ANDREW BAY PROJECT

Geochemical Report

on the

RIP 1,8; RIP 2,3,4; and RIP 5,6,7 Mineral Groups

OMINECA MINING DIVISION

NTS: 93E/15

LAT. 53° 50'N; LONG. 126° 44'W

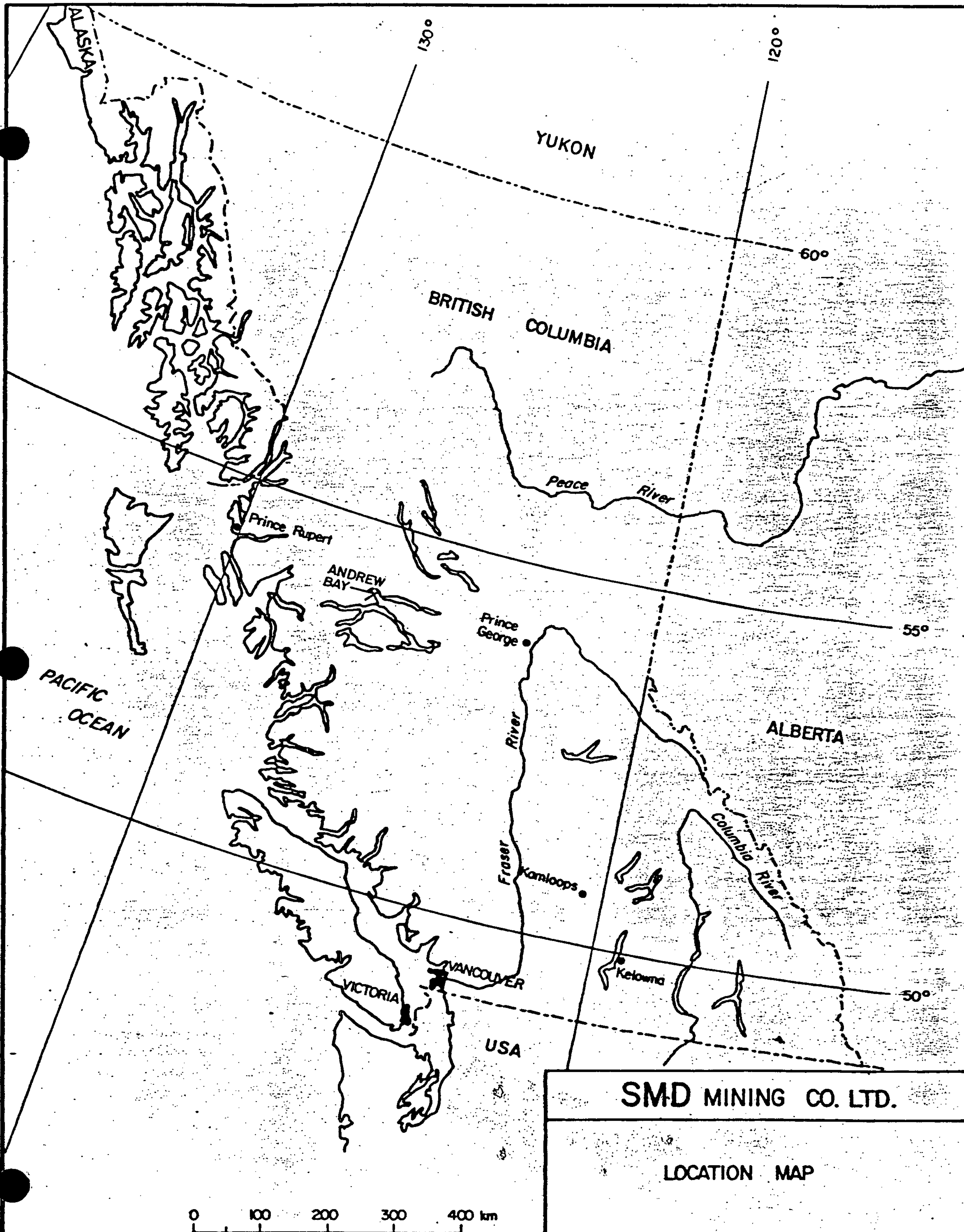
Owner: KENNCO EXPLORATIONS, (WESTERN) LTD.

Operator: SMD MINING COMPANY LTD.

Consultant: R.W. BAMFORD

By: R.W. Bamford
R. Cann

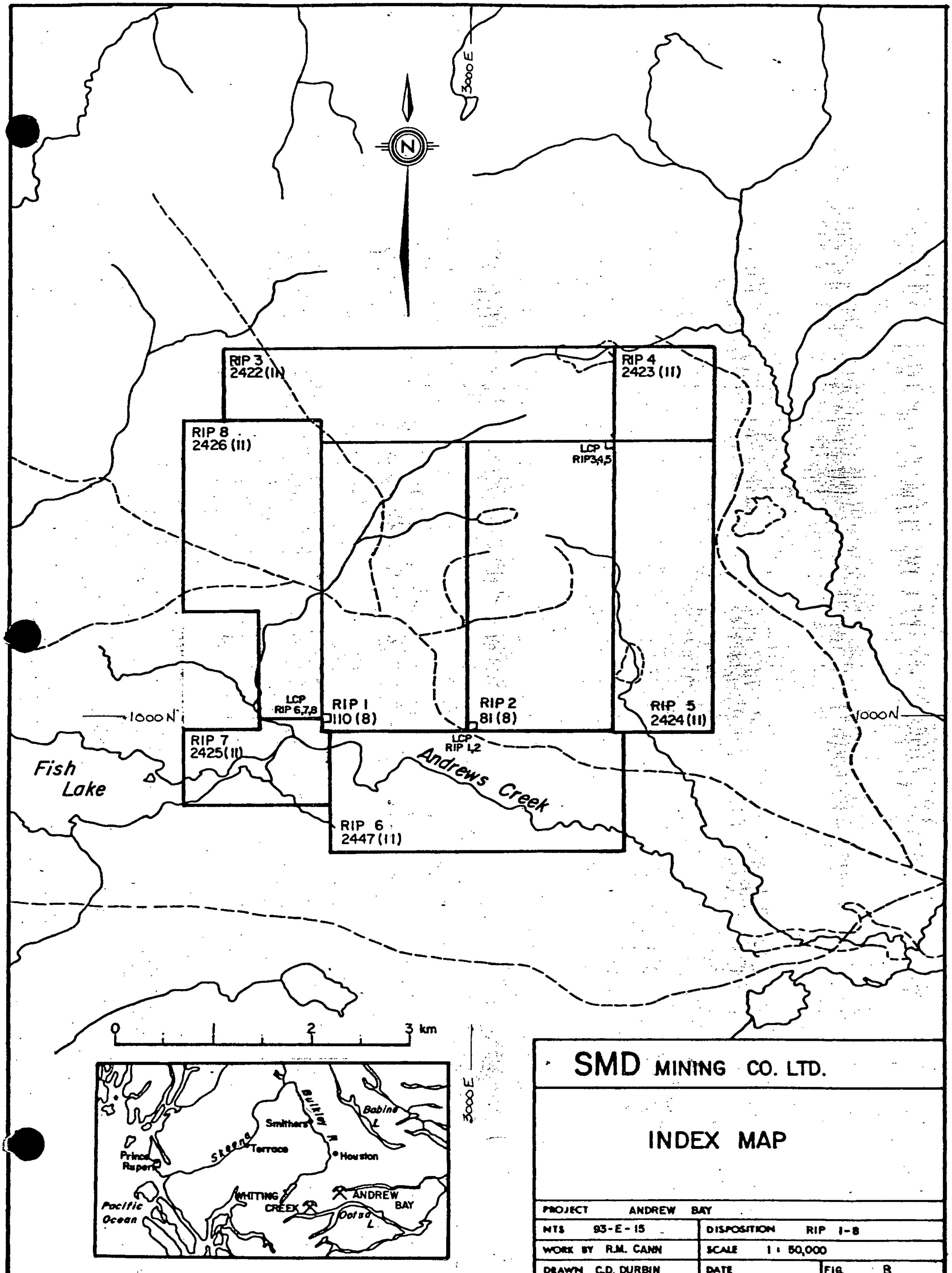
May 1981



SMD MINING CO. LTD.

LOCATION MAP

PROJECT	ANDREW BAY		
NTS	93-E-15	DISPOSITION	RIP 1-8
WORK BY	R.M. CANN	SCALE	1 : 7,500,000
DRAWN	C.D. DURBIN	DATE	FIG. A



SMD MINING CO. LTD.

INDEX MAP

PROJECT	ANDREW BAY		
NTS	93-E-15	DISPOSITION	RIP 1-8
WORK BY	R.M. CANN	SCALE	1 : 50,000
DRAWN	C.D. DURBIN	DATE	FIG. B

CONTENTS

FIGURES

FIGURES (Cont'd)

APPENDICES

INTRODUCTION

Location and Access

The RIP 1 to 8 mineral claims (Figures 1 and 2) are located 112 kilometres south-southeast of Smithers, in west-central B.C. (NTS: 93E/15). Access to the property is via logging roads from Houston or Burns Lake to Francois Lake and then to Ootsa Lake. Closest community is Wistaria, approximately 35 kilometres by road east of the property. A logging camp is situated at Andrew Bay, 10 kilometres east of the claims.

Physiographically, the property is situated on the west side of the Nechako Plateau in an area of rolling to hilly topography. Maximum elevation is 1235 m and maximum relief 300 metres.

The area is being actively logged at present. Vegetation consists primarily of pine, balsam and spruce.

Claim Definition

The RIP 1 and 2 claims were originally staked by Kennco Explorations (Western) Ltd. in 1975 to cover an I.P. anomaly discovered during a reconnaissance survey. In 1979, SMD Mining Company Ltd. entered into an option agreement with Kennco Explorations (Western) Ltd. That same year 6 new claims were added to the original 2, to total 8 claims as defined below. SMD Mining Company Ltd. is the current operator and Kennco Explorations (Western) Ltd. is the owner.

Claim	Units	Tag. No.	Record No.	Record Date
RIP 1	18	02517	110	August 25, 1975
RIP 2	18	02518	81	August 25, 1975
RIP 3	16	49603	2422	November 29, 1979
RIP 4	4	49604	2423	November 29, 1979
RIP 5	16	49605	2424	November 29, 1979
RIP 6	18	47726	2447	November 29, 1979
RIP 7	6	47727	2425	November 29, 1979
RIP 8	18	49608	2426	November 29, 1979

Summary of Work

Samples from 26 percussion drill holes located on the RIP 1, 2, 3 and 8 claims were analyzed for 15 elements to determine zoning patterns and possible drill targets.

All data processing, compilation and interpretation was by consultant R.W. Bamford, of Salt Lake City, Utah.

ROCK GEOCHEMISTRY

This survey provides an independent determination of Mo-Cu resource targets within the claimed area. Samples for the survey are derived entirely from percussion hole drilling, since most of the claim block is blanketed by glacial till.

Survey Method

Geochemical zoning and gradients are determined by separation and analysis of a nonmagnetic +3.3 specific gravity (sp. gr.) fraction from composite rock samples. Interpretation of the geochemical results is based primarily on empirical multielement geochemical zoning models provided by proprietary studies of known porphyry copper and porphyry molybdenum deposits and their surroundings. The models incorporate an extensive and probably unique data base. They reflect consistent three-dimensional zoning relationships indicated by +3.3 sp. gr. and, in many cases, corresponding whole rock geochemical data for a variety of deposit types and environments.

The +3.3 sp. gr. fraction analyzed in this work provides large (three- to more than ten-fold) enhancements of hydrothermal trace element signatures relative to those of original rock. Heavy liquid separation procedures selectively concentrate hydrothermal sulfides and oxides (or their oxidation products), the principal hosts for the trace elements, in the +3.3 fraction. The predominant rock and alteration silicates in the original sample, which are relatively barren of hydrothermal trace elements, partition mainly into the light (-3.3 sp. gr.) fraction. General advantages of +3.3 sample geochemistry for exploring large sulfide systems include: (1) more effective detection of interpretable trace element signatures in the outer fringes of sulfide systems, (2) clearer definition of trace element zoning patterns and gradients related to ore, (3) minimization of rock type effects in the geochemical data, (4) elimination of pseudo-zoning indications caused by variations in total sulfide contents, and (5) improved utilization of Bi, Te, As, Sb, Sn, W, and Co data.

Sample Preparation and Analytical Procedures

Twenty-six composite chip samples, one from each of twenty-six percussion drill holes, are utilized in this work. Most of the composite samples represent the uppermost 30-meter (maximum) intercept of premineral rock encountered in each drill hole and incorporate several (commonly about 10) individual 3-meter-interval chip samples.

Samples are pulverized to -80 mesh and composited as needed. Eighty grams of each -80 mesh composite sample are used for preparation of a corresponding +3.3 sp. gr. fraction. A magnetic fraction consisting mostly of magnetite is separated from the +3.3 sp. gr. fraction using a hand magnet, leaving a sample ready for analysis. Total weights and percentages in original sample materials are recorded for both sample fractions.

The nonmagnetic +3.3 sp. gr. fractions were analyzed for Cu, Mo, Pb, Zn, Ag, Mn, Co, and Fe by atomic absorption spectrophotometry (AAS); for As and Sb by colorimetry; and for S by Leco induction furnace. This analytical work and the sample preparation were carried out by Rocky Mountain Geochemical Corporation, Salt Lake City, following specified procedures.

Additional analyses for Bi, Te, Sn, and W were performed by COORS Spectro-Chemical Laboratory, Golden, Colorado, using optical emission spectrographic (OES) techniques. OES analyses were omitted for one drill hole because of insufficient sample. Omissions are indicated on the plots by the letters ND (no data).

Data Presentation

The geochemical results are presented in four forms: (1) a tabulation of original geochemical and sample fraction data (Appendix B), (2) tabulations and plots of various statistics for the geochemical data (Appendix A), (3) computer-generated contoured plan plots of the original geochemical and sample fraction data (Figures 1 thru 17), and (4) similar plan plots of geochemical parameters useful for interpretation and target selection in Cu-Mo sulfide systems (Figures 18 thru 20). A drill hole index map (Figure 21) is also included.

Statistics presented include simple statistics, Spearman rank correlation and cluster analysis, and Pearson product-moment correlation and cluster analysis. Correlation and cluster analysis by the Spearman rank method is free of underlying assumptions regarding type of data distribution and can often provide a more accurate indication of element associations than the Pearson product-moment method. Product-moment correlation assumes that data are normally distributed.

Plan plots are produced at two scales: approximately 1:20,000 scale for the bound reports and 1:10,000 scale for direct comparison with full scale geologic and geophysical maps. Minimum contour values on the plots are lowest meaningful values determined by inspection. Each successive contour value is double that of the neighboring smaller value. Circles on the plots symbolize percussion drill holes, stars indicate diamond drill holes, and a square indicates the location of a trench.

DISCUSSION

Hydrothermal Element Zoning

A systematic large-scale zoning of hydrothermal elements, somewhat similar to that in the Whiting Creek sulfide system (Bamford, 1981), is defined at Andrew Bay (Figures 1-19 and Appendix A, Figures A-1 and A-2). Principal anomaly associations in the zoning are Cu-Mo-Sn and and Pb-Zn-As-Mn (see especially Appendix A, Table A-2 and Figure A-1). These associations are indicated to comprise relatively distinct element assemblages, actually two series of 2-, 3-, or 4-element assemblages, between which there is low distribution similarity. An Ag-Co-Bi association with distribution characteristics most like those of the Pb-Zn-As-Mn association is also tentatively distinguished.

Distribution maps for the elements show the Cu-Mo-Sn anomaly associations to be centrally zoned element assemblages (Figures 1, 2, 14, 15, and 18) and the Pb-Zn-As-Mn associations peripherally zoned assemblages (Figures 3, 4, 6, 8, and 19). Cu-Mo-Sn anomaly associations predominate in drill holes 12, 16, and 17 (Figures 18 and 21), defining a central zone with approximate dimensions of 600 meters E-W and 300 meters N-S in premineral rock just below the erosion surface. Pb-Zn-As-Mn anomaly associations predominate in most of the drill holes surrounding this central zone partly defining a conventional porphyry system halo zone. The halo zone is at least tentatively defined on all sides of the central zone except the northwest where samples are lacking. Definition is locally only fair to poor on the east and south-southeast of the central zone, due mainly to additional gaps in the sample distribution.

Sulfide and Magnetic Mineral Zoning

Concentrations of hydrothermal sulfide and oxide minerals in rock are indicated to be highest within or near the geochemically defined central zone of the system (cf. Figures 16, 17, 11, and 20 with, e.g., Figure 18). Thus no conventional pyrite halo is defined. Local association of high Cu and As concentrations, in drill hole 12 for example (cf. Figures 1, 6, and 21), suggests enargite or other sulfosalts may occur in the central zone.

Sulfide System Model Concepts

Two principal system models can be suggested based on the geochemical results. The mineralization sampled is possibly located high in a porphyry sulfide system several hundred to more than a thousand meters above the principal Cu-Mo zone or it may simply represent part of the Cu-Mo zone itself in a small poorly developed porphyry-type system. Both models accommodate several of the principal system characteristics indicated by this work including: the conventional porphyry system zoning with central zone Cu-Mo-Sn anomaly associations surrounded by halo zone Zn-Pb-As-Mn anomaly associations (e.g., Figures 18 and 19), the maximum hydrothermal sulfide and oxide enrichment within or near the central zone rather than the halo zone (Figures 16 and 17), and, possibly, an important component of structural control of the mineralization (suggested by the north-northwesterly trend of Cu-Mo-Sn anomaly associations--Figure 18).

Geochemical characteristics which tend to support interpretation of the Andrew Bay mineralization as the top of a porphyry copper system include: unusually high As concentrations in most samples; local Cu-As associations which possibly indicate the occurrence of enargite or other sulfosalts (e.g., in drill hole 12; cf. Figures 1, 6, and 21); and unusually low W and

Sn components in the Cu-Mo-Sn anomaly associations (cf. Figures 14 and 15 with Bamford, 1981, Figures 14 and 15). This geochemistry is not entirely unique to high level porphyry environments, but is less typical of deeper levels in porphyry system. Thus the alternate interpretion, that the drilled mineralization represents the main part of a small, poorly developed porphyry-type system, is possibly less tenable. Limited mineralogic study to determine the nature of hydrothermal silicate and sulfide assemblages within the central zone could be helpful in further establishing the relative merits of the two models.

The results do not provide indications that the mineralization could be of a non-porphyry variety, although this possibility is not eliminated. The system could, however, be Au-bearing and it is recommended that a few of the more Cu-As-rich samples be analyzed for this element if not already done.

Possible Ore Target

Only one potentially economic porphyry-type ore target is presently inferred from these results: higher grade porphyry Cu-Mo mineralization could be developed at depths of several hundred to more than a thousand meters beneath the sampled area. The probability of finding a large, high-grade orebody, especially at the shallower depths, is considered to be low due to the apparently limited size and relatively weak expression of the overall sulfide system.

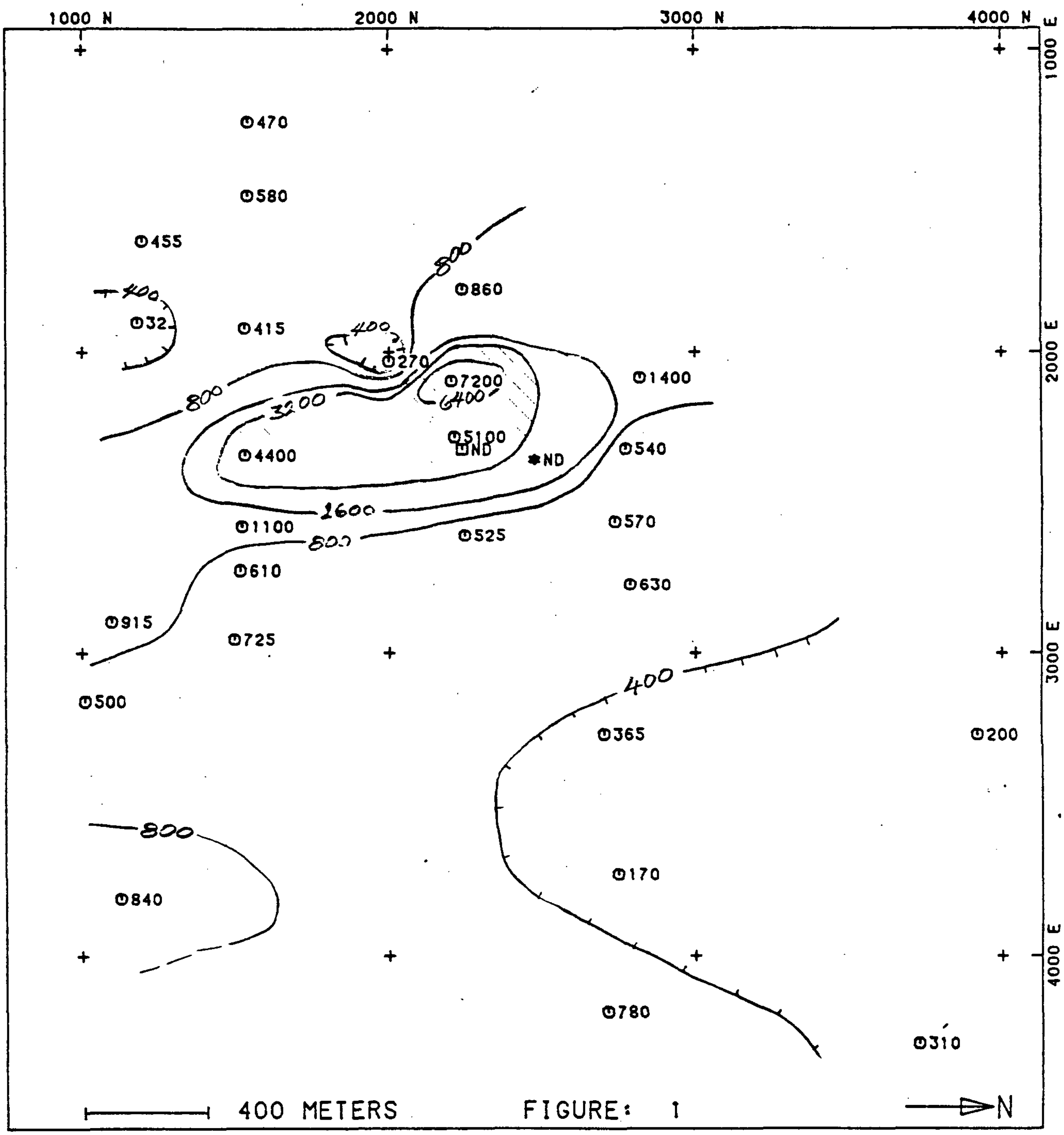
Should drilling be carried out to test this target concept, design of the driling could be effectively based on the geochemical zoning plus structural information. Based on the zoning results alone, the drill test would probably best be sited within the central Cu-Mo-Sn zone and consist of a vertical hole with a maximum depth of 1000 meters. If reliable structural information is available and indicates either post-mineral tilting of the mineralized block or localization of the central-zone mineralization by non-vertical structures, then drilling should be offset to partially compensate for anticipated displacement of the target at depth. Geochemical logging of composite samples from a deep drill test of this type provides an effective means of evaluating and expanding or refining the target model and should be considered if drilling is undertaken.

Recommended Follow-up Work

Near term discussions of the survey results are recommended to aid their integration with other data and to facilitate planning subsequent exploration activities. Also, limited XRD and/or polished section determinations of hydrothermal silicate and sulfide assemblages within the central zone would probably help better establish the relative merits of the two system models presented in this report. A deep drill test (above) is tentatively recommended contingent on the outcome of the survey results discussions, the mineralogic determinations, and an evaluation of target economic potential. A few Cu-As-rich samples should be analyzed for Au (if not already done), to test for possible economic concentrations of that element in the system.

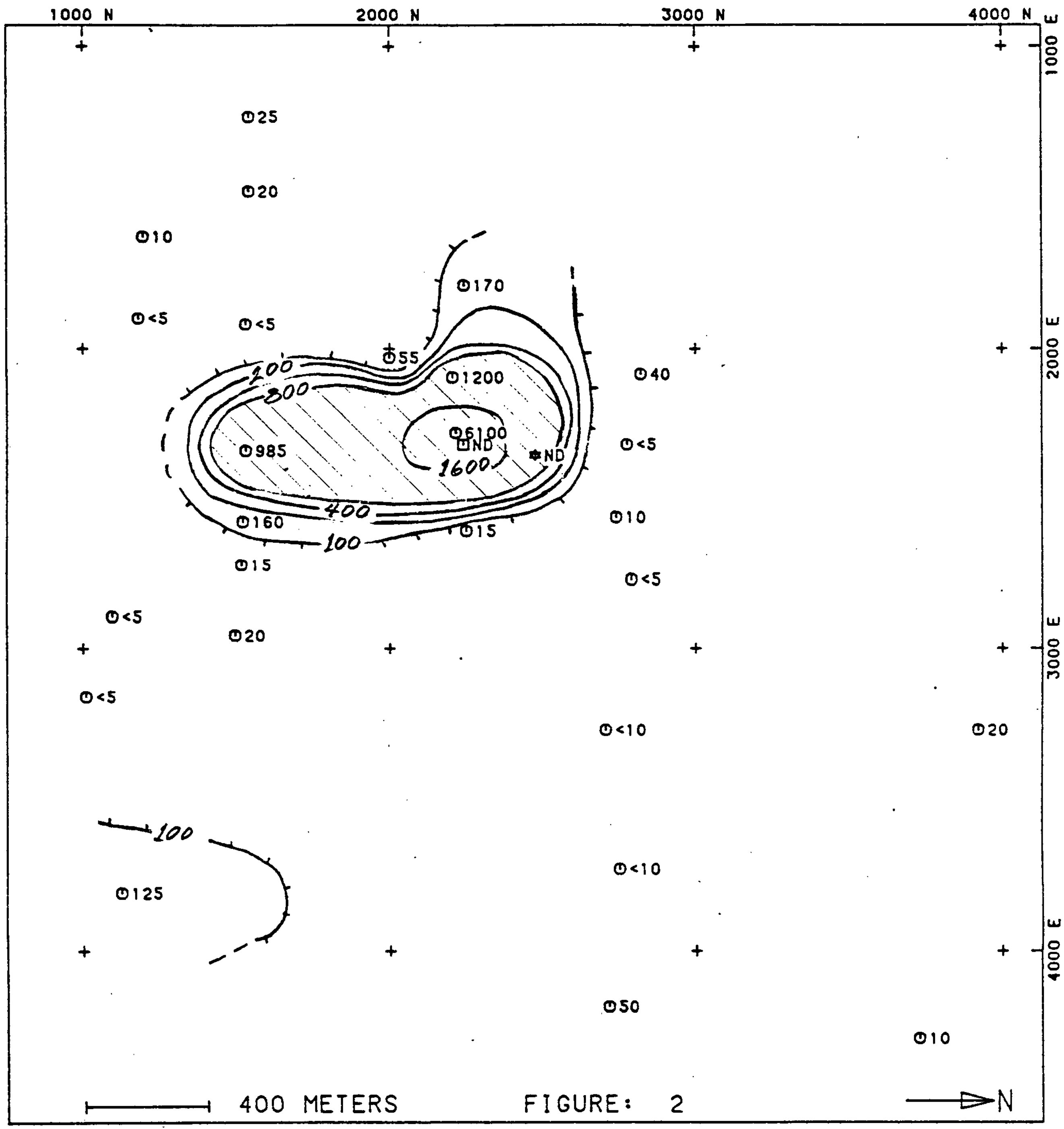
REFERENCES

Bamford, R. W., 1981, A multielement geochemical survey, Whiting Creek prospect area, British Columbia: Consulting report completed for Saskatchewan Mining Development Corporation.



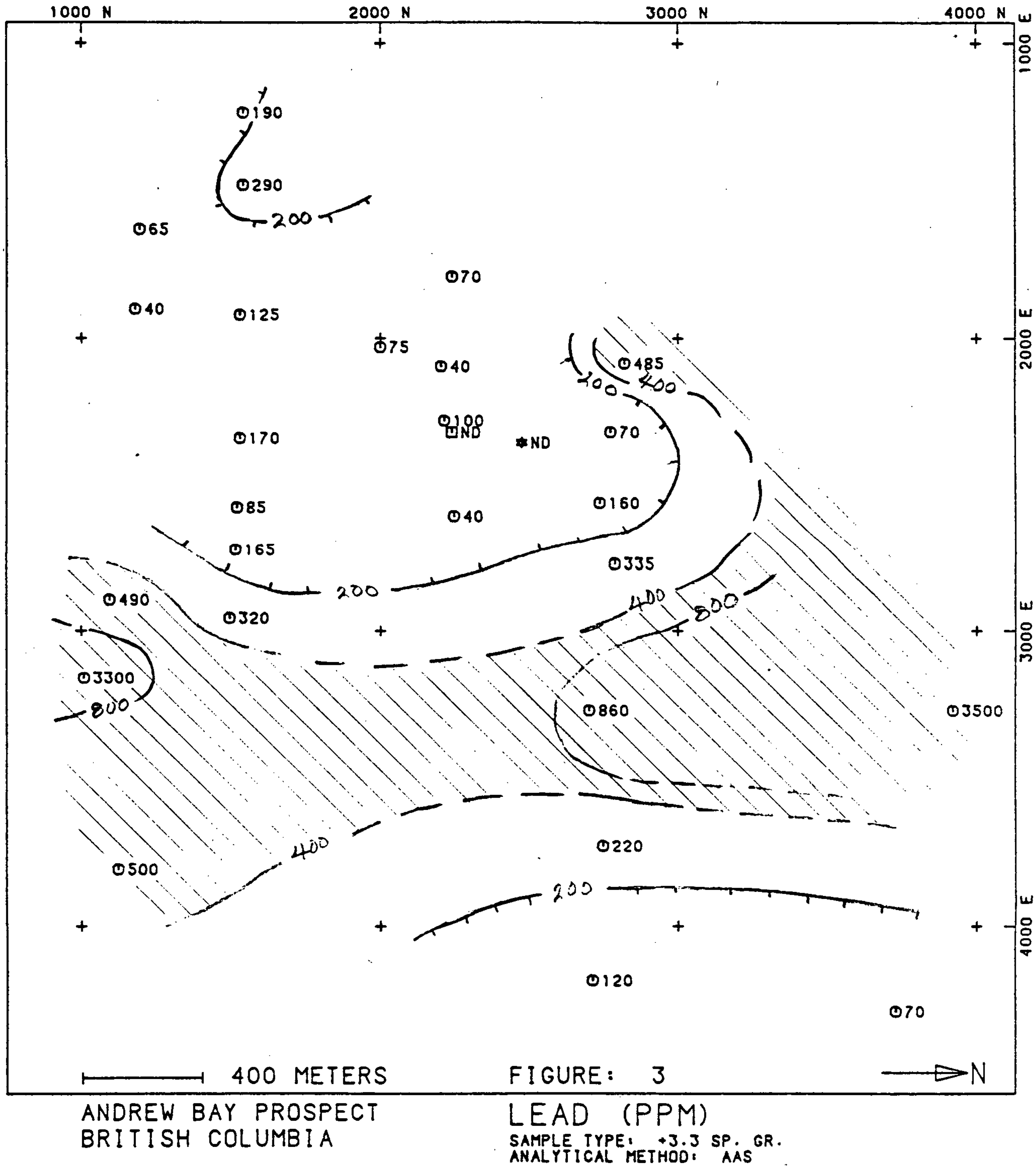
ANDREW BAY PROSPECT
BRITISH COLUMBIA

COPPER (PPM)
SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS
⊙ = PERCUSSION DRILL HOLE SAMPLES
✱ = DIAMOND DRILL HOLE
⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

MOLYBDENUM (PPM)
SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS
⊙ = PERCUSSION DRILL HOLE SAMPLES
✱ = DIAMOND DRILL HOLE
⊡ = TRENCH

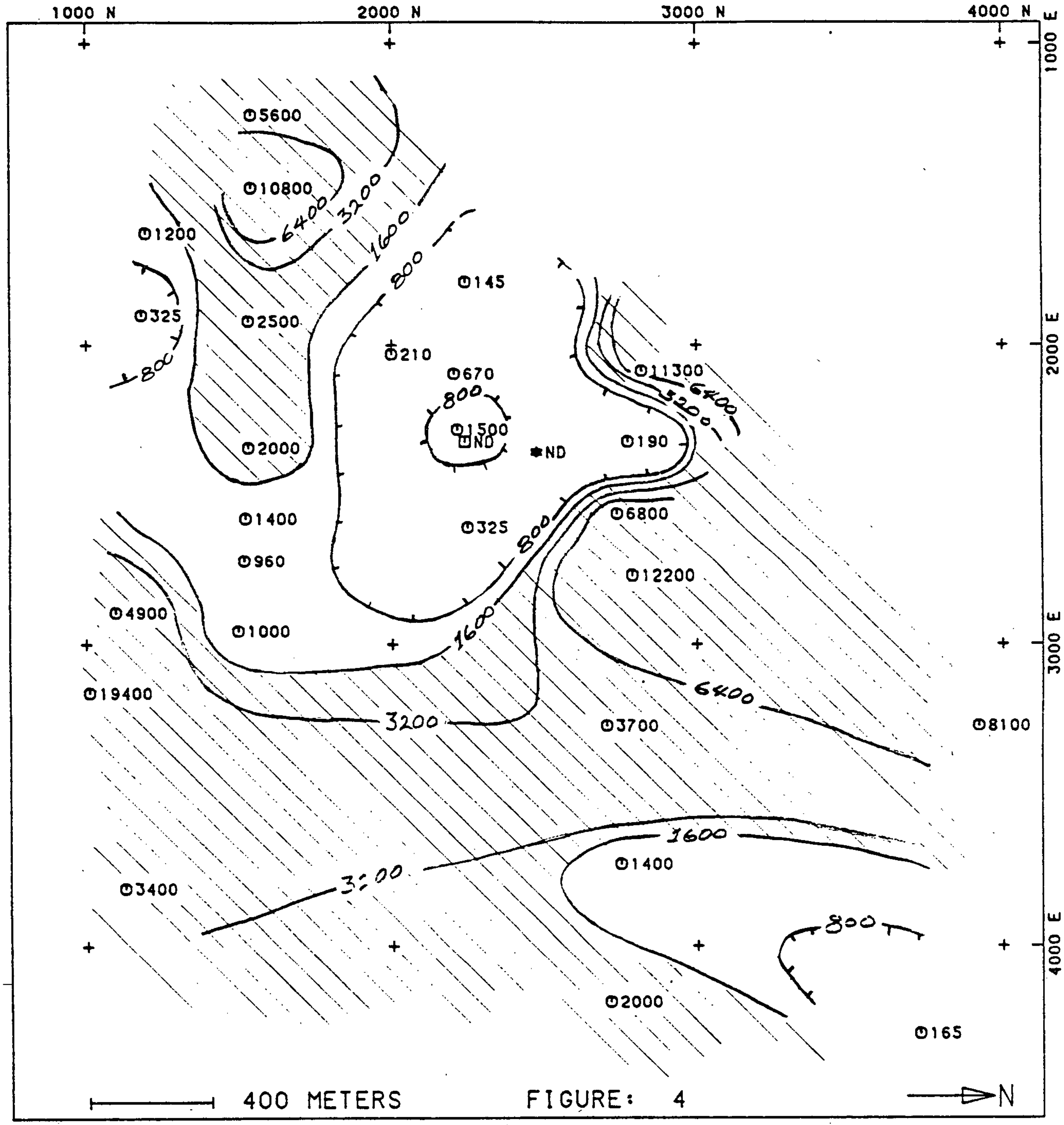


ANDREW BAY PROSPECT
BRITISH COLUMBIA

LEAD (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

ZINC (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS

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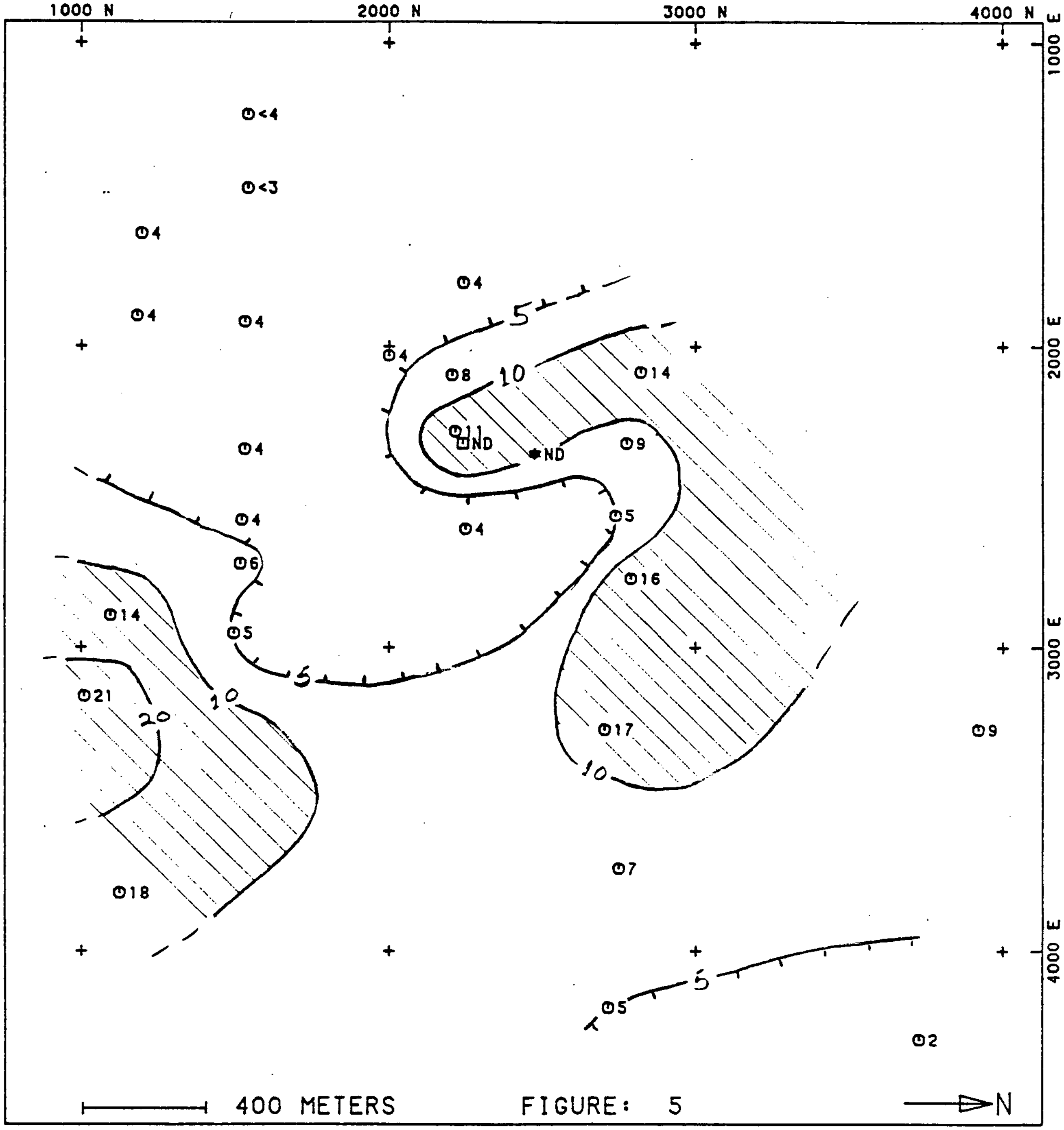
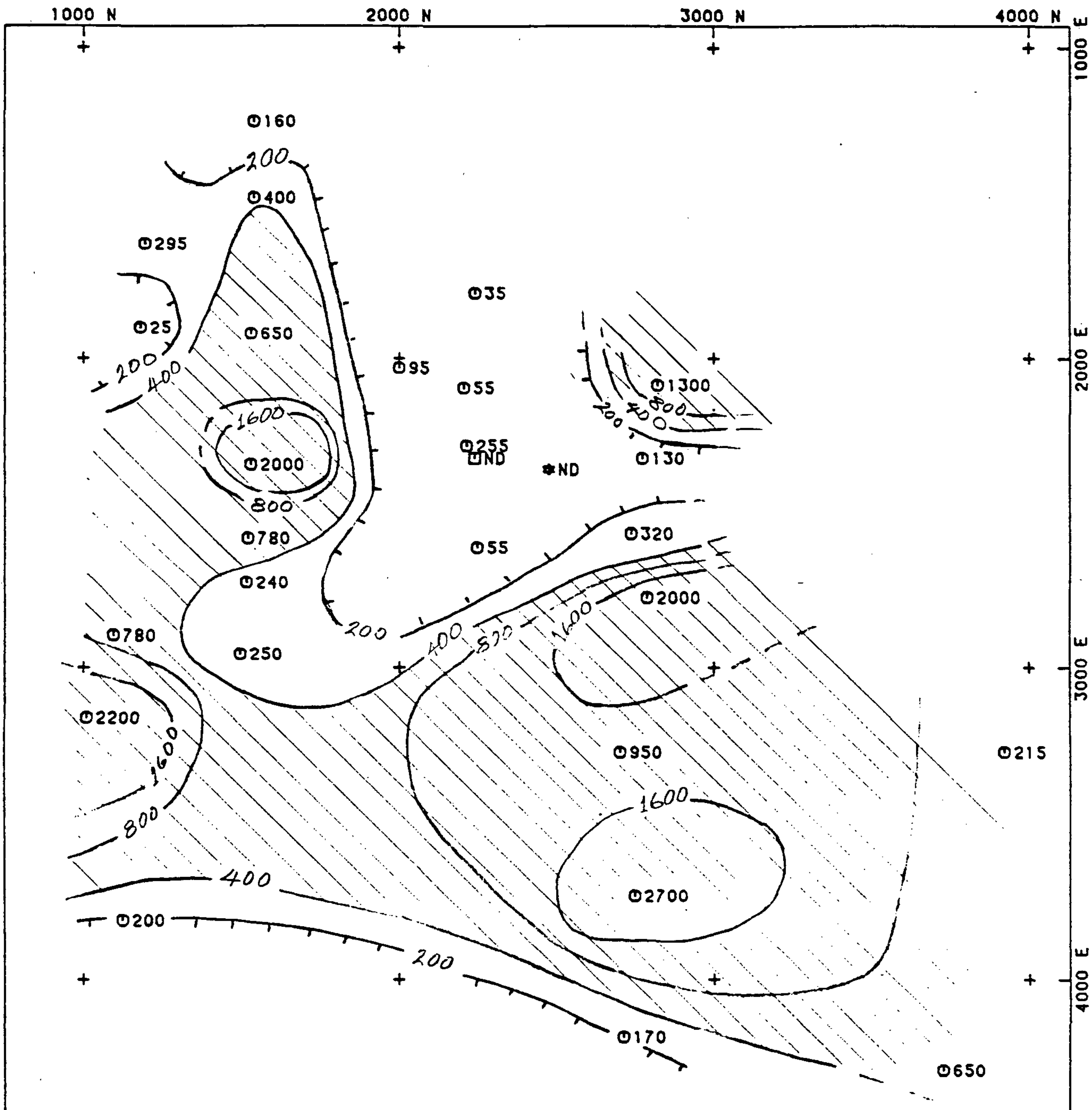
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

SILVER (PPM)
SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS

- ʘ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



400 METERS FIGURE: 6 N

ANDREW BAY PROSPECT
BRITISH COLUMBIA

ARSENIC (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: COLORIMETRIC

- ⦶ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH

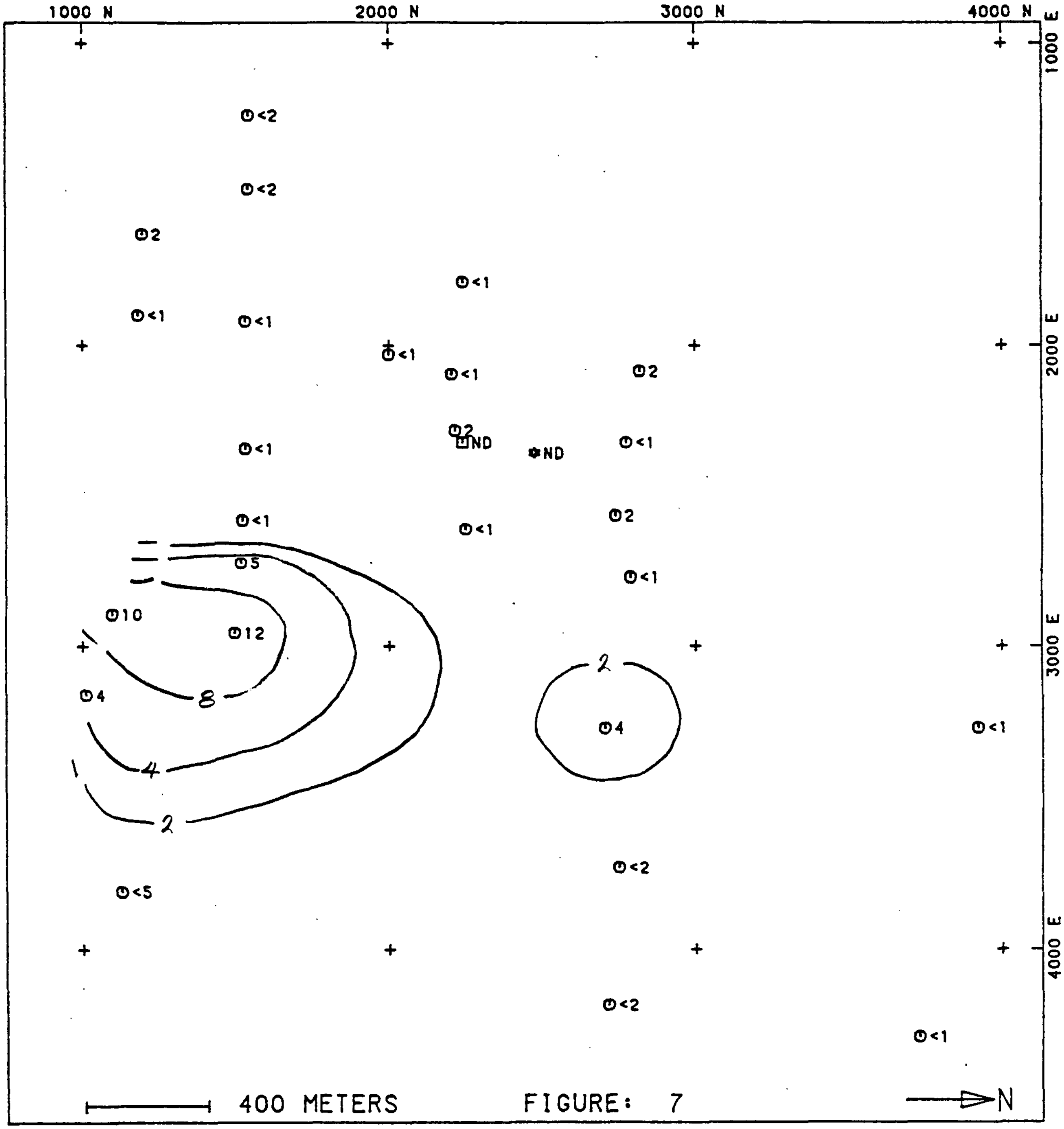


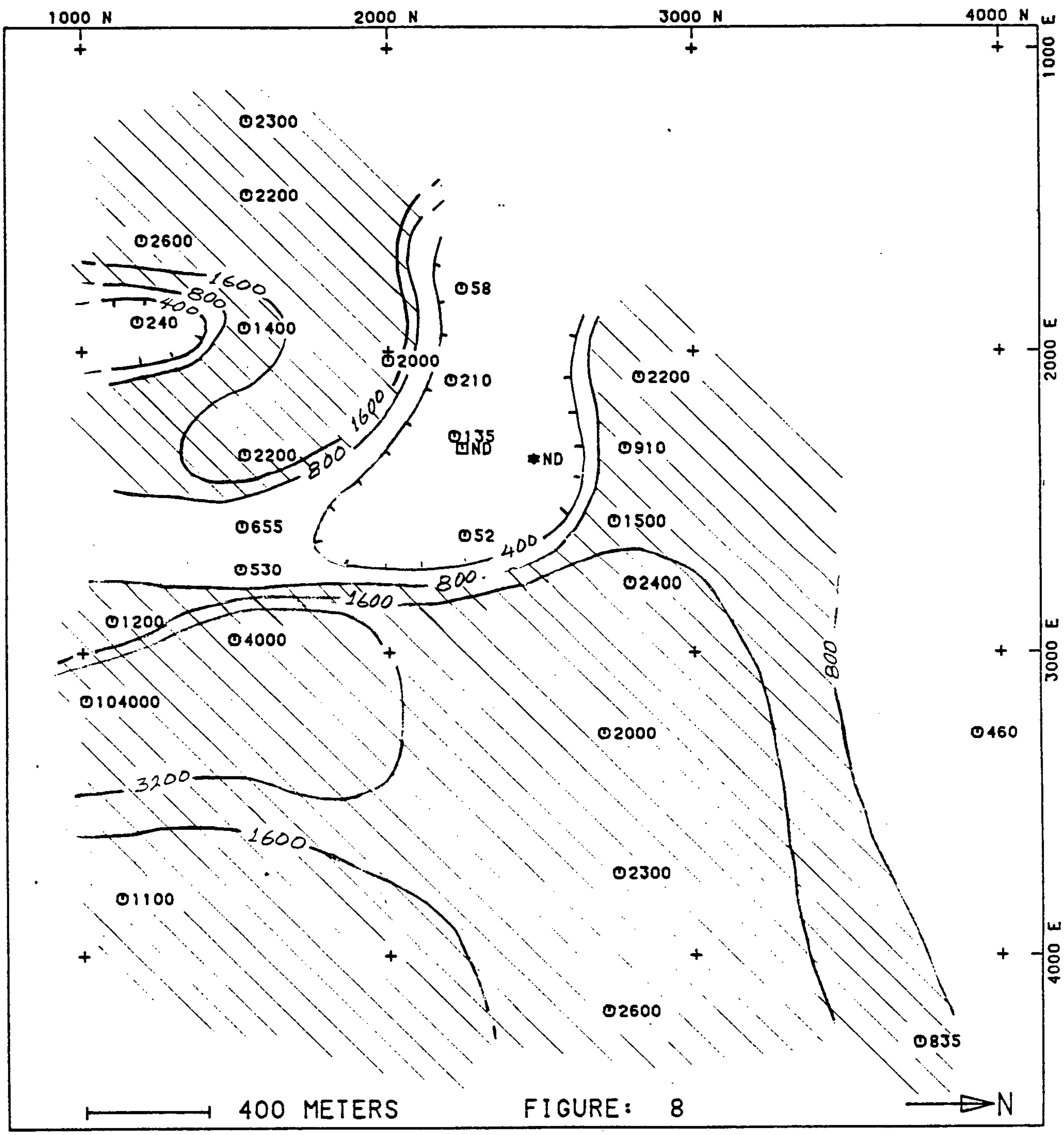
FIGURE: 7

ANDREW BAY PROSPECT
BRITISH COLUMBIA

ANTIMONY (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS

- ʘ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

MANGANESE (PPM)
SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS
⊙ = PERCUSSION DRILL HOLE SAMPLES
✱ = DIAMOND DRILL HOLE
⊡ = TRENCH

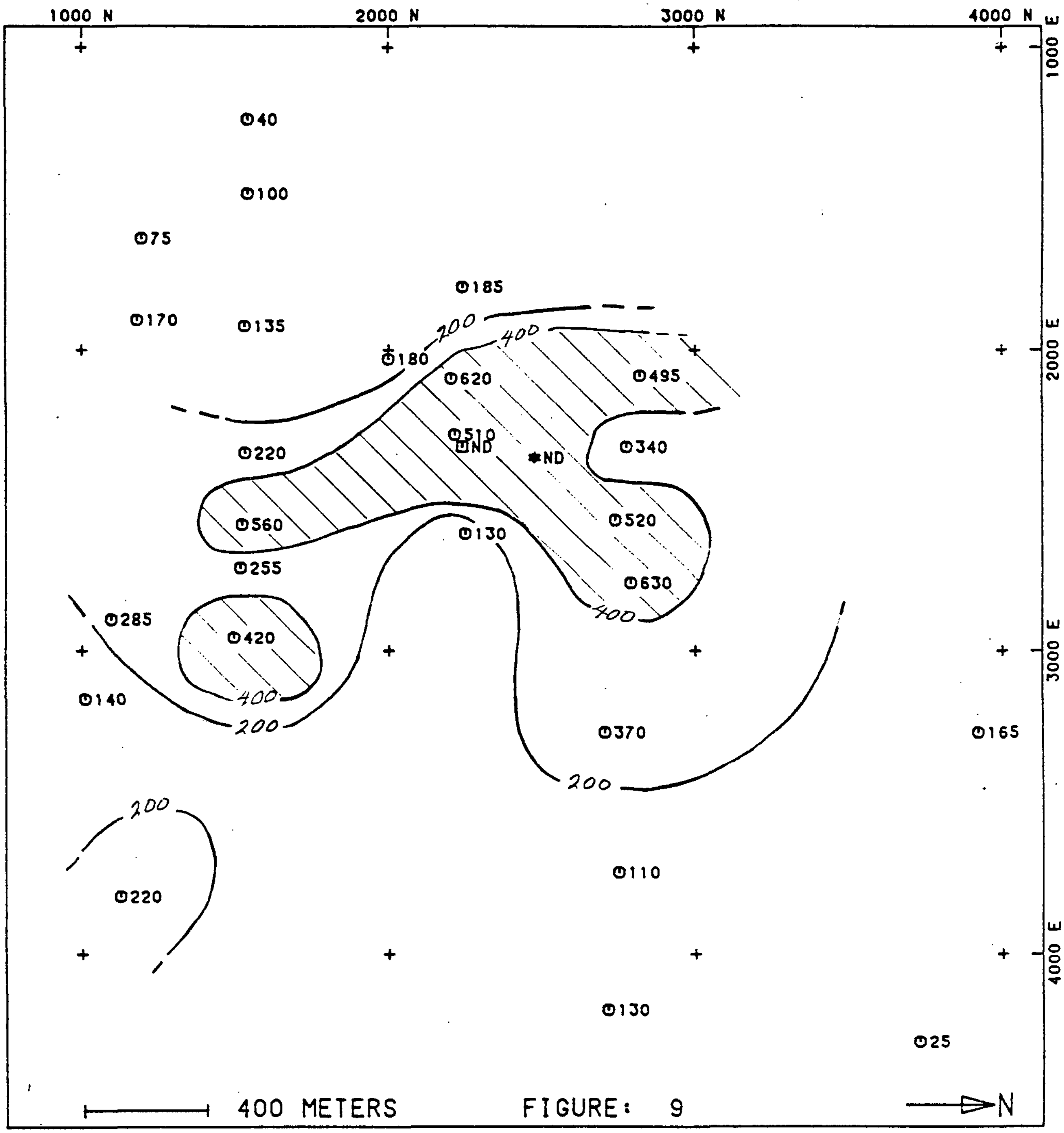


FIGURE: 9

ANDREW BAY PROSPECT
BRITISH COLUMBIA

COBALT (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH

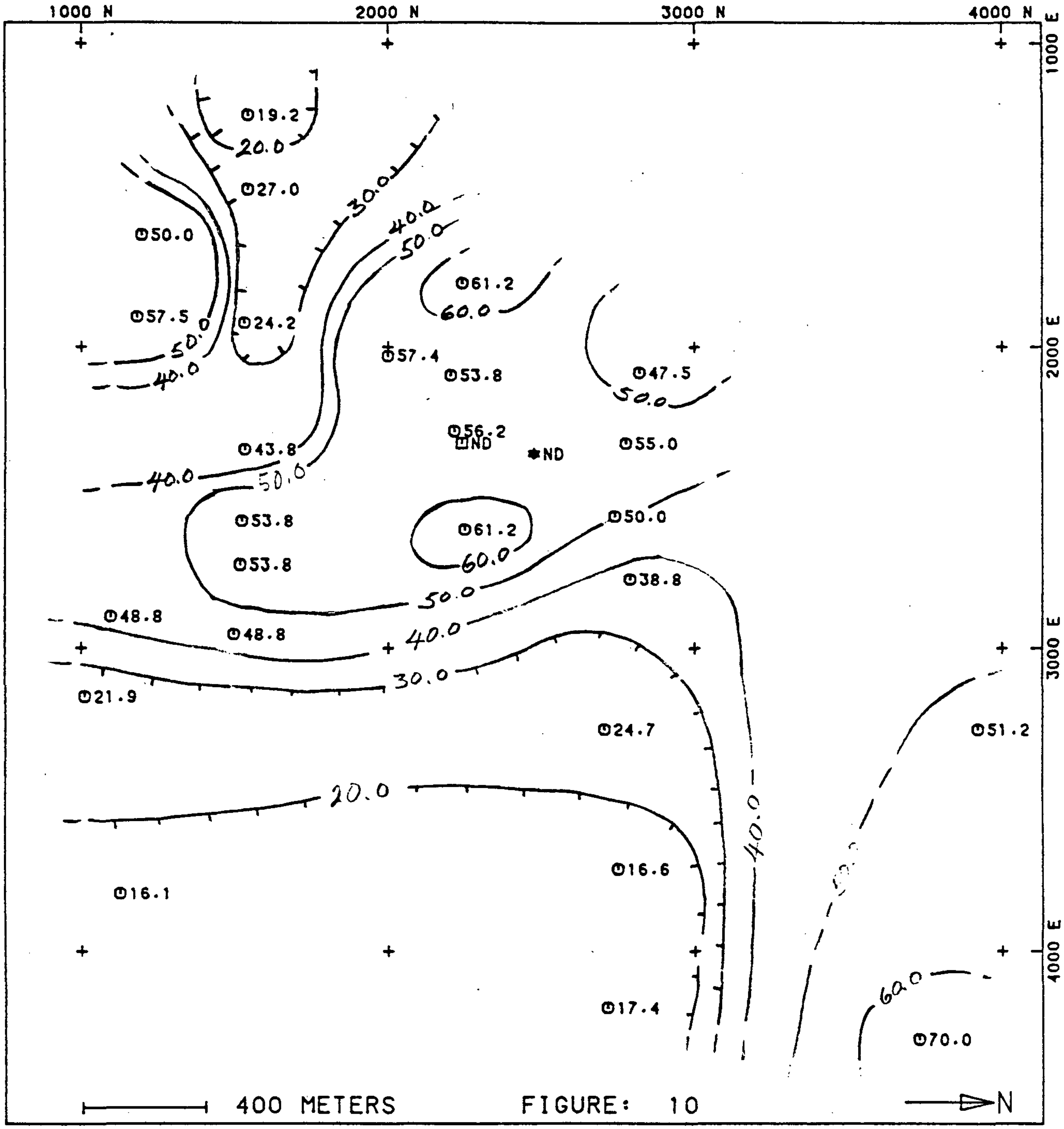


FIGURE: 10

ANDREW BAY PROSPECT
BRITISH COLUMBIA

IRON (%)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS

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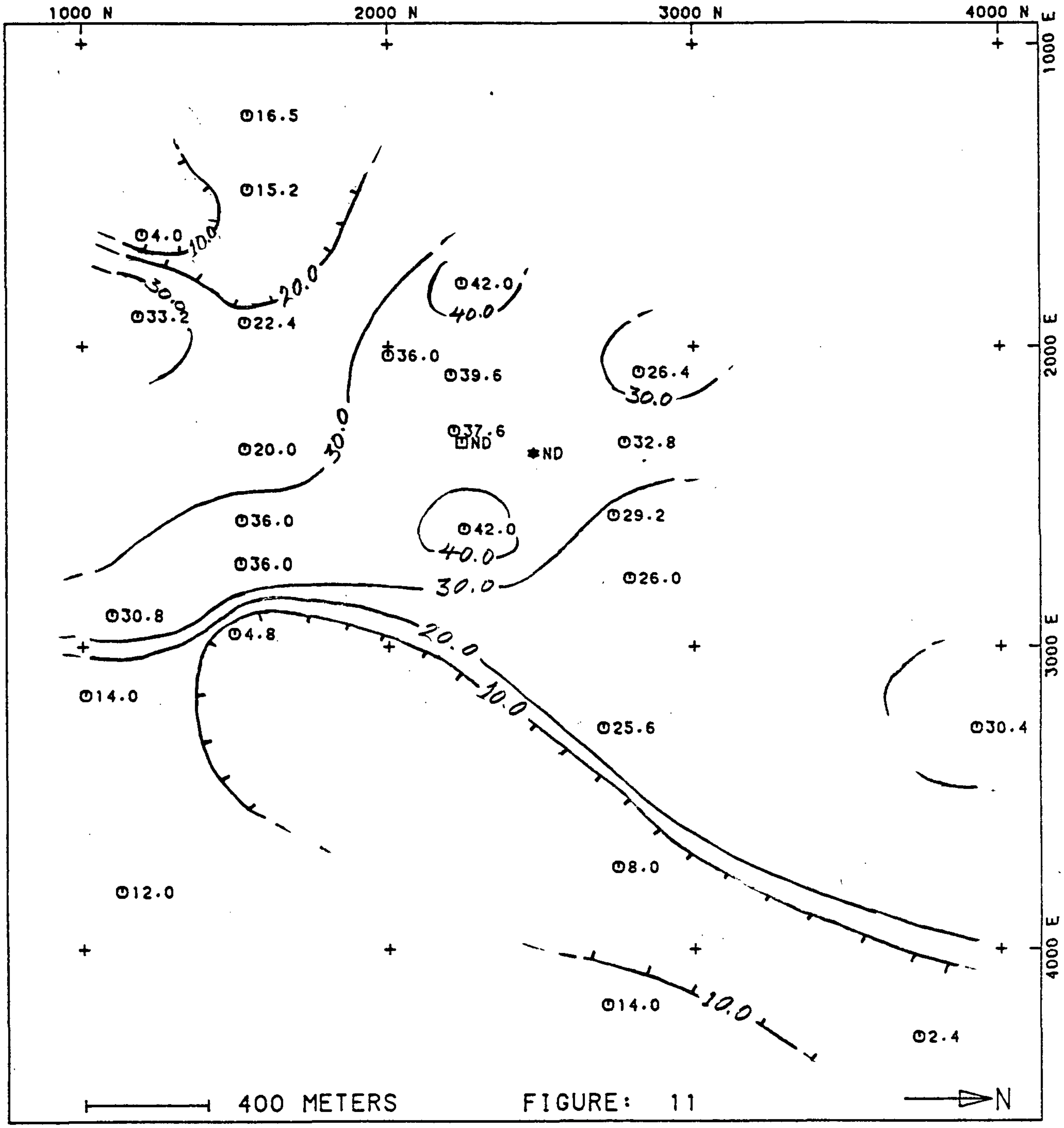
✱ = DIAMOND DRILL HOLE
⊡ = TRENCH

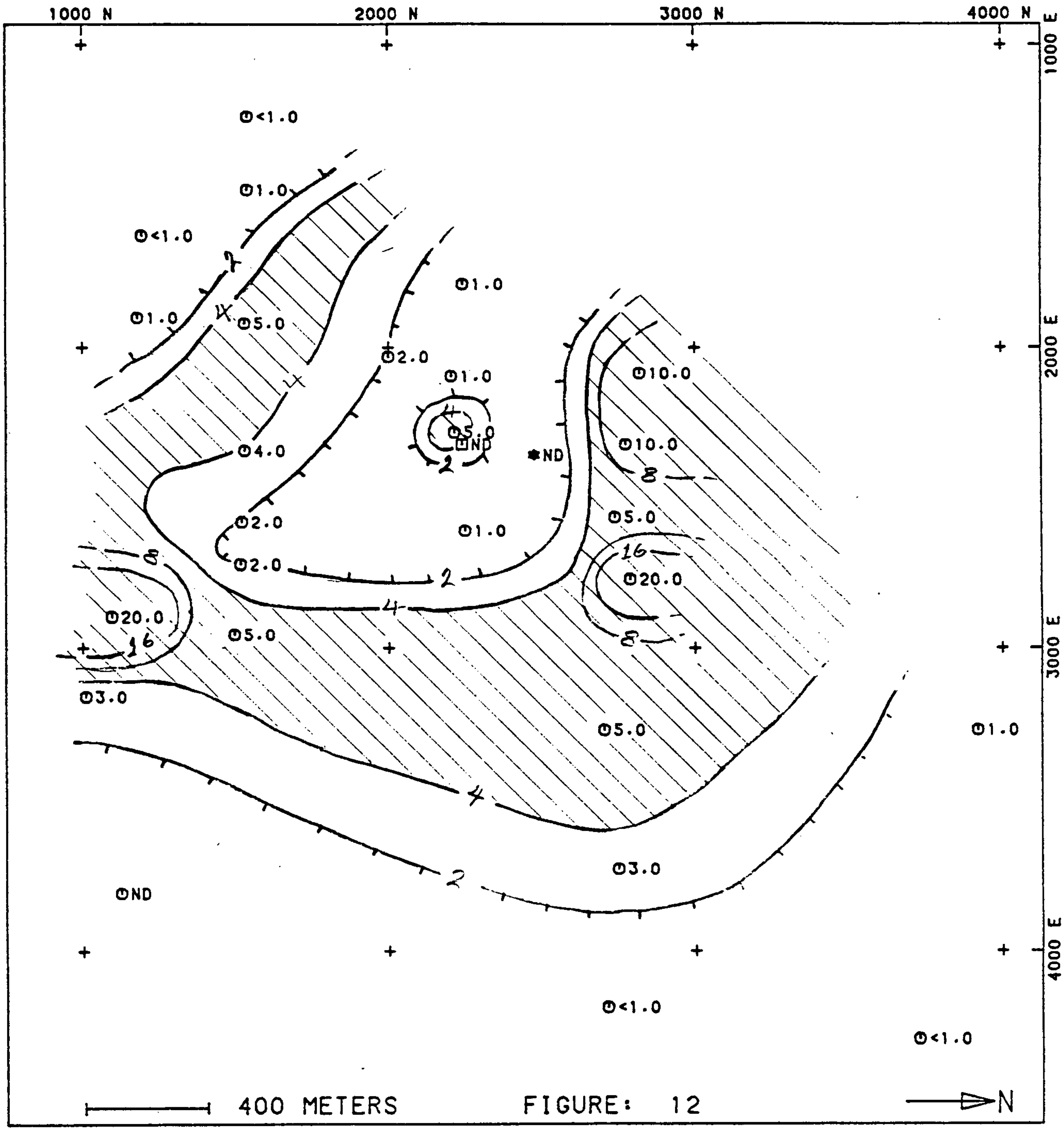


ANDREW BAY PROSPECT
BRITISH COLUMBIA

SULFUR (%)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: LECO INDUCTION FURNACE

ʘ = PERCUSSION DRILL HOLE SAMPLES
✱ = DIAMOND DRILL HOLE
⊡ = TRENCH

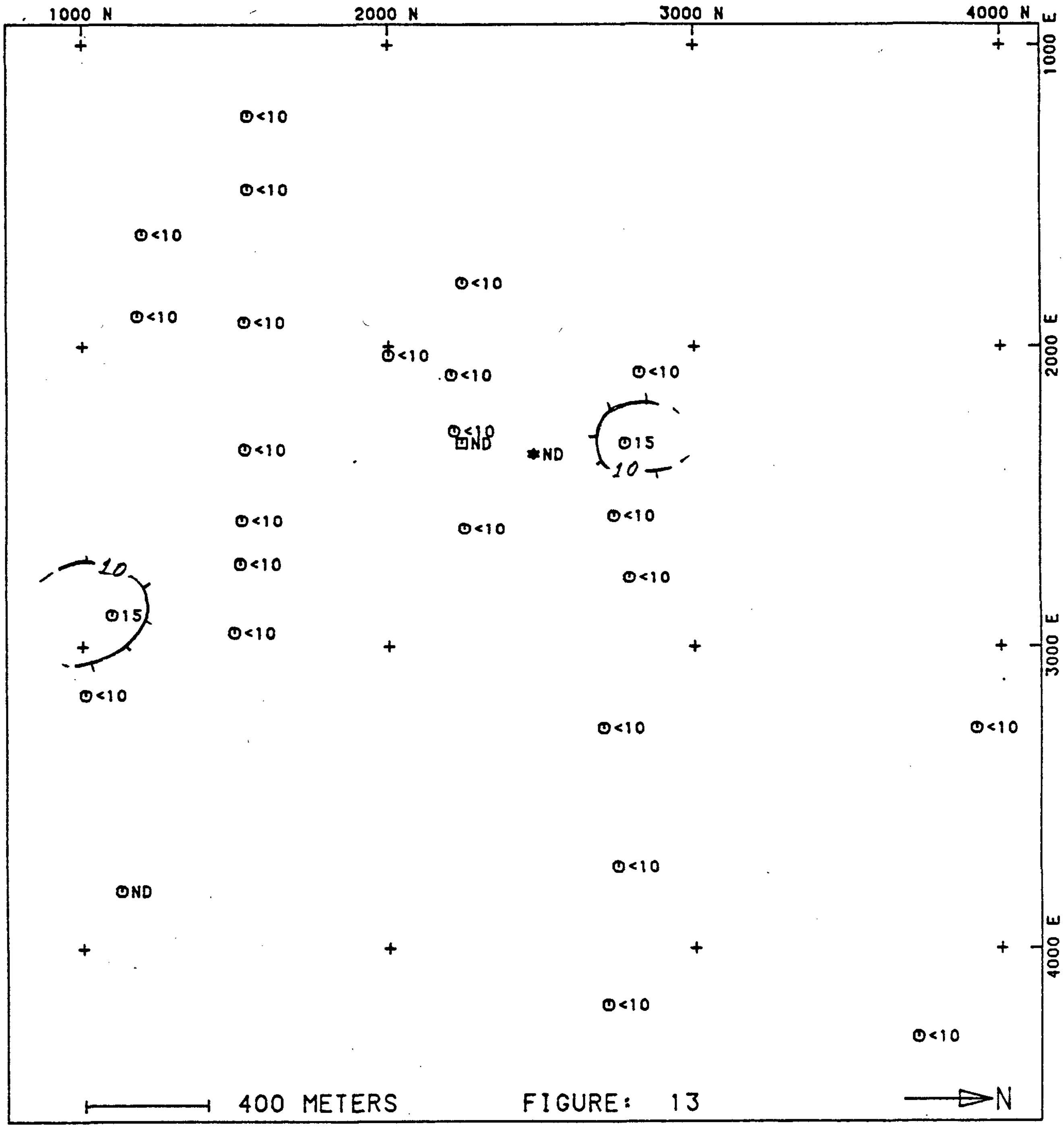


ANDREW BAY PROSPECT
BRITISH COLUMBIA

BISMUTH (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: OPTICAL EMISSION SPEC.

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

TELLURIUM (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: OPTICAL EMISSION SPEC.

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH

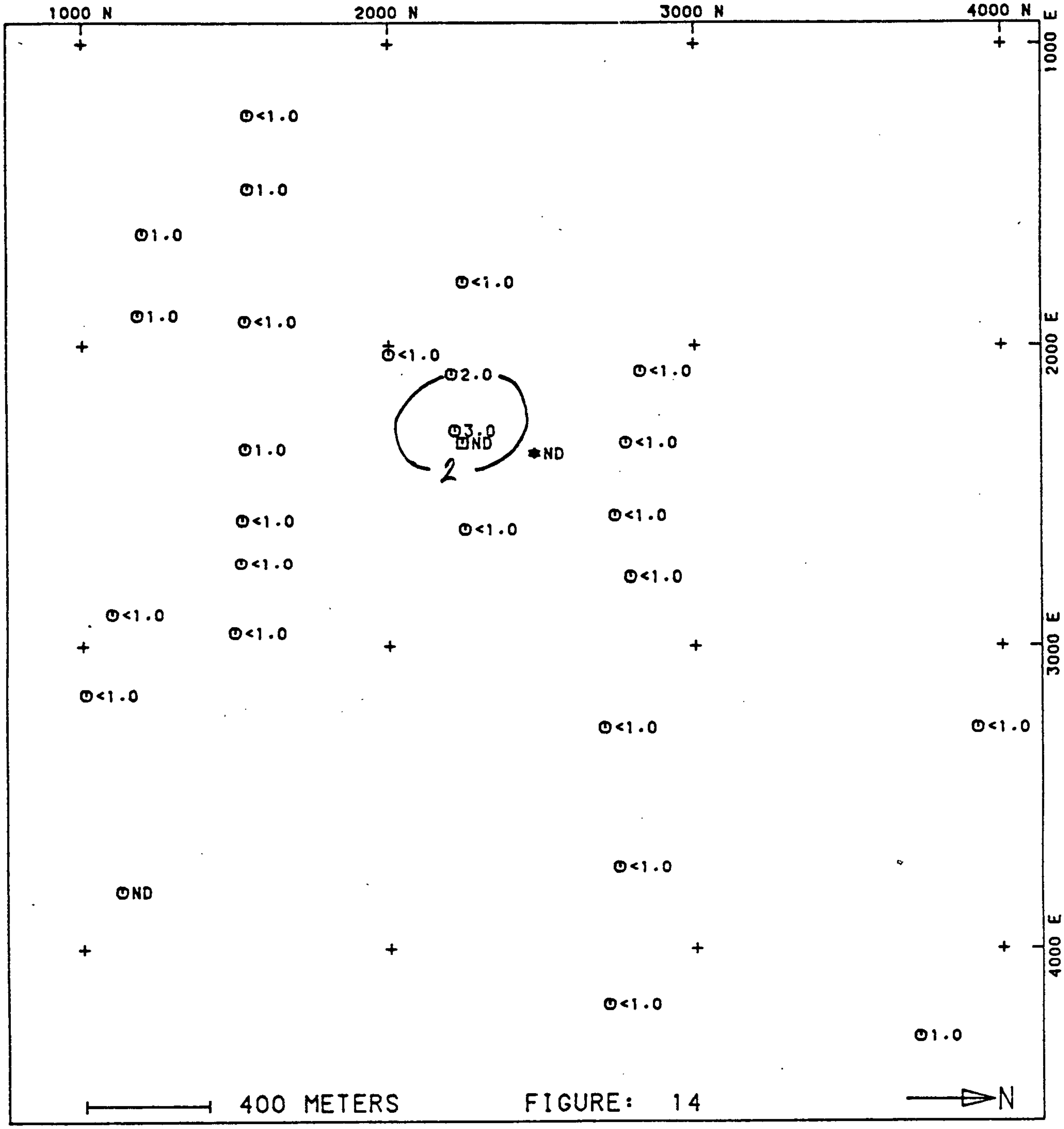


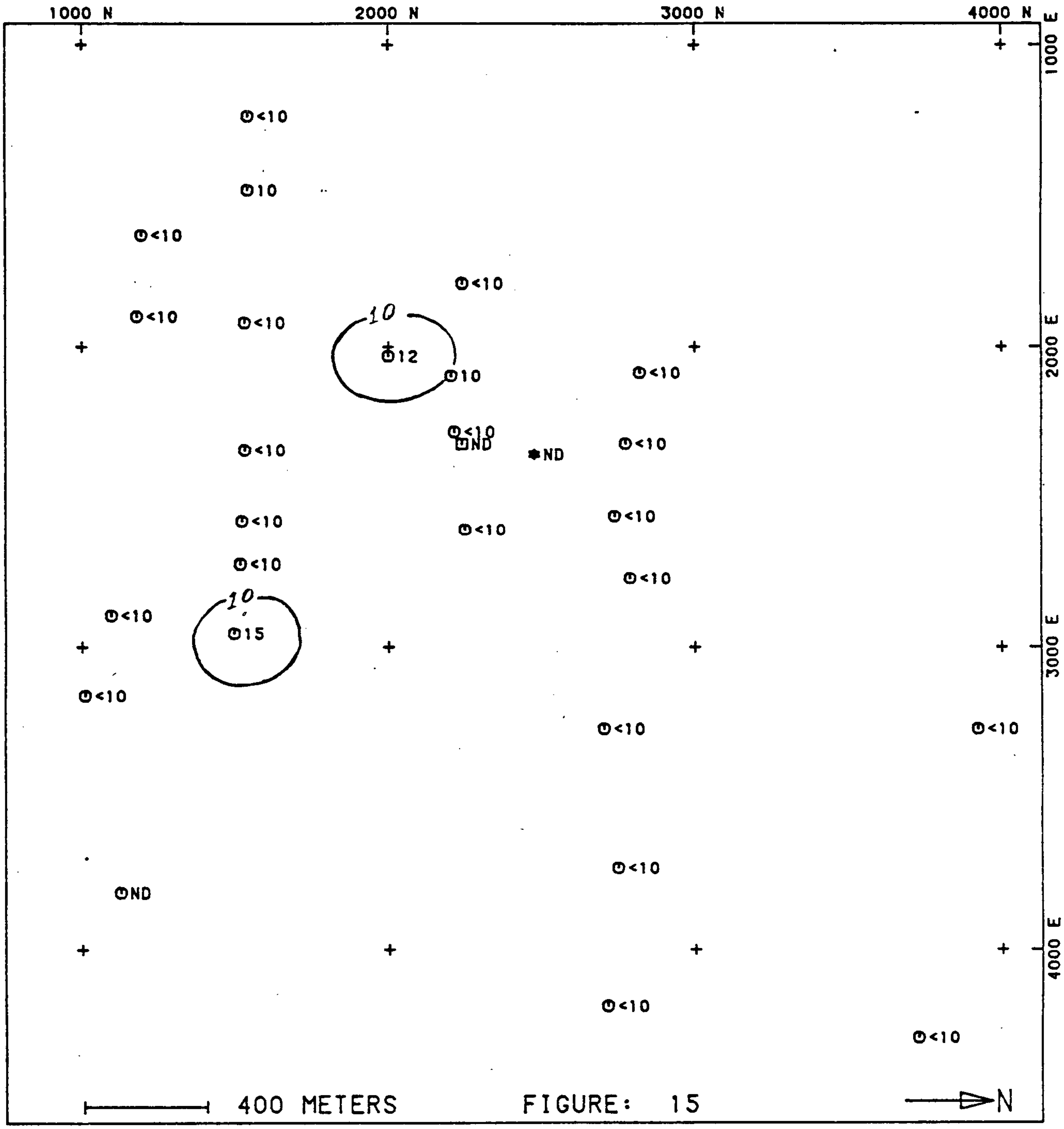
FIGURE: 14

ANDREW BAY PROSPECT
BRITISH COLUMBIA

TIN (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: OPTICAL EMISSION SPEC.

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

TUNGSTEN (PPM)

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: OPTICAL EMISSION SPEC.
⊙ = PERCUSSION DRILL HOLE SAMPLES
✱ = DIAMOND DRILL HOLE
⊡ = TRENCH

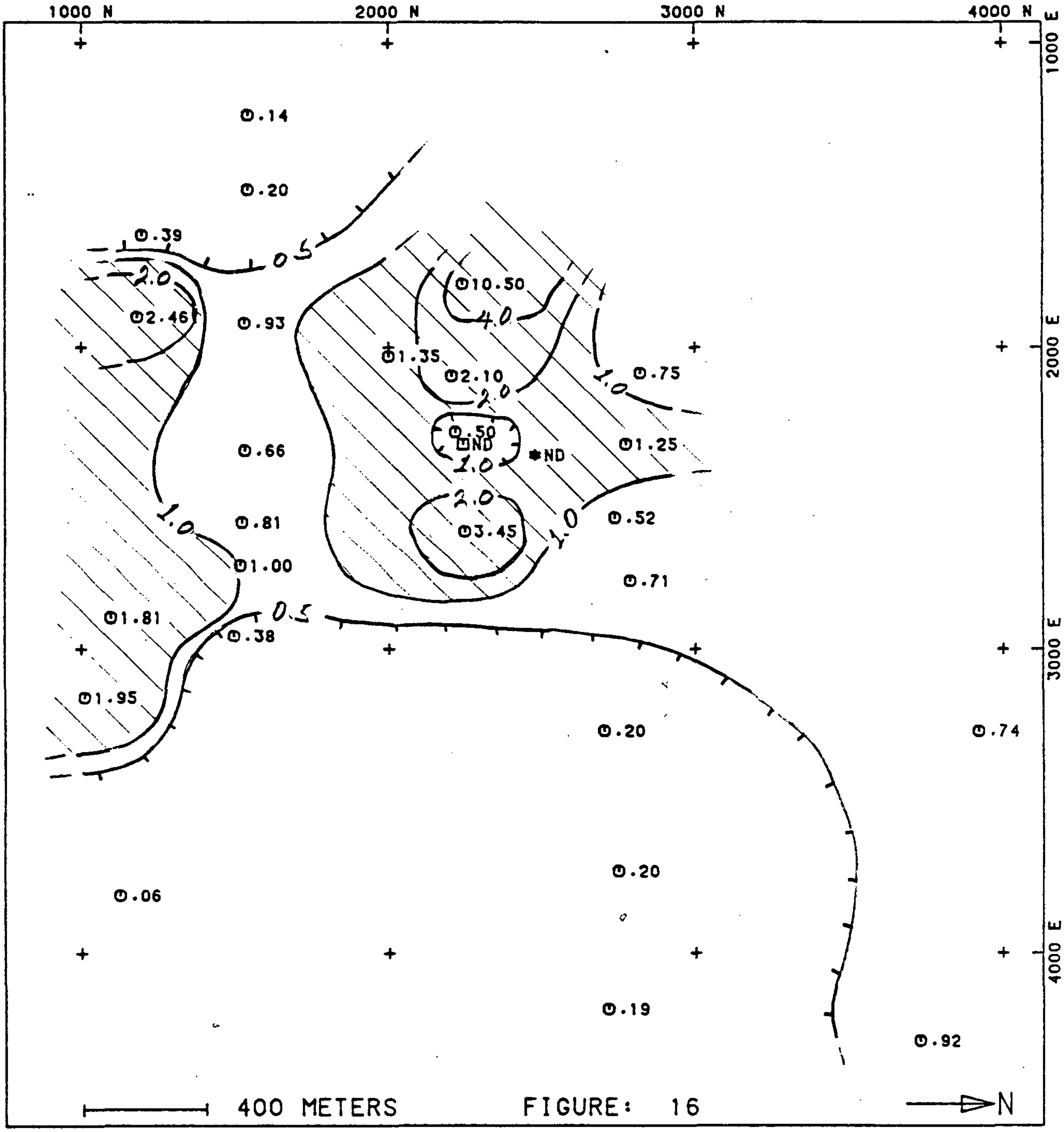


FIGURE: 16

ANDREW BAY PROSPECT
BRITISH COLUMBIA

+3.3 SP. GR. FRACTION (WT.%

SAMPLE TYPE: WHOLE ROCK
ANALYTICAL METHOD:
- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH

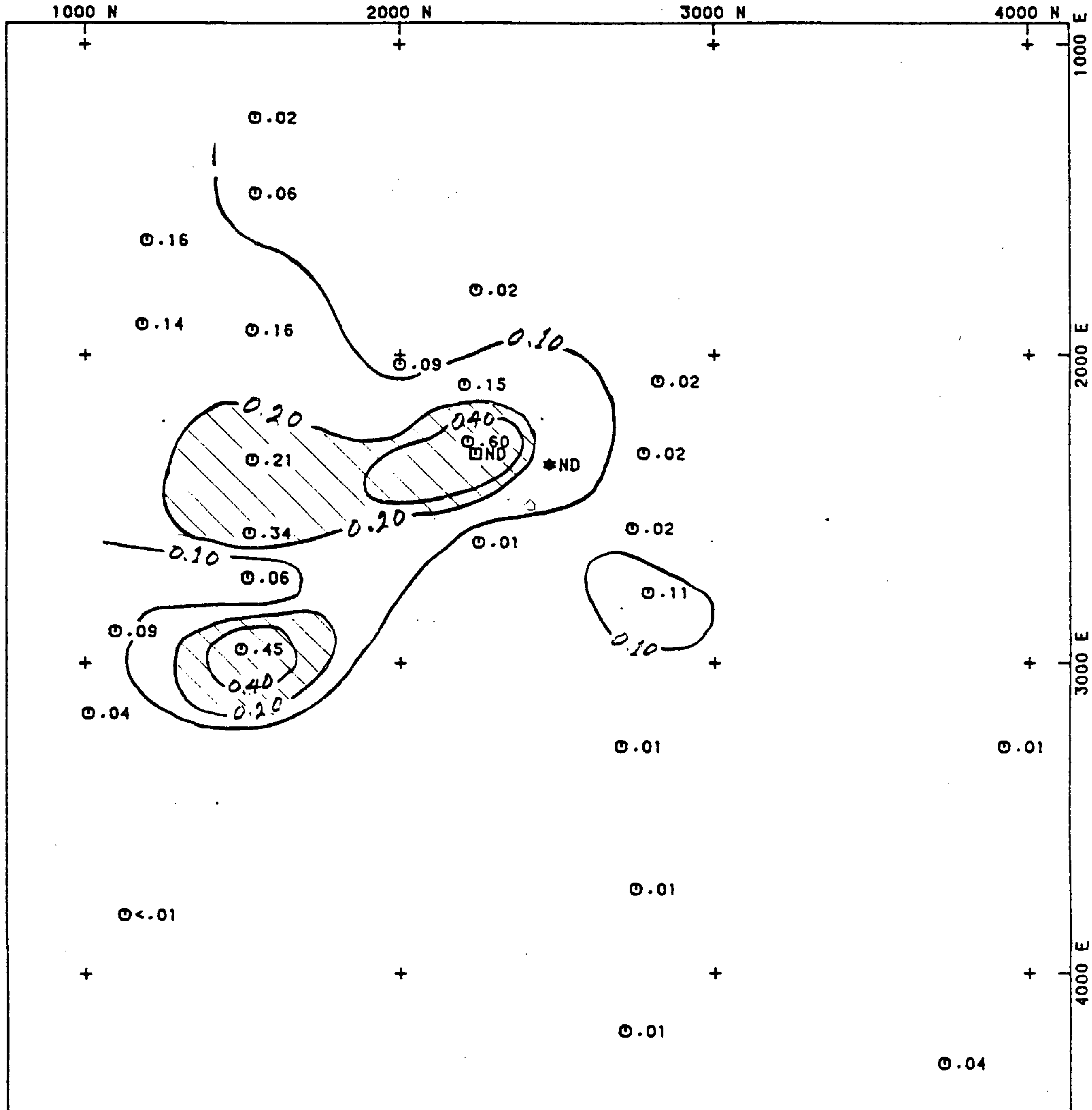


FIGURE: 17

ANDREW BAY PROSPECT
BRITISH COLUMBIA

MAGNETIC FRACTION (WT. %)

SAMPLE TYPE: WHOLE ROCK
ANALYTICAL METHOD:

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ● = DIAMOND DRILL HOLE
- ⊡ = TRENCH

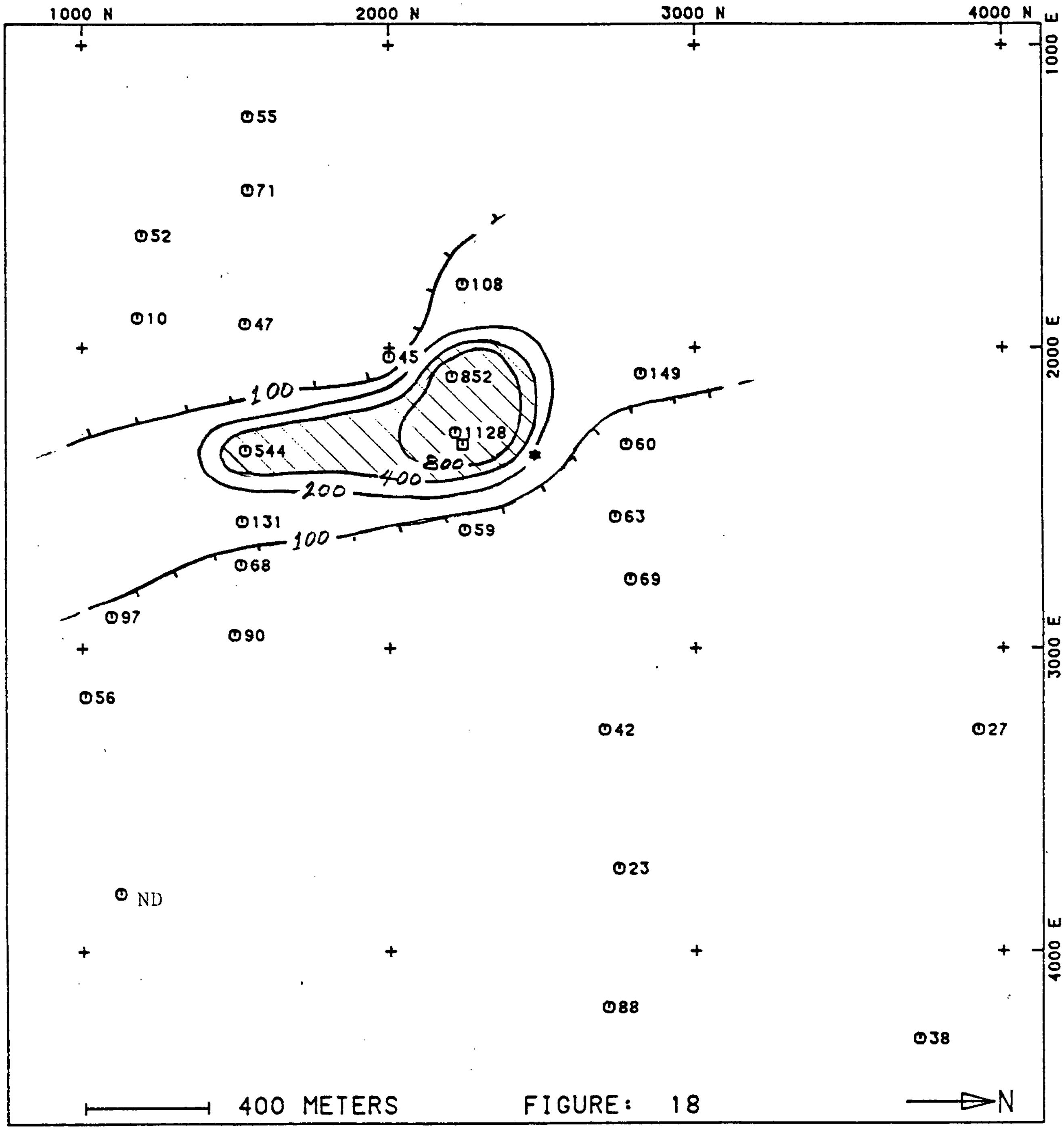


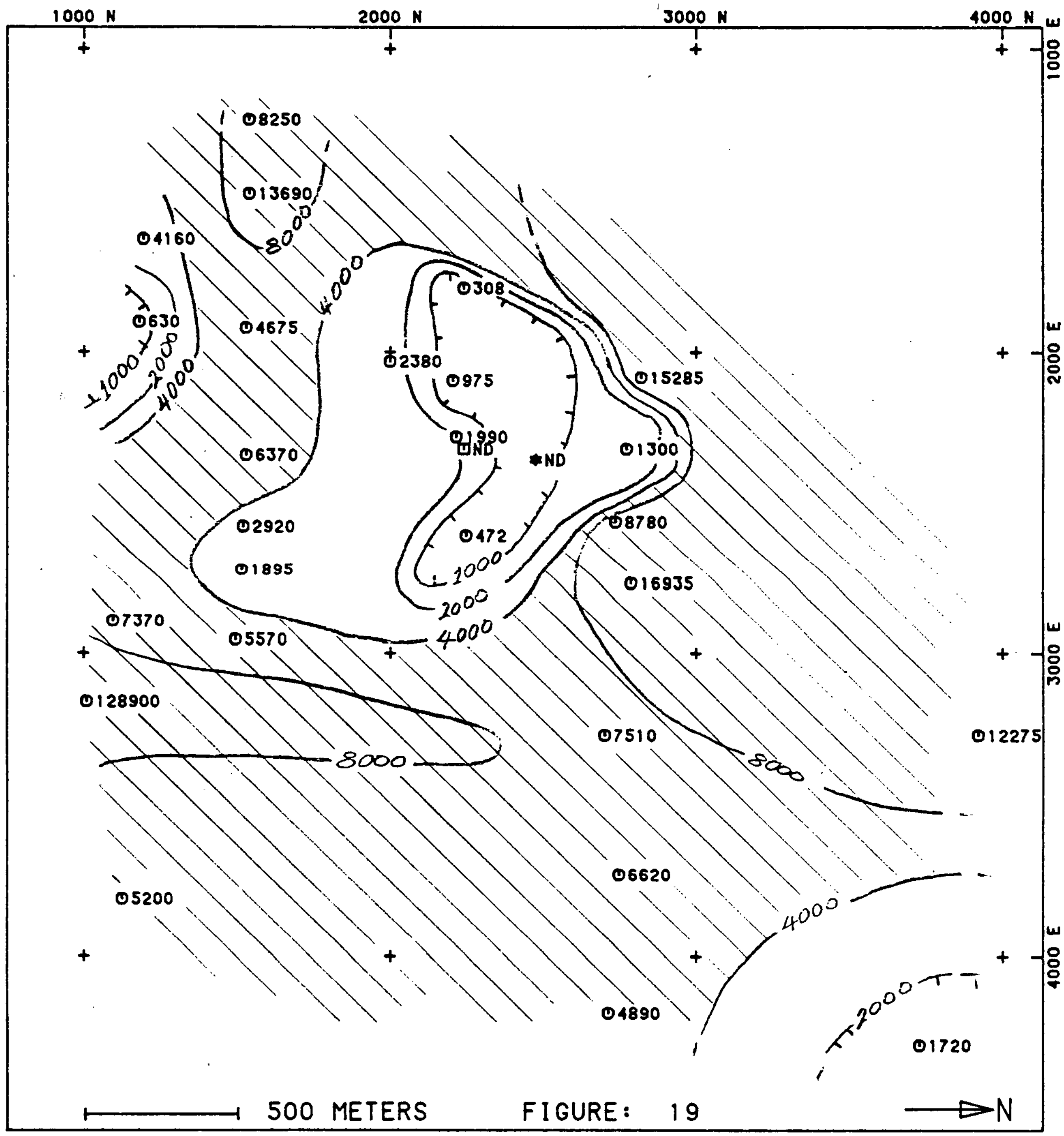
FIGURE: 18

ANDREW BAY PROSPECT
BRITISH COLUMBIA

CENTRAL-ZONE PARAMETER

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS & OES

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



ANDREW BAY PROSPECT
BRITISH COLUMBIA

HALO-ZONE PARAMETER

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS & COLORIMETRIC

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- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH

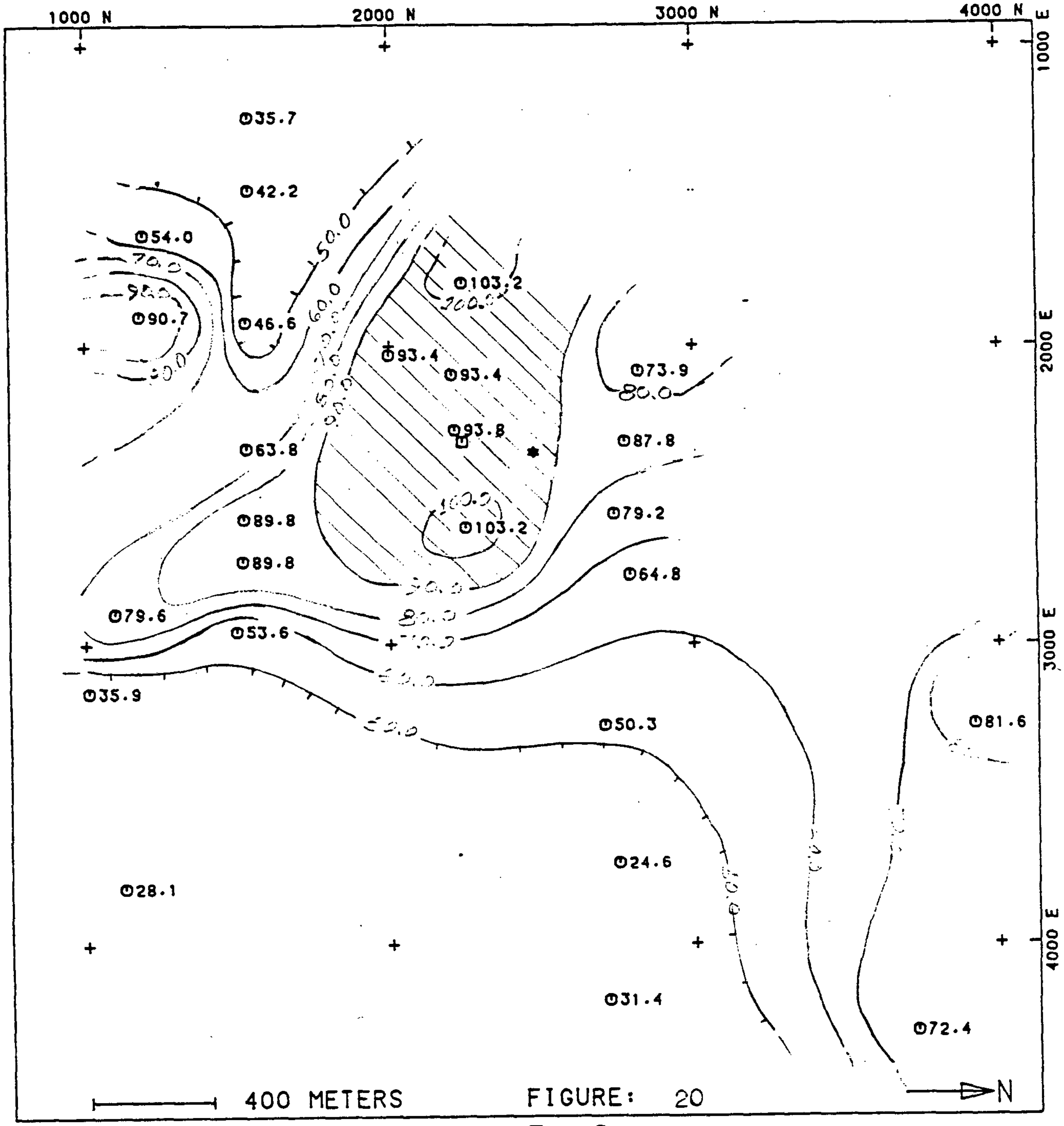
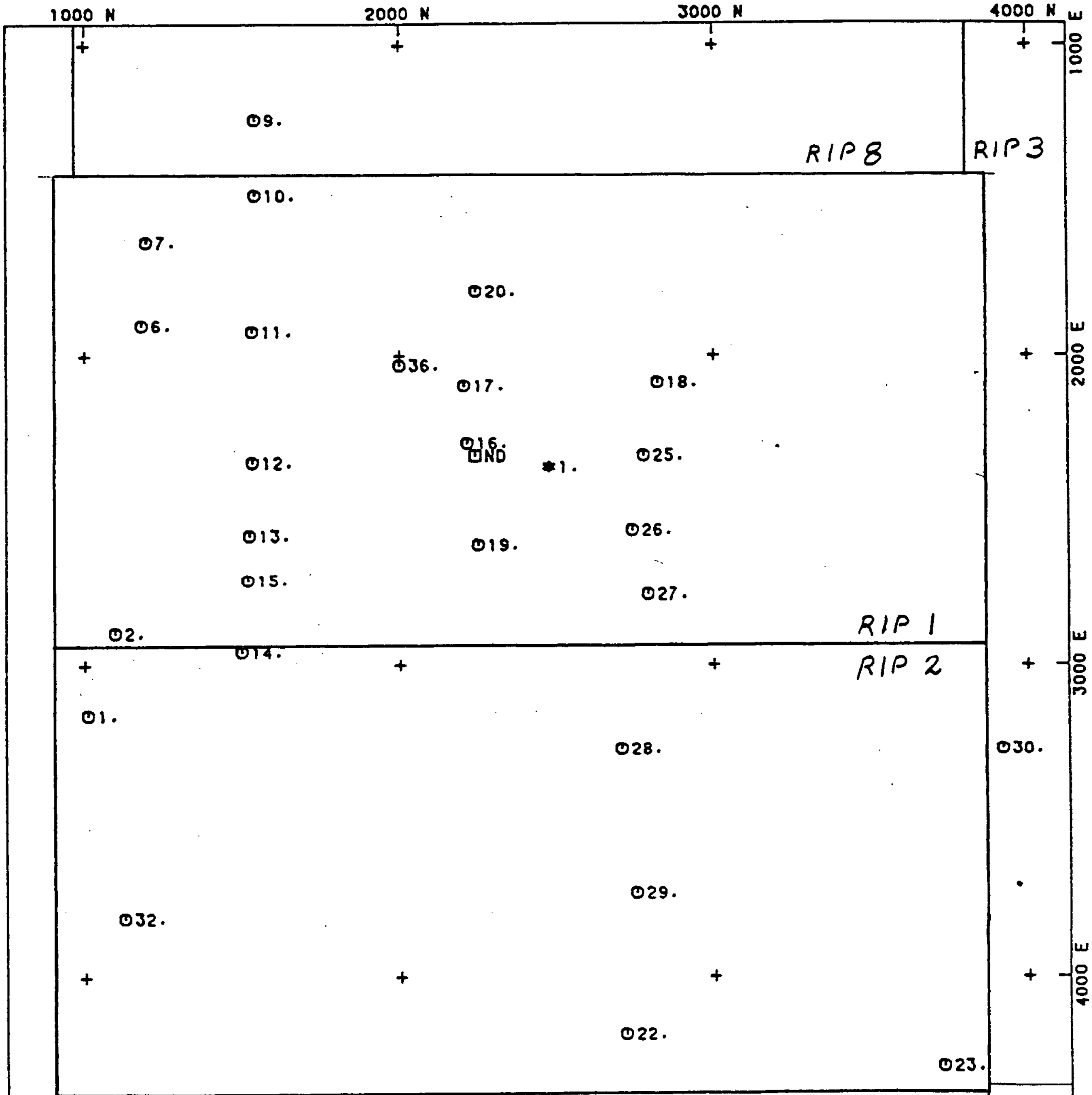


FIGURE: 20

ANDREW BAY PROSPECT
BRITISH COLUMBIA

Fe+S

SAMPLE TYPE: +3.3 SP. GR.
ANALYTICAL METHOD: AAS & LECO INDUCTION FURNACE
- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH



400 METERS

FIGURE: 21

N

ANDREW BAY PROSPECT
BRITISH COLUMBIA

DRILL HOLE NUMBERS

SAMPLE TYPE:
ANALYTICAL METHOD:

- ⊙ = PERCUSSION DRILL HOLE SAMPLES
- ✱ = DIAMOND DRILL HOLE
- ⊡ = TRENCH

APPENDIX A

Geochemical Data Statistics

TABLE A-1. SIMPLE STATISTICS FOR PERCUSSION-HOLE GEOCHEMICAL DATA

ANDREW BAY PROSPECT
BRITISH COLUMBIA

Rcd #	Description	# Pts	Minimum	Maximum	Mean	Variance	Std. Deviation
9	COPPER (PPM)	26	32.000	7200.0	1152.4	.28995+007	1702.8
10	MOLYBDENUM (PPM)	26	5.0000	6100.0	348.85	.14614+007	1208.9
11	LEAD (PPM)	26	40.000	3500.0	457.12	.78855+006	888.00
12	ZINC (PPM)	26	145.00	19400.	3930.4	.23397+008	4837.0
13	SILVER (PPM)	26	1.0000	21.000	7.7308	31.565	5.6182
14	ARSENIC (PPM)	26	25.000	2700.0	650.38	.57982+006	761.46
15	ANTIMONY (PPM)	26	1.0000	12.000	2.3077	7.8215	2.7967
16	MANGANESE (PPM)	26	52.000	.10400+006	5387.9	.40556+009	20139.
17	COBALT (PPM)	26	25.000	630.00	270.38	34636.	186.11
18	IRON (%)	26	16.100	70.000	43.304	271.11	16.465
19	SULFUR (%)	26	2.4000	42.000	24.496	151.12	12.293
20	BISMUTH (PPM)	25	.50000	20.000	4.3600	29.282	5.4113
21	TELLURIUM (PPM)	25	5.0000	15.000	5.8000	7.6667	2.7689
22	TIN (PPM)	25	.50000	3.0000	.76000	.33583	.57951
23	TUNGSTEN (PPM)	25	5.0000	15.000	6.0800	7.0767	2.6602
7	+3.3 SP. GR. FRACTION (WT.%)	26	.60000-001	10.500	1.3142	4.1834	2.0453
8	% MAGNETIC FRACTION	26	.10000-001	.60000	.11000	.21688-001	.14727

TABLE A-2. SPEARMAN RANK CORRELATION MATRIX FOR PERCUSSION-HOLE GEOCHEMICAL DATA

*** Spearman Rank Correlation Matrix ***

ANDREW BAY PROSPECT
BRITISH COLUMBIA

Element	Cu	Mo	Pb	Zn	Ag	As	Sb	Mn	Co	Fe	S	Bi	Te	Sn	W	R 7	R 8
Cu	1.000	.627	.013	.102	.231	.054	.170	-.123	.598	-.011	.285	.284	.123	.179	.107	.002	.336
	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.000	.000	.473	.312	.128	.394	.295	.279	.001	.479	.078	.083	.283	.302	.309	.495	.045
Mo	.627	1.000	-.194	-.174	-.199	-.330	-.223	-.270	.197	.174	.292	-.317	-.354	.315	.330	-.110	.193
	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.000	.000	.328	.300	.335	.048	.137	.089	.332	.300	.072	.059	.040	.061	.052	.299	.327
Pb	.013	-.194	1.000	.795	.569	.588	.381	.466	.116	-.676	-.394	.458	.041	-.427	-.060	-.453	-.274
	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.473	.328	.000	.000	.001	.001	.026	.008	.290	.000	.022	.010	.420	.016	.386	.010	.087
Zn	.102	-.174	.795	1.000	.416	.589	.247	.499	.119	-.697	-.314	.340	-.102	-.209	-.167	-.437	-.140
	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.312	.300	.000	.000	.016	.001	.111	.005	.284	.000	.057	.046	.316	.159	.285	.012	.251
Ag	.231	-.199	.569	.416	1.000	.317	.440	.094	.540	-.316	.031	.652	.291	-.269	-.194	-.046	-.224
	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.128	.335	.001	.016	.000	.055	.012	.326	.002	.056	.438	.000	.077	.095	.322	.409	.135
As	.054	-.330	.588	.589	.317	1.000	.319	.533	.103	-.500	-.478	.486	-.031	-.116	-.263	-.308	.113
	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.394	.048	.001	.001	.055	.000	.054	.002	.310	.005	.007	.007	.440	.293	.101	.061	.294
Sb	.170	-.223	.381	.247	.440	.319	1.000	.256	.303	-.076	-.101	.428	.155	-.141	.008	-.048	.188
	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.295	.137	.026	.111	.012	.054	.000	.102	.064	.356	.315	.016	.267	.254	.483	.405	.320
Mn	-.123	-.270	.466	.499	.094	.533	.256	1.000	-.191	-.704	-.758	.115	-.102	-.217	.140	-.548	.022
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.279	.089	.008	.005	.326	.002	.102	.000	.323	.000	.000	.295	.316	.148	.256	.002	.456
Co	.598	.197	.116	.119	.540	.103	.303	-.191	1.000	.133	.470	.668	.143	-.083	.113	.139	.317
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.001	.332	.290	.284	.002	.310	.064	.323	.000	.263	.007	.000	.251	.348	.299	.252	.056
Fe	-.011	.174	-.676	-.697	-.316	-.500	-.076	-.704	.133	1.000	.621	-.184	.092	.292	.072	.686	.255
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.479	.300	.000	.000	.056	.005	.356	.000	.263	.000	.000	.309	.332	.076	.365	.000	.103
S	.285	.292	-.394	-.314	.031	-.478	-.101	-.758	.470	.621	1.000	.124	.143	-.037	-.004	.654	.096
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(25)	(25)	(25)	(25)	(26)	(26)
	.078	.072	.022	.057	.438	.007	.315	.000	.007	.000	.000	.280	.251	.428	.492	.000	.322
Bi	.284	-.317	.458	.340	.652	.486	.428	.115	.668	-.184	.124	1.000	.435	-.317	-.068	.046	.187
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)	(25)	(25)	(25)
	.083	.059	.010	.046	.000	.007	.016	.295	.000	.309	.280	.000	.014	.059	.373	.411	.314
Te	.123	-.354	.041	-.102	.291	-.031	.155	-.102	.143	.092	.143	.435	1.000	-.182	-.128	.246	-.052
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)	(25)	(25)
	.283	.040	.420	.316	.077	.440	.267	.316	.251	.332	.251	.014	.000	.306	.274	.118	.401
Sn	.179	.315	-.427	-.209	-.269	-.116	-.141	-.217	-.083	.292	-.037	-.317	-.182	1.000	.190	-.016	.501
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)	(25)
	.302	.061	.016	.159	.095	.293	.254	.148	.348	.076	.428	.059	.306	.000	.317	.469	.005
W	.107	.330	-.060	-.167	-.194	-.263	.008	.140	.113	.072	-.004	-.068	-.128	.190	1.000	-.024	.318
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)
	.309	.052	.386	.285	.322	.101	.483	.256	.298	.365	.492	.373	.274	.317	.000	.452	.059
R 7	.002	-.110	-.453	-.437	-.046	-.308	-.048	-.548	.139	.686	.654	.046	.246	-.016	-.024	1.000	.179
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(0)	(26)
	.495	.299	.010	.012	.409	.061	.405	.002	.252	.000	.000	.411	.118	.469	.452	.452	.307
R 8	.336	.193	-.274	-.140	-.224	.113	.188	.022	.317	.255	.096	.187	-.052	.501	.318	.179	1.000
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(0)
	.045	.327	.087	.251	.135	.294	.320	.456	.056	.103	.322	.314	.401	.005	.059	.307	.307

*** Correlation Coefficient / (# of data points) / Significance

R 7 = +3.3 SP. GR. FRACTION (WT.%)

R 8 = % MAGNETIC FRACTION

TABLE A-3. PEARSON PRODUCT-MOMENT CORRELATION MATRIX FOR PERCUSSION-HOLE GEOCHEMICAL DATA

*** Pearson Product-Moment Correlation Matrix ***

ANDREW BAY PROSPECT
BRITISH COLUMBIA

Element	Cu	Mo	Pb	Zn	Ag	As	Sb	Mn	Co	Fe	S	Bi	Te	Sn	W	R 7	R 8
Cu	1.000	.666	-.174	-.162	.051	-.016	-.087	-.090	.484	.188	.294	-.030	-.076	.781	.150	.010	.478
	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.000	.000	.300	.283	.400	.468	.337	.332	.006	.320	.070	.440	.359	.000	.259	.481	.006
Mo	.666	1.000	-.115	-.148	.095	-.087	-.063	-.073	.327	.186	.260	-.011	-.086	.889	-.038	-.057	.704
	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.000	.000	.291	.261	.324	.338	.378	.362	.049	.317	.099	.479	.342	.000	.426	.390	.000
Pb	-.174	-.115	1.000	.651	.501	.261	.102	.649	-.139	-.208	-.091	-.031	-.058	-.185	-.120	-.060	-.206
	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.300	.291	.000	.000	.004	.097	.313	.000	.253	.154	.331	.439	.389	.310	.288	.385	.156
Zn	-.162	-.148	.651	1.000	.550	.486	.046	.663	.098	-.406	-.182	.318	-.086	-.199	-.120	-.176	-.241
	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.283	.261	.000	.000	.002	.006	.410	.000	.320	.019	.312	.059	.343	.329	.287	.303	.117
Ag	.051	.095	.501	.550	1.000	.415	.230	.480	.360	-.311	.016	.588	.236	-.008	-.220	-.119	-.099
	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.400	.324	.004	.002	.000	.017	.129	.006	.034	.059	.467	.001	.127	.484	.146	.285	.318
As	-.016	-.087	.261	.486	.415	1.000	.004	.432	.067	-.395	-.335	.355	-.083	-.181	-.256	-.210	-.076
	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.468	.338	.097	.006	.017	.000	.490	.013	.372	.022	.045	.039	.347	.304	.107	.152	.356
Sb	-.087	-.063	.102	.046	.230	.004	1.000	.141	.165	.054	-.166	.377	.333	-.148	.404	-.081	.312
	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.337	.378	.313	.410	.129	.490	.000	.250	.287	.394	.289	.030	.050	.256	.022	.348	.059
Mn	-.090	-.073	.649	.663	.480	.432	.141	1.000	-.146	-.289	-.209	-.044	-.066	-.110	-.064	.039	-.094
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.332	.362	.000	.000	.006	.013	.250	.000	.258	.074	.153	.415	.376	.303	.379	.422	.325
Co	.484	.327	-.139	.098	.360	.067	.165	-.146	1.000	.235	.429	.481	.064	.277	.141	-.090	.424
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.006	.049	.253	.320	.034	.372	.287	.258	.000	.123	.014	.007	.380	.089	.254	.333	.015
Fe	.188	.186	-.208	-.406	-.311	-.395	.054	-.289	.235	1.000	.493	-.015	.143	.258	.094	.395	.267
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(26)	(25)	(25)	(25)	(25)	(26)	(26)
	.320	.317	.154	.019	.059	.022	.394	.074	.123	.000	.005	.470	.251	.105	.329	.022	.092
S	.294	.260	-.091	-.182	.016	-.335	-.166	-.209	.429	.493	1.000	.116	.167	.166	-.129	.479	.061
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(0)	(25)	(25)	(25)	(25)	(26)	(26)
	.070	.099	.331	.312	.467	.045	.289	.153	.014	.005	.000	.294	.285	.283	.273	.006	.382
Bi	-.030	-.011	-.031	.318	.588	.355	.377	-.044	.481	-.015	.116	1.000	.592	-.144	-.127	-.111	.034
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)	(25)	(25)	(25)
	.440	.479	.439	.059	.001	.039	.030	.415	.007	.470	.294	.000	.001	.251	.277	.301	.434
Te	-.076	-.086	-.058	-.086	.236	-.083	.333	-.066	.064	.143	.167	.592	1.000	-.135	-.122	.024	-.119
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)	(25)	(25)
	.359	.342	.389	.343	.127	.347	.050	.376	.380	.251	.285	.001	.000	.263	.284	.453	.288
Sn	.781	.889	-.185	-.199	-.008	-.181	-.148	-.110	.277	.258	.166	-.144	-.135	1.000	.081	-.075	.623
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)	(25)
	.000	.000	.310	.329	.484	.304	.256	.303	.089	.105	.283	.251	.263	.000	.352	.361	.000
W	.150	-.038	-.120	-.120	-.220	-.256	.404	-.064	.141	.094	-.129	-.127	-.122	.081	1.000	-.091	.326
	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(0)	(25)	(25)
	.259	.426	.288	.287	.146	.107	.022	.379	.254	.329	.273	.277	.284	.352	.000	.334	.054
R 7	.010	-.057	-.060	-.176	-.119	-.210	-.081	.039	-.090	.395	.479	-.111	.024	-.075	-.091	1.000	-.152
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(0)	(26)
	.481	.390	.385	.303	.285	.152	.348	.422	.333	.022	.006	.301	.453	.361	.334	.334	.267
R 8	.478	.704	-.206	-.241	-.099	-.076	.312	-.094	.424	.267	.061	.034	-.119	.623	.326	-.152	1.000
	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(26)	(25)	(25)	(25)	(25)	(26)	(0)
	.006	.000	.156	.117	.318	.356	.059	.325	.015	.092	.382	.434	.288	.000	.054	.267	.267

*** Correlation Coefficient / (# of data points) / Significance

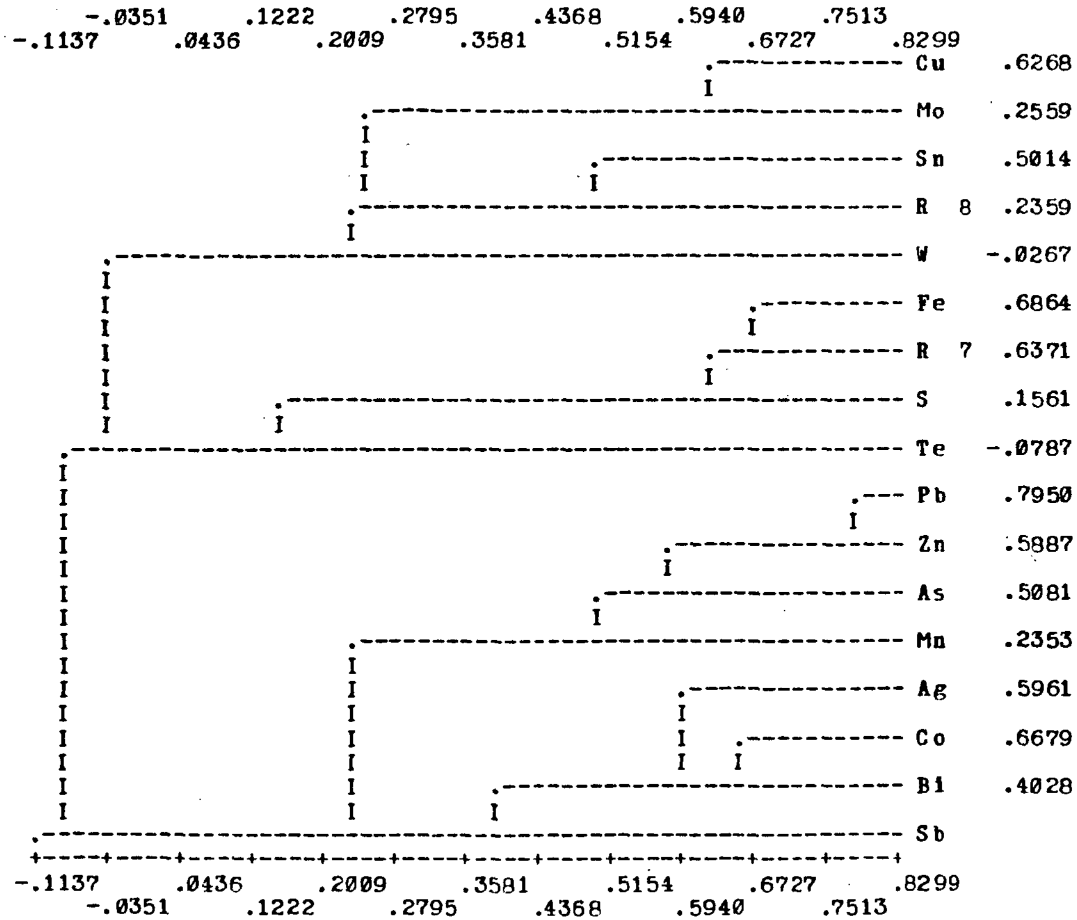
R 7 = +3.3 SP. GR. FRACTION (WT.%)

R 8 = % MAGNETIC FRACTION

FIGURE A-1. SPEARMAN RANK CLUSTER ANALYSIS FOR PERCUSSION-HOLE GEOCHEMICAL DATA

*** Spearman Rank Cluster Analysis ***

ANDREW BAY PROSPECT
BRITISH COLUMBIA



DENDROGRAM - VALUES ALONG X-AXIS ARE SIMILARITIES

R 7 = +3.3 SP. GR. FRACTION (WT.%)

R 8 = % MAGNETIC FRACTION

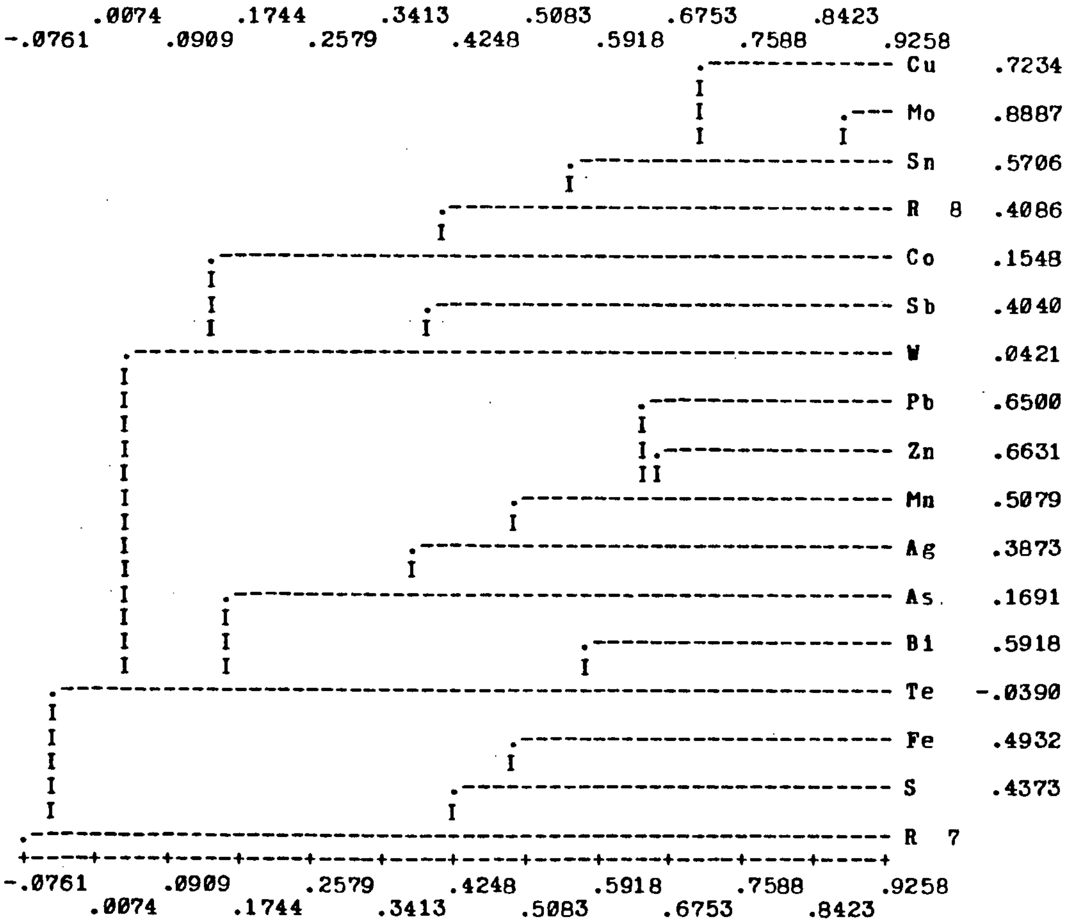
Cu	Mo	.62680
Pb	Zn	.79500
Co	Bi	.66790
Fe	R 7	.68642
Sn	R 8	.50143
Pb	As	.58873
Ag	Co	.59613
Fe	S	.63715
Cu	Sn	.25587
Pb	Mn	.50811
Ag	Sb	.40277
Cu	W	.23592
Pb	Ag	.23531
Fe	Te	.15607
Cu	Fe	-.02666
Cu	Pb	-.07874

Columns 1 and 2 - Observations combined into clusters
Column 3 - Similarity level of clustering

FIGURE A-2. PEARSON PRODUCT-MOMENT CLUSTER ANALYSIS FOR PERCUSSION-HOLE GEOCHEMICAL DATA

*** Pearson Product-Moment Cluster Analysis ***

ANDREW BAY PROSPECT
BRITISH COLUMBIA



DENDROGRAM - VALUES ALONG X-AXIS ARE SIMILARITIES

R 7 = +3.3 SP. GR. FRACTION (WT.%)

R 8 = % MAGNETIC FRACTION

Mo	Sn	.88868
Zn	Mn	.66308
Sb	W	.40396
Fe	S	.49316
Bi	Te	.59178
Cu	Mo	.72339
Pb	Zn	.65000
Fe	R 7	.43730
Cu	R 8	.57061
Pb	Ag	.50789
Cu	Co	.40864
Pb	As	.38725
Cu	Sb	.15475
Pb	Bi	.16910
Cu	Pb	.04213
Cu	Fe	-.03900

Columns 1 and 2 - Observations combined into clusters
Column 3 - Similarity level of clustering

APPENDIX B

Original Geochemical Data

WEST JORDAN OFFICE

ROCKY MOUNTAIN GEOCHEMICAL CORP.

1323 W. 7900 SOUTH • WEST JORDAN, UTAH 84084 • PHONE: (801) 255-3558

Certificate of Analysis

RMGC Numbers:

Local Job No.: 80-35-36-SL

Foreign Job No.:

Invoice No. M 102703

Date: January 5, 1981

Client: Robert W. Bamford
1138 Gilmer Drive
Salt Lake City, Utah 84105

Client Order No.: none

Report On: 26 Composite Samples

Submitted by: Robert W. Bamford

Date Received: 10/31/80

Analysis: Heavy Mineral Separation, Sulfur, Copper, Lead, Zinc, Cobalt, Molybdenum, Manganese, Iron, Silver, Antimony and Arsenic.

Analytical Methods: Sulfur determined by leco induction furnace. Arsenic determined colormetrically. Remaining elements determined by atomic absorption.

Remarks:

cc: enc.
file (2)
GJC/lw

Client Robert W. Bamford Date 1/5/81 RMGC Job No. 80-35-36-SL

	MRG-1		SY-2		GRLD-105	
	Lit Value	Found	Lit Value	Found	Lit Value	Found
COPPER	135	118	5	6	0.726%	0.721%
LEAD	10	40	80	100	37	40
ZINC	190	134	250	185	48	38
MOLYBDENUM	-1	-1	3	-1	344	280
MANGANESE	0.131%	0.149%	0.248%	0.240%	105	100
IRON	12.4%	11.0%	4.39%	4.01%	2.90%	2.71%
COBALT	86	90	11	15	24	15
SILVER	-1	-2	-1	-2	3	4
ANTIMONY	-1	-1	-1	-1	-1	-1
ARSENIC	-1	-5	18	20	26	35

Client Robert W. Bamford Date 1/5/81 RMGC Job No. 80-35-36-SL

Sample No.	Wt +3.3 gr.	Wt % +3.3	Wt Mag. gr.	Wt % Mag.	Sample Wt Separated gr.
ABPH- 1/115-210	1.56	1.95	0.03	0.04	80
2/130-230	1.45	1.81	0.07	0.09	80
6/230-282	1.97	2.46	0.11	0.14	80
7/190-290	0.31	0.39	0.13	0.16	80
9/ 70-170	0.11	0.14	0.02	0.02	80
10/172-270	0.16	0.20	0.05	0.06	80
11/190-200	0.51	0.93	0.09	0.16	55
12/250-270	0.53	0.66	0.17	0.21	80
13/153-250	0.65	0.81	0.27	0.34	80
14/ 60-160	0.30	0.38	0.36	0.45	80
15/165-260	0.80	1.00	0.05	0.06	80
16/ 9-110	0.40	0.50	0.48	0.60	80
17/ 88-190	1.68	2.10	0.12	0.15	80
18/ 57-160	0.60	0.75	0.02	0.02	80
19/ 63-160	2.76	3.45	0.01	0.01	80
20/137-240	8.42	10.5	0.02	0.02	80
22/ 77-180	0.15	0.19	0.01	0.01	80
23/ 20-120	0.74	0.92	0.03	0.04	80
25/ 41-140	1.00	1.25	0.02	0.02	80
26/ 37-140	0.42	0.52	0.02	0.02	80
27/ 42-140	0.57	0.71	0.09	0.11	80
28/ 57-160	0.16	0.20	0.01	0.01	80
29/ 75-170	0.16	0.20	0.01	0.01	80
30/ 20-120	0.59	0.74	0.01	0.01	80
32/ 74-170	0.05	0.06	-0.01	-0.01	80
ABPH-36/180-230	1.08	1.35	0.07	0.09	80

ROCKY MOUNTAIN GEOCHEMICAL CORP.
SALT LAKE CITY, UTAH • RENO NEVADA • TUCSON ARIZONA

Client Robert W. Bamford Date 1/5/81 RMGC Job No. 80-35-36-SL

Sample No.	gr. Sample Wt Analyzed	ppm Copper	ppm Lead	ppm Zinc	ppm Molybdenum
ABPH- 1/115-210	0.2000	500	0.33%	1.94%	-5
2/130-230	0.2000	915	490	0.49%	-5
6/230-282	0.2000	32	40	325	-5
7/190-290	0.2000	455	65	0.12%	10
9/ 70-170	0.0800	470	190	0.56%	25
10/172-270	0.1000	580	290	1.08%	20
11/190-200	0.2000	415	125	0.25%	-5
12/250-270	0.2000	0.44%	170	0.20%	985
13/153-250	0.2000	0.11%	85	0.14%	160
14/ 60-160	0.2000	725	320	0.10%	20
15/165-260	0.2000	610	165	960	15
16/ 9-110	0.2000	0.51%	100	0.15%	0.61%
17/ 88-190	0.2000	0.72%	40	670	0.12%
18/ 57-160	0.2000	0.14%	485	1.13%	40
19/ 63-160	0.2000	525	40	325	15
20/137-240	0.2000	860	70	145	170
22/ 77-180	0.1000	780	120	0.20%	50
23/ 20-120	0.2000	310	70	165	10
25/ 41-140	0.2000	540	70	190	-5
26/ 37-140	0.2000	570	160	0.68%	10
27/ 42-140	0.2000	630	335	1.22%	-5
28/ 57-160	0.1000	365	860	0.37%	-10
29/ 75-170	0.1000	170	220	0.14%	-10
30/ 20-120	0.2000	200	0.35%	0.81%	20
32/ 74-170	0.0400	840	500	0.34%	125
ABPH-36/180-230	0.2000	270	75	210	55

Client Robert W. Bamford Date 1/5/81 RMGC Job No. 80-35-36-SL

Sample No.	ppm Manganese	% Iron	ppm Cobalt	ppm Silver
ABPH- 1/115-210	10.4%	21.9	140	21
2/130-230	0.12%	48.8	285	14
6/230-282	240	57.5	170	4
7/190-290	0.26%	50.0	75	4
9/ 70-170	0.23%	19.2	40	-4
10/172-270	0.22%	27.0	100	-3
11/190-200	0.14%	24.2	135	4
12/250-270	0.22%	43.8	220	4
13/153-250	655	53.8	560	4
14/ 60-160	0.40%	48.8	420	5
15/165-260	530	53.8	255	6
16/ 9-110	135	56.2	510	11
17/ 88-190	210	53.8	620	8
18/ 57-160	0.22%	47.5	495	14
19/ 63-160	52	61.2	130	4
20/137-240	58	61.2	185	4
22/ 77-180	0.26%	17.4	130	5
23/ 20-120	835	70.0	25	2
25/ 41-140	910	55.0	340	9
26/ 37-140	0.15%	50.0	520	5
27/ 42-140	0.24%	38.8	630	16
28/ 57-160	0.20%	24.7	370	17
29/ 75-170	0.23%	16.6	110	7
30/ 20-120	460	51.2	165	9
32/ 74-170	0.11%	16.1	220	18
ABPH-36/180-230	0.20%	57.4	180	4

Client Robert W. Bamford Date 1/5/81 RMGC Job No. 80-35-36-SL

Sample No.	ppm Arsenic	ppm Antimony	% Sulfur
ABPH- 1/115-210	0.22%	4	14.0
2/130-230	0.078%	10	30.8
6/230-282	25	-1	33.2
7/190-290	295	2	4.00
9/ 70-170	160	-2	16.5
10/172-270	0.040%	-2	15.2
11/190-200	0.065%	-1	22.4
12/250-270	0.20%	-1	20.0
13/153-250	0.078%	-1	36.0
14/ 60-160	250	12	4.80
15/165-260	240	5	36.0
16/ 9-110	255	2	37.6
17/ 88-190	55	-1	39.6
18/ 57-160	0.13%	2	26.4
19/ 63-160	55	-1	42.0
20/137-240	35	-1	42.0
22/ 77-180	170	-2	14.0
23/ 20-120	0.065%	-1	2.40
25/ 41-140	130	-1	32.8
26/ 37-140	0.032%	2	29.2
27/ 42-140	0.20%	-1	26.0
28/ 57-160	0.095%	4	25.6
29/ 75-170	0.27%	-2	8.00
30/ 20-120	215	-1	30.4
32/ 74-170	200	-5	12.0
BPH-36/180-230	95	-1	36.0

ROCKY MOUNTAIN GEOCHEMICAL CORP.
SALT LAKE CITY, UTAH · RENO NEVADA · TUCSON ARIZONA

By Jim Cardwell
Jim Cardwell

Coors / SPECTRO-CHEMICAL LABORATORY
DIVISION OF COORS PORCELAIN COMPANY
GOLDEN, COLORADO, U.S.A.
303-278-4000 Ext. 2302

Mailing Address:
P.O. Box 500
Golden, Colorado 80401

Analytical Report

CI-1317-A

TO: Robert W. Bamford
1138 Gilmer Drive
Salt Lake City, UT 84105

LABORATORY NUMBER	96309
DATE	2-5-81
CUSTOMER ORDER NO.	

ABPH Con's

Sample No.	Bismuth (ppm)	Tin (ppm)	Tellurium (ppm)	Tungsten (ppm)
1	3	< 1	< 10	< 10
2	20	< 1	15	< 10
6	1	1	< 10	< 10
7	< 1	1	< 10	< 10
9	< 1	< 1	< 10	< 10
10	1	1	< 10	10
11	5	< 1	< 10	< 10
12	4	1	< 10	< 10
13	2	< 1	< 10	< 10
14	5	< 1	< 10	15
15	2	< 1	< 10	< 10
16	5	3	< 10	< 10
17	1	2	< 10	10
18	10	< 1	< 10	< 10
19	1	< 1	< 10	< 10
20	1	< 1	< 10	< 10
22	< 1	< 1	< 10	< 10
23	< 1	1	< 10	< 10
25	10	< 1	15	< 10
26	5	< 1	< 10	< 10
27	20	< 1	< 10	< 10
28	5	< 1	< 10	< 10
29	3	< 1	< 10	< 10
30	1	< 1	< 10	< 10
36	2	< 1	< 10	12

< = Less than

Coors / SPECTRO-CHEMICAL LABORATORY

BY ______________
LABORATORY MANAGER

DISTRIBUTION: WHITE & PINK – Customer; GREEN – Numerical Files; CANARY – Customer Files

ITEMIZED COST STATEMENT

A. Consultants Expenditures (January 6, 1981 - April 8, 1981)

Consulting, Report Writing	5.44 days @ $479/day	$ 2,176
Geological Assistant	3.73 days @ $210/day	782
Data Processing, Computer Charges		1,714
Miscellaneous		215
Analyses		2,151
	SUBTOTAL	$ 7,038

B. Company Expenditures

1 day writing and typing (May 8)		$ 120
	TOTAL	$ 7,158

SYSTEMATIC · COST-EFFECTIVE · RESOURCE DISCOVERY
Applications and Technique Development

& attach this to invoice copies

Robert W. Bamford
Geologist/Geochemist

Consulting (hours worked per day) for SMDC on Whiting Creek and Andrew Bay geochemical surveys.

Date	Whiting Creek	Andrew Bay
Nov. 20, 1980	1.0 hrs.	
Dec. 4	2.5	
Dec. 10	1.0	
Jan. 6		2.0
Feb. 5		1.0
Feb. 9		1.0
Feb. 10		2.0
Feb. 11	1.5	
Feb. 23	0.5	
Mar. 5	1.5	
Mar. 6	2.0	
Mar. 6 invoice (#131)	10.0 hrs. = 1.25 days	6.5 hrs. = 0.81 days
Mar. 9	4.0 hrs.	
Mar. 10	5.0	
Mar. 11	4.5	
Mar. 12	5.0	
Mar. 13	6.5	
Mar. 14	2.0	
Mar. 16	4.0	
Mar. 17	6.5	
Mar. 18	4.0	
Mar. 19	7.0	
Mar. 20	8.0	
Mar. 23	6.0	
Mar. 24	6.5	
Mar. 25	11.0	
Mar. 26	3.5	1.5
Mar. 27	8.0	
Mar. 28	1.0	0.5
Mar. 29	4.5	
Mar. 30	8.0	1.0
Mar. 31 invoice (#132)	105.0 hrs. = 13.13 days (Charged 10.38 days)	3.0 hrs. = 0.38 days
Apr. 1		6.5 hrs.
Apr. 2		7.0
Apr. 3		4.0
Apr. 4		7.0
Apr. 6		5.0
Apr. 7		2.0
Apr. 8		2.5
Apr. 8 invoice (#135)		34.0 hrs. = 4.25 days

1138 Gilmer Drive, Salt Lake City, Utah 84105 / Telephone (801) 583-3366

Robert W. Bamford

1138 Gilmer Drive, Salt Lake City, Utah 84105

Ph.D., Geology (Economic Geology and Geochemistry), Stanford University, 1970, and B.Sc., Chemical Engineering, University of Washington, 1959.

Consultant in resource exploration, 1977 through present.

Project Manager, Geochemical Research, Earth Science Laboratory, University of Utah Research Institute, 1977 through 1979.

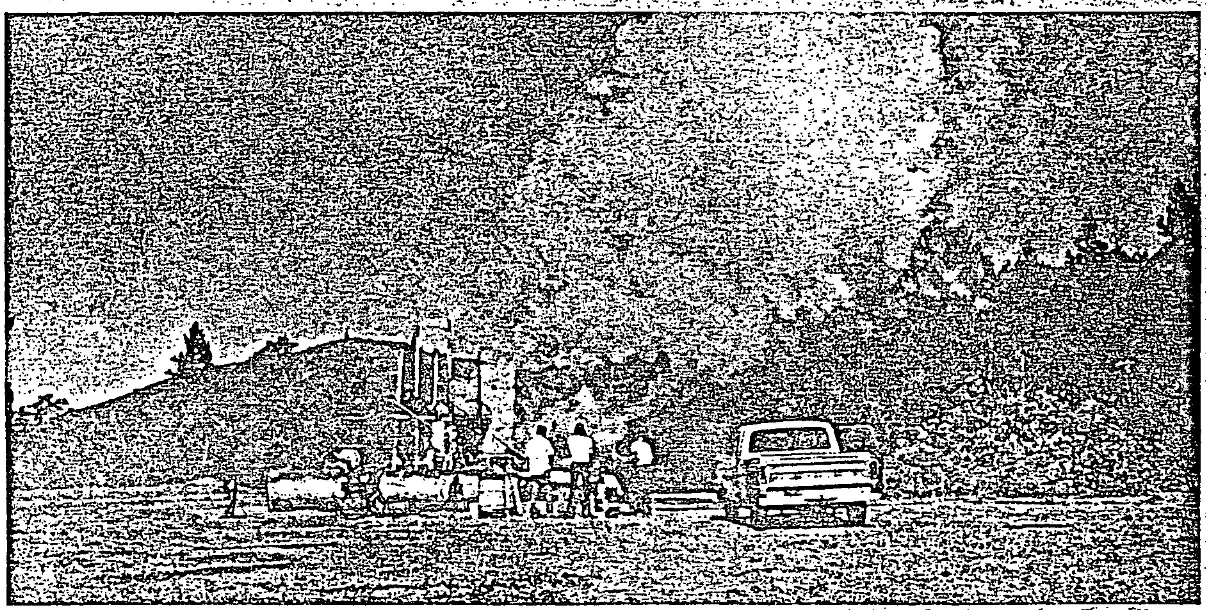
Project Manager, Sulfide System Research, Kennecott Exploration Services, 1974 through 1976.

Technical advisor to Kennecott's exploration programs in the Southwest Pacific area, 1972 and 1973.

Chief Site Geologist, Kennecott (Australia) Ok Tedi Project, Papua New Guinea, 1971.

Exploration/research geologist, Kennecott Exploration Services, 1970.

Member SEG, GRC, AEG, GSA, MSA, and AIME.



I, ROBERT M. CANN, of the City of Vancouver, Province of British Columbia, hereby certify:

1. That I am a geologist residing at 4647 W. 15th Avenue, Vancouver, B.C.

2. That I am a graduate of the University of British Columbia with a B.Sc. degree in Geology in 1976 and a M.Sc. degree in Geology in 1979.

3. That I have practised my profession for six field seasons.

4. That I personally supervised the rock sampling on the WHIT Claims.

Signed ______________________

Date May 9, 1981