	granules	0-1m	8810E	3000N	15.2	6.87	73.00	0.210	0.190	0.090	0.330	0.736	3.1	99.7
07-1841	333743G	granules	0-1m	8810E	2950N	15.2	6.70	73.00	0.260	0.390	0.090	0.360	0.698	2.7	99.4
07-1849	333751G	granules	0-1m	8810E	2900N	13.1	7.11	75.00	0.230	0.210	0.090	0.320	0.747	2.8	99.6
07-1857	333759G	granules	0-1m	8810E	2850N	15.2	7.30	72.50	0.260	0.290	0.090	0.380	0.770	2.8	99.6
07-1867	333769G	granules	0-1m	8810E	2800N	14.3	7.26	73.50	0.240	0.240	0.090	0.340	0.763	3.0	99.7
07-1699	338401S	soils	0-1m	8550E	2600N	52.5	11.60	10.30	1.500	6.540	0.550	1.050	0.666	13.5	98.2
07-1709	338411S	soils	0-1m	8550E	2650N	48.6	10.80	12.10	1.200	7.250	0.550	0.860	0.618	14.6	96.6
07-1719	338421S	soils	0-1m	8550E	2700N	45.9	12.00	10.40	1.400	7.460	0.610	1.070	0.658	15.2	94.7
07-1729	338431S	soils	0-1m	8550E	2750N	47.4	14.30	10.60	1.410	4.620	0.660	1.050	0.715	14.4	95.2
07-1739	338441S	soils	0-1m	8550E	2800N	49.1	11.70	12.00	1.270	5.310	0.960	0.880	0.635	13.9	95.8
07-1747	338449S	soils	0-1m	8550E	2850N	49.8	12.50	9.86	1.310	5.490	0.690	0.950	0.608	14.5	95.7
07-1757	338459S	soils	0-1m	8550E	2900N	53.6	10.30	10.40	1.450	7.520	0.520	0.940	0.627	13.7	99.0
07-1767	338469S	soils	0-1m	8550E	2950N	53.1	10.60	10.30	1.450	7.650	0.540	0.950	0.616	13.8	99.0
07-1778	338480S	soils	0-1m	8550E	3000N	51.0	10.60	11.80	1.460	7.870	0.450	1.000	0.636	13.8	98.6
07-1790	338492S	soils	0-1m	8810E	3250N	51.2	9.24	15.90	1.140	8.010	0.210	0.650	0.514	12.6	99.5
07-1800	333702S	soils	0-1m	8810E	3200N	55.7	9.42	17.40	1.110	4.620	0.440	0.640	0.520	9.7	99.5
07-1808	333710S	soils	0-1m	8810E	3150N	51.3	9.98	11.20	1.580	9.460	0.370	0.880	0.541	14.5	99.8
07-1818	333720S	soils	0-1m	8810E	3100N	51.5	9.58	12.60	1.410	8.920	0.380	0.850	0.534	13.6	99.3
07-1828	333730S	soils	0-1m	8810E	3050N	51.1	9.42	13.30	1.340	9.170	0.310	0.680	0.531	14.0	99.8
07-1833	333735S	soils	0-1m	8810E	3000N	49.8	10.60	15.50	1.220	7.280	0.400	0.750	0.525	12.5	98.6
07-1841	333743S	soils	0-1m	8810E	2950N	51.8	10.30	12.20	1.290	8.390	0.410	0.840	0.577	13.5	99.3
07-1857	333759S	soils	0-1m	8810E	2850N	49.8	9.19	11.60	1.330	10.800	0.410	0.760	0.512	15.4	99.8
07-1867	333769S	soils	0-1m	8810E	2800N	53.5	10.20	13.10	1.210	6.960	0.480	0.830	0.577	11.9	98.8
07-1701	338403G	granules	2-3m	8550E	2600N	14.2	7.42	72.30	0.160	0.090	0.090	0.320	0.896	3.2	98.7
07-1711	338413G	granules	2-3m	8550E	2650N	14.5	7.01	72.70	0.140	0.080	0.090	0.290	0.767	3.4	99.0
07-1721	338423G	granules	2-3m	8550E	2700N	16.8	6.92	71.40	0.120	0.060	0.070	0.270	0.720	3.2	99.6
07-1731	338433G	granules	2-3m	8550E	2750N	16.2	7.62	70.40	0.210	0.100	0.110	0.270	0.736	3.8	99.4
07-1741	338443G	granules	2-3m	8550E	2800N	17.5	6.98	70.40	0.120	0.060	0.080	0.200	0.715	3.4	99.5
07-1749	338451G	granules	2-3m	8550E	2850N	17.4	6.84	70.70	0.140	0.070	0.080	0.260	0.806	3.4	99.7
07-1759	338461G	granules	2-3m	8550E	2900N	14.7	7.59	72.40	0.200	0.130	0.090	0.360	0.762	3.3	99.5
07-1769	338471G	granules	2-3m	8550E	2950N	16.0	6.91	71.60	0.180	0.090	0.080	0.350	0.766	3.3	99.2
07-1780	338482G	granules	2-3m	8550E	3000N	14.9	7.05	72.10	0.190	0.090	0.090	0.360	0.760	3.3	98.8
07-1792	338494G	granules	2-3m	8810E	3250N	10.2	6.29	78.80	0.120	0.050	0.060	0.050	0.735	3.1	99.4
07-1802	333704G	granules	2-3m	8810E	3200N	10.0	6.73	77.30	0.120	0.070	0.060	0.070	0.673	3.3	98.3

APPENDIX X Kanowna Belle Data

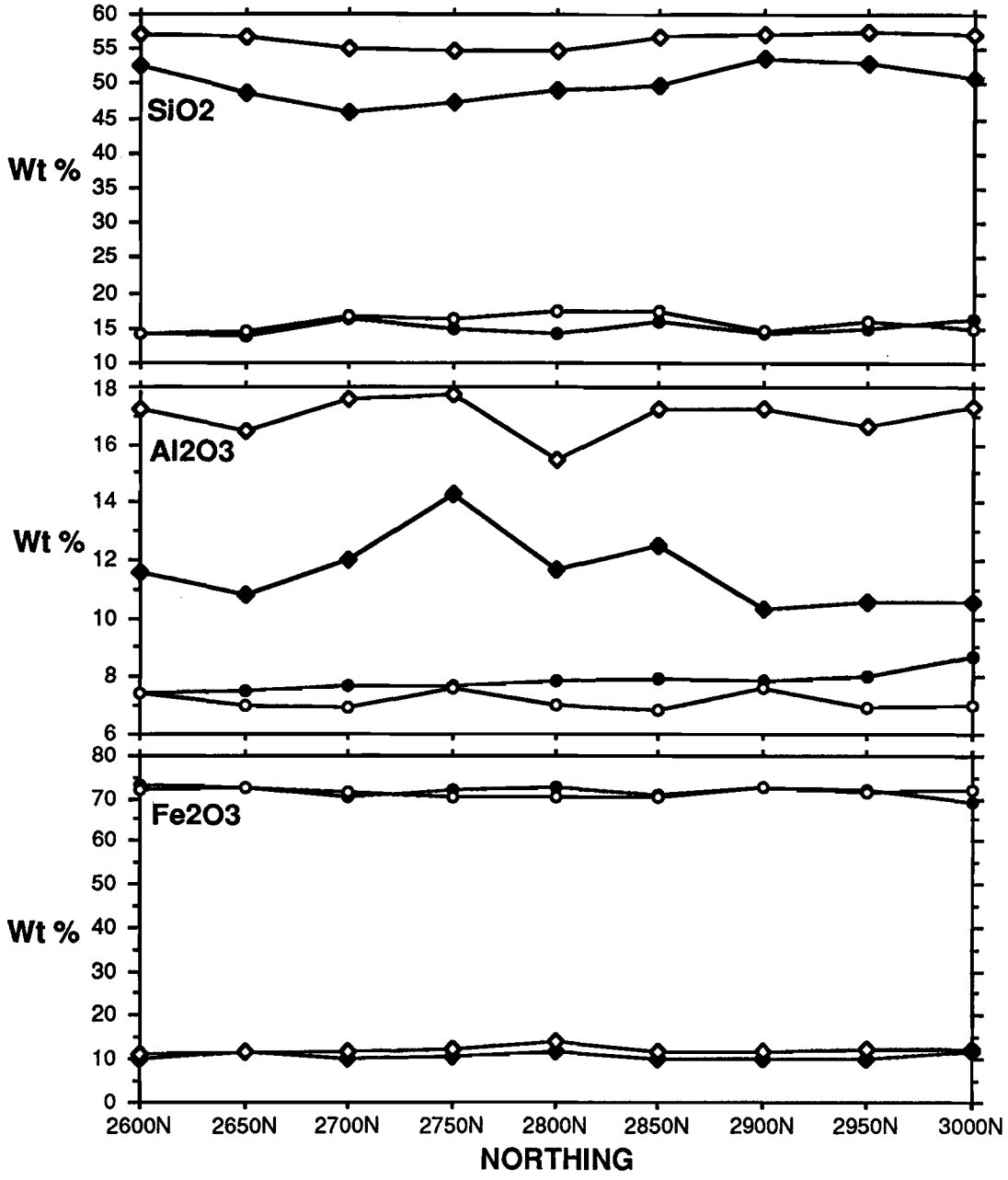
sampno	refno	samptype	Depth m.	Easting	Northing	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	LOI	TOTAL
						%	%	%	%	%	%	%	%	%	%
07-1669	338401G	granules	0-1m	8550E	2600N	14.2	7.44	73.10	0.260	0.260	0.090	0.370	0.780	2.8	99.3
07-1709	338411G	granules	0-1m	8550E	2650N	13.9	7.55	72.90	0.270	0.370	0.100	0.460	0.799	2.8	99.1
07-1719	338421G	granules	0-1m	8550E	2700N	16.5	7.69	70.50	0.240	0.230	0.120	0.400	0.783	2.8	99.3
07-1729	338431G	granules	0-1m	8550E	2750N	14.9	7.65	72.10	0.240	0.230	0.110	0.370	0.801	2.8	99.2
07-1739	338441G	granules	0-1m	8550E	2800N	14.3	7.88	72.90	0.220	0.180	0.140	0.370	0.702	2.9	99.6
07-1747	338449G	granules	0-1m	8550E	2850N	15.9	7.92	71.10	0.240	0.220	0.110	0.360	0.771	2.9	99.6
07-1757	338459G	granules	0-1m	8550E	2900N	14.2	7.82	72.60	0.270	0.280	0.100	0.400	0.749	2.9	99.3
07-1767	338469G	granules	0-1m	8550E	2950N	15.0	8.07	71.90	0.280	0.330	0.110	0.450	0.779	2.8	99.7
07-1778	338480G	granules	0-1m	8550E	3000N	16.4	8.74	69.10	0.270	0.350	0.100	0.460	0.745	3.2	99.4
07-1790	338492G	granules	0-1m	8810E	3250N	18.6	7.31	69.50	0.200	0.160	0.070	0.290	0.716	2.7	99.6
07-1800	333702G	granules	0-1m	8810E	3200N	14.6	6.29	74.40	0.230	0.210	0.100	0.270	0.800	2.8	99.7
07-1808	333710G	granules	0-1m	8810E	3150N	15.3	6.69	72.30	0.260	0.270	0.090	0.380	0.740	2.7	98.7
07-1818	333720G	granules	0-1m	8810E	3100N	16.7	7.19	70.10	0.240	0.280	0.100	0.380	0.723	2.9	98.6
07-1828	333730G	granules	0-1m	8810E	3050N	14.8	6.68	72.60	0.250	0.260	0.090	0.350	0.743	2.9	98.6
07-1833	333735G	granules	0-1m	8810E	3000N	15.2	6.87	73.00	0.210	0.190	0.090	0.330	0.736	3.1	99.7
07-1841	333743G	granules	0-1m	8810E	2950N	15.2	6.70	73.00	0.260	0.390	0.090	0.360	0.698	2.7	99.4
07-1849	333751G	granules	0-1m	8810E	2900N	13.1	7.11	75.00	0.230	0.210	0.090	0.320	0.747	2.8	99.6
07-1857	333759G	granules	0-1m	8810E	2850N	15.2	7.30	72.50	0.260	0.290	0.090	0.380	0.770	2.8	99.6
07-1867	333769G	granules	0-1m	8810E	2800N	14.3	7.26	73.50	0.240	0.240	0.090	0.340	0.763	3.0	99.7
07-1699	338401S	soils	0-1m	8550E	2600N	52.5	11.60	10.30	1.500	6.540	0.550	1.050	0.666	13.5	98.2
07-1709	338411S	soils	0-1m	8550E	2650N	48.6	10.80	12.10	1.200	7.250	0.550	0.860	0.618	14.6	96.6
07-1719	338421S	soils	0-1m	8550E	2700N	45.9	12.00	10.40	1.400	7.460	0.610	1.070	0.658	15.2	94.7
07-1729	338431S	soils	0-1m	8550E	2750N	47.4	14.30	10.60	1.410	4.620	0.660	1.050	0.715	14.4	95.2
07-1739	338441S	soils	0-1m	8550E	2800N	49.1	11.70	12.00	1.270	5.310	0.960	0.880	0.635	13.9	95.8
07-1747	338449S	soils	0-1m	8550E	2850N	49.8	12.50	9.86	1.310	5.490	0.690	0.950	0.608	14.5	95.7
07-1757	338459S	soils	0-1m	8550E	2900N	53.6	10.30	10.40	1.450	7.520	0.520	0.940	0.627	13.7	99.0
07-1767	338469S	soils	0-1m	8550E	2950N	53.1	10.60	10.30	1.450	7.650	0.540	0.950	0.616	13.8	99.0
07-1778	338480S	soils	0-1m	8550E	3000N	51.0	10.60	11.80	1.460	7.870	0.450	1.000	0.636	13.8	98.6
07-1790	338492S	soils	0-1m	8810E	3250N	51.2	9.24	15.90	1.140	8.010	0.210	0.650	0.514	12.6	99.5
07-1800	333702S	soils	0-1m	8810E	3200N	55.7	9.42	17.40	1.110	4.620	0.440	0.640	0.520	9.7	99.5
07-1808	333710S	soils	0-1m	8810E	3150N	51.3	9.98	11.20	1.580	9.460	0.370	0.880	0.541	14.5	99.8
07-1818	333720S	soils	0-1m	8810E	3100N	51.5	9.58	12.60	1.410	8.920	0.380	0.850	0.534	13.6	99.3
07-1828	333730S	soils	0-1m	8810E	3050N	51.1	9.42	13.30	1.340	9.170	0.310	0.680	0.531	14.0	99.8
07-1833	333735S	soils	0-1m	8810E	3000N	49.8	10.60	15.50	1.220	7.280	0.400	0.750	0.525	12.5	98.6
07-1841	333743S	soils	0-1m	8810E	2950N	51.8	10.30	12.20	1.290	8.390	0.410	0.840	0.577	13.5	99.3
07-1857	333759S	soils	0-1m	8810E	2850N	49.8	9.19	11.60	1.330	10.800	0.410	0.760	0.512	15.4	99.8
07-1867	333769S	soils	0-1m	8810E	2800N	53.5	10.20	13.10	1.210	6.960	0.480	0.830	0.577	11.9	98.8
07-1701	338403G	granules	2-3m	8550E	2600N	14.2	7.42	72.30	0.160	0.090	0.090	0.320	0.896	3.2	98.7
07-1711	338413G	granules	2-3m	8550E	2650N	14.5	7.01	72.70	0.140	0.080	0.090	0.290	0.767	3.4	99.0
07-1721	338423G	granules	2-3m	8550E	2700N	16.8	6.92	71.40	0.120	0.060	0.070	0.270	0.720	3.2	99.6
07-1731	338433G	granules	2-3m	8550E	2750N	16.2	7.62	70.40	0.210	0.100	0.110	0.270	0.736	3.8	99.4
07-1741	338443G	granules	2-3m	8550E	2800N	17.5	6.98	70.40	0.120	0.060	0.080	0.200	0.715	3.4	99.5
07-1749	338451G	granules	2-3m	8550E	2850N	17.4	6.84	70.70	0.140	0.070	0.080	0.260	0.806	3.4	99.7
07-1759	338461G	granules	2-3m	8550E	2900N	14.7	7.59	72.40	0.200	0.130	0.090	0.360	0.762	3.3	99.5
07-1769	338471G	granules	2-3m	8550E	2950N	16.0	6.91	71.60	0.180	0.090	0.080	0.350	0.766	3.3	99.2
07-1780	338482G	granules	2-3m	8550E	3000N	14.9	7.05	72.10	0.190	0.090	0.090	0.360	0.760	3.3	98.8
07-1792	338494G	granules	2-3m	8810E	3250N	10.2	6.29	78.80	0.120	0.050	0.060	0.050	0.735	3.1	99.4
07-1802	333704G	granules	2-3m	8810E	3200N	10.0	6.73	77.30	0.120	0.070	0.060	0.070	0.673	3.3	98.3

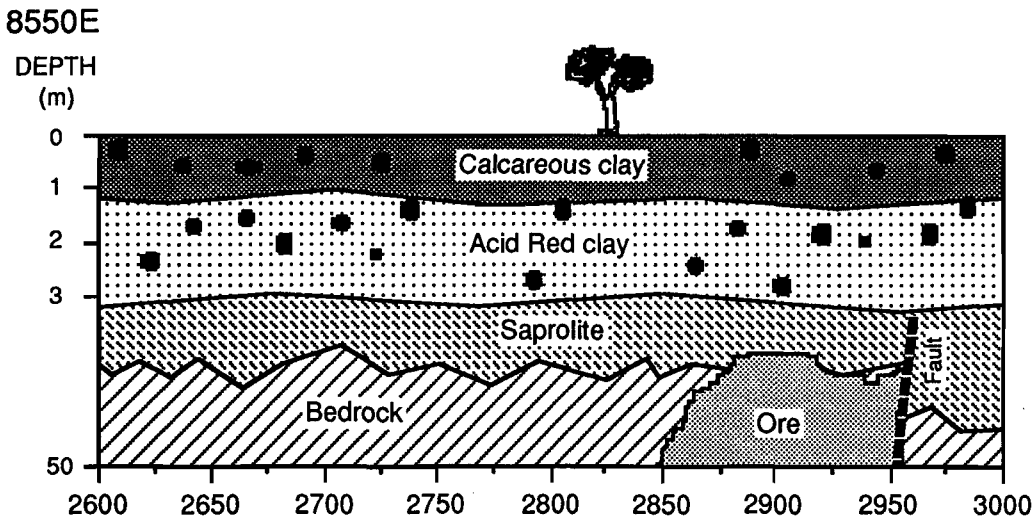
APPENDIX X Kanowna Belle Data

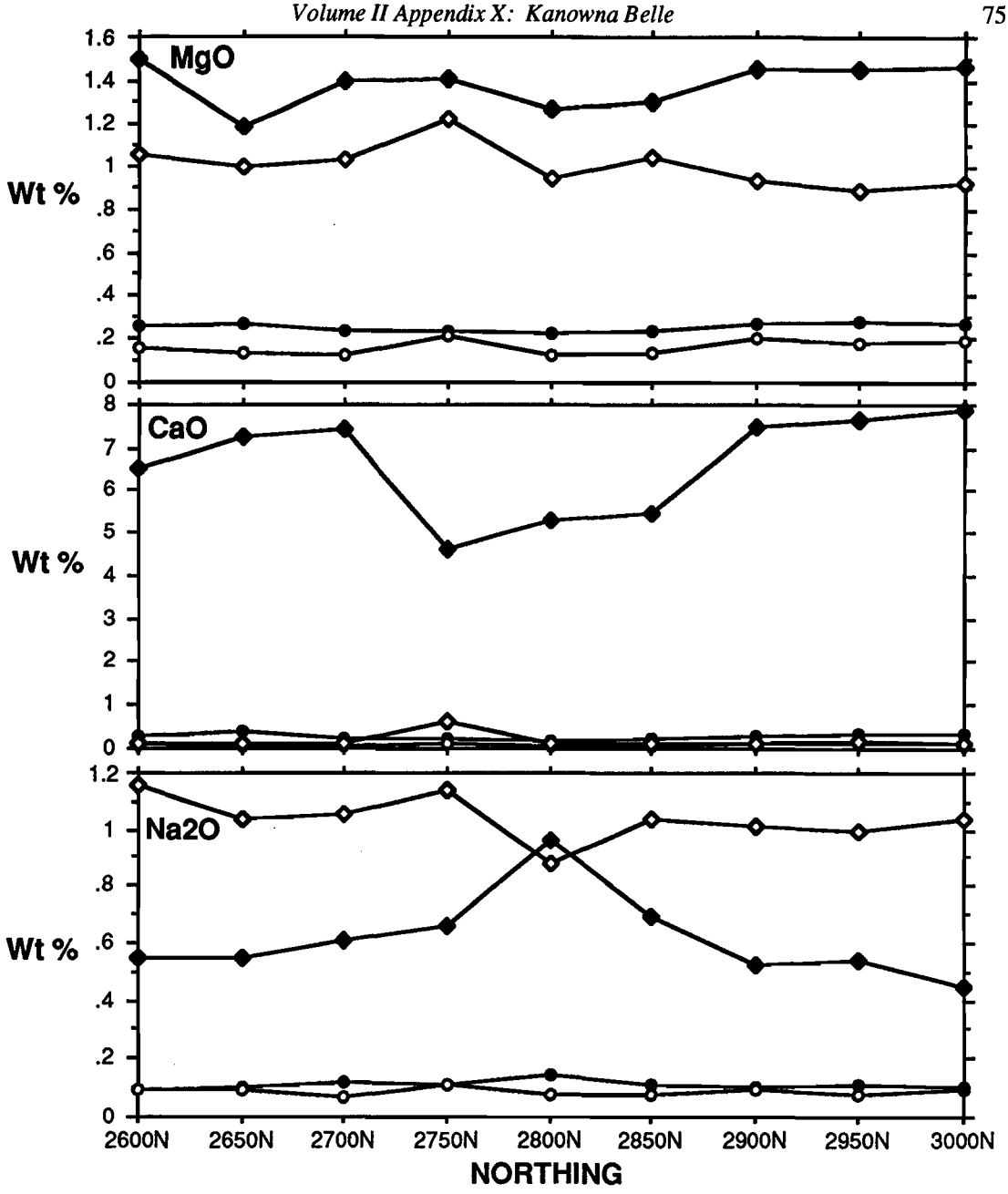
sampno	Mn	Cr	V	Cu	Pb	Zn	Ni	Co	As	Sb	Bi	Mo	Ag	Sn	Ge	Ga	W	Ba	Zr	Nb	Se	Be	Au	Ce
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
07-1669	1100	3020	977	68	72	53	253	16	203	35	4	3	<2.0	7	<2.0	32	0	812	179	6	4	1	<5.0	28.8
07-1709	1270	3230	980	62	68	48	207	16	204	36	<2.0	<2.0	<2.0	9	<2.0	32	0	1520	178	5	6	1	<5.0	23.1
07-1719	1010	2930	971	58	61	39	196	13	204	37	2	3	<2.0	8	<2.0	32	<2.0	1390	169	4	5	1	<5.0	20.8
07-1729	937	3110	1030	61	72	38	203	14	219	38	2	<2.0	<2.0	7	<2.0	34	3	1200	174	3	9	1	<5.0	21.4
07-1739	988	3370	1030	59	70	33	179	15	242	40	<2.0	<2.0	<2.0	<2.0	<2.0	32	<2.0	1960	169	<2.0	7	1	<5.0	17.4
07-1747	852	3140	1020	63	70	32	195	12	210	38	<2.0	<2.0	<2.0	3	<2.0	33	3	1110	170	5	4	1	<5.0	23.2
07-1757	1000	3110	1040	74	65	38	196	15	227	35	<2.0	4	<2.0	4	<2.0	34	4	1270	175	5	3	1	57.9	31.7
07-1767	1240	3140	1040	76	70	43	227	18	215	39	2	<2.0	<2.0	6	<2.0	36	3	1090	171	3	<2.0	1	122	35
07-1778	1170	3110	985	77	64	42	197	15	201	34	<2.0	<2.0	<2.0	5	<2.0	32	<2.0	1350	160	<2.0	4	1	49.6	29.4
07-1790	826	3320	1000	58	68	35	193	14	278	42	3	<2.0	<2.0	8	<2.0	34	3	1830	159	<2.0	7	1	<5.0	31.2
07-1800	903	3390	945	60	69	45	235	17	300	42	<2.0	3	<2.0	9	<2.0	29	6	1560	163	5	6	1	9.8	29.3
07-1808	1040	2850	871	65	72	59	259	17	249	37	<2.0	<2.0	<2.0	6	<2.0	35	4	990	164	4	6	1	35.5	38.3
07-1818	1070	3140	915	64	62	50	218	18	321	35	<2.0	<2.0	<2.0	5	3	32	<2.0	1260	163	<2.0	5	1	102	35.2
07-1828	968	3020	904	62	72	47	244	19	255	40	<2.0	3	<2.0	6	<2.0	33	<2.0	1100	165	4	3	1	51.9	31
07-1833	765	2960	891	59	67	44	228	16	272	41	<2.0	2	<2.0	9	<2.0	32	3	1300	158	4	<2.0	1	55.8	23.5
07-1841	1060	3000	919	67	74	49	264	18	230	37	2	2	<2.0	5	<2.0	39	4	982	167	5	7	1	147	31.6
07-1849	891	3560	1010	59	70	45	241	19	262	35	<2.0	<2.0	<2.0	<2.0	<2.0	33	4	2120	162	4	5	1	50	28.8
07-1857	1070	3280	987	62	72	40	238	17	245	38	2	2	<2.0	9	<2.0	32	3	1460	168	5	3	1	21.8	36.1
07-1867	850	3410	1080	57	66	36	218	17	238	42	<2.0	2	<2.0	9	<2.0	35	3	1900	167	5	5	1	<5.0	25.7
07-1699	496	442	146	46	13	47	120	19	18	3	<2.0	<2.0	<2.0	2	<2.0	16	<2.0	299	131	7	<2.0	1	19	45.4
07-1709	432	524	178	40	12	43	100	16	26	5	<2.0	<2.0	<2.0	<2.0	<2.0	14	<2.0	234	116	8	<2.0	1	20.3	32.7
07-1719	425	441	142	41	10	47	105	18	20	2	<2.0	<2.0	<2.0	<2.0	<2.0	17	4	323	123	6	<2.0	1	17.3	36.4
07-1729	447	455	149	41	13	50	126	25	22	3	<2.0	<2.0	<2.0	<2.0	<2.0	19	4	336	142	6	<2.0	1	18.3	52.5
07-1739	353	522	173	39	14	42	108	16	25	5	<2.0	2	<2.0	<2.0	<2.0	15	3	362	123	8	<2.0	1	25.1	36.4
07-1747	384	444	142	44	13	45	134	24	21	<2.0	<2.0	<2.0	<2.0	2	<2.0	16	<2.0	308	137	8	<2.0	1	98.8	54.8
07-1757	446	445	150	40	13	46	111	17	27	3	<2.0	2	<2.0	<2.0	<2.0	15	3	327	130	9	<2.0	1	174	44.5
07-1767	427	450	149	43	11	41	116	20	20	3	<2.0	<2.0	<2.0	<2.0	<2.0	16	5	300	141	6	<2.0	1	232	43.9
07-1778	473	519	166	44	10	45	116	18	18	4	<2.0	<2.0	<2.0	<2.0	<2.0	17	3	314	135	7	<2.0	1	198	40.1
07-1790	456	730	221	36	15	42	104	15	45	9	<2.0	<2.0	<2.0	<2.0	<2.0	15	<2.0	541	110	3	<2.0	1	52.6	29.8
07-1800	496	731	236	38	16	42	105	14	49	12	<2.0	<2.0	<2.0	<2.0	<2.0	15	3	487	113	3	<2.0	1	75.1	32.3
07-1808	507	505	154	41	14	45	114	17	26	4	<2.0	2	<2.0	<2.0	<2.0	15	4	362	110	7	<2.0	1	110	35.6
07-1818	486	549	171	42	12	47	116	16	40	6	<2.0	<2.0	<2.0	<2.0	<2.0	15	4	394	119	6	<2.0	1	168	33.4
07-1828	434	600	194	45	13	42	112	16	39	5	2	<2.0	<2.0	2	<2.0	14	<2.0	406	106	7	<2.0	1	101	36.4
07-1833	468	670	217	44	20	43	131	19	46	7	<2.0	2	<2.0	<2.0	<2.0	16	4	571	120	4	<2.0	1	75.9	43.3
07-1841	463	531	167	39	16	41	118	18	30	6	<2.0	<2.0	<2.0	3	<2.0	15	4	422	118	6	<2.0	1	168	42.6
07-1857	415	505	162	36	13	37	105	16	25	5	<2.0	<2.0	<2.0	<2.0	<2.0	15	5	501	110	7	<2.0	1	42.4	37.5
07-1867	403	612	200	44	10	36	101	16	30	7	<2.0	<2.0	<2.0	<2.0	<2.0	16	4	524	127	6	<2.0	1	29.6	34.1
07-1701	599	3010	1110	54	na	29	184	11	na	na	na	na	<2.0	na	na	na	na	865	na	na	na	1	na	na
07-1711	499	2970	1070	49	55	22	148	11	218	38	<2.0	2	<2.0	7	<2.0	32	0	1370	172	7	7	1	<5.0	<2.0
07-1721	328	3510	1140	33	65	11	129	12	297	38	<2.0	2	<2.0	7	<2.0	32	6	2560	161	5	10	1	<5.0	7.32
07-1731	312	3000	1080	40	67	19	112	11	247	35	<2.0	6	<2.0	5	<2.0	30	5	1830	152	<2.0	13	1	<5.0	3.65
07-1741	388	3570	1090	38	65	12	128	11	290	40	<2.0	2	<2.0	7	<2.0	29	<2.0	2020	151	3	11	1	<5.0	6.06
07-1749	433	2920	1070	43	53	17	141	9	231	38	3	4	<2.0	<2.0	<2.0	29	<2.0	1290	164	3	9	1	<5.0	6.36
07-1759	774	2980	1010	56	57	30	182	13	206	34	<2.0	<2.0	<2.0	<2.0	<2.0	35	<2.0	1090	167	7	11	1	<5.0	8.69
07-1769	616	2940	993	59	60	31	194	14	223	32	<2.0	5	<2.0	7	<2.0	34	<2.0	1020	166	5	12	1	13.2	2.02
07-1780	639	2860	980	59	63	34	198	13	201	32	<2.0	2	<2.0	5	<2.0	36	<2.0	840	165	5	13	1	13.9	5.88
07-1792	181	6920	1050	27	56	8	191	18	480	56	<2.0	3	<2.0	7	<2.0	35	8	1070	147	3	10	1	<5.0	2.1
07-1802	234	6390	1030	30	67	12	253	23	485	67	<2.0	2	<2.0	9	<2.0	37	4	926	136	<2.0	8	1	70.7	22.1

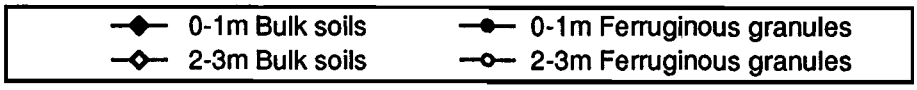
APPENDIX X Kanowna Belle Data

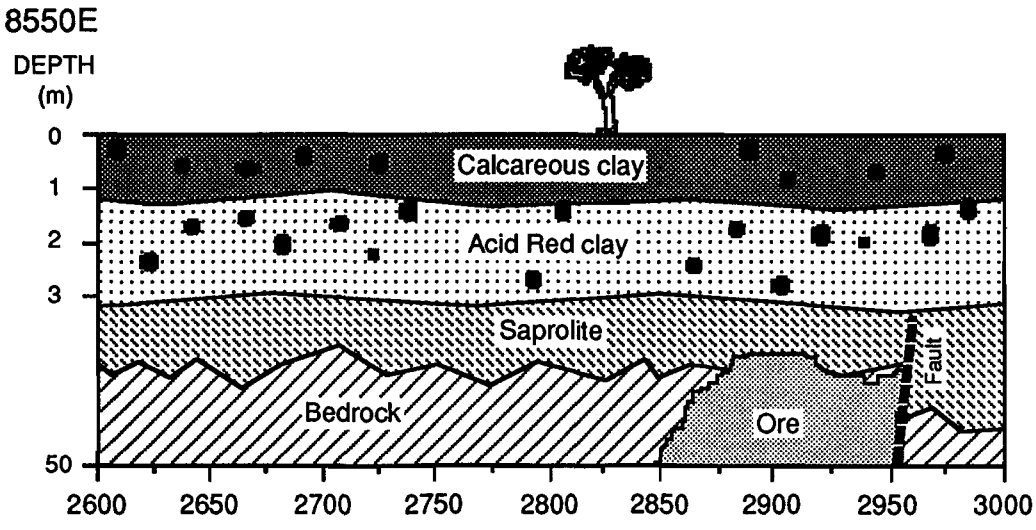
sampno	Mn	Cr	V	Cu	Pb	Zn	Ni	Co	As	Sb	Bi	Mo	Ag	Sn	Ge	Ga	W	Ba	Zr	Nb	Se	Be	Au	Ce
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
07-1810	502	3940	992	41	58	26	190	13	312	47	2	4	<2.0	<2.0	<2.0	34	<2.0	1640	158	5	11	1	<5.0	3.13
07-1820	640	4030	1000	43	57	29	216	17	301	46	3	2	<2.0	9	<2.0	33	7	1620	159	6	9	1	<5.0	3.83
07-1830	476	3900	964	34	57	21	232	16	302	46	2	2	<2.0	6	<2.0	28	<2.0	1090	158	<2.0	16	1	<5.0	<2.0
07-1835	569	3400	943	38	63	25	203	14	274	41	<2.0	4	<2.0	7	<2.0	33	6	1200	164	4	11	1	<5.0	3.43
07-1843	572	3600	1050	36	64	17	180	13	314	47	<2.0	4	<2.0	6	<2.0	33	6	1480	164	6	11	1	<5.0	4.87
07-1851	554	3710	890	32	54	16	174	13	280	43	2	2	<2.0	5	<2.0	30	<2.0	1740	166	5	8	<1.0	<5.0	2.2
07-1859	429	3830	1010	27	61	11	153	13	289	44	<2.0	5	<2.0	9	<2.0	30	3	2020	176	<2.0	14	1	<5.0	3.16
07-1869	566	3700	1010	30	56	12	154	14	307	45	<2.0	5	<2.0	9	<2.0	29	6	2370	167	8	18	1	<5.0	3.94
07-1701	164	489	120	38	5	51	106	11	21	3	<2.0	3	0.45	4	<2.0	22	4	325	175	14	3	1	2	na
07-1711	128	523	135	32	1.67	45	97	10	27	3	3	<2.0	0.5	4	<2.0	25	4	354	194	12	2	<1.0	1	na
07-1721	135	521	134	34	1.67	48	99.8	8	25	2	<2.0	2	0.84	4	<2.0	23	4	399	180	11	4	1	1	na
07-1731	181	508	140	41	8	52	109	12	24	3	<2.0	2	0.6	3	<2.0	24	2	423	175	10	3	1	3	na
07-1741	143	655	159	35	7	43	100	10	27	6	<2.0	3	0.81	2	<2.0	23	6	581	172	10	2	1	1	na
07-1749	150	521	132	40	7	49	102	10	22	3	<2.0	4	0.67	3	<2.0	23	2	351	175	12	2	1	6	na
07-1759	150	522	132	38	7	42	96.5	10	25	3	2	2	0.64	2	<2.0	20	4	321	172	10	2	<1.0	14	na
07-1769	146	541	138	38	7	41	100	9	26	2	<2.0	<2.0	0.63	3	<2.0	21	4	361	176	9	3		24	na
07-1780	150	530	136	40	8	41	102	9	28	2	<2.0	<2.0	0.86	2	2	20	4	332	165	9	3	1	42	na
07-1792	126	2850	392	30	13	20	191	15	234	39	2	<2.0	0.24	2	<2.0	28	5	419	151	7	4	<1.0	6	na
07-1802	191	2400	403	33	19	18	210	25	238	39	<2.0	2	0.17	1	<2.0	23	7	845	117	5	4	1	57	na
07-1810	201	1060	264	32	13	33	109	11	80	15	<2.0	2	0.34	2	<2.0	18	6	697	133	6	1	<1.0	7	na
07-1820	144	739	182	29	11	32	97.4	8	57	10	<2.0	3	0.38	2	2	20	6	841	143	7	2	<1.0	20	na
07-1830	158	781	175	28	7	29	91.4	8	50	8	<2.0	2	0.23	1	<2.0	19	4	682	151	6	3	1	5	na
07-1835	175	728	190	31	9	30	80.7	8	48	7	<2.0	2	0.31	2	<2.0	20	6	607	154	8	4	1	1	na
07-1843	149	785	204	30	7	25	66.5	7	57	6	<2.0	2	0.27	2	2	27	6	435	209	11	4	<1.0	6	na
07-1851	144	797	218	23	11	20	58.8	6	69	11	<2.0	3	0.41	1	<2.0	19	7	614	158	6	4	<1.0	3	na
07-1859	180	1350	366	23	17	15	66.2	8	103	15	<2.0	<2.0	0.23	2	<2.0	23	5	878	152	6	7	<1.0	1	na
07-1869	144	841	240	20	9	15	46.3	5	61	9	<2.0	3	0.24	2	<2.0	20	6	661	163	9	6	<1.0	1	na

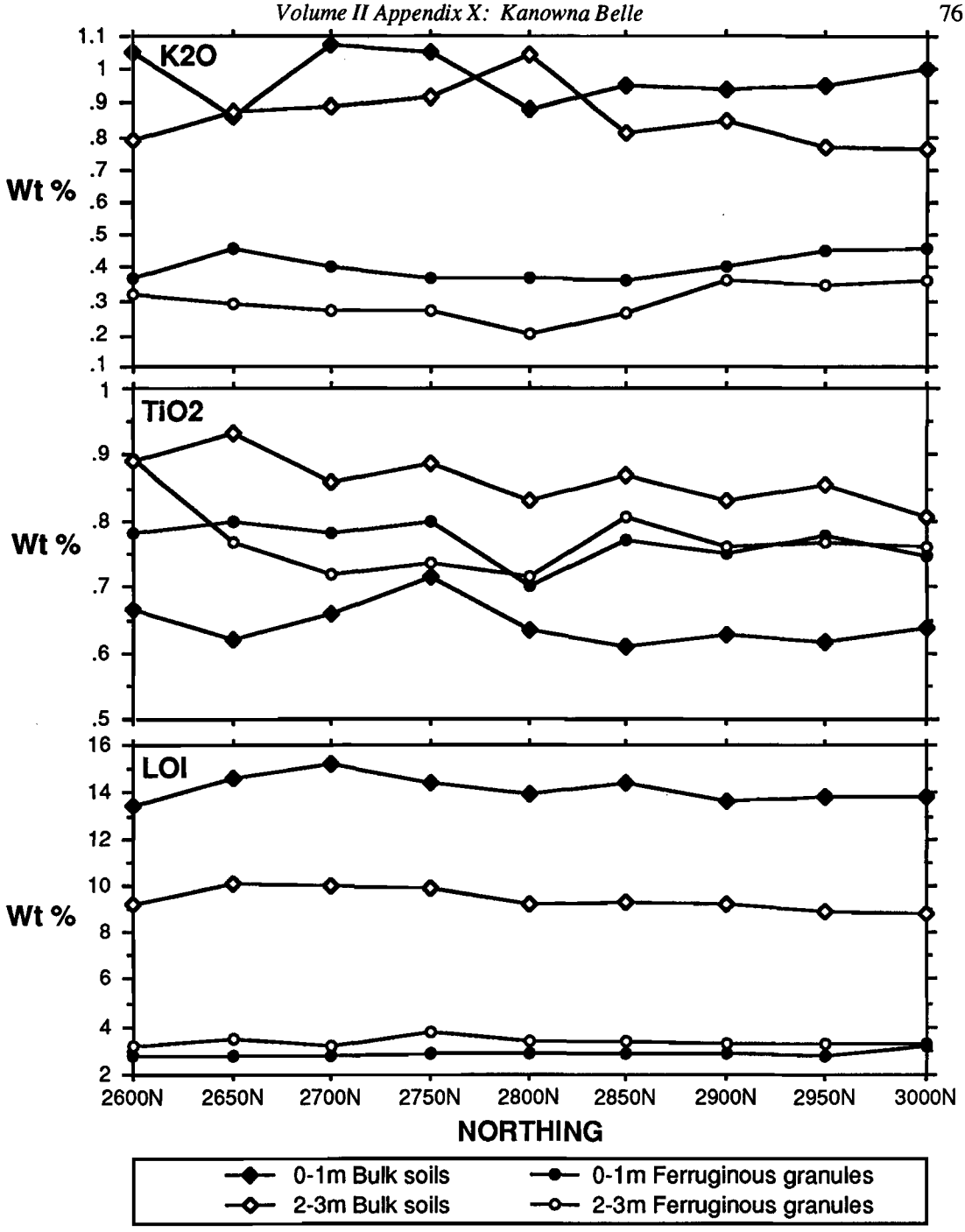

SiO2
Wt %
60
55
50
45
40
35
30
25
20
15
10
Al2O3
Wt %
18
16
14
12
10
8
6
Fe2O3
Wt %
80
70
60
50
40
30
20
10
0
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

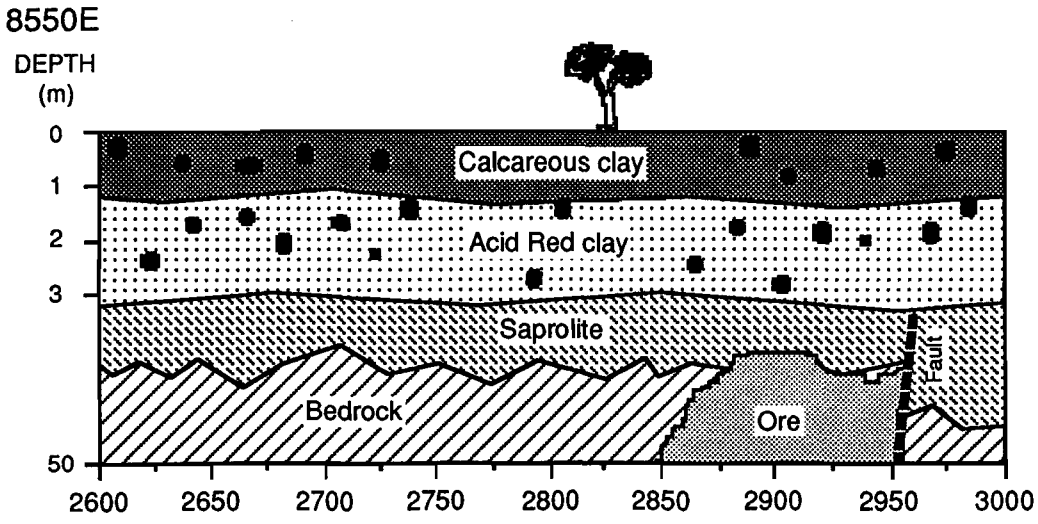

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

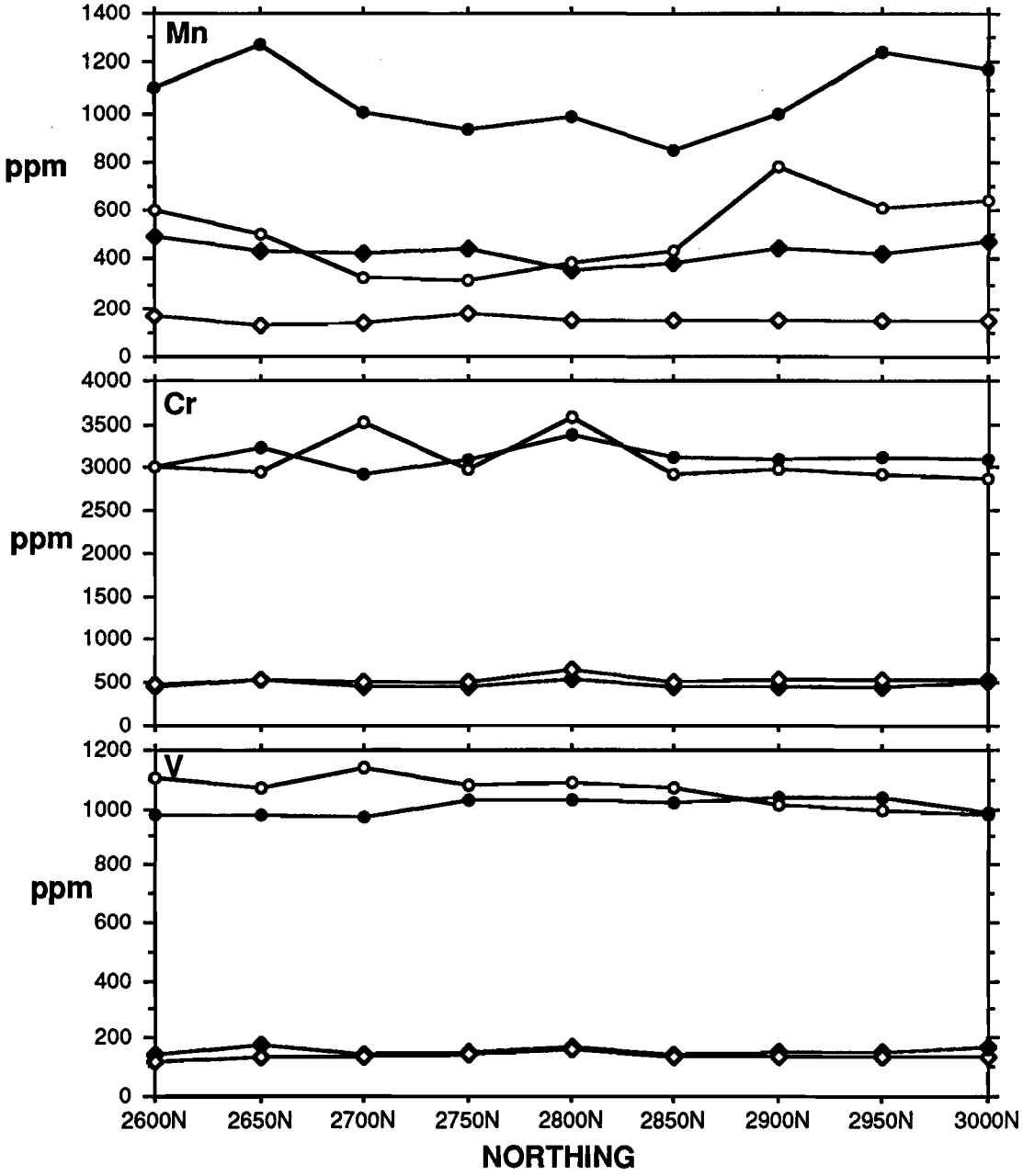

MgO
Wt %
1.6
1.4
1.2
1
.8
.6
.4
.2
0
CaO
Wt %
8
7
6
5
4
3
2
1
0
Na2O
Wt %
1.2
1
.8
.6
.4
.2
0
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING

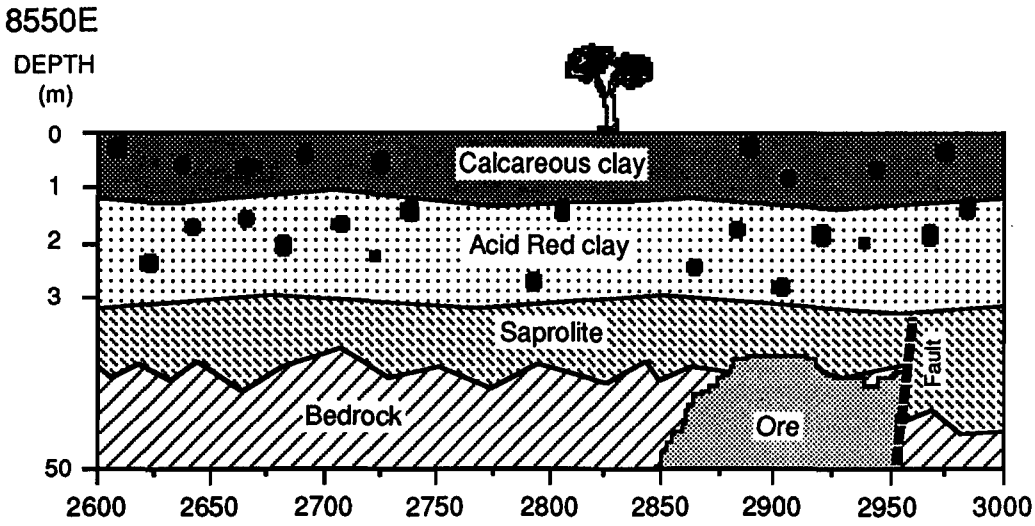

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

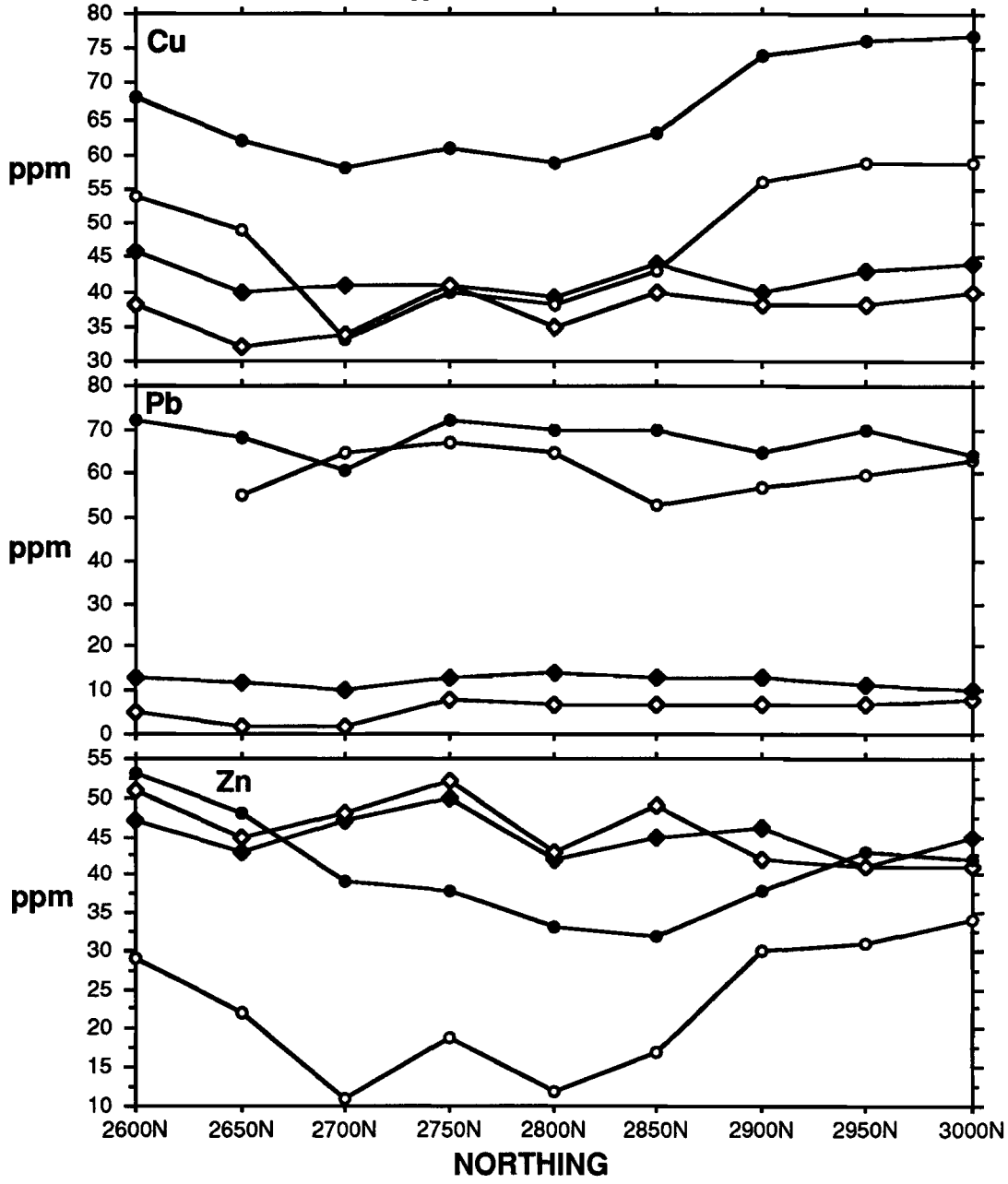

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

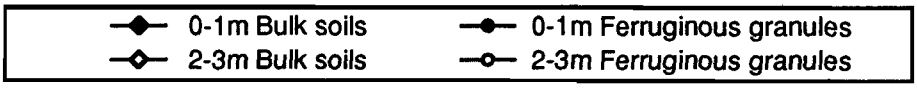

K2O
Wt %
1.1
1
.9
.8
.7
.6
.5
.4
.3
.2
.1
TiO2
Wt %
1
.9
.8
.7
.6
.5
LOI
Wt %
16
14
12
10
8
6
4
2
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

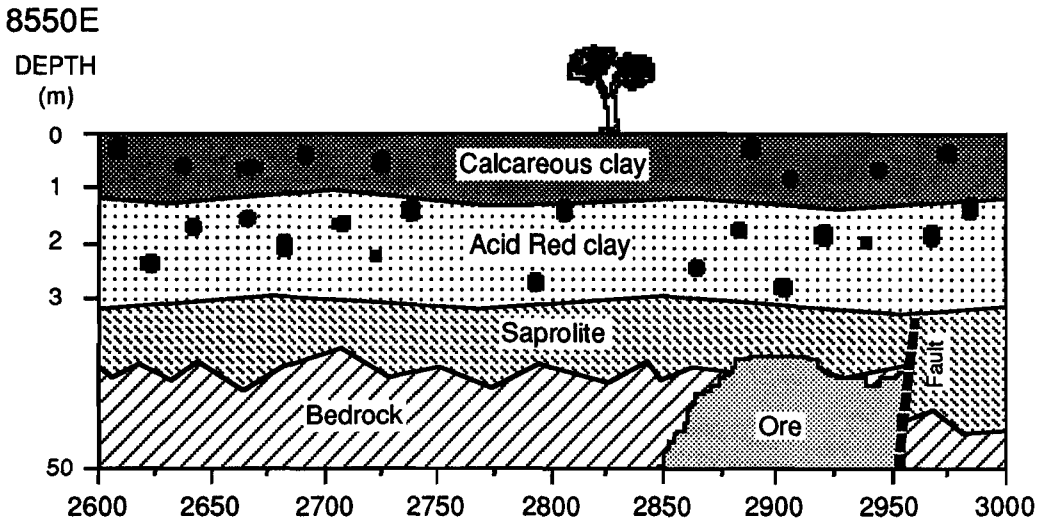

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

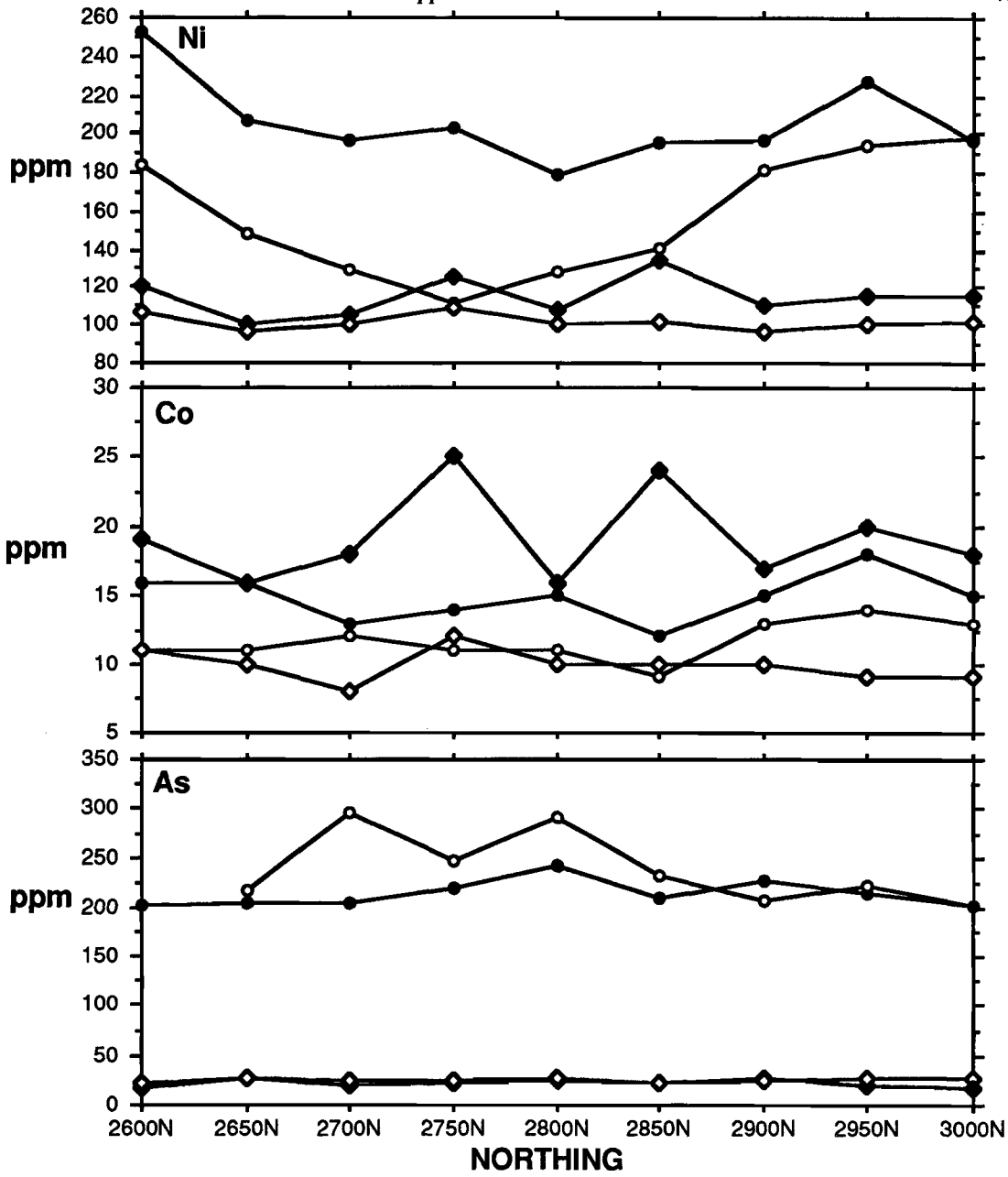

Mn
Cr
V
ppm
1400
1200
1000
800
600
400
200
0
4000
3500
3000
2500
2000
1500
1000
500
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

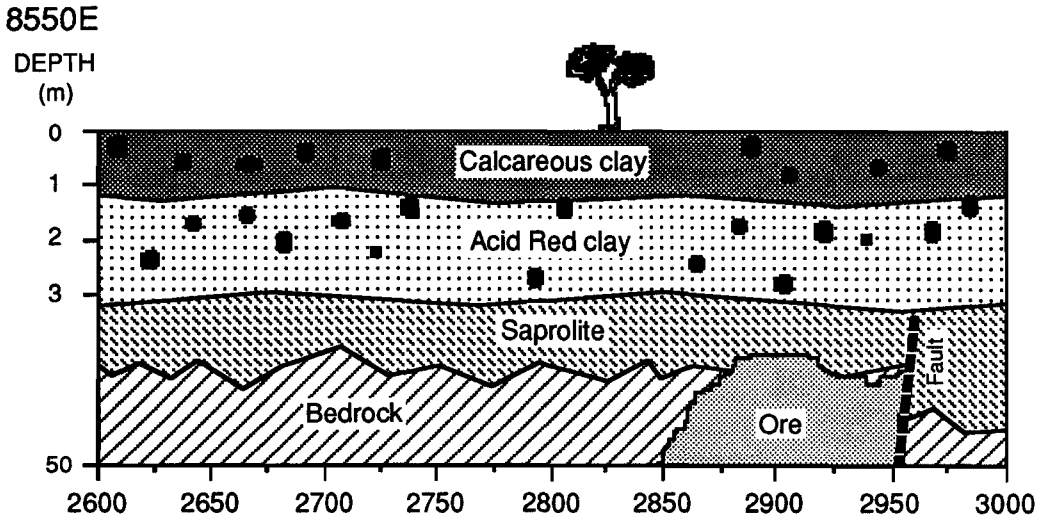

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

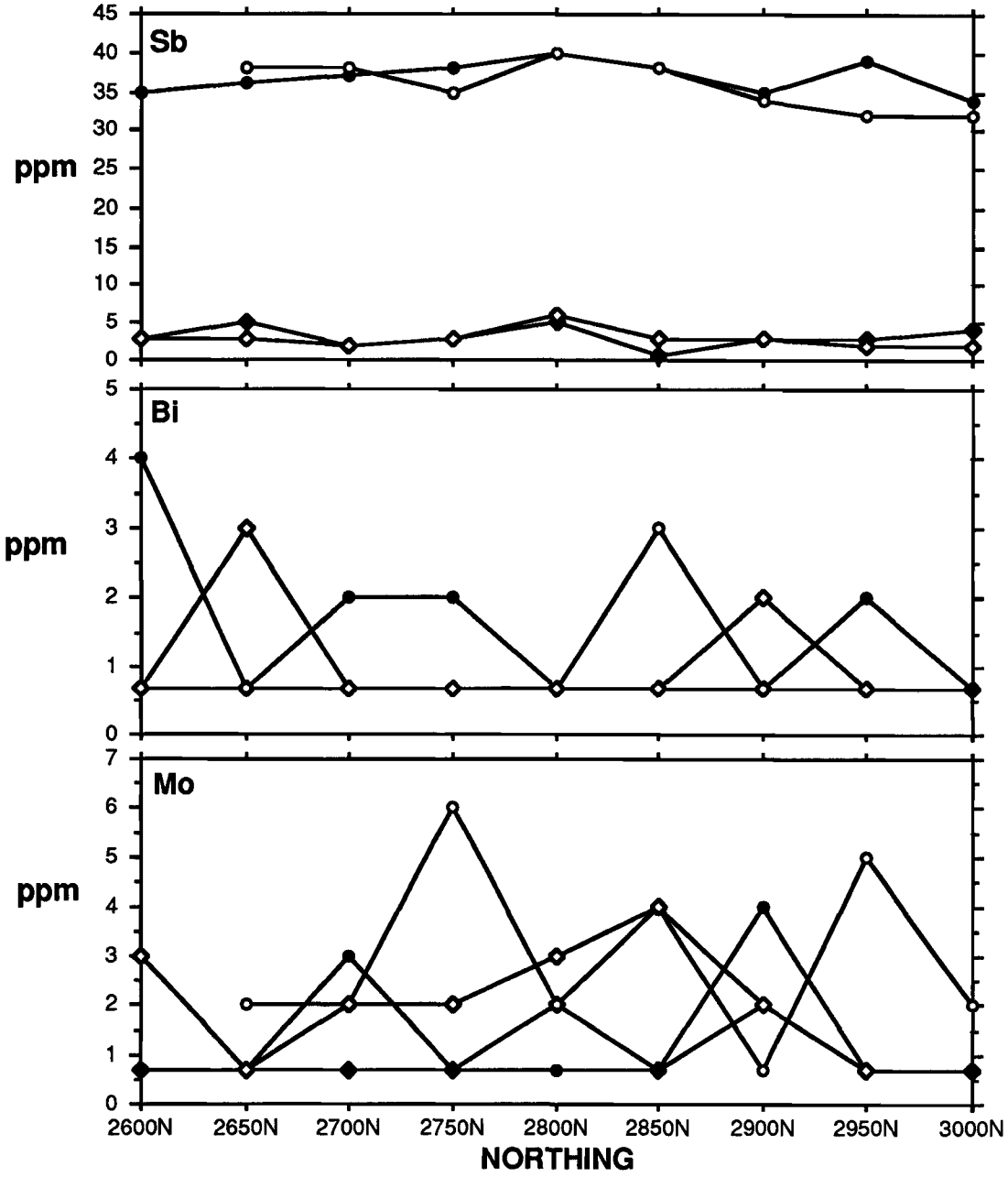

Cu
ppm
Pb
ppm
Zn
ppm
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING

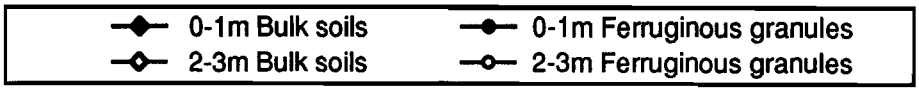

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

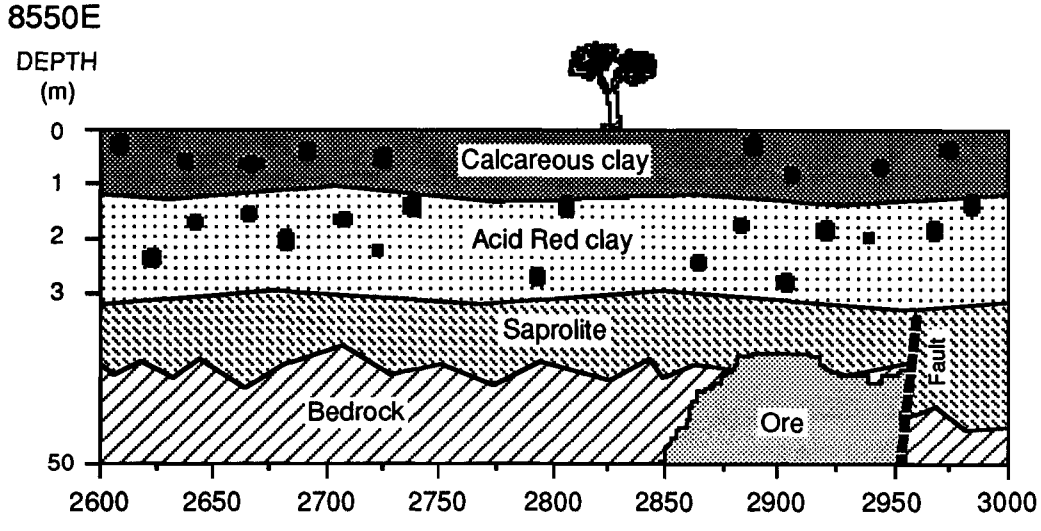

8550E
DEPTH
(m)
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

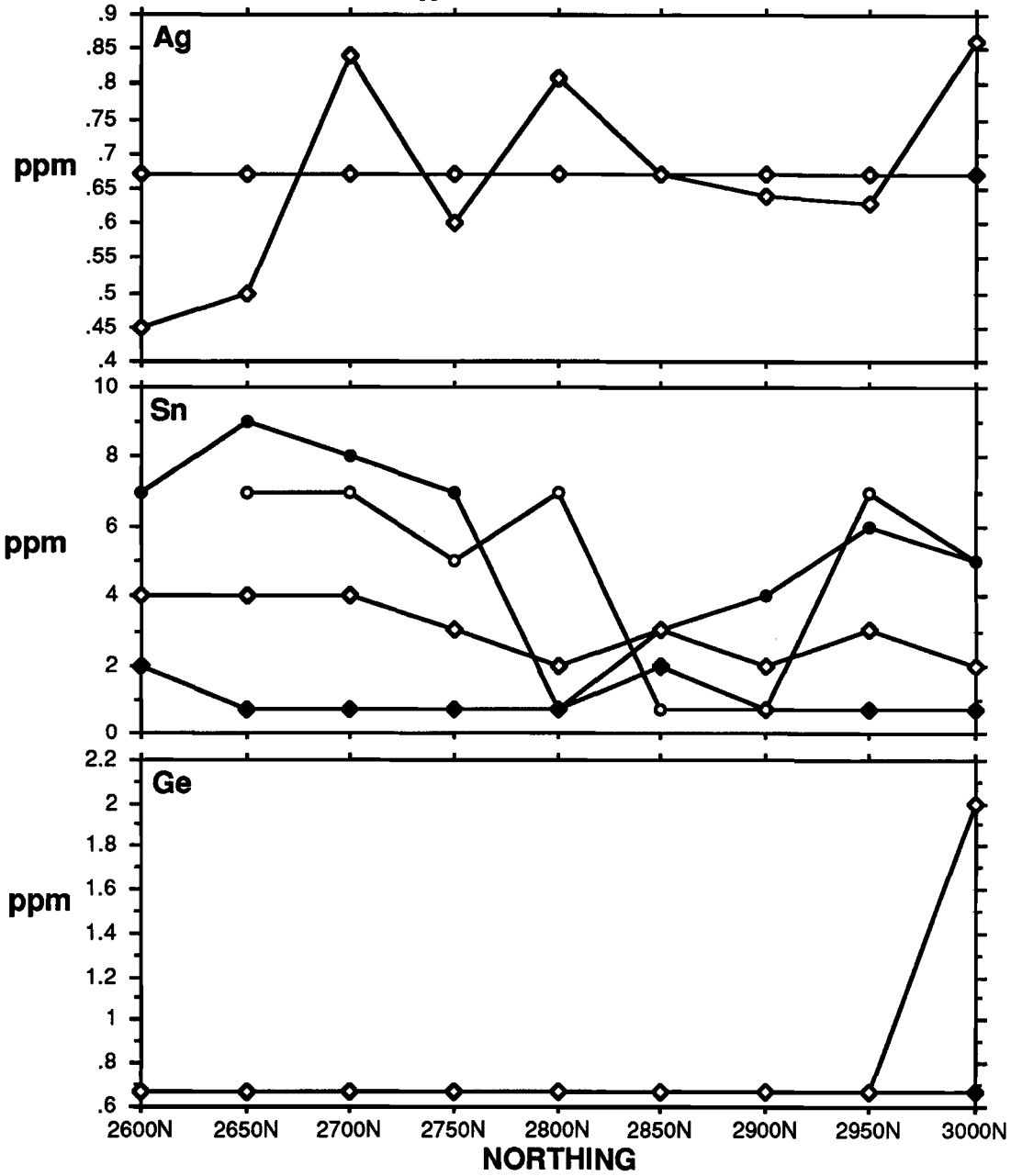

Ni
ppm
260
240
220
200
180
160
140
120
100
80
Co
ppm
30
25
20
15
10
5
As
ppm
350
300
250
200
150
100
50
0
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

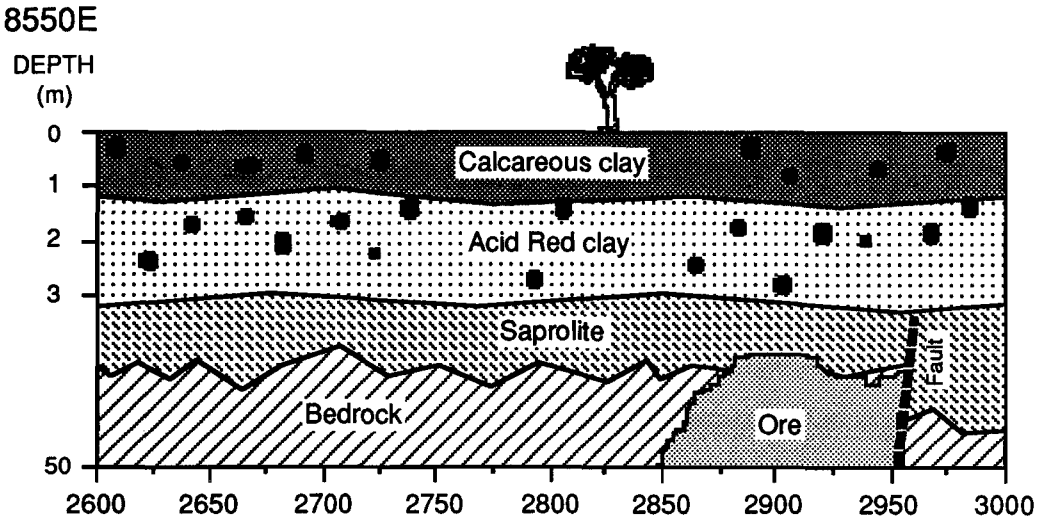

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

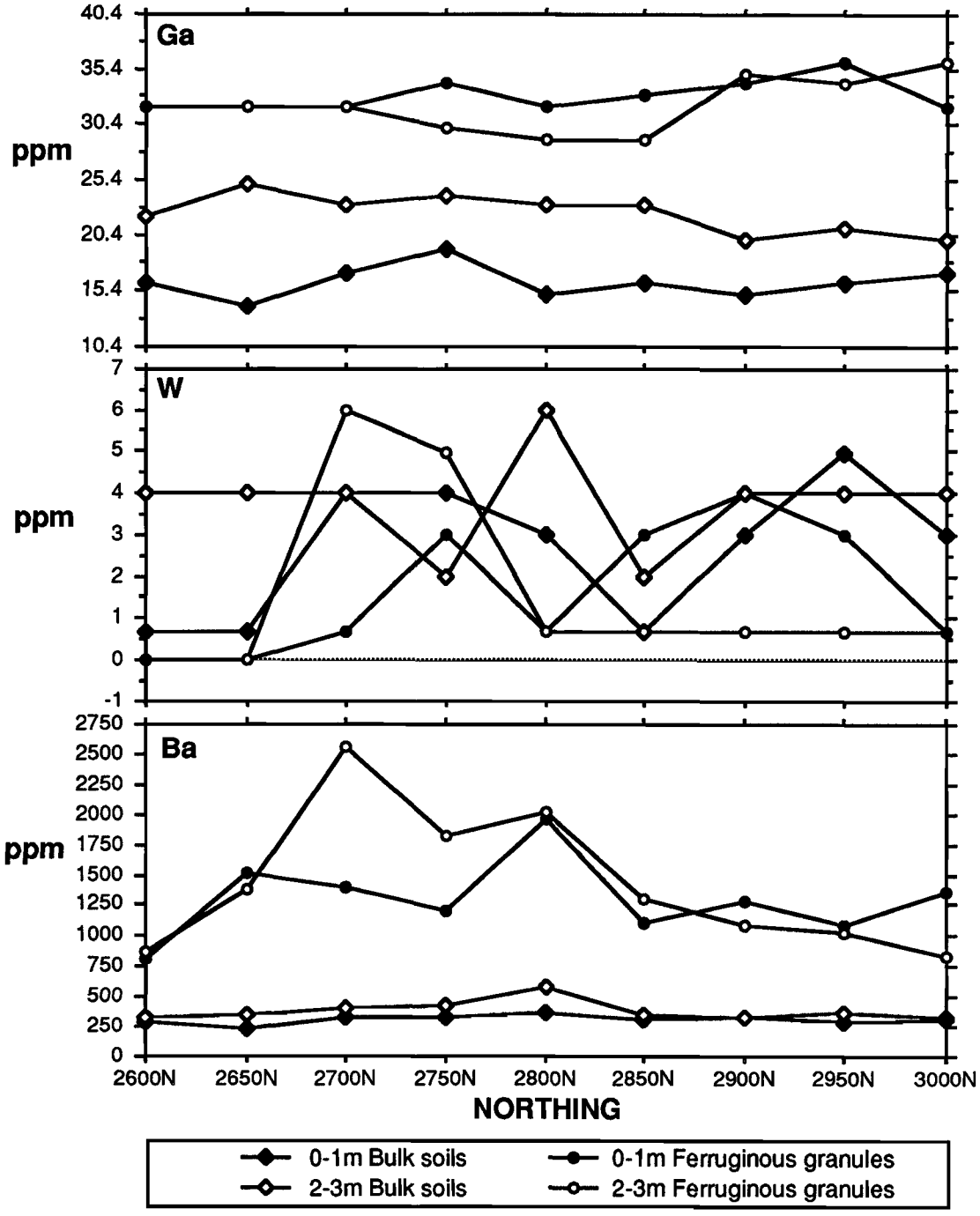

Sb
ppm
Bi
ppm
Mo
ppm
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING

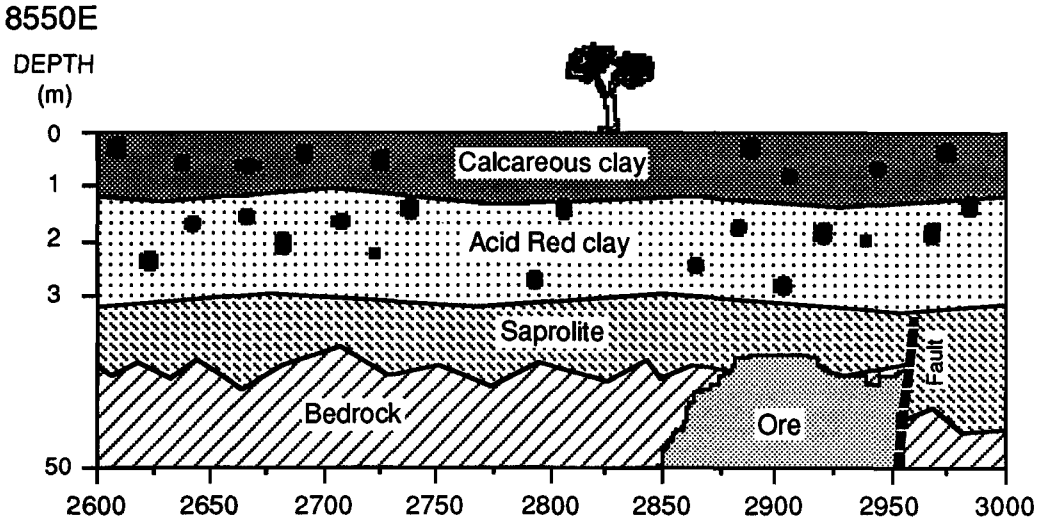

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

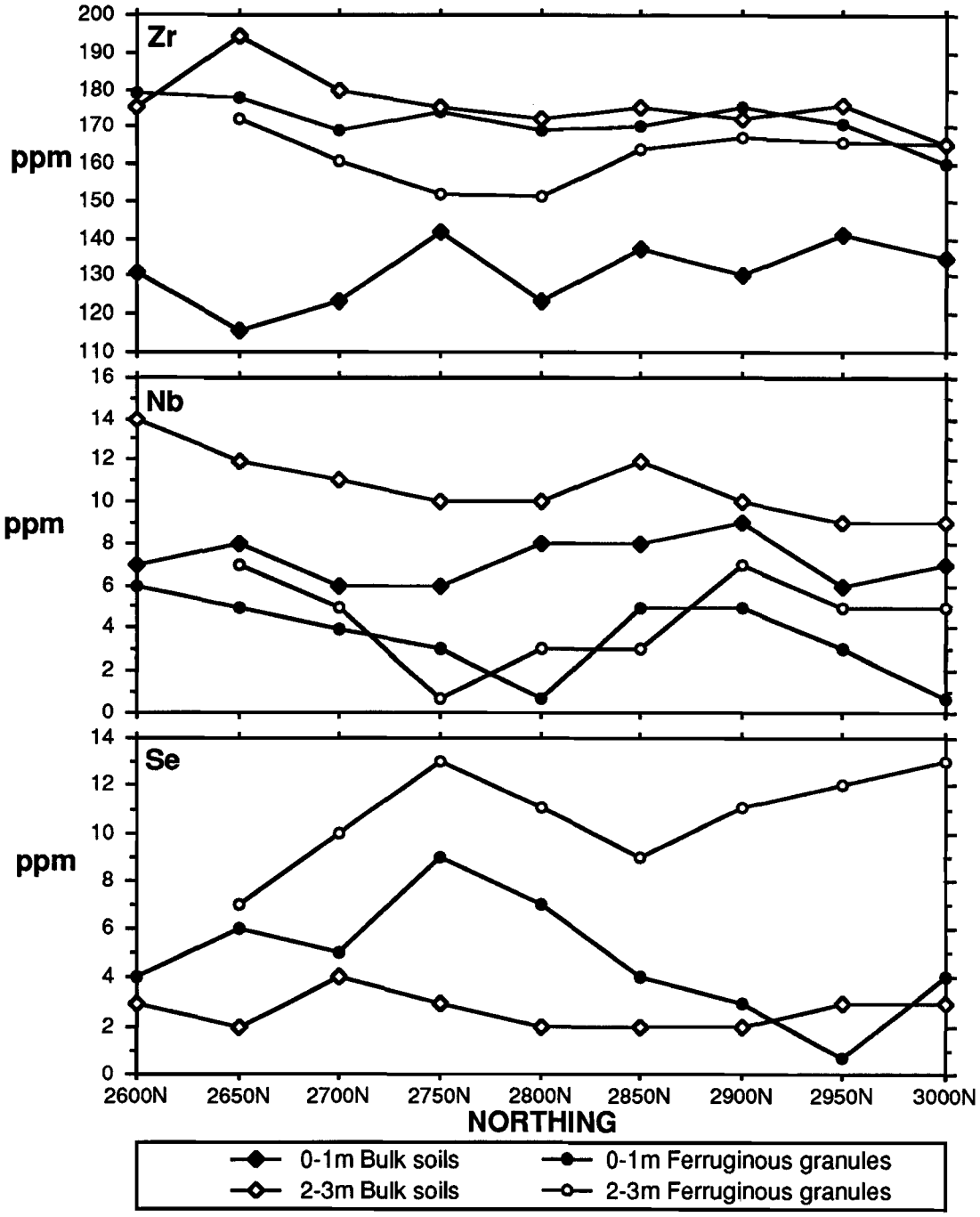

8550E
DEPTH
(m)
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

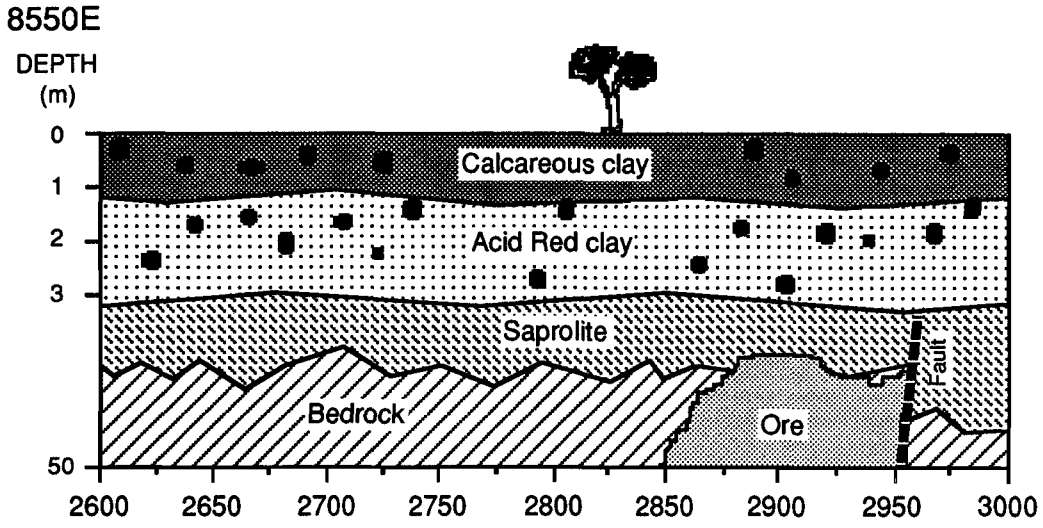

Ag
ppm
.9
.85
.8
.75
.7
.65
.6
.55
.5
.45
.4
Sn
ppm
10
8
6
4
2
0
Ge
ppm
2.2
2
1.8
1.6
1.4
1.2
1
.8
.6
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

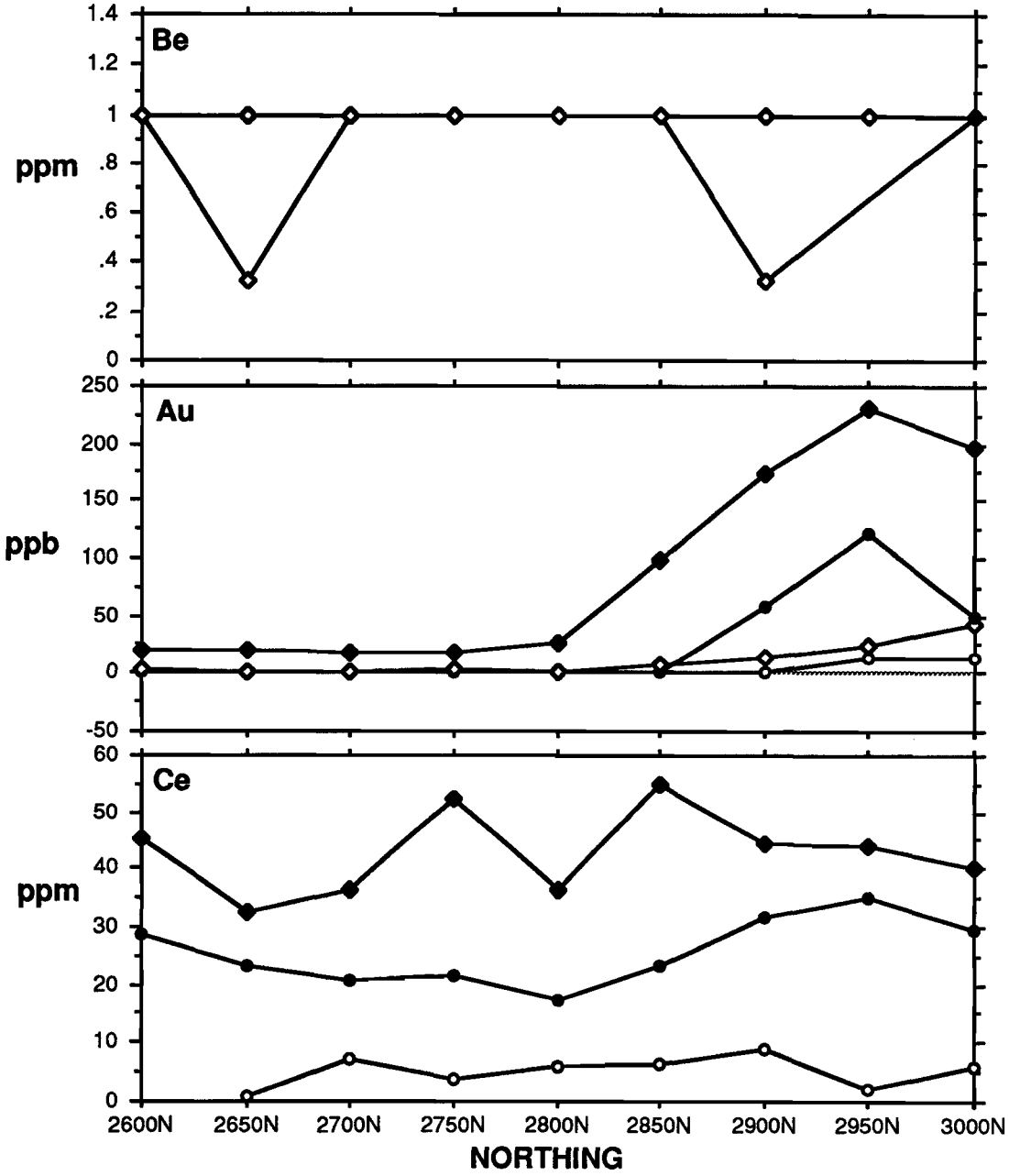

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

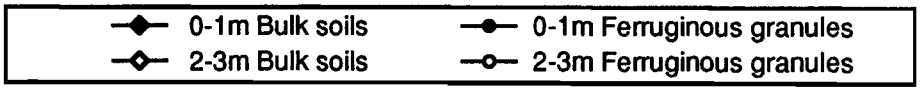

Ga
ppm
40.4
35.4
30.4
25.4
20.4
15.4
10.4
W
ppm
7
6
5
4
3
2
1
0
-1
Ba
ppm
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
0
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

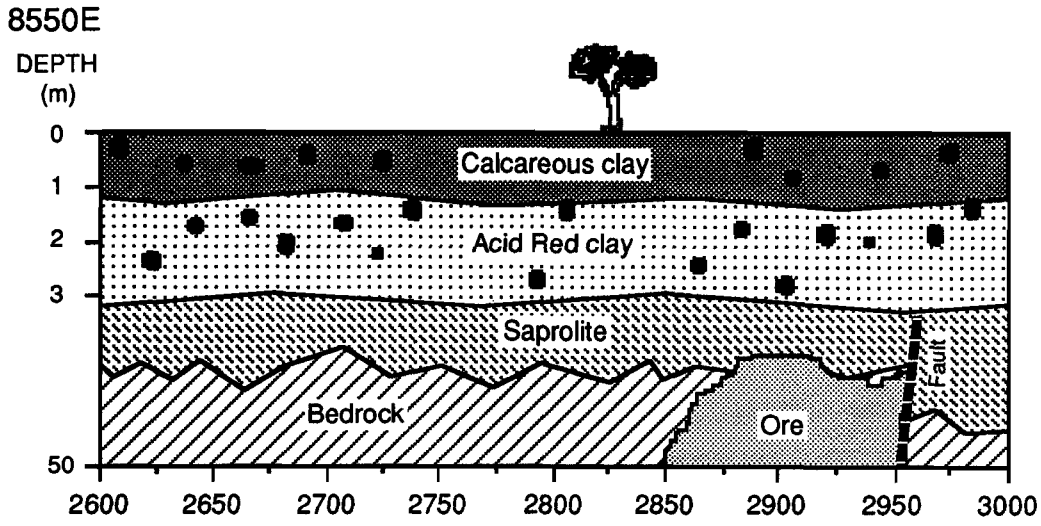

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

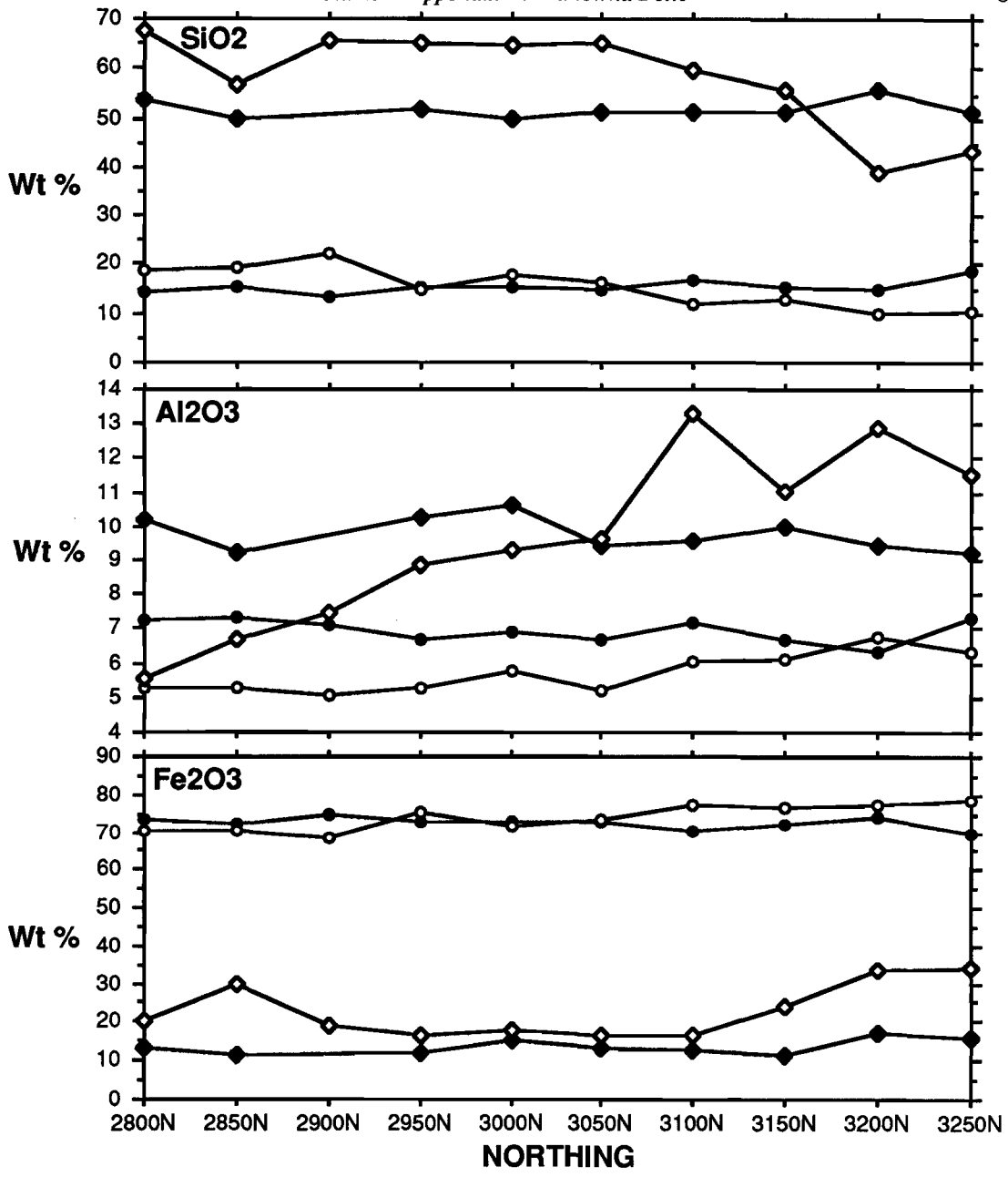

Zr
ppm
200
190
180
170
160
150
140
130
120
110
Nb
ppm
16
14
12
10
8
6
4
2
0
Se
ppm
14
12
10
8
6
4
2
0
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

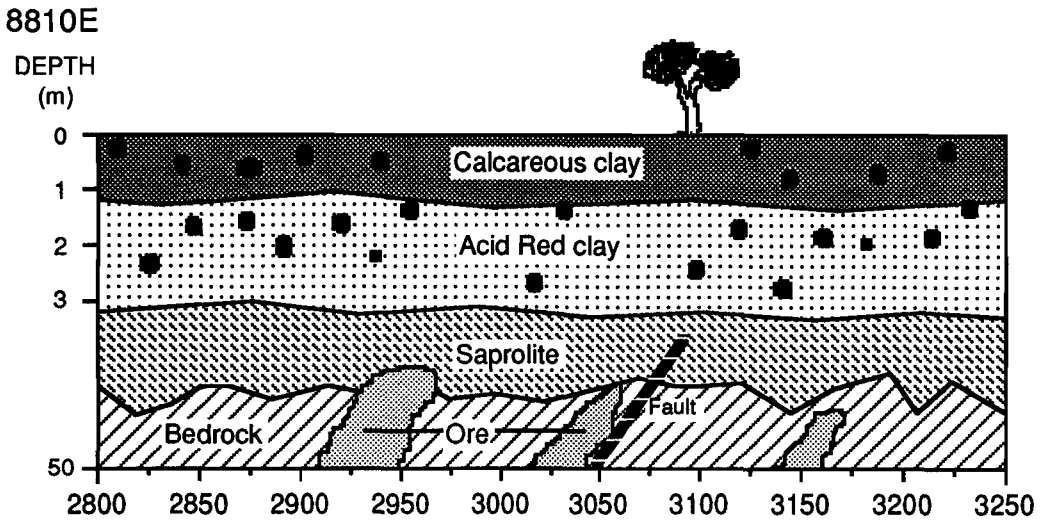

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

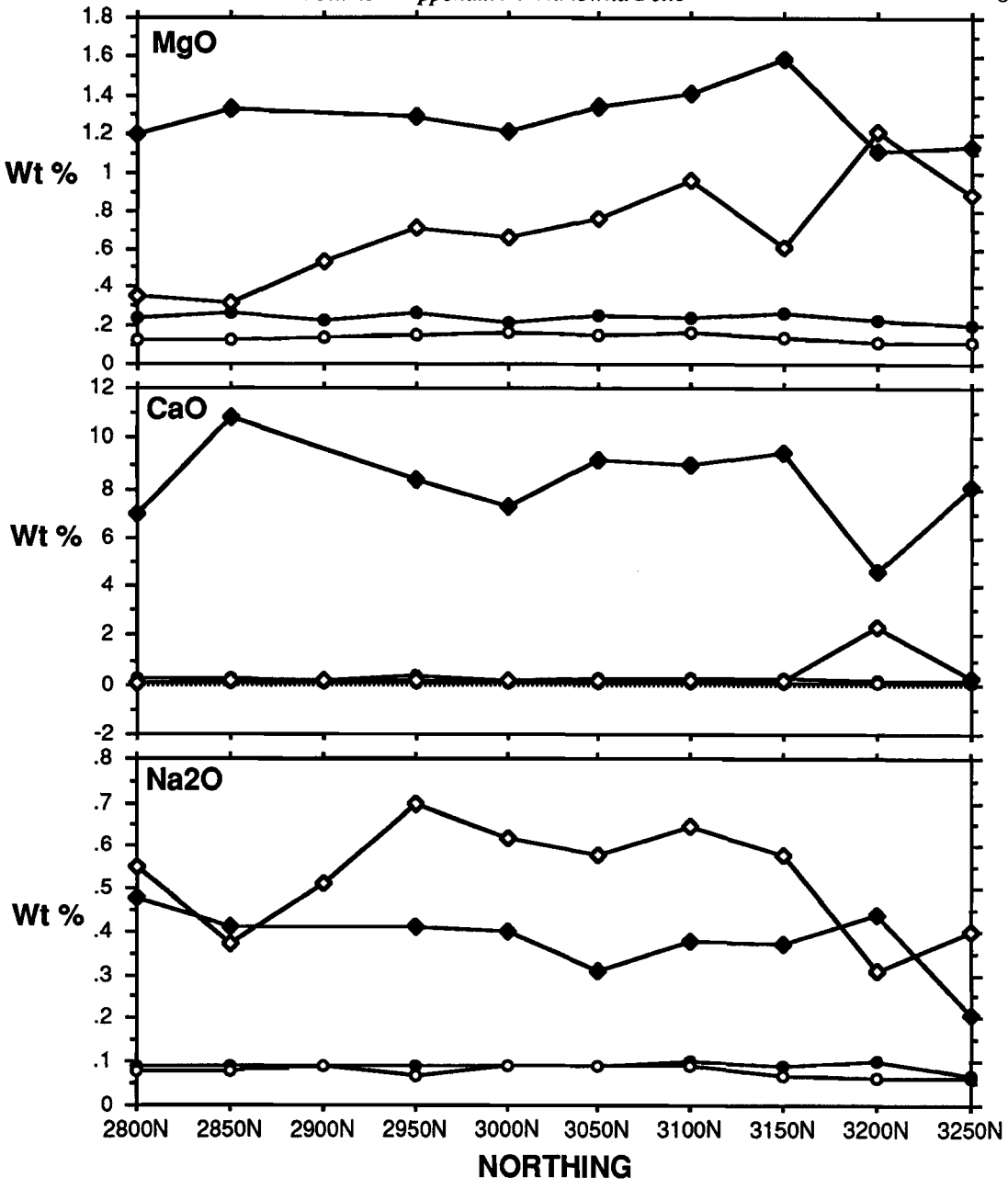

Be
ppm
1.4
1.2
1
.8
.6
.4
.2
0
Au
ppb
250
200
150
100
50
0
-50
Ce
ppm
60
50
40
30
20
10
0
2600N
2650N
2700N
2750N
2800N
2850N
2900N
2950N
3000N
NORTHING

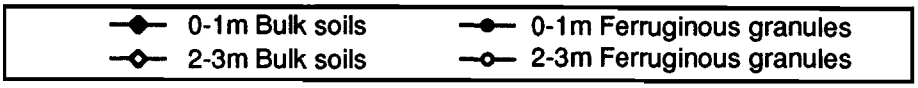

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

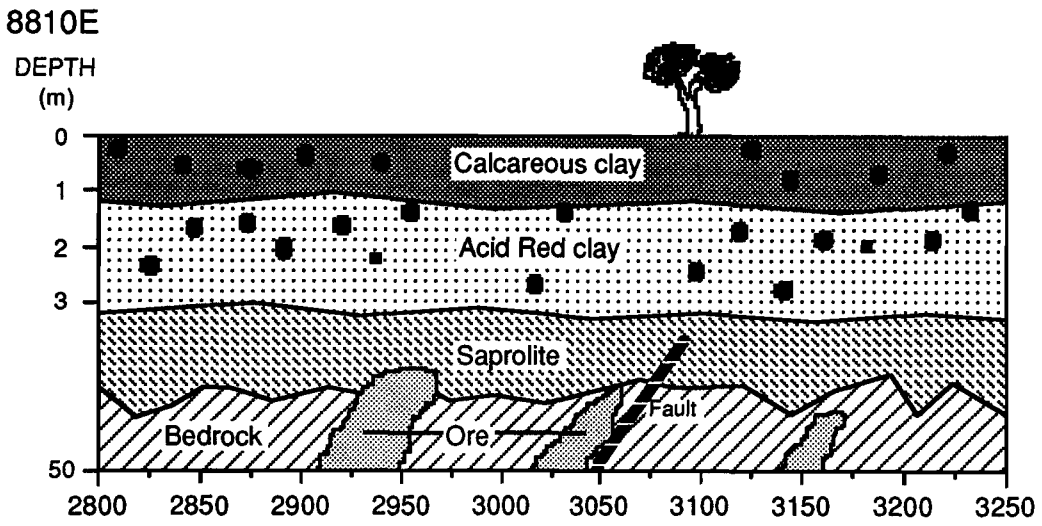

8550E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2600
2650
2700
2750
2800
2850
2900
2950
3000

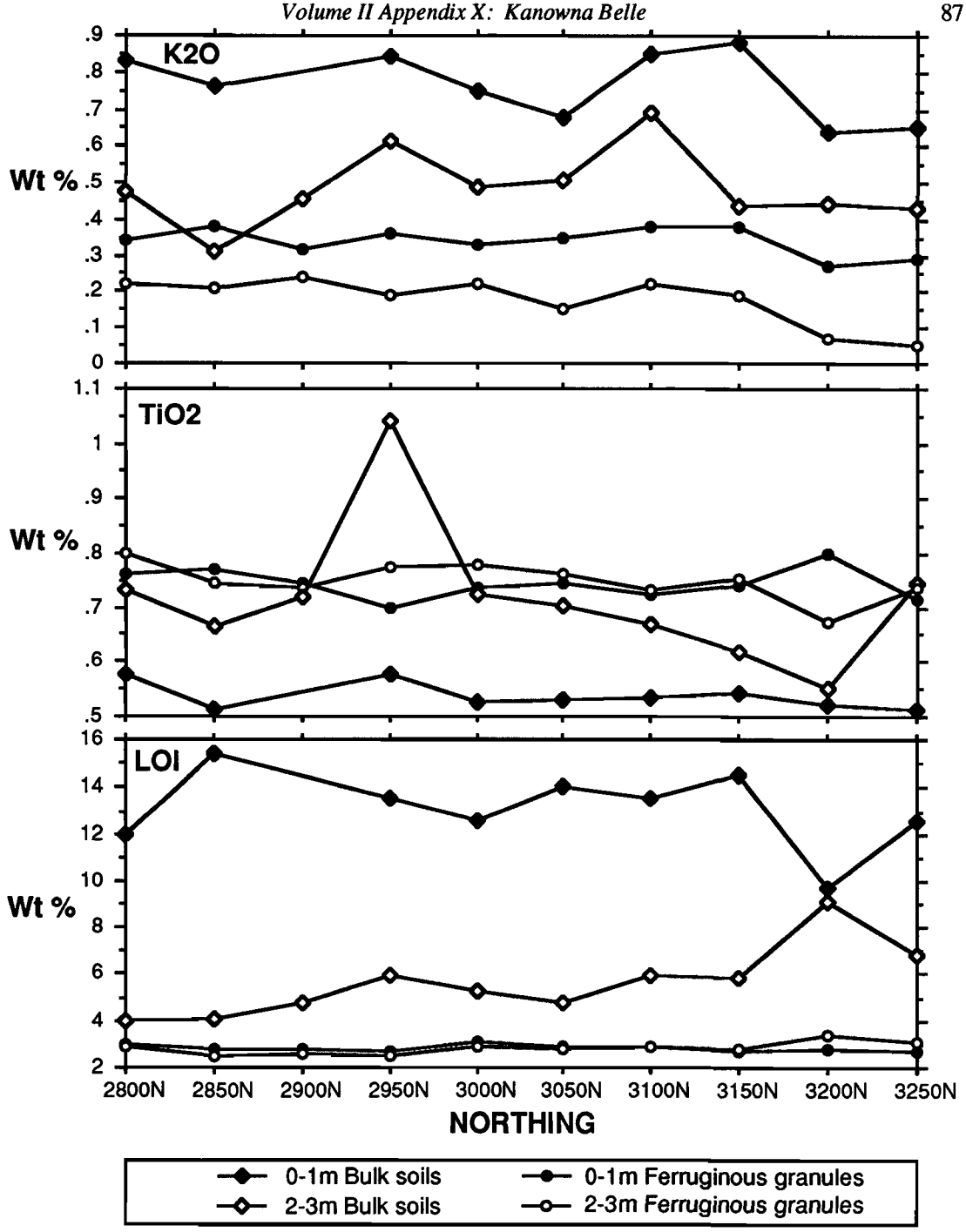

SiO2
Wt %
70
60
50
40
30
20
10
0
Al2O3
Wt %
14
13
12
11
10
9
8
7
6
5
4
Fe2O3
Wt %
90
80
70
60
50
40
30
20
10
0
2800N 2850N 2900N 2950N 3000N 3050N 3100N 3150N 3200N 3250N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

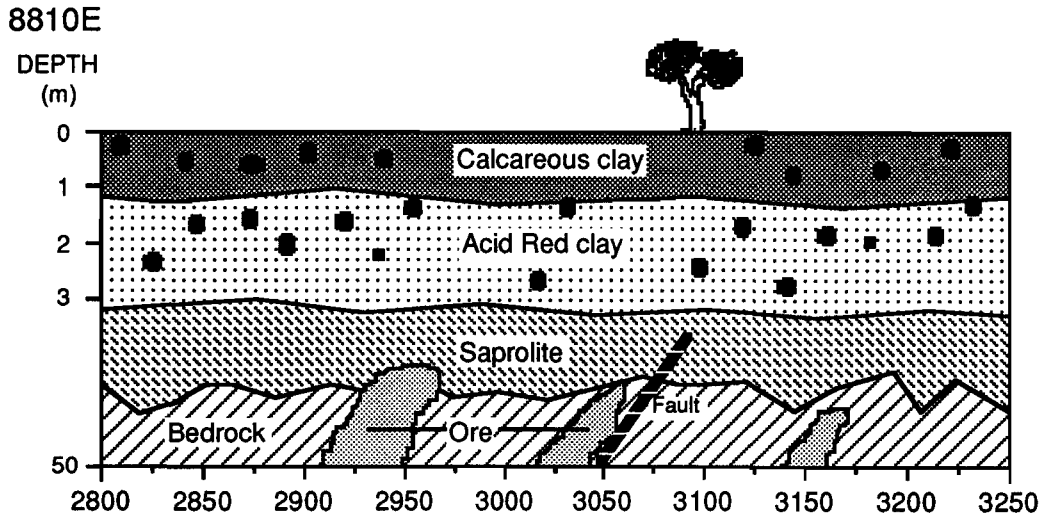

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800 2850 2900 2950 3000 3050 3100 3150 3200 3250

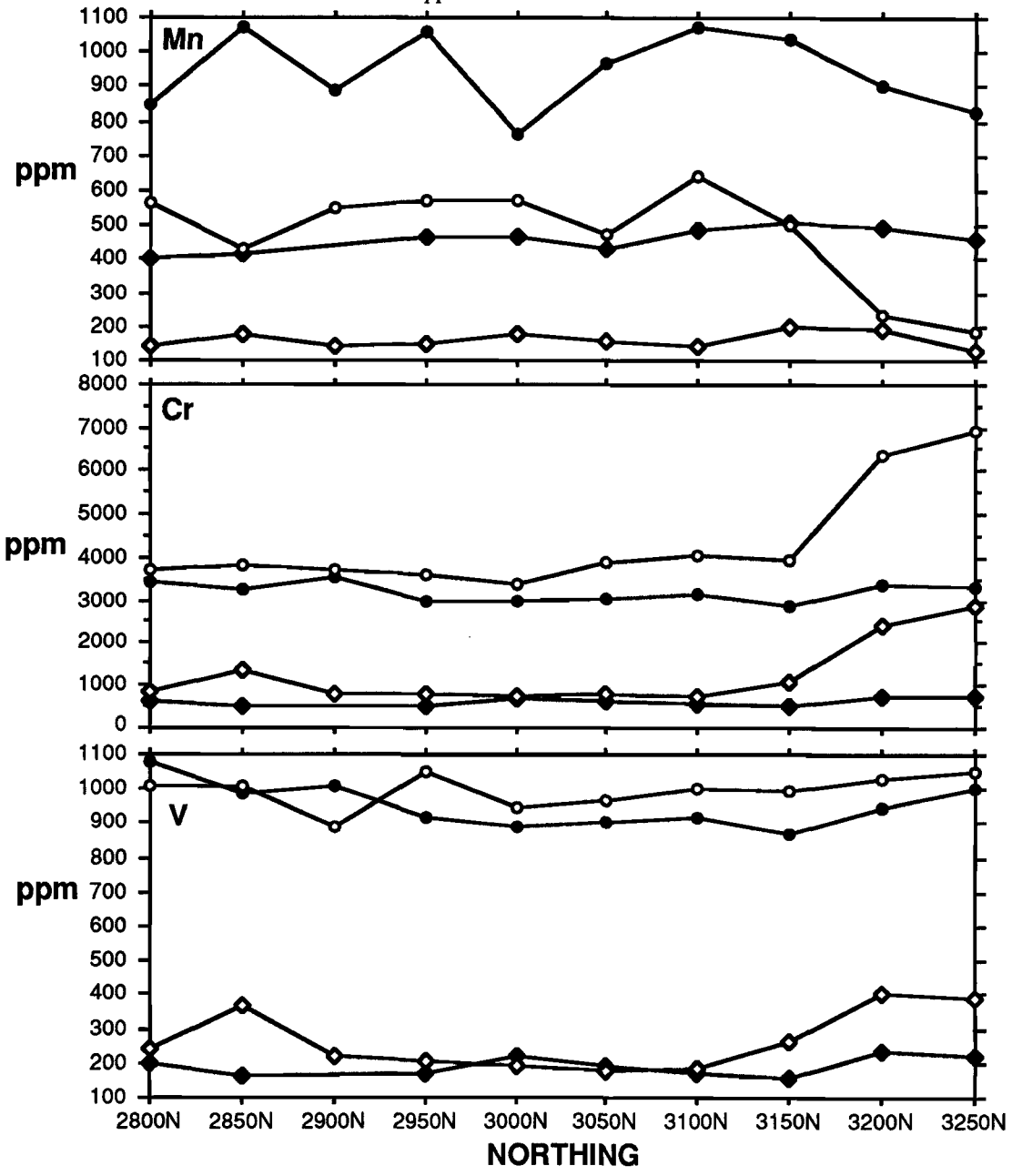

MgO
Wt %
1.8
1.6
1.4
1.2
1
.8
.6
.4
.2
0
CaO
Wt %
12
10
8
6
4
2
0
-2
Na2O
Wt %
.8
.7
.6
.5
.4
.3
.2
.1
0
2800N
2850N
2900N
2950N
3000N
3050N
3100N
3150N
3200N
3250N
NORTHING

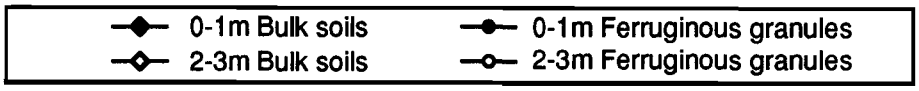

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

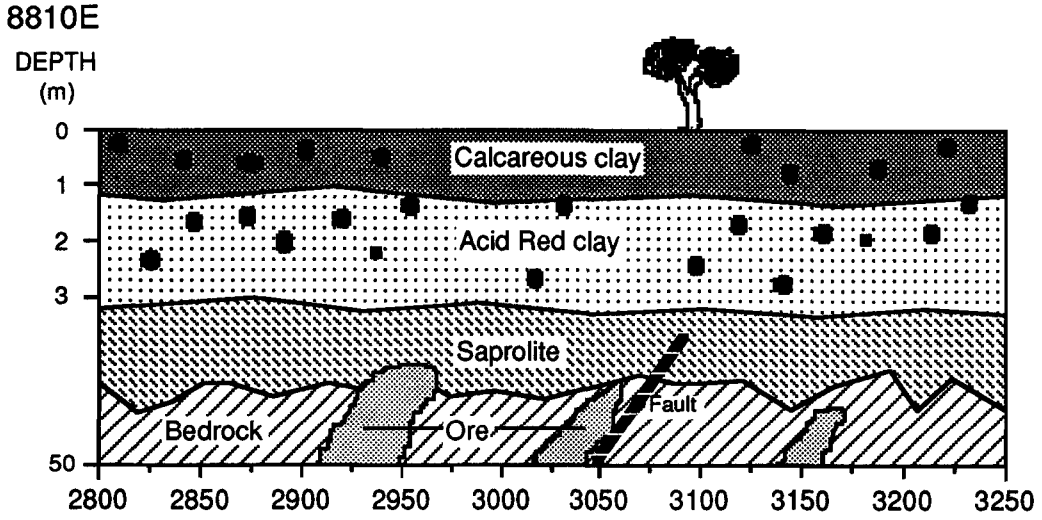

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250

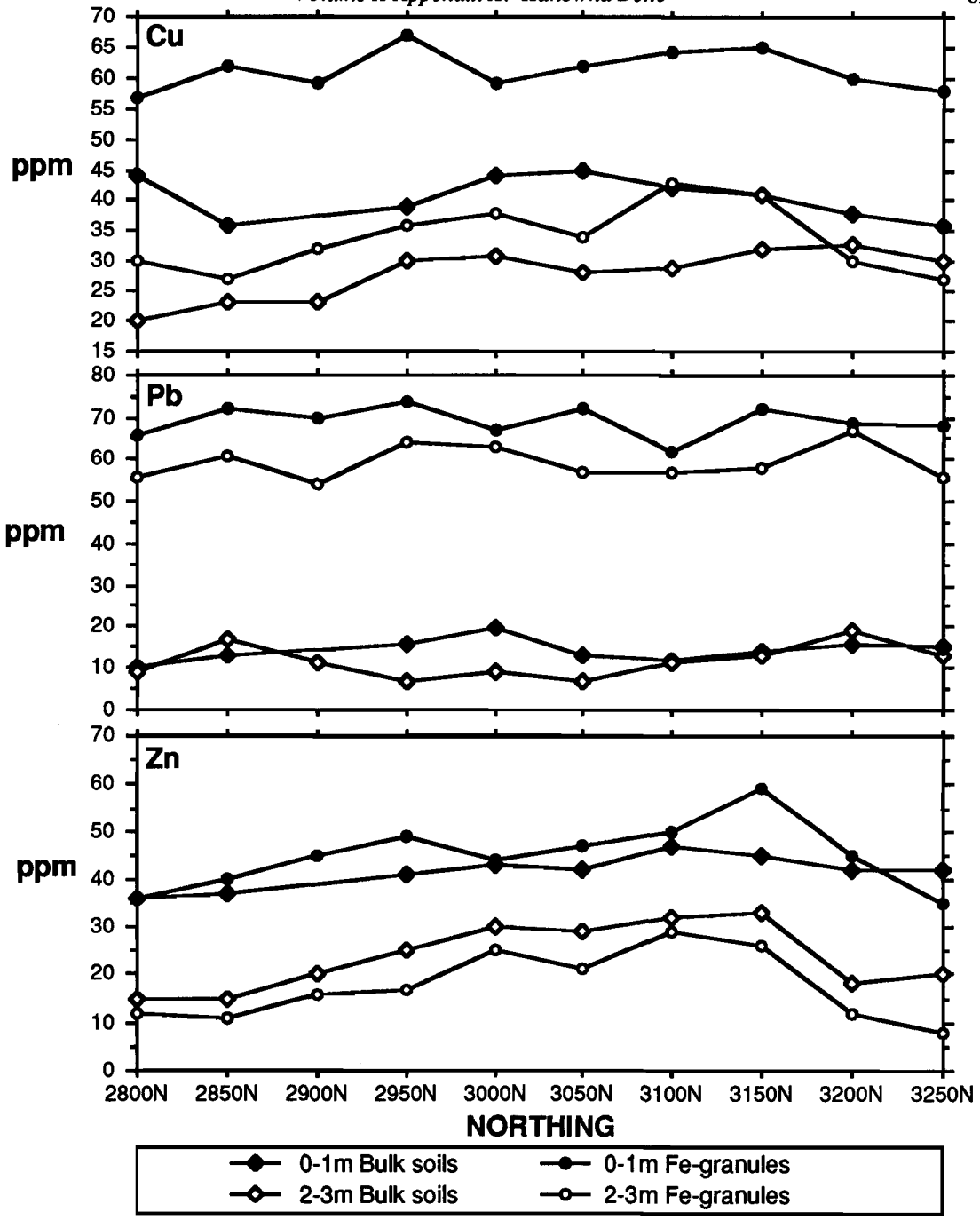

K2O
Wt %
TiO2
Wt %
LOI
Wt %
2800N 2850N 2900N 2950N 3000N 3050N 3100N 3150N 3200N 3250N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

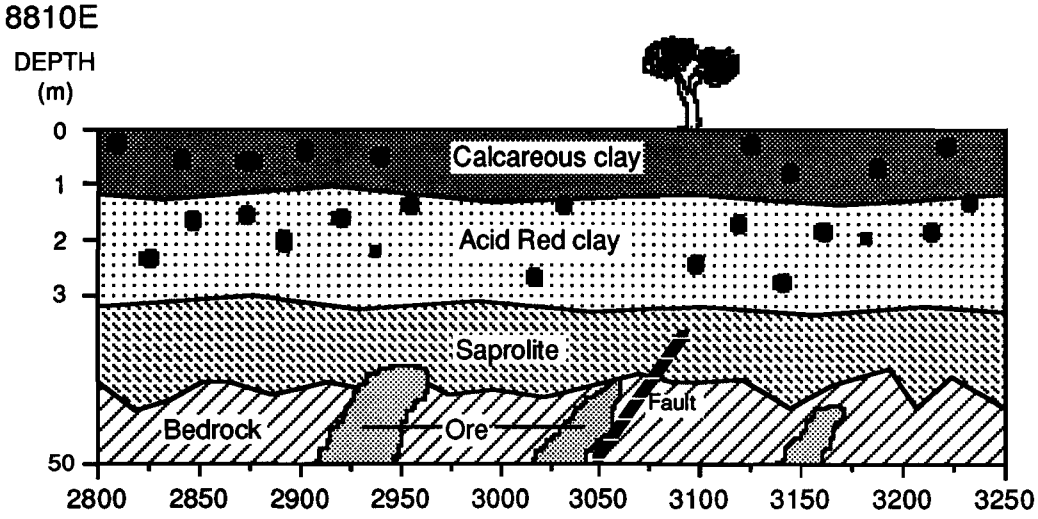

8810E
DEPTH (m)
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800 2850 2900 2950 3000 3050 3100 3150 3200 3250

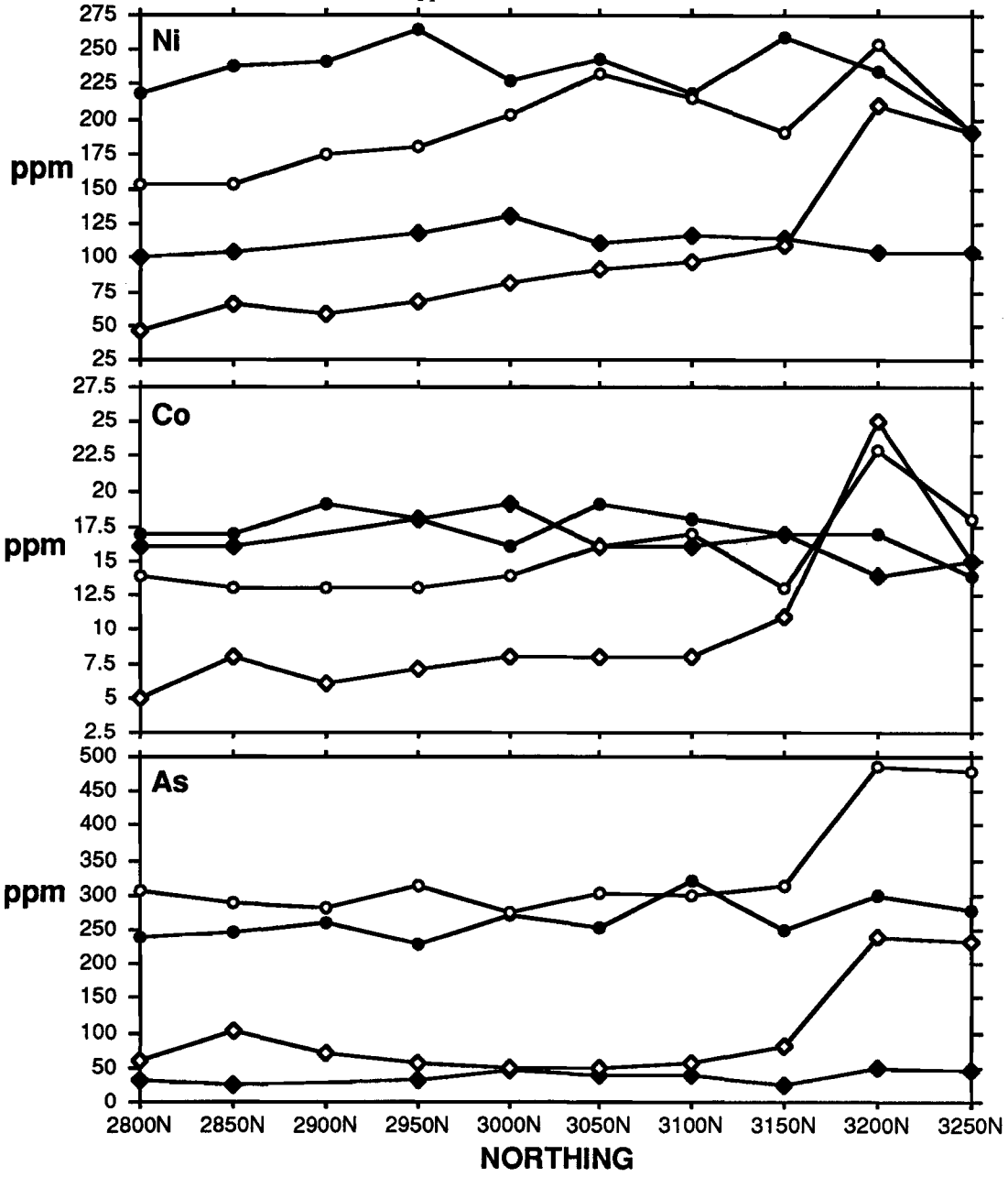

Mn
Cr
V
ppm
ppm
ppm
1100
1000
900
800
700
600
500
400
300
200
100
8000
7000
6000
5000
4000
3000
2000
1000
0
2800N
2850N
2900N
2950N
3000N
3050N
3100N
3150N
3200N
3250N
NORTHING

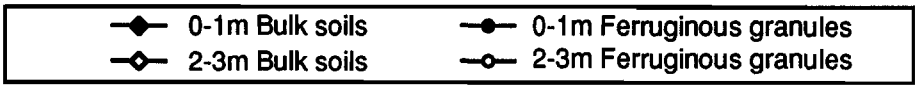

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

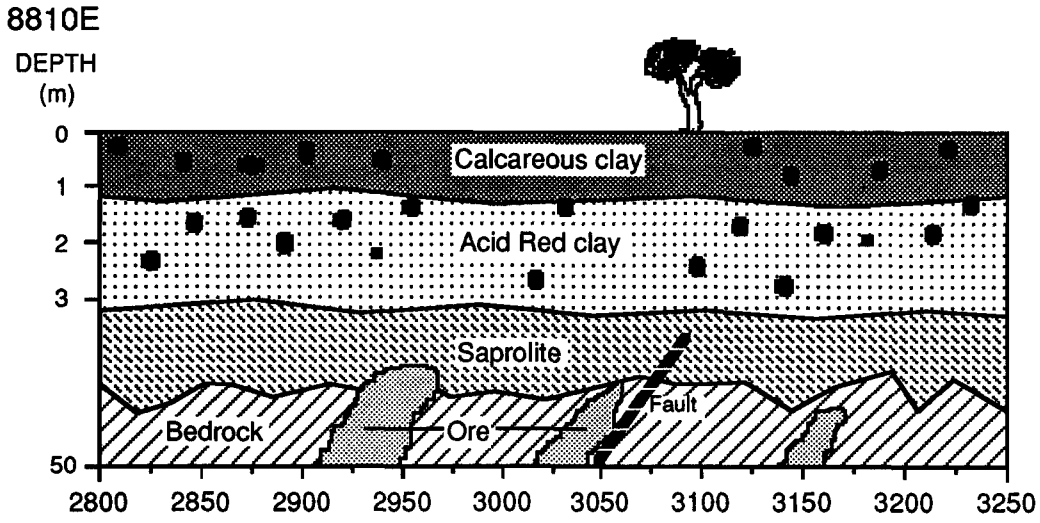

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250

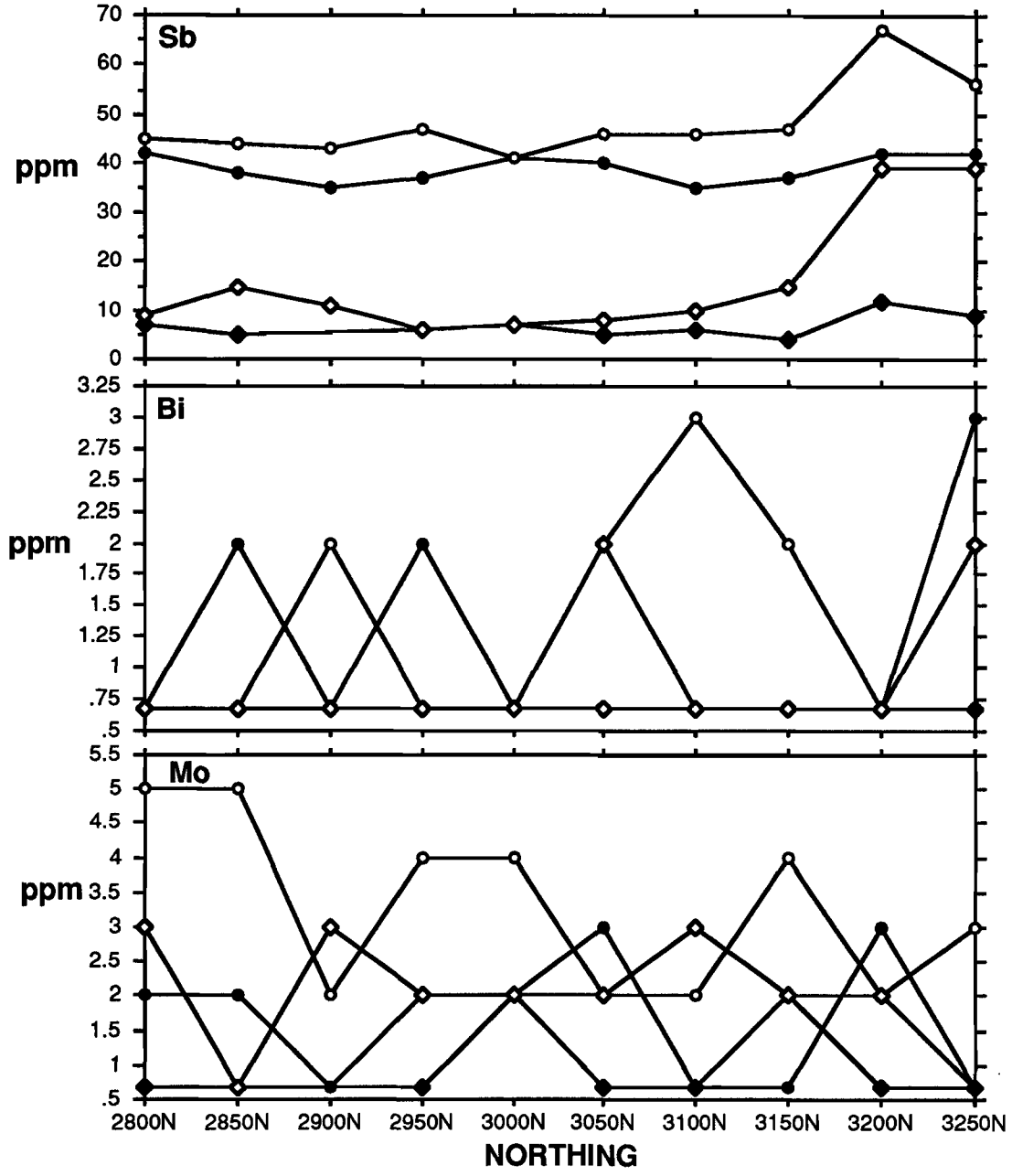

Cu
ppm
Pb
ppm
Zn
ppm
2800N 2850N 2900N 2950N 3000N 3050N 3100N 3150N 3200N 3250N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Fe-granules
2-3m Fe-granules

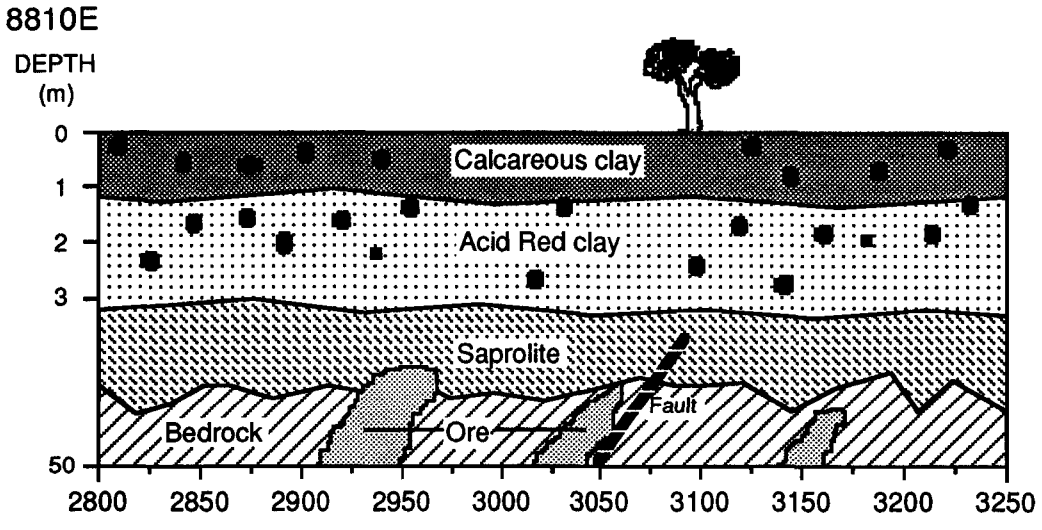

8810E
DEPTH (m)
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800 2850 2900 2950 3000 3050 3100 3150 3200 3250

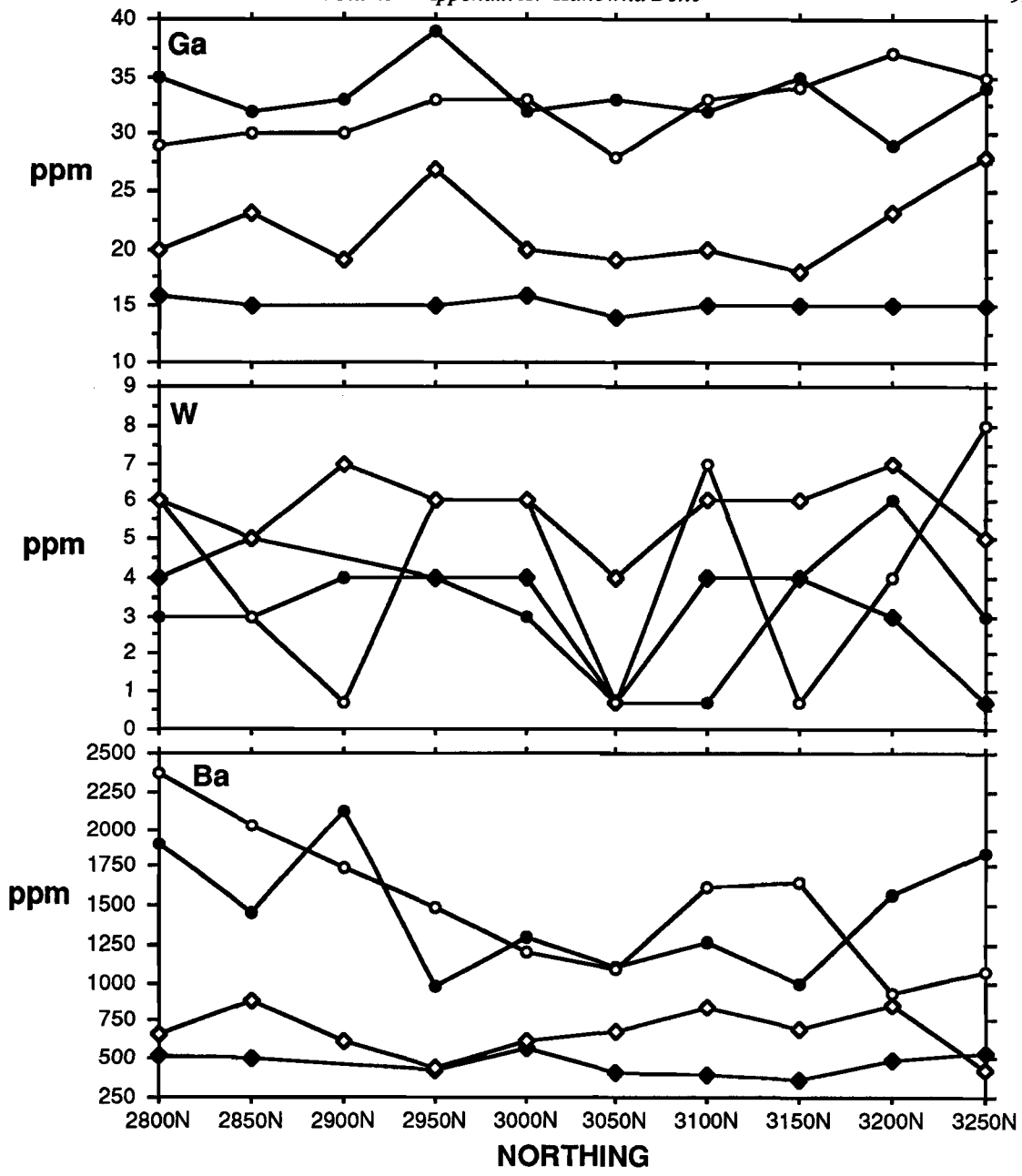

Ni
ppm
275
250
225
200
175
150
125
100
75
50
25
Co
ppm
27.5
25
22.5
20
17.5
15
12.5
10
7.5
5
2.5
As
ppm
500
450
400
350
300
250
200
150
100
50
0
2800N 2850N 2900N 2950N 3000N 3050N 3100N 3150N 3200N 3250N
NORTHING

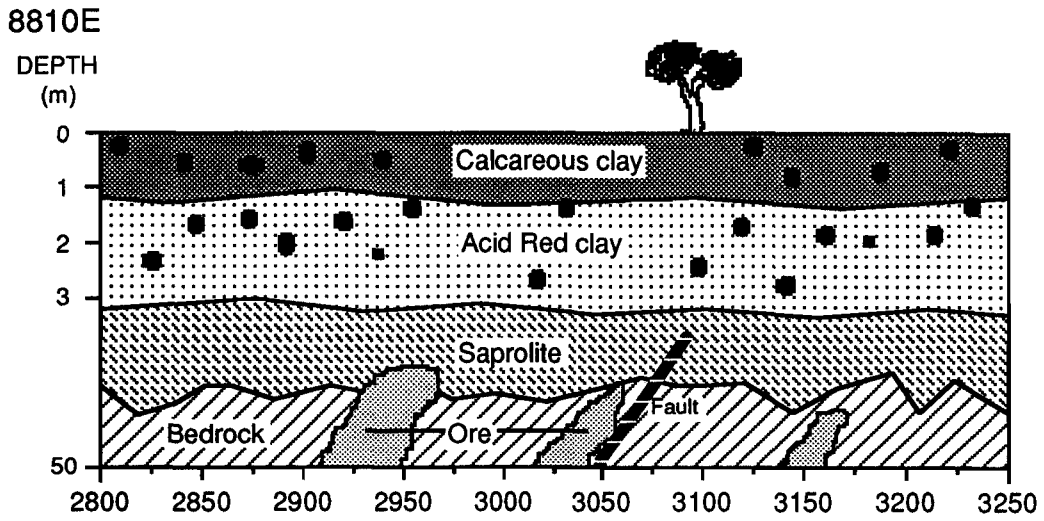

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

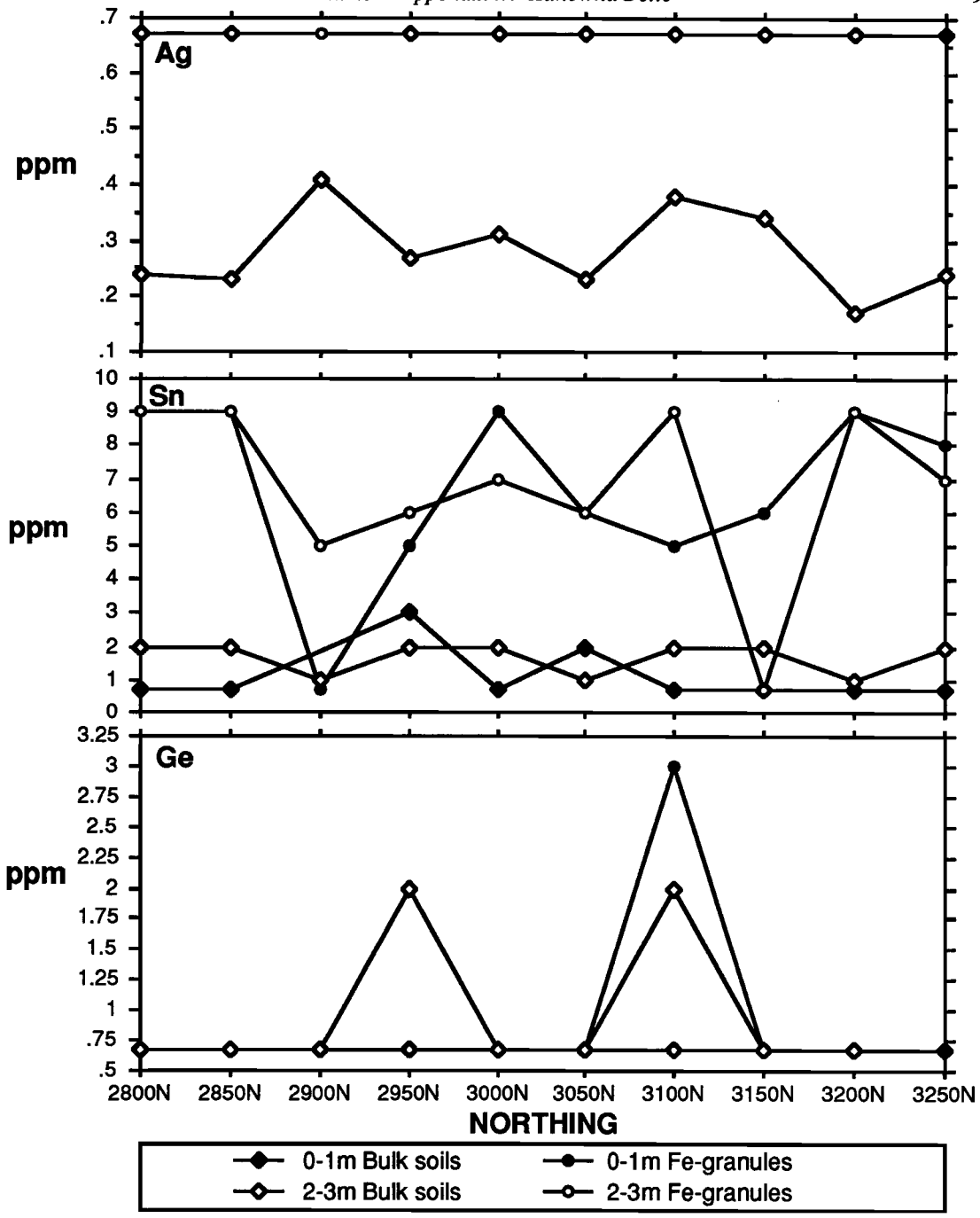

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800 2850 2900 2950 3000 3050 3100 3150 3200 3250

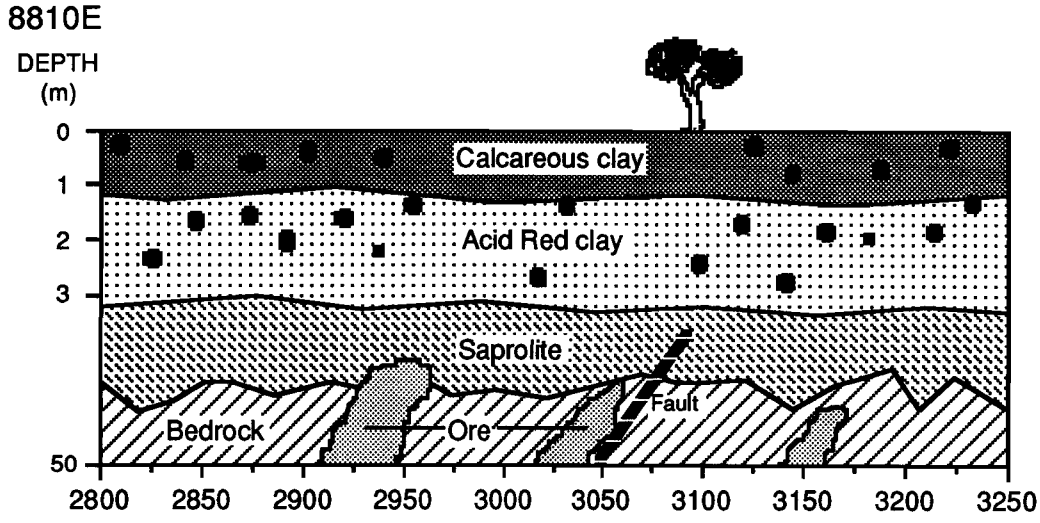

Sb
ppm
70
60
50
40
30
20
10
0
Bi
ppm
3.25
3
2.75
2.5
2.25
2
1.75
1.5
1.25
1
.75
.5
Mo
ppm
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
2800N 2850N 2900N 2950N 3000N 3050N 3100N 3150N 3200N 3250N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

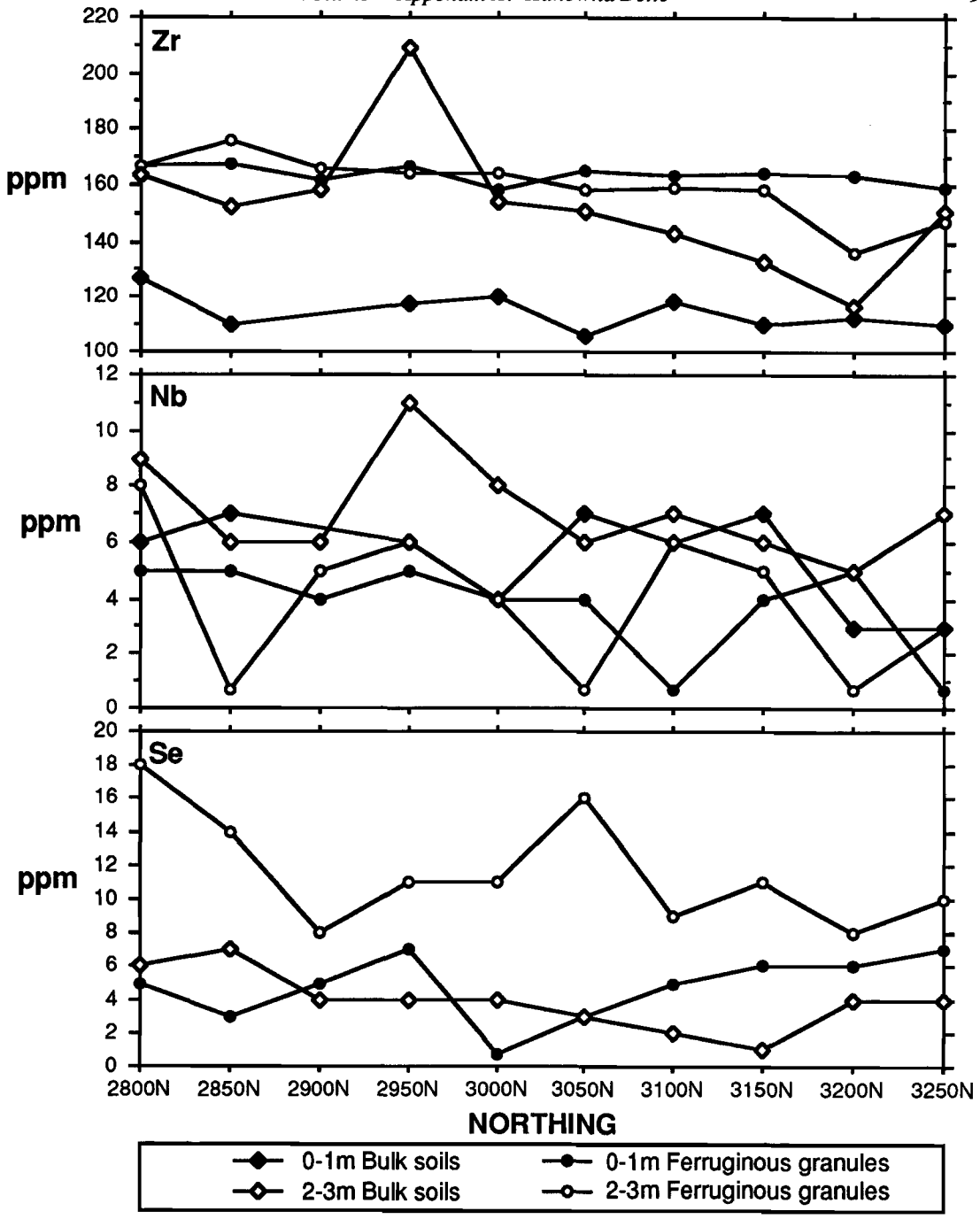

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800 2850 2900 2950 3000 3050 3100 3150 3200 3250

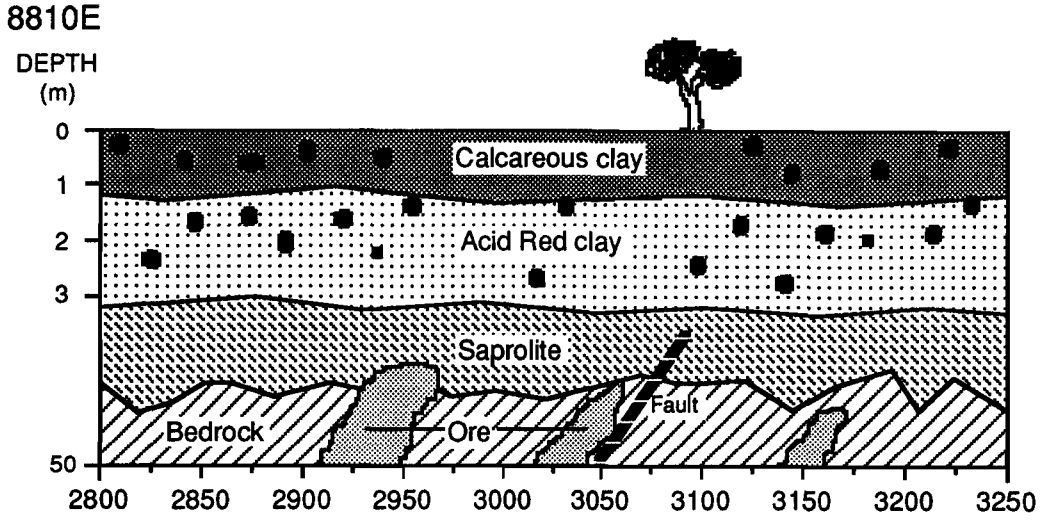

Ga
ppm
40
35
30
25
20
15
10
W
ppm
9
8
7
6
5
4
3
2
1
0
Ba
ppm
2500
2250
2000
1750
1500
1250
1000
750
500
250
2800N
2850N
2900N
2950N
3000N
3050N
3100N
3150N
3200N
3250N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

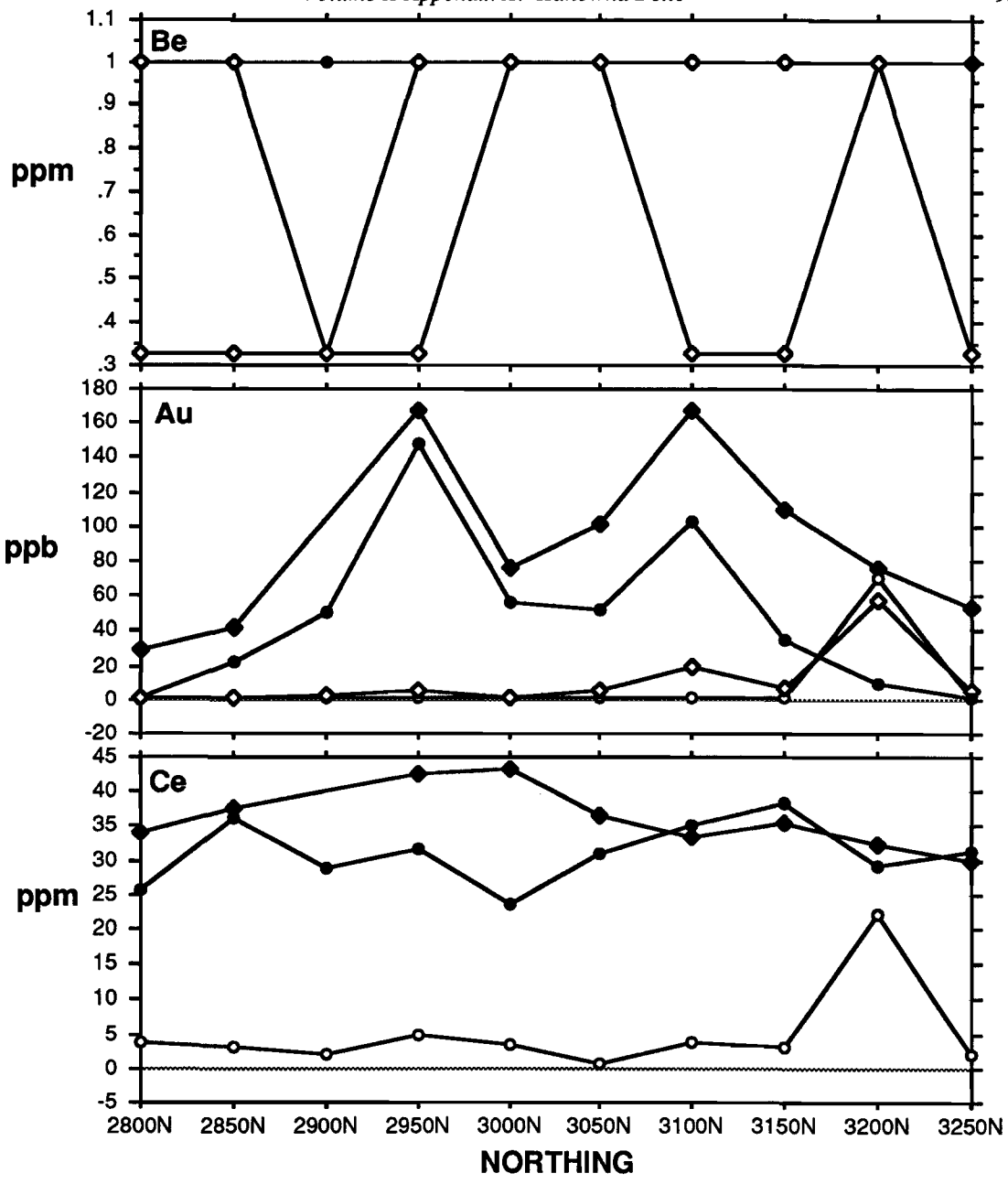

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250

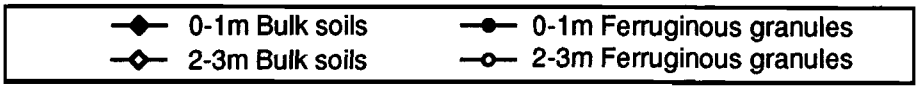

Ag
ppm
.7
.6
.5
.4
.3
.2
.1
Sn
ppm
10
9
8
7
6
5
4
3
2
1
0
Ge
ppm
3.25
3
2.75
2.5
2.25
2
1.75
1.5
1.25
1
.75
.5
2800N 2850N 2900N 2950N 3000N 3050N 3100N 3150N 3200N 3250N
NORTHING
0-1m Bulk soils
0-1m Fe-granules
2-3m Bulk soils
2-3m Fe-granules

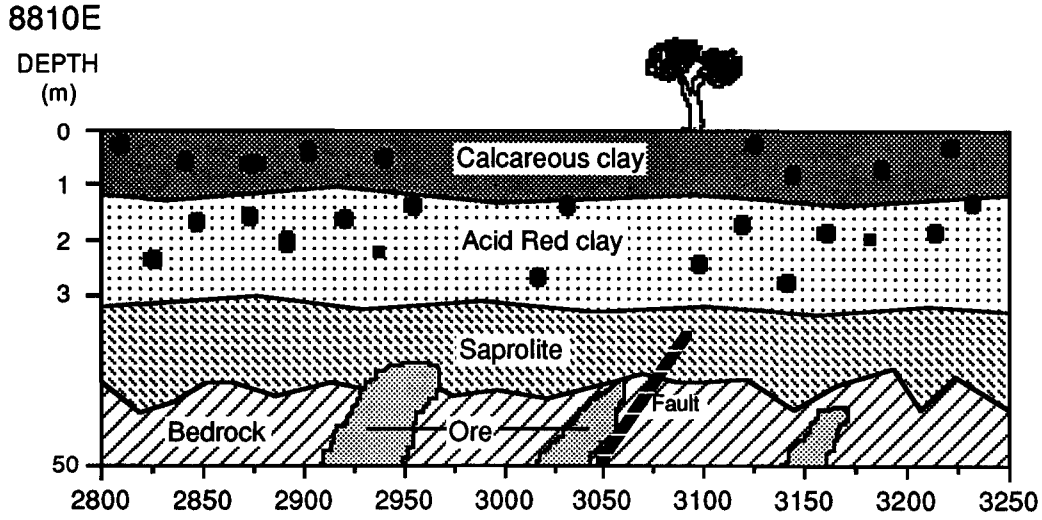

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800 2850 2900 2950 3000 3050 3100 3150 3200 3250

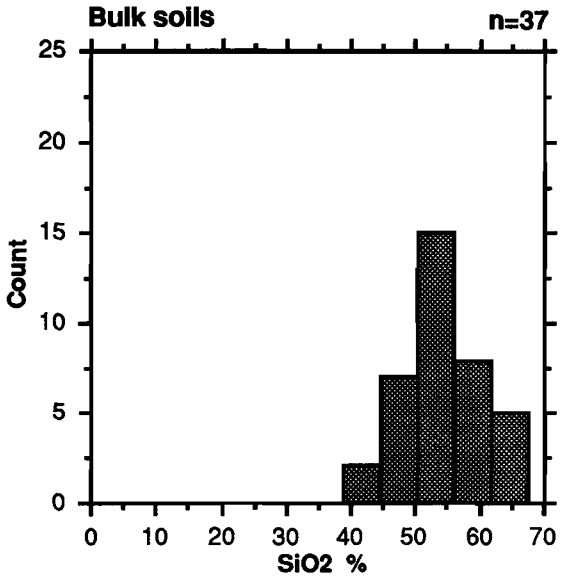

Zr
ppm
220
200
180
160
140
120
100
Nb
ppm
12
10
8
6
4
2
0
Se
ppm
20
18
16
14
12
10
8
6
4
2
0
2800N
2850N
2900N
2950N
3000N
3050N
3100N
3150N
3200N
3250N
NORTHING
0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

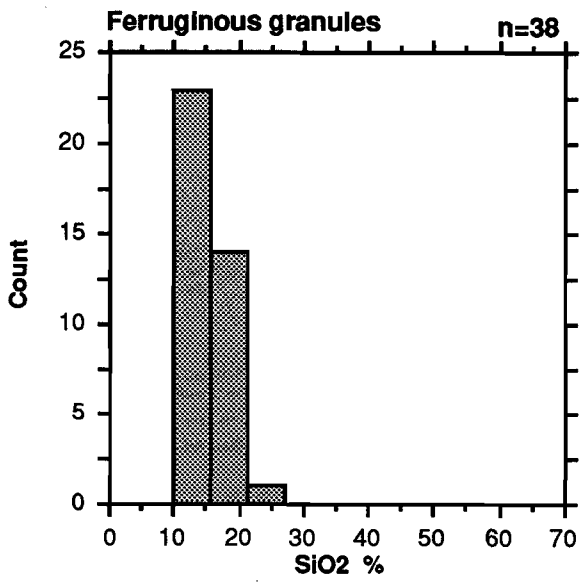

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250

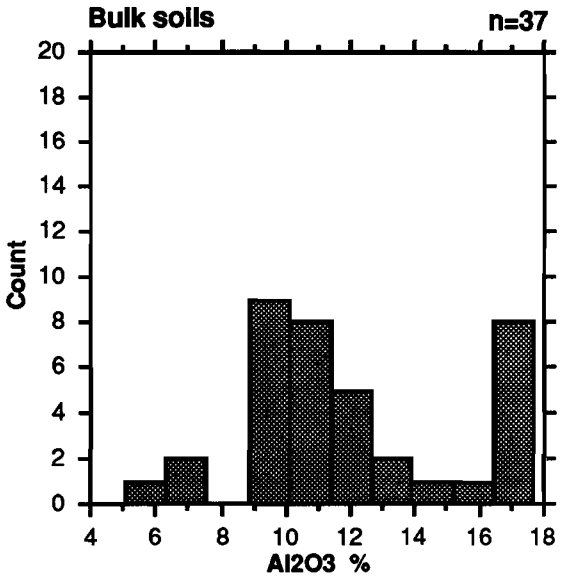

Be
ppm
1.1
1
.9
.8
.7
.6
.5
.4
.3
Au
ppb
180
160
140
120
100
80
60
40
20
0
-20
Ce
ppm
45
40
35
30
25
20
15
10
5
0
-5
2800N
2850N
2900N
2950N
3000N
3050N
3100N
3150N
3200N
3250N
NORTHING

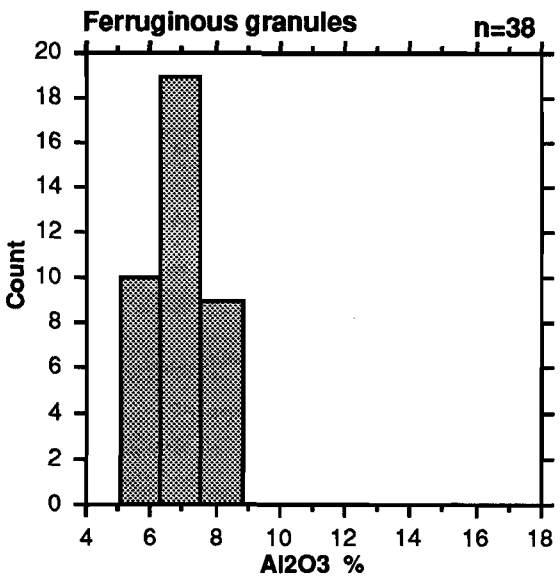

0-1m Bulk soils
2-3m Bulk soils
0-1m Ferruginous granules
2-3m Ferruginous granules

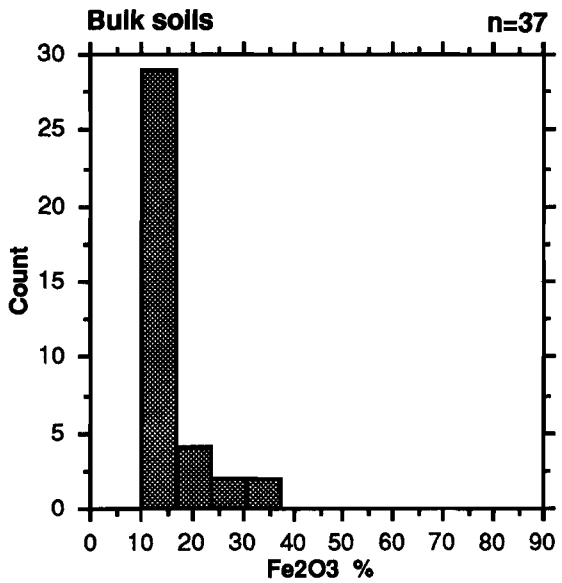

8810E
DEPTH
(m)
0
1
2
3
50
Calcareous clay
Acid Red clay
Saprolite
Bedrock
Ore
Fault
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250

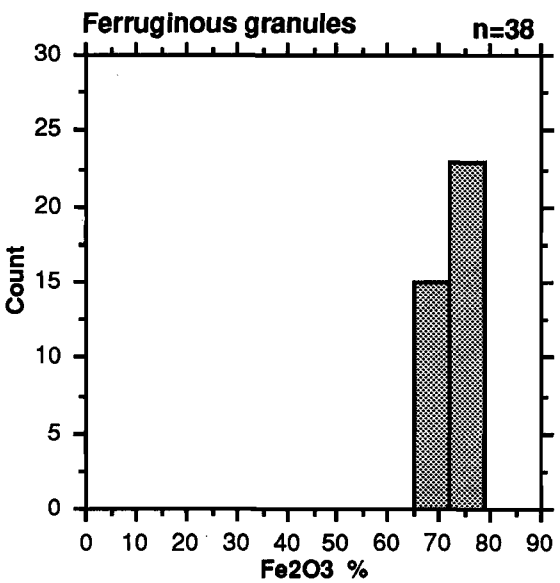

Bulk soils
n=37
Count
SiO2 %

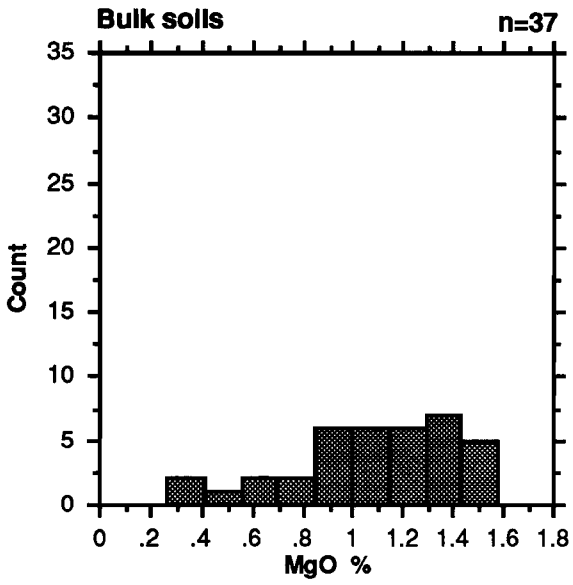

Ferruginous granules
n=38
Count
SiO2 %

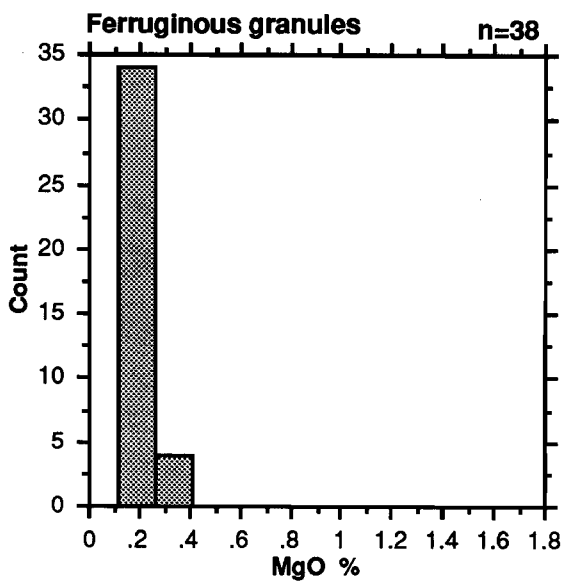

Bulk soils
n=37
Count
Al2O3 %

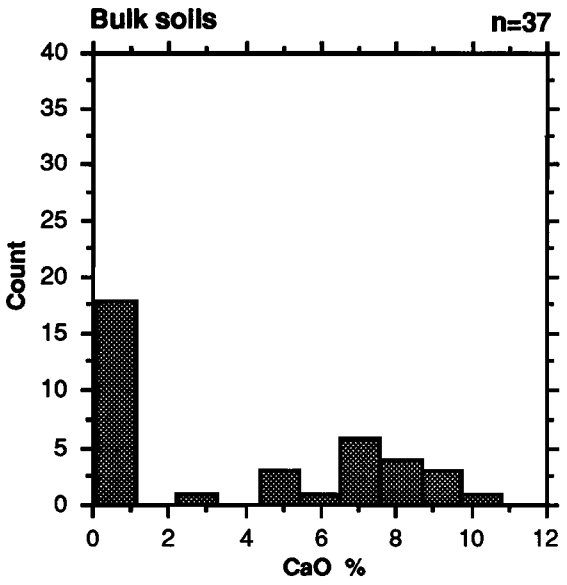

Ferruginous granules
n=38
Count
Al2O3 %

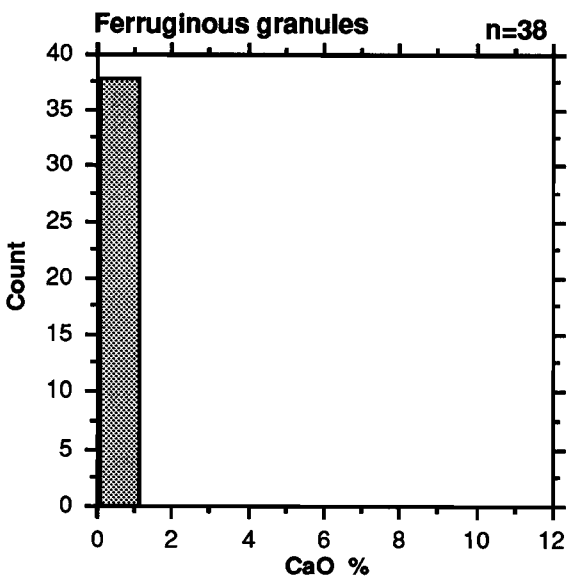

Bulk soils
n=37
Count
Fe2O3 %

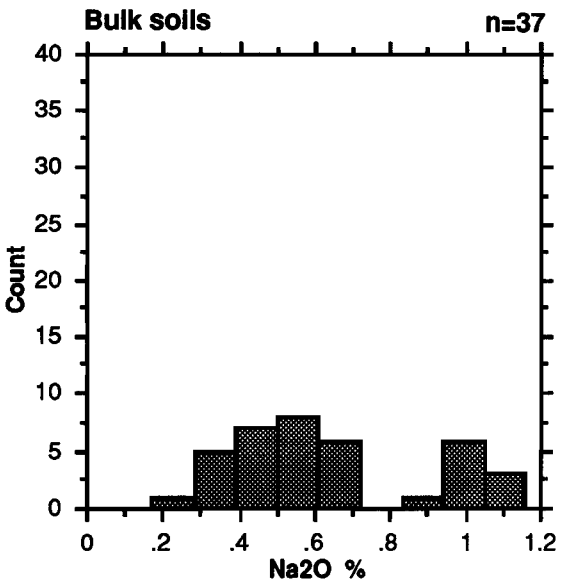

Ferruginous granules
n=38
Count
Fe2O3 %

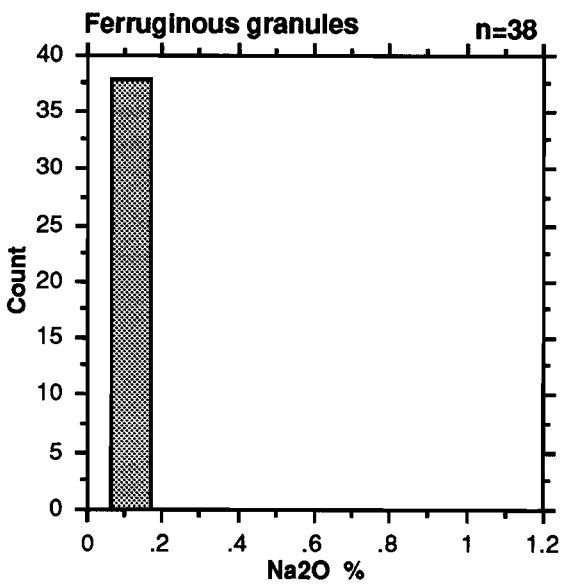

Bulk soils
n=37
Count
MgO %

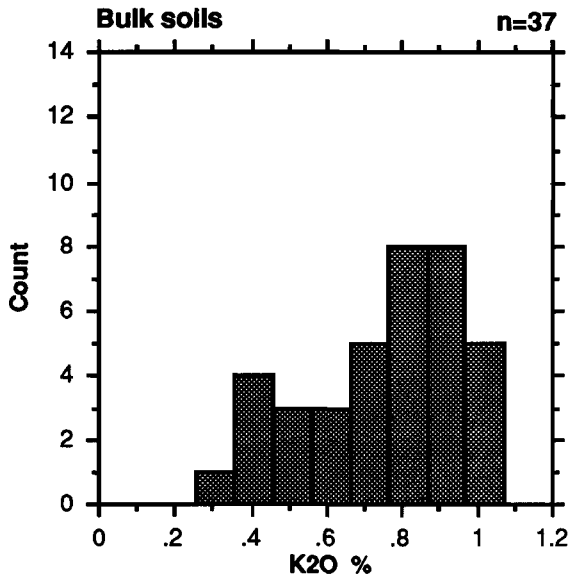

Ferruginous granules
n=38
Count
MgO %

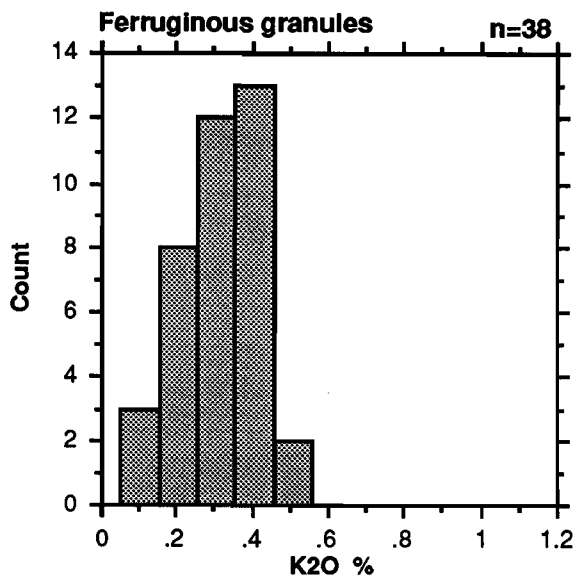

Bulk soils
n=37
Count
CaO %

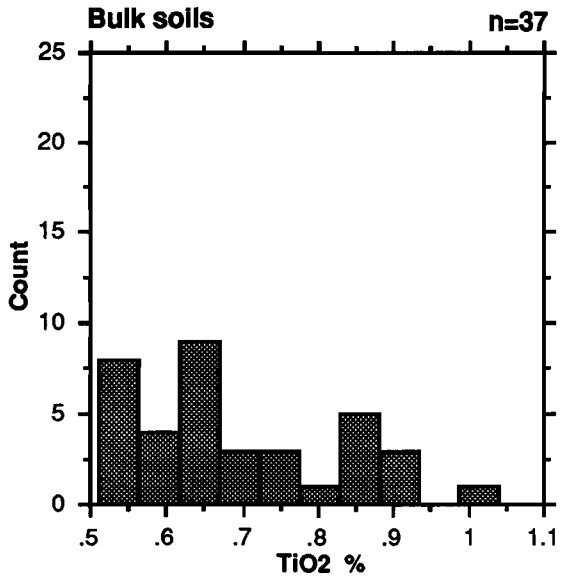

Ferruginous granules
n=38
Count
CaO %

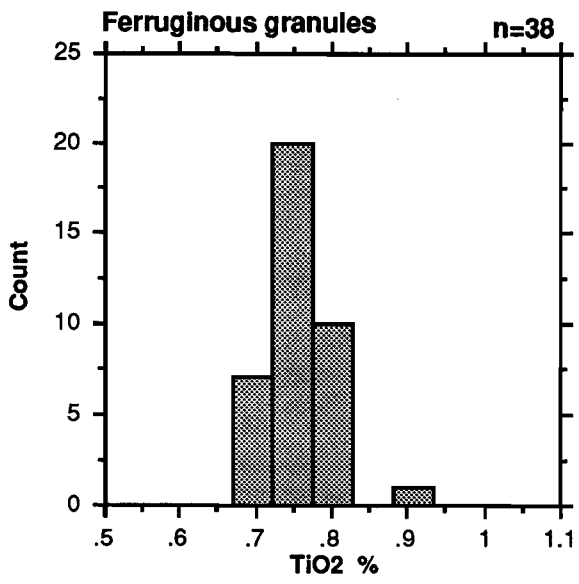

Bulk soils
n=37
Count
Na2O %

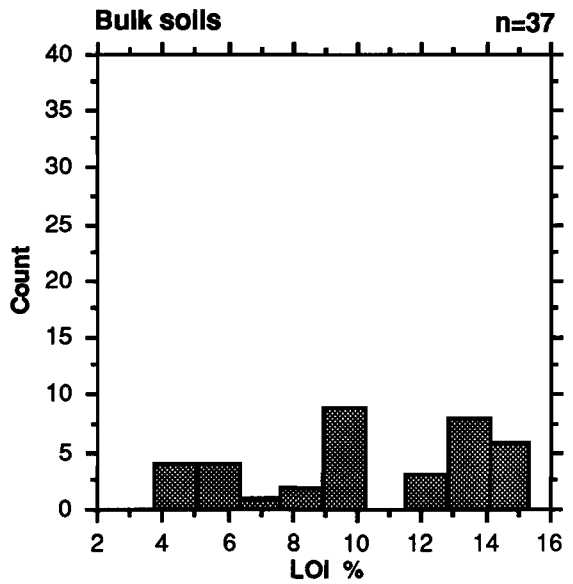

Ferruginous granules
n=38
Count
Na2O %

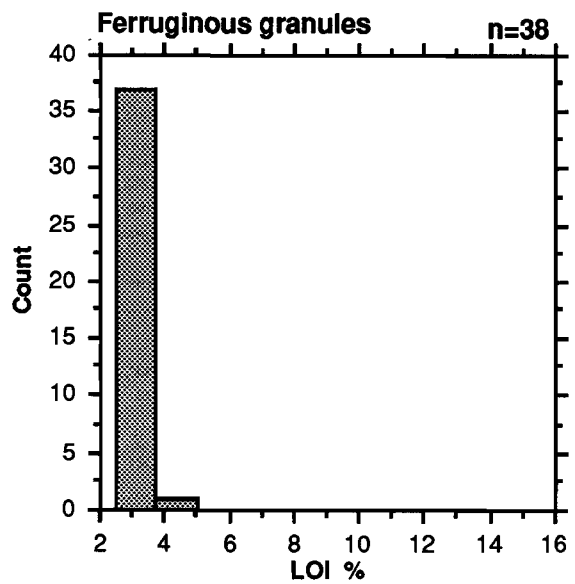

Bulk soils
n=37
Count
K2O %

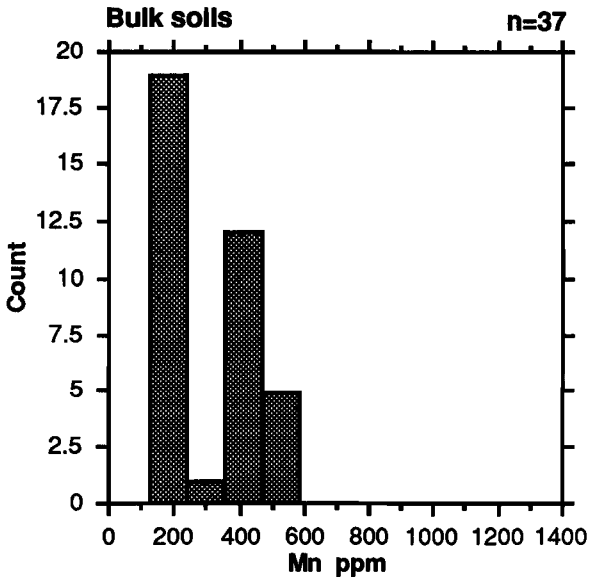

Ferruginous granules
n=38
Count
K2O %

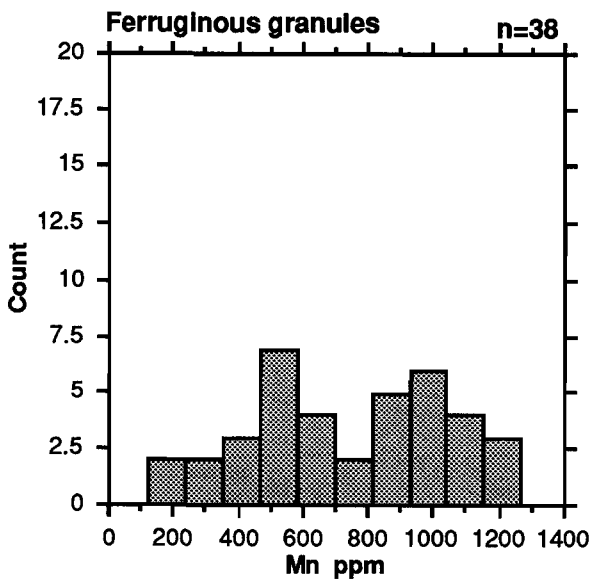

Bulk soils
n=37
Count
TiO2 %

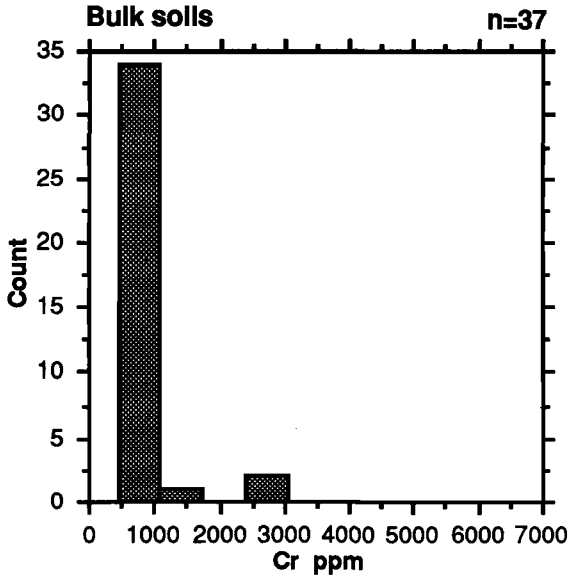

Ferruginous granules
n=38
Count
TiO2 %

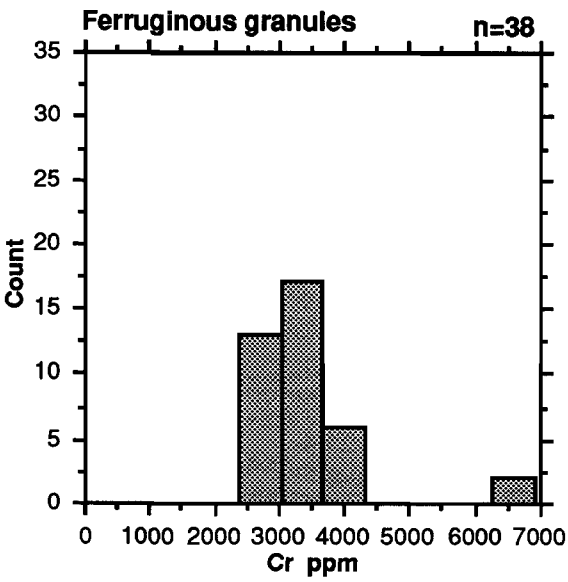

Bulk soils
n=37
Count
LOI %

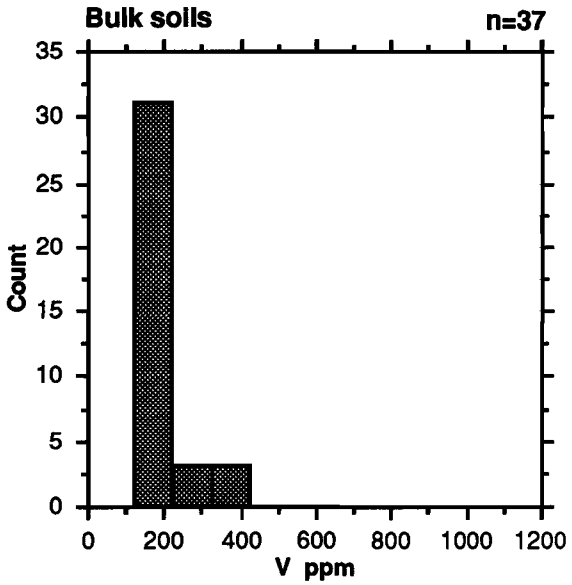

Ferruginous granules
n=38
Count
LOI %


Bulk soils
n=37
Count
Mn ppm
0 200 400 600 800 1000 1200 1400
0 2.5 5 7.5 10 12.5 15 17.5 20


Ferruginous granules
n=38
Count
Mn ppm
0 200 400 600 800 1000 1200 1400
0 2.5 5 7.5 10 12.5 15 17.5 20


Bulk soils
n=37
Count
Cr ppm
0 1000 2000 3000 4000 5000 6000 7000
0 5 10 15 20 25 30 35


Ferruginous granules
n=38
Count
Cr ppm
0 1000 2000 3000 4000 5000 6000 7000
0 5 10 15 20 25 30 35


Bulk soils
n=37
Count
V ppm
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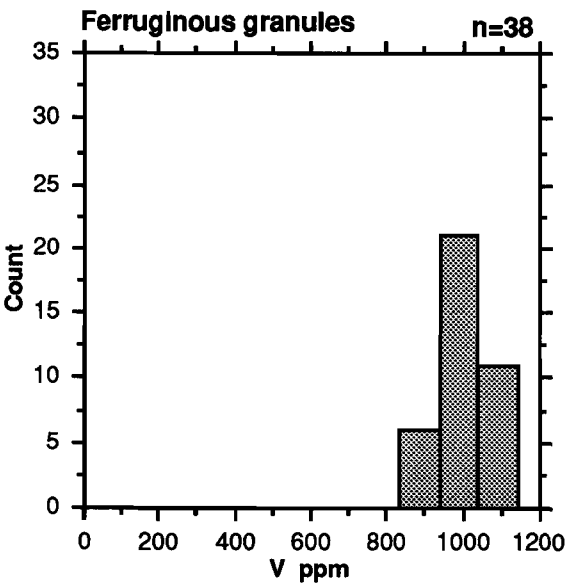
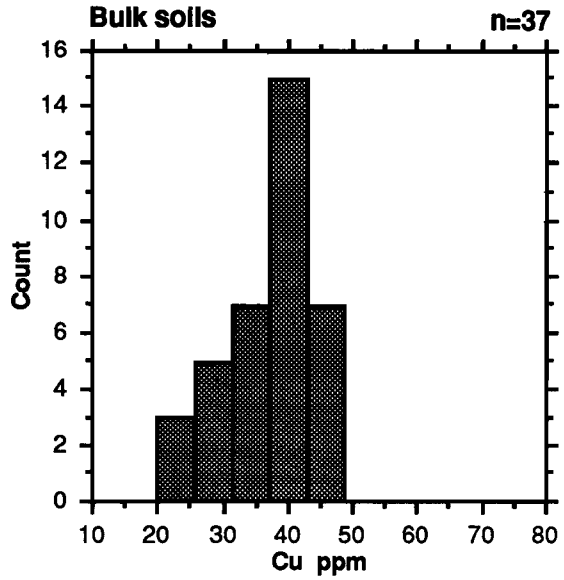
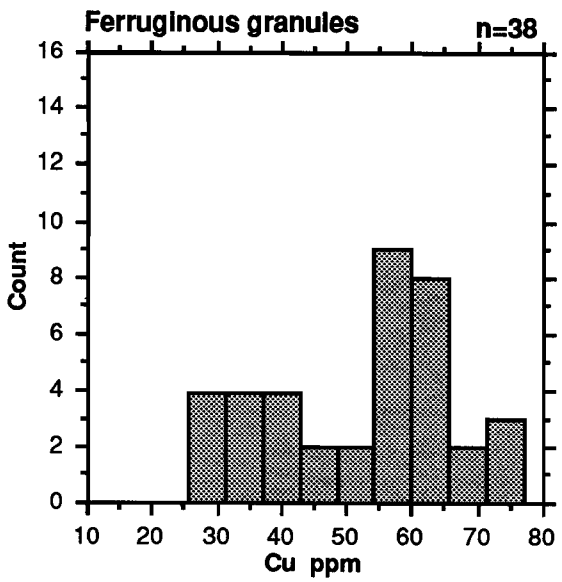
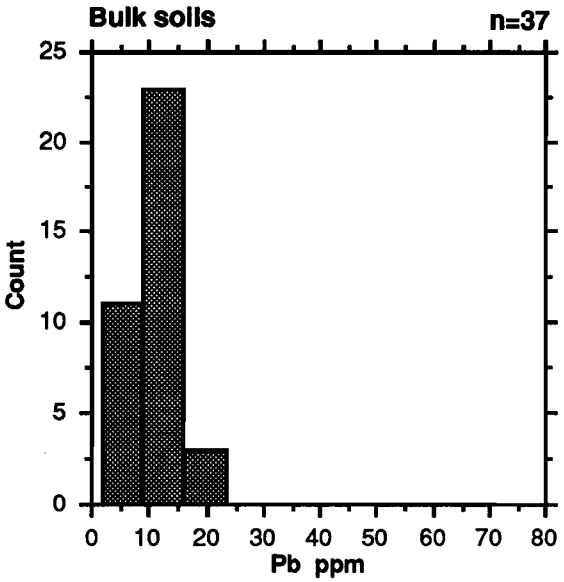
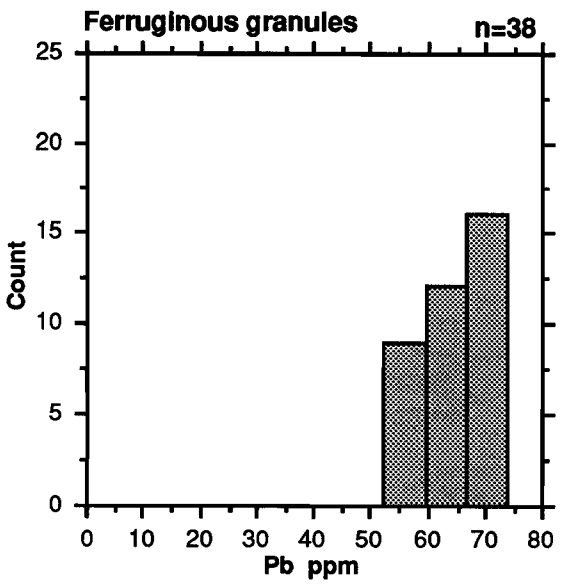
0 5 10 15 20 25 30 35

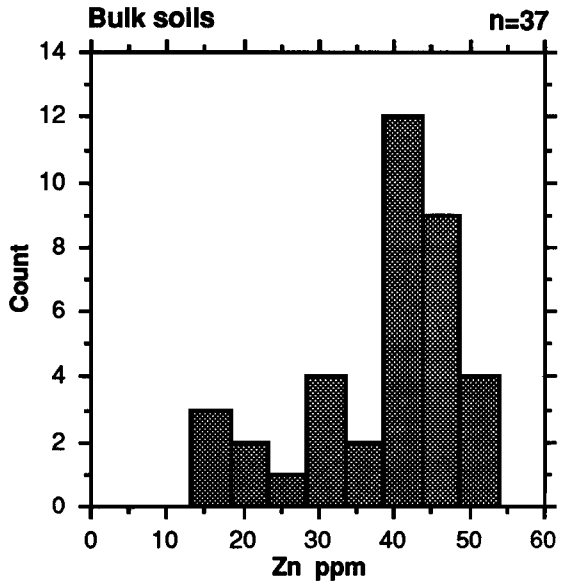

Ferruginous granules
n=38
Count
V ppm
0 200 400 600 800 1000 1200
0 5 10 15 20 25 30 35

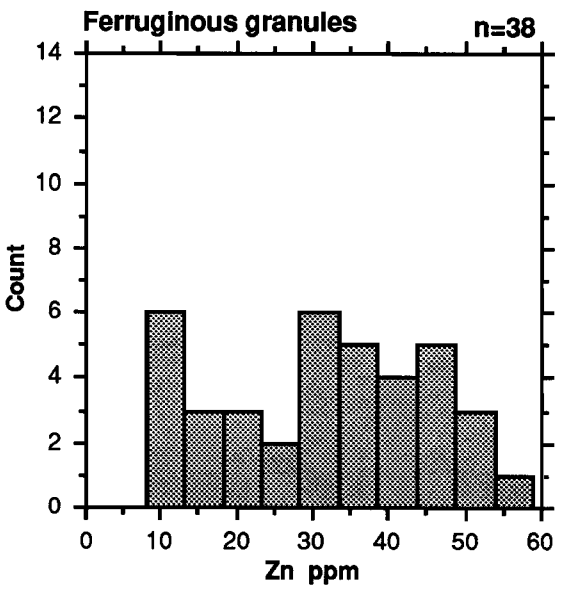

Bulk soils
n=37
Count
Cu ppm

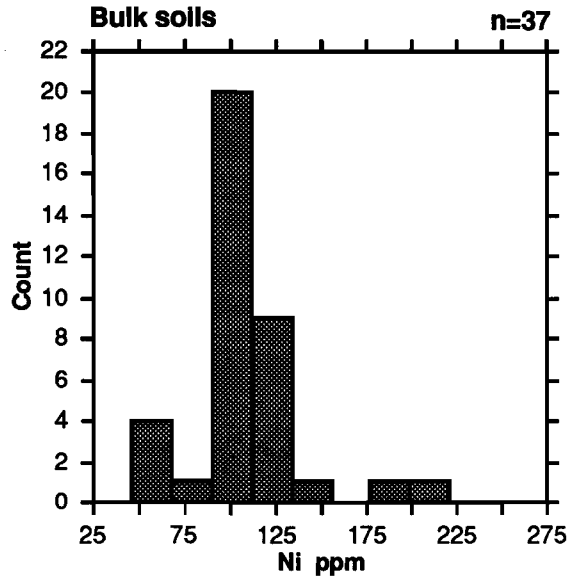

Ferruginous granules
n=38
Count
Cu ppm

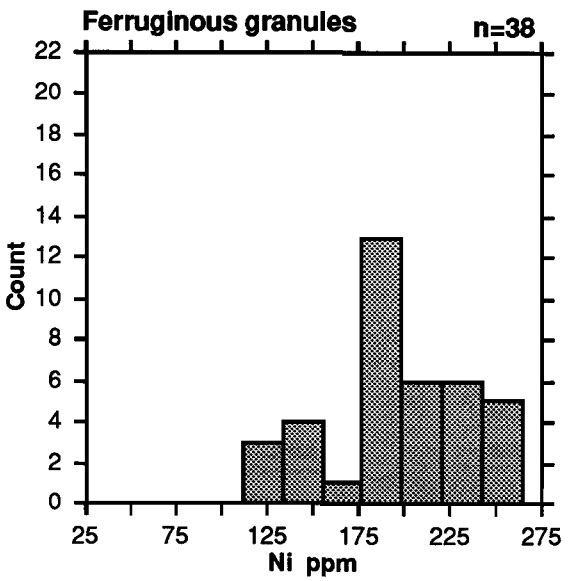

Bulk soils
n=37
Count
Pb ppm

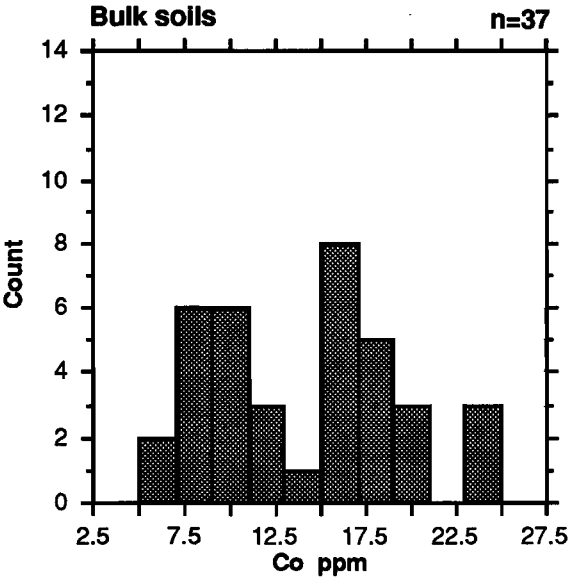

Ferruginous granules
n=38
Count
Pb ppm

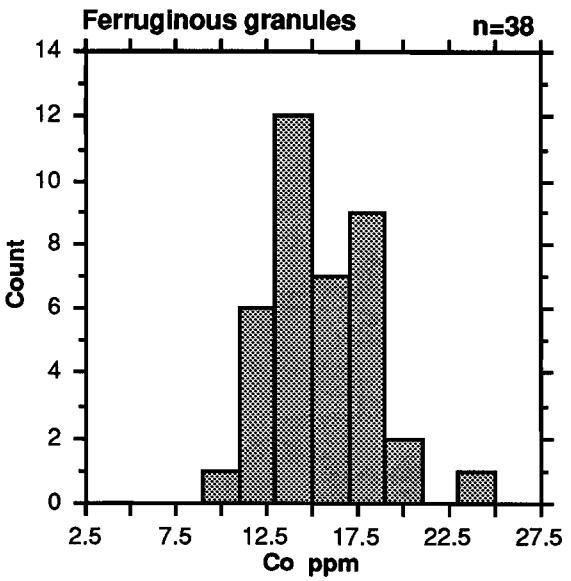

Bulk soils
n=37
Count
Zn ppm

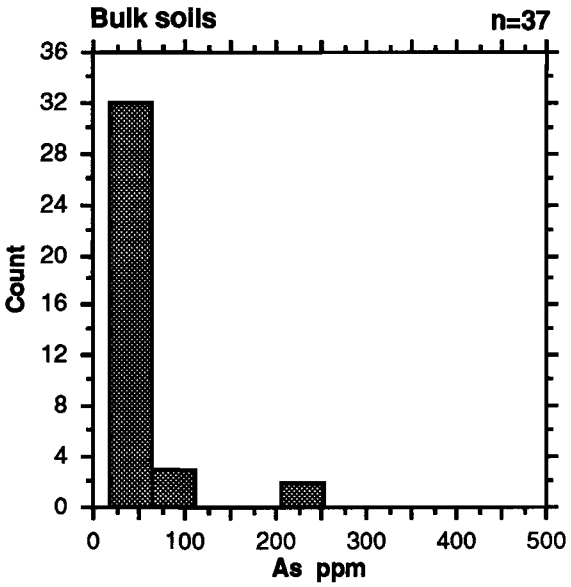

Ferruginous granules
n=38
Count
Zn ppm

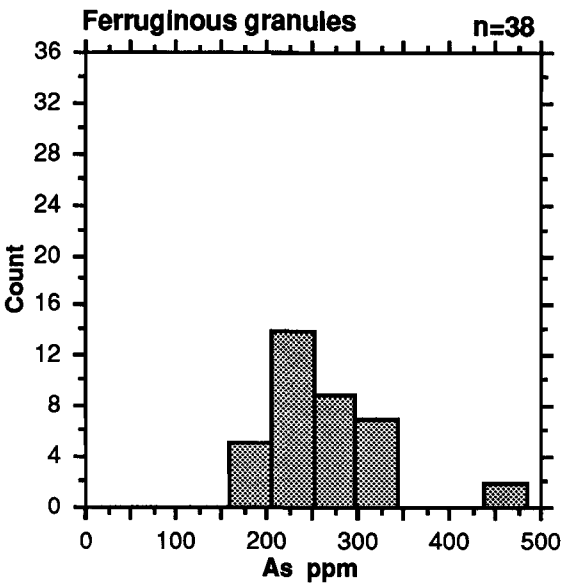

Bulk soils
n=37
Count
Ni ppm
0
2
4
6
8
10
12
14
16
18
20
22
25
75
125
175
225
275

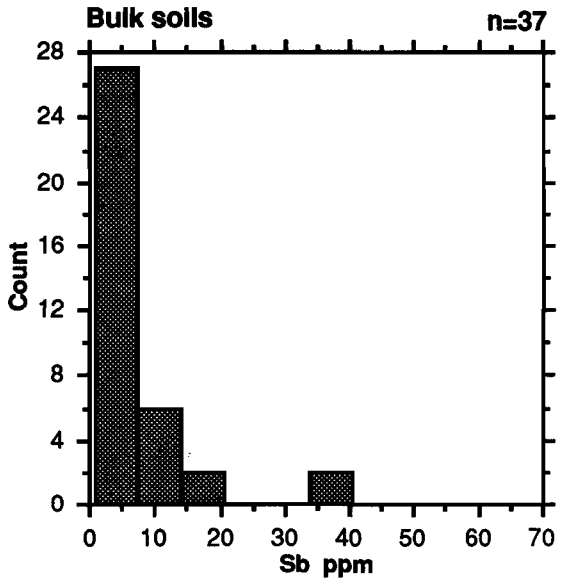

Ferruginous granules
n=38
Count
Ni ppm
0
2
4
6
8
10
12
14
16
18
20
22
25
75
125
175
225
275

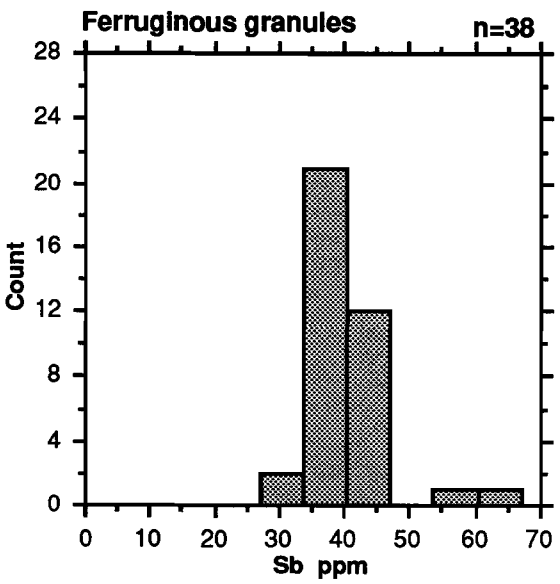

Bulk soils
n=37
Count
Co ppm
0
2
4
6
8
10
12
14
2.5
7.5
12.5
17.5
22.5
27.5

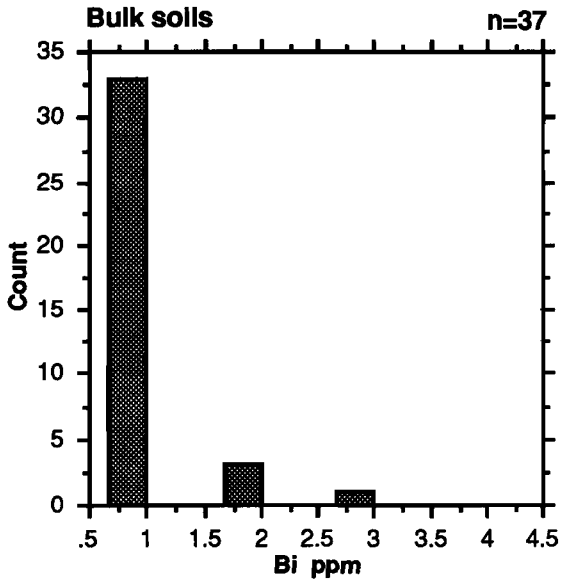

Ferruginous granules
n=38
Count
Co ppm
0
2
4
6
8
10
12
14
2.5
7.5
12.5
17.5
22.5
27.5

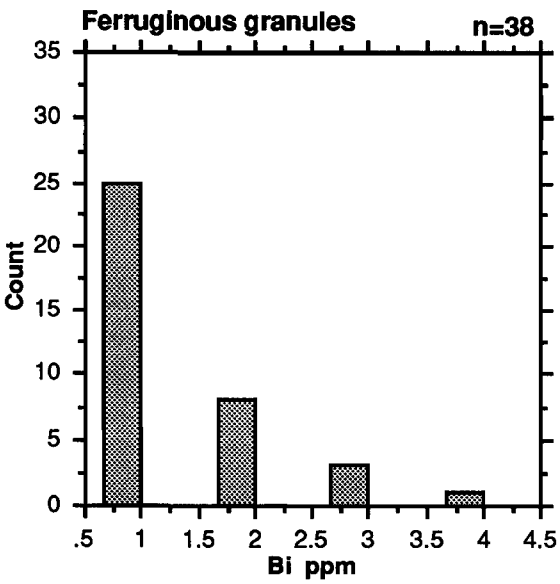

Bulk soils
n=37
Count
As ppm
0
4
8
12
16
20
24
28
32
36
0
100
200
300
400
500

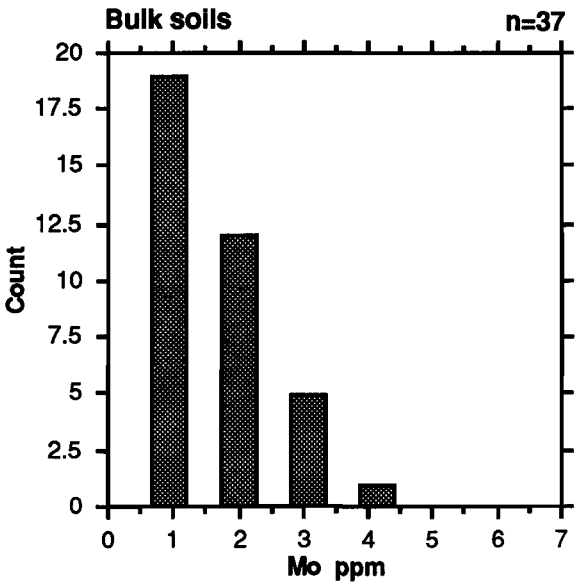

Ferruginous granules
n=38
Count
As ppm
0
4
8
12
16
20
24
28
32
36
0
100
200
300
400
500

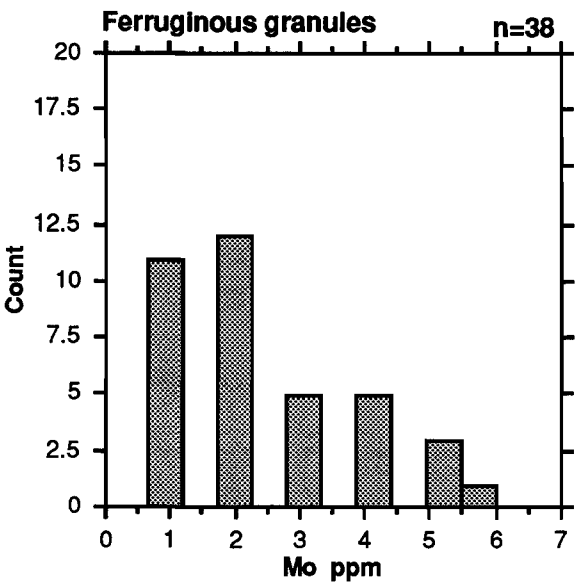

Bulk soils
n=37
Count
Sb ppm

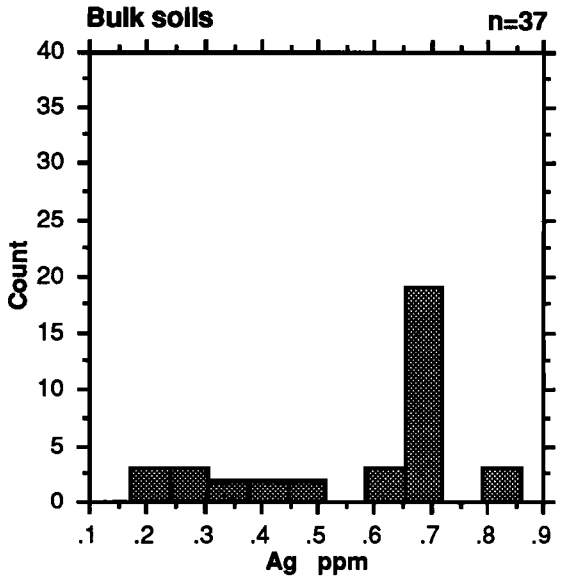

Ferruginous granules
n=38
Count
Sb ppm

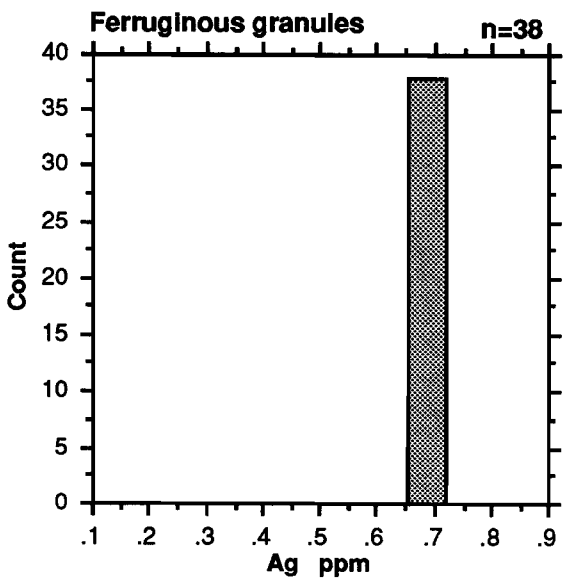

Bulk soils
n=37
Count
Bi ppm

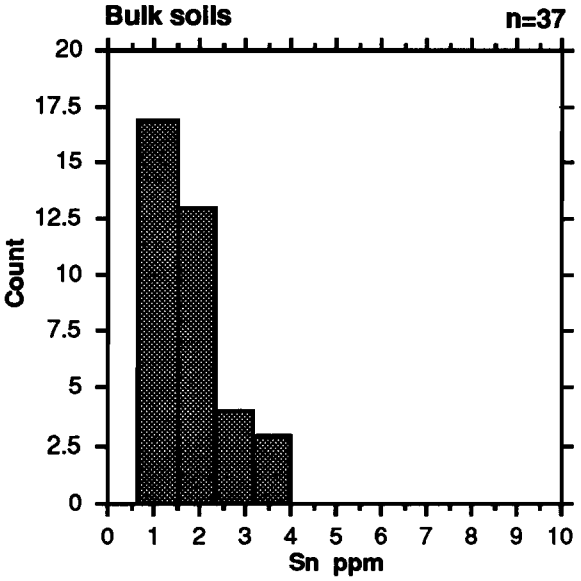

Ferruginous granules
n=38
Count
Bi ppm

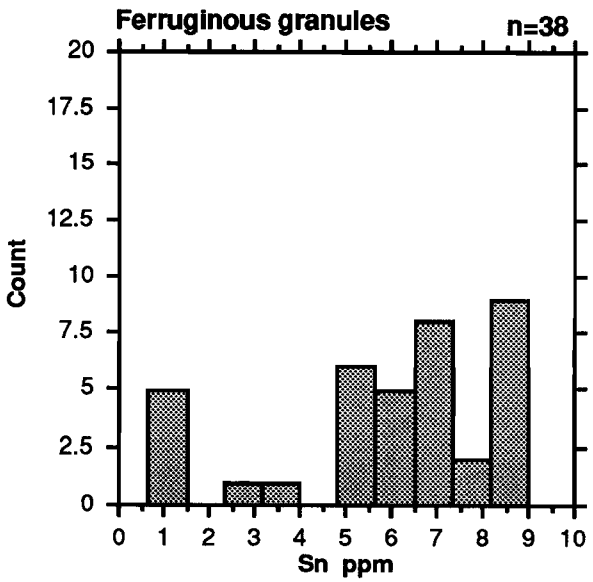

Bulk soils
n=37
Count
Mo ppm

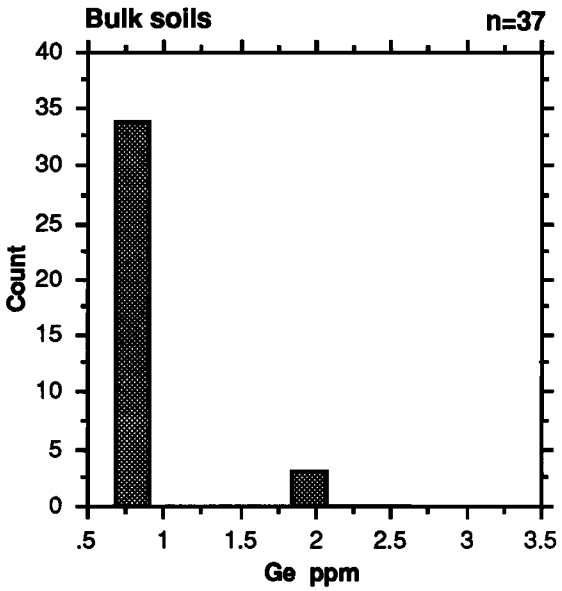

Ferruginous granules
n=38
Count
Mo ppm

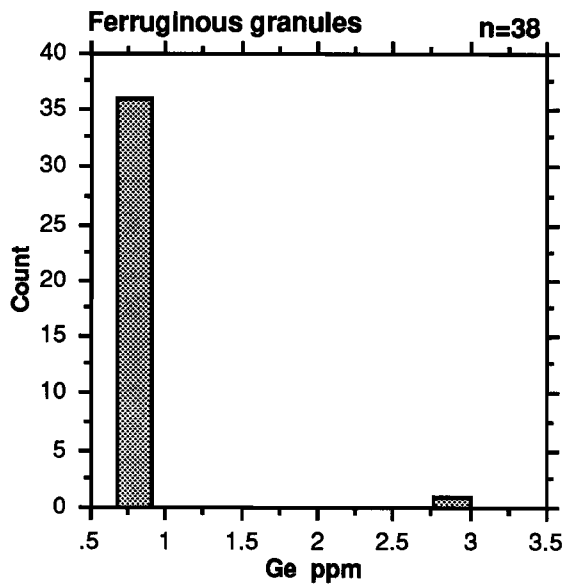

Bulk soils
n=37
Count
Ag ppm

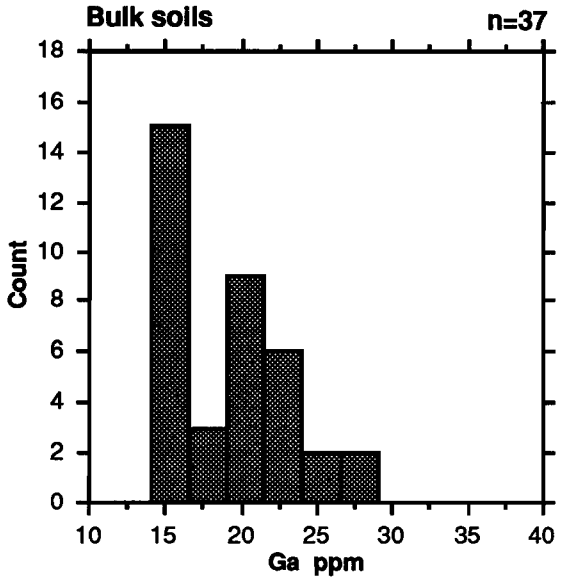

Ferruginous granules
n=38
Count
Ag ppm

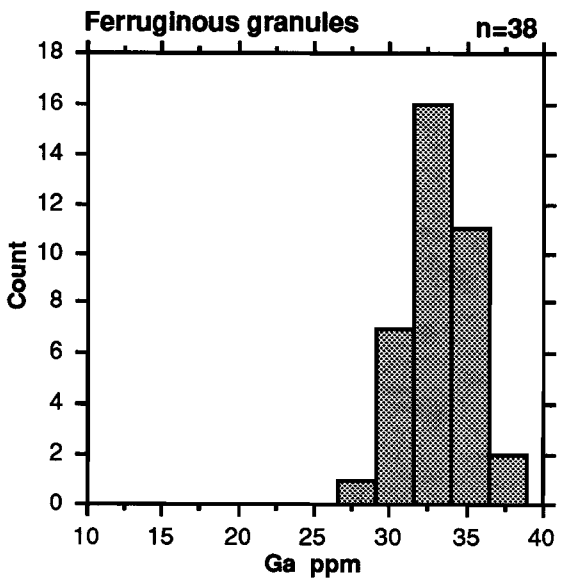

Bulk soils
n=37
Count
Sn ppm

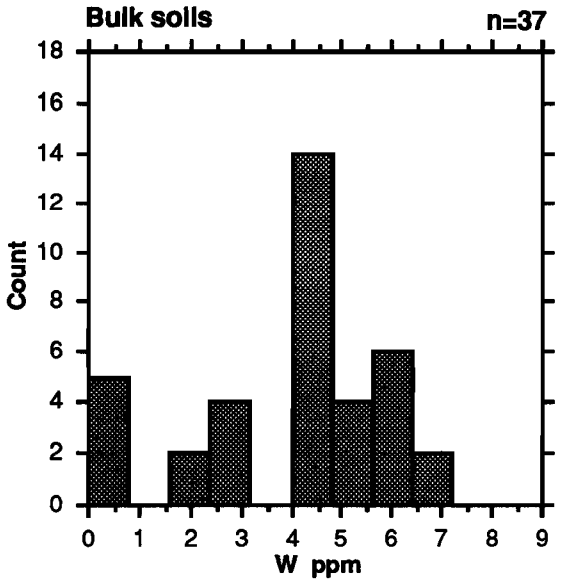

Ferruginous granules
n=38
Count
Sn ppm

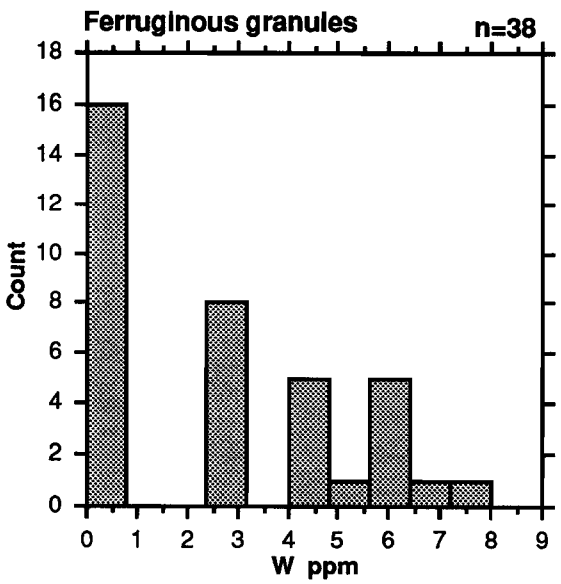

Bulk soils
n=37
Count
Ge ppm

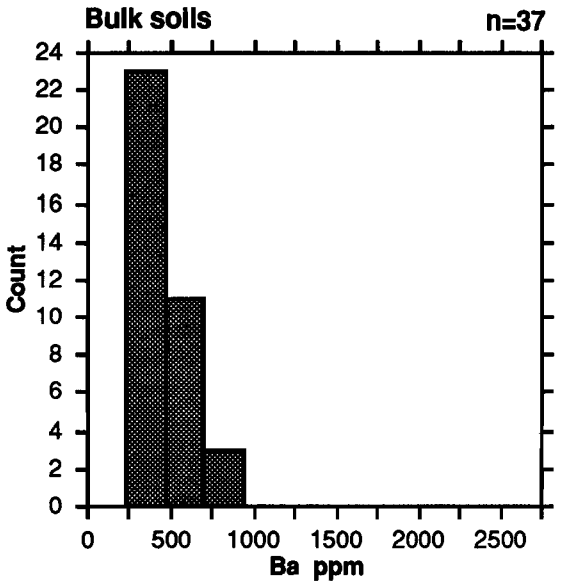

Ferruginous granules
n=38
Count
Ge ppm

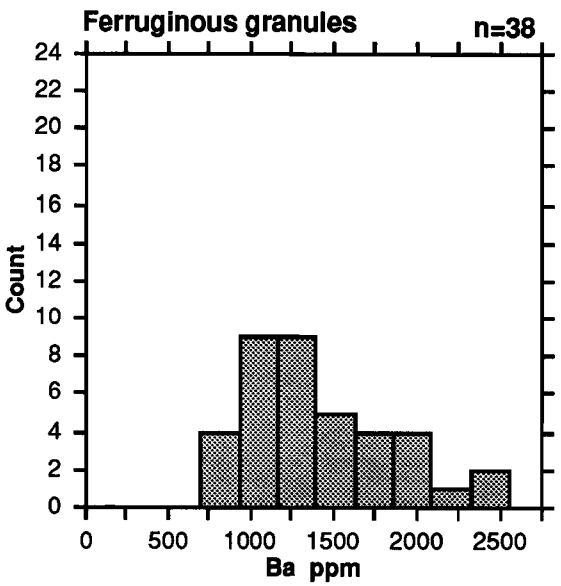

Bulk soils
n=37
Count
Ga ppm

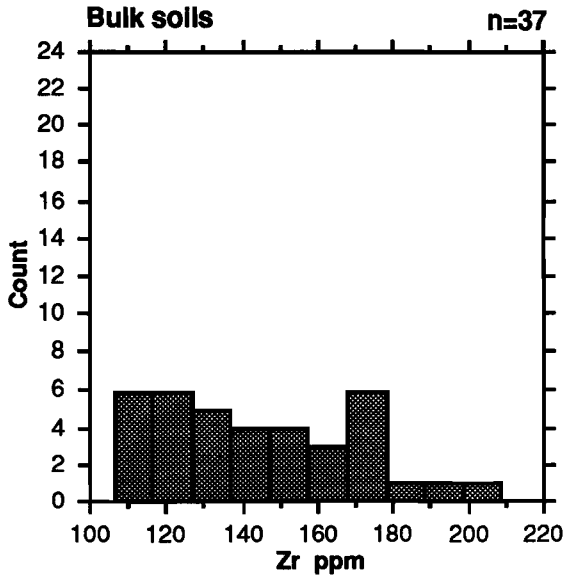

Ferruginous granules
n=38
Count
Ga ppm

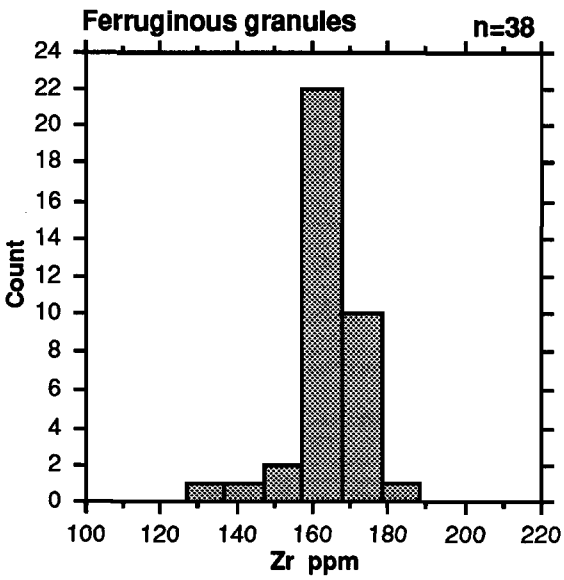

Bulk soils
n=37
Count
W ppm

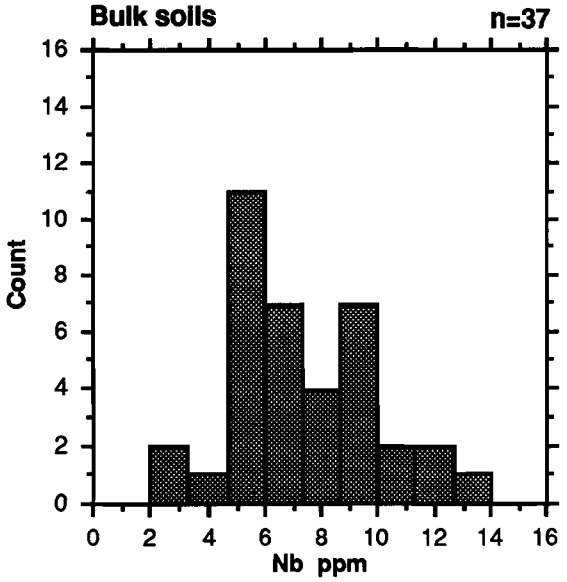

Ferruginous granules
n=38
Count
W ppm

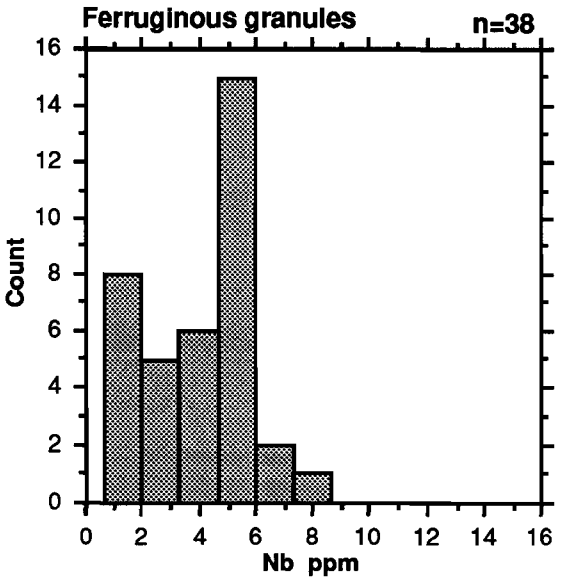

Bulk soils
n=37
Count
Ba ppm

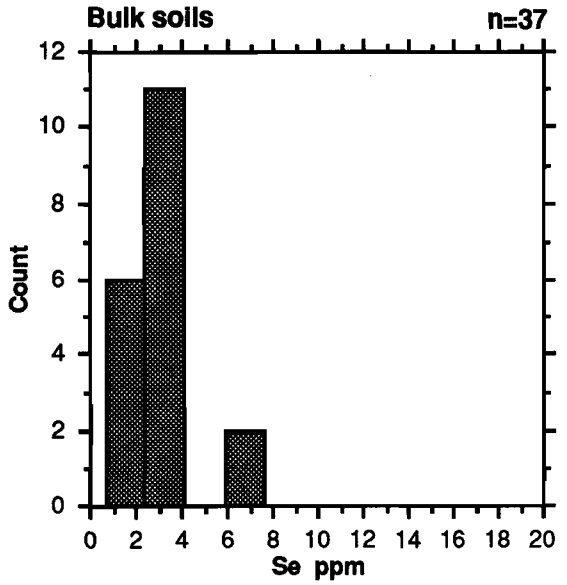

Ferruginous granules
n=38
Count
Ba ppm

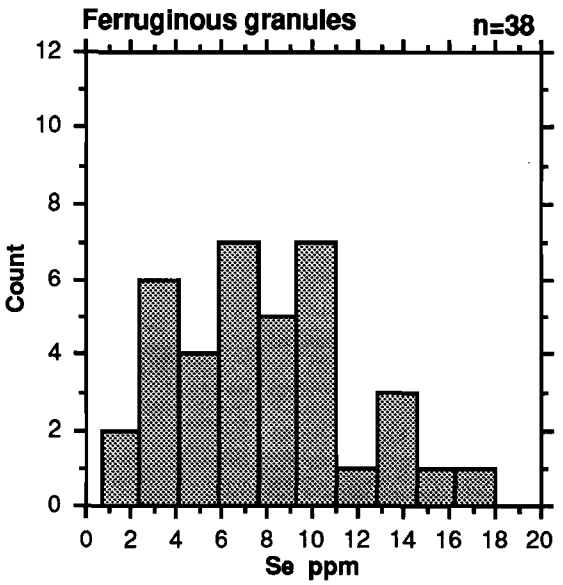

Bulk soils
n=37
Count
Zr ppm

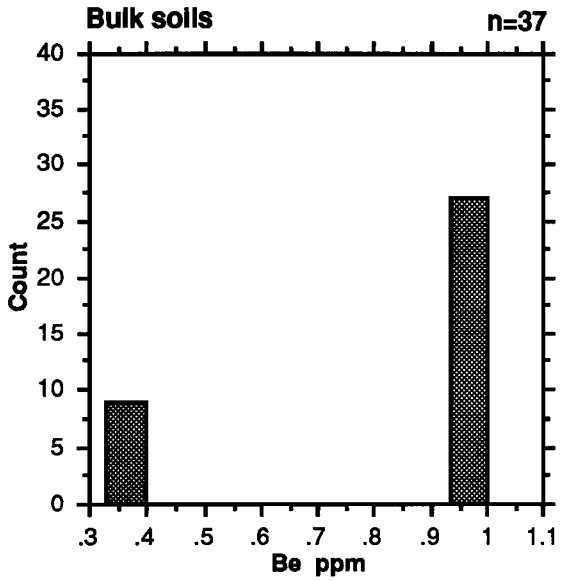

Ferruginous granules
n=38
Count
Zr ppm

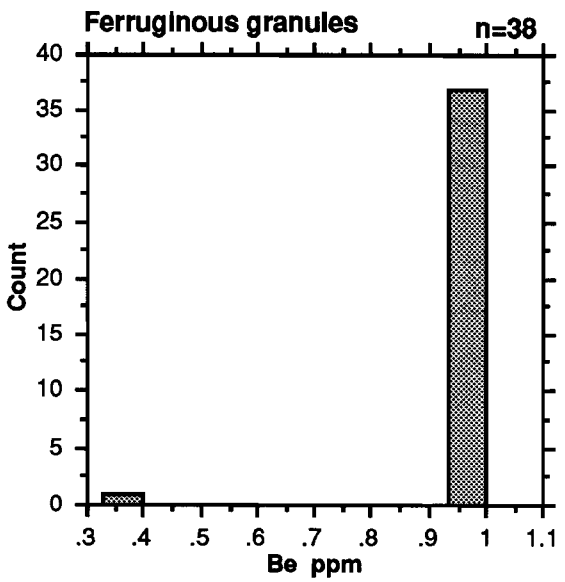

Bulk soils
n=37
Count
Nb ppm

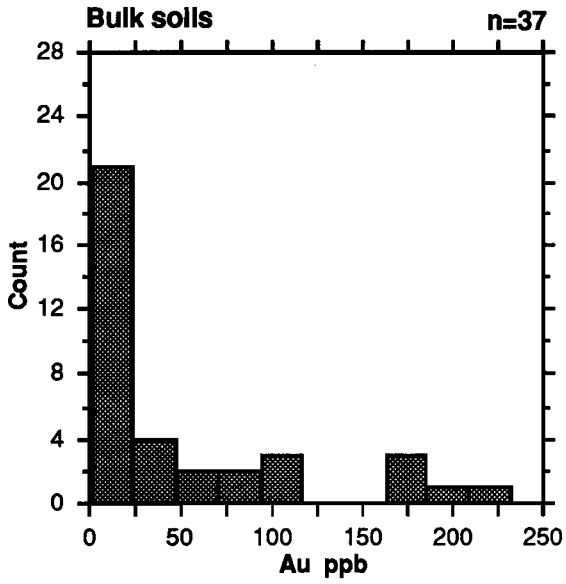

Ferruginous granules
n=38
Count
Nb ppm

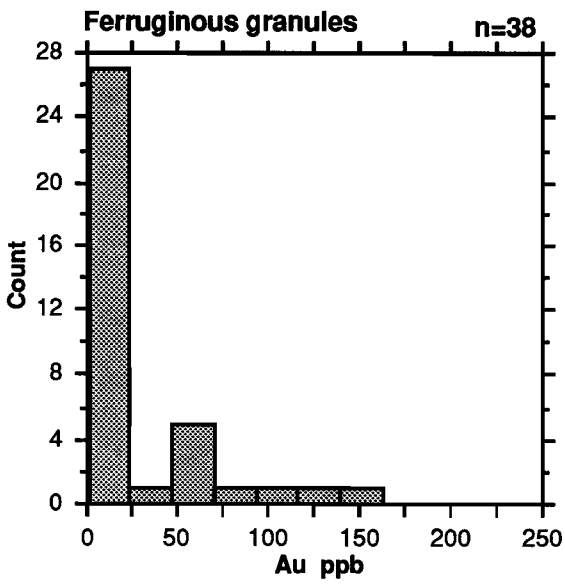

Bulk soils
n=37
Count
Se ppm

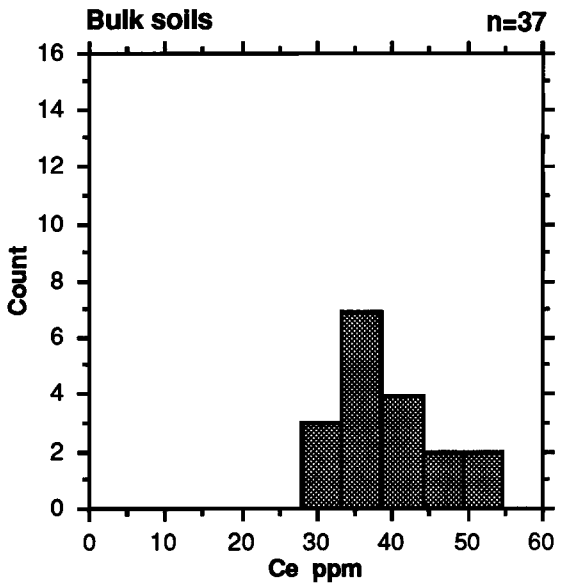

Ferruginous granules
n=38
Count
Se ppm

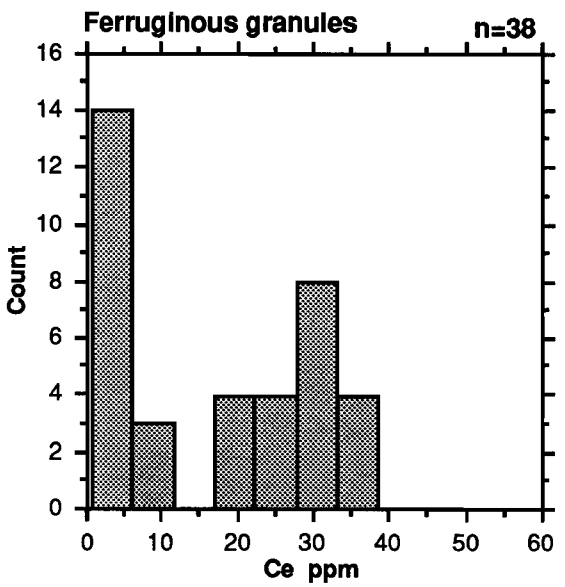

Bulk soils
n=37
Count
Be ppm
0 5 10 15 20 25 30 35 40
.3 .4 .5 .6 .7 .8 .9 1 1.1

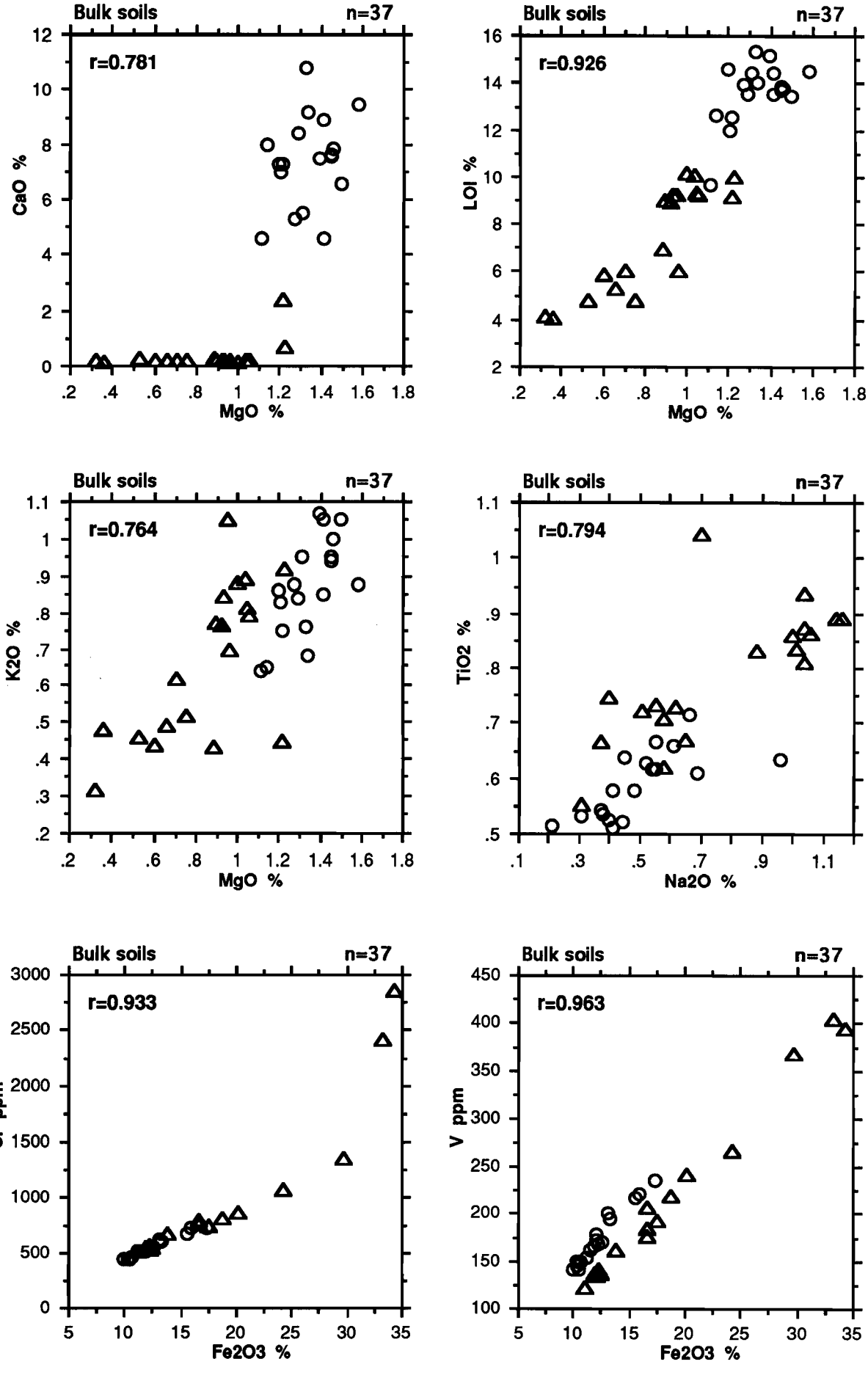

Ferruginous granules
n=38
Count
Be ppm
0 5 10 15 20 25 30 35 40
.3 .4 .5 .6 .7 .8 .9 1 1.1

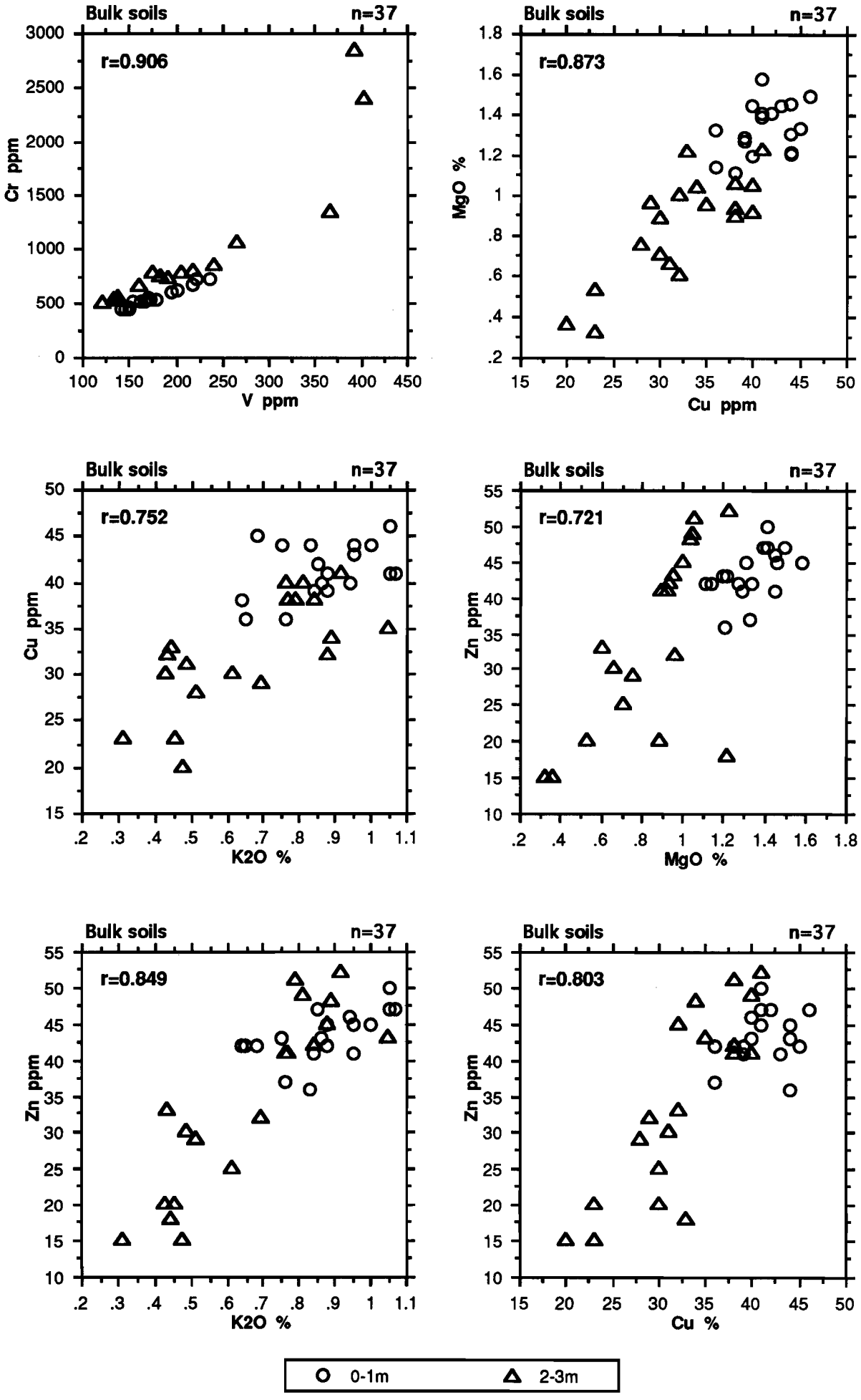

Bulk soils
n=37
Count
Au ppb
0 4 8 12 16 20 24 28
0 50 100 150 200 250

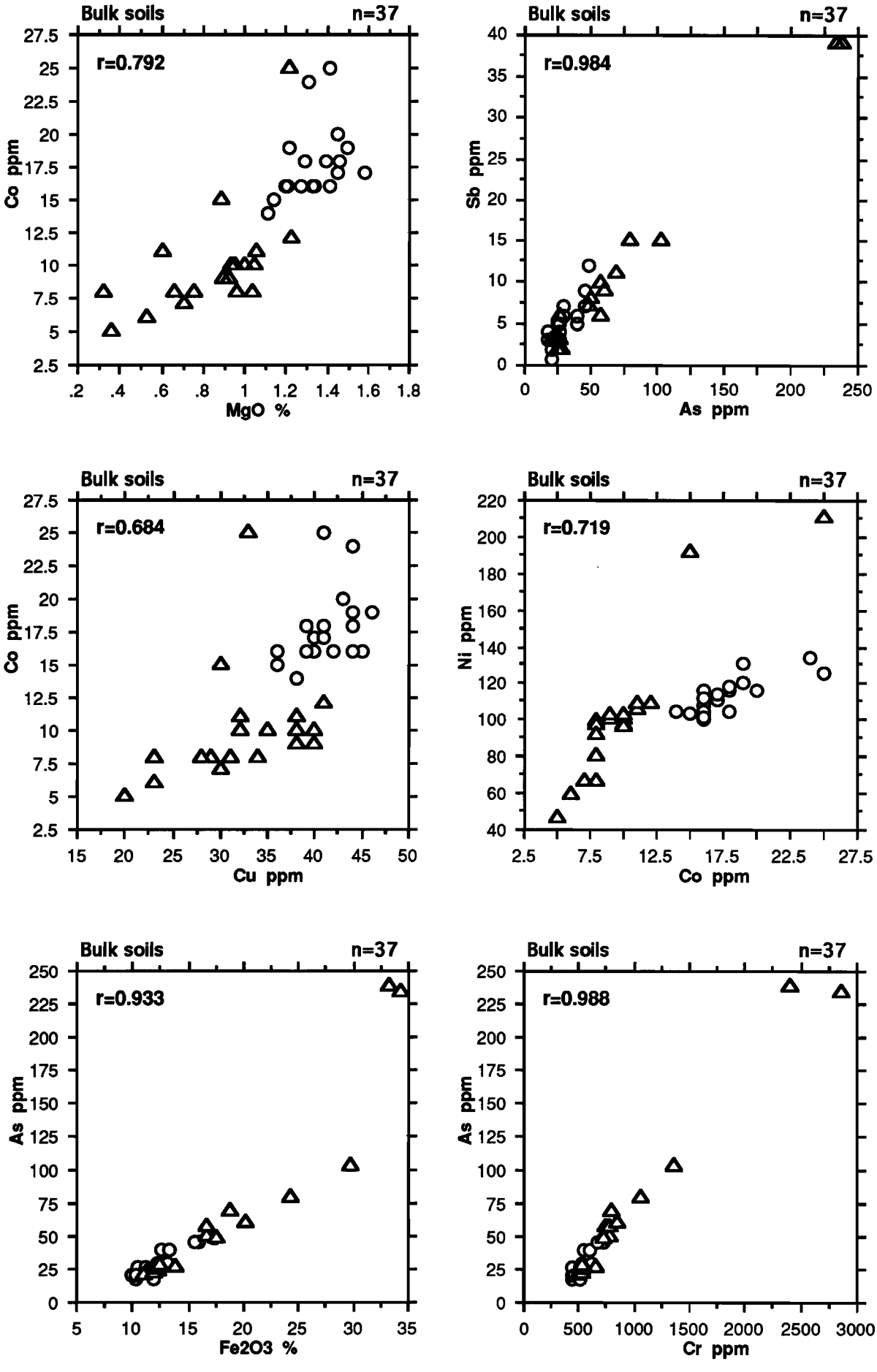

Ferruginous granules
n=38
Count
Au ppb
0 4 8 12 16 20 24 28
0 50 100 150 200 250

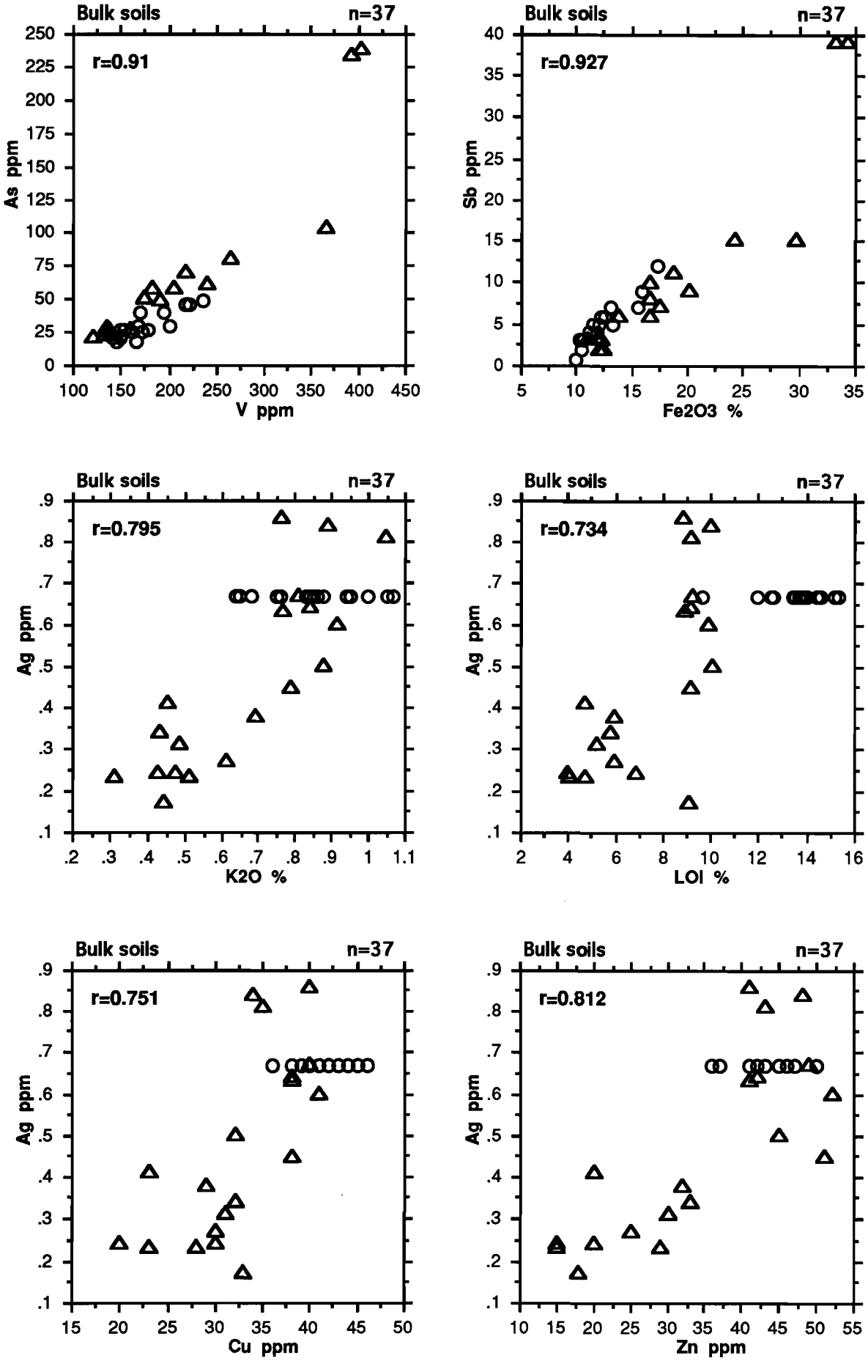

Bulk soils
n=37
Count
Ce ppm
0 2 4 6 8 10 12 14 16
0 10 20 30 40 50 60

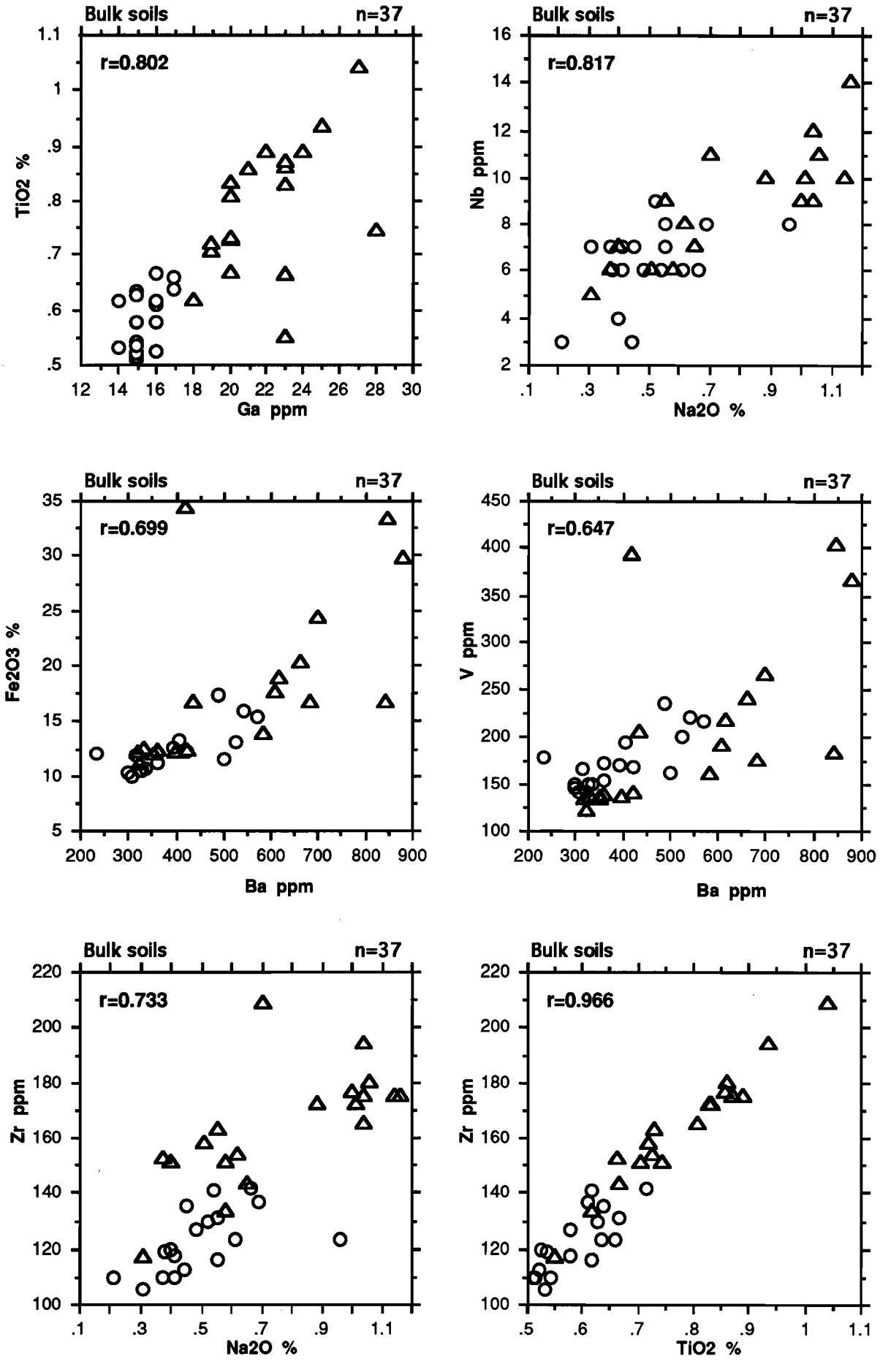

Ferruginous granules
n=38
Count
Ce ppm
0 2 4 6 8 10 12 14 16
0 10 20 30 40 50 60

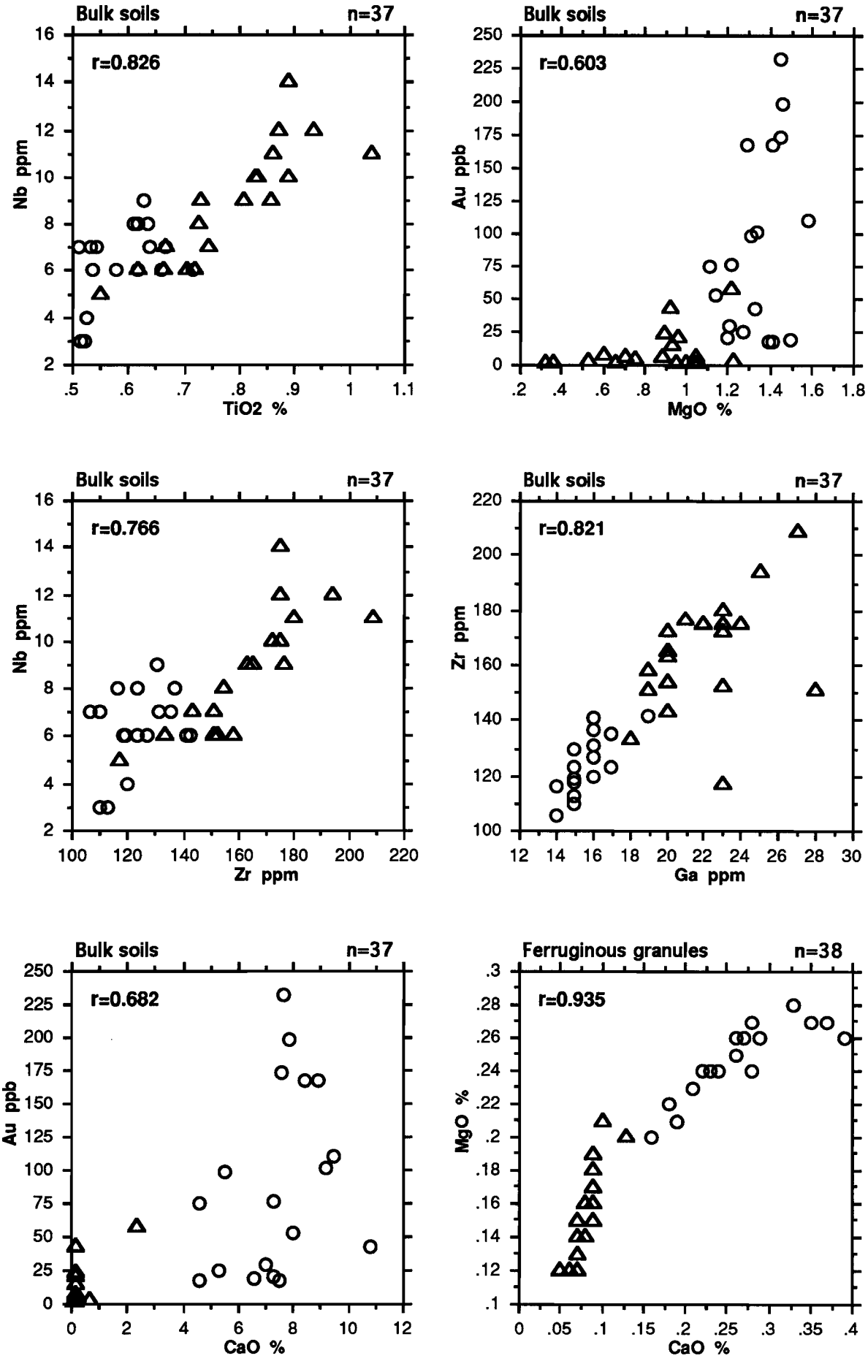

Bulk soils
n=37
r=0.781
CaO %
MgO %
Bulk soils
n=37
r=0.926
LOI %
MgO %
Bulk soils
n=37
r=0.764
K2O %
MgO %
Bulk soils
n=37
r=0.794
TiO2 %
Na2O %
Bulk soils
n=37
r=0.933
Cr ppm
Fe2O3 %
Bulk soils
n=37
r=0.963
V ppm
Fe2O3 %
0-1m
2-3m

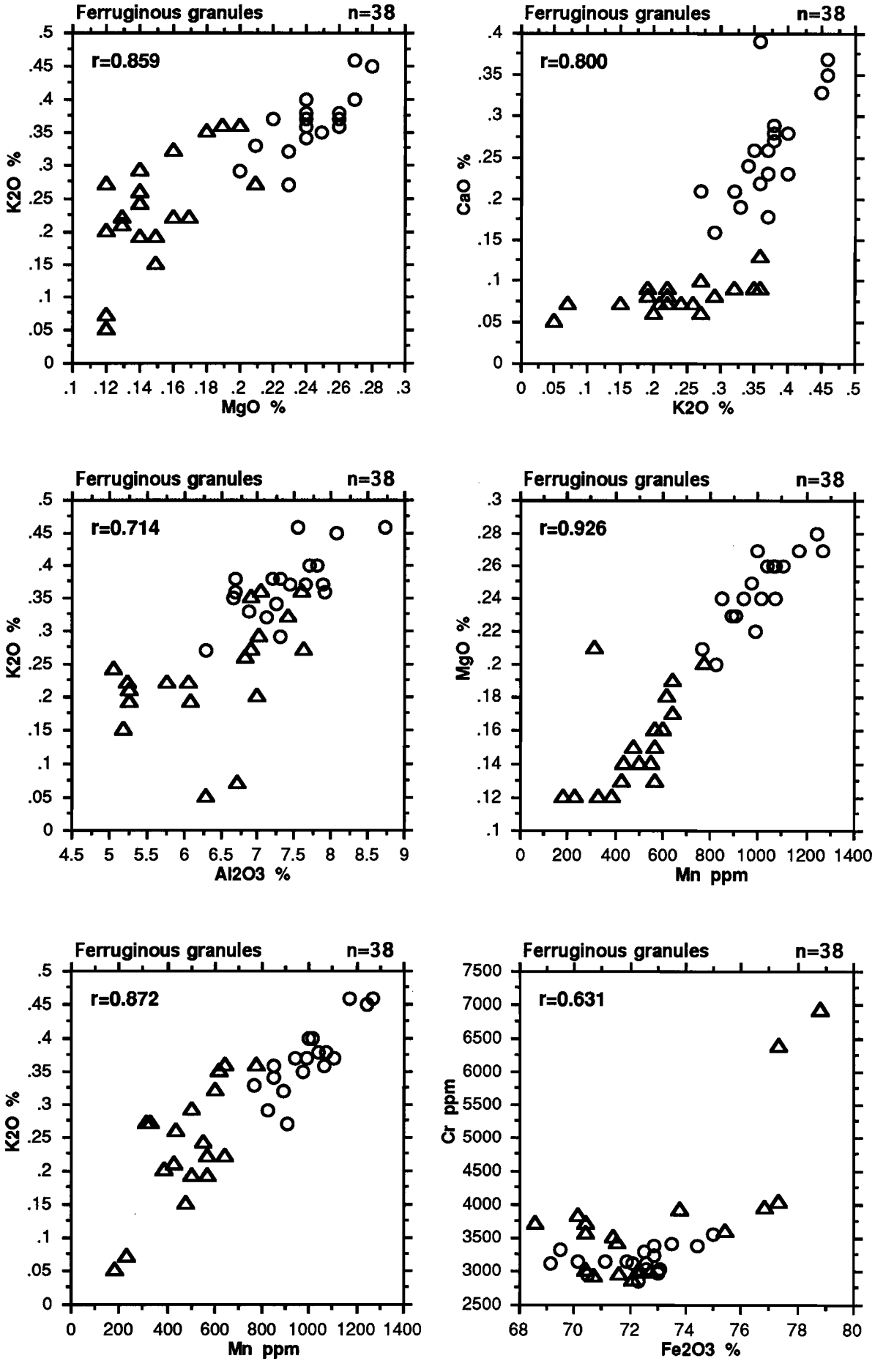

Bulk soils
n=37
r=0.906
Cr ppm
V ppm
Bulk soils
n=37
r=0.873
MgO %
Cu ppm
Bulk soils
n=37
r=0.752
Cu ppm
K2O %
Bulk soils
n=37
r=0.721
Zn ppm
MgO %
Bulk soils
n=37
r=0.849
Zn ppm
K2O %
Bulk soils
n=37
r=0.803
Zn ppm
Cu %
0-1m
2-3m

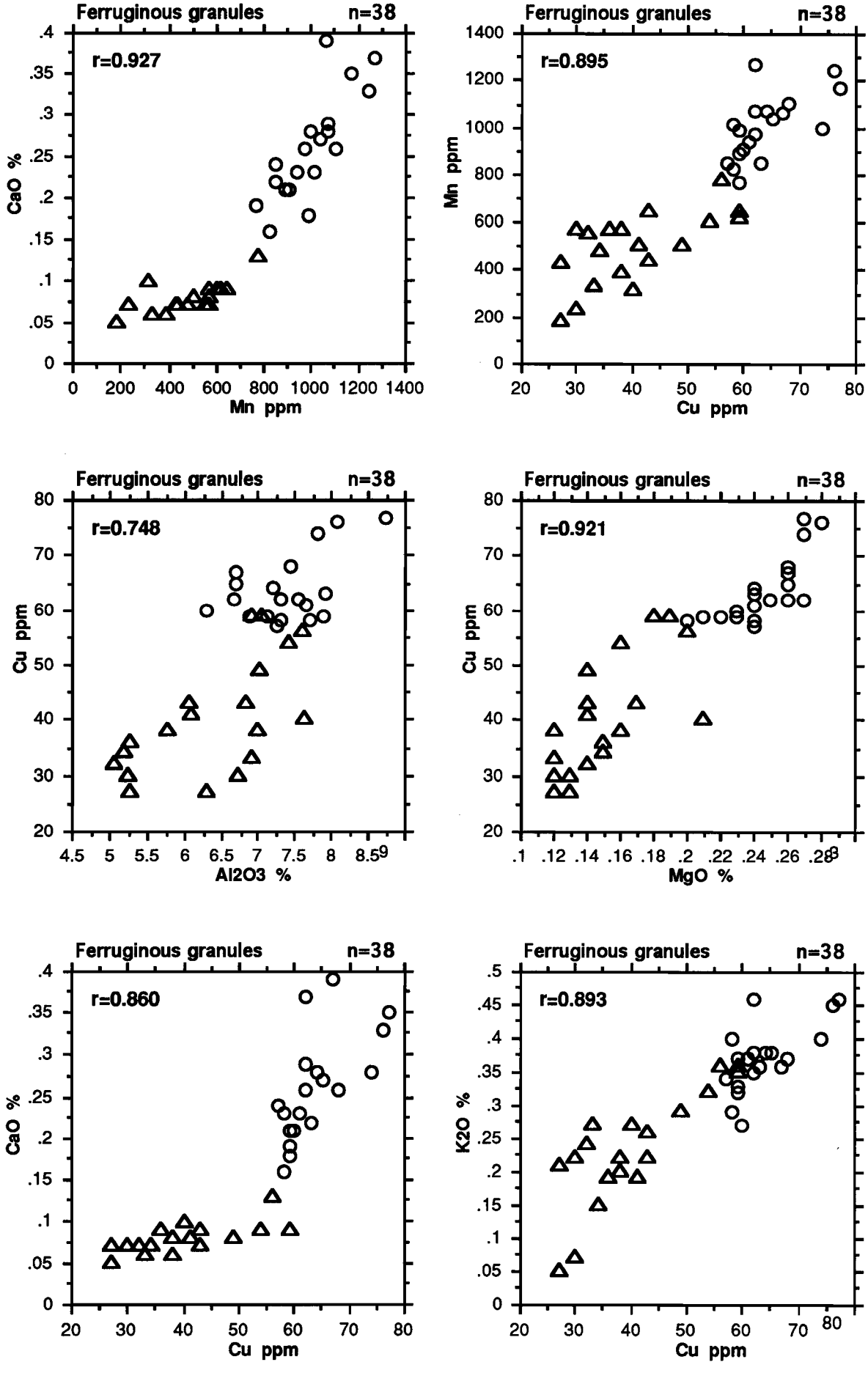

Bulk soils
n=37
r=0.792
Co ppm
MgO %
Bulk soils
n=37
r=0.984
Sb ppm
As ppm
Bulk soils
n=37
r=0.684
Co ppm
Cu ppm
Bulk soils
n=37
r=0.719
Ni ppm
Co ppm
Bulk soils
n=37
r=0.933
As ppm
Fe2O3 %
Bulk soils
n=37
r=0.988
As ppm
Cr ppm
0-1m
2-3m

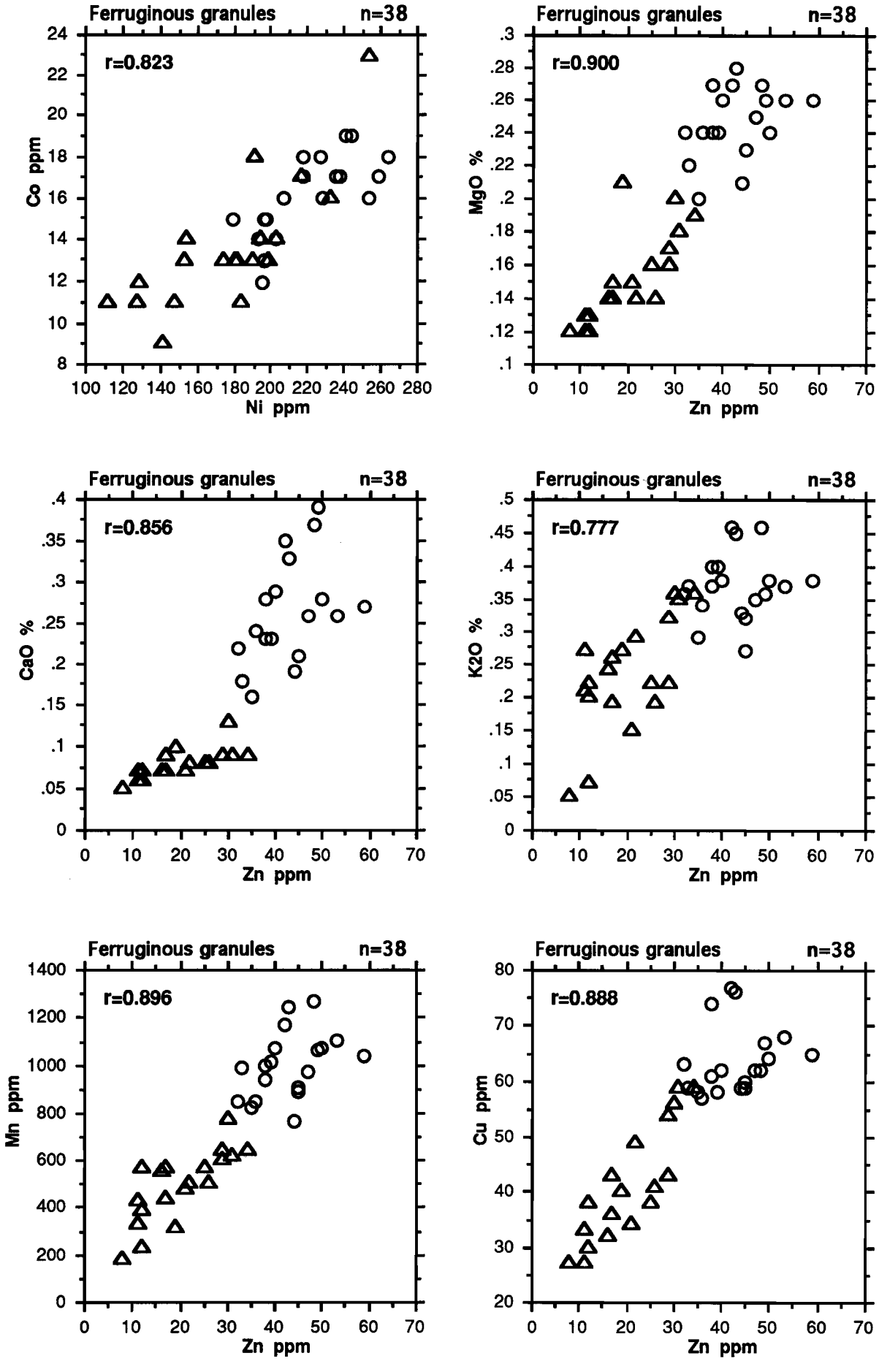

Bulk soils
n=37
r=0.91
As ppm
V ppm
Bulk soils
n=37
r=0.927
Sb ppm
Fe2O3 %
Bulk soils
n=37
r=0.795
Ag ppm
K2O %
Bulk soils
n=37
r=0.734
Ag ppm
LOI %
Bulk soils
n=37
r=0.751
Ag ppm
Cu ppm
Bulk soils
n=37
r=0.812
Ag ppm
Zn ppm
0-1m
2-3m

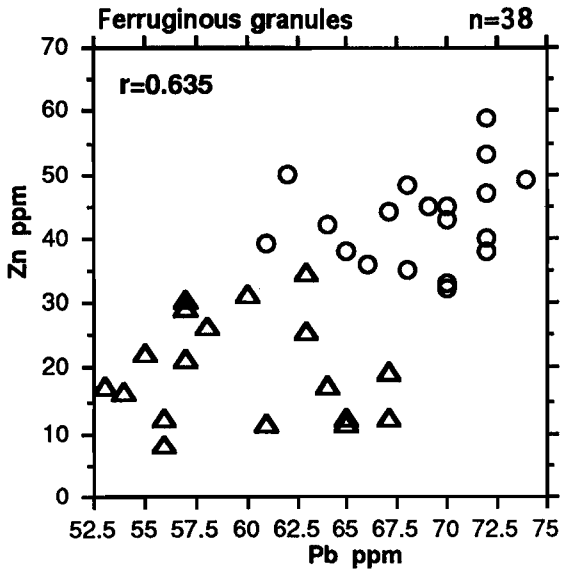

Bulk soils
n=37
r=0.802
TiO2 %
Ga ppm
Bulk soils
n=37
r=0.817
Nb ppm
Na2O %
Bulk soils
n=37
r=0.699
Fe2O3 %
Ba ppm
Bulk soils
n=37
r=0.647
V ppm
Ba ppm
Bulk soils
n=37
r=0.733
Zr ppm
Na2O %
Bulk soils
n=37
r=0.966
Zr ppm
TiO2 %
0-1m
2-3m

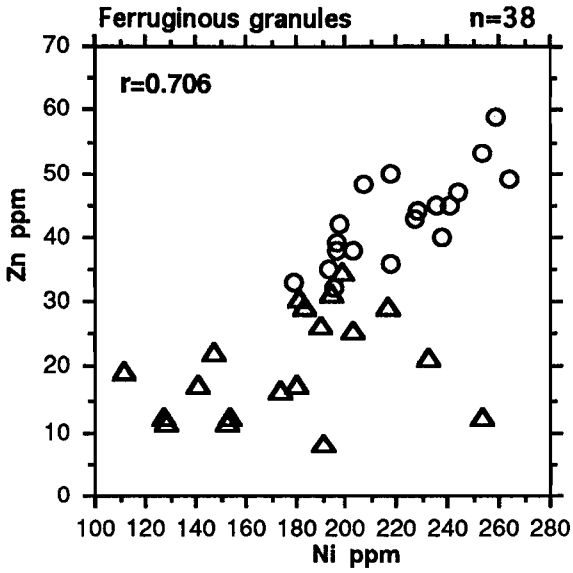

Bulk soils
n=37
r=0.826
Nb ppm
TiO2 %
Bulk soils
n=37
r=0.603
Au ppb
MgO %
Bulk soils
n=37
r=0.766
Nb ppm
Zr ppm
Bulk soils
n=37
r=0.821
Zr ppm
Ga ppm
Bulk soils
n=37
r=0.682
Au ppb
CaO %
Ferruginous granules
n=38
r=0.935
MgO %
CaO %
0-1m
2-3m

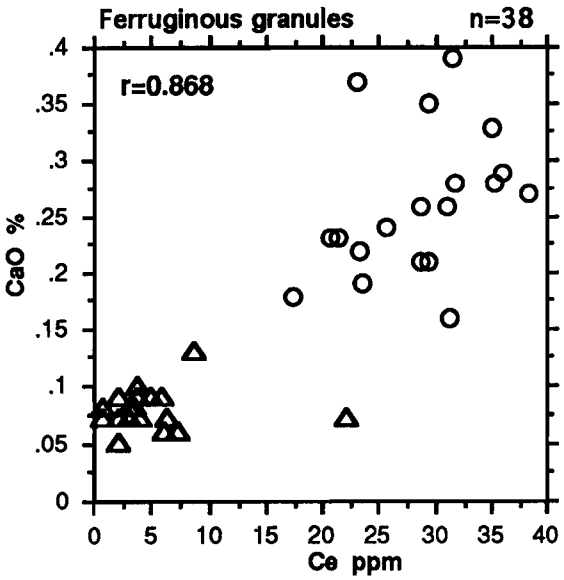

Ferruginous granules n=38
r=0.859
K2O %
MgO %
Ferruginous granules n=38
r=0.800
CaO %
K2O %
Ferruginous granules n=38
r=0.714
K2O %
Al2O3 %
Ferruginous granules n=38
r=0.926
MgO %
Mn ppm
Ferruginous granules n=38
r=0.872
K2O %
Mn ppm
Ferruginous granules n=38
r=0.631
Cr ppm
Fe2O3 %
0-1m
2-3m

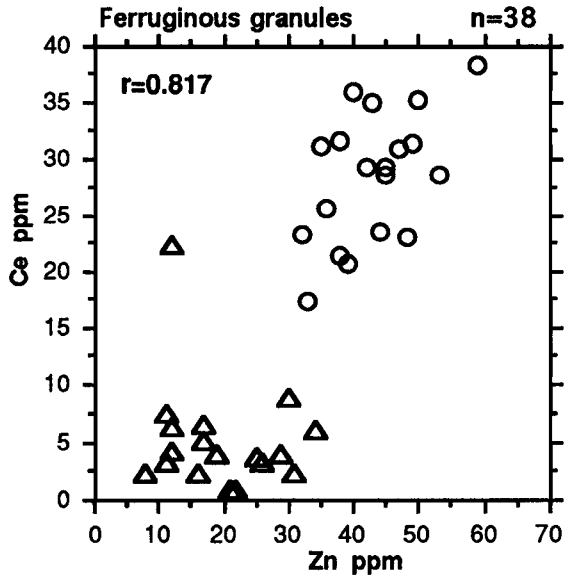

Ferruginous granules n=38
r=0.927
CaO %
Mn ppm
Ferruginous granules n=38
r=0.895
Mn ppm
Cu ppm
Ferruginous granules n=38
r=0.748
Cu ppm
Al2O3 %
Ferruginous granules n=38
r=0.921
Cu ppm
MgO %
Ferruginous granules n=38
r=0.860
CaO %
Cu ppm
Ferruginous granules n=38
r=0.893
K2O %
Cu ppm
0-1m
2-3m

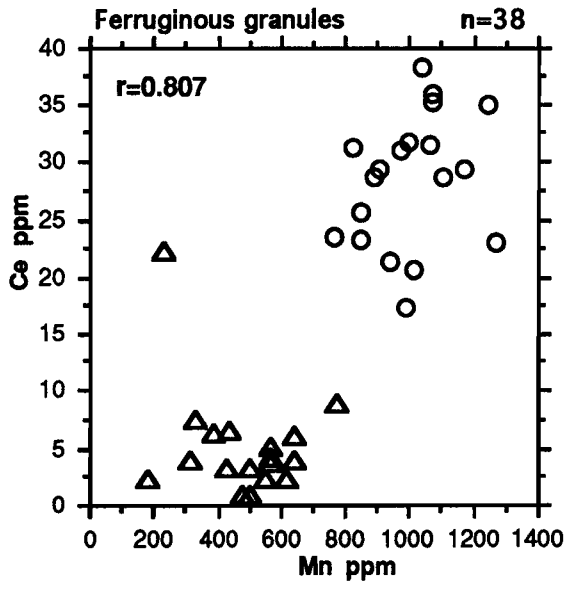

Ferruginous granules n=38
r=0.823
Co ppm
Ni ppm
Ferruginous granules n=38
r=0.900
MgO %
Zn ppm
Ferruginous granules n=38
r=0.856
CaO %
Zn ppm
Ferruginous granules n=38
r=0.777
K2O %
Zn ppm
Ferruginous granules n=38
r=0.896
Mn ppm
Zn ppm
Ferruginous granules n=38
r=0.888
Cu ppm
Zn ppm
0-1m
2-3m


Ferruginous granules
n=38
r=0.635
Zn ppm
Pb ppm
0 10 20 30 40 50 60 70
52.5 55 57.5 60 62.5 65 67.5 70 72.5 75


Ferruginous granules
n=38
r=0.706
Zn ppm
Ni ppm
0 10 20 30 40 50 60 70
100 120 140 160 180 200 220 240 260 280


Ferruginous granules
n=38
r=0.868
CaO %
Ce ppm
0 .05 .1 .15 .2 .25 .3 .35 .4
0 5 10 15 20 25 30 35 40


Ferruginous granules
n=38
r=0.817
Ce ppm
Zn ppm
0 5 10 15 20 25 30 35 40
0 10 20 30 40 50 60 70


Ferruginous granules
n=38
r=0.807
Ce ppm
Mn ppm
0 5 10 15 20 25 30 35 40
0 200 400 600 800 1000 1200 1400


0-1m
2-3m