

APPENDIX A-8 Results of Modal Analysis

(1)

ROCK NAME ROCK CODE SAMPLE NO.	1 G9 < 5 >		2 F3 < 3 >		3 R1 < 5 >		4 S4 < 5 >		5 T3 < 1 >		6 U4 < 3 >		7 W3 < 5 >		8 Z2 < 5 >	
	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.
QUARTZ	19.05	476	0.00	0	24.30	555	31.27	820	0.25	5	0.00	0	27.15	677	43.06	882
PLAGIOCLASE	62.22	1,565	1.10	22	9.33	213	14.53	381	42.43	861	19.91	399	54.57	1,361	30.12	663
K-FELDSPAR	4.60	115	0.00	0	57.53	1,314	33.18	870	0.34	7	0.00	0	1.04	26	18.83	377
BIOTITE	1.08	27	0.00	0	5.87	134	0.46	12	0.59	12	0.00	0	3.13	78	0.95	19
MUSCOVITE	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.40	8	0.00	0	0.00	0
ORTHOPYROXENE	10.36	259	62.85	1,237	1.09	25	0.00	0	1.33	27	32.73	656	6.38	159	4.25	85
CLINOPYROXENE	0.00	0	0.00	0	0.00	0	0.00	0	27.45	557	0.15	3	4.81	120	0.00	0
GARNET	0.00	0	0.00	0	0.00	0	0.45	12	0.00	0	0.00	0	0.00	0	0.00	0
SPINEL	0.00	0	2.25	45	0.00	0	0.00	0	0.00	0	8.13	163	0.00	0	0.00	0
AMPHIBOLE	0.08	2	33.80	676	0.00	0	0.00	0	18.09	357	28.39	589	0.76	19	0.00	0
ACTINOLITE	0.00	0	0.00	0	0.00	0	0.15	4	0.00	0	0.00	0	0.00	0	0.00	0
CHLORITE	0.00	0	0.00	0	0.00	0	5.87	175	8.03	163	7.78	156	0.00	0	0.05	1
EPIDOTE	0.00	0	0.00	0	0.00	0	0.11	3	0.00	0	0.00	0	0.00	0	0.00	0
SERICITE	0.00	0	0.00	0	0.00	0	12.85	337	0.00	0	0.00	0	0.00	0	0.00	0
ZIRCON	0.00	0	0.00	0	0.04	1	0.11	3	0.00	0	0.00	0	0.04	1	0.05	1
APATITE	0.08	2	0.00	0	0.31	7	0.00	0	0.00	0	0.00	0	0.40	10	0.40	8
MONAZITE	0.00	0	0.00	0	0.04	1	0.00	0	0.00	0	0.00	0	0.04	1	0.05	1
OPAQUE MINERAL	2.52	63	0.00	0	1.48	34	0.19	5	1.48	30	1.50	30	1.88	42	2.25	45
T O T A L (%)	100	2,499	100	2,000	100	2,284	100	2,622	100	2,029	100	2,004	100	2,494	100	2,002

(2)

ROCK NAME ROCK CODE SAMPLE NO. MINERAL	9 FELSIC GRANULITE < 4 > FDH-17		10 GNEISSOSE GRANULITE < 5 > FENCO-1		11 GNEISSOSE GRANITE < 1 > A 2		12 GNEISSOSE GRANULITE < 5 > A 5		13 GNEISSOSE GRANULITE < 5 > F 4		14 MAFIC GRANULITE < 3 > F 5		15 QUARTZ EPIDOTE VEIN GNEISSOSE GRANULITE < 4 > J 1		16 GNEISSOSE GRANULITE < 5 > K 4	
	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.	VOLUME %	COUNT NO.
QUARTZ	34.01	682	49.36	1,285	84.23	1,939	39.20	786	29.68	739	0.05	1	48.35	995	36.17	726
PLAGIOCLASE	29.33	588	35.89	888	0.61	14	38.75	777	57.19	1,424	52.66	1,159	0.00	0	30.74	617
K-FELDSPAR	36.36	729	6.00	150	12.77	294	3.34	67	3.57	89	0.14	3	1.12	23	9.27	166
BIOTITE	0.00	0	4.48	112	0.00	0	15.61	313	5.71	157	0.09	2	0.00	0	0.00	0
MUSCOVITE	0.00	0	0.12	3	2.30	53	1.35	27	0.00	0	0.00	0	0.00	0	0.00	0
ORTHOPYROXENE	0.00	0	0.00	0	0.00	0	0.00	0	0.36	9	14.58	323	0.00	0	0.00	0
CLINOPYROXENE	0.00	0	0.00	0	0.00	0	0.00	0	0.56	14	24.90	548	0.00	0	0.00	0
GARNET	0.00	0	0.04	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
SPINEL	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
AMPHIBOLE	0.00	0	0.00	0	0.00	0	0.00	0	1.08	27	2.82	62	0.00	0	0.00	0
ACTINOLITE	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0
CHLORITE	0.00	0	1.72	43	0.00	0	0.95	19	0.16	4	0.00	0	0.00	0	21.18	425
EPIDOTE	0.00	0	0.00	0	0.00	0	0.60	12	0.00	0	0.00	0	48.03	1,009	0.00	0
SERICITE	0.25	5	1.72	43	0.04	1	0.00	0	0.08	2	0.00	0	0.05	1	2.83	58
ZIRCON	0.00	0	0.08	2	0.00	0	0.15	3	0.08	2	0.05	1	0.34	7	0.20	4
APATITE	0.00	0	0.04	1	0.00	0	0.00	0	0.28	7	0.54	14	0.00	0	0.00	0
MONAZITE	0.00	0	0.00	0	0.04	1	0.05	1	0.00	0	0.00	0	0.00	0	0.00	0
OPAQUE MINERAL	0.05	1	0.56	14	0.00	0	0.00	0	0.24	6	4.00	88	1.12	23	0.45	9
T O T A L (%)	100	2,005	100	2,502	100	2,302	100	2,005	100	2,490	100	2,201	100	2,058	100	2,007

(3)

ROCK NAME ROCK CODE SAMPLE NO. MINERAL	17			18			19			20			21			22		
	MAPIC GRANULITE < 3 >			ENEISSOSE GRANULITE < 5 >			ENEISSOSE GRANULITE < 5 >			ENEISSOSE GRANULITE < 5 >			ENEISSOSE GRANULITE < 5 >			MAPIC GRANULITE < 3 >		
	VOLUME %	COUNT NO.		VOLUME %	COUNT NO.		VOLUME %	COUNT NO.		VOLUME %	COUNT NO.		VOLUME %	COUNT NO.		VOLUME %	COUNT NO.	
QUARTZ	36.28	784		45.91	1,106		67.75	1,496		38.39	924		44.01	1,013		0.00	0	
PLAGIOCLASE	44.52	962		45.66	1,100		0.00	0		20.36	490		21.76	501		50.62	1,216	
K-FELDSPAR	16.06	347		3.61	87		0.00	0		39.84	959		27.67	637		0.00	0	
BIOTITE	1.94	42		0.00	0		0.00	0		0.54	13		0.04	1		0.00	0	
MUSCOVITE	0.00	0		0.00	0		0.00	0		0.00	0		0.00	0		0.00	0	
ORTHOPIROXENE	0.74	16		0.00	0		0.00	0		0.00	0		0.00	0		6.83	184	
CLINOPYROXENE	0.14	3		0.00	0		0.00	0		0.00	0		0.00	0		33.81	812	
GARNET	0.00	0		0.00	0		0.00	0		0.00	0		0.00	0		0.00	0	
SPINEL	0.09	2		0.00	0		0.00	0		0.04	1		0.00	0		0.00	0	
AMPHIBOLE	0.00	0		0.00	0		0.00	0		0.00	0		0.00	0		4.08	98	
ACTINOLITE	0.00	0		0.00	0		0.00	0		0.00	0		0.00	0		0.00	0	
CHLORITE	0.00	0		0.66	16		0.00	0		0.00	0		0.56	13		0.58	14	
EPIDOTE	0.00	0		0.00	0		0.00	0		0.00	0		0.00	0		0.00	0	
SERICITE	0.09	2		1.29	31		1.09	24		0.00	0		5.73	132		1.71	41	
ZIRCON	0.05	1		0.21	5		0.05	1		0.25	6		0.04	1		0.08	2	
APATITE	0.09	2		0.23	6		0.09	2		0.00	0		0.00	0		0.33	8	
MONAZITE	0.00	0		0.21	5		0.23	5		0.00	0		0.04	1		0.00	0	
OPAQUE MINERAL	0.00	0		2.20	53		30.80	680		0.58	14		0.13	3		1.96	47	
TOTAL (%)	100	2,161		100	2,409		100	2,208		100	2,407		100	2,302		100	2,402	

APPENDIX A-9 Principal Constituent Minerals in Panned Samples

(1)

NO	SAMPLE NAME	X	Y	AU	PI	MAGNETITE	ULMENITE	HEM/LIM	SULPHIDE	QUARTZ	FELDSPAR	OPX/CPX	HORNBLEND	OTHERS
1	A027	18.7	27.1			○				○	.			.
2	A062	21.6	25.0			○				○	.			.
3	A063	22.3	25.3			○				○	.			.
4	A068	28.1	25.6			○				○	.			.
5	A082	26.1	34.2			○				○	.			.
6	A0110	26.5	32.4			○				○	.			.
7	A0132	28.6	21.8			○				○	.			.
8	A0140	20.1	20.7			○				○	.			.
9	A0176	29.2	34.6			○			·?	○	△			.
10	A0190	22.8	33.7			○				○	△			.
11	A0197	28.5	33.2			○				○	.			.
12	A0215	21.8	31.0			○				○	.			.
13	A0230	18.2	30.2			○				○	.			.
14	A0242	27.9	30.7			○				○	△			.
15	B014	23.1	18.1			○				○	△			.
16	B032	21.6	17.7			○				○	△			.
17	B038	24.4	17.5			○				○	△			.
18	B078	20.7	15.7			○				○	△			.
19	C021	23.9	9.1			○				○	△			.
20	C022	26.1	8.8			○				○	△			.
21	C030	21.9	7.7			○				○	△			.
22	D022	33.2	37.5			○				○	.			.
23	D039	32.5	36.7			○				○	.			.
24	D045	35.0	36.5			○				○	△			.
25	D055	30.9	35.2			○				○	△			.
26	D0107	38.1	30.2			○				○	△			.
27	E05	32.5	29.8			○				○	△			.
28	E026	30.6	27.9			○				○	△			.
29	E032	34.6	28.0			○				○	△	·?		.
30	E041	30.9	26.2			○				○	△	·?		.
31	E066	37.1	23.1			○				○	△			.
32	E081	36.2	22.8			○				○	.			.
33	F025	39.1	18.7			○				○	.			.
34	F026	39.4	18.9			○				○	.			△
35	F044	30.3	16.4			○				○	.			.
36	F045	30.7	16.5			○				○	△			.
37	F063	31.1	15.0			○				○	.			.
38	F093	38.9	11.1			○				○	.			.
39	F0129	30.3	6.0			○				○	.	·?		.
40	F0130	32.0	5.7			○				○	.			.
41	G024	47.5	41.8			○				○	.			.
42	G036	47.2	40.6			○				○	.			.
43	G053	41.8	38.3			○				○	.			.
44	G054	42.3	38.7			○				○	.			.
45	G068	43.4	37.6			○				○	.			.
46	G0105	47.9	34.4			○				○	.	·?		△
47	G0108	49.2	34.9			○				○	.			.
48	G0114	43.0	33.2			○				○	.			.
49	G0125	49.1	33.0			○				○	.			.
50	G0132	41.7	32.4			○				○	.			.
51	G0146	45.0	31.2			○				○	.			.
52	H017	46.2	28.6			○				○	.			.
53	H021	41.0	27.0			○				○	.			.
54	H037	45.7	26.4			○	·?			○	.			.
55	H039	49.3	26.7			○				○	.			.
56	H043	46.0	25.5			○				○	.			.
57	H055	41.2	25.7			○				○	.			.
58	H058	42.9	24.9			○				○	.			.
59	H063	44.1	24.0			○				○	.			.
60	H0101	49.4	21.0			○				○	.			.
61	I029	43.5	16.3			○				○	.			.
62	I070	46.5	12.2			○				○	.			.
63	I071	47.0	12.2			○				○	.			.
64	I073	47.7	12.1			○				○	.			.
65	I084	43.5	10.6			○				○	△			.
66	I085	41.7	12.0			○				○	.			.
67	J032	56.3	43.7			○				○	.			.
68	J040	52.8	42.2			○				○	.			.
69	J055	56.8	42.1			○				○	.			.
70	J079	56.5	40.9			○				○	.			△
71	J082	58.1	40.3			○				○	.			.
72	K04	50.8	39.6			○			·?	○	△			.
73	K015	55.5	39.4			○				○	△			.
74	K017	55.9	39.2			○				○	.			.
75	K057	55.1	36.8			○				○	.			.

HEM/LIM : HEMATITE / LIMONITE  
 OPX/CPX : ORTHOPYROXENE / CLINOPYROXENE

○ : ABUNDANT  
 ○ : COMMON

△ : MINOR  
 . : RARE

(2)

NO	SAMPLE NAME	X	Y	AU	PL	MAGNETITE	ILMENITE	HEM/LIM	SULPHIDE	QUARTZ	FELDSPAR	OPX/CPX	HORNBLND	OTHRBS
76	K073	53.8	35.0			○				○	.			.
77	K095	56.3	34.5			○				○	.			.
78	K0103	53.6	43.5			○				○	.			.
79	K0119	53.9	32.3			○			·?	○	.			.
80	L031	50.7	26.3			○				○	.			.
81	L039	54.2	26.3			○				○	.			.
82	L052	55.6	35.6			○				○	.			.
83	L086	52.1	32.2			○				○	.			.
84	M046	58.7	14.7			○				○	.			.
85	N043	61.0	46.8			○				○	.			.
86	N045	65.5	46.5			○				○	.			.
87	N048	67.3	46.8			○				○	.			.
88	N051	68.9	46.4			○				○	.			.
89	N095	68.3	44.1			○				○	.			.
90	N0120	68.2	41.7			○				○	.			.
91	0027	60.3	38.0			○				○	.			.
92	0069	69.3	35.4			○				○	.			.
93	P08	65.7	29.2			○				○	.			.
94	P09	66.0	29.6			○				○	.			.
95	P047	67.3	26.8			○				○	.			.
96	P072	61.5	23.6			○				○	.			.
97	P0106	66.4	20.7			○				○	.			.
98	P0129	61.7	17.4			○	·?			○	.			.
99	P0130	62.1	17.4			○				○	.			.
100	Q09	75.3	52.7			○				○	.			.
101	Q015	73.2	51.8			○				○	△			.
102	Q018	75.3	50.9			○				○	.			.
103	Q034	77.2	50.5			○				○	.			.
104	Q059	71.1	47.1			○				○	.			.
105	Q068	76.2	47.1			○				○	.			.
106	Q0153	78.0	41.8			○				○	.			.
107	Q0162	73.4	40.9			○				○	.			.
108	Q0157	79.4	41.9			○				○	.			.
109	R023	70.7	37.4			○				○	.			.
110	R041	77.8	37.7			○				○	.			.
111	R050	75.6	36.1			○				○	.			.
112	R087	78.1	32.7			○				○	.			.
113	S020	71.8	27.8			○				○	.			.
114	S048	72.6	25.7			○				○	.			.
115	S055	71.2	24.7			○				○	.			.
116	S082	72.7	21.4			○				○	.			.
117	T039	88.8	54.7			○				○	.			.
118	T040	89.4	55.0			○				○	.			.
119	T043	83.2	53.2			○				○	.			.
120	T049	88.9	53.9			○				○	.			.
121	T059	83.2	51.9			○				○	.			.
122	T077	82.8	50.4			○				○	.			.
123	T087	88.3	50.8			○				○	.			.
124	U02	82.9	49.6			○				○	.			.
125	U036	82.6	46.0			○				○	.			.
126	U053	84.1	45.8			○				○	.			.
127	U089	88.3	43.7			○				○	.			.
128	U095	82.2	41.9			○				○	.			.
129	U0104	89.5	42.8			○				○	.			.
130	V02	84.5	39.3			○				○	.			.
131	V016	88.0	38.4			○				○	.	·?		△
132	V025	82.6	37.8			○				○	.			.
133	V0113	83.4	30.4			○				○	.			.
134	V0114	84.6	30.6			○				○	.			.
135	W05	83.8	30.0			○				○	.			.
136	W031	81.0	27.3			○				○	.			.
137	W039	89.4	27.3			○				○	.			.
138	W042	82.1	26.0			○				○	.			.
139	W049	81.0	24.0			○				○	.			.
140	W050	87.0	26.1			○				○	.			.
141	X017	92.5	57.2			○				○	.			.
142	X025	92.3	56.1			○				○	.			.
143	X062	92.6	51.6			○				○	.			.
144	Y08	94.7	49.6			○			·?	○	.			.
145	Y047	91.2	42.8			○				○	.			.
146	Y051	93.6	43.1			○				○	.			.
147	Y054	95.0	43.6			○				○	.			.
148	Y076	95.6	40.6			○				○	△			.
149	Z032	92.5	36.1			○				○	.		·?	.
150	Z067	94.3	31.9			○				○	.			.

APPENDIX A-10 Results of Magnetic Susceptibility Measurement

(1)

SAMPLE N.O.	DOLERITE			IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISSOSE GRANULITE			GNEISSOSE GRANITE		
	X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	X	Y
1 M02	29.50	21.60	3.46	0.01 M03	28.70	36.60	0.02 M04	28.20	25.30	24.50	15.00	0.04 M07	24.50	33.20	0.02 M08	28.40	37.80	0.05
2 M13	26.60	29.90	0.18	0.31 M05	23.70	24.30	0.14 D105	24.50	15.00	30.50	30.70	0.00 M09	24.50	32.40	0.02 M10	28.70	36.50	0.00
3 EHL5	32.40	22.90	4.70	2015-1	16.60	8.10	0.10 D101	37.80	30.70	37.80	31.20	0.00 M11	24.70	31.50	0.18 M12	25.20	33.80	0.18
4 FB201	30.70	15.20	3.61	D028	21.50	10.10	0.52 E45	31.60	25.70	31.60	25.70	0.01 M12	29.70	31.20	0.55 D216	22.70	37.90	0.17
5 FB03	47.30	39.10	1.89	D181	38.30	40.50	0.75 E104	32.60	20.10	31.60	25.70	0.01 M13	28.00	22.50	5.48 D220	35.40	43.90	0.25
6 FB03	47.30	39.10	1.89	F011	32.40	18.90	0.04 F032	31.90	17.20	32.60	20.10	0.00 M14	28.50	25.00	0.02 D221	34.60	42.30	0.26
7 M21	45.20	19.00	0.18	F011	32.40	18.90	0.04 F032	31.90	17.20	31.90	17.20	0.01 M15	28.90	36.50	0.00 D223	32.70	40.80	1.82
8 I11	89.00	57.00	1.09	F011	33.80	14.10	0.94 F1-7	30.00	17.20	30.00	17.20	0.00 M16	21.70	31.30	0.01 D224	33.00	40.30	0.27
9 I13	82.50	46.00	1.77	F026	30.30	17.00	0.04 F02	34.50	18.30	20.80	21.00	0.00 M17	20.80	21.00	1.57 D225	30.50	38.90	0.19
10 I36	82.50	46.00	0.06	F04	35.70	16.30	0.26 F06	39.70	15.60	39.70	15.60	0.00 M18	21.30	22.10	0.01 D226	34.00	57.30	1.91
11 I26-8	82.50	46.00	0.16	F04	35.70	16.30	1.59 F0208	30.10	17.30	34.50	18.30	0.00 M19	21.60	22.50	0.05 D227	34.20	55.80	1.03
12 K09	84.60	34.30	1.13	M17	45.20	25.60	0.37 F11	43.20	37.30	43.20	37.30	0.00 M20	22.00	22.90	0.02 D228	35.20	55.30	0.31
13 I11	91.50	48.50	0.40	M20	44.90	19.50	0.11 F012	44.20	38.20	44.20	38.20	0.00 M21	22.70	23.40	0.02 D229	35.30	54.80	1.09
14 I42	96.20	43.50	2.47	M24	55.30	39.20	1.59 F16	45.70	32.90	45.70	32.90	0.05 M22	22.90	24.10	0.01 D230	36.00	51.70	1.69
15 K72	98.70	40.50	0.13	M6	52.50	18.10	0.00 M72	48.20	24.40	48.20	24.40	0.00 M23	22.90	25.90	0.06 D231	36.70	53.20	0.66
16 M1	92.40	42.30	0.21	M6	52.50	18.10	0.06 M04	47.00	14.30	47.00	14.30	0.01 M25	23.00	27.60	0.11 D232	37.60	51.80	0.45
17 I27-12	91.30	42.80	0.25	M23-4	64.30	48.30	0.00 M12	47.00	16.30	47.00	16.30	0.01 M26	22.70	27.50	0.02 D233	37.80	51.80	0.02
18				M23-6	64.30	48.30	0.00 M14	41.20	18.20	41.20	18.20	0.23 M27	22.80	28.40	0.85 D234	38.20	51.50	1.47
19				M23-13	61.50	46.20	0.09 F02	59.70	42.00	59.70	42.00	0.00 M28	22.30	23.50	0.09 D235	38.20	51.50	0.25
20				R322	79.10	41.20	0.00 F03	60.00	42.10	60.00	42.10	0.18 M29	23.10	24.20	0.01 D236	39.20	50.10	0.02
21				R323	79.10	41.20	2.47 F04	58.50	43.60	58.50	43.60	0.00 M30	23.80	24.50	0.01 D237	39.40	49.80	0.14
22				S054	7.00	42.00	2.18 F06	55.40	42.70	55.40	42.70	0.24 M31	24.00	30.50	0.66 D238	39.40	49.80	0.13
23				I55	7.00	42.00	0.23 F05A	57.00	42.50	57.00	42.50	0.05 M32	24.50	31.50	0.01 D239	39.40	49.80	0.40
24				I56	87.00	45.50	0.20 I28-20	59.00	42.60	59.00	42.60	0.00 M33-1	25.40	31.50	0.18 D240	39.40	49.80	0.77
25				L72	86.40	46.30	4.45 M07	53.00	39.10	53.00	39.10	0.00 M33-2	25.40	31.50	0.13 D241	39.30	48.10	0.62
26				D121	80.90	40.20	0.56 M08	52.90	30.30	52.90	30.30	0.08 M34	25.20	33.80	0.16 D242	38.20	46.10	0.01
27				I2	83.00	49.70	1.69 M03	50.50	36.40	50.50	36.40	0.03 M35	26.10	34.30	0.23 D243	38.30	45.10	0.69
28				I115	86.50	41.10	0.23 M01	53.60	33.90	53.60	33.90	0.89 M12-7	18.50	27.00	0.37 D244	38.50	44.60	0.93
29				I128-7	82.70	40.50	0.02 M03	53.70	34.10	53.70	34.10	0.01 B100	28.60	13.70	0.08 D245	38.70	44.10	0.01
30				I27-6	88.30	40.80	0.13 F04	54.30	34.70	54.30	34.70	0.00 B5-2	21.50	15.60	1.81 D246	38.50	41.90	0.37
31				K65	92.50	42.00	0.07 F10	55.00	39.00	55.00	39.00	0.20 D058	18.30	2.80	3.25 D247	38.30	39.10	0.34
32				F73	90.60	42.00	0.17 M11	55.20	38.50	55.20	38.50	0.05 D106	21.60	2.80	0.45 D248	38.20	39.10	0.34
33				I19			0.24	56.00	27.00	56.00	27.00	0.96 D106	23.30	2.10	0.68	38.30	39.10	0.34
34								54.10	27.90	54.10	27.90	0.08 D202	37.40	36.00	1.35	38.30	39.10	0.34
35								53.00	29.30	53.00	29.30	0.03 D204	35.30	34.60	0.57	38.30	39.10	1.50

(2)

DOLERITE	IRON FORMATION				MAFIC GRANULITE				FELSIC GRANULITE				GNEISSE GRANULITE				
	COORDINATION		MAGNETIC		COORDINATION		MAGNETIC		COORDINATION		MAGNETIC		COORDINATION		MAGNETIC		
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	
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MAGNETIC SUSCEPTIBILITY (emu / cm<sup>3</sup>) X 10<sup>-3</sup>

(3)

DOLERITE	IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISSSE GRANULITE			GNEISSSE GRANITE			
	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY
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35																
MAGNETIC SUSCEPTIBILITY (emu / cm <sup>3</sup> ) × 10 <sup>-3</sup>																



(4)

	DOLERITE			IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISSE GRANULITE			GNEISSE GRANITE					
	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY	
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33																					
34																					
35																					

MAGNETIC SUSCEPTIBILITY (emu / cm<sup>3</sup>) × 10<sup>-3</sup>

(5)

1	DOLERITE			IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISSOSE GRANULITE		
	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY
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MAGNETIC SUSCEPTIBILITY (emu / cm<sup>3</sup>) X10<sup>-3</sup>

(6)

1	DOLERITE			IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISS GRANULITE			GNEISS GRANITE			
	SAMPLE N.O.	COORDINATION X	COORDINATION Y	SAMPLE N.O.	COORDINATION X	COORDINATION Y	SAMPLE N.O.	COORDINATION X	COORDINATION Y	SAMPLE N.O.	COORDINATION X	COORDINATION Y	SAMPLE N.O.	COORDINATION X	COORDINATION Y	SAMPLE N.O.	COORDINATION X	COORDINATION Y	MAGNETIC SUSCEPTIBILITY
2																			1.89
3																			1.86
4																			
5																			0.89
6																			0.95
7																			1.09
8																			2.04
9																			0.82
10																			0.74
11																			0.45
12																			0.49
13																			0.38
14																			0.49
15																			0.72
16																			1.16
17																			0.89
18																			0.99
19																			1.53
20																			0.48
21																			0.23
22																			1.24
23																			0.46
24																			0.76
25																			0.75
26																			1.71
27																			0.15
28																			0.06
29																			0.38
30																			0.11
31																			0.44
32																			0.02
33																			0.02
34																			1.66
35																			0.62
																			0.14
																			0.10

MAGNETIC SUSCEPTIBILITY (emu / cm<sup>3</sup>) × 10<sup>-3</sup>

(7)

DOLERITE	IRON FORMATION		MAFIC GRANULITE		FELSIC GRANULITE		GNEISS GRANULITE		GNEISS GRANITE	
	SAMPLE N.O.	COORDINATION	SAMPLE N.O.	COORDINATION	SAMPLE N.O.	COORDINATION	SAMPLE N.O.	COORDINATION	SAMPLE N.O.	COORDINATION
MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY	MAGNETIC SUSCEPTIBILITY
1	X		X		X		X		X	
2	X		X		X		X		X	
3	X		X		X		X		X	
4	X		X		X		X		X	
5	X		X		X		X		X	
6	X		X		X		X		X	
7	X		X		X		X		X	
8	X		X		X		X		X	
9	X		X		X		X		X	
10	X		X		X		X		X	
11	X		X		X		X		X	
12	X		X		X		X		X	
13	X		X		X		X		X	
14	X		X		X		X		X	
15	X		X		X		X		X	
16	X		X		X		X		X	
17	X		X		X		X		X	
18	X		X		X		X		X	
19	X		X		X		X		X	
20	X		X		X		X		X	
21	X		X		X		X		X	
22	X		X		X		X		X	
23	X		X		X		X		X	
24	X		X		X		X		X	
25	X		X		X		X		X	
26	X		X		X		X		X	
27	X		X		X		X		X	
28	X		X		X		X		X	
29	X		X		X		X		X	
30	X		X		X		X		X	
31	X		X		X		X		X	
32	X		X		X		X		X	
33	X		X		X		X		X	
34	X		X		X		X		X	
35	X		X		X		X		X	
MAGNETIC SUSCEPTIBILITY (emu / cm <sup>3</sup> ) X 10 <sup>-3</sup>										

(8)

N.O.	DOLERITE			IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISS GRANULITE		
	SAMPLE COORDINATION	MAGNETIC SUSCEPTIBILITY	N.O.	SAMPLE COORDINATION	MAGNETIC SUSCEPTIBILITY	N.O.	SAMPLE COORDINATION	MAGNETIC SUSCEPTIBILITY	N.O.	SAMPLE COORDINATION	MAGNETIC SUSCEPTIBILITY	N.O.	SAMPLE COORDINATION	MAGNETIC SUSCEPTIBILITY	N.O.
1	X	Y		X	Y		X	Y		X	Y		X	Y	
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MAGNETIC SUSCEPTIBILITY (emu / cm<sup>3</sup>) X 10<sup>-3</sup>



1	DOLERITE			IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISSOSE GRANULITE			
	SAMPLE N.O.	COORDINATION X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	Y	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION X	Y	MAGNETIC SUSCEPTIBILITY
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MAGNETIC SUSCEPTIBILITY (emu / cm<sup>3</sup>) × 10<sup>-3</sup>

(1)

DOLERITE	IRON FORMATION			MAFIC GRANULITE			FELSIC GRANULITE			GNEISSO GRANULITE			GNEISSO GRANITE		
	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY	SAMPLE N.O.	COORDINATION	MAGNETIC SUSCEPTIBILITY
1	X	Y		X	Y		X	Y		X	Y		X	Y	
2															
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4															
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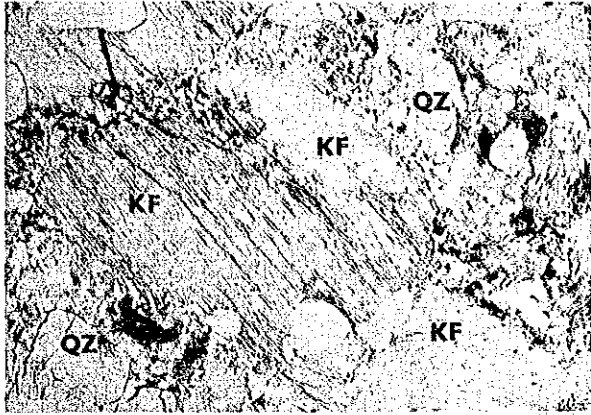


APPENDIX A-11 Photomicrograph of Thin Sections

A B B R E V I A T I O N

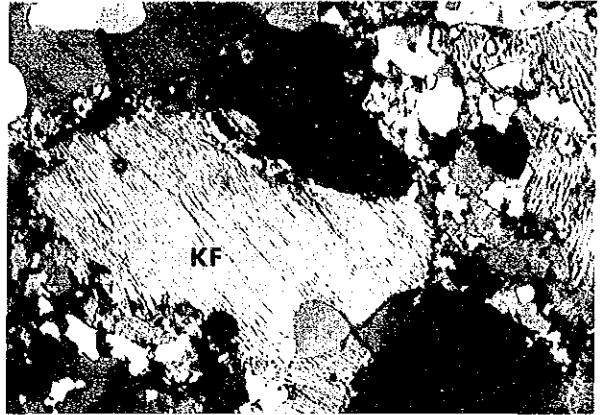
QZ : QUARTZ  
PL : PLAGIOCLASE  
KF : K-FELDSPAR  
OPX : ORTHOPYROXENE  
CPX : CLINOPYROXENE  
BI : BIOTITE  
HB : HORENBLEND  
CH : CHLORITE  
EP : EPIDOTE  
AP : APATITE  
GR : GARNET



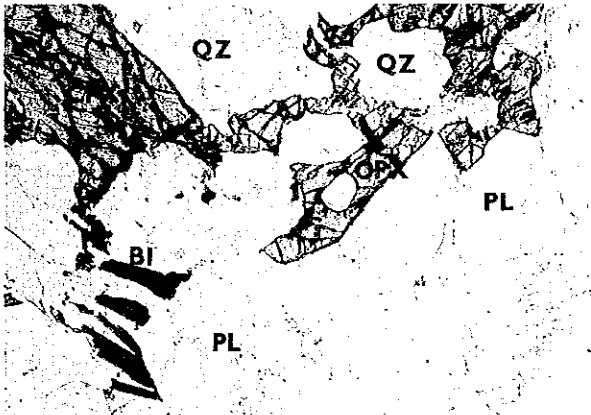


SAMPLE NUMBER: S-03 -OPEN

LOCALITY: MATSAI TRIBAL TRUST RANG  
 ROCK NAME: GNEISSOSE GRANULITE



+CROSS

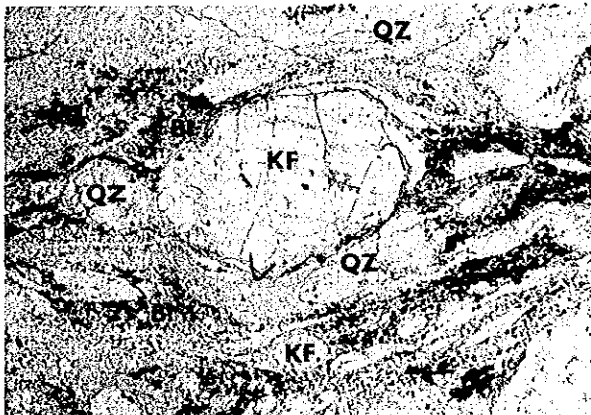


SAMPLE NUMBER: W-03 -OPEN

LOCALITY: ANGUS RANCH  
 ROCK NAME: GNEISSOSE GRANULITE

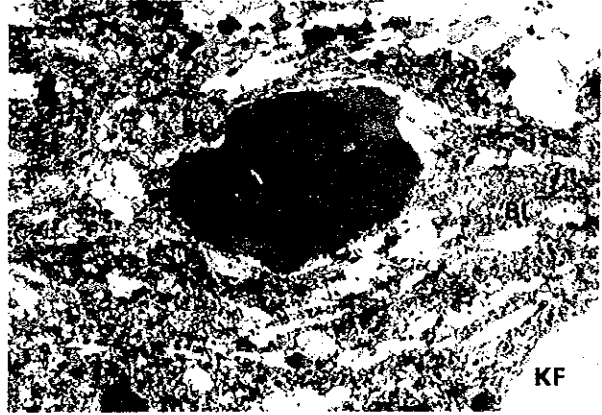


+CROSS



SAMPLE NUMBER: D-05 -OPEN

LOCALITY: CHARUK SCH.  
 ROCK NAME: GNEISSOSE GRANULITE



+CROSS

0.5mm

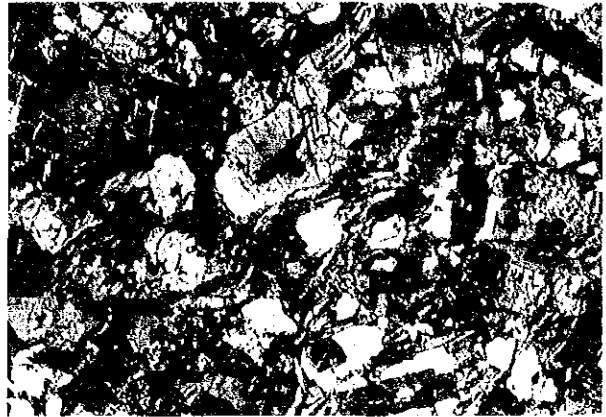




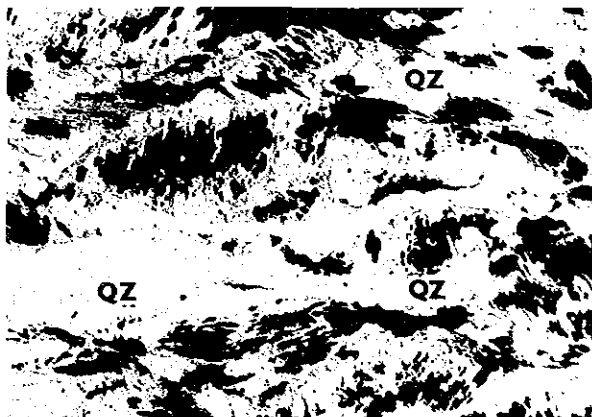
SAMPLE NUMBER: E-11 =OPEN

LOCALITY: 2KM NORTH OF CHIVAMBA B.C.

ROCK NAME: DOLERITE



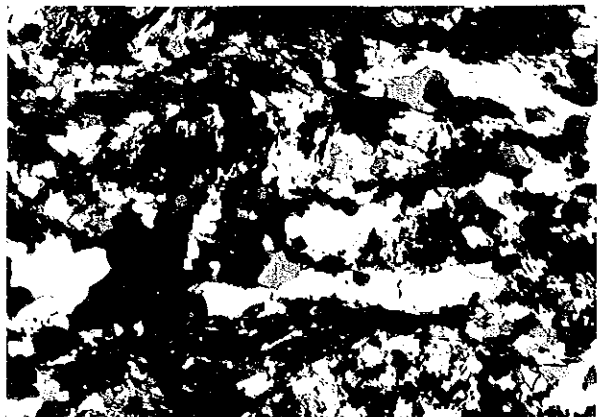
+CROSS



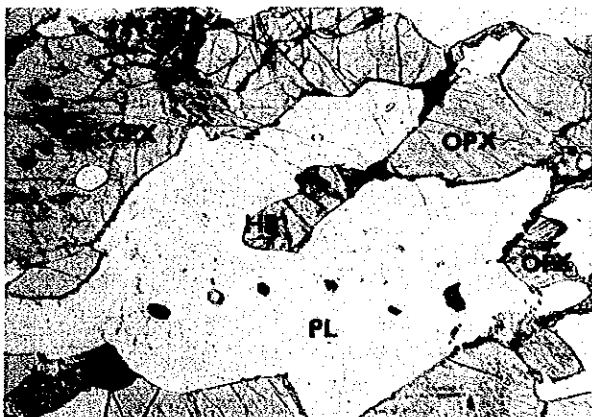
SAMPLE NUMBER: P-04 =OPEN

LOCALITY: BENZI B.C.

ROCK NAME: IRON FORMATION



+CROSS



SAMPLE NUMBER: F-05

LOCALITY: 2KM WEST OF MUZONDIDIYA SCH.

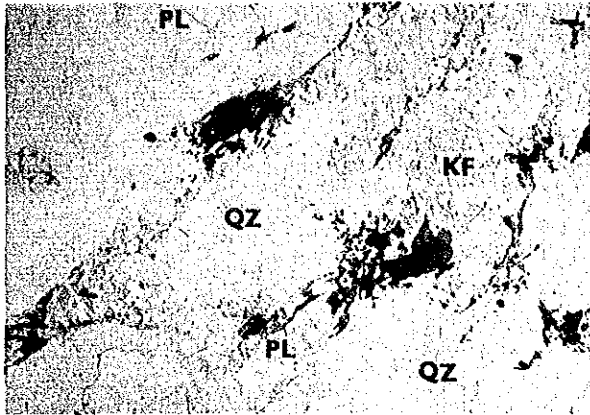
ROCK NAME: MAFIC GRANULITE



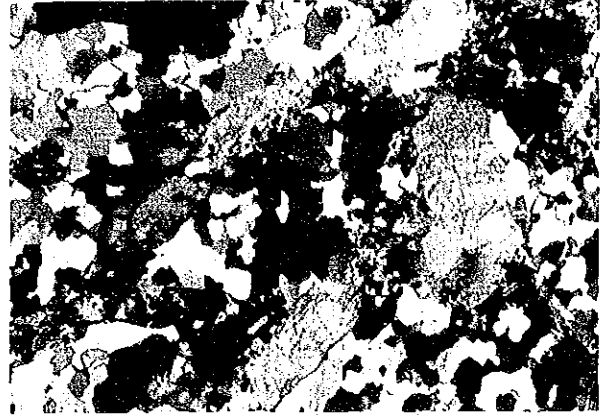
+CROSS

0.5mm

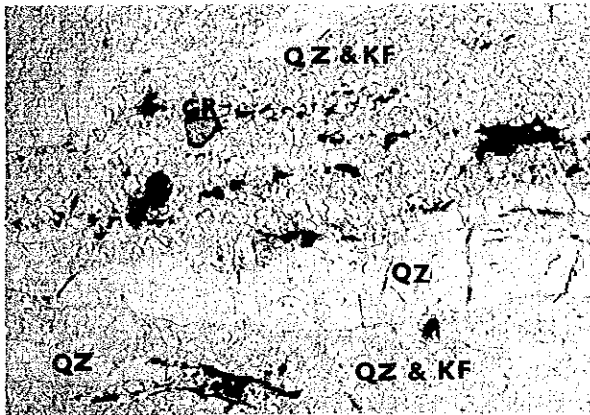




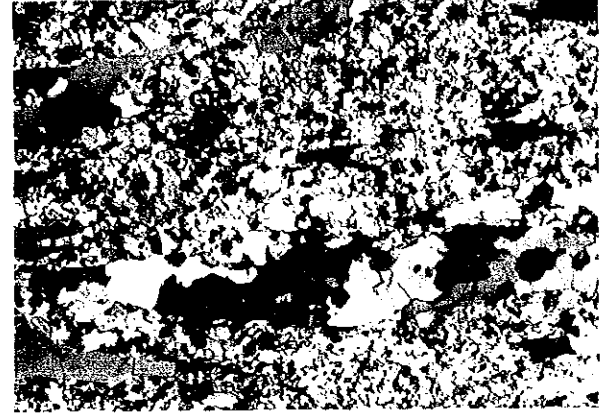
SAMPLE NUMBER: RENCO ORE-1 -OPEN  
 LOCALITY: RENCO MINE  
 ROCK NAME: GNEISSOSE GRANULITE



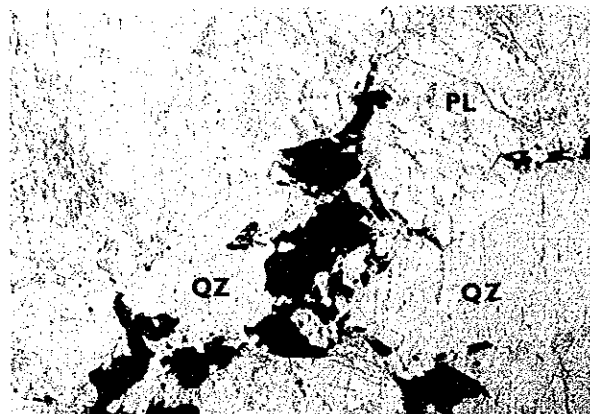
+CROSS



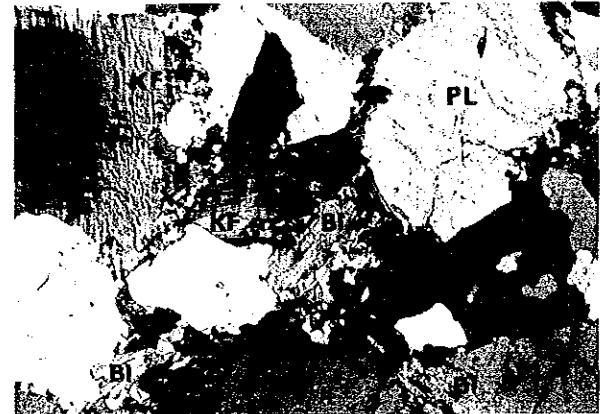
SAMPLE NUMBER: P-03 -OPEN  
 LOCALITY: NGWANE  
 ROCK NAME: FELSIC GRANULITE



+CROSS



SAMPLE NUMBER: D-02 -OPEN  
 LOCALITY: JERERA B. C  
 ROCK NAME: GNEISSOSE GRANULITE



+CROSS

0.5mm



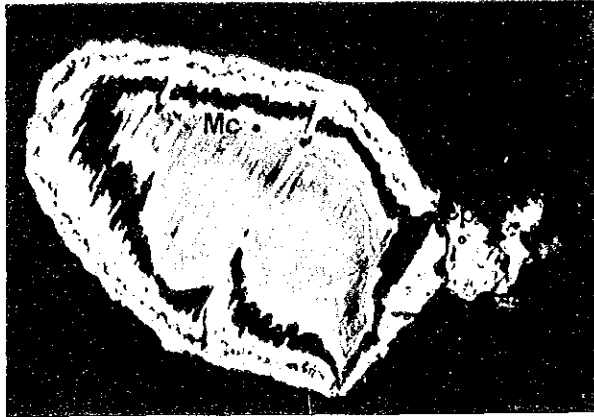


## APPENDIX A-12 Photomicrograph of Polished Sections

### ABBREVIATION

Po : Pyrrhotite  
Py : Pyrite  
Cp : Chalcopyrite  
Mc : Marcasite  
Ars : Arsenopyrite  
Ml : Malachite  
Mt : Magnetite  
He : Hematite  
Ilm : Ilmenite  
Fe : Fe-hydroxide



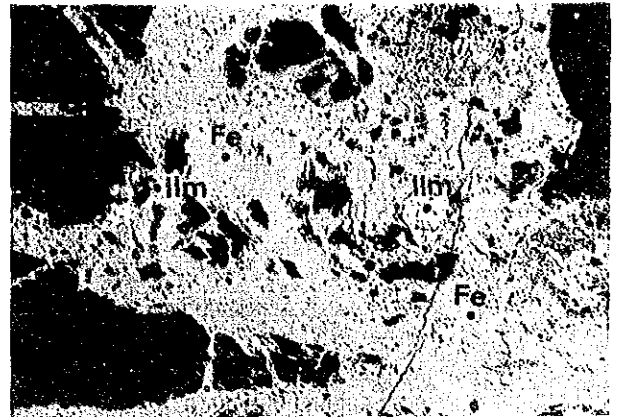


SAMPLE NO. : JEGEDE 1P

0.1mm

LOCALITY: JEGEDE

REMARKS: Marcasite-Chalcopyrite association



SAMPLE NO. : DINHIRO 2P

0.1mm

LOCALITY: DINHIRO

REMARKS: Ilmenite-Fe-hydroxide intergrowth

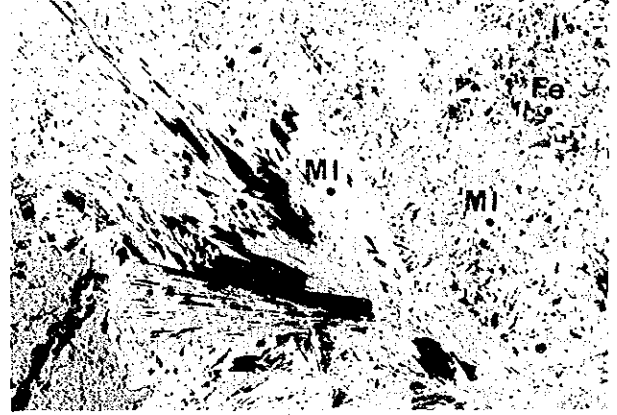


SAMPLE NO. : JEGEDE 2P

0.1mm

LOCALITY: JEGEDE

REMARKS: Marcasite and Arsenopyrite

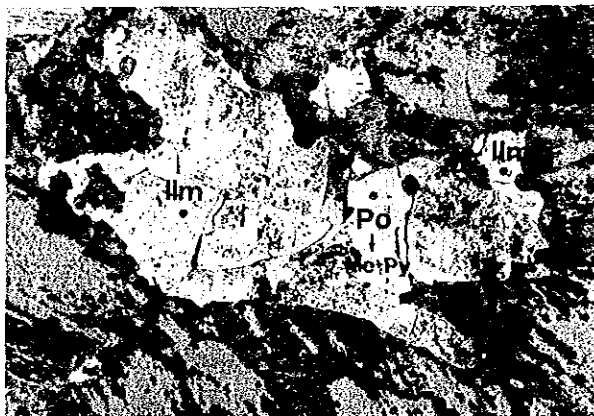


SAMPLE NO. : UMKONDO 1P

0.1mm

LOCALITY: UMKONDO

REMARKS: Marcasite-Fe-hydroxide association

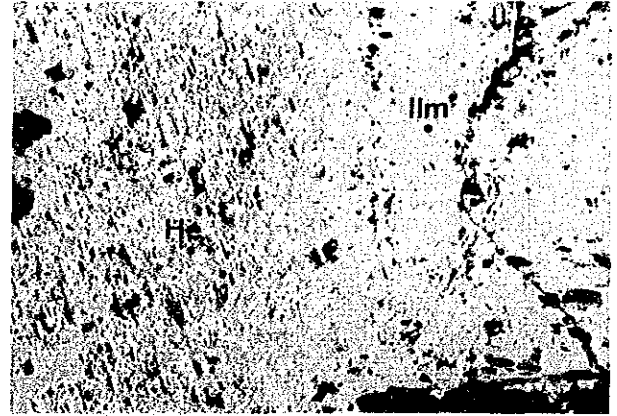


SAMPLE NO. : HOVERE 1P

0.1mm

LOCALITY: HOVERE

REMARKS: Ilmenite-Pyrrhotite association  
with secondary Marcasite and Pyrite



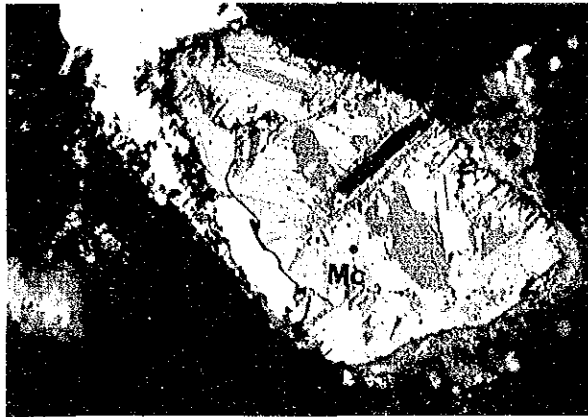
SAMPLE NO. : DINHIRO 1P

0.1mm

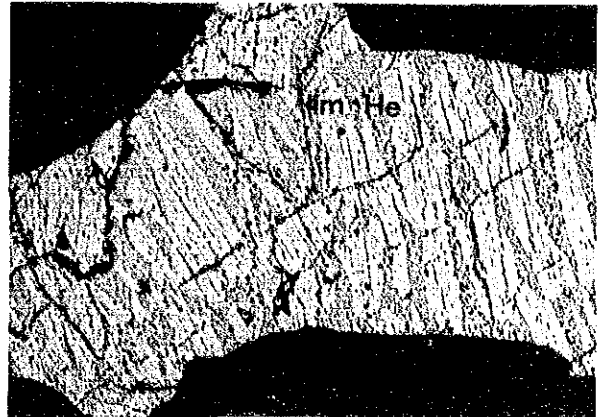
LOCALITY: DINHIRO

REMARKS: Ilmenite-hematite intergrowth





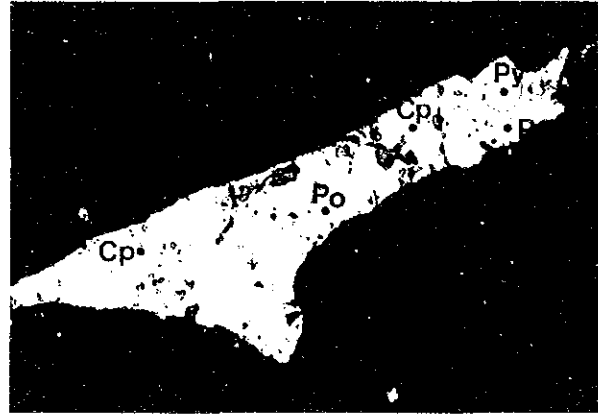
SAMPLE NO. : MUCHACHA 1P  
 LOCALITY: MUCHACHA  
 REMARKS: Strong anisotropy of Marcasite



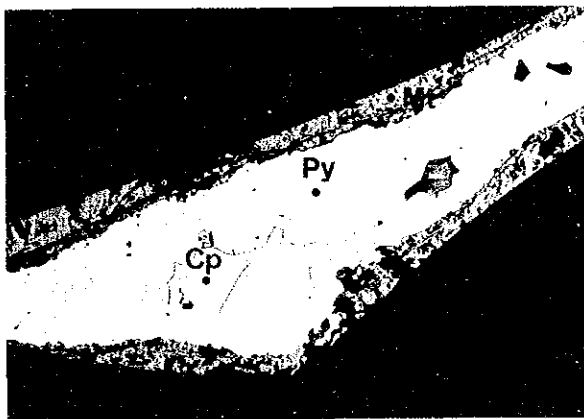
SAMPLE NO. : GORGWE 5P  
 LOCALITY: GORGWE  
 REMARKS: Hematite-Ilnenite exsolution texture



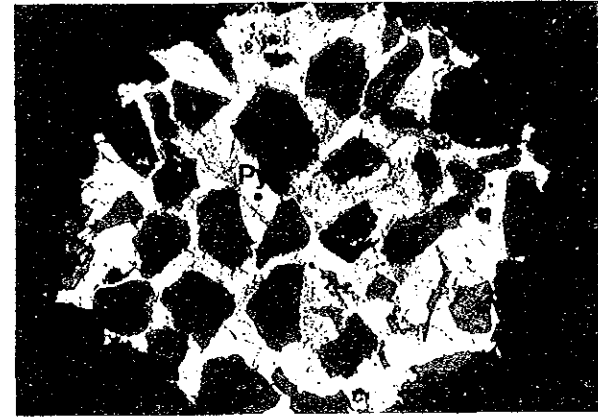
SAMPLE NO. : MUCHACHA 2P  
 LOCALITY: MUCHACHA  
 REMARKS: Birds-eye texture of pyrrhotite



SAMPLE NO. : RENCO 1P  
 LOCALITY: RENCO  
 REMARKS: Chalcopyrite-Pyrrhotite-Pyrite association

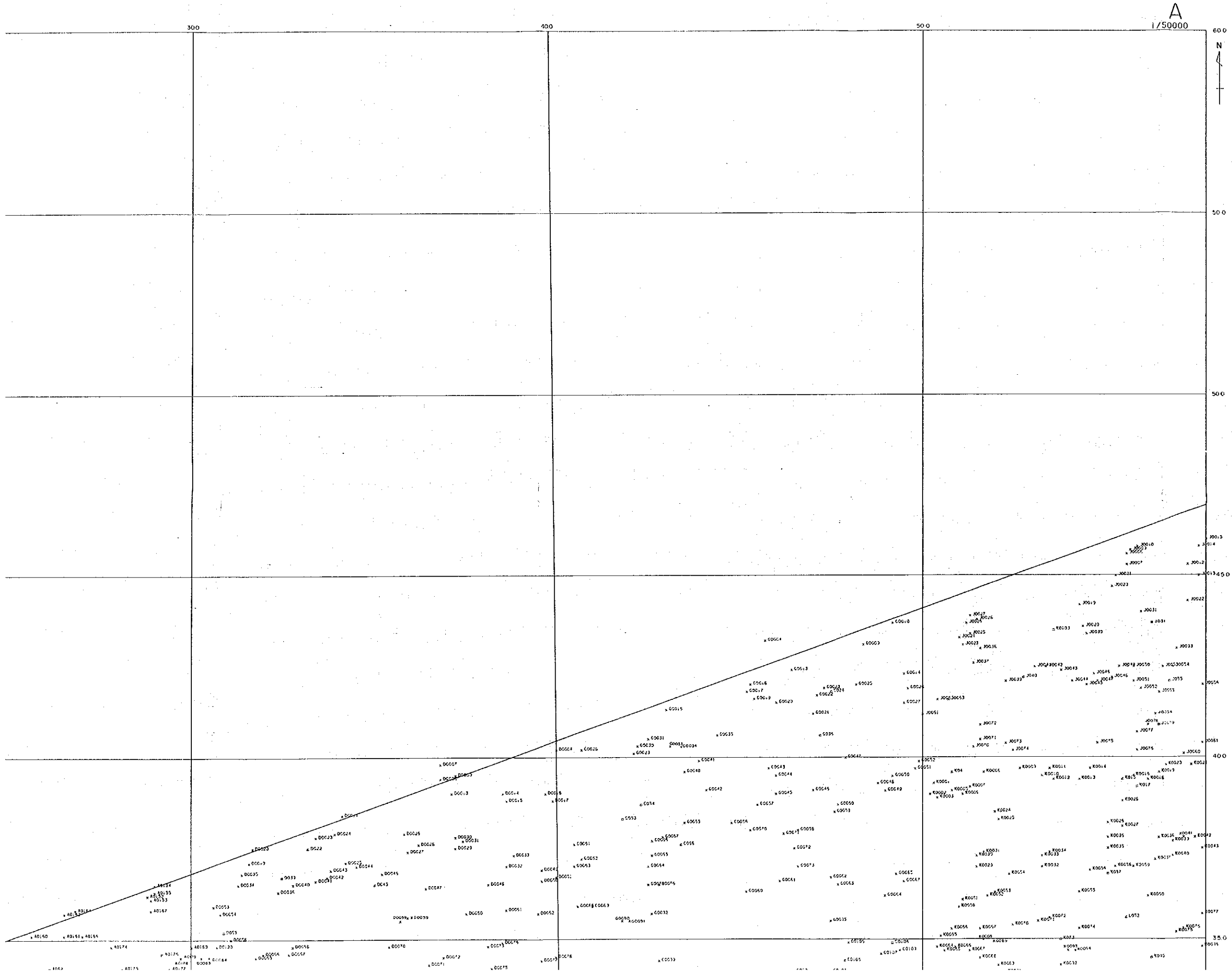


SAMPLE NO. : GORGWE 1P  
 LOCALITY: GORGWE  
 REMARKS: Pyrite-Chalcopyrite association with secondary Magnetite



SAMPLE NO. : UMKONDO 1P  
 LOCALITY: UMKONDO  
 REMARKS: Pyrite filling silicate minerals





A  
1/50000

LEGEND

- x Site of stream sediments
- Site of panned samples

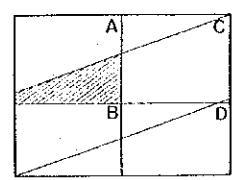
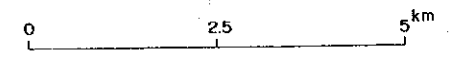
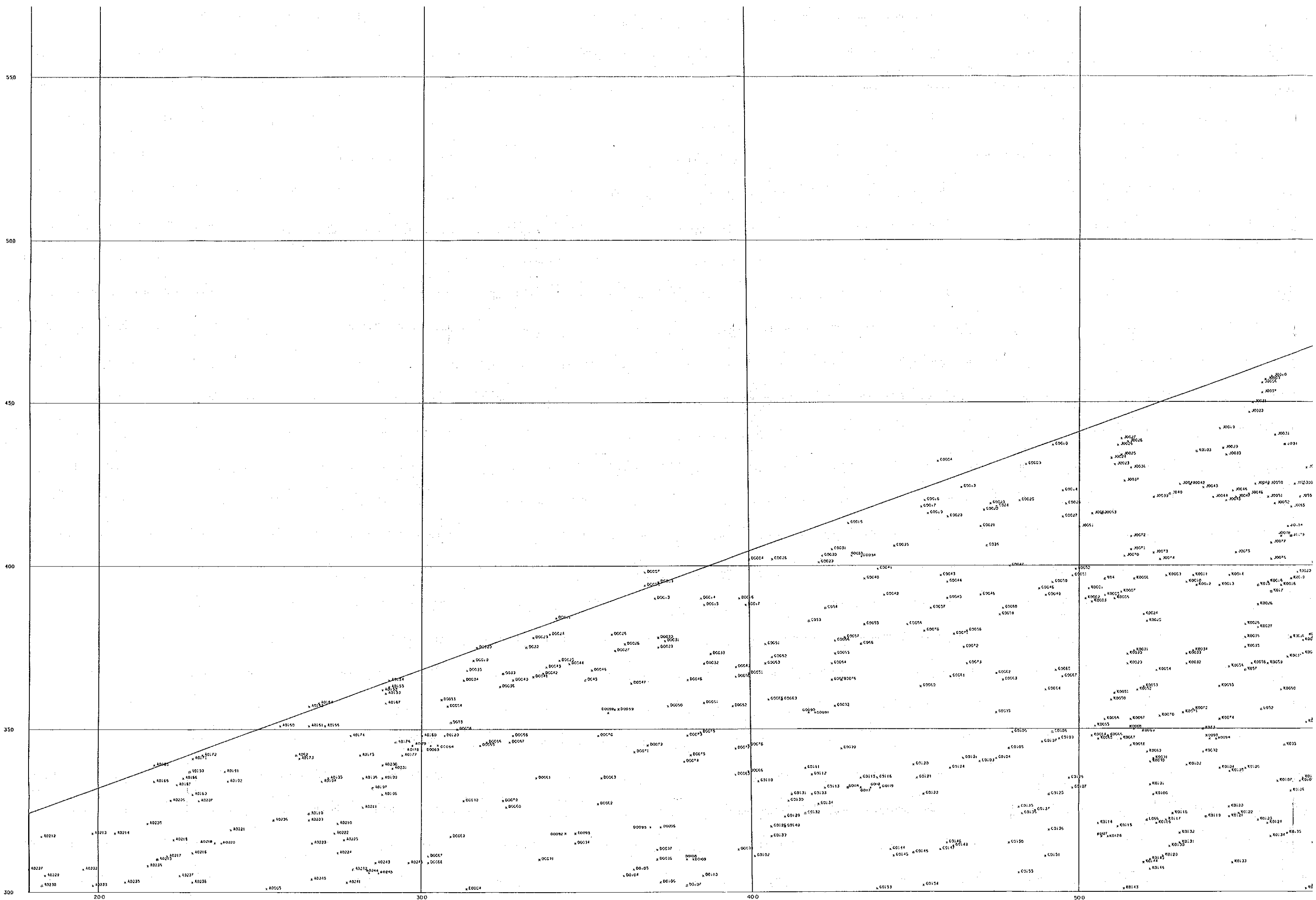


PLATE I Location Map of Stream Sediments







550

500

450

400

350

300

200

300

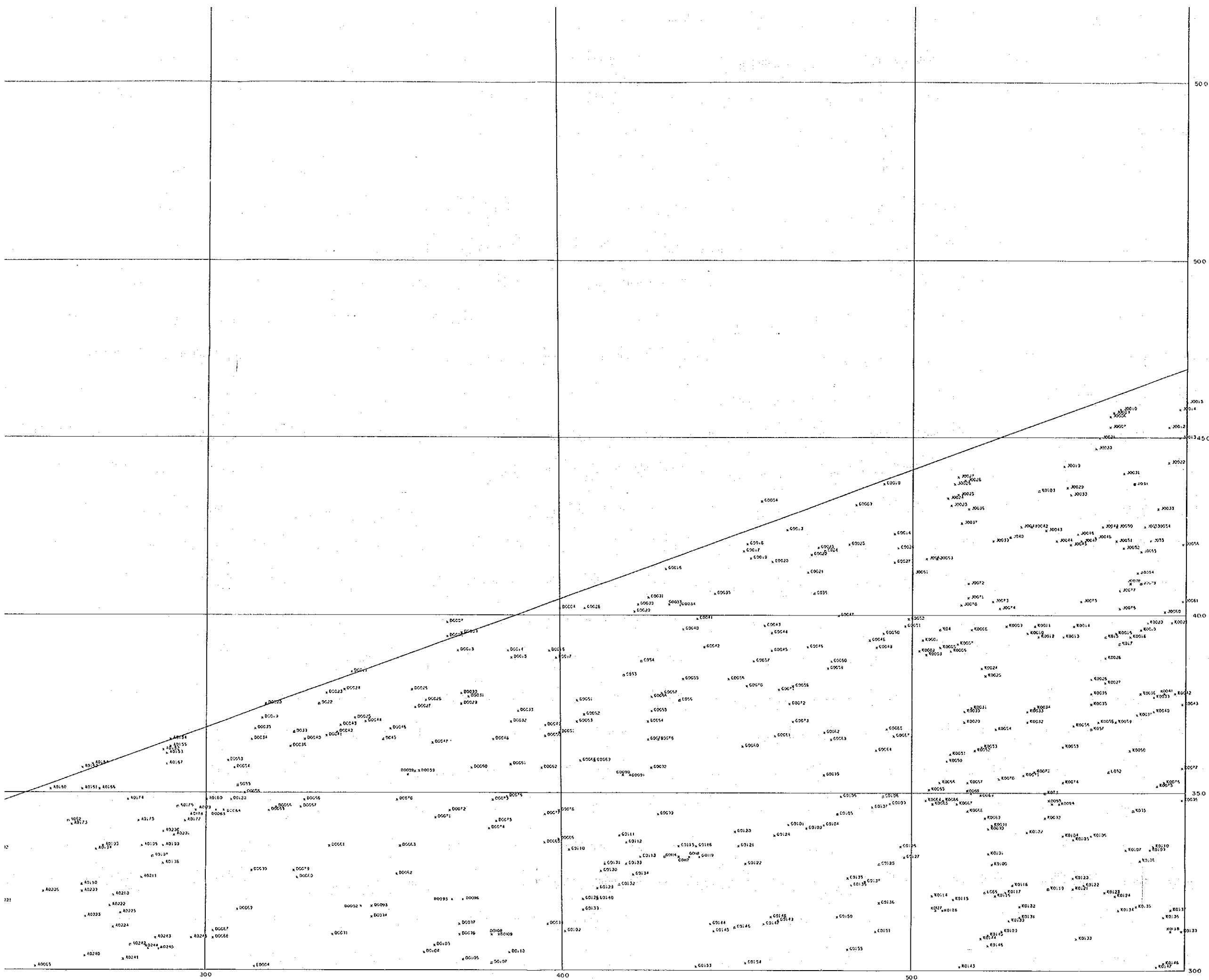
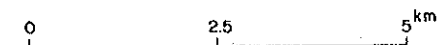
400

500

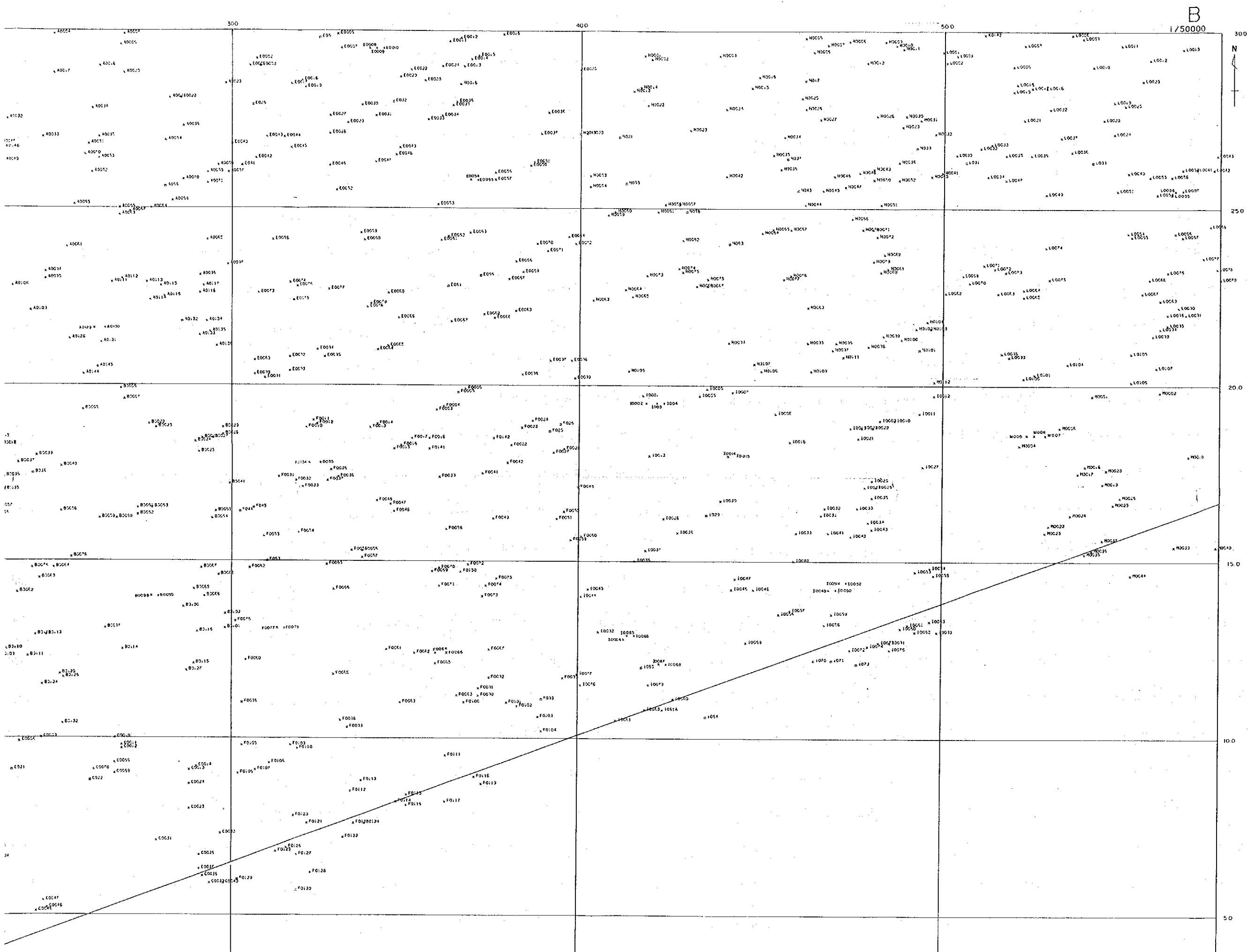
500



PLATE I Location Map of Stream Sediments







B  
1/50000



**LEGEND**  
 x Site of stream sediments  
 o Site of panned samples

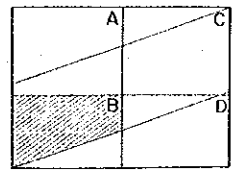
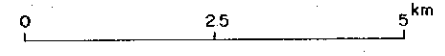
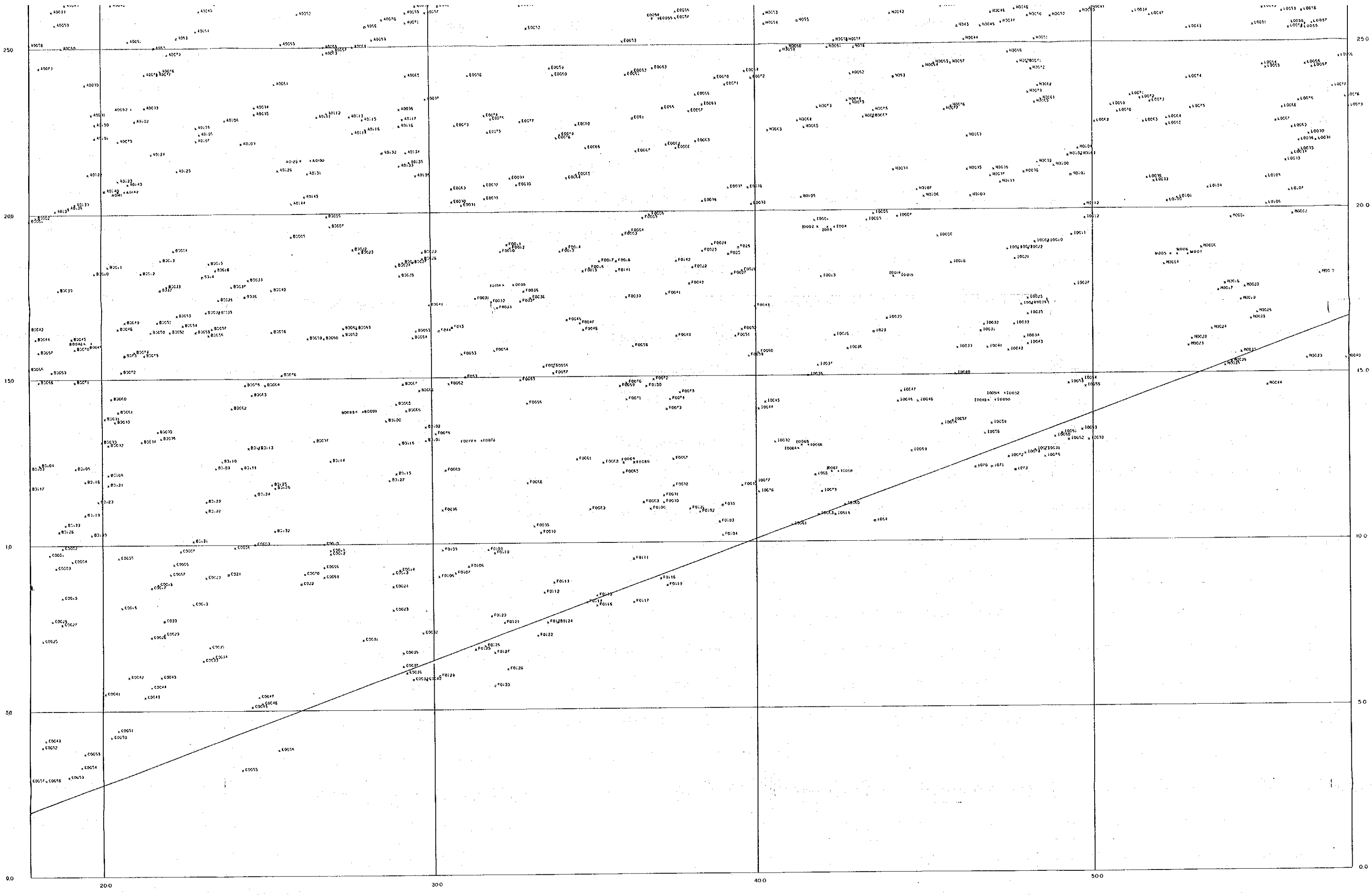


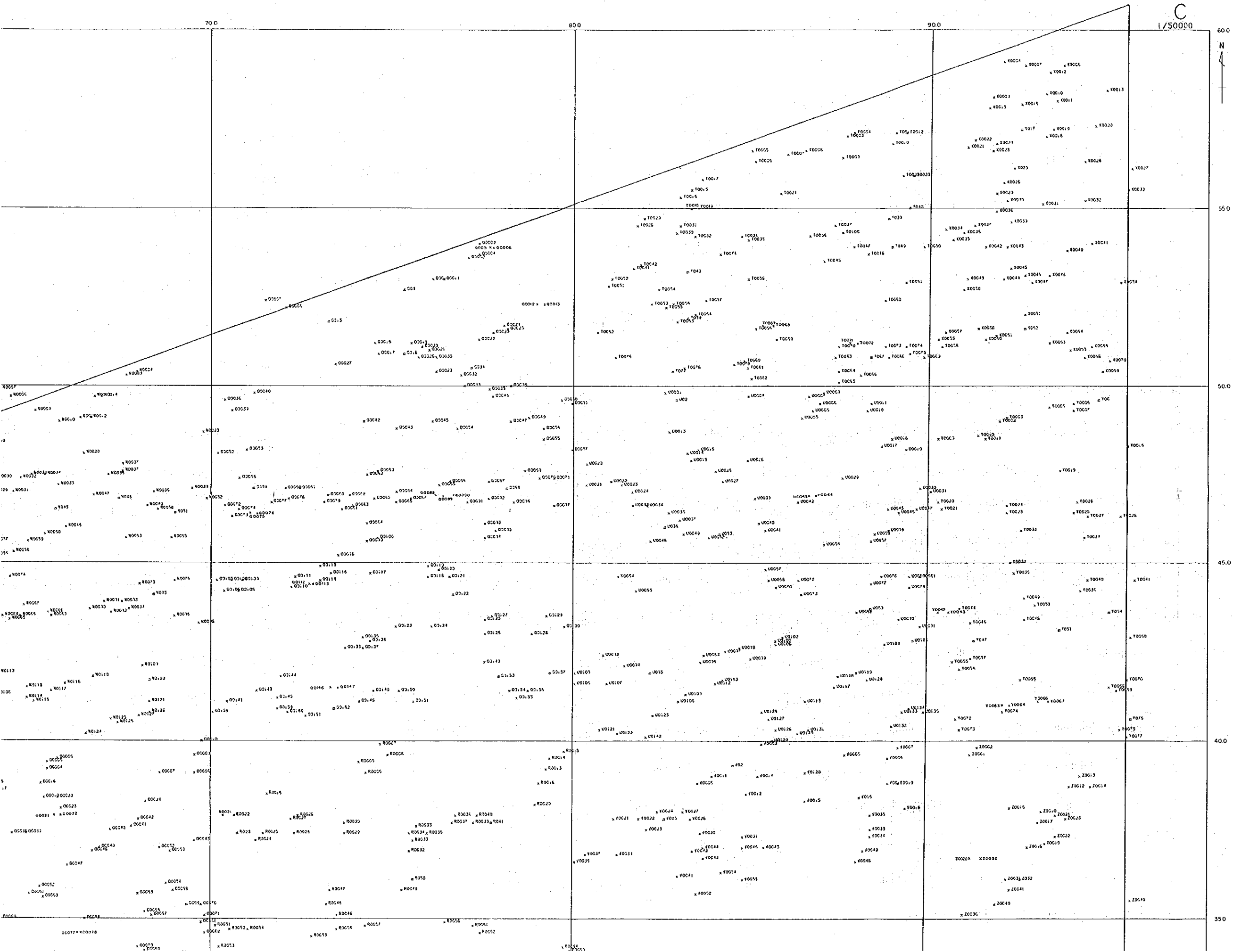
PLATE I Location Map of Stream Sediments











**LEGEND**  
 x Site of stream sediments  
 o Site of panned samples

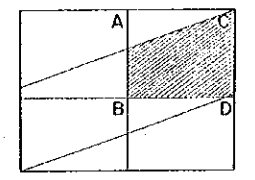
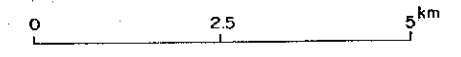


PLATE I Location Map of Stream Sediments



C  
1/50000

60.0  
55.0  
50.0  
45.0  
40.0  
35.0

70.0 80.0 90.0





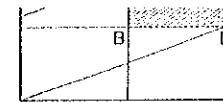
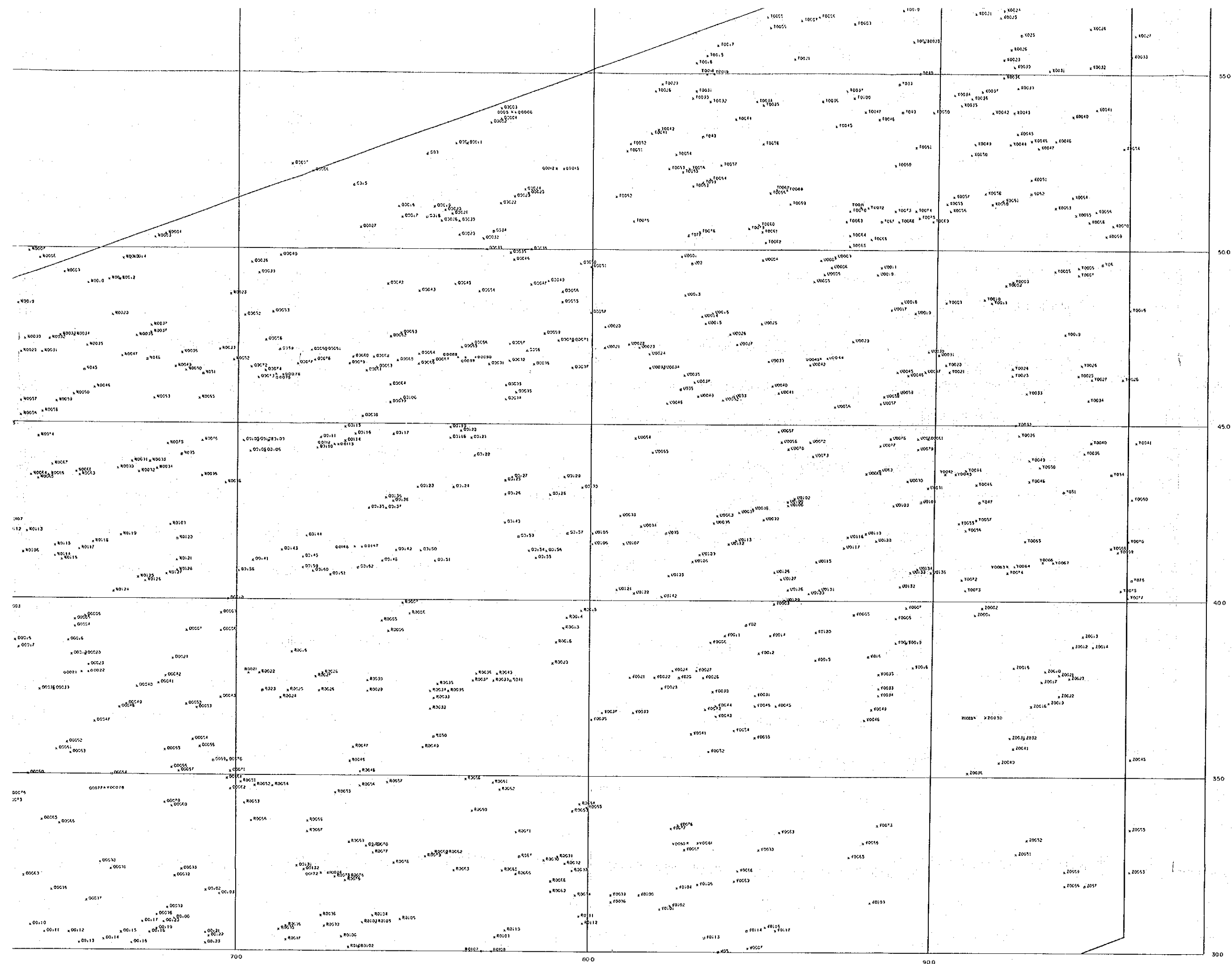
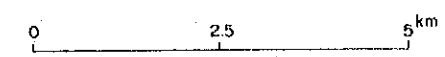


PLATE I Location Map of Stream Sediments

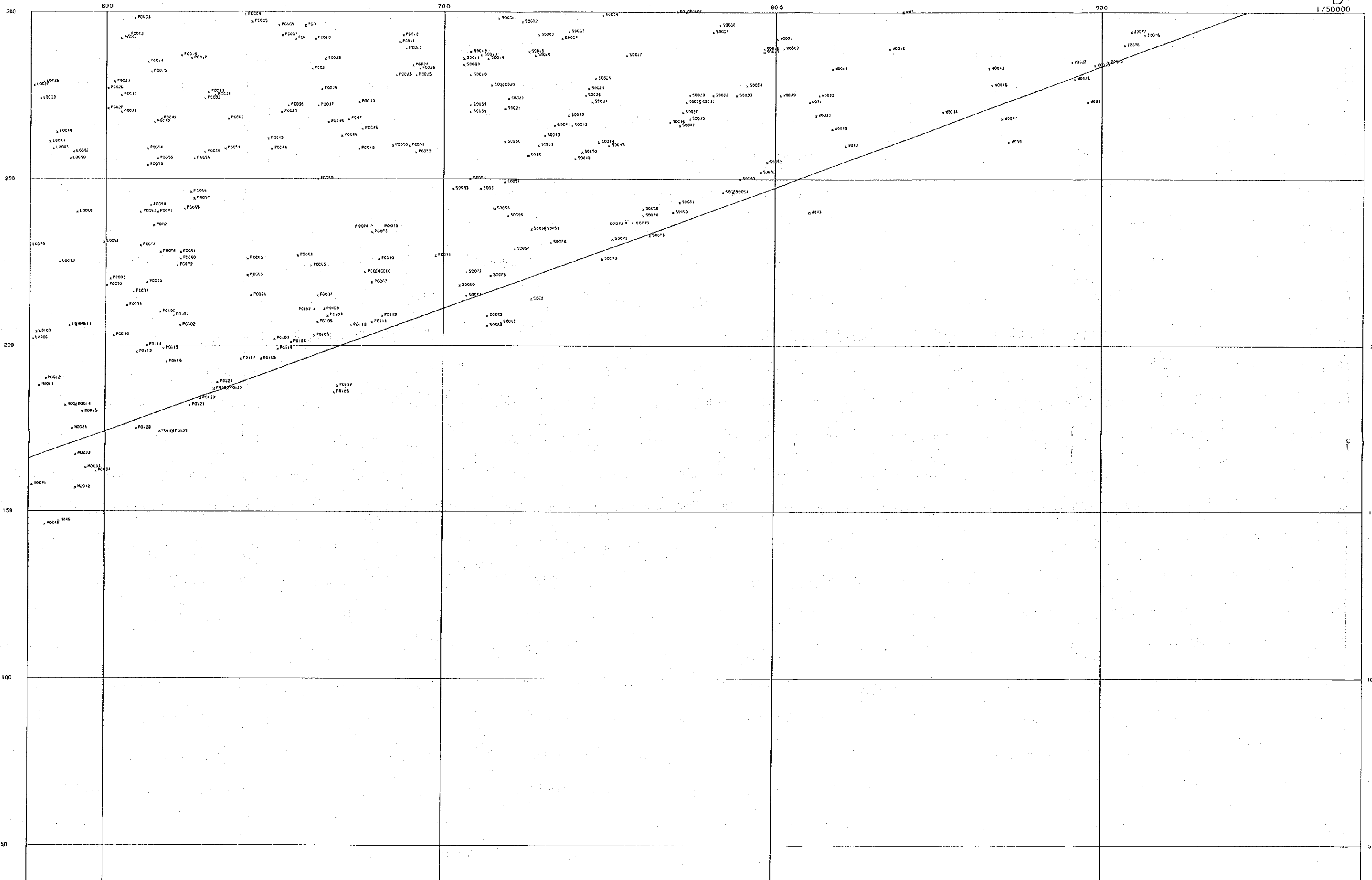


700

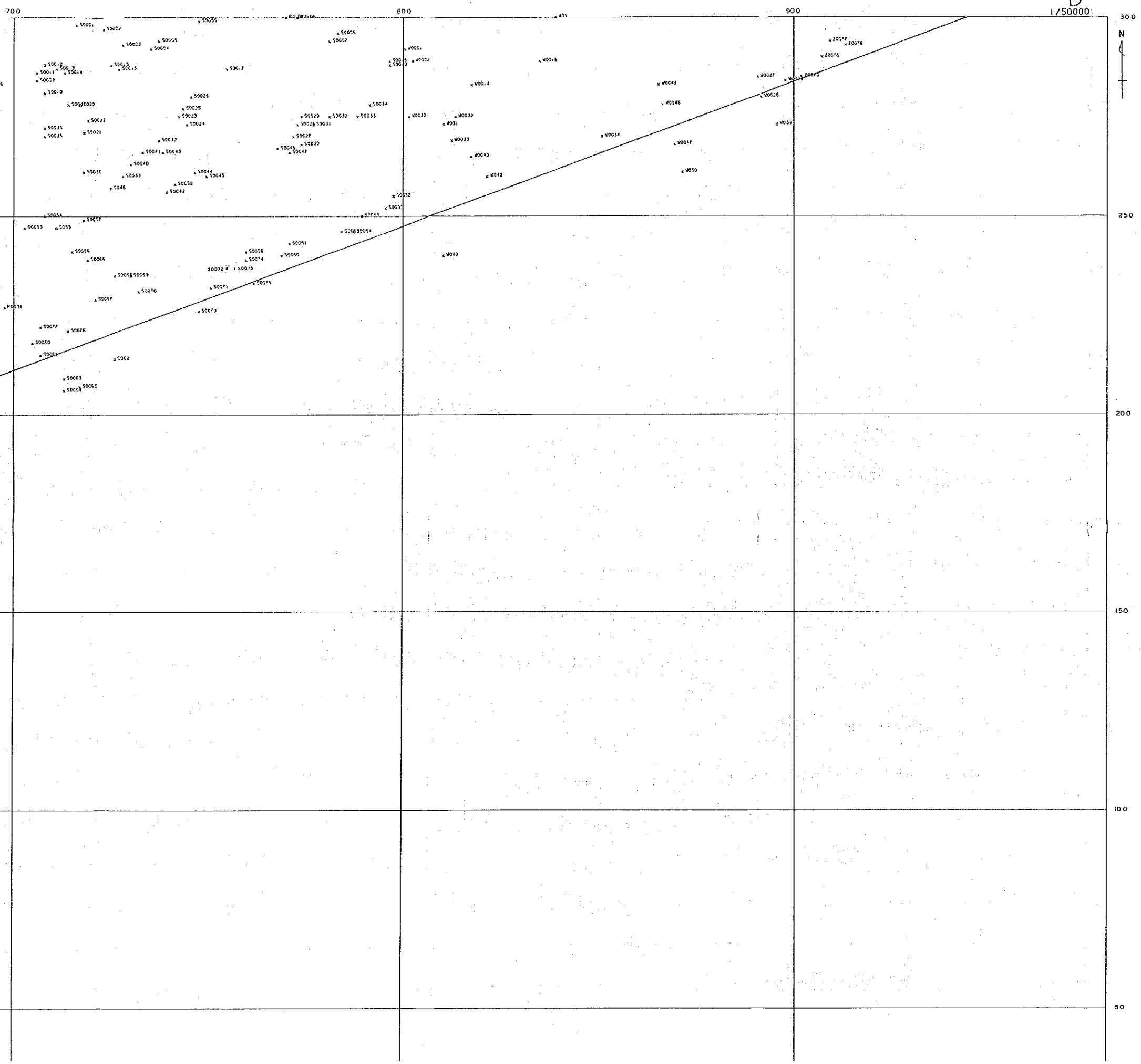
800

900

300



D  
1/50000



### LEGEND

- x Site of stream sediments
- Site of panned samples

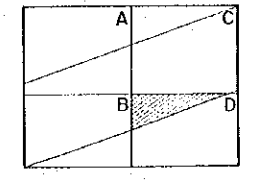
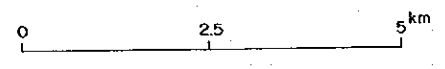


PLATE I Location Map of Stream Sediments



300  
250  
200  
150  
100  
50



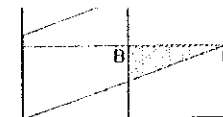
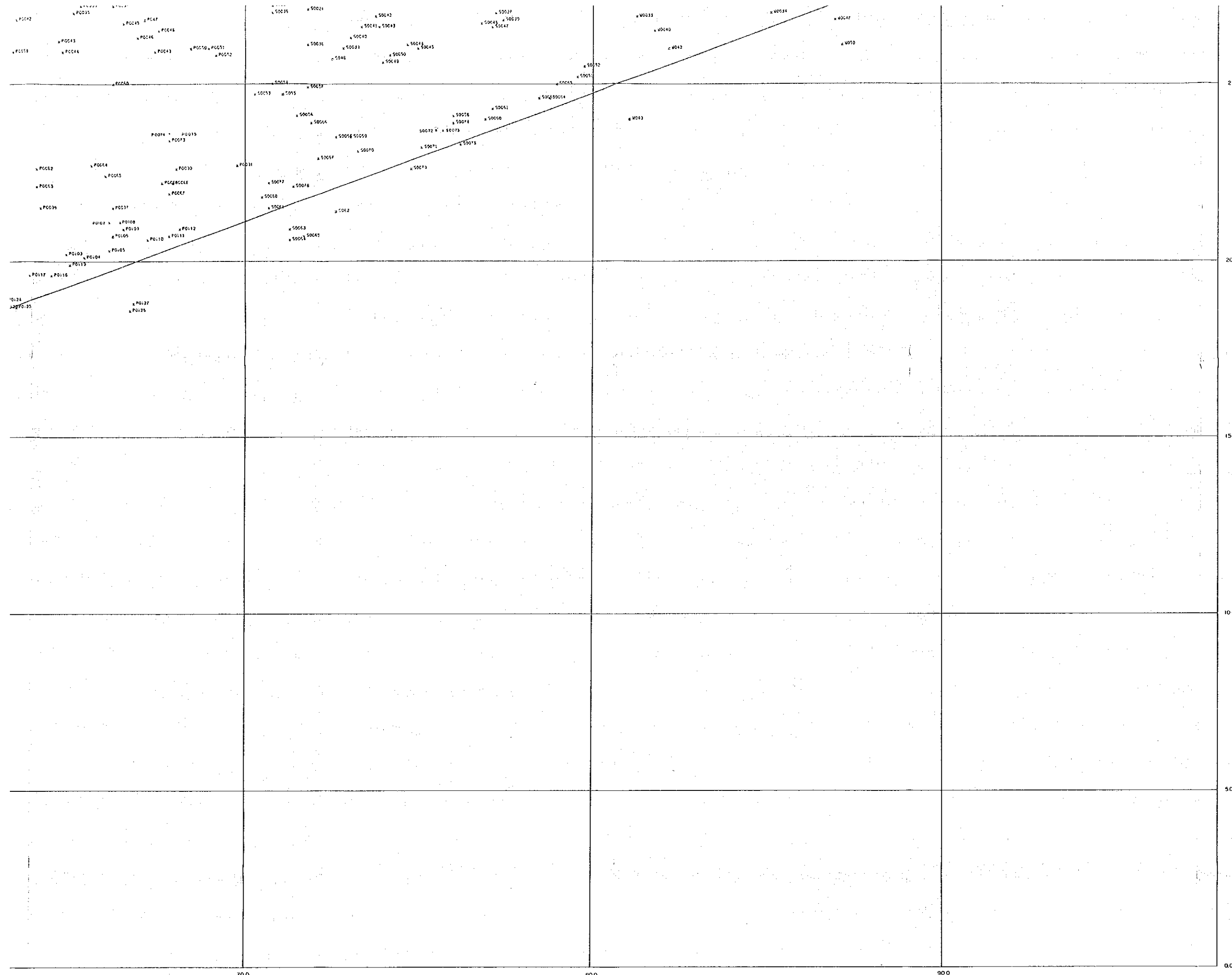
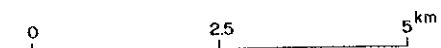


PLATE I Location Map of Stream Sediments



70.0

80.0

90.0

50

100

150

200

250

JICA