

**SCANNING ELECTRON MICROSCOPE
PHOTOGRAPHS OF GOLD GRAINS**

PHOTOS 1 - 30

PLATE 1

Gold grains from the primary mineralization, Twin Peaks

- Photo 1:** A prismatic crystal of arsenopyrite (dark grey) embedded in primary Au (white).
- Photo 2:** A complex intergrowth of primary gold (white) and arsenopyrite (dark grey).
- Photo 3:** Primary irregular gold grain with quartz inclusions (black).
- Photo 4:** Primary irregular gold grain with inclusions of calcite (black).

Gold grains from the lower saprolite below the enrichment, Twin Peaks

- Photo 5:** Supergene pristine Au crystal with combination of cubic and octahedral faces.
- Photo 6:** Supergene pristine and several corroded prismatic Au crystals.

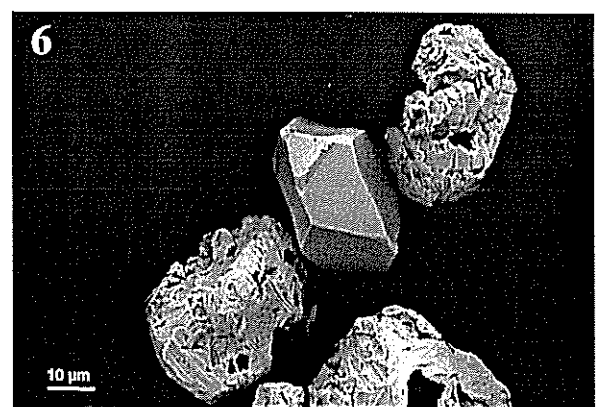
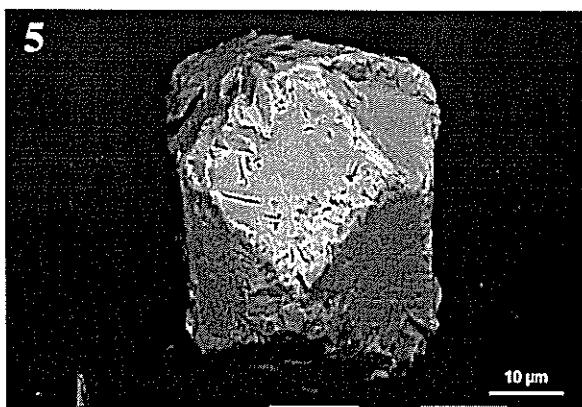
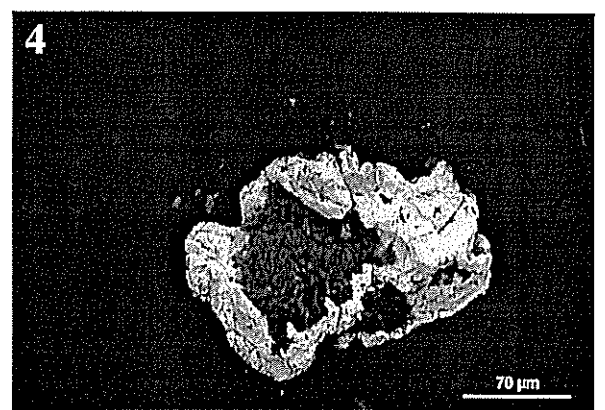
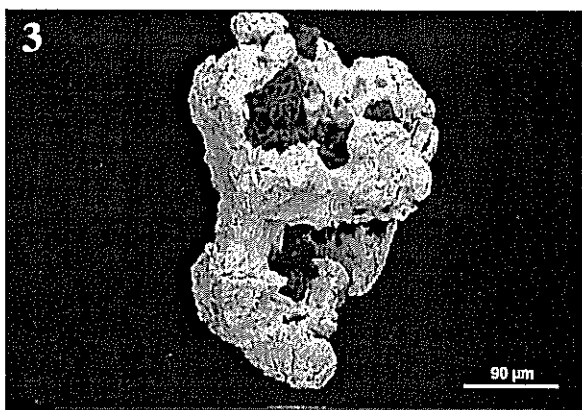
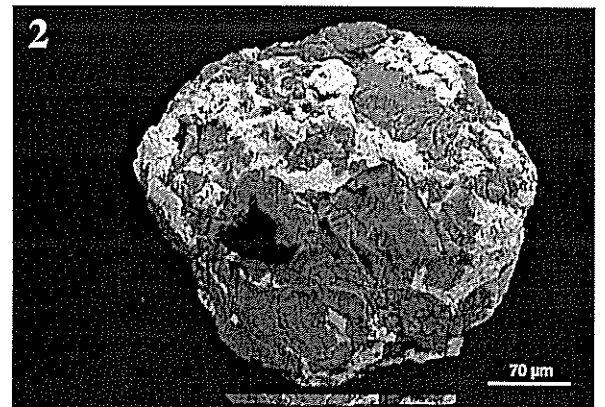
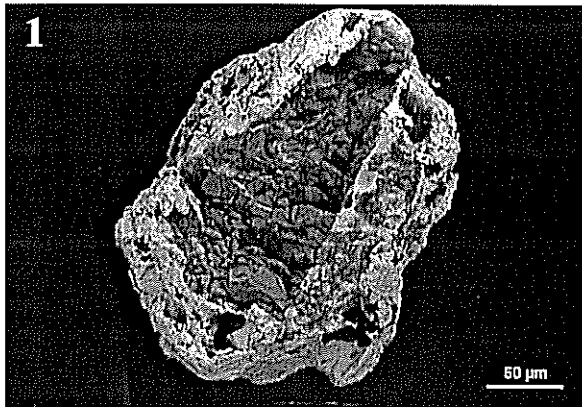


PLATE 2

Gold grains from the lower saprolite below the enrichment, Twin Peaks (Contd)

Photo 7: Supergene pristine platy Au crystal. No detectable Ag.

Photo 8: An aggregate of supergene subhedral Au crystals and xenomorphic grains.

Gold grains from the saprolite enrichment, Twin Peaks

Photo 9: Mixture of supergene Au crystals of different morphologies. No detectable Ag.

Photo 10: Supergene strongly corroded Au crystal. Black - an inclusion of mica.

Photo 11: Supergene pristine presumably multi-staged Au crystal.

Photo 12: A film of Fe oxides on the surface of a supergene Au crystal.

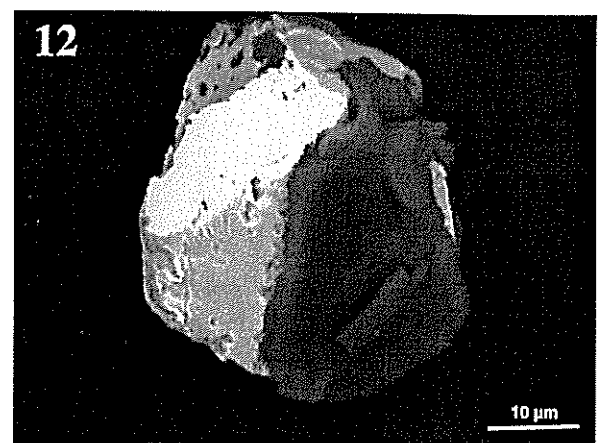
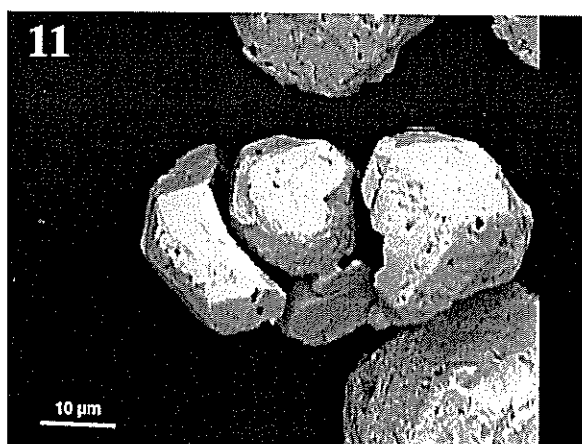
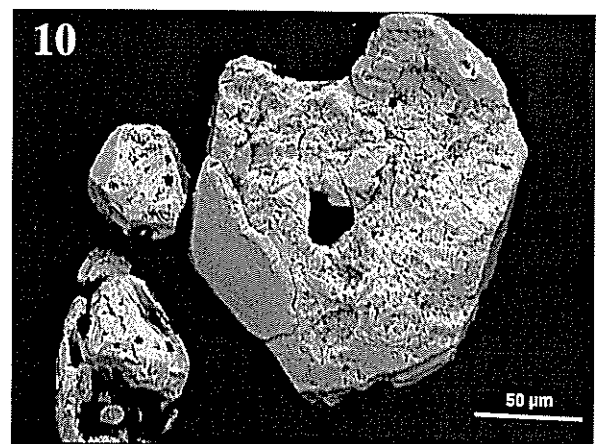
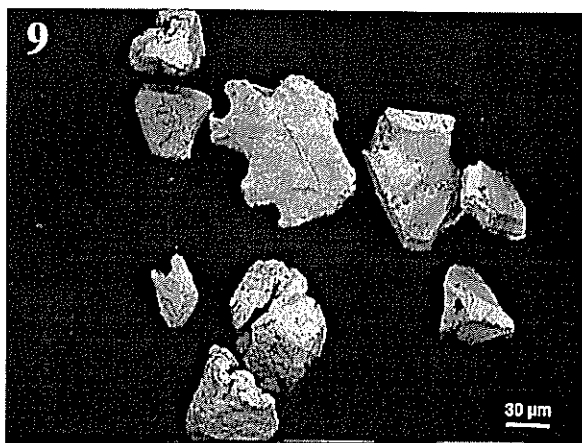
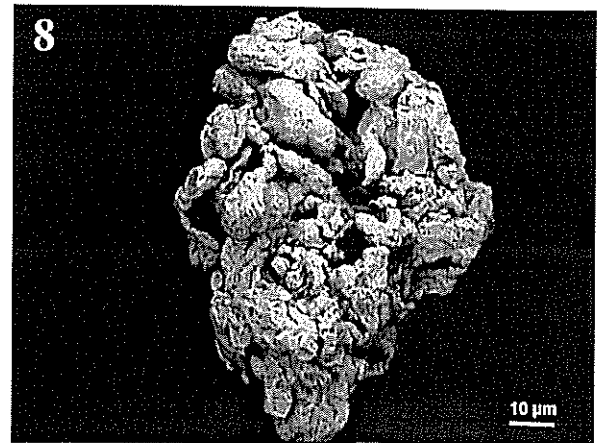
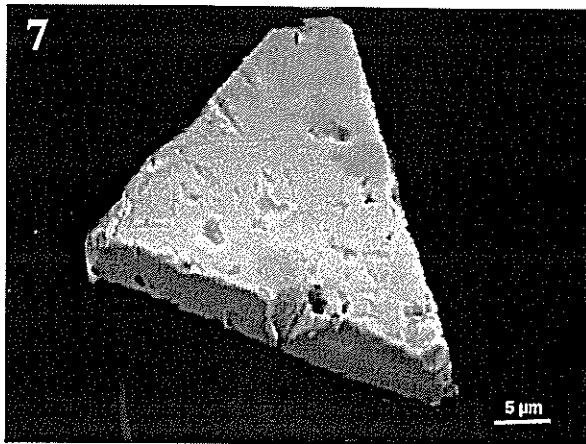


PLATE 3

The associations of supergene Au grains with Ca-phosphates, the saprolite enrichment, Twin Peaks

- Photo 13:** An intergrowth of Ca-P mineral (dark-grey) and supergene Au crystals (white). No detectable Ag.
- Photo 14:** Ca-P mineral (dark-grey) embedded in the supergene Au grain (white). No detectable Ag.
- Photo 15:** An intergrowth of supergene Au (white) and Ca-P-Ce- Yb-Fe-Sr mineral (grey). No detectable Ag.
- Photo 16:** An intergrowth of supergene Au (white) and Ca-P-Ce-Yb mineral (black). No detectable Ag.

Gold grains from the upper saprolite, Twin Peaks

- Photo 17:** Supergene, mostly pristine, Au crystal. No detectable Ag.
- Photo 18:** Residual corroded primary Au grain, a few percent Ag content.

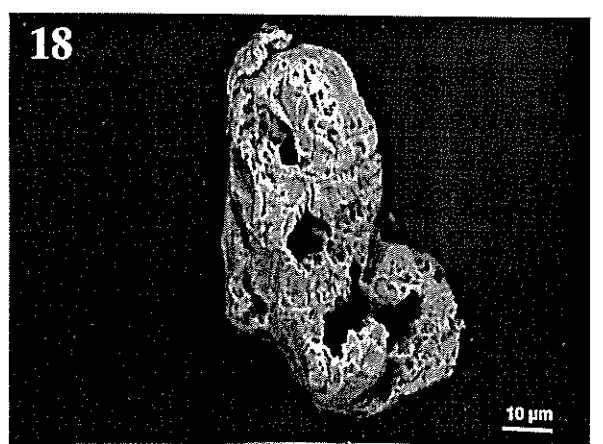
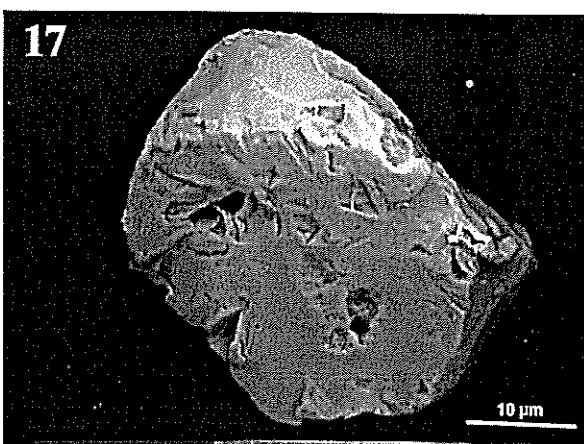
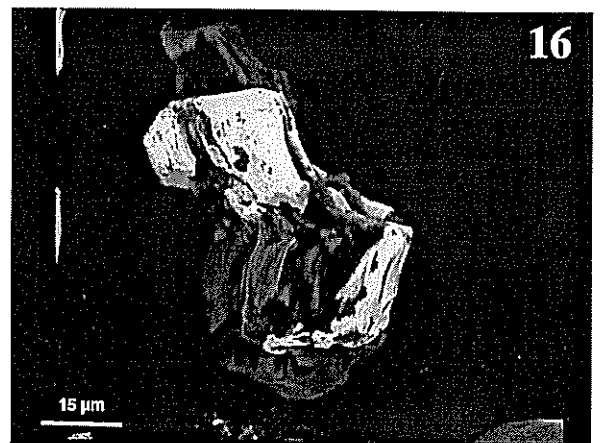
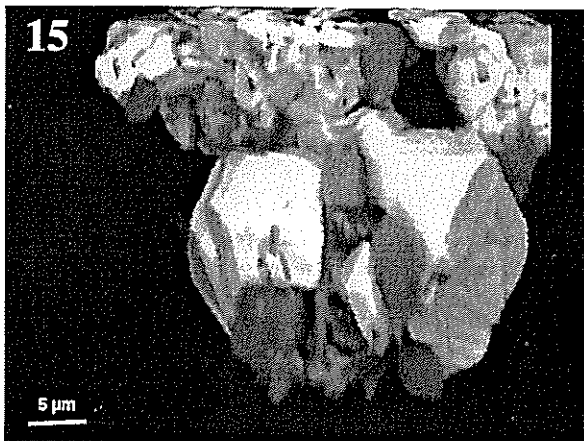
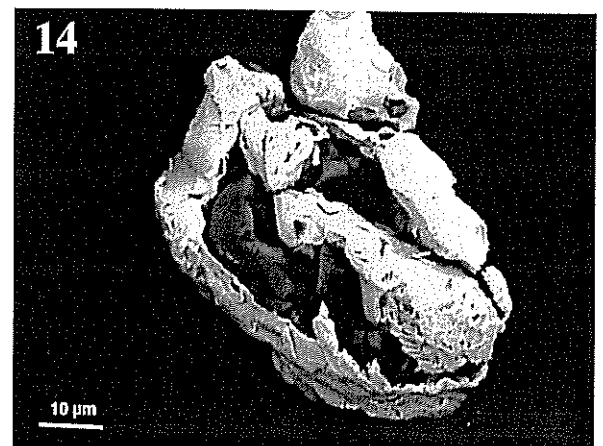
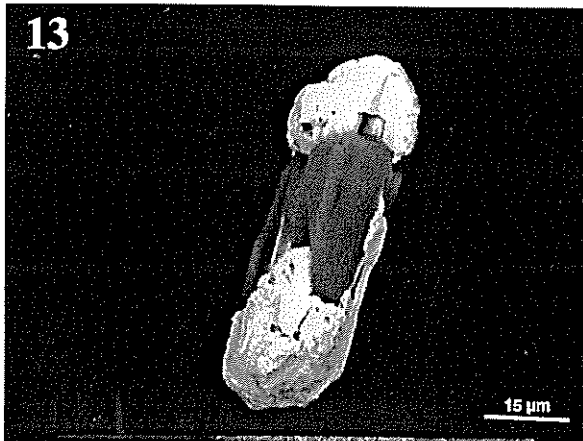


PLATE 4

Gold grains from the calcrete anomaly, Twin Peaks

Photo 19: Typical morphologies of Au grains within calcrete materials.

Photo 20: Residual Au grain, some Ag content.

Photo 21: Slightly corroded Au wire, no detectable Ag.

Photo 22: Round Au grain, no Ag.

Photo 23: Pristine tabular high-fineness crystal.

Photo 24: Moderately corroded supergene Au crystal.

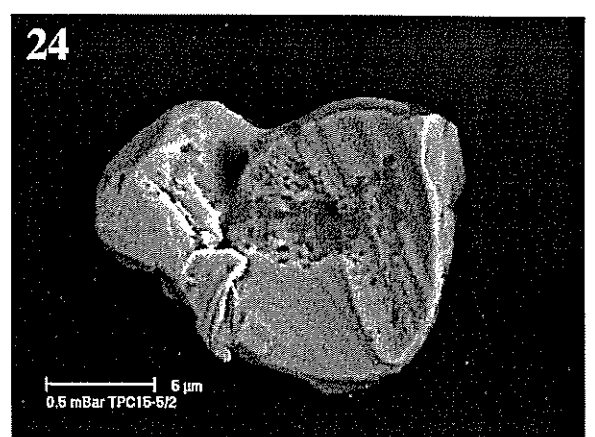
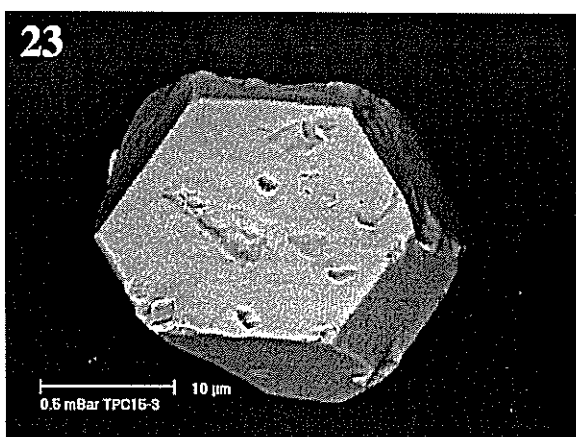
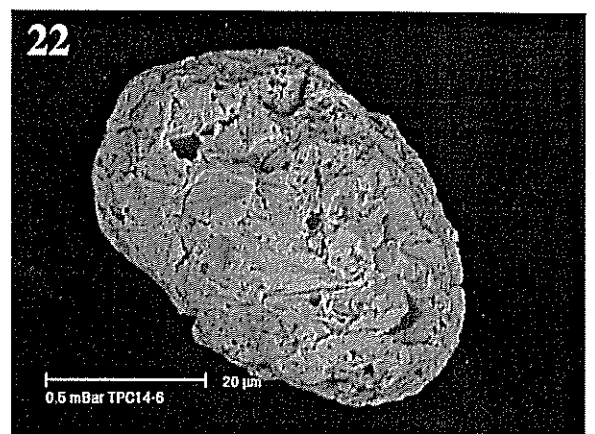
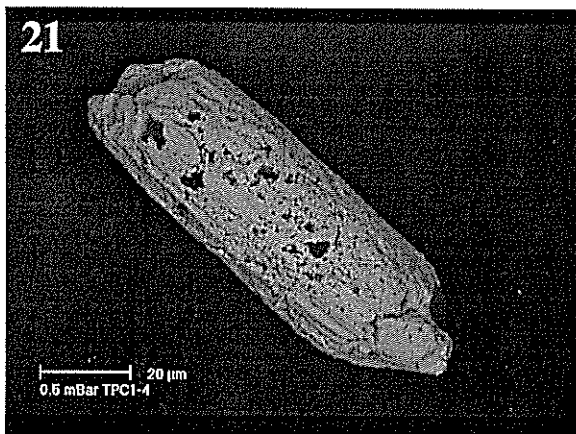
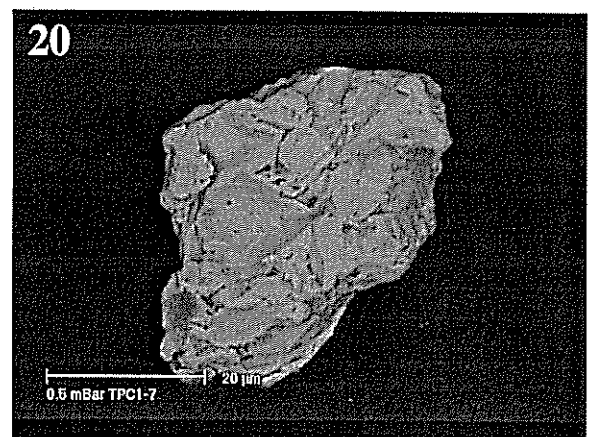
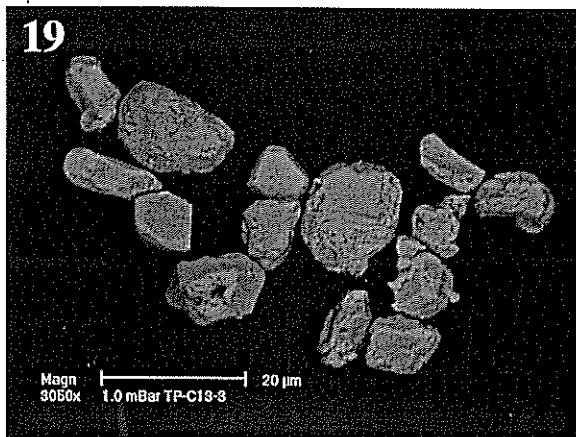
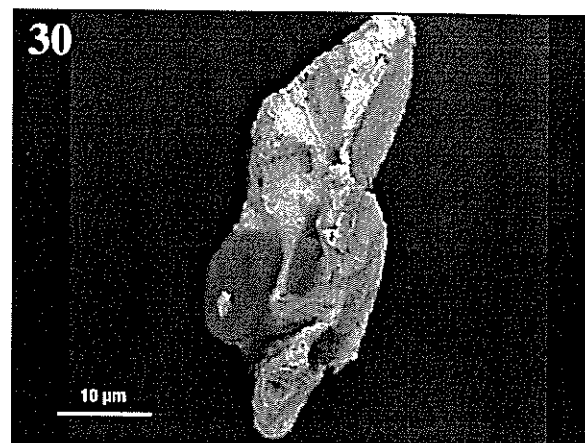
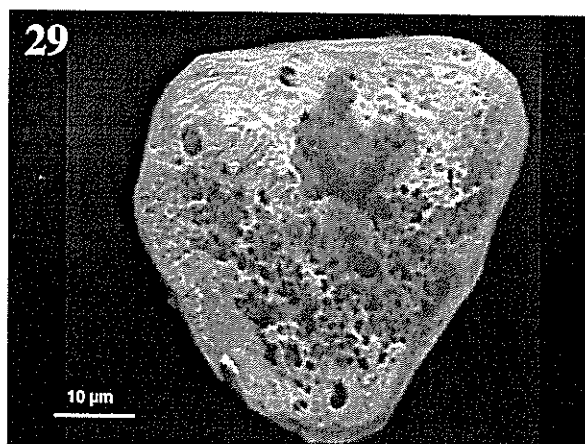
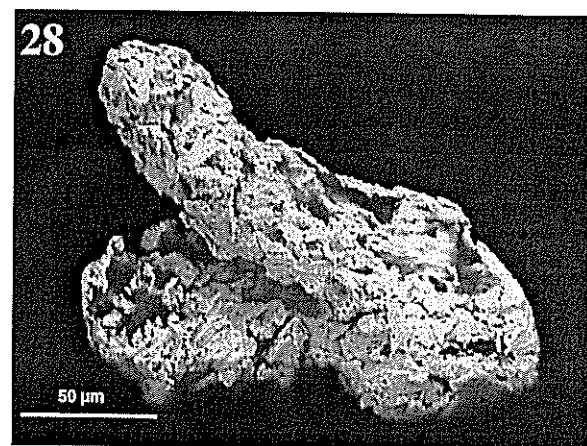
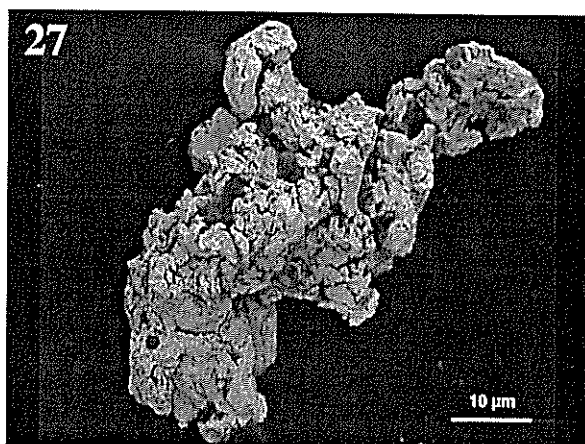
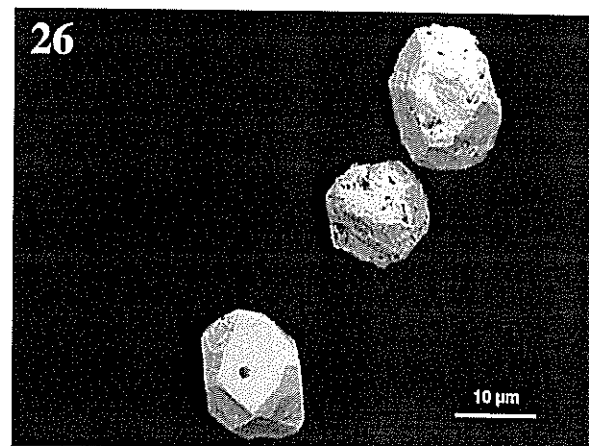
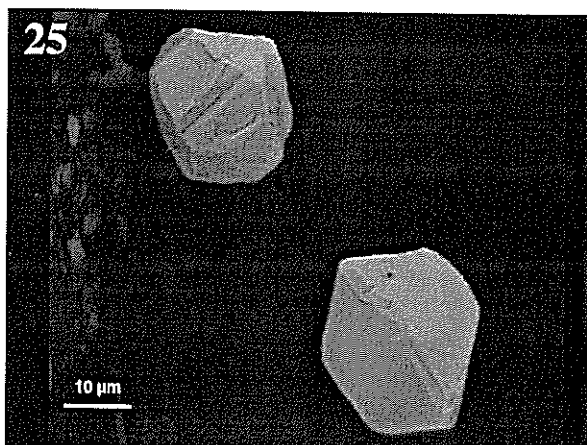


PLATE 5

Gold grains from the saprolite enrichment, Monty Dam

- Photo 25:** Equant Au crystals, no detectable Ag.
- Photo 26:** Supergene equant Au crystals.
- Photo 27:** “Cauliflower” Au aggregate, no detectable Ag.
- Photo 28:** Strongly corroded Au grain, no detectable Ag.
- Photo 29:** Strongly corroded Au crystal, no detectable Ag.
- Photo 30:** An intergrowth of Au crystal (white) with halite (grey).



APPENDICES

APPENDIX 1: GEOCHEMICAL DATA

Contents of Appendix 1

Twin Peaks

Table A1.1: Raw Geochemical Data, Twin Peaks

Key: C – Calcrete; S – Soil; M - Mottled zone; US - Upper saprolite;
MS - Mid saprolite; LS - Lower saprolite; SR – Saprock; F - Fresh rock.

Table A1.2: Raw Geochemical Data for calcrete, section 20900 mN, Twin Peaks

Table A1.3: Summary statistics for fresh rocks, Twin Peaks

Table A1.4: Summary statistics for saprock, Twin Peaks

Table A1.5: Summary statistics for lower saprolite, Twin Peaks

Table A1.6: Summary statistics for mid saprolite, Twin Peaks

Table A1.7: Summary statistics for upper saprolite, Twin Peaks

Table A1.8: Summary statistics for mottled zone, Twin Peaks

Table A1.9: Summary statistics for calcrete, Twin Peaks

Table A1.10: Summary statistics for soil, Twin Peaks

Figures A1.1 - A1.11: Elemental data for JDRC44

Figures A1.12 - A1.22: Elemental data for JDRC53

Figures A1.23 - A1.33: Elemental data for JDRC8

Figures A1.34 - A1.44: Elemental data for JDRC118

Figure A1.45: Associations of elements within the saprolite below the supergene Au enrichment and dispersion halo, Twin Peaks

Figure A1.46: Associations of elements within the Au depleted zone and saprolite dispersion halo, Twin Peaks

Monty Dam

Table A1.1: Raw Geochemical Data, Monty Dam

Figure A1.47: Associations of elements within the saprolite below the supergene Au dispersion halo, MontyDam

Figure A1.48: Associations of elements within the Au depleted zone and saprolite dispersion halo, Monty Dam

TABLE A1.1 : Raw Geochemical Data, Twin Peaks.

Drill Hole	Zone	From m	To m	SiO ₂ * %	Al ₂ O ₃ * %	Fe ₂ O ₃ * %	MnO* %	MgO* %	CaO* %	Na ₂ O* %	K ₂ O* %	TiO ₂ * %	P ₂ O ₅ * %	Ba* ppm	Cl* ppm	Cu* ppm	Ga* ppm	Ni* ppm	Nb* ppm	Pb* ppm
8	C	0	1	59.42	15.05	4.22	0.009	0.65	5.84	0.32	1.32	0.47	0.006	1378	2960	17	18	29	13	11
8	S	1	2	67.32	16.20	3.96	0.005	0.58	1.19	0.23	1.77	0.52	0.001	802	640	23	20	29	15	15
8	US	2	3	67.37	17.88	3.66	0.012	0.54	0.24	0.30	1.72	0.61	0.001	494	2320	25	20	32	13	12
8	US	3	5	66.11	17.06	6.38	0.012	0.44	0.07	0.51	1.61	0.54	0.003	480	6570	53	22	38	11	18
8	US	5	7	63.89	18.86	6.23	0.013	0.47	0.06	0.63	1.74	0.66	0.003	589	9320	53	23	38	9	17
8	US	7	9	62.93	18.07	7.87	0.015	0.48	0.04	0.51	1.91	0.67	0.007	732	7700	62	25	33	14	17
8	US	9	11	61.11	17.38	6.55	0.013	0.42	0.05	0.62	1.71	0.62	0.008	627	7740	67	19	30	11	16
8	US	11	13	63.63	18.92	6.38	0.010	0.45	0.03	0.81	1.54	0.65	0.009	483	13470	80	21	27	14	14
8	US	13	15	61.88	18.67	6.95	0.014	0.51	0.03	0.97	1.74	0.61	0.010	416	17120	71	23	51	14	16
8	US	15	17	60.42	20.39	6.85	0.016	0.48	0.04	0.82	1.79	0.69	0.033	465	14180	53	26	49	11	14
8	US	17	19	61.29	20.12	6.14	0.015	0.54	0.03	0.81	1.95	0.66	0.031	654	15740	36	24	49	14	15
8	US	19	21	62.85	18.84	5.91	0.016	0.55	0.05	1.16	1.86	0.63	0.034	498	21060	31	23	50	11	14
8	US	21	23	61.43	19.28	6.84	0.023	0.74	0.07	0.67	2.08	0.72	0.047	493	11470	47	22	71	16	16
8	US	23	25	60.00	17.84	9.03	0.025	0.72	0.04	0.91	1.87	0.65	0.091	502	14110	47	20	117	14	18
8	US	25	27	62.25	18.58	6.87	0.023	0.92	0.05	0.99	2.39	0.59	0.050	552	12900	36	21	87	10	9
8	US	27	29	62.36	18.59	6.26	0.023	1.11	0.04	1.30	2.52	0.68	0.043	545	11400	44	22	75	10	19
8	MS	29	31	63.88	17.02	6.05	0.019	1.34	0.05	1.85	2.65	0.62	0.048	545	8370	45	18	67	15	19
8	MS	31	33	63.57	17.03	5.75	0.023	1.50	0.06	2.79	2.44	0.63	0.048	528	8100	52	20	73	13	22
8	MS	33	35	63.64	16.87	5.74	0.026	1.55	0.06	3.58	2.37	0.60	0.040	487	11320	52	21	77	13	15
8	MS	35	37	68.69	15.22	4.76	0.024	1.26	0.06	3.00	2.26	0.52	0.041	568	7050	37	17	65	16	21
8	MS	37	38	63.41	16.78	6.65	0.039	1.47	0.06	3.41	2.68	0.62	0.068	506	4670	54	21	102	16	17
8	MS	38	39	63.69	16.37	6.85	0.289	1.37	0.06	3.81	2.43	0.59	0.069	856	8980	50	20	100	12	34
8	MS	39	40	62.23	16.38	6.76	0.099	1.47	0.21	3.72	2.66	0.65	0.047	656	15700	47	21	99	17	13
8	MS	40	41	65.30	15.31	6.17	0.296	1.31	0.05	3.07	2.75	0.55	0.062	783	11500	55	17	77	12	28
8	MS	41	42	67.08	14.86	6.03	0.265	1.11	0.06	2.99	2.83	0.51	0.058	814	7200	54	20	86	11	23
8	MS	42	43	67.78	14.77	5.95	0.320	1.14	0.07	3.00	2.90	0.48	0.068	913	5300	62	16	74	13	21
8	MS	43	44	66.61	15.22	5.61	0.134	1.23	0.07	3.68	3.01	0.51	0.046	765	5700	53	17	79	11	19
8	LS	44	45	63.74	16.30	6.29	0.153	1.63	0.09	3.42	3.25	0.59	0.066	859	9280	57	22	98	12	21
8	LS	45	46	59.80	17.09	7.66	0.147	2.46	0.20	2.12	4.55	0.67	0.148	1186	5440	73	25	168	18	23
8	LS	46	47	66.86	14.39	6.02	0.092	1.58	0.22	2.77	3.48	0.58	0.127	867	6410	88	23	131	14	18
8	LS	47	48	63.87	16.38	7.20	0.220	1.79	0.13	2.29	4.18	0.65	0.108	1071	1510	99	22	197	10	21
8	LS	48	49	65.72	14.70	5.88	0.111	1.75	0.24	2.77	3.68	0.53	0.122	890	11840	66	20	113	13	15
8	LS	49	50	64.15	15.16	6.18	0.165	1.74	0.35	2.50	4.00	0.56	0.157	967	9690	71	22	151	11	19
8	LS	50	51	64.89	15.04	5.98	0.155	1.63	0.12	2.61	3.77	0.54	0.133	1019	10730	67	21	128	12	16
8	LS	51	52	63.97	15.97	6.53	0.092	1.86	0.10	1.73	4.18	0.60	0.098	1118	3670	91	25	107	12	18

* - analysis by XRF (others by neutron activation)

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	SiO ₂ * %	Al ₂ O ₃ * %	Fe ₂ O ₃ * %	MnO* %	MgO* %	CaO* %	Na ₂ O* %	K ₂ O* %	TiO ₂ * %	P ₂ O ₅ * %	Ba* ppm	Cl* ppm	Cu* ppm	Ga* ppm	Ni* ppm	Nb* ppm	Pb* ppm
8	LS	52	53	66.85	14.13	5.49	0.107	1.91	0.53	1.81	3.73	0.50	0.123	892	1310	53	18	115	11	16
8	SR	53	55	63.31	12.68	5.44	0.129	2.62	2.40	1.62	3.45	0.45	0.120	812	220	59	19	88	12	19
8	SR	55	56	63.87	9.32	5.35	0.091	2.33	2.68	1.69	2.29	0.44	0.183	691	20	19	14	58	11	20
8	SR	56	57	66.12	11.78	4.56	0.089	2.26	2.14	2.43	2.62	0.40	0.136	381	10	45	17	66	13	17
8	SR	57	58	65.34	12.81	4.97	0.112	2.43	1.95	2.87	2.61	0.47	0.139	672	200	48	18	71	12	17
8	SR	58	59	63.60	13.14	5.15	0.101	2.65	2.27	2.62	2.94	0.44	0.129	552	10	40	19	75	11	17
8	F	65	66			5.76			2.99	0.96	2.86			1290						
44	S	0	1	60.48	13.72	14.87	0.025	0.26	0.16	0.26	0.77	0.60	0.018	926	1050	27	22	28	12	16
44	S	1	2	64.24	14.03	12.54	0.024	0.32	0.11	0.28	1.12	0.62	0.017	597	1330	24	21	22	13	22
44	S	2	3	62.49	14.31	12.03	0.024	0.32	0.11	0.26	1.07	0.61	0.015	518	1330	16	21	21	13	14
44	M	3	5	62.18	19.04	8.33	0.020	0.46	0.05	0.46	1.82	0.65	0.008	612	6200	30	26	22	15	17
44	M	5	7	61.26	18.61	8.92	0.023	0.53	0.05	0.49	2.22	0.72	0.013	568	6750	34	23	31	15	12
44	M	7	9	62.20	20.91	5.62	0.021	0.48	0.03	0.26	2.26	0.74	0.004	605	2500	26	27	57	17	12
44	M	9	12	64.97	20.33	3.58	0.010	0.50	0.03	0.47	2.12	0.61	0.004	673	6090	21	24	34	14	11
44	M	12	14	64.73	20.41	3.60	0.011	0.58	0.04	0.48	2.47	0.63	0.006	673	7790	19	27	40	13	13
44	US	14	16	59.13	20.28	6.75	0.019	0.48	0.03	0.71	1.82	0.65	0.017	548	12340	41	25	25	17	5
44	US	16	19	61.25	19.25	7.43	0.021	0.40	0.04	0.53	1.62	0.65	0.028	518	8410	53	23	57	15	17
44	US	19	23	64.11	17.43	6.55	0.020	0.47	0.03	0.43	2.07	0.64	0.041	609	6400	43	22	49	13	16
44	US	23	25	62.58	18.66	5.99	0.022	0.55	0.04	0.62	2.39	0.67	0.040	682	9520	33	22	43	12	19
44	US	25	27	61.82	18.74	6.47	0.022	0.99	0.08	0.73	2.84	0.64	0.042	758	9140	43	23	64	16	13
44	MS	27	31	63.05	17.47	5.93	0.030	1.34	0.09	1.72	2.58	0.59	0.051	859	11220	38	23	71	15	16
44	MS	31	33	65.48	16.54	4.98	0.022	1.23	0.17	3.41	1.84	0.56	0.053	457	8150	38	21	79	13	20
44	MS	33	35	61.47	17.53	6.41	0.024	1.78	0.11	2.36	2.87	0.64	0.063	823	7400	54	24	111	11	14
44	MS	35	37	64.87	16.93	5.25	0.018	1.32	0.16	3.41	2.24	0.54	0.070	571	9420	44	20	88	13	21
44	MS	37	40	66.60	15.98	4.75	0.020	1.16	0.19	4.02	2.02	0.51	0.061	677	8560	32	22	56	11	24
44	MS	40	43	67.64	15.63	4.64	0.021	1.14	0.19	4.55	1.90	0.50	0.062	465	4930	37	19	56	14	15
44	MS	43	45	66.85	15.71	5.03	0.028	1.29	0.20	5.11	1.78	0.50	0.054	370	6720	29	19	77	11	17
44	MS	45	46	66.32	15.95	5.18	0.034	1.24	0.17	4.94	2.04	0.51	0.063	470	9420	38	20	77	13	24
44	MS	46	47	66.82	15.71	4.63	0.024	1.10	0.18	5.37	1.95	0.46	0.064	417	12870	33	20	69	13	16
44	MS	47	48	66.75	15.58	4.31	0.027	0.98	0.19	5.54	2.22	0.45	0.056	482	20780	37	19	67	14	22
44	MS	48	49	64.55	15.77	5.74	0.042	1.35	0.11	3.91	3.13	0.54	0.084	610	20560	45	22	97	18	31
44	LS	49	50	63.41	16.44	6.20	0.044	1.55	0.12	3.80	3.43	0.58	0.078	687	16530	51	21	104	18	29
44	LS	50	51	62.05	17.10	6.44	0.035	1.65	0.14	4.15	3.09	0.60	0.094	653	8960	49	23	107	13	20
44	LS	51	52	68.68	15.27	4.21	0.029	1.09	0.30	5.33	1.79	0.43	0.111	383	5780	36	20	69	11	21
44	LS	52	53	65.11	16.28	5.78	0.033	1.41	0.25	4.56	2.64	0.50	0.112	590	6230	47	21	93	16	24

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	SiO ₂ * %	Al ₂ O ₃ * %	Fe ₂ O ₃ * %	MnO* %	MgO* %	CaO* %	Na ₂ O* %	K ₂ O* %	TiO ₂ * %	P ₂ O ₅ * %	Ba* ppm	Cl* ppm	Cu* ppm	Ga* ppm	Ni* ppm	Nb* ppm	Pb* ppm
44	LS	53	54	65.86	15.95	5.24	0.058	1.72	0.31	5.14	1.91	0.46	0.123	448	4480	41	21	105	10	30
44	LS	54	55	67.77	15.48	4.45	0.052	1.78	0.36	5.32	1.52	0.43	0.122	453	6290	31	21	78	12	22
44	LS	55	56	68.49	15.60	4.53	0.027	1.98	0.36	5.04	1.54	0.44	0.117	488	4340	27	21	54	10	19
44	LS	56	58	67.63	15.11	4.51	0.039	1.85	0.36	5.15	1.55	0.44	0.116	513	6830	28	20	73	11	19
44	LS	58	60	69.17	15.13	4.16	0.030	1.72	0.37	5.34	1.40	0.43	0.115	441	2290	33	20	79	14	16
44	LS	60	62	63.39	16.16	6.34	0.045	2.95	0.36	4.36	2.00	0.58	0.149	670	8540	34	23	128	14	12
44	SR	62	64	65.30	15.90	5.77	0.045	2.73	0.35	4.45	1.86	0.57	0.144	596	4410	30	21	88	10	10
44	F	64	66	67.24	14.80	4.19	0.062	2.44	1.29	4.83	1.34	0.45	0.116	462	970	24	17	60	13	19
44	F	66	67	65.18	14.95	4.63	0.088	2.85	1.59	4.88	1.27	0.46	0.120	434	950	29	19	55	10	16
44	F	67	68	63.76	14.34	4.39	0.108	2.88	2.81	4.67	1.27	0.43	0.110	415	330	26	20	50	12	22
44	F	68	69	65.77	14.99	4.34	0.063	2.35	2.24	5.06	1.24	0.43	0.119	422	250	26	21	49	15	22
44	F	126	127			6.09		3.88	3.88	1.93	2.00			556						
53	S	0	1	80.48	6.90	6.03	0.043	0.36	0.31	0.30	0.83	0.35	0.022	229	1300	18	9	30	12	13
53	S	1	2	69.72	14.27	2.40	0.008	1.16	1.59	0.28	2.85	0.44	0.005	854	590	13	23	11	11	18
53	US	2	3	67.81	19.75	1.28	0.005	0.88	0.07	0.32	3.64	0.61	0.001	924	2780	5	26	5	16	12
53	US	3	4	67.39	20.52	1.01	0.005	0.65	0.04	0.31	2.82	0.73	0.004	781	3070	5	26	5	16	16
53	US	4	5	69.78	18.14	1.43	0.006	0.67	0.04	0.38	3.00	0.70	0.003	962	4380	5	27	5	12	14
53	US	5	6	70.40	17.58	2.19	0.005	0.49	0.05	0.38	2.14	0.63	0.005	560	4590	16	25	5	14	17
53	US	6	8	67.77	18.80	1.92	0.005	0.55	0.03	0.44	2.48	0.67	0.004	629	5820	15	27	5	14	17
53	US	8	10	66.97	18.32	4.03	0.005	0.76	0.03	0.32	3.40	0.61	0.010	762	4200	59	30	15	17	22
53	US	10	12	65.28	18.09	4.75	0.006	0.99	0.03	0.43	4.13	0.65	0.036	1023	6480	62	25	24	13	53
53	US	12	14	61.98	17.57	7.49	0.010	0.84	0.03	0.65	3.41	0.56	0.061	796	11170	104	24	47	13	28
53	US	14	16	59.11	19.34	8.47	0.011	0.88	0.03	0.58	3.75	0.68	0.098	890	9380	106	24	43	13	35
53	US	16	18	61.10	17.44	8.87	0.008	1.02	0.02	0.42	4.38	0.62	0.115	1137	5390	116	28	52	17	80
53	US	18	21	61.79	17.71	7.18	0.008	1.08	0.03	0.68	4.26	0.67	0.097	1115	11670	91	28	48	16	42
53	US	21	23	63.89	17.14	6.13	0.009	0.96	0.03	0.74	3.57	0.65	0.096	940	12040	65	24	37	17	38
53	US	23	25	63.26	18.29	6.17	0.012	1.17	0.04	0.87	3.95	0.67	0.086	994	7360	52	24	36	15	28
53	US	25	26	65.21	16.92	5.90	0.014	1.03	0.06	1.98	2.66	0.58	0.080	580	7060	48	24	49	12	18
53	US	26	27	65.57	16.11	6.74	0.012	0.85	0.04	1.15	3.04	0.54	0.099	752	7450	44	21	65	11	24
53	US	27	30	60.47	19.60	6.37	0.015	1.50	0.04	0.94	4.35	0.69	0.062	975	9740	71	25	43	15	32
53	US	30	32	73.56	13.18	4.14	0.011	0.89	0.03	0.89	3.04	0.44	0.059	715	5180	43	20	30	10	30
53	MS	32	34	62.63	18.46	5.22	0.015	1.53	0.05	1.90	4.14	0.69	0.063	930	9110	57	26	43	14	36
53	MS	34	37	62.18	17.61	5.98	0.019	1.39	0.05	1.94	3.96	0.63	0.088	1042	8450	58	23	57	13	29
53	MS	37	40	62.82	17.71	5.59	0.021	1.28	0.07	3.15	3.39	0.66	0.076	811	6680	57	21	49	13	21
53	MS	40	43	66.51	15.55	5.42	0.041	1.00	0.10	4.54	2.39	0.54	0.087	545	13250	39	20	42	12	21

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	SiO ₂ * %	Al ₂ O ₃ * %	Fe ₂ O ₃ * %	MnO* %	MgO* %	CaO* %	Na ₂ O* %	K ₂ O* %	TiO ₂ * %	P ₂ O ₅ * %	Ba* ppm	Cl* ppm	Cu* ppm	Ga* ppm	Ni* ppm	Nb* ppm	Pb* ppm
53	MS	43	44	65.78	15.77	5.92	0.032	1.17	0.10	5.16	1.95	0.59	0.082	397	9270	43	23	65	11	16
53	MS	44	45	65.81	15.70	6.08	0.043	1.28	0.09	4.76	1.89	0.57	0.086	400	6990	49	19	67	13	23
53	MS	45	46	66.46	15.31	5.75	0.057	1.30	0.09	4.83	1.96	0.52	0.080	465	7490	48	21	72	11	26
53	MS	46	47	64.61	15.57	6.32	0.102	1.54	0.09	4.46	2.70	0.54	0.075	559	8100	55	19	105	13	17
53	MS	47	48	60.74	16.25	7.75	0.042	2.28	0.10	3.18	3.97	0.64	0.102	899	11410	73	22	159	14	17
53	LS	48	49	64.63	15.44	5.80	0.030	1.79	0.19	4.27	3.05	0.55	0.125	603	14390	52	21	90	13	19
53	LS	49	50	64.33	15.80	6.34	0.058	1.69	0.20	3.63	3.17	0.59	0.149	641	8240	50	20	118	11	26
53	LS	50	51	62.26	16.30	7.03	0.076	2.24	0.21	3.40	3.02	0.64	0.162	647	12300	58	22	146	12	22
53	LS	51	52	62.44	15.19	6.92	0.092	1.91	0.16	3.78	2.70	0.59	0.162	577	13960	52	20	132	11	26
53	LS	52	54	64.16	15.71	6.55	0.094	2.00	0.19	3.51	2.61	0.57	0.144	593	9220	50	20	128	13	25
53	LS	54	56	61.47	15.70	7.30	0.063	2.61	0.21	3.89	2.55	0.62	0.166	596	15580	51	22	144	13	27
53	LS	56	58	64.60	15.66	5.94	0.072	2.08	0.22	4.04	2.78	0.56	0.158	612	13420	47	19	124	15	27
53	LS	58	61	64.96	14.69	5.23	0.054	2.32	1.01	4.01	2.71	0.48	0.160	549	9020	39	19	76	11	20
53	LS	61	63	68.54	14.49	4.96	0.098	1.03	0.40	4.05	3.02	0.48	0.156	611	6300	35	18	69	15	21
53	LS	63	65	66.48	15.31	5.91	0.092	1.18	0.20	3.29	3.14	0.56	0.145	698	7300	52	17	81	13	27
53	LS	65	68	66.16	15.17	5.39	0.145	1.50	0.25	4.50	2.55	0.52	0.161	561	9260	45	21	100	10	22
53	SR	68	70	67.79	14.57	5.19	0.061	2.31	0.26	5.30	1.31	0.49	0.152	301	7790	42	17	84	10	19
53	SR	70	71	65.74	15.21	5.87	0.034	2.83	0.24	4.06	2.20	0.51	0.142	591	8080	38	20	90	16	22
53	SR	72	73	66.40	15.00	5.71	0.037	2.63	0.26	4.36	1.96	0.51	0.163	510	8910	35	18	104	12	16
53	SR	74	75	65.60	15.11	6.08	0.043	2.90	0.30	4.17	2.02	0.52	0.149	497	7930	36	21	107	15	23
53	F	76	77	65.44	14.28	5.54	0.092	2.82	1.14	3.65	1.95	0.50	0.115	502	7340	46	20	71	13	20
53	F	78	80	66.17	13.56	5.45	0.100	2.89	1.28	3.46	1.84	0.50	0.125	425	3230	47	19	66	14	20
118	C	0	1	55.28	7.52	5.21	0.034	1.43	12.70	0.27	0.91	0.38	0.026	361	830	30	10	27	12	7
118	C	1	2	53.90	8.17	4.98	0.026	3.10	10.94	0.43	1.05	0.35	0.017	346	3490	28	11	25	15	13
118	S	2	3	55.91	15.17	7.46	0.013	2.28	4.55	0.32	1.90	0.45	0.004	627	1160	36	21	26	14	19
118	M	3	4	59.55	17.98	7.76	0.016	1.03	1.26	0.57	1.90	0.57	0.005	590	6360	32	20	21	15	18
118	M	4	5	61.41	18.36	8.99	0.015	0.50	0.18	0.37	1.96	0.61	0.004	686	3740	36	23	20	14	13
118	M	5	6	64.09	17.90	7.40	0.015	0.46	0.09	0.24	2.11	0.64	0.004	644	1790	28	23	13	14	15
118	M	6	8	64.66	15.84	8.50	0.013	0.43	0.08	0.65	1.63	0.65	0.005	556	10900	34	25	16	13	17
118	M	8	10	64.88	15.41	8.41	0.026	0.46	0.07	0.48	1.83	0.65	0.005	662	6520	32	23	26	14	13
118	M	10	12	65.60	14.94	7.86	0.035	0.44	0.05	0.43	1.98	0.72	0.007	767	4520	29	27	19	13	11
118	M	12	14	65.11	15.63	7.90	0.022	0.55	0.09	0.97	2.16	0.66	0.010	891	4020	23	24	28	20	15
118	US	14	16	68.18	15.63	5.56	0.023	1.17	0.07	2.70	2.70	0.52	0.022	682	1960	30	23	64	12	16
118	US	16	18	66.17	15.69	5.87	0.025	1.45	0.08	2.93	2.79	0.54	0.027	634	1720	36	20	89	13	14
118	US	18	20	65.83	15.87	6.18	0.034	1.32	0.10	3.29	2.38	0.55	0.025	506	1370	30	21	88	15	18

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	SiO ₂ * %	Al ₂ O ₃ * %	Fe ₂ O ₃ * %	MnO* %	MgO* %	CaO* %	Na ₂ O* %	K ₂ O* %	TiO ₂ * %	P ₂ O ₅ * %	Ba* ppm	Cl* ppm	Cu* ppm	Ga* ppm	Ni* ppm	Nb* ppm	Pb* ppm
118	US	20	22	64.38	15.96	6.62	0.040	1.57	0.08	3.09	2.60	0.57	0.021	754	5610	39	20	86	13	11
118	US	22	24	65.44	16.03	6.07	0.026	1.70	0.07	3.20	2.93	0.57	0.034	496	3810	43	19	86	11	18
118	US	24	26	65.85	16.50	5.41	0.016	1.44	0.07	3.14	2.75	0.53	0.042	473	8050	36	21	59	12	19
118	US	26	29	63.73	16.48	6.55	0.029	1.53	0.08	3.22	2.44	0.57	0.032	358	5660	48	19	91	12	11
118	MS	29	32	61.43	16.82	7.60	0.040	1.72	0.06	2.93	2.64	0.61	0.106	369	5920	58	21	77	10	34
118	MS	32	34	62.09	17.00	7.22	0.039	1.72	0.06	2.94	2.87	0.59	0.097	332	4100	60	21	74	17	25
118	MS	34	36	63.29	17.37	5.92	0.034	1.50	0.06	2.83	3.19	0.64	0.094	362	3000	61	22	54	17	29
118	MS	36	37	62.81	17.26	5.76	0.032	1.42	0.06	2.73	3.26	0.60	0.107	317	3130	60	21	59	14	32
118	MS	37	38	63.39	17.80	5.95	0.034	1.47	0.08	3.05	3.23	0.65	0.154	331	2620	61	23	55	14	29
118	MS	38	39	64.15	16.82	6.11	0.032	1.57	0.07	3.15	2.86	0.64	0.145	279	3500	68	21	57	14	32
118	MS	39	40	63.70	16.90	6.08	0.039	1.63	0.07	2.67	3.49	0.65	0.107	404	2820	65	22	59	12	23
118	MS	40	41	64.37	16.84	5.78	0.036	1.61	0.08	3.33	3.12	0.62	0.117	438	3150	69	23	57	11	28
118	MS	41	42	64.92	15.89	6.50	0.035	1.86	0.10	3.68	2.53	0.58	0.165	498	1790	58	22	74	13	31
118	LS	42	43	63.26	16.03	6.68	0.038	2.25	0.14	4.18	2.31	0.58	0.144	567	4790	50	20	86	7	22
118	LS	43	44	63.78	16.00	6.45	0.044	2.64	0.28	4.47	1.96	0.59	0.180	585	2840	46	19	107	12	19
118	LS	44	45	66.19	14.94	6.29	0.046	2.63	0.28	3.98	1.96	0.57	0.176	636	2860	52	20	117	16	14
118	LS	45	47	66.34	15.03	5.74	0.033	2.38	0.31	5.52	1.43	0.54	0.155	443	8800	45	22	85	12	24
118	LS	47	48	66.15	14.93	5.81	0.026	2.32	0.30	4.84	1.92	0.55	0.156	500	2840	38	18	72	10	15
118	LS	48	50	65.04	15.46	5.90	0.044	2.47	0.32	4.93	2.35	0.57	0.180	675	5540	48	19	91	14	17
TP42	C	0	1			3.89			12.45	0.39	1.45			815.0						
TP42	C	1	2			4.19			9.00	0.37	2.27			847.0						
TP42	C	2	3			4.36			4.31	0.37	2.65			933.0						
TP42	C	3	4			3.42			4.56	0.22	2.23			757.0						
TP42	US	4	5			1.83			0.70	0.26	2.11			585.0						
TP42	US	5	6			3.80			0.70	0.14	2.28			591.0						
TP-C10	C					3.19			31.06	0.31	0.29			256.0						
TP-C9	C					1.76			15.39	0.24	0.12			169.0						
TP-C8	C					2.59			37.35	0.19	0.42			675.0						
TP-C7	C					1.87			42.95	0.14	0.39			284.0						
TP-C6	C					2.32			29.38	0.17	0.72			377.0						
TP-C5	C					2.93			29.24	0.20	0.25			1410.0						
TP-C4	C					2.07			38.61	0.18	0.57			372.0						
TP-C3	C					1.90			20.99	0.22	1.02			667.0						
TP-C2	C					2.72			21.82	0.40	0.46			242.0						
TP-C1	C					4.33			22.52	0.34	0.46			333.0						

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Rb* ppm	S* ppm	Sr* ppm	V* ppm	Y* ppm	Zn* ppm	Zr* ppm	Au ppb	Sb ppm	As ppm	Br ppm	Ce ppm	Eu ppm	La ppm	Lu ppm	Sm ppm	Yb ppm
TP-C11	C					3.15			15.53	0.55	0.12			350.0						
TP-C12	C					2.16			19.03	0.16	1.01			671.0						
TP-C13	C					3.17			27.56	0.18	0.12			574.0						
TP-C14	C					4.53			21.12	0.26	1.13			1240.0						
TP-C15	C					3.89			24.90	0.17	0.33			246.0						
TP-C16	C					5.90			20.85	0.19	0.58			351.0						
TP-C17	C					4.80			21.82	0.20	0.41			247.0						
TP-C18	C					2.50			32.74	0.11	0.64			347.0						
8	C	0	1	38	490	136	109	12	17	120	54.3	1.05	10.00	5.71	7.20	0.25	2.15	0.10	0.74	0.78
8	S	1	2	46	140	65	150	10	19	121	20.4	1.36	12.70	2.80	5.02	0.25	1.36	0.10	0.59	0.83
8	US	2	3	45	70	34	167	9	28	125	10.5	0.61	15.20	2.75	6.26	0.25	1.15	0.10	0.84	0.84
8	US	3	5	46	110	19	132	11	51	121	9.1	0.56	21.00	4.06	6.68	0.25	1.24	0.10	0.89	0.71
8	US	5	7	46	270	20	137	13	46	138	9.4	0.71	28.20	9.20	6.08	0.25	1.47	0.10	0.93	0.90
8	US	7	9	54	330	20	157	12	55	139	17.9	0.66	35.90	13.40	7.72	0.25	1.91	0.10	0.97	0.73
8	US	9	11	49	250	16	112	12	46	124	18.2	0.41	39.60	8.17	6.01	0.25	1.40	0.10	0.86	0.82
8	US	11	13	40	430	19	123	9	46	133	19.4	0.53	46.30	11.00	7.60	0.25	1.38	0.10	0.73	0.95
8	US	13	15	47	610	16	107	13	48	129	7.4	0.51	62.20	12.10	10.90	0.25	1.24	0.10	0.85	0.85
8	US	15	17	50	500	20	121	14	51	131	12.2	0.66	55.40	7.63	7.69	0.25	0.84	0.10	0.90	1.17
8	US	17	19	56	500	20	116	13	44	128	9.8	0.76	64.20	10.10	6.20	0.25	0.92	0.10	0.80	0.94
8	US	19	21	62	430	21	117	14	43	127	9.3	0.72	80.00	8.44	7.39	0.64	1.40	0.10	0.93	0.96
8	US	21	23	90	330	23	118	11	67	143	7.6	0.84	109.00	6.38	12.10	0.56	2.90	0.10	1.22	1.13
8	US	23	25	76	630	22	114	14	78	137	10.3	0.43	226.00	8.74	13.70	0.25	4.59	0.10	1.51	1.05
8	US	25	27	103	480	42	112	13	84	119	2.5	0.56	201.00	8.20	14.30	0.25	7.49	0.10	1.45	0.99
8	US	27	29	110	440	71	131	19	96	128	8.9	0.49	171.00	5.43	32.90	1.22	20.00	0.10	2.63	1.18
8	MS	29	31	137	300	136	121	18	105	119	2.5	0.46	107.00	4.45	41.90	1.00	27.80	0.10	3.17	1.16
8	MS	31	33	160	300	164	112	17	126	120	2.5	0.36	71.70	5.92	53.10	1.03	32.60	0.10	3.84	1.10
8	MS	33	35	103	290	164	107	17	101	122	2.5	0.61	45.80	4.99	50.50	1.01	25.60	0.10	3.92	1.12
8	MS	35	37	90	290	153	97	15	102	103	2.5	0.47	49.60	4.14	50.70	1.04	28.40	0.10	3.73	0.91
8	MS	37	38	104	150	145	120	18	103	121	2.5	0.74	89.90	3.33	51.70	1.52	23.20	0.10	4.16	1.24
8	MS	38	39	97	350	152	106	16	105	112	2.5	0.52	148.00	4.85	58.00	1.30	18.90	0.10	3.67	1.14
8	MS	39	40	99	600	147	114	19	86	125	17.7	0.66	109.00	10.10	56.70	1.13	19.30	0.10	4.23	1.24
8	MS	40	41	97	540	155	102	14	77	107	2.5	0.41	199.00	6.65	109.00	1.11	28.40	0.10	4.50	1.32
8	MS	41	42	97	240	174	97	15	68	106	10.1	0.35	231.00	5.24	200.00	1.32	25.50	0.10	5.09	0.99
8	MS	42	43	96	230	187	90	16	71	109	8660.0	0.34	379.00	3.30	235.00	1.52	30.20	0.10	6.11	1.22
8	MS	43	44	94	290	188	96	21	74	109	2.5	0.49	384.00	3.17	117.00	2.10	36.60	0.21	9.10	1.47

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Rb* ppm	S* ppm	Sr* ppm	V* ppm	Y* ppm	Zn* ppm	Zr* ppm	Au ppb	Sb ppm	As ppm	Br ppm	Ce ppm	Eu ppm	La ppm	Lu ppm	Sm ppm	Yb ppm
8	LS	44	45	109	480	174	116	18	90	117	1720.0	0.36	230.00	4.73	116.00	1.53	29.10	0.10	5.85	1.26
8	LS	45	46	139	300	123	134	24	124	124	8170.0	0.40	519.00	4.04	63.60	1.66	27.50	0.23	4.80	1.48
8	LS	46	47	100	260	151	106	21	87	118	12600.0	0.70	674.00	4.60	53.00	1.07	23.30	0.10	4.21	1.10
8	LS	47	48	120	170	207	133	23	121	124	6800.0	1.38	1410.00	4.63	61.60	1.68	26.50	0.21	4.89	1.45
8	LS	48	49	97	410	156	99	21	85	100	6070.0	2.03	2070.00	5.18	72.80	1.17	25.90	0.10	5.27	1.11
8	LS	49	50	112	520	176	115	21	90	110	6510.0	2.61	2650.00	6.35	76.80	1.48	26.40	0.10	5.42	1.10
8	LS	50	51	108	1220	281	109	21	88	111	3160.0	0.38	666.00	6.20	75.30	1.37	30.40	0.10	5.51	1.14
8	LS	51	52	117	710	205	125	22	105	114	3410.0	0.62	460.00	4.38	80.20	1.17	31.20	0.20	5.77	1.36
8	LS	52	53	97	2600	240	94	16	76	104	8230.0	2.46	2760.00	2.50	58.90	1.70	24.60	0.10	4.71	0.96
8	SR	53	55	95	5340	341	89	13	70	100	9620.0	2.71	2980.00	2.50	47.80	1.37	21.10	0.10	3.85	0.78
8	SR	55	56	54	8370	324	66	9	55	104	16100.0	15.80	19800	0.50	58.80	1.22	17.70	0.10	3.13	0.50
8	SR	56	57	71	5300	342	59	12	53	95	5240.0	4.46	5710.00	2.50	42.70	1.00	17.40	0.10	2.98	0.64
8	SR	57	58	80	4210	363	78	14	72	113	7330.0	0.49	479.00	2.21	52.10	1.17	22.80	0.10	3.89	0.91
8	SR	58	59	85	4900	373	79	13	66	106	3260.0	2.49	3120.00	2.50	54.10	0.94	23.10	0.10	3.94	0.56
8	F	65	66	55					125		50000.0	9.10	14400	10.00	29.60	0.67	18.30	0.10	3.30	0.25
44	S	0	1	21	290	34	204	13	25	149	10.4	1.48	36.00	2.62	13.70	0.60	9.41	0.10	1.51	0.91
44	S	1	2	34	190	29	170	10	22	147	17.6	1.16	29.90	2.80	10.80	0.58	5.86	0.10	1.33	0.79
44	S	2	3	29	170	29	168	12	19	138	12.3	0.97	27.50	2.91	11.00	0.25	5.56	0.10	1.30	0.80
44	M	3	5	49	280	18	119	12	22	129	2.5	0.81	12.00	5.75	4.03	0.70	0.86	0.10	0.87	0.65
44	M	5	7	69	340	19	144	13	25	130	2.5	0.91	14.20	6.40	4.74	0.57	0.91	0.10	0.95	0.78
44	M	7	9	65	140	19	139	12	22	133	2.5	1.06	4.83	2.79	4.56	0.64	0.63	0.10	0.99	0.72
44	M	9	12	69	170	22	91	8	19	131	8.0	1.19	2.97	5.06	5.07	0.25	0.96	0.10	0.83	0.68
44	M	12	14	77	240	27	113	8	16	129	8.0	0.95	2.57	5.31	4.91	0.25	0.87	0.10	0.86	0.65
44	US	14	16	52	440	19	118	12	19	135	9.0	1.07	5.53	8.84	8.85	0.25	1.84	0.10	1.00	1.08
44	US	16	19	49	450	27	112	12	50	137	9.9	0.83	5.37	5.64	14.60	0.63	11.80	0.10	1.72	1.05
44	US	19	23	64	350	25	121	10	37	123	2.5	0.72	6.52	3.60	11.90	0.52	4.12	0.10	1.37	0.94
44	US	23	25	74	450	24	124	11	34	124	2.5	0.62	5.49	6.67	12.30	0.59	2.14	0.10	1.35	1.16
44	US	25	27	113	590	42	113	15	72	130	2.5	0.82	6.35	5.58	45.10	0.84	10.70	0.10	2.33	1.17
44	MS	27	31	110	420	129	101	16	108	137	2.5	0.75	10.20	7.46	51.50	2.33	59.10	0.10	8.31	1.09
44	MS	31	33	79	280	308	89	18	93	135	2.5	0.57	29.70	5.25	52.00	1.69	57.60	0.10	7.37	0.98
44	MS	33	35	106	340	175	113	19	103	139	2.5	0.63	54.40	6.32	58.00	1.85	43.90	0.10	6.10	1.17
44	MS	35	37	71	370	285	100	16	68	131	2.5	0.70	82.80	5.27	60.30	1.21	31.10	0.10	4.77	1.05
44	MS	37	40	59	410	354	85	14	67	119	2.5	0.46	74.20	3.39	61.60	1.10	30.00	0.10	4.50	1.00
44	MS	40	43	53	160	367	80	14	63	122	2.5	0.10	74.10	2.55	50.90	1.00	24.70	0.10	4.25	0.99
44	MS	43	45	46	290	369	81	15	71	122	2.5	0.42	53.30	4.04	52.80	1.11	24.00	0.10	4.16	1.04

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Rb* ppm	S* ppm	Sr* ppm	V* ppm	Y* ppm	Zn* ppm	Zr* ppm	Au ppb	Sb ppm	As ppm	Br ppm	Ce ppm	Eu ppm	La ppm	Lu ppm	Sm ppm	Yb ppm
44	MS	45	46	56	320	346	93	15	70	116	2.5	0.38	49.70	4.74	90.40	1.58	30.30	0.10	5.21	0.94
44	MS	46	47	56	370	378	71	18	66	116	2.5	0.47	50.00	5.69	131.00	1.55	35.00	0.10	6.48	1.13
44	MS	47	48	68	510	378	75	18	60	117	2.5	0.10	37.90	5.68	78.90	1.97	31.20	0.10	5.57	1.26
44	MS	48	49	96	580	304	101	37	76	124	2.5	0.61	60.00	8.84	151.00	1.97	51.00	0.40	10.10	2.56
44	LS	49	50	107	350	233	115	39	92	131	2530.0	0.68	56.40	5.06	108.00	2.77	42.70	0.41	7.90	2.62
44	LS	50	51	90	270	293	111	30	97	128	575.0	0.46	74.40	4.78	95.80	1.79	40.60	0.31	6.70	1.98
44	LS	51	52	46	250	404	71	18	65	110	81.1	0.10	45.50	2.67	55.40	1.07	27.00	0.10	4.55	1.04
44	LS	52	53	75	200	283	84	15	80	128	287.0	0.79	63.40	2.85	51.40	1.24	24.10	0.10	4.28	1.09
44	LS	53	54	52	130	343	87	16	84	123	112.0	0.53	53.10	2.52	48.60	1.53	23.50	0.10	4.01	0.87
44	LS	54	55	42	160	391	74	13	65	111	10.0	0.54	36.90	1.83	50.90	0.97	25.30	0.10	4.05	1.00
44	LS	55	56	51	110	398	78	10	63	109	18.0	0.37	21.10	2.12	53.10	1.27	26.10	0.10	4.31	0.93
44	LS	56	58	45	220	403	72	14	65	113	28.3	0.38	36.30	2.79	47.80	1.20	24.50	0.10	4.05	0.55
44	LS	58	60	42	70	459	70	12	66	109	26.8	0.43	50.60	0.50	43.20	1.78	23.00	0.10	3.79	0.89
44	LS	60	62	59	330	298	118	17	90	122	30.3	0.59	83.70	3.95	53.80	1.39	28.10	0.10	4.89	1.09
44	SR	62	64	55	200	311	99	16	84	125	2.5	0.49	42.20	1.45	52.70	1.01	27.10	0.10	4.56	1.11
44	F	64	66	37	910	452	72	14	63	115	2.5	0.56	20.10	1.52	41.10	1.20	21.20	0.10	3.54	0.77
44	F	66	67	36	850	443	73	13	65	116	2.5	0.52	19.60	0.50	47.90	1.15	23.90	0.10	3.95	0.89
44	F	67	68	37	1520	455	68	13	59	116	2.5	0.41	15.60	0.50	43.40	1.14	22.80	0.10	3.72	1.04
44	F	68	69	35	540	517	70	12	60	117	2.5	0.59	18.40	0.50	47.80	0.94	22.50	0.10	3.71	0.63
44	F	126	127	29					114		209.0	0.92	72.70	0.50	37.10	0.70	17.20	0.10	3.16	1.21
53	S	0	1	24	120	43	90	10	23	108	29.4	0.33	15.20	2.84	17.60	0.25	8.34	0.10	1.45	0.83
53	S	1	2	80	150	78	123	10	28	98	1260.0	0.61	19.10	3.06	7.36	0.25	3.39	0.10	0.70	0.86
53	US	2	3	103	160	39	124	14	25	128	32.9	0.59	9.17	3.04	8.92	0.25	5.12	0.10	0.84	1.03
53	US	3	4	81	80	35	148	16	35	145	25.3	0.55	8.63	3.32	11.70	0.25	7.28	0.20	1.17	1.24
53	US	4	5	84	120	40	149	15	50	137	62.7	0.59	15.00	6.52	5.31	0.53	2.48	0.10	0.95	1.19
53	US	5	6	59	190	32	151	12	46	132	39.0	0.71	50.90	6.74	6.04	0.58	2.02	0.10	0.98	0.87
53	US	6	8	69	150	33	142	16	57	125	45.4	0.54	44.60	7.44	7.14	0.25	2.11	0.10	0.98	1.16
53	US	8	10	93	190	36	126	17	41	134	40.9	1.06	249.00	6.59	23.50	0.25	19.70	0.10	1.18	1.07
53	US	10	12	107	340	64	126	16	28	129	49.0	0.71	225.00	7.38	92.30	0.25	109.00	0.23	1.99	1.47
53	US	12	14	90	560	41	106	15	63	124	28.5	0.69	426.00	13.60	31.80	0.71	28.40	0.23	1.59	1.42
53	US	14	16	101	580	67	131	19	60	129	22.7	0.41	430.00	9.20	59.50	0.25	49.00	0.20	1.95	1.32
53	US	16	18	116	600	116	130	17	43	131	17.8	2.14	786.00	6.94	240.00	0.98	184.00	0.10	3.86	1.41
53	US	18	21	112	570	116	127	17	41	133	17.1	2.94	698.00	8.86	143.00	1.25	103.00	0.25	4.38	1.69
53	US	21	23	98	620	99	116	17	42	136	56.9	2.52	564.00	9.72	136.00	1.38	102.00	0.21	5.46	1.55
53	US	23	25	135	420	142	123	18	68	133	410.0	0.80	279.00	5.61	104.00	1.10	83.80	0.21	4.51	1.34

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Rb* ppm	S* ppm	Sr* ppm	V* ppm	Y* ppm	Zn* ppm	Zr* ppm	Au ppb	Sb ppm	As ppm	Br ppm	Ce ppm	Eu ppm	La ppm	Lu ppm	Sm ppm	Yb ppm
53	US	25	26	130	370	148	108	16	126	137	2.5	0.31	138.00	6.60	52.80	1.38	27.20	0.10	4.38	1.20
53	US	26	27	91	370	148	94	15	52	124	7900.0	0.95	319.00	4.93	83.10	1.17	68.30	0.10	4.88	1.25
53	US	27	30	163	550	102	138	21	82	139	52.2	0.76	190.00	6.73	76.70	1.32	55.20	0.21	4.48	1.40
53	US	30	32	100	320	134	92	17	47	90	478.0	0.76	165.00	2.80	59.80	0.76	56.50	0.10	3.60	0.94
53	MS	32	34	145	560	175	121	21	97	136	23.9	0.64	161.00	5.70	74.00	1.36	71.60	0.10	4.66	
53	MS	34	37	133	590	174	127	17	94	126	2.5	0.95	284.00	5.43	67.80	1.35	53.40	0.10	4.22	
53	MS	37	40	104	520	231	112	17	66	136	2.5	0.75	312.00	5.50	74.90	1.57	44.60	0.10	5.25	1.18
53	MS	40	43	74	930	265	100	17	58	117	2.5	1.10	328.00	7.40	80.90	1.46	37.50	0.10	4.46	1.22
53	MS	43	44	55	360	288	108	14	76	133	2.5	0.73	115.00	5.29	57.80	0.99	28.30	0.10	4.84	1.21
53	MS	44	45	50	300	243	101	17	84	118	2.5	1.09	183.00	4.05	81.00	1.42	31.20	0.10	5.20	1.17
53	MS	45	46	64	310	230	97	16	85	114	2.5	0.90	128.00	5.20	202.00	2.25	35.60	0.10	8.17	1.23
53	MS	46	47	105	380	208	104	25	88	118	2.5	1.20	149.00	4.63	143.00	2.61	43.80	0.21	10.80	1.14
53	LS	47	48	140	430	128	144	37	129	122	8620.0	0.98	141.00	5.19	82.10	2.14	30.30	0.26	6.16	1.29
53	LS	48	49	111	670	186	105	25	76	121	1620.0	0.83	153.00	7.58	83.30	1.69	37.60	0.22	5.34	1.53
53	LS	49	50	107	290	178	109	20	83	123	688.0	1.12	151.00	5.16	71.20	2.11	37.10	0.22	4.84	2.00
53	LS	50	51	92	510	155	125	19	97	121	161.0	0.87	122.00	8.13	62.20	1.53	35.60	0.10	4.57	1.58
53	LS	51	52	79	620	182	103	19	89	122	73.7	1.34	140.00	10.30	66.10	1.63	36.20	0.20	4.73	1.48
53	LS	52	54	74	350	174	107	18	94	119	128.0	1.14	139.00	6.15	65.40	1.28	38.90	0.20	4.55	1.30
53	LS	54	56	75	480	137	132	18	101	114	58.5	0.95	71.30	10.70	57.90	1.23	30.30	0.10	4.54	1.32
53	LS	56	58	80	370	173	99	17	80	122	56.4	1.00	59.80	7.18	58.50	0.99	30.90	0.10	4.50	1.28
53	LS	58	61	85	1960	229	77	13	70	123	97.3	1.01	40.40	3.80	58.20	1.34	29.60	0.10	4.39	1.27
53	LS	61	63	93	340	331	71	15	55	123	82.3	1.79	18.00	2.24	50.00	1.10	24.60	0.10	4.13	1.15
53	LS	63	65	96	360	226	96	18	70	127	94.8	1.64	197.00	5.15	76.10	1.73	44.80	0.10	4.72	1.02
53	LS	65	68	74	290	222	77	17	73	114	38.0	1.09	74.40	2.85	54.60	1.18	28.10	0.10	4.20	0.93
53	SR	68	70	36	170	226	82	14	66	116	45.1	0.52	33.70	1.44	49.30	1.37	24.50	0.10	3.94	1.23
53	SR	70	71	60	230	187	99	13	76	116	2.5	1.03	36.20	2.68	47.40	1.17	24.20	0.10	3.74	1.01
53	SR	72	73	53	250	202	98	18	75	124	475.0	0.70	47.50	2.59	47.30	1.01	24.60	0.10	3.75	0.98
53	SR	74	75	53	370	183	93	16	74	119	292.0	0.66	50.50	2.82	46.10	1.21	23.60	0.10	3.72	1.13
53	F	76	77	53	1460	237	78	16	73	116	119.0	0.83	120.00	2.87	60.50	1.37	31.00	0.10	3.73	0.96
53	F	78	80	53	1070	230	82	16	68	116	14.6	0.86	132.00	1.03	53.40	1.07	29.00	0.10	3.63	0.99
118	C	0	1	27	340	301	90	14	21	133	134.0	0.50	7.77	10.50	14.70	0.25	7.89	0.10	1.43	1.00
118	C	1	2	33	450	408	91	12	19	116	75.9	0.39	8.86	12.20	13.40	0.25	6.47	0.10	1.23	0.97
118	S	2	3	52	240	268	169	14	13	109	54.4	0.75	22.40	5.19	10.00	0.25	3.33	0.10	1.07	0.91
118	M	3	4	51	550	95	206	10	13	122	26.2	0.86	25.30	7.73	7.72	0.25	2.45	0.10	0.93	0.78
118	M	4	5	54	340	40	183	11	17	140	10.9	0.71	17.20	14.50	4.80	0.75	1.95	0.10	0.85	0.77

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Rb* ppm	S* ppm	Sr* ppm	V* ppm	Y* ppm	Zn* ppm	Zr* ppm	Au ppb	Sb ppm	As ppm	Br ppm	Ce ppm	Eu ppm	La ppm	Lu ppm	Sm ppm	Yb ppm
118	M	5	6	58	250	33	137	11	19	141	2.5	0.64	6.47	9.04	5.98	0.25	1.83	0.10	0.82	0.73
118	M	6	8	43	450	28	135	11	17	145	2.5	0.70	6.05	18.50	11.50	0.25	4.47	0.10	1.39	0.74
118	M	8	10	50	470	29	127	10	19	137	2.5	0.86	5.53	18.90	10.90	0.50	3.87	0.10	1.27	0.90
118	M	10	12	55	410	29	140	15	21	152	8.8	1.00	7.48	17.50	12.70	0.86	5.96	0.10	1.71	0.76
118	M	12	14	71	400	79	124	12	32	142	2.5	0.71	6.21	11.00	19.40	0.56	8.38	0.10	1.91	0.77
118	US	14	16	168	170	157	96	15	98	120	2.5	0.63	2.07	3.09	21.30	0.25	8.76	0.10	1.89	1.03
118	US	16	18	185	150	135	99	15	70	118	2.5	0.49	1.67	1.87	16.60	0.25	6.48	0.10	1.77	0.85
118	US	18	20	160	130	169	105	14	59	116	2.5	0.36	4.27	2.13	15.00	0.58	5.92	0.10	1.71	0.81
118	US	20	22	161	410	122	113	15	53	119	2.5	0.66	3.88	4.00	13.20	0.66	5.05	0.10	1.56	0.79
118	US	22	24	154	170	146	104	12	62	119	2.5	0.48	1.38	1.96	20.40	0.61	8.43	0.10	1.91	0.64
118	US	24	26	116	320	140	88	10	49	118	2.5	0.54	9.05	4.46	18.50	0.25	8.31	0.10	1.63	0.80
118	US	26	29	109	300	131	110	16	56	108	2.5	0.59	34.90	2.69	16.10	0.25	6.04	0.10	1.41	0.76
118	MS	29	32	102	390	346	129	14	74	123	2.5	0.43	48.40	3.39	82.20	1.59	56.30	0.10	4.45	0.82
118	MS	32	34	108	320	361	134	15	88	120	2.5	0.33	50.20	2.11	80.20	1.08	54.50	0.10	3.83	0.98
118	MS	34	36	113	240	336	117	24	106	126	16.3	0.83	48.40	2.23	117.00	1.97	71.70	0.23	9.13	1.03
118	MS	36	37	118	230	459	125	17	104	131	31.7	0.84	46.90	2.53	121.00	2.00	76.50	0.23	7.08	1.17
118	MS	37	38	117	430	795	128	20	105	150	23.1	1.09	59.40	1.26	147.00	1.81	76.60	0.23	7.32	1.43
118	MS	38	39	104	350	557	125	19	106	135	2.5	0.83	66.90	2.86	124.00	2.04	50.30	0.24	7.08	1.49
118	MS	39	40	122	200	270	130	19	115	132	2.5	0.48	74.90	1.42	105.00	2.02	35.80	0.26	7.18	1.51
118	MS	40	41	106	210	400	106	21	104	130	2.5	0.70	57.10	1.54	128.00	2.83	42.80	0.24	7.40	1.46
118	MS	41	42	83	160	568	121	26	99	124	1290.0	0.55	46.80	0.50	147.00	2.72	58.50	0.28	9.48	1.81
118	LS	42	43	71	180	287	112	25	113	120	803.0	0.84	46.10	2.83	75.70	1.71	34.10	0.24	6.50	1.55
118	LS	43	44	59	70	230	113	20	110	130	282.0	0.70	37.50	2.23	63.10	1.52	27.30	0.10	5.05	1.99
118	LS	44	45	57	70	189	115	22	111	113	480.0	0.82	33.20	1.09	56.70	1.50	26.70	0.10	4.99	1.70
118	LS	45	47	44	230	286	92	18	88	121	18.9	0.51	17.20	3.39	54.60	1.48	26.30	0.10	4.54	1.41
118	LS	47	48	65	80	252	109	16	81	131	2.5	0.55	1.83	1.36	54.70	1.21	26.60	0.10	4.56	1.30
118	LS	48	50	84	180	218	103	16	86	124	2.5	0.51	3.10	1.81	58.70	1.47	28.10	0.10	4.97	0.92
TP42	C	0	1	42.7							121.0	0.53	49.40	8.24	12.80	0.25	6.92	0.10	1.34	0.95
TP42	C	1	2	67.5							143.0	0.83	75.70	6.70	12.80	0.58	6.85	0.10	1.44	1.03
TP42	C	2	3	67.4							67.1	0.93	78.80	6.13	8.53	0.25	5.61	0.10	1.21	0.93
TP42	C	3	4	50.1							60.3	0.76	52.60	4.47	7.74	0.25	4.08	0.10	1.02	1.05
TP42	US	4	5	43.5							29.6	0.38	22.50	5.65	8.22	0.25	3.74	0.10	0.98	1.13
TP42	US	5	6	69.8							90.4	0.79	56.90	3.51	8.19	0.25	3.22	0.10	0.87	1.00

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Rb* ppm	S* ppm	Sr* ppm	V* ppm	Y* ppm	Zn* ppm	Zr* ppm	Au ppb	Sb ppm	As ppm	Br ppm	Ce ppm	Eu ppm	La ppm	Lu ppm	Sm ppm	Yb ppm
TP-C10	C			10.0							24.1	0.25	3.61	15.00	13.40	0.25	6.72	0.10	1.26	1.05
TP-C9	C			10.0							13.0	0.10	15.50	6.97	47.40	0.60	31.50	0.32	2.18	0.97
TP-C8	C			10.0							12.0	0.21	10.40	10.40	18.20	0.25	10.00	0.10	1.68	0.78
TP-C7	C			10.0							8.9	0.10	5.62	13.90	16.50	0.25	11.40	0.10	1.97	1.93
TP-C6	C			24.9							12.9	0.27	7.10	15.40	16.50	0.25	9.34	0.10	1.69	0.80
TP-C5	C			34.0							11.8	0.32	11.10	14.80	14.70	0.56	10.20	0.10	1.83	0.82
TP-C4	C			10.0							17.5	0.26	6.20	16.00	18.60	0.51	11.90	0.10	2.07	0.80
TP-C3	C			34.0							154.0	0.33	9.76	13.40	10.50	0.25	5.60	0.10	1.03	0.73
TP-C2	C			10.0							124.0	0.10	7.58	16.60	16.10	0.25	9.79	0.10	1.41	0.84
TP-C1	C			10.0							188.0	0.45	14.90	7.45	8.97	0.25	4.26	0.10	0.77	0.62
TP-C11	C			25.8							58.7	0.37	8.74	10.30	11.30	0.25	8.52	0.10	1.27	0.53
TP-C12	C			34.8							140.0	0.24	16.80	16.10	9.14	0.25	3.45	0.10	0.83	0.25
TP-C13	C			21.6							227.0	0.36	9.65	12.60	10.90	0.25	5.53	0.10	0.91	0.67
TP-C14	C			48.0							166.0	0.68	9.17	10.40	12.90	0.25	5.93	0.10	1.17	0.65
TP-C15	C			10.0							136.0	0.22	7.41	10.20	10.80	0.25	7.04	0.10	1.17	0.50
TP-C16	C			10.0							109.0	0.34	10.70	12.30	16.50	0.25	8.59	0.10	1.43	0.67
TP-C17	C			33.5							75.9	0.28	7.53	11.60	17.80	0.66	15.00	0.10	2.56	0.56
TP-C18	C			10.0							6.4	0.10	4.17	9.60	17.10	0.25	7.54	0.10	1.47	0.69
																				1.06
																				0.55

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Cs ppm	Cr ppm	Co ppm	Hf ppm	Sc ppm	Ta ppm	Th ppm	W ppm
8	C	0	1	3.64	186.0	2.48	3.87	14.00	0.50	4.89	3.77
8	S	1	2	4.52	189.0	3.01	3.70	14.50	0.50	5.30	4.18
8	US	2	3	3.47	194.0	6.20	3.84	16.70	1.09	5.29	2.57
8	US	3	5	3.38	211.0	7.89	4.03	16.10	0.50	5.32	1.00
8	US	5	7	2.42	245.0	6.98	4.30	18.80	0.50	6.12	1.00
8	US	7	9	4.32	254.0	5.89	3.59	20.50	1.42	5.93	1.00
8	US	9	11	3.13	243.0	6.02	3.78	19.50	1.08	5.52	1.00
8	US	11	13	2.60	241.0	5.16	3.48	17.80	0.50	6.16	2.40
8	US	13	15	2.03	219.0	9.19	3.90	15.20	1.87	6.50	2.45
8	US	15	17	3.21	216.0	8.43	4.11	17.70	1.93	6.25	5.04
8	US	17	19	3.30	219.0	6.46	4.41	17.50	2.13	6.60	3.84
8	US	19	21	2.75	224.0	5.76	3.68	14.90	0.50	5.73	2.93
8	US	21	23	6.95	255.0	6.88	4.24	17.40	1.47	6.62	2.54
8	US	23	25	5.15	227.0	11.90	3.83	15.20	1.19	5.86	3.72
8	US	25	27	4.84	192.0	9.53	3.02	15.10	0.50	4.64	3.33
8	US	27	29	6.31	226.0	12.60	4.07	18.20	0.50	6.30	4.42
8	MS	29	31	7.36	208.0	17.30	3.85	17.00	0.50	6.04	2.94
8	MS	31	33	4.03	208.0	16.90	3.13	17.00	0.50	5.78	3.04
8	MS	33	35	3.88	212.0	22.10	3.18	17.20	0.50	5.77	3.37
8	MS	35	37	3.10	178.0	16.10	3.25	14.30	0.50	5.22	3.73
8	MS	37	38	3.87	216.0	20.60	3.39	18.40	0.50	5.48	3.03
8	MS	38	39	2.15	194.0	42.00	4.00	16.00	0.50	4.78	4.15
8	MS	39	40	3.74	191.0	21.00	3.44	18.10	0.50	5.40	3.90
8	MS	40	41	2.51	175.0	39.20	3.14	15.50	0.50	4.96	4.97
8	MS	41	42	4.22	154.0	35.10	2.76	13.20	0.50	4.64	7.16
8	MS	42	43	4.26	155.0	31.60	2.56	12.30	0.50	4.32	5.57
8	MS	43	44	0.50	173.0	20.70	2.44	13.80	0.50	5.67	6.51
8	LS	44	45	3.26	195.0	27.10	3.16	16.20	0.50	4.74	6.11
8	LS	45	46	6.96	230.0	47.20	3.72	20.50	0.50	6.61	14.60
8	LS	46	47	5.11	221.0	32.90	2.96	15.50	0.50	5.07	16.20
8	LS	47	48	5.38	220.0	58.90	3.27	18.20	0.50	6.28	20.10
8	LS	48	49	4.85	176.0	31.40	2.36	14.80	0.50	4.74	14.60
8	LS	49	50	3.59	177.0	39.50	2.49	15.40	0.50	7.20	16.30
8	LS	50	51	6.26	177.0	42.20	3.21	15.10	0.50	6.07	12.20
8	LS	51	52	5.39	209.0	23.70	3.24	17.60	0.50	6.85	12.90
8	LS	52	53	4.46	176.0	43.60	1.97	14.30	0.50	4.21	12.60
8	SR	53	55	3.12	143.0	24.10	1.54	11.70	0.50	4.76	13.00

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Cs ppm	Cr ppm	Co ppm	Hf ppm	Sc ppm	Ta ppm	Th ppm	W ppm
8	SR	55	56	2.00	153.0	24.20	1.00	8.96	1.00	3.57	18.00
8	SR	56	57	2.00	130.0	20.30	1.00	10.20	1.00	2.18	16.00
8	SR	57	58	5.80	148.0	18.20	2.94	11.10	0.50	4.83	11.30
8	SR	58	59	4.99	145.0	20.90	1.60	12.00	0.50	5.15	10.70
8	F	65	66	7.55	131.0	25.60	0.50	13.40	1.00	4.65	17.70
44	S	0	1	2.03	313.0	6.51	5.02	14.60	1.49	8.40	2.25
44	S	1	2	3.39	276.0	3.23	4.34	15.40	0.50	7.58	2.64
44	S	2	3	2.56	272.0	4.23	4.24	15.10	1.19	6.89	3.09
44	M	3	5	3.01	198.0	0.50	3.61	17.40	0.50	6.46	1.00
44	M	5	7	4.55	229.0	2.29	3.77	21.10	0.50	6.94	1.00
44	M	7	9	5.07	216.0	3.43	4.10	21.50	0.50	6.33	2.48
44	M	9	12	6.34	159.0	0.50	3.87	15.00	1.21	5.36	2.93
44	M	12	14	7.83	168.0	0.50	3.76	17.00	0.50	5.01	2.28
44	US	14	16	4.92	200.0	0.50	4.22	19.00	2.44	5.87	2.61
44	US	16	19	2.49	204.0	3.45	4.25	17.10	0.50	6.05	1.00
44	US	19	23	4.41	208.0	4.80	3.63	19.00	0.50	6.30	1.00
44	US	23	25	4.01	212.0	2.75	3.77	20.50	0.50	7.07	1.00
44	US	25	27	7.03	191.0	8.04	4.12	16.90	0.50	5.92	1.00
44	MS	27	31	6.19	157.0	13.30	4.78	14.80	0.50	6.64	1.00
44	MS	31	33	2.48	136.0	15.20	3.66	12.60	0.50	5.61	1.00
44	MS	33	35	4.11	161.0	27.10	4.21	16.10	0.50	7.35	1.00
44	MS	35	37	3.98	143.0	17.30	3.37	13.50	0.50	5.62	1.00
44	MS	37	40	4.13	140.0	11.60	3.34	12.40	0.50	5.39	1.00
44	MS	40	43	2.30	127.0	9.35	3.51	11.60	0.50	4.92	1.00
44	MS	43	45	4.06	147.0	14.30	3.74	12.00	0.50	5.62	1.00
44	MS	45	46	3.63	154.0	15.10	3.57	12.60	0.50	4.77	1.00
44	MS	46	47	1.60	127.0	9.44	3.02	10.70	0.50	4.68	1.00
44	MS	47	48	1.93	124.0	11.50	3.00	10.40	0.50	3.74	1.00
44	MS	48	49	3.67	172.0	19.00	3.68	14.00	0.50	5.26	3.42
44	LS	49	50	7.97	181.0	22.60	3.59	15.50	0.50	4.77	1.00
44	LS	50	51	6.53	205.0	22.80	3.46	16.50	0.50	4.95	1.00
44	LS	51	52	2.61	125.0	9.76	2.73	10.40	0.50	4.53	1.00
44	LS	52	53	5.65	127.0	15.70	3.40	11.20	0.50	5.63	1.00
44	LS	53	54	5.08	110.0	18.20	2.86	10.50	0.50	5.05	1.00
44	LS	54	55	3.07	115.0	13.40	2.76	10.20	0.50	4.40	3.07
44	LS	55	56	2.78	136.0	10.70	3.12	10.70	0.50	4.55	1.00
44	LS	56	58	4.38	117.0	13.60	2.53	9.87	0.50	4.94	1.00

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Cs ppm	Cr ppm	Co ppm	Hf ppm	Sc ppm	Ta ppm	Th ppm	W ppm
44	LS	58	60	3.55	110.0	11.70	2.76	9.75	0.50	4.50	1.00
44	LS	60	62	4.45	162.0	20.50	3.41	16.80	0.50	5.16	4.32
44	SR	62	64	4.82	161.0	17.50	3.32	15.00	0.50	4.76	3.86
44	F	64	66	0.50	116.0	18.60	2.99	9.76	0.50	3.69	1.00
44	F	66	67	1.44	126.0	14.20	3.04	10.30	0.50	5.06	1.00
44	F	67	68	3.77	122.0	14.50	3.34	10.00	0.50	4.78	1.00
44	F	68	69	0.50	119.0	15.20	3.06	10.10	0.50	3.52	1.00
44	F	126	127	3.04	164.0	17.10	2.31	15.30	0.50	4.32	7.47
53	S	0	1	1.23	180.0	6.80	3.17	8.16	0.50	5.43	1.00
53	S	1	2	4.41	163.0	2.50	3.10	12.70	0.50	4.32	9.74
53	US	2	3	4.92	204.0	2.01	4.03	16.10	0.50	4.57	12.80
53	US	3	4	3.97	220.0	2.07	4.04	19.90	0.50	6.32	11.80
53	US	4	5	5.18	225.0	2.55	3.95	20.10	0.50	5.54	16.20
53	US	5	6	2.72	199.0	3.19	3.79	16.00	0.50	5.74	6.90
53	US	6	8	4.26	211.0	4.34	3.92	18.90	0.50	5.24	5.95
53	US	8	10	4.58	219.0	3.58	4.17	17.10	0.50	5.43	17.00
53	US	10	12	5.28	258.0	2.92	4.03	25.40	0.50	6.45	20.20
53	US	12	14	3.45	253.0	3.34	3.49	21.10	0.50	4.96	14.40
53	US	14	16	4.48	252.0	4.48	4.04	21.60	0.50	7.26	11.00
53	US	16	18	4.79	232.0	3.75	4.14	20.50	0.50	6.22	16.90
53	US	18	21	4.19	234.0	3.61	4.07	18.70	0.50	7.87	27.90
53	US	21	23	5.31	217.0	3.74	3.81	16.70	0.50	7.57	23.00
53	US	23	25	5.13	219.0	4.54	3.83	17.40	0.50	6.27	14.60
53	US	25	26	3.85	168.0	7.29	3.56	14.00	0.50	5.37	8.78
53	US	26	27	4.42	184.0	6.92	3.69	14.30	0.50	5.66	13.80
53	US	27	30	7.38	197.0	6.02	4.05	20.10	0.50	8.46	14.00
53	US	30	32	5.32	141.0	4.32	2.24	12.80	0.50	3.87	18.40
53	MS	32	34	6.65	209.0	7.52	4.15	19.20	0.50	5.53	11.90
53	MS	34	37	3.94	199.0	6.74	3.23	17.80	0.50	6.29	15.30
53	MS	37	40	5.01	207.0	5.08	3.92	17.60	0.50	5.67	12.60
53	MS	40	43	1.73	176.0	4.34	2.73	13.00	0.50	4.82	16.70
53	MS	43	44	2.80	197.0	7.68	3.27	14.10	0.50	5.65	7.78
53	MS	44	45	2.07	180.0	9.10	3.15	14.00	0.50	3.96	1.00
53	MS	45	46	3.50	153.0	10.20	3.21	11.90	0.50	4.81	1.00
53	MS	46	47	11.50	144.0	26.50	3.28	12.10	0.50	4.49	3.96
53	LS	47	48	11.80	217.0	22.30	3.31	18.90	0.50	5.66	1.00
53	LS	48	49	10.10	195.0	14.50	3.35	14.50	0.50	5.50	4.83

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Cs ppm	Cr ppm	Co ppm	Hf ppm	Sc ppm	Ta ppm	Th ppm	W ppm
53	LS	49	50	8.21	190.0	20.30	3.00	16.40	0.50	6.09	6.76
53	LS	50	51	2.61	219.0	22.20	3.62	18.90	0.50	5.70	7.35
53	LS	51	52	5.34	206.0	30.00	3.42	16.90	0.50	5.23	6.29
53	LS	52	54	5.33	184.0	28.90	3.22	16.00	0.50	5.82	7.92
53	LS	54	56	3.59	202.0	25.40	3.28	18.40	0.50	5.66	3.46
53	LS	56	58	4.86	158.0	28.20	3.72	14.20	0.50	6.08	1.00
53	LS	58	61	7.85	125.0	22.80	3.21	11.70	0.50	6.10	6.39
53	LS	61	63	5.80	124.0	19.20	3.44	10.80	0.50	4.75	4.92
53	LS	63	65	4.72	160.0	20.00	3.85	14.20	0.50	6.37	10.60
53	LS	65	68	5.19	140.0	26.80	3.10	12.50	0.50	4.78	5.17
53	SR	68	70	2.36	132.0	20.20	3.36	11.60	0.50	3.88	4.50
53	SR	70	71	4.17	164.0	16.10	2.90	13.10	0.50	4.97	7.16
53	SR	72	73	2.76	166.0	18.80	3.05	12.70	0.50	6.17	8.04
53	SR	74	75	2.73	171.0	23.90	2.83	13.20	0.50	5.20	6.80
53	F	76	77	1.55	155.0	16.30	2.93	11.50	0.50	4.42	6.82
53	F	78	80	1.61	147.0	15.70	3.77	11.10	0.50	4.59	6.43
118	C	0	1	2.29	179.0	8.37	3.45	8.11	0.500	5.34	1.00
118	C	1	2	2.73	162.0	6.91	2.94	8.01	0.500	4.01	1.00
118	S	2	3	3.38	200.0	7.16	3.55	13.10	0.500	4.53	3.22
118	M	3	4	2.56	231.0	4.98	3.44	14.60	0.500	4.18	2.23
118	M	4	5	3.49	273.0	3.75	4.28	13.90	0.500	4.87	2.81
118	M	5	6	3.45	265.0	2.89	3.96	14.40	0.500	4.50	2.91
118	M	6	8	2.87	269.0	4.28	3.83	14.00	0.500	5.07	4.90
118	M	8	10	2.35	245.0	5.13	3.81	14.50	0.500	4.90	4.29
118	M	10	12	2.65	246.0	5.67	4.54	16.10	0.500	5.46	3.52
118	M	12	14	4.17	235.0	7.29	3.61	14.40	0.500	5.03	2.75
118	US	14	16	5.21	167.0	9.85	3.14	12.00	0.500	4.59	3.20
118	US	16	18	3.78	178.0	11.90	3.51	13.60	0.500	5.29	2.75
118	US	18	20	5.21	192.0	10.50	2.89	14.10	0.500	5.07	1.00
118	US	20	22	5.11	206.0	9.71	3.22	15.00	0.500	5.25	2.52
118	US	22	24	3.41	192.0	13.10	3.41	14.60	0.500	4.79	1.00
118	US	24	26	6.24	167.0	7.25	2.83	12.50	0.500	5.93	1.00
118	US	26	29	2.12	192.0	10.90	3.00	15.60	0.500	4.58	1.00
118	MS	29	32	3.50	206.0	8.35	3.15	18.50	0.500	5.04	3.01
118	MS	32	34	3.31	191.0	8.58	2.05	18.20	0.500	5.73	1.00
118	MS	34	36	4.35	139.0	8.01	3.37	17.20	0.500	6.35	1.00
118	MS	36	37	5.02	146.0	10.40	3.91	18.50	0.500	5.54	1.00

TABLE A1.1 : (Contd)

Drill Hole	Zone	From m	To m	Cs ppm	Cr ppm	Co ppm	Hf ppm	Sc ppm	Ta ppm	Th ppm	W ppm
118	MS	37	38	6.66	162.0	8.26	4.16	19.20	0.500	6.49	1.00
118	MS	38	39	3.99	179.0	11.70	3.57	19.40	0.500	6.29	3.14
118	MS	39	40	3.54	159.0	13.00	3.89	19.80	0.500	5.96	1.00
118	MS	40	41	3.13	152.0	11.00	3.83	17.10	0.500	5.95	1.00
118	MS	41	42	4.54	214.0	15.60	3.43	17.70	0.500	5.02	1.00
118	LS	42	43	4.68	205.0	22.50	3.84	17.70	0.500	5.41	1.00
118	LS	43	44	2.36	195.0	27.10	3.58	16.30	0.500	6.55	3.47
118	LS	44	45	3.56	178.0	25.00	3.65	16.50	0.500	5.37	3.07
118	LS	45	47	3.42	183.0	17.00	2.72	13.40	0.500	5.85	1.00
118	LS	47	48	7.82	193.0	15.80	3.86	13.10	0.500	6.02	4.48
118	LS	48	50	11.60	185.0	19.40	3.61	14.00	0.500	6.59	3.54
TP42	C	0	1	2.70	155.0	6.31	2.52	12.70	0.50	5.07	5.08
TP42	C	1	2	3.24	204.0	6.12	3.08	16.80	1.23	5.83	12.10
TP42	C	2	3	3.01	234.0	3.59	3.56	18.30	2.22	5.63	15.00
TP42	C	3	4	2.26	205.0	3.43	3.58	16.10	0.50	5.26	14.60
TP42	US	4	5	2.68	186.0	1.44	3.45	16.50	1.32	4.88	24.40
TP42	US	5	6	2.99	219.0	1.80	3.68	15.40	0.50	5.79	17.20
TP-C10	C			0.50	151.0	11.10	2.23	7.84	0.50	3.05	1.00
TP-C9	C			0.50	22.7	3.10	4.87	7.49	0.50	2.93	1.00
TP-C8	C			1.28	85.8	8.51	1.78	5.46	0.50	3.62	1.00
TP-C7	C			0.50	63.1	10.50	1.47	4.21	0.50	3.30	2.05
TP-C6	C			0.50	92.1	11.40	2.19	5.73	0.50	3.27	1.00
TP-C5	C			0.50	92.0	8.10	1.83	7.31	0.50	3.88	2.17
TP-C4	C			0.50	80.1	9.73	1.72	4.53	0.50	3.37	1.00
TP-C3	C			1.54	97.6	5.73	1.85	7.22	0.50	3.53	3.26
TP-C2	C			1.87	99.0	9.14	2.09	7.11	0.50	4.47	1.00
TP-C1	C			2.03	109.0	4.78	1.57	7.91	0.50	3.72	1.00
TP-C11	C			1.15	101.0	5.56	2.14	8.48	0.50	4.47	1.00
TP-C12	C			2.58	90.4	4.74	1.78	9.72	0.50	2.75	1.00
TP-C13	C			0.50	103.0	6.77	1.92	4.96	0.50	3.09	1.00
TP-C14	C			1.73	118.0	4.26	2.67	9.70	0.50	3.45	1.00
TP-C15	C			0.50	115.0	6.61	1.59	6.00	0.50	3.71	1.00
TP-C16	C			1.24	166.0	8.97	2.49	9.03	0.50	5.78	1.00
TP-C17	C			1.74	142.0	12.30	1.96	11.10	0.50	5.54	1.00
TP-C18	C			0.50	61.3	8.63	1.89	4.26	0.50	2.45	1.00

TABLE A1.2 : Raw Geochemical Data for Calcrete, Section 20900mN, Twin Peaks.

Sample	Easting (m)	Au (ppm)	Sb (ppm)	As (ppm)	Ba (ppm)	Br (ppm)	Acid soluble Ca (%)	Acid soluble Mg (%)	Dolomite (%)	Ce (ppm)	Cs (ppm)	Cr (ppm)	Co (ppm)	Eu (ppm)	Hf (ppm)	Fe (%)	
TP-C10	7720	24.1	0.25	3.61	256.0	15.00	18.65	33.92	1.405	10.66	13.40	0.50	151.0	11.10	0.25	2.23	2.23
TP-C9	7770	13.0	0.10	15.50	169.0	6.97	9.35	4.12	2.135	16.19	47.40	0.50	22.7	3.10	0.60	4.87	1.23
TP-C8	7810	12.0	0.21	10.40	675.0	10.40	21.05	48.23	0.4815	3.65	18.20	1.28	85.8	8.51	0.25	1.78	1.81
TP-C7	7870	8.9	0.10	5.62	284.0	13.90	23.7	54	0.575	4.36	16.50	0.50	63.1	10.50	0.25	1.47	1.31
TP-C6	7915	12.9	0.27	7.10	377.0	15.40	17.95	31.81	1.445	10.96	16.50	0.50	92.1	11.40	0.25	2.19	1.62
TP-C5	7955	11.8	0.32	11.10	1410.0	14.80	17.7	34.16	1.115	8.46	14.70	0.50	92.0	8.10	0.56	1.83	2.05
TP-C4	7990	17.5	0.26	6.20	372.0	16.00	22.2	46.79	0.96	7.28	18.60	0.50	80.1	9.73	0.51	1.72	1.45
TP-C3	8027	154.0	0.33	9.76	667.0	13.40	14	24.02	1.215	9.22	10.50	1.54	97.6	5.73	0.25	1.85	1.33
TP-C2	8068	124.0	0.10	7.58	242.0	16.60	14.05	24.55	1.17	8.87	16.10	1.87	99.0	9.14	0.25	2.09	1.90
TP-C1	8110	188.0	0.45	14.90	333.0	7.45	14.55	32.25	0.453	3.44	8.97	2.03	109.0	4.78	0.25	1.57	3.03
TP-C11	8160	58.7	0.37	8.74	350.0	10.30	10.7	23.93	0.31	2.35	11.30	1.15	101.0	5.56	0.25	2.14	2.20
TP-C12	8200	140.0	0.24	16.80	671.0	16.10	13	26.07	0.71	5.39	9.14	2.58	90.4	4.74	0.25	1.78	1.51
TP-C13	8255	227.0	0.36	9.65	574.0	12.60	17.7	32	1.355	10.28	10.90	0.50	103.0	6.77	0.25	1.92	2.22
TP-C14	8300	166.0	0.68	9.17	1240.0	10.40	13.35	25.73	0.845	6.41	12.90	1.73	118.0	4.26	0.25	2.67	3.17
TP-C15	8355	136.0	0.22	7.41	246.0	10.20	15.45	-2.79	4.595	34.85	10.80	0.50	115.0	6.61	0.25	1.59	2.72
TP-C16	8400	109.0	0.34	10.70	351.0	12.30	13.9	21.07	1.515	11.49	16.50	1.24	166.0	8.97	0.25	2.49	4.13
TP-C17	8480	75.9	0.28	7.53	247.0	11.60	13.95	29.16	0.63	4.78	17.80	1.74	142.0	12.30	0.66	1.96	3.36
TP-C18	8555	6.4	0.10	4.17	347.0	9.60	21	43.7	0.97	7.36	17.10	0.50	61.3	8.63	0.25	1.89	1.75

TABLE A1.2 : (Contd)

Sample	Easting (m)	La (ppm)	Lu (ppm)	K (%)	Rb (ppm)	Sm (ppm)	Sc (ppm)	Na (%)	Th (ppm)	W (ppm)	U (ppm)	Yb (ppm)
TP-C10	7720	6.72	0.10	0.24	10.0	1.26	7.84	0.233	3.05	1.00	1.00	0.78
TP-C9	7770	31.50	0.32	0.10	10.0	2.18	7.49	0.177	2.93	1.00	1.00	1.93
TP-C8	7810	10.00	0.10	0.35	10.0	1.68	5.46	0.143	3.62	1.00	2.48	0.80
TP-C7	7870	11.40	0.10	0.32	10.0	1.97	4.21	0.102	3.30	2.05	1.00	0.82
TP-C6	7915	9.34	0.10	0.60	24.9	1.69	5.73	0.127	3.27	1.00	1.00	0.80
TP-C5	7955	10.20	0.10	0.21	34.0	1.83	7.31	0.149	3.88	2.17	1.00	0.73
TP-C4	7990	11.90	0.10	0.47	10.0	2.07	4.53	0.134	3.37	1.00	1.00	0.84
TP-C3	8027	5.60	0.10	0.85	34.0	1.03	7.22	0.164	3.53	3.26	1.00	0.62
TP-C2	8068	9.79	0.10	0.38	10.0	1.41	7.11	0.298	4.47	1.00	1.00	0.63
TP-C1	8110	4.26	0.10	0.38	10.0	0.77	7.91	0.253	3.72	1.00	1.00	0.25
TP-C11	8160	8.52	0.10	0.10	25.8	1.27	8.48	0.406	4.47	1.00	1.00	0.67
TP-C12	8200	3.45	0.10	0.84	34.8	0.83	9.72	0.120	2.75	1.00	1.00	0.65
TP-C13	8255	5.53	0.10	0.10	21.6	0.91	4.96	0.136	3.09	1.00	3.53	0.50
TP-C14	8300	5.93	0.10	0.94	48.0	1.17	9.70	0.196	3.45	1.00	2.50	0.67
TP-C15	8355	7.04	0.10	0.27	10.0	1.17	6.00	0.124	3.71	1.00	2.62	0.56
TP-C16	8400	8.59	0.10	0.48	10.0	1.43	9.03	0.140	5.78	1.00	3.42	0.69
TP-C17	8480	15.00	0.10	0.34	33.5	2.56	11.10	0.146	5.54	1.00	3.99	1.06
TP-C18	8655	7.54	0.10	0.53	10.0	1.47	4.26	0.085	2.45	1.00	1.00	0.55

TABLE A1.3 : Summary statistics for fresh rocks, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics	Standard	Variance
						Mean	Deviation	
SiO2	65.59	6	65.60	63.76	67.24	65.58	1.15	1.33
Al2O3	14.49	6	14.57	13.56	14.99	14.48	0.55	0.30
Fe2O3	5.05	8	5.04	4.19	6.09	5.00	0.74	0.55
MnO	0.09	6	0.09	0.06	0.11	0.08	0.02	0.00
MgO	2.71	6	2.84	2.35	2.89	2.70	0.24	0.06
CaO	2.15	8	1.91	1.14	3.88	1.96	1.00	1.00
Na2O	3.68	8	4.16	0.96	5.06	3.27	1.52	2.31
K2O	1.72	8	1.59	1.24	2.86	1.65	0.56	0.32
TiO2	0.46	6	0.46	0.43	0.50	0.46	0.03	0.00
P2O5	0.12	6	0.12	0.11	0.13	0.12	0.01	0.00
Ba	576	8	448	415	1290	531	299	89610
Cl	2178	6	960	250	7340	1103	2751	7570497
Cu	33	6	28	24	47	32	11	112.00
Ga	19	6	20	17	21	19	1	1.87
Ni	59	6	58	49	71	58	9	77.90
Nb	13	6	13	10	15	13	2	2.97
Pb	20	6	20	16	22	20	2	4.97
Rb	42	8	37	29	55	41	10	101.02
S	1058	6	990	540	1520	999	376	141737
Sr	389	6	448	230	517	370	123	15202
V	74	6	73	68	82	74	5	27.37
Y	14	6	14	12	16	14	2	2.80
Zn	78	8	67	59	125	75	26	672.55
Zr	116	6	116	115	117	116	1	0.40
Au	6294	8	9	2.5	50000	30	17660	311876434
Sb	1.72	8	0.71	0.41	9.1	0.90	2.99	8.92
As	1849.80	8	46.40	15.60	14400	81.12	5071.27	25717771
Br	2.18	8	0.76	0.5	10	1.14	3.27	10.67
Ce	45.10	8	45.6	29.6	60.5	44.17	9.59	92.05
Eu	1.03	8	1.11	0.67	1.37	1.00	0.24	0.06
La	23.24	8	22.65	17.2	31	22.82	4.78	22.80
Lu	0.10	8	0.1	0.1	0.1	0.10	--	--
Sm	3.59	8	3.67	3.16	3.95	3.58	0.25	0.06
Yb	0.85	8	0.93	0.25	1.21	0.78	0.30	0.09
Cs	2.50	8	1.58	0.5	7.55	1.72	2.34	5.46
Cr	135	8	129	116	164	134	18	324.00
Co	17.15	8	16	14.2	25.6	16.86	3.70	13.69
Hf	2.74	8	3.01	0.5	3.77	2.42	0.99	0.99
Sc	11.43	8	10.7	9.76	15.3	11.30	1.96	3.84
Ta	0.56	8	0.5	0.5	1	0.55	0.18	0.03
Th	4.38	8	4.51	3.52	5.06	4.35	0.53	0.28
W	5.30	8	3.71	1	17.7	2.95	5.81	33.72

TABLE A1.4 : Summary statistics for the saprock, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics	Standard	Variance
						Mean	Deviation	
SiO2	65.31	10	65.47	63.31	67.79	65.29	1.38	1.92
Al2O3	13.55	10	13.85	9.32	15.9	13.40	2.01	4.04
Fe2O3	5.41	10	5.39	4.56	6.08	5.39	0.46	0.21
MnO	0.07	10	0.08	0.03	0.13	0.07	0.03	0.00
MgO	2.57	10	2.63	2.26	2.9	2.56	0.22	0.05
CaO	1.29	10	1.15	0.24	2.68	0.80	1.07	1.15
Na2O	3.36	10	3.46	1.62	5.3	3.12	1.27	1.62
K2O	2.33	10	2.24	1.31	3.45	2.25	0.61	0.37
TiO2	0.48	10	0.48	0.40	0.57	0.48	0.05	0.00
P2O5	0.15	10	0.14	0.12	0.18	0.14	0.02	0.00
Ba	560	10	571.5	301	812	541	149	22347
Cl	3758	10	2315	10	8910	529	4035	16283884
Cu	39	10	39	19	59	38	11	114.84
Ga	18	10	19	14	21	18	2	4.49
Ni	83	10	86	58	107	82	16	248.77
Nb	12	10	12	10	16	12	2	3.96
Pb	18	10	18	10	23	18	4	13.11
Rb	64	10	58	36	95	62	18	325.51
S	2934	10	2290	170	8370	1135	3030	9181582
Sr	285	10	318	183	373	275	77	5865
V	85	10	86	66	99	84	12	150.18
Y	14	10	13.5	9	18	14	2	6.18
Zn	69	10	71	53	84	68	10	90.54
Zr	112	10	115	95	125	111	10	103.07
Au	4237	10	1868	2.5	16100	488	5420	29376035
Sb	2.94	10	0.87	0.49	15.8	1.40	4.71	22.19
As	3229.91	10	264.75	33.7	19800	379.63	6138.89	37686021
Br	2.12	10	2.5	0.5	2.82	1.93	0.75	0.56
Ce	49.83	10	48.55	42.7	58.8	49.64	4.64	21.50
Eu	1.15	10	1.17	0.94	1.37	1.14	0.15	0.02
La	22.61	10	23.35	17.4	27.1	22.41	3.07	9.45
Lu	0.10	10	0.1	0.1	0.1	0.10	--	--
Sm	3.75	10	3.8	2.98	4.56	3.73	0.44	0.19
Yb	0.86	10	0.94	0.5	1.13	0.83	0.22	0.05
Cs	3.48	10	2.94	2	5.8	3.24	1.37	1.86
Cr	151	10	151	130	171	151	14	201
Co	20.42	10	20.25	16.1	24.2	20.24	2.89	8.33
Hf	2.35	10	2.87	1	3.36	2.14	0.95	0.91
Sc	11.96	10	11.85	8.96	15	11.85	1.69	2.85
Ta	0.60	10	0.5	0.5	1	0.57	0.21	0.04
Th	4.55	10	4.80	2.18	6.17	4.40	1.09	1.20
W	9.94	10	9.37	3.86	18	8.89	4.73	22.36

TABLE A1.5 : Summary statistics for the lower saprolite, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics Mean	Standard Deviation	Variance
SiO2	64.94	37	64.89	59.8	69.17	64.91	2.25	5.07
Al2O3	15.56	37	15.48	14.13	17.1	15.55	0.70	0.50
Fe2O3	5.98	37	5.98	4.16	7.75	5.91	0.90	0.81
MnO	0.08	37	0.06	0.03	0.22	0.06	0.05	0.00
MgO	1.93	37	1.85	1.03	2.95	1.88	0.45	0.20
CaO	0.27	37	0.24	0.09	1.01	0.23	0.16	0.03
Na2O	3.88	37	4.01	1.73	5.52	3.73	1.05	1.09
K2O	2.78	37	2.71	1.4	4.55	2.64	0.88	0.77
TiO2	0.55	37	0.56	0.43	0.67	0.54	0.06	0.00
P2O5	0.14	37	0.14	0.07	0.18	0.13	0.03	0.00
Ba	681	37	612	383	1186	654	205	42044
Cl	7790	37	7300	1310	16530	6619	4021	16166875
Cu	52	37	50	27	99	50	17	287.03
Ga	21	37	21	17	25	21	2	3.24
Ni	109	37	107	54	197	104	31	986.76
Nb	13	37	12	7	18	12	2	5.26
Pb	21	37	21	12	30	20	4	19.23
Rb	84	37	84	42	140	79	27	731.96
S	439	37	300	70	2600	302	504	254210
Sr	243	37	226	123	459	229	87	7625.31
V	103	37	106	70	144	101	20	399.21
Y	20	37	18	10	39	19	6	35.97
Zn	88	37	87	55	129	86	18	321.09
Zr	119	37	121	100	131	119	8	56.94
Au	1991	37	161	2.5	12600	272	3257	10606905
Sb	0.91	37	0.79	0.1	2.61	0.75	0.58	0.33
As	362.33	37	74.40	1.83	2760.00	99.39	701.14	491595
Br	4.29	37	4.04	0.50	10.70	3.63	2.38	5.67
Ce	65.28	37	58.90	43.20	116.00	63.57	16.35	267.27
Eu	1.48	37	1.48	0.89	2.77	1.44	0.36	0.13
La	29.8	37	28.1	23	44.8	29.3	5.7	32.70
Lu	0.14	37	0.1	0.1	0.41	0.13	0.08	0.01
Sm	4.93	37	4.72	3.79	7.9	4.86	0.85	0.72
Yb	1.24	37	1.14	0.65	2.62	1.20	0.37	0.14
Cs	5.41	37	5.08	2.36	11.8	4.98	2.33	5.45
Cr	174	37	181	110	230	170	36	1285
Co	24.7	37	22.6	9.76	58.9	22.7	10.7	113.80
Hf	3.21	37	3.27	1.97	3.86	3.18	0.45	0.20
Sc	14.7	37	15.1	9.75	20.5	14.4	2.9	8.51
Ta	0.5	37	0.5	0.5	0.5	0.5	--	--
Th	5.51	37	5.5	4.21	7.2	5.46	0.77	0.59
W	6.03	37	4.48	1	20.1	3.77	5.42	29.40

TABLE A1.6 : Summary statistics for the mid saprolite, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics Mean	Standard Deviation	Variance
SiO2	64.70	39	64.55	61.43	68.69	64.67	1.91	3.64
Al2O3	16.38	39	16.38	14.77	18.46	16.36	0.92	0.84
Fe2O3	5.80	39	5.92	4.31	7.6	5.76	0.71	0.51
MnO	0.06	39	0.03	0.01	0.32	0.04	0.08	0.01
MgO	1.38	39	1.34	0.98	1.86	1.36	0.21	0.04
CaO	0.10	39	0.08	0.05	0.21	0.09	0.05	0.00
Na2O	3.52	39	3.41	1.72	5.54	3.38	1.01	1.02
K2O	2.64	39	2.65	1.78	4.14	2.59	0.57	0.33
TiO2	0.57	39	0.58	0.45	0.69	0.57	0.06	0.00
P2O5	0.08	39	0.07	0.04	0.17	0.07	0.03	0.00
Ba	567	39	506	279	1042	535	199	39621
Cl	8033	39	7490	1790	20780	6964	4352	18942296
Cu	50	39	52	29	69	49	10	109.58
Ga	21	39	21	16	26	21	2	4.29
Ni	72	39	72	42	111	70	17	287.54
Nb	13	39	13	10	18	13	2	3.88
Pb	23	39	22	13	36	22	6	39.47
Rb	94	39	97	46	160	90	27	746.37
S	362	39	320	150	930	335	153	23541
Sr	284	39	265	129	795	256	141	19967
V	106	39	106	71	134	105	16	259.73
Y	18	39	17	14	37	18	4	18.34
Zn	87	39	88	58	126	86	18	313.62
Zr	123	39	122	103	150	123	10	105.39
Au	260	39	3	3	8660	5	1396	1947919
Sb	0.62	39	0.61	0.1	1.2	0.55	0.26	0.07
As	116.65	39	74.10	10.20	384.00	86.27	99.51	9903
Br	4.52	39	4.74	0.5	10.10	3.96	2.05	4.22
Ce	94.74	39	80.20	41.90	235.00	84.98	47.71	2276.22
Eu	1.60	39	1.52	0.99	2.83	1.53	0.51	0.26
La	40.6	39	35.6	18.9	76.6	37.76	16.14	260.44
Lu	0.14	39	0.1	0.1	0.4	0.13	0.07	0.01
Sm	5.86	39	5.2	3.17	10.8	5.56	2.03	4.10
Yb	1.27	39	1.18	0.91	2.56	1.24	0.31	0.10
Cs	3.92	39	3.87	0.5	11.5	3.51	1.89	3.56
Cr	171	39	172	124	216	169	27.78	772
Co	15.84	39	13.3	4.34	42	13.69	9.17	84.12
Hf	3.42	39	3.37	2.05	4.78	3.38	0.53	0.28
Sc	15.35	39	15.5	10.4	19.8	15.10	2.78	7.72
Ta	0.50	39	0.5	0.5	0.5	0.50	--	--
Th	5.42	39	5.53	3.74	7.35	5.37	0.74	0.55
W	3.72	39	2.94	1	16.7	2.34	4.08	16.65

TABLE A1.7 : Summary statistics for the upper saprolite, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics Mean	Standard Deviation	Variance
SiO2	64.12	43	63.73	59.11	73.56	64.05	3.17	10.07
Al2O3	17.94	43	18.09	13.18	20.52	17.88	1.52	2.30
Fe2O3	5.71	45	6.23	1.01	9.03	5.17	1.98	3.90
MnO	0.02	43	0.01	0.01	0.04	0.01	0.01	0.00
MgO	0.85	43	0.84	0.4	1.7	0.78	0.37	0.14
CaO	0.08	45	0.04	0.02	0.70	0.05	0.14	0.02
Na2O	1.06	45	0.71	0.14	3.29	0.78	0.94	0.88
K2O	2.63	45	2.48	1.54	4.38	2.51	0.82	0.66
TiO2	0.62	43	0.64	0.44	0.725	0.62	0.06	0.00
P2O5	0.04	43	0.03	0.00	0.115	0.02	0.03	0.00
Ba	675	45	629	358	1137	649	195	37927
Cl	8299	43	7700	1370	21060	7015	4450	19804434
Cu	49	43	44	5	116	40	25.12	631.25
Ga	23	43	23	19	30	23	2.67	7.16
Ni	48	43	48	5	117	38	26.79	717.71
Nb	13	43	13	9	17	13	2.18	4.76
Pb	21	43	17	5	80	18	13.03	169.87
Rb	92	45	90	40	185	84	39.06	1526
S	360	43	370	70	630	312	169	28662
Sr	67	43	40	16	169	49	52	2697
V	121	43	118	88	167	120	17.49	306.01
Yb	14	43	14	9	21	14	2.77	7.66
Zn	55	43	50	19	126	51	20.71	428.72
Zr	128	43	129	90	145	127	9.87	97.50
Au	213	45	10.5	2.5	7900	15	1175	1381641
Sb	0.77	45	0.66	0.31	2.94	0.68	0.51	0.26
As	132	45	46.3	1.38	786	41	188	35284
Br	6.47	45	6.59	1.87	13.6	5.75	2.99	8.95
Ce	34	45	13.7	5.31	240	18	47	2190
Eu	0.54	45	0.25	0.25	1.38	0.44	0.37	0.14
La	23.10	45	5.92	0.84	184	7	39	1506
Lu	0.12	45	0.1	0.1	0.25	0.11	0.05	0.00
Sm	1.87	45	1.41	0.73	5.46	1.55	1.30	1.70
Yb	1.06	45	1.05	0.64	1.69	1.04	0.24	0.06
Cs	4.28	45	4.32	2.03	7.38	4.08	1.32	1.75
Cr	211	45	212	141	258	210	26	695
Co	6.08	45	5.89	0.5	13.1	5.10	3.25	10.59
Hf	3.74	45	3.83	2.24	4.41	3.71	0.45	0.20
Sc	17.2	45	17.1	12	25.4	16.97	2.74	7.49
Ta	0.74	45	0.5	0.5	2.44	0.64	0.51	0.26
Th	5.84	45	5.86	3.87	8.46	5.78	0.91	0.83
W	7.81	45	3.72	1	27.9	4.39	7.67	58.82

TABLE A1.8: Summary statistics for the mottled zone, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics Mean	Standard Deviation	Variance
SiO2	63.39	12	64.38	59.55	65.6	63.36	1.97	3.87
Al2O3	17.95	12	18.17	14.94	20.91	17.83	2.08	4.33
Fe2O3	7.24	12	7.88	3.58	8.99	6.93	1.92	3.67
MnO	0.02	12	0.02	0.01	0.04	0.02	0.01	0
MgO	0.54	12	0.49	0.43	1.03	0.52	0.16	0.03
CaO	0.17	12	0.06	0.03	1.26	0.08	0.35	0.12
Na2O	0.49	12	0.47	0.24	0.97	0.46	0.19	0.04
K2O	2.04	12	2.05	1.63	2.47	2.03	0.23	0.05
TiO2	0.65	12	0.65	0.57	0.74	0.65	0.05	0
P2O5	0.01	12	0.01	0.00	0.01	0.01	0	0
Ba	661	12	653	556	891	655	93	8690
Cl	5598	12	6145	1790	10900	5047	2477	6134652
Cu	29	12	30	19	36	28	5	29.70
Ga	24	12	24	20	27	24	2	4.61
Ni	27	12	24	13	57	25	12	147.84
Nb	15	12	14	13	20	15	2	4.02
Pb	14	12	13	11	18	14	2	5.90
Rb	59	12	57	43	77	58	11	113.30
S	337	12	340	140	550	313	125	15642
Sr	37	12	29	18	95	31	25	608.45
V	138	12	136	91	206	135	30	928.33
Y	11	12	11	8	15	11	2	3.90
Zn	20	12	19	13	32	20	5	23.97
Zr	136	12	135	122	152	136	8	70.81
Au	7	12	2.5	2.5	26	5	7	48
Sb	0.87	12	0.86	0.64	1.19	0.85	0.17	0.03
As	9.23	12	6.34	2.57	25.30	7.41	6.75	45.51
Br	10.21	12	8.39	2.79	18.90	8.70	5.75	33.08
Ce	8.03	12	5.53	4.03	19.40	7.04	4.70	22.13
Eu	0.49	12	0.53	0.25	0.86	0.43	0.23	0.05
La	2.76	12	1.89	0.63	8.38	1.95	2.45	6.00
Lu	0.10	12	0.1	0.1	0.1	0.10	--	--
Sm	1.12	12	0.94	0.82	1.91	1.07	0.37	0.14
Yb	0.77	12	0.75	0.65	1.03	0.77	0.11	0.01
Cs	4.03	12	3.47	2.35	7.83	3.76	1.68	2.82
Cr	228	12	233	159	273	225	37	1377.42
Co	3.43	12	3.59	0.5	7.29	2.46	2.20	4.85
Hf	3.88	12	3.82	3.44	4.54	3.87	0.31	0.09
Sc	16.16	12	14.8	13.9	21.5	15.98	2.66	7.06
Ta	0.56	12	0.5	0.5	1.21	0.54	0.20	0.04
Th	5.34	12	5.05	4.18	6.94	5.29	0.83	0.69
W	2.76	12	2.78	1	4.9	2.51	1.14	1.30

TABLE A1.9 : Summary statistics for the calcrete, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics Mean	Standard Deviation	Variance
SiO2	56.20	3	55.28	53.9	59.42	56.15	2.87	8.25
Al2O3	10.25	3	8.17	7.52	15.05	9.74	4.17	17.41
Fe2O3	3.44	25	3.19	1.76	5.90	3.25	1.17	1.37
MnO	0.02	3	0.03	0.01	0.03	0.02	0.01	0.00
MgO	1.73	3	1.43	0.65	3.1	1.42	1.25	1.57
CaO	21.31	25	21.12	4.31	42.95	18.16	10.66	113.64
Na2O	0.26	25	0.22	0.11	0.55	0.24	0.11	0.01
K2O	0.84	25	0.58	0.12	2.65	0.60	0.69	0.48
TiO2	0.40	3	0.38	0.35	0.47	0.40	0.06	0.00
P2O5	0.02	3	0.02	0.01	0.03	0.01	0.01	0.00
Ba	570	25	372	169	1410	477	364	132173
Cl	2427	3	2960	830	3490	2047	1408	1982233
Cu	25	3	28	17	30	24	7	49.00
Ga	13	3	11	10	18	13	4	19.00
Ni	27	3	27	25	29	27	2	4.00
Nb	13	3	13	12	15	13	2	2.33
Pb	10	3	11	7	13	10	3	9.33
Rb	27	25	26	10	68	22	18	323.94
S	427	3	450	340	490	422	78	6033
Sr	295	3	301	136	448	264	156	24363
V	97	3	91	90	109	96	11	114.33
Y	13	3	12	12	14	13	1	1.33
Zn	19	3	19	17	21	19	2	4.00
Zr	123	3	120	116	133	123	9	79.00
Au	86	25	75.9	6.4	227	55	65	4204
Sb	0.40	25	0.33	0.1	1.05	0.32	0.26	0.07
As	17.96	25	9.65	3.61	78.80	11.79	21.48	461.60
Br	11.08	25	10.50	4.47	16.60	10.46	3.57	12.73
Ce	14.58	25	13.40	7.20	47.40	13.42	7.64	58.44
Eu	0.32	25	0.25	0.25	0.66	0.30	0.14	0.02
La	8.49	25	7.04	2.15	31.5	7.38	5.59	31.26
Lu	0.11	25	0.1	0.1	0.32	0.10	0.04	0.00
Sm	1.40	25	1.34	0.74	2.56	1.34	0.46	0.21
Yb	0.81	25	0.78	0.25	1.93	0.76	0.31	0.09
Cs	1.58	25	1.54	0.5	3.64	1.24	1.02	1.03
Cr	125	25	109	22.7	234	113	52	2677
Co	7.09	25	6.77	2.48	12.3	6.52	2.76	7.62
Hf	2.44	25	2.14	1.47	4.87	2.32	0.86	0.75
Sc	8.88	25	7.91	4.21	18.3	8.15	3.94	15.50
Ta	0.6	25	0.5	0.5	2.22	0.55	0.37	0.14
Th	4.10	25	3.72	2.45	5.83	3.97	1.04	1.09
W	3.00	25	1	1	15	1.72	4.26	18.16

TABLE A1.10: Summary statistics for the soil, Twin Peaks.

Elements	Mean	Valid_N	Median	Minimum	Maximum	Geometrics	Standard	Variance
						Mean	Deviation	
SiO2	65.81	7	64.24	55.91	80.48	65.42	7.88	62.11
Al2O3	13.51	7	14.27	6.9	16.2	13.11	3.03	9.20
Fe2O3	8.47	7	7.46	2.4	14.87	7.15	4.73	22.39
MnO	0.02	7	0.02	0.00	0.04	0.02	0.01	0.00
MgO	0.75	7	0.36	0.26	2.28	0.55	0.74	0.55
CaO	1.15	7	0.31	0.11	4.55	0.47	1.61	2.60
Na2O	0.28	7	0.28	0.23	0.32	0.27	0.03	0.00
K2O	1.47	7	1.12	0.77	2.85	1.33	0.75	0.56
TiO2	0.51	7	0.52	0.35	0.62	0.50	0.10	0.01
P2O5	0.01	7	0.01	0	0.02	0.01	0.01	0.00
Ba	650	7	627	229	926	601	238	56483
Cl	1057	7	1160	590	1330	1008	319	101790
Cu	22	7	23	13	36	21	8	59.62
Ga	20	7	21	9	23	19	5	22.62
Ni	24	7	26	11	30	23	7	43.81
Nb	13	7	13	11	15	13	1	1.81
Pb	17	7	16	13	22	16	3	9.90
Rb	41	7	34	21	80	37	21	424.81
S	186	7	170	120	290	178	60	3629
Sr	78	7	43	29	268	56	86	7372
V	153	7	168	90	204	149	37	1375
Y	11	7	10	10	14	11	2	2.90
Zn	21	7	22	13	28	21	5	23.57
Zr	124	7	121	98	149	123	20	419.24
Au	201	7	20	10	1260	37	467	218434
Sb	0.95	7	0.97	0.33	1.48	0.86	0.42	0.17
As	23.26	7	22.40	12.70	36.00	21.94	8.36	69.82
Br	3.17	7	2.84	2.62	5.19	3.09	0.90	0.81
Ce	10.78	7	10.80	5.02	17.60	10.08	4.09	16.76
Eu	0.35	7	0.25	0.25	0.60	0.32	0.17	0.03
La	5.32	7	5.56	1.36	9.41	4.53	2.87	8.26
Lu	0.10	7	0.10	0.10	0.10	0.10	--	--
Sm	1.14	7	1.30	0.59	1.51	1.08	0.36	0.13
Yb	0.83	7	0.83	0.77	0.91	0.83	0	0
Cs	3.07	7	3.38	1.23	4.52	2.83	1.21	1.47
Cr	228	7	200	163	313	221	58	3383
Co	4.78	7	4.23	2.5	7.16	4.41	1.99	3.96
Hf	3.87	7	3.7	3.1	5.02	3.82	0.69	0.48
Sc	13.37	7	14.5	8.16	15.4	13.12	2.50	6.26
Ta	0.7	7	0.5	0.5	1.5	0.7	0.4	0.18
Th	6.06	7	5.43	4.32	8.4	5.89	1.57	2.47
W	3.73	7	3.09	1	9.74	3.04	2.82	7.97

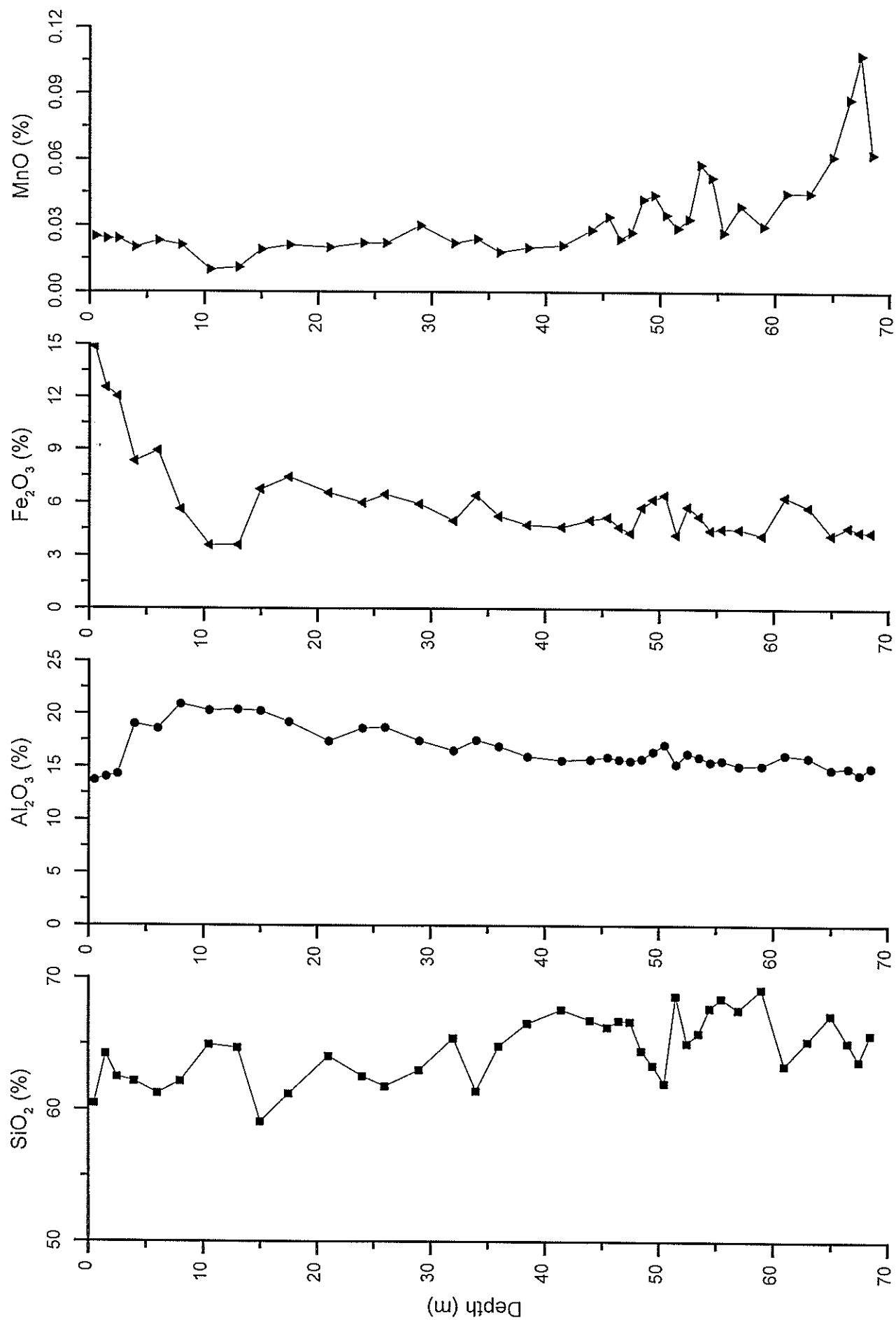


Figure A1.1: Si, Al, Fe, and Mn data for drill hole JDRC44

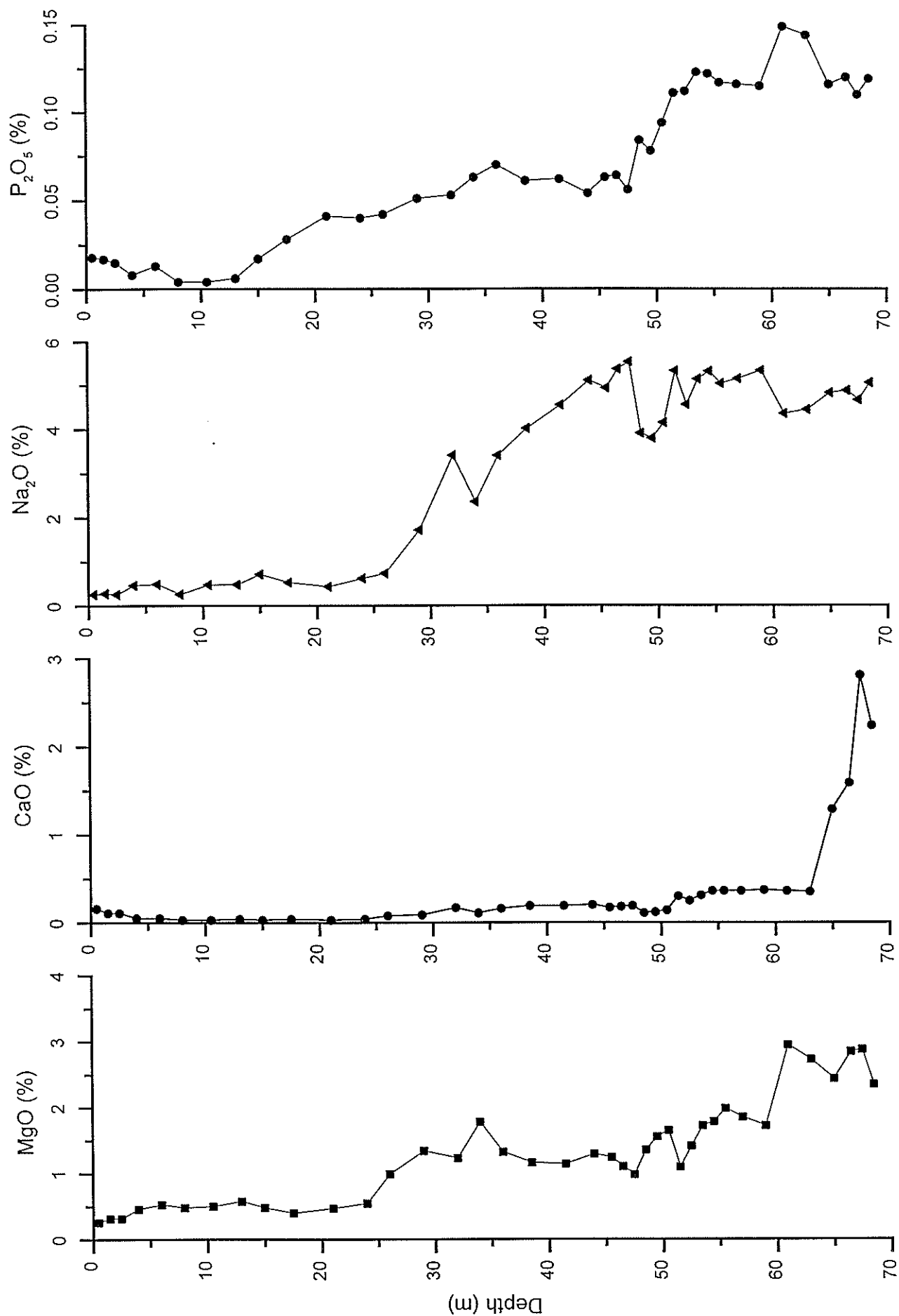


Figure A1.2: Mg, Ca, Na and P data for drill hole JDRC44

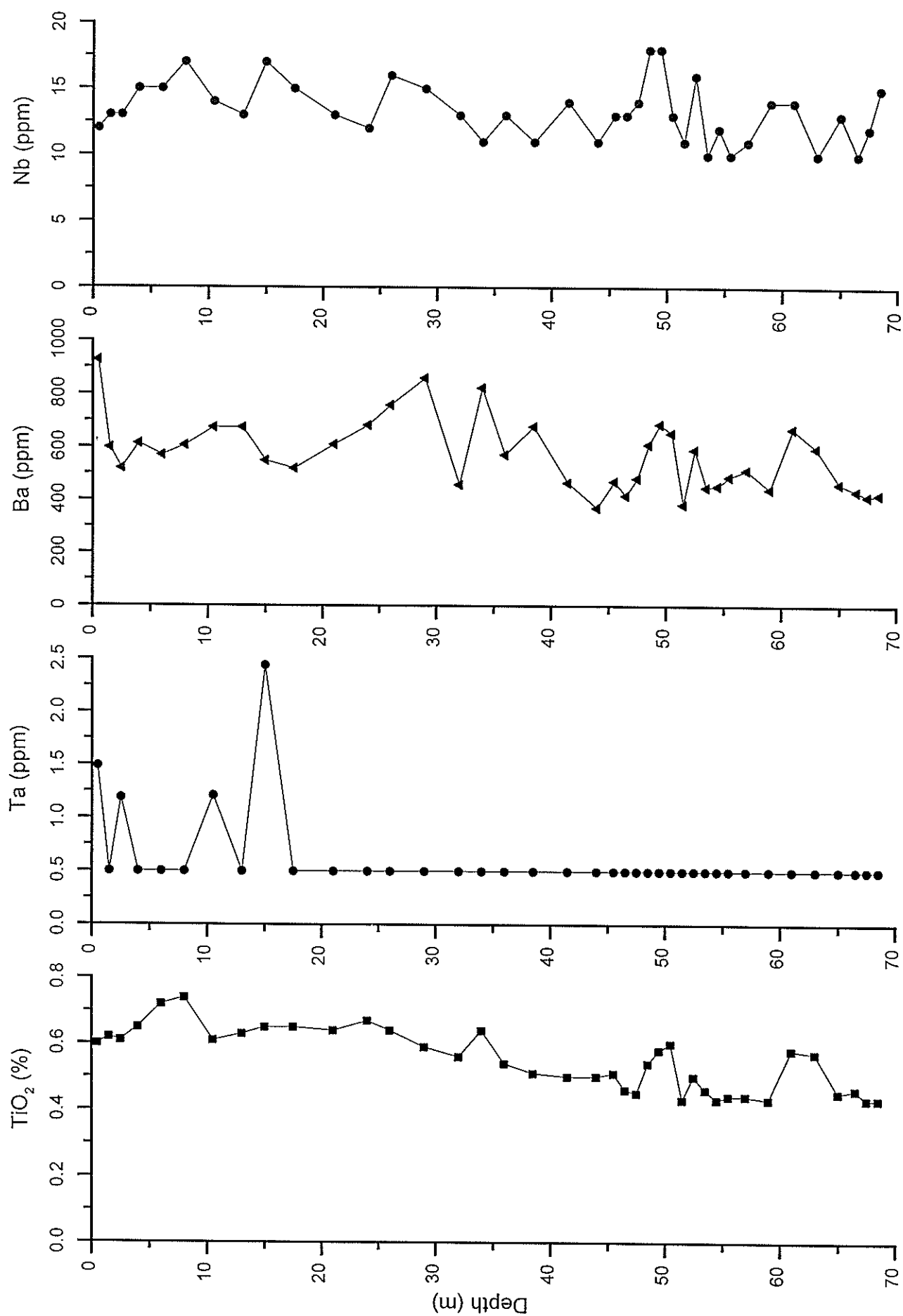


Figure A1.3: Ti, Ta, Ba and Nb data for drill hole JDRC44

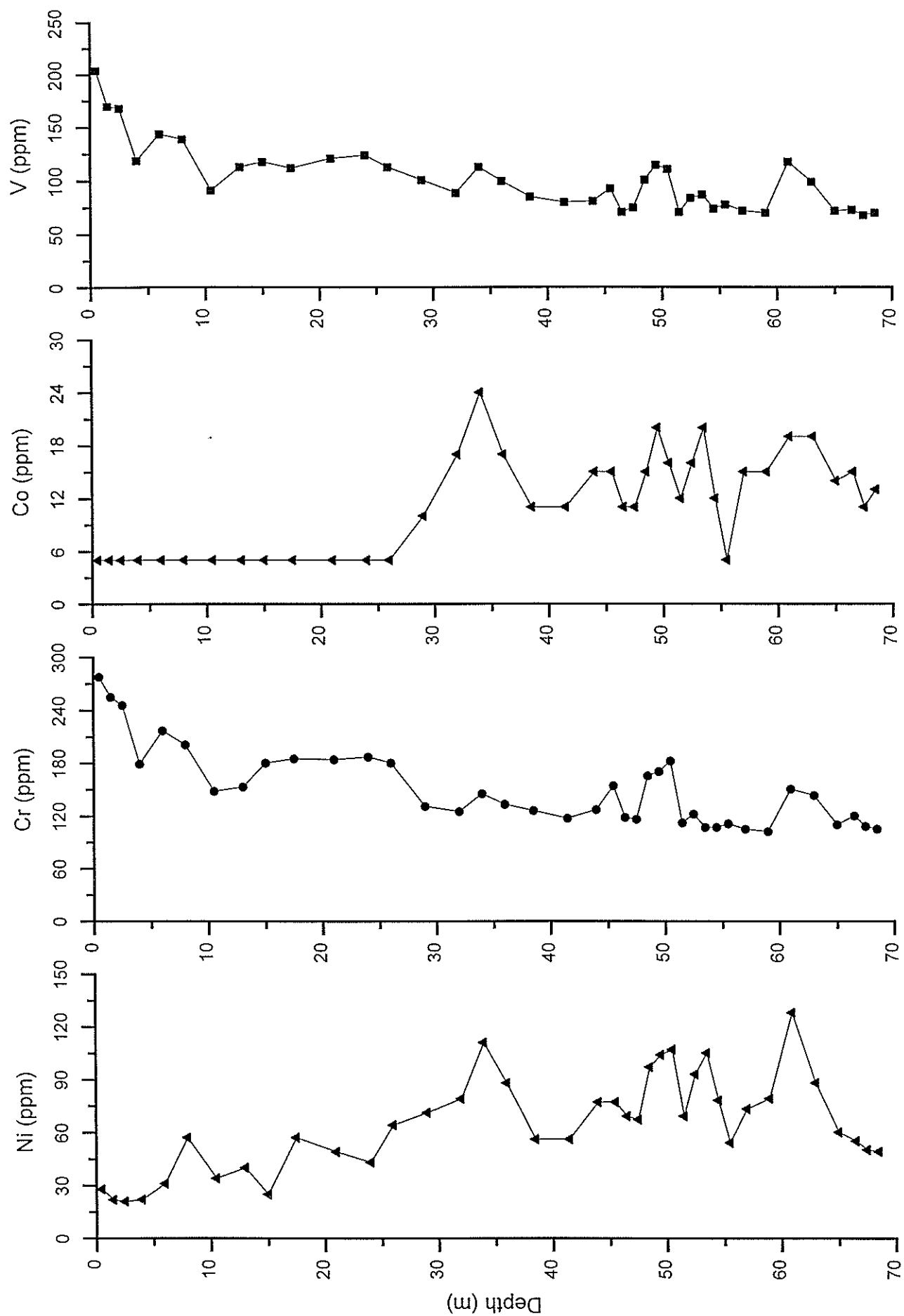


Figure A1.4: Ni, Cr, Co and V data for drill hole JDRC44

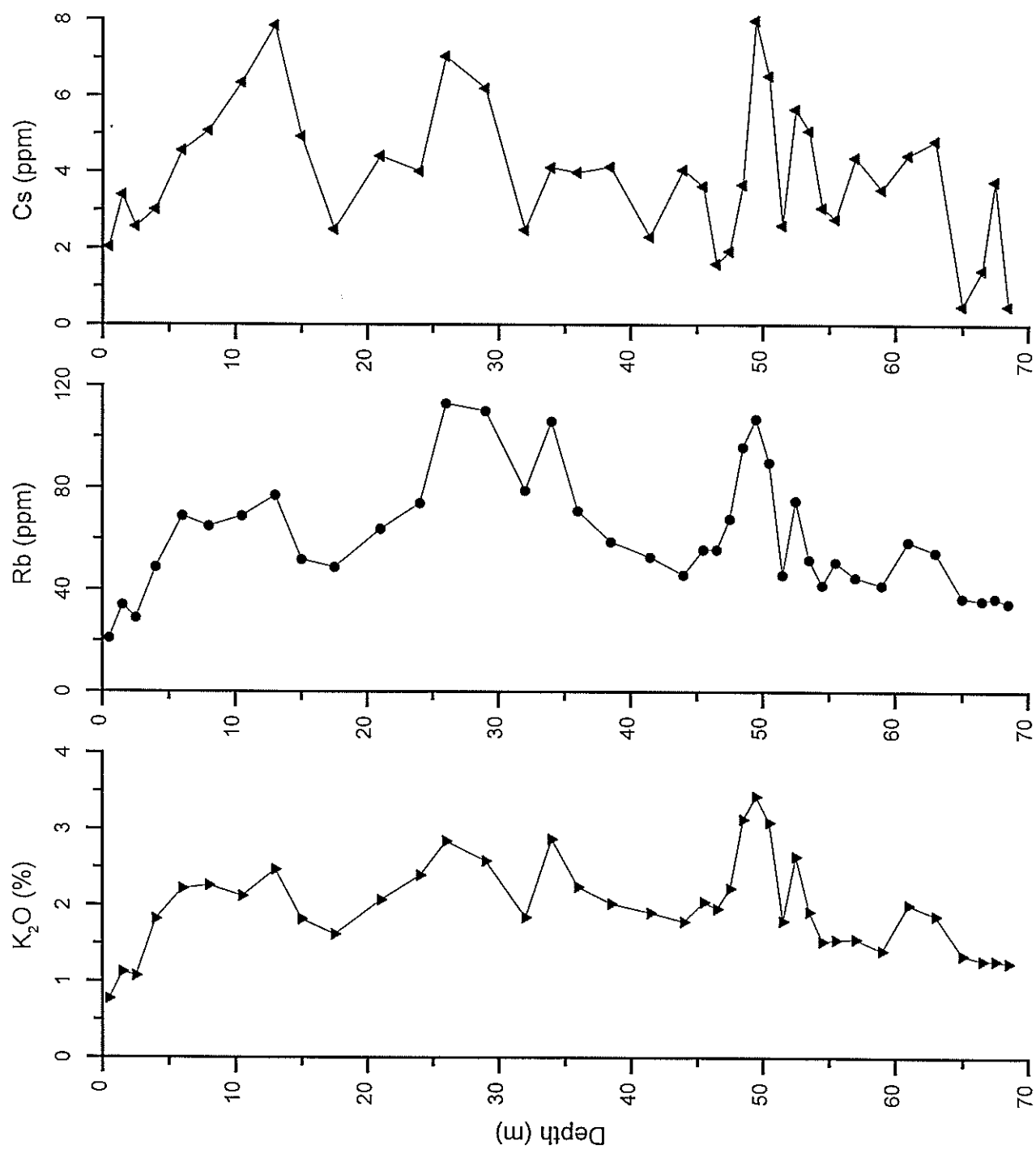


Figure A1.5: K, Rb and Cs data for drill hole JDRC44

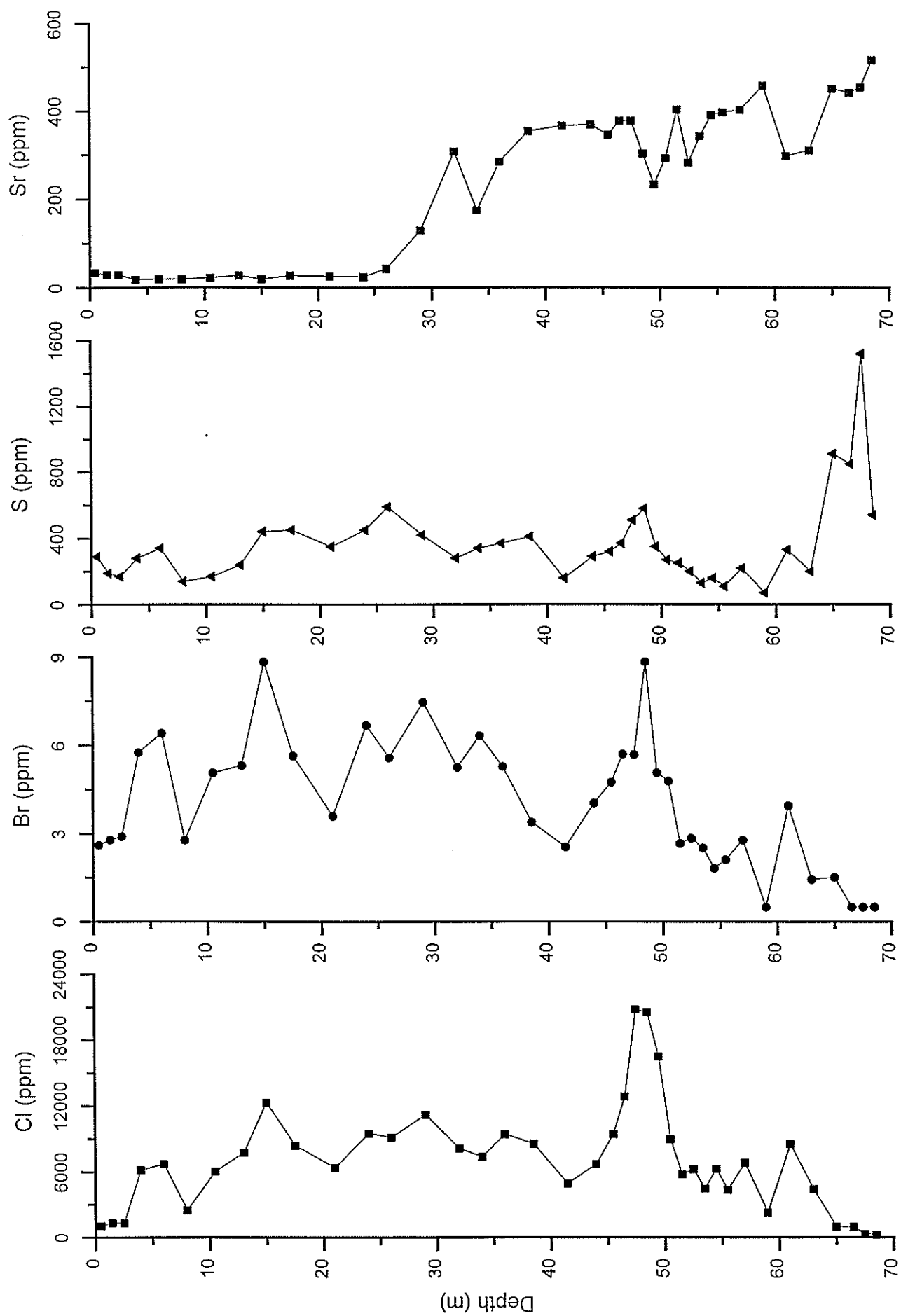


Figure A1.6: Cl, Br, S and Sr data for drill hole JDRC44

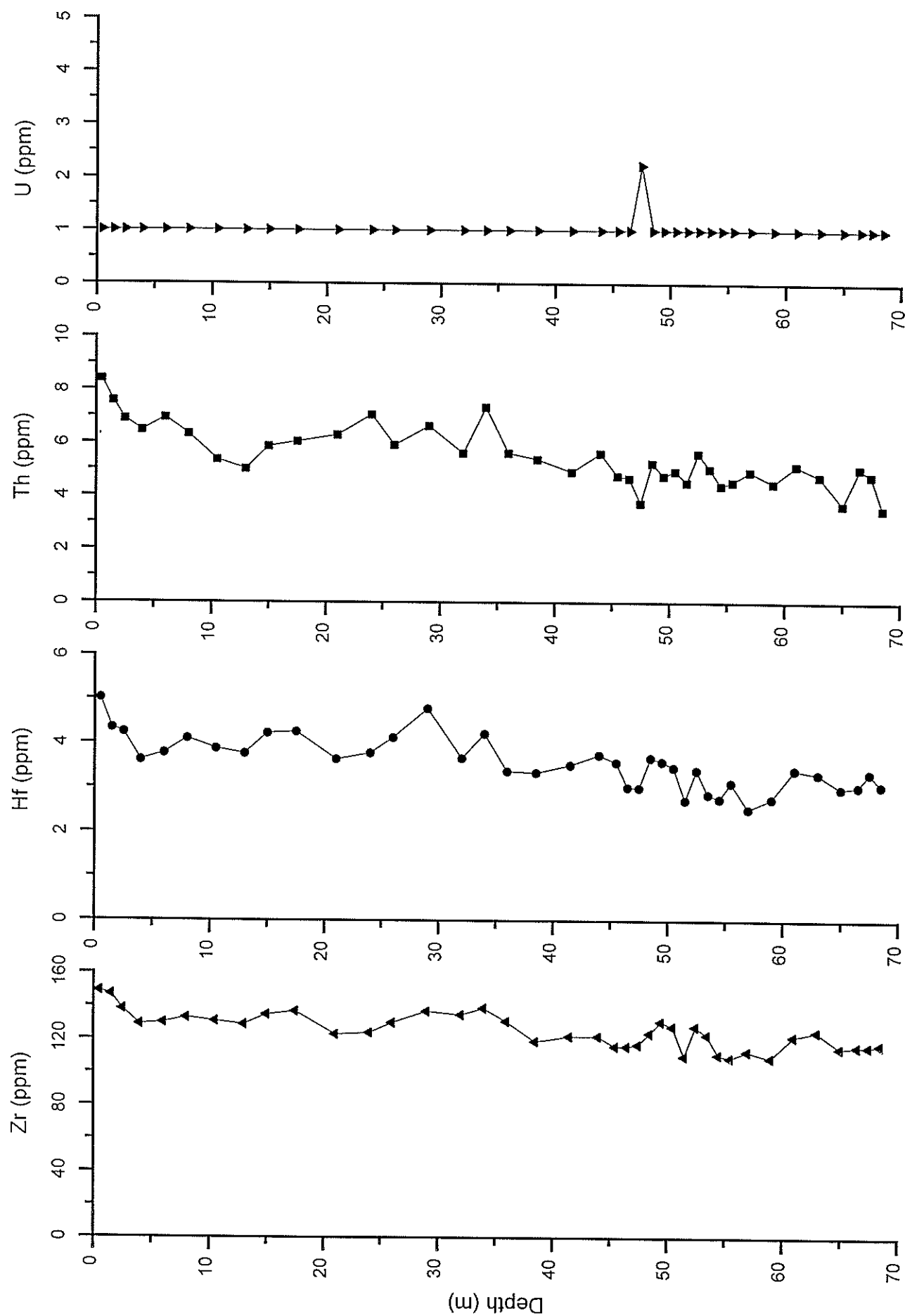


Figure A1.7: Zr, Hf, Th and U data for drill hole JDRC44

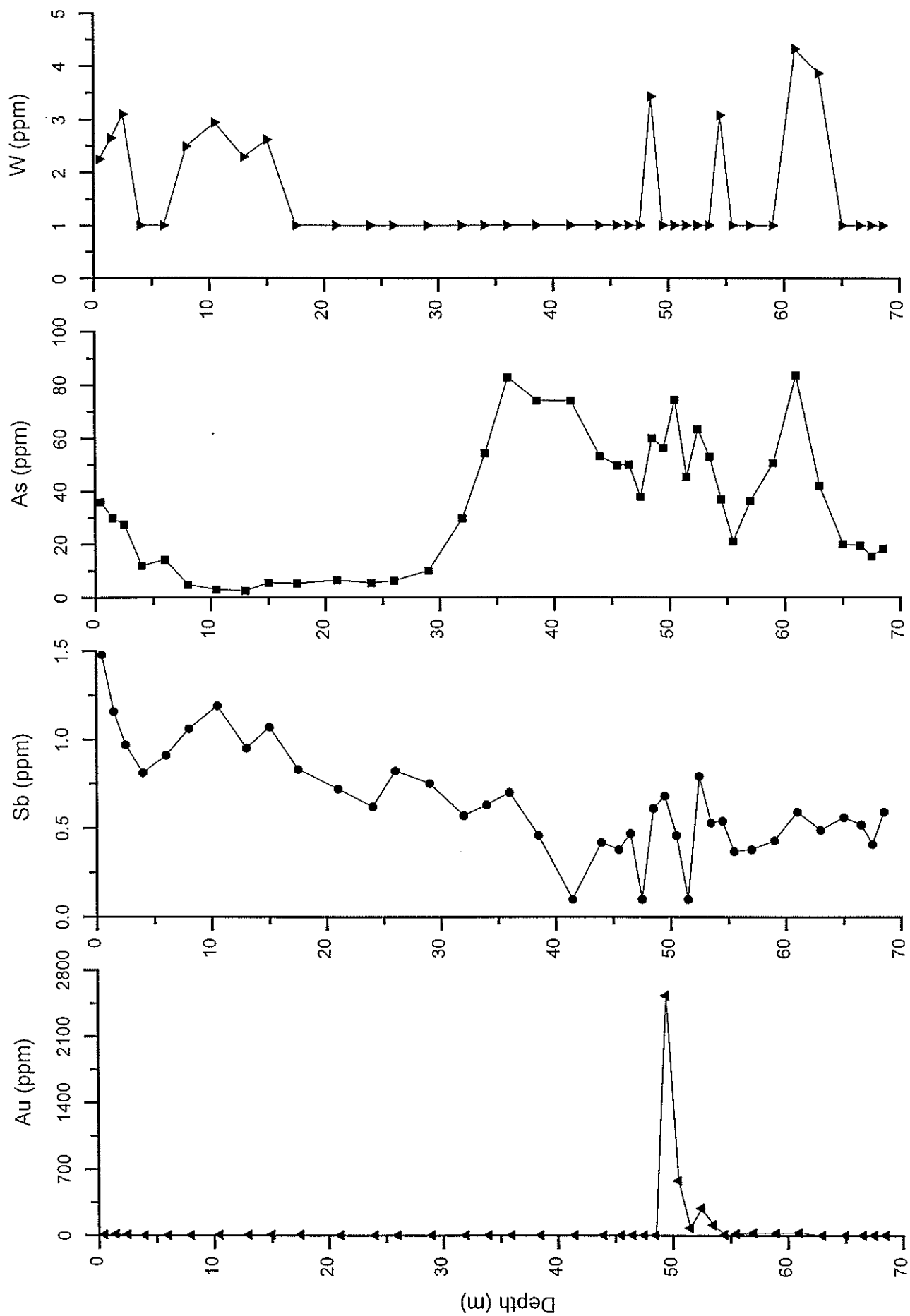


Figure A1.8: Au, Sb, As and W data for drill hole JDRC44

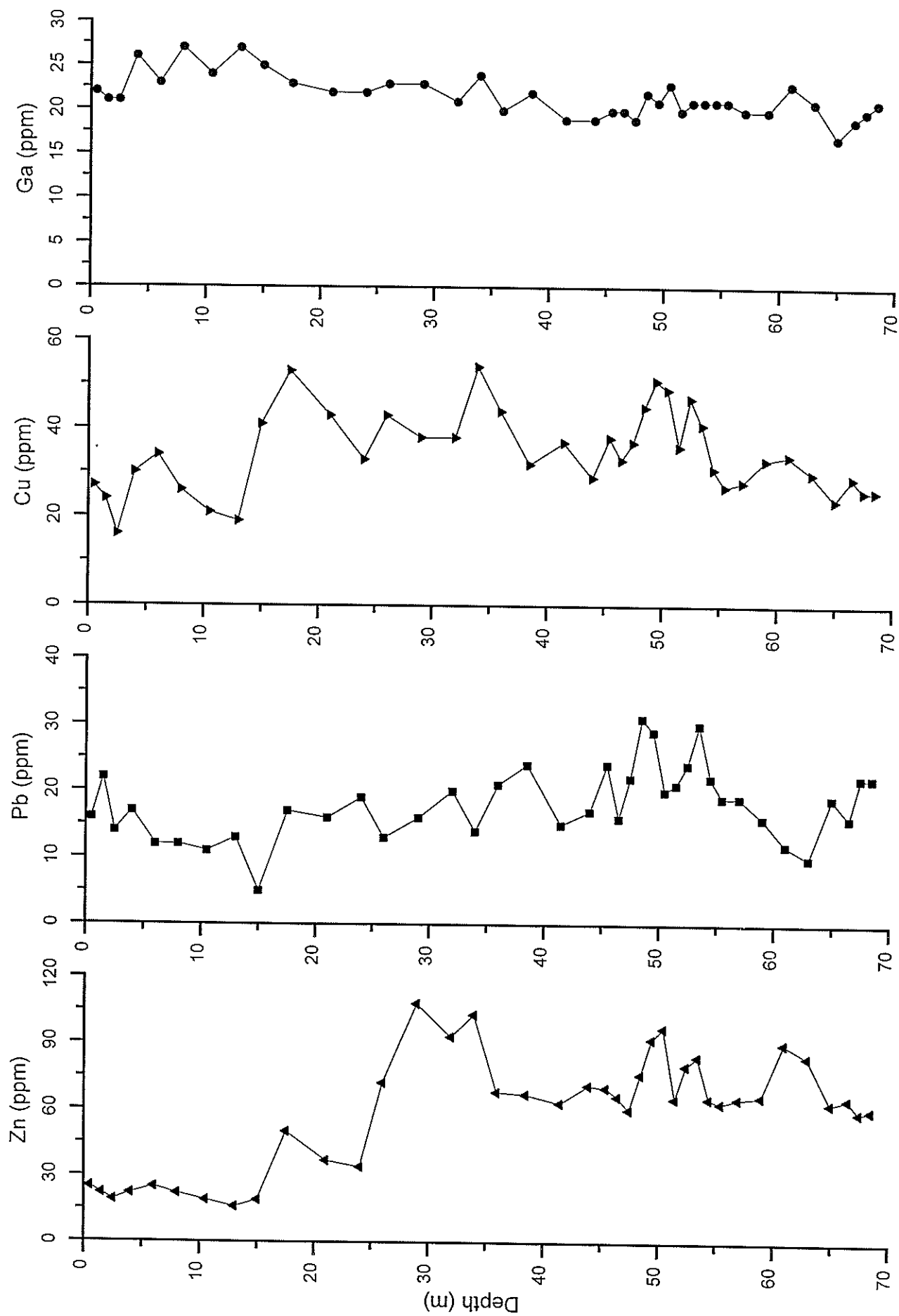


Figure A1.9: Zn, Pb, Cu and Ga data for drill hole JDRC44

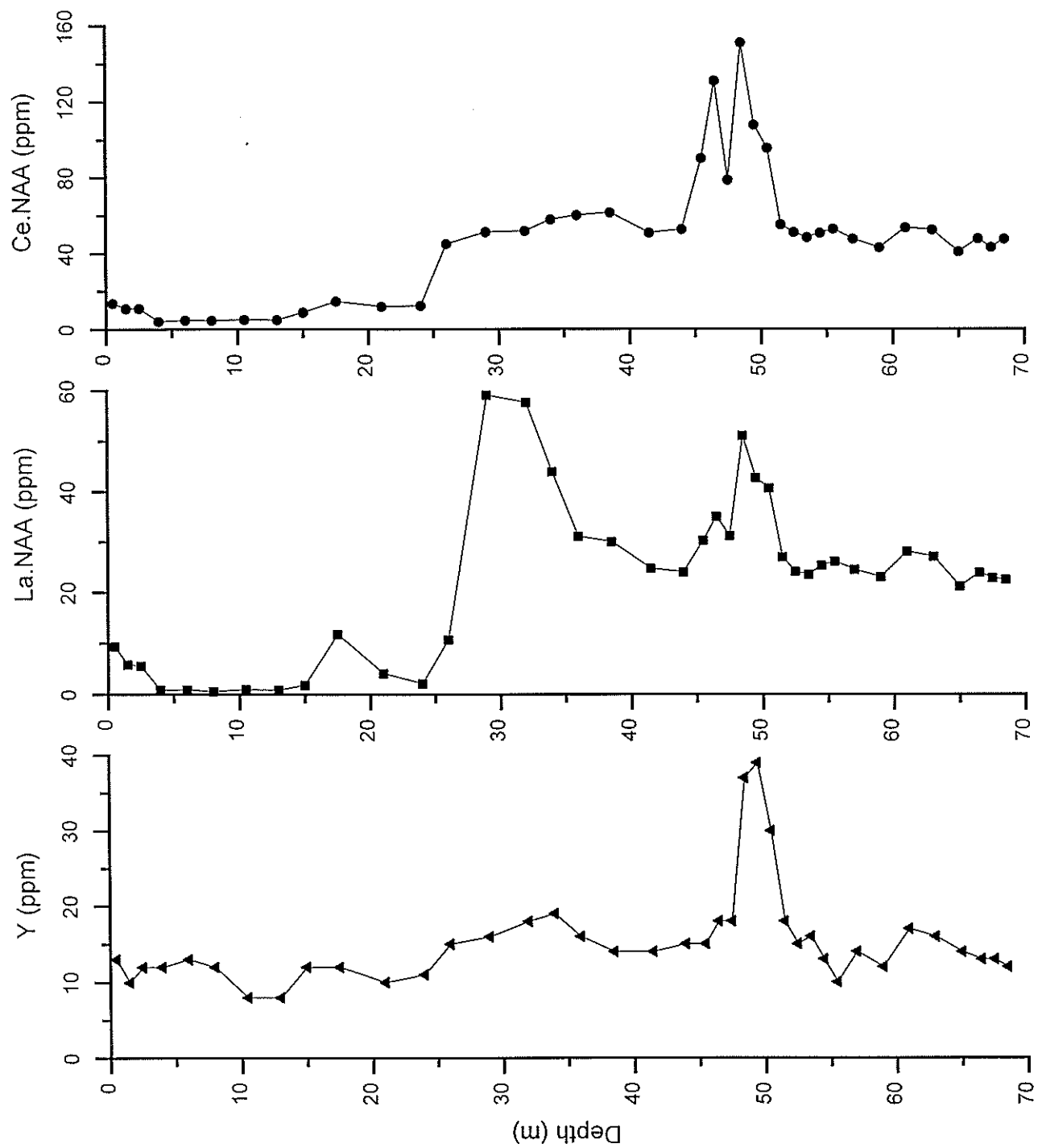


Figure A1.10: Y, La and Ce data for drill hole JDRC44

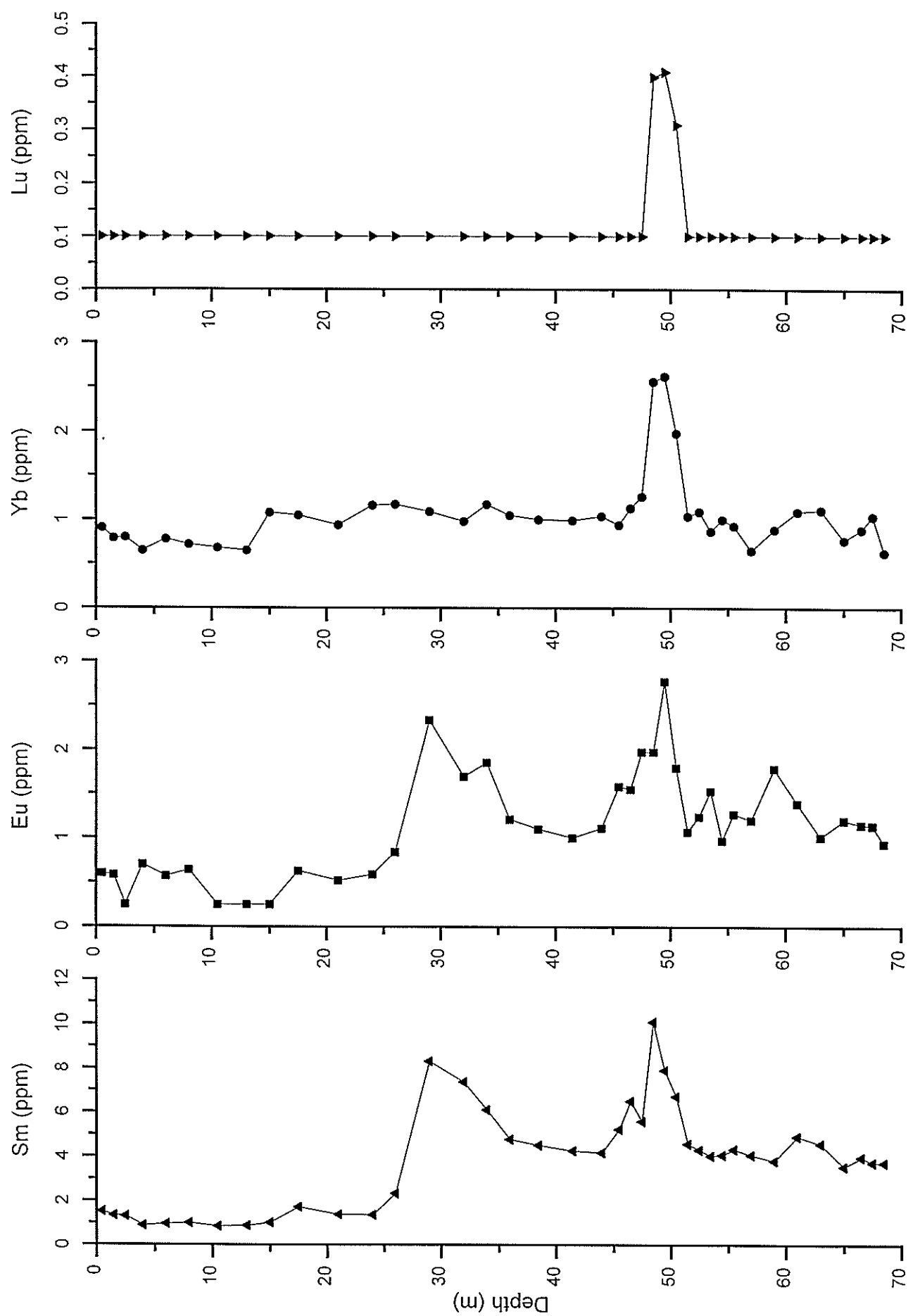


Figure A1.11: Sm, Eu, Yb and Lu data for drill hole JDRC44

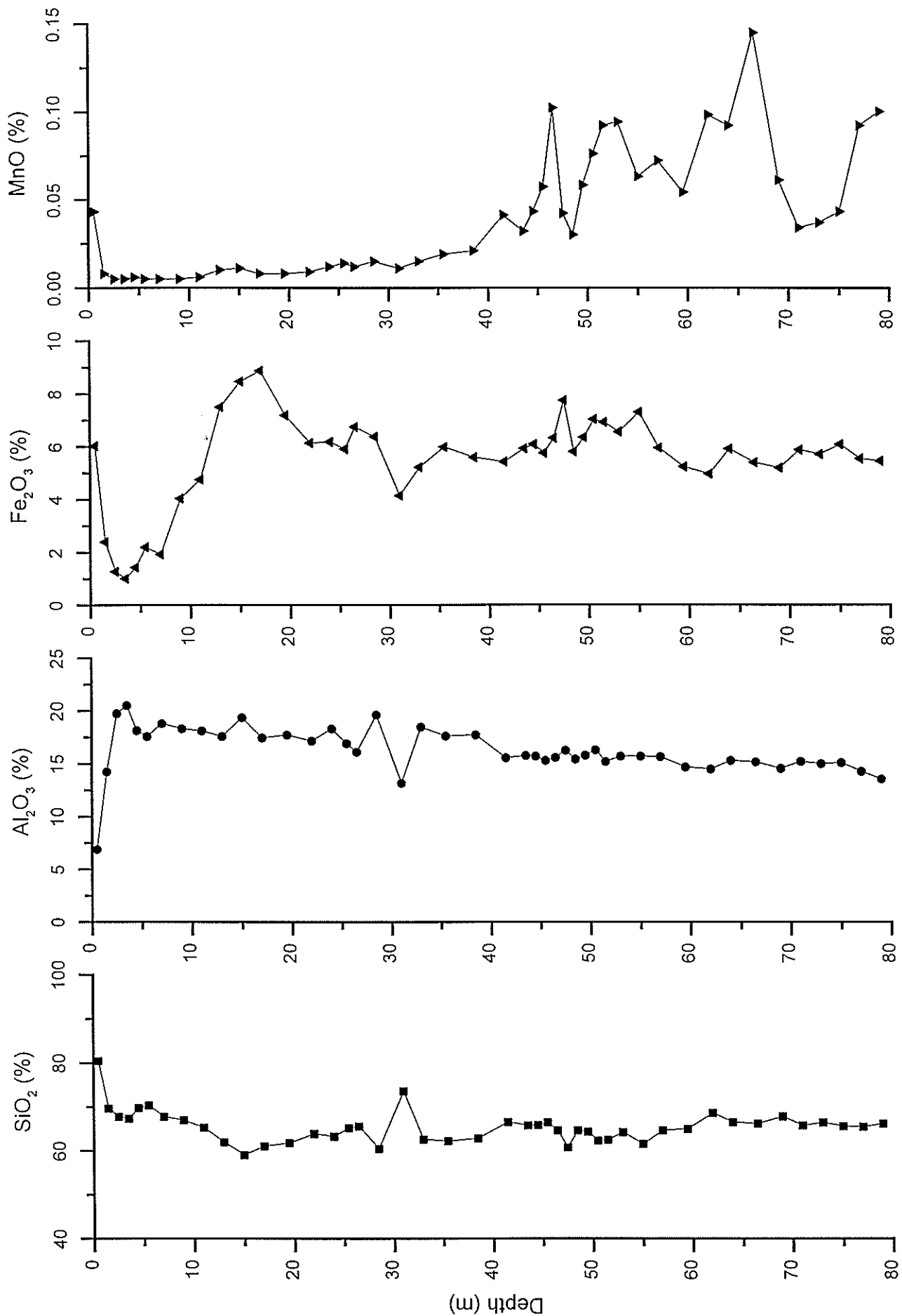


Figure A1.12: Si, Al, Fe, and Mn data for drill hole JDCR53

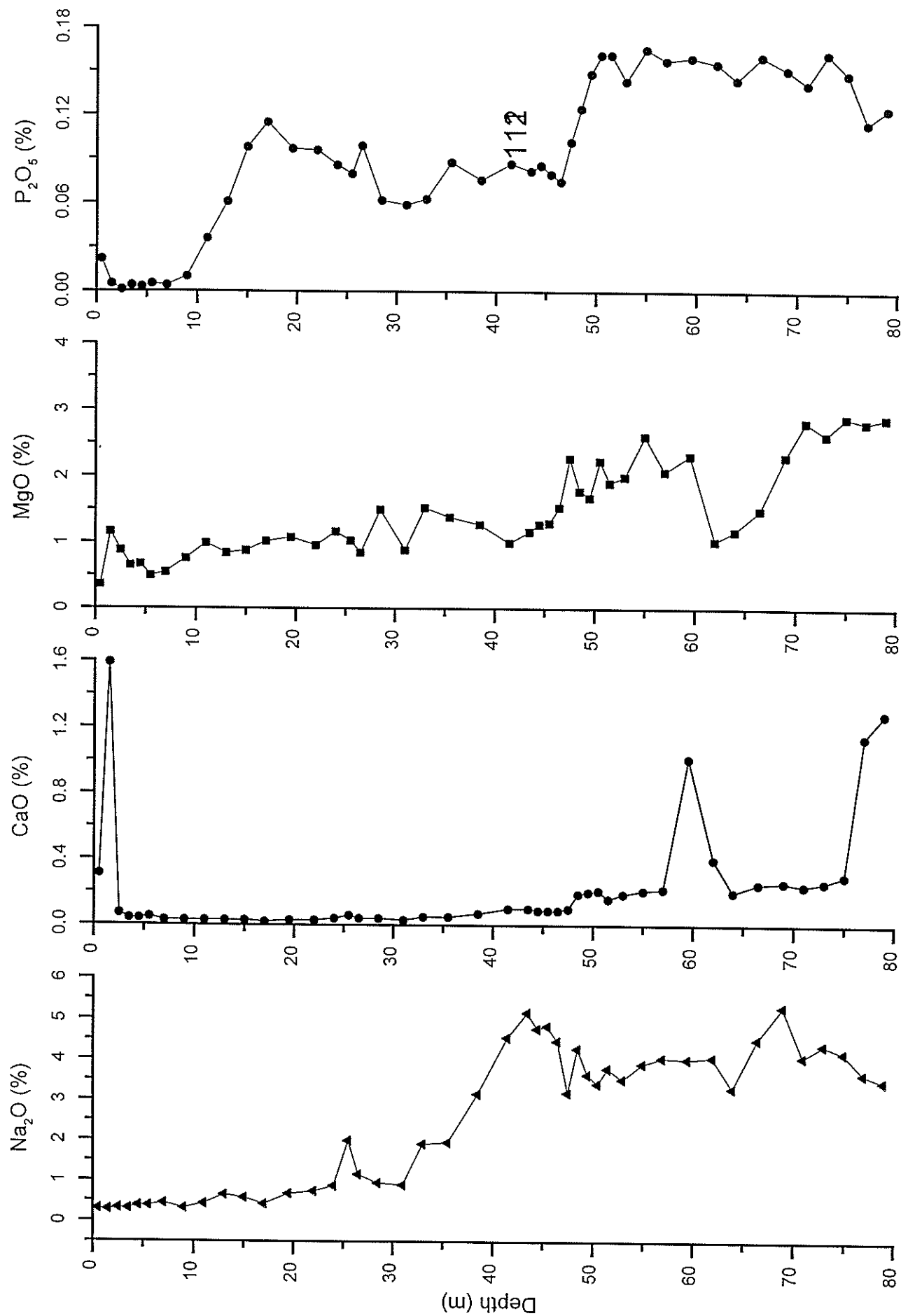


Figure A1.13: Na, Ca, Mg and P data for drill hole JDCR53

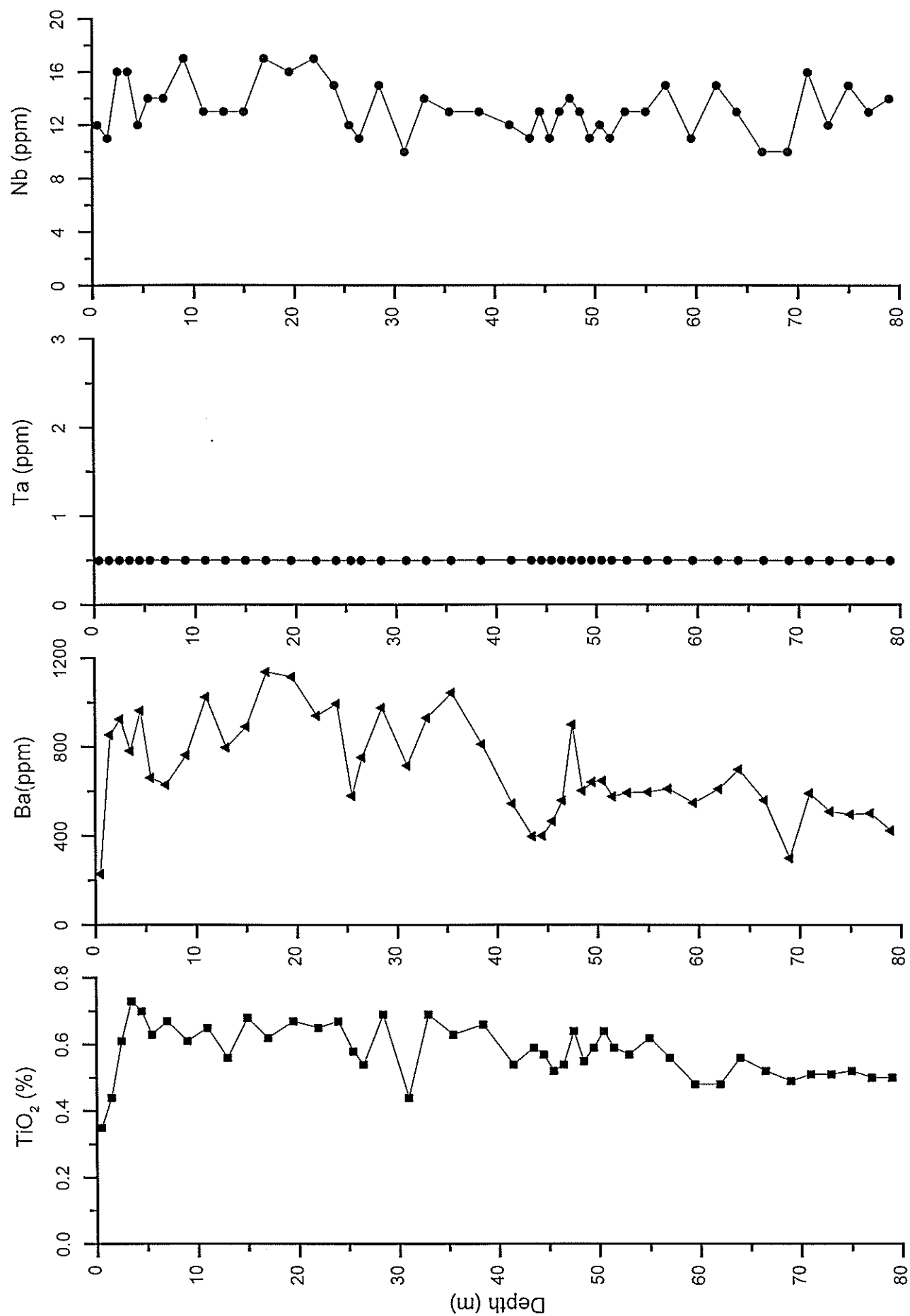


Figure A1.14: Ti, Ba, Ta and Nb data for drill hole JDCR53

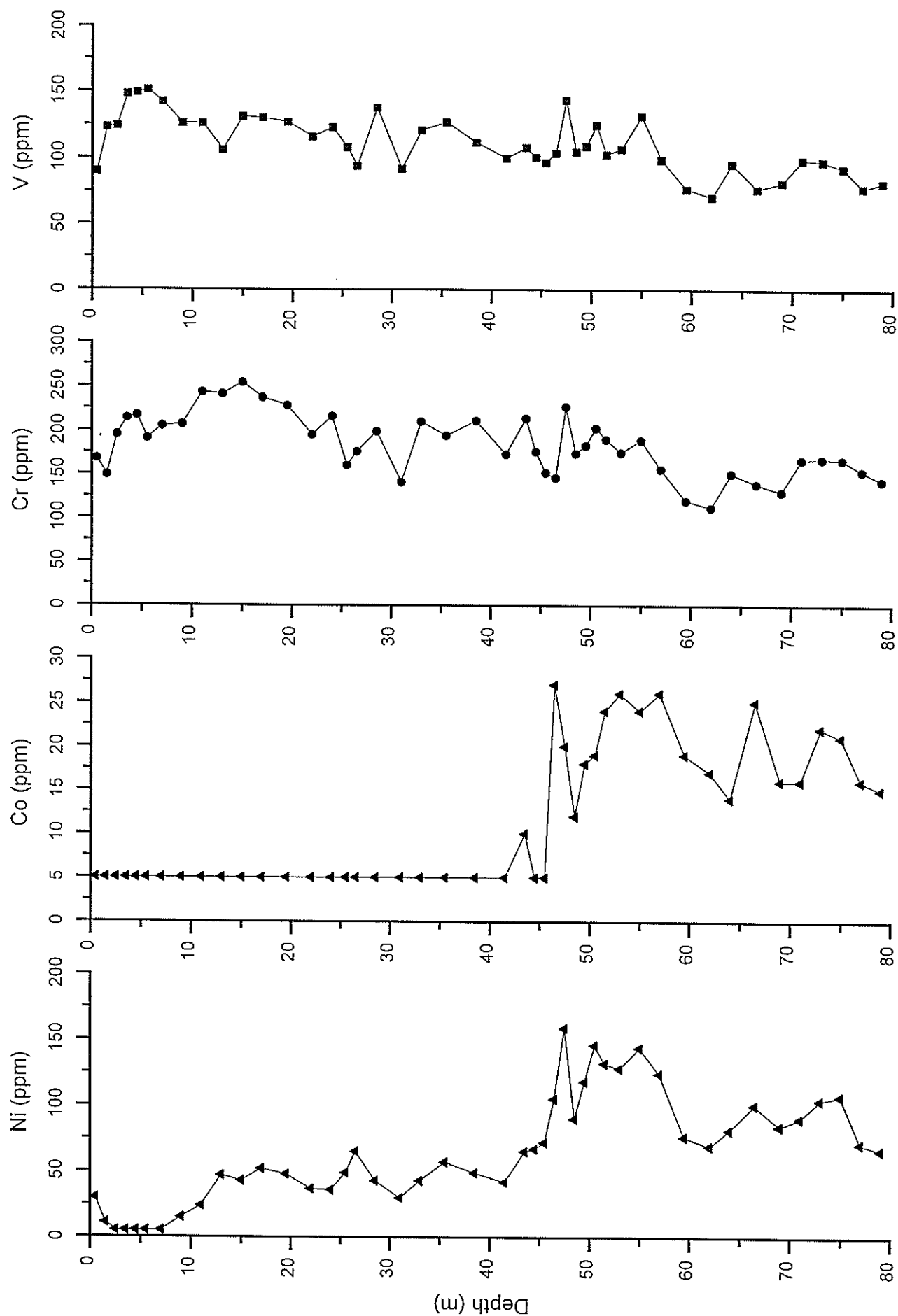


Figure A1.15: Ni, Co, Cr and V data for drill hole JDCR53

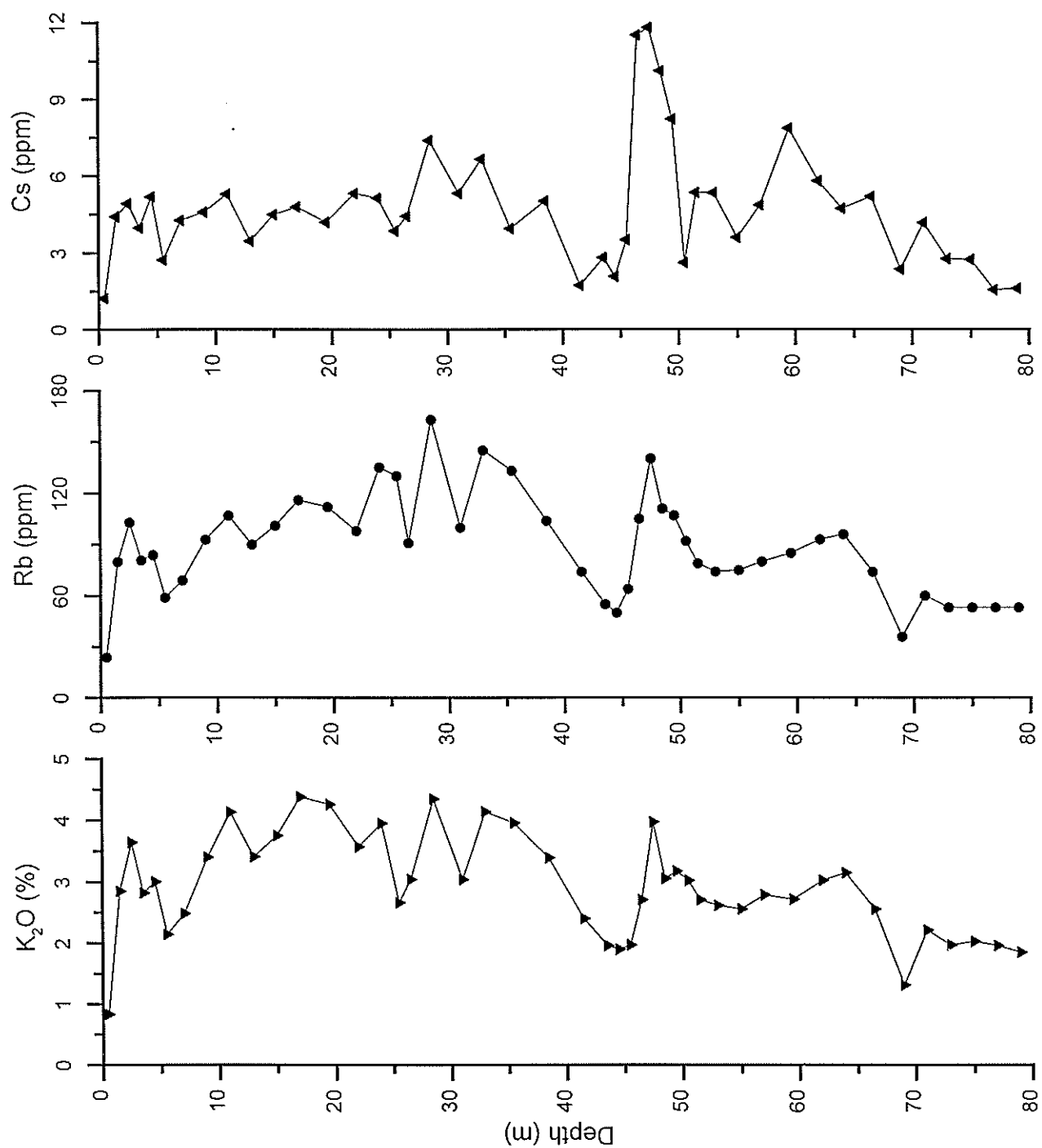


Figure A1.16: K, Rb and Cs data for drill hole JDCR53

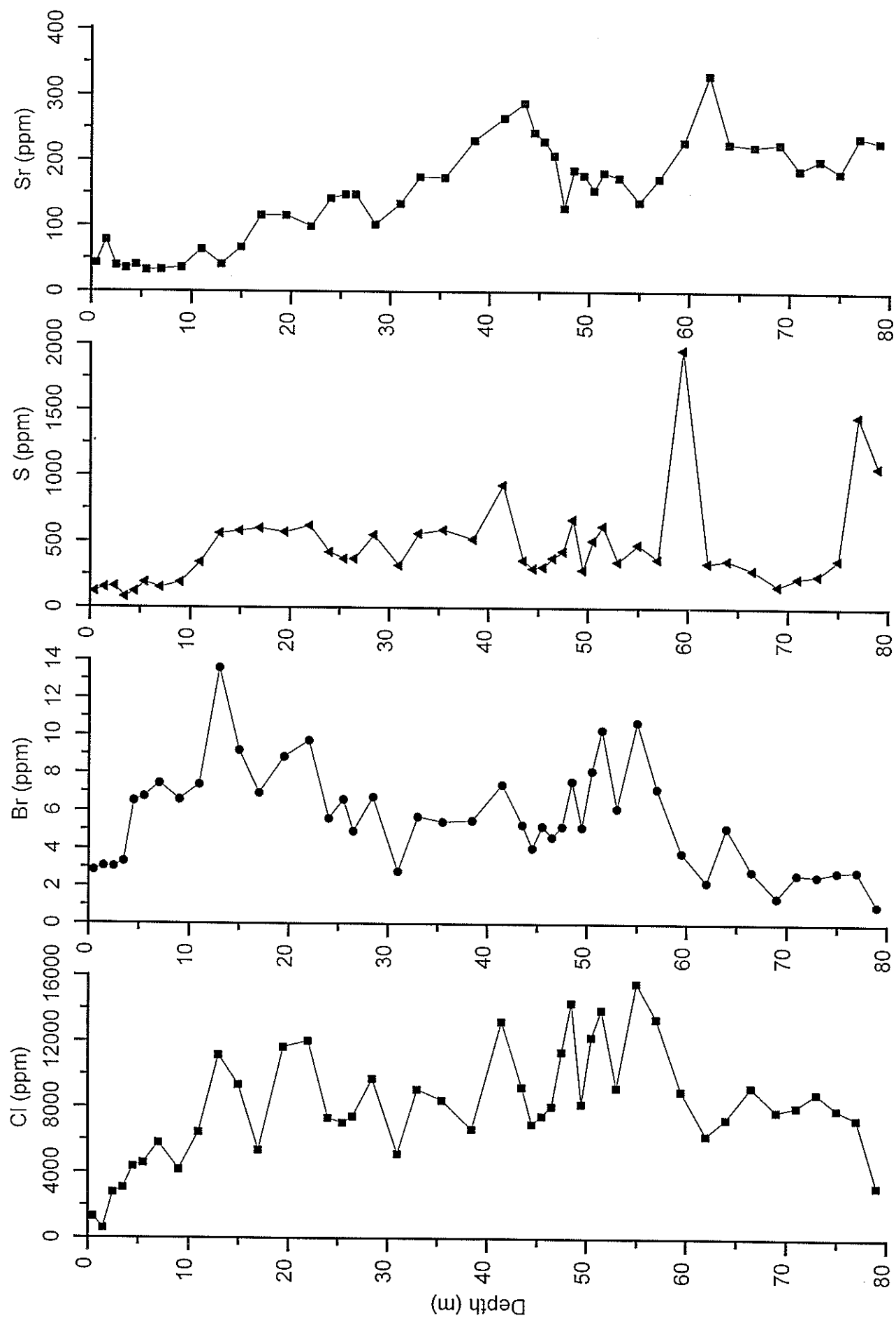


Figure A1.17: Cl, Br, S and Sr data for drill hole JDCR53

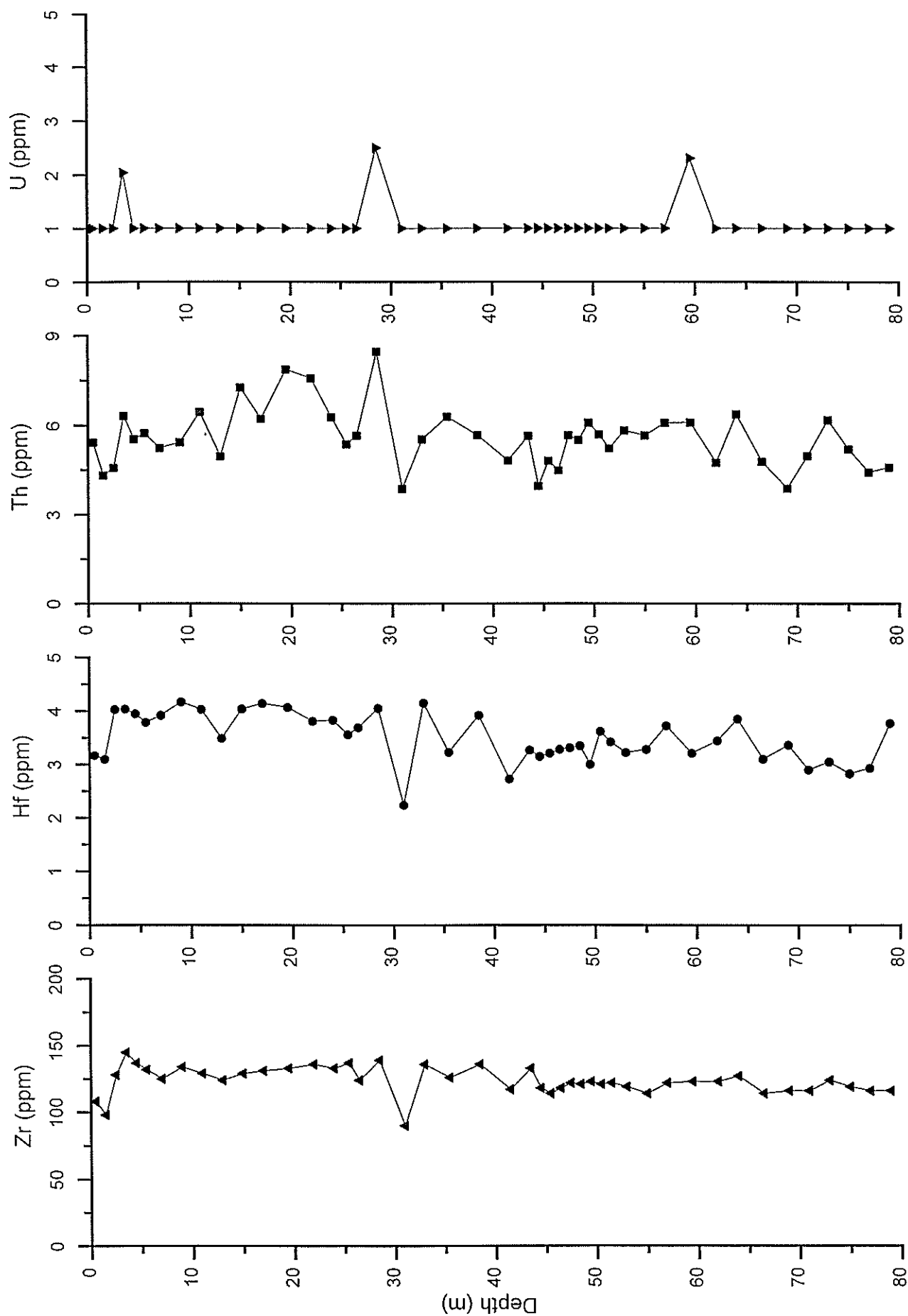


Figure A1.18: Zr, Hf, Th and U data for drill hole JDCR53

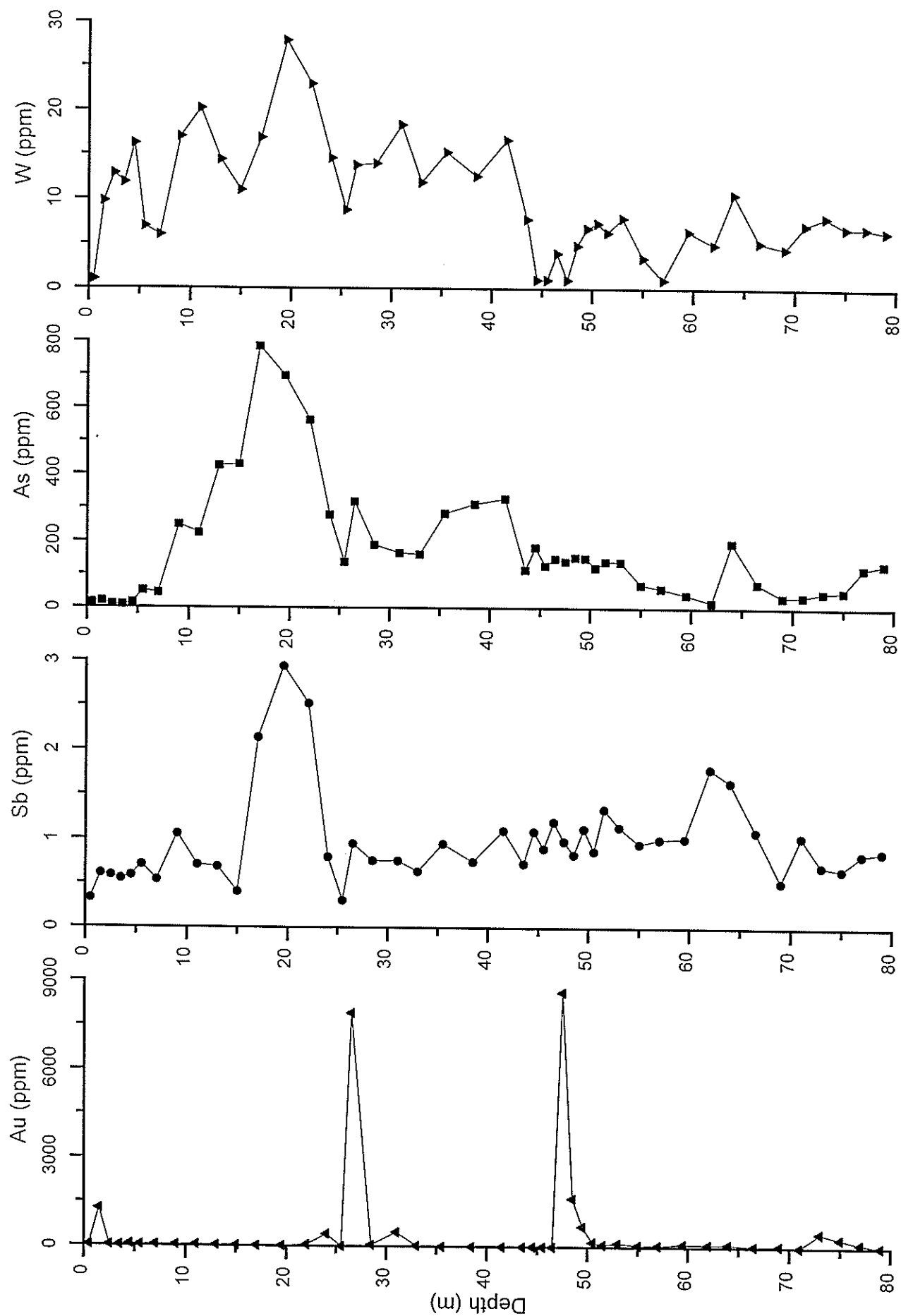


Figure A1.19: Au, Sb, As and W data for drill hole JDCR53

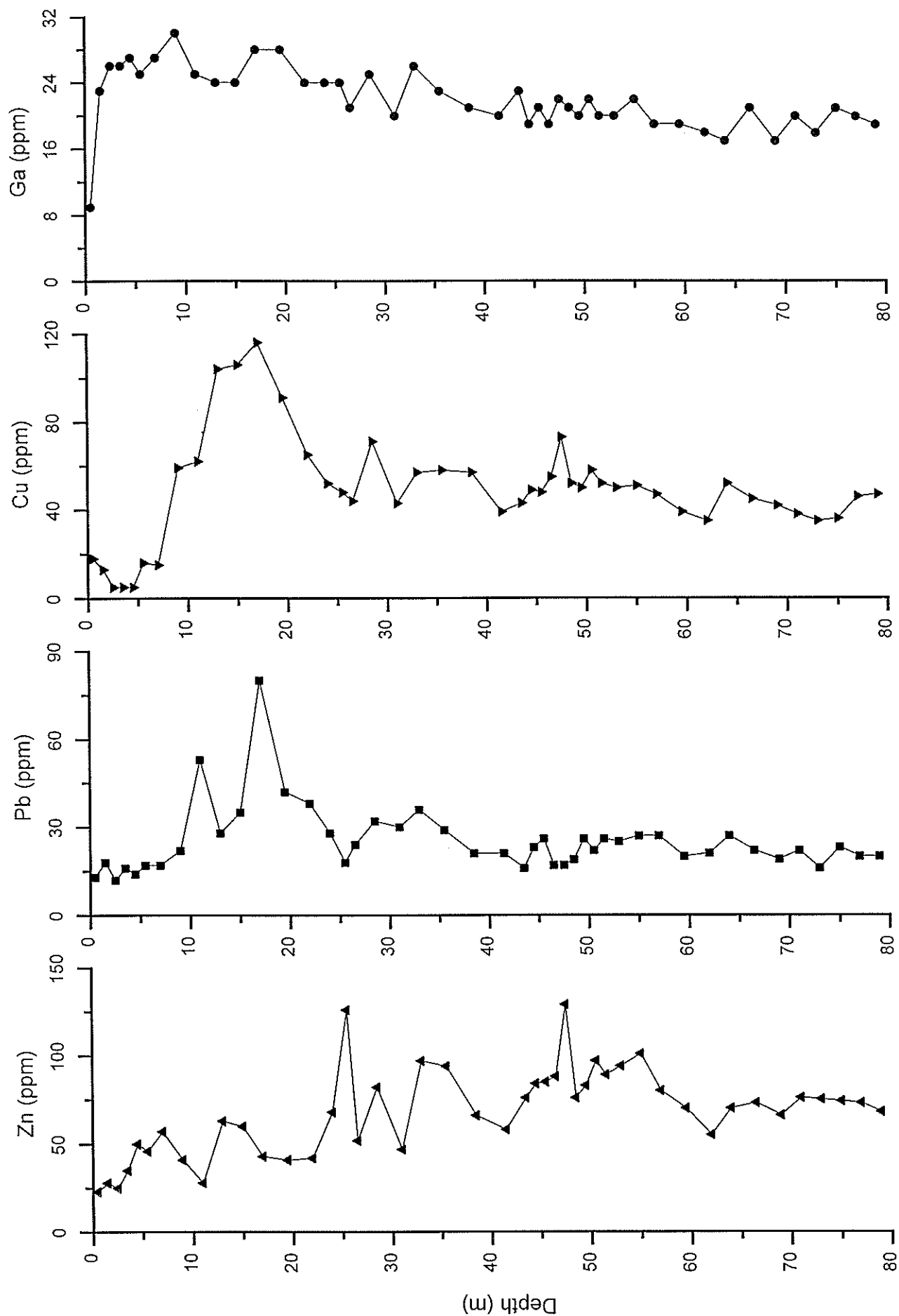


Figure A1.20: Zn, Pb, Cu and Ga data for drill hole JDCR53

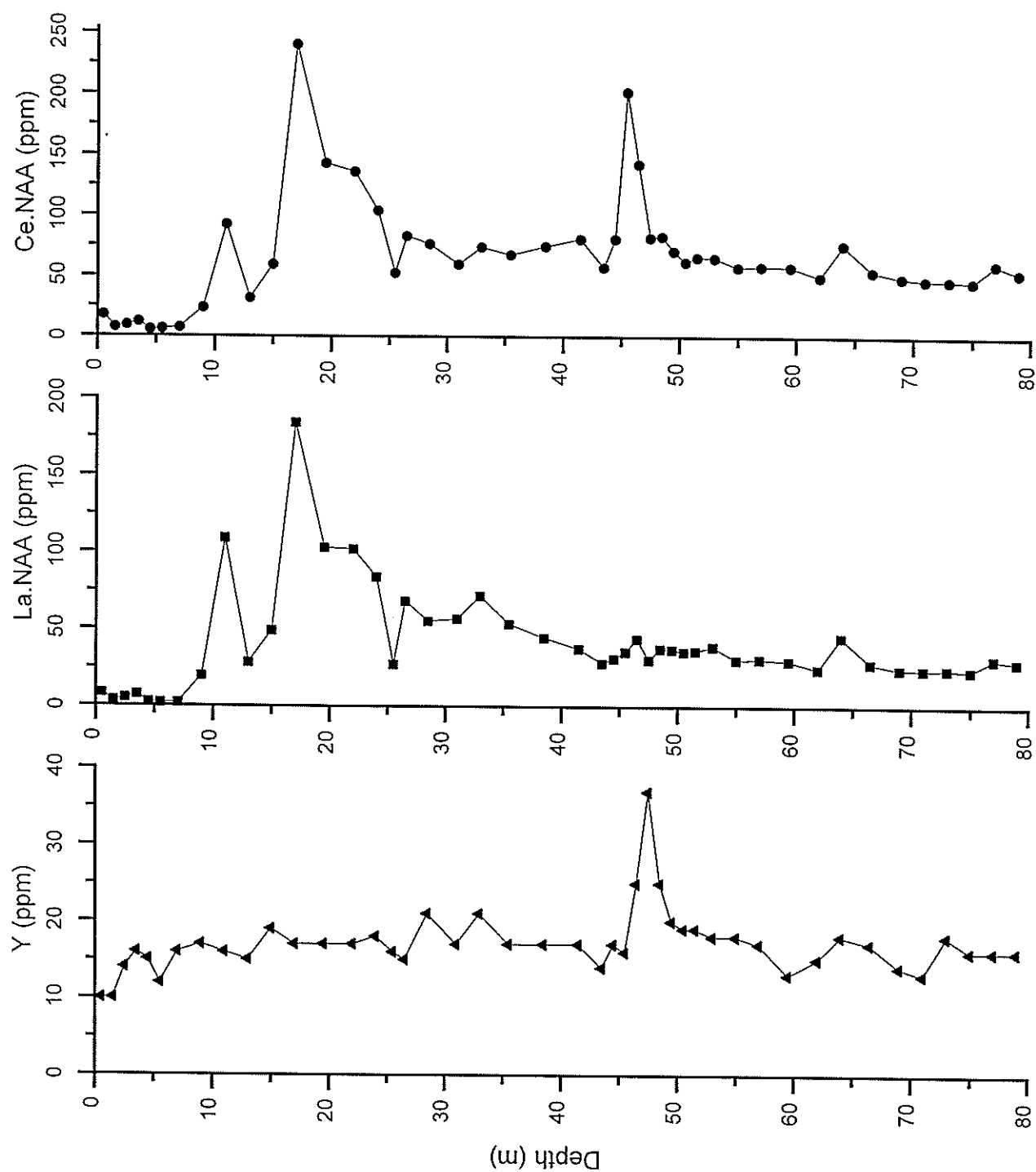


Figure A1.21: Y, La and Ce data for drill hole JDCR53

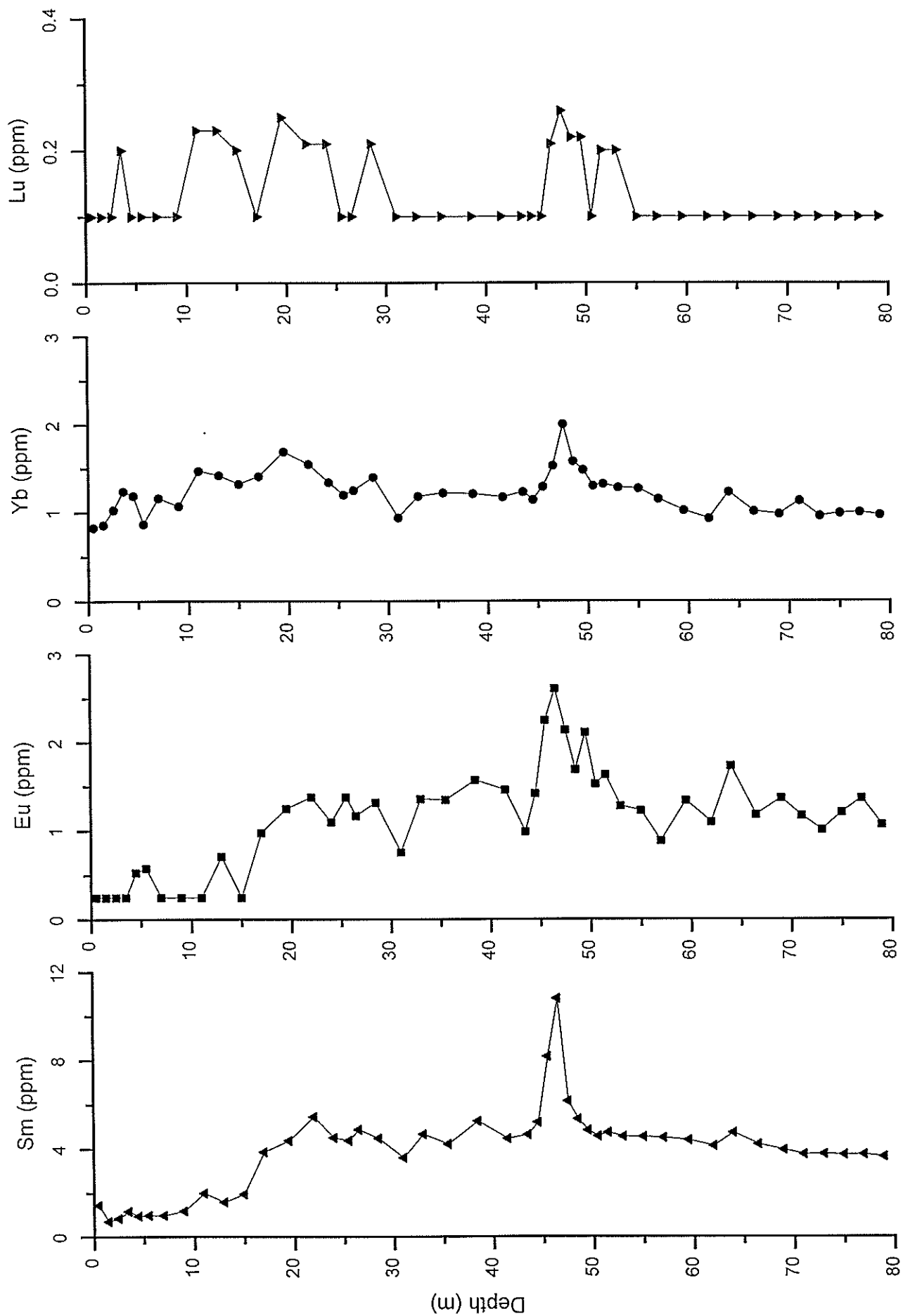


Figure A1.22: Sm, Eu, Yb and Lu data for drill hole JDCR53

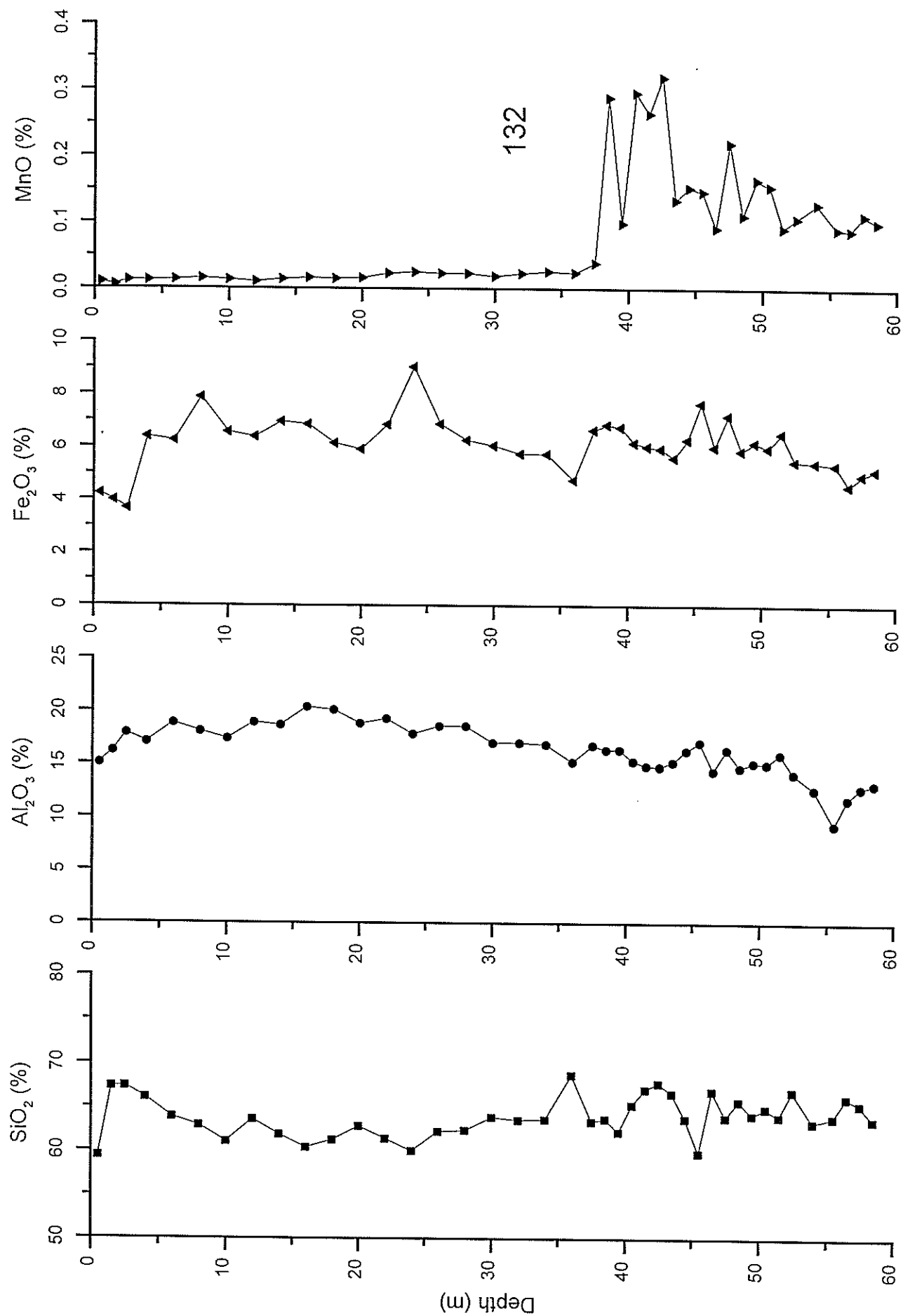


Figure A1.23: Si, Al, Fe and Mn data for drill hole JDRC8

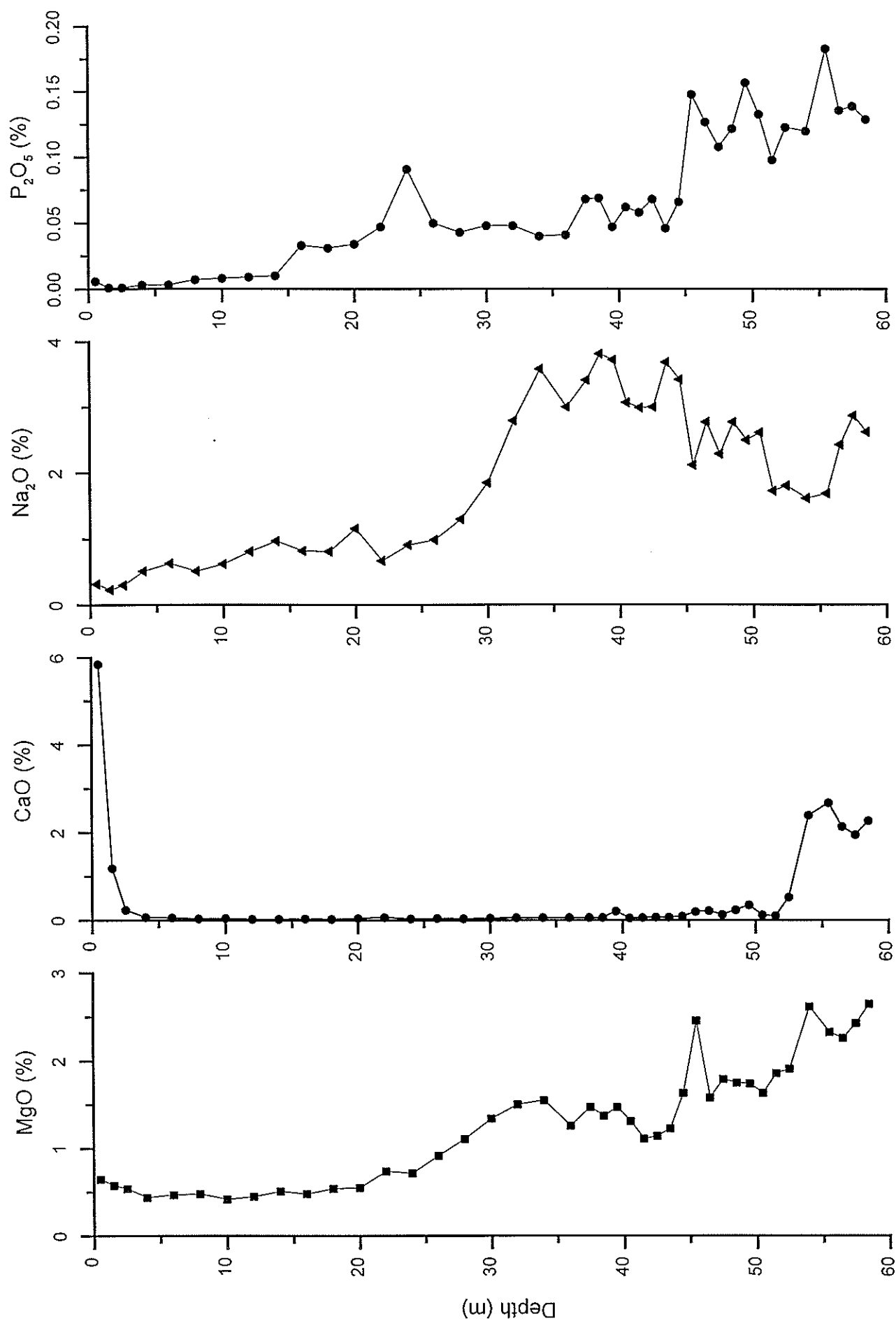


Figure A1.24: Mg, Ca, Na and P data for drill hole JDCR8

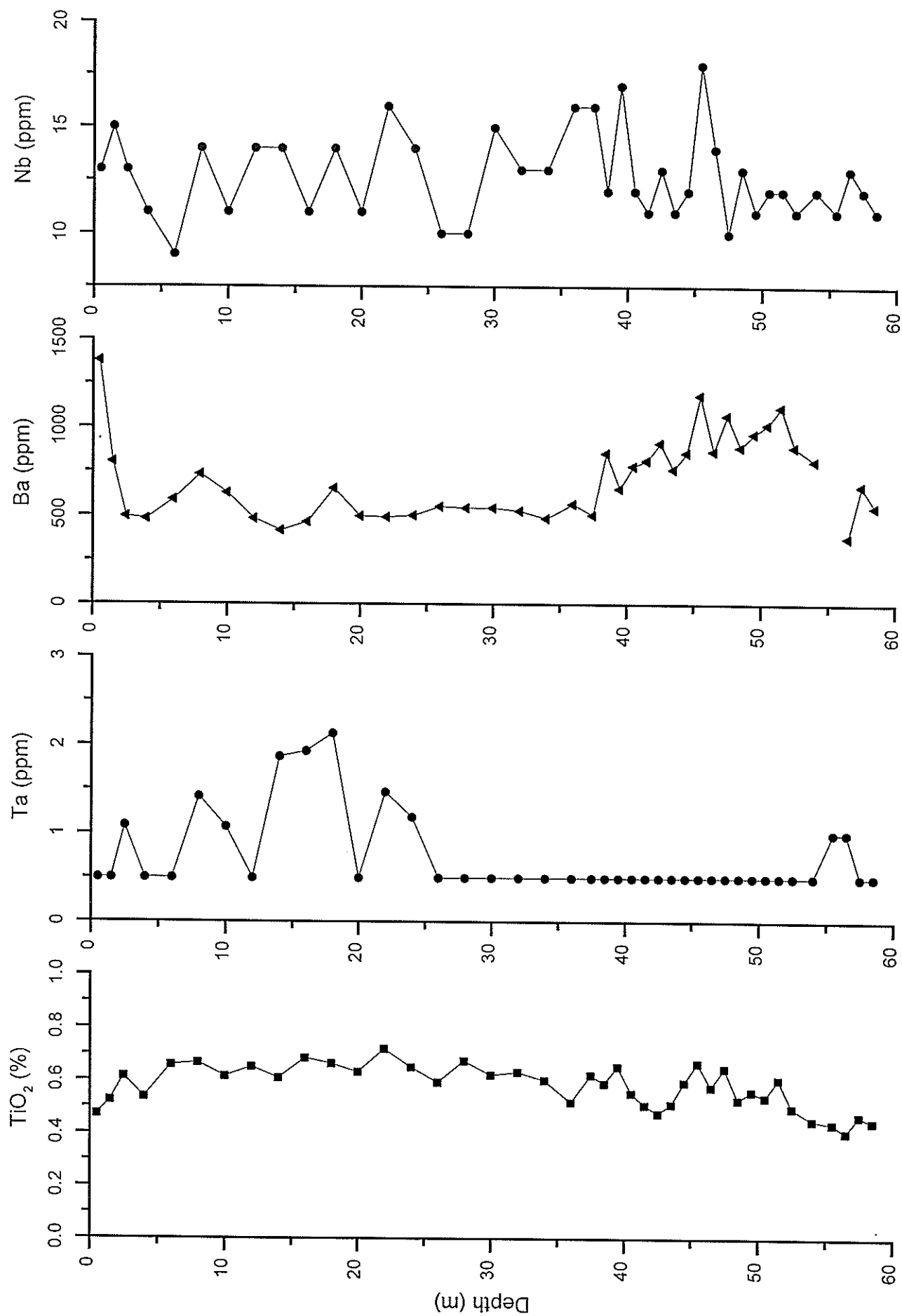


Figure A1.25: Ti, Ta, Ba and Nb data for drill hole JDCR8

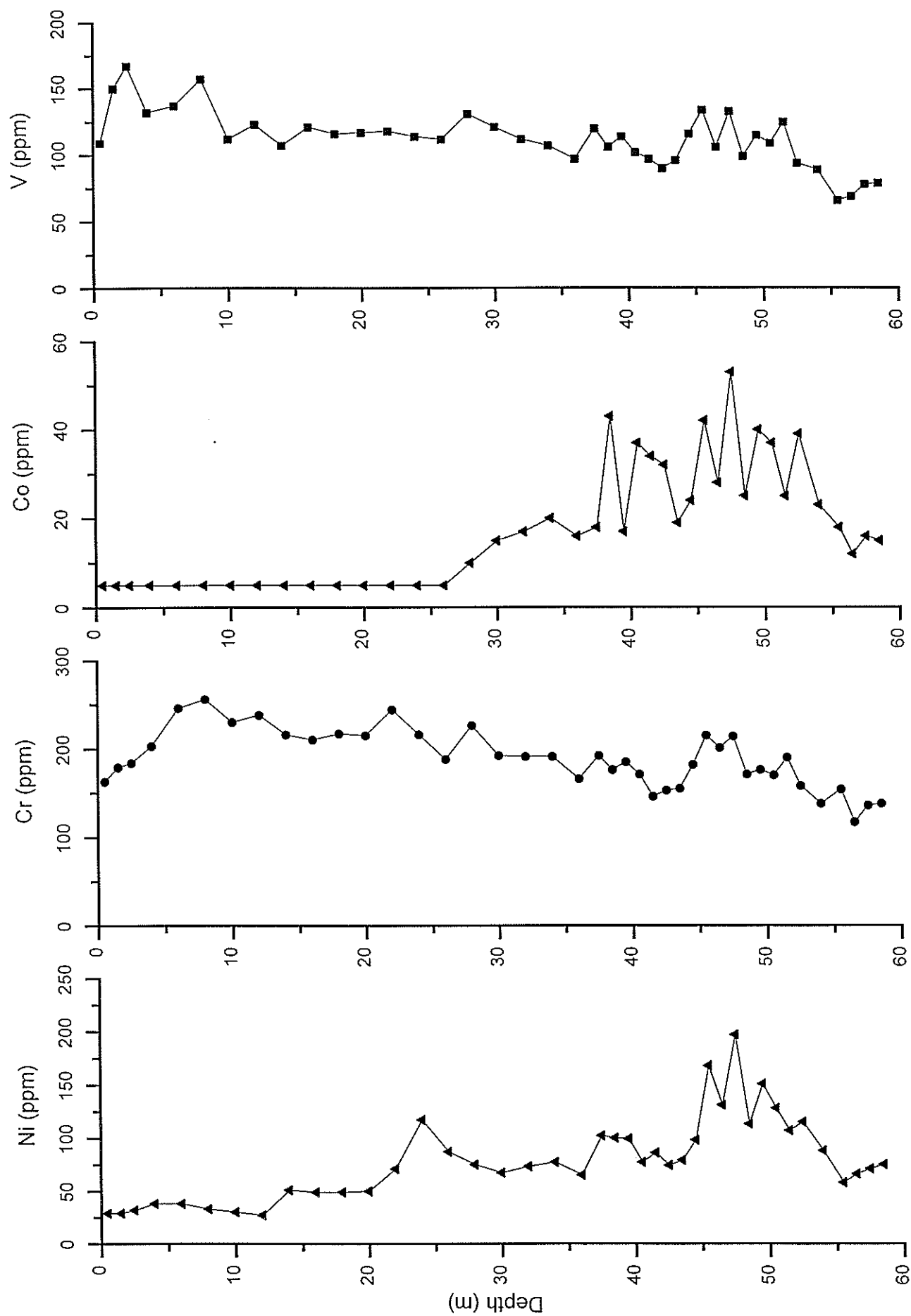


Figure A1.26: Ni, Cr, Co and V data for drill hole JDCR8

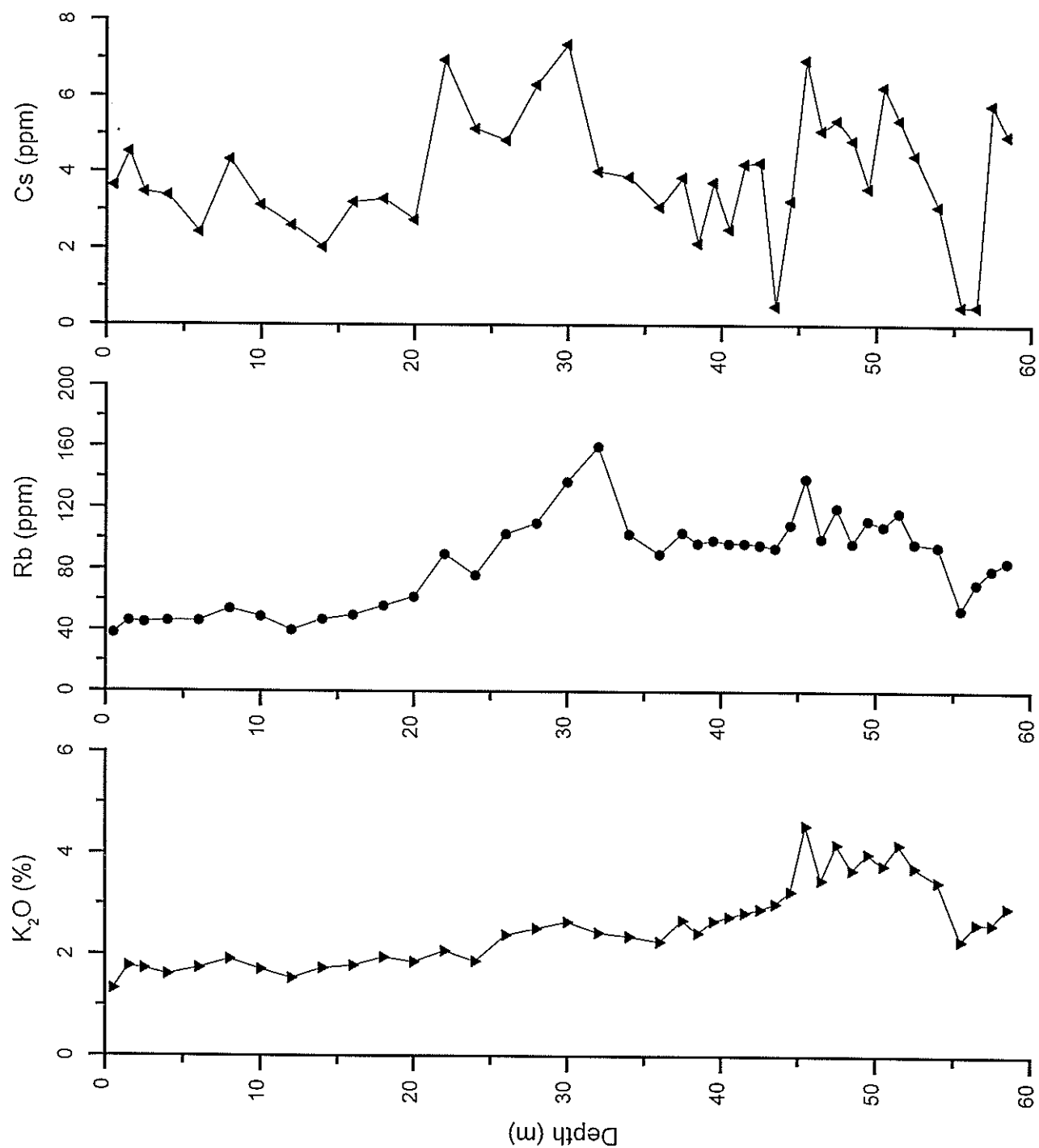


Figure A1.27: K, Rb and Cs data for drill hole JDCR8

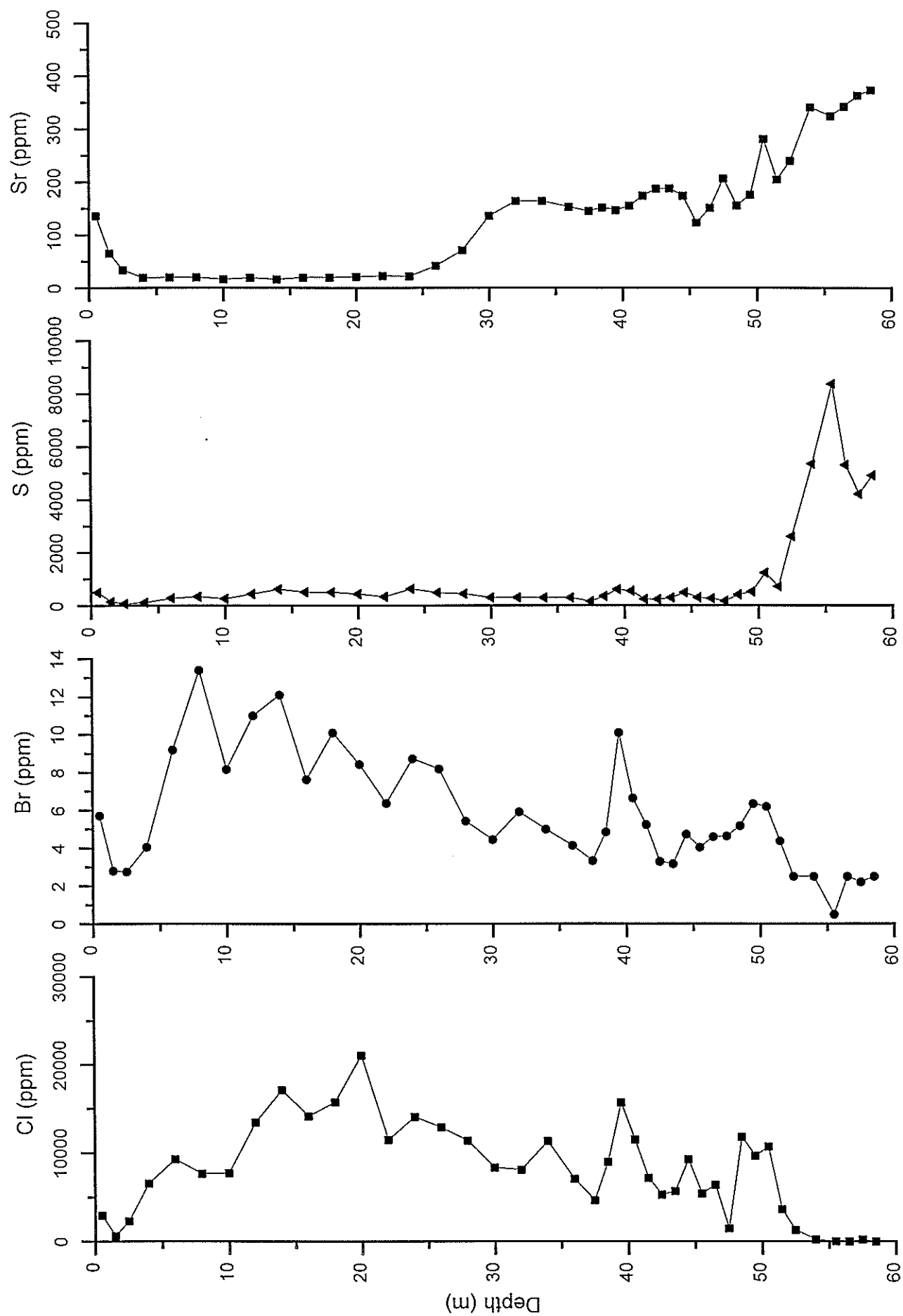


Figure A1.28: Cl, Br, S and Sr data for drill hole JDCR8

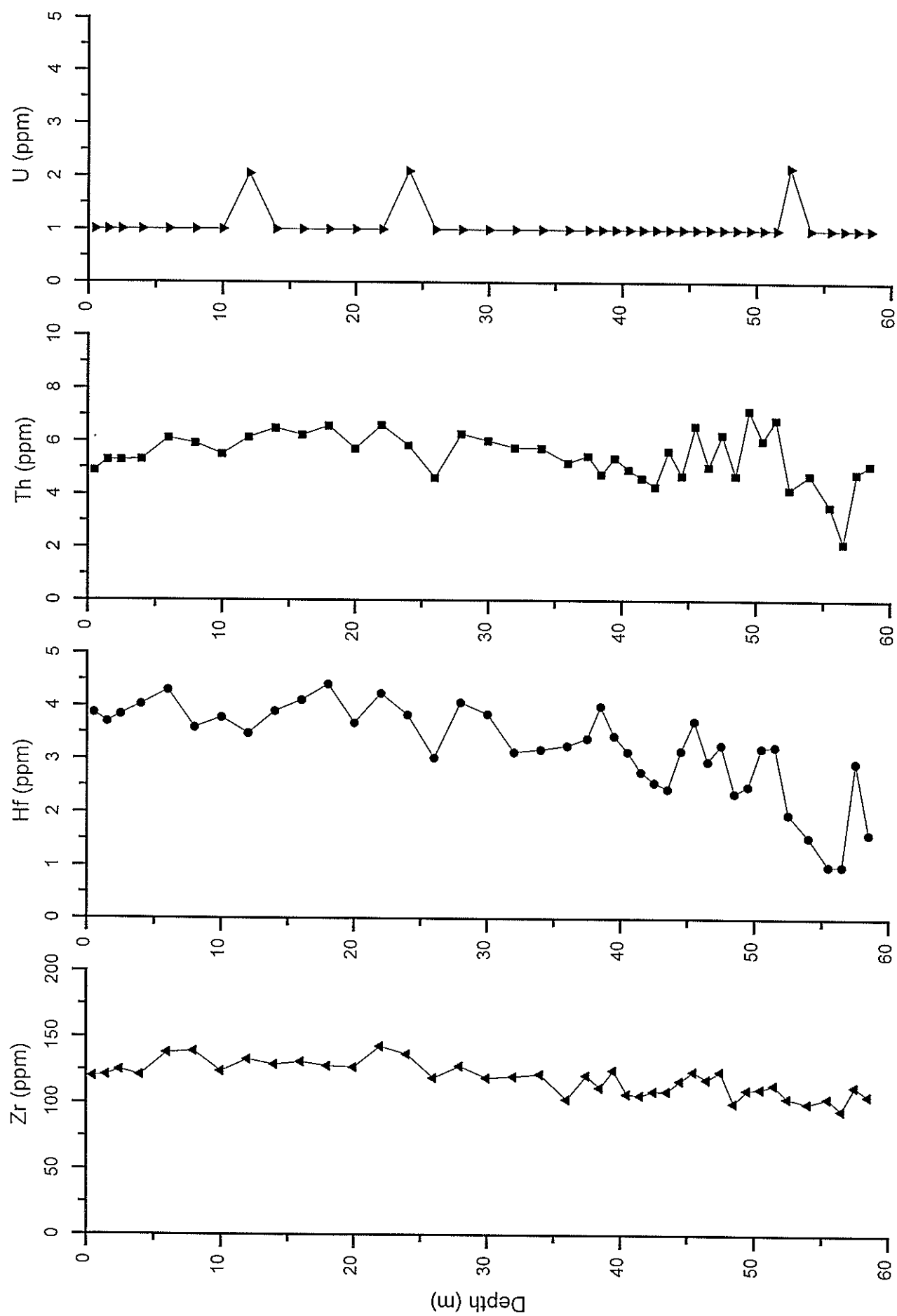


Figure A1.29: Zr, Hf, Th and U data for drill hole JDCR8

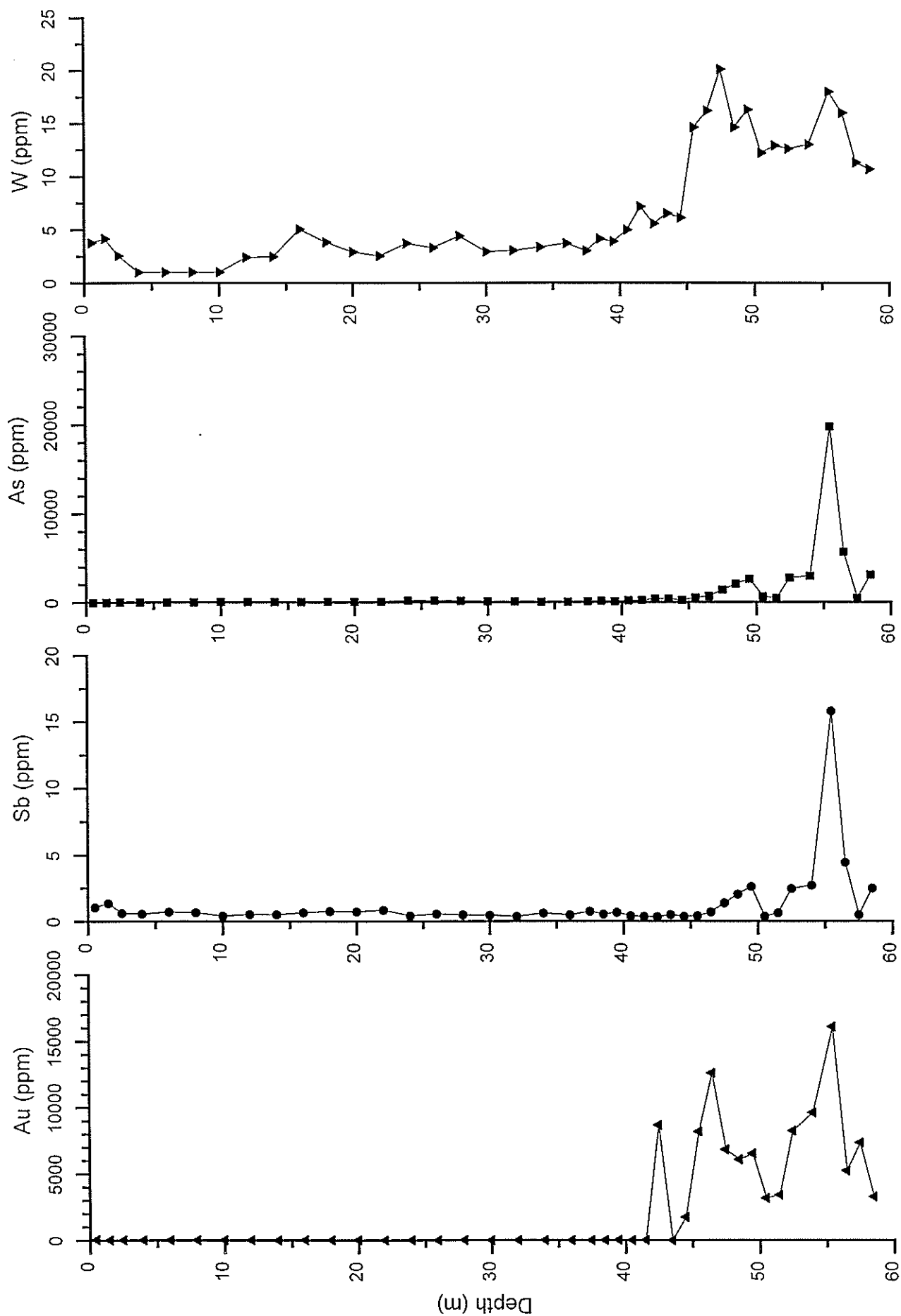


Figure A1.30: Au, Sb, As and W data for drill hole JDCR8

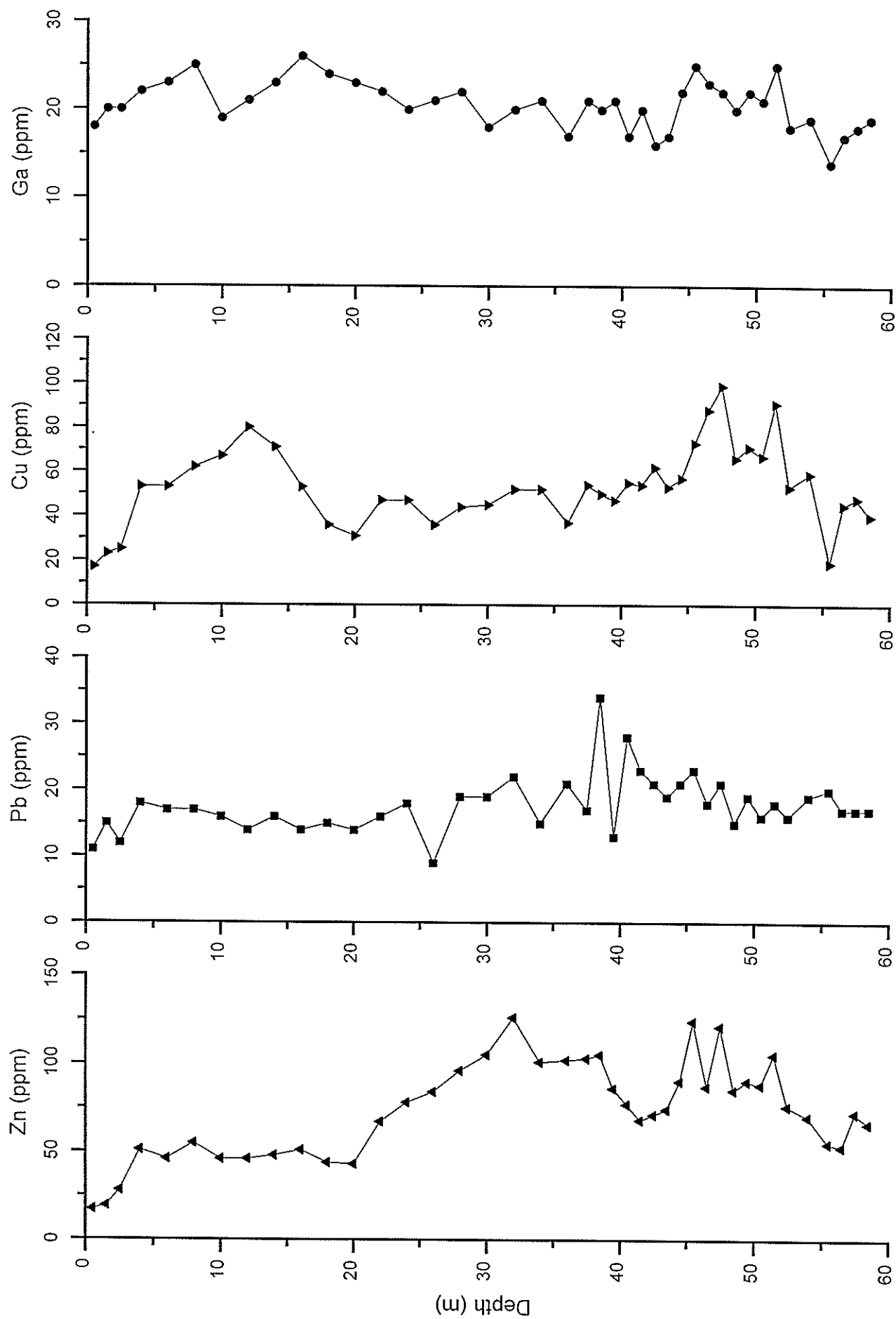


Figure A1.31: Zn, Pb, Cu and Ga data for drill hole JDCR8

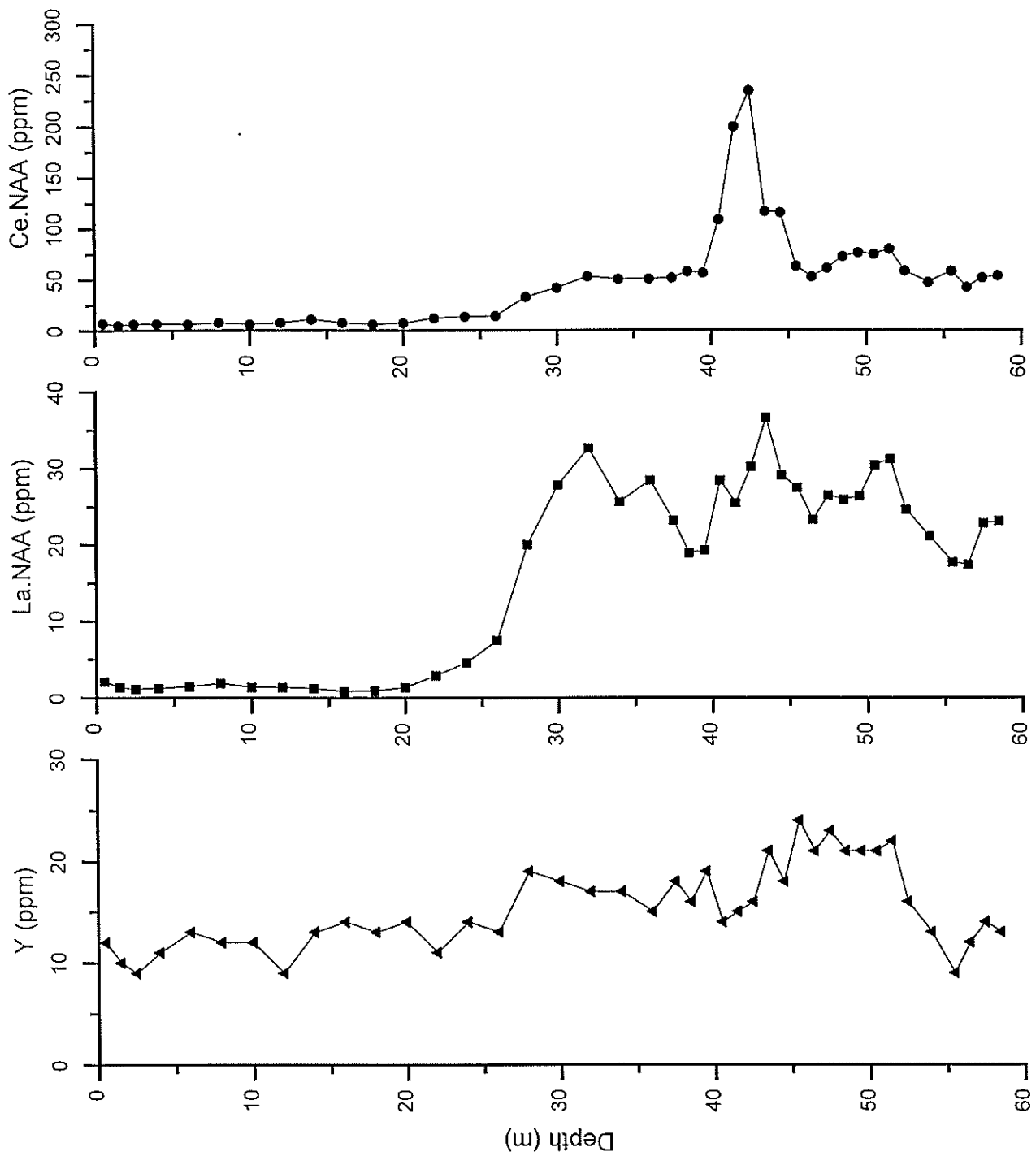


Figure A1.32: Y, La and Ce data for drill hole JDCR8

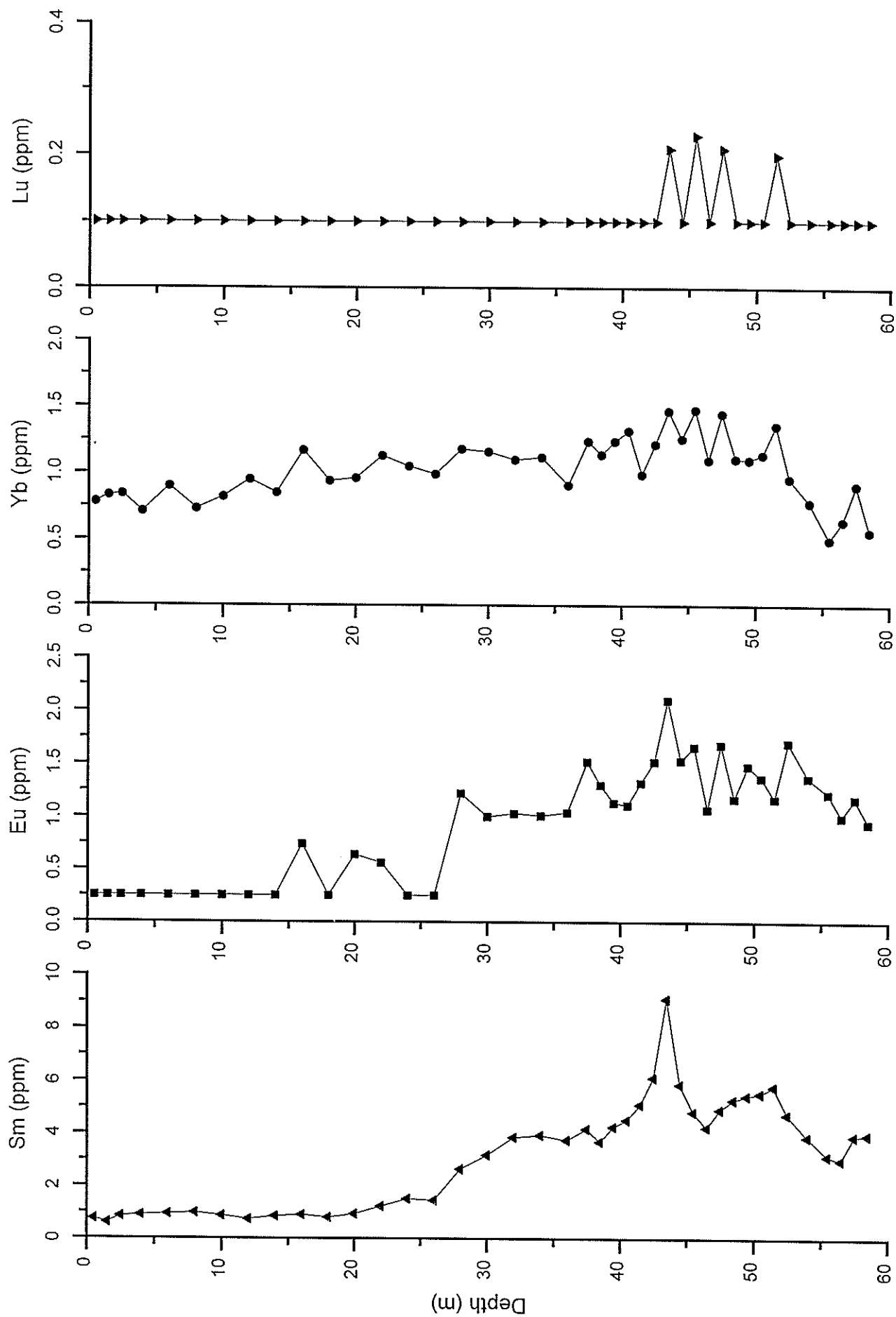


Figure A1.33: Sm, Eu, Yb and Lu data for drill hole JDCR8

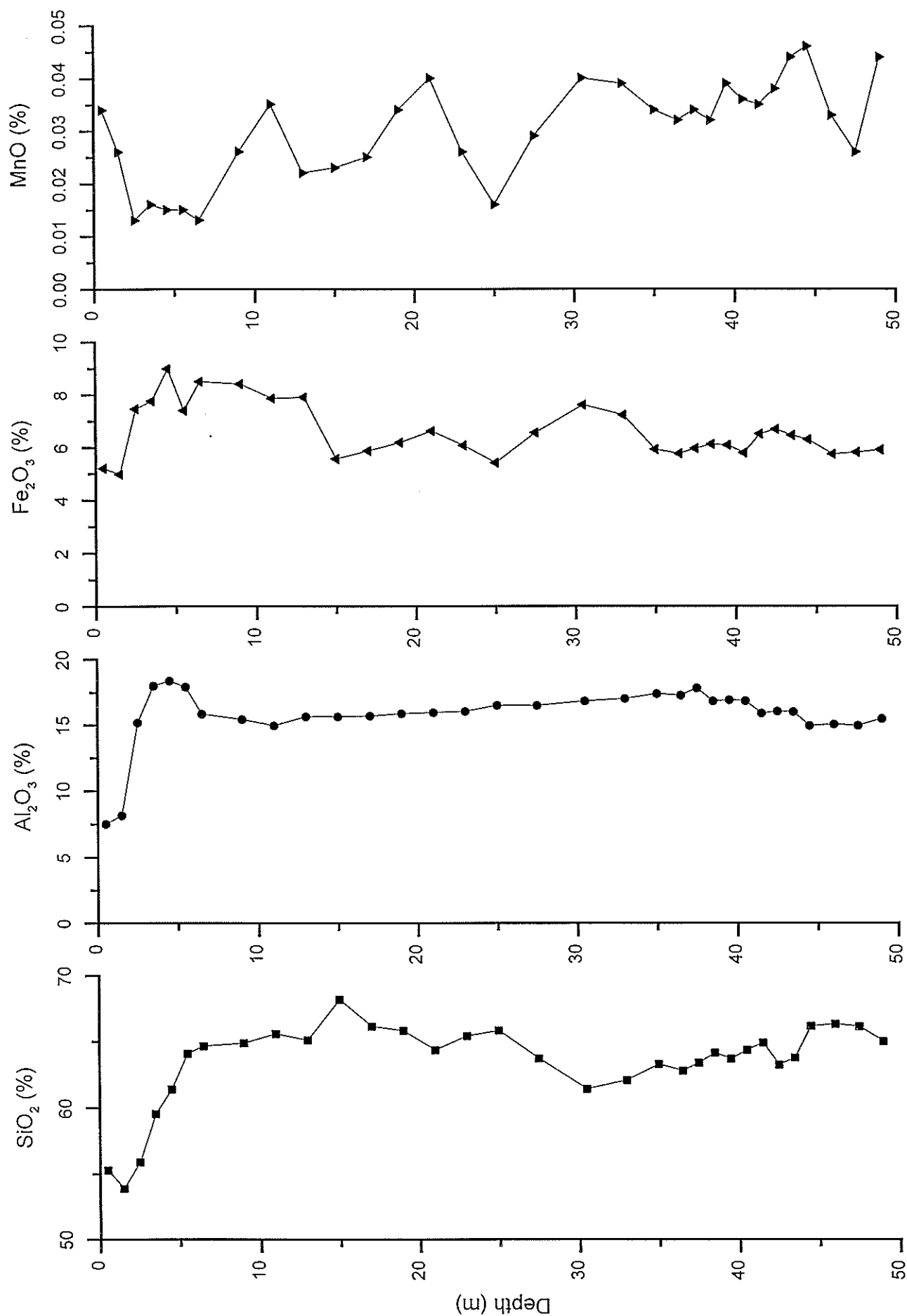


Figure A1.34: Si, Al, Fe and Mn data for drill hole JDRC118

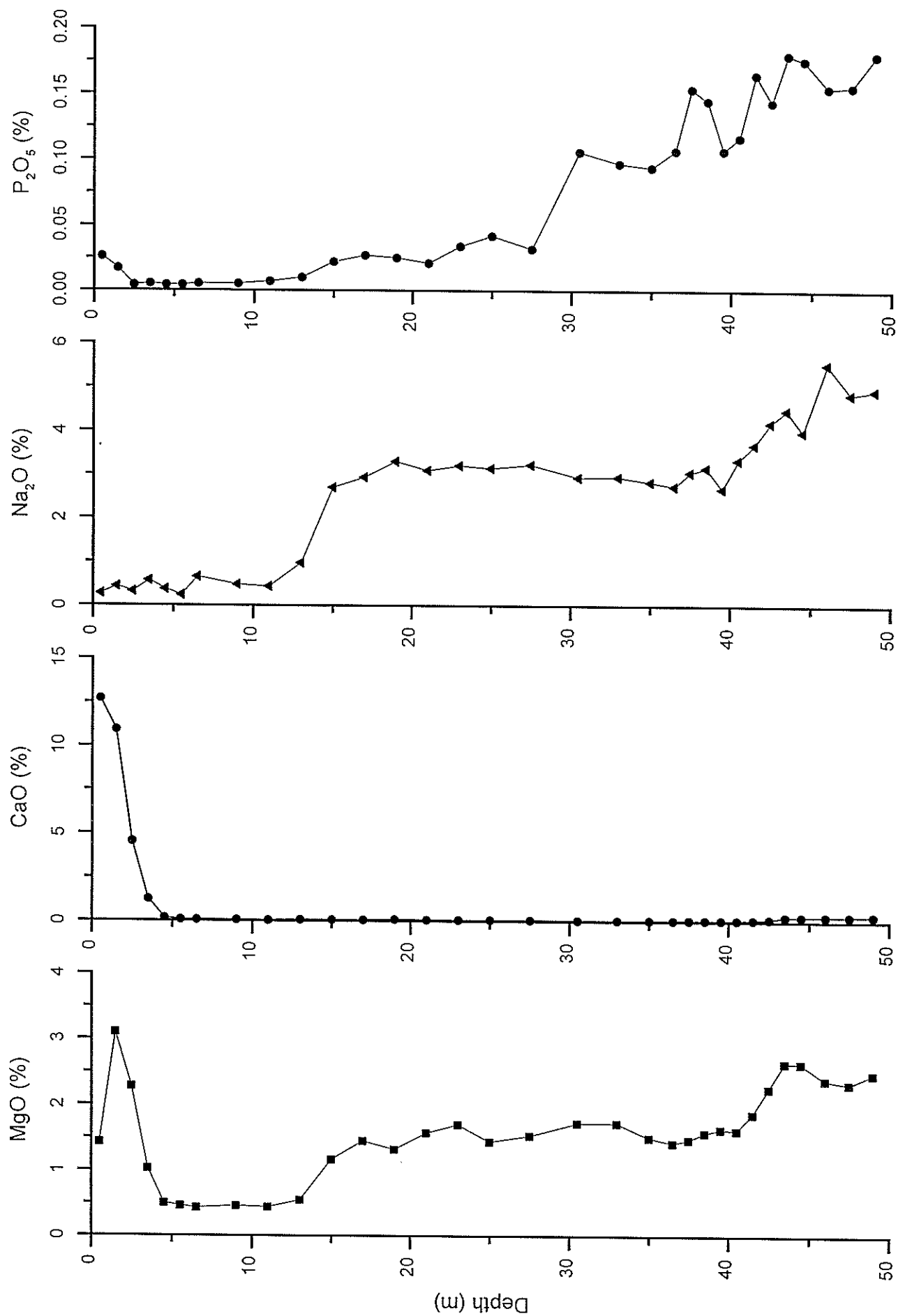


Figure A1.35: Mg, Ca, Na and P data for drill hole JDRC118

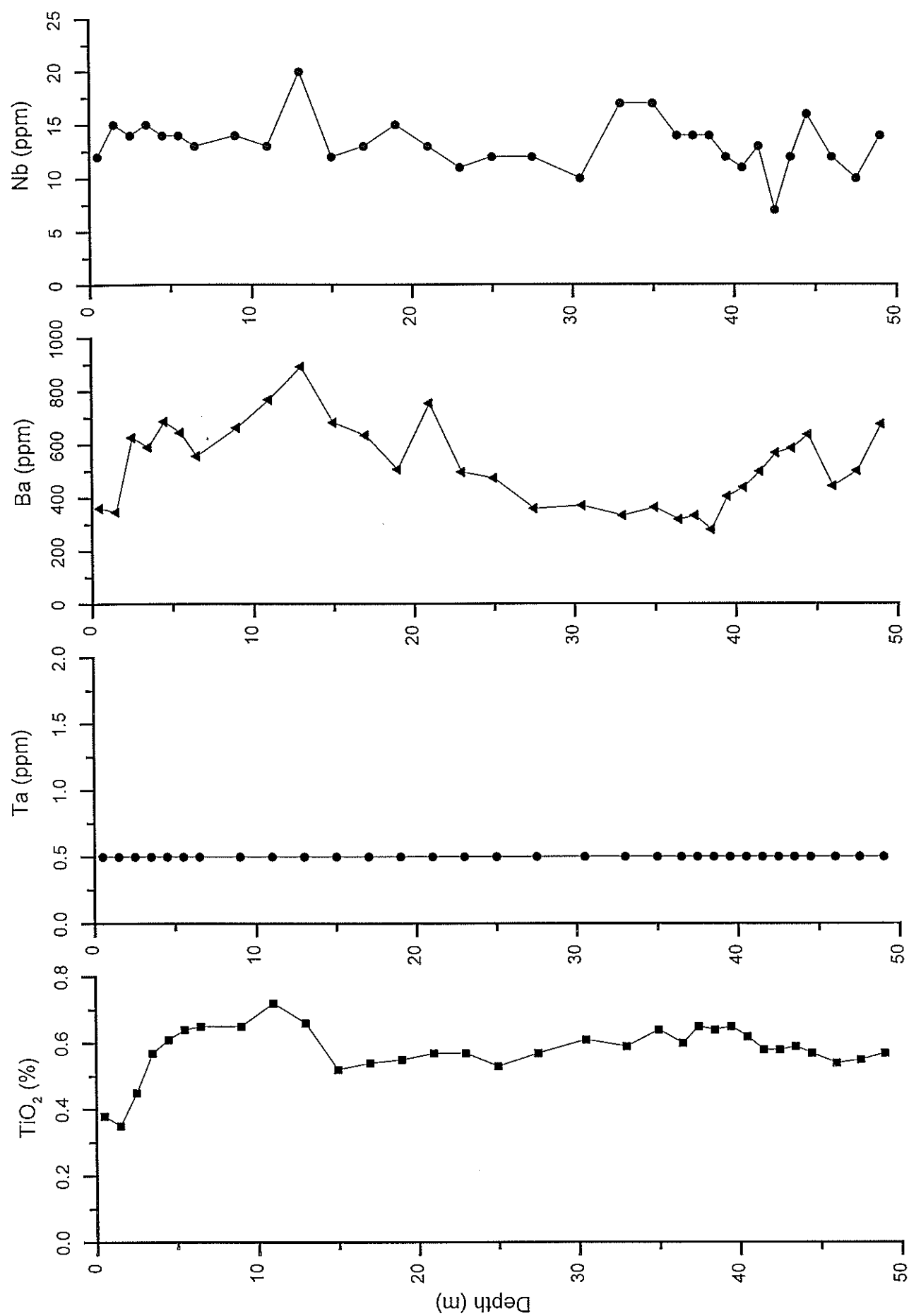


Figure A1.36: Ti, Ta, Ba and Nb data for drill hole JDRC118

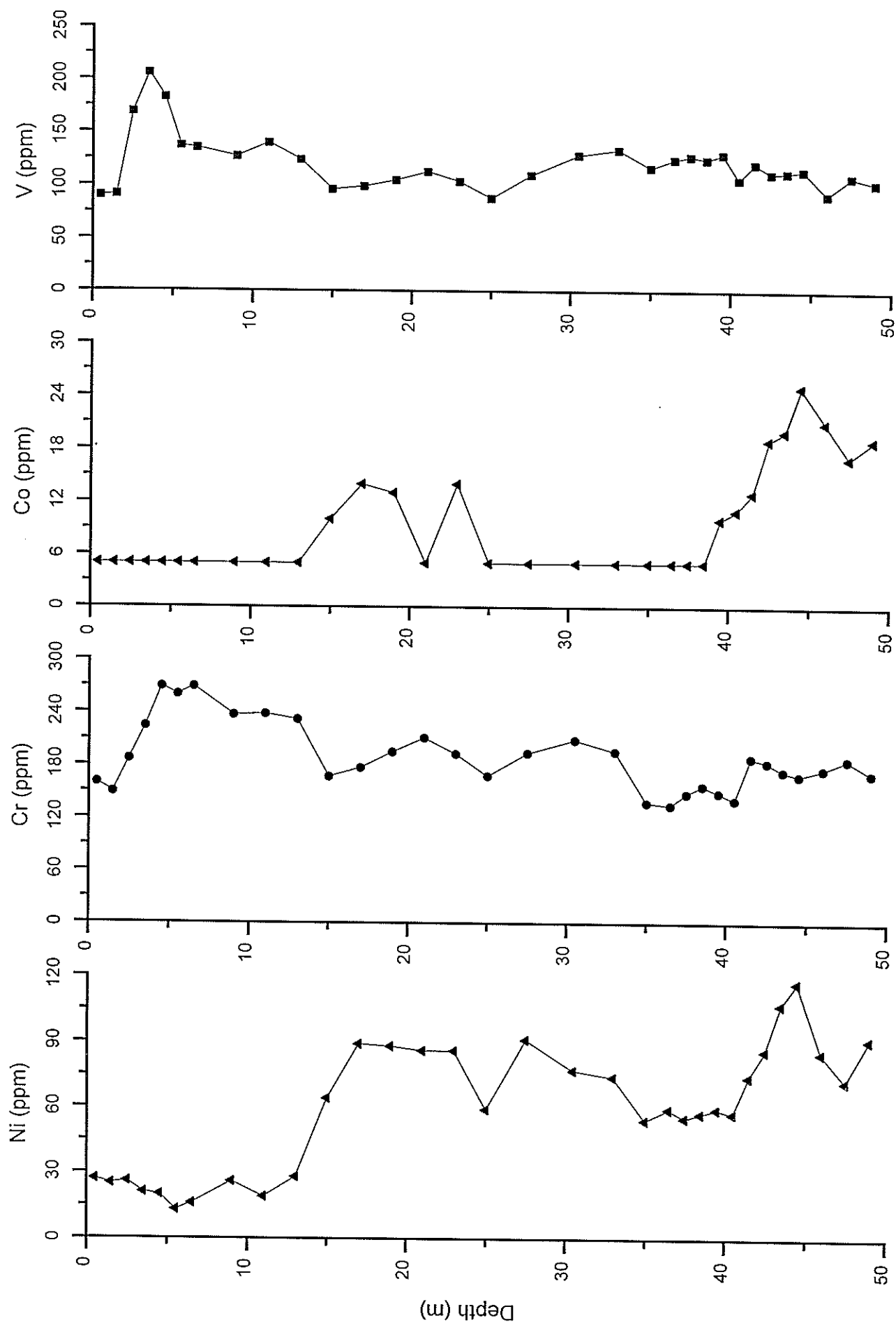


Figure A1.37: Ni, Cr, Co and V data for drill hole JDRC118

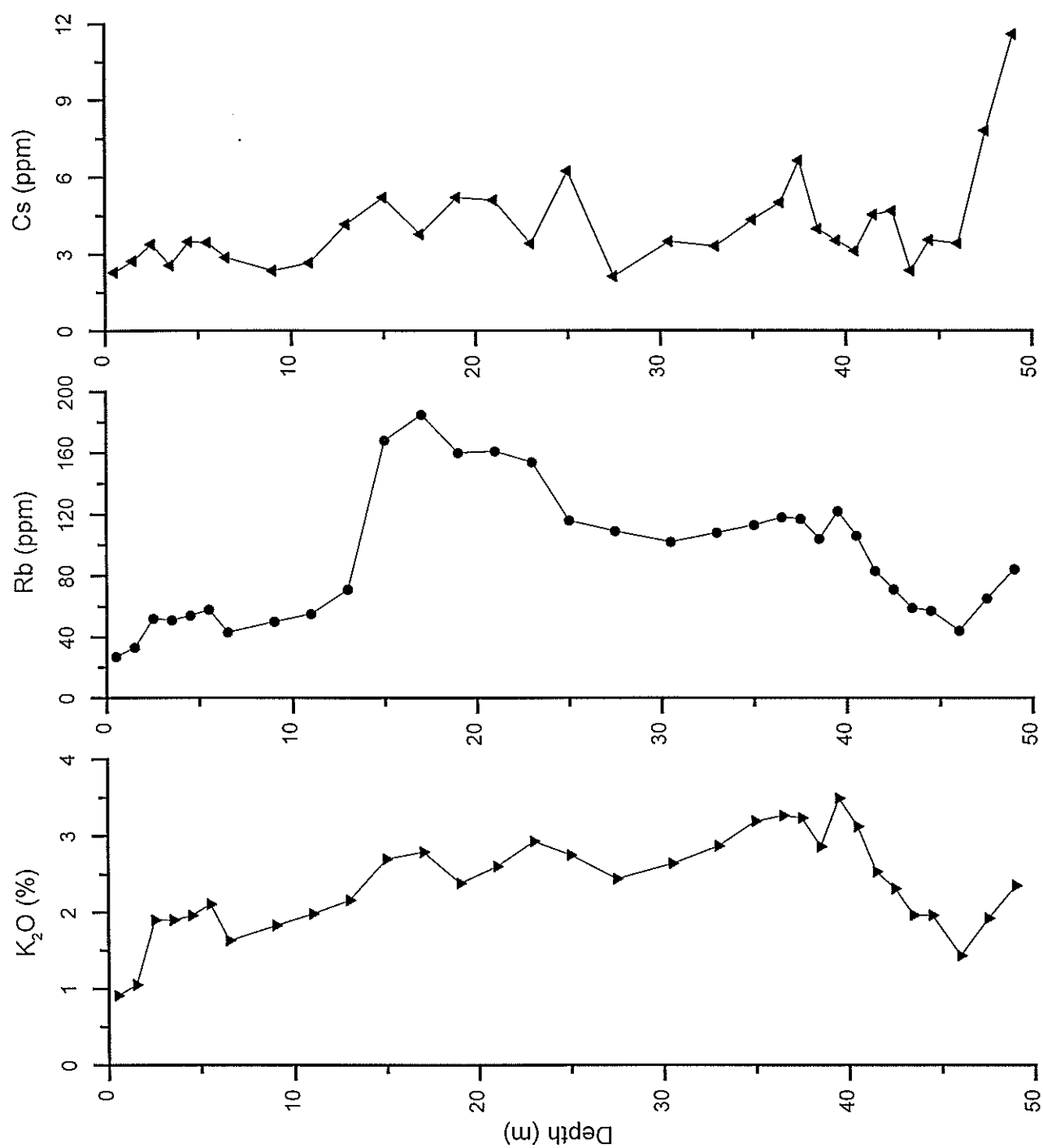


Figure A1.38: K, Rb and Cs data for drill hole JDRC118

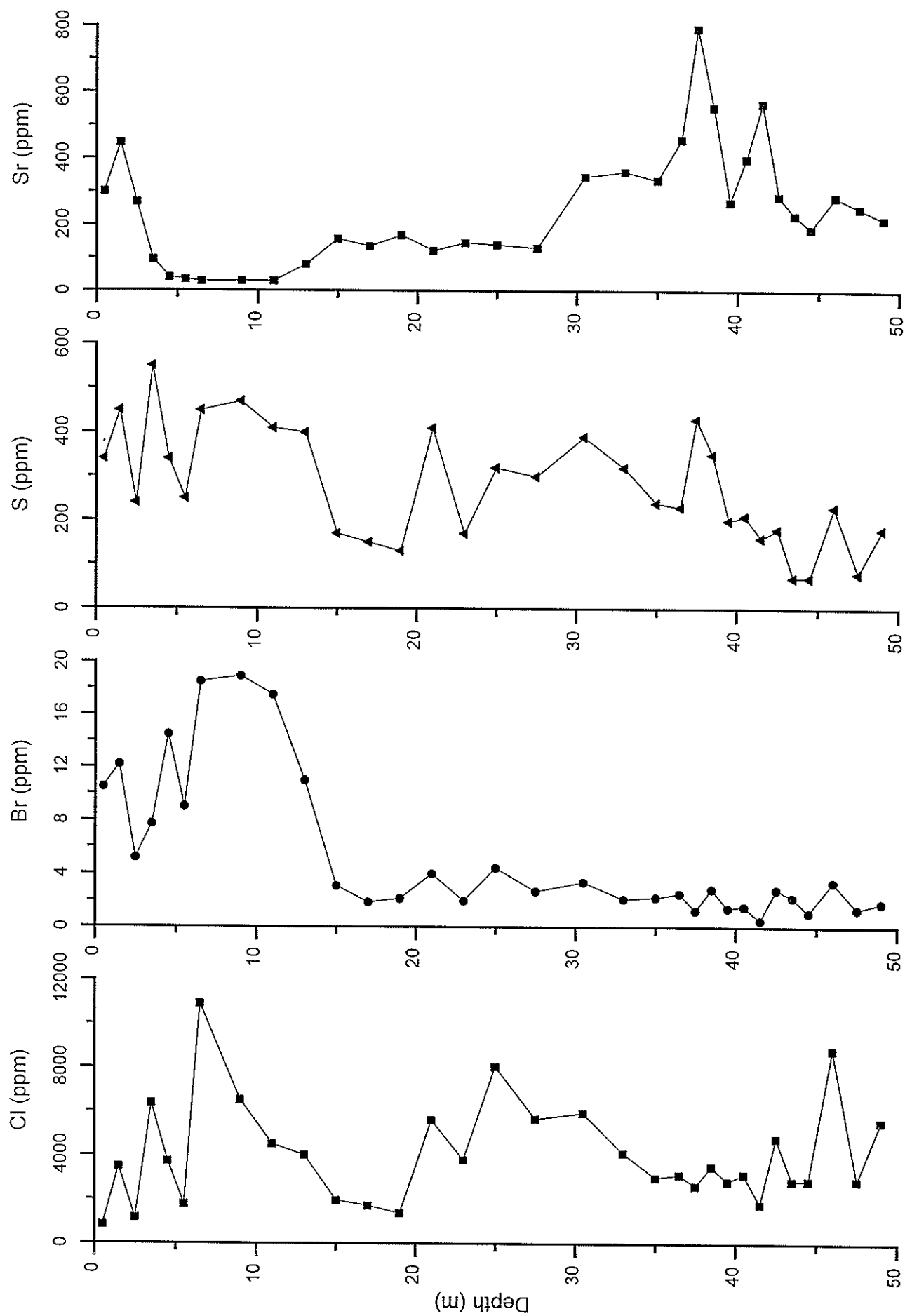


Figure A1.39: Cl, Br, S and Sr data for drill hole JDRC118

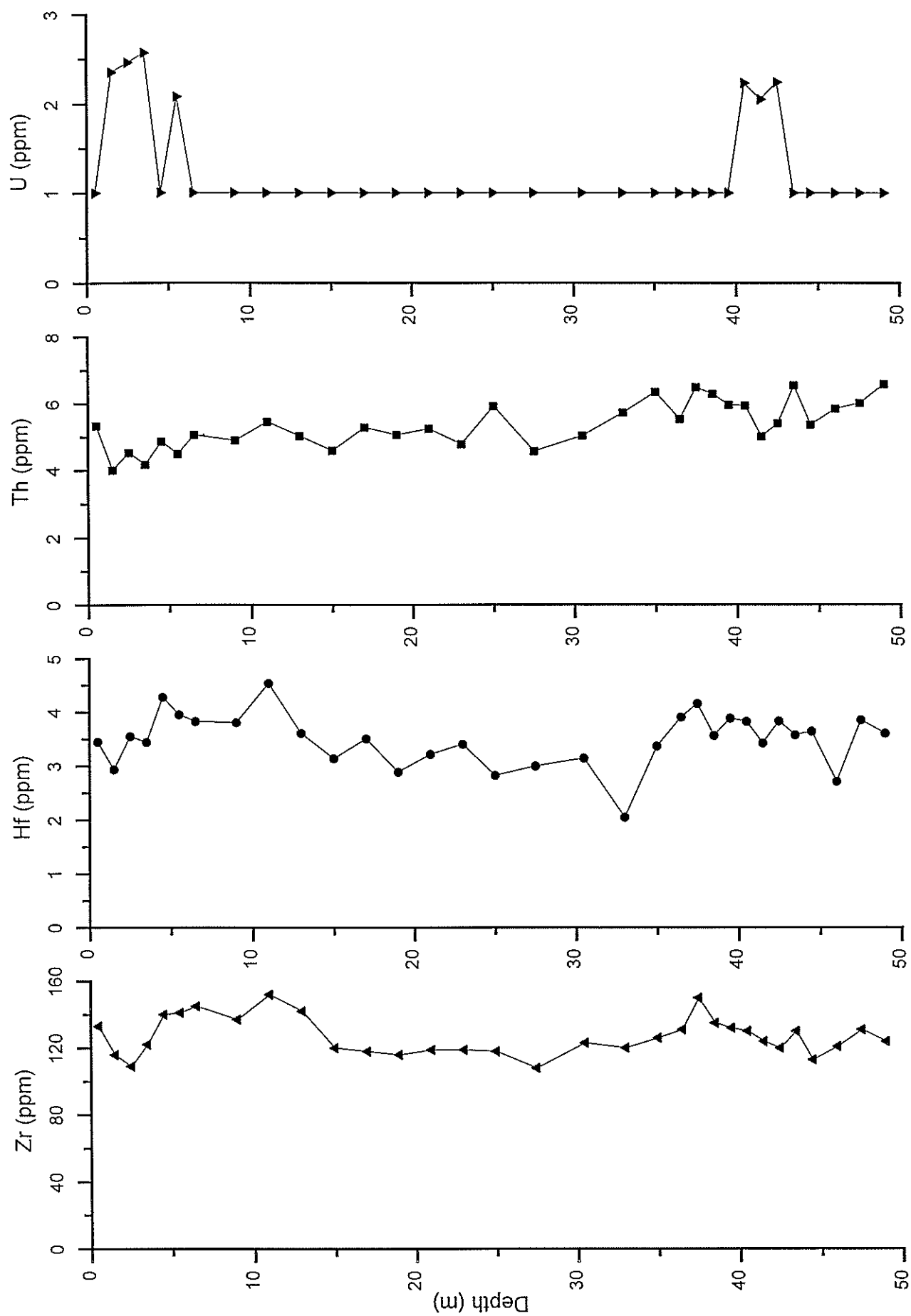


Figure A1.40: Zr, Hf, Th and U data for drill hole JDRC118

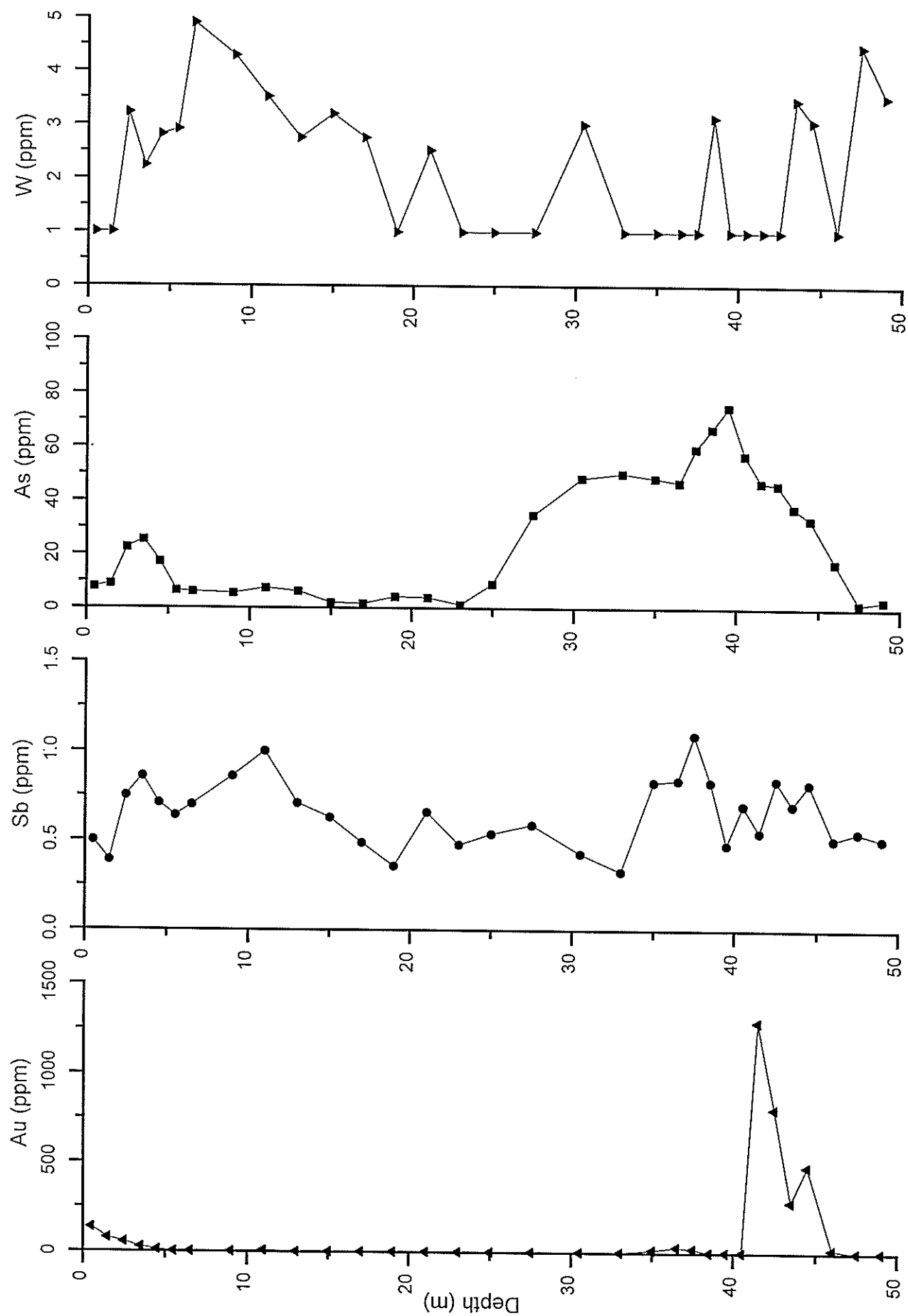


Figure A1.41: Au, Sb, As and W data for drill hole JDRC118

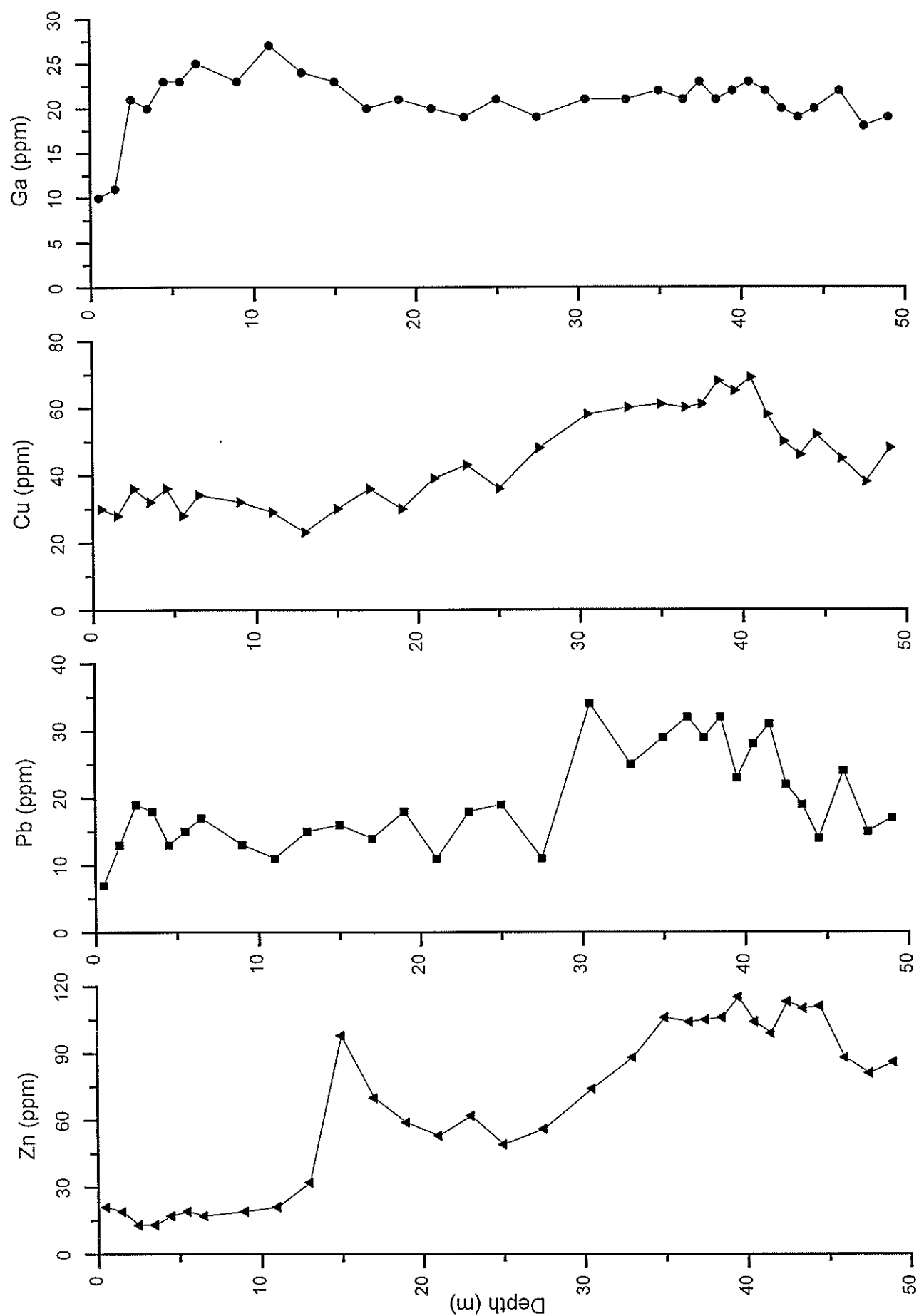


Figure A1.42: Zn, Pb, Cu and ga data for drill hole JDRC118

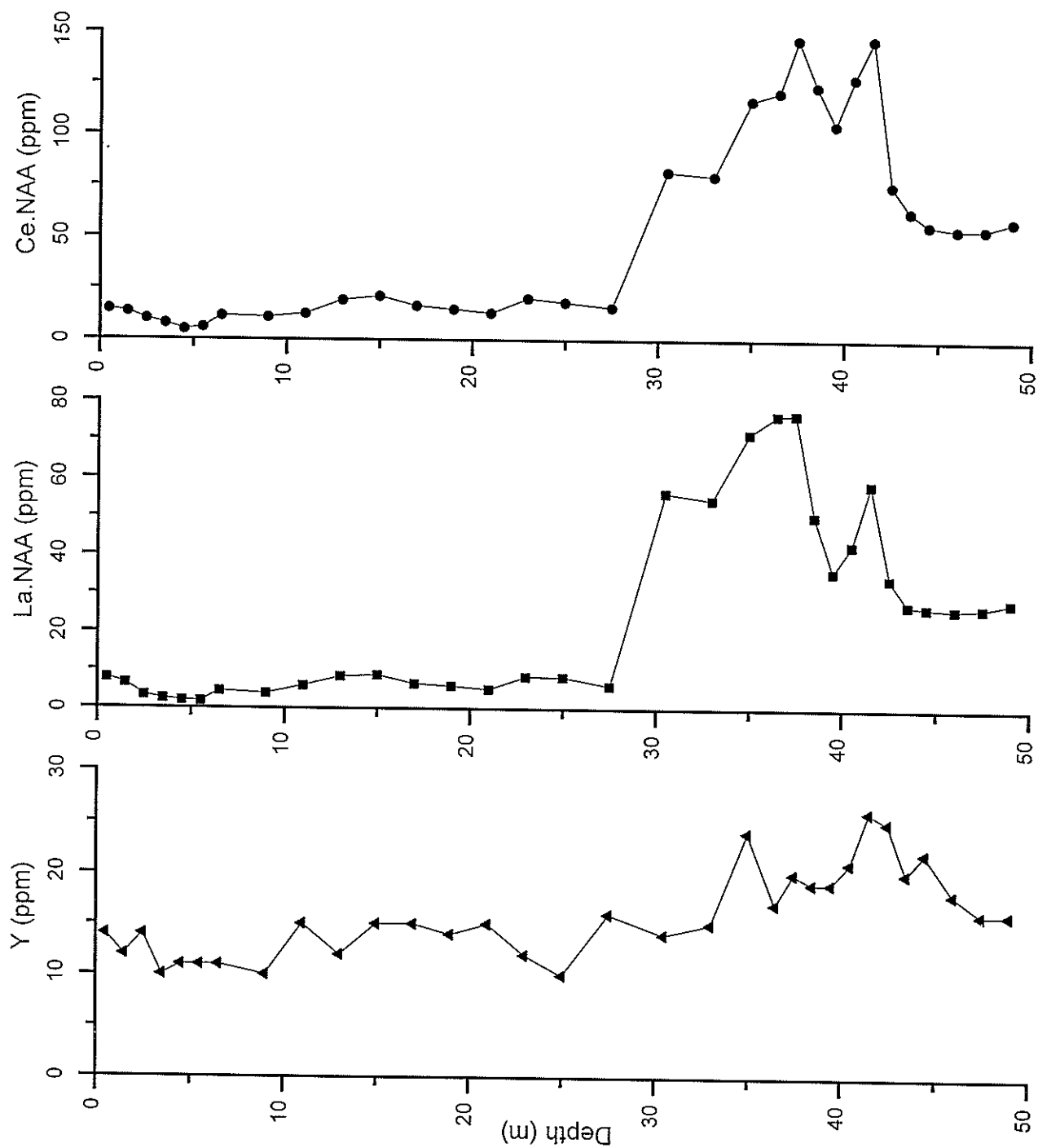


Figure A1.43: Y, La and Ce data for drill hole JDRC118

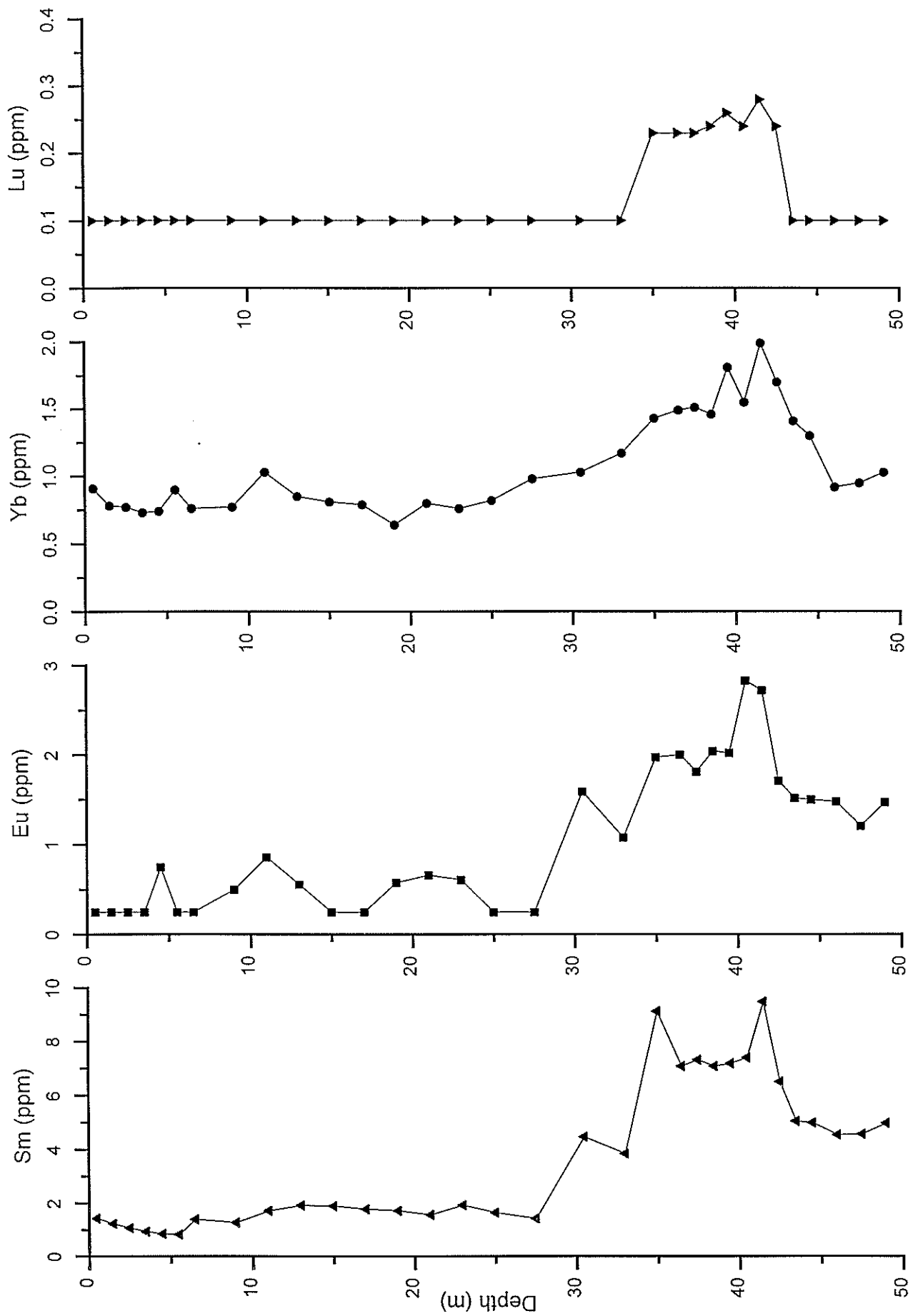


Figure A1.44: Sm, Eu, Yb and Lu data for drill hole JDRC118

Tree Diagram for 41 Variables
1-Pearson r n=32

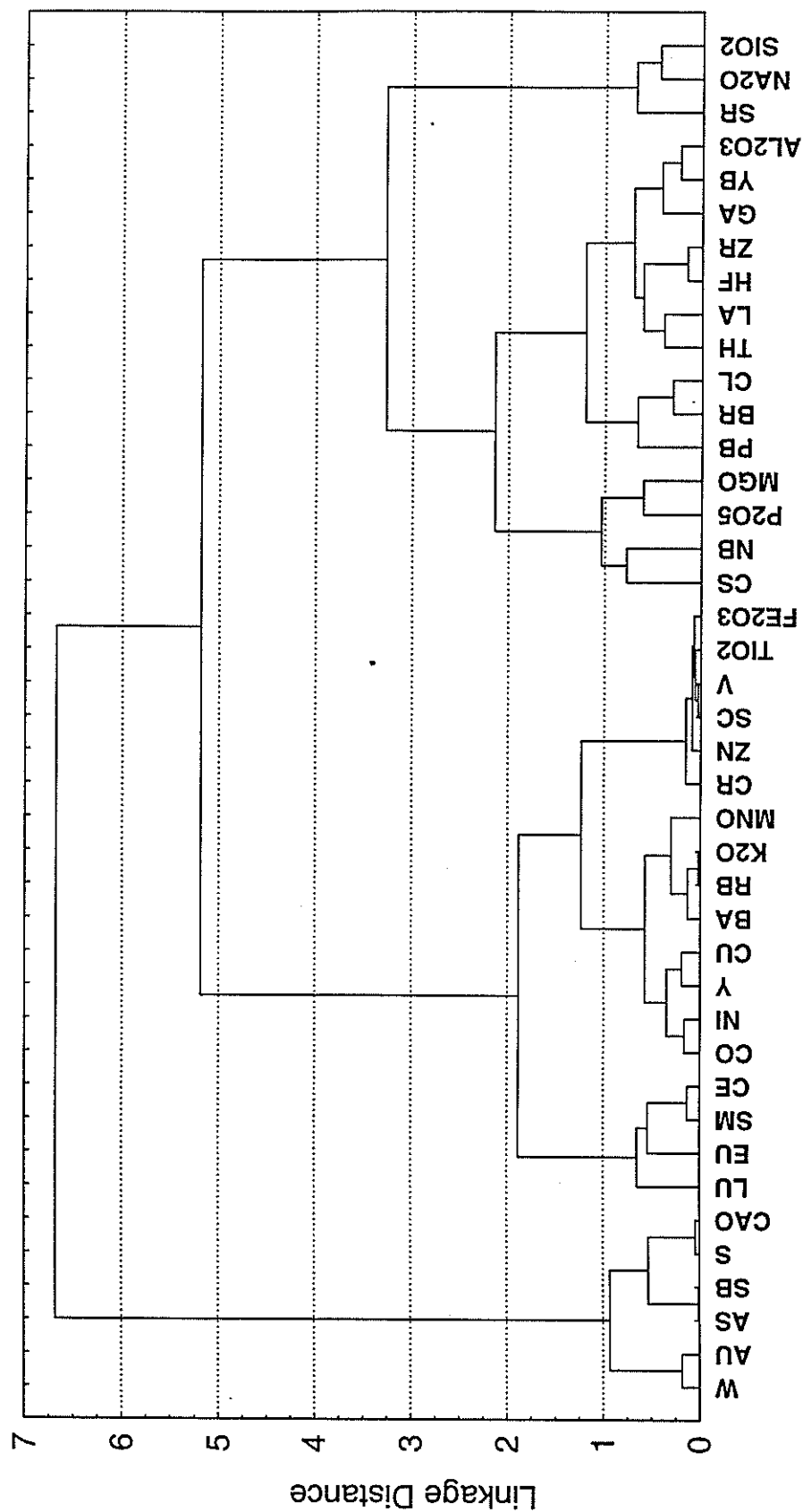


Figure A1.45: Associations of elements within the saprolite below the supergene
Au enrichment and dispersion halo, Twin Peaks

Tree Diagram for 41 Variables

1-Pearson r n=64

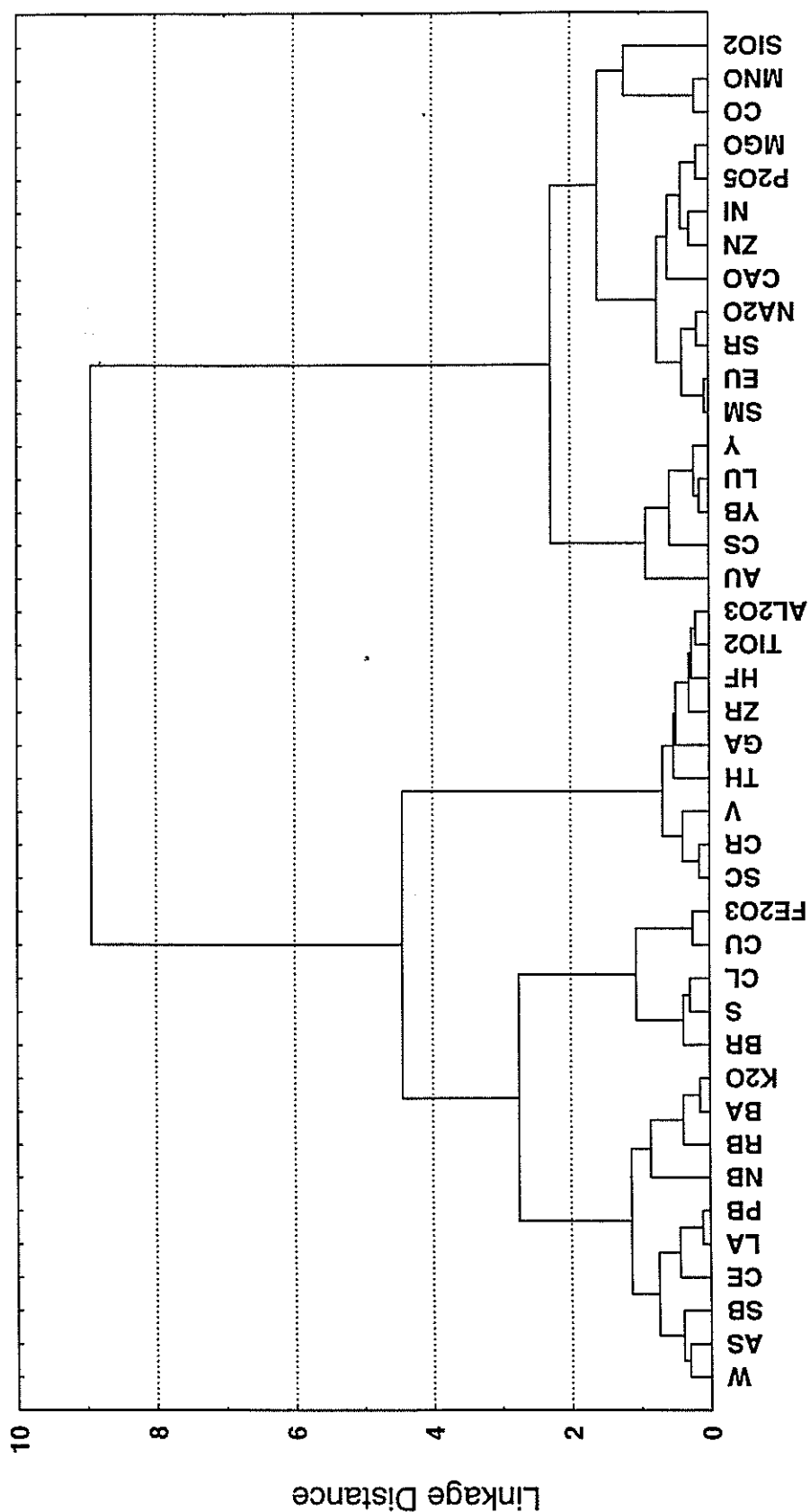


Figure A1.46: Associations of elements within the Au depleted zone and saprolite dispersion halo, Twin Peaks

TABLE A1.11 : Raw Geochemical Data, Monty Dam.

Hole	Upper Depth (m)	Lower Depth (m)	Fe (%)	Na (%)	K (%)	Ba (ppm)	Au (ppb)	Sb (ppm)	As (ppm)	Br (ppm)	Ce (ppm)	Eu (ppm)	La (ppm)	Lu (ppm)	Sm (ppm)	Yb (ppm)	Cs (ppm)	Cr (ppm)
62	22	23	3.79	2.73	3.85	1030	2.5	2.24	4.11	5.7	168	3.24	91.5	0.37	15.8	2.64	9.76	183
62	23	24	3.4	2.71	3.08	839	10.6	1.26	1.43	7.02	82.4	2.29	47.5	0.1	8.26	1.25	9.16	187
62	24	28	3.77	3.05	2.36	696	2.5	1.92	4.55	5.67	69.6	1.45	39.3	0.1	6.21	1.19	4.33	155
62	28	29	2.34	2.29	3.1	866	11.2	1.75	4.74	7.94	75.3	1.54	45	0.1	6.68	1.28	2.13	166
62	29	31	4.13	1.55	3.94	2160	51.3	1.74	6.04	7.92	158	3.38	79.6	0.33	14.5	2.35	4.27	148
62	31	34	3.95	2.06	3.68	1940	22.4	1.87	7.09	5.41	174	3.62	84.7	0.38	15.8	2.74	5.8	146
62	34	35	1.61	2.19	5.28	1340	31.7	1.8	4.23	2.62	78	1.78	46.8	0.1	7.43	1.32	0.5	102
62	35	38	1.51	3.45	4.94	1310	2.5	1.45	8.37	2.91	66.9	1.37	41.8	0.1	6.97	0.97	2.65	94.8
62	38	40	1.85	4.36	2.52	600	521	1.71	2.69	3.33	75.5	1.33	35.7	0.1	6.4	1.31	5.45	133
62	40	43	1.95	4.73	3.42	782	2300	1.29	1.61	2.37	77.5	1.76	35.3	0.1	6.65	1.29	3.13	95.2
62	43	44	2.57	4.33	2.77	817	1360	1.65	4.34	4.18	64.5	1.52	30.6	0.1	5.66	1.2	1.71	124
62	44	46	1.41	4.42	3.79	1160	1130	1.37	5.09	2.21	61.9	1.16	30.5	0.1	5.34	1.21	2.3	91.1
62	46	49	2.63	4.62	3.66	8720	10000	1.52	3.81	1.55	61.2	0.89	30.1	0.1	5.26	1.21	4.19	150
62	49	50	3.25	4.3	3.03	700	13700	1.43	3.06	1.94	67.8	1.18	33	0.1	5.81	1.08	7.44	141
62	50	52	2.4	4.93	3.55	803	2850	2.21	1.79	1.94	59.8	1.53	29.1	0.1	5.01	1.1	4.22	73
62	52	53	2.88	4.92	3.43	707	272	1.45	0.5	2.59	71.8	1.11	33.3	0.1	5.99	1.03	5.87	78.3
62	53	56	3.92	4.31	3.42	909	460	1.15	2.48	2.01	63.6	1.66	31.1	0.1	5.57	1	5.72	71.8
62	56	57	3.15	4.43	3.36	786	4300	1.38	1.06	0.5	93.2	1.84	46.7	0.1	8.26	1.35	5.53	98.6
62	57	58	3.35	5.24	2.5	726	547	0.83	1.5	3.49	73.9	1.5	34.7	0.1	6.22	1.12	6.87	102
62	58	59	2.87	5.21	2.74	762	111	0.84	1.09	3.88	50	1.05	22.6	0.1	4.22	0.89	7.32	70
62	59	60	2.52	5.28	2.05	1080	41.1	1.15	1.43	2.97	69.5	1.4	31.3	0.1	5.7	0.99	7.22	80.4
62	32	33	2.66	5.16	2.27	604	2.5	0.5	0.5	0.5	61.9	1.4	29	0.1	4.81	0.86	5.59	139
63	33	35	2.59	4.86	2.2	612	2.5	0.42	1.21	1.89	63.7	1.4	31.3	0.1	4.42	0.87	4.85	139
63	35	37	3.87	4.2	3.61	1290	2.5	0.48	1.58	2.39	93.9	1.63	43.4	0.1	7.93	1.23	5.24	193
63	37	39	4.38	4.9	3.17	1970	567	0.89	2.85	1.76	129	2.35	61.9	0.21	12.5	1.84	4.9	263
63	39	41	4.33	5	3.42	1720	2.5	1.22	3.13	2.72	145	2.62	70.4	0.25	13.6	1.78	4.89	259
63	41	43	4.15	5.18	3.17	1490	3790	0.9	3.68	5.15	131	2.24	61.6	0.21	11.9	1.44	4.3	264
63	43	46	6.95	3.4	3.84	2130	1770	0.76	6.12	2.23	101	1.76	44.9	0.1	9.48	1.45	12.9	196
63	46	47	4.78	4.8	3.91	2510	340	1.03	1.84	2.18	194	3.21	95.7	0.38	16.3	2.65	9.44	129
63	47	50	4.12	5.19	2.55	2680	15.5	1	1.82	3.99	203	2.99	97.5	0.32	16.8	2.37	11.8	138
63	50	51	4.14	4.86	2.81	2960	145	0.93	1.82	2.85	214	3.32	104	0.32	17.9	2.61	10.4	140
63	51	54	3.74	4.86	2.64	2090	389	1.04	2.32	2.29	193	3.03	91.4	0.28	16.4	2.21	10.1	127
63	54	55	4.53	4.65	3.01	1710	6470	0.65	2	2.78	206	3.85	104	0.33	17.7	2.47	11.2	142
63	55	58	3.93	4.64	2.97	1140	252	0.9	3.56	3.43	195	3.57	91.4	0.35	16.8	2.46	11.5	135
63	58	59	2.02	3.97	4.4	1050	6930	1.69	7.34	1.62	65	1.55	31.3	0.1	5.82	1	3.27	141
63	59	60	1.98	4.21	3.93	730	1870	1.3	3.4	1.76	60.1	0.96	28.3	0.1	5.2	0.87	2.29	142

TABLE A1.11 : (Contd)

Hole	Upper Depth (m)	Lower Depth (m)	Fe (%)	Na (%)	K (%)	Ba (ppm)	Au (ppb)	Sb (ppm)	As (ppm)	Br (ppm)	Ce (ppm)	Eu (ppm)	La (ppm)	Lu (ppm)	Sm (ppm)	Yb (ppm)	Cs (ppm)	Cr (ppm)
63	60	61	2.08	4.16	2.98	583	1340	1.15	0.5	3.53	62.1	1.13	29.7	0.1	5.46	1.15	3.74	127
64	25	27	3.19	0.887	3.66	728	2.5	0.81	0.5	5.3	113	1.47	42.6	0.1	6.75	1.25	31	365
64	27	29	2.71	0.867	3.3	597	2.5	0.69	1.01	6.34	74.7	1.21	36.9	0.21	5.73	1.42	11	202
64	29	31	2.98	0.818	3.11	603	2.5	0.97	1.92	3.85	82.1	1.36	43	0.25	6.62	1.69	19.3	232
64	31	33	5	0.953	3.47	598	2.5	0.83	4.38	6.02	252	3	101	0.23	13.6	1.6	23.1	226
64	33	35	7.22	2.35	2.79	643	2.5	0.64	5.72	6.81	174	2.76	78.2	0.28	12.8	2.14	62.6	275
64	35	37	3.3	3.59	3.08	639	2.5	0.5	1.82	3.75	87.7	3.55	60.4	0.36	13	2.54	10	225
64	37	38	3.57	3.96	2.87	837	274	0.55	1.58	1.84	77.3	5.23	66.6	0.62	17.2	4.7	6.63	211
64	38	39	3.24	4	2.53	776	16.5	0.75	2.33	2.77	67.8	2	39.3	0.24	8.79	1.63	2.78	170
64	39	40	2.32	4.26	3.31	807	2.5	0.69	1.11	3.44	73.2	2.29	37	0.23	8.31	1.54	4.38	184
64	40	41	3.45	4.24	3.12	932	163	0.8	1.91	3.55	79.7	2.08	41.3	0.21	8.39	1.68	2.77	202
64	41	42	3.61	4.44	3.47	910	52.8	0.57	0.5	3.08	69	1.63	35.4	0.23	7.12	1.46	4.01	236
64	42	43	5.11	3.95	3.05	3220	66.1	1.08	3.6	2.04	58.3	1.54	29.6	0.1	5.55	1.33	4.64	193
64	43	44	3.24	4.16	3.12	1110	2.5	0.63	2.23	0.5	60.9	1.18	27.7	0.1	5.48	1.17	5.63	234
64	44	45	2.7	4.41	2.38	756	2.5	0.52	1.38	1.47	53.1	1.11	25.7	0.1	5.02	1.04	5.1	241
64	45	47	2.5	4.43	3.21	783	2.5	0.43	1.49	2.65	54.5	1.27	25.6	0.1	5.29	1.24	4.3	245
64	47	49	2.52	4.54	3.3	743	2.5	0.43	1.04	3.88	54.2	1.25	26.4	0.1	5.5	1.06	5.06	278
64	49	51	3.41	3.94	3.77	1580	2.5	0.5	1.43	2.1	55.2	1.12	26	0.1	5.33	1.21	6.16	227
64	51	53	2.74	4.1	3.13	615	2.5	0.1	1.3	2.09	48.3	1.15	22.8	0.1	5.08	1.15	7.48	233
114	32	33	3.65	1.81	4.65	752	2.5	1.05	0.5	8.19	232	5.28	149	0.75	22.5	5.25	15.2	87.4
114	33	36	4.62	2.39	2.76	50	2.5	1.24	0.5	8.6	239	4.33	116	0.84	17.1	5.63	18.3	314
114	36	37	1.92	2.68	4.19	740	2.5	1.53	0.5	11.4	110	1.83	53.4	0.26	7.36	1.75	11.5	184
114	37	40	2.51	1.66	4.25	703	2.5	1.45	1.57	7.83	87.5	2.26	60	0.3	9.42	1.95	13.1	208
114	40	42	2.75	1.31	4.18	620	2.5	0.41	0.5	5.4	73.6	2.08	42.1	0.27	7.76	1.81	11.1	257
114	42	44	2.62	3.14	3.31	710	2.5	0.38	0.5	1.79	58.2	1.76	33.9	0.1	6.95	1.47	5.49	272
114	44	46	2.45	4.18	2.95	428	160	0.42	1.54	1.85	56.2	1.73	30.9	0.1	6.53	1.43	3.39	209
114	46	48	2.66	3.98	3.52	896	28.6	0.52	0.5	0.5	50.2	0.82	23.3	0.1	5.02	1.11	4.97	268
114	48	49	2.43	4.63	2.81	503	2.5	0.75	1.68	1.57	52.5	0.83	24.6	0.1	4.97	0.99	3.9	175
114	49	50	2.79	4.58	2.98	607	2.5	0.68	1.58	0.5	50.4	1.27	23.6	0.1	5.07	1.06	4.55	222
114	50	51	2.53	4.12	3.26	548	2.5	0.72	1.89	1.05	48.3	1.15	23	0.1	4.51	0.96	3.93	186

TABLE A1.11 : (Contd)

Hole	Upper Depth (m)	Lower Depth (m)	Co (ppm)	Hf (ppm)	Mo (ppm)	Rb (ppm)	Sc (ppm)	Th (ppm)	W (ppm)	U (ppm)	Zn (ppm)
62	22	23	18.3	5.78	2.5	163	15	18.2	13.5	2.9	50
62	23	24	15.4	3.55	2.5	199	13.9	6.47	8.08	1	50
62	24	28	10.4	3.74	2.5	145	11.3	7.53	9.1	1	50
62	28	29	8.77	3.95	2.5	107	11.7	7.26	15.6	1	50
62	29	31	16.6	6.65	2.5	156	12.5	17.3	13.6	4.93	50
62	31	34	13.2	7.46	2.5	166	12.1	18.9	12.4	4.02	50
62	34	35	5.24	3.64	2.5	112	7.74	6.1	20.3	1	50
62	35	38	3.4	3.64	2.5	125	8.53	5.9	11.6	1	50
62	38	40	6.9	4	2.5	118	10.9	5.86	10.2	1	50
62	40	43	4.34	3.61	2.5	98.6	9.18	5.58	10.7	1	50
62	43	44	12.9	2.77	2.5	112	9.49	5.86	14.4	2.31	50
62	44	46	6.62	3.13	5.5	82.4	7.89	6.79	10.6	1	50
62	46	49	11.2	3.44	2.5	112	10.6	5.9	8	2.42	50
62	49	50	14.9	3.6	2.5	122	11.6	6.84	7	1	50
62	50	52	8.01	3.69	2.5	97	7.95	6.77	11.8	1	50
62	52	53	8.91	3.22	2.5	149	7.81	5.09	6.66	1	50
62	53	56	9.82	2.66	2.5	129	7.52	4.98	4.82	1	50
62	56	57	11.6	4.19	2.5	125	8.26	9.64	5.05	1	50
62	57	58	13.5	3.63	2.5	162	8.13	8.27	3.23	1	50
62	58	59	12.3	2.56	2.5	105	6.76	5.23	1	1	50
62	59	60	39.9	3.32	2.5	112	8.07	6.19	3.55	1	50
63	32	33	5	3.52	2.5	102	9.48	6.01	1	1	50
63	33	35	10.3	2.74	2.5	97.6	8.69	7.25	1	1	50
63	35	37	15.2	4.52	2.5	132	11.6	8.6	1	1	50
63	37	39	18.1	5.62	2.5	130	14.6	10.9	1	1	181
63	39	41	21.2	5.8	2.5	110	16	12.1	3.45	2.66	130
63	41	43	19.6	5.52	2.5	134	14.7	10.7	1	3.3	124
63	43	46	36.3	3.93	2.5	164	11.9	8.81	1	2.53	50
63	46	47	19.9	6.41	5	173	12.5	21.5	1	5.45	124
63	47	50	17.7	6.08	2.5	116	12.6	22.8	1	3.52	158
63	50	51	62.6	6.85	2.5	127	12.8	23.6	1	3.34	118
63	51	54	18.7	5.89	7.2	139	11.8	22.8	1	1	50
63	54	55	30.1	6.06	2.5	141	12.4	22.7	1	4.14	159

TABLE A.11 : (Contd)

Hole	Upper Depth (m)	Lower Depth (m)	Co (ppm)	Hf (ppm)	Mo (ppm)	Rb (ppm)	Sc (ppm)	Th (ppm)	W (ppm)	U (ppm)	Zn (ppm)
63	55	58	15.3	6.27	5	147	12.3	22	5.43	5.91	119
63	58	59	6.55	3.34	2.5	101	10.5	6.82	9.69	2.53	50
63	59	60	5.28	3.28	2.5	127	10.7	5.95	8.73	1	50
63	60	61	8.09	2.61	2.5	105	11.6	5.37	3.87	1	50
64	25	27	10.4	4.09	2.5	411	13.2	6.06	4.01	2.78	50
64	27	29	7.21	4.57	2.5	144	12.7	6.6	1	4.18	50
64	29	31	27.7	4.36	6.2	131	12.8	6.48	1	4.8	50
64	31	33	34.3	3.83	40.1	200	14	6.27	1	4.1	50
64	33	35	38.3	3.09	29	401	12.1	5.65	1	5.53	50
64	35	37	18.7	3.49	2.5	253	9.85	4.99	1	2.38	148
64	37	38	13.5	3.56	2.5	142	9.58	4.54	1	3.65	50
64	38	39	11.2	3.5	2.5	127	8.65	4.94	1	2.15	102
64	39	40	9.45	3.64	2.5	109	9.11	5.74	1	2.35	109
64	40	41	11.6	3.38	2.5	118	9.7	5.67	1	1	109
64	41	42	13.7	3.82	2.5	49.5	10.1	4.69	1	1	112
64	42	43	17.1	3.38	2.5	101	9.01	4.68	1	2.6	108
64	43	44	25.4	3.41	5.7	83.5	9.82	5.68	1	1	142
64	44	45	13.8	3.34	9.9	72.2	10.3	4.98	3.39	1	149
64	45	47	13.9	3.35	2.5	100	10	4.84	1	2.68	140
64	47	49	18.2	3.22	2.5	107	10.6	5.3	1	1	114
64	49	51	17.5	3.15	2.5	110	9.5	5.31	1	1	50
64	51	53	15.4	3.32	2.5	113	9.68	4.94	1	1	122
114	32	33	10.9	6.22	5	274	10.5	24.4	7.58	5.54	50
114	33	36	12.7	4.97	5	184	16.7	8.93	6.81	5.64	50
114	36	37	5.26	4.08	2.5	254	10.5	6.08	11.4	2.55	50
114	37	40	7.72	4.47	2.5	270	10.8	5.7	7.16	1	50
114	40	42	16.4	3.85	2.5	351	11.1	5.91	1	2.84	50
114	42	44	14.3	3.58	2.5	187	9.21	5.15	1	1	153
114	44	46	10.7	3.2	2.5	158	9.36	5.58	1	3.03	117
114	46	48	16.3	3.69	2.5	95.2	10.3	5.14	1	1	124
114	48	49	14	3.06	2.5	94.8	8.37	5.16	1	1	113
114	49	50	17.6	3.95	2.5	112	9.59	4.88	1	2.25	119
114	50	51	12.9	3.17	2.5	92.9	8.53	4.4	1	1	131

Tree Diagram for 24 Variables
1-Pearson r n=27

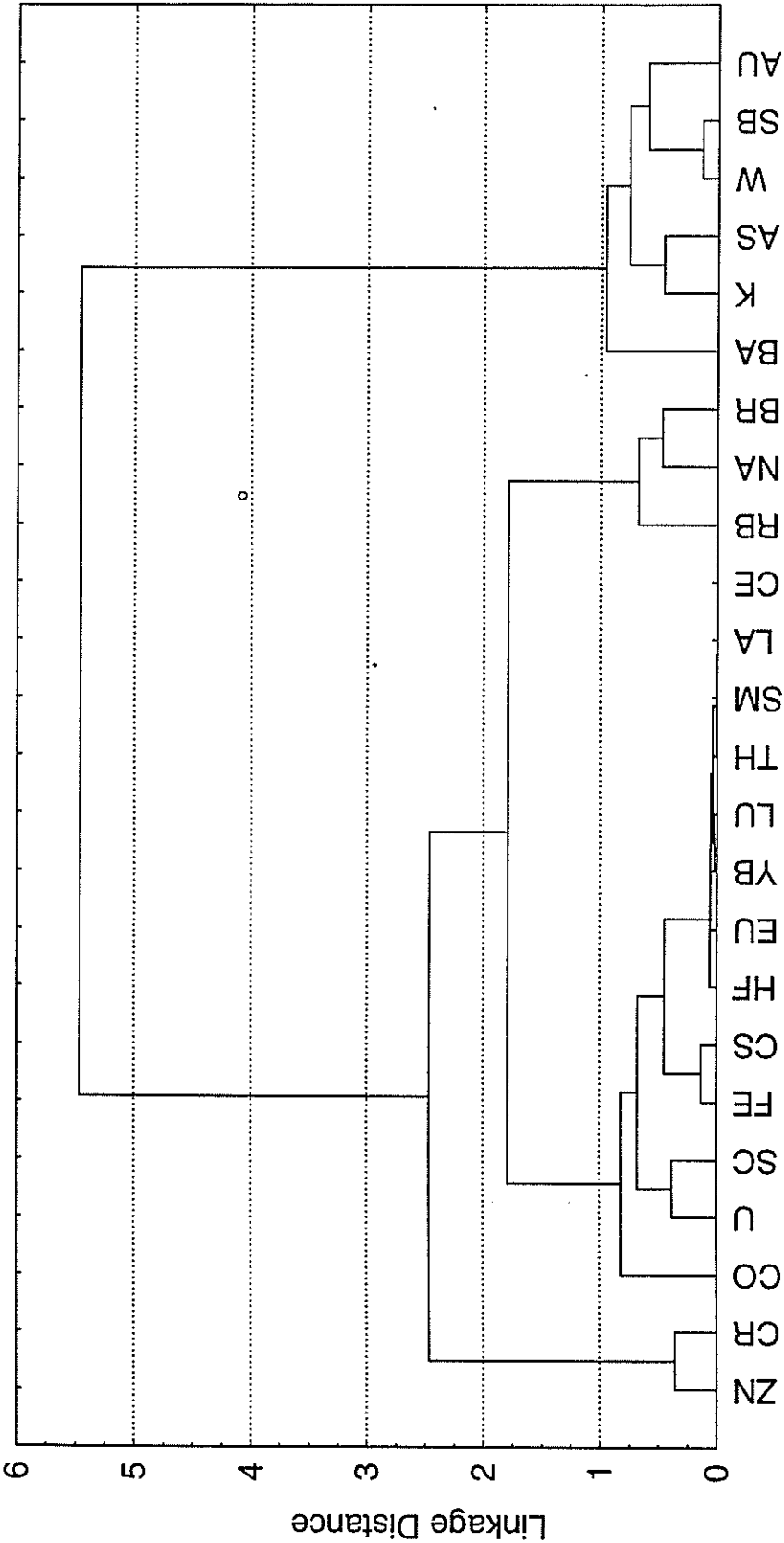


Figure A1.47: Associations of elements within the saprolite below the supergene
Au dispersion halo, Monty Dam

Tree Diagram for 24 Variables

1-Pearson r n=26

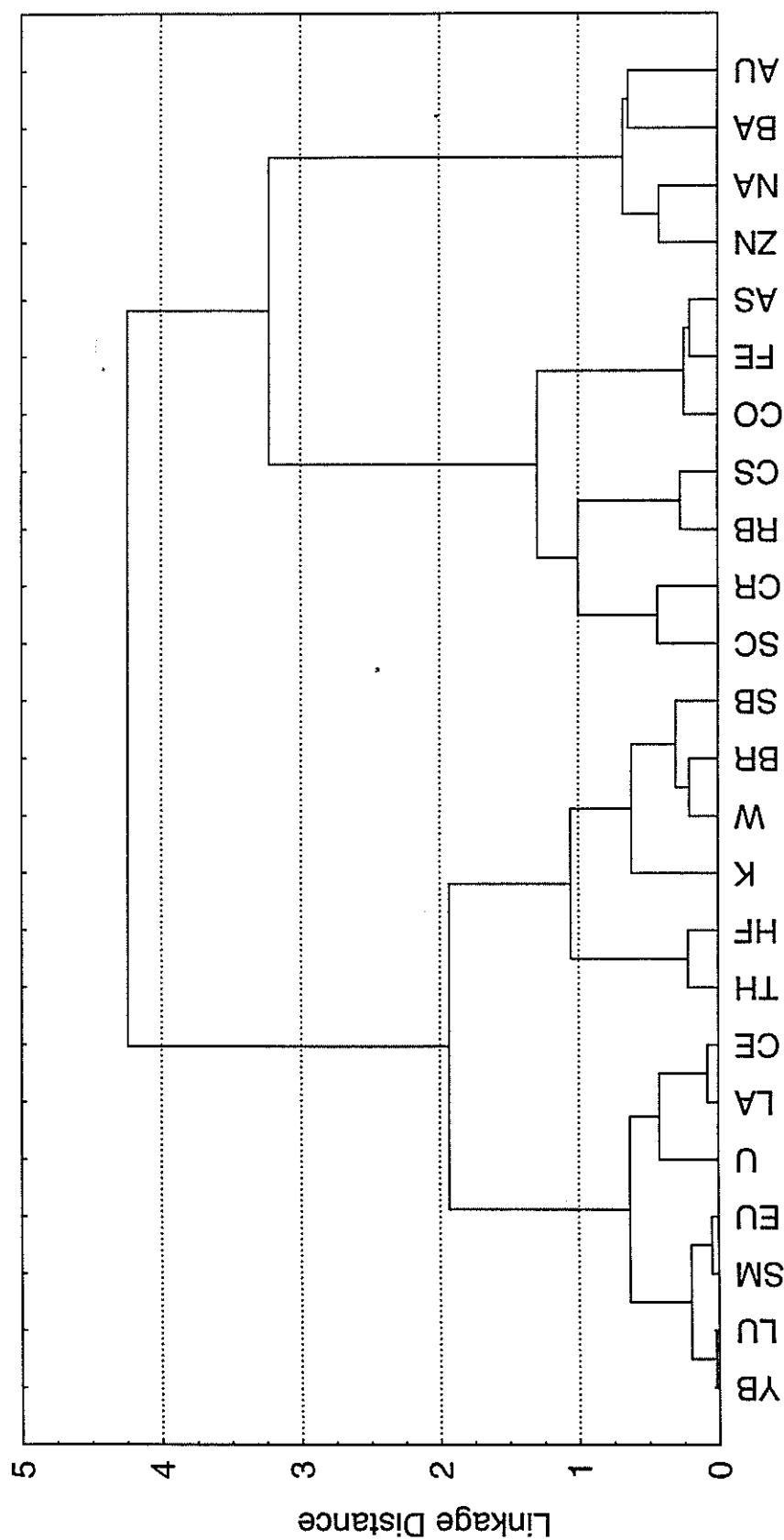


Figure A1.48: Associations of elements within the Au depleted zone and saprolite dispersion halo, Monty Dam

**APPENDIX 2: ELEMENT/ION
CONCENTRATIONS FOR
GROUNDWATERS**

CAPTIONS FOR FIGURES

- *Twin Peaks groundwaters* - collected from Twin Peaks Au deposit during this project.
- *Monty Dam groundwaters* - collected from Monty Dam Au deposit during this project.
- *Main Bore groundwater* - collected from Main Bore during this project.
- *Northern groundwaters* - (Northern Yilgarn and margins)
Groundwaters in these areas are fresh and neutral, trending more saline in the valley floors.
- *Central groundwaters* - (close to and north of the Menzies line)
Groundwaters are neutral and brackish (commonly < 1% TDS) to saline (about 3% TDS), trending to hypersaline (10 - 30% TDS) at the salt lakes, with common increases in salinity with depth.
- *Kalgoorlie groundwaters* -
These groundwaters are commonly acid (pH 3 - 5), except where buffered by extremely alkaline materials (e.g., ultramafic rocks), and saline within the top part of the groundwater mass, trending to more neutral (pH 5 - 7) and hypersaline at depth and when within a few kilometres of various salt lakes in the region.
- *Mulga Rock* -
Groundwaters are saline to hypersaline and neutral to acid. The major ion chemistry is similar to that of the Kalgoorlie region, but the dissolved concentration of many other ions is low, due to the presence of lignites in the channel sediments.
- *Sea water* - compiled from the literature.

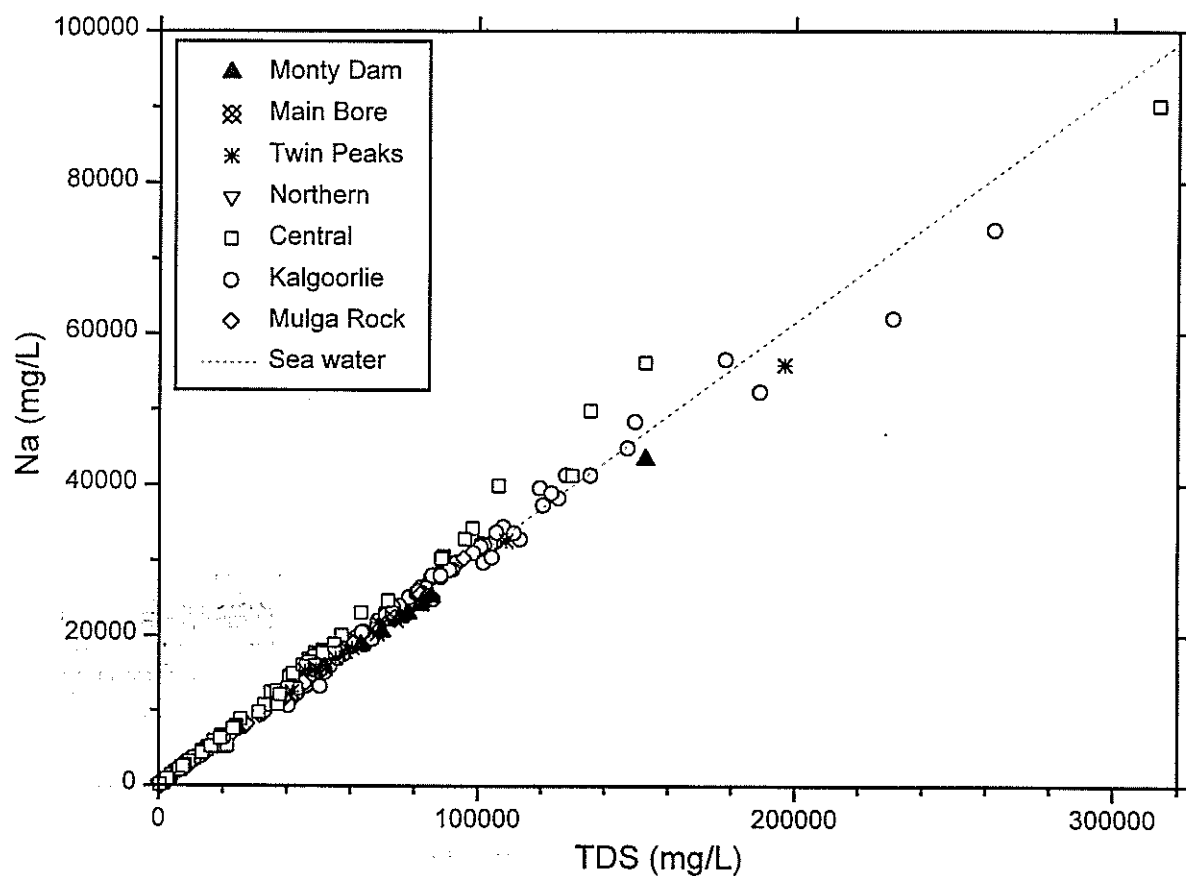


Figure A2.1: Na vs. TDS for Plough Dam and other Western Australian groundwaters.

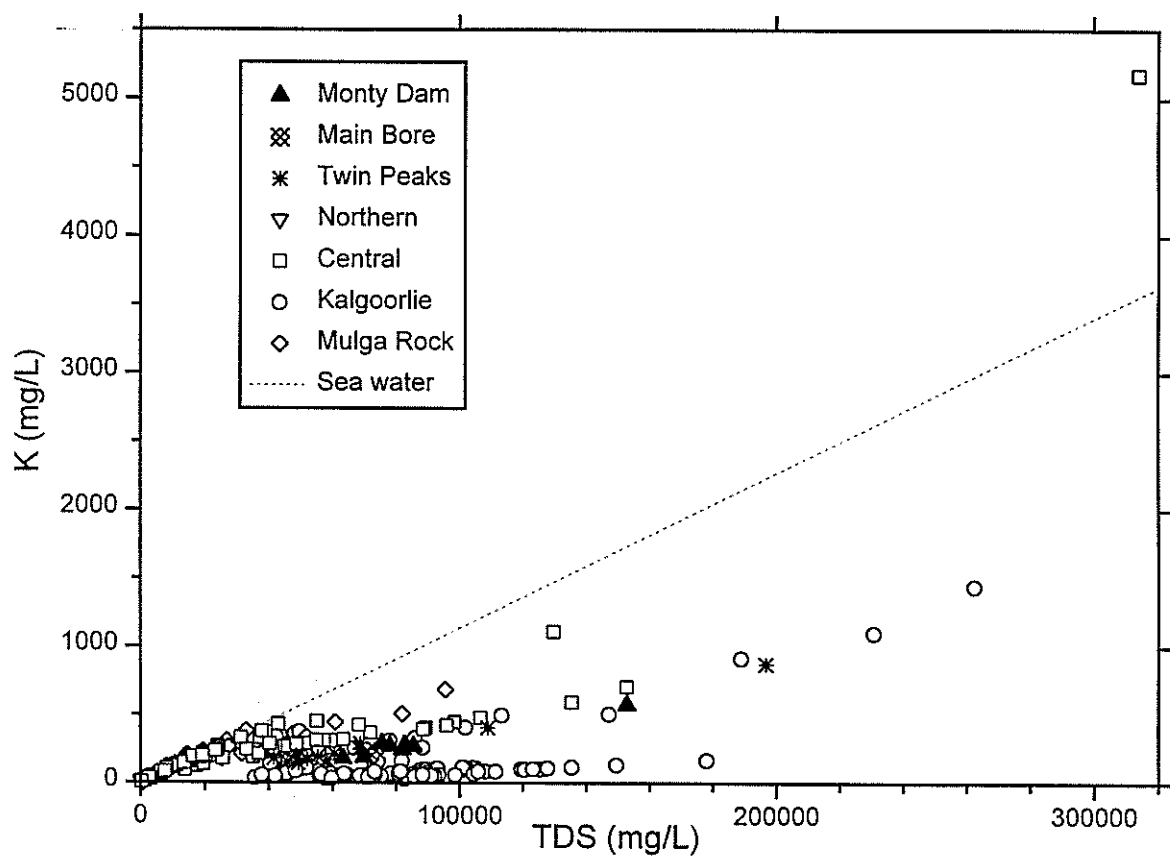


Figure A2.2: K vs. TDS for Plough Dam and other Western Australian groundwaters.

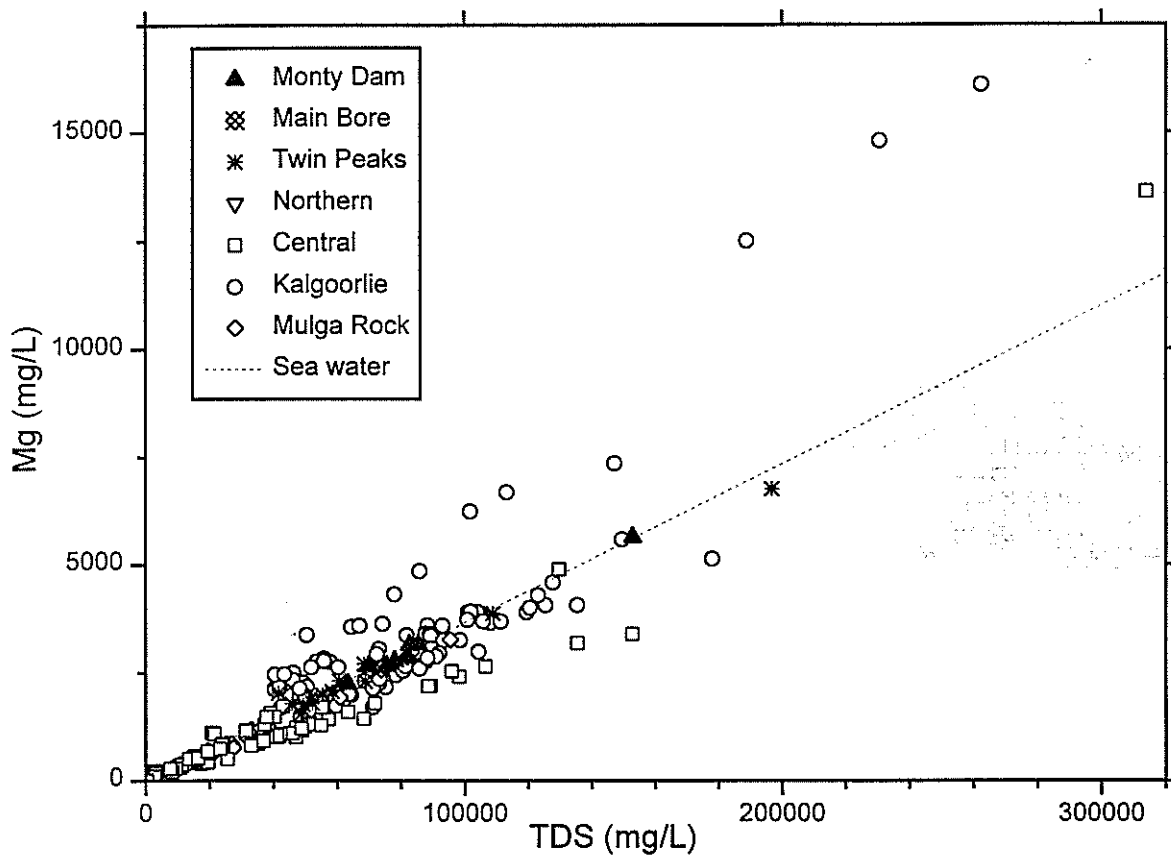


Figure A2.3: Mg vs. TDS for Plough Dam and other Western Australian groundwaters.

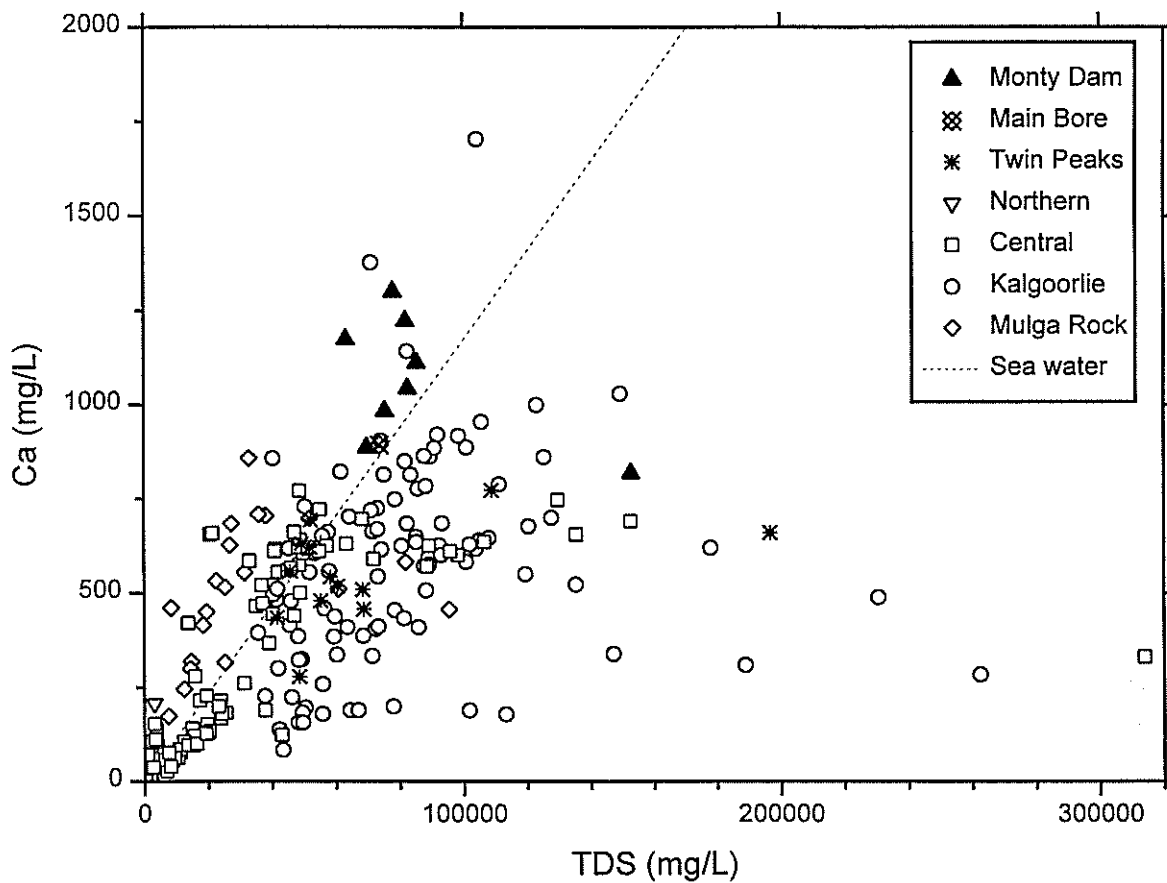


Figure A2.4: Ca vs. TDS for Plough Dam and other Western Australian groundwaters.

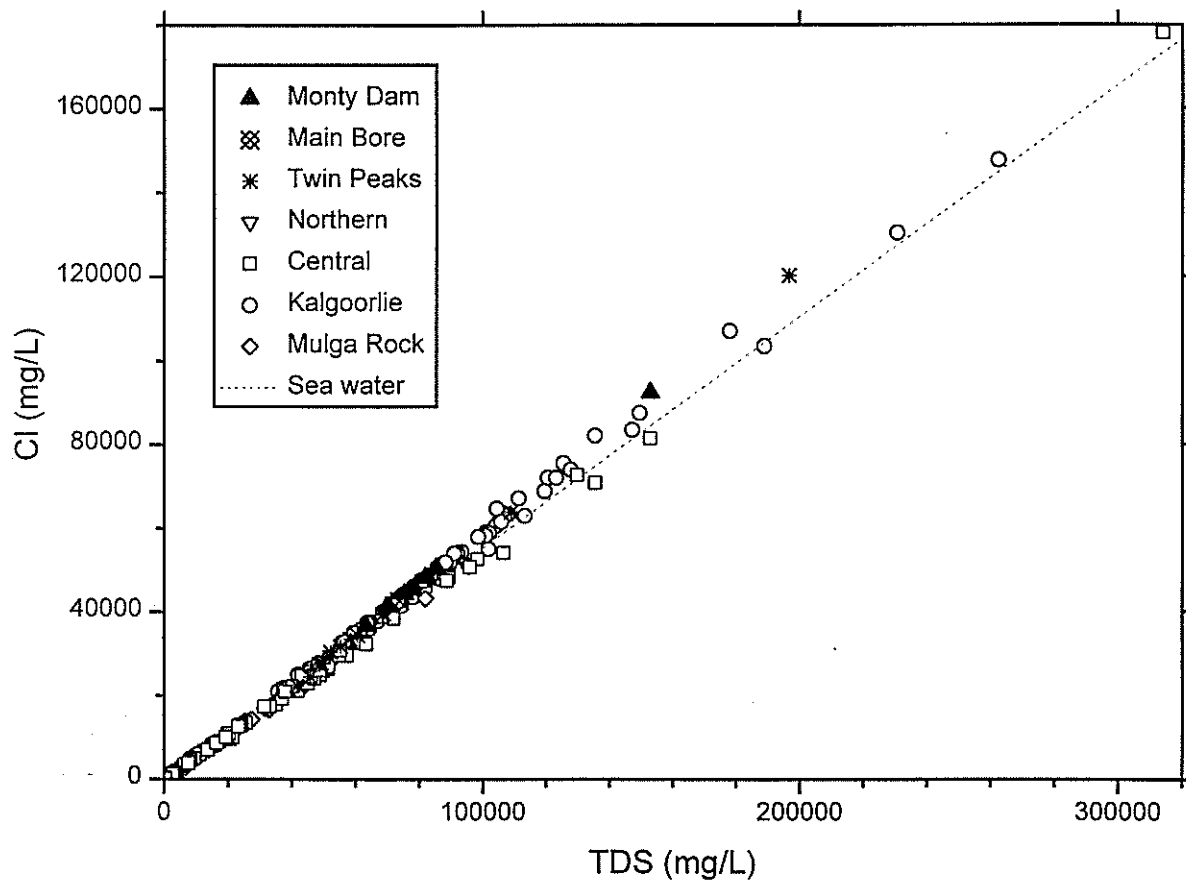


Figure A2.5: Cl vs. TDS for Plough Dam and other Western Australian groundwaters.

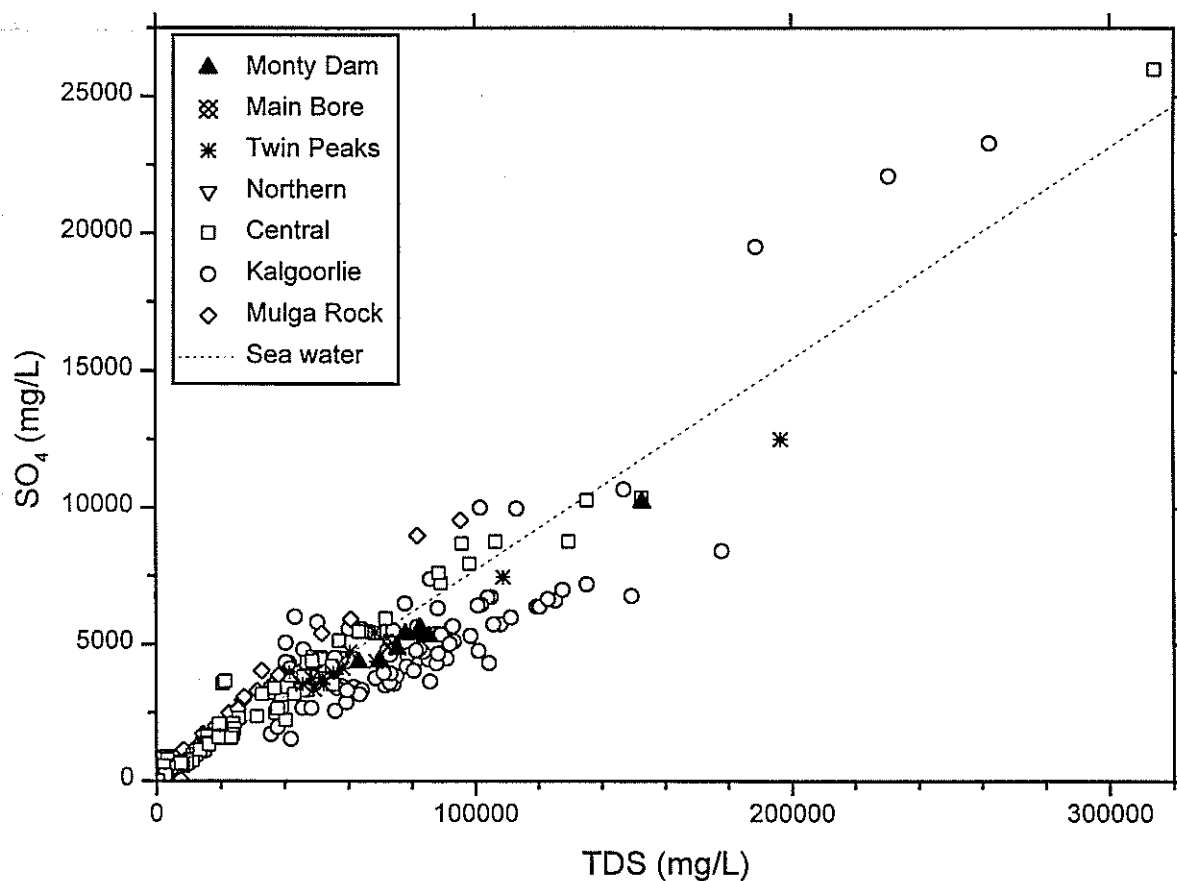


Figure A2.6 SO_4 vs. TDS for Plough Dam and other Western Australian groundwaters.

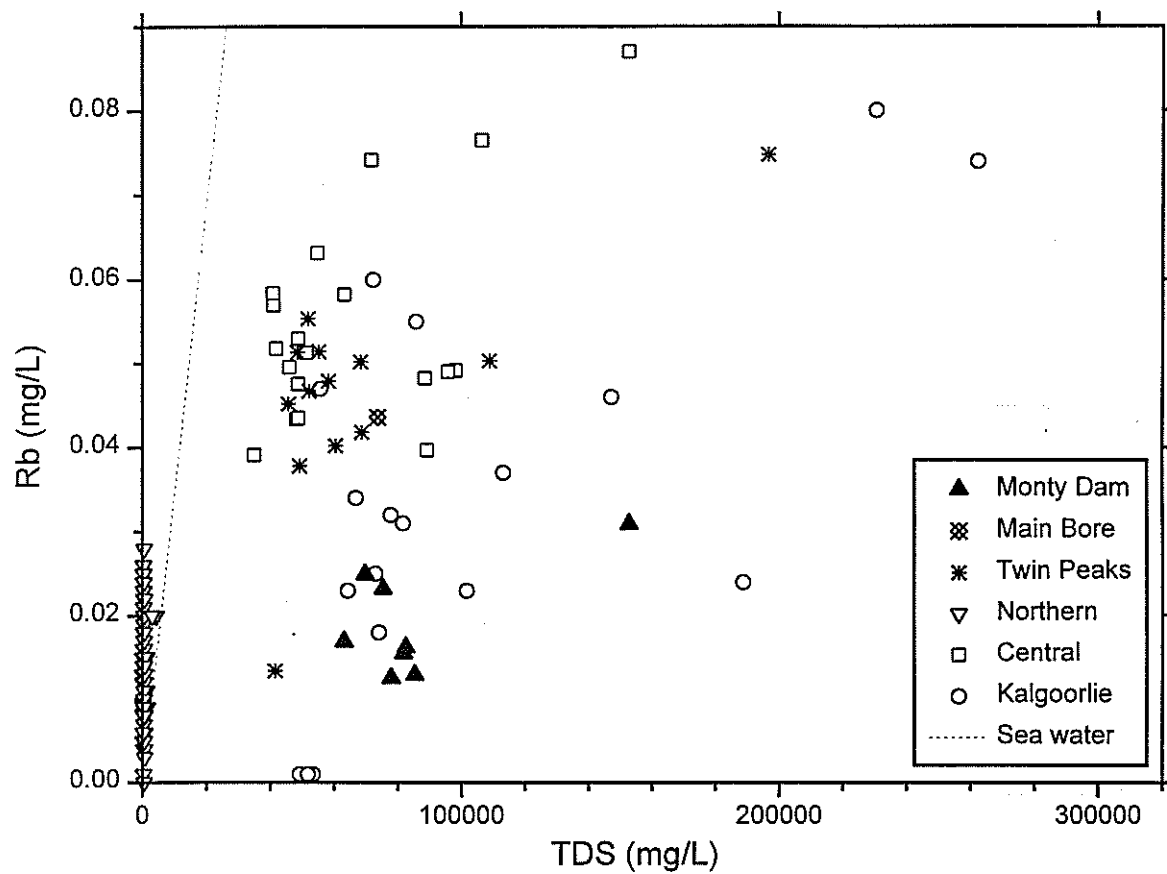


Figure A2.7: Rb vs. TDS for Plough Dam and other Western Australian groundwaters.

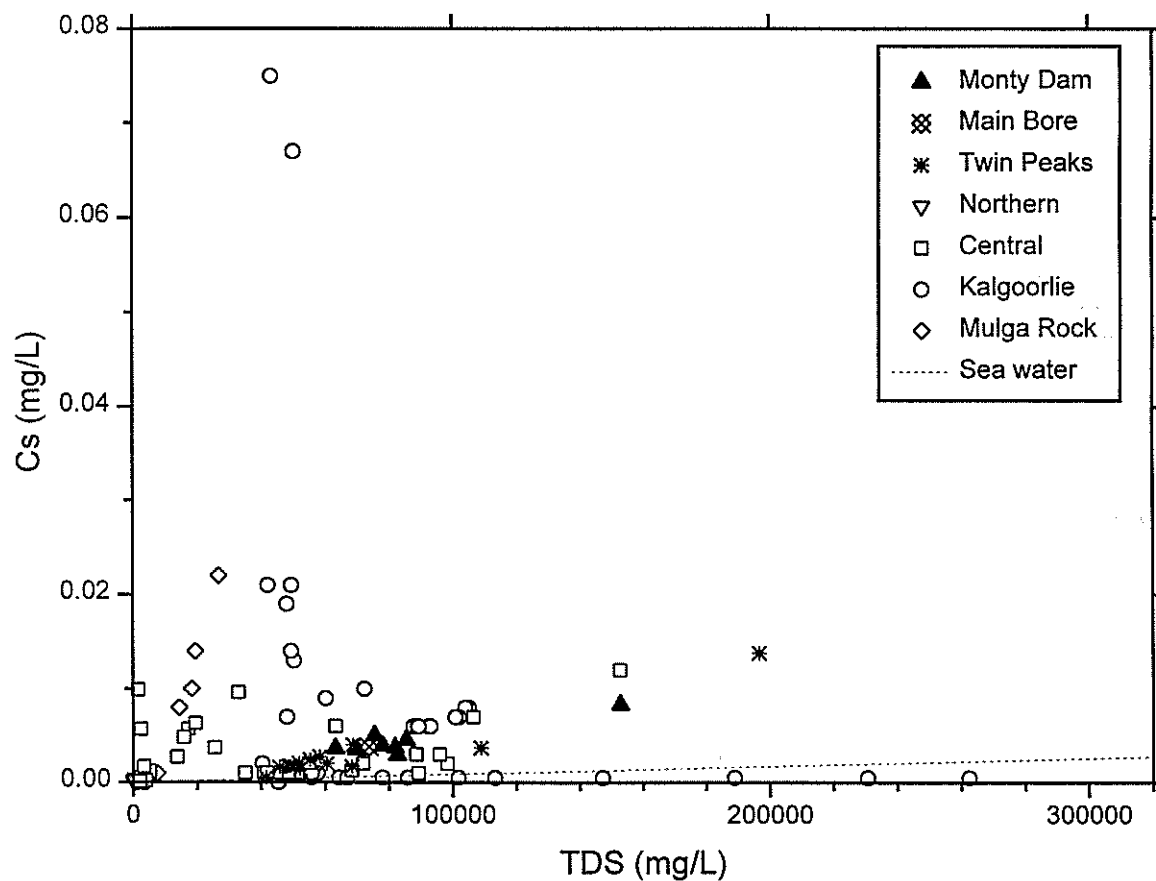


Figure A2.8: Cs vs. TDS for Plough Dam and other Western Australian groundwaters.

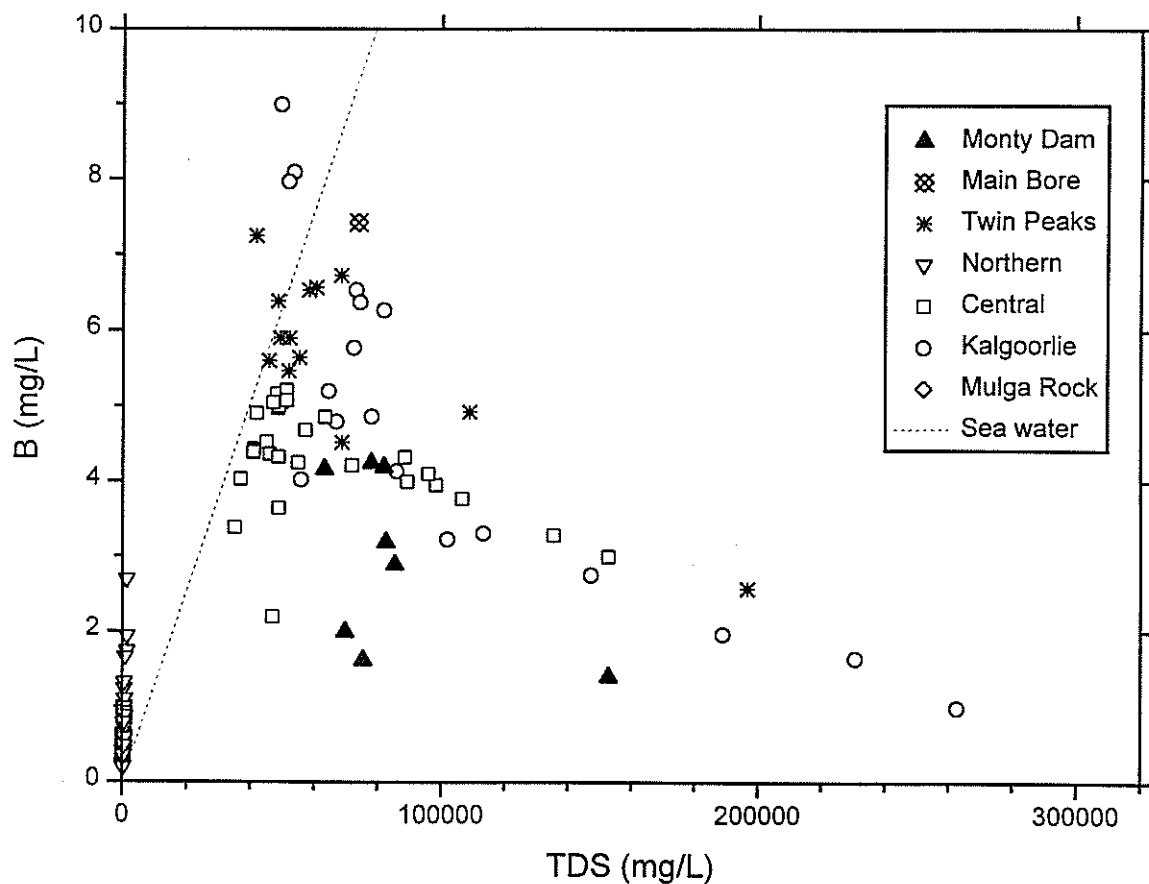


Figure A2.9: B vs. TDS for Plough Dam and other Western Australian groundwaters.

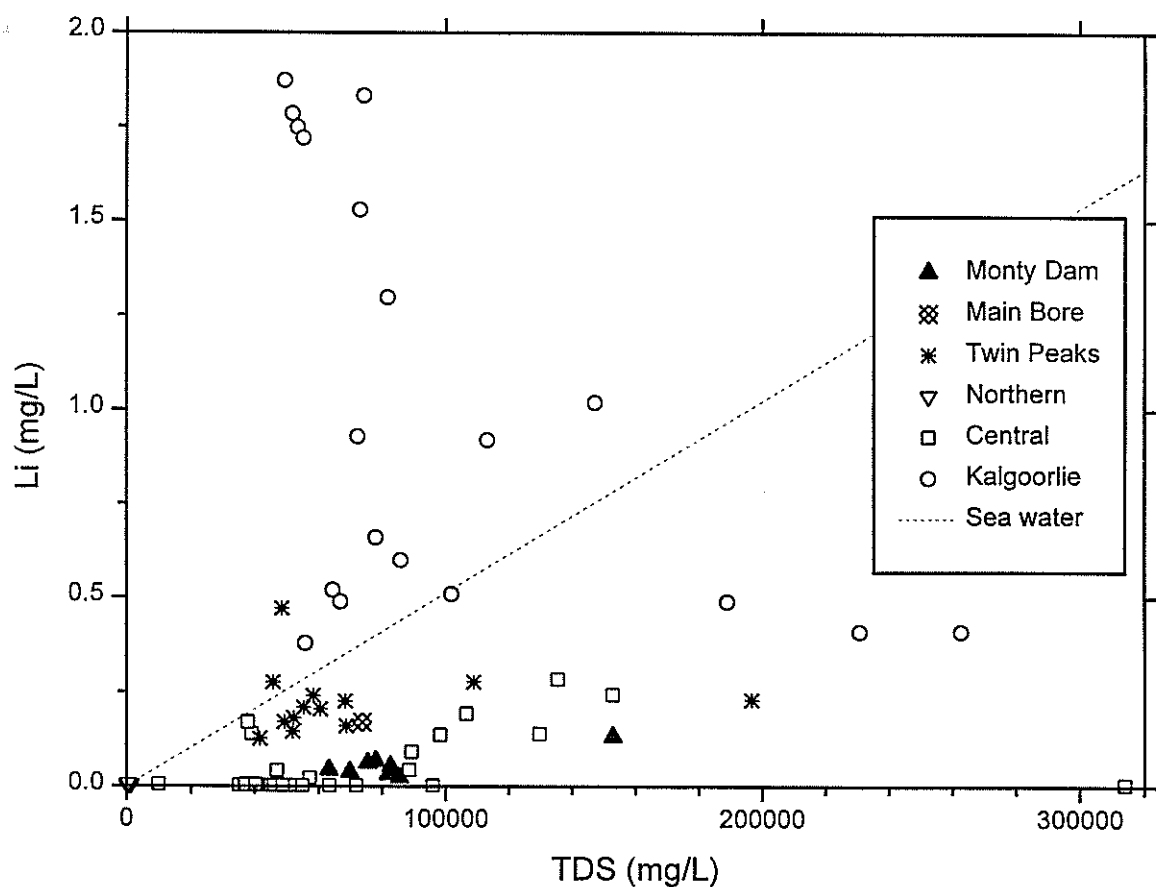


Figure A2.10: Li vs. TDS for Plough Dam and other Western Australian groundwaters.

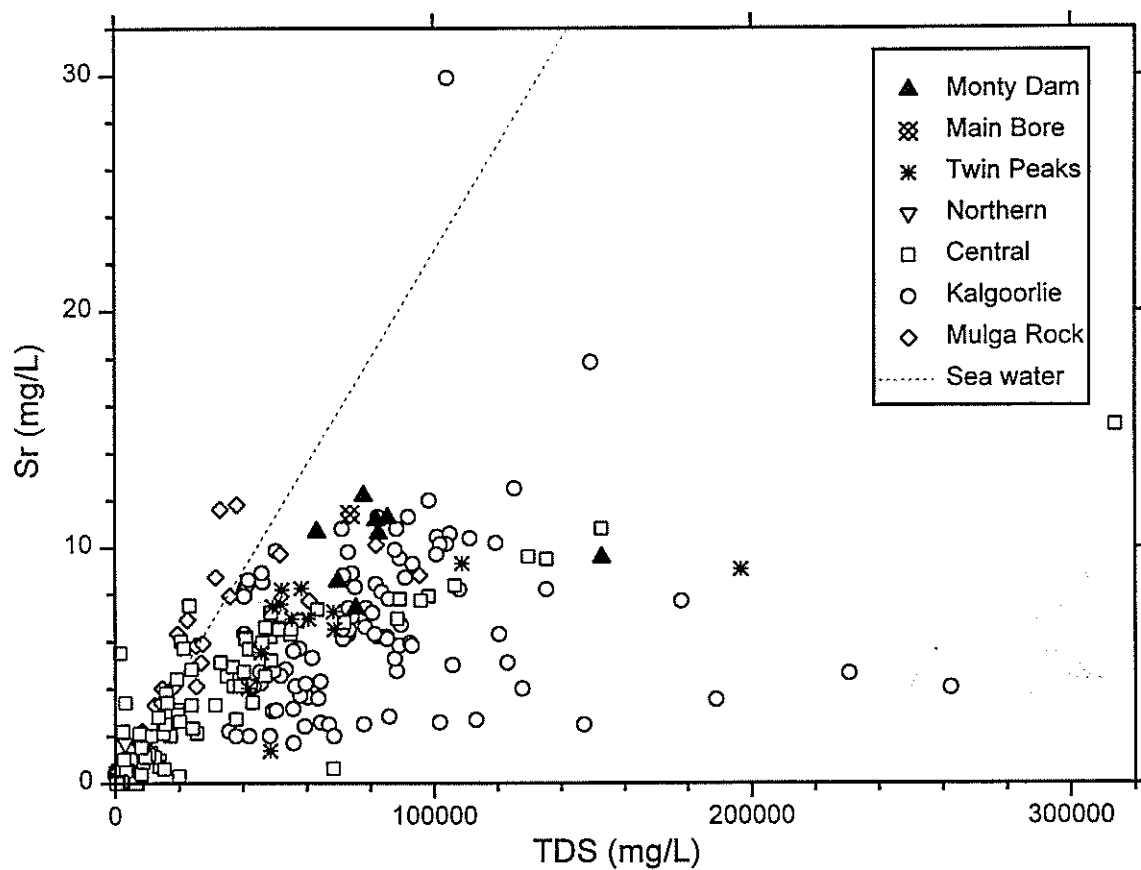


Figure A2.11: Sr vs. TDS for Plough Dam and other Western Australian groundwaters.

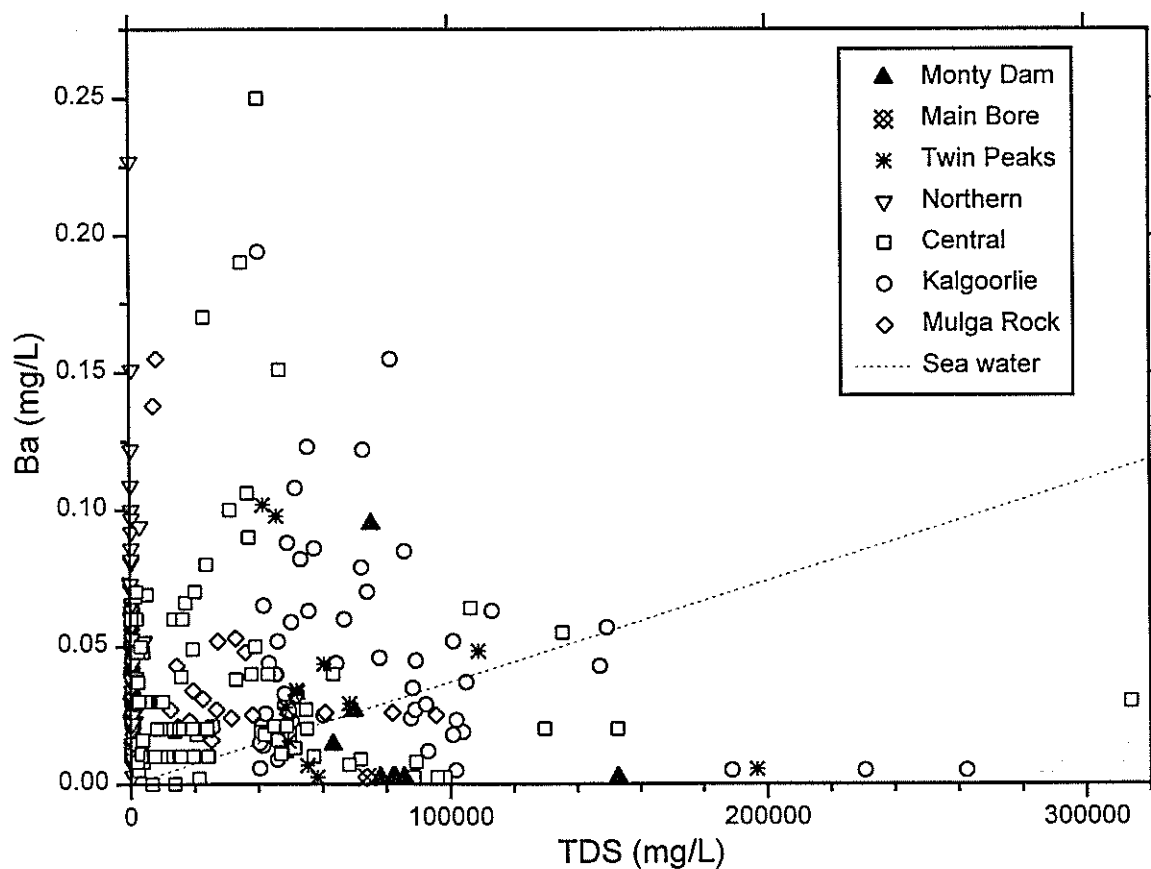


Figure A2.12: Ba vs. TDS for Plough Dam and other Western Australian groundwaters.

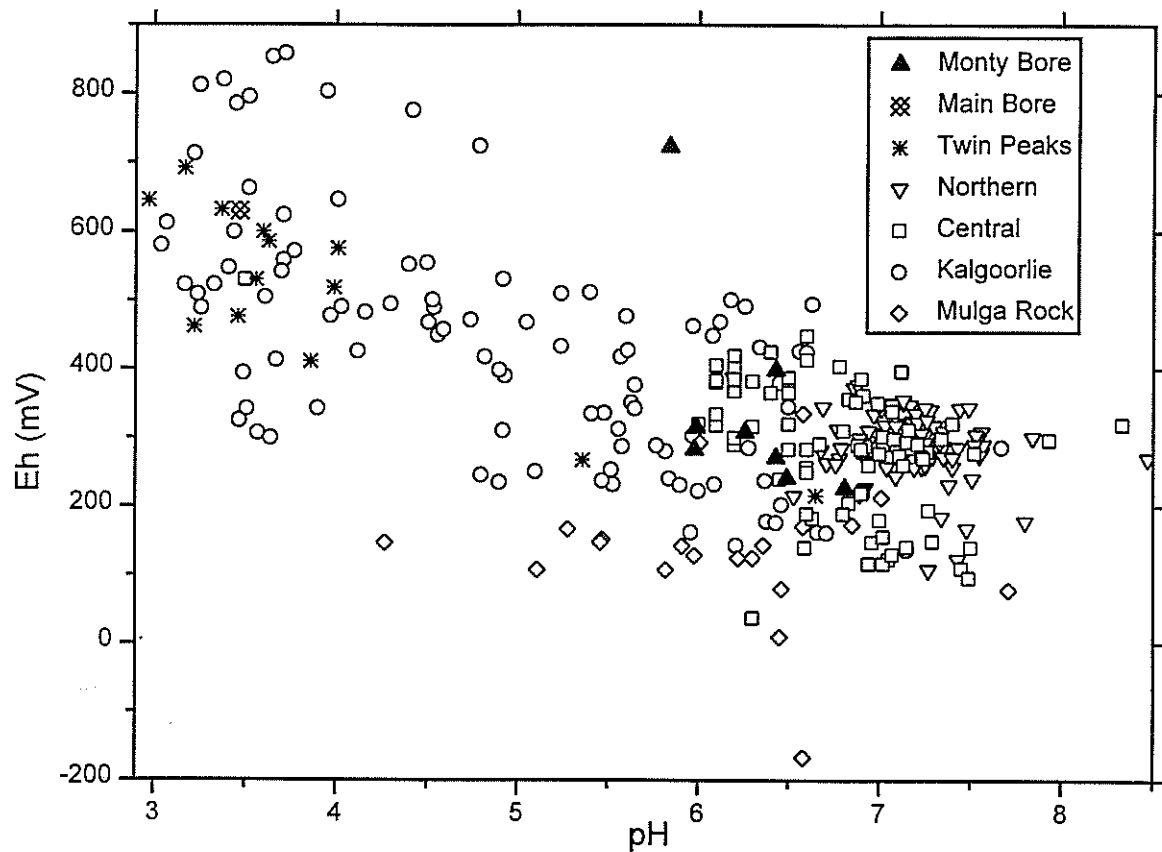


Figure A2.13: Eh vs. pH for Plough Dam and other Western Australian groundwaters.

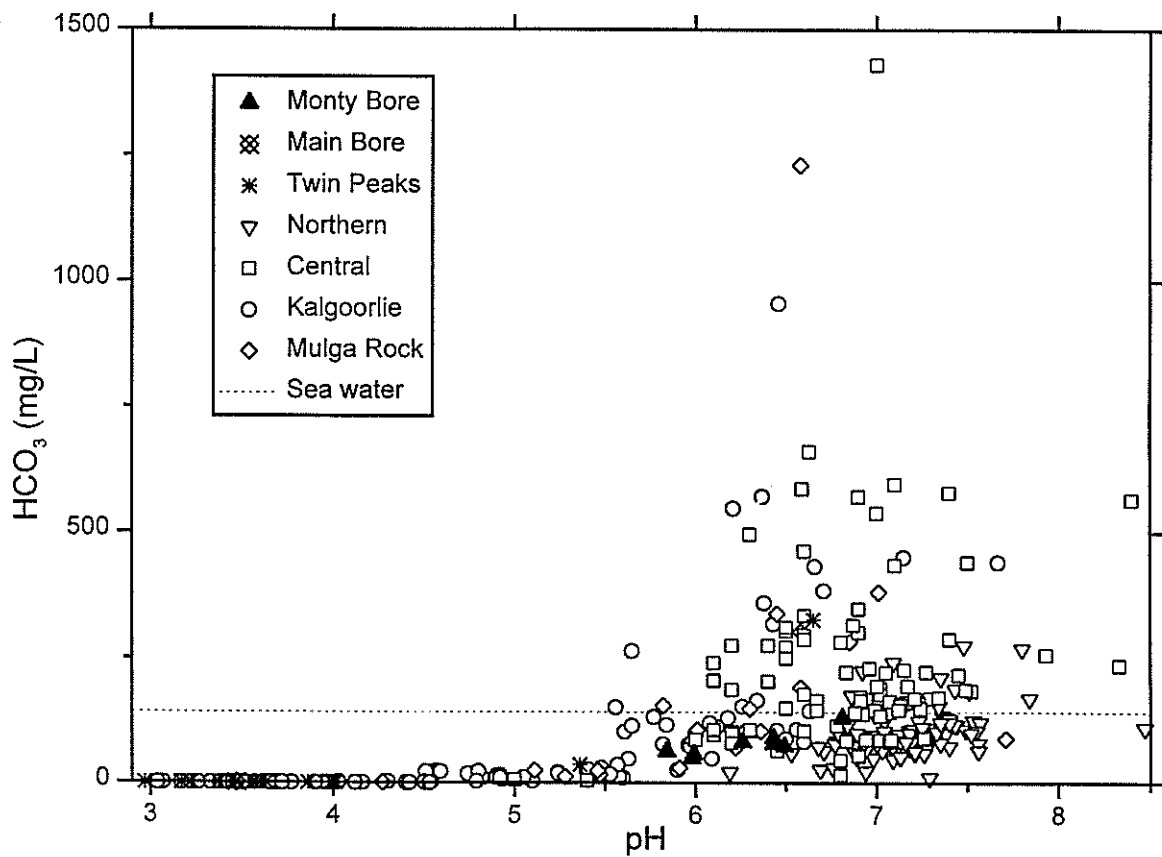


Figure A2.14: HCO_3^- vs. pH for Plough Dam and other Western Australian groundwaters.

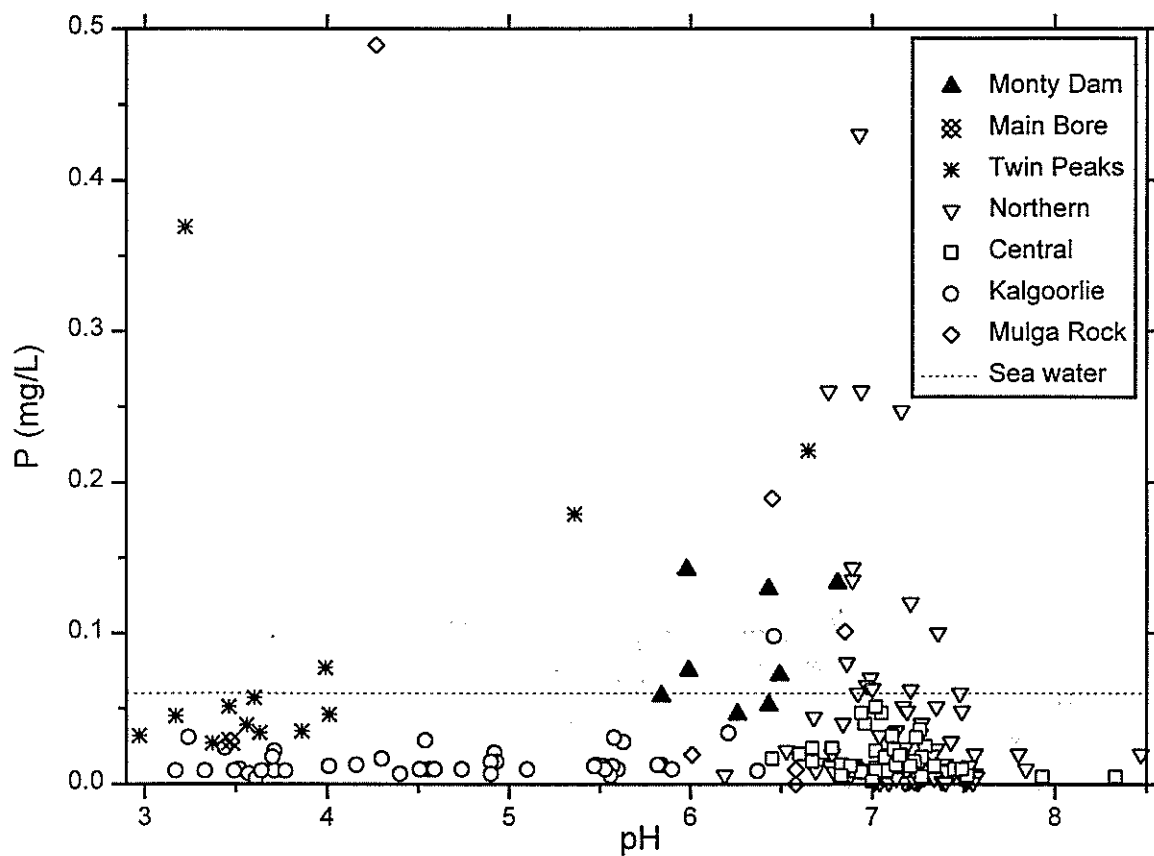


Figure A2.15: P vs. pH for Plough Dam and other Western Australian groundwaters.

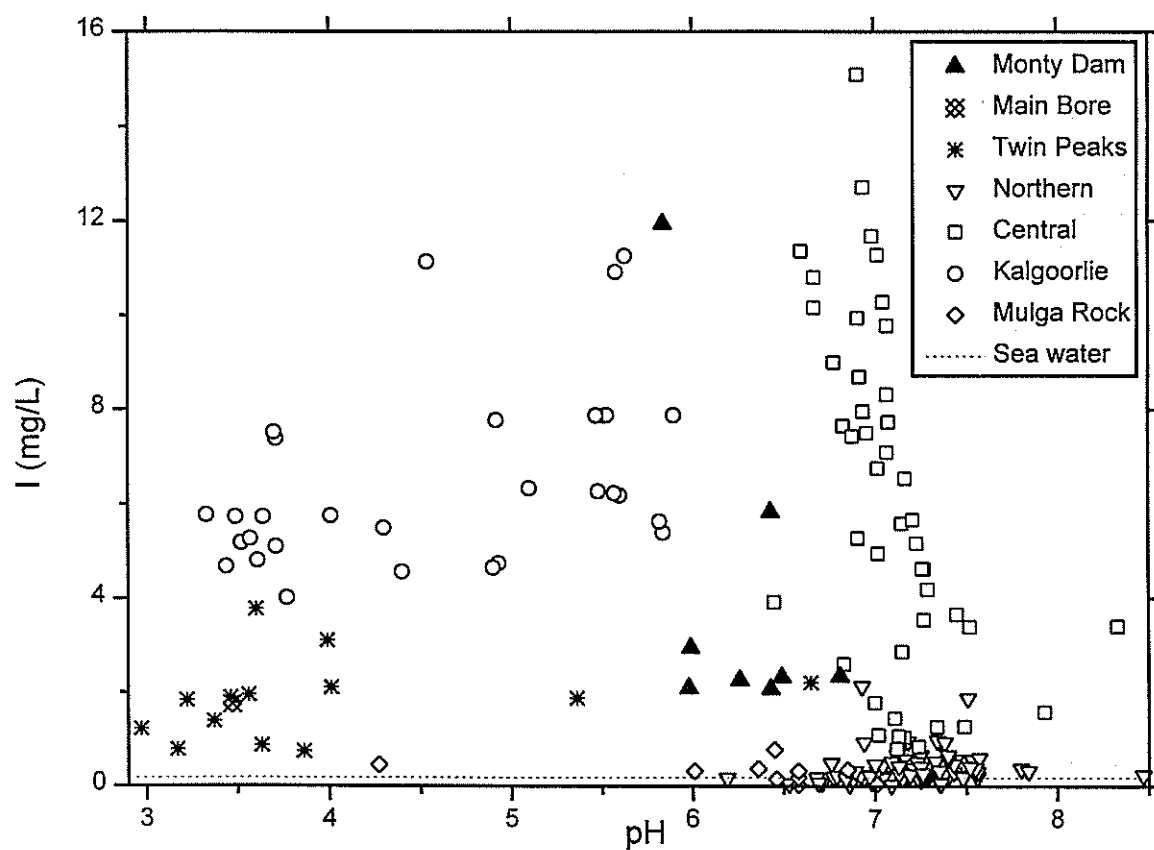


Figure A2.16: I vs. pH for Plough Dam and other Western Australian groundwaters.

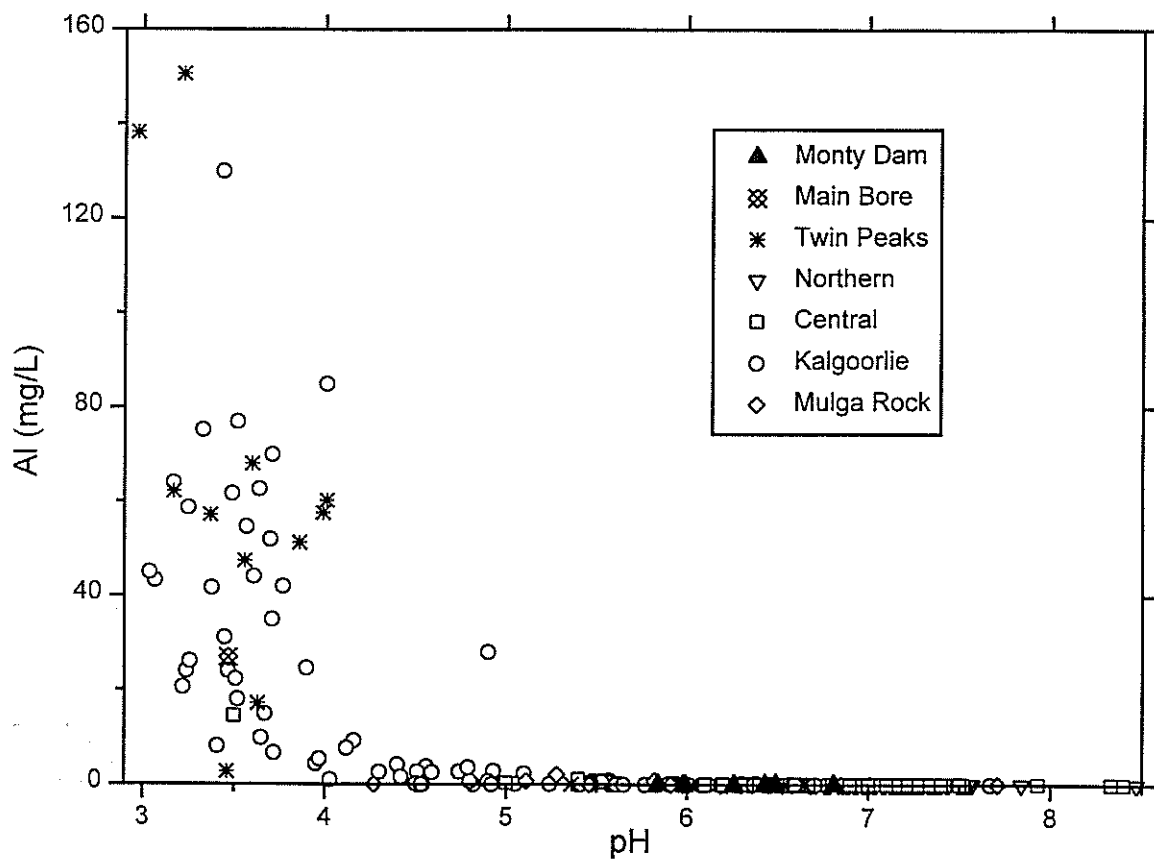


Figure A2.17: Al vs. pH for Plough Dam and other Western Australian groundwaters.

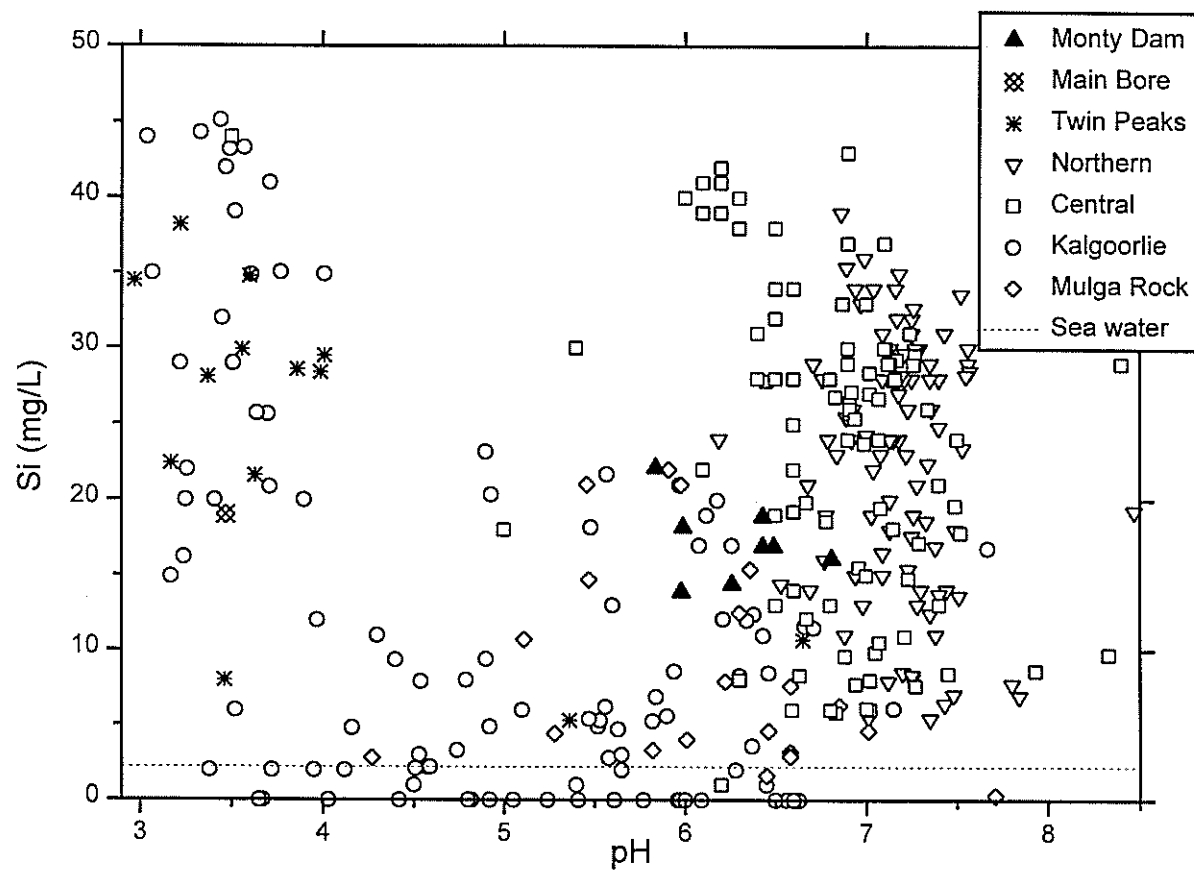


Figure A2.18: Si vs. pH for Plough Dam and other Western Australian groundwaters.

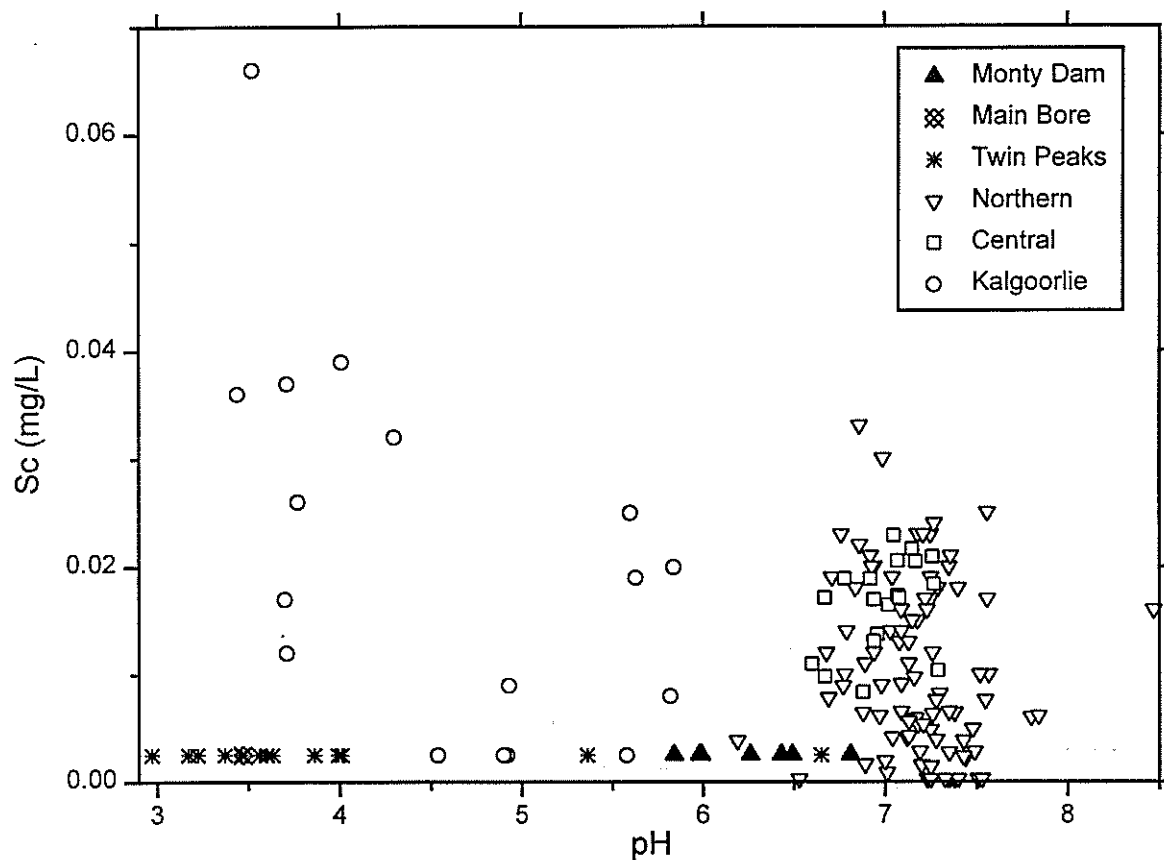


Figure A2.19: Sc vs. pH for Plough Dam and other Western Australian groundwaters.

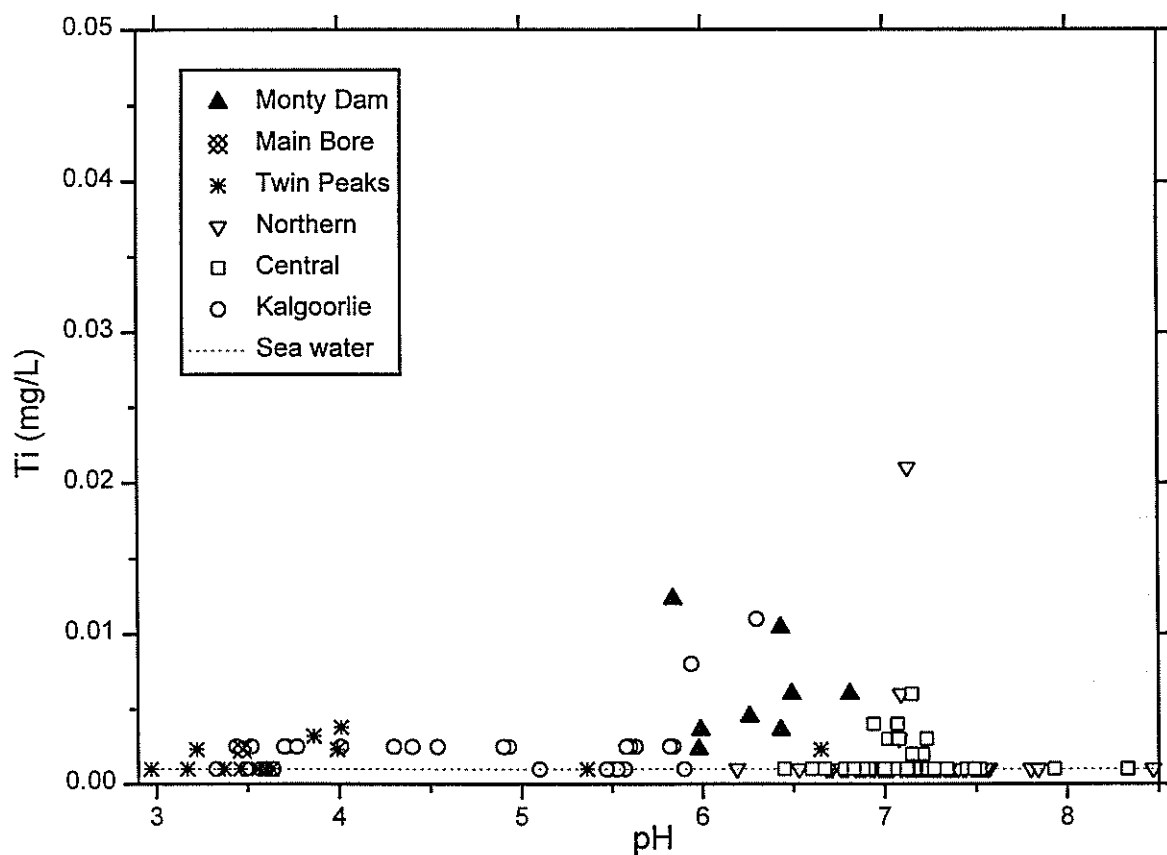


Figure A2.20: Ti vs. pH for Plough Dam and other Western Australian groundwaters.

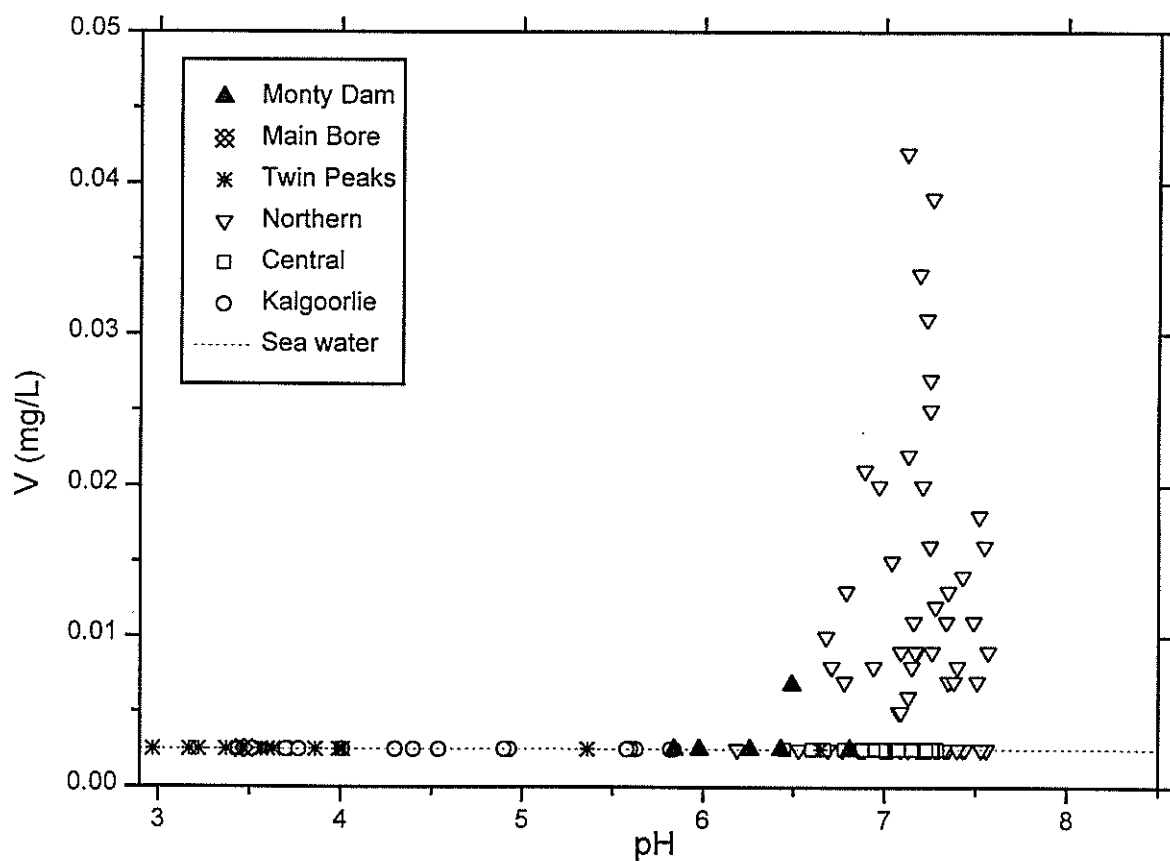


Figure A2.21: V vs. pH for Plough Dam and other Western Australian groundwaters.

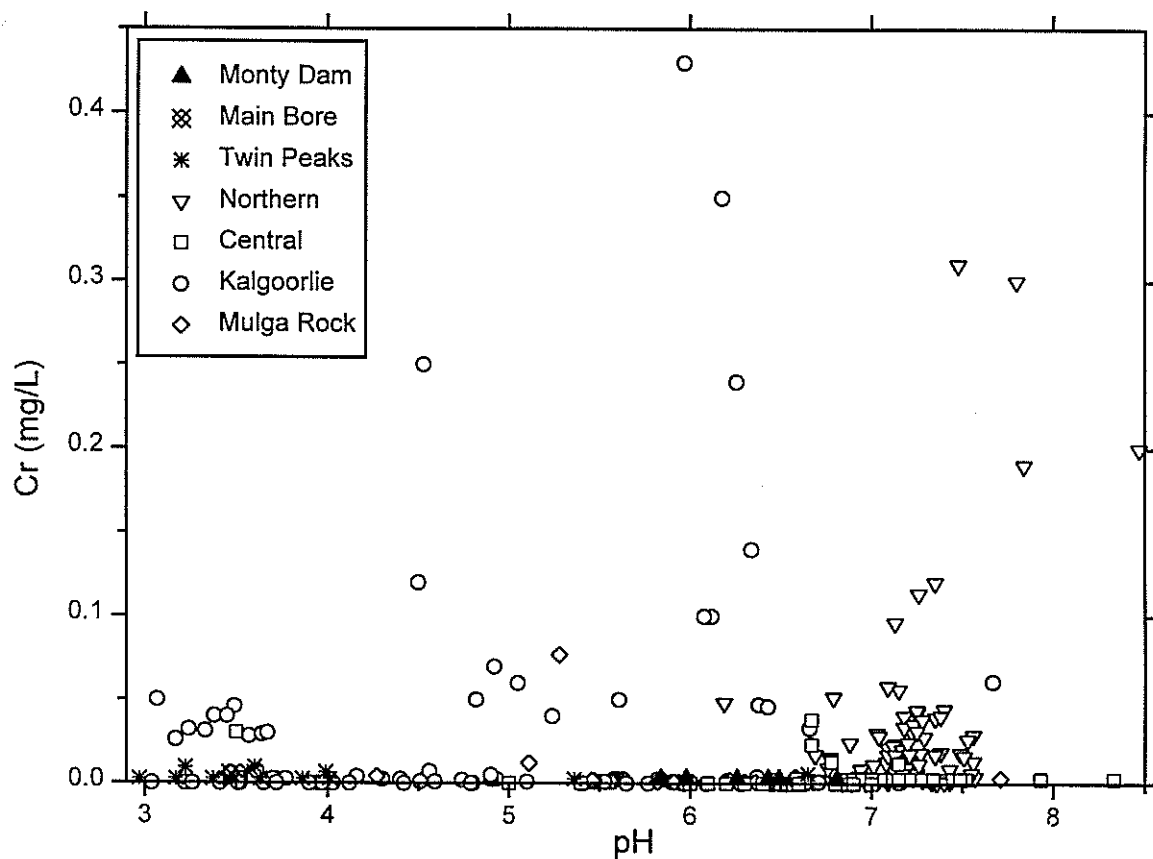


Figure A2.22: Cr vs. pH for Plough Dam and other Western Australian groundwaters.

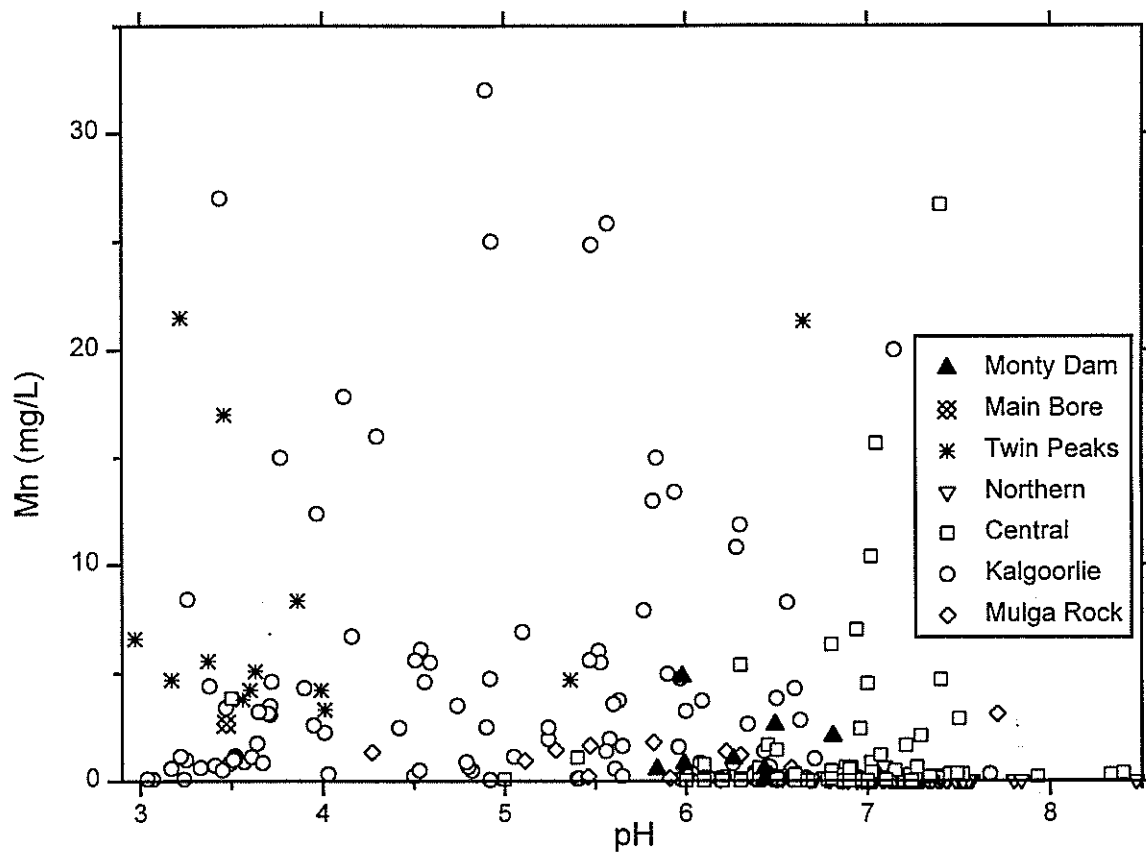


Figure A2.23: Mn vs. pH for Plough Dam and other Western Australian groundwaters.

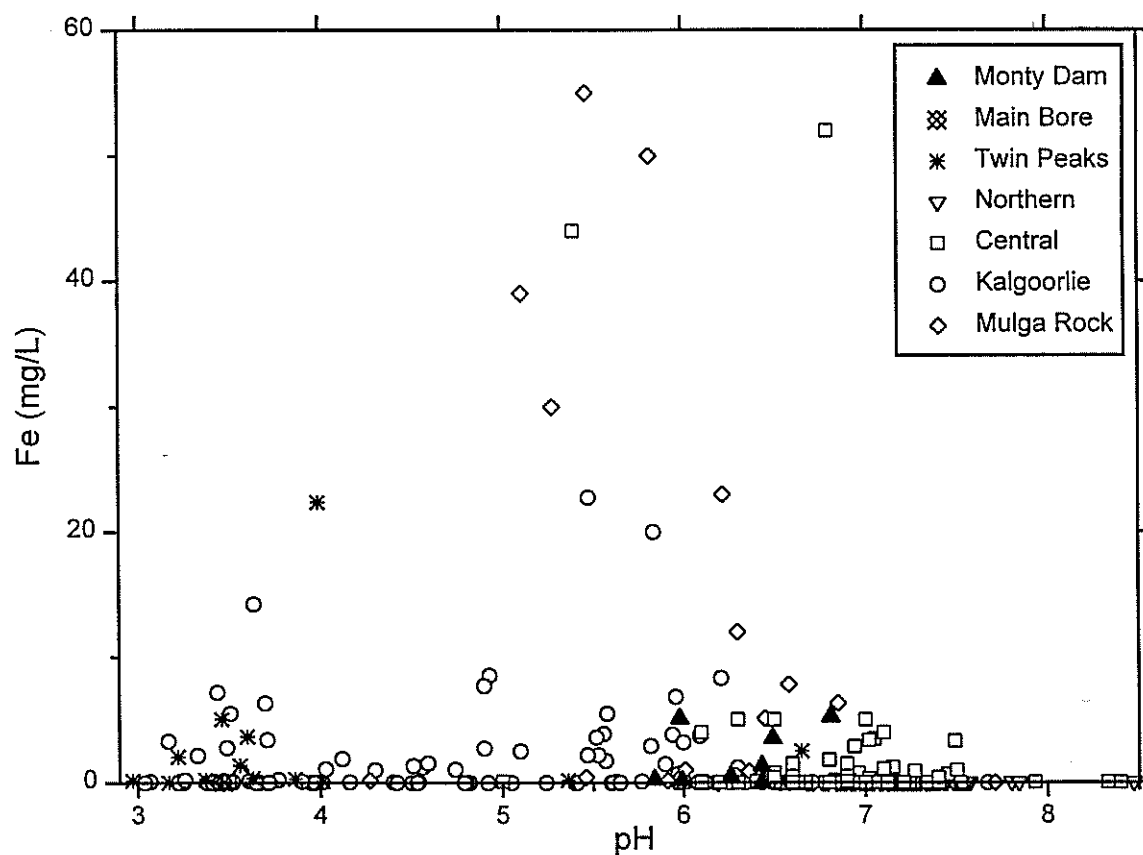


Figure A2.24: Fe vs. pH for Plough Dam and other Western Australian groundwaters.

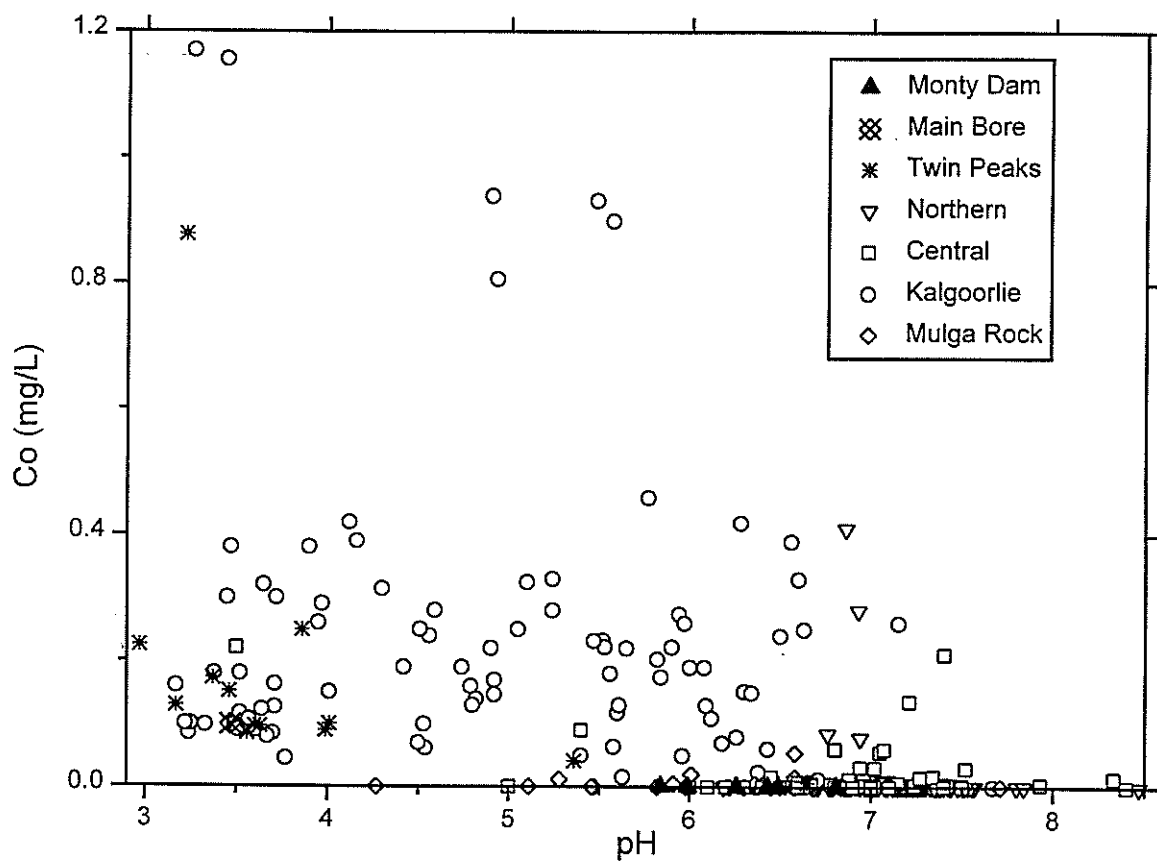


Figure A2.25: Co vs. pH for Plough Dam and other Western Australian groundwaters.

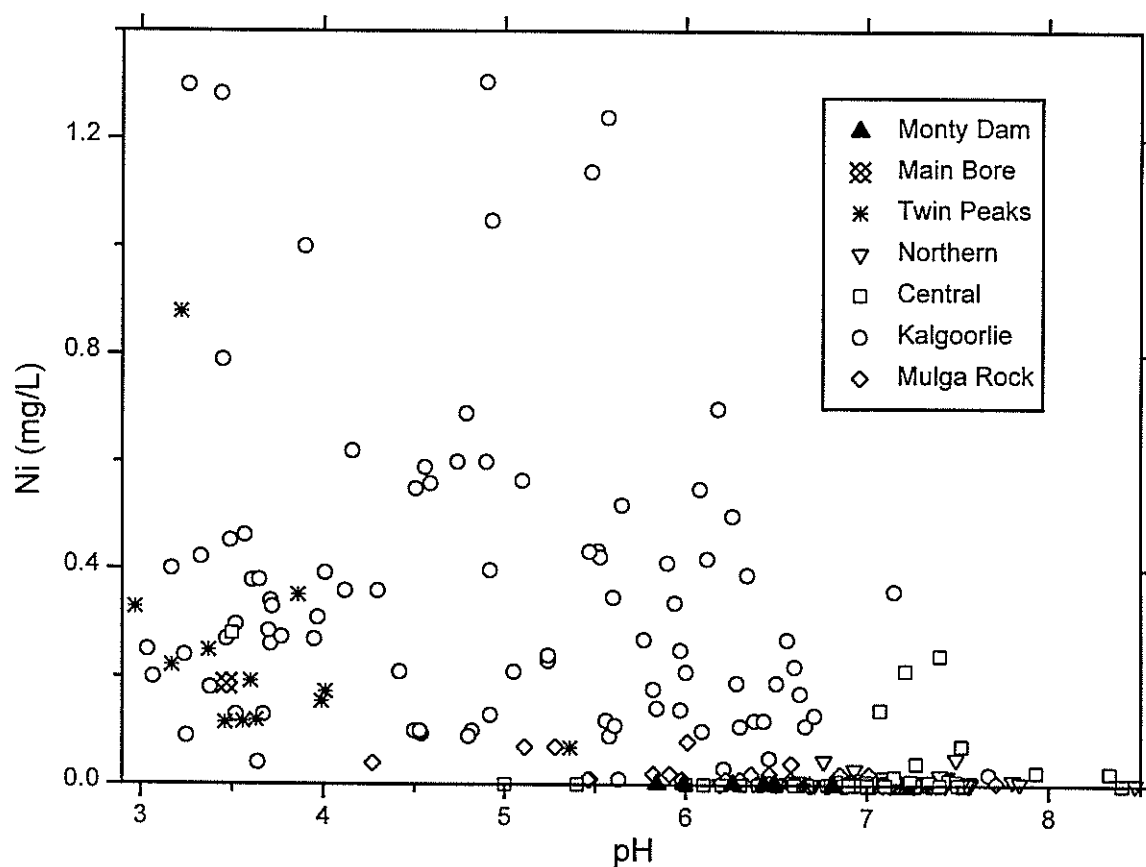


Figure A2.26: Ni vs. pH for Plough Dam and other Western Australian groundwaters.

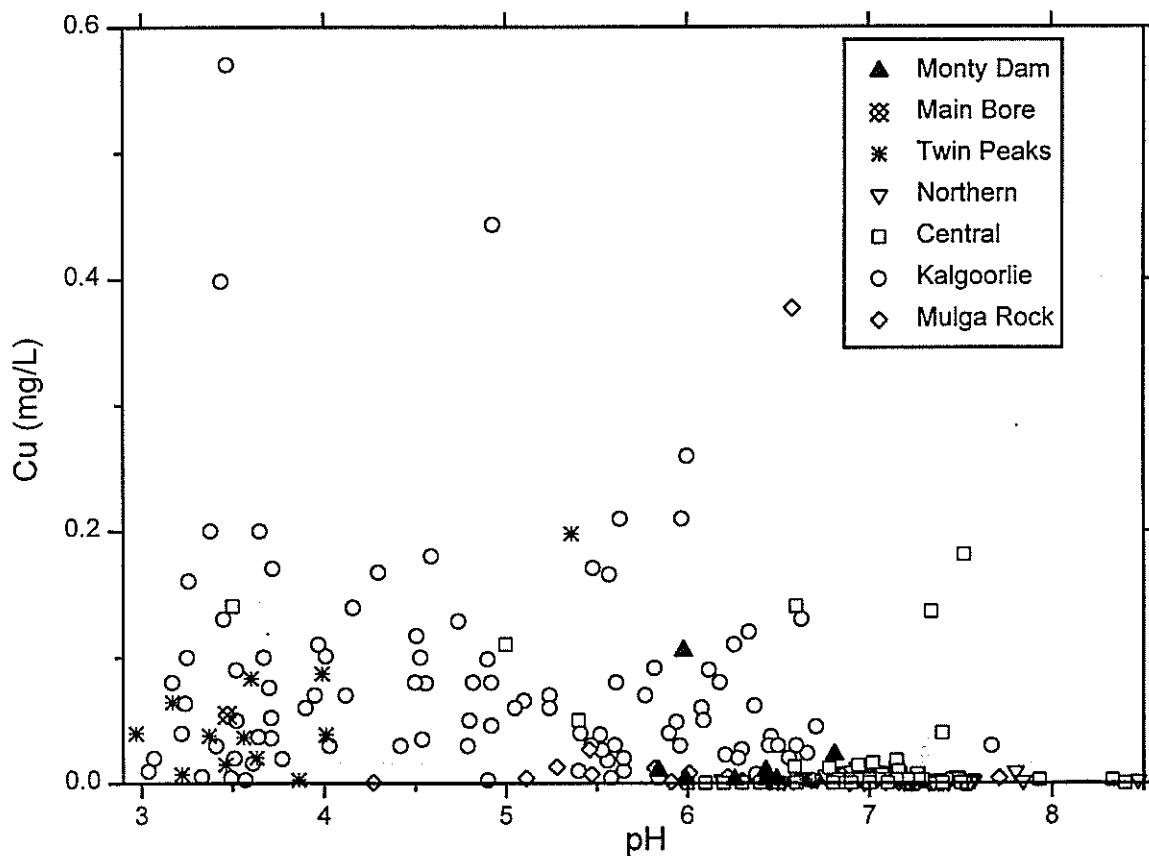


Figure A2.27: Cu vs. pH for Plough Dam and other Western Australian groundwaters.

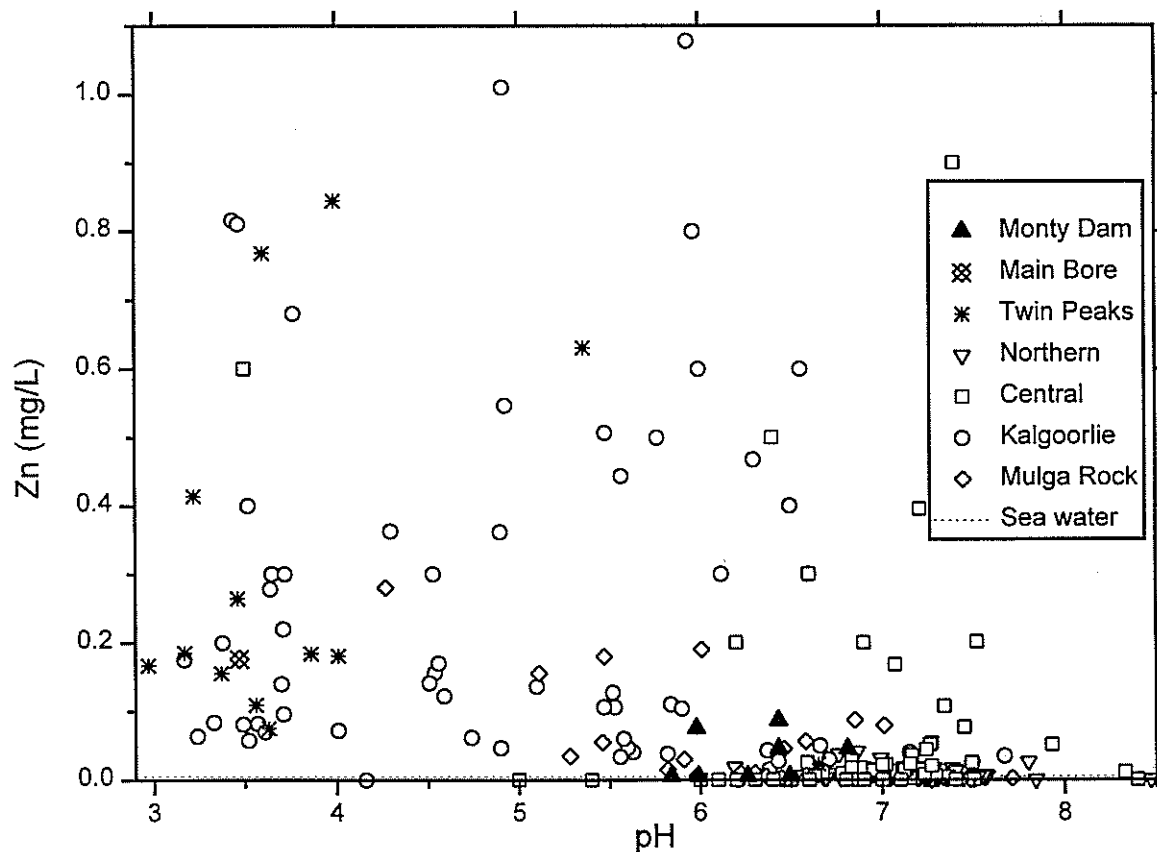


Figure A2.28: Zn vs. pH for Plough Dam and other Western Australian groundwaters.

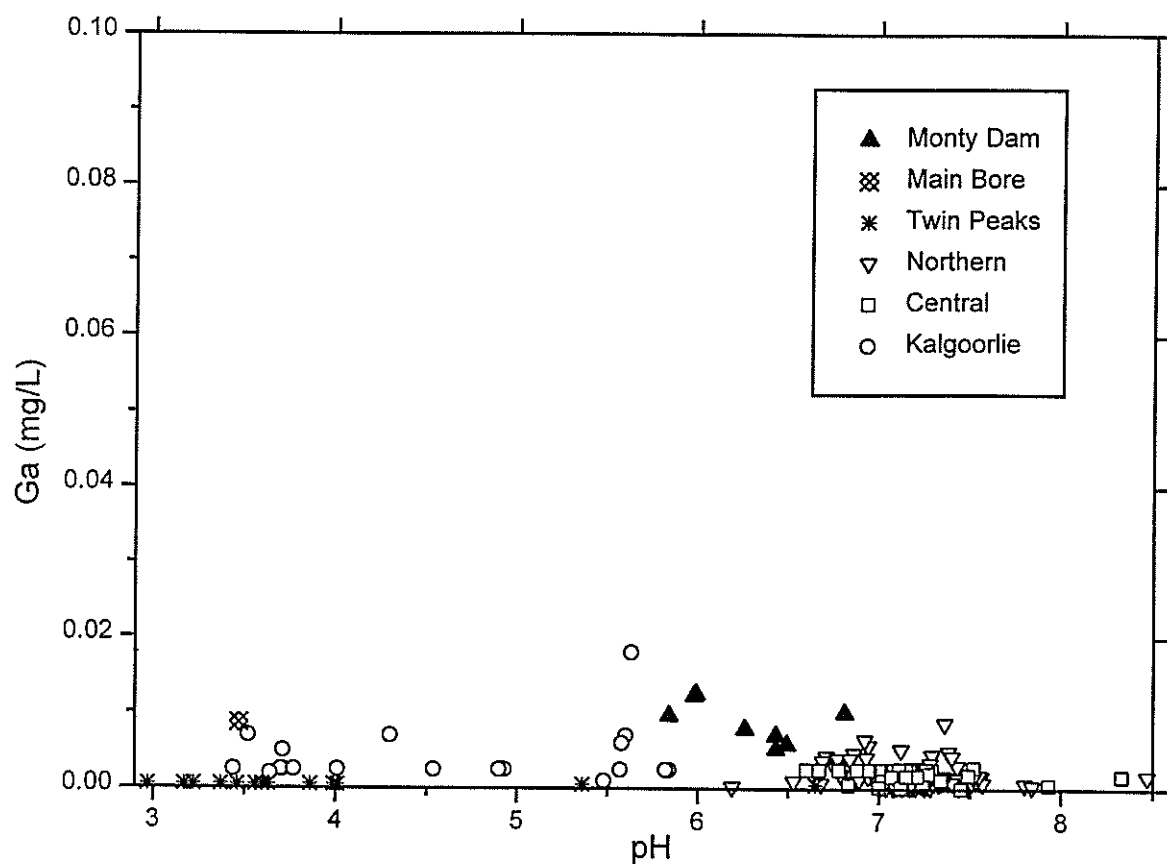


Figure A2.29: Ga vs. pH for Plough Dam and other Western Australian groundwaters.

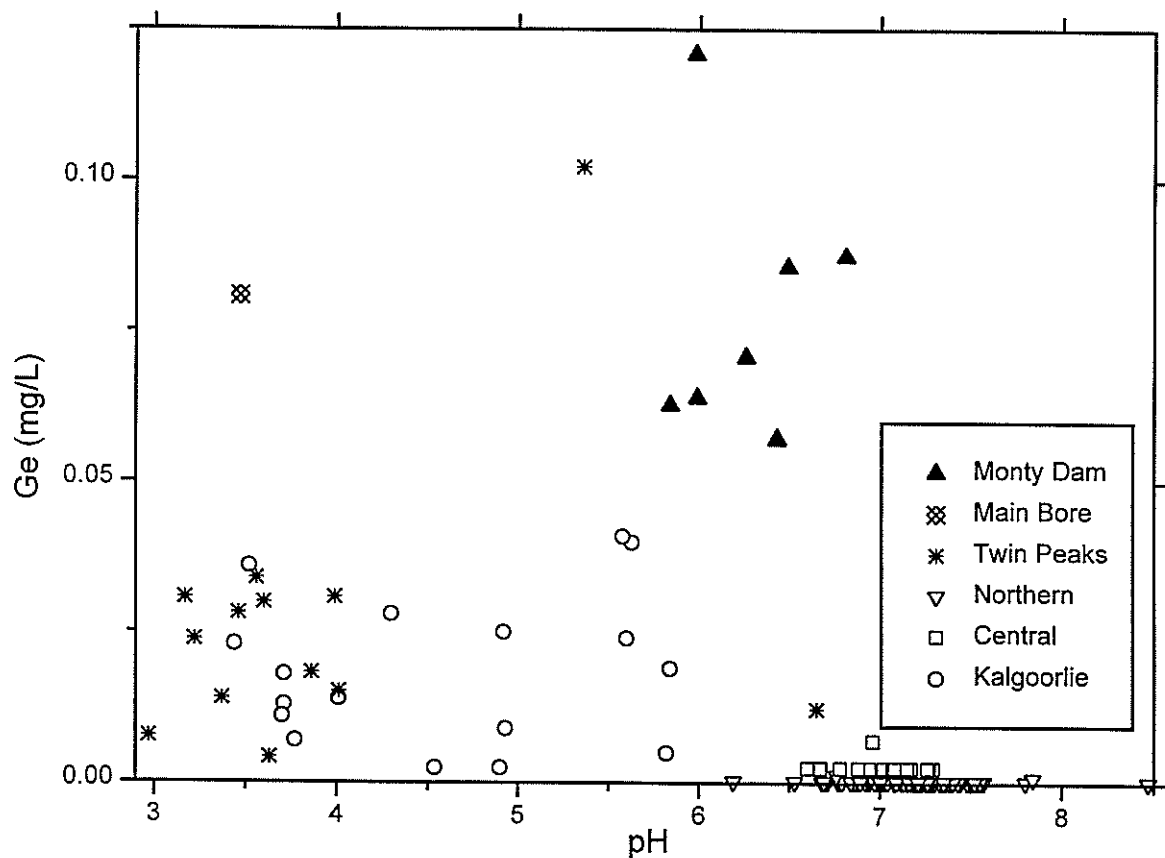


Figure A2.30: Ge vs. pH for Plough Dam and other Western Australian groundwaters.

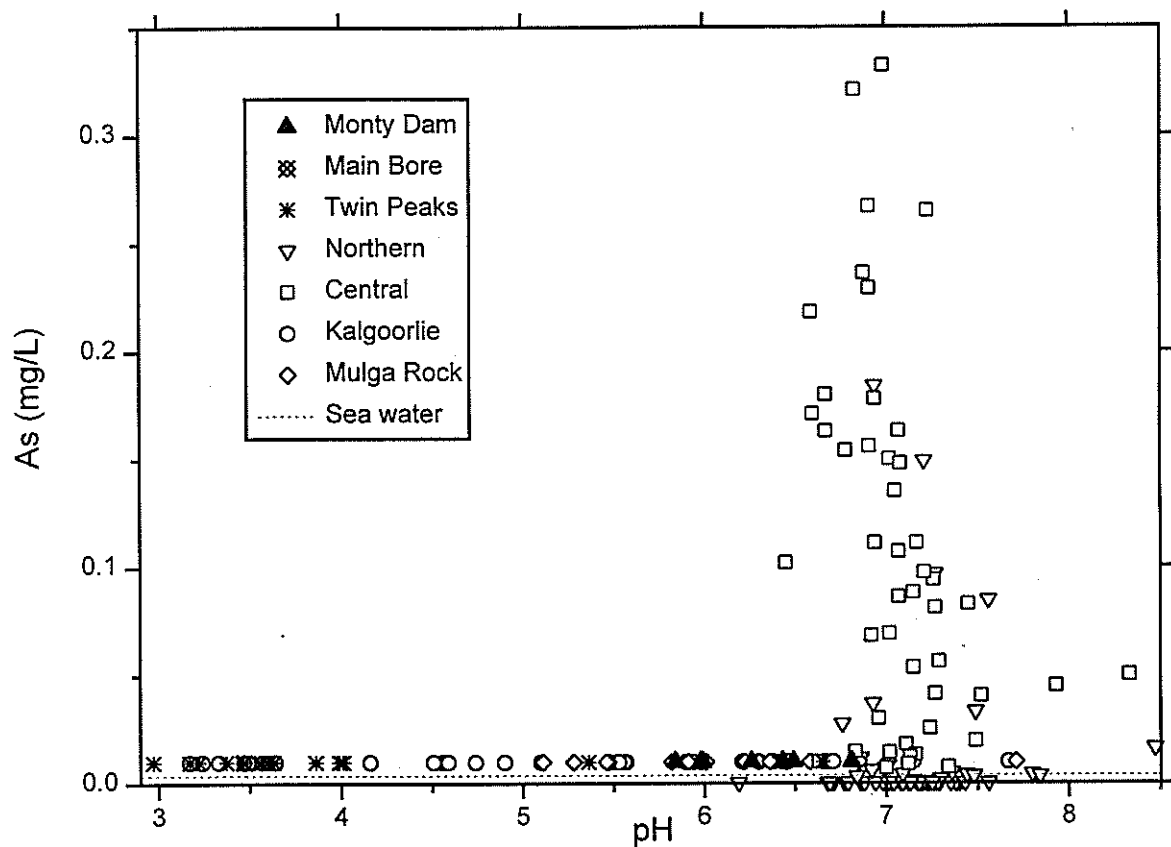


Figure A2.31: As vs. pH for Plough Dam and other Western Australian groundwaters.

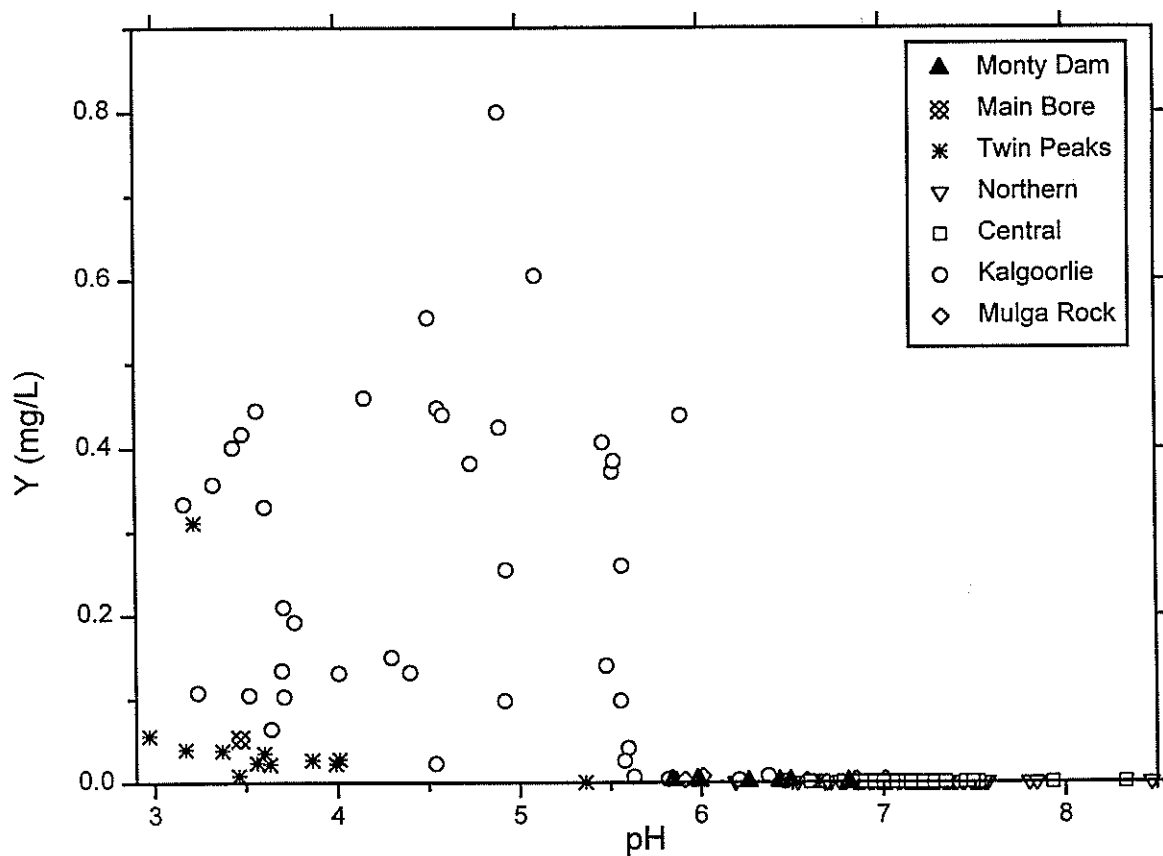


Figure A2.32: Y vs. pH for Plough Dam and other Western Australian groundwaters.

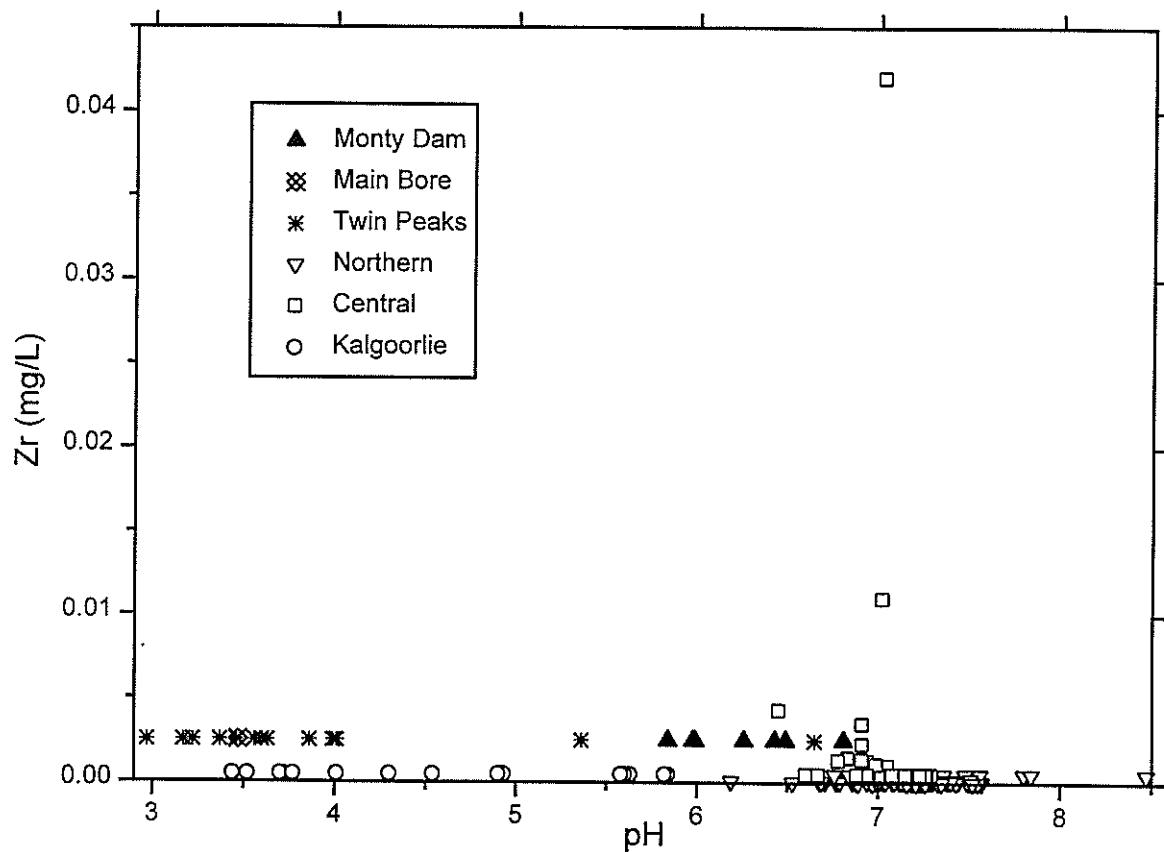


Figure A2.33: Zr vs. pH for Plough Dam and other Western Australian groundwaters.

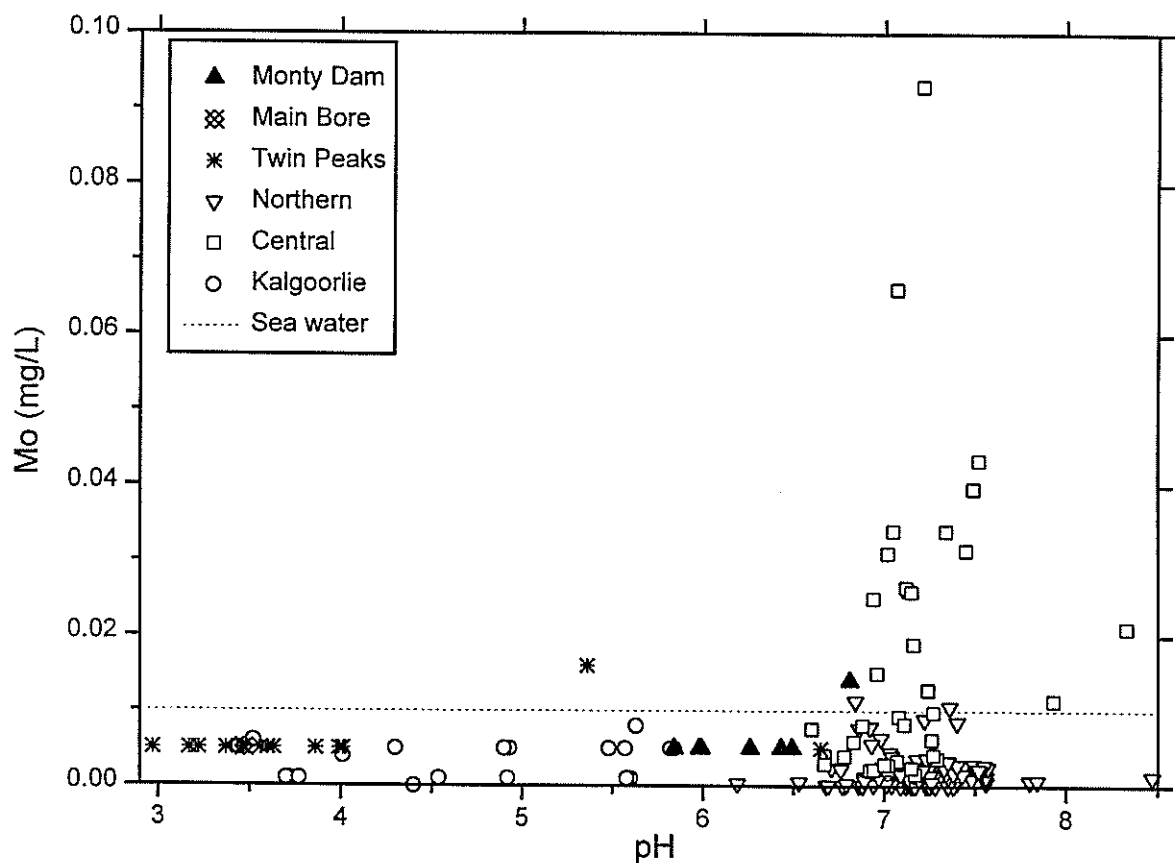


Figure A2.34: Mo vs. pH for Plough Dam and other Western Australian groundwaters.

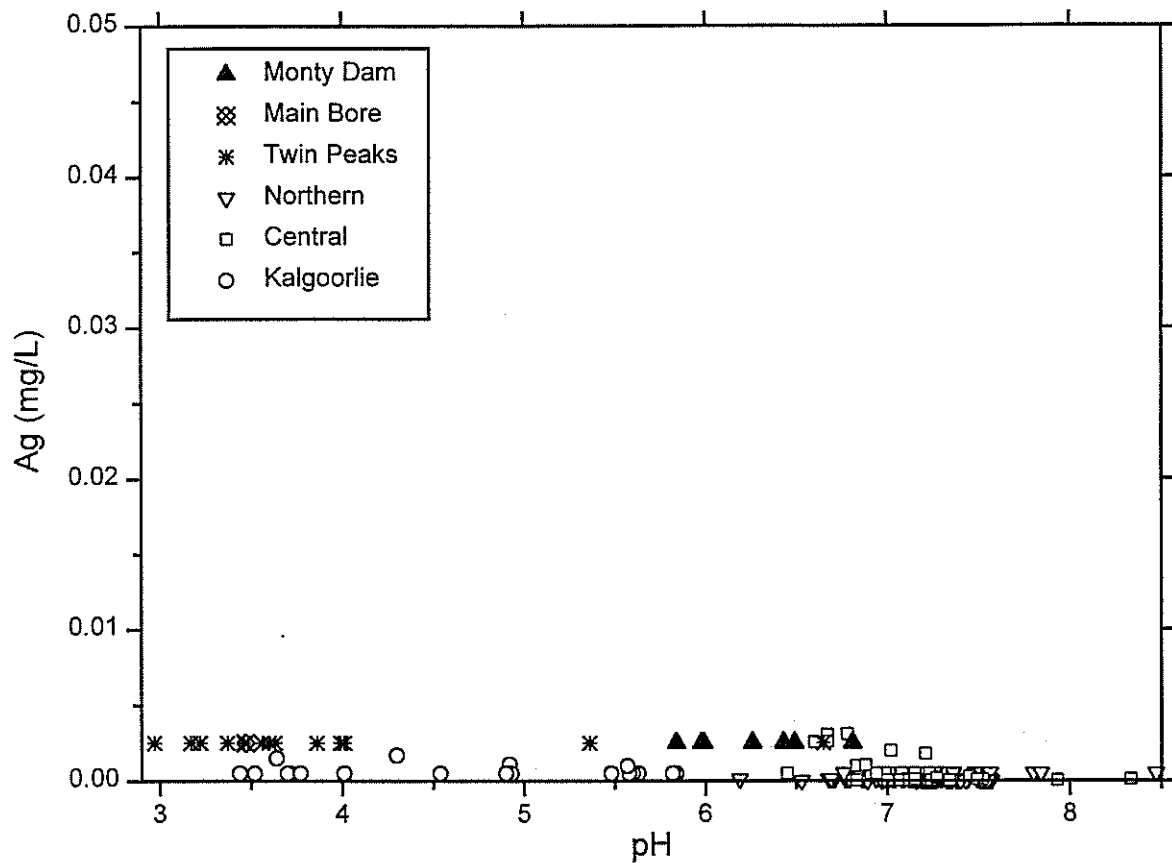


Figure A2.35: Ag vs. pH for Plough Dam and other Western Australian groundwaters.

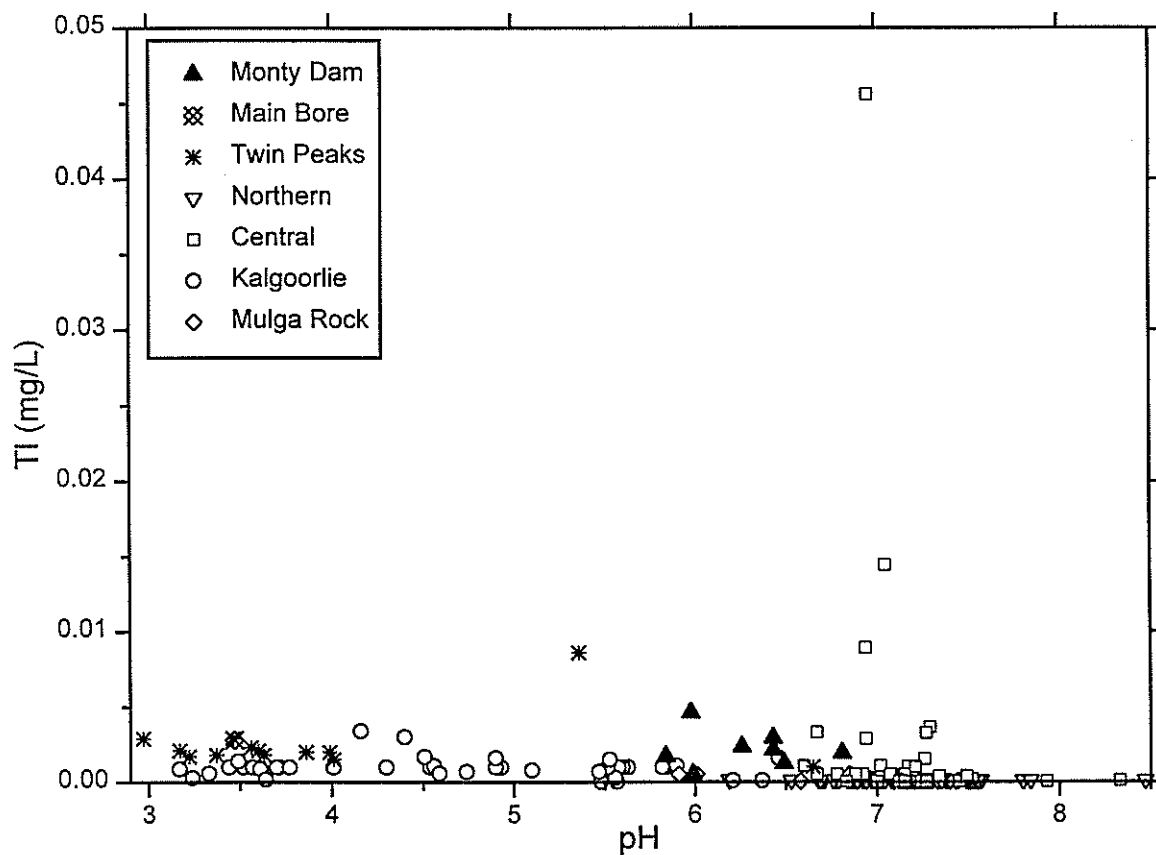


Figure A2.36: Tl vs. pH for Plough Dam and other Western Australian groundwaters.

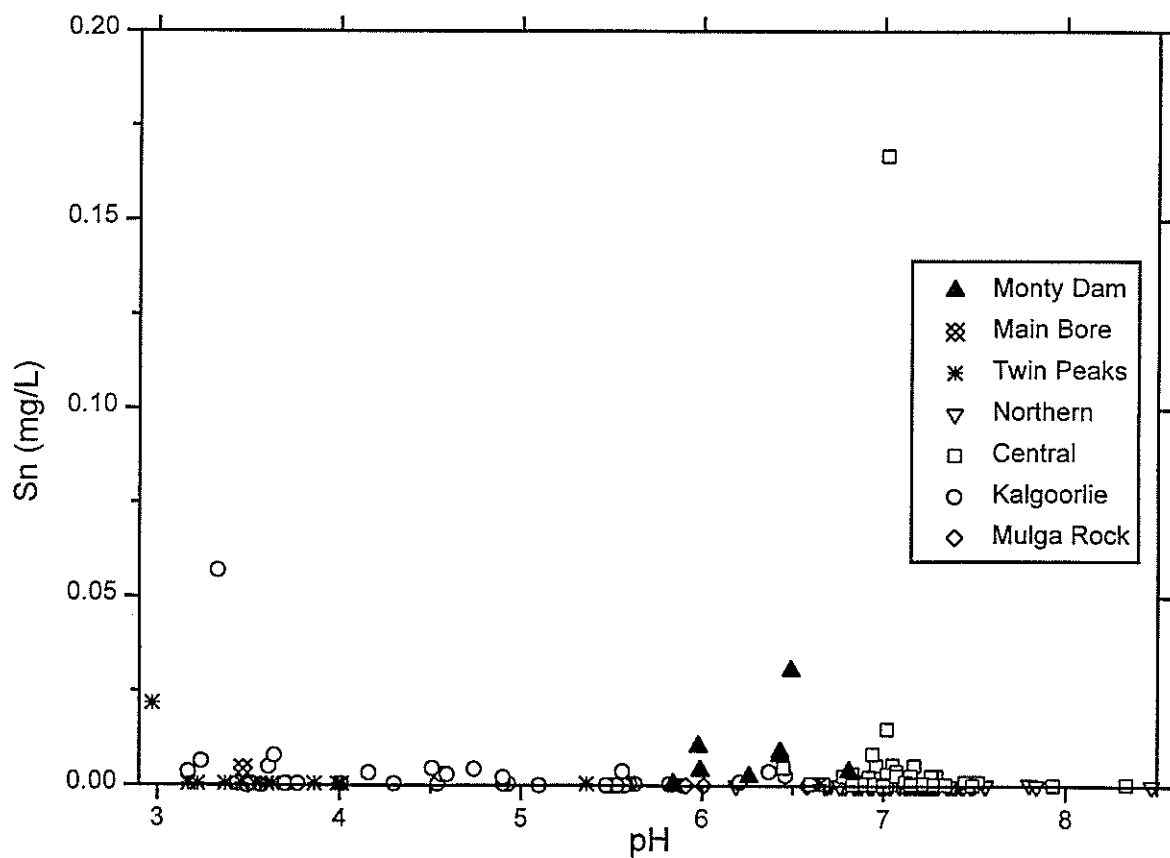


Figure A2.37: Sn vs. pH for Plough Dam and other Western Australian groundwaters.

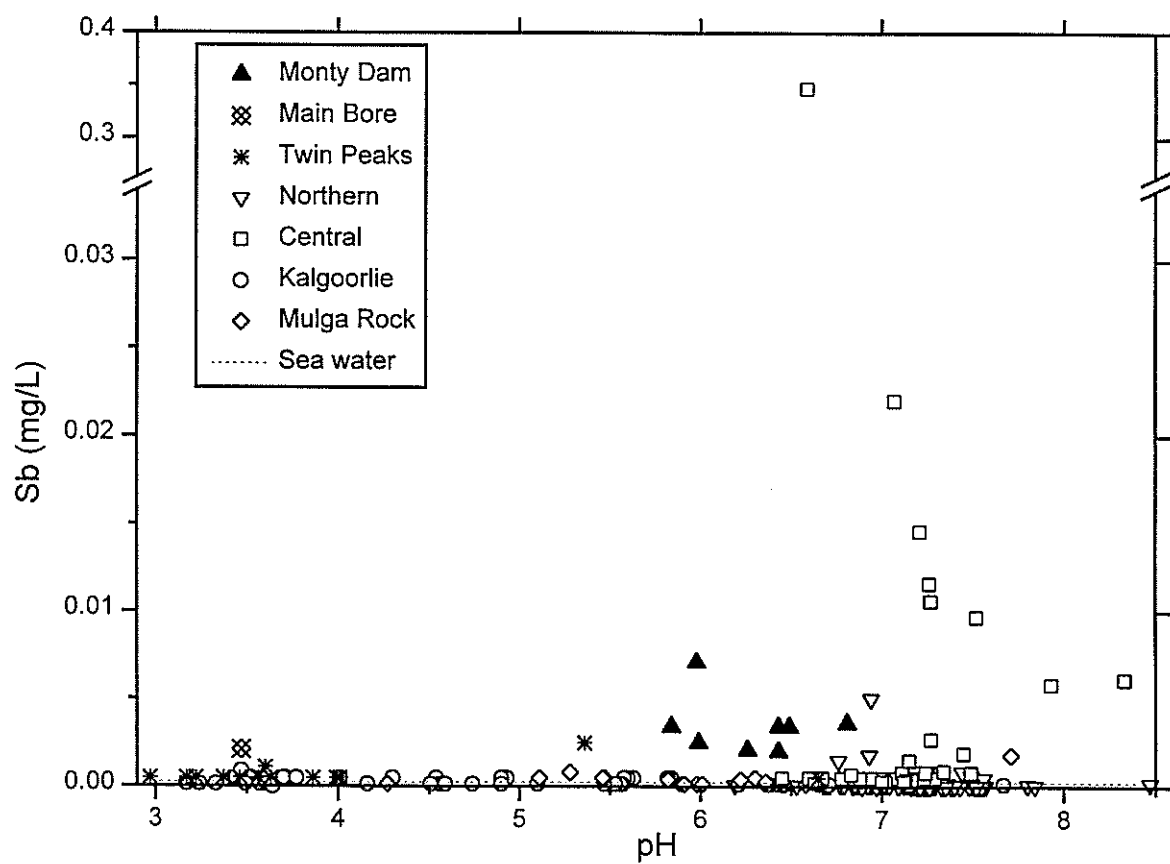


Figure A2.38: Sb vs. pH for Plough Dam and other Western Australian groundwaters.

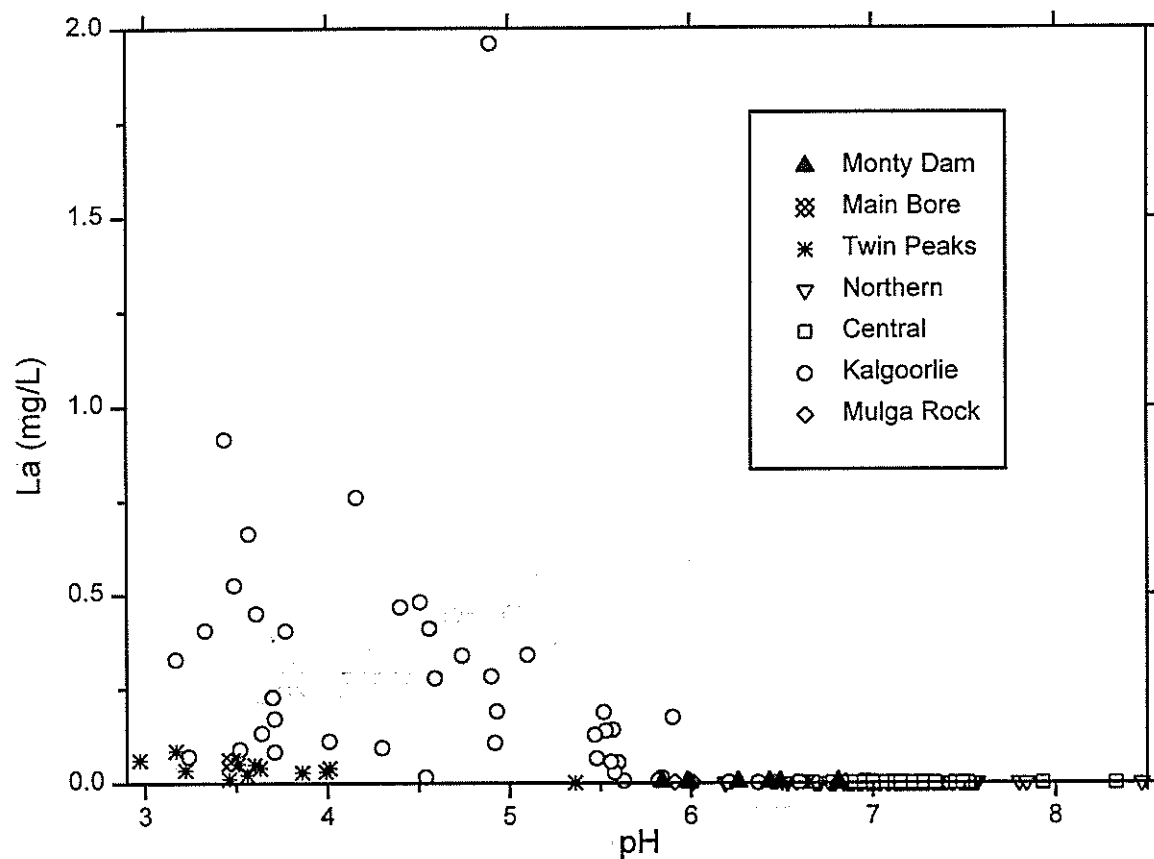


Figure A2.39: La vs. pH for Plough Dam and other Western Australian groundwaters.

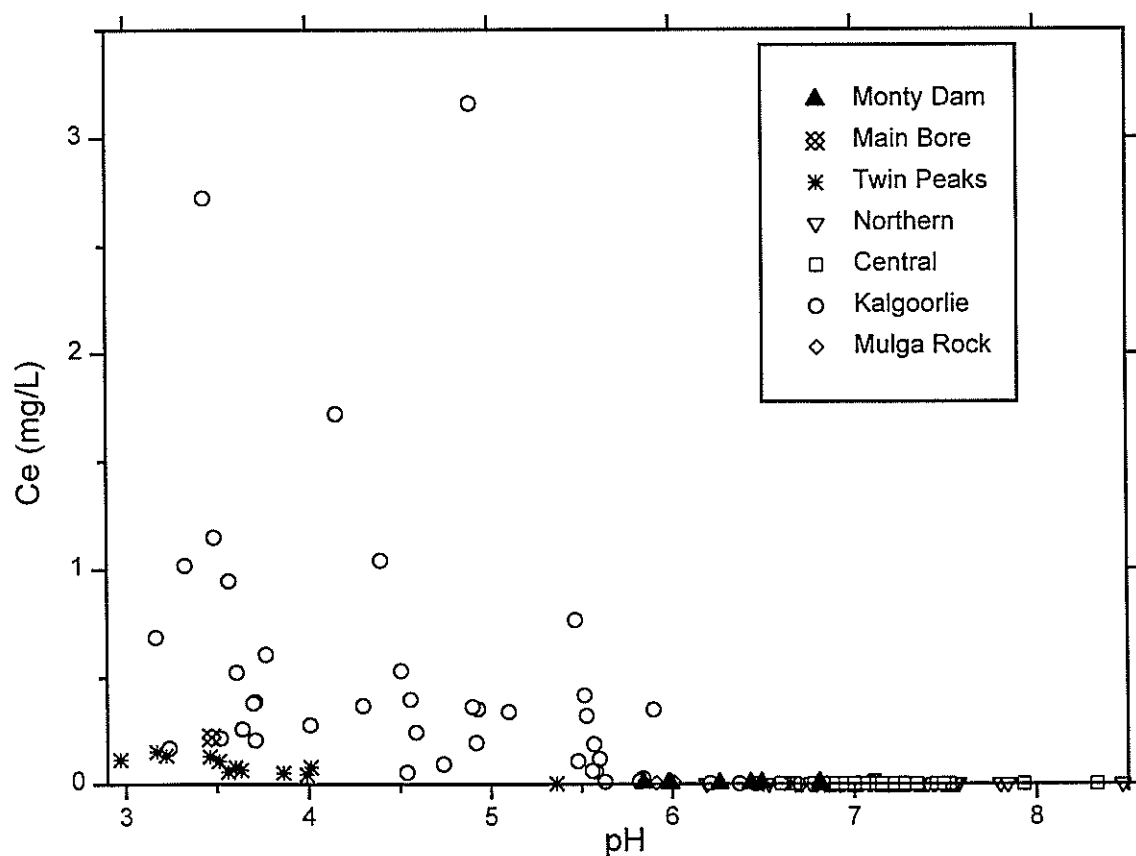


Figure A2.40: Ce vs. pH for Plough Dam and other Western Australian groundwaters.

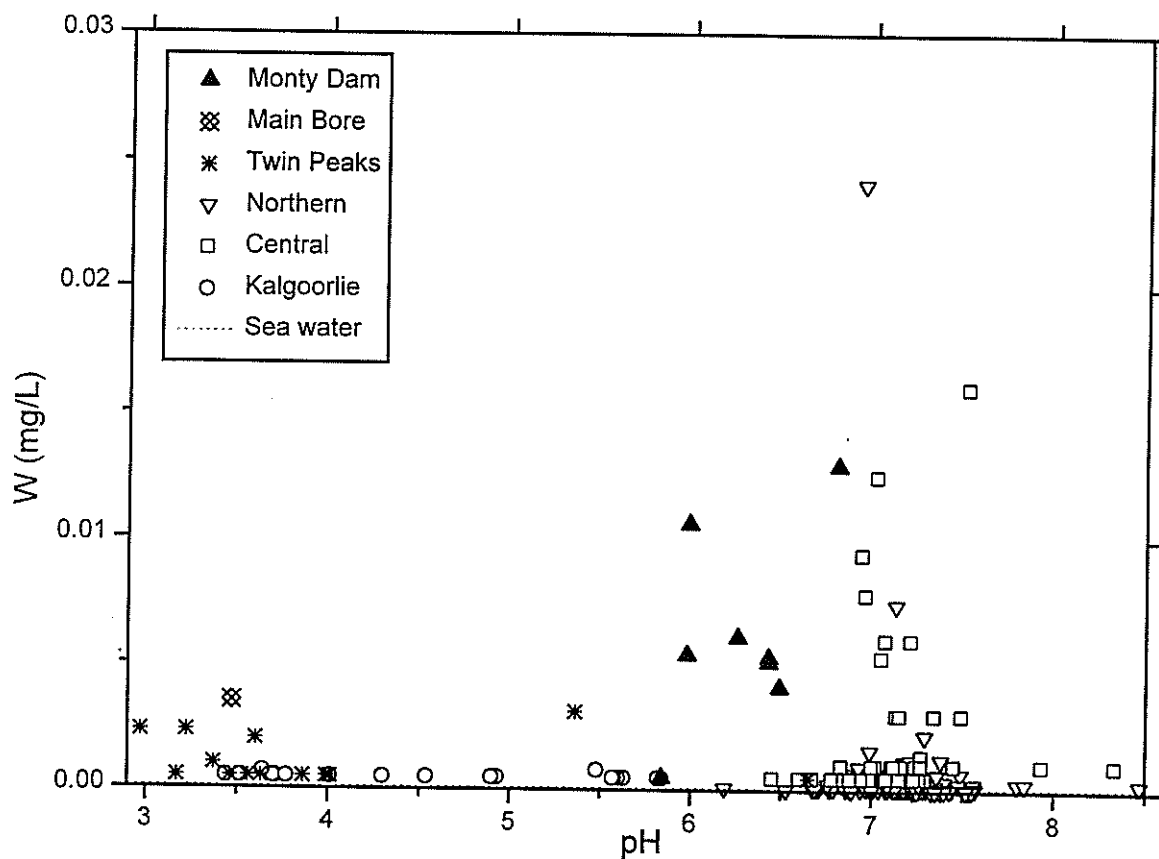


Figure A2.41: W vs. pH for Plough Dam and other Western Australian groundwaters.

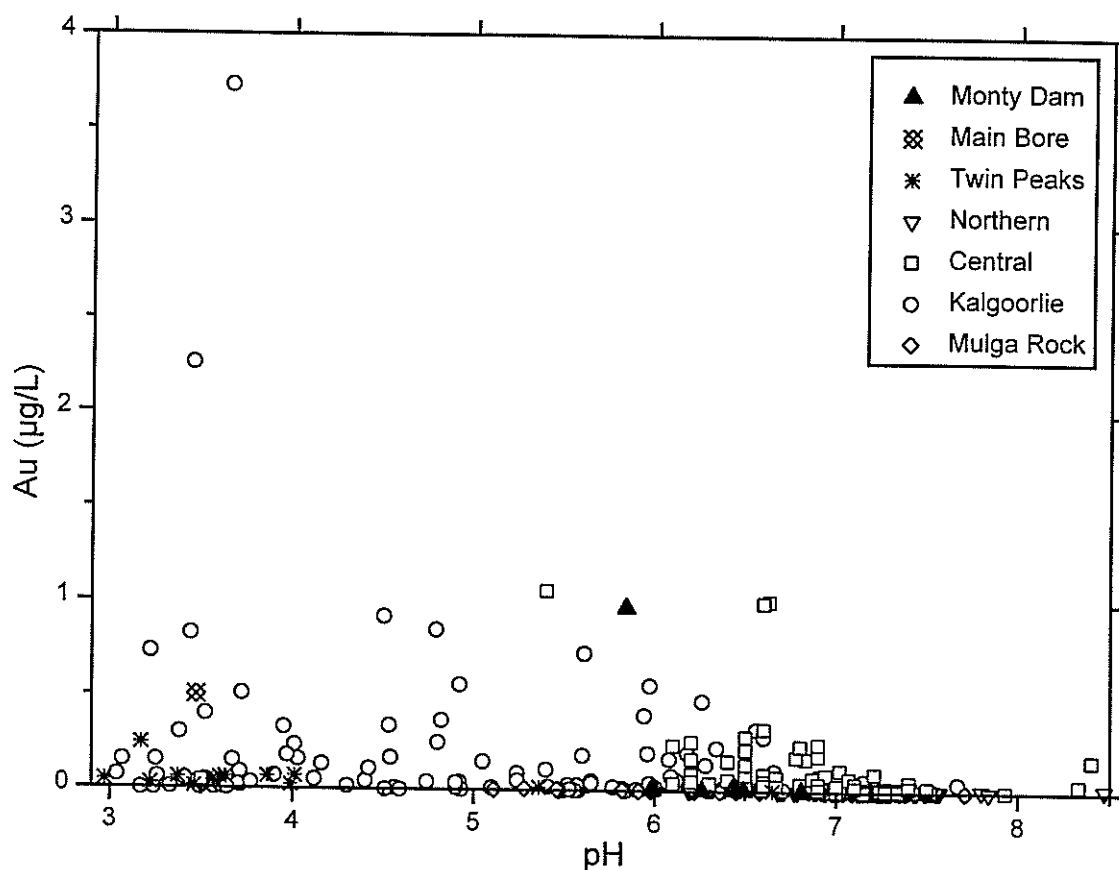


Figure A2.42: Au vs. pH for Plough Dam and other Western Australian groundwaters.

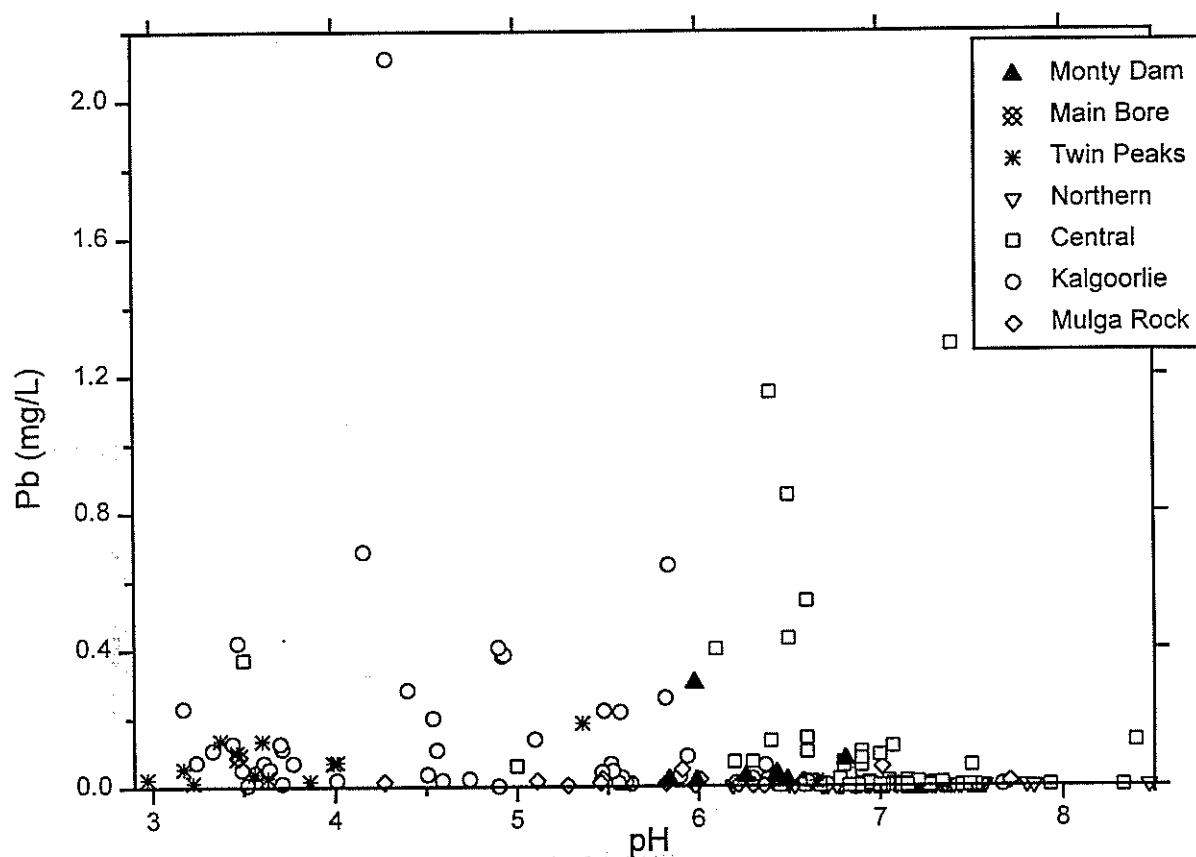


Figure A2.43: Pb vs. pH for Plough Dam and other Western Australian groundwaters.

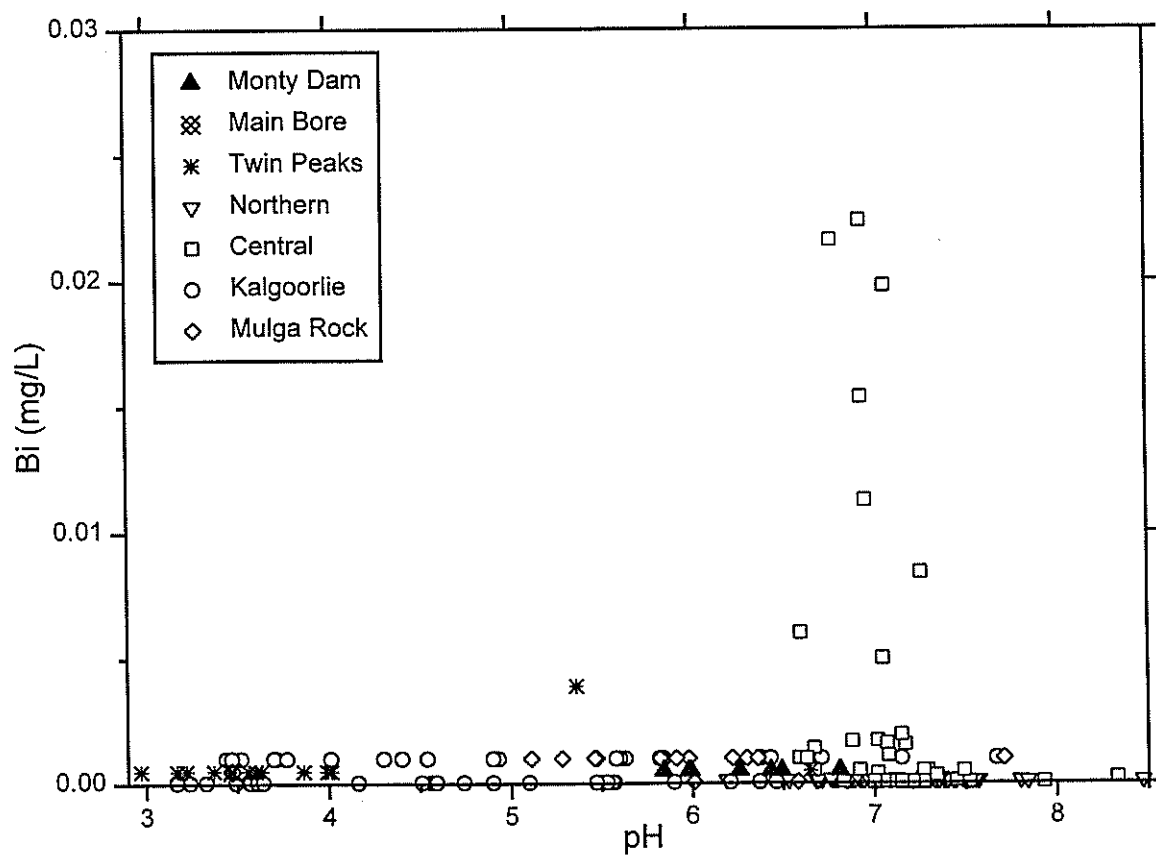


Figure A2.44: Bi vs. pH for Plough Dam and other Western Australian groundwaters.

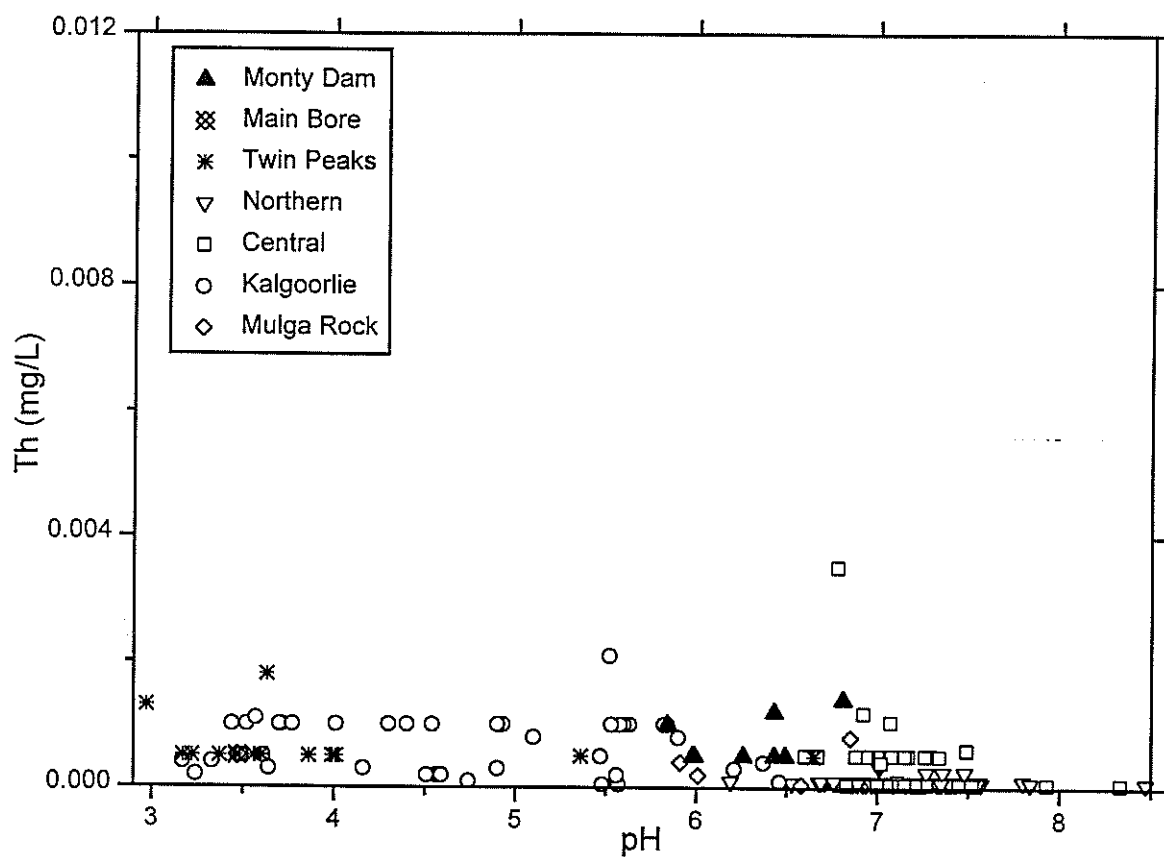


Figure A2.45: Th vs. pH for Plough Dam and other Western Australian groundwaters.

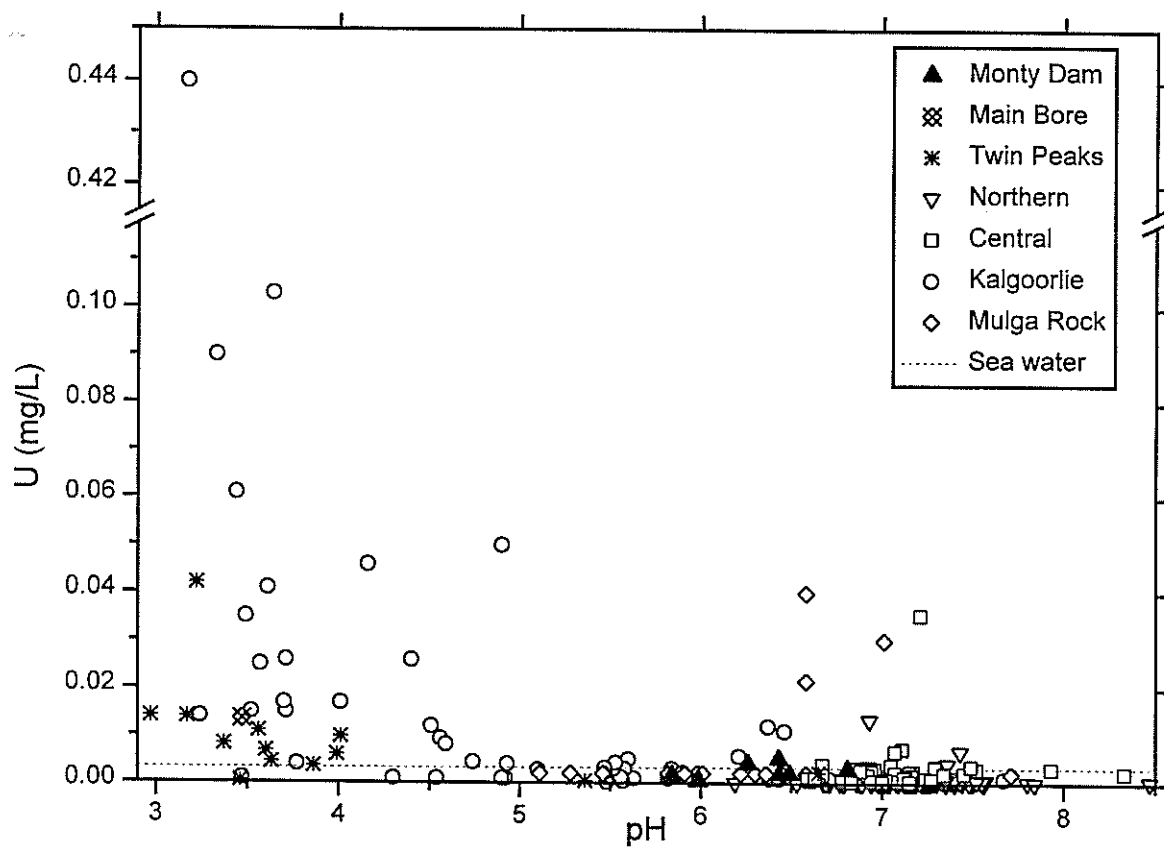


Figure A2.46: U vs. pH for Plough Dam and other Western Australian groundwaters.

APPENDIX 3: SATURATION INDICES FOR GROUNDWATERS

CAPTIONS FOR FIGURES

- *Twin Peaks groundwaters* - collected from Twin Peaks Au deposit during this project.
- *Monty Dam groundwaters* - collected from Monty Dam Au deposit during this project.
- *Main Bore groundwater* - collected from Main Bore during this project.
- *Northern groundwaters* - (Northern Yilgarn and margins)
Groundwaters in these areas are fresh and neutral, trending more saline in the valley floors.
- *Central groundwaters* - (close to and north of the Menzies line)
Groundwaters are neutral and brackish (commonly < 1% TDS) to saline (about 3% TDS), trending to hypersaline (10 - 30% TDS) at the salt lakes, with common increases in salinity with depth.
- *Kalgoorlie groundwaters* -
These groundwaters are commonly acid (pH 3 - 5), except where buffered by extremely alkaline materials (*e.g.*, ultramafic rocks), and saline within the top part of the groundwater mass, trending to more neutral (pH 5 - 7) and hypersaline at depth and when within a few kilometres of various salt lakes in the region.
- *Mulga Rock* -
Groundwaters are saline to hypersaline and neutral to acid. The major ion chemistry is similar to that of the Kalgoorlie region, but the dissolved concentration of many other ions is low, due to the presence of lignites in the channel sediments.
- *Sea water* - compiled from the literature.

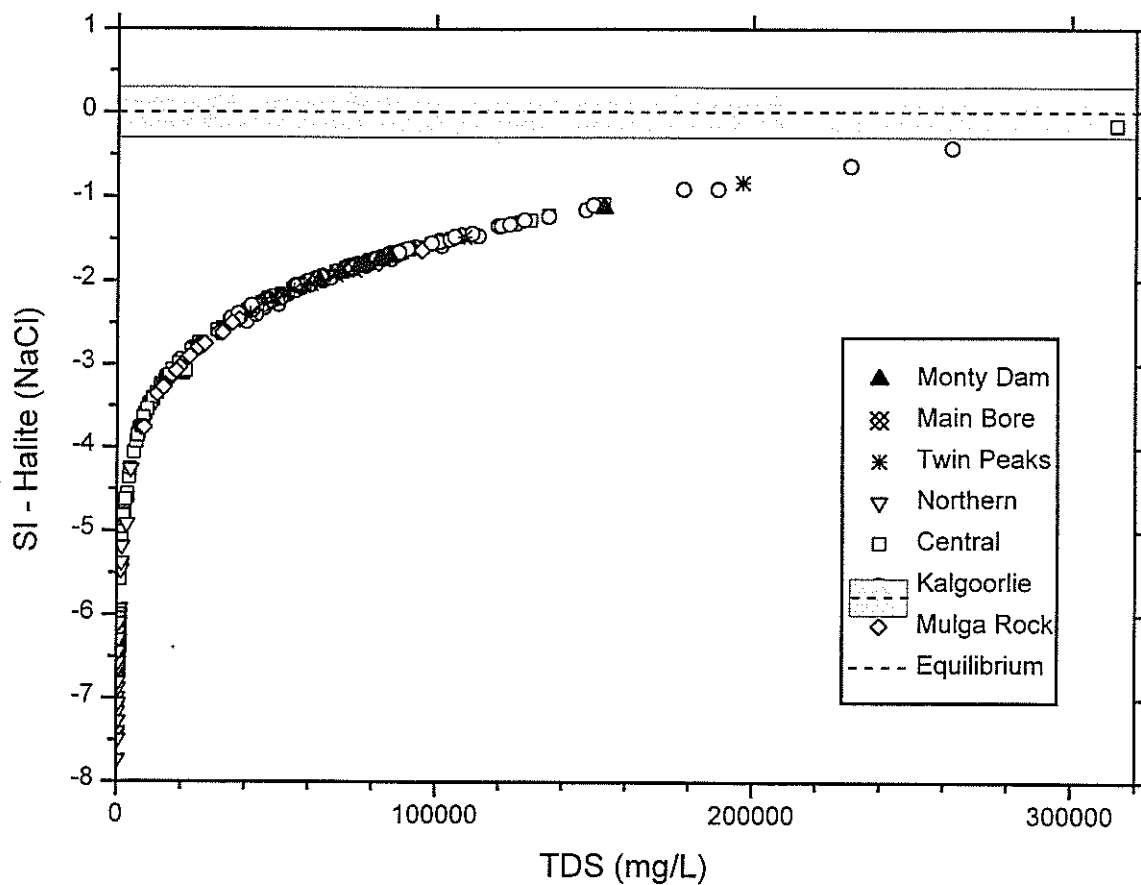


Figure A3.1: SI for halite vs. TDS for Plough Dam and other Western Australian groundwaters.

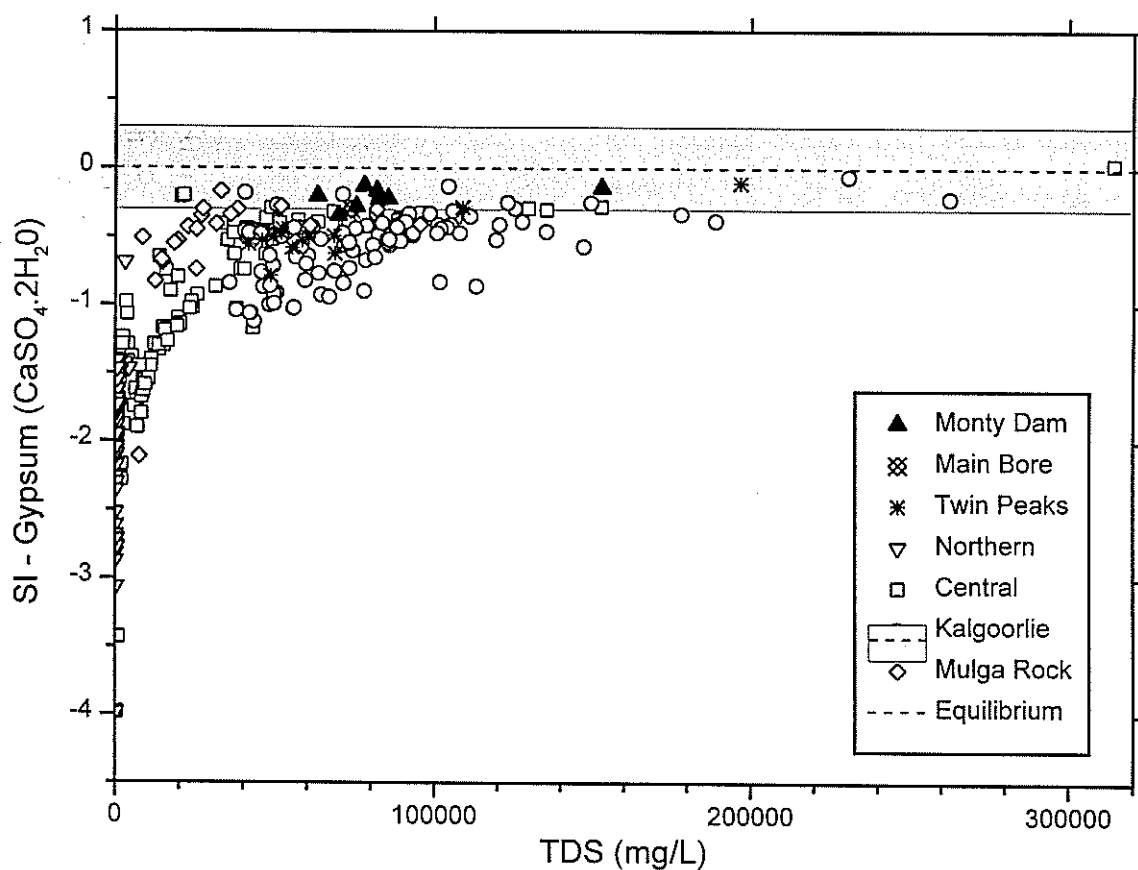


Figure A3.2: SI for gypsum vs. TDS for Plough Dam and other Western Australian groundwaters.

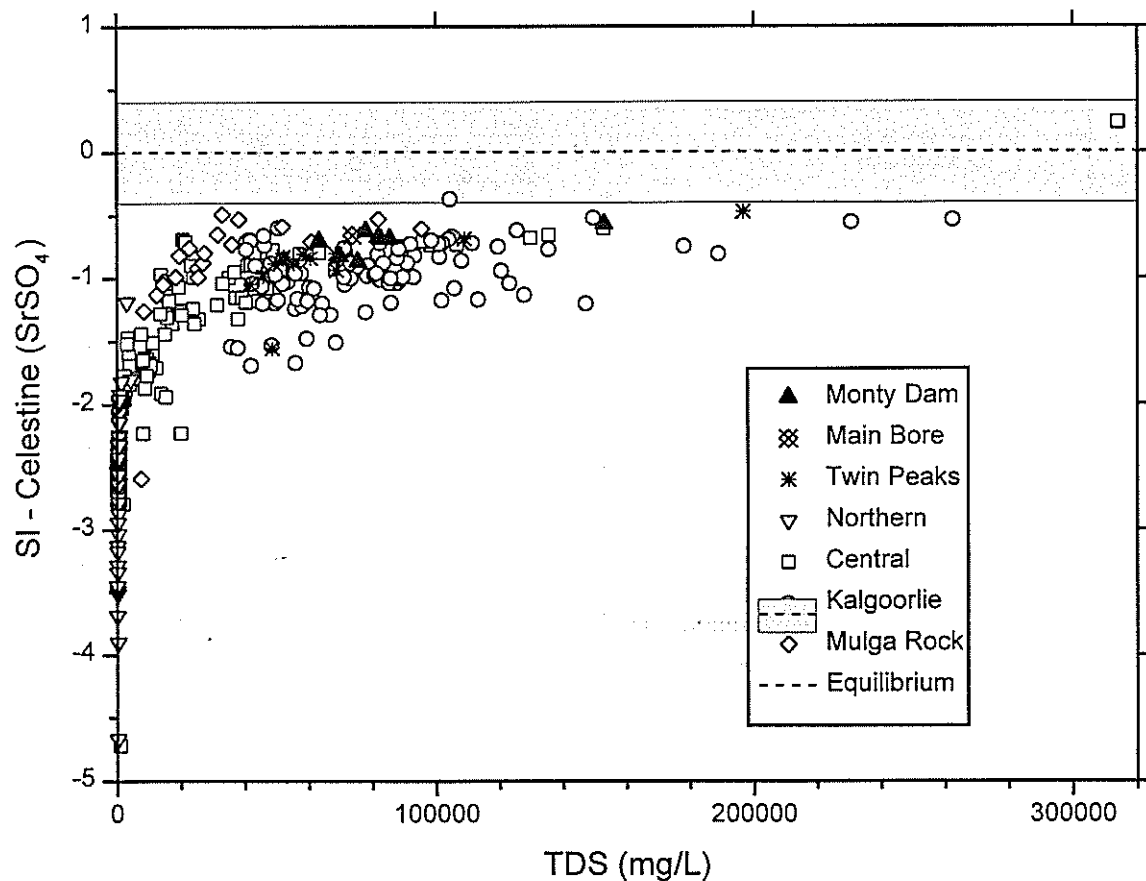


Figure A3.3: SI for celestine vs. TDS for Plough Dam and other Western Australian groundwaters

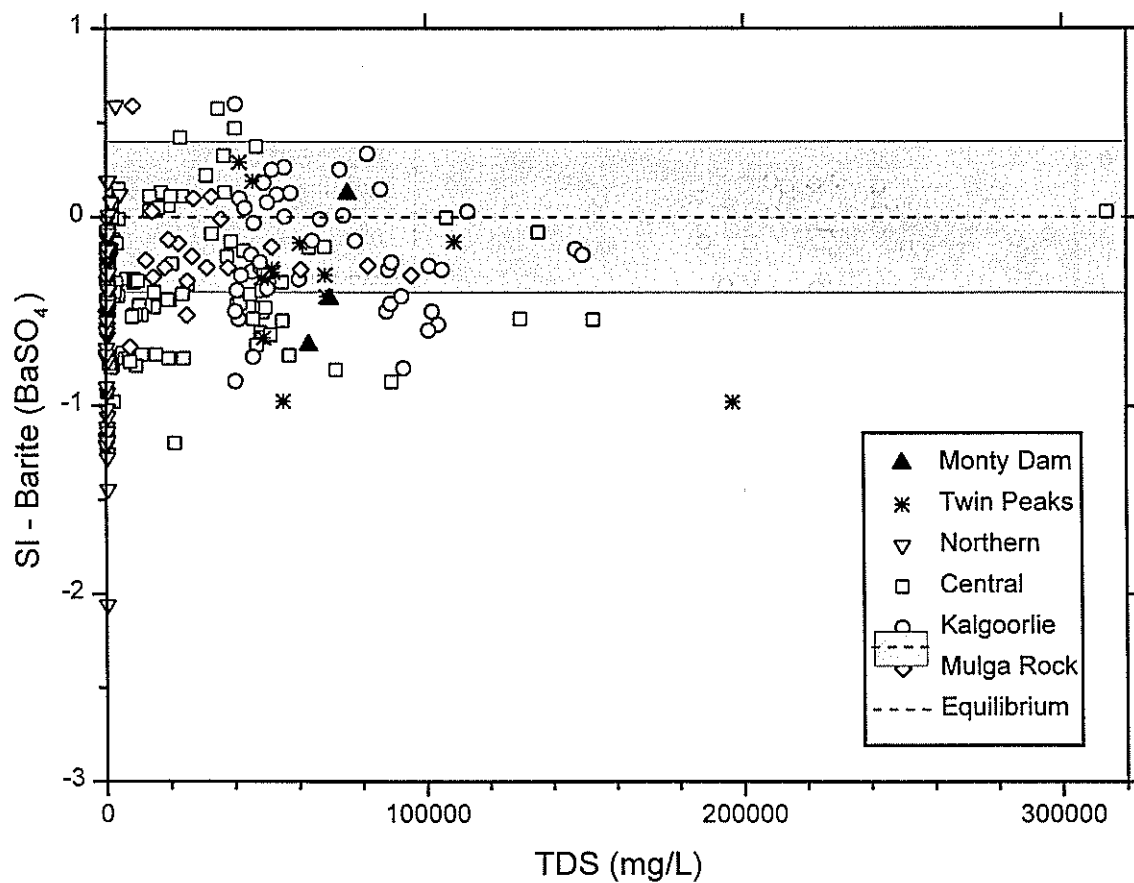


Figure A3.4: SI for barite vs. TDS for Plough Dam and other Western Australian groundwaters.

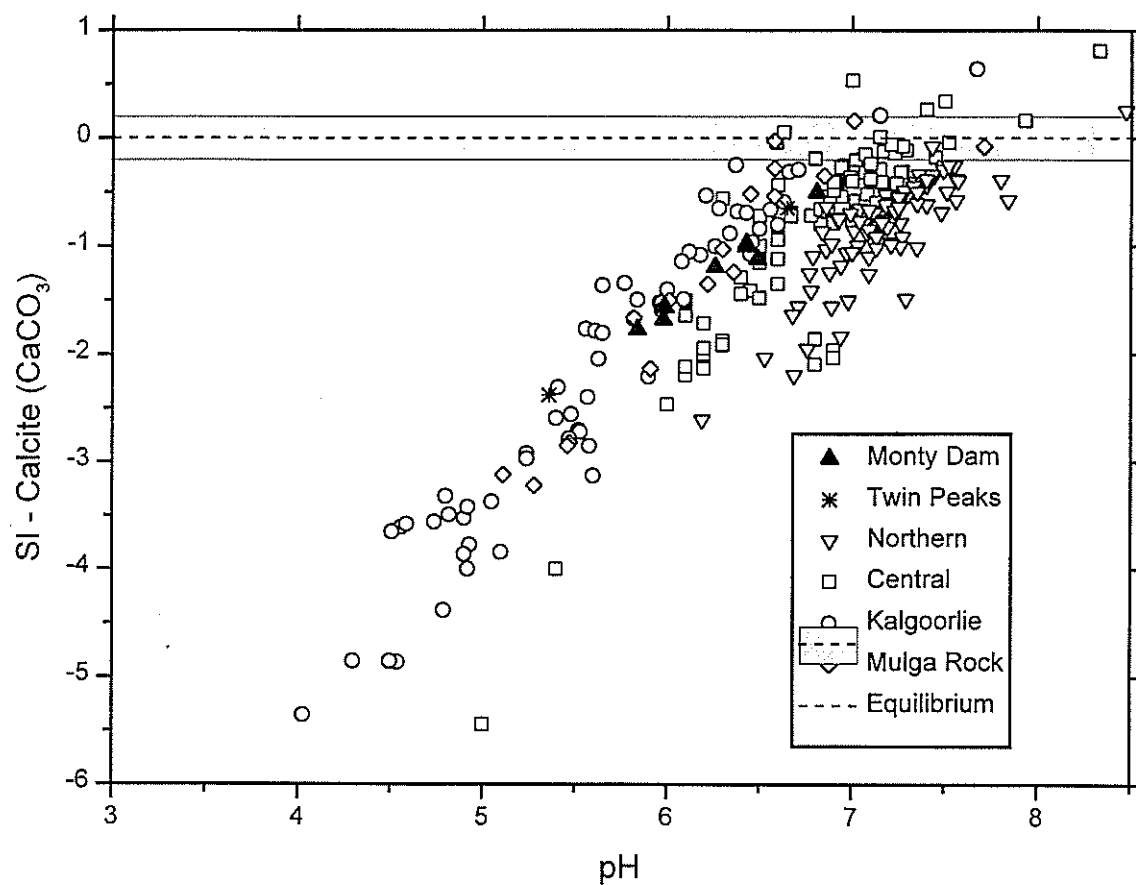


Figure A3.5: SI for calcite vs. pH for Plough Dam and other Western Australian groundwaters.

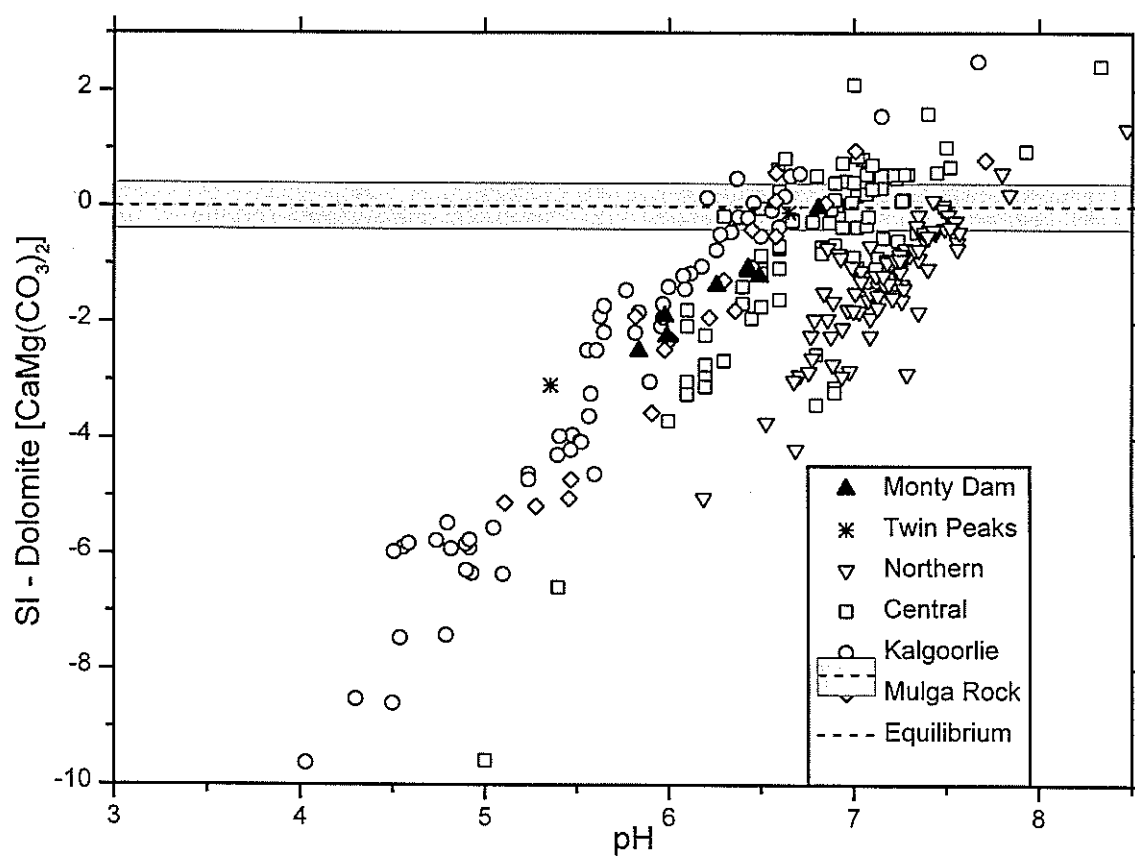


Figure A3.6: SI for dolomite vs. pH for Plough Dam and other Western Australian groundwaters.

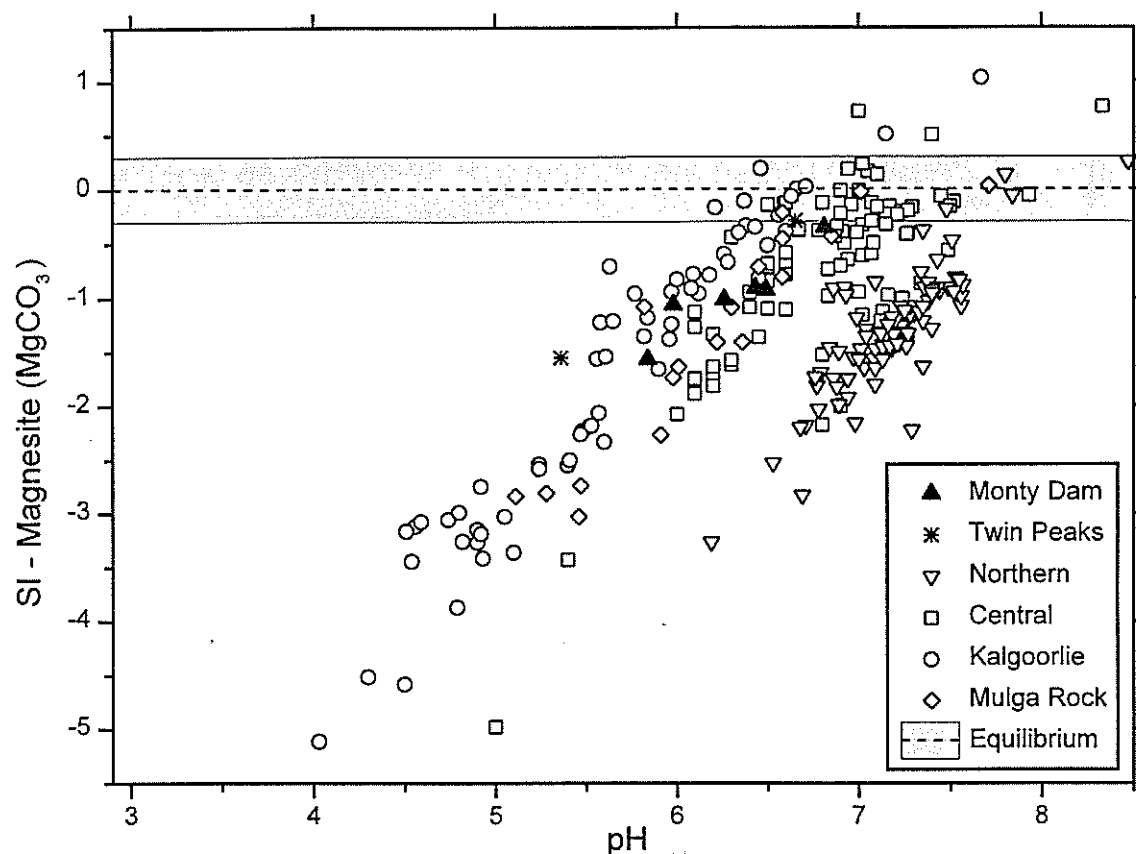


Figure A3.7 SI for magnesite vs. pH for Plough Dam and other Western Australian groundwaters.

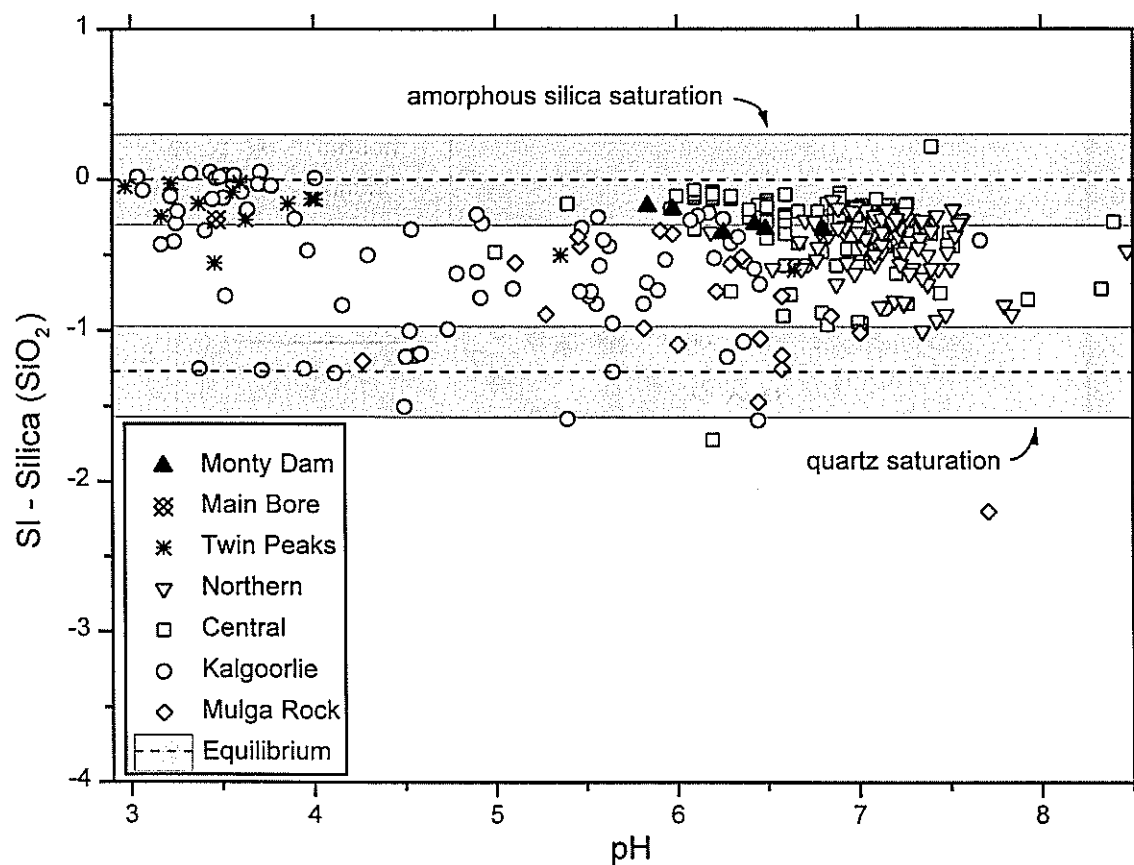


Figure A3.8: SI for silica vs. pH for Plough Dam and other Western Australian groundwaters.

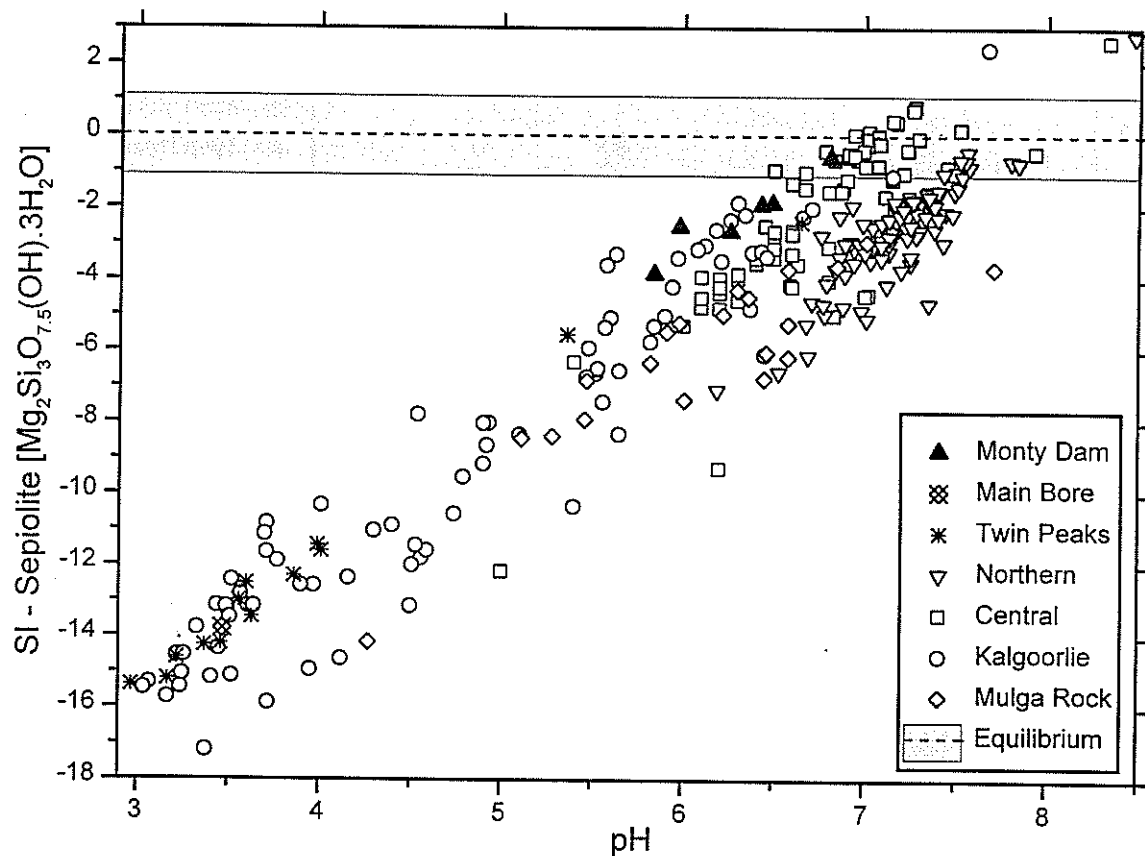


Figure A3.9: SI for sepiolite vs. pH for Plough Dam and other Western Australian groundwaters.

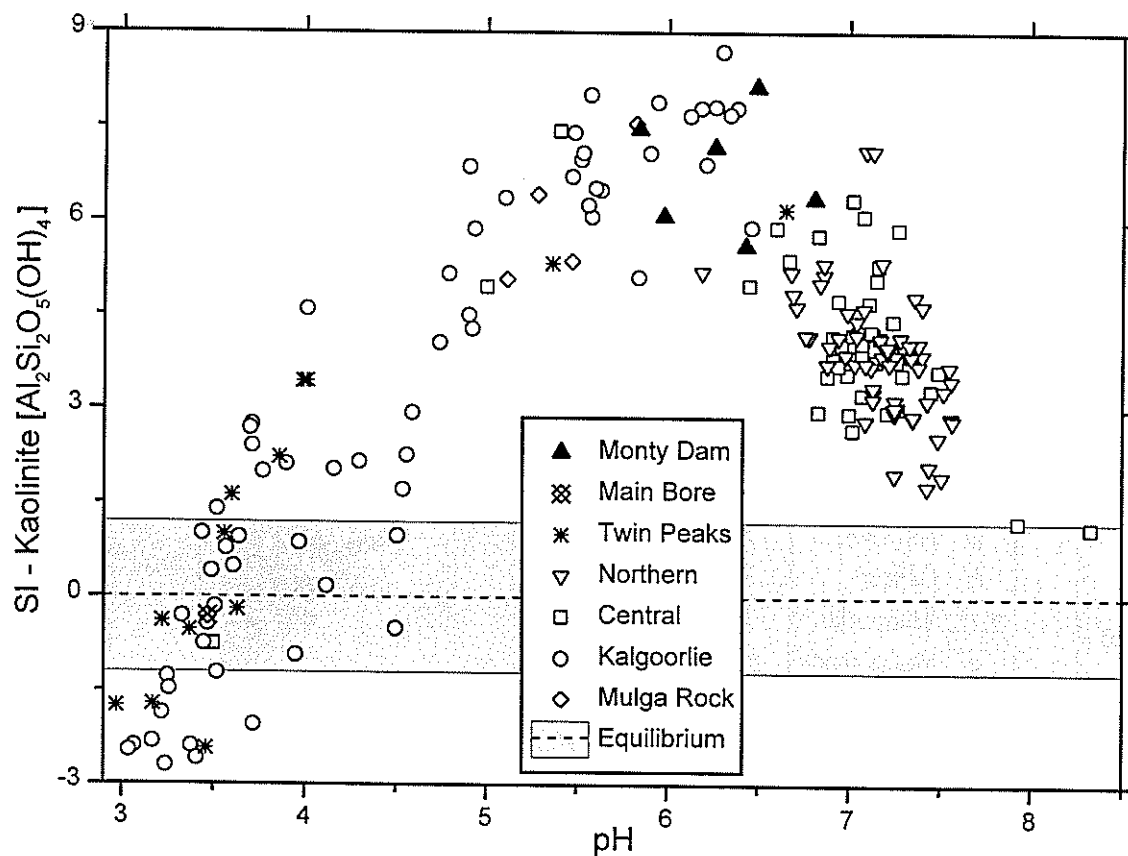


Figure A3.10: SI for kaolinite vs. pH for Plough Dam and other Western Australian groundwaters.

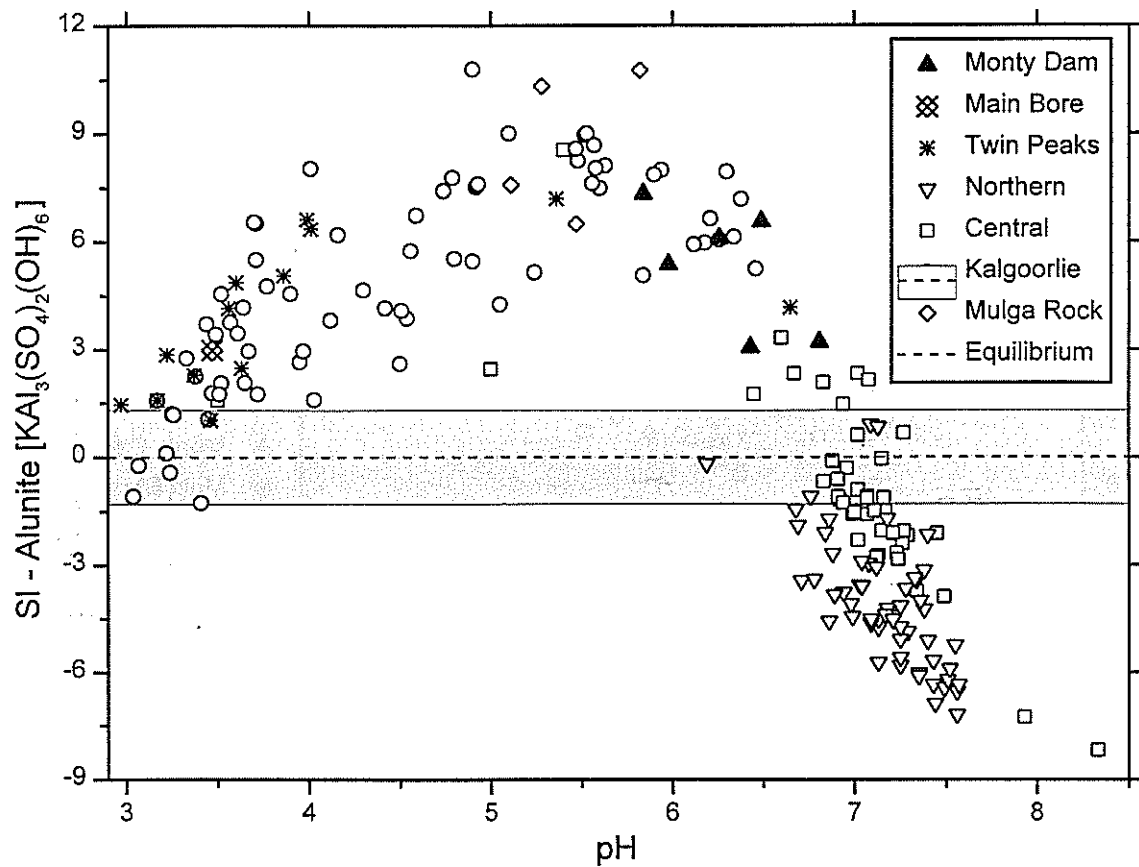


Figure A3.11: SI for alunite vs. pH for Plough Dam and other Western Australian groundwaters.

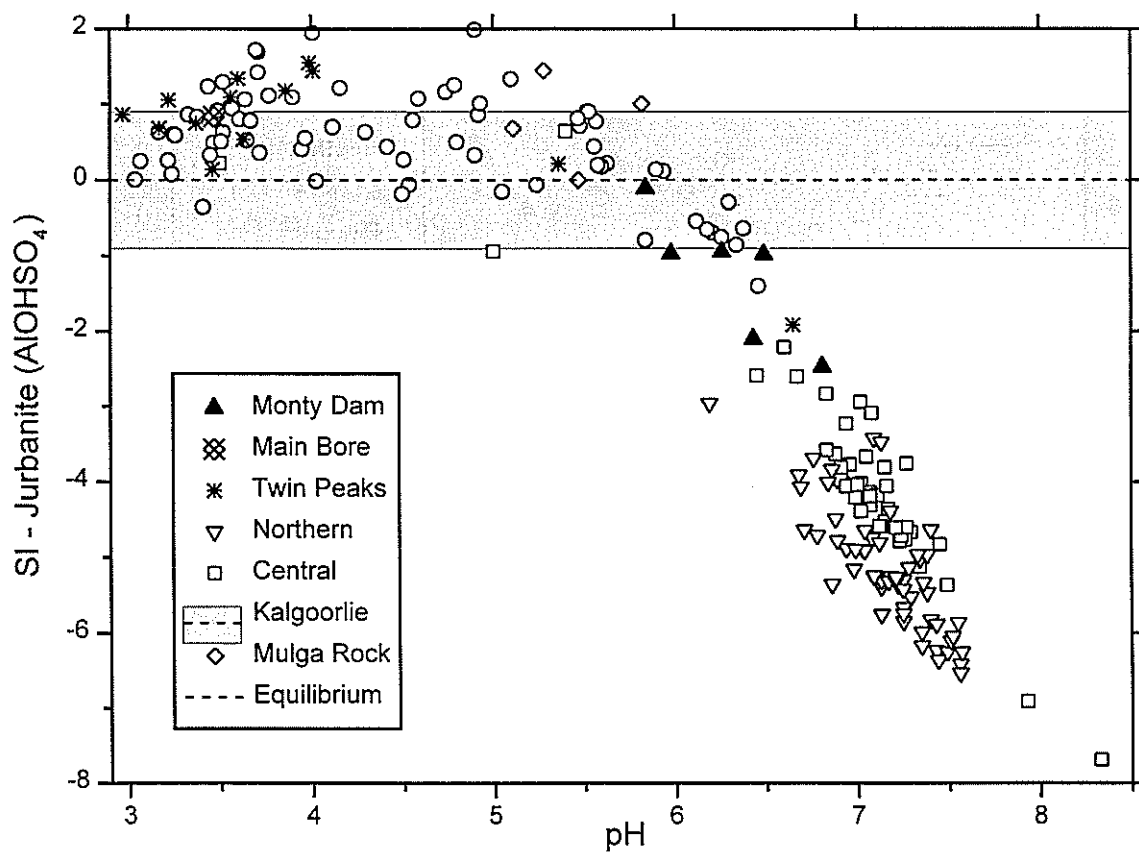


Figure A3.12: SI for jurbanite vs. pH for Plough Dam and other Western Australian groundwaters.

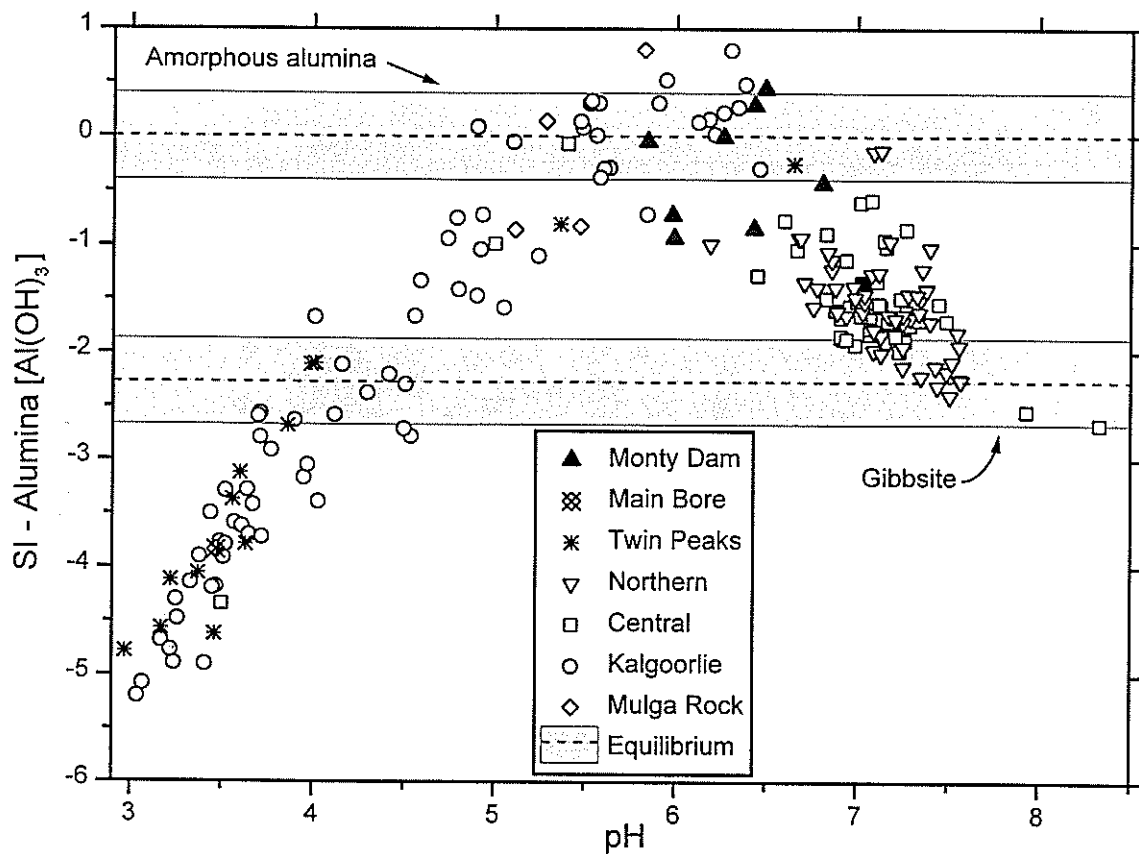


Figure A3.13: SI for alumina vs. pH for Plough Dam and other Western Australian groundwaters.

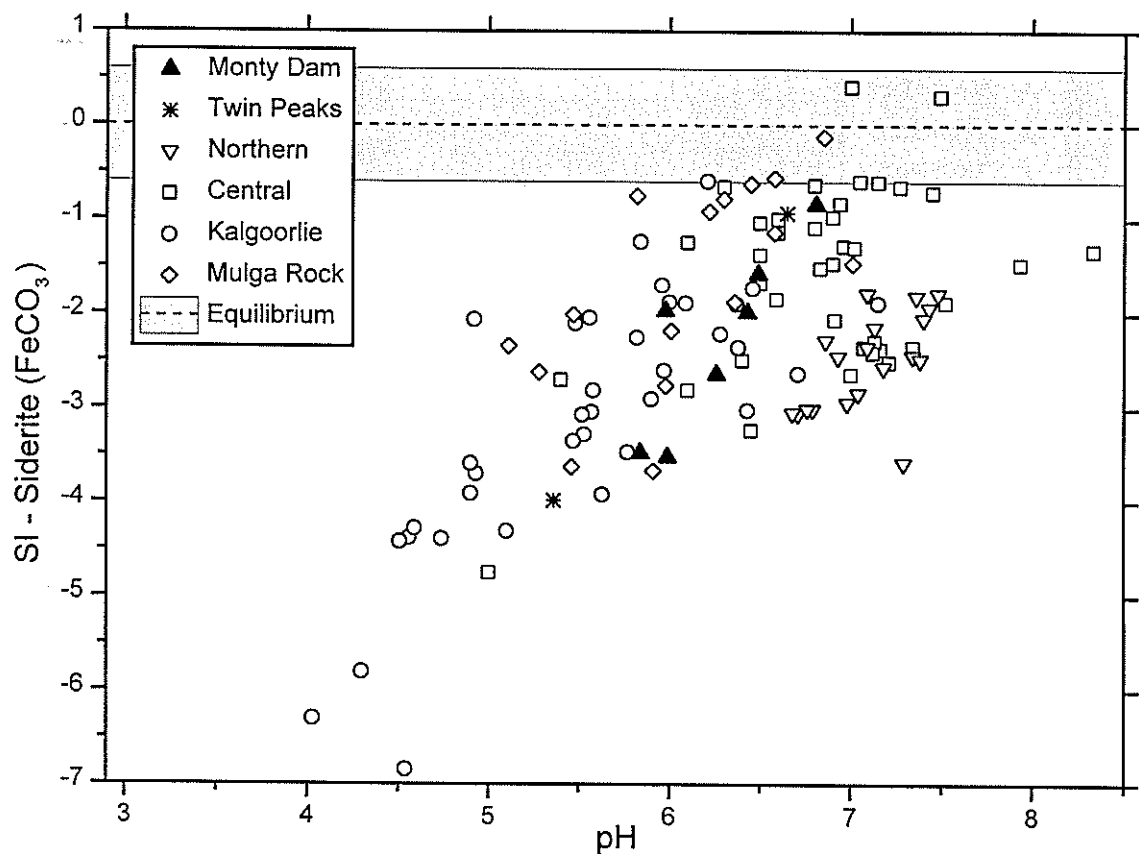


Figure A3.14: SI for siderite vs. pH for Plough Dam and other Western Australian groundwaters.

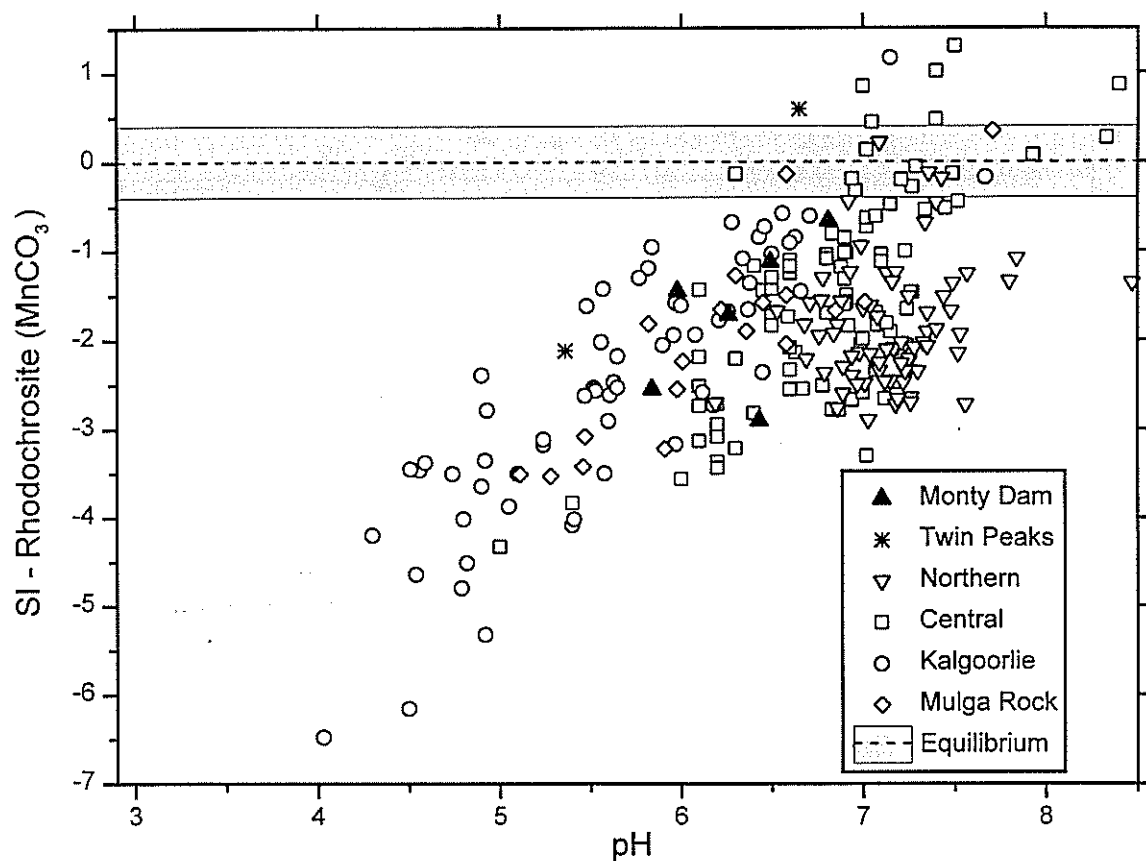


Figure A3.15: SI for rhodochrosite for Plough Dam and other Western Australian groundwaters.

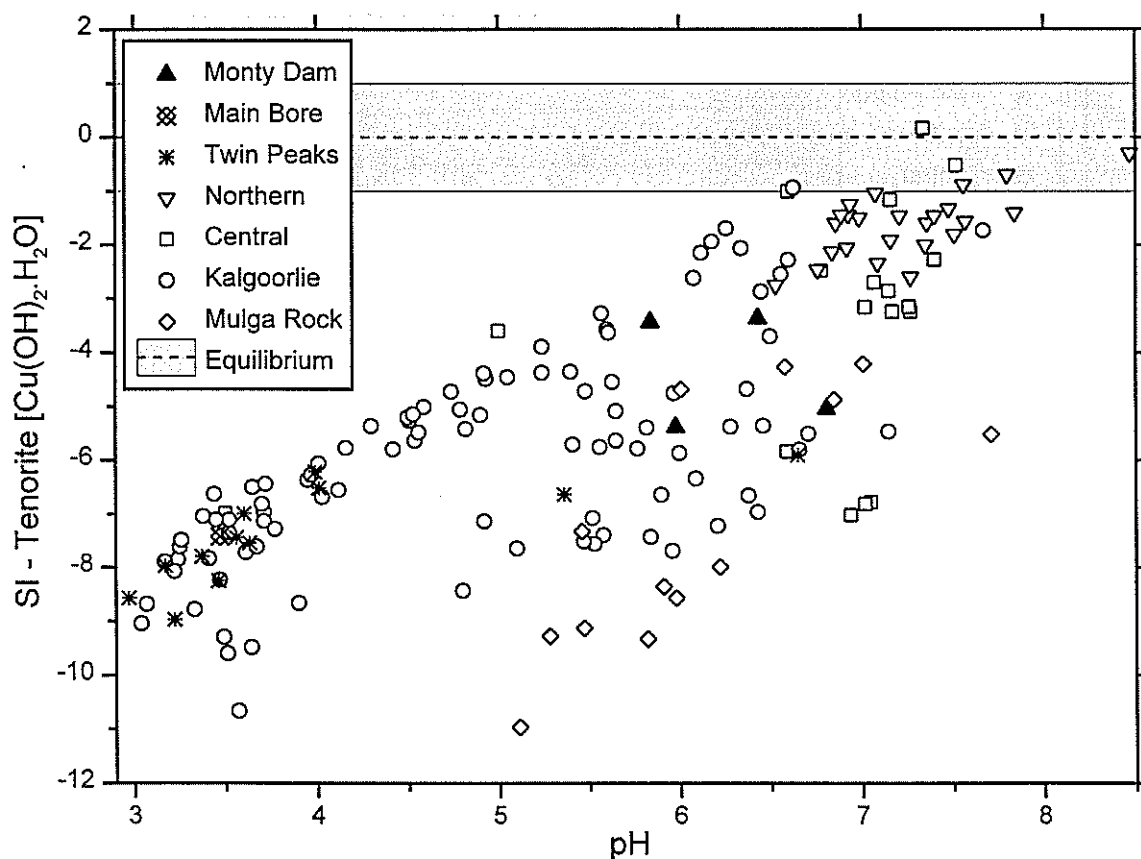


Figure A3.16: SI for tenorite for Plough Dam and other Western Australian groundwaters.

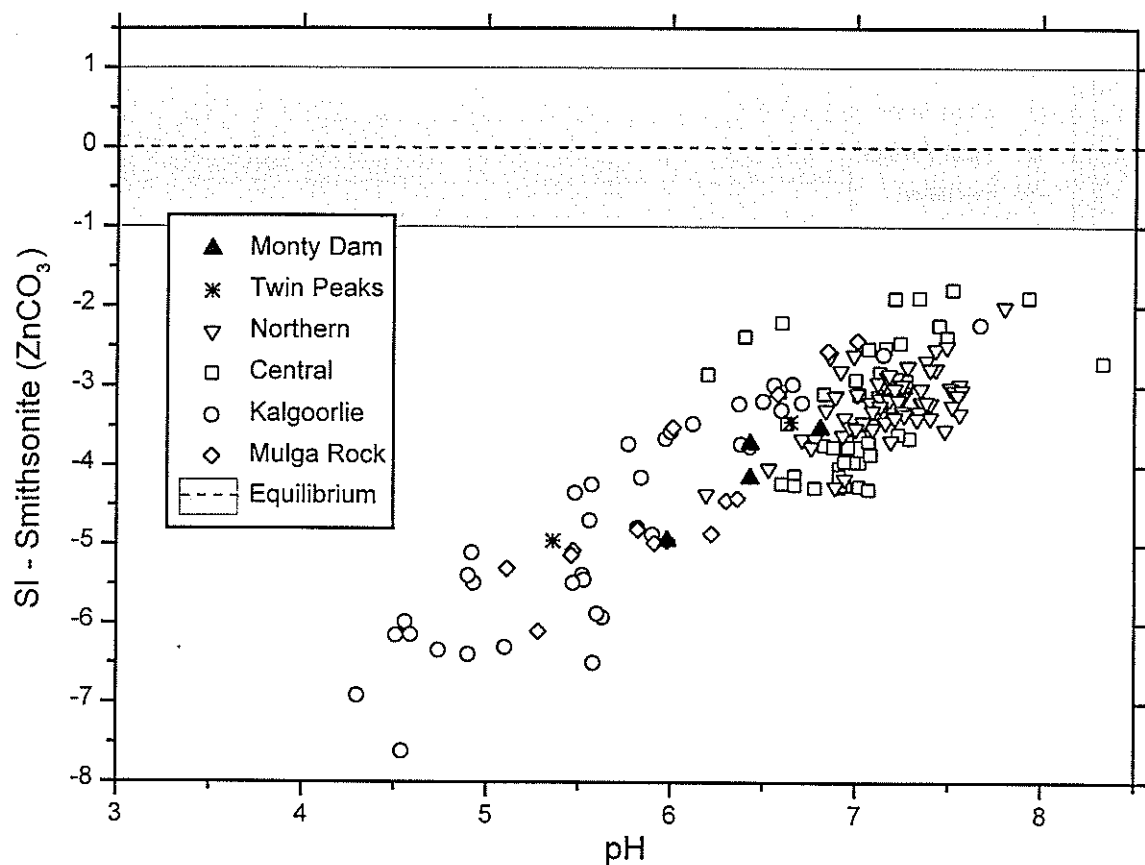


Figure A3.17: SI for smithsonite vs. pH for Plough Dam and other Western Australian groundwater

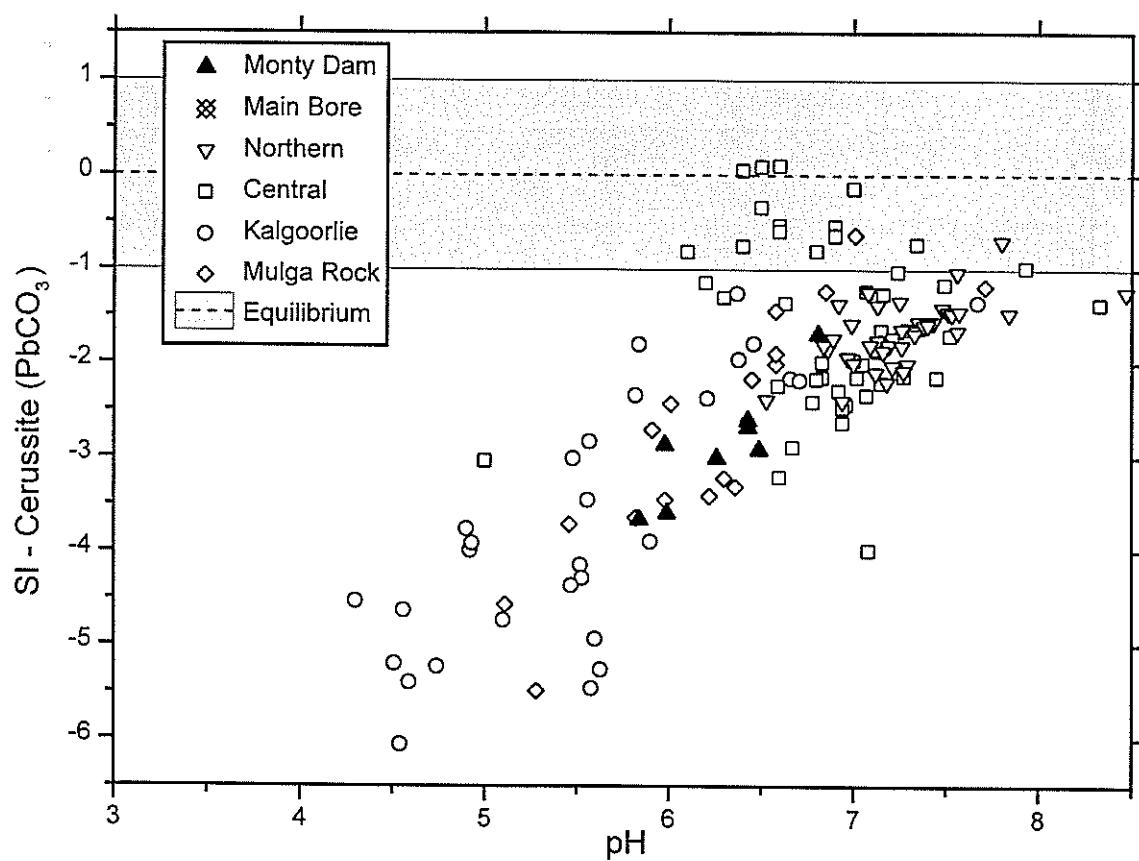


Figure A3.18: SI for cerussite vs. pH for Plough Dam and other Western Australian groundwaters

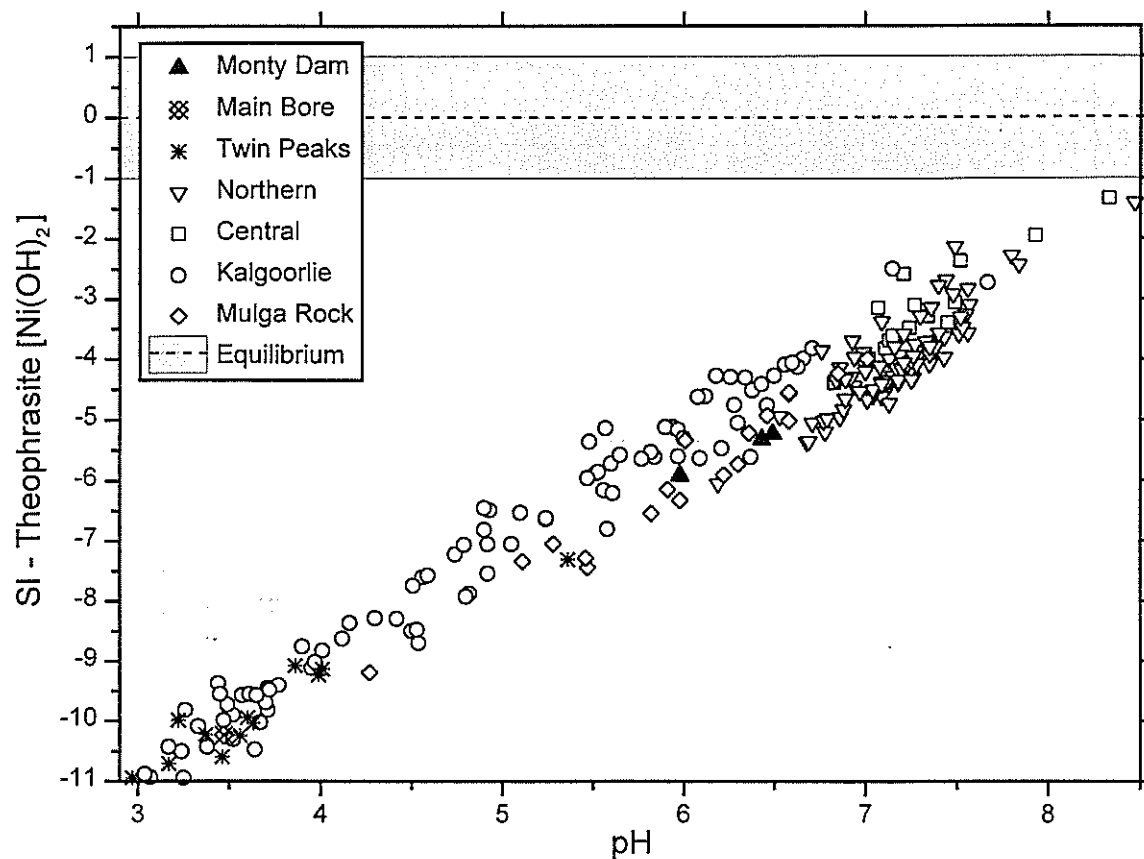


Figure A3.19: SI for theophrasite vs. pH for Plough Dam and other Western Australian groundwaters.

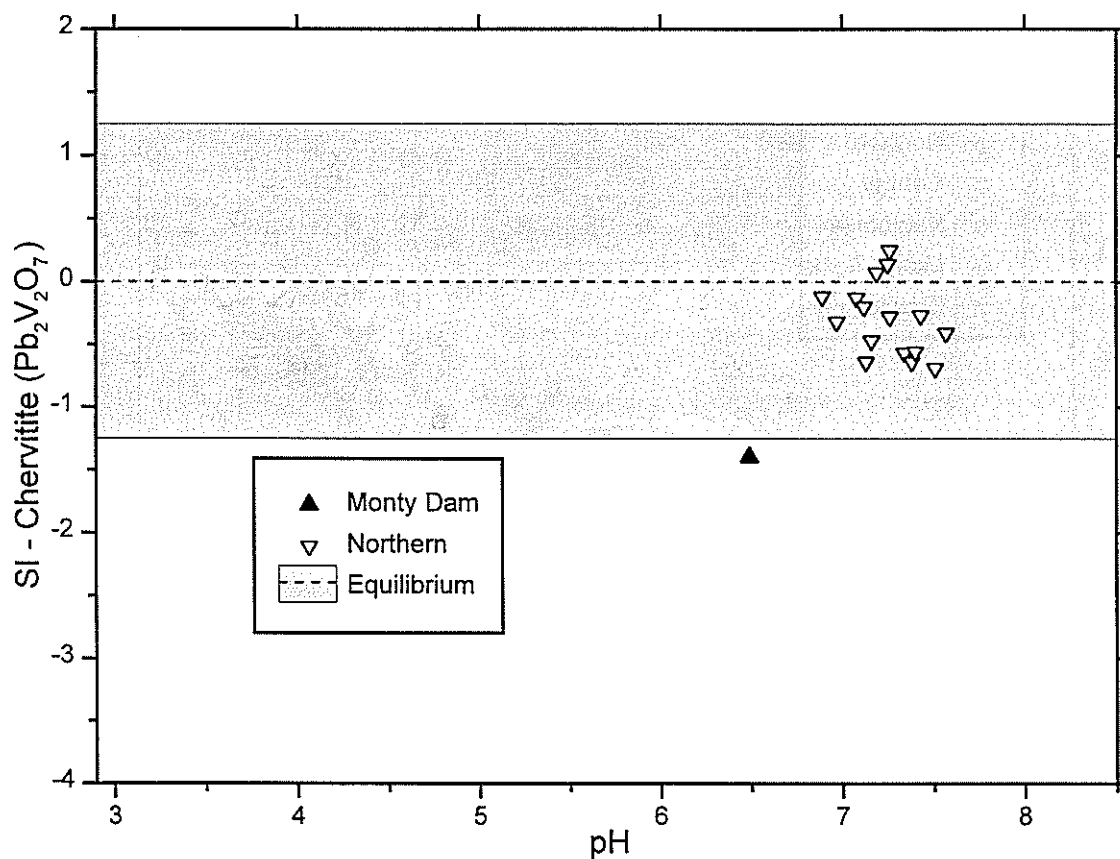


Figure A3.20: SI for chervite vs. pH for Plough Dam and other Western Australian groundwaters.

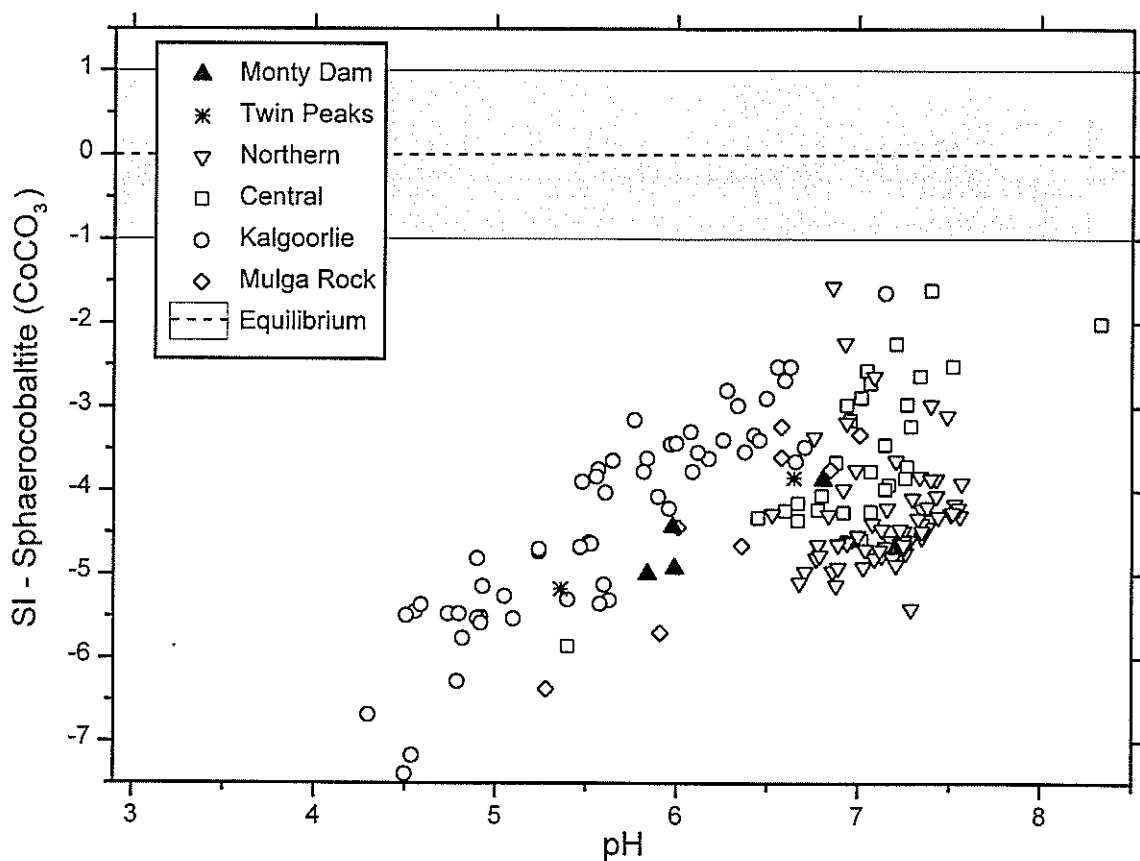


Figure A3.21: SI for sphaerocobaltite for Plough Dam and other Western Australian groundwaters.

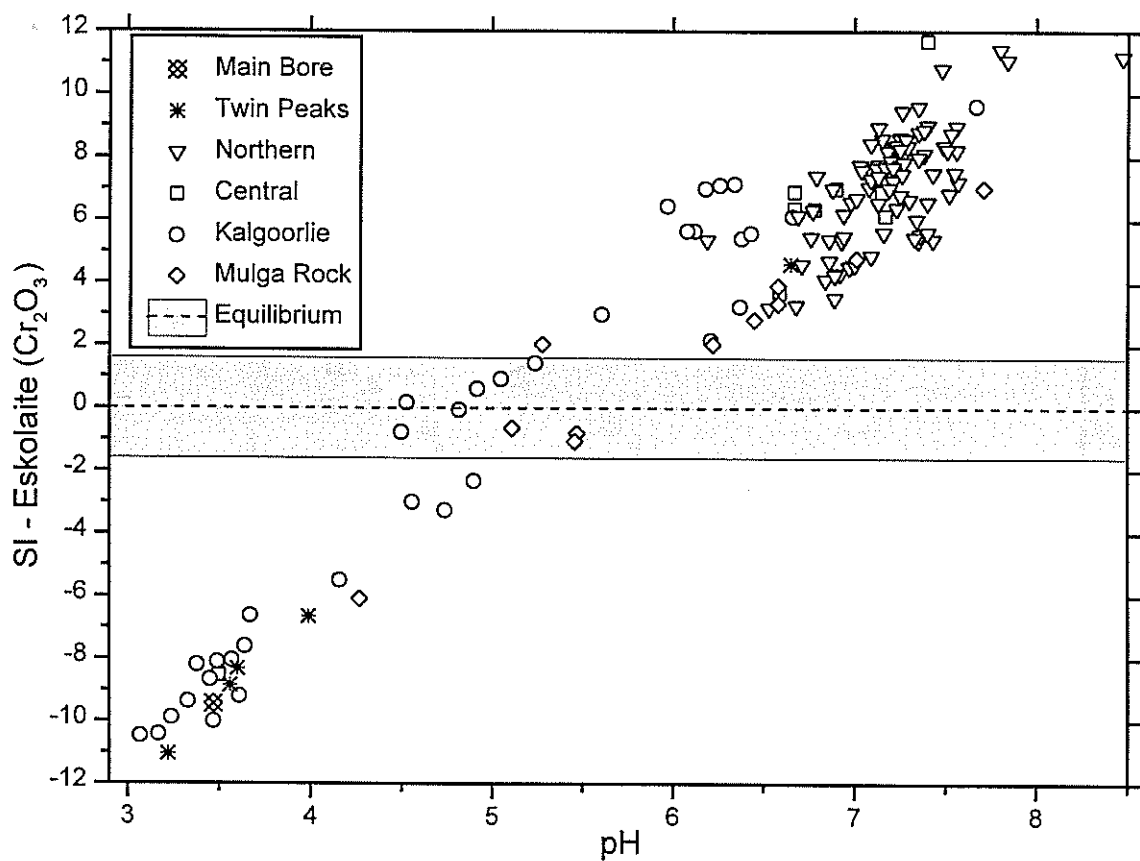


Figure A3.22: SI for eskolaite vs. pH for Plough Dam and other Western Australian groundwaters.

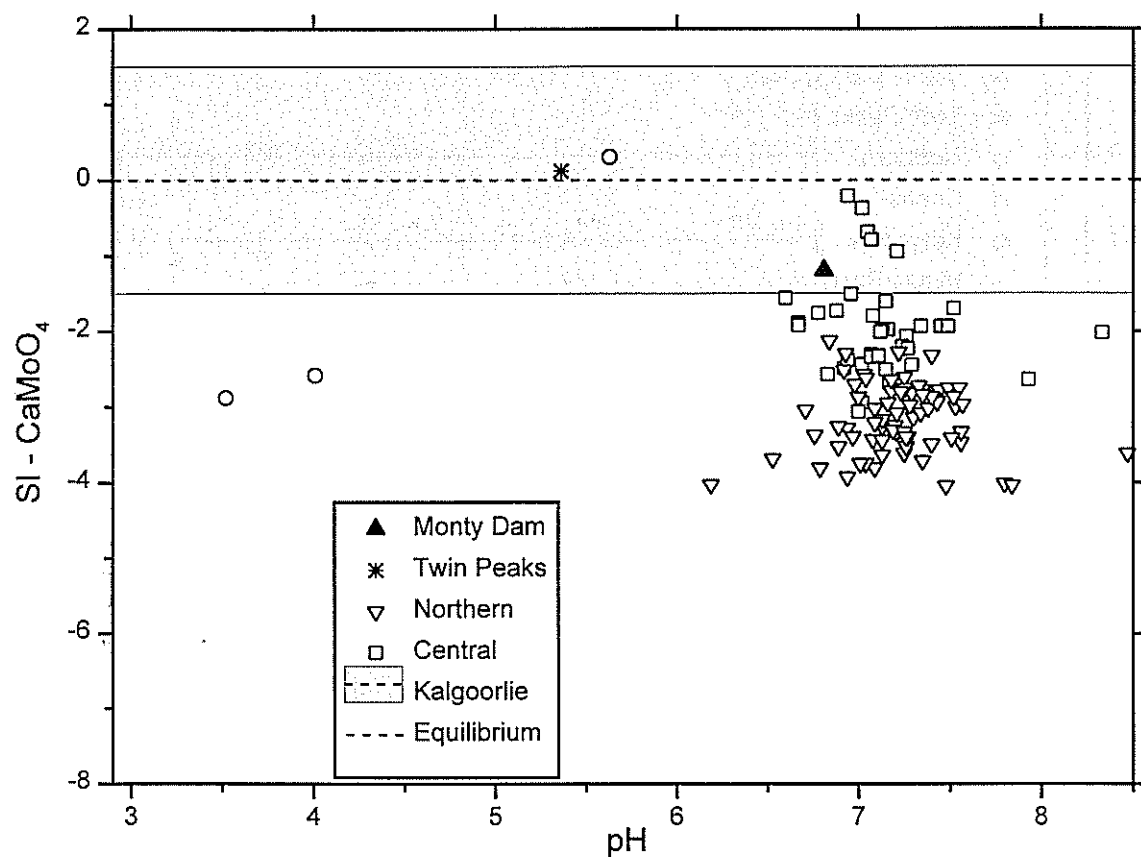


Figure A3.23: SI for CaMoO_4 vs. pH for Plough Dam and other Western Australian groundwaters

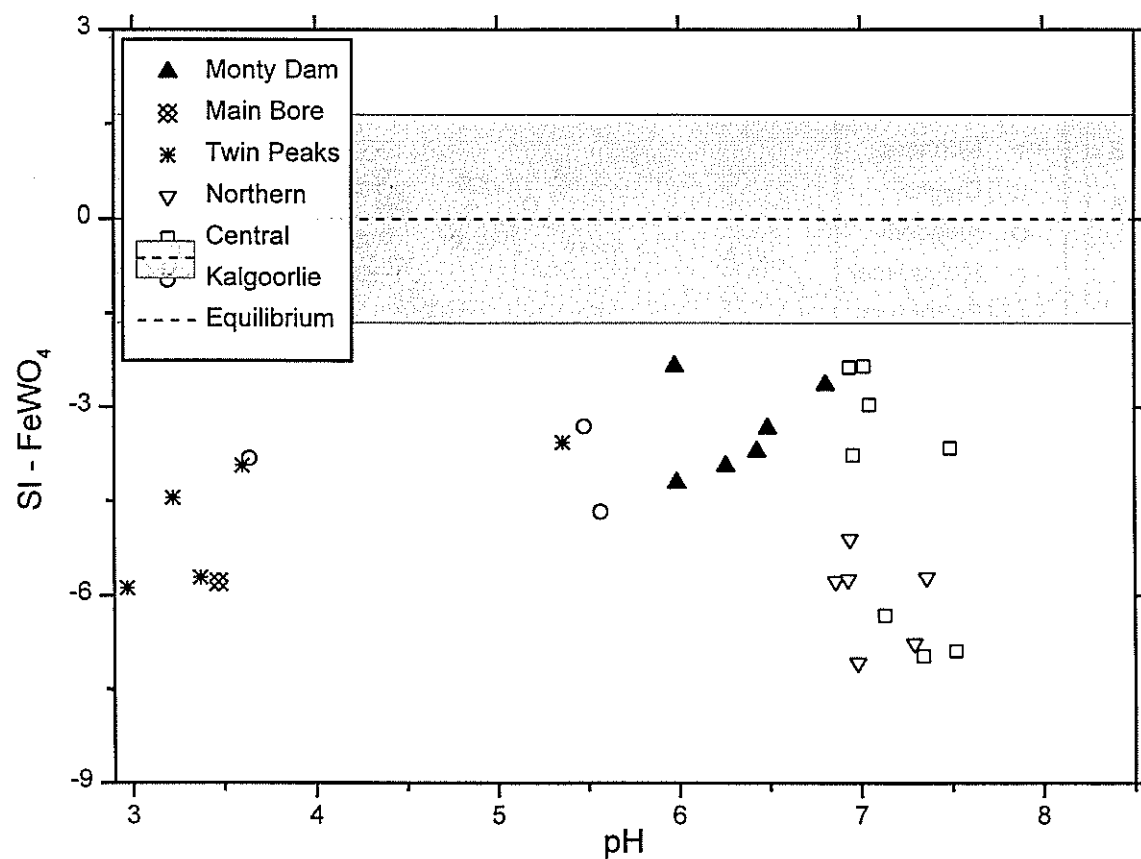


Figure A3.24: SI for FeWO_4 vs. pH for Plough Dam and other Western Australian groundwaters.

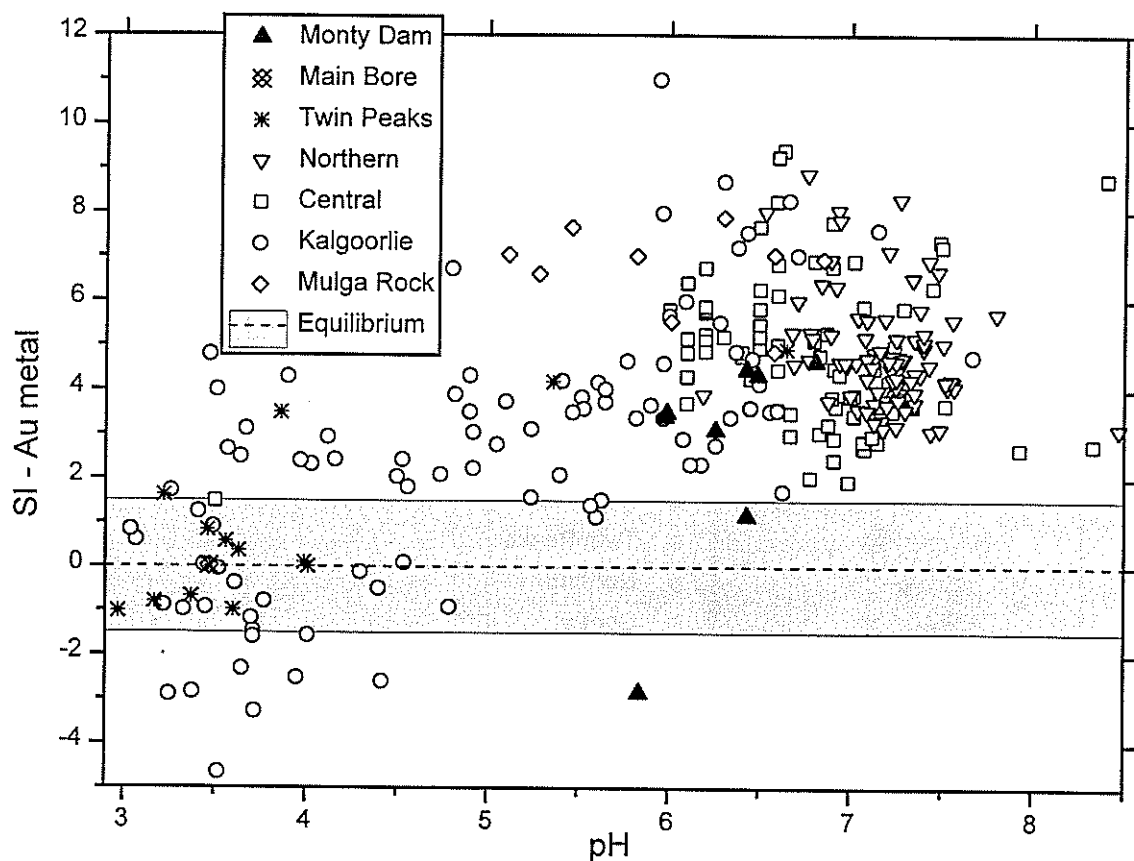


Figure A3.25: SI for Au metal vs. pH for Plough Dam and other Western Australian groundwaters

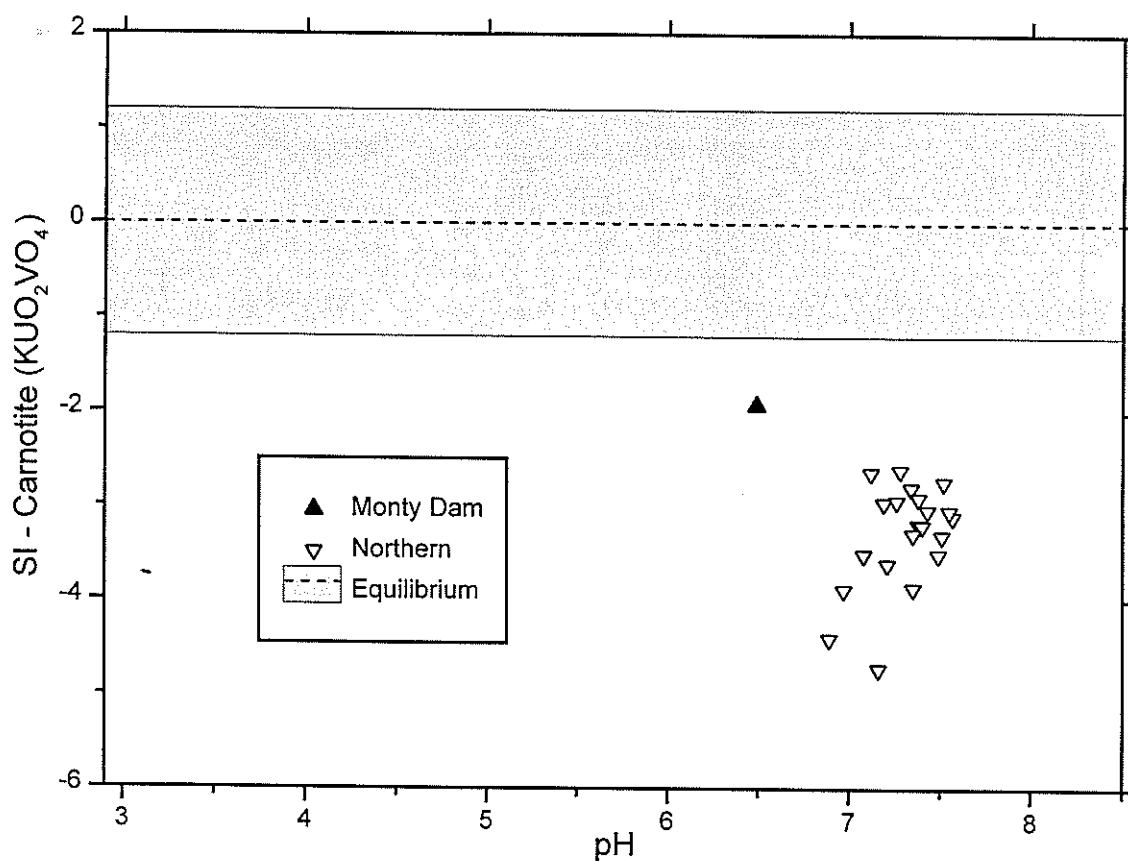


Figure A3.26: SI for carnotite vs. pH for Plough Dam and other Western Australian groundwater

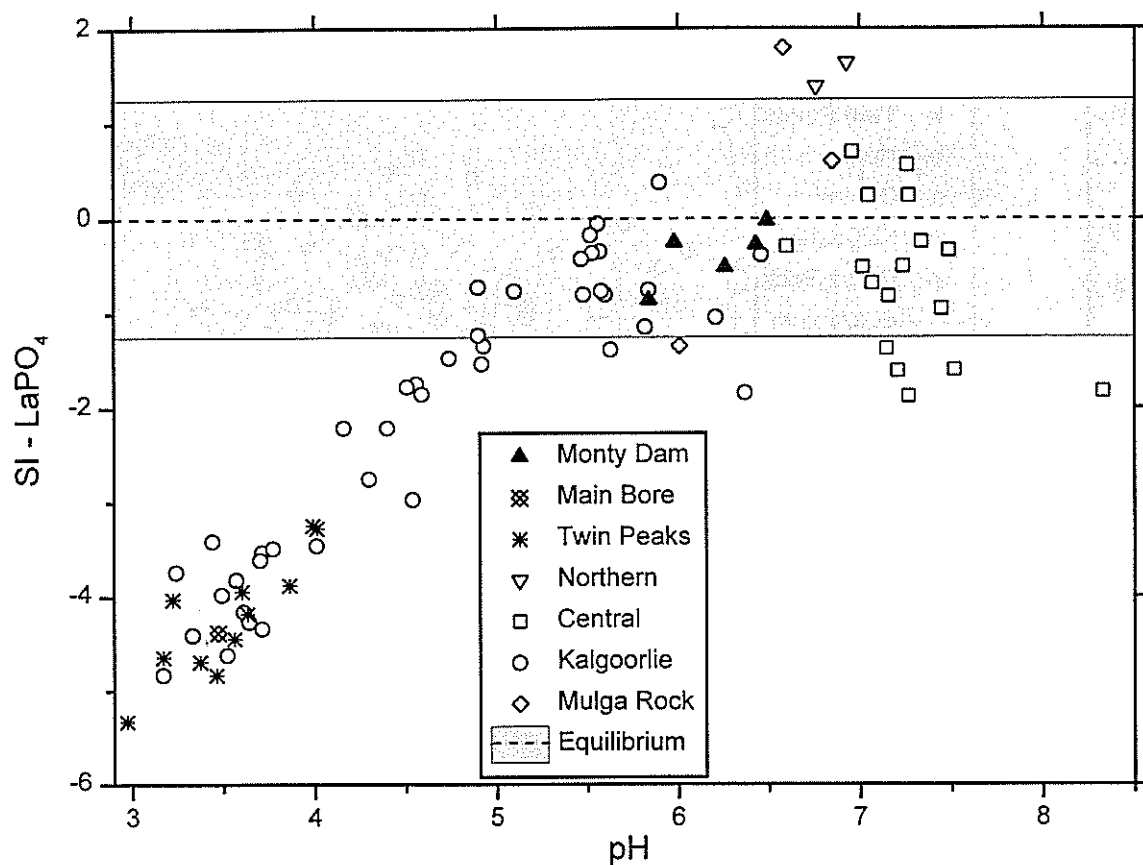


Figure A3.27: SI for LaPO_4 vs. pH for Plough Dam and other Western Australian groundwaters.

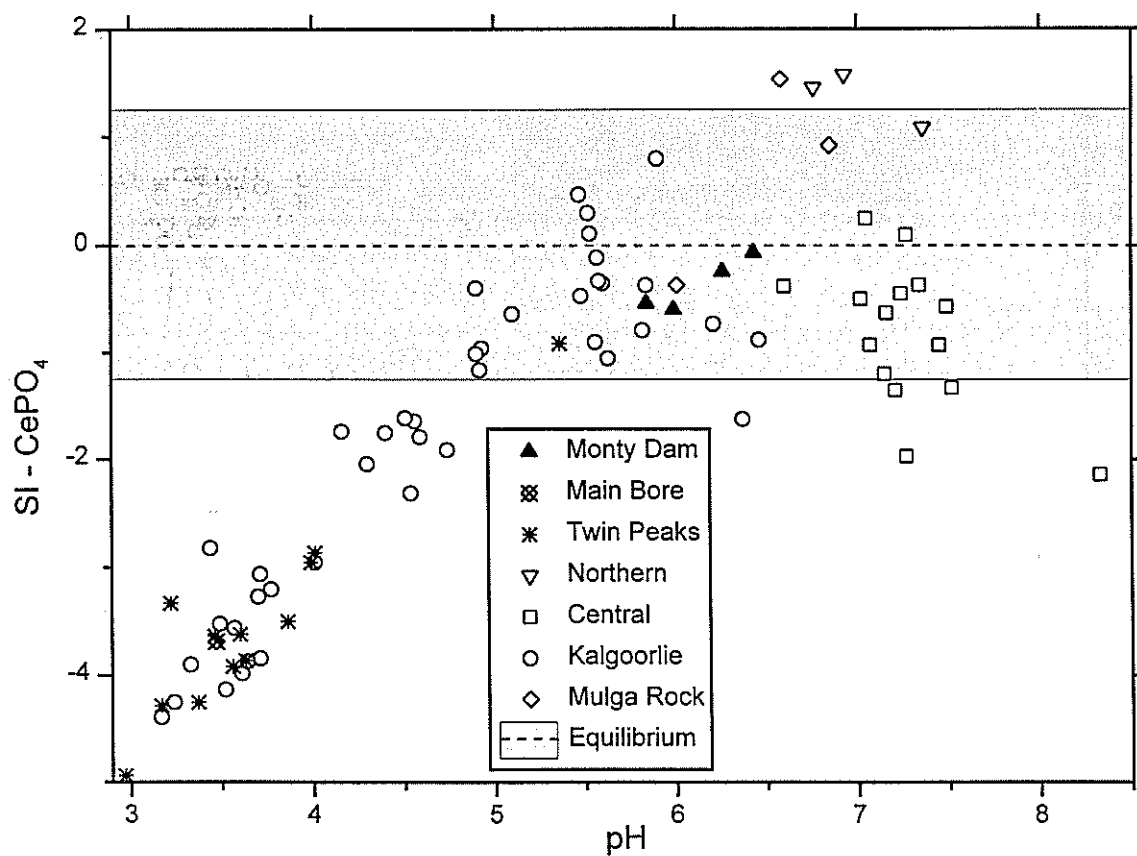


Figure A3.28: SI for CePO_4 vs. pH for Plough Dam and other Western Australian groundwaters.

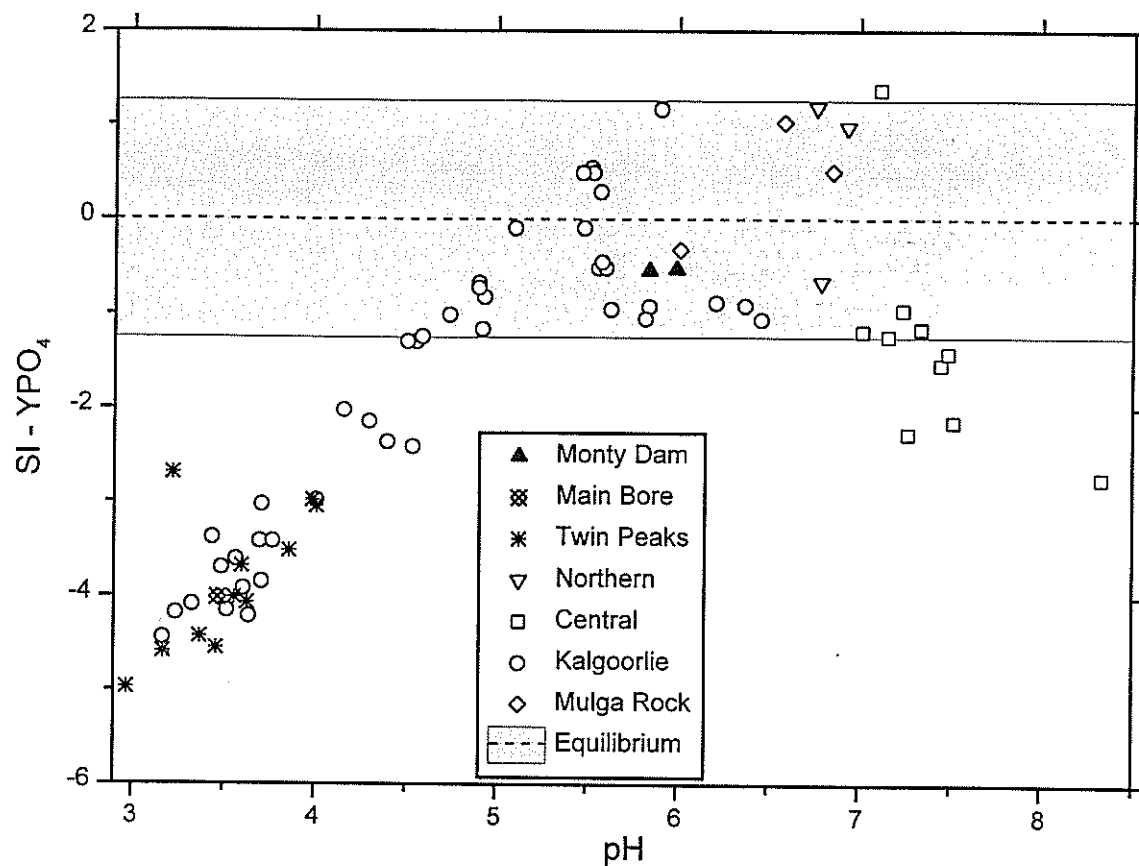


Figure A3.29: SI for YPO_4 vs. pH for Plough Dam and other Western Australian groundwaters.

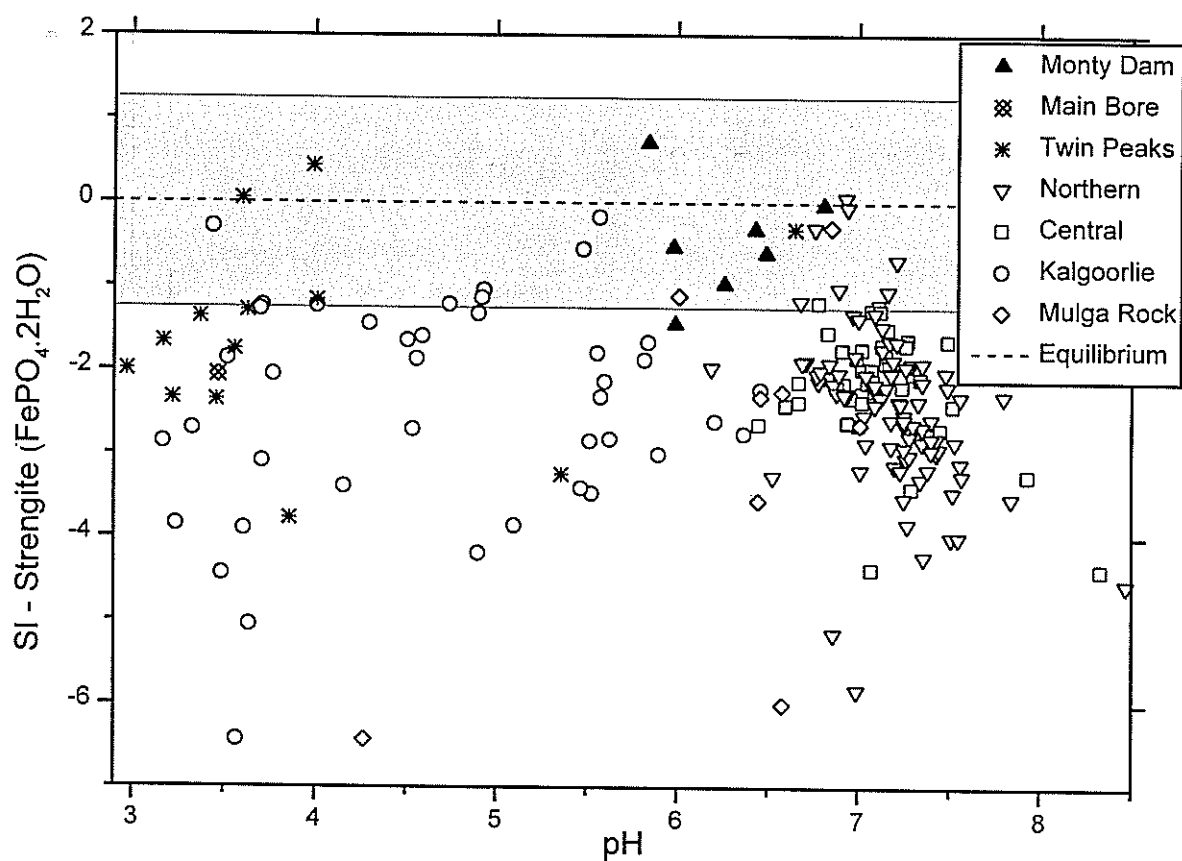


Figure A3.30: SI for strengite vs. pH for Plough Dam and other Western Australian groundwaters.

**APPENDIX 4: CONTENTS OF
ENCLOSED CD**

A4. OLD PLOUGH DAM DATABASE

The Old Plough Dam database includes text of the report in directory REPORT, three datafiles on Au grade statistics in directory AU STATISTICS and pictures as JPG files in directory PICTURES, with structure described below.

A4.1 Picture database structure

The picture database is separated into directories labelled MONTY DAM and TWIN PEAKS, within both of which are the sub-directories AS, AU, CU, PB, ZN and THICKNESS. The THICKNESS directory includes plots of layer thicknesses. Within the AS, AU, CU, PB and ZN sub-directories are SLICES, LAYERS and PLANS:

- (i) the SLICES directory includes vertical slices at constant northing, with plots named according to the particular northing;
- (ii) the LAYERS directory includes angled views of the various layers:
 - a) either merged together to show the true stratigraphy (TOGETHER.JPG);
 - b) with an element concentration plume;
 - c) at a horizontal plane;
 - d) at a surface.
- (iii) the PLANS directory includes plans of element concentration:
 - a) at a particular horizontal plane (*e.g.*, the plot of the calculated Au concentrations at 900 m is named 900m.JPG);
 - b) at a particular surface (*e.g.*, the plot of the calculated Au grade at the base of weathering is named B_WEATH.JPG);
 - c) at a set vertical distance from a weathering surface (*e.g.*, the plot of the calculated Au grade 5 m below the base of weathering is named b_wea-5.JPG, and the Au grade 5 m above the base of weathering is named b_wea+5.JPG).

A4.2 Directory tree layout

P504

```
➡OLD PLOUGH DAM
  ➡REPORT
  ➡AU_STATISTICS
  ➡PICTURES
    ➡MONTY DAM
      ➡As
        ➡Layers
        ➡Plans
        ➡Slices
      ➡Au
        ➡Layers
        ➡Plans
        ➡Slices
      ➡Cu
        ➡Layers
        ➡Plans
        ➡Slices
      ➡Pb
        ➡Layers
        ➡Plans
```

	→	Slices
	→	Thickness
→	Zn	
	→	Layers
	→	Plans
	→	Slices
→	TWIN PEAKS	
	→	As
	→	Layers
	→	Plans
	→	Slices
	→	Au
	→	Layers
	→	Pictures
	→	Plans
	→	Slices
	→	Cu
	→	Layers
	→	Plans
	→	Slices
	→	Pb
	→	Layers
	→	Plans
	→	Slices
	→	Thickness
	→	Zn
	→	Layers
	→	Plans
	→	Slices

A4.3 Sample file list

P504/OLD PLOUGH DAM /MONTY DAM/Thickness:

all-thic.jpg - plan view of thickness of alluvium layer.
b_weath.jpg - plan view of elevation of base of weathering.
mod_thic.jpg - plan view of thickness of moderately weathered layer.
mod_weak.jpg - plan view of elevation of transition from moderately to weakly weathered.
str_mod.jpg - plan view of elevation of transition from strongly to moderately weathered.
str_thic.jpg - plan view of thickness of strongly weathered layer.
unconf.jpg - plan view of elevation of unconformity.
weak_thi.jpg - plan view of thickness of weakly weathered layer.

P504/ OLD PLOUGH DAM /MONTY DAM /Cu/Layers:

100ppmCu.jpg - concentration plume of • 100 ppm Cu with stratigraphy superimposed.
150ppmCu.jpg - concentration plume of • 150 ppm Cu with stratigraphy superimposed.
200ppmCu.jpg - concentration plume of • 200 ppm Cu with stratigraphy superimposed.
250ppmCu.jpg - concentration plume of • 250 ppm Cu with stratigraphy superimposed.
50ppmCu.jpg - concentration plume of • 50 ppm Cu with stratigraphy superimposed.
Together.jpg - Cu data merged together to show the stratigraphy.

P504/ OLD PLOUGH DAM /MONTY DAM /Plans:

890m.jpg - plan view of Cu distribution at horizontal plane of nominal 890 m elevation.
900m.jpg - plan view of Cu distribution at horizontal plane of nominal 900 m elevation.
910m.jpg - plan view of Cu distribution at horizontal plane of nominal 910 m elevation.
920m.jpg - plan view of Cu distribution at horizontal plane of nominal 920 m elevation.
930m.jpg - plan view of Cu distribution at horizontal plane of nominal 930 m elevation.
940m.jpg - plan view of Cu distribution at horizontal plane of nominal 940 m elevation.
950m.jpg - plan view of Cu distribution at horizontal plane of nominal 950 m elevation.
960m.jpg - plan view of Cu distribution at horizontal plane of nominal 960 m elevation.
970m.jpg - plan view of Cu distribution at horizontal plane of nominal 970 m elevation.
980m.jpg - plan view of Cu distribution at horizontal plane of nominal 980 m elevation.
B_W+10.jpg - plan view of Cu distribution at 10 m above base of weathering.
B_W+2.jpg - plan view of Cu distribution at 2 m above base of weathering.
B_W+5.jpg - plan view of Cu distribution at 5 m above base of weathering.
B_W-10.jpg - plan view of Cu distribution at 10 m below base of weathering.
B_W-2.jpg - plan view of Cu distribution at 2 m below base of weathering.
B_W-20.jpg - plan view of Cu distribution at 20 m below base of weathering.
B_W-5.jpg - plan view of Cu distribution at 5 m below base of weathering.
B_Weath.jpg - plan view of Cu distribution at base of weathering.
M_W+2.jpg - plan view of Cu distribution at 2 m above moderate to weak weathering transition.
M_W+5.jpg - plan view of Cu distribution at 5 m above moderate to weak weathering transition.
M_W-10.jpg - plan view of Cu distribution at 10 m below moderate to weak weathering transition.
M_W-2.jpg - plan view of Cu distribution at 2 m below moderate to weak weathering transition.
M_W-20.jpg - plan view of Cu distribution at 20 m below moderate to weak weathering transition.
M_W-5.jpg - plan view of Cu distribution at 5 m below moderate to weak weathering transition.
Mod_Weak.jpg - plan view of Cu distribution at moderate to weak weathering transition.
S_M+2.jpg - plan view of Cu distribution at 2 m above strong to moderate weathering transition.
S_M+5.jpg - plan view of Cu distribution at 5 m above strong to moderate weathering transition.
S_M-10.jpg - plan view of Cu distribution at 10 m below strong to moderate weathering transition.
S_M-2.jpg - plan view of Cu distribution at 2 m below strong to moderate weathering transition.
S_M-5.jpg - plan view of Cu distribution at 5 m below strong to moderate weathering transition.
Str_Mod.jpg - plan view of Cu distribution at strong to moderate weathering transition.
Surface.jpg - plan view of Cu distribution at surface.
Uncon-10.jpg - plan view of Cu distribution at 10 m below unconformity.
Uncon-2.jpg - plan view of Cu distribution at 2 m below unconformity.
Uncon-5.jpg - plan view of Cu distribution at 5 m below unconformity.
Unconf.jpg - plan view of Cu distribution at unconformity.

P504/ OLD PLOUGH DAM /MONTY DAM /Cu/Slices:

17300mN.jpg - slice showing Cu distribution at northing 17300.
17400mN.jpg - slice showing Cu distribution at northing 17400.
17500mN.jpg - slice showing Cu distribution at northing 17500.
17600mN.jpg - slice showing Cu distribution at northing 17600.
17700mN.jpg - slice showing Cu distribution at northing 17700.
17800mN.jpg - slice showing Cu distribution at northing 17800.
17900mN.jpg - slice showing Cu distribution at northing 17900.
18000mN.jpg - slice showing Cu distribution at northing 18000.

P504/ OLD PLOUGH DAM /MONTY DAM /Au/Layers:

10ppbAu.jpg - concentration plume of • 0.01 ppm Au with stratigraphy superimposed.
20ppbAu.jpg - concentration plume of • 0.02 ppm Au with stratigraphy superimposed.
30ppbAu.jpg - concentration plume of • 0.03 ppm Au with stratigraphy superimposed.
50ppbAu.jpg - concentration plume of • 0.05 ppm Au with stratigraphy superimposed.
100ppbAu.jpg - concentration plume of • 0.1 ppm Au with stratigraphy superimposed.
200ppbAu.jpg - concentration plume of • 0.2 ppm Au with stratigraphy superimposed.
500ppbAu.jpg - concentration plume of • 0.5 ppm Au with stratigraphy superimposed.
1ppmAu.jpg - concentration plume of • 1 ppm Au with stratigraphy superimposed.
2ppmAu.jpg - concentration plume of • 2 ppm Au with stratigraphy superimposed.
Together.jpg - Au data merged together to show the stratigraphy.

P504/ OLD PLOUGH DAM /MONTY DAM /Au/Plans:

890m.jpg - plan view of Au distribution at horizontal plane of nominal 890 m elevation.
900m.jpg - plan view of Au distribution at horizontal plane of nominal 900 m elevation.
910m.jpg - plan view of Au distribution at horizontal plane of nominal 910 m elevation.
920m.jpg - plan view of Au distribution at horizontal plane of nominal 920 m elevation.
930m.jpg - plan view of Au distribution at horizontal plane of nominal 930 m elevation.
940m.jpg - plan view of Au distribution at horizontal plane of nominal 940 m elevation.
950m.jpg - plan view of Au distribution at horizontal plane of nominal 950 m elevation.
960m.jpg - plan view of Au distribution at horizontal plane of nominal 960 m elevation.
970m.jpg - plan view of Au distribution at horizontal plane of nominal 970 m elevation.
980m.jpg - plan view of Au distribution at horizontal plane of nominal 980 m elevation.
B_W+10.jpg - plan view of Au distribution at 10 m above base of weathering.
B_W+2.jpg - plan view of Au distribution at 2 m above base of weathering.
B_W+5.jpg - plan view of Au distribution at 5 m above base of weathering.
B_W-10.jpg - plan view of Au distribution at 10 m below base of weathering.
B_W-2.jpg - plan view of Au distribution at 2 m below base of weathering.
B_W-20.jpg - plan view of Au distribution at 20 m below base of weathering.
B_W-5.jpg - plan view of Au distribution at 5 m below base of weathering.
B_Weath.jpg - plan view of Au distribution at base of weathering.
M_W+2.jpg - plan view of Au distribution at 2 m above moderate to weak weathering transition.
M_W+5.jpg - plan view of Au distribution at 5 m above moderate to weak weathering transition.
M_W-10.jpg - plan view of Au distribution at 10 m below moderate to weak weathering transition.
M_W-15.jpg - plan view of Au distribution at 15 m below moderate to weak weathering transition.
M_W-2.jpg - plan view of Au distribution at 2 m below moderate to weak weathering transition.
M_W-20.jpg - plan view of Au distribution at 20 m below moderate to weak weathering transition.
M_W-5.jpg - plan view of Au distribution at 5 m below moderate to weak weathering transition.
Mod_Weak.jpg - plan view of Au distribution at moderate to weak weathering transition.
S_M+2.jpg - plan view of Au distribution at 2 m above strong to moderate weathering transition.
S_M+5.jpg - plan view of Au distribution at 5 m above strong to moderate weathering transition.
S_M-10.jpg - plan view of Au distribution at 10 m below strong to moderate weathering transition.

S_M-2.jpg - plan view of Au distribution at 2 m below strong to moderate weathering transition.
S_M-5.jpg - plan view of Au distribution at 5 m below strong to moderate weathering transition.
Str_Mod.jpg - plan view of Au distribution at strong to moderate weathering transition.
Surface.jpg - plan view of Au distribution at surface.
Uncon-10.jpg - plan view of Au distribution at 10 m below unconformity.
Uncon-2.jpg - plan view of Au distribution at 2 m below unconformity.
Uncon-5.jpg - plan view of Au distribution at 5 m below unconformity.
Unconf.jpg - plan view of Au distribution at unconformity.

P504/ OLD PLOUGH DAM /MONTY DAM /Au/Slices:

17250mN.jpg - slice showing Au distribution at northing 17250.
17300mN.jpg - slice showing Au distribution at northing 17300.
17350mN.jpg - slice showing Au distribution at northing 17350.
17400mN.jpg - slice showing Au distribution at northing 17400.
17450mN.jpg - slice showing Au distribution at northing 17450.
17500mN.jpg - slice showing Au distribution at northing 17500.
17550mN.jpg - slice showing Au distribution at northing 17550.
17600mN.jpg - slice showing Au distribution at northing 17600.
17700mN.jpg - slice showing Au distribution at northing 17700.
17800mN.jpg - slice showing Au distribution at northing 17800.
17900mN.jpg - slice showing Au distribution at northing 17900.
18000mN.jpg - slice showing Au distribution at northing 18000.

**APPENDIX 5: 3D VRML FILES
AND INFORMATION ON
INSTALLATION OF 3D VIEWER**

Interactive

Instructions for viewing VRMLs

VRMLs are 3D images written with Virtual Reality Modelling Language. The user can manipulate the image and view from different angles.

The folder named "Interactive" on the enclosed CD contains:

- A web page – "twinpeaks.htm" and an associated images folder.
- A folder called "VRML" which contains the VRMLs.
- An installation file for Cosmo Player.

You will need to have a web browser installed on your computer (but it does not have to be connected to an outside line). You will need a plug-in, such as COSMO Player, that will enable your internet browser to display the VRMLs. To install Cosmo Player from this CD, follow the steps below (which are also set out on the web page).

Note: The computer will need at least 200 MHz and 64 MB to run the VRMLs effectively.

Instructions

1. Open the CD, then open the "Interactive" folder. Click on the icon named "cosmo_win95nt_eng.exe" and it will launch with prompts. Read the first page, close any open Windows programs, then click NEXT.
2. Agree to the License Agreement and click YES.
3. It will determine which internet browsers are on your system and list some options. Choose the option that you usually use, e.g. Netscape Communicator 4.5 or Internet Explorer (provided with Windows). Some users will have older systems and will need to choose "Other". Click NEXT.
4. Choose the destination folder using the BROWSE button. Then click NEXT. The plug-in will now install itself.
5. It will then ask you if you would like to associate all VRML related files (.wrl, .wrz, .wrl.gz) with Cosmo Player. Choose YES.
6. Set up is complete. You should be able click on the options below and use the VRMLs.

Web Page

A web page is provided as a convenient way of navigating through the VRMLs. In particular, it provides a handy reference to the regolith legend and geochemical scale as these features are not supported by the VRMLs.

Either open the page through your browser (File Menu – Open Page) or if your computer is configured to recognise htm/html files then just click on the "twinpeaks.htm" icon to launch the page.

Twin Peaks 3D Au Cut-offs

CRC LEME created 3D models of Au concentrations at the Twin Peaks deposit using various cut-offs. These models show all those parts of each regolith unit that have a nominated Au concentration or greater.

Legend: red – highly weathered; yellow – moderately weathered; green – slightly weathered; blue – fresh rock.

P504/Twin Peaks/Interactive/VRML:

TwinPeaks100ppb.wrl	3D Twin Peaks - 100ppb Au cut off.
TwinPeaks1ppm.wrl	3D Twin Peaks - 1ppm Au cut off.
TwinPeaks200ppb.wrl	3D Twin Peaks - 200ppb Au cut off.
TwinPeaks30ppb.wrl	3D Twin Peaks - 30ppb Au cut off.
TwinPeaks500ppb.wrl	3D Twin Peaks - 500ppb Au cut off.
TwinPeaks50ppb.wrl	3D Twin Peaks - 50ppb Au cut off.

Note: the larger files may take some time to load.