

26 February 1988

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FROM: G.S. WellsSUJET
SUBJECT: 1988 Drill Proposal - Mt. Sicker Projects PN 305, 326

827154

1. Introduction

Minnova has been exploring the Mt. Sicker property since 1983 in a quest to locate a volcanogenic massive sulphide deposit. This integrated program consisting of geological, lithogeochemical and geophysical surveys and diamond drilling (44 holes/11,693m) has laid the foundation for an aggressive 1988 drill program. Thirty-five (35) holes totalling 9,085 meters will test targets in the following areas: Lenora, Mona, Gap, Northeast Copper - MTS-32, Canamera, Nugget Creek Fault and Killer Gossan. Drill hole locations are plotted in plan on Figures 1 and 2. Details of the individual holes are given in Table 1, whereas a summary of the merits of each area is given below.

2. Lenora

The Lenora-Tyee deposits were discovered at the turn of the century and produced approximately 300,000 tons of ore at a grade of 3.31% Cu, 7.5% Zn, 2.75 oz/T Ag and 0.13 oz/T Au. The cigar-shaped ore bodies consist of 2 parallel, relatively flat-lying zones with dimensions of 30 meters by 450 to 600 meters. The northern-most zone dips steeply (60 - 65°) to the south and is truncated at depth against the Mine fault. The Southern zone occurs as sulphide lenses within the Mine fault. Surface stripping exposed the Southern zone, which consists of well-bedded chalcopyrite, pyrite and sphalerite set in a baritic matrix. Ten drill holes (3025m) will test the down-dip potential of the North Lenora horizon. Eight of these holes will also intersect the Mine fault, which hosts the Southern horizon.

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3. Mona

The 1987 diamond drill program discovered a pyritic exhalite and abundant pyrite-chalcopyrite stringer mineralization in the Mona area. Six holes (1360m) will test the down-dip potential of the exhalite and IP anomalies correlated with the strike extent of this horizon. In addition, 2 of the holes will test the stratigraphically lower Myra-Nitinat contact, which is thought to correlate with Westmin's H-W mine horizon.

4. Gap

Broad IP chargeability anomalies occurring in the Gap area are thought to correlate with the Myra-Nitinat contact. Three holes tested some of these anomalies in 1987, and 2 of them identified the contact at relatively shallow levels (< 100m). The contact zone is characterized by a pyritic (10 - 15%) and silicified ash which has anomalous copper contents (0.4% Cu over 2.1m). The underlying Nitinat formation is intensely altered to chlorite and carbonate. Further diamond drilling (5 holes/1630m) will continue to test this broad IP anomaly and the Myra-Nitinat contact using a fairly wide drill hole spacing (300m).

5. Northeast Copper - MTS-32

The Northeast Copper showing area is characterized by a wide zone of copper enrichment with related Ba, Na₂O and Zn anomalies. A strong Dighem anomaly and a weak to moderate Deepem anomaly are associated with cherty horizons which are present in the area. Detailed mapping has also outlined a Q(F)P rhyolite flow which occurs in the eastern part of the showing area. The only other rhyolite flows identified on the Mt. Sicker property occur in the Lenora-Tyee area and are intimately associated with the massive sulphide ore bodies. Four holes (660m) are proposed to evaluate this excellent target.

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Northeast Copper - MTS-32 (continued)

The MTS-32 area occurs 800 to 1000 meters west of the Northeast Copper showing. The rhyolite flow identified here is correlated with the one in the NE Copper area. Two drill holes (240m) will test strong IP chargeability anomalies and an intense barium enrichment associated with this flow.

6. Canamera

The Canamera property, located on the western side of Mt. Sicker, was acquired to cover the strike extent of Abermin's Lara discovery where geological ore reserves have been estimated at 923,000 tons grading 3.59% Zn, 0.61% Cu, 0.81% Pb, 2.61 oz/T Ag and 0.095 oz/T Au. Detailed mapping and 6 diamond drill holes (892m) on the west side of the Chemainus River indicated that the rocks exposed there occur lower in the Sicker stratigraphy than those hosting Abermin's massive sulphide discovery. The Copper Canyon and Victoria showings are quartz-chalcopyrite stringer zones which are reflected by excellent IP chargeability anomalies. Four drill holes (870m) will test these geophysical targets and the projected intersection of this stringer zone and the Myra-Nitinat contact.

7. Nugget Creek Fault

The Nugget Creek fault has been interpreted as a paleo-structure which has acted as a conduit for mineralizing solutions. An intense sodium depletion halo and spotty copper and zinc enrichments are associated with the structure. Two holes (1000m) will test the volcanic stratigraphy including the postulated Myra-Nitinat contact in the immediate vicinity of the Nugget Creek Fault.

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8. Killer Gossan Area

The Killer Gossan area is located in the northeastern part of the Mt. Sicker property. Well-defined IP chargeability and HEM anomalies occur along a strike length of 1.1 km near the contact between felsic tuffs and feldspar-phyric intermediate tuffs. Geochemical anomalies are small and generally weak. Two holes (300m) are proposed to test the geophysical targets.

9. Proposed Schedule

The 1988 Mt. Sicker drill program has been divided into 2 parts - a spring phase starting around March 21st and a fall phase starting around October 15th. The spring phase consists of 29 holes (6855m) which will test the best targets on the property. The fall program comprised of 6 holes (2230m) will test targets in the Nugget Creek, Killer Gossan and Gap areas which, although they still have excellent technical merit, have been given a somewhat lower priority.

10. Budget

The estimated all-inclusive cost of the 2 phases of this drill program is \$682,600 or \$75.10 per meter.

Gary Wells.

Table 1: Proposed Drilling - Mt. Sicker Property - 1988

AREA	HOLE #	LINE	STATION	DIP	AZIMUTH	DEPTH	TARGET
<u>1. Lenora</u>	P-1	4 + 00E	8 + 50S	-65°	360°	220 m	holes P1 to P10 will test the down-dip potential of the Lenora horizon. Spacing between the holes is considered to be close enough to detect the typical, cigar-shaped Lenora-Tyee deposits. Proposed holes have been plotted on a vertical longitudinal section (Figure 3).
	P-2	4 + 00E	8 + 50S	-75°	360°	260 m	
	P-3	4 + 00E	9 + 50S	-60°	360°	350 m	
	P-4	4 + 00E	9 + 50S	-67°	360°	400 m	
	P-5	2 + 00E	9 + 00S	-55°	360°	250 m	
	P-6	2 + 00E	9 + 00S	-70°	360°	320 m	
	P-7	1 + 00E	8 + 90S	-65°	360°	300 m	
	P-8	1 + 00E	9 + 50S	-65°	360°	375 m	
	P-9	2 + 00W	8 + 45S	-65°	360°	250 m	
	P-10	2 + 00W	8 + 95S	-65°	360°	<u>300 m</u>	
				SUBTOTAL		3025 m	
<u>2. Mona</u>	P-11	10 + 00E	8 + 70S	-70°	015°	450 m 100 m	P-11 will test the Mona horizon 65 m up-dip of the MTS-38 intersection in the area of a well-defined Cu, Zn, Ba and Na ₂ O surface litho-geochemical anomaly and strong IP chargeability anomaly. The hole will also test the stratigraphy at depth.
	P-12	10 + 00E	10 + 10S	-70°	015°	150 m 450	P-12 will test the Mona horizon 70 m down-dip of the MTS-38 intersection.
	P-13	8 + 00E	6 + 55S	-75°	015°	350 m	P-13 will test an IP anomaly and coincident Cu, Zn, and Ba anomalies. The IP anomaly is thought to correlate with the up-dip projection of the Mona horizon. The hole will also test the Myra-Nitinat contact below an area that has abundant pyrite-chalcopyrite stringer mineralization as noted in MTS-43.
	P-14	8 + 00E	8 + 90S	-55°	015°	150 m	Holes P-14 to P-16 will test the down-dip potential of the Mona horizon intersected in MTS-43.
	P-15	8 + 00E	8 + 90S	-90°	015°	130 m	
	P-16	8 + 00E	9 + 55S	-75°	015°	<u>130 m</u>	
				SUBTOTAL		1360 m	

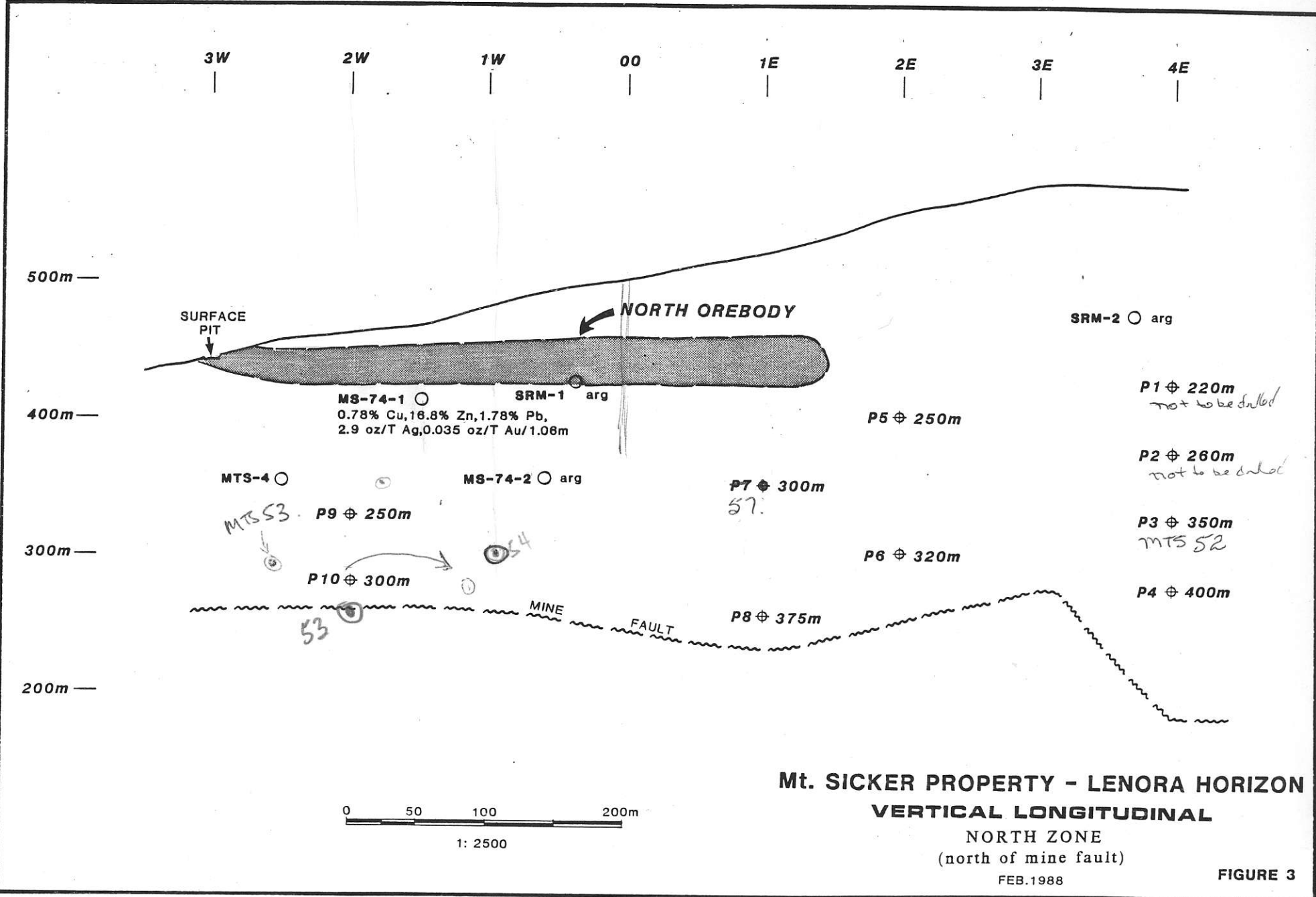
DND IF 15 in D10
D10?
DND IF 15 in D10

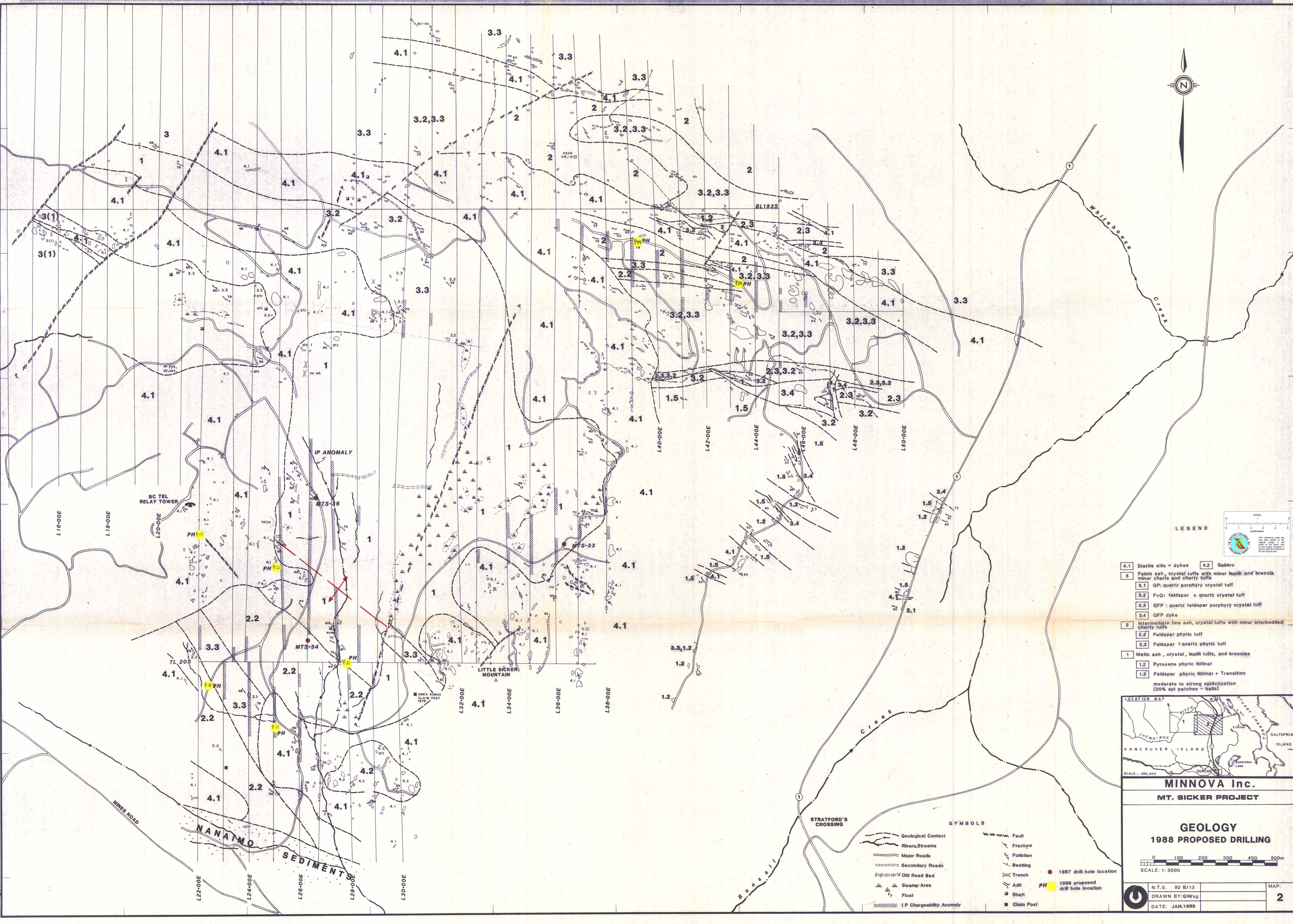
if all in d10 STOP

AREA	HOLE #	LINE	STATION	DIP	AZIMUTH	DEPTH	TARGET
<u>3. Gap</u> <i>moved to C18E CSAm-1</i>	P-17	22 + 00E	15 + 00S	-75°	045°	400 m	P-17 will test the Myra-Nitinat contact below the B.C. Tel diorite. The hole is located 300 m northwest of a coarse felsic fragmental.
	P-18	22 + 40E	21 + 15S	-70°	045°	400 m	F-18 will test a well-defined IP anomaly occurring at the contact between a QFP flow and an intermediate crystal tuff. The hole will be in an area of anomalous Cu. It will also test the Myra-Nitinat contact at depth.
MTS 46	P-19	25 + 10E	22 + 60S	-65°	045°	350 m	P-19 will test the same IP anomaly as P-18 but 325 m further towards the southeast. The hole will also test the Myra-Nitinat contact. <i>Felsic + mega.dio</i>
	P-20	25 + 00E	16 + 00S	-75°	045°	300 m	P-20 will test a broad IP anomaly and the Myra-Nitinat contact near the projected Mt. Sicker anticlinal axis.
MTS 45	P-21	28 + 05E	20 + 00S	-60°	025°	180 m	P-21 will test a broad IP anomaly 200 m southeast of MTS-34 in the vicinity of the Gap fault and the Mt. Sicker anticlinal axis. There is no outcrop on the line being drilled, but a Cu, Ba and Na ₂ O lithogeochemical anomaly is present 100 m to the northwest. <i>weak alt in Nit.</i>
						<u>1630 m</u>	SUBTOTAL
<u>4. Northeast Copper</u>	P-22	21 + 00E	1 + 45N 0 S	-55°	200°	200 m	P-22 will test the NE Copper horizon in an area of Na ₂ O depletion and Zinc enrichment. The hole is 200 m up-dip of an argillite horizon intersected in MTS-14.
	P-23	22 + 50E	1 + 25S	-55°	200°	130 m	P-23 will test a Cu, Ba and Na ₂ O anomaly and a 3 to 4-channel Deepem anomaly at shallow depths (75 m vertical).
<i>good hole</i>	P-24	24 + 00E	1 + 20S	-50°	190°	150 m	P-24 will test the mineralization occurring at Tom's shaft at a vertical depth of 65 m. Excellent Cu, Ba, Na ₂ O and Dighem anomalies will also be tested.
	P-25	26 + 70E	1 + 83S	-45°	200°	<u>180 m</u>	P-25 will test an excellent Cu, Ba and Na ₂ O anomaly and a 3-channel Deepem anomaly 200 meters east of Tom's shaft.
						<u>660 m</u>	SUBTOTAL

AREA	HOLE #	LINE	STATION	DIP	AZIMUTH	DEPTH	TARGET
<u>5. MTS-32</u> <u>Area</u>	P-26	13 + 00E	1 + 83S	-55°	200°	120 m	P-26 and P-27 will test an excellent IP anomaly occurring near the base of a rhyolite flow in the vicinity of an intense Ba, Na ₂ O anomaly.
	P-27	14 + 00E	2 + 15S	-50°	200°	<u>120 m</u>	
					SUBTOTAL		
<u>6. Canamera</u>	P-28	13 + 00W	6 + 30S	-50°	010°	120 m	P-28 will test the southern-most IP anomaly on the Victoria claim which correlates with the Victoria showing (120 tons @ 4% Cu).
	P-29	14 + 00W	3 + 25S	-65°	190°	300 m	P-29 will test the northern IP anomaly and the intersection of it and the Myra-Nitinat contact.
	P-30	15 + 00W	6 + 50S	-60°	010°	300 m	P-30 will test the projected intersection of the southern IP anomaly and the Myra-Nitinat contact.
	P-31	16 + 00W	5 + 75S	-50°	010°	<u>150 m</u>	P-31 will test the southern IP anomaly which is associated with the Victoria showing.
					SUBTOTAL		
<u>7. Nugget</u> <u>Creek</u> <u>Fault</u>	P-32	3 + 00E	3 + 05S	-90°	-	500 m	P-32 and P-33 will test the volcanic stratigraphy in the vicinity of the Nugget Creek fault which is interpreted to be a paleo-structure along which mineralizing fluids have passed. The rocks adjacent to the fault are depleted in Na ₂ O and locally enriched in copper and zinc.
	P-33	10 + 50E	0 + 40S	-75°	180°	500 m	
					SUBTOTAL		

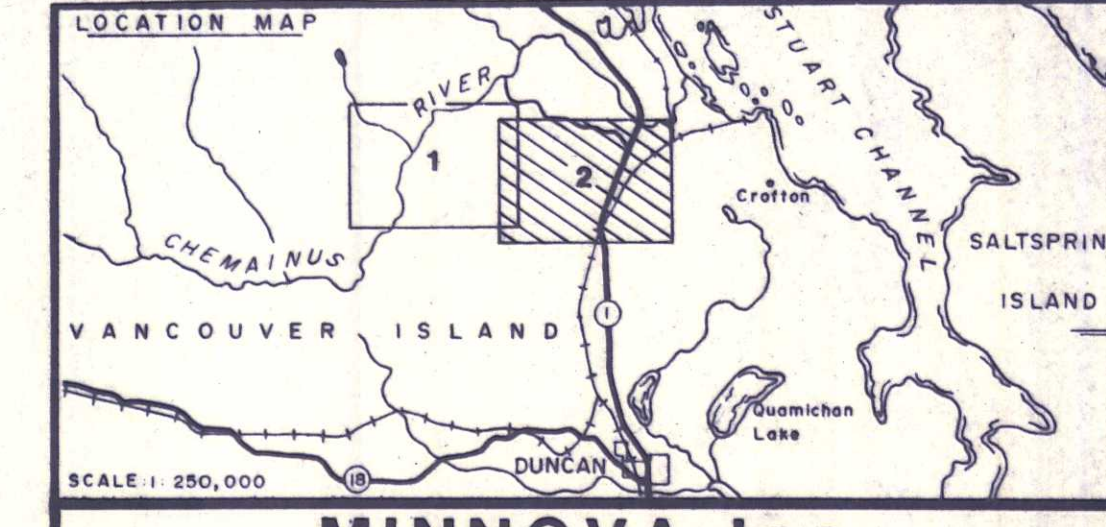
AREA	HOLE #	LINE	STATION	DIP	AZIMUTH	DEPTH	TARGET
<u>8. Killer</u> <u>Gossan</u>	P-34	39 + 25E	3 + 15S	-50°	195°	150 m	P-34 and P-35 will test an excellent IP and HEM anomaly which occurs near the contact between felsic and intermediate tuffs. This is a weak Ba anomaly in the vicinity of hole P-34 and a weak Zn anomaly in the area of P-35.
	P-35	43 + 40E	4 + 90S	-55°	195°	150 m	
						<u>SUBTOTAL</u>	
						300 m	
						<u>TOTAL</u>	
						9085 m	





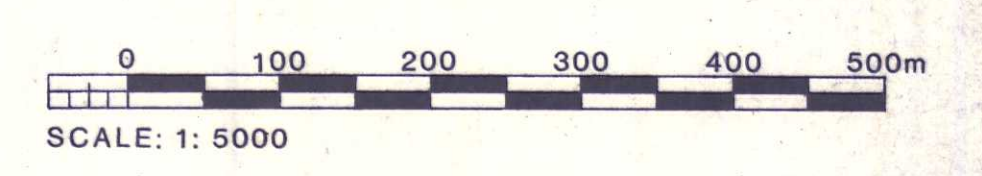
LEGEND

- 4.1 Diorite sills + dykes
- 3 Felsic ash, crystal tuffs with minor lapilli and breccia minor cherts and cherty tuffs
- 3.1 QP: quartz porphyry crystal tuff
- 3.2 F-Q: feldspar ± quartz crystal tuff
- 3.3 QFP: quartz feldspar porphyry crystal tuff
- 3.4 QFP dyke
- 2 Intermediate fine ash, crystal tuffs with minor interbedded cherty tuffs
- 2.2 Feldspar phryic tuff
- 2.3 Feldspar ± quartz phryic tuff
- 1 Mafic ash, crystal, lapilli tuffs, and breccias
- 1.2 Pyroxene phryic tuff
- 1.5 Feldspar phryic tuff + Transition moderate to strong epidotization (20% epi patches - balls)
- 4.2 Gabbro



MINNOVA Inc.
MT. SICKER PROJECT

GEOLOGY
1988 PROPOSED DRILLING



N.T.S. 92 B/13	MAP:
DRAWN BY: GW/sg	2
DATE: JAN. 1988	

- SYMBOLS
- Geological Contact
 - Rivers, Streams
 - Major Roads
 - Secondary Roads
 - Old Road Bed
 - Swamp Area
 - Float
 - IP Chargeability Anomaly
 - Fault
 - Fracture
 - Foliation
 - Bedding
 - Trench
 - Adit
 - Shaft
 - Claim Post
 - 1987 drill hole location
 - 1988 proposed drill hole location