

## Appendix 17 Results of Screen Analysis of Tailing

### Test No. KS-1 Tail

	Products	Weight (g)	Weight (%)	Assay (%)		Distribution (%)		
				Cu	Pb	Cu	Pb	Pb
	Feed	431.0	100.00	0.20	0.05	100.00	100.00	
1	+149 $\mu$ m	66.4	15.41	0.47	0.11	37.03	34.30	
2	+105 $\mu$ m	95.0	22.03	0.26	0.06	29.30	26.78	
3	+ 75 $\mu$ m	71.3	16.54	0.17	0.04	14.38	13.40	
4	+ 45 $\mu$ m	59.6	13.83	0.11	0.03	7.78	8.40	
5	+ 20 $\mu$ m	51.7	12.00	0.07	0.02	4.29	4.66	
6	- 20 $\mu$ m	87.0	20.19	0.07	0.03	7.22	12.26	
	1+2	161.4	37.44	0.35	0.08	66.33	61.08	
	1+2+3	232.7	53.98	0.29	0.07	80.71	74.48	
	1+2+3+4	292.3	67.81	0.26	0.06	88.49	82.88	
	1+2+3+4+5	344	79.81	0.23	0.05	92.78	87.74	
	5+6	138.7	32.19	0.07	0.03	11.51	17.12	
	4+5+6	198.3	46.02	0.08	0.03	19.29	25.52	
	3+4+5+6	269.6	62.56	0.11	0.03	33.67	38.92	
	2+3+4+5+6	364.6	84.59	0.15	0.04	62.97	65.70	

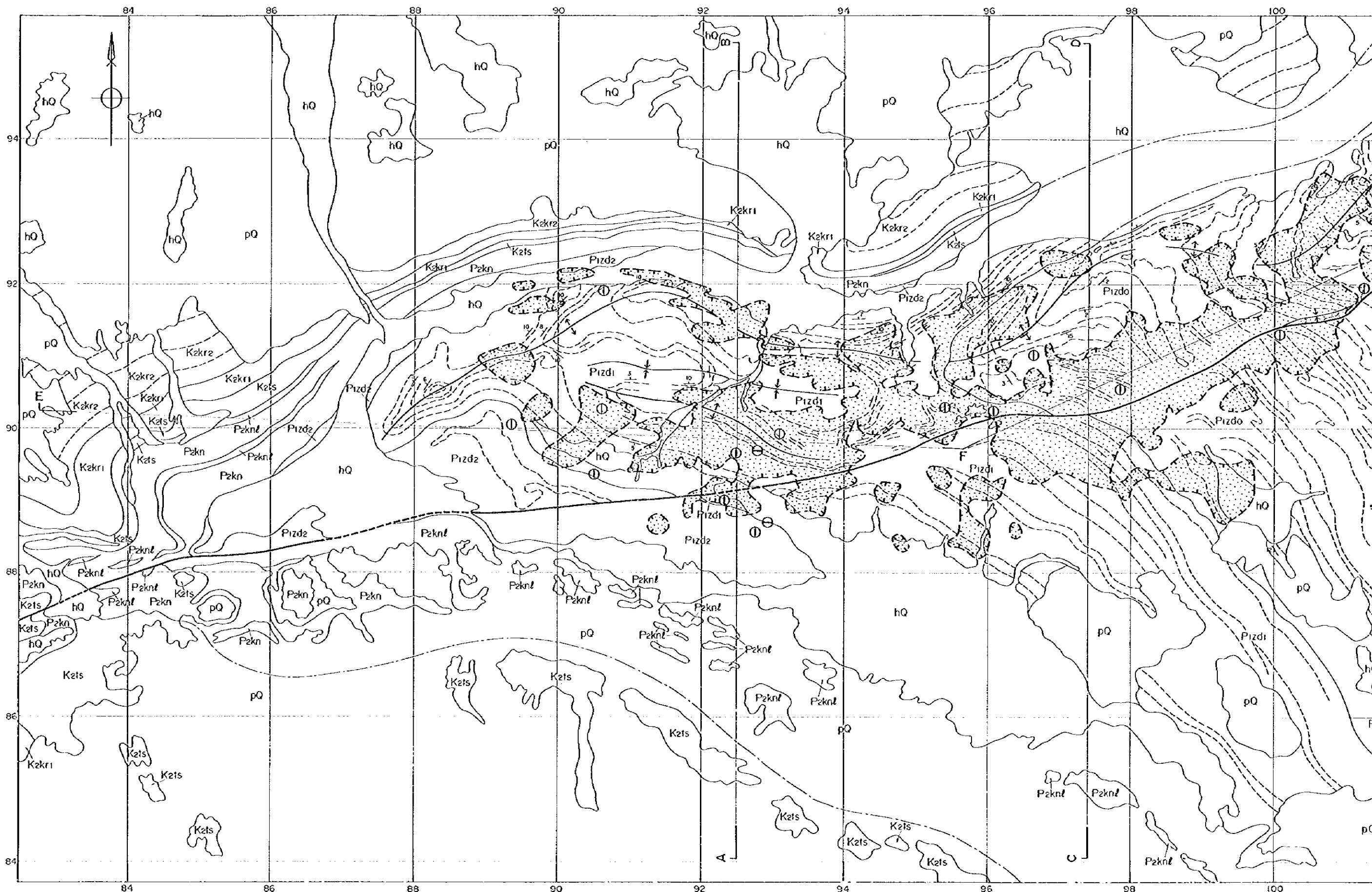
### Test No. KS-2 Tail

	Products	Weight (g)	Weight (%)	Assay (%)		Distribution (%)		
				Cu	Pb	Cu	Pb	Pb
	Feed	419.9	100.00	0.10	0.03	100.00	100.00	
1	+149 $\mu$ m	13.7	3.26	0.30	0.11	9.41	10.39	
2	+105 $\mu$ m	56.7	13.50	0.19	0.06	24.67	23.45	
3	+ 75 $\mu$ m	86.5	20.60	0.12	0.04	23.77	23.86	
4	+ 45 $\mu$ m	87.6	20.86	0.09	0.03	18.05	18.12	
5	+ 20 $\mu$ m	75.6	18.00	0.06	0.02	10.39	10.42	
6	- 20 $\mu$ m	99.8	23.78	0.06	0.02	13.71	13.76	
	1+2	70.4	16.76	0.21	0.07	34.08	33.84	
	1+2+3	156.9	37.36	0.16	0.05	57.85	57.70	
	1+2+3+4	244.5	58.22	0.14	0.04	75.90	75.82	
	1+2+3+4+5	320.1	76.22	0.12	0.04	86.29	86.24	
	5+6	175.4	41.78	0.06	0.02	24.10	24.18	
	4+5+6	263.0	62.64	0.07	0.02	42.15	42.30	
	3+4+5+6	349.5	83.24	0.08	0.03	65.92	66.16	
	2+3+4+5+6	406.2	96.74	0.10	0.03	90.59	89.61	

### Test No. KS-3 Tail

	Products	Weight (g)	Weight (%)	Assay (%)		Distribution (%)		
				Cu	Pb	Cu	Pb	Pb
	Feed	420.1	100.00	0.08	0.03	100.00	100.00	
1	+105 $\mu$ m	23.8	5.67	0.17	0.07	12.30	13.84	
2	+ 75 $\mu$ m	68.7	16.35	0.12	0.04	25.07	22.82	
3	+ 45 $\mu$ m	107.4	25.57	0.08	0.03	26.13	26.77	
4	+ 20 $\mu$ m	99.6	23.71	0.06	0.02	18.17	16.54	
5	- 20 $\mu$ m	120.6	28.70	0.05	0.02	18.33	20.03	
6								
	1+2	92.5	22.02	0.13	0.05	37.37	36.66	
	1+2+3	199.9	47.59	0.10	0.04	63.50	63.43	
	1+2+3+4	299.5	71.30	0.09	0.03	81.67	79.97	
	4+5	220.2	52.41	0.05	0.02	36.50	36.57	
	3+4+5	327.6	77.98	0.06	0.02	62.63	63.34	
	2+3+4+5	396.3	94.33	0.07	0.03	87.70	86.16	



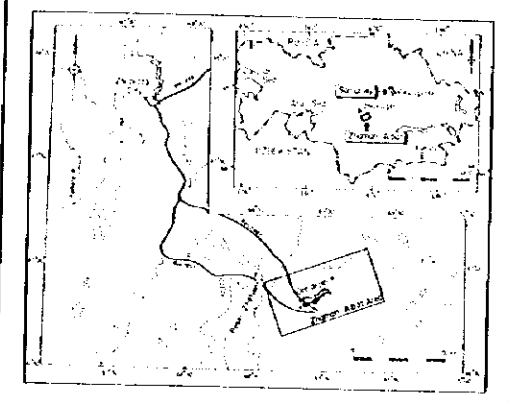


SCALE 1 : 25,000

0 1000 2000 3000 4000 5000 m

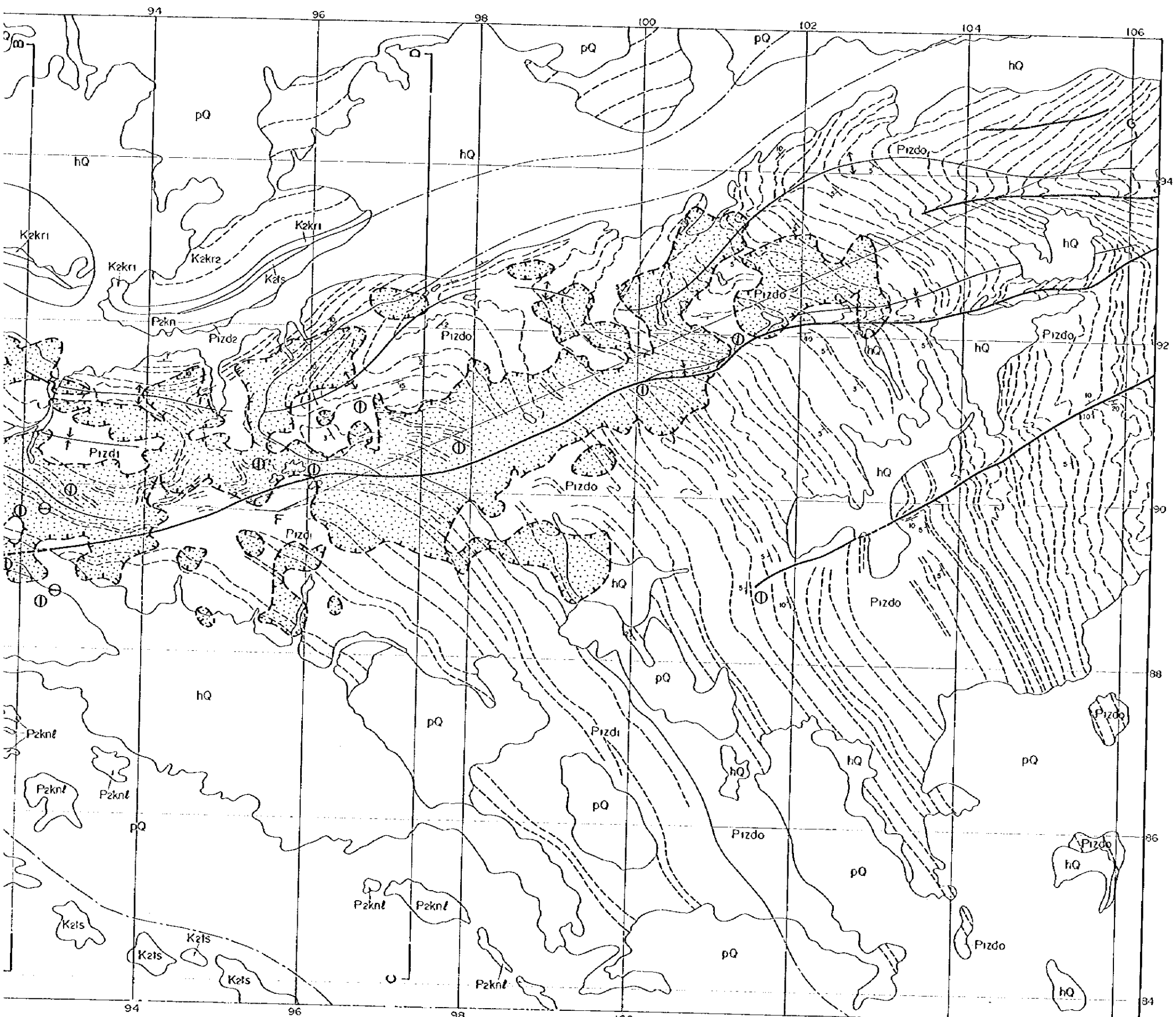
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the Zhaman Aibat and Sannarsky Area, Republic of Kazakhstan  
(Phase II)

**Geologic Map and Cross Section  
of  
the Zhaman-Aibat Area**



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Scale 1 : 25,000  
0 2 km

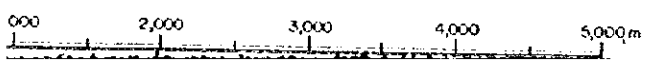


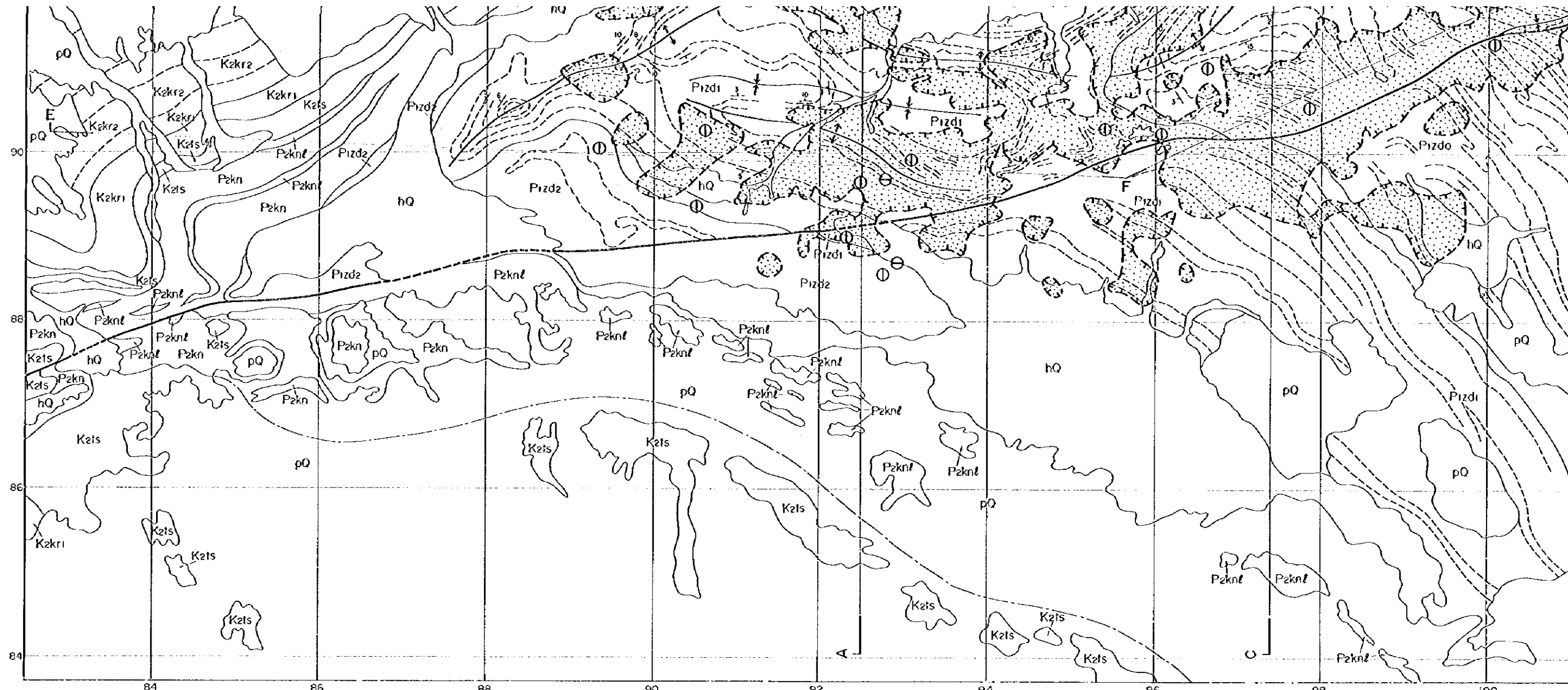
**LEGEND**

Quaternary System	hQ	Holocene Colluvium-alluvium sediments
	pQ	Pleistocene Eolion-Colluvium sediments
Cretaceous System	Kzkr2	Karakoin Formation Alternation beds of sandstone and siltstone
	Kzkr1	Karakoin Formation Granule-pebble conglomerate
	Kzts	Taskuro Formation Mainly finny siltstone
Permian System	Pzknf	Kengir Formation Limestone, limy siltstone
	Pzkn	Kengir Formation Siltstone and sandstone including veins of gypsum and calcite
	Pzdo2	Zhidelisai Formation (Upper) Bright brown siltstone with thin interlayers of gypsum-anhydrite
	Pzdi	Zhidelisai Formation (Middle) Reddish brown siltstone and sandstone
	Pzdo	Zhidelisai Formation (Lower) Reddish brown siltstone and sandstone with thin interlayers of gypsum-anhydrite-selenite
Carboniferous System	Csdz	Zhezkazgan Formation Alternation beds of gray sandstone and siltstone, with interstratified conglomerate layers and main ore horizon 4-1' at the bottom
	Cts	Taskuduk Formation Reddish brown siltstone and sandstone

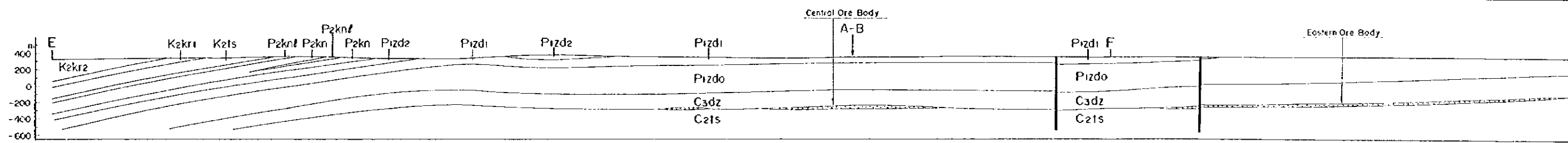
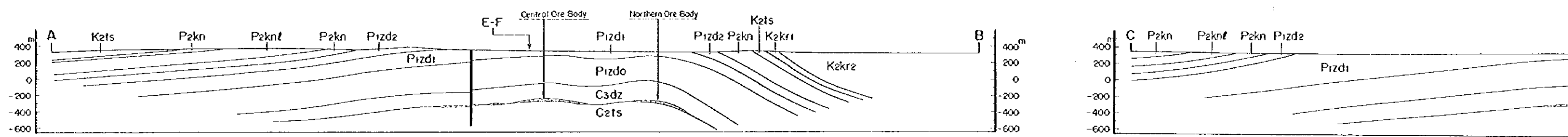
Geological boundary

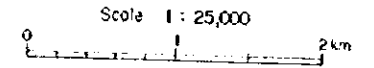
SCALE = 1 : 25,000





SCALE = 1 : 25,000

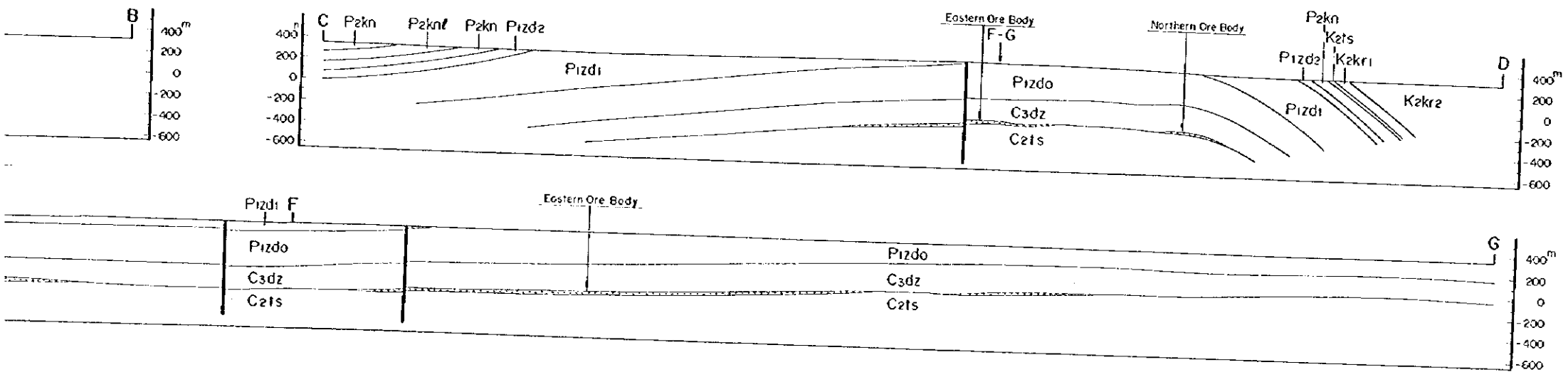
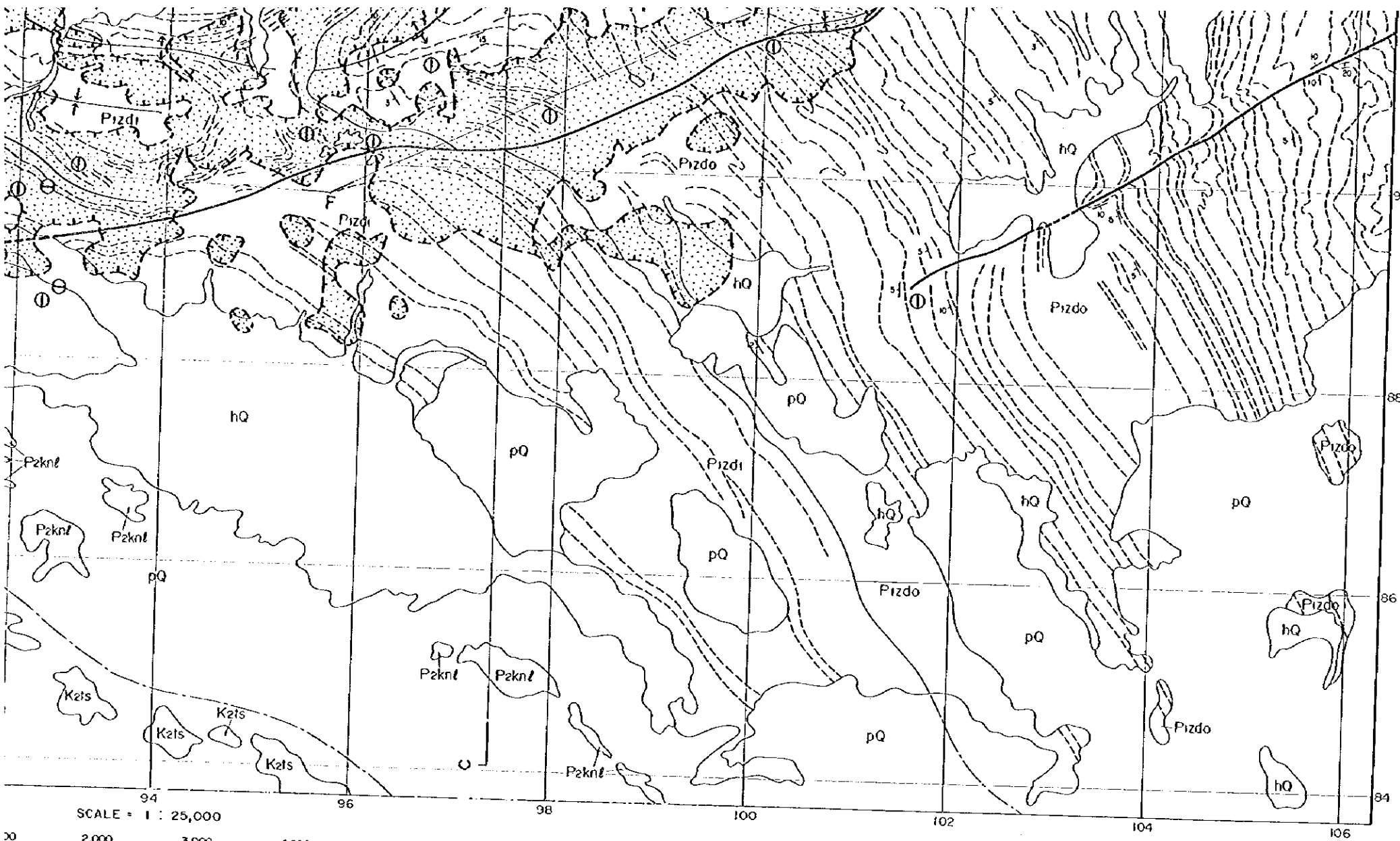




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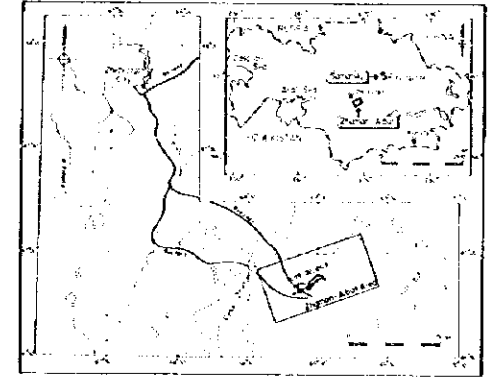
Quaternary System	hQ	Holocene	Colluvium-alluvium sediments
	pQ	Pleistocene	Eolian - Colluvium sediments
Cretaceous System	Kzkr2	Karakain Formation	Alternation beds of sandstone and siltstone
	Kzkr1	Karakain Formation	Granule-pebble conglomerate
	Kzts	Taskura Formation	Mainly flinty siltstone
Permian System	Pzknf	Kengir Formation	Limestone, limy siltstone
	Pzkn	Kengir Formation	Siltstone and sandstone including veins of gypsum and calcite
	Pzdz2	Zhidelsai Formation (Upper)	Bright brown siltstone with thin interlayers of gypsum-anhydrite
	Pzdz1	Zhidelsai Formation (Middle)	Reddish brown siltstone and sandstone
	Pzdo	Zhidelsai Formation (Lower)	Reddish brown siltstone and sandstone with thin interlayers of gypsum-anhydrite-selenite
Carboniferous System	C3dz	Zhezkozon Formation	Alternation beds of gray sandstone and siltstone, with interformational conglomerate layers and main ore horizon 4-1' at the bottom
	C2ts	Taskuduk Formation	Reddish brown siltstone and sandstone

- Geological boundary
- Geological boundary, covered by recent sediments
- Bedding structure
- Fault
- Fault, covered by recent sediments
- Anticline
- Syncline
- Bedding, dip indicated (>5°)
- Outline of ore body (0.4% Cu - Cut off)
- Line of section
- Copper mineralization
- Bituminous sandstone



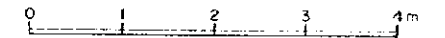
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in  
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Lithostratigraphic Units  
of "Raimundo" Conglomerates  
and Ore Grade  
in the Central Orebody along Line 32

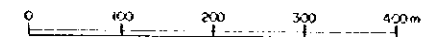


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Scale 1 : 40 (Vertical)



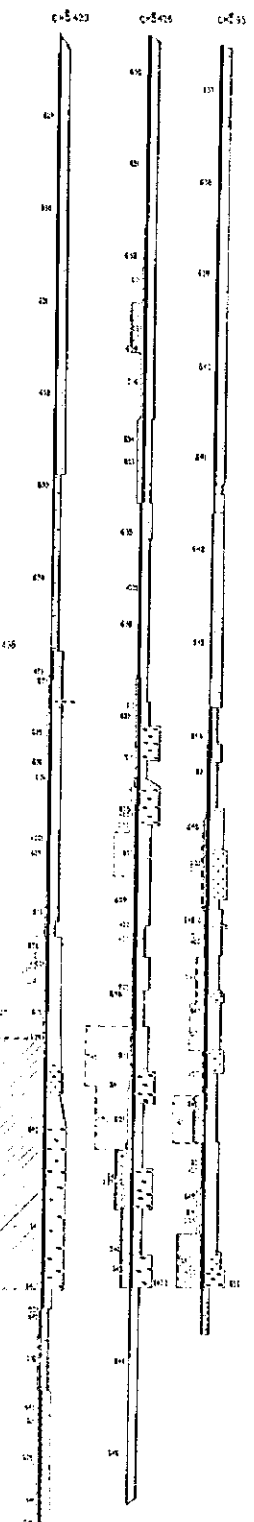
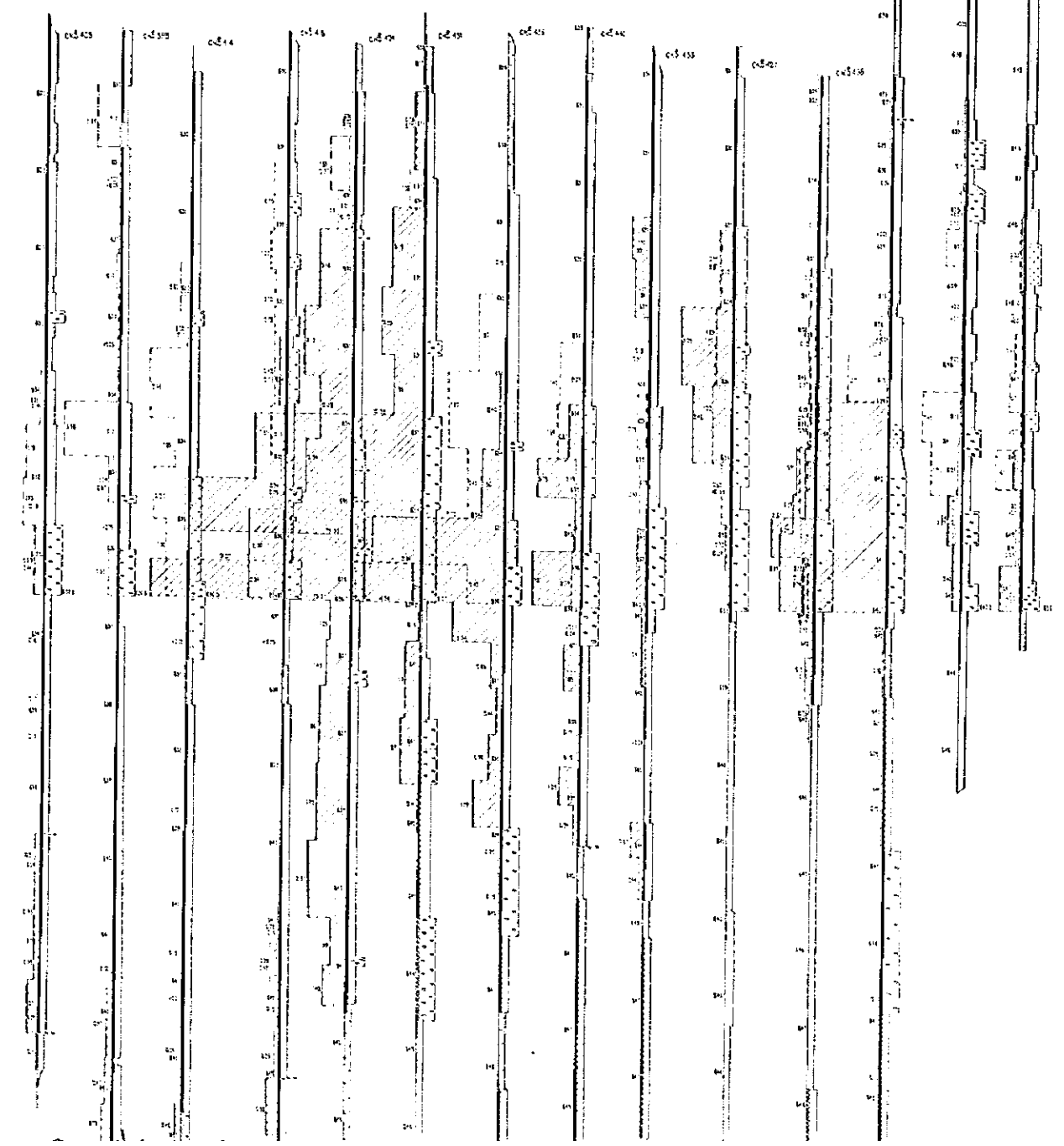
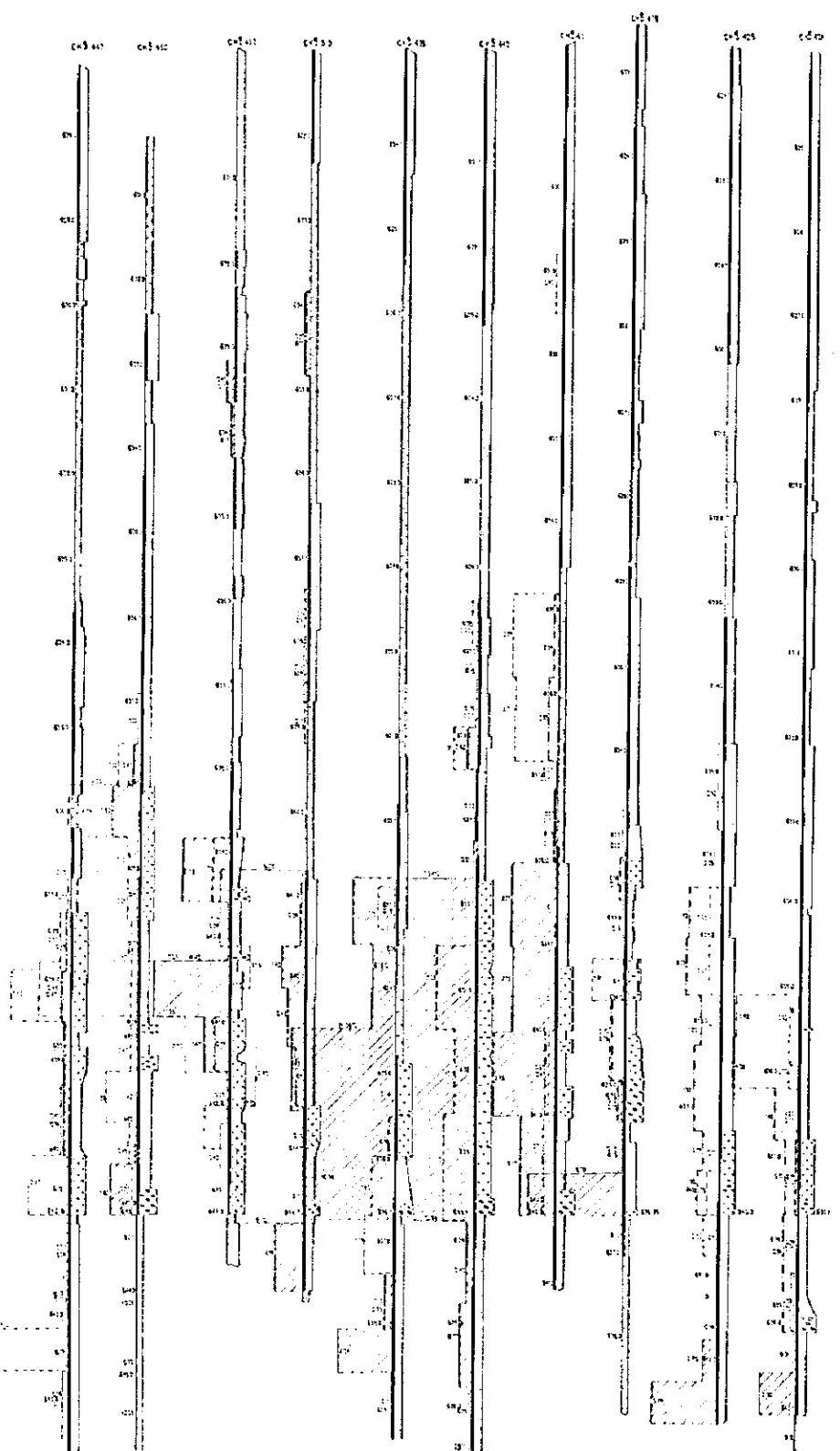
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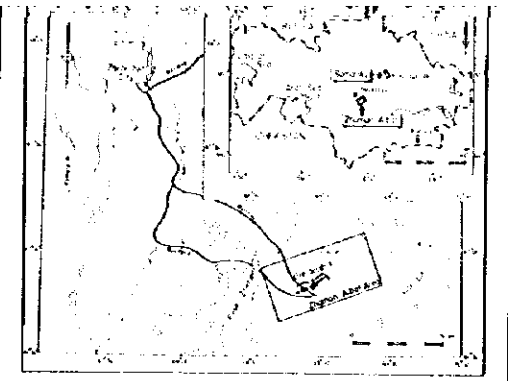
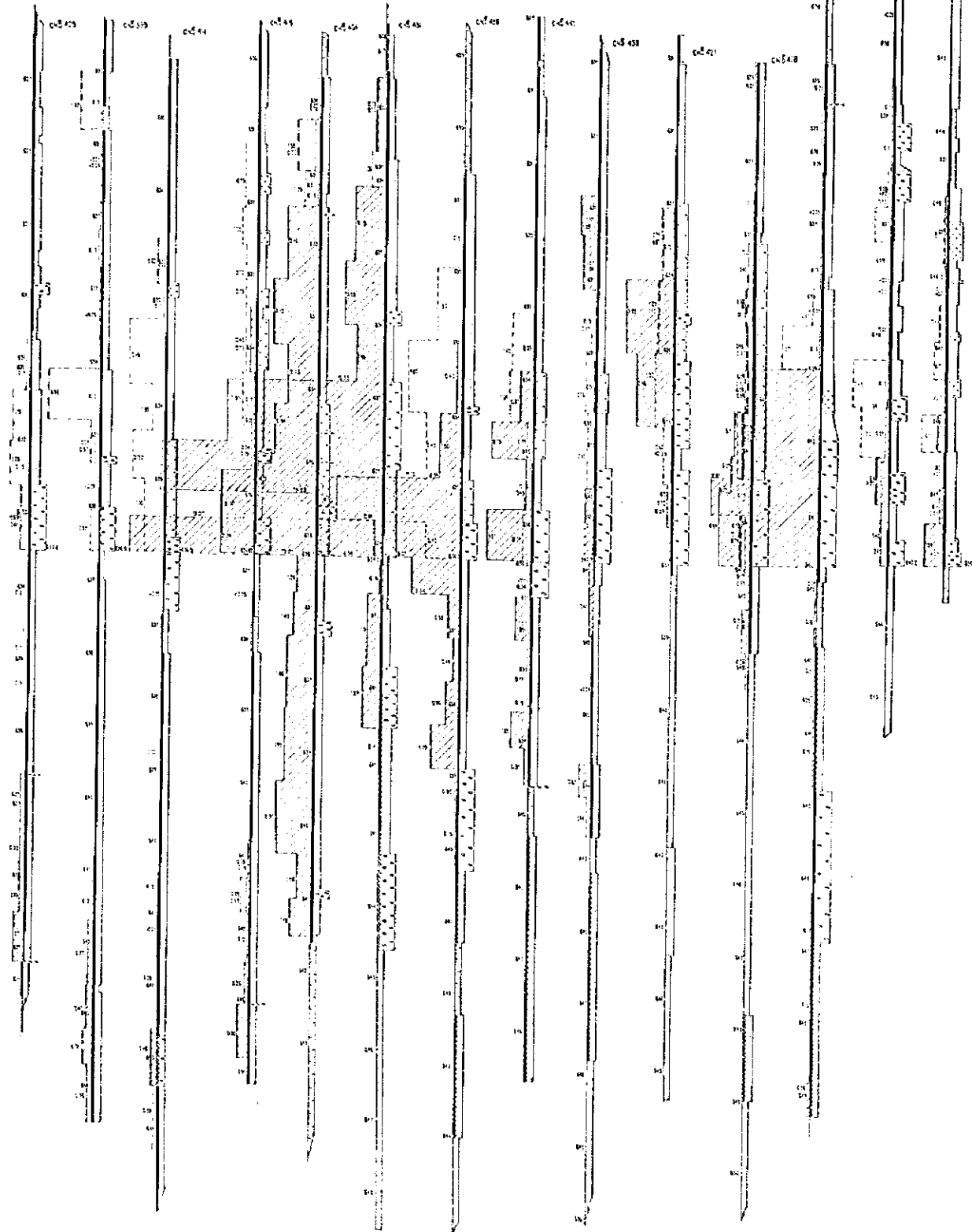
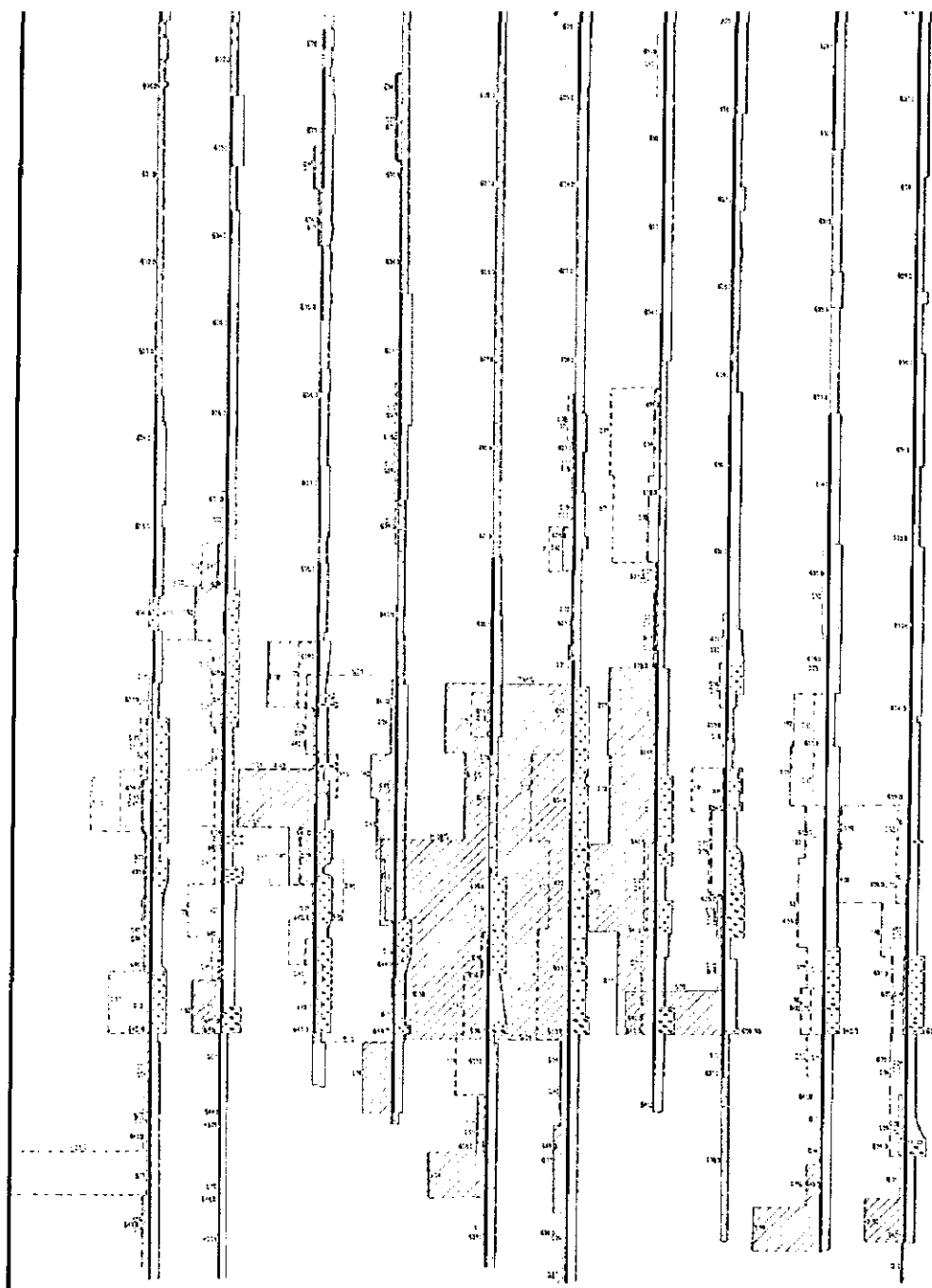


LEGEND

Gale charts (10% per 0.5 m)

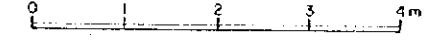
- Copper
- Lead
- Zinc
- Amulite
- Sandstone fine grained about 100m
- Sandstone fine grained
- Sandstone medium coarse grained
- G24 fine (about 100m)
- G22 fine (about 100m)
- Conglomerates (about 100m)
- Conglomerates (about 100m)



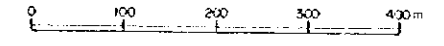


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Scale 1 : 40 (Vertical)



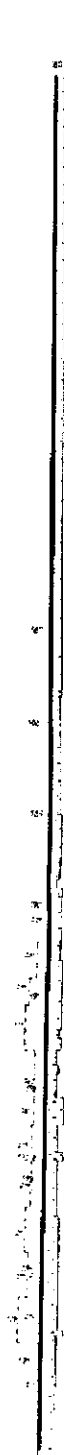
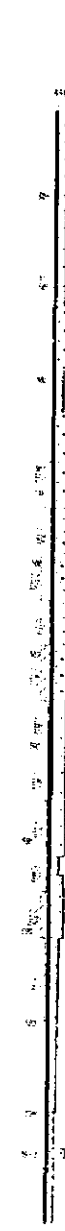
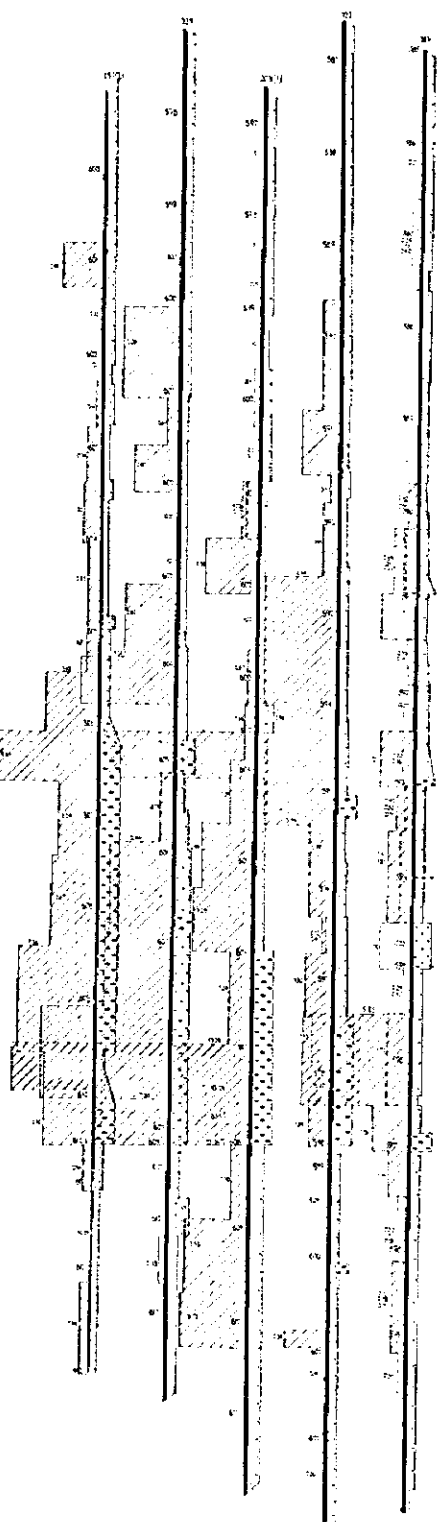
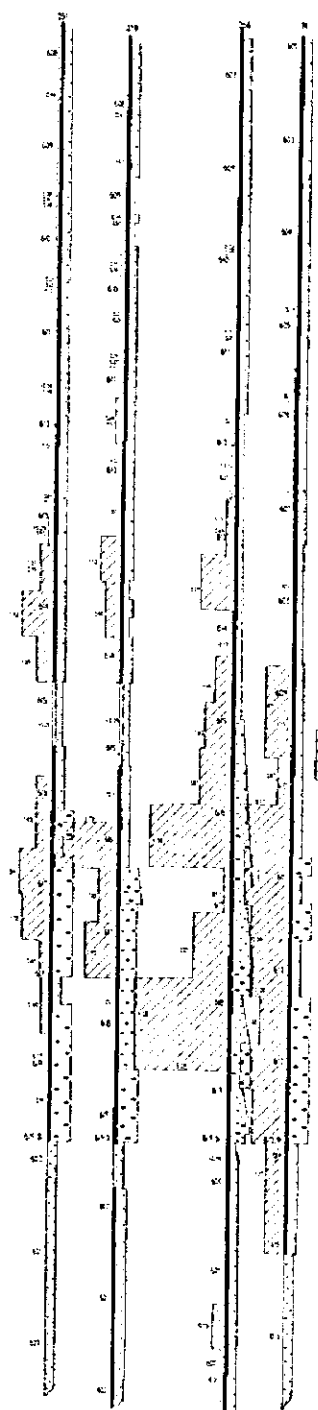
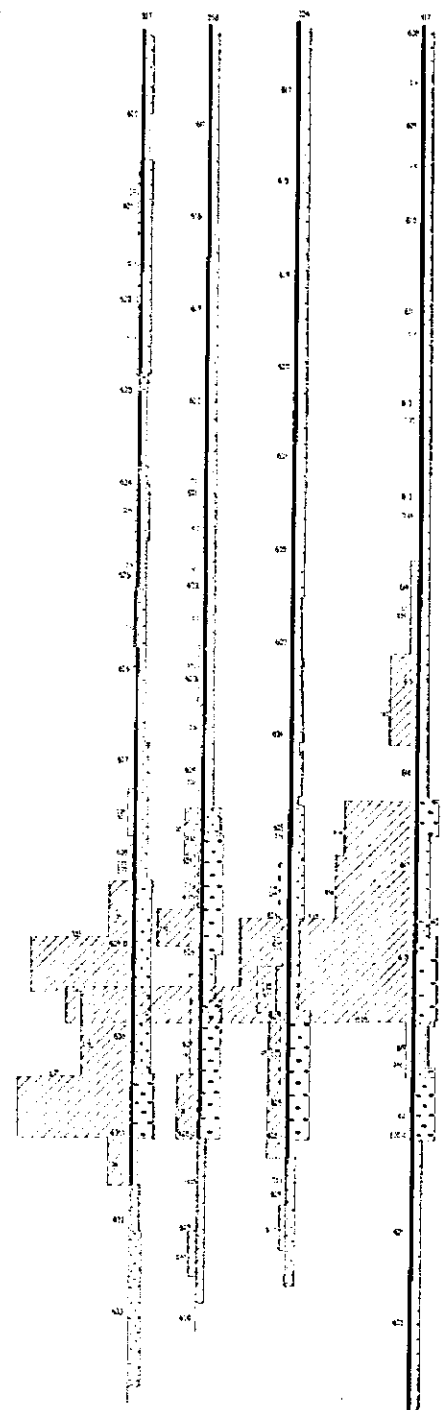
Scale 1 : 4,000



**LEGEND**

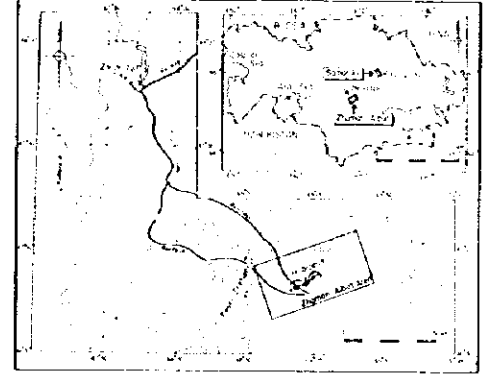
- Geological symbols (1:4,000)
- Copper
  - Lead
  - Zinc
  - Ironstone
  - Sandstones fine grained along strata
  - Sandstones fine grained
  - Sandstones medium coarse grained
  - Gabbro interbedded
  - Gabbro interbedded (Basaltic)
  - Conglomerates tabular (quartz)
  - Conglomerates interbedded (Basaltic)





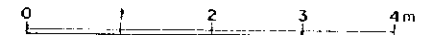
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Lithostratigraphic Units  
of "Raimundo" Conglomerates  
and Ore Grade  
in the Eastern Orebody along Line 195

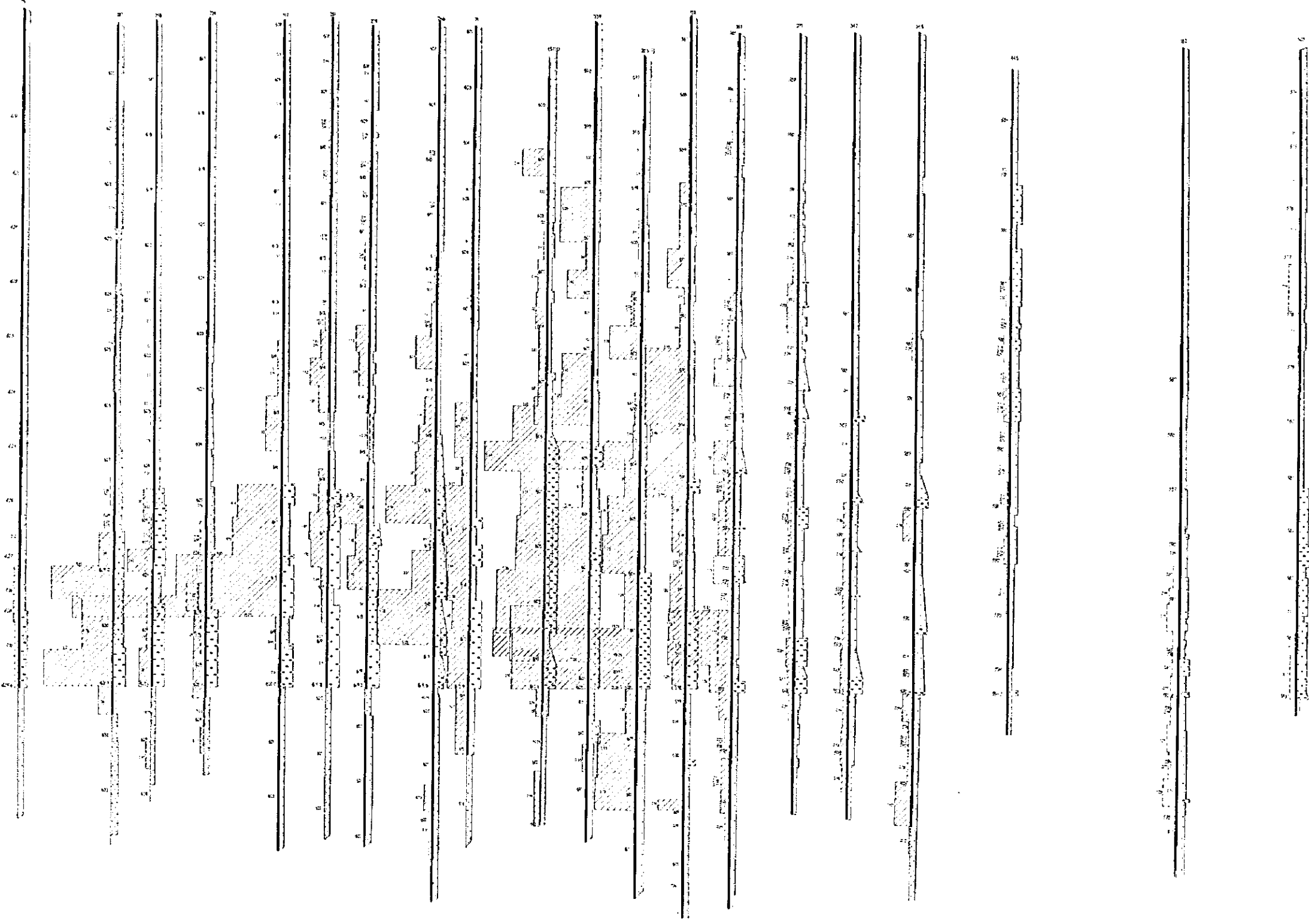
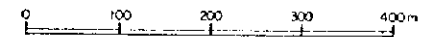


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Scale 1 : 40 (Vertical)

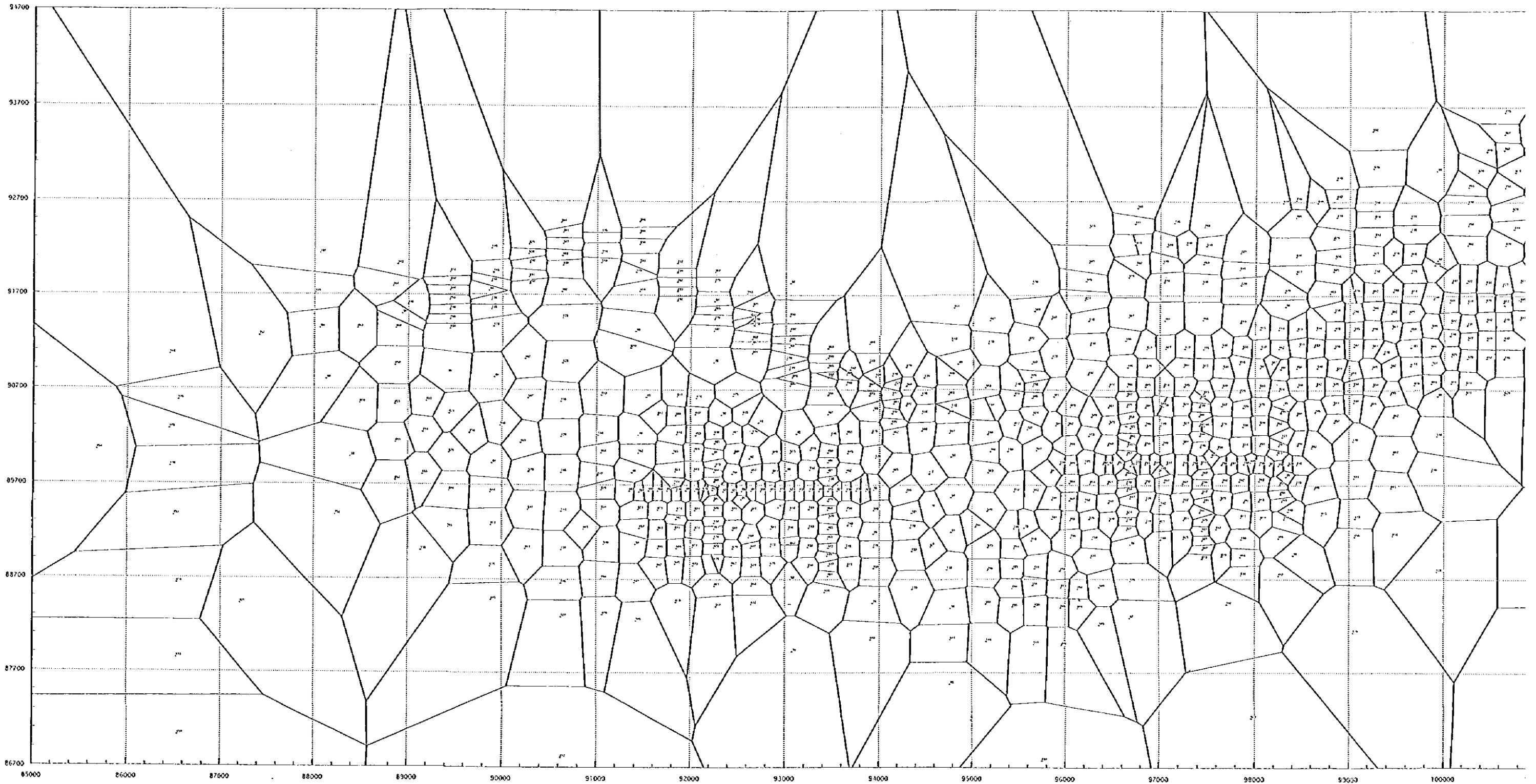


Scale 1 : 4,000



LEGEND

- Graptolites (10<sup>-4</sup> per 0.5 m)
- Copper
- Lead
- Zinc
- red } Alunite
- grey } Alunite
- red } Sandstones fine grained, alone sandstones
- grey } Sandstones fine grained, alone sandstones
- red } Sandstones fine grained
- grey } Sandstones fine grained
- greyish red } Sandstones fine grained
- reddish grey } Sandstones fine grained
- red } Sandstones medium coarse grained
- grey } Sandstones medium coarse grained
- red } Sandstones medium coarse grained
- grey } Sandstones medium coarse grained
- red } Graptolites (informational)
- grey } Graptolites (informational)
- red } Graptolites (informational)
- grey } Graptolites (informational)
- red } Graptolites (informational)
- grey } Graptolites (informational)
- red } Graptolites (informational)
- grey } Graptolites (informational)



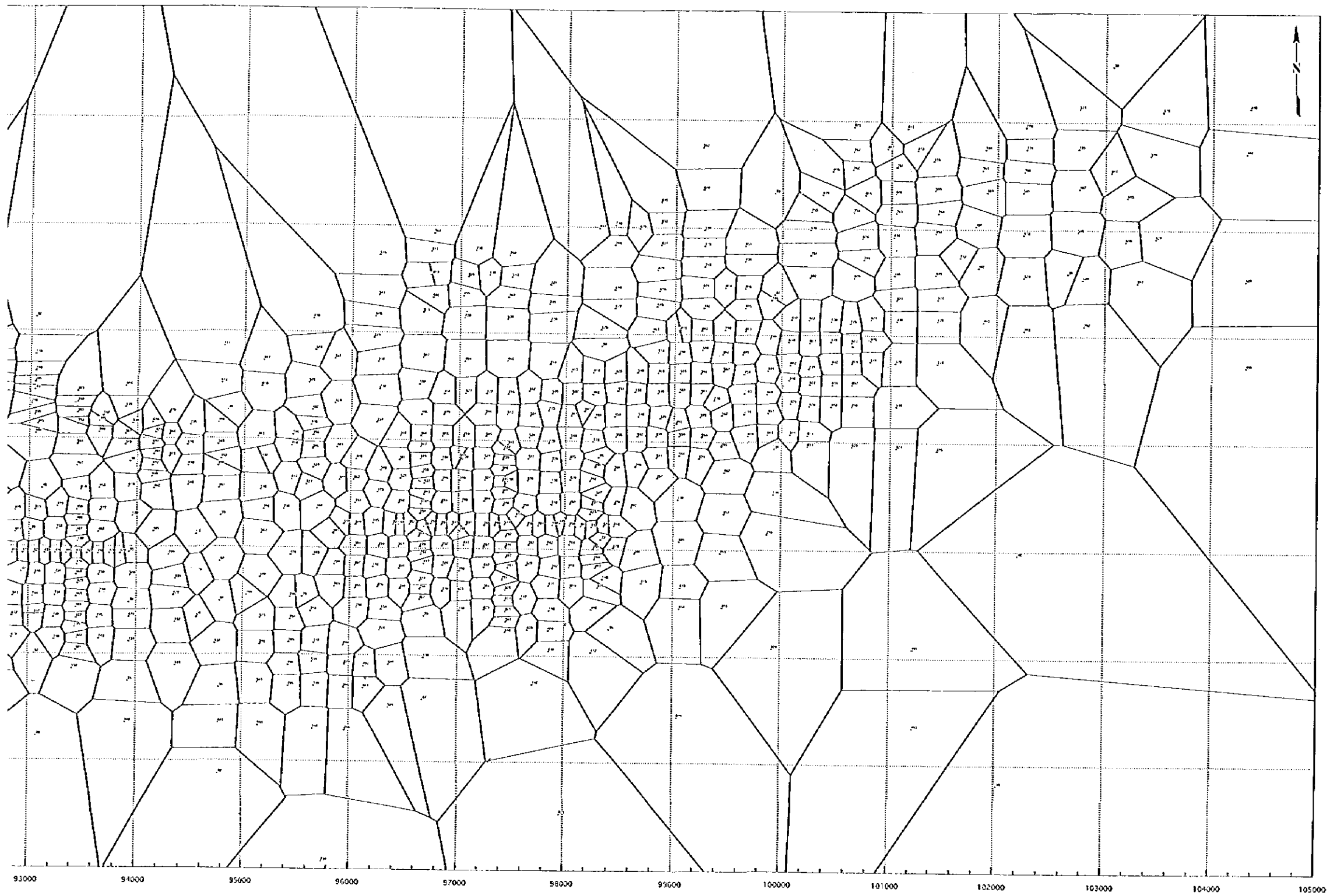
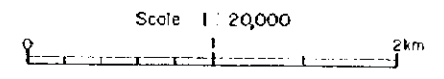


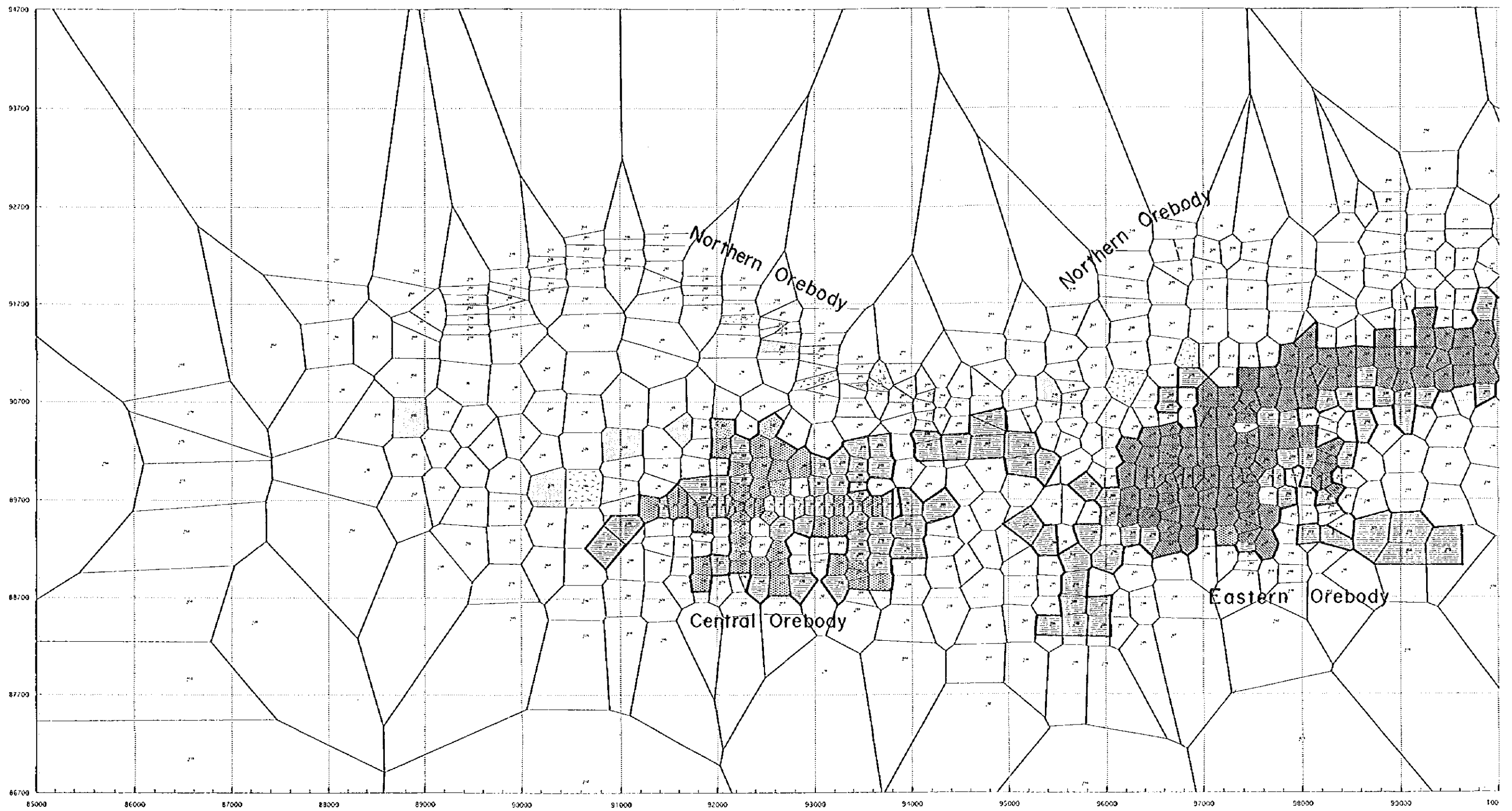
Plate 4

Report on the Mineral Exploration  
at  
the Zhaman Aibat and Samarsky Area, Republic of Kazakhstan  
(Phase II)

**Polygonal Sub-Blocks  
of  
the Zhaman-Aibat Ore Deposit**

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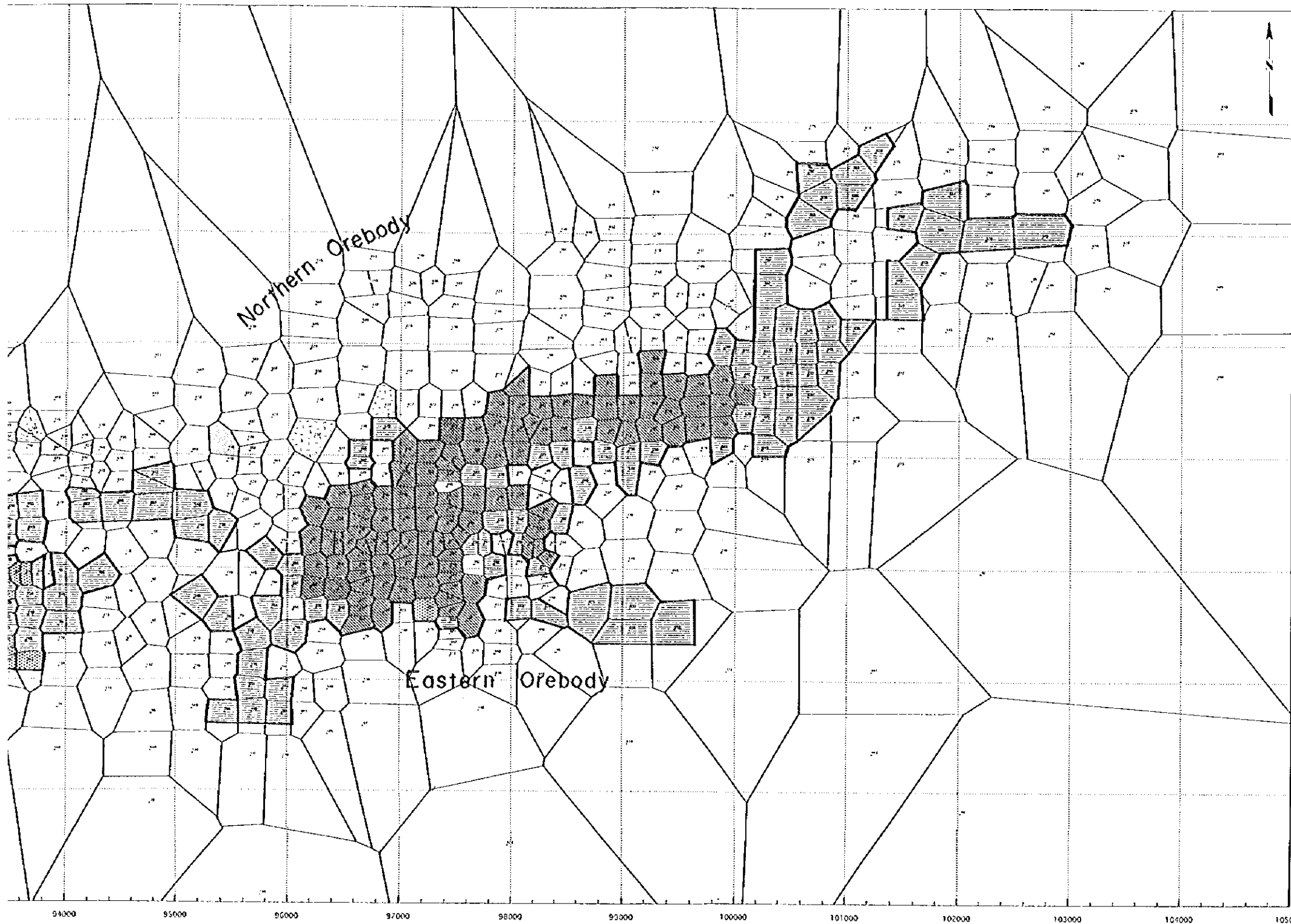
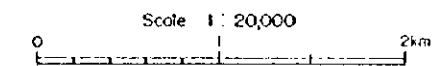


Plate 5

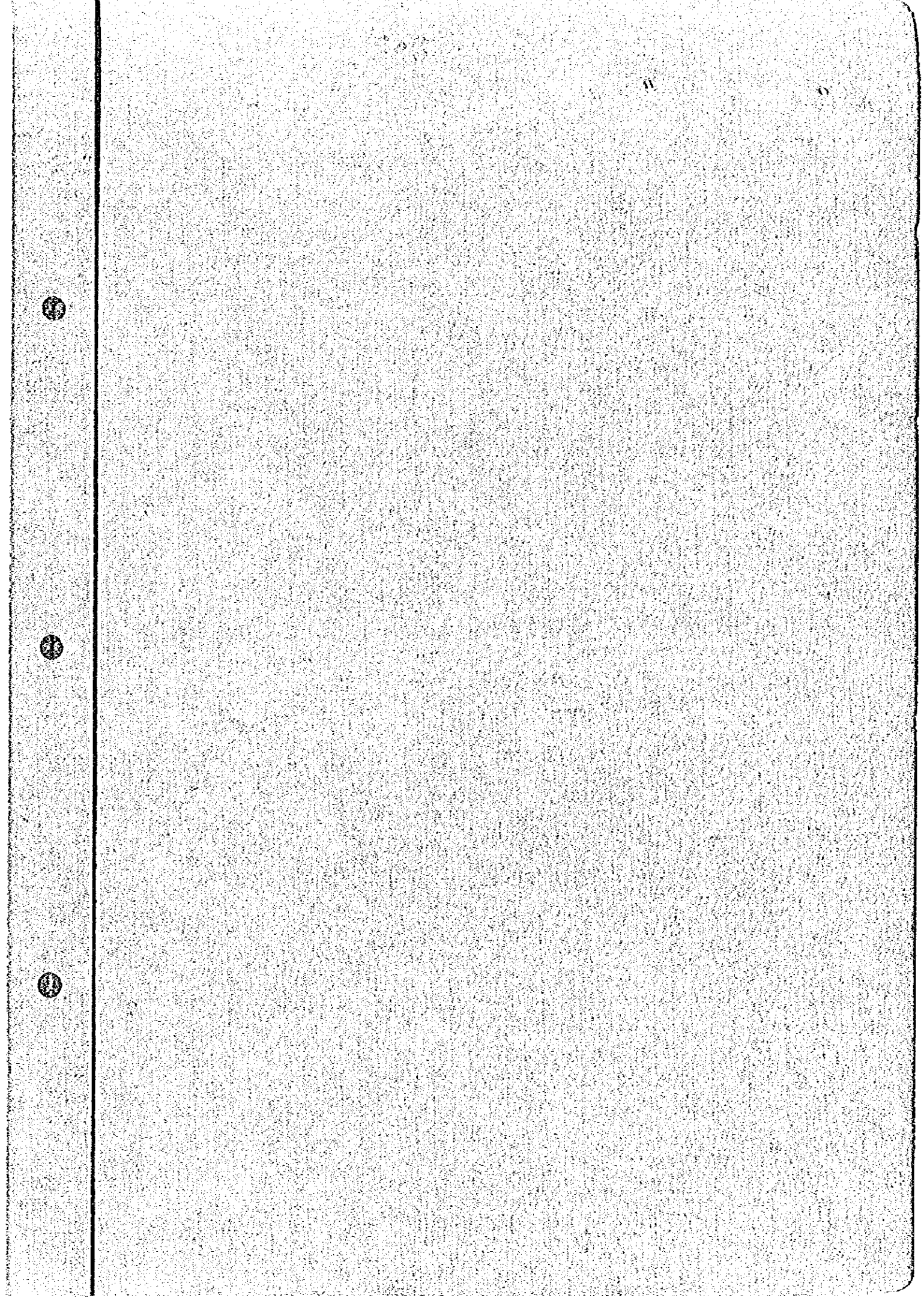
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in  
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**Interpretation Map  
for the Ore Reserve Estimation  
of the Eastern and Main Part  
of the Central Orebody**

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- LEGEND
- Copper Ore, not calculated
  - Copper Ore, calculated
  - Copper Ore, calculated (BLOCK-A)
  - Complex Ore, not calculated
  - Complex Ore, calculated
  - Complex Ore, calculated (BLOCK-A)
  - Pb + Zn Ore, not calculated
  - Pb + Zn Ore, calculated
- Copper Ore : 0.4% ≤ Cu  
 Copper Ore : 0.3% ≤ Cu and 0.8% = Pb + Zn  
 Pb + Zn Ore : 1.1% ≤ Pb + Zn





JICA