

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,016

ASSESSMENT REPORT
ON WORK COMPLETED ON
CROWN GRANT CLAIMS: IRON DUKE L1600
AND COPPERFIELD L742
OSOYOOS MINING DIVISION
BRITISH COLUMBIA

N.T.S.: 92 H/8E
Latitude: W 120° 2' 46"
Longitude: N 49° 26' 15"
Owner of Claims: Mascot Gold Mines Limited,
Vancouver
Consultant: W.G. Hainsworth, P. Eng.

W.G. Hainsworth, P. Eng.
December 17, 1982

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(in numerical order)

-1-

Location and Access

The Nickel Plate Property is located some 340 kilometers east of Vancouver near Hedley, British Columbia, which is on the Southern Trans-Provincial Highway. The claims lie along the southern and western slopes of Nickel Plate Mountain, some 3.5 kilometers to the northeast of Hedley.

The area is serviced by highway transport from Vancouver, the major supply centre, and from Penticton, a growing service centre some 45 kilometers to the east and Princeton, 40 kilometers to the west.

Access to the property is by a 20 kilometer gravel road from Hedley that follows the south and eastern slopes of Nickel Plate Mountain to the former Mine camp. This road continues some 5 kilometers to Nickel Plate Lake near the present Apex ski resort. Apex is connected to Penticton by some 5 kilometers of well maintained gravel road and some 30 kilometers of black top road.

ms



Mr. Howard

FIGURE 1
 MASCOT NICKEL PLATE
 MINES LIMITED
 LOCATION MAP
 OS0Y00S MD
 DEC 1979



Physiography

The Hedley area lies within the Interior Plateau of British Columbia. However, the southern portion of the Plateau is unlike its table-like northern extension in that dissection has obscured the level surface. The Plateau in the general Hedley area presents high, undulating topography which rises to the southeast. The dissection of the Plateau is most noticeable in the Similkameen Valley where it was cut by early river erosion forming strong features that were further deepened and rounded by later glacial action. Small streams emptying into the Similkameen River forged sharp, canyon-like valleys in the walls of the main valley.

The area is below tree line and only the mountain peaks emerging from the Plateau carry stunted tree growth or are barren.

1047

Property

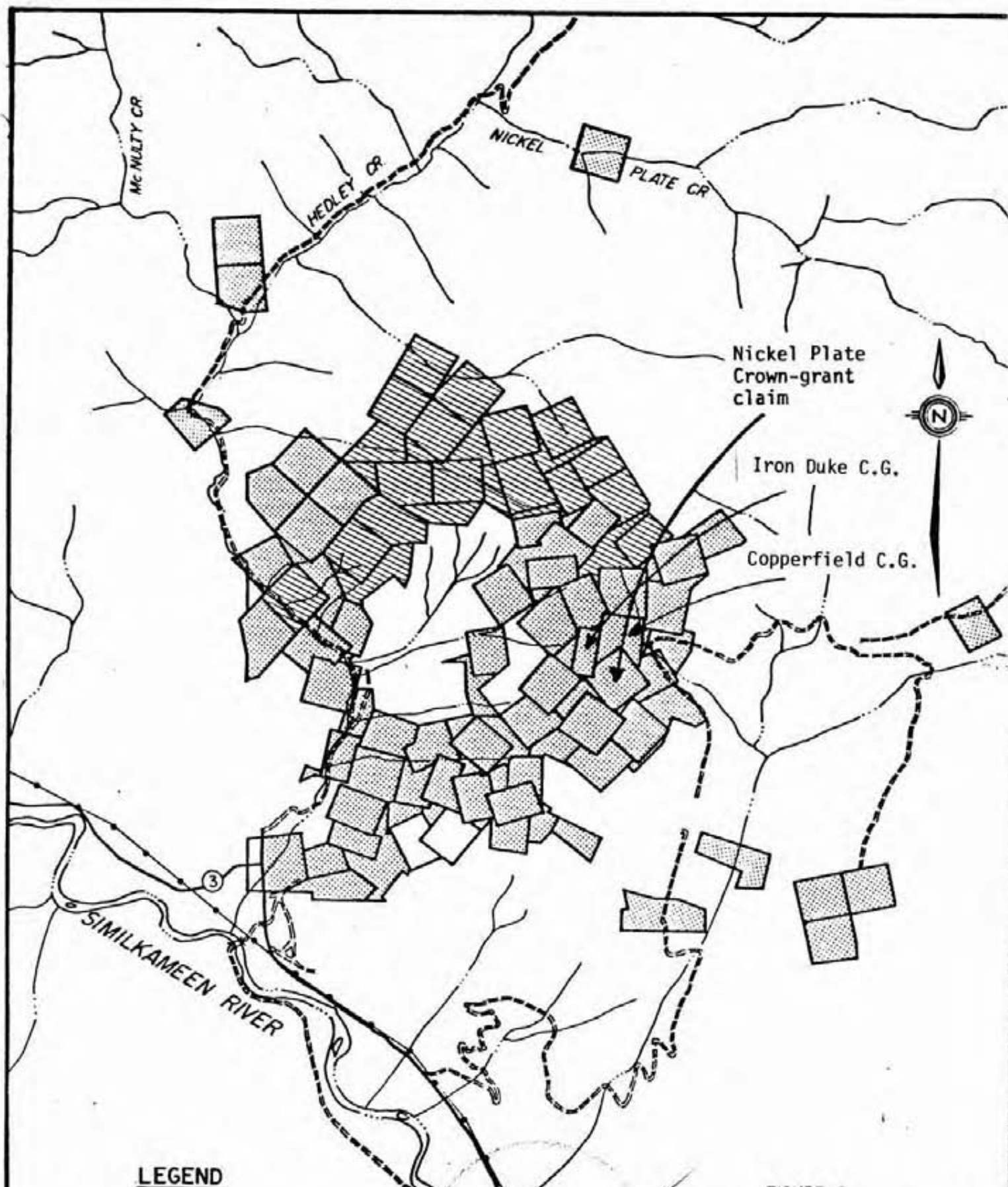
The Mascot Nickel Plate property holdings consist of eighty-three Crown-granted mineral claims, three mineral claims held by location, two mineral leases, surface rights on fourteen Crown-granted claims and one land lot. It also holds several water licences.

All the mineral claims and leases are in good standing as are the surface rights (See Appendix "C"). In total, the claims aggregate some 3,848 acres.



The claims, which form a solid block save for a pie-shaped wedge in the north central area, lie along the south and west slopes of Nickel Plate Mountain between 920 and 1,860 meters (3,000 to 6,100 feet) in elevation.

The property is in the Osoyoos Mining Division of British Columbia. Reference N.T.S. 92 H/8.

W. S. A.



LEGEND

-  CROWN GRANTS
-  LEASES

Three Crown-grant claims out of map area - two to the north and one to the east

FIGURE 2

**MASCOT NICKEL PLATE MINES LIMITED
MINERAL CLAIM PLAN**

REF. PLAN M92H/8E
OS0Y00S M.D.



History

The history of the Hedley gold camp dates from August, 1897, when Peter Scott came in from the Slocan silver camp, British Columbia, and located the "Rollo" claim. A year later Wollaston and Arundel, two experienced prospectors, located the Horsefly, Bulldog, Sunnyside, Nickel Plate and Copperfield claims. Ore specimens from these properties came to the attention of M.K. Rodgers, agent for Marcus Daly of Anaconda fame, and a bond was taken on them in 1898 and development work was started the following year. However, prior to the commencement of production the Daly group in association with New York capital formed the Yale Mining Company ("Yale") to purchase and operate the Hedley properties and the Daly Reduction Company to operate the forty stamp and large cyanide mill and power house.

Yale started production in 1904 by surface pit mining on an outcrop which is the only surface exposure of the seven ore bearing zones of the entire Nickel Plate system of orebodies. No. 3 Adit, now referred to as B Adit, (5,750 feet - 1,750 meters) first serviced the underground operations, but was superceded in 1907 by No. 4 Adit, now referred to as A Adit (5,600 feet - 1,700 meters). Under the Daly interests, mining proceeded without the benefit of development exploration work.

In August, 1909, a reshuffle and infusion of new interests brought the Hedley Gold Mining Company in as mine operators with the Daly Reduction Company involved as mill operators. Underground development which had been lacking was undertaken to open and explore new territory. A deep winze, the Dickson Shaft, was laid out from the 4 Adit. The Dickson Shaft, which was inclined at 30°, was eventually sunk 1,500 feet (457 meters) to the 1,500 level (4,850 feet - 1,480 meters).

The Hedley Gold Mining Company extensively mined the high grade Sunnyside 1, 2 and 3 orebodies and the Sunnyside 4 which they discovered. However, this company's attention to geological structures and interpretation was negligible with the result that by 1930 the known orebodies had been mined out.

Commencing in 1929, a well recognized geological engineer, Paul Billingsley of Denver, spent two years mapping the underground workings and working out the geological complexities of the ore process. In 1931, he presented his findings to a New York group of financiers who took an option on the property. Two years were then spent by this group on an extensive program of diamond drilling and underground exploration and development before they exercised the option. A new company, the Kelowna Exploration Company Limited ("Kelowna"), was formed to operate the Nickel Plate property which was put back into production in 1934 and continued to operate until 1955.

A small fractional claim, the Mascot Fraction, was staked by H. Woods of Hedley, within the Nickel Plate claim block and despite pressure, he resisted efforts by the Daly group to sell it. However, in 1935, he, along with the owners of a number of claims on the western slope of Nickel Plate Mountain, sold their holdings to a Vancouver

[Handwritten signature]

group who formed Hedley Mascot Gold Mines Limited (HMG) a predecessor company to GMR. Despite great physical difficulties a mine plant and camp was built on the cliffs above Hedley and later the mine plant was connected by an aerial tram line rather than an inclined tramway used by Kelowna to a cyanide and flotation concentrator in Twenty Mile Canyon some 18 kilometers north of Hedley. The Mascot Fraction ore reserves were mined out in April, 1949 and in the mid 1950's GMR sold all its interests in mineral claims and lands in the Hedley area.

In 1941, the Kelowna sank the steep Morning Shaft from the 1,500 level (the bottom of the Dickson Shaft) along the west boundary of the Mascot Fraction to service the deep Morning orebodies. These orebodies were mined on four levels and the lowest level, 4,150 (elevation above sea level) (1,265 meters) was connected with the HMG Mascot Fraction workings for ventilation and access.

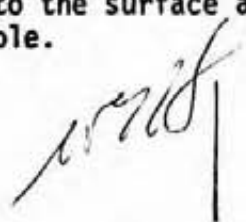
The Nickel Plate Mine was shut down by Kelowna in 1955 and all the equipment and buildings removed.

In the summer of 1964, Dundee Mines Ltd. optioned the property and undertook a limited diamond drill program on the Warhorse claim to explore a virtually untested area of the South Rim. They drilled eight holes totalling some 3,513 feet (1,071 meters). The results were encouraging with 5 of the holes intersecting values. However, they dropped their option without doing further work.

In 1967, Giant Mascot Mines Limited, now G M Resources Limited, (GMR) through its wholly-owned subsidiary, G.M. Explorations Limited (N.P.L.) acquired an option on the property from Burden Investors Services, Inc., (Burden) the parent of Kelowna Exploration Company Limited (Kelowna). After completing in the period 1967-1970 the work obligations under the option that were mainly oriented to the search for copper mineralization within the workings of the former gold producer and the property in the South Rim area a new private company, Mascot Nickel Plate Mines Limited (MNP), was formed with GMR holding 75% of the issued shares and Burden 25%. Burden is also entitled to receive up to \$250,000 in the aggregate by way of a royalty on the net proceeds of production from the Nickel Plate property on a sliding scale based on the value per ton but not exceeding 1% of the net proceeds from any shipment. The 1967 to 1970 program that was carried out under the direction of GMR included geophysical and geological studies, geochemical surveys, sampling and diamond drilling in the South Rim (including the Bulldog area), Nickel Plate and Sunnyside areas.

In 1973, MNP undertook a program, primarily for assessment purposes, and drilled three surface diamond drill holes aggregating 1,973 feet (601.5 meters).

No further work was done on the property until the early summer of 1979 when MNP undertook a \$200,000 program to make the mine workings accessible from 4 level through to the surface and to sample certain areas as they became accessible.



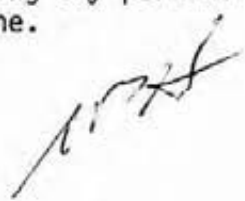
In 1980, Mascot Gold Mines underwent a large surface and underground drill program which continued until June 1982. During this period 97 surface holes totalling 14,480 feet (4,412 meters) and 377 underground diamond drill holes aggregating 32,486 feet (9899 meters).

The drill work was contracted out to Drilcore Ltd. of Richmond, B.C. who had two BQ size diamond drill rigs do the surface work, while the underground drilling utilized up to four machines of AQ core size. All drill core was split and sent for gold analysis and on occasions silver. Core is stored in sealed core shack on the property, some 500 yards from the main portal. All core boxes are marked with plastic indentation strips as to hole number and footage.

Assaying was done by three laboratories, General Testing, Chemex and Min-En, all of Vancouver.

Surveying of all drill collars was done by the Company surveyor.

The area represented in this assessment report (Lower Purple extension) is but one small section of the drilling pattern. In this particular investigation area, the contractor drilled 24 underground holes of AQ size for a total of 2527 feet (770 meters). In addition information from 23 other holes drilled by past operators was used in the final analysis. The time for this particular drill segment was over a 19 working day period. Drilling was on a 2 shift basis with 2 men per machine.



ANALYSIS

The drill pattern from the underground drifts is shown in Figure 3 cross sections of this drilling plus the incorporation of past drilling are shown in Sections V + 25 through to VIII. Scale of these cross sections is 1:360 (1" = 30').

The intention of the drilling was to check the economic viability of continuing the stopes, which had been stopped in 1955 up the dip. The drilling proved this to be feasible.

Drill logs of the 24 holes complete with assays which had been used in this project are attached as Appendix "B".

W. H. H.

ITEMIZED COST STATEMENT

Diamond Drilling -	
Base: 2527 feet @ \$16.50/foot =	\$40,432.00
Board and lodging (4 men for 19 days @ 22.32/day) =	1,696.00
Assaying -	
352 samples @ \$9.50/sample =	3,344.00
Miscellaneous -	
Professional Engineer: supervision and consultation - 19 days @ \$275/day =	5,225.00
Management - 19 days @ 200/day =	3,800.00
Core handling and splitting labour - 19 days @ \$96/day =	1,824.00
Surveying - \$2200 x 19/30 =	<u>1,393.00</u>
	<u>\$57,714.00</u>

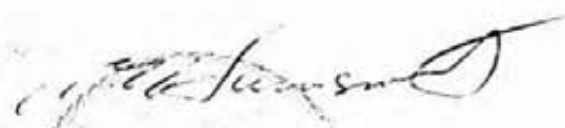


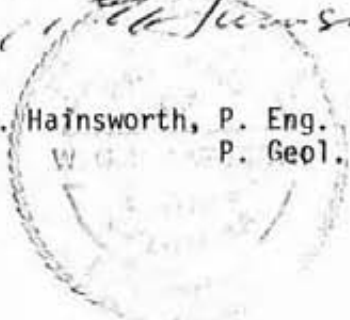
A handwritten signature in cursive script is written over a circular stamp. The signature appears to be "W. H. [unclear]". The stamp is circular with a double-line border and contains some illegible text in the center.

CERTIFICATE

I, W.G. Hainsworth, P. Eng., of Vancouver, B.C. do hereby certify:

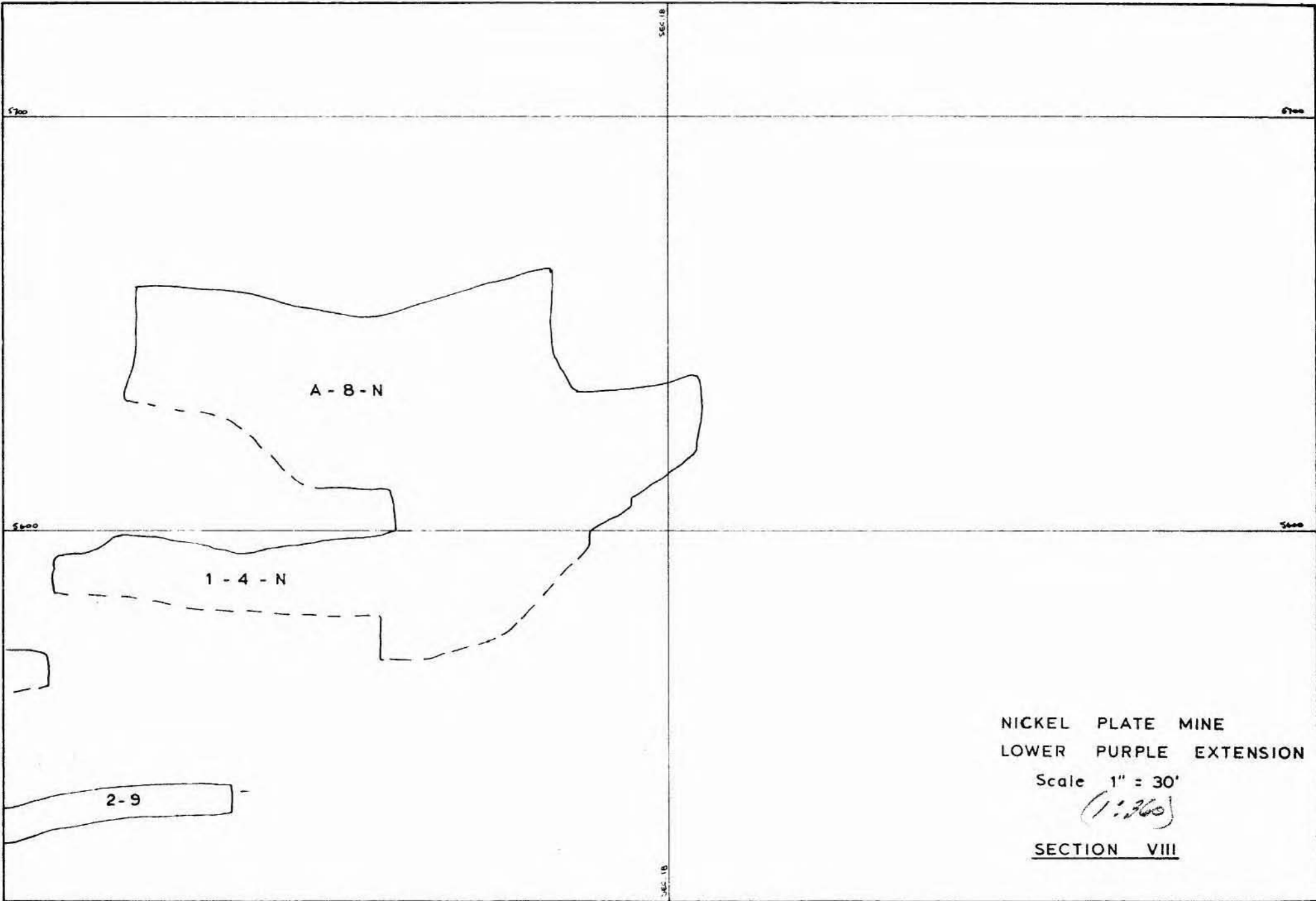
- (1) That I am a Consulting Geologist residing at #4 - 4100 Salish Drive, Vancouver, B.C.
- (2) That I am a graduate of the University of Western Ontario, London, Ontario, Bachelor of Science Degree, Honours Geology.
- (3) That I have practiced my profession for some 30 years.
- (4) That I have been a continuous member of the Association of Professional Engineers of British Columbia since 1965 and am a Professional Geologist registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1979.
- (5) That I have no financial interest, direct or indirect, in the Mascot Gold Mines Limited, and do not expect to obtain any such interest.
- (6) That the information contained in this report is based on repeated visits to the Nickel Plate property of Mascot Gold Mines Limited and familiarity with the operations, past and present.


W.G. Hainsworth, P. Eng. (B.C.)
P. Geol. (Alta.)



APPENDIX A

HOLE NO.	LAT. (N)	DEP. (W)	ELEV.	AZ	DIP	LENGTH
2582	4435.77	4040.76	5611.32	-	-90° 15'	175 —
2583	4437.54	4039.19	5617.77	35°	+40° 45'	80 ✓
2584	4437.98	4039.06	5615.42	31° 45'	+2°	146 —
2588	4413.06	3999.29	5615.97	213° 15'	+4° 30'	56 —
2589	4412	4402	5618.42	217°	+30	60 —
2591	4418.38	3997.36	5612.63	-	+90°	36 —
2592	4422.56	3996.57	5615.92	30°	+3° 15'	117 —
2593	4421.56	3996.45	5618.62	35° 30'	+45°	61 —
2596	4356.52	3949.44	5616.85	216° 05'	+9° 33'	158 —
2597	4379.34	3965.87	5618.73	34° 29'	+45° 57'	125 —
2598	4356.91	3949.27	5612.45	215° 15'	-41° 14'	194 —
2599	4343.42	3927.58	5613.29	209° 46'	-45° 20'	161 —
2600	4349.40	3925.33	5619.04	31° 24'	+45° 33'	90 —
2602	4330.16	3907.39	5615.57	211° 34'	2° 47'	92 —
2603	4331.05	3906.83	5617.99	207° 48'	44° 53'	123 —
2604	4364.48	3944.74	5620.15	35° 49'	+46° 28'	125 ¹²⁰ —
2605	4329.86	3906.56	5614.00	210° 30'	-27° 34'	71 —
2607	4322.62	3887.94	5616.33	29° 06'	-11° 41'	88 —
2608	4322.25	3888.14	5616.97	28° 55'	+31° 50'	140' —
2647	4408.50	3926.83	5682.40	025°	-75°	55 —
2649	4425.89	3952.22	5672.93	18° 30'	-78°	45 —
2754	4373.01	3866.42	5702.21	20°	-45° 30'	71 —
2788	4422.00	3996.13	5618.53	35° 46'	+36° 46'	111 —
2586	4421.07	4028.80	5612.03	-	-90°	152 —



A - 8 - N

1 - 4 - N

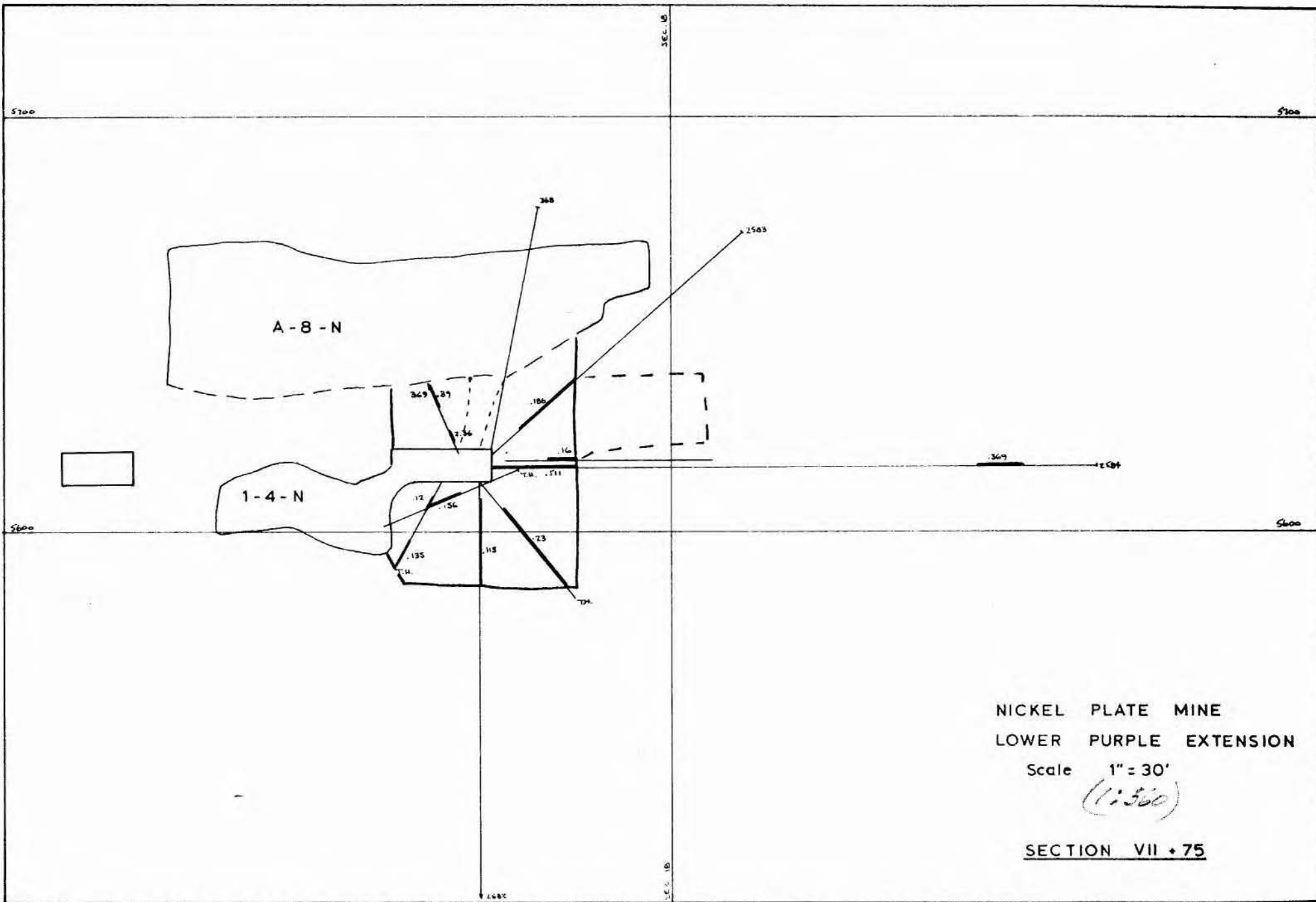
2 - 9

NICKEL PLATE MINE
LOWER PURPLE EXTENSION

Scale 1" = 30'

(1:360)

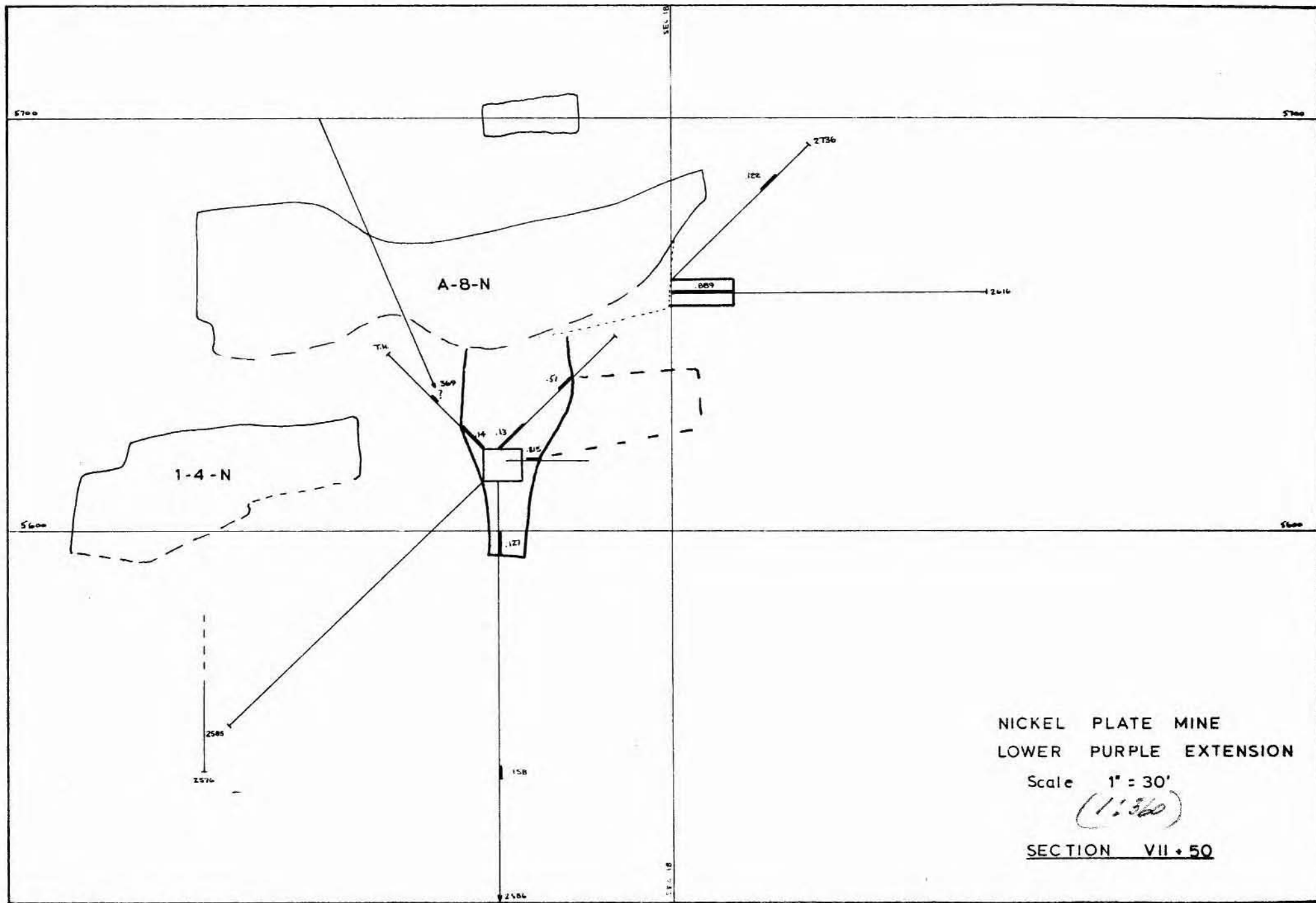
SECTION VIII



NICKEL PLATE MINE
 LOWER PURPLE EXTENSION

Scale 1" = 30'
 (1:360)

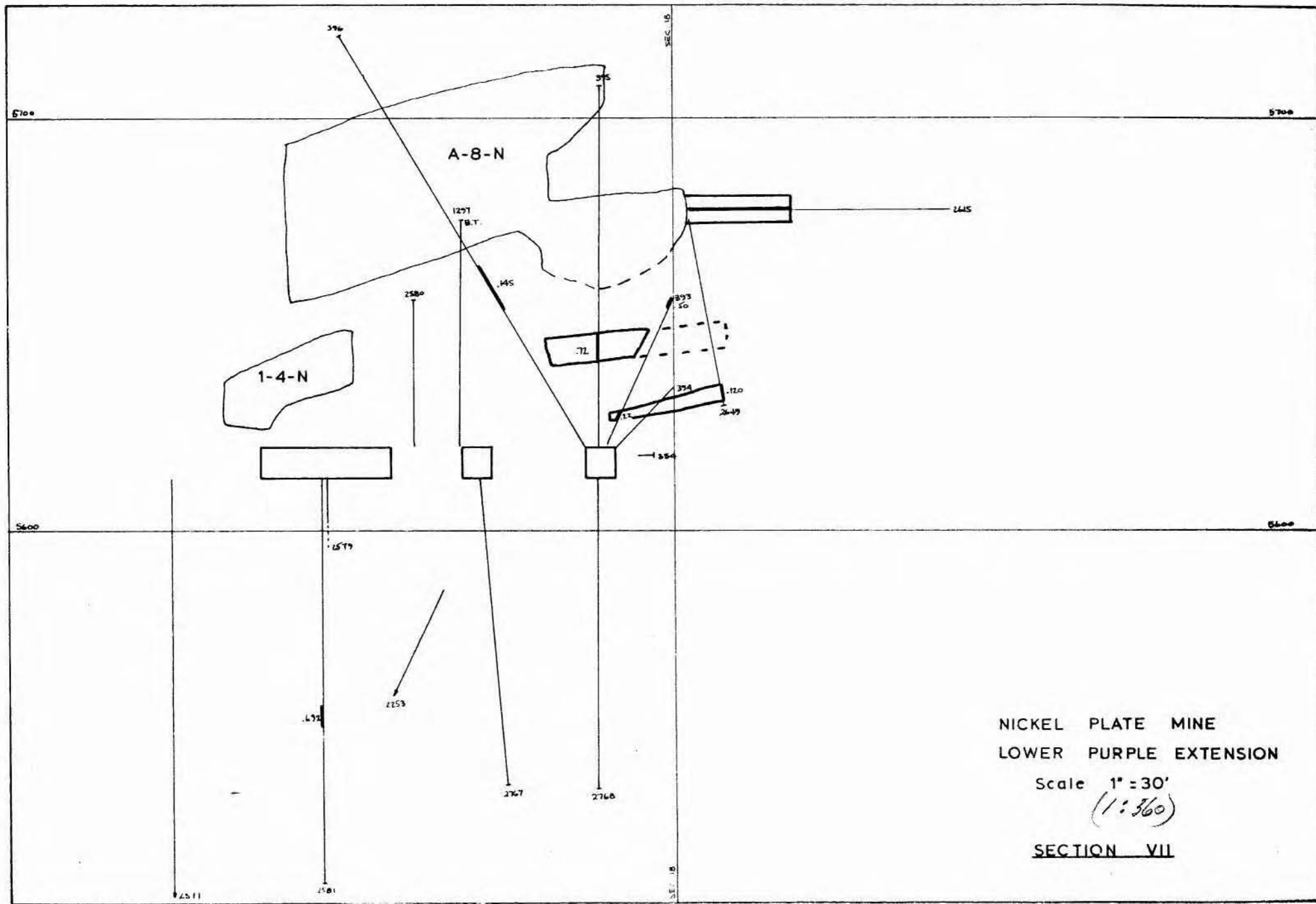
SECTION VII + 75



NICKEL PLATE MINE
 LOWER PURPLE EXTENSION

Scale 1" = 30'
(1:300)

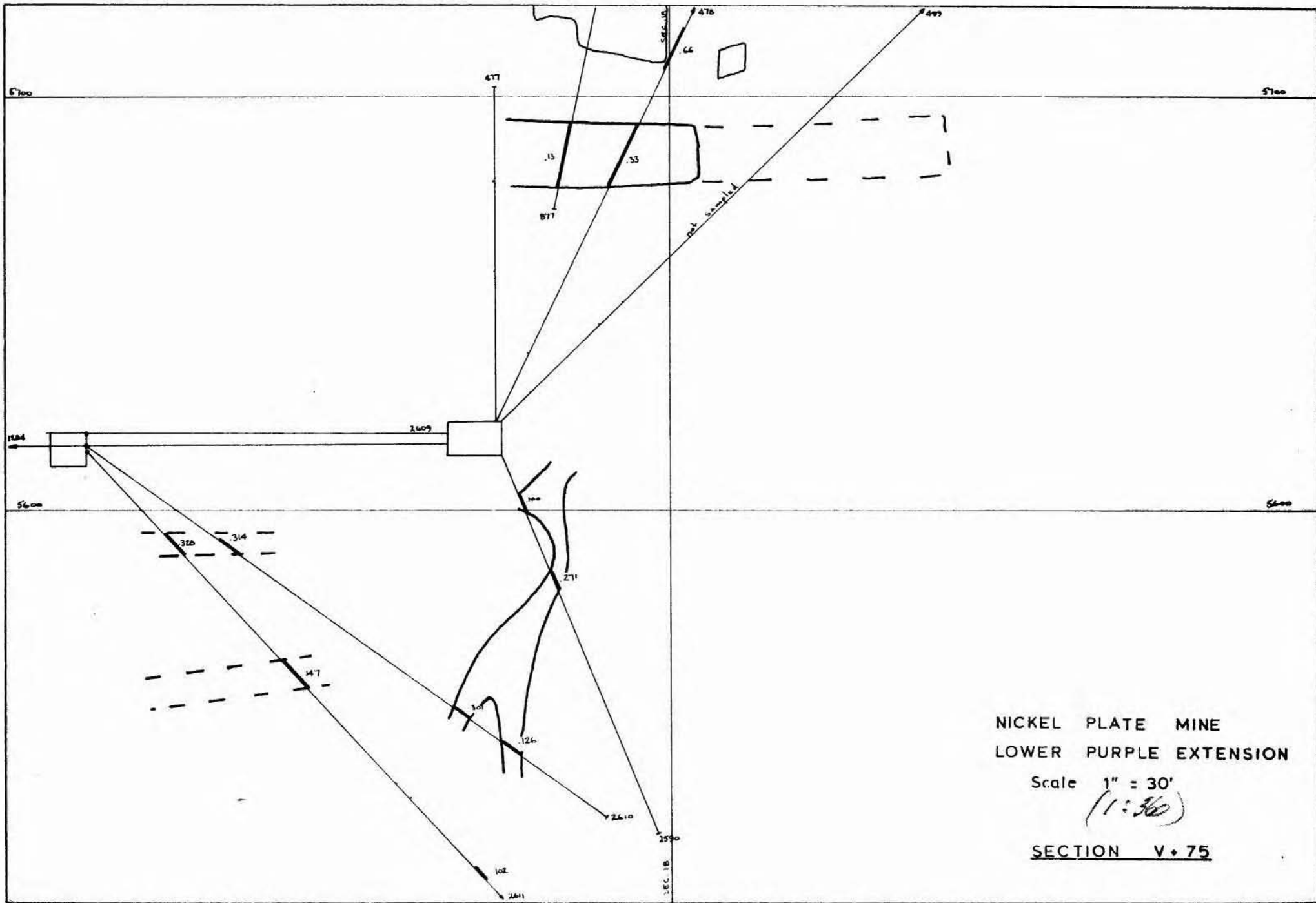
SECTION VII-50



NICKEL PLATE MINE
 LOWER PURPLE EXTENSION

Scale 1" = 30'
 (1:360)

SECTION VII

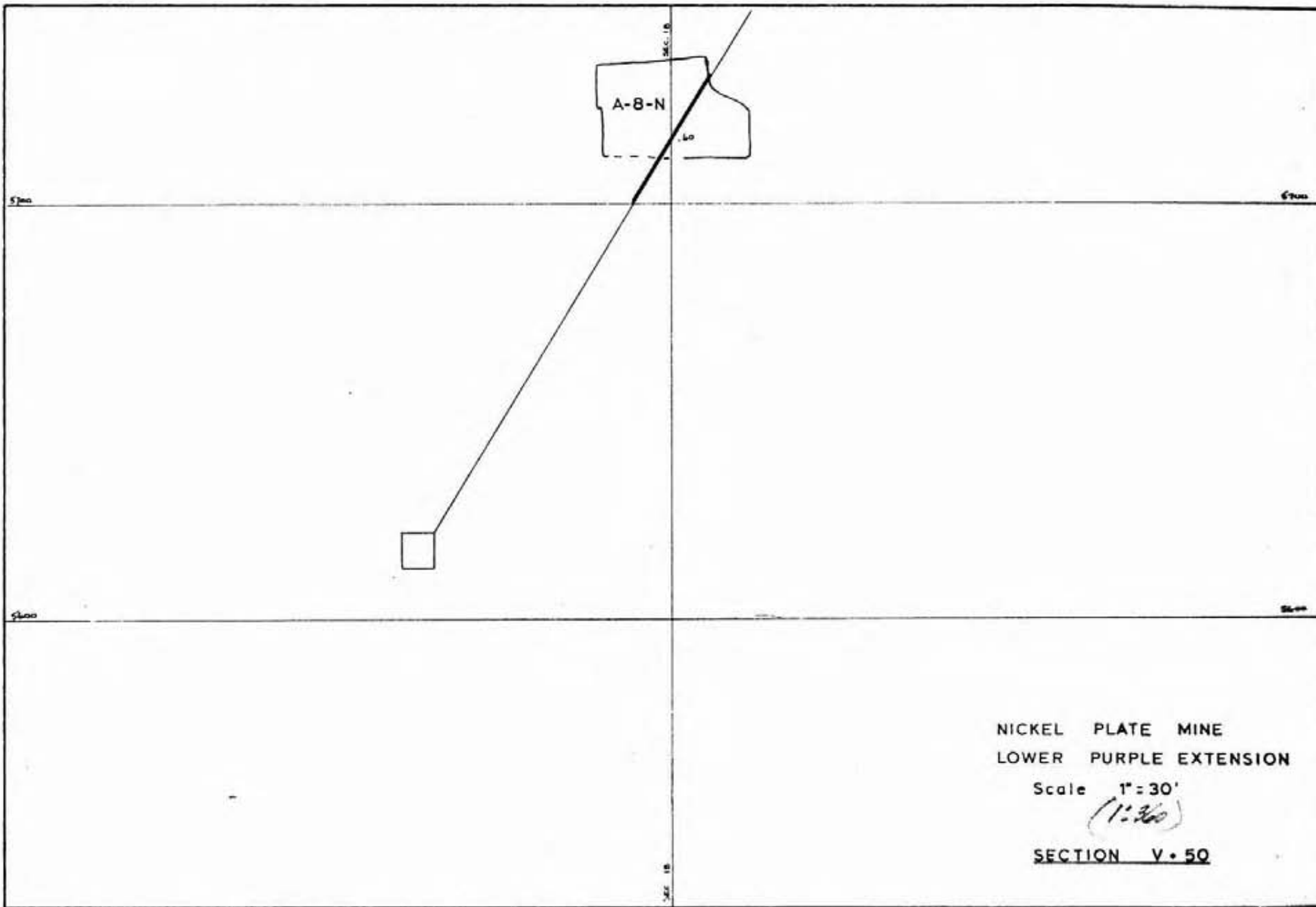


NICKEL PLATE MINE
 LOWER PURPLE EXTENSION

Scale 1" = 30'

(1:300)

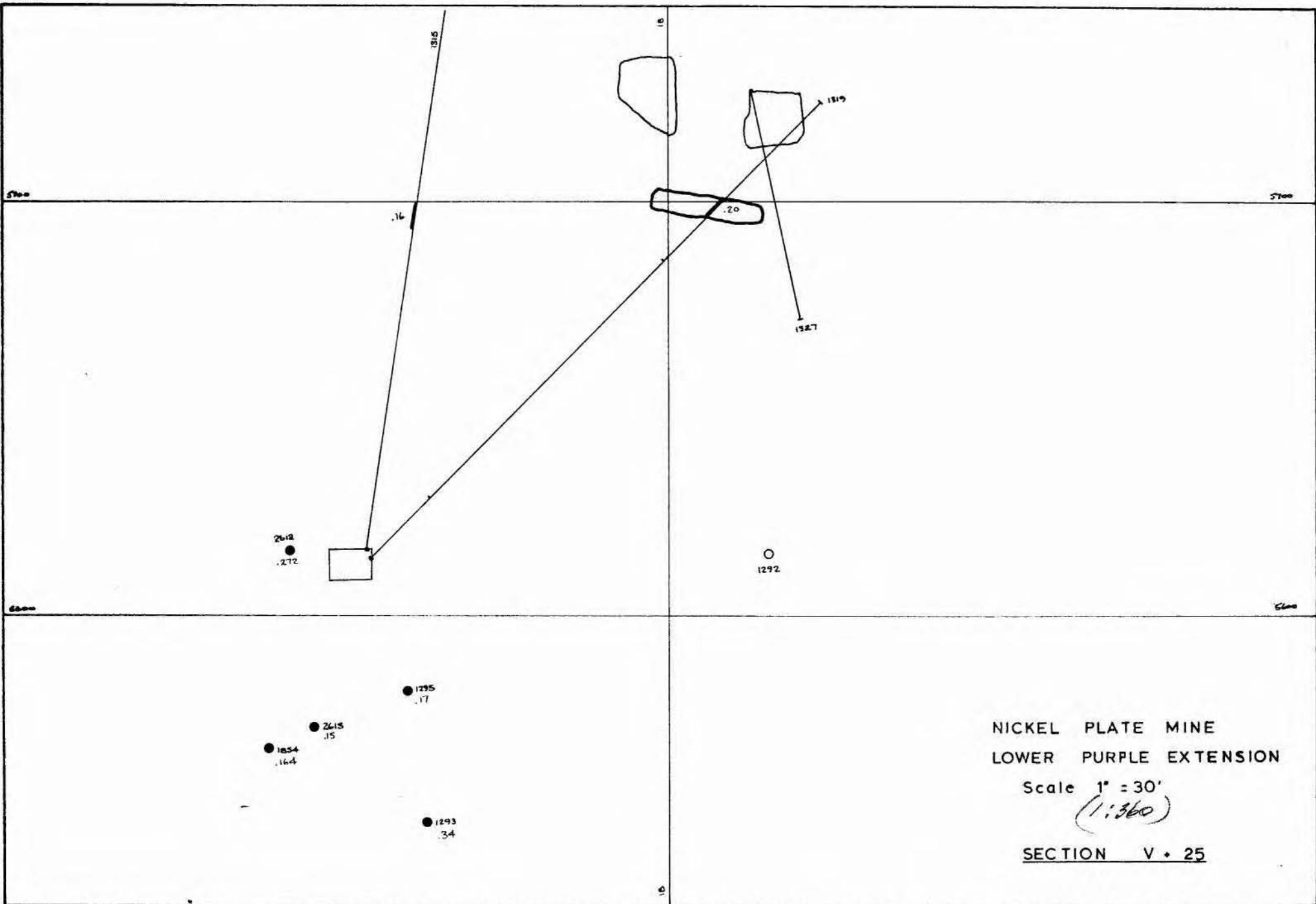
SECTION V-75



NICKEL PLATE MINE
LOWER PURPLE EXTENSION

Scale 1" = 30'
(1:360)

SECTION V-50



NICKEL PLATE MINE
 LOWER PURPLE EXTENSION

Scale 1" = 30'
(1:360)

SECTION V • 25

VANCOUVER

DIAMOND DRILL HOLE RECORD

MASCOT GOLD MINES LIMITED

Property _____

Level	A	Lat.	4331.05	Hole No.	MD 2603	Dip Tests	-
Location	A 13	Dep.	3906.83	Sheet No.	1/1		
Date Started	March 10/82	Elev.	5617.99	Core Size	AQ		
Date Finished	March 12/82	Bearing	217°	Logged by	G. GRIESBACH		
Depth	123'	Slope	+45°		March 15/82		

FOOTAGE FROM	TO	DESCRIPTIONS	CORE ASSAYS						RECOVERY		
			No.	FROM	TO	FEET	Au	%	RUN	SHORT	
0	62.8	Porphyry: Dark bluish grey, very siliceous matrix with abundant vague to distinct white feldspar phenocrysts. The core is very broken and moderately to extremely chloritic and oxidized at 21' - 35', 38' - 62.8'.	55435	0	20	20	.002			0-5	1
			36	20	40	20	.001			5-9	1
			37	40	55	15	.001			9-18	0
			38	55	63	8	.010			18-23	0.8
			39	63	67	4	.220			23-26	0
62.8	123	Argillite: Light grey, fine grained, and at least slightly chloritic, vaguely bedded argillite. The core is very dark (ie. intensely chloritic) at 62.8' - 67', 86' - 93', 97' - 99.7', and 116.3' - 121.4'. Abundant slickensided fault surfaces are present within these zones (Central Fault?). The surfaces vary from 0° to 30° to the core axis and the lineations vary from 0° to 30° to the long axis of the oval surfaces. Abundant arsenopyrite is present at 62.5' - 65.5', 75' - 76.2', 82.4' - 87.5', 109' - 115.3'. Moderate arsenopyrite at 65.5' - 75', 76.2' - 82.4', 101' - 109'. Minor arsenopyrite at 87.5' - 101', 115.3' - 123'. The arsenopyrite is generally of medium (2-4 mm.) grain size. Sparse to minor fine pyrrhotite throughout. Bedding 35° at 77', 40° at 84', 35° at 116'.	40	67	73	6	.057			26-31	1.5
			41	73	78	5	.152			31-36	2
			42	78	83	5	.069			36-42	1
			43	83	88	5	.081			42-52	0
			44	88	93	5	.009			52-59	2.5
			45	93	98	5	.002			59-88	0
			46	98	103	5	.041			88-93	2.5
			47	103	108	5	.056			93-123	0
			48	108	113	5	.087				
			49	113	118	5	.039				
			50	118	123	5	.068				
		END									

DIAMOND DRILL HOLE RECORD

MASCOT GOLD MINES LIMITED

Property _____

Level	A	Lat.	4330.16	Hole No.	MD 2602	Dip Tests	-
Location	A 13	Dep.	3907.39	Sheet No.	1/1		
Date Started	March 8/82	Elev.	5615.57	Core Size	AQ		
Date Finished	March 9/82	Bearing	211° 33' 48"	Logged by	G. GRIESBACH		
Depth	92'	Slope	+2° 47' 21"		March 10/82		

FOOTAGE		DESCRIPTIONS	CORE ASSAYS							RECOVERY		
FROM	TO		No.	FROM	TO	FEET	AU	%			RUN	SHORT
0	92	Porphyry: Pale to medium greenish grey, slightly to very chloritic, highly fractured and moderately oxidized core. Much of the porphyry has undergone bleaching.	55375	0	15	15	.008				0-5	0.5
			76	15	30	15	.006				5-14	0
			77	30	45	15	.010				14-17	2
			78	45	60	15	.198				17-20	0
			79	60	75	15	.002				20-23	0.7
			80	75	92	17	.002				23-26	2
	END										26-29	0
											29-37	1
											37-62	0

RECORD

GOLD MINES LIMITED

Level	4232	Core Size	7.8
Location	713	Logged by	G. GRIESBACH
Date Started	9/3/82		
Date Finished	10/3/82		
Depth	71		
			12/3/82

NO.	FROM	TO	FEET	CORE ASSAYS		RECOVERY	
				%	%	RUN	REGRY
55451	0	15	15	.006		0-6	1.5
52	15	30	15	.021		6-19	0
53	30	45	15	.001		19-25	1
54	45	58.2	13.2	.001		25-32	1
55	58.2	62	3.8	.149		32-35	0.5
56	62	67.4	5.4	.057		35-62	0
57	67.4	71	3.6	.121		62-71	0
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							

58.2 Porphyry: bluish grey spherulitic matrix with abundant white spherulitic mineralization. Several strongly oxidized sections with mineralization.

58.2-71 Shale: fine grained bluish grey, moderately shaly argillaceous limestone.

50° @ 58.2-62.4. Minor exp @ 62.4-71.

argillaceous limestone to fine to medium grained exp @ 58.2-62, 62.4-71

Minor exp @ 58.2-62. Abundant exp @ 62-71.

71-EM

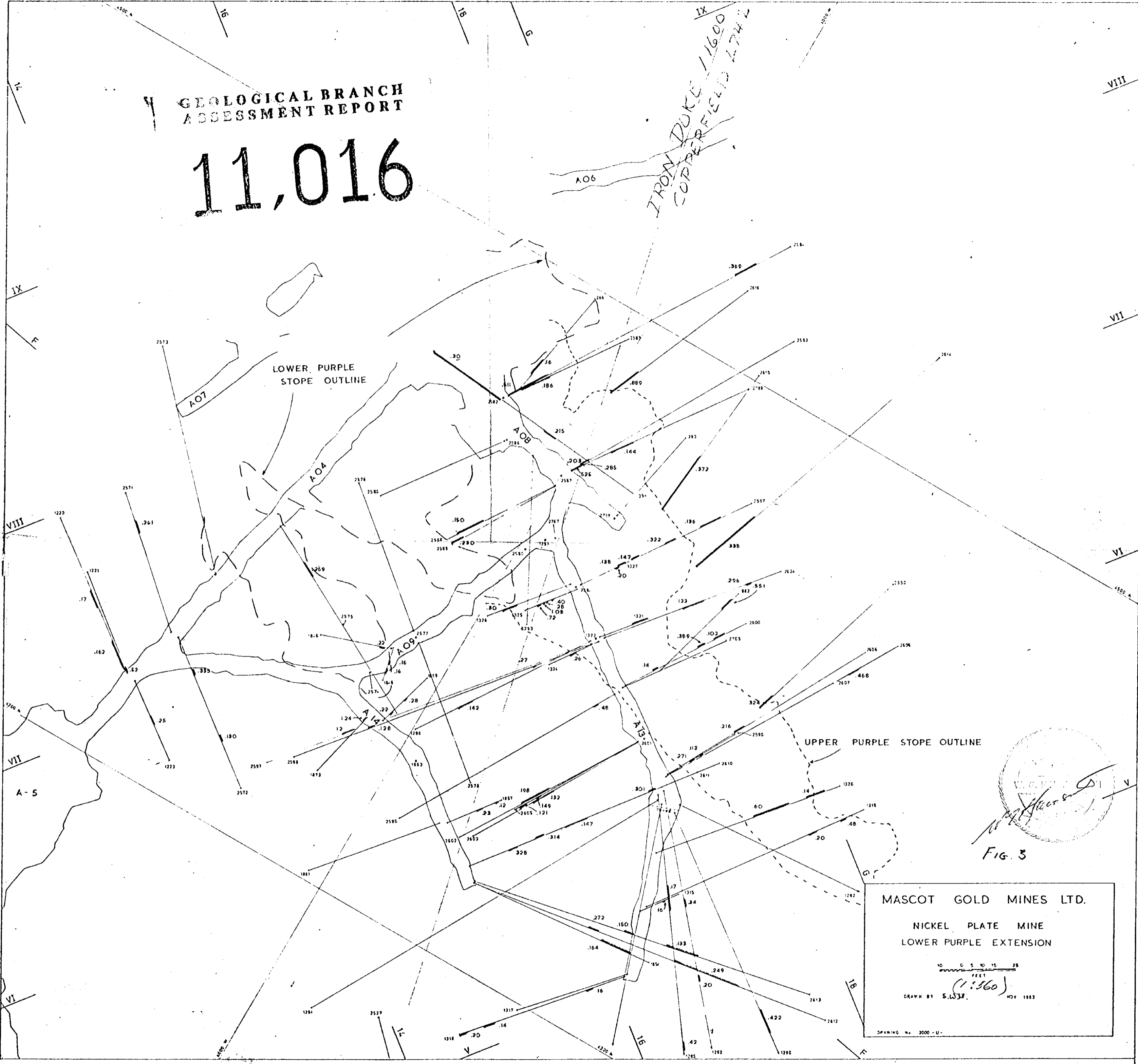
GEOLOGICAL BRANCH
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IRON DUKE 11600
COPPERFIELD 1742

LOWER PURPLE
STOPE OUTLINE

UPPER PURPLE STOPE OUTLINE



[Handwritten Signature]

FIG. 3

MASCOT GOLD MINES LTD.
NICKEL PLATE MINE
LOWER PURPLE EXTENSION

10 0 5 10 15 20
FEET
(1:560)

DRAWN BY S.W.J. NOV 1982

DRAWING No. 3000-U