

019083

MICRO GROUP
115-F-15, 61°57'N, 140°32'W
Whitehorse M.D., Y.T.
REPORT ON GEOLOGY AND TRENCHING
March 14, 1966 & October 10, 1966
P.H. Sevensma, Ph. D., P. Eng.

REFERENCE: 85827 "PER" 1

Department of
Indian Affairs and
Northern Development

Resource and
Economic Development
Group

Ministère des
Affaires indiennes et
du Nord canadien

Bureau des ressources
et du développement
économique

Box 1767,
Whitehorse, Y.T.,
May 15, 1967.

RESTRICTED

MR. G. A. McINTYRE
MINING RECORDER
WHITEHORSE MINING DISTRICT

our file/notre dossier M. I. M-252
your file/votre dossier
date

Report on Micro Group of Mineral Claims for
Canex Aerial Explorations Ltd. and
P. Versluce Associates by P. H. Sevensma

On the recommendation of the Resident Geologist and the Resident Mining Inspector I hereby authorize you to accept this report as representation work under Section 53 (4) of the Yukon Quartz Mining Act to the value of Eleven Hundred Twenty One Dollars and Twelve Cents (\$1,121.12).


James Smith,
Commissioner.

cc: Chief, Resource Management Division
Attention: Geological Evaluation Unit

Central Mining Records - Whitehorse

Resident Geologist



CANEX AERIAL EXPLORATIONS LTD.
and
P. VERSLUCE & ASSOCIATES

MICRO GROUP-WHITE RIVER AREA
WHITEHORSE M.D., Y.T.

Peter H. Sevensma, Ph.D., P. Eng.

GEOLOGICAL SURVEY,
[Signature]
MAY 12 1967
Resident Geologist
Whitehorse, Y. T.

This report has been examined by
the Geological Evaluation Unit.
Approved as to technical worth by:

[Signature]
RESIDENT GEOLOGIST

Approved as to cost in the amount
of: \$ 1121.12

[Signature]
RESIDENT MINING ENGINEER

Accepted as representation work
under Section 53(4) Yukon Quartz
Mining Act.

[Signature]
COMMISSIONER OF YUKON

CANEX AERIAL EXPLORATIONS LTD.

and

P. VERSLUCE AND ASSOCIATES

REPORT ON THE
MICRO GROUP, WHITE RIVER AREA
WHITEHORSE M.D. - Y.T.

Submitted By

Peter H. Sevensma, Ph.D., P. Eng.

March 14, 1966

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ILLUSTRATIONS

Fig. 1	Claim location	1" = $\frac{1}{2}$ mile
Fig. 2	Surface Plan	1" = 100'
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INTRODUCTION

The writer has been requested jointly by Canex Aerial Explorations Limited of Vancouver and by P. Versluce and Associates of Whitehorse to prepare a review of the Micro Group of claims, located near mile 1169 on the Alaska Highway, Whitehorse M.D., Y.T., and owned by P. Versluce and Associates.

The writer is well acquainted with the area and with the property which he has last examined in March and September 1965 while in the employ of the Consolidated Mining and Smelting Company of Canada Limited (Cominco).

At the time of his last examination, the writer has acquired for Cominco, by optioning, purchase and staking, a number of claims adjoining the Micro Group on the North West.

PROPERTY AND ACCESS

The property consists of the following claims:

<u>Grant No.</u>	<u>Claim</u>
85827-85828	Per 1 & 2
86108-86109	Micro 1 & 2
86110	Micro 8
86111 & 112	Micro 3 & 4
86113	Micro 9
86114-86116	Micro 5 - 7
86360	Micro 12
86361	Micro 16
86362	Micro 18
86363	Micro 13
86364	Micro 15
86365	Micro 17
86366	Micro 20
86367	Micro 10
86368	Micro 11
86369	Micro 14
86370	Micro 19
93002-93009	Micro 21 - 28 - 52

This is a total of ~~30~~ mining claims.

54

Their location is on the White River, near mile 1169, Alaska Highway, Lat. N61° 57' and Long. W140° 32', Elevation 2400' to 4800', on claim sheet 115-F-15, Whitehorse M.D., Y.T. (Fig. 1).

The claims on the East bank of the White River have underground development, and are easily accessible by a 3 mile truckroad from mile 1168 on the Alaska Highway. This point is 250 roadmiles from Whitehorse, or about 300 roadmiles from tidewater at Haines, Alaska.

The claims on the West bank are best accessible over the ice in winter; a good tote-trail on the West bank is difficult to cut due to permafrost and some rock bluffs.

HISTORY

A summary of the development of the property is as follows:

1952 - 1953	Discovered by Prospector's Airways
April 28 - September 22, 1953	14 core-holes, S1A to S14, were drilled on surface by P.A., for a total footage of 5322.5'
1954	Property acquired by Canalask Nickel Mines.
August - September 1954	1380.5' of surface drilling by Canalask (601-604).
May 4 - September 11, 1956	12 surface holes drilled by Canalask (605-616), totalling 7404'.
October 1956	Reserves calculated at 550,000 tons @ 1.68% Ni., .04% Cu. undiluted.
1957	1000' of adit and crosscut on the 2700 level; Underground drilling, 10 holes, No. 1 - 10, on the 2700 level, totalling about 770'.
1957 - 1958	336' Winze and 375' of drifting on the 2400 level.
March - April 1958	Underground drilling, 4 holes (24-1 to 4) on the 2400 level, totalling about 750'.

April 29, 1958 All work suspended; property dormant since.

March 1964 Ground came open and was restaked by P. Verslucce and Associates.

March 1965 Surface trenching by P. Verslucce. Property examinations by the writer.

Total surface drilling to the end of 1956 is 14,107'. Total underground drill footage is approximately 770' on the 2700 level and about 750' on the 2400 level, i.e. about 1500' underground. This makes for a total of about 15,600' of core-drilling.

Canalask Nickel Mines, later Northwest Canalask, financed airborne magnetic surveys by H. Lundberg in April and September 1953.

As a result, 571 claims in 13 groups were acquired by staking and/or optioning by Canalask between Snag and Burwash Creek.

This, it is believed, strained their resources and although underground development had been encouraging, finances dried up in 1957-1958 and work was stopped, the last two holes at the face of 2400 level having intersected respectively 20' of 2.68% Ni. and 26.5' of 1.32% Ni. just before shut-down.

Significant nickel mineralization had by then been outlined over a maximum length of 380' and indicated over a maximum vertical extent of 640'.

The best underground intersection was crosscutted and gave 50' of 2.63% Ni. in channel sampling and 2.55% Ni. in muck sampling (Fig. 3).

No significant nickel discoveries were made on any of the other 571 claims and most were gradually allowed to lapse starting about 1955 after some drilling had been done on one group.

REGIONAL GEOLOGY

The Shakwak Nicekl belt, extends approximately from the south end of the Duke River valley (South end of Kluane Lake) at least as far North as Miles Ridge, N.W. of the White River.

Nickel-bearing pyrrhotite occurs in association with elongated steeply dipping serpentized peridotite bodies, either along their contact with the enclosing Permian volcanic sedimentary series, or within several hundred feet away from this contact in the Permian rocks.

The two best known occurrences are the Wellgreen and the Micro, both located on nearly East-West trending segments of the normally N.W. striking peridotite bodies.

The Wellgreen body consists of massive pyrrhotite located along the serpentine contacts; it is reported as having 740,000 t. @ 2.04 Ni. and 1.42 Cu.

The Micro occurrence is one of disseminated pyrrhotite, possibly stratigraphically controlled, with little copper and surrounded by an alteration halo believed to consist mostly of albitization.

Nickel is very uncommon along the west edge of the American continent. Around the Gulf of Alaska, however, the style of the continent's edge undergoes a significant change, and starting West of Ketchikan to a point well to the S.W. of Anchorage, a number of undeveloped nickel occurrences are known, mostly within 100 miles inland from the coast-line. Within this arc, the Shakwak Valley has so far shown the most promise for revealing deposits with economic potential, and of the various known occurrences, the one on the Micro group has the best potential for an economic size ore body.

LOCAL GEOLOGY

In the area of the Micro Group, nickel mineralization occurs a few hundred feet away from a serpentine body. Strikes are about E-W, dips steep to the South.

According to F.A. Campbell, CIMM vol.63, 1960, p.p. 661-667, the Micro (or Canalask) peridotite is at least 2,600' long and up to 750' wide. Its composition varies relatively little as compared to the Wellgreen one, as can be seen from the table:

	Range %		%	
	Olivine	Pyroxene	Magnetite	Chromite
Micro	70-85	10-25	5	?
Wellgreen	20-90	5-75	3	2

Both bodies show zoning indicative of sills, entirely serpentized at Wellgreen, and serpentized mostly in the FW half near the Micro body.

At the Micro, the olivine tends to be concentrated in the FW half of the sill as well.

Alteration is reported as amphibolitization in the ultrabasic.

The wall rock at the Micro is a series of argillites, tuffs, greywackes, and minor andesitic volcanics, which around the ore-body are extensively albitized and/or silicified.

The writer has identified albitization but is not prepared to state what proportion of the alteration is albite.

Drill hole assaying for copper has often been neglected; both surface sampling by the writer and others as well as some of the drill hole sampling by P.A. and Canalask, show quite extensive low-grade copper in the 0.1-0.5% range over substantial widths (S-11, section 10,060) of up to 100'.

Narrow but interesting copper values also occur at depth in hole S-4, section 3, on the Micro property (see Fig. 6); the copper-potential of this property is of more interest than would appear from the reported sampling.

The geological structures on the East-bank and the West bank of the White River match very well, and unless there is a substantial fault following the White River with little horizontal movement, the Micro-zone is expected to continue for about 1500' under the White River and across to the West bank.

A sample taken in March 1965 by the writer from a 5' wide exposure on the West bank gave the following assays (Coast Eldridge):

No. 87176	1.50% Cu.	0.26 Ni.	0.26 Ag.
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Samples taken by a third party on either side of this sample gave approximately 40' of 0.12 Cu., trace Ni.

The fact that the mineralization is associated with an East-West trend is very significant, and in view of the presence of copper-nickel mineralization on the West bank of the River, the writer feels that the 1600' long potential extension of the 380' long East bank occurrence presents an excellent exploration target.

The peridotite sill is now known to continue on to the NW where it is associated with other nickel occurrences on Cominco ground (Fig. 1).

DATA STUDY

The available data have been combined on two plans and a number of sections to the best of the writer's ability.

Assay data are from various available sources, but in most cases no original standard drill-logs are available. Some data on sampling have been found in old field books.

The present compilation should be considered as a first step that can be improved upon by a restudy of the available drill-core.

Core recoveries have shown substantial variations and in many of the ore-intersections from 20 to 40% of the core was lost.

This means that grades could be significantly higher in some cases.

There is very little geological information available on the drill-logs, and it would be highly desirable to relog whatever core is available on standard log forms to improve the graphical picture of the structure.

Section 3 (10250 E) shows the trace of a thin-bedded marker zone in the FW of the peridotite or the HW of the ore; accurate intersections of this marker are not known to the writer.

Peridotite intersections have been reported in the drilling that do not tie in with a general SW dip.

Average grades show discrepancies, as the cut-off and method of averaging and of allowing for lost core have not been consistently the same.

Some of the critical assay-data from field books have been added as Appendix A to this report; these appear to be sections of core resampled by Canalask Nickel Mines.

ORE RESERVES

On October 24, 1956, ore reserves were reported as follows before any underground development had been done.

South ore-zone:

Block size, Height 290'
 Length 380'
 Width 50'
 Tonnage Factor 10

$$\frac{290 \times 380 \times 50}{10} = 550,000 \text{ tons}$$

<u>Grade:</u>	<u>Weight</u>	<u>Hole No.</u>	<u>Length</u>	<u>% Cu.</u>	<u>% Ni.</u>
	1	S-3A	17.5'	.04	2.14
	2	601	63.5'	.04	2.12
	2	S-7	51.5'	.03	2.16
	1	615	9.5'	tr.	1.13
	2	607	51.0'	.05	0.97
	2	S-4	62.0'	.05	1.28
	1	S-13	8.5'	.07	2.19
Average		.04% Cu.	1.68% Ni.		

The actual location of holes 607 and 615 is not now known or available to the writer, and reserves have therefore been recalculated using the underground development data as well and restricting the individual blocks to only a short distance below the 2600' elevation (See Fig. 11)

Core-hole S-13 is a very critical hole, of which the overall grade is not known. If all blank spaces are assumed to assay 0.40 Ni., the average grade from 131.5 to 217' would be 85.5' @ 1.18 Ni. If blanks are considered barren, the average grade is 0.71 Ni. over this length.

As the nearby outcrop-face averaged 1.05% Ni. over 103', S-13 is quite likely not representative of the true grade due to core loss in higher grade sections.

New Reserve calculations are as follows, in 5 blocks (see sections 1, 2, 3 and 4 and longitudinal section):

<u>Block</u>	<u>Length</u>	<u>Height</u>	<u>Width</u>	<u>Grade, Ni. %</u>
A	90'	x 130'	x 28'	$\frac{1}{2} (1.00 + 2.63) = 1.82$
B	60'	x 140'	x 63'	$\frac{1}{2} (0.81 + 1.28) = 1.04$
C	70'	x 170'	x 55'	$\frac{1}{2} (1.28 + 1.38) = 1.33$
D	100'	x 220'	x 50'	$\frac{3}{4} (2.63 + 1.97 + 2.11 + 1.26) = 1.99$
E	70'	x 150'	x 20'	$\frac{1}{2} (1.32 + 2.68) = 2.00$

Using a tonnage factor of 10 cu. ft. = 1 ton, this gives the following tonnages.

<u>Block</u>	<u>Tons</u>	<u>Grade Ni.</u>	<u>Tons Ni. metal</u>	
A	32,800	1.82	596	
B	52,900	1.04	550	
C	65,500	1.33	870	
D	110,000	1.98	2189	
Subtotal	261,200	1.61	4205	main zone
E	21,000	2.00	420	new zone
Total	282,200	1.64	4625	total

These are drill indicated reserves, requiring further firming up; in view of poor core recoveries, they are considered conservative.

Both zones may be distinct, but the New Zone at depth could be an offset of the main zone by a flat fault.

The figure of 0.04% Cu., calculated by Canalask, is acceptable. More extensive sampling for Cu. may raise the grade; a sample taken by the writer at the reportedly barren SE face, gave 0.80 Cu. and 0.01 Ni. across 4' of 70% pyrrhotite.

The writer feels that within the 380' length partially explored so far, these reserves can likely be doubled or tripled by further exploration.

In other words, the potential of this part of the zone is estimated at a maximum 750,000 tons.

If this density of ore continues across the river, the total potential over a total length of about 2000' could be:

$$\frac{2000}{380} \times 750,000 = 4.0 \text{ million tons to a depth of about 750!}$$

Realization of this potential requires:

1. That the ore is localized by the whole East-West segment and not by the short zone where the strike changes.
2. That there is no major fault following the course of the White River and no old river channel several hundred feet deep.

METALLURGY

Quebec Metallurgical Industries carried out a series of flotation tests on two lots averaging 1.75% Ni., 0.03 Cu., 3.45% S and 8.60% Fe.

A typical analysis of concentrate gave 19.7% Ni., 0.34% Cu., 31.1% Fe, 0.03 oz/t Pt., 0.02 oz/t Au., 0.496 oz/t Ag.

These results were obtained with a moderate grind and minimum flotation reagents, and represent @ 90% recovery; they are considered good and are considerably better than in the case of the massive pyrrhotite at Wellgreen, believed to give concentrates in the 5 - 10% Ni. range only.

ECONOMICS

A 19% concentrate at the newest Japanese smelter schedules may represent a net return of close to \$15.00 per ton. Estimating operating costs at \$10.00 on a 1000 t.p.d. rate, this would leave a \$5.00 per ton profit, about half of which would have to be used to repay the capital expenditures; these figures assume that 1 million tons of ore of at least 1.60% Ni. are proven.

However, higher grade reserves, or a realization of a 4 million ton potential would make the situation much more attractive; much depends upon the market that can be developed and an association with a nickel producer such as Giant Mascot may be advantageous.

Any future exploration program should be double-barreled, as follows:

1. Firm up and extend the drill-indicated reserves by drilling half a dozen 3 - 400' core-holes with 100% core-recovery, some 50' below the existing reserves before considering any further underground work.

2. Explore by geophysical methods and if warranted, by drilling, the potential of the zone under the White River and on the West bank.

RECOMMENDED PROGRAM

Any work in the river should be undertaken immediately to take advantage of low water and good accessibility.

The following program is recommended:

Stage 1

1. Stake some additional claims on the S and SW side of the Group	\$ 1,000
2. Drill one 400' hole at about -50° to the North from a point at about 9250N and 10,050 East across the Main zone to check the S-13 intersection area as well as the up-dip extension of the New zone.	\$ 5,000
3. Map geologically at least 3/4 mile of each River bank North and South of the Nickel zone, i.e. a total of 3 miles of mapping.	\$ 2,000
4. Run an IP Survey in preference to a Turam Survey over the 1500' of zone in the River.	\$ 3,500
5. If a deep IP anomaly only is found, test the depth of the river channel by seismic methods.	\$ 3,500
6. Drill at least one 400' core-hole across the zone exposed on the West bank and from River level.	\$ 5,000
Total Cost	\$20,000
Contingency, engineering 20%	<u>4,000</u>
Total	<u>\$24,000</u>

The overall drill cost of \$12.00 per foot assumes some difficulty in overburden.

Stage 2

Drill 2000' in the summer in half a dozen core-holes, stressing core recovery, to assess the ore zone at about the 2550' level.	\$20,000
Relog, remap and resample old core and old development workings; plus contingencies	\$ 4,000

Stage 3

If success is obtained in geophysical work over the river,
drill initial 1000' or so in one or two holes before break-up \$12,000

This is a minimum program, which could be speeded up and enlarged
in case of initial success.

SUMMARY AND RECOMMENDATIONS

The Micro Nickel body contains about 282,000 tons @ 1.64% Ni.
and 0.04% Cu. of drill-indicated reserves in a small portion of a partially
depth-explored 380' long zone.

This zone is open for about 1600' to the West and may well have
a potential of about 4 million tons of nickel-ore of about the above grade.

There is also the possibility of finding a more substantial body,
or one of higher grade, in this untested length of the zone.

The Micro property is thought to present the best potential for a
significant discovery in the Shakwak Nickel belt. At a small rate of operation
the profit potential does not at present seem attractive, but the potential
of the zone is sufficient to make it a very attractive exploration target.

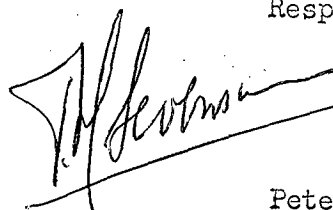
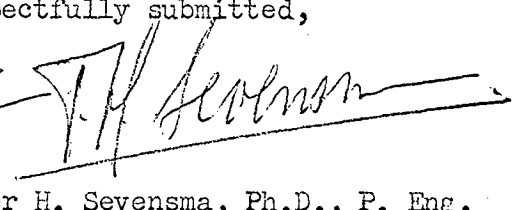
A firm program with a winter and a summer stage is recommended,
with additional winter drilling contingent upon favorable results of a geo-
physical program.

Cost estimate is as follows:

- | | |
|-----------------------------------|----------|
| 1. Firm winter - stage 1 | \$24,000 |
| 2. Firm summer drilling - stage 2 | \$24,000 |
| 3. Contingent winter drilling | \$12,000 |

An association with a company in the nickel business such as
Giant Mascot Mines may facilitate marketing.

Respectfully submitted,

Peter H. Sevensma, Ph.D., P. Eng.

Vancouver, March 14, 1966

APPENDIX A

Assay logs copied from old field-books. 1956 Resampling by Canalask ?

Property: Micro (Canalask)

<u>Hole No.</u>	<u>From</u>	<u>To</u>	<u>Ft.</u>	<u>Core</u>	<u>Sample No.</u>	<u>% Cu.</u>	<u>% Ni.</u>
601	60.5	62.5	2				0.63
	62.5	64.5	2				1.54
	64.5	67	2.5				2.80
	67	69	2				4.75
	69	71	2				5.43
	71	72.5	1.5				2.87
	72.5	74	1.5				4.50
	74	76.5	2.5				3.75
	76.5	80	3.5				tr.
	80	84.5	4.5				tr.
	84.5	89.5	5				0.5
	89.5	92	2.5				tr.
	92	97	5				0.5
	97	102	5				0.5
	102	104.8	2.8				0.7
	104.8	108	3.2				0.7
	108	110	2				0.7
	110	112	2				0.5
	112	114.8	2.8				0.7
	114.8	116	1.2				0.5
	116	118.5	2.5				0.7
118.5	121.5	3				0.7	
121.5	124	2.5			0604	0.3	
	60.5	124	63.5				2.11
S-7	205	209.7	4.7	4.7	610	0.14	0.07
			0.3	-			
	210	215	5.0	5.0	611	.04	2.72
	215	219	4.0	4.0	612	.08	2.42
	219	219.8	0.8	-			
	219.8	224	4.2	4.2	613	.03	1.05
	224	225	1.0	-			
	225	226	1.0	1.0	614	tr.	.14
	226	226.6	0.6	-			
	226.6	228	1.4	1.4	615	tr.	.52
	228	229.4	1.4	-			
	229.4	233	3.6	3.6	616	.06	2.48
	233	236.6	3.6	-			
	236.6	241.6	5	5	617	.01	1.89
	241.6	246.6	5	5	618	.04	1.87
	246.6	251.6	5	5	619	.04	1.80
	251.6	253.4	1.8	1.8	620	.03	3.08
	253.4	255	1.6	-			
	255	257	2	2.0	621	.04	3.92
257	260	3	-				
260	261.5	1.5	1.5	622	.04	1.24	
210	261.5	51.5	39.5	Core recovery			2.03
				76.8%			for 39.5'

APPENDIX A (Continued)

Hole No.	From	To	Ft.	Core	Sample	% Cu.	% Ni.
616	525	527.5	2.5	2.5	623	tr.	2.21
			2.5	-			
	530	532	2.0	2.0	624	tr.	1.38
			3.0	-			
	535	536	1.0	1.0	625	tr.	1.95
			1.3	-			
	537.3	538.5	1.2	1.2	626	.10	5.00
			2.5	-			
	541	542	1.0	1.0	627	tr.	tr.
			3.0	-			
	545	548	3.0	3.0	628	tr.	1.21
			3.0	-			
	551	553	2.0	2.0	629	tr.	1.63
			2.0	-			
	555	560	5.0	5.0	630	tr.	1.57
			5.0	5.0			
	560	565	5.0	5.0	631	tr.	.78
			5.0	5.0			
	565	570	5.0	5.0	632	tr.	.95
			5.0	5.0			
	525	570	45.0	27.5	Core recovery 61.2%		1.44 for 27.5'

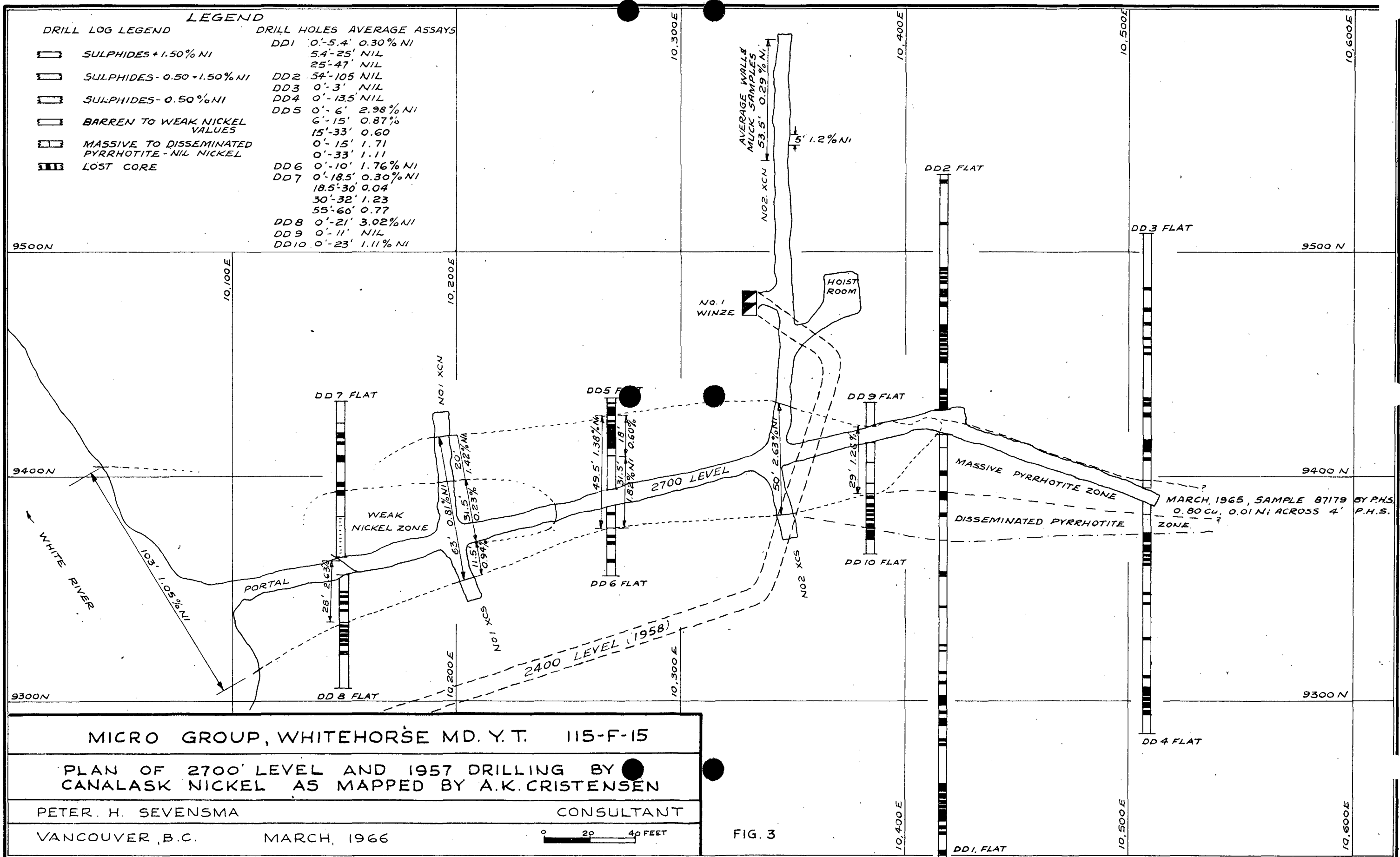
Location of this first intersection of the deep New Zone is not known.

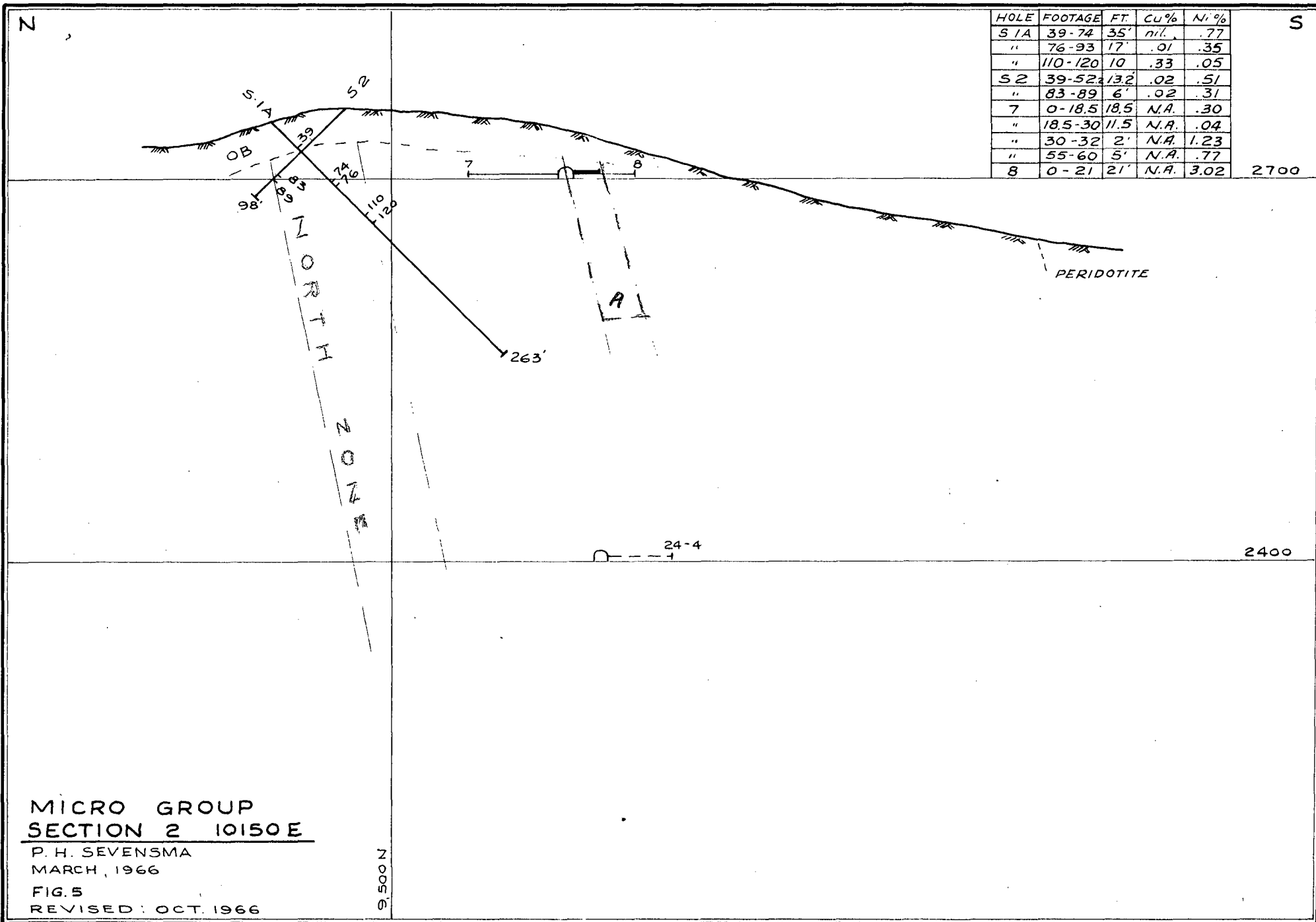
S-3A	30	34.2	4.2	4.2	633	tr.	2.86
			3	-			
	35	40	5.0	5.0	634	tr.	2.54
			5.0	5.0			
	40	45	5.0	5.0	635	.13	1.85
			2.4	2.4			
	45	47.4	2.4	2.4	636	.03	.49
			-	-			
	50	55	5	5	637	.32	.27
			87.5	?			
	55	142.5	2.5	2.5	638	.37	.38
			6.5	?			
	142.5	145	6.5	?	639	tr.	.47
			3.5	3.5			
	145	151.5	3.5	3.5	639	tr.	.47
			58	?			
	151.5	155	3.5	3.5	639	tr.	.47
			1.0	1.0			
	155	213	1.0	1.0	640	.10	.45
			1.0	-			
	213	214	1.0	1.0	640	.10	.45
			1.0	-			
	214	215	1.0	1.0	641	.37	.52
			2.3	2.3			
	215	217.3	2.3	2.3	641	.37	.52
			1.0	-			
	217	218	1.0	1.0	642	.33	.43
			1.0	1.0			
	218	219	1.0	1.0	642	.33	.43
			1.0	-			
	219	220	1.0	1.0	643	.30	.26
			1.0	1.0			
	220	221	1.0	1.0	643	.30	.26
			62.0	?			
	221	283	62.0	?	644	.34	.84
			5.0	5.0			
	283	288	5.0	5.0	644	.34	.84
			2.4	2.4			
S-1A	39	41.4	2.4	2.4	645	tr.	.58
			0.6	-			
	41.4	42.0	0.6	-	646	tr.	1.47
			3.7	3.7			
	42	45.7	3.7	3.7	646	tr.	1.47
			2.8	-			
	45.7	48.5	2.8	-	647	tr.	.89
			5.0	5.0			
	48.5	53.5	5.0	5.0	647	tr.	.89
			0.5	-			
	53.5	54.0	0.5	-			

APPENDIX A (Continued)

<u>Hole No.</u>	<u>From</u>	<u>To</u>	<u>Ft.</u>	<u>Core</u>	<u>Sample No.</u>	<u>% Cu.</u>	<u>% Ni.</u>
	54.0	59.0	5.0	5.0	648	tr.	1.04
	59.0	59.3	0.3	-			
	59.3	63.0	3.7	3.7	649	tr.	.63
	63.0	64.0	1.0	-			
	64.0	68.5	4.5	4.5	650	tr.	.93
	68.5	69.0	0.5	-			
	69.0	74.0	5.0	5.0	651	tr.	.86
39	74		35.0	29.3	Core recovery 83.8%		.93 for 29.3'

J. H. Jensen



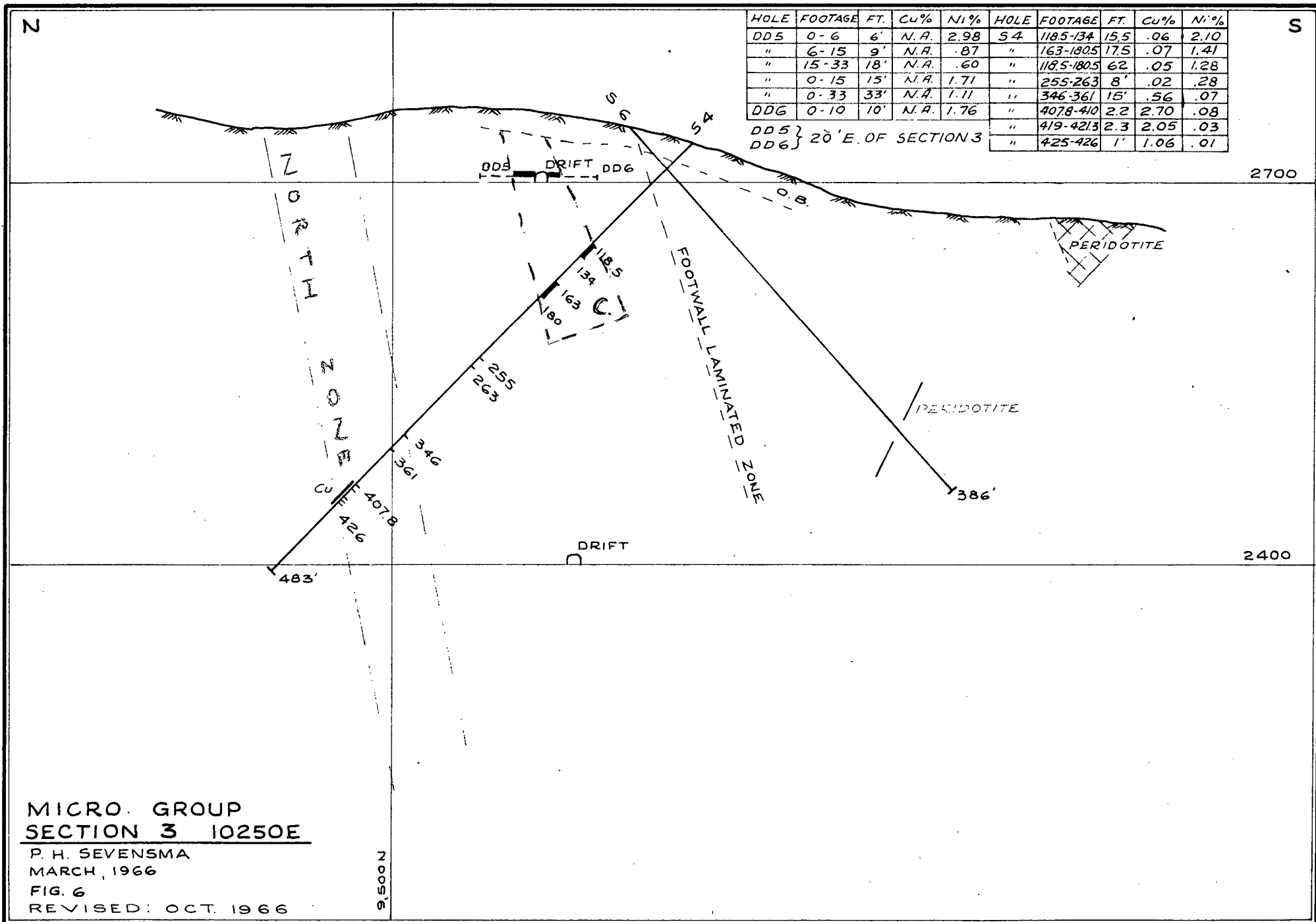


MICRO GROUP
SECTION 2 10150 E

P. H. SEVENSMA
MARCH, 1966

FIG. 5
REVISED: OCT. 1966

9,500 N



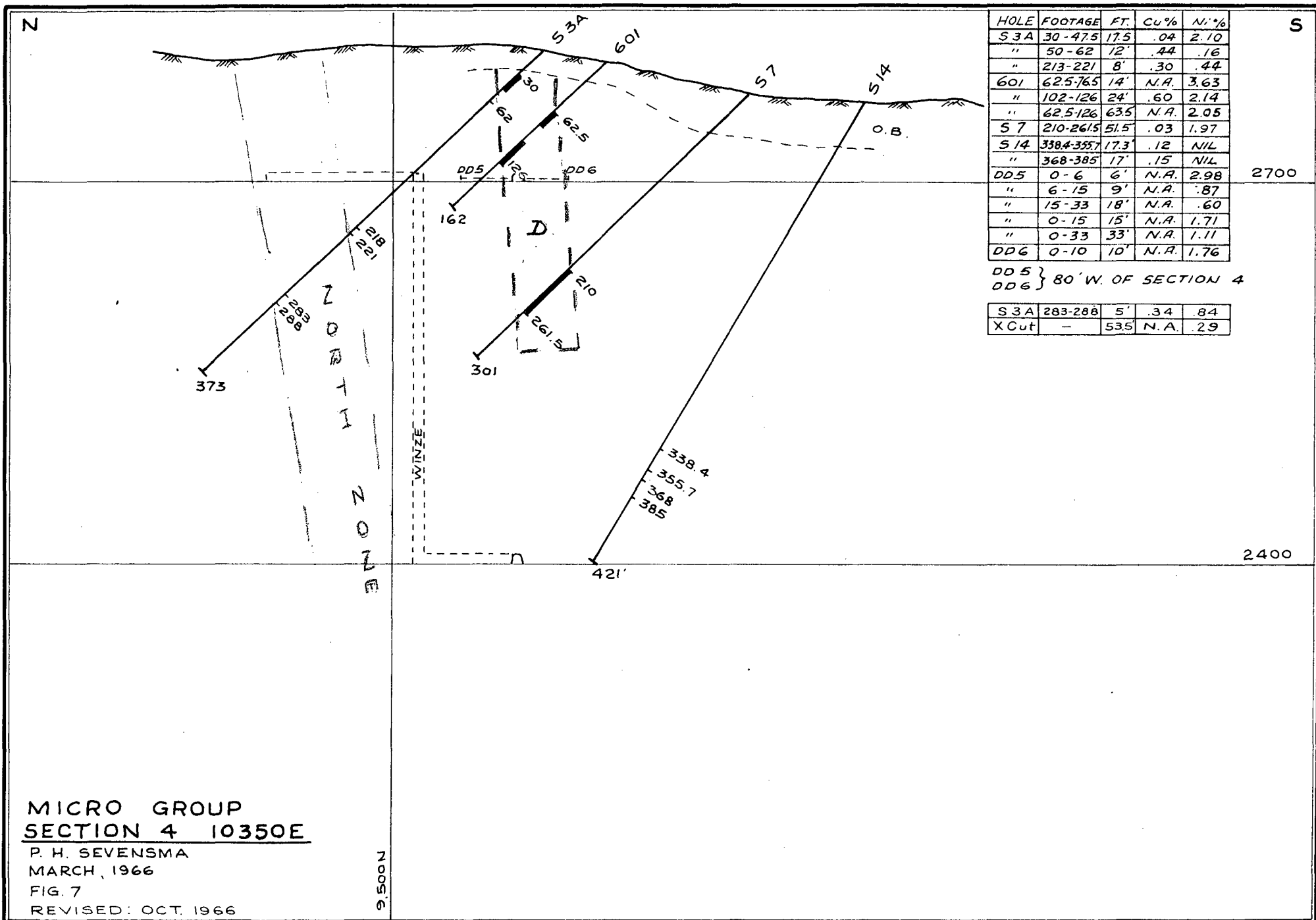
MICRO. GROUP
SECTION 3 10250E

P. H. SEVENSMA
MARCH, 1966

FIG. 6

REVISED: OCT. 1966

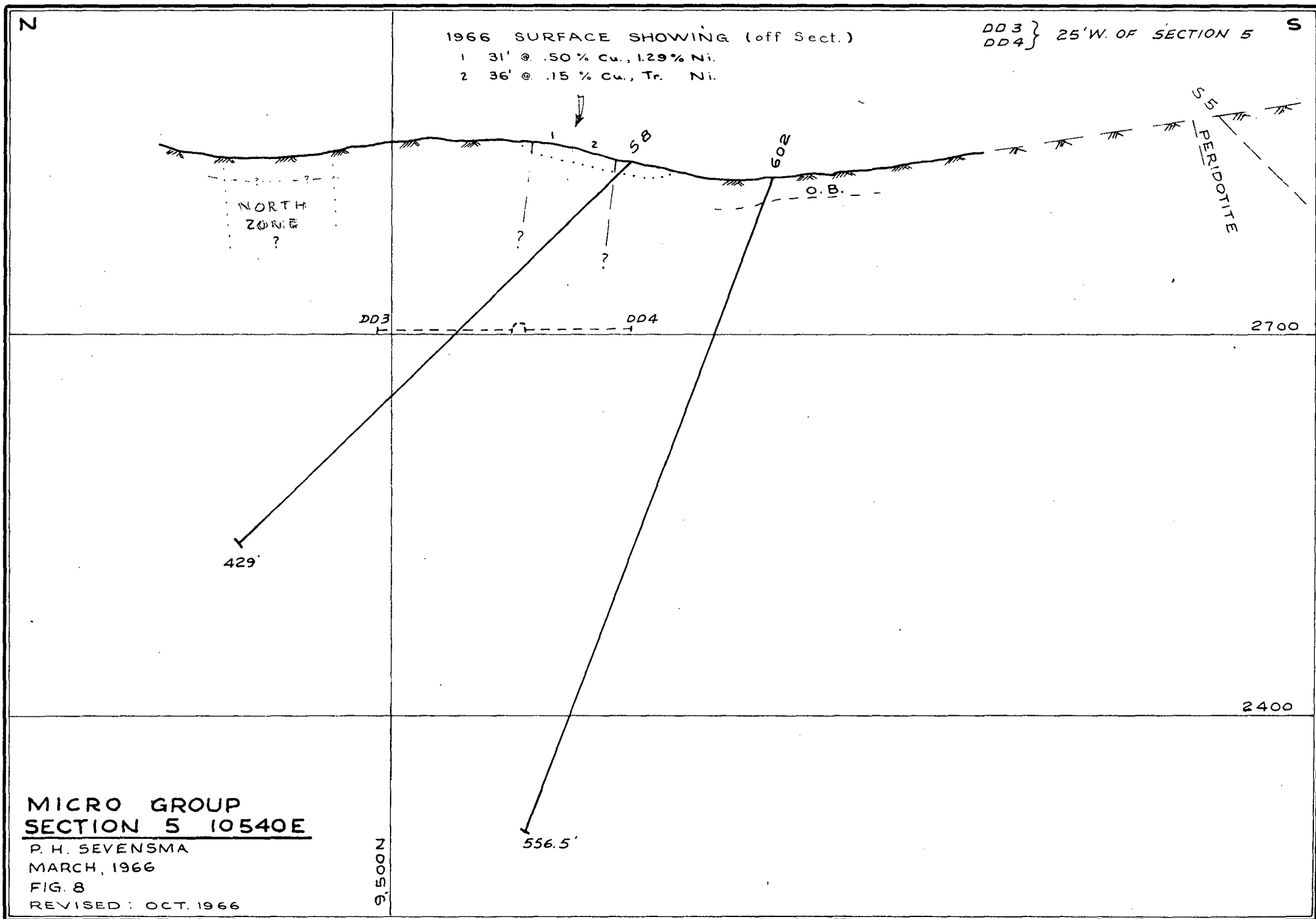
9.5000 Z

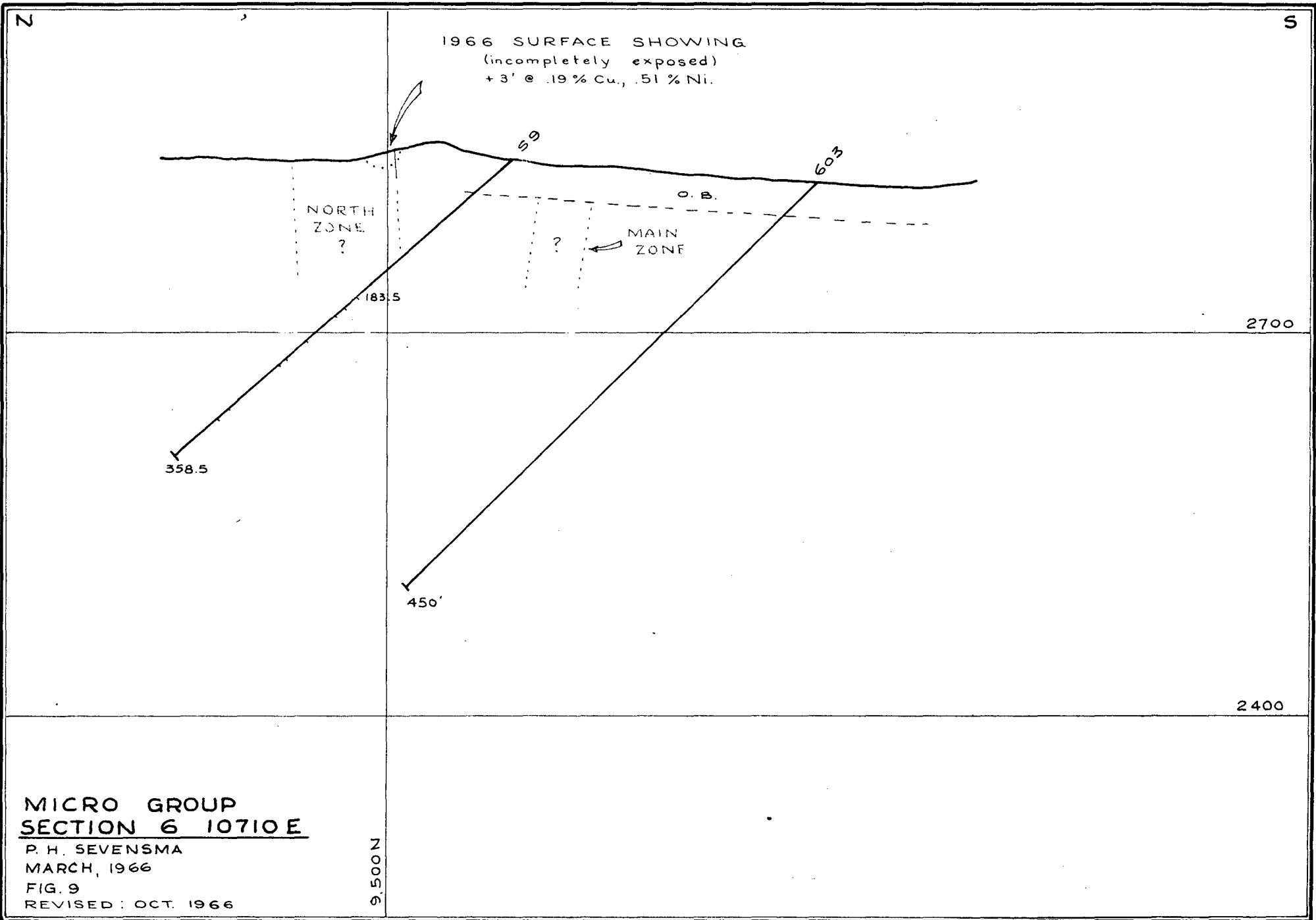


**MICRO GROUP
SECTION 4 10350E**

P. H. SEVENSMA
MARCH, 1966
FIG. 7
REVISED: OCT. 1966

9.500N





**MICRO GROUP
SECTION 6 10710 E**

P. H. SEVENSMA

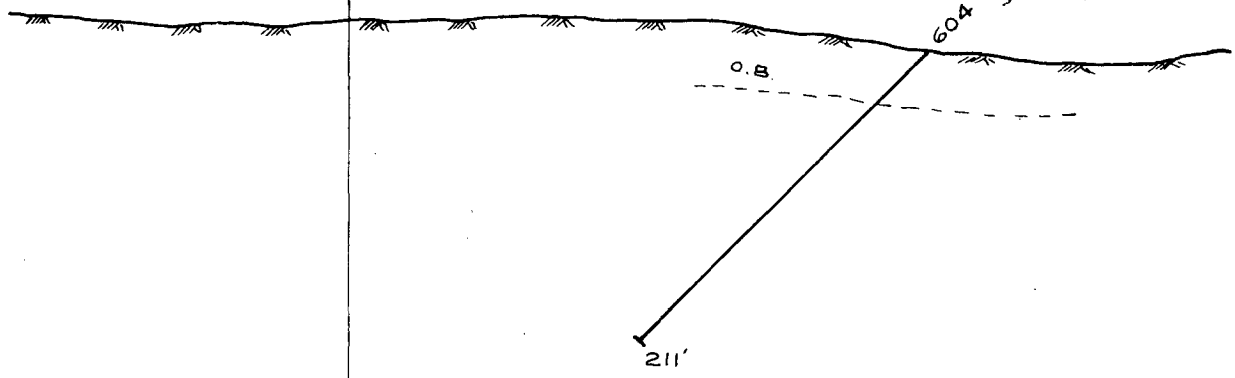
MARCH, 1966

FIG. 9

REVISED: OCT. 1966

Z

S



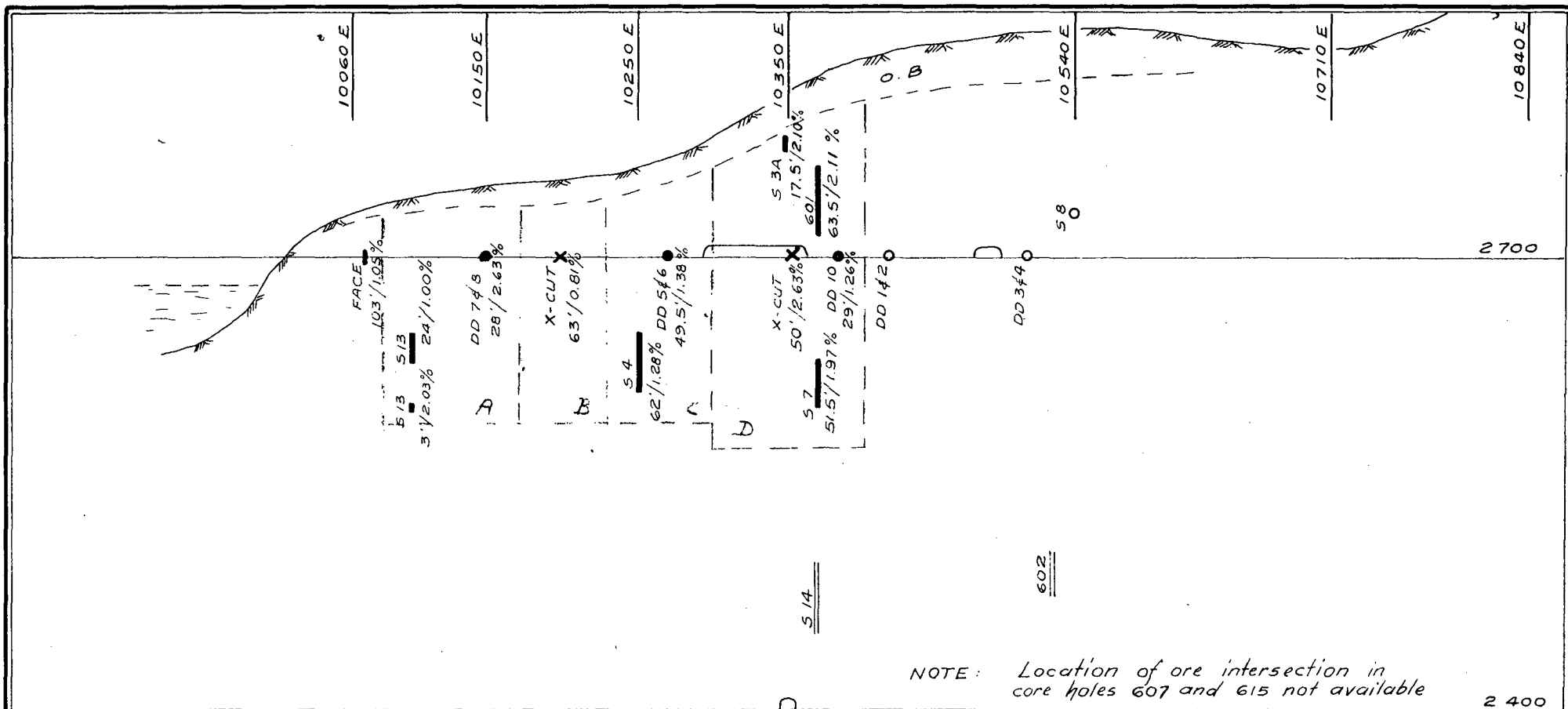
2700

2400

**MICRO GROUP
SECTION 7 10840E**

P. H. SEVENSMA
MARCH, 1966
FIG. 10

9,500 N



NOTE: Location of ore intersection in core holes 607 and 615 not available

LEGEND

- x x-Cut Sample
- Drill hole intersections of 9400 N, ore
- " " " " " barren
- ▬ Projection to 9400 N of drill intersections, ore
- ▬ " " " " " barren

MICRO GROUP, WHITEHORSE M.D., Y.T. 115-F-15

PROJECTION OF ORE INTERSECTIONS ON VERTICAL LONGITUDINAL SECTION 9400N

P. H. SEVENSMA

CONSULTANT

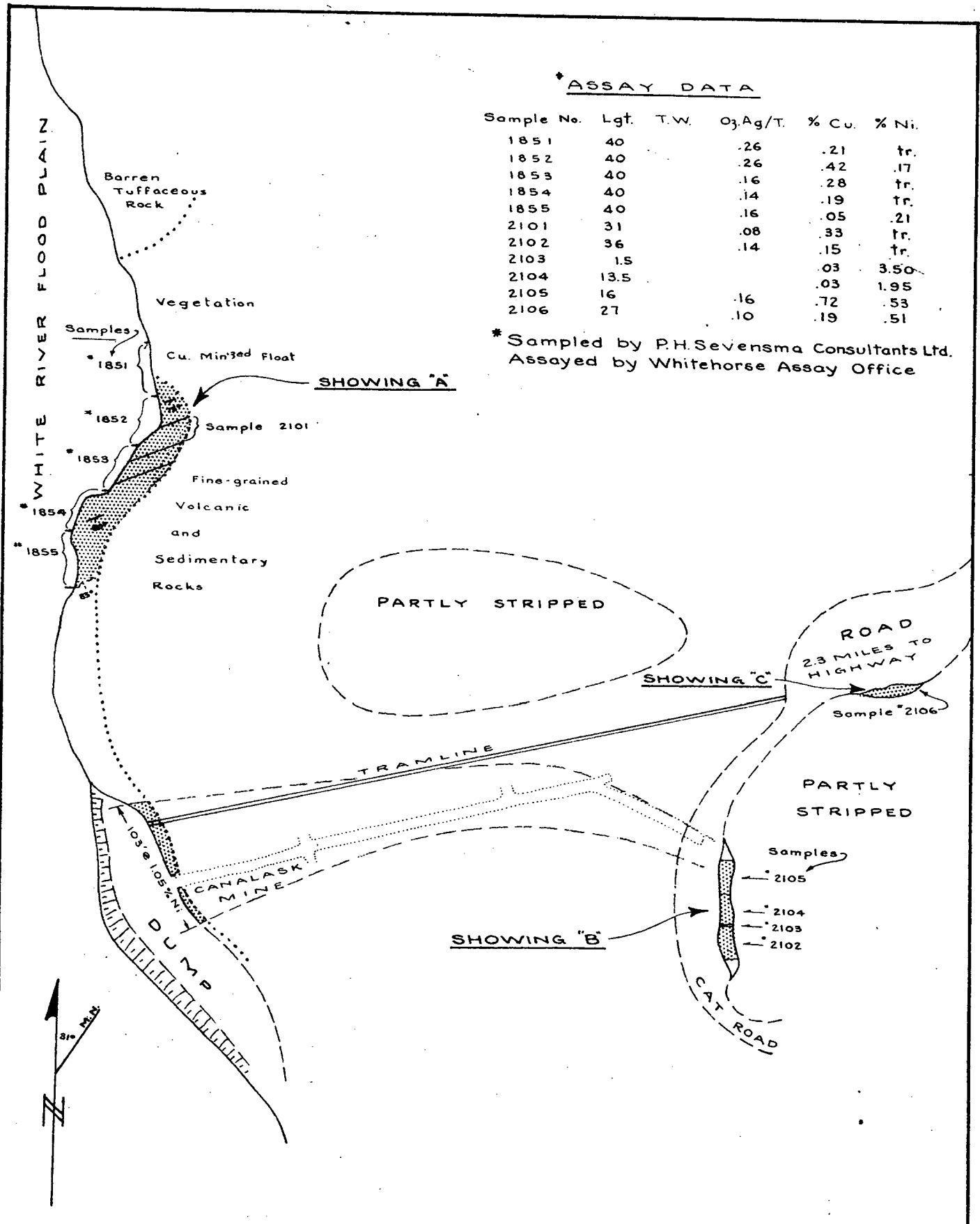
VANCOUVER, B.C.

0 100 FEET

MARCH, 1966.

FIG. 11

24-2
20' / 2.68%
24-3
26.5' / 1.32%



ASSAY DATA

Sample No.	Lgt.	T.W.	O ₃ Ag/T.	% Cu.	% Ni.
1851	40		.26	.21	tr.
1852	40		.26	.42	.17
1853	40		.16	.28	tr.
1854	40		.14	.19	tr.
1855	40		.16	.05	.21
2101	31		.08	.33	tr.
2102	36		.14	.15	tr.
2103	1.5			.03	3.50
2104	13.5			.03	1.95
2105	16		.16	.72	.53
2106	27		.10	.19	.51

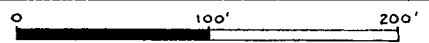
* Sampled by P.H. Sevensma Consultants Ltd.
Assayed by Whitehorse Assay Office

MICRO GROUP-WHITEHORSE M.D., Y.T. 115-F-15

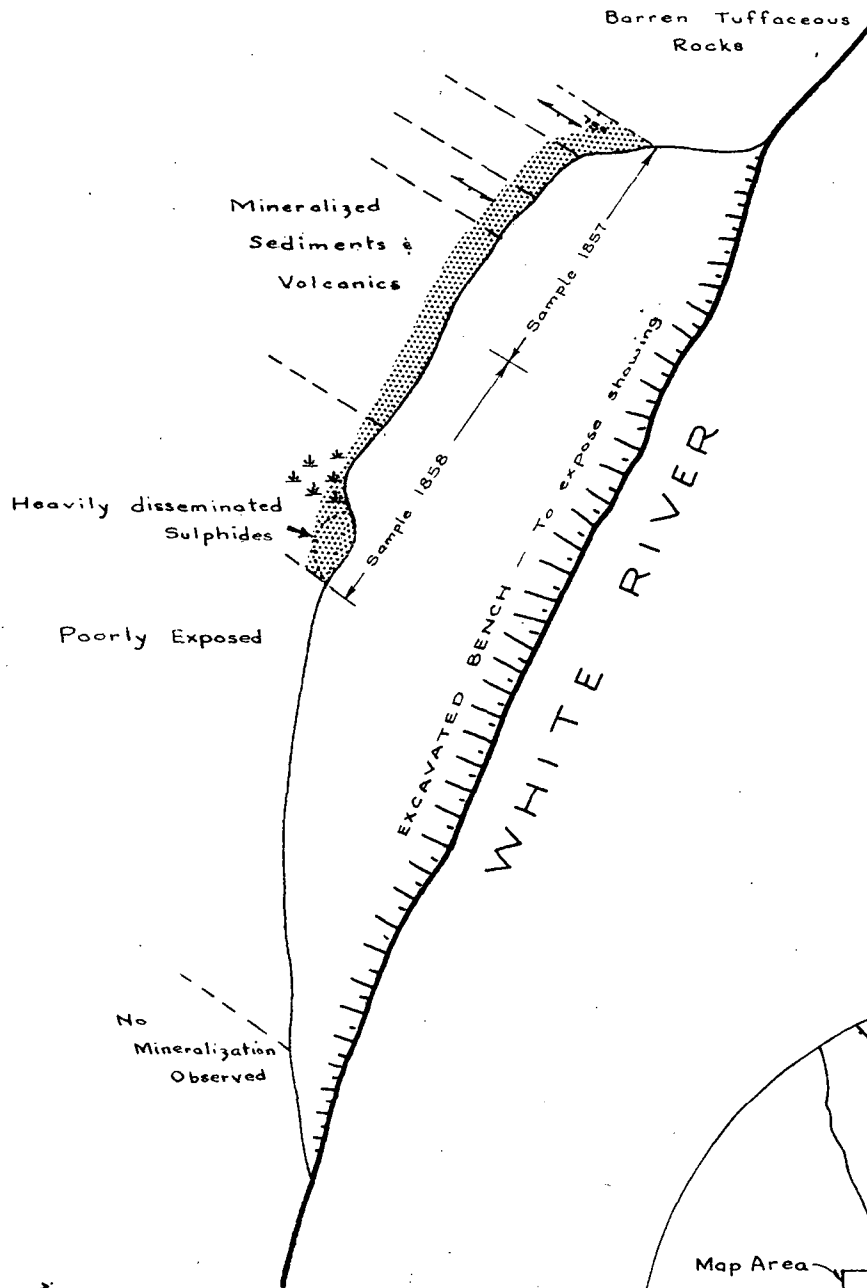
RESULTS OF 1966 TRENCHING FIG. 12

PETER H. SEVENSMA CONSULTANT

VANCOUVER B.C. OCTOBER 1966



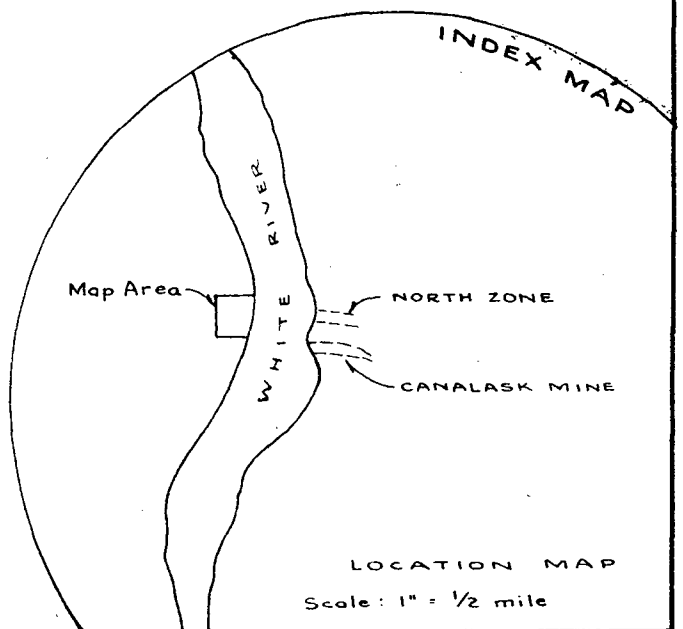
SHOWING "D"



* ASSAY DATA

Sample No.	Width	O ₃ Ag/T	%Cu	%Ni
1857	25	.30	.16	Tr.
1858	30	.40	.88	Tr.

* Sampled by: P.H. Sevensma Consultants Ltd.
Assayed by: Whitehorse Assay Office.



MICRO GROUP-WHITEHORSE MD. - Y.T. 115-F-15

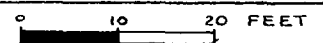
RESULTS OF 1966 TRENCHING

FIG. 13

PETER H. SEVENSMA

CONSULTANT

VANCOUVER B.C. .OCTOBER 1966



PROGRESS REPORT

to OCTOBER 10, 1966

MICRO GROUP

WHITEHORSE M.D., Y. T.

Claim Sheet 115-F-15

by

P.H. SEVENSMA CONSULTANTS LTD.

PROGRESS REPORT
to October 10, 1966

MICRO GROUP
Whitehorse M.D., Y.T.
Claim Sheet 115-F-15

I. SUMMARY AND RECOMMENDATIONS

This report should be read as an appendix to the writer's original report, dated March 14, 1966.

Recent prospecting, hand trenching and bulldozer stripping on the Micro claims have exposed five new occurrences of copper and/or nickel mineralization.

These new discoveries lead to a conservative estimate of the potential of this property in the range of from 1 to 5 million tons of 2% nickel, with a possibility of additional copper reserves.

It is noted that the present 282,000 tons @ 1.64% Ni occupy only 3% of the probable minimum structure.

A \$240,000 program is recommended to firm up the present reserves, to explore for their immediate extension and to explore the potential of the structure under the river valley.

II. RECENT WORK

Showing A

Blasting and stripping about 350' North of the main adit has exposed the North showing. A series of fine grained sedimentary and volcanic rocks is silicified or albitized and carries thin bands of pyrrhotite with minor chalcopyrite. The strike is about N80°E, the dip 80° South. The exposed rock is in a steep bank, cut by a steep dry gulch and is very rusty and weathered, with minor malachite stain.

Various samples taken of this exposure have consistently given values of 0.3 to 0.5% Cu., with traces or very low assays of nickel.

Old sampling in drill-hole S-11, collared in this zone, confirms these results.

Drill-hole S-10, to the best of the writer's knowledge, has not been sampled.

Holes S-14, S-2 and S-4 clearly intersect this zone, the projection at depth of which corresponds to the zone cut by drill-holes 24-2 and 24-3 from the 2400' level.

This zone warrants, immediately, one drill intersection on section 1 (10060E) at elevation 2400'.

Showing B

Bulldozer trenching has exposed a low cliff face with rusty weathered hardened sediments and volcanics, strike about E-W, dip 80°N. The showing is located about 50' East of the collar of drill-hole S-8. The grade averages 0.50% Cu. and 1.29% Ni. over 31'.

Found under shallow overburden, this showing demonstrates the presence of the main zone near where an old drill-hole drew a blank. The showing strongly suggests that the ore zone has a Westerly plunge that is fairly shallow.

Tracing of this showing to the East is fully warranted.

Showing C

Exposed by bulldozer trenching along the strike of the beds, this showing exhibits material with 75% sulphides. Its true width is not exposed and is unknown; it appears to be part of the North zone exposed in A.

The assay taken is indicative only and not representative, as it was taken along the strike.

Like B, it is a good example of what may be present in the bedrock under the overburden.

Further stripping is required to assess its relationship to the North zone, of which it appears to be the Easterly extension.

Showing D

This one has been hand-trenched on the West side of the White River.

The attached figure 13 shows clearly its position and grade.

This showing proves indubitably the presence of a mineralized zone across the river. Although mineralized in copper only, this showing is an excellent and immediate drill target.

Showing E

In prospecting the West side of White River, a new find was made about ³ a claim length NW of showing D, consisting of the following cross-section from North to South:

	<u>Ag</u>	<u>Cu</u>	<u>Ni</u>	<u>Sample No.</u>
10' green tuff	not sampled			
4'-7' dark argillite, base	tr	.03	tr	1859
same, 60' higher	.16	.31	tr	1861
2' brown argillite	tr	.04	.30	1860
2'-4' dark argillite				
6'-10' chlorite-rich formation	not sampled			

The formations are reported to dip steeply, but no attitudes have been reported.

Summary

Showings A, B, C and D have been personally examined by the writer and sampled under his direction by A.F. Koster van Groos and by H.S. Aikins. The former also sampled location E, which location has not been seen by the writer.

A mineralized zone crosses the White River; this zone carries commercial grade mineralization on the East side of the River and prospecting on the West side suggests strongly that this zone may be at least 4500' long; it is essentially open on both ends.

Control of the mineralization appears related to a broad fold, giving approximately 3000' of E-W strikes within a normally NW - SE striking belt.

The writer considers this structure a most attractive exploration target.

III. ECONOMICS

Taking what appears to be the central part of the structure, the bulk of the drill-indicated reserves is located in an area 320' long by 180' in vertical extent.

The central part of the structure is at least 2000' long and may be considered for a vertical extent of 1000'.

The 282,000 tons of 1.64% Ni. thus occupy only about 3% of the area of the minimum indicated structure.

In view of the poor core recoveries in the old EX size drilling, there is a good chance that a somewhat higher undiluted grade may be obtained.

Assuming that ore occupies from 15-20% of the structure, an average potential tonnage of the structure is 1.5 million tons @ 2% Ni. This takes into account the fact that a possible fault under the White River might render part of the zone non-minable.

As there are two parallel zones, and as minable material may therefore well occupy twice as large an area, double the above figure is a reasonable estimate of the potential.

In summary, a conservative estimate of the potential of the Micro Group nickel-bearing structure is from 1 to 5 million tons of a grade lying in the vicinity of 2% nickel.

In view of the favourable metallurgy and the relatively accessible location, a potential profit of \$5.00 per ton is a reasonable estimate.

IV. PROPOSED PROGRAM

In view of the foregoing, the following general program is proposed to determine whether underground development is justified.

1. Firm up existing reserves and grade
2. Explore for immediate extensions
3. Explore the potential of the structure
4. Explore the possible extension of the structure and the possibility of adjacent parallel structures.

These four parts of the program should be carried out concurrently and a good balance between the four should be maintained.

A detailed program will be prepared at a later stage, but the following cost estimate can be made at present.

Work can start immediately, as the bed of the river has shifted entirely to the West side of the valley in a single relatively narrow channel, providing a large working area.

Visual and geochemical prospecting	\$ 6,000
Linecutting and surveying	6,000
IP surveys, 30 line miles @ \$300	10,000
Geological work (mapping, logging, magnetics)	18,000
Seismic survey of river bed	5,000
Bulldozer work, 400 hours @ \$25	10,000
Camp installation	10,000
2000' underground drilling @ \$12 per foot	24,000
6000' of surface drilling @ \$15 per foot	<u>90,000</u>
	\$179,000
Engineering and overhead 10%	18,000
Contingency 10%	<u>18,000</u>
	\$215,000
Contingency for property acquisition 10%	<u>25,000</u>
	<u>\$240,000</u>

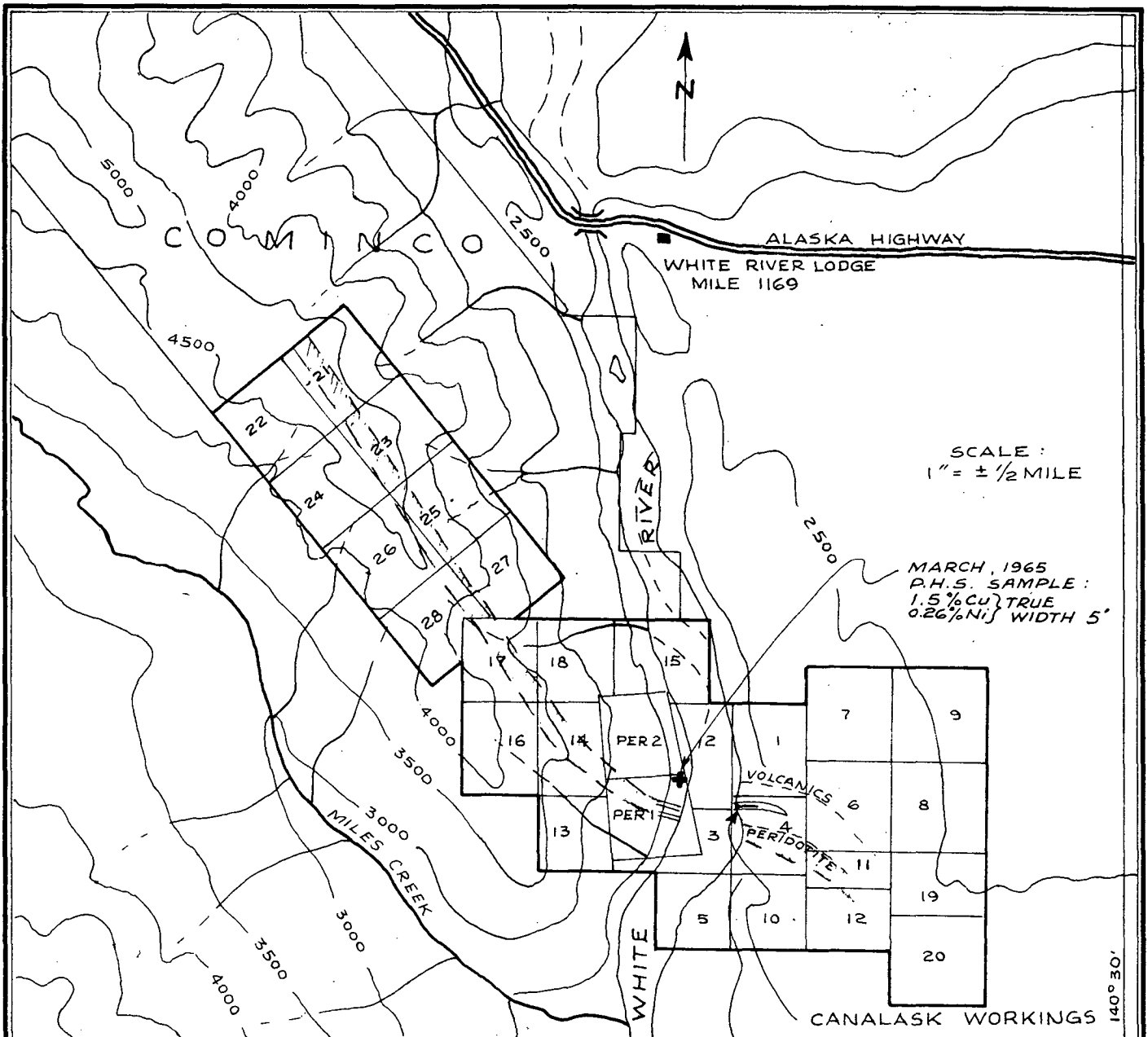
Respectfully submitted,

P.H. SEVENSMA CONSULTANTS LTD.

P.H. Sevensma, Ph.D., P. Eng.

PHS/lz

Attach. New figures 12 and 13
Revised figures 4 to 9



LEGEND

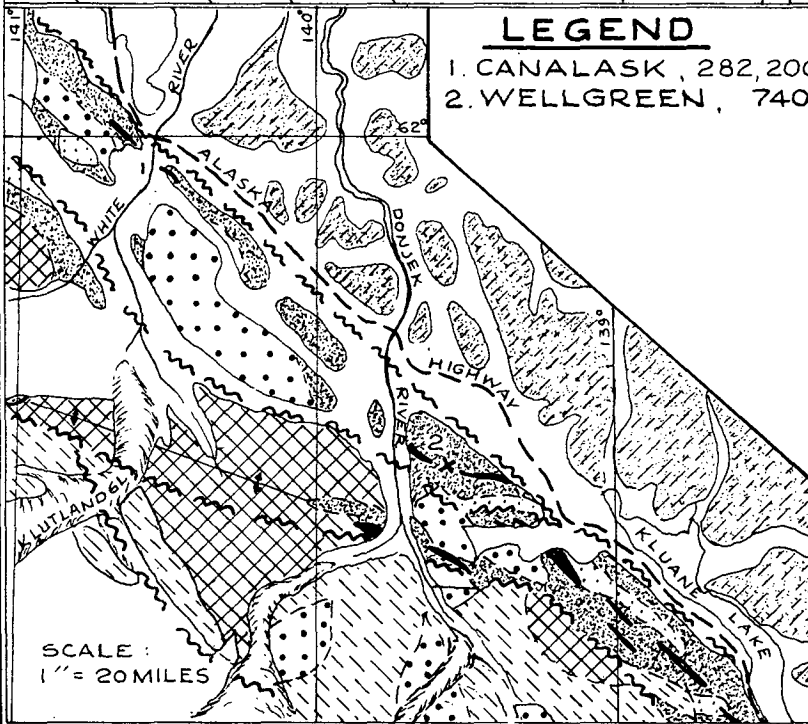
- 1. CANALASK, 282,200 T. @ 1.64% Ni; .04% Cu., DISSEM.
- 2. WELLGREEN, 740,000 T. @ 2.04% Ni; 1.42% Cu. MASSIVE

GEOLOGICAL LEGEND

- Surficial Deposits
- Tertiary basalts, Andesites
- Cretaceous granite
- Mesozoic sed., some volcanics
- Permian Volc. and Seds.
- Peridotites; Permian
- Devonian Seds. and Volc.
- Youkon Gp., including Cenozoic(?) granites and rhyolites

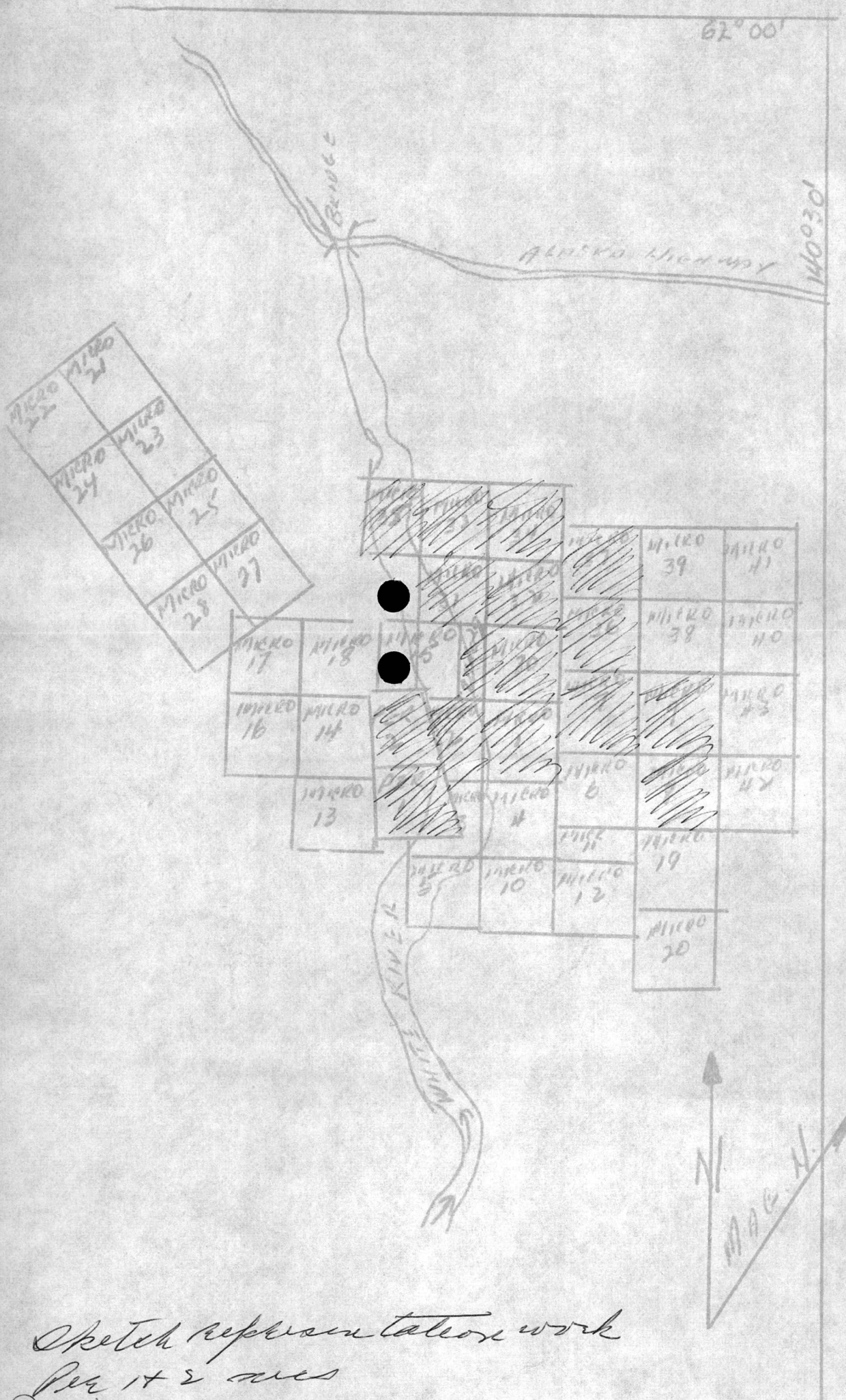
MICRO GROUP
WHITEHORSE M.D. Y.T.
115 - F - 15

P.H. SEVENSMA CONSULTANT
 VANCOUVER, B.C. MARCH, 1966
 SCALE AS SHOWN FIG. 1



SCALE:
 1" = 20 MILES

SKETCH FROM SHEET
115 F-15



Sketch representation work
Per it 2 mes
Micro 7-8-9 "
Micro 29037 " inclusive
submitted by G. Gibson Mar 20/67.

OFFICE OF THE ARCHIBUS
 NATIONAL ARCHIVES
 CANADA

P. H. SEVENSMA CONSULTANTS LTD.

CONSULTING GEOLOGISTS
EXPLORATION & MINING

P.O. BOX 758
WHITEHORSE, Y. T.
PHONE: 667-2906

715-850 WEST HASTINGS ST.,
VANCOUVER 1, B.C.
PHONE 682-7155

INVOICE TO:

P. Versluce
Box 164
Whitehorse. Y.T.

DATE:

October 18, 1966

September 30th - October 15th, 1966

Examination and Report Micro Group

2 days @ \$150.00

Sr. Technician, 4 days @ \$50.00

Your share travelling and other expenses

Total re services rendered

\$ 300.00

200.00

110.90

\$ 610.90

P. H. SEVENSMA CONSULTANTS LTD.

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VANCOUVER 1, B.C.
PHONE 682-7155

INVOICE TO:

P. Versluce
Box 164
Whitehorse, Y.T.

DATE:

October 18, 1966

Expenses A.F. Koster van Groos to White River and Quill Creek
August 25th - September 18th, 1966

Gas, meals and maps	\$ 108.46
Drafting	<u>22.50</u>
	\$ 130.96

1/3 share to Micro Project

\$ 43.65

P. H. SEVENSMA CONSULTANTS LTD.

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VANCOUVER 1, B.C.
PHONE 682-7155

INVOICE TO:

P. Versluce
Box 164
Whitehorse, Y.T.

DATE:

January 31, 1967

Period to January 31st, 1967

1 day Professional services
Assays October 1966, as per attached statement
Miscellaneous costs, as per attached statement

50.00 applicable to Per 1 & 2
\$ 125.00

30.00

68.04

\$ 223.04

Said in full, Febr. 27, 1967.
J. H. Sevensma

P. H. SEVENSMA CONSULTANTS LTD.

CONSULTING GEOLOGISTS
EXPLORATION & MINING

P.O. BOX 758
WHITEHORSE, Y. T.
PHONE: 667-2906

715-850 WEST HASTINGS ST.,
VANCOUVER 1, B.C.
PHONE 682-7155

INVOICE TO:

P. Versluce

DATE:

December 30, 1966

ASSAYS FOR 1966 FIELD SEASON

October 12, 1966 File No. 3362-6

Assayed for Ag, Cu, Ni

\$ 30.00

6 assay coupons supplied by P.H. Sevensma

P. H. SEVENSMA CONSULTANTS LTD.

CONSULTING GEOLOGISTS
EXPLORATION & MINING

P.O. BOX 758
WHITEHORSE, Y. T.
PHONE: 667-2906

715-850 WEST HASTINGS ST.,
VANCOUVER 1, B.C.
PHONE 682-7155

INVOICE TO: P. Versluce
Whitehorse, Y.T.

DATE: January 31, 1967

Re: Micro Group
MISCELLANEOUS DISBURSEMENTS

Oct. 13/66	Vancal (printing) Inv. V44226	\$ 4.08
Nov. 15	L.D. Call to P. Versluce	8.45
Nov. 22	Riley's (printing) V22331	.87
Nov. 22	Riley's " V22421	2.11
Nov. 25	Photos National Air Photo Library	3.00
Dec. 5	L.D. Call for P. Versluce	6.80
Dec. 7	Process Business Centre (printing) Inv. 0326	26.20
Jan. 6/67	Xerox copies (6 @ 10¢)	.60
Jan. 9	Riley's (printing) V25097	5.13
Jan. 16	Xerox copies (84 @ 10¢)	8.40
Jan. 20	Xerox copies (24 @ 10¢)	<u>2.40</u>
	CARRIED TO ATTACHED INVOICE	\$ <u>68.04</u>

IN THE MATTER OF P. VERSLUCE AND
ASSOCIATES AND IN THE MATTER OF
CONSULTING FEES AND EXPENSES PAID
ON THE MICRO GROUP

AFFIDAVIT

I, PETER SEVENSMA, of 715-850 West Hastings Street, Vancouver, Province of British Columbia, HEREBY MAKE OATH AND SAY AS FOLLOWS:-

That listed below this, my Affidavit, is a list of consulting fees and expenses received from P. Versluce & Associates which I certify to be fully applicable to the Micro Group and to be accurate to the best of my knowledge and belief.

SWORN before me at the City)
of Vancouver, Province of)
British Columbia, this 13)
of March, A.D. 1967)

[Signature])

[Signature]

Peter Sevensma

A Notary Public in and for the
Province of British Columbia

Consulting fees and expenses
paid by P. Versluce & Associates

<u>Date of Invoice</u>	<u>Re</u>	<u>Fees</u>	<u>Disbursements</u>	<u>Total</u>
Oct. 18, 1966	7 days geologist (Selwyn Syndicate)		\$ 220.00	
Oct. 18, 1966	jeep rental (M. Cloutier)		53.53	
Oct. 18, 1966	gas, meals, maps re Koster van Groos and drafting		36.15 7.50	
Oct. 18, 1966	2 days professional services	\$300.00		
	4 days Sr. Technician @ \$50 travelling and other expenses	200.00	110.90	
Jan. 31, 1967	1 day professional services	125.00		
	assay expense		30.00	
	miscellaneous printing, etc.		<u>68.04</u>	
		\$625.00	\$ 526.12	
				<u>\$1,151.12</u>

Interesting nickel property
by P. Verbeke, Box 164, Whitehorse

PETER H. SEVENSMA, PH.D., P.ENG
Consulting Geologist
EXPLORATION AND MINING

Also Box 758 - Whitehorse Y.T.

715 - 850 WEST HASTINGS ST.
VANCOUVER 1, B.C.
RES. 908 - 1280 HARO ST.

TELEPHONE:
AREA CODE 604
BUS.: 682-7155
RES.: 683-8863

PROGRESS REPORT

to OCTOBER 10, 1966

MICRO GROUP

WHITEHORSE M.D., Y. T.

Claim Sheet 115-F-15

by

P.H. SEVENSMA CONSULTANTS LTD.

019083

PROGRESS REPORT
to October 10, 1966

MICRO GROUP
Whitehorse M.D., Y.T.
Claim Sheet 115-F-15

I. SUMMARY AND RECOMMENDATIONS

This report should be read as an appendix to the writer's original report, dated March 14, 1966.

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A \$240,000 program is recommended to firm up the present reserves, to explore for their immediate extension and to explore the potential of the structure under the river valley.

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Showing A

Blasting and stripping about 350' North of the main adit has exposed the North showing. A series of fine grained sedimentary and volcanic rocks is silicified or albitized and carries thin bands of pyrrhotite with minor chalcopyrite. The strike is about N80°E, the dip 80° South. The exposed rock is in a steep bank, cut by a steep dry gulch and is very rusty and weathered, with minor malachite stain.

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This zone warrants, immediately, one drill intersection on section 1 (10060E) at elevation 2400'.

Showing B

Bulldozer trenching has exposed a low cliff face with rusty weathered hardened sediments and volcanics, strike about E-W, dip 80°N. The showing is located about 50' East of the collar of drill-hole S-8. The grade averages 0.50% Cu, and 1.29% Ni, over 31'.

Found under shallow overburden, this showing demonstrates the presence of the main zone near where an old drill-hole drew a blank. The showing strongly suggests that the ore zone has a Westerly plunge that is fairly shallow.

Tracing of this showing to the East is fully warranted.

Showing C

Exposed by bulldozer trenching along the strike of the beds, this showing exhibits material with 75% sulphides. Its true width is not exposed and is unknown; it appears to be part of the North zone exposed in A.

The assay taken is indicative only and not representative, as it was taken along the strike.

Like B, it is a good example of what may be present in the bedrock under the overburden.

Further stripping is required to assess its relationship to the North zone, of which it appears to be the Easterly extension.

Showing D

This one has been hand-trenched on the West side of the White River.

The attached figure 13 shows clearly its position and grade.

This showing proves indubitably the presence of a mineralized zone across the river. Although mineralized in copper only, this showing is an excellent and immediate drill target.

Showing E

In prospecting the West side of White River, a new find was made about a claim length NW of showing D, consisting of the following cross-section from North to South:

	<u>Ag</u>	<u>Cu</u>	<u>Ni</u>	<u>Sample No.</u>
10' green tuff	not sampled			
4'-7' dark argillite, base	tr	.03	tr	1859
same, 60' higher	.16	.31	tr	1861
2' brown argillite	tr	.04	.30	1860
2'-4' dark argillite				
6'-10' chlorite-rich formation	not sampled			

The formations are reported to dip steeply, but no attitudes have been reported.

Summary

Showings A, B, C and D have been personally examined by the writer and sampled under his direction by A.F. Koster van Groos and by H.S. Aikins. The former also sampled location E, which location has not been seen by the writer.

A mineralized zone crosses the White River; this zone carries commercial grade mineralization on the East side of the River and prospecting on the West side suggests strongly that this zone may be at least 4500' long; it is essentially open on both ends.

Control of the mineralization appears related to a broad fold, giving approximately 3000' of E-W strikes within a normally NW - SE striking belt.

The writer considers this structure a most attractive exploration target.

III. ECONOMICS

Taking what appears to be the central part of the structure, the bulk of the drill-indicated reserves is located in an area 320' long by 180' in vertical extent.

The central part of the structure is at least 2000' long and may be considered for a vertical extent of 1000'.

The 282,000 tons of 1.64% Ni, thus occupy only about 3% of the area of the minimum indicated structure.

In view of the poor core recoveries in the old EX size drilling, there is a good chance that a somewhat higher undiluted grade may be obtained.

Assuming that ore occupies from 15-20% of the structure, an average potential tonnage of the structure is 1.5 million tons @ 2% Ni. This takes into account the fact that a possible fault under the White River might render part of the zone non-minable.

As there are two parallel zones, and as minable material may therefore well occupy twice as large an area, double the above figure is a reasonable estimate of the potential.

In summary, a conservative estimate of the potential of the Micro Group nickel-bearing structure is from 1 to 5 million tons of a grade lying in the vicinity of 2% nickel.

In view of the favourable metallurgy and the relatively accessible location, a potential profit of \$5.00 per ton is a reasonable estimate.

IV. PROPOSED PROGRAM

In view of the foregoing, the following general program is proposed to determine whether underground development is justified.

1. Firm up existing reserves and grade
2. Explore for immediate extensions
3. Explore the potential of the structure
4. Explore the possible extension of the structure and the possibility of adjacent parallel structures.

These four parts of the program should be carried out concurrently and a good balance between the four should be maintained.

A detailed program will be prepared at a later stage, but the following cost estimate can be made at present.

Work can start immediately, as the bed of the river has shifted entirely to the West side of the valley in a single relatively narrow channel, providing a large working area.

Visual and geochemical prospecting	\$ 6,000
Linecutting and surveying	6,000
IP surveys, 30 line miles @ \$300	10,000
Geological work (mapping, logging, magnetics)	18,000
Seismic survey of river bed	5,000
Bulldozer work, 400 hours @ \$25	10,000
Camp installation	10,000
2000' underground drilling @ \$12 per foot	24,000
6000' of surface drilling @ \$15 per foot	<u>90,000</u>
	\$179,000
Engineering and overhead 10%	18,000
Contingency 10%	<u>18,000</u>
	\$215,000
Contingency for property acquisition 10%	<u>25,000</u>
	<u>\$240,000</u>

Respectfully submitted,

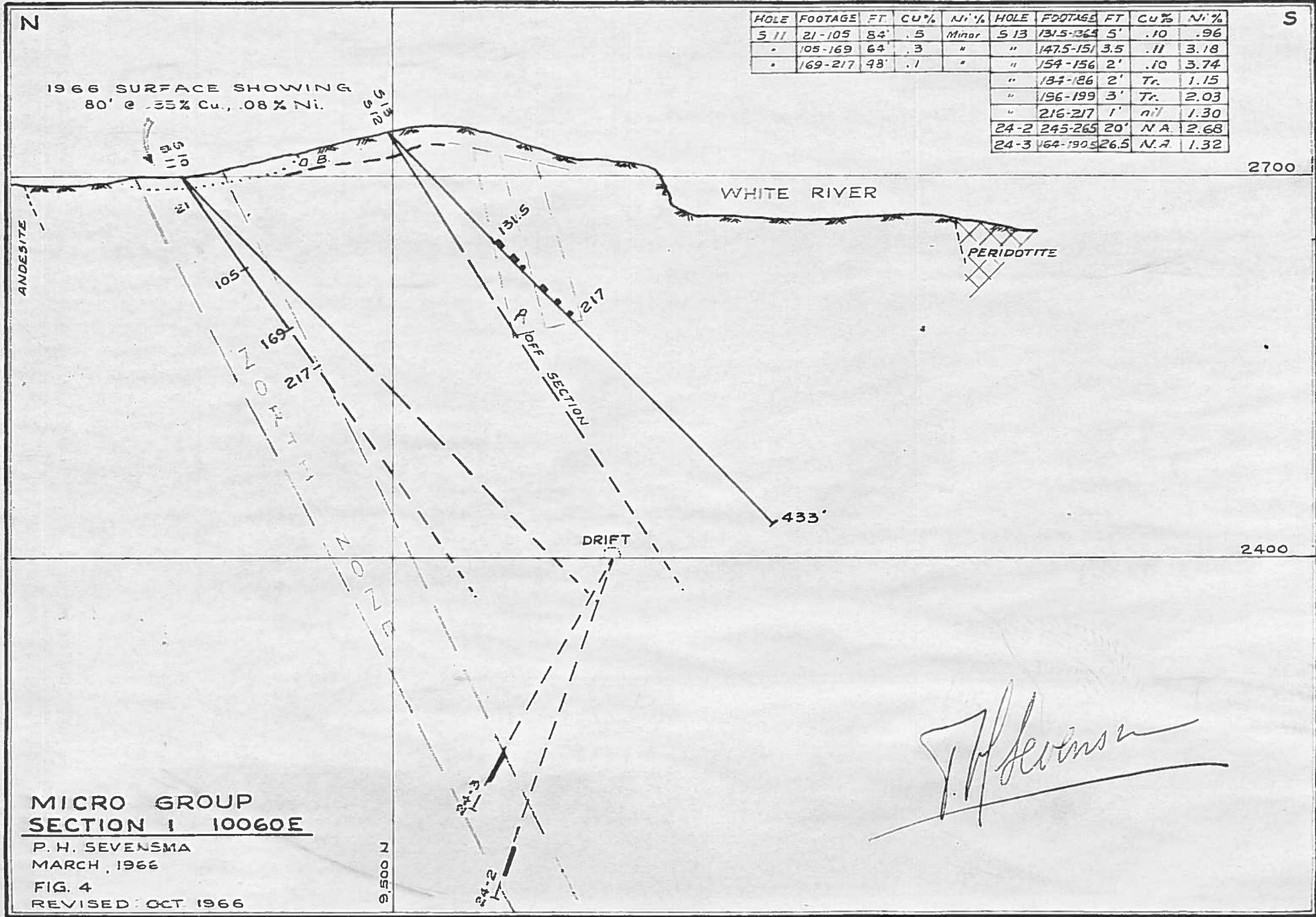
P.H. SEVENSMA CONSULTANTS LTD.



P.H. Sevensma, Ph.D., P. Eng.

PHS/1z

Attach. New figures 12 and 13
Revised figures 4 to 9



**MICRO GROUP
SECTION I 10060E**

P. H. SEVENSMA
MARCH, 1966

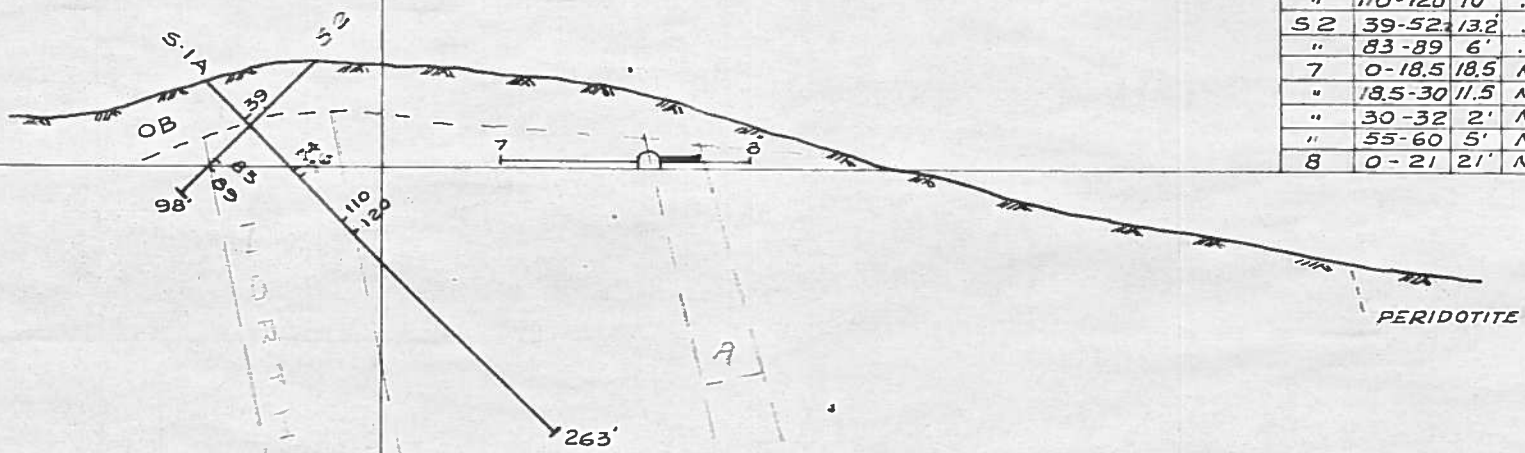
FIG. 4
REVISED OCT 1966

N

S

HOLE	FOOTAGE	FT.	CU%	N. 50
S 1A	39-74	35'	nil.	.77
"	76-93	17'	.01	.35
"	110-120	10	.33	.05
S 2	39-52	13.2	.02	.51
"	83-89	6'	.02	.31
7	0-18.5	18.5	N.A.	.30
"	18.5-30	11.5	N.A.	.04
"	30-32	2'	N.A.	1.23
"	55-60	5'	N.A.	.77
8	0-21	21'	N.A.	3.02

2700



2400

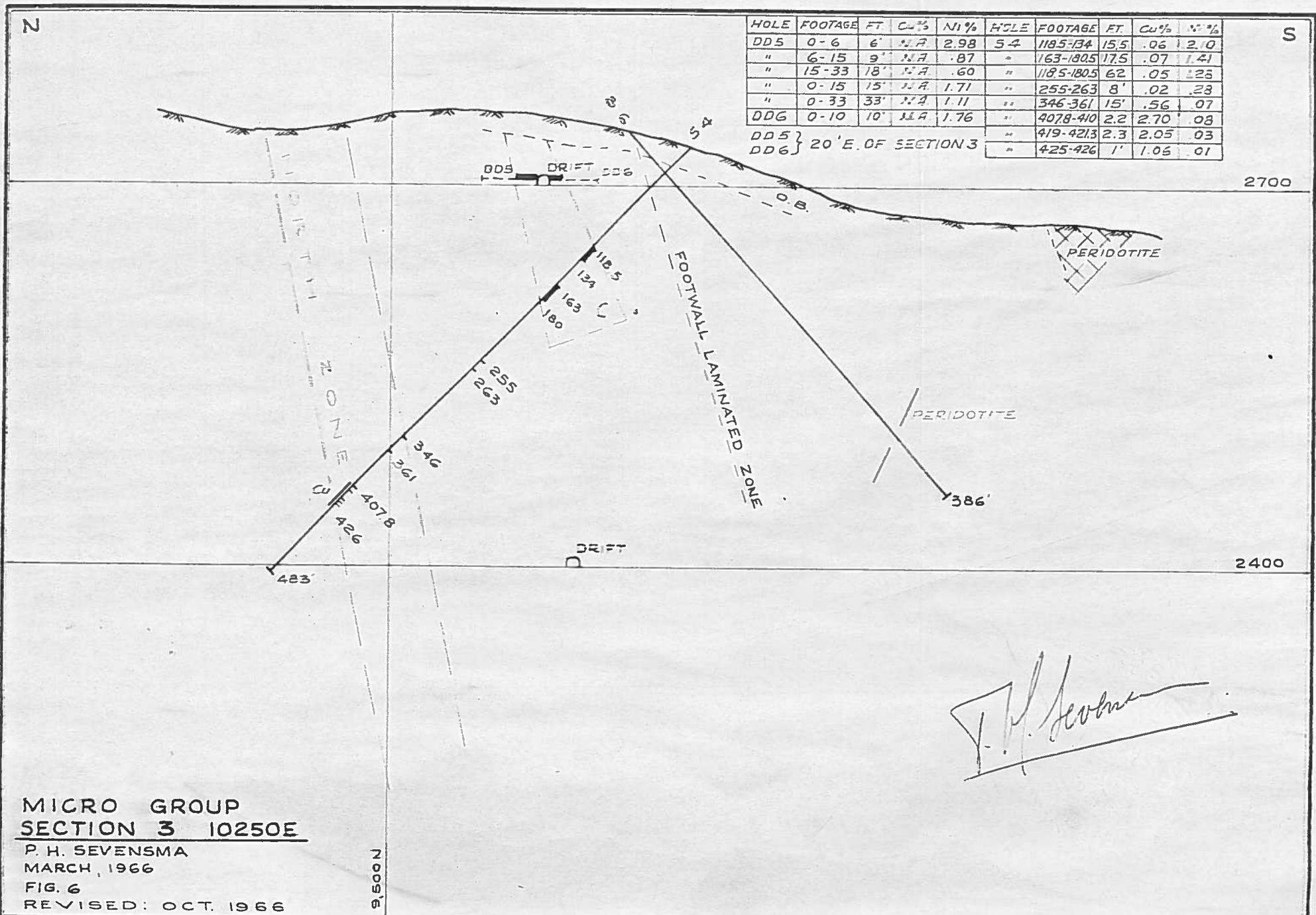
T.H. Sevensma

**MICRO GROUP
SECTION 2 10150 E**

P. H. SEVENSMA
MARCH, 1966

FIG. 5
REVISED: OCT. 1966

N 500 S

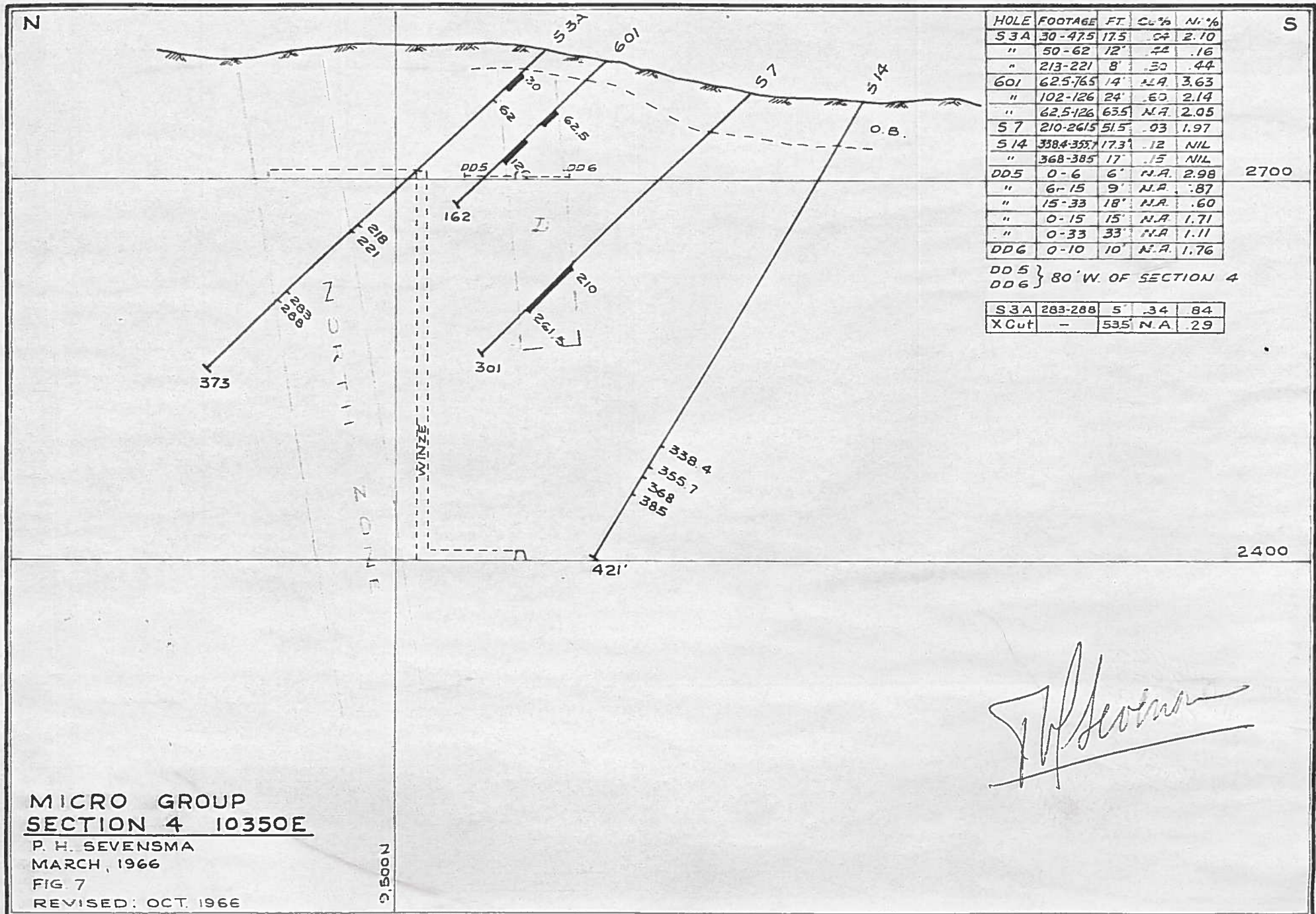


HOLE	FOOTAGE	FT.	Cu%	Ni%	HOLE	FOOTAGE	FT.	Cu%	Ni%
DD5	0-6	6'	N.A.	2.98	S4	118.5-134	15.5	.06	2.10
"	6-15	9'	N.A.	.87	"	163-180.5	17.5	.07	1.41
"	15-33	18'	N.A.	.60	"	118.5-180.5	62	.05	.25
"	0-15	15'	N.A.	1.71	"	255-263	8'	.02	.28
"	0-33	33'	N.A.	1.11	"	346-361	15'	.56	.07
DDG	0-10	10'	N.A.	1.76	"	407.8-410	2.2	2.70	.08
DD5					"	419-421.3	2.3	2.05	.03
DD6					"	425-426	1'	1.06	.01

DD5 } 20' E. OF SECTION 3
 DD6 }

MICRO GROUP
 SECTION 3 10250E
 P. H. SEVENSMA
 MARCH, 1966
 FIG. 6
 REVISED: OCT. 1966

P. H. Sevensma



HOLE	FOOTAGE	FT.	CL% ^a	Ni% ^b
S3A	30-47.5	17.5	.34	2.10
"	50-62	12'	.22	.16
"	213-221	8'	.30	.44
601	62.5-76.5	14'	N.A.	3.63
"	102-126	24'	.60	2.14
"	62.5-126	63.5	N.A.	2.05
S7	210-261.5	51.5	.93	1.97
S14	338.4-355.7	17.3	.12	NIL
"	368-385	17'	.15	NIL
DD5	0-6	6'	N.A.	2.98
"	6-15	9'	N.A.	.87
"	15-33	18'	N.A.	.60
"	0-15	15'	N.A.	1.71
"	0-33	33'	N.A.	1.11
DD6	0-10	10'	N.A.	1.76

DD5 } 80' W. OF SECTION 4
 DD6 }

S3A	283-288	5'	.34	84
X Cut	-	53.5	N.A.	.29

**MICRO GROUP
SECTION 4 10350E**

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MARCH, 1966

FIG 7
REVISED: OCT. 1966

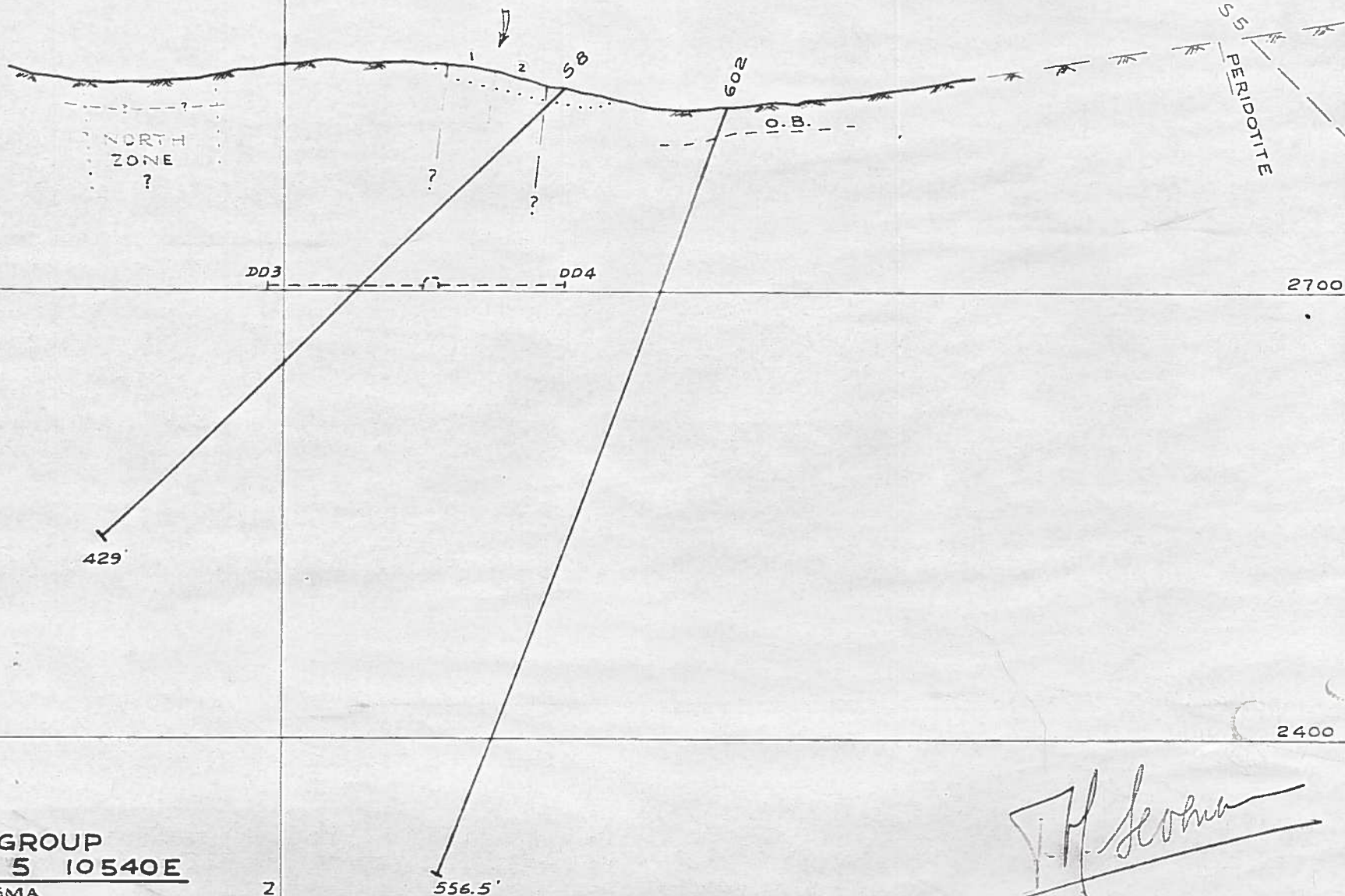
P. H. Sevensma

N 1:5000

1966 SURFACE SHOWING (off Sect.)

- 1 31' @ .50% Cu., 1.29% Ni.
- 2 36' @ .15% Cu., Tr. Ni.

DD3 } 25' W. OF SECTION 5
DD4 }



**MICRO GROUP
SECTION 5 10540E**

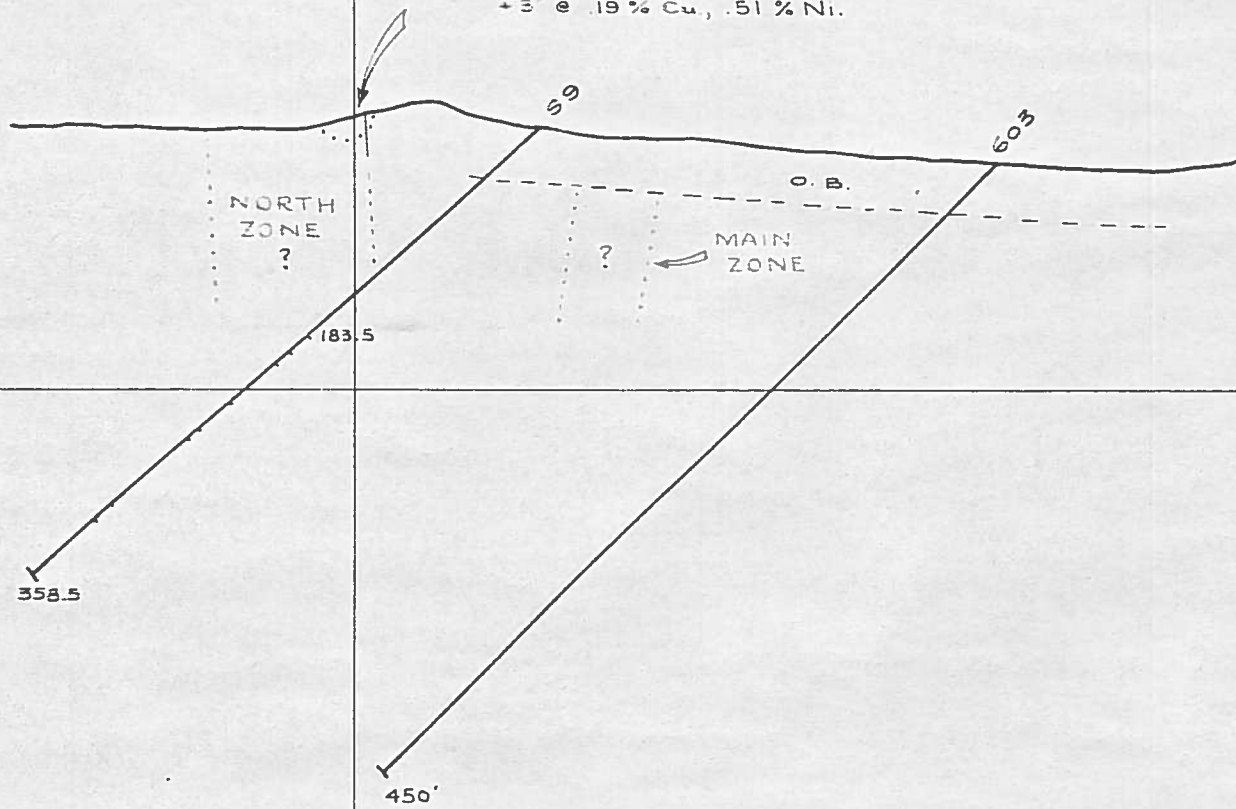
P. H. SEVENSMA
MARCH, 1966
FIG. 8
REVISED: OCT. 1966

P. H. Sevensma

Z

S

1966 SURFACE SHOWING
(incompletely exposed)
+3' @ .19% Cu, .51% Ni.



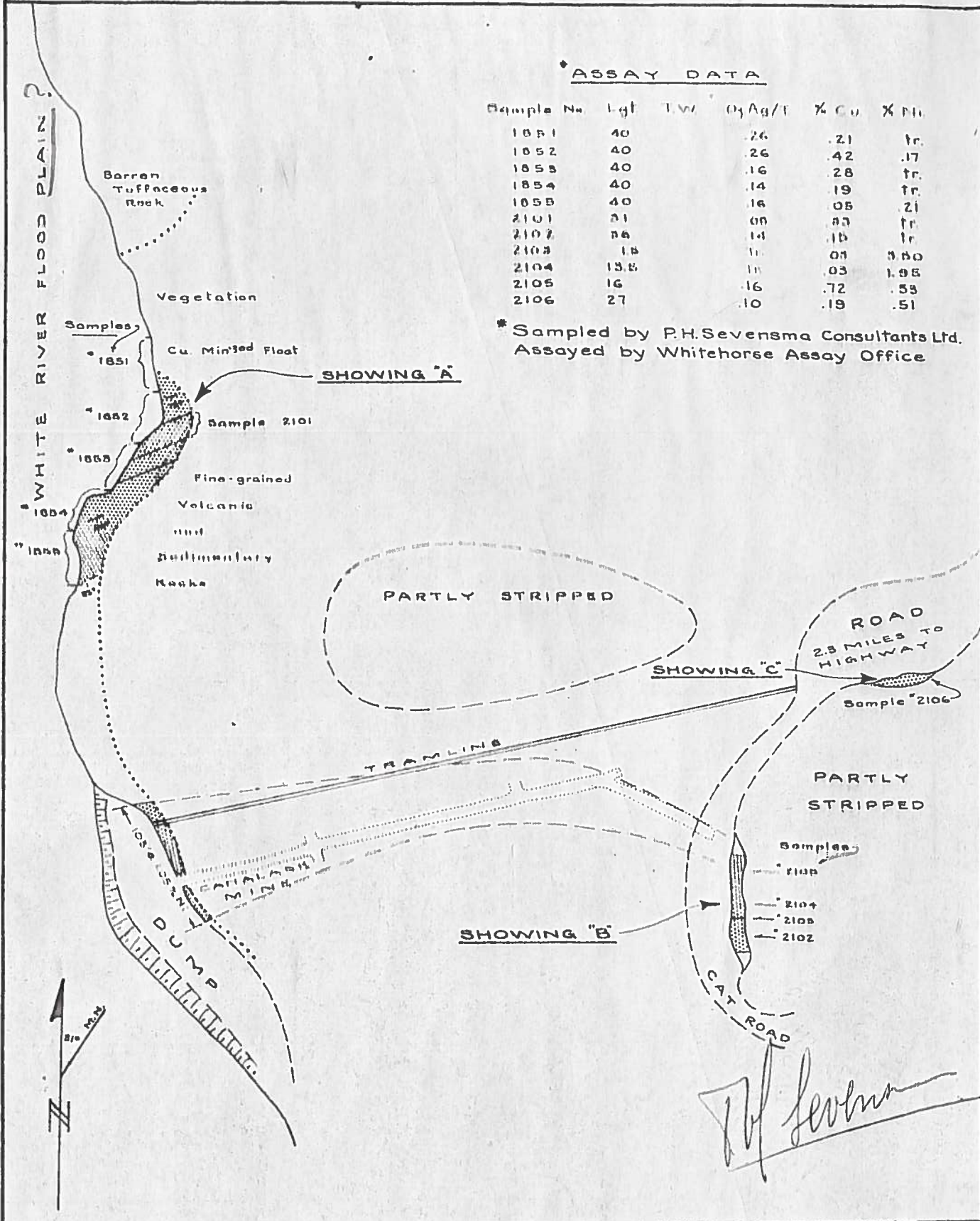
MICRO GROUP
SECTION 6 10710 E

P. H. SEVENSMA
MARCH, 1966

FIG. 9
REVISED: OCT 1966

9,500 N

P. H. Sevensma



ASSAY DATA

Sample No	Lgt	T.W	O ₂ Ag/T	% Cu	X Pb
1851	40		.26	.21	tr.
1852	40		.26	.42	.17
1853	40		.16	.28	tr.
1854	40		.14	.19	tr.
1855	40		.16	.05	.21
2101	31		.08	.83	tr.
2102	26		.14	.16	tr.
2103	18		tr.	.01	1.80
2104	13.6		tr.	.03	1.95
2105	16		.16	.72	.53
2106	27		.10	.19	.51

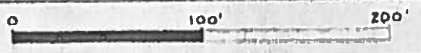
* Sampled by P.H. Sevensma Consultants Ltd.
Assayed by Whitehorse Assay Office

MICRO GROUP-WHITEHORSE M.D., Y. T. 115-F-15

RESULTS OF 1966 TRENCHING FIG. 12

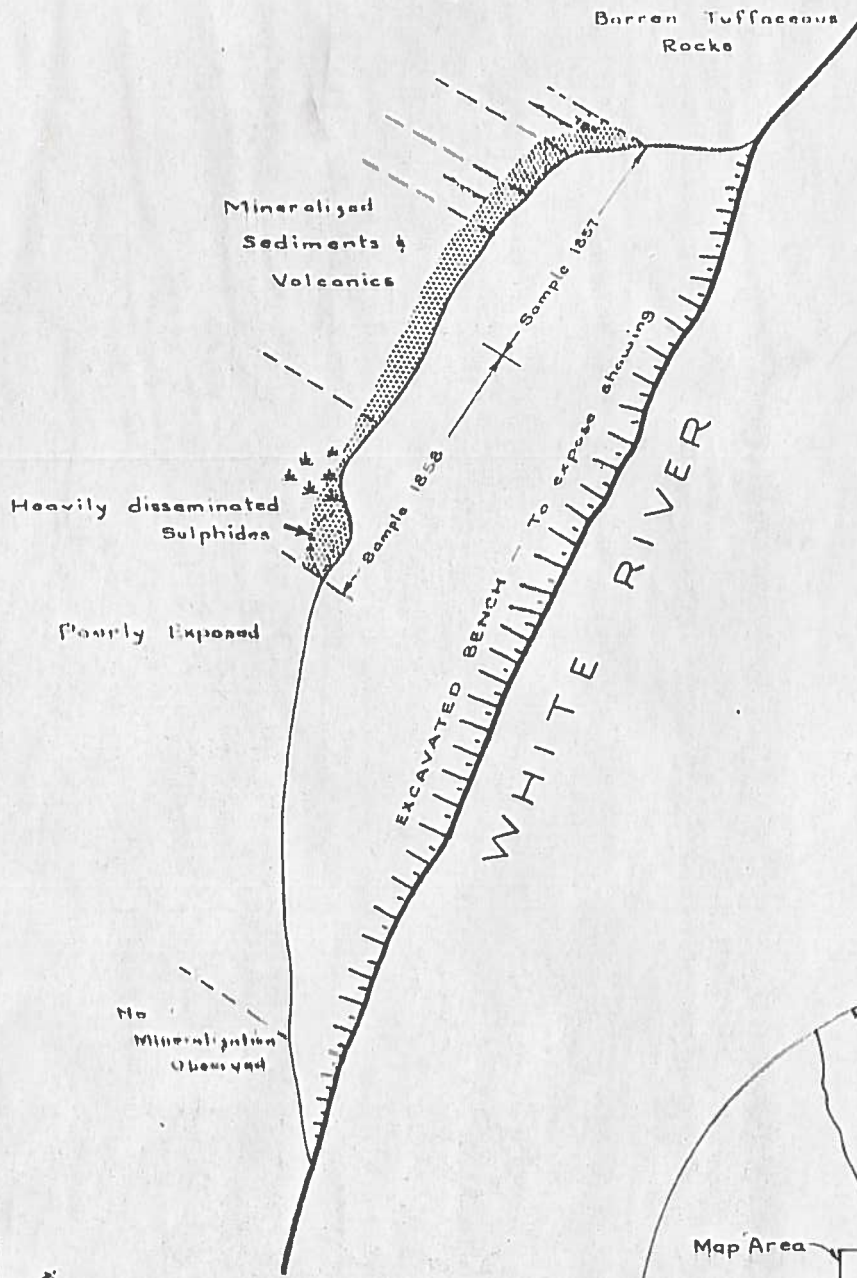
PETER H. SEVENSMA CONSULTANT

VANCOUVER B.C. OCTOBER 1966



P. H. Sevensma

SHOWING "D"



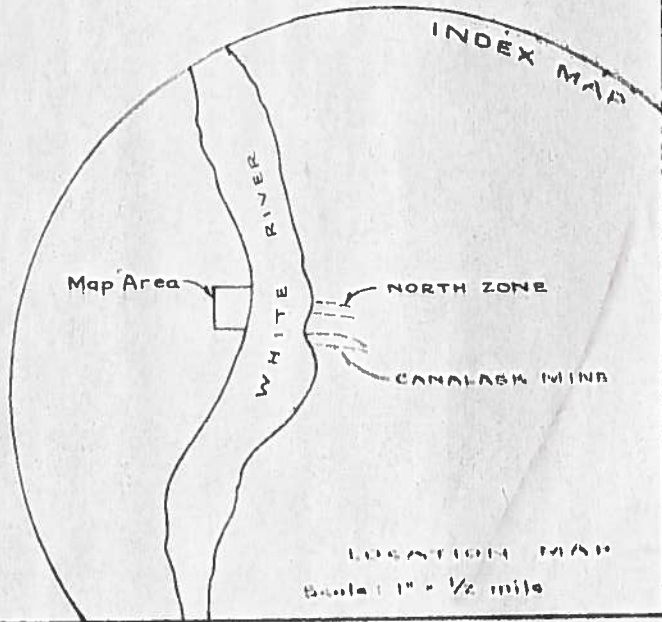
* ASSAY DATA

Sample No	Width	O ₂ Ag/l	%Cu	%Ni
1857	26	.30	.16	Tr
1858	30	.40	.68	Tr

* Sampled by: P.H. Sevensma Consultants Ltd.

Assayed by: Whitehorse Assay Office

P.H. Sevensma



MICRO GROUP-WHITEHORSE M.D. - Y.T. 115-F-15

RESULTS OF 1966 TRENCHING

FIG. 13

PETER H. SEVEN SMA

CONSULTANT

VANCOUVER B.C.

OCTOBER 1966



CANEX AERIAL EXPLORATIONS LTD.
and
P. VERSLUCE & ASSOCIATES

MICRO GROUP-WHITE RIVER AREA
WHITEHORSE M.D., Y.T.

Peter H. Sevensma, Ph.D., P. Eng.

CANEX AERIAL EXPLORATIONS LTD.

and

P. VERSLUCE AND ASSOCIATES

REPORT ON THE
MICRO GROUP, WHITE RIVER AREA
WHITEHORSE M.D. - Y.T.

Submitted By

Peter H. Sevenama, Ph.D., P. Eng.

March 14, 1966

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ILLUSTRATIONS

Fig. 1	Claim location	1" = $\frac{1}{2}$ mile
Fig. 2	Surface Plan	1" = 100'
Fig. 3	Underground development	1" = 40'
Fig. 4 - 10	Sections 1 - 7	1" = 100'
Fig. 11	Longitudinal projection	1" = 100'
Appendix A	Sample assay-logs.	

INTRODUCTION

The writer has been requested jointly by Canex Aerial Explorations Limited of Vancouver and by P. Versluce and Associates of Whitehorse to prepare a review of the Micro Group of claims, located near mile 1169 on the Alaska Highway, Whitehorse M.D., Y.T., and owned by P. Versluce and Associates.

The writer is well acquainted with the area and with the property which he has last examined in March and September 1965 while in the employ of the Consolidated Mining and Smelting Company of Canada Limited (Cominco).

At the time of his last examination, the writer has acquired for Cominco, by optioning, purchase and staking, a number of claims adjoining the Micro Group on the North West.

PROPERTY AND ACCESS

The property consists of the following claims:

<u>Grant No.</u>	<u>Claim</u>
85827-85828	Per 1 & 2
86108-86109	Micro 1 & 2
86110	Micro 8
86111 & 112	Micro 3 & 4
86113	Micro 9
86114-86116	Micro 5 - 7
86360	Micro 12
86361	Micro 16
86362	Micro 18
86363	Micro 13
86364	Micro 15
86365	Micro 17
86366	Micro 20
86367	Micro 10
86368	Micro 11
86369	Micro 14
86370	Micro 19
93002-93009	Micro 21 - 28 - 37

This is a total of 30 mining claims.

Their location is on the White River, near mile 1169, Alaska Highway, Lat. N61° 57' and Long. W140° 32', Elevation 2400' to 4800', on claim sheet 115-F-15, Whitehorse M.D., Y.T. (Fig. 1).

The claims on the East bank of the White River have underground development, and are easily accessible by a 3 mile truckroad from mile 1168 on the Alaska Highway. This point is 250 roadmiles from Whitehorse, or about 300 roadmiles from tidewater at Haines, Alaska.

The claims on the West bank are best accessible over the ice in winter; a good tote-trail on the West bank is difficult to cut due to permafrost and some rock bluffs.

HISTORY

A summary of the development of the property is as follows:

1952 - 1953 Discovered by Prospector's Airways

April 28 - September 22, 1953
14 core-holes, S1A to S14, were drilled on surface by P.A., for a total footage of 5322.5'

1954 Property acquired by Canalask Nickel Mines.

August - September 1954
1380.5' of surface drilling by Canalask (601-604).

May 4 - September 11, 1956
12 surface holes drilled by Canalask (605-616), totalling 7404'.

October 1956 Reserves calculated at 550,000 tons @ 1.68% Ni., .04% Cu. undiluted.

1957 1000' of adit and crosscut on the 2700 level; Underground drilling, 10 holes, No. 1 - 10, on the 2700 level, totalling about 770'.

1957 - 1958 336' Winze and 375' of drifting on the 2400 level.

March - April 1958 Underground drilling, 4 holes (24-1 to 4) on the 2400 level, totalling about 750'.

April 29, 1958 All work suspended; property dormant since.
March 1964 Ground came open and was restaked by P. Versluce and Associates.
March 1965 Surface trenching by P. Versluce. Property examinations by the writer.

Total surface drilling to the end of 1956 is 14,107'. Total underground drill footage is approximately 770' on the 2700 level and about 750' on the 2400 level, i.e. about 1500' underground. This makes for a total of about 15,600' of core-drilling.

Canalask Nickel Mines, later Northwest Canalask, financed airborne magnetic surveys by H. Lundberg in April and September 1953.

As a result, 571 claims in 13 groups were acquired by staking and/or optioning by Canalask between Snag and Burwash Creek.

This, it is believed, strained their resources and although underground development had been encouraging, finances dried up in 1957-1958 and work was stopped, the last two holes at the face of 2400 level having intersected respectively 20' of 2.68% Ni. and 26.5' of 1.32% Ni. just before shut-down.

Significant nickel mineralization had by then been outlined over a maximum length of 380' and indicated over a maximum vertical extent of 640'.

The best underground intersection was crosscutted and gave 50' of 2.63% Ni. in channel sampling and 2.55% Ni. in muck sampling (Fig. 3).

No significant nickel discoveries were made on any of the other 571 claims and most were gradually allowed to lapse starting about 1955 after some drilling had been done on one group.

REGIONAL GEOLOGY

The Shakwak Nickel belt, extends approximately from the south end of the Duke River valley (South end of Kluane Lake) at least as far North as Miles Ridge, N.W. of the White River.

Nickel-bearing pyrrhotite occurs in association with elongated steeply dipping serpentinized peridotite bodies, either along their contact with the enclosing Permian volcanic sedimentary series, or within several hundred feet away from this contact in the Permian rocks.

The two best known occurrences are the Wellgreen and the Micro, both located on nearly East-West trending segments of the normally N.W. striking peridotite bodies.

The Wellgreen body consists of massive pyrrhotite located along the serpentine contacts; it is reported as having 740,000 t. @ 2.04 Ni. and 1.42 Cu.

The Micro occurrence is one of disseminated pyrrhotite, possibly stratigraphically controlled, with little copper and surrounded by an alteration halo believed to consist mostly of albitization.

Nickel is very uncommon along the west edge of the American continent. Around the Gulf of Alaska, however, the style of the continent's edge undergoes a significant change, and starting West of Ketchikan to a point well to the S.W. of Anchorage, a number of undeveloped nickel occurrences are known, mostly within 100 miles inland from the coast-line. Within this arc, the Shakwak Valley has so far shown the most promise for revealing deposits with economic potential, and of the various known occurrences, the one on the Micro group has the best potential for an economic size ore body.

LOCAL GEOLOGY

In the area of the Micro Group, nickel mineralization occurs a few hundred feet away from a serpentine body. Strikes are about E-W, dips steep to the South.

According to F.A. Campbell, CIMM vol.63, 1960, p.p. 661-667, the Micro (or Canalask) peridotite is at least 2,600' long and up to 750' wide. Its composition varies relatively little as compared to the Wellgreen one, as can be seen from the table:

	Range %		%	
	Olivine	Pyroxene	Magnetite	Chromite
Micro	70-85	10-25	5	?
Wellgreen	20-90	5-75	3	2

Both bodies show zoning indicative of sills, entirely serpentized at Wellgreen, and serpentized mostly in the FW half near the Micro body.

At the Micro, the olivine tends to be concentrated in the FW half of the sill as well.

Alteration is reported as amphibolitization in the ultrabasic.

The wall rock at the Micro is a series of argillites, tuffs, greywackes, and minor andesitic volcanics, which around the ore-body are extensively albitized and/or silicified.

The writer has identified albitization but is not prepared to state what proportion of the alteration is albite.

Drill hole assaying for copper has often been neglected; both surface sampling by the writer and others as well as some of the drill hole sampling by P.A. and Canalask, show quite extensive low-grade copper in the 0.1-0.5% range over substantial widths (S-11, section 10,060) of up to 100'.

Narrow but interesting copper values also occur at depth in hole S-4, section 3, on the Micro property (see Fig. 6); the copper-potential of this property is of more interest than would appear from the reported sampling.

The geological structures on the East-bank and the West bank of the White River match very well, and unless there is a substantial fault following the White River with little horizontal movement, the Micro-zone is expected to continue for about 1500' under the White River and across to the West bank.

A sample taken in March 1965 by the writer from a 5' wide exposure on the West bank gave the following assays (Coast Eldridge):

No. 87176	1.50% Cu.	0.26 Ni.	0.26 Ag.
-----------	-----------	----------	----------

Samples taken by a third party on either side of this sample gave approximately 40' of 0.12 Cu., trace Ni.

The fact that the mineralization is associated with an East-West trend is very significant, and in view of the presence of copper-nickel mineralization on the West bank of the River, the writer feels that the 1600' long potential extension of the 380' long East bank occurrence presents an excellent exploration target.

The peridotite sill is now known to continue on to the NW where it is associated with other nickel occurrences on Cominco ground (Fig. 1).

DATA STUDY

The available data have been combined on two plans and a number of sections to the best of the writer's ability.

Assay data are from various available sources, but in most cases no original standard drill-logs are available. Some data on sampling have been found in old field books.

The present compilation should be considered as a first step that can be improved upon by a restudy of the available drill-core.

Core recoveries have shown substantial variations and in many of the ore-intersections from 20 to 40% of the core was lost.

This means that grades could be significantly higher in some cases.

There is very little geological information available on the drill-logs, and it would be highly desirable to relog whatever core is available on standard log forms to improve the graphical picture of the structure.

Section 3 (10250 E) shows the trace of a thin-bedded marker zone in the FW of the peridotite or the HW of the ore; accurate intersections of this marker are not known to the writer.

Peridotite intersections have been reported in the drilling that do not tie in with a general SW dip.

Average grades show discrepancies, as the cut-off and method of averaging and of allowing for lost core have not been consistently the same.

Some of the critical assay-data from field books have been added as Appendix A to this report; these appear to be sections of core resampled by Canalask Nickel Mines.

ORE RESERVES

On October 24, 1956, ore reserves were reported as follows before any underground development had been done.

South ore-zone:

Block size, Height 290'
 Length 380'
 Width 50'
 Tonnage Factor 10

$$\frac{290 \times 380 \times 50}{10} = 550,000 \text{ tons}$$

Grade:	Weight	Hole No.	Length	% Cu.	% Ni.
	1	S-3A	17.5'	.04	2.14
	2	601	63.5'	.04	2.12
	2	S-7	51.5'	.03	2.16
	1	615	9.5'	tr.	1.13
	2	607	51.0'	.05	0.97
	2	S-4	62.0'	.05	1.28
	1	S-13	8.5'	.07	2.19

Average .04% Cu. 1.68% Ni.

The actual location of holes 607 and 615 is not now known or available to the writer, and reserves have therefore been recalculated using the underground development data as well and restricting the individual blocks to only a short distance below the 2600' elevation (See Fig. 11)

Core-hole S-13 is a very critical hole, of which the overall grade is not known. If all blank spaces are assumed to assay 0.40 Ni., the average grade from 131.5 to 217' would be 85.5' @ 1.18 Ni. If blanks are considered barren, the average grade is 0.71 Ni. over this length.

As the nearby outcrop-face averaged 1.05% Ni. over 103', S-13 is quite likely not representative of the true grade due to core loss in higher grade sections.

New Reserve calculations are as follows, in 5 blocks (see sections 1, 2, 3 and 4 and longitudinal section):

Block	Length	Height	Width	Grade, Ni. %
A	90' x	130' x	28'	$\frac{1}{2} (1.00 + 2.63) = 1.82$
B	60' x	140' x	63'	$\frac{1}{2} (0.81 + 1.28) = 1.04$
C	70' x	170' x	55'	$\frac{1}{2} (1.28 + 1.38) = 1.33$
D	100' x	220' x	50'	$\frac{1}{4} (2.63 + 1.97 + 2.11 + 1.26) = 1.99$
E	70' x	150' x	20'	$\frac{1}{2} (1.32 + 2.68) = 2.00$

Using a tonnage factor of 10 cu. ft. = 1 ton, this gives the following tonnages.

<u>Block</u>	<u>Tons</u>	<u>Grade Ni.</u>	<u>Tons Ni. metal</u>	
A	32,800	1.82	596	
B	52,900	1.04	550	
C	65,500	1.33	870	
D	110,000	1.98	2189	
Subtotal	261,200	1.61	4205	main zone
E	21,000	2.00	420	new zone
Total	282,200	1.64	4625	total

These are drill indicated reserves, requiring further firming up; in view of poor core recoveries, they are considered conservative.

Both zones may be distinct, but the New Zone at depth could be an offset of the main zone by a flat fault.

The figure of 0.04% Cu., calculated by Canalask, is acceptable. More extensive sampling for Cu. may raise the grade; a sample taken by the writer at the reportedly barren SE face, gave 0.80 Cu. and 0.01 Ni. across 4' of 70% pyrrhotite.

The writer feels that within the 380' length partially explored so far, these reserves can likely be doubled or tripled by further exploration.

In other words, the potential of this part of the zone is estimated at a maximum 750,000 tons.

If this density of ore continues across the river, the total potential over a total length of about 2000' could be:

$$\frac{2000}{380} \times 750,000 = 4.0 \text{ million tons to a depth of about 750'}$$

Realization of this potential requires:

1. That the ore is localized by the whole East-West segment and not by the short zone where the strike changes.
2. That there is no major fault following the course of the White River and no old river channel several hundred feet deep.

METALLURGY

Quebec Metallurgical Industries carried out a series of flotation tests on two lots averaging 1.75% Ni., 0.03 Cu., 3.45% S and 8.60% Fe.

A typical analysis of concentrate gave 19.7% Ni., 0.34% Cu., 31.1% Fe, 0.03 oz/t Pt., 0.02 oz/t Au., 0.4% oz/t Ag.

These results were obtained with a moderate grind and minimum flotation reagents, and represent @ 90% recovery; they are considered good and are considerably better than in the case of the massive pyrrhotite at Wellgreen, believed to give concentrates in the 5 - 10% Ni. range only.

ECONOMICS

A 19% concentrate at the newest Japanese smelter schedules may represent a net return of close to \$15.00 per ton. Estimating operating costs at \$10.00 on a 1000 t.p.d. rate, this would leave a \$5.00 per ton profit, about half of which would have to be used to repay the capital expenditures; these figures assume that 1 million tons of ore of at least 1.60% Ni. are proven.

However, higher grade reserves, or a realization of a 4 million ton potential would make the situation much more attractive; much depends upon the market that can be developed and an association with a nickel producer such as Giant Mascot may be advantageous.

Any future exploration program should be double-barreled, as follows:

1. Firm up and extend the drill-indicated reserves by drilling half a dozen 3 - 400' core-holes with 100% core-recovery, some 50' below the existing reserves before considering any further underground work.

2. Explore by geophysical methods and if warranted, by drilling, the potential of the zone under the White River and on the West bank.

RECOMMENDED PROGRAM

Any work in the river should be undertaken immediately to take advantage of low water and good accessibility.

The following program is recommended:

Stage 1

1. Stake some additional claims on the S and SW side of the Group	\$ 1,000
2. Drill one 400' hole at about -50° to the North from a point at about 9250N and 10,050 East across the Main zone to check the S-13 intersection area as well as the up-dip extension of the New zone.	\$ 5,000
3. Map geologically at least 3/4 mile of each River bank North and South of the Nickel zone, i.e. a total of 3 miles of mapping.	\$ 2,000
4. Run an IP Survey in preference to a Turam Survey over the 1500' of zone in the River.	\$ 3,500
5. If a deep IP anomaly only is found, test the depth of the river channel by seismic methods.	\$ 3,500
6. Drill at least one 400' core-hole across the zone exposed on the West bank and from River level.	\$ 5,000
Total Cost	\$20,000
Contingency, engineering 20%	<u>4,000</u>
Total	<u>\$24,000</u>

The overall drill cost of \$12.00 per foot assumes some difficulty in overburden.

Stage 2

Drill 2000' in the summer in half a dozen core-holes, stressing core recovery, to assess the ore zone at about the 2550' level.	\$20,000
Re-log, remap and resample old core and old development workings; plus contingencies	\$ 4,000

Stage 3

If success is obtained in geophysical work over the river, drill initial 1000' or so in one or two holes before break-up \$12,000

This is a minimum program, which could be speeded up and enlarged in case of initial success.

SUMMARY AND RECOMMENDATIONS

The Micro Nickel body contains about 282,000 tons @ 1.64% Ni. and 0.04% Cu. of drill-indicated reserves in a small portion of a partially depth-explored 380' long zone.

This zone is open for about 1600' to the West and may well have a potential of about 4 million tons of nickel-ore of about the above grade.

There is also the possibility of finding a more substantial body, or one of higher grade, in this untested length of the zone.

The Micro property is thought to present the best potential for a significant discovery in the Shalwak Nickel belt. At a small rate of operation the profit potential does not at present seem attractive, but the potential of the zone is sufficient to make it a very attractive exploration target.

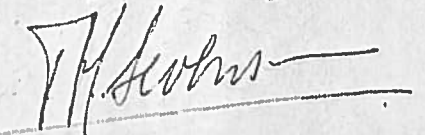
A firm program with a winter and a summer stage is recommended, with additional winter drilling contingent upon favorable results of a geophysical program.

Cost estimate is as follows:

- | | |
|-----------------------------------|----------|
| 1. Firm winter - stage 1 | \$24,000 |
| 2. Firm summer drilling - stage 2 | \$24,000 |
| 3. Contingent winter drilling | \$12,000 |

An association with a company in the nickel business such as Giant Mascot Mines may facilitate marketing.

Respectfully submitted,



Peter H. Sevenma, Ph.D., P. Eng.

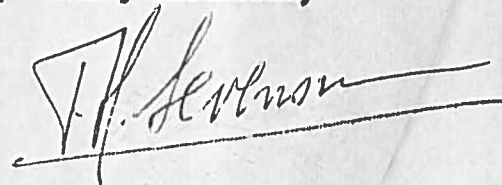
Vancouver, March 14, 1966

CERTIFICATE

I, Peter H. Sevensma, of Vancouver, B.C., do hereby certify that:

1. I am a graduate of the University of Geneva, Switzerland (Physics and Chemistry 1937, Geology and Mineralogy 1937), where I obtained my Ph. D. in Geological and Mineralogical Sciences in 1941.
2. I am a Consulting Geological Engineer and a registered member in good standing of the Association of Professional Engineers of British Columbia and of the Association of Professional Engineers of Yukon Territory.
3. From February 1948 until December 1965 I have been engaged continuously in mining and exploration geology in the employ of the Consolidated Mining and Smelting Company of Canada Limited. As a Senior Exploration Geologist, I have worked extensively both in Eastern and Western Canada.
4. I have examined the property which is the subject of this report several times since 1959, the last examination being in March and September of 1965.
5. I have not received, nor do I expect to receive or to acquire, any interest, directly or indirectly, in the Micro Group of claims.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'P. H. Sevensma', is written over a horizontal line.

Peter H. Sevensma, Ph. D., P. Eng.

March 14, 1966.

APPENDIX A

Assay logs copied from old field-books. 1956 Resampling by Canalask ?

Property: Micro (Canalask)

<u>Hole No.</u>	<u>From</u>	<u>To</u>	<u>Ft.</u>	<u>Core</u>	<u>Sample No.</u>	<u>% Cu.</u>	<u>% Ni.</u>
601	60.5	62.5	2				0.63
	62.5	64.5	2				1.54
	64.5	67	2.5				2.80
	67	69	2				4.75
	69	71	2				5.43
	71	72.5	1.5				2.87
	72.5	74	1.5				4.50
	74	76.5	2.5				3.75
	76.5	80	3.5				tr.
	80	84.5	4.5				tr.
	84.5	89.5	5				0.5
	89.5	92	2.5				tr.
	92	97	5				0.5
	97	102	5				0.5
	102	104.8	2.8				0.7
	104.8	108	3.2				0.7
	108	110	2				0.7
	110	112	2				0.5
	112	114.8	2.8				0.7
	114.8	116	1.2				0.5
	116	118.5	2.5				0.7
	118.5	121.5	3				0.7
	121.5	124	2.5			C604	0.3
	60.5	124	63.5				2.11
S-7	205	209.7	4.7	4.7	610	0.14	0.07
			0.3	-			
	210	215	5.0	5.0	611	.04	2.72
	215	219	4.0	4.0	612	.08	2.42
	219	219.8	0.8	-			
	219.8	224	4.2	4.2	613	.03	1.05
	224	225	1.0	-			
	225	226	1.0	1.0	614	tr.	.14
	226	226.6	0.6	-			
	226.6	228	1.4	1.4	615	tr.	.52
	228	229.4	1.4	-			
	229.4	233	3.6	3.6	616	.06	2.48
	233	236.6	3.6	-			
	236.6	241.6	5	5	617	.01	1.89
	241.6	246.6	5	5	618	.04	1.87
	246.6	251.6	5	5	619	.04	1.80
	251.6	253.4	1.8	1.8	620	.03	3.08
	253.4	255	1.6	-			
	255	257	2	2.0	621	.04	3.92
257	260	3	-				
260	261.5	1.5	1.5	622	.04	1.24	
210	261.5	51.5	39.5	Core recovery 76.8%			2.03 for 39.5'

APPENDIX A (Continued)

Hole No.	From	To	Ft.	Core	Sample	% Cu.	% Ni.
616	525	527.5	2.5	2.5	623	tr.	2.21
			2.5	-			
	530	532	2.0	2.0	624	tr.	1.38
			3.0	-			
	535	536	1.0	1.0	625	tr.	1.95
			1.3	-			
	537.3	538.5	1.2	1.2	626	.10	5.00
			2.5	-			
	541	542	1.0	1.0	627	tr.	tr.
			3.0	-			
	545	548	3.0	3.0	628	tr.	1.21
			3.0	-			
	551	553	2.0	2.0	629	tr.	1.63
			2.0	-			
	555	560	5.0	5.0	630	tr.	1.57
560	565	5.0	5.0	631	tr.	.78	
565	570	5.0	5.0	632	tr.	.95	
525	570	45.0	27.5	Core recovery 61.2%		1.44 for 27.5'	

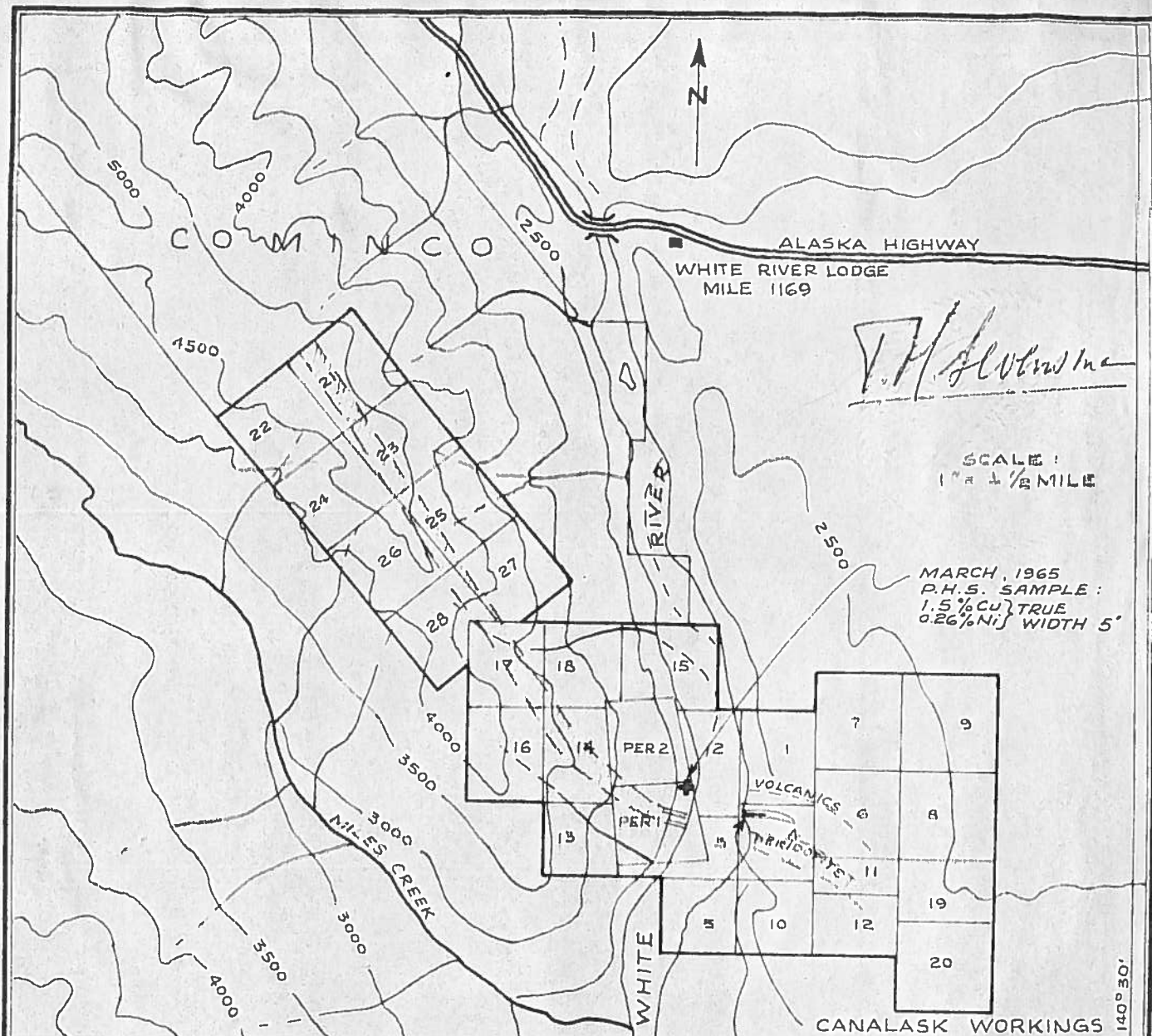
Location of this first intersection of the deep New Zone is not known.

D-3A	30	34.2	4.2	4.2	633	tr.	2.86
			3	-			
	35	40	5.0	5.0	634	tr.	2.54
			40	5.0			
	45	47.4	2.4	2.4	636	.03	.49
			-	-			
	50	55	5	5	637	.32	.27
	55	142.5	87.5	?			
	142.5	145	2.5	2.5	638	.37	.38
	145	151.5	6.5	?			
	151.5	155	3.5	3.5	639	tr.	.47
	155	213	58	?			
	213	214	1.0	1.0	640	.10	.45
	214	215	1.0	-			
	215	217.3	2.3	2.3	641	.37	.52
	217	218	1.0	-			
	218	219	1.0	1.0	642	.33	.43
219	220	1.0	-				
220	221	1.0	1.0	643	.30	.26	
221	283	62.0	?				
283	288	5.0	5.0	644	.34	.84	
S-1A	39	41.4	2.4	2.4	645	tr.	.58
			41.4	0.6			
	42	45.7	3.7	3.7	646	tr.	1.47
			45.7	2.8			
	48.5	53.5	5.0	5.0	647	tr.	.89
53.5	54.0	0.5	-				

APPENDIX A (Continued)

<u>Hole No.</u>	<u>From</u>	<u>To</u>	<u>Ft.</u>	<u>Core</u>	<u>Sample No.</u>	<u>% Cu.</u>	<u>% Ni.</u>
	54.0	59.0	5.0	5.0	648	tr.	1.04
	59.0	59.3	0.3	-			
	59.3	63.0	3.7	3.7	649	tr.	.63
	63.0	64.0	1.0	-			
	64.0	68.5	4.5	4.5	650	tr.	.93
	68.5	69.0	0.5	-			
	69.0	74.0	5.0	5.0	651	tr.	.86
39	74		35.0	29.3	Core recovery 83.8%		.93 for 29.3'

W. Stevens



SCALE: 1" = 1/2 MILE

MARCH, 1965
 P.H.S. SAMPLE:
 1.5% Cu } TRUE
 0.26% Ni } WIDTH 5'

1409301



SCALE: 1" = 20 MILES

LEGEND

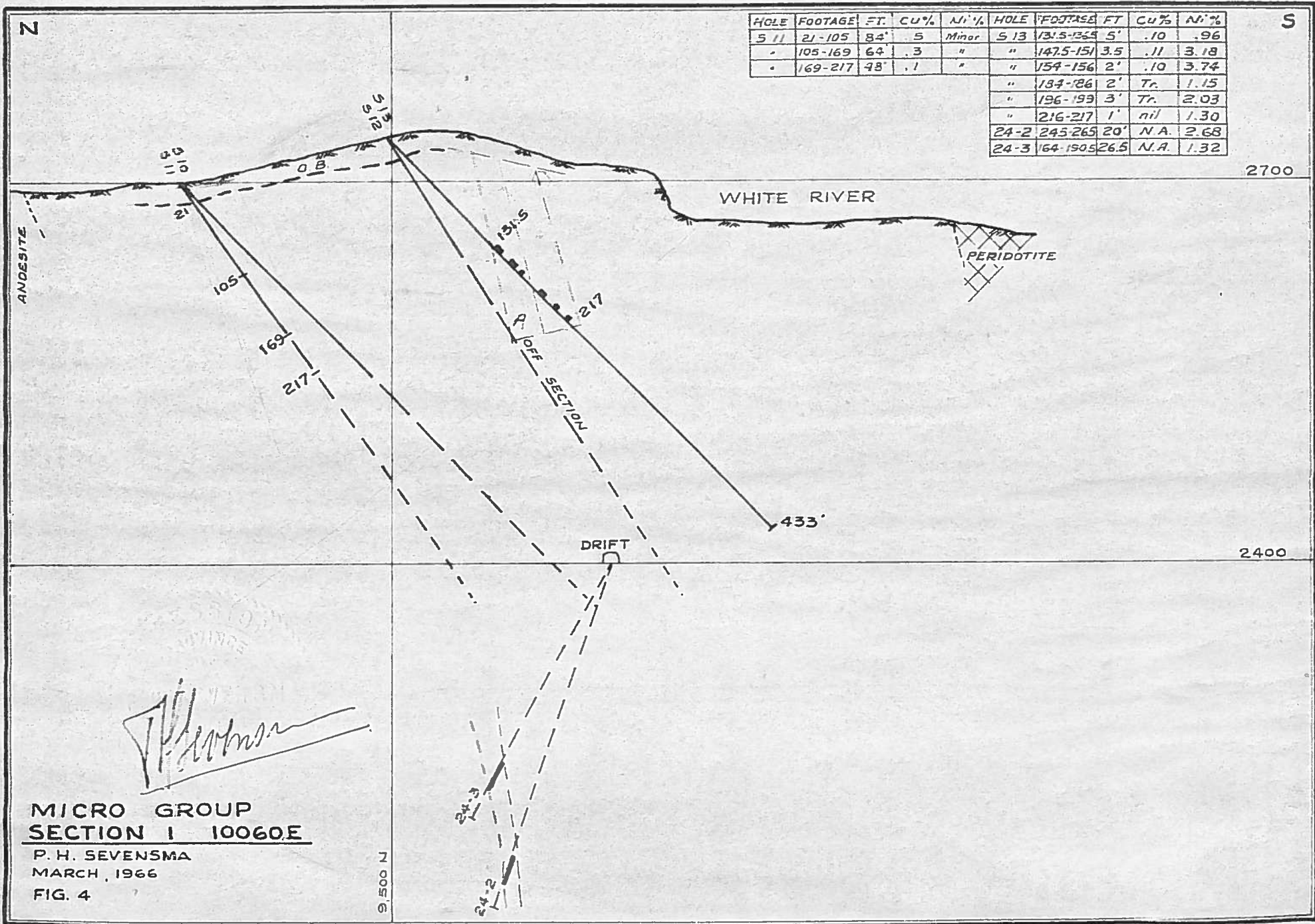
- 1. CANALASK, 282,200 T. @ 1.64% Ni; .04% Cu., DISSEM.
- 2. WELLGREEN, 740,000 T. @ 2.04% Ni; 1.42% Cu. MASSIVE

GEOLOGICAL LEGEND

- Surficial Deposits
- Tertiary basalts, Andesites
- Cretaceous granite
- Mesozoic sed., some volcanics
- Permian Volc. and Seds.
- Peridotites; Permian
- Devonian Seds. and Volc.
- Youkon Gp., including Cenozoic(?) granites and rhyolites

MICRO GROUP
WHITEHORSE M.D. Y.T.
 115 - F - 15

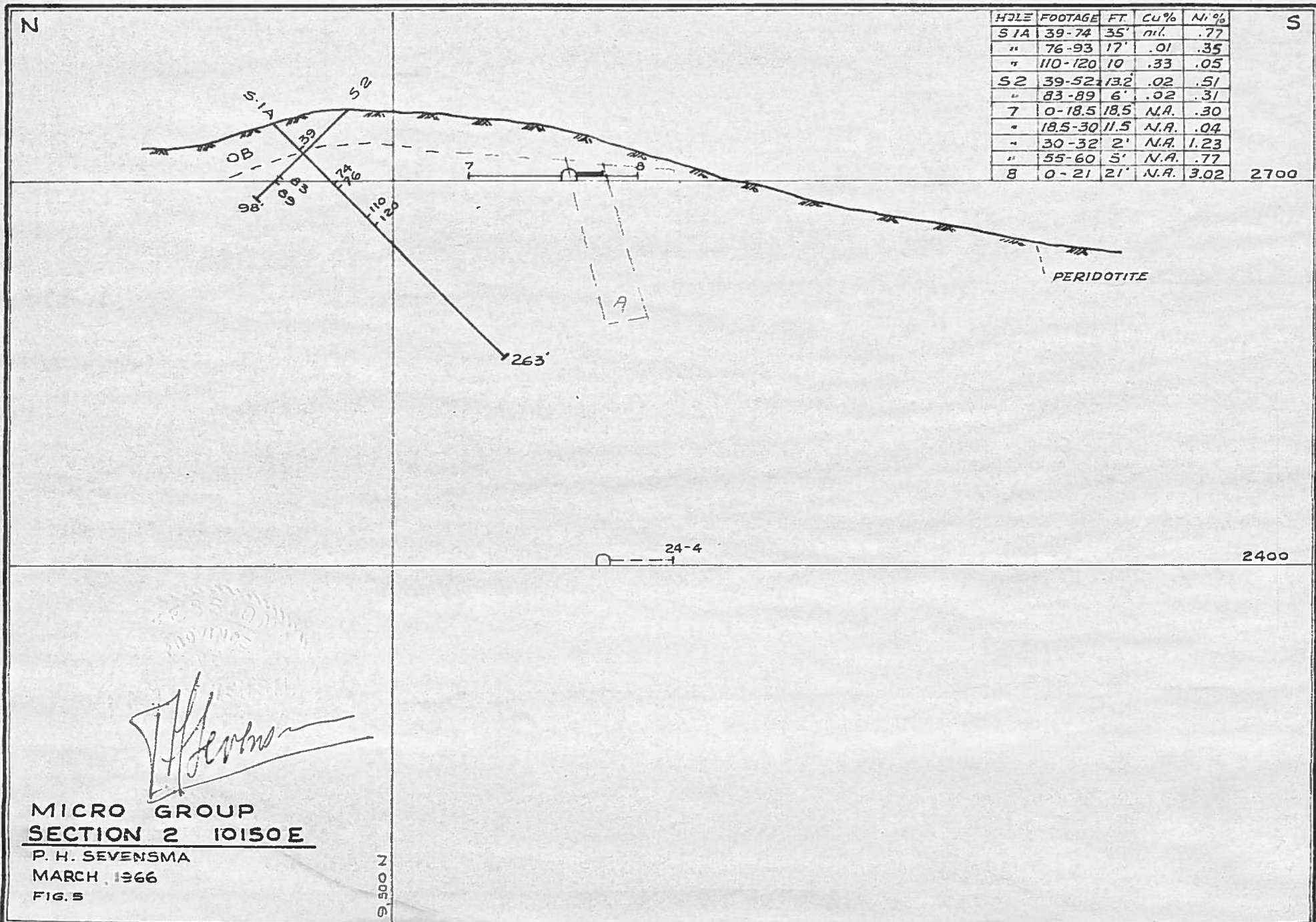
P.H. SEVENSMA CONSULTANT
 VANCOUVER, B.C. MARCH, 1966
 SCALE AS SHOWN FIG. 1



HOLE	FOOTAGE	FT.	CU%	Ni%	HOLE	FOOTAGE	FT.	CU%	Ni%
S 11	21-105	84'	.5	Minor	S 13	131.5-136.5	5'	.10	.96
"	105-169	64'	.3	"	"	147.5-151	3.5'	.11	3.74
"	169-217	48'	.1	"	"	154-156	2'	.10	3.74
					"	184-186	2'	Tr.	1.15
					"	196-199	3'	Tr.	2.03
					"	216-217	1'	nil	1.30
					24-2	245-265	20'	N.A.	2.68
					24-3	164-190.5	26.5'	N.A.	1.32

MICRO GROUP
 SECTION I 10060.E
 P. H. SEVENSMA
 MARCH, 1966
 FIG. 4

9,500 N



HOLE	FOOTAGE	FT	CU%	NI%
S 1A	39-74	35'	nil.	.77
"	76-93	17'	.01	.35
"	110-120	10	.33	.05
S 2	39-52	13.2'	.02	.51
"	83-89	6'	.02	.31
7	0-18.5	18.5	N.A.	.30
"	18.5-30	11.5	N.A.	.04
"	30-32	2'	N.A.	1.23
"	55-60	5'	N.A.	.77
8	0-21	21'	N.A.	3.02

2700

2400

[Handwritten signature]

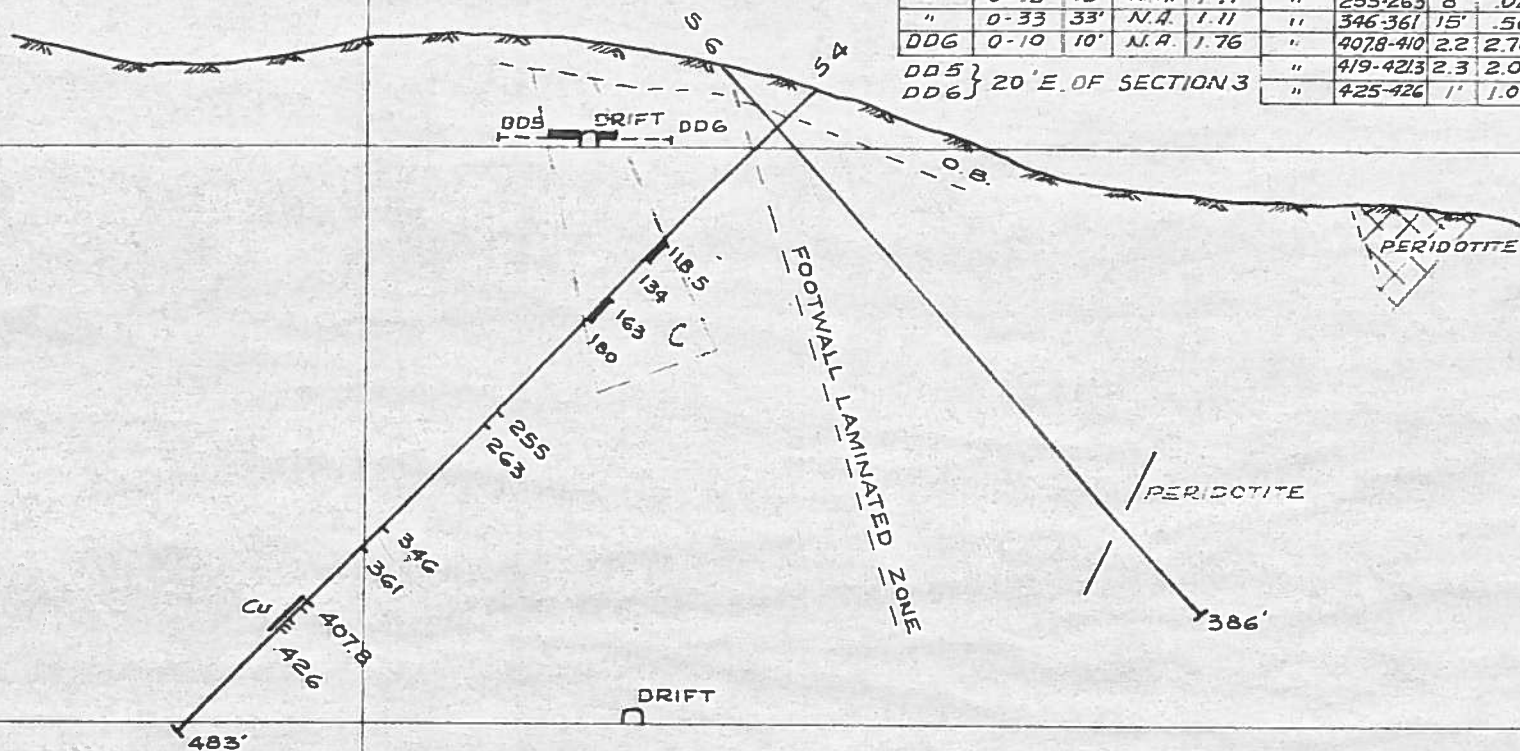
MICRO GROUP
SECTION 2 10150E
 P. H. SEVENSMA
 MARCH, 1966
 FIG. 5

N 005° S

N

S

HOLE	FOOTAGE	FT.	Cu%	Ni%	HOLE	FOOTAGE	FT.	Cu%	Ni%
DD5	0-6	6'	N.A.	2.98	54	118.5-134	15.5	.96	2.10
"	6-15	9'	N.A.	.87	"	163-180.5	17.5	.07	1.41
"	15-33	18'	N.A.	.60	"	118.5-180.5	62	.05	1.28
"	0-15	15'	N.A.	1.71	"	255-263	8'	.02	.28
"	0-33	33'	N.A.	1.11	"	346-361	15'	.56	.07
DDG	0-10	10'	N.A.	1.76	"	407.8-410	2.2	2.70	.08
DD5					"	419-421.3	2.3	2.05	.03
DD6	} 20' E. OF SECTION 3				"	425-426	1'	1.06	.01



2700

2400

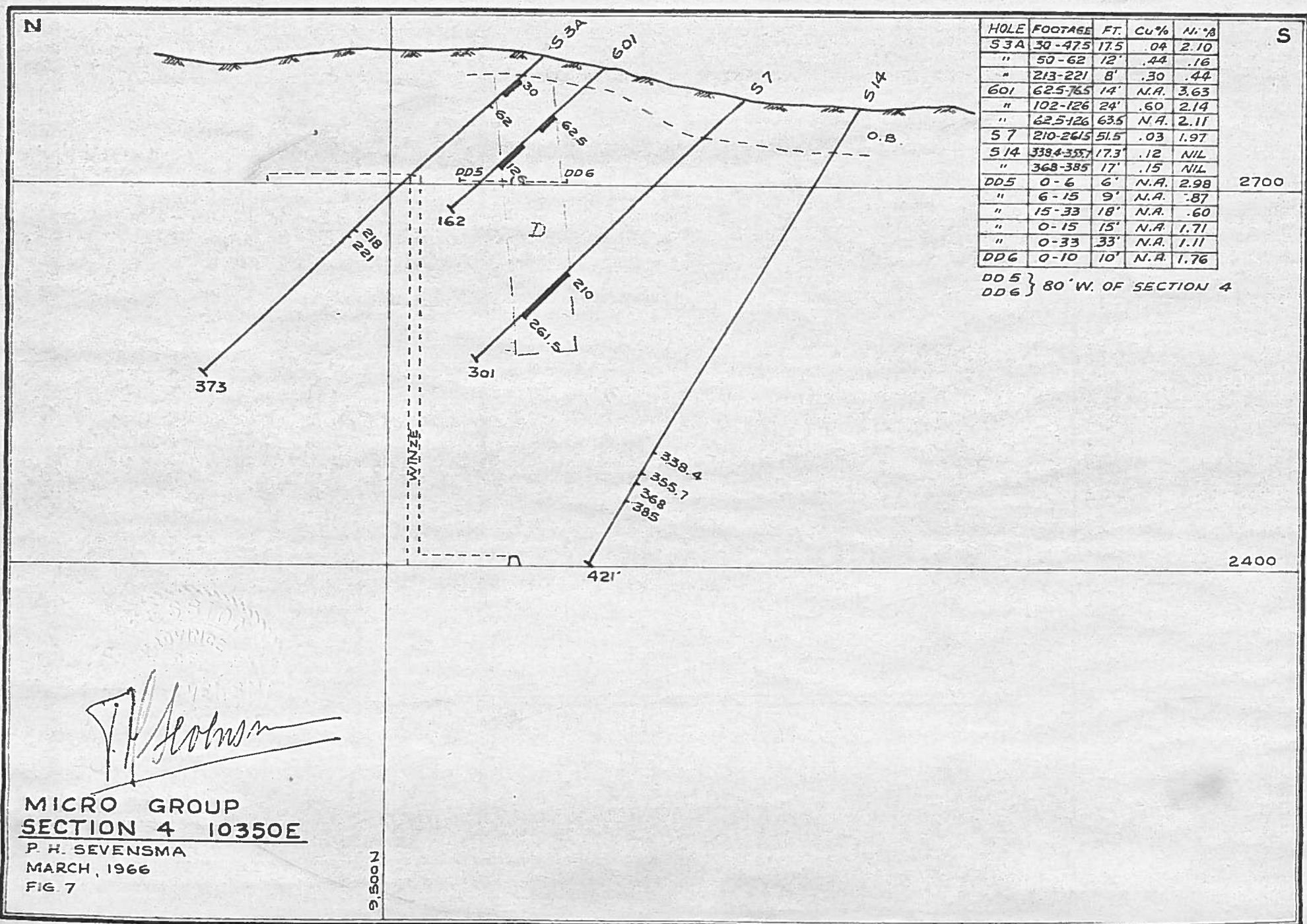
P. H. Sevensma

MICRO GROUP
SECTION 3 10250E

P. H. SEVENSMA
MARCH, 1966

FIG. 6

9.600 N



HOLE	FOOTAGE	FT.	CU%	N. #8
S3A	30-475	17.5	.04	2.10
"	50-62	12'	.44	.16
"	213-221	8'	.30	.44
601	62.5-765	14'	N.A.	3.63
"	102-126	24'	.60	2.14
"	62.5-126	63.5	N.A.	2.11
S7	210-261.5	51.5	.03	1.97
S14	338.4-355.7	17.3	.12	NIL
"	368-385	17'	.15	NIL
DD5	0-6	6'	N.A.	2.98
"	6-15	9'	N.A.	.87
"	15-33	18'	N.A.	.60
"	0-15	15'	N.A.	1.71
"	0-33	33'	N.A.	1.11
DD6	0-10	10'	N.A.	1.76

DD5 } 80' W. OF SECTION 4
 DD6 }

2700

2400

P. H. Sevensma

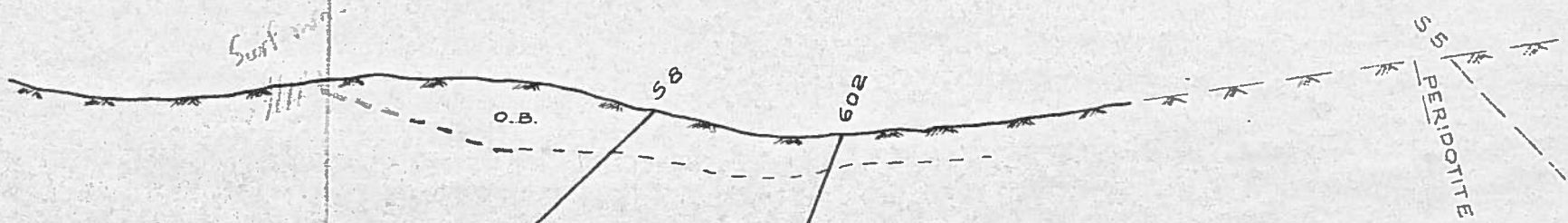
MICRO GROUP
 SECTION 4 10350E
 P. H. SEVENSMA
 MARCH, 1966
 FIG. 7

1:500

N

DD3 } 25' W. OF SECTION 5
DD4 }

S



DD3

DD4

2700

429'

P. H. Sevensma

2400

**MICRO GROUP
SECTION 5 10540E**

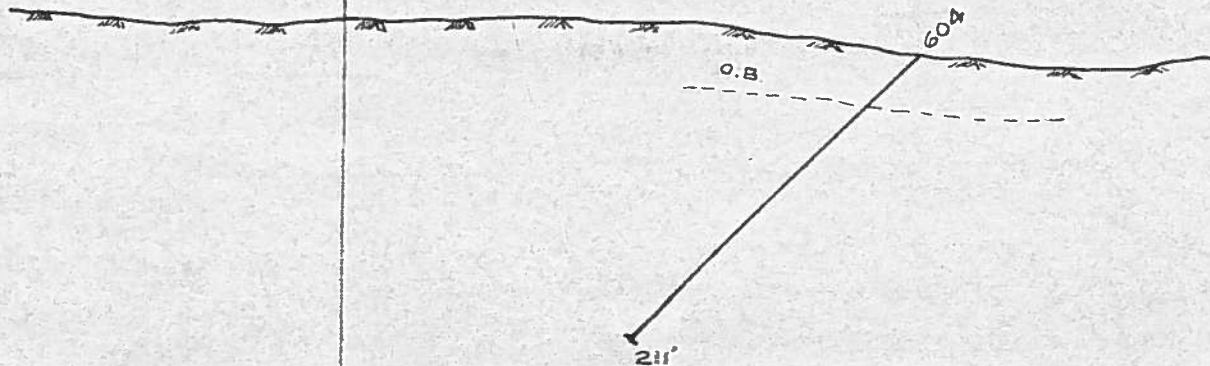
P. H. SEVENSMA
MARCH 1966
FIG. 8

91500 N

556.5'

Z

S



2700

2400

P. H. Sevensma

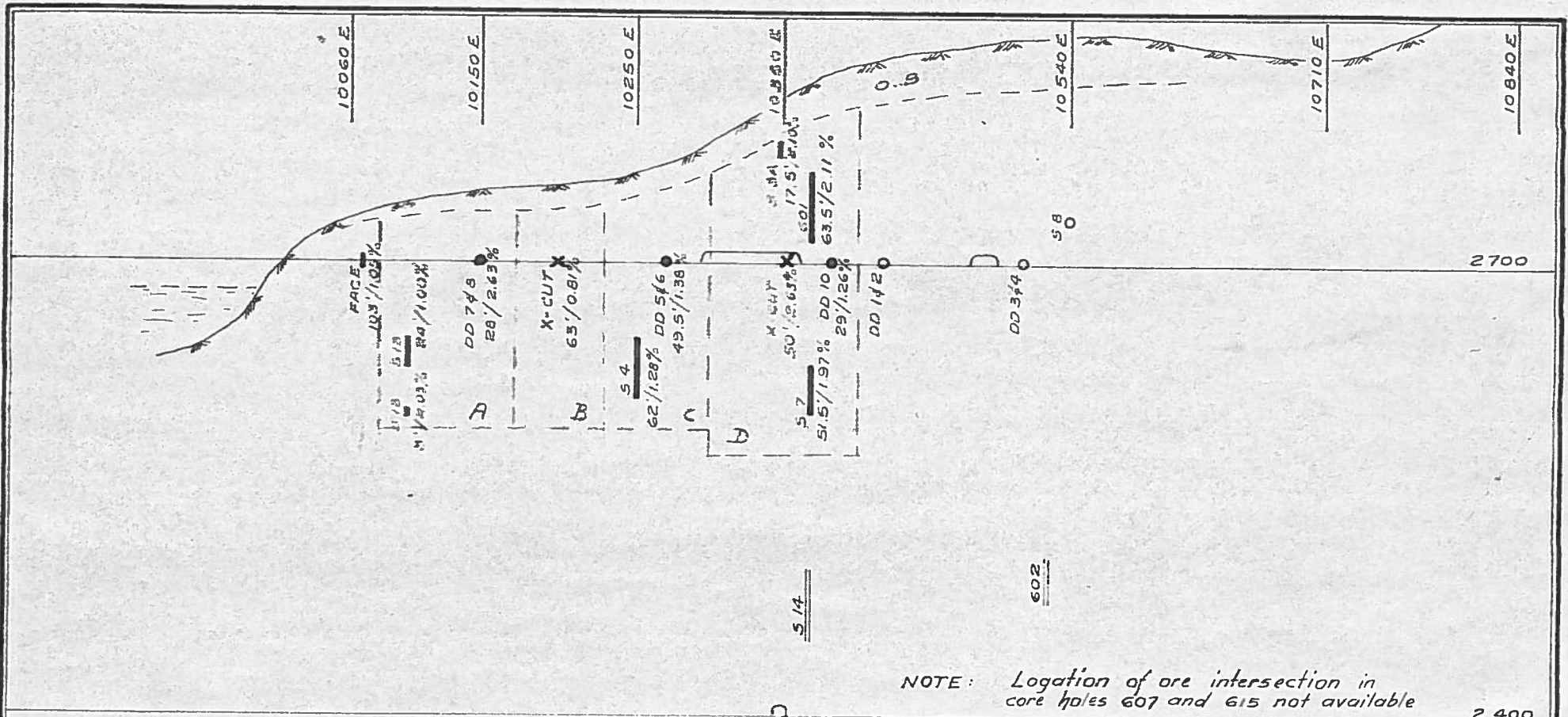
**MICRO GROUP
SECTION 7 10840E**

P. H. SEVENSMA

MARCH, 1966

FIG. 10

9,500 N



NOTE: Location of ore intersection in core holes 607 and 615 not available

LEGEND

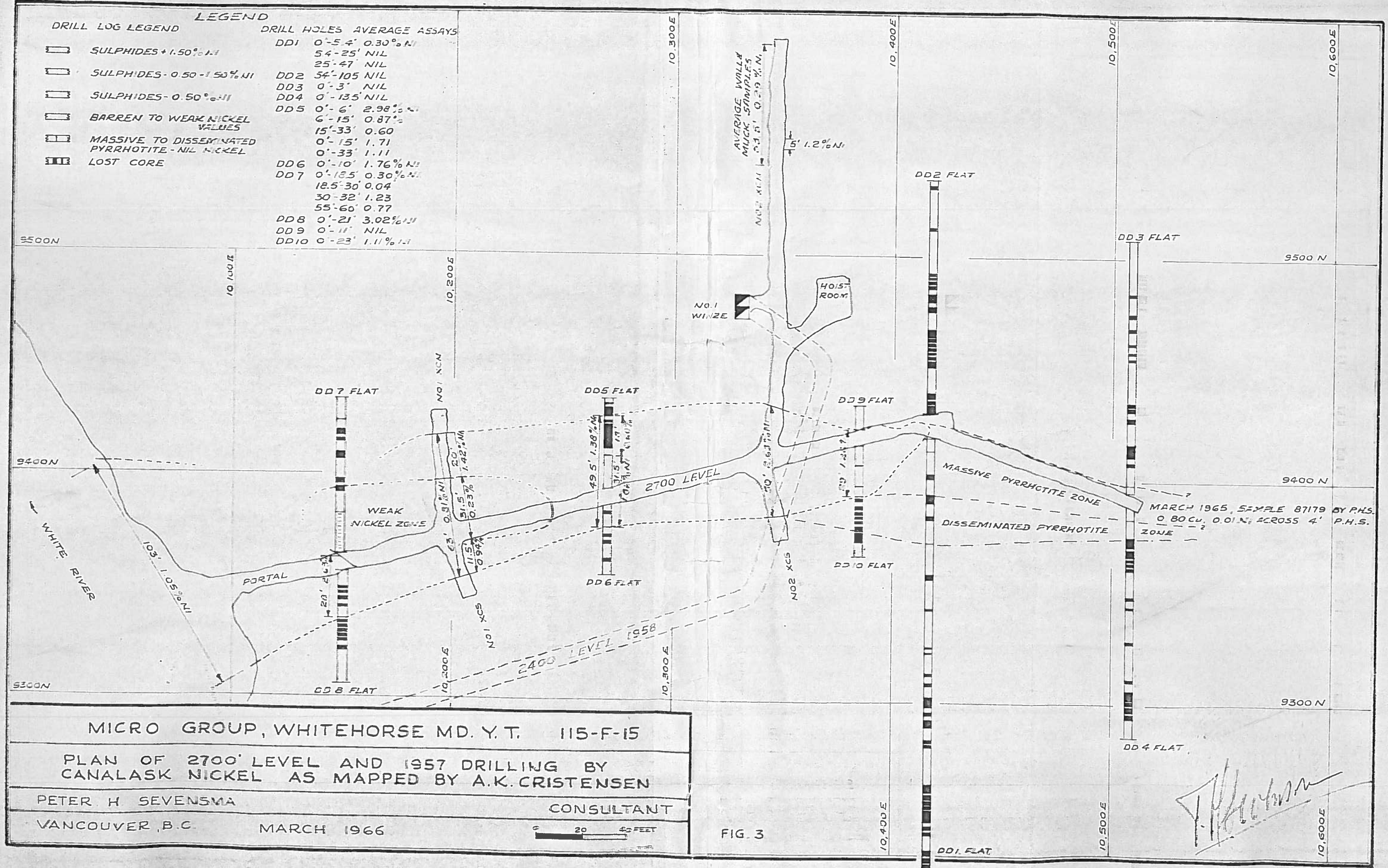
- x x-Cut Sample
- Drill hole intersections of 9400 N, ore
- " " " " " barren
- Projection to 9400 N of drill intersections, ore
- || " " " " " barren

MICRO GROUP, WHITEHORSE M.D., Y.T. 115 - F - 15	
PROJECTION OF ORE INTERSECTIONS ON VERTICAL LONGITUDINAL SECTION 9400N	
P. H. SEVENSMA	CONSULTANT
VANCOUVER, B.C.	100 FEET
MARCH, 1966	FIG. 14

24.2
20/2.68%

P. H. Sevensma

LEGEND	
DRILL LOG LEGEND	DRILL HOLES AVERAGE ASSAYS
	DD1 0'-5' 4" 0.30% Ni
	54'-25' NIL
	25'-47' NIL
	DD2 54'-105' NIL
	DD3 0'-3' NIL
	DD4 0'-135' NIL
	DD5 0'-6' 2.98% Ni
	6'-15' 0.87% Ni
	15'-33' 0.60% Ni
	0'-15' 1.71% Ni
	0'-33' 1.11% Ni
	DD6 0'-10' 1.76% Ni
	DD7 0'-185' 0.30% Ni
	18.5'-30' 0.04% Ni
	30'-32' 1.23% Ni
	55'-60' 0.77% Ni
	DD8 0'-21' 3.02% Ni
	DD9 0'-11' NIL
	DD10 0'-23' 1.11% Ni



MICRO GROUP, WHITEHORSE MD. Y.T. 115-F-15

PLAN OF 2700' LEVEL AND 1957 DRILLING BY CANALASK NICKEL AS MAPPED BY A.K. CRISTENSEN

PETER H SEVENSMA CONSULTANT

VANCOUVER, B.C. MARCH 1966

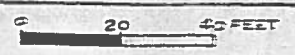


FIG. 3

[Handwritten signature]



CANALASK NICKEL MINES LTD.
 PLAN OF
 MINE WORKINGS
 Scale: 1"=40'
 May, 1958
 G.F.C.

Plot #1 P. PERSLUCE Box 164 White H.