



41P12SE0501 15 GROVES

010

DIAMOND DRILLING

Page 1 of 2

TOWNSHIP: GROVES

REPORT NO: #15

WORK PERFORMED FOR: BLUE FALCON MINES LTD.

RECORDED HOLDER: SAME AS ABOVE [x]

: OTHER [ ]

<u>CLAIM NO.</u>	<u>HOLE NO.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
P 1047171	GR-90-A45	140ft	Jan, 90	1
"	GR-90-A50	535ft	"	1
"	GR-90-A70	501ft	"	1
"	GR-90-B50	208ft	"	1
"	GR-90-B90	213ft	"	1
"	GR-90-C45	336ft	"	1
"	GR-90-C56	407ft	"	1
"	GR-90-C70	474ft	"	1
"	GR-90-D48	179ft	"	1
"	GR-90-D62	356ft	"	1
"	GR-90-D75	317ft	"	1
"	GR-90-D90	356ft	"	1
"	GR-90-E43	207ft	Jan-Feb, 90	1
"	GR-90-E68	196ft	Feb, 90	1
"	GR-90-F60	307ft	Feb, 90	1

NOTES:

(1) #W9006-60420, filed July, 1990

DIAMOND DRILLINGTOWNSHIP:

REPORT NO:

WORK PERFORMED FOR:

RECORDED HOLDER: SAME AS ABOVE [ ]

: OTHER [ ]

<u>CLAIM NO.</u>	<u>HOLE NO.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
P 1047171	GR-90-G43	220ft	Feb, 90	1
"	GR-90-H45	266ft	"	1
"	GR-90-I65	317ft	"	1
"	GR-90-J68	257ft	"	1
"	GR-90-K47	224ft	"	1
"	GR-90-L45	20ft	"	1

6036'NOTES:

L.U.P.

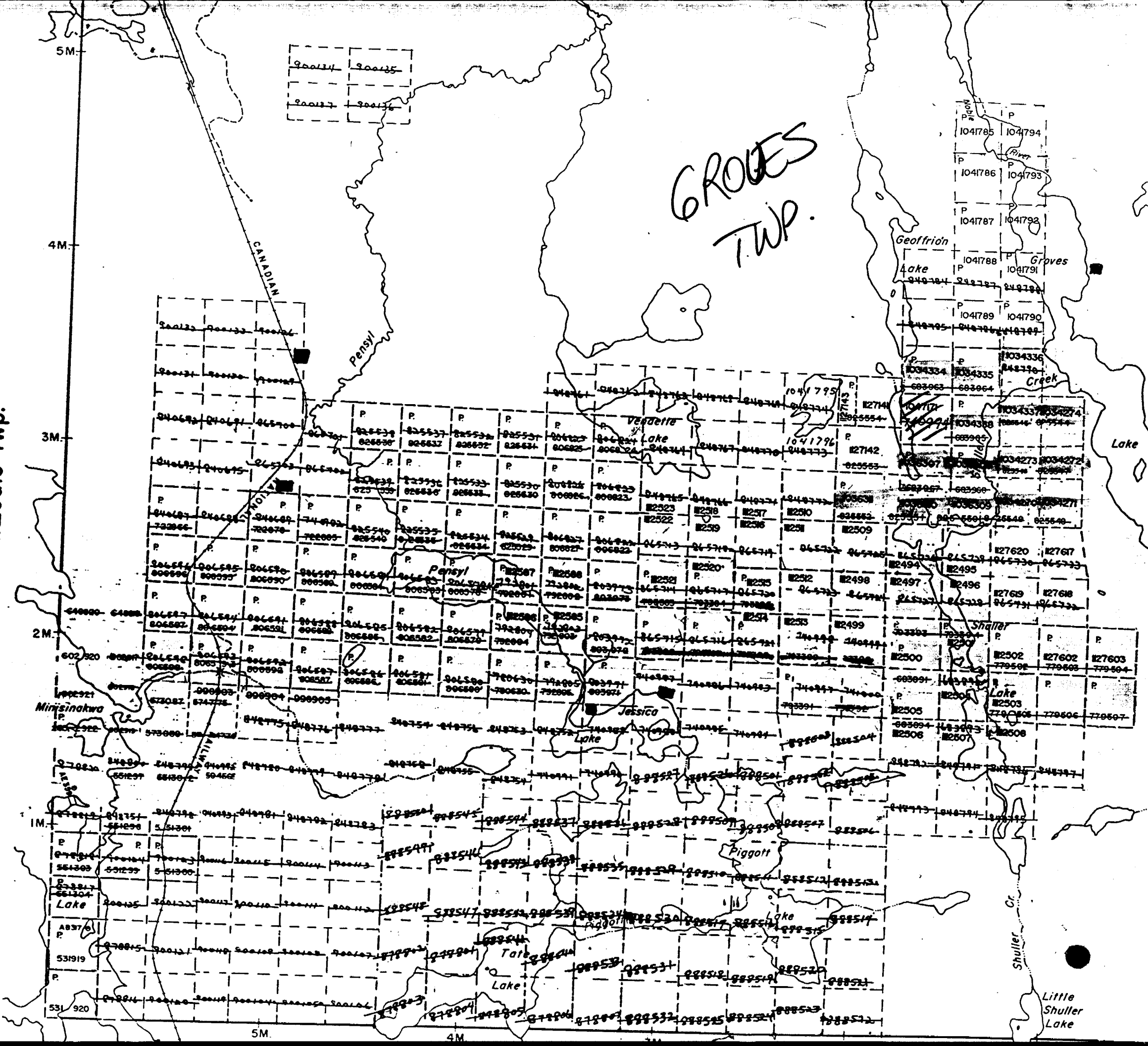
NOTES

400' SURFACE RIGHTS RESERVATION AROUND MINISINAKWA LAKE TO M.N.R. FILE 160708.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING

St. Louis Twp.

GROVES TWP.

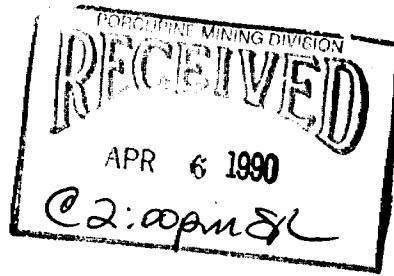


5M

4M

Shuller Cr.

Little Shuller Lake



N i - C u - P t - P d - A u - A g

G R O V E S   P R O P E R T Y   D R I L L I N G   O F  
J A N - F E B .   1 9 9 0

by Hermann Daxl

28 Feb. 1990

TIMMINS NICKEL INC.

## OBJECTIVE

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Over the years substantial shallow diamond drilling on the Eves Property near Gogama in Groves Township revealed good values of Ni-Cu-PGE-Au. In 1957 Consolidated Regcourt Mines Ltd. announced drill-indicated reserves of some 500,000 tons averaging 1.5 % combined Ni-Cu (Canadian Mines Handbook, 1957). The purpose of the present diamond drilling of 6036 ft was to investigate the IP anomalies reported by Meikle (1989) and the possibility of open pit mining.

## GEOLOGY

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With no detailed geological maps available, the following interpretation of the geology is based on the present drilling and sparse winter investigation of the shoreline of Watershed Lake, the cliff showing, and the pit showing. Not enough time was available to fully exploit the details of the drill logs.

The ore mineralization is confined to the generally green-gray medium-grained rather chloritized gabbro, which is non-magnetic and variably foliated to homogeneous. It can also be gray or include fine-grained zones. This unit lies in variably sheared, or brecciated, mafic to felsic volcanics, much of which are protomylonite with chlorite-rich matrix and zones with magnetite, sericite, or pink K-feldspar alteration.

This medium-grained gabbro seems to be some 100 ft wide and deep between lines 1 and 4, and compressed towards both ends on lines 0 and 5 to less than 50 ft wide and over 200 ft deep with an approximate attitude of 80/70S in the east where it is cut off by a magnetic diabase dike of attitude 345/85E. The cliff showing near line 0 and the bay exposes a contact of 195/85W between gossaned gabbro with parallel shearing and brittle fine-grained gabbro. It could be a fault contact due to a subsidiary of the regional fault through the Watershed Lake. Although not drilled much, the west end of the gabbro seems to have an attitude similar to the 80/70 of the east end.

## MINERALIZATION

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The Ni-Cu-Pt-Pd-Au-Ag occurs as irregular 1-cm patches, 5-mm thick stringers, or matrix to in situ-breccia, of pyrite with variable chalcopyrite, pentlandite (? non-magnetic, pink to Ni-test E91), or locally some magnetic dull brown pyrrhotite. The

very fine-grained patches seem to be pyrite with variable content of pentlandite affecting the color. Chalcopyrite and pyrrhotite are more conspicuous. The frequent very finely disseminated pyrite with cubic tendency gave no values.

Good Ni-Cu-Pt-Pd-Au-Ag values were found only in both ends of the medium-grained gabbro. Since the gabbro lies in a shearzone the ends could lie in pressure shadows where hydrothermal fluids could have been channelled, possibly from depth. Any ore in the main part of the gabbro would be expected only in extension fractures normal to minimum stress, which could have been rotational, so that the direction of the present drilling may have been unfavourable. The ore attitude in both ends would tend to be convoluted and therefore less continuous. No ore minerals were encountered outside the gabbro and one could also speculate that the Ni-Cu-Pt-Pd-Au-Ag were derived from the gabbro itself, and that the potential for mining is therefore limited.

The attached list of best intersections and two showings summarizes the results illustrated by six sections and a mapview of the gabbro and ore mineralization. Although the intersections on line 4 and 5 together with the pit showing between them suggest continuity, the mineralization of hole GR-90-C45 could not be delineated by hole GR-90-D62 and can therefore be only a pipe or a pocket, not a sheet. It would therefore be premature to present an ore body on a long section.

#### M A G N E T I C   H I G H S

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Hole GR-90-K47 was drilled on line 10 far east of the area of interest to test a minor IP anomaly on the edge of a NNW trending magnetic high, likely a diabase dike as suggested by an intersected magnetic offshoot containing 3.3 % Mg. The IP anomaly seems due to an intersected shearzone with up to 1 % pyrite of no values.

A magnetic diabase plug was reached by hole GR-90-E43 and explains the magnetic high on the baseline between lines 6 and 8. The westward magnetic high is due to magnetic protomylonite of felsic to intermediate volcanics, and is not connected. The automated contouring of the magnetic map is misleading by displaying connections and offset steps without reasoning. The ore mineralization is only locally magnetic and its host gabbro is never magnetic.

#### A N A L Y S E S

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All analyses were done by Swastika Laboratories. All interesting zones, including some background, were split and analyzed for Ni-Cu-Pd-Au; many also for Ag, and some also for Cd, Co, Mn, Pb, Zn. The better Ni-Cu values were checked by standard aqua regia

assays and found correct. Samples of over 20 ppb Pd were analyzed also for Pt and Rh. Only Ni-Cu-Pt-Pd-Au-Ag are enriched. The best values are summarized on a separate sheet.

It may be significant that the best values of 2450 ppb Pt and 1140 ppb Pd come from a 4-ft sample of gray medium-grained gabbro with only minor sulfides and without special features, from the center of the 39.2 ft sulfide-rich intersection in hole GR-90-E68. This sample 1632 contained also 0.41 % Ni, 1.22 % Cu, 327 ppb Au, 10400 ppb Ag, and less than 5 ppb Rh.

All core was put on steel racks in the exploration yard at the Redstone Mine. The hole numbers represent Groves-year-setup with dip.

### L O G I S T I C S

The thick and early snow this winter prevented the ground from freezing, causing problems in making the access winter road, and delaying the drilling. The road goes north from highway 560 some 18 km east of junction 560/144, between the railroad and the entrance to the Gogama Forest Mill.

The daily operation is summarized in a log book, and drill reports by Forage Terraura Inc. The list of drillholes is attached.

### R E C O M M E N D A T I O N S

The gabbro presently drilled may be too small for an orebody, but the type of mineralization is excellent. Larger such plutons could occur on the property and would not show on any magnetic map. Detailed geological mapping would certainly locate any larger units since the overburden is only 10 feet and the relief is hummocky. These then could be surveyed by suitable geophysics.

Deep geophysics such as magneto-telluric methods to 1000 ft could be considered for both ends of the area drilled, in case the ore fluids came from depth and used the pressure shadows as channels.

Timmins, 28 February 1990

Hermann Daxl, M.Sc.

G R O V E S - JAN. FEB. 1990 - B E S T R E S U L T S

BQ-HOLE GR-90-	FROM - TO ft ft	CORE- ANGLE	LENGTH ft	Ni %	Cu %	AgAuPtPd
C45	145.5 - 153.0	45-70	7.5	1.10	1.14	fair AgAu
	153.0 - 159.5	45-70	6.5	0.25	0.25	good
D48	135.7 - 144.5	50	8.8	0.97	1.01	fair AgAu
E43	54.0 - 60.5	50-80	6.5	0.55	0.45	traces
E68	64.3 - 68.3	45	4.0	1.40	0.41	traces
	80.3 - 119.5	45	39.2	0.74	1.29	fair
(incl.	110.0 - 119.5	45	9.5	1.44	3.31	good AgAu)
	126.5 - 137.0	45	10.5	0.40	0.22	nil
F60	175.8 - 176.8	45	1.0	0.94	0.81	nil
	201.5 - 208.5	nil	7.0	0.57	0.53	fair

S H O W I N G S

Cliff	195/85	90	5.0	1.19	0.91	fair
Pit	80/70	90	1.0	0.50	0.45	fair

NOTE:

Gold, platinum, palladium up to 1 g/t each, and silver up to 20 g/t, are frequently associated with Ni-Cu values. All results for rhodium were less than 5 ppb, and are therefore questionable. Further analyses for all six platinum-group elements should be done with specific methods by Hoffman. The precious metals represent some \$ 20.00 per tonne if extractable.





# SUMMARY

HOLE #	START	END	LENGTH	DIP	LOCATION	ELEV.	CUM
GR-90-A45	11.1.	12.1.	140 N/C.	45 S	200E/250N	50	N/C
A70	12.1.	15.1.	501	70 S	" -	50	501
A50	15.1.	18.1.	535	50 S	" -	50	1036
GR-90-B90	18.1.	19.1.	213	90	200E/080N	50	1249
B50	19.1.	20.1.	208	50 N	" -	50	1457
GR-90-C45	20.1.	22.1.	336	45 N	400E/040S	40	1793
C70	22.1.	23.1.	474	70 N	" -	40	2267
C56	23.1.	24.1.	407	56 N	" -	40	2674
GR-90-D48	25.1.	26.1.	179	48 S	405E/140N	65	2853
D90	27.1.	27.1.	356	90	" -	65	3209
D75	28.1.	28.1.	317	75 S	" -	65	3526
D62	28.1.	30.1.	356	62 S	" -	65	3882
GR-90-E43	31.1.	1.2.	207	43 N	495E/010N	54	4089
E68	1.2.	2.2.	196	68 N	" -	54	4285
GR-90-F60	3.2.	3.2.	307	60 N	500E/105S	43	4592
GR-90-G43	4.2.	5.2.	220	43 N	300E/057S	35	4812
GR-90-H45	5.2.	6.2.	266	45 N	300E/140S	32	5078
GR-90-I65	7.2.	8.2.	317	65 N	015E/108S	20	5395
GR-90-J68	9.2.	10.2.	257	68 N	200E/046S	38	5652
GR-90-K47	10.2.	11.2.	224	47 N	1000E/140S	35	5876
GR-90-L45	11.2.	11.2.	20 N/C.	45 N	110E/020S	30	5876

END.

CLUTCH ON DRILL ENDED, CONTRACT ENDED BY MUTUAL AGREEMENT,  
 BUT ORIGINALLY WAS 5950 ft. MINIMUM. DID NOT GET TO DRILL  
 LINE 1 E. HEADOFFICE PREFERRED TO DRILL ON LINE 10 E, AND DID NOT  
 WANT TO DRILL LINE 1 ANYWAY, WOULD HAVE HAD TO GO OVER CONTRACT,  
 SO TOOK THIS OCCASION TO END IT, AND PAY ONLY 5876 ft.

GROVES - JAN. FEB. 1990

G R O V E S      -      J A N . F E B . 1 9 9 0      -      B E S T      R E S U L T S

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BQ-HOLE GR-90-	FROM - TO ft        ft	CORE- ANGLE	LENGTH ft	Ni %	Cu %	AgAuPtPd
C45	145.5 - 153.0	45-70	7.5	1.10	1.14	fair AgAu
	153.0 - 159.5	45-70	6.5	0.25	0.25	good
D48	135.7 - 144.5	50	8.8	0.97	1.01	fair AgAu
E43	54.0 - 60.5	50-80	6.5	0.55	0.45	traces
E68	64.3 - 68.3	45	4.0	1.40	0.41	traces
	80.3 - 119.5	45	39.2	0.74	1.29	fair
(incl.	110.0 - 119.5	45	9.5	1.44	3.31	good AgAu)
	126.5 - 137.0	45	10.5	0.40	0.22	nil
F60	175.8 - 176.8	45	1.0	0.94	0.81	nil
	201.5 - 208.5	nil	7.0	0.57	0.53	fair

S H O W I N G S

---

Cliff	195/85	90	5.0	1.19	0.91	fair
Pit	80/70	90	1.0	0.50	0.45	fair

NOTE:

Gold, platinum, palladium up to 1 g/t each, and silver up to 20 g/t, are frequently associated with Ni-Cu values. All results for rhodium were less than 5 ppb, and are therefore questionable. Further analyses for all six platinum-group elements should be done with specific methods by Hoffman. The precious metals represent some \$ 20.00 per tonne if extractable.

H-89-H17

The purpose of the hole was to intersect, if present the sulphide zone above the BIF in H16 and the sulphide nickel zone intersected in H7. The nickel rich sulphide zone was intersected from 657 feet to 673.4 feet and was bounded within a peridotite. Assays are pending. The hole was stopped at 1,020 feet within ultramfics. Now downhole geophysics has occurred in H17.

**ESTIMATES CUMULATIVE COSTS (Since November 21, 1989)**

		Cost/Foot
Diamond Drilling (26,667)	\$391,328.85	14.65
Surface Geological (labour, truck, rent, etc.)	39,253.00	1.47
Assaying	13,390.56	0.52
Linecutting	26,400.00	0.98
Directional Survey	6,200.00	0.23
Geophysics I.P.	37,000.00	1.39
Downhole (L-1,2,3,5, H7,9,11,13,15)	<u>47,201.46</u>	<u>1.77</u>
<b>TOTAL ESTIMATED CUMULATIVE COST</b>	<b>\$560,773.87</b>	<b>20.99</b>

**2. GROVES**

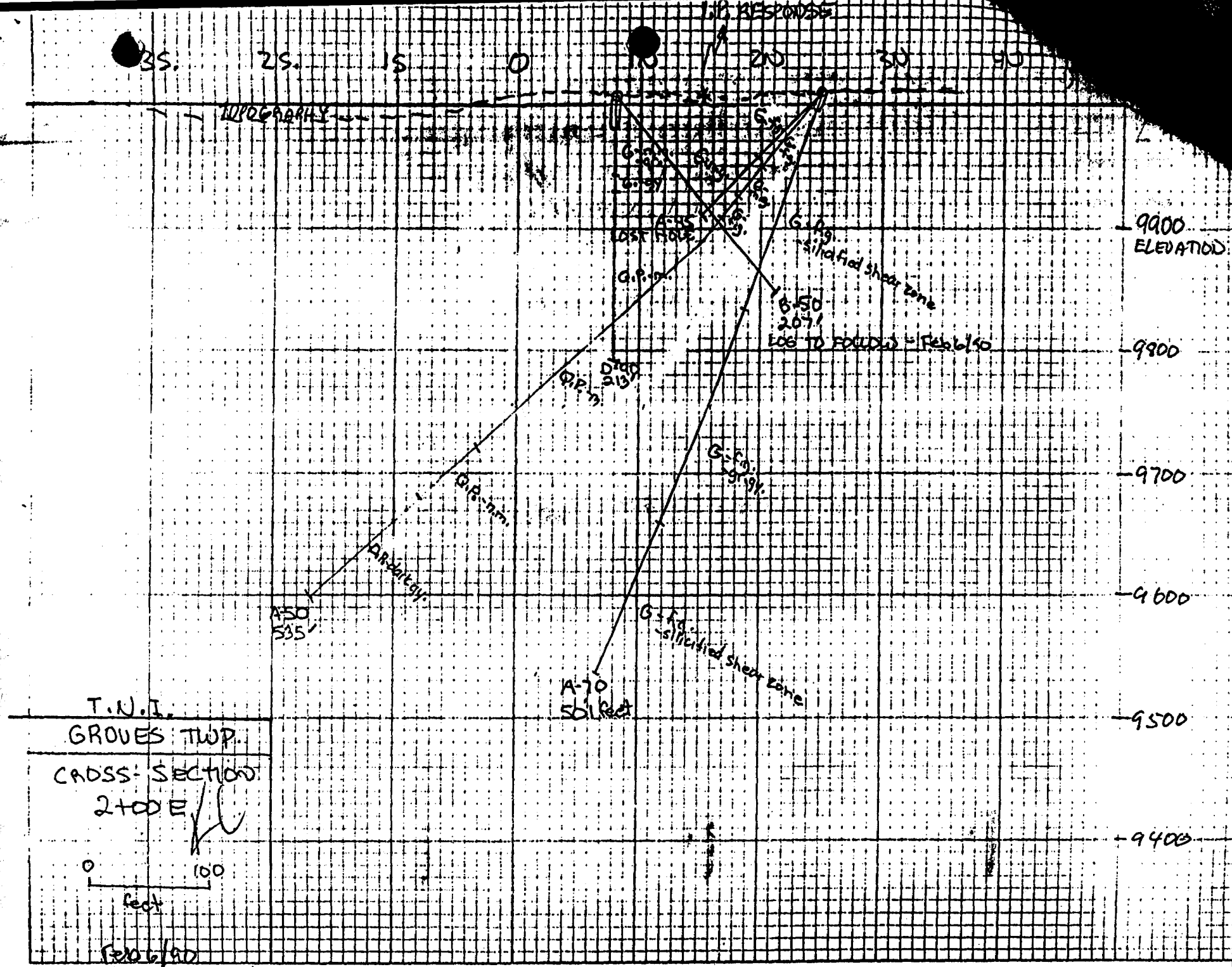
On February, a total of 6,036\* feet of BQ core was drilled. Refer to table 1 for drill hole information. See Appendix II for summary report by Herman Daxl.

**HOLES THAT HIT SIGNIFICANT MINERALIZATION**

GR-90-C45	- moderate mineralization	- 1.10% Ni & 1.13% Cu/7.5'
GR-90-D48	- weak mineralization	- 1.78% Ni & 1.76% Cu/3.6'
GR-90-E68	- strong mineralization	- 1.08% Ni & 0.65% Cu/8.5'
		- 1.26% Ni & 2.82% Cu/12.0'

**ESTIMATED COST (CUMULATIVE):**

		Cost/Foot
Diamond Drilling (5876)	\$ 93,006.79	15.82
Access	45,000.00	7.65
Surface Geological (labour, truck, rent, etc.)	20,613.50	3.51
Assaying	<u>6,540.00</u>	<u>1.11</u>
<b>TOTAL ESTIMATED CUMULATIVE COST</b>	<b>\$165,160.29</b>	<b>28.09</b>



T.N.I.  
 GROVES TWP.  
 CROSS-SECTION  
 2+00 E

0 100  
 feet

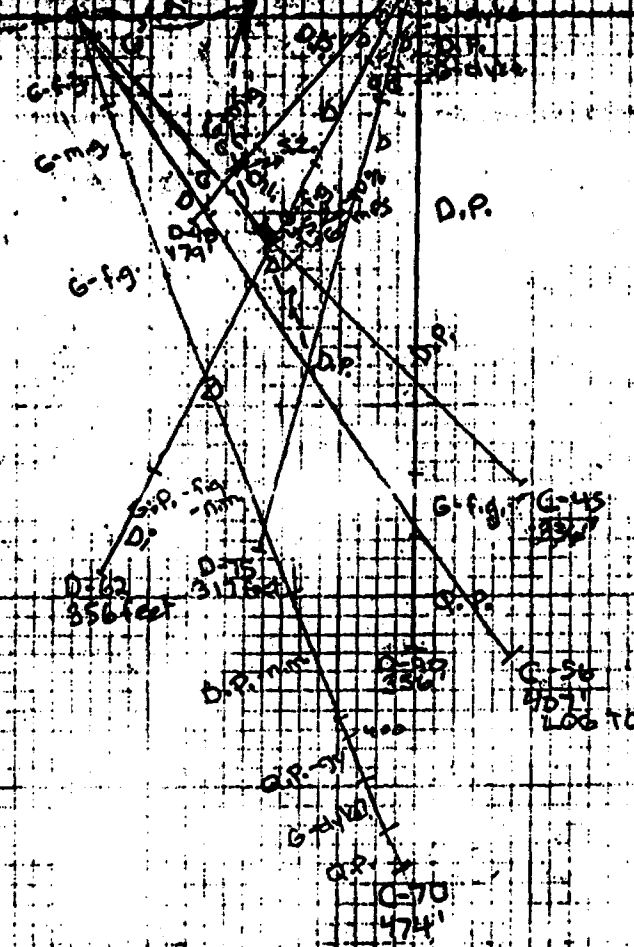
Feb 6/50

Projected Profile Pt 100 to 1462 ft / 1.2% Cu (450E/057N)

TOPOGRAPHY

9900 ELEVATION  
9800  
9700  
9600  
9500  
9400

- G - GABRO
- D - DACITE
- P - PHTO-MYLOXITE
- Q - QUARTZITE
- g.g. - fine grained
- m.g. - medium grained
- gr. - green
- gy. - gray
- s.z. - SULPHIDE ZONE
- n.m. - non-magnetic
- m. - magnetic
- chl - chloritized
- Q.G. - QUARTZ GABRO
- Di - Diorite

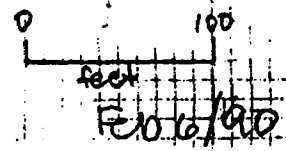


T.N.I  
"GROVES" TWP.

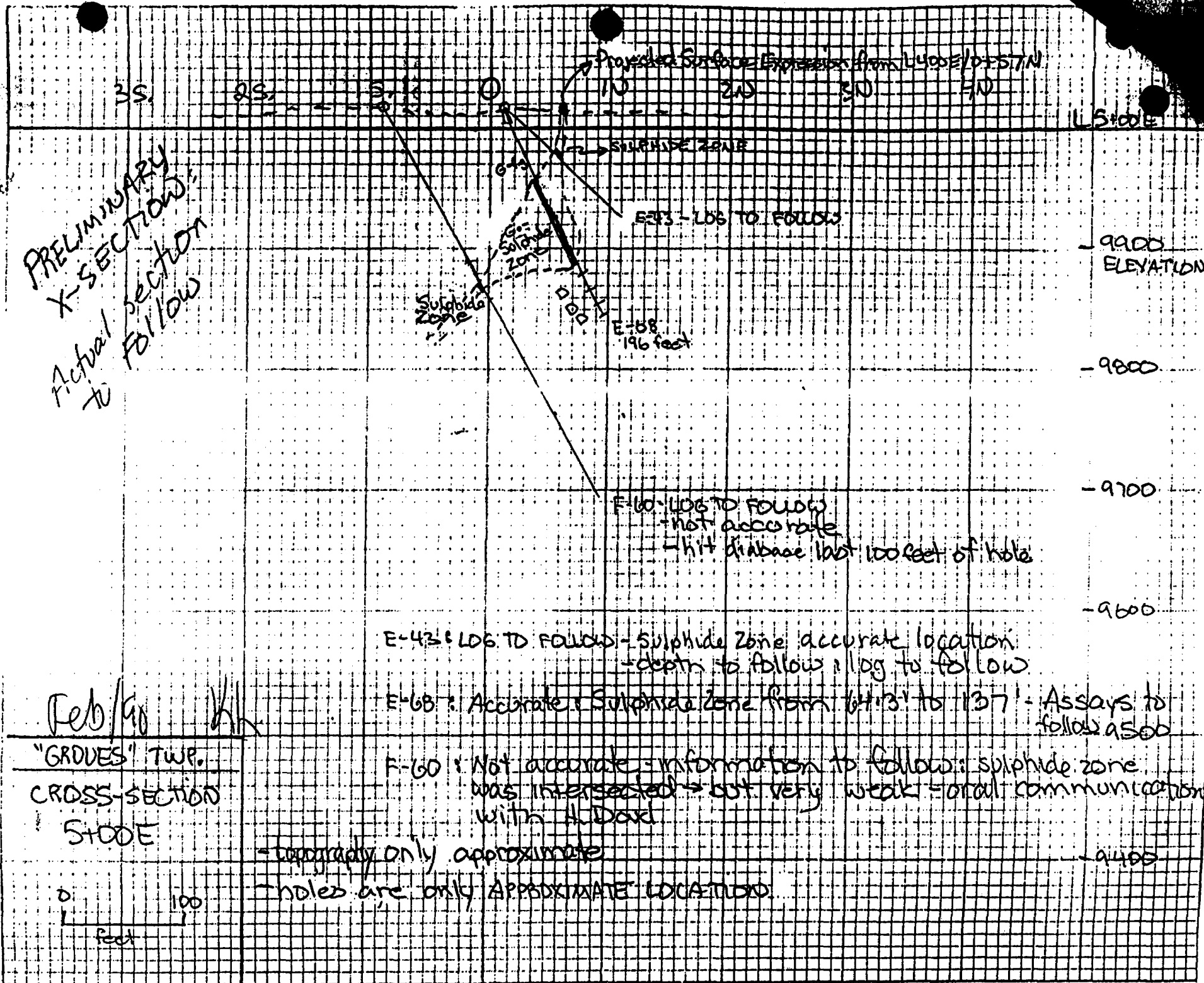
D-48 - Sulphide Zone: 0.59% Ni / 1.01% Cu / 8.8 feet including  
1.78% Ni / 1.70% Cu / 3.6 feet from 1381.5' to 1421.1'

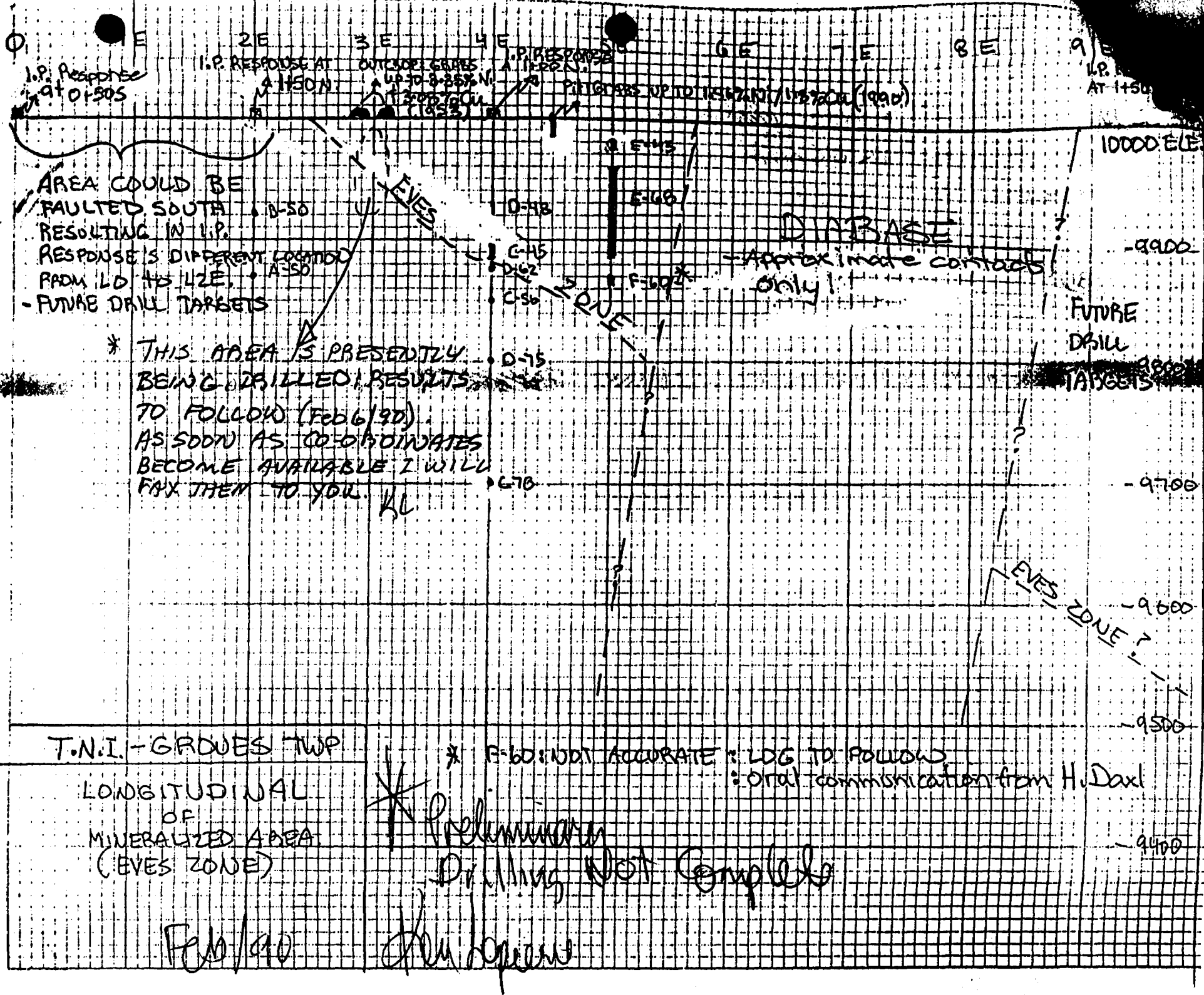
C-45 - Sulphide Zone: 0.59% Ni / 0.62% Cu / 16.5 feet including  
1.10% Ni / 1.13% Cu / 7.5 feet

CROSS-SECTION  
4+00 E



PRELIMINARY  
X-SECTION  
Actual section  
to follow





I.P. Response at 0-50S

2E I.P. RESPONSE AT A-50N

3E OUTCROP GRAB UP TO 8-25% N

4E I.P. RESPONSE AT 1-20N

6E I.P. RESPONSE UP TO 15% N (1-15-20) (990)

9E I.P. RESPONSE AT 1-50N

AREA COULD BE FAULTED SOUTH RESULTING IN I.P. RESPONSES DIFFERENT LOCATIONS FROM LD TO UZE. - FUTURE DRILL TARGETS

\* THIS AREA IS PRESENTLY BEING DRILLED, RESULTS TO FOLLOW (Feb 6/90) AS SOON AS CO-ORDINATES BECOME AVAILABLE I WILL FAX THEM TO YOU.

DATABASE - Approximate contacts only!

FUTURE DRILL TARGETS

T.N.I. - GROVES TWP

LONGITUDINAL OF MINERALIZED AREA (EYES ZONE)

\* F-60: NOT ACCURATE: LOG TO FOLLOW: Oral communication from H. Daxl

\* Preliminary Drilling Not Complete

Feb/90

*[Handwritten signature]*



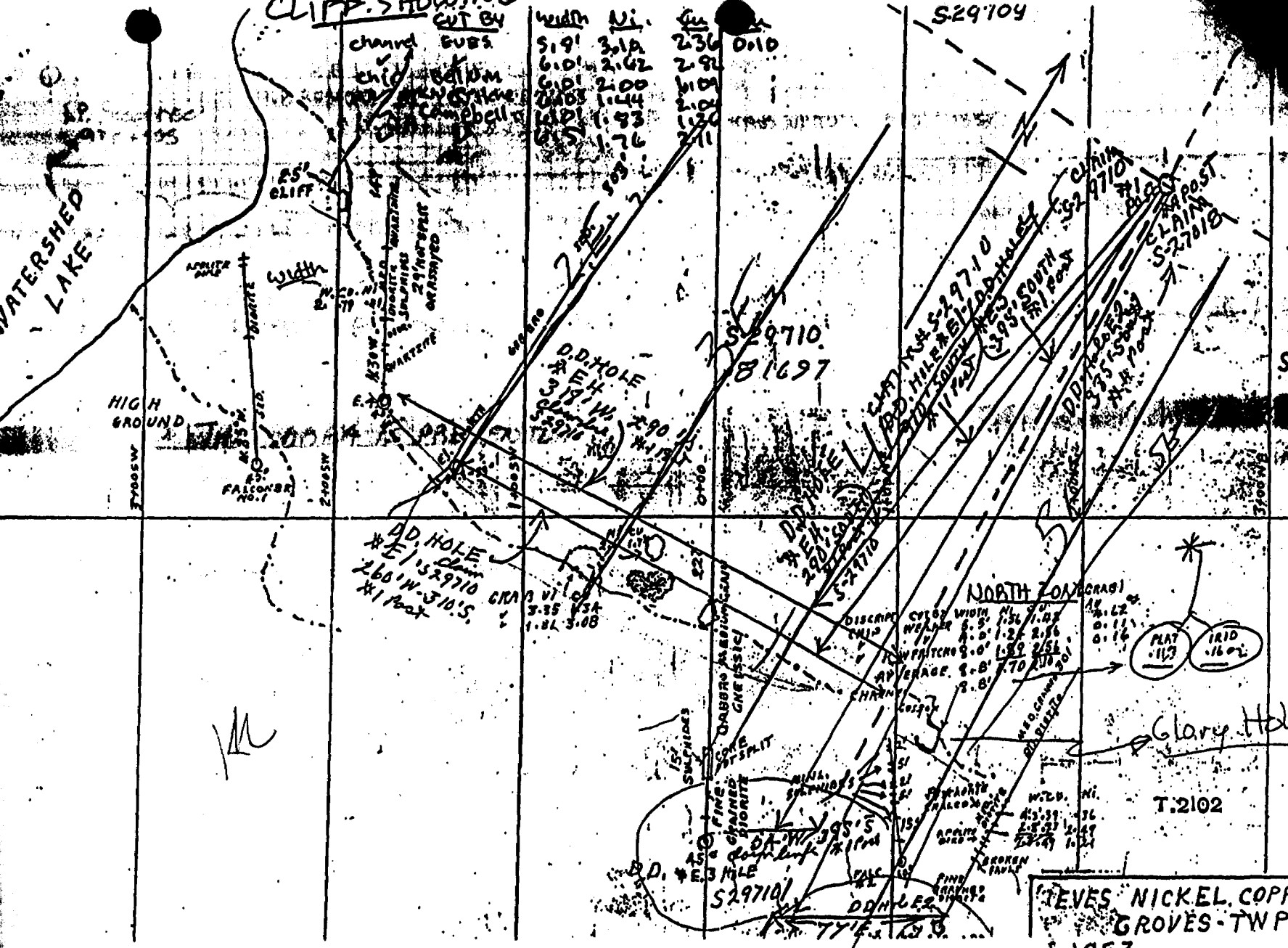
CLIPP. SHOWING

CUT BY

width	Ni.	Fe.
5.91	3.1A	2.36
6.01	2.62	0.10
2.05	1.44	2.92
1.81	1.33	2.80
0.5	1.26	1.1

channel SUBS.  
 chid. sedim.  
 Campbell

WATERSHED LAKE  
 HIGH GROUND  
 FALCONER NO. 1



Handwritten initials 'M'

PLAT 1123  
 IRID 1602

GLARY HOLE AREA

T.2102

EVES NICKEL COPP  
 GROVES-TWP  
 1953

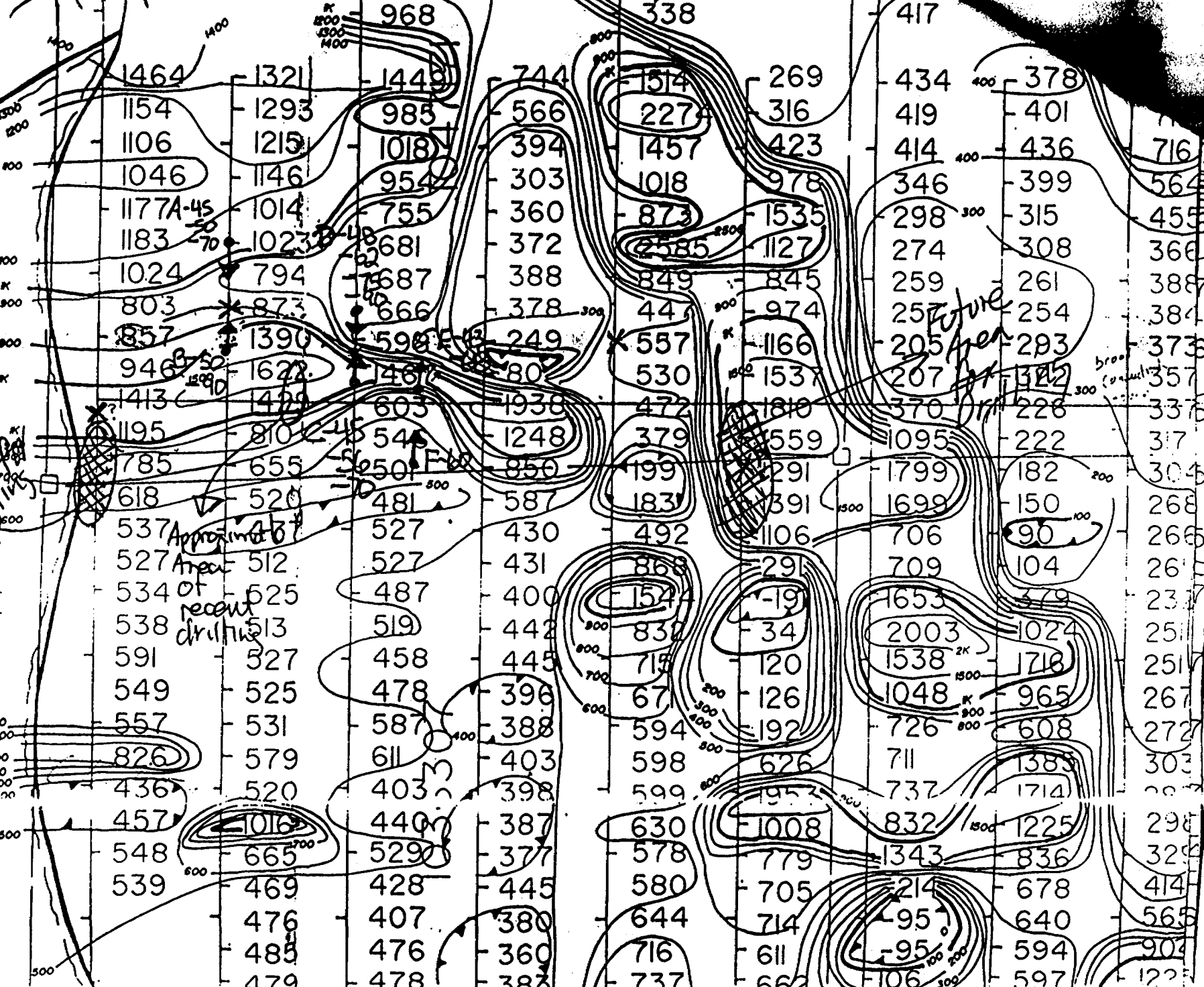
- Maps has been reduced  
 - before Recourt

GROVES PROP

JN 1

10/90

K



Future Area Drilling

LAKE

Approximate Area of recent drilling

Future Area

brock (containing)

1464	1321	1449	744	1514	269	434	378
1154	1293	985	566	227	316	419	401
1106	1215	1018	394	1457	423	414	436
1046	1146	954	303	1018	978	346	399
1177A-45	1014	755	360	873	1535	298	315
1183	1023	681	372	2585	1127	274	308
1024	794	687	388	849	845	259	261
803	873	666	378	44	974	257	254
857	1390	598	249	557	1166	205	293
946	1622	1487	80	530	153	207	322
1413	1409	603	1938	472	1810	370	228
1195	810	545	1248	379	1559	1095	222
785	655	550	856	199	291	1799	182
618	520	481	587	183	391	1699	150
537	477	527	430	492	1106	706	90
527	512	527	431	868	291	709	104
534	525	487	400	1544	19	1653	379
538	513	519	442	837	34	2003	1024
591	527	458	445	715	120	1538	1718
549	525	478	396	67	126	1048	965
557	531	587	388	594	192	726	608
826	579	611	403	598	626	711	1383
436	520	403	398	599	195	737	1714
457	1016	440	387	630	1008	832	1225
548	665	529	377	578	779	1343	836
539	469	428	445	580	705	214	678
	476	407	380	644	714	957	640
	485	476	360	716	611	95	594
	479	478	388	737	662	106	597



Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

0T-0160-RG1

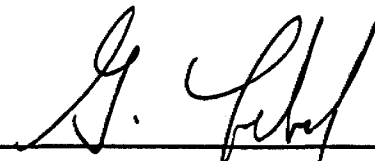
Company: **TIMMINS NICKEL INC.**  
Project:  
Attn: **H. DAXL**

Date: **FEB-26-90**  
Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 28 CORE samples submitted FEB-20-90 by .

Sample Number	Au ppb	Cu ppm	Cu %	Mg %	Ni ppm	Ni %	Pd ppb	Pt ppb	Rh ppb
1720	27	26			59		⊆		
1721	Nil	25			75		⊆		
1722	Nil	56			76		⊆		
1723	7	30			68		⊆		
1724	31	49			70		10		
1725	31	31			66		⊆		
1726	34	16			81		⊆		
1727	31	97		3.31	58		⊆		
1728	34	55			90		⊆		
1729	34	38			59		⊆		
1730	34	653			837		⊆		
1731	34	459			706		10		
1732	34	200			218		⊆		
1733	34	127			167		⊆		
1734	34	796			1040		⊆		
1735	31	138			180		⊆		
1736	27	56			73		⊆		
1737	34	54			38		⊆		
1738	48	817			870		10		
1739	48	1290			1320		30	20	⊆
1740	41	477			596		⊆		
1741	34	55			105		⊆		
1742	113/113	8150	0.80		9540	0.93	130	60	⊆
1743	75	2990			1050		⊆		
1744	27	33			72		⊆		
1745	216/237	6110	0.62		5110	0.52	260	250	⊆
1746	213/192	5630	0.58		4890		205	180	⊆
1747	45	556			340		10		

NOTE: Base metals decomposed using aqua regia digestion.

Certified by   
G. Lebel / Manager





Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

0T-0162-RG1

Company: TIMMINS NICKEL INC.

Date: FEB-26-90

Project:

Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

Attn: H. DAXL

We hereby certify the following Geochemical Analysis of 12 CORE samples submitted FEB-21-90 by .

Sample Number	Au ppb	Cu ppm	Ni ppm	Pd ppb
1748	Nil	68	131	<5
1749		35	120	
1750		180	349	
1751		48	202	
1752		90	200	
1753	161	1870	3120	20
1754	7	149	369	<5
1755	17	121	214	<5
1756	7	89	135	<5
1757		654	709	
1758		375	545	
1759	Nil	70	100	<5

NOTE: Base metals were decomposed using aqua regia digestion.

Certified by

G. Lebel / Manager



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## Certificate of Analysis

Certificate No. 77520 -A (OT-0071-RG1) Date Feb 4, 1990

Received Jan. 26, 1990 11 core

Submitted by Timmins Nickel Inc., Timmins, Ontario Attention: H. Daxl

SAMPLE NO.	PLATINUM PPB	RHODIUM PPB
1532	110 ✓	<5
1533	70 ✓	<5
1534	310 ✓	<5
1535	120 ✓	<5
1536	90 ✓	<5
1537	450 ✓	<5
1550	70 ✓	<5
1551	20 ✓	<5
1553	120 ✓	<5
1555	910 ✓	<5
1557	1240 ✓	<5

Per   
G. Lebel, Manager





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## Geochemical Analysis Certificate

OT-0162-RG1

Company: TIMMINS NICKEL INC.

Date: FEB-26-90

Project:

Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

Attn: H. DAXL

We hereby certify the following Geochemical Analysis of 12 CORE samples submitted FEB-21-90 by .

Sample Number	Au ppb	Cu ppm	Ni ppm	Pd ppb
1748	NII	68	131	6
1749		35	120	
1750		180	349	
1751		48	202	
1752		90	200	
1753	161	1870	3120	20
1754	7	149	369	66
1755	17	121	214	66
1756	7	89	135	6
1757		654	709	
1758		375	545	
1759	NII	70	100	6

NOTE: Base metals were decomposed using aqua regia digestion.

Certified by

G. Lebel / Manager

*Told Louise  
\$ 190.-  
Invoice to come  
of Feb 26. 90  
entered*



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## Geochemical Analysis Certificate

OT-0160-RG1

Company: **TIMMINS NICKEL INC.**  
 Project: **GROVES**  
 Attn: **H. DAXL**

Date: **FEB-22-90**  
 Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 28 CORE samples submitted FEB-20-90 by .

*aqua regia*

Sample Number	Au ppb	Cu ppm	Cu %	Mg %	Ni ppm	Ni %	Pd ppb	Pt ppb	Rh ppb
1720	27	26			59		♣		
1721	NII	25			75		♣		
1722	NII	56			76		♣		
1723	7	30			68		♣		
1724	31	49			70		10		
1725	31	31			66		♣		
1726	34	16			71		♣		
1727	31	97			73		♣		
1728	34	55			70		♣		
1729	34	38			59		♣		
1730	34	653			837		♣		
1731	34	459			706		10		
1732	34	200			218		♣		
1733	34	127			167		♣		
1734	38/41	796			1040		♣		
1735	31	138			180		♣		
1736	27	56			73		♣		
1737	34	54			38		♣		
1738	48	817			870		10		
1739	48	1290			1320		30	20	♣
1740	41	477			596		♣		
1741	34	55			105		♣		
1742	113/113	8150	0.80		9540	0.93	130	60	♣
1743	75	2990			1050		♣		
1744	27	33			72		♣		
1745	216/237	6110	0.62		5110	0.52	260	250	♣
1746	213/192	5630	0.58		4890		205	180	♣
1747	45	556			340		10		

*K47*

*to follow Mg.*

*3.31% Mg in 1727*

*B50*

*C56*

*F60*

NOTE: Base metals decomposed using aqua regia digestion.

Certified by *G. Lebel*  
 G. Lebel / Manager

*Label Lebel  
 \$715.00  
 to come  
 all included*





Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

order GR-8

## Geochemical Analysis Certificate

OT-0139-RG1

Company: **TIMMINS NICKEL INC.**  
Project: ~~LANGMUIR~~ GROVES  
Attn: H. DAXL

Date: FEB-19-90  
Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 22 CORE samples submitted FEB-14-90 by .

*aqua regia*

Sample Number	Au ppb	Cu ppm	Ni ppm	Co PPM	Cd PPM	Ag PPM	Pb PPM	Zn PPM	Mn ppm	Pd ppb	Pt ppb	Rh ppb
1648	Ni1	64	113							<		
1649	Ni1	106	141							<		
1650	24	2390	936							30	30	<
1701	Ni1	258	434							<		
1702	7	170	288							<		
1703	7	58	38							<		
1704	10	4	57							<		
1705	Ni1	22	71							<		
1706	17	380	565							<		
1707	7	584	636							<		
1708	48	3000	1120							15		
1709	27/38	510	807							<		
1710	17	558	635							<		
1711	10	520	394							<		
1712	38	2500	3440							<		
1713	10	20	98							<		
1714	34	826	635	56	1	0.8	1	76	464	25	40	<
1715	82	1610	712	46	1	1.3	1	78	476	30	60	<
1716	463/466	13460	16600	244	1	8.1	3	100	474	215	440	<
1717	185	2560	4630	124	1	3.0	13	82	438	70	145	<
1718	17	20	82							<		
1719	357/346	2090	1900	40	1	4.6	2	64	352	75	110	<

Sample #1716 1.70 % Ni  
1716 1.36 % Cu

Certified by

*G. Lebel*  
G. Lebel / Manager

*Gold Reserve  
\$642.-  
to come  
Certified 177*



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## Geochemical Analysis Certificate

0T-0109-RG1

Company: **TIMMINS NICKEL INC.**  
Project: ~~LANGLAMUR~~ GROVES  
Attn: H. DAXL

Date: FEB-09-90

Copy 1. Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 29 CORE samples submitted FEB-06-90 by .

*Aqua regia*

Sample Number	Au ppb	Ag ppm	Cu ppm	Cu %	Ni ppm	Ni %	Pd ppb	Pt ppb	Rh ppb
1619	17		187		123		10		
1620	Ni 1		886		383		10		
1621	75/105	1.4	5250	0.52	24300	2.48	300	120	<5
1622	113		3190		4620		100	110	<5
1623	Ni 1		109		277		<5		
1624	Ni 1		108		266		<5		
1625	9		218		324		<5		
1626	65	1.5	2760		3970		30	50	<5
1627	58	1.7	3150		5520	0.56	20		
1628	130	4.4	7120	0.74	9440	1.02	40	50	<5
1629	278	6.7	9840	1.00	20900	2.10	80	100	<5
1630	103	2.8	4760		4080		50	380	<5
1631	93	2.0	2890		898		20		
1632	326/329	10.4	12200	1.22	4100		1140	2450	<5
1633	144	2.8	4670		1260		120	90	<5
1634	237	4.7	6980	0.68	1880		250	350	<5
1635	219	5.0	9740	0.97	5510	0.55	90	80	<5
1636	533	13.4	23600	2.35	20000	2.02	80	70	<5
1637	943/921	26.9	50300	4.95	14500	1.48	110	120	<5
1638	453	12.3	22800	2.32	8500	0.86	150	170	<5
1639	65		777		508		10		
1640	10		526		149		<5		
1641	141	3.2	5620	0.56	8340	0.87	40	40	<5
1642	10	0.2	171		270		<5		
1643	51	1.4	2950		6190	0.64	30	40	<5
1644	38		1560		2340		10		
1645	41		1820		1540		20		
1646	55/45		2330		1050		20		
1647	27		1130		321		20		

Certified by

G. Lebel / Manager

*# 21710  
Inv. Received 26.2.90  
Subscribed by*



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## Geochemical Analysis Certificate

OT-0110-RG1

Company: **TIMMINS NICKEL INC.**  
Project: **LANGMUIR GROVES**  
Attn: **H. DAXL**

Date: FEB-09-90

Copy 1. Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 26 CORE samples submitted FEB-06-90 by .

*aqua regia*

Sample Number	Au ppb	Ag ppm	Cu ppm	Cu %	Ni ppm	Ni %	Pd ppb	Pt ppb	Rh ppb
1593 } D90 ✓	10		10		59		<		
1594 } D75 ✓	Nil		41		93		<		
1595 } D75 ✓	10		33		33		<		
1596 } D75 ✓	Nil		36		70		<		
1597 } D75 ✓	10/17		87		28		<		
1598 } D62 ✓	Nil		50		35		<		
1599 } D62 ✓	7		336		854		10		
1600 } D62 ✓	Nil		204		131		<		
1601 } D62 ✓	Nil		286		95		<		
1602 } D62 ✓	7/7		102		178		<		
1603 } E43 ✓	7		19		68		<		
1604 } E43 ✓	10		458		815		<		
1605 } E43 ✓	89	0.8	3840		62		<		
1606 } E43 ✓	Nil	0.1	114		144		<		
1607 } E43 ✓	65/58	0.3	675		744		<		
1608 } E43 ✓	75	0.9	2570		4120		50	20	<
1609 } E43 ✓	240	3.0	8340	0.85	6190	0.61	165	150	<
1610 } E43 ✓	216	2.4	4190		7260	0.73	85	100	<
1611 } E43 ✓	27	0.1	203		252		<		
1612 } E43 ✓	154/137	1.9	2960		1780		30	30	<
1613 } E60 ✓	10		242		138		<		
1614 } E60 ✓	24		160		61		<		
1615 } E60 ✓	10		156		47		<		
1616 } E60 ✓	Nil		171		240		<		
1617 } E60 ✓	Nil/Nil		72		57		<		
1618 } E68 ✓	Nil		471		40		<		

Certified by G. Lebel  
G. Lebel / Manager

*Inv. 21711 Personal  
26.1.90  
Lutford ✓*





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## Geochemical Analysis Certificate

OT-0090-RG1

Company: **TIMMINS NICKEL INC.**  
Project: **GROVES**  
Attn: **H. Daxl**

Date: **FEB-05-90**  
Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 21 CORE samples submitted JAN-31-90 by .

Sample Number	Au ppb	Ag ppm	Cd ppm	Co ppm	Cu ppm	Cu %	Mn ppm	Ni ppm	Ni %	Pb ppm	Zn ppm	Pd ppb
1572	10	0.1	1	20	36		587	52		2	87	6
1573	5	0.2	1	22	82		691	85		1	102	6
1574	9	0.2	1	31	80		639	44		1	120	6
1575	9	0.1	1	24	60		545	63		1	66	6
1576	Nil	0.2	1	43	205		750	117		1	110	6
1577	12	0.1	1	22	82		453	98		1	73	5
1578	5	0.2	1	32	336		415	347		1	69	6
1579	5	0.2	1	30	250		328	245		1	62	6
1580	15	0.3	1	34	459		359	414		2	63	6
1581	57	2.3	1	44	3480		390	1360		1	77	10
1582 *	91	2.1	2	76	4170		1260	3180		1	116	35
1583 *	440	17.1	5	323	25900	2.74	1420	26100	2.79	4	206	580
1584 *	26	0.2	1	27	365		1020	351		5	77	5
1585 *	694	14.2	4	357	23000	2.40	903	22500	2.48	1	218	100
1586 *	230	3.7	3	173	5980	0.58	1250	5240	0.55	1	169	35
1587	17	0.3	1	29	435		465	488		1	74	6
1588	38	1.1	1	42	1680		501	1680		3	81	10
1589	5	0.3	1	26	237		364	343		1	60	6
1590	27	1.0	1	60	896		569	1420		1	83	6
1591	Nil	0.1	1	27	120		517	191		1	72	6
1592	Nil	0.1	1	28	25		466	101		1	71	6

NOTE: Total digestion used for samples #1582 to 1586 as per your request, *others aqua regia*

Certified by G. Lebel  
G. Lebel / Manager

*Handwritten notes:*  
Total digested  
#2823 - 21 - dist. still  
#21661  
76.2.90  
checked by





Established 1928

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Assaying - Consulting - Representation

## Geochemical Analysis Certificate

0T-0090-RG2

Company: **TIMMINS NICKEL INC.**

Date: FEB-05-90

Project:

Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

Attn: H. Daxl

We hereby certify the following Geochemical Analysis of 21 CORE samples submitted JAN-31-90 by .

Sample Number	Pt ppb	Rh ppb
1572		
1573		
1574		
1575		
1576		
1577		
1578		
1579		
1580		
1581		
1582	30	<5
1583	180	<5
1584	<10	<5
1585	150	<5
1586	30	<5
1587		
1588		
1589		
1590		
1591		
1592		

C 45

D 90

D 48

Certified by

G. Lebel / Manager

*Handwritten notes:*  
#21661  
Saw. panel 26.2.90  
Lupford





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## Geochemical Analysis Certificate

OT-0089-RG1

Company: **TIMMINS NICKEL INC.**

Date: **FEB-05-90**

Project:

Copy 1. P.O. Box 1021, Timmins, Ontario.

Attn: **H. Daxl**

We hereby certify the following Geochemical Analysis of 18 CORE samples submitted JAN-31-90 by .

Sample Number	Au ppb	Ag ppm	Cd ppm	Co ppm	Cu ppm	Mn ppm	Ni ppm	Pb ppm	Zn ppm	Pd ppb	Pt ppb	Rh ppb
* 1545	Ni1	0.1	1	42	206	1220	451	9	128	<5		
1546	Ni1	0.2	1	27	307	492	308	1	78	<5		
1547	Ni1	0.7	1	48	878	501	905	1	77	10		
* 1548	134/151	1.5	2	76	1850	1450	2510	2	146	15		
1558	Ni1	0.5	1	46	679	488	672	1	64	5		
1559	Ni1	0.3	1	51	309	518	531	1	66	<5		
* 1560	Ni1	0.1	1	36	136	1210	277	1	105	<5		
1561	Ni1	0.1	1	17	28	359	46	1	71	<5		
1562	Ni1	0.3	1	44	253	383	150	79	57	<5		
* 1563	17	0.1	1	33	60	1150	92	1	120	<5		
1564	Ni1	0.1	1	16	1	640	59	1	86	<5		
1565	dwell bit plat Ni1	0.1	1	15	25	615	26	1	95	<5		
* 1566	Ni1	0.1	1	52	240	1330	609	1	115	<5		
1567	24	0.3	1	57	616	577	376	1	50	<5		
1568	45/55	0.8	1	44	1180	349	1510	1	59	30	50	<5
* 1569	28	0.6	1	55	866	1380	1430	1	123	5		
1570	Ni1	0.2	1	21	80	350	177	1	60	<5		
* 1571	Ni1	0.2	1	42	265	1070	86	3	91	<5		

Gold check on 1548 is 134 ppb Gold check on 1568 is 45 ppb  
Total digestion used for #1545, 1548, 1560, 1563, 1566, 1569 & 1571.

*others aqua regia.*

Certified by

G. Lebel / Manager

*Label taken in  
P. 2401  
18 x 8 el. to  
sum. 21660 ppm 26.2.90  
checked off*





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OT-0071-RG1

Company: **TIMMINS NICKEL INC.** Cert#77520  
Project:  
Attn: **H. DAXL**

Date: **FEB-04-90**  
Copy 1. P. O. Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Geochemical Analysis of 22 CORE samples submitted JAN-26-90 by .

*Agua regia  
es per visoria*

Sample Number	Au ppb	Ag ppm	Cd ppm	Cu ppm	Cu %	Co ppm	Mn ppm	Ni ppm	Ni %	Pb ppm	Zn ppm	Pd ppb
1532	132	4.3	2	5220	0.51	144	803	5230	0.53	40	118	70
1533	310	11.8	2	5740	0.61	238	998	859		18	86	95
1534	118	3.5	1	2590		70	829	4010		9	100	115
1535	147	6.5	1	4450		264	743	7450	0.77	48	105	120
1536	134	3.5	2	4470		269	752	7810	0.78	7	142	60
1537	670/501	13.7	2	18550	1.80	514	821	14650	1.46	15	127	230
1538	14	0.1	1	162		32	402	268		29	69	6
1539	24	0.3	1	654		51	1260	1050		1	121	15
1540	10	0.1	1	38		19	652	51		1	49	6
1541	24	Ni1	1	18		19	500	51		1	77	6
1542	10	Ni1	1	74		25	1050	132		1	127	6
1543	5	Ni1	1	58		27	603	91		1	88	6
1544	7	Ni1	1	7		20	664	51		1	90	6
1549	26	0.2	1	201		33	502	175		1	55	6
1550	802/737	17.5	4	37120	3.71	410	913	27520	2.74	2	222	280
1551	84	1.0	1	1770		77	635	1630		1	92	10
1552	218	7.3	2	15800	1.51	593	598	18000	1.75	1	143	15
1553	110	3.9	2	9575	0.90	512	694	11600	1.13	1	124	45
1554	36	0.5	1	660		66	1160	1020		1	127	10
1555	597/638	3.8	1	10500	1.00	937	357	3850		1	89	100
1556	15	0.2	1	388		49	300	165		1	56	6
1557	1083 1018	5.2	1	3230		206	1120	5620	0.57	1	118	1100

Certified by G. Lebel  
G. Lebel / Manager

*21634 pages 126.1  
Certified by*



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CERT. #

OT-0040-RG1

## Geochemical Analysis Certificate 77440

Company: Timmins Nickel Inc.

Date: JAN-31-90

Project:

Copy 1. P. O. Box 1021, Timmins, Ont. P4N 7H6

Attn: H. Daxl

We hereby certify the following Geochemical Analysis of 31 Core samples submitted JAN-21-90 by .

Sample Number	Au PPB	Ag PPM	Cd PPM	Co PPM	Cu PPM	Mn PPB	Ni PPM	Pb PPM	Zn PPM	Pd PPB	Pt PPB	Rh PPB
1501	5	0.4	1	29	60	368	52	1	87	<S		
1502	12	0.2	1	22	58	803	76	1	127	<S		
1503	15	0.2	1	21	56	649	36	1	104	<S		
1504	10/Ni1	0.6	1	47	463	400	538	1	56	<S		
1505	17	0.5	1	24	346	333	416	1	57	<S		
1506	10	0.2	1	35	152	512	194	2	93	<S		
1507	14	0.1	1	20	18	476	36	1	56	<S		
1508	10	0.1	1	17	37	327	20	1	26	<S		
1509	10	0.2	1	12	38	1280	26	1	122	<S		
1510	10	0.1	1	29	71	922	68	1	108	<S		
1511	3	0.1	1	26	34	512	76	3	107	<S		
1512	Ni1/3	0.1	1	39	94	931	76	1	100	<S		
1513	5	0.1	1	24	18	580	36	1	142	<S		
1514	3	0.1	1	4	10	406	18	1	70	<S		
1515	Ni1	0.1	2	33	27	1810	48	1	192	<S		
1516	Ni1	0.1	1	25	28	677	30	1	125	<S		
1517	15	0.1	1	3	8	388	16	1	71	<S		
1518	26	0.1	1	7	9	630	24	1	69	<S		
1519	10	0.1	1	18	11	867	82	2	141	<S		
1520	Ni1	0.5	1	15	104	628	24	1	112	<S		
1521	9	0.2	1	21	65	739	34	1	104	<S		
1522	Ni1	0.1	1	27	30	576	40	1	94	<S		
1523	22	0.2	1	31	204	352	212	1	55	<S		
1524	15	0.9	1	61	668	479	2050	1	83	40	20	<S
1525	36/17	1.3	1	86	1550	386	1660	1	60	30	20	<S
1526	3	0.1	1	10	29	754	52	1	97	<S		
1527	24	0.1	1	19	12	721	50	1	59	<S		
1528	Ni1	0.2	1	13	25	515	30	1	46	<S		
1529	10	0.2	1	11	18	381	26	1	34	<S		
1530	Ni1	0.1	1	17	7	916	54	1	103	<S		
1531	Ni1	0.4	1	25	88	438	38	5	91	<S		

A45 ch

A70 ch

A50 ch

NOTE: Multi-acid used

9 not as per price

Certified by

G. Lebel / Manager

Inspected by  
Shirley 2/16/94  
hand by Ken



P.O. Box 10, Swastika, Ontario P0K 1T0

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# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN  
CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

### OTHER INFO:

LOST HOLE - NOT CHARGED.  
TRACE ORE ZONE - 114-117 ft.

### ACID TESTS: at ft - DIP

50 ft - 42.2°

### HOLE NUMBER

GR-90-A45

### GRID REFERENCE

200 E / 250 N

### ELEVATION

~ 50 ft above lake

### AZIMUTH

GRID SOUTH

### DIP ANGLE

45°

### LENGTH

140 ft

### CLAIM

1047171

DATES: 11 JAN. TO 12 JAN. 1990 PAGE 1 OF 2

H. Lapierre  
H. DAXL

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP CORRECT. FOR GR-90-A45, A70, A50.							
	Three holes at slt-up A, number indicates dip; at top edge of gentle north slope, flat southward to S.							
0-14	CASING overburden with barren granite, granodiorite, gneiss cobbles.							
14-74	FINE GABBRO - GREENGRAY RQD 30-75 lower transition of 20 cm diffuse interfingering with diffuse in situ brecciation and quartz flooding. medium green-gray, fine grained, handiers H=5 to 6 local in situ brecciation with quartz-carbonate matrix (especially 47-49); local trace of fine pyrite disseminations and fracture plating, possibly some pyroclastic associated with the aggregated very fine pyrite; non-magnetic.							
18-26	White spots and rings < 5mm < 1% (plagioclase?) (do not occur in A46)							
47-49	CALCITE-VEIN fits ≈ 35° tca (to core axis), 50% angular fragments some coated with hematite, barren							
61-62	PINKISH-VEIN, apluranitic H=7, ≈ 20° tca, some flooding, barren, quartz-K feldspar likely.							
	SAMPLE 1501 trace fine disseminated pyrite < 1% locally.	22-26	1501	0.005	0.006	5	0	M8
	1502 trace pyrite as fracture plating, veinlet, and infiltration.	40.3-41	1502	0.008	0.006	12	0	M8



FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	Sample 1503 high graded trace py as sharp irregular aggregates < 5 mm some fine disseminated cubes < 1%. intervals in sample: 49.3-49.6, 53.5-54.2, 58.5-58.8, 72-72.7, 74-74.7.	high graded	1503	0.004	0.006	15	0	M8
74- 140 END	MEDIUM GABBRO - GREENGRAY RQD 90%							
	green gray medium grained locally slightly schistose 50-80% green actinolite which is splintery and altered H=4, local spreads of silicification with infiltration of 5 cm; non-magnetic.							
	89-108 trace py as sharp irregular aggregate < 5 mm, possibly with some very fine pyrochroite but non-magnetic	89-93.5	1504	0.051	0.046	10	0	M8
	114.3-117.3 TOTAL SILICIFICATION, 1% PYRITE, contacts missing. medium gray aplauitic quartz with some pinkish veinlets, few chlorite stringers with pyrite and lesser piembrandite (? pink after Ni - hot E91), some py clusters, all non-magnetic.	114.3-117.3	1505	0.041	0.035	17	0	M8
	122-125.5 TOTAL SILICIFICATION, BARREN, contacts missing.							
	136-139 SILICIFIED 25% variably, 5 cm transitions to 90% gray quartz trace py < 1 cm possibly with some po, attitude irregular.	136-139	1506	0.019	0.015	10	0	M8
140	LOST HOLE - BIT AND SHELL STUCK, CASING PULLED - HOLE ABANDONED - REPLACED BY A50.							
	Codes: M8 = multi-acid, 8 el., Ag Cd Co Cu Mn Ni Pb Zn, Swastika Labs.							

*Handwritten signature*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

### OTHER INFO:

DRILLED TO REPLACE A45  
TRACE ORE ZONE 103-111 ft.

### ACID TESTS:

at ft - DIP  
50 ft - 50° DIP  
305 ft - 42° DIP  
400 ft - 43° DIP  
535 ft - 41° DIP

ASSUMED DIP  
125 ft - 47°  
200 ft - 44°

### HOLE NUMBER

GR-90-A50

### GRID REFERENCE

200 E / 250 N

### ELEVATION

≈ 50 ft. above lake

### AZIMUTH

GRID SOUTH (185°)

### DIP ANGLE

-50°

### LENGTH

535 ft

### CLAIM

1047171

DATES: 15 JAN. TO 18 JAN. 90

PAGE 1 OF 4

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	See also A45 and A70 SETUP CORRECT.							
0-12	CASING							
12-77	FINE GABBRO - GREEN GRAY RQD 80% lower contact irregular at some 50° with convolute quartz-calcite vein and trace py. Medium greenish-gray fine grained, some 60% dark green mafic, homogeneous, H=6, 1% quartz calcite stringers after in situ brecciation, local 1% pyrite, non-magnetic.							
	SAMPLE: 1522 COMPOSITE FOR BACKGROUND, 2" each 5 ft.	12-73	1522	0.004	0.003	0	0	BACKGROUND M8
	20.5-25 1% pyro fine stringers with dolomite, or fine irregular aggregates, in fine galena.	20.5-25	1520	0.002	0.010	0	0	M8
	60-63.5 ditto but also few cubes of 1 mm quartz-calcite stringers.	60-63.5	1521	0.003	0.006	9	0	M8
	65-71 DACITE DIKE - medium-gray - upper contact 30° lower 35° aphanitic to fine grained, little, trace py.							
77-								
108.8	MEDIUM-GABBRO - GREEN-GRAY RQD 90% lower contact irregular ≈ 40° (partly along fracture) with quartz-K-feldspar flooding; green-gray, medium-grained with some fine zones and some fine grained fragmentary some quartz-calcite-K-feldspar veining and flooding, non-magnetic, H=5 several pieces of 1% pyrite as irregular patches < 8 mm and cubes of 1 mm.							
	Samples: 1523: 0.1% py	96.3-100	1523	0.021	0.070	22	0	M8
	1525: 1% pyrite, speck chalcopyrite, no reaction to E91.	103-105.3	1525	0.166	0.155	26/17	30	20 Pt, 0 Rh M8

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
108.8- 130.5	FINE GABBRO - MED. DARK GREENISH-GRAY - RQD 60% Lower contact irregular some 40° (partly along fracture)  med. dark greenish-gray, fine to very fine grained, homogeneous with several zones of quartz-Kspar-calcite flooding or veining, H=6, non-magnetic; 1% pyrite as fracture platting and diffusion over 2 ft from upper contact with speck of po-cr.	108.6-111	1524	0.205	0.067	15	40	20 Pt, 0 Rh M8
130.5-400	LIGHT-GRAY QUARTZITE PROTOMYLONITE - MAGNETIC - 20% of CHLORITE-RICH MATRIX RQD 90% (60% from 146-160 ft)  Lower contact gradual transition 370 to 420 ft: light gray angular or diffuse fragments in green-gray matrix, all fine grained quartzite < 10 mm size, local brecciated Kspar-quartz flooding, advanced in situ brecciated fragments are generally oval and elongated at 20-30° to increasing to 40 by 345 ft; veinily magnetite M=0-2 disappears below 400 ft, H=5-6 Kspar for dark diffuse sericitized bands, fine magnetite < 1% frequent, local traces of pyrite as fracture platting and in chlorite matrix, also pyrite-pyrrochite? with magnetite as trace (few) < 5 mm patches, some rare bumpy < 2 mm garnets locally; 1% calcite stringers.							
	Samples: 1526 < 1% fine disseminated magnetite	136.2-138.4	1526	0.005	0.003	3	0	M8
	1527 moderately magnetic, trace garnets, rare poppy aggregate	165.4-167.7	1527	0.005	0.001	24	0	M8
	1528 < 1% py with chlorite-rich matrix and stringers, non-magnetic.	188.8-192.3	1528	0.003	0.003	0	0	M8
	1529 same but in brecciated Kspar-zone with calcite matrix, angular fragments of Kspar flooded quartz and also previous matrix, no pyrite in calcite matrix.	193.7-195.7	1529	0.003	0.001	10	0	M8
	235-254 trace py and magnetite as separate diffuse agglomeration in chlorite calcite stringers or matrix, high graded 3 ft from 5 sections.	high graded	1540	0.005	0.004	10	0	A8
	311-333 1% < 5 mm GARNETS in chlorite-rich matrix matrix quite magnetic (M=3 but 4 pt 316-322 barren, few sericite bands 40° to parallel to shear foliation.	328.8-332.2	1530	0.005	0.001	0	0	M8
		318.5-321.6	1541	0.005	0.002	24	0	A8





# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

### OTHER INFO:

HOLE PARALLEL  
TO SHEARBANDING.  
NO ORE HORIZON.

### ACID TESTS: at ft - DIP

46 ft - 66°  
200 ft - 69°  
400 ft - 67°

### HOLE NUMBER

GR-90-A70  
GRID REFERENCE 200 E / 250 N  
ELEVATION ~ 50 ft above lake.  
AZIMUTH GRIDSOUTH  
DIP ANGLE -70°  
LENGTH 501 ft.  
CLAIM 1047171

DATES: 12 JAN. TO 15 JAN. 1990 PAGE 1 OF 3

K. Lapierre  
H. DAXL

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	See also A45 and A50 SETUP CORRECT.							
	Note: This hole is parallel to shear-banding.							
0-12	CASING, overburden, granodiorite rubble.							
12-184	PROTOMYLONITE OF GREENISH FINE GABBRO - FINE GRANODIORITE - <u>LOCALLY MAG.</u> Bas 80-90% (top 60 ft is 0-60%) lower contact irregular some 45° with 2cm brecciation at 90° 5 cm inside lower massive gabbro, yet pervasive shearing streaks subparallel to core axis. medium-dark greenish gray, fine grained, 80% green mafics H=6 even where not silicified; mostly much granodiorite streaks at 0-30° tea. locally 1% calcite veining; local trace pyrite as fine stringers, irregular patches < 1 cm, and some fine poorly formed cubes; rare magnetite and chalcocyanite with pyrite; chlorite stringers sometimes contain pyrite; locally weakly magnetic (M=2 if magnetite is 5).							
	Samples: 1507 trace py-quartz stringers < 2 mm thick with some calcite in fairly silicified fine weakly magnetic gabbro, no reaction to E91 critical test.	56-58	1507	0.004	0.002	14	0	M8
	1508 trace py cubes associated with magnetite grains in 90% gray to buff non-magnetic silicification.	88.4-91	1508	0.002	0.004	10	0	M8
	1509 trace py clusters < 1 cm with speck of chalcocyanite in 60% dark gray to buff silica and chloritized streaked tea.	131-133	1509	0.003	0.004	10	0	M8

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	Sample: 1510 1% py as near-cube aggregations < 6 mm mainly in 2 cm breccia-zone containing also calcite, trace magnetite, chlorite and coarse quartz; contact zone from shear to massive yellow.	183.5-184.5	1510	0.007	0.007	10	0	M8
184- 370	FINE GABBRO - GREEN GRAY R2D 70-90% lower contact 25° tca.  medium-dark green-gray; 80% mafic; fine grained with some medium-grained zones, homogeneous. few calcite veins < 5 mm thick, rarely magnetic (M=2); rarely local py trace as veinlets or fine disseminations, rare quartz veins with chloritized wallrock and some epidote; H=5 to 6; local 1% < 5 mm light plagioclase-quartz spots.							
	Samples: 1511 trace py. incl. vein of chlorite, calcite, epidote, hematite, pyrite; all non-magnetic.	198.6-199.4	1511	0.008	0.003	3	0	M8
	1512 2% irregular fine disseminated py < 4%.	241.5-243	1512	0.008	0.009	0/3	0	M8
	1513 magnetic (M=2 if magnetic is 5) fine gabbro with barren quartz-epidote and calcite veins, very fine, trace py.	316-318	1513	0.004	0.007	5	0	M8
	1516 Composite general homogeneous fine gabbro, 2" each SA	318-366	1516	0.003	0.003	0	0	BACKGROUND M8
	Broken core: 256-258 close-spaced jointing.							
341-342	silicified, 1 cm buff alteration <sup>subparallel</sup> to core, quartz rich side is sharp, gabbro side diffuse.							
359.2-360	mafic dike, dk. green-gray, very fine, brittle, 1% dm. py. dots; M=1-2, H=4, 25° tca.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
370- 501 END	MAGNETIC PROTOMYLONITE OF BUFF TO DARK FINE GRANODIORITE (SHEARBANDING SUBPARALLEL TO HOLE)		RQD 75%					
	<p>streaked buff gray and dark gray (only a trace of green since there is more sericite than chlorite 60% quartz some diffuse Kspar, stretching and shearing subparallel to core axis; H=6, all M=1-2, rare pyrite stringers.</p> <p>BROKEN CORE several places &lt; 1 ft due to attitude.</p>							
	Samples: 1514 trace py, < 5% near quartz - calcite vein.	383-385.5	1514	0.002	0.001	3	0	M8
	1517 composite general, 2" ea. 5 ft, near joints, mostly,	371-450	1517	0.002	0.001	15	0	BACKGROUND M8
	1518 trace py along sericite + Kspar + quartz shearband at 0°	470-473.5	1518	0.002	0.001	26	0	M8
436-437	MAFIC DIKE dark green-gray H=4 25° tca trace pyrite, non-magnetic, chloritized, hackly brittle.	435.6-437	1515	0.005	0.003	0	0	M8
487-487.7	Quartz-gabbro DIKE - 2% PYRITE. cubes 1 mm, 1 mm fragments dark-green-gray lower contact 40° crosscuts shearbanding, H=5, not chilled, non-magnetic (but wall rock is M=2), homogeneous, upper contact broken but likely parallel to lower.	487-487.7	1519	0.008	0.001	10	0	M8
501	END OF HOLE CASING LEFT IN HOLE, NON-DAMAGED.	H. DAXL	15 JAN 1990					
	<p>Codes: M8 = multi-acid, 8 elements, Ag Cd Co Cu Mn Ni Pb Zn, Swastika Labs (only significant results noted).</p>							



# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

### OTHER INFO:

TRACE ORE ZONE 30-114 ft.

### ACID TESTS:

at ft - DIP  
40 ft - 46° DIP  
150 ft - 44.5° DIP

HOLE NUMBER GR-90-B50  
GRID REFERENCE 200 E / 080 N  
ELEVATION ~ 50 ft above lake  
AZIMUTH GREAT NORTH - 0°  
DIP ANGLE 50°  
LENGTH 208 ft.  
CLAIM IDAHO

DATES: 19 JAN TO 20 JAN, 1990 PAGE 1 OF 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP CORRECT; same as B90, not shifted.							
0-30	CASING, overburden is sand, no outcrop.							
30-114	GREEN-GRAY MEDIUM-GRAINED GABBRO (ORE HORIZON) - <1% py>cp>pn lower contact diffuse 80° medium green-gray medium-grained schistosity as below H=4-5 nonmagnetic, 2% diffuse brown quartz veins <1 cm some with calcite, frequent <1% py>cp>pn stringers <5 mm thick all parallel to foliation (some pink reaction), trace diss. py-cubes; sampled only the best stringer zones throughout.		R20 85%					
	FOLIATION:							
	30-42 35-40° to core axis	39.5-41.7	1730	0.084	0.065	34	0	
	48-55 variable, some barren quartz-flooding at 50-52 ft.	46-50	1731	0.071	0.046	34	10	
	55-67 parallel to core axis, but no other change.	69-73	1732	0.022	0.020	34	0	
	67-74 none	79-83	1733	0.017	0.013	34	0	
	74-114 35-45°	87-88	1734	0.104	0.080	38 41	10	
114-208	GABBRO - FINE GRAINED 75-77 GRANODIORITE DIKE 45° tea ~ 5% diffuse white feldspar phenocrysts < 3 mm, mostly broken core, nonmagnetic, dark to buff-gray.	109.7-114	1735	0.018	0.014	31	0	
	88-89.8 GRANODIORITE DIKE, 30° tea, parallel contacts, fine-grained, strong nonmagnetic, buff-gray.							
	EDH 208 feet							

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YUAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD

OTHER INFO:  
TRACE OREZONE at 27 ft.

ACID TESTS: at ft - DIP  
25 ft - 90° DIP  
200 ft - 90° DIP

HOLE NUMBER GR-90-B90  
GRID REFERENCE 200E/080N  
ELEVATION ≈ 50 ft. above lake  
AZIMUTH VERTICAL  
DIP ANGLE 90  
LENGTH 213 ft  
CLAIM

DATES: 18 JAN 90 TO 19 JAN 90 PAGE 1 OF 2

LOGGED BY H. DAXL

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP CORRECT FOR B90 and B50. Hole number contains letter B for setup followed by dip at start. Location at top edge of moderate sand slope, flat northward to setup A.							
0-26	CASING, Overburden is sand, no outcrop.							
26-62	MEDIUM-GRAINED GREEN GABBRO (or hornblende) RQD 90% lower contact 40°, dark green 70% mafic and light gray plagioclase, homogeneous, few zones of quartz-Kspars flooding with one 2 cm chalcocyanite patch at 27 ft, trace pyrite patches and stringers, all non-magnetic, some moderate schistosity locally; H=5-6.							
62-74	GRAY GABBRO WITH PLAGIOCLASE RINGS. RQD 60% lower contact 25° with some parallel schistosity, not greenish but med. dark gray, fine grained with 20% light plagioclase phenocrysts < 5 mm, some being distinct rings, one chalcocyanite-pyrrhotite patch of 15 mm at 1 cm from quartz-Kspars veinlet; H=5-6							
74-213 END	FINE GRANODIORITE PROTOMYLONITE 60% MAGNETIC CHLORITE-SERICITE-QUARTZ MATRIX RQD - 95% sometimes brownish medium-light gray diffuse fragments < 10 cm are granodiorite in 60% chlorite-sericite-quartz-magnetite matrix, matrix M=0-3; H=3-7, barren fragments 25° to a turning to 10° by end of hole, trace burgundy garnet < 3mm at 100-117 and 177-190 ft. Sample 1544: 1% garnet, mainly in matrix matrix M=3. BROKEN CORE: 138-142 dikes, 171-171.5 clean thin dikes (brittle).	109.6-112.2	1544	0.006	0.001	7	0	A8

TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-B90

PAGE 2 LAST

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu		Ppb Au	Ppb Pd	CODES OF ANALYSES
86-95	greenish-gray vesicular gabbro, 20° contacts, non-magnetic, barren, staccolite stringers at 20° to 30°, narrow zone of light phenocryst < 3 mm; H=6, RQD 90%								
138-142	MAGNETIC GRAY MAFIC DIKE RQD = 0 medium-gray, aphanitic, brittle, broken core mostly, H=2-3, H=6, barren								
213	END OF HOLE CASING LEFT IN HOLE								
Codes: A8 = aqua regia, Sel: Ag Cd Co Cu Mn Ni Pb Zn (only significant results noted).									
Van Loon									

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

### OTHER INFO:

16.5' - 10% pm - 47.5 143-159.5 ft.

### ACID TESTS: at ft - DIP

20 ft - 48.5° DIP  
300 ft - 46° DIP

HOLE NUMBER  
GRID REFERENCE  
ELEVATION  
AZIMUTH  
DIP ANGLE  
LENGTH

GR-90-C45  
400 E / 040 S  
40 ft above lake  
GRID NORTH 0°  
45°  
336

DATES: 20 JAN TO 22 JAN. 1990 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	ppb Pt	ppb Rh	CODES OF ANALYSES
	SET-UP CORRECT for C45, used same for C70 and C56.									
	PIT SAMPLES ON C70, page 3.									
0-14	CASING, surface is all fine clean yellow sand.									
14-43	FINE GREENISH-GRAY GABBRO RQD 50% Lower contact transitional over 1 ft. Grades from medium gray silicified to greenish-gray downhole, all fine grained homogeneous, barren, non-magnetic; H = 5-6; no other feature.									
43-143	MEDIUM-GRAINED GREEN GABBRO (or horizon) RQD 85% Lower contact transitional with 15% quartz-calcite flooding over 10 ft. Green-gray, medium grained homogeneous to vaguely foliated $\approx 30^\circ$ downhole, H=5, non-magnetic trace of pm-cpx patches throughout; 1% hematized quartz-calcite veining;									
	Sample 1570: none trace pm, vague foliation, for background.	48-100.4	1570	0.018	0.008	0	0		Background	A8
44-44.3	barren Amantseveviny at $30^\circ$ at upper contact.									
43-63	< 1% pentlandite-dialcorynite as irregular non-magnetic patches < 2 cm (0.5% in 1566), disappearing both sides.	49-51.4	1566	0.018	0.014	0	0			M8
51.4-52	2% fine disseminated pyrite with cubic tendency (1567)	51.4-52	1567	0.033	0.012	24	0			A8
		52-53.8	1568	0.151	0.118	55	30	50	0	A8
		53.8-57.7	1569	0.143	0.087	28	5			M8



TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-C45

PAGE 3 LAST.

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	Ppb Au	Ppb Pd	CODES OF ANALYSES
170 - 336 END	DACITE PROTOMYLONITE - DARK RAD 90%							
	Medium-dark gray mainly diffuse in green-gray silt (A=4 vs. 6) matrix, banding at 45° all non-magnetic, rare trace py and ep throughout. 60% fragments up to boulder size							
	Samples: 1561 barren, quite brittle.	171.3-176	1561	0.0050	0.003	0	0	A8
	1571 1% perthite, highgraded of 3 quartz-calcite-epidote vein-zones contain < 10% py >> ep over 1 cm thickness. 196.2-196.3 202.4-202.7 223.9-224.3 all parallel to banding at 45° to	highgraded	1571	0.009	0.007	0	0	M8
	314.2-315.2 local brecciated flood-quartz barren (1572 also includes quartz-calcite-veins < 8 mm bearing 1% py-ep and hematized rims), all non-magnetic.	313.3-315.4	1572	0.005	0.004	10	0	A8
336	END OF HOLE CASING LEFT IN HOLE	H. DAXL	22. JAN. 1990					
	* - for other values refer to assay sheet							
	Codes: M8 = multi-acid 8 el. Ag Cd Co Cu Mn Ni Pb Zn (only significant results noted)							
	A8 = aqua-regia 8 el. Ag Cd Co Cu Mn Ni Pb Zn ( " " " )							

*Handwritten signature*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

### OTHER INFO:

TRACE OREZONE 47-82 ft.  
2.7' - 1% pyrrho - 81.4-84.1 ft.

### ACID TESTS: at ft - DIP

20 ft - 57°  
200 ft - 57°  
377 ft - 55°

HOLE NUMBER  
GRID REFERENCE  
ELEVATION  
AZIMUTH  
DIP ANGLE  
LENGTH

GR-90-C56  
400 E / 040 S  
40 ft. above lake  
GRID NORTH 0°  
56°  
407 ft.

DATES: 23 JAN TO 24 JAN, 1990 PAGE 1 OF 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP FAIR, possibly deviates <10 ft eastward at bottom.							
0-12	CASING, much fine clean yellow-brown sand, cobbles of biotite-granodiorite.							
12-47	GREENISH-GRAY FINE GABBRO R2D 70% lower contact transitional over 10 ft, no foliation, quite homogeneous, several < 5 mm qtz-chlorite veins bearing < 5% py along core axis. H=5, nonmagnetic, local trace fine py cubes.							
47-82	GREEN-GRAY MED-GRAINED GABBRO (ore horizon) R2D 80% lower contact 45°? - with pink granodiorite xenoliths < 10 cm and 1% py > op > pr patches < 2 cm over 3 ft below (1740, some pink to E91). quite homogeneous, H=4, nonmagnetic; trace py > op > pr stringers and patches < 1 cm frequent throughout (1738 - 0.3%, 1739 - 1% 1740 - 0.5%), no foliation.	57.5-61.7	1738	0.087	0.082	48	10	
		70-71.2	1739	0.132	0.129	48	30	20 ft, ORh
		81.4-84.1	1740	0.060	0.048	4	0	
82-205	DARK DACITE - WEAKLY MAGNETIC (H=0-2), R2D 50-75% med. dark gray, very fine grained, H=6, mostly weakly magnetic H=0-2 frequent diffuse fragments without orientation in chloritic matrix, < 10% quartz-calcite stringers.							
	114-121 < 1% very fine pyrite with cubic tendency (0.5% - 1741)	124-127	1741	0.010	0.006	34	0	

TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-C56

PAGE 2 LAST

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	PPb Au	PPb Pd	CODES OF ANALYSES
205 -	PROTOMYLONITE OF DARK DACITE - NONMAGNETIC RQD 90 %							
336	contacts transitional over some 10 ft fragments are sharper and at 40° tca, chloritic matrix, very rarely weakly magnetic; H=4-6, barren (one cp-patch at 296.5 ft in quartz-calcite stringer; one cp-group in matrix at 333.5 ft), some med. gray dacite fragments below 300 ft.							
336 -	DARK DACITE - NONMAGNETIC RQD 80 %							
365	transitional contacts over several feet some diffuse fragments in chloritic matrix, also bleaching along fractures; H=6, nonmagnetic; trace py-cubes < 5 mm.							
365 -	PROTOMYLONITE OF DARK AND BUFF DACITE - NONMAGNETIC RQD 60 %							
407 END	transitional contacts, banding at 30-40°; trace py in chloritic matrix.							
374-384	GREENISH-GRAY MED. GR. GABBRO DIKE contacts 40° fine grained margins.							
378-379	calcite-chlorite convolutions with 2% irregular pyrite and < 5 mm cubes.							
407	END OF HOLE 24 JAN. 1990 H. DAXL (CASING LEFT IN HOLE (PLUGGED WITH CEDAR AS USUAL).)							

*H. Daxl*



# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY: H. DAXL

### OTHER INFO:

TRACE ORE ZONE 48-73.

### ACID TESTS: at ft - DIP

20 ft - 70°  
200 ft - 69°  
300 ft - 69°  
470 ft - 67°

HOLE NUMBER  
GRID REFERENCE  
ELEVATION  
AZIMUTH  
DIP ANGLE  
LENGTH

GR-90-C70  
400 E / 040 S  
40 ft above lake  
GRIDNORTH 0°  
70°  
474 ft

DATES: 22 JAN. TO 23 JAN. 90 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP ACCEPTABLE but vertical dips 88° East which means a 10-ft. eastward displacement at bottom of C70.							
	PIT-SHOWING SAMPLES LISTED ON LAST PAGE.							
0-10	CASING Surface is all fine clean yellow brown sand.							
10-48	FINE GREENISH-GRAY GABBRO RQD 50% lower contact 10°... medium greenish gray fine grained homogeneous turns more greenish over 8 ft towards bottom contact non-magnetic, barren H=4-7. locally med. grained zones with 20% dark gray mafics (chlorite-biotite) and trace 1 mm py cubes and quartz flooding (29-29.5).							
48-73.5	MEDIUM-GRAINED GREEN GABBRO - 0.5% pn-cp-py - RQD 95% upper contact 10°: with 20 gray barren fine quartz vein at 40-50° at 10 cm inside from contact. lower contact brecciated. Medium green-gray 60% mafics < 5 mm in light plagioclase, with medial fine-grained zones, homogeneous, non-magnetic; 2-1% diffuse patches of pentlandite (non-magnetic pyrochlore?) - chalcopyrite - pyrite < 2 cm.	56.7-60.7	1539	0.1050-0.065		24	15	A8
73.5-200	FINE GREENISH-GRAY GABBRO lower contact transitional over several feet. variably greenish-gray to gray mottled due to diffuse fragments and changes between fine and very fine, not sheared, non-magnetic, H=5-6, 2 zones of finely disseminated pyrite sometimes cubic, mainly in fine grained homogeneous parts, very rare pyrite stringers.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
73.5 - 110	1% finely disseminated after cubic pyrite disappears by 110 ft downhole.	79.3 - 81.4	1562	0.015	0.025	0	0	A8
145 - 153	< 1% finely disseminated after cubic pyrite (Sample 1563 - 1% py), quite brittle	146 - 148.6	1563	0.002	0.006	17	0	M8
200 - 320	FINE GABBRO - PROTOMYLONITE NON-MAGNETIC	RQD	85-95%					
	varying green-gray to diffuse gray zones, also sharp greenish-gray jagged very fine gabbro fragments; resulting banding convolute to 15° on top 20 ft, then 30-40°; non-magnetic; barren; H=5 to 7; 1% calcite as variable stringers throughout;							
320 - 390	DACITE - PROTOMYLONITE - NON-MAGNETIC	RQD	85%					
	contacts very gradual transition over some 20 ft. med. gray siliceous aphanitic angular and stretched or aligned (30° tca) fragments in chlorite-rich green-gray matrix, all non-magnetic; very rare 5 mm epidote-py-cp spot, H=4 to 7, minor hematite- stained quartz-flooding; 60% matrix.							
369 - 372	hematite stained quartz breccia with chlorite matrix with 1 ft transition on both sides, barren, non- magnetic.	369.5 - 372	1564	0.006	NIL	0	0	A8
390 - 426	GRAY QUARTZITE - PROTOMYLONITE - LOCALLY MAGNETIC - TRANSITION ZONE	RQD	85%					
	gradual upper transition, med. gray quartzite fragments < 10 cm in 50% chlorite-rich matrix, few magnetic patches (M < 3); one diffuse 2-cm py-cp-magnetite patch in matrix, few sericitization bands near end of hole; banding at 30°; one 2-cm py patch.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	Ppb Ag	Ppb Au	Ppb Pd	Ppb Pt	Ppb Rh	CODES OF ANALYSES	
426-458	FINE GABBRO (DIKE?) RQD 80% homogeneous fine greenish-gray gabbro with brecciated contacts to medium-grained size over some 3 ft on either side which is sheared and transitional on upper contact, but lower contact parallel to 30° banding with minor schistosity subparallel to hole and crosscut by protomylonite. barren non-magnetic.											
458- 474 END	Continued GRAY QUARTZITE-PROTOMYLONITE - LOCALLY MAGNETIC.											
456-474	CORE MISSING ≈ 3 ft, likely not mineralized (core had to be retrieved by pulling rods).											
472-473	THICK DRILL BIT PLATING, sampled for contamination,	NIL	1565	0.003	0.003		0	0		bit-plated core.	A8	
474	END OF HOLE CASING LEFT IN HOLE	H. DAXL	23	JAN	1990							
<p>PITSHOWING of 6x4 ft at 450 E/057 N el. 43-47 ft, CHIPSAMPLES over 2x2 ft areas (except 1537 and 1538) of &lt; 2-ft sulfide stringer zone of attitude 80/70° S crosscut by further stringers estimated at ≈ 330/70° E, in green-gray med grained all-nonmagnetic gabbro (except 1538).</p>												
1532	2% py, po, weakly schistose, at crossover, consolidated		1532	0.523	0.522	4300	132	70	118	0	A8	
1533	Gossaned VEIN ZONE with py, cp, po, at crossover.		1533	0.086	0.592	11800	310	95	70	0	1 ft - A8	
1534	3% py, some gossan, 0-2 ft. thick, 80/70°.		1534	0.401	0.259	3500	118	115	310	0	0.50% Ni A8	
1535	10% po pocket, stringers at 80/70° S		1535	0.762	0.445	6500	147	120	120	0	0.45% Cu A8	
1536	10% po stringers at 80/70° S.		1536	0.781	0.447	3500	134	60	90	0	A8	
1537	HIGH GRADED 20% po > py > cp of all samples.		1537	1.465	1.830	13700	670	501	230	450	0	A8
1538	Barren greenish-gray fine gabbro (dike?) over 15 ft, locally weakly magnetic (M=0-1).		1538	0.027	0.016	100	14	0			A8	
<p>Code: A8 = aqua regia, &amp; el: Ag Cd Co Cu Mn Ni Pb Zn (only significant values noted).</p>												

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047771

### OTHER INFO:

OLD CORE NEAR BY,

8.81 - 15% mag. ppm cp 135.7-144.5

### ACID TESTS: at ft - DIP

50 ft - 45°

177 ft - 45°

### HOLE NUMBER

GR-90-D48

### GRID REFERENCE

405 E / 140 N

### ELEVATION

65 ft above lake

### AZIMUTH

GRID SOUTH - 180°

### DIP ANGLE

48°

### LENGTH

179 ft.

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

DATES: 25 JAN TO 26 JAN 1990 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	<p>SETUP at dark but checked daytime correct for D45 to D90. 15 ft above setup A and B 25 ft above C, on moderate west slope but flat for 40 ft. to steep south slope near near pit showing which is at 450 E/157 N. 20 ft below setup D. Sequence of D-holes in time: D48, D90, D75, D62 end. See PIT SAMPLES on C70, page 3.</p> <p>OLD CORE at 440 E/150 N, knocked over during setup in deep snow. OLD VERTICAL DRILL HOLE IN PIT.</p>							
0-5	CASING, several flat outcrops.							
5-124	<p>DACITE PROTOMYLONITE - NONMAGNETIC RQD 85% (excl. broken core)</p> <p>medium dark gray very fine grained sharp and diffuse fragments in chlorite rich green-gray matrix. all nonmagnetic. trace pyrite. Calcite-chlorite stringers and veins, disseminated, nonmagnetic; banding poor 30-40°.</p> <p>BROKEN CORE: 98-103 due to jointing along hole.</p>							
11-20	<p>GRANODIORITE RQD 60%; gradual zone, medium diffuse grained gray with dark green as well as pinkish spots, H=6, poor foliation at 40°, nonmagnetic, barren.</p>							
21.2-21.3	<p>Quartz-Calcite-Pyrite veins at 45° perpendicular to foliation; py-patches &lt; 15 mm along wallrock. all nonmagnetic.</p> <p>Sample 1575 has 1% py, high graded from 21-21.4 and 25.1-25.5 which has a similar <del>vein</del> vein with 1 cm py patches and is parallel to the first.</p>							
26-43	<p>HOMOGENEOUS DARK DACITE, RQD 80% gradual contacts</p> <p>Medium dark gray, very fine grained non-magnetic; variable 3%. Calcite veins, trace fine pyrite-chlorite-calcite veinlets with rare qz.</p>							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	% Co	Ppb Au	Ppb Pd	Pt	Ppm Ag	Ppb Rh	CODES OF ANALYSES
46-68	trace pyrite, in few calcite-chlorite stringers or rare disseminations. Sample 1576: 1-1/2 py, high graded; 46.4-47, 44.7-45, 66.8-67.3.											
			1576	0.01	0.02		Nil	0		0.2		A8
72-80	PORPHYRITIC GABBRO DIFFUSE ZONES dark green-gray pheno-crysts < 5 mm in light matrix; several zones < 2 ft; breccia; nonmagnetic											
120-121	HEMATIZED QUARTZ-FLOODING, subsequently brecciated, trace diss. py.	119.6-124	1577	0.01	0.008		17	5		0.1		A8
124- 135.7	GREEN-GRAY MEDIUM-GRAINED GABBRO RQD 90% (all core well filled) upper contact transitional over 15 cm. dark green and light, medium grained; H=4, poor foliation frequently at 45°; nonmagnetic; variable pyrite as fine dissemination < 2%; also few patches < 2 cm of coarse pentlandite- chalcoprite where brecciated or convoluted, and increasing towards the sulfide zone.	124-126.2	1578	0.03	0.03		5	0		0.2		A8
		126.2-129.2	1579	0.02	0.02		5	0		0.2		A8
		129.2-132.7	1580	0.04	0.05		15	0		0.3		A8
		132.7-135.7	1581	0.14	0.35		57	10		2.3		A8
135.7- 144.5	15% SULFIDE STRINGERS-MAGNETIC-CHLORITIZED GABBRO RQD 90% (all core well-filled) transition over few cm. < 50% po> cp> pm as matrix between brecciated or convoluted moderately chloritized gabbro. Pyrochloite is strongly magnetic and dull dark-brown. Stringers generally 50° tea. The 50% main part is at 138.5-142.1, and includes a barren dacite xenolith with converging margins. Reddish off. E91 Ni-test. Convolutions do not allow comparison of attitude to adjacent units.	135.7-138.5	1582	0.32	0.42	0.01	91	35	30	2.1	0	M8
		138.5-139.1	1583	2.70	2.67	0.03	440	580	180	11.1	0	M8
		139.1-140.1	1584	0.03	0.03	0.00	26	5	0	0.2	0	M8
		140.1-142.1	1585	2.37	2.35	0.04	694	100	150	14.2	0	M8
		142.1-144.5	1586	0.54	0.59	0.02	230	35	30	3.7	0	M8
	Note: Po makes the main part strongly magnetic here, whereas the zone in hole C45 is only locally weakly magnetic. However it could still be the same system. Such systems are patchy.											
			* 135.7'-144.5' = 0.97/8.5' Ni % = 1.01/8.8' Cu % including 1.78%/3.6' Ni % & 1.38%/3.6' Cu % 1.76%/3.6' Cu %									

anomalous Au to Pd Pt



# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

### OTHER INFO:

OLD CORE NEARBY.  
NO ORE AT EXPECTED 160 ft.  
BUT TRACE OREZONE.

### ACID TESTS: at ft - DIP

100 ft - 62° DIP  
200 ft - 62° DIP  
356 ft. 62° DIP

HOLE NUMBER GR-90-D62  
GRID REFERENCE 405 E / 140 N  
ELEVATION 65 ft. above lake  
AZIMUTH GRID SOUTH  
DIP ANGLE 62°  
LENGTH 356 ft.

DATES: 28 JAN, TO 30 JAN, 90 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP CORRECTION: DRILL head sunk 2.5' on East Side, meaning at expected ore intersection. The hole displaced 6 ft westward bringing it to approx. 400 E vs. 405 E of collar, making it more perfect. Since the ore zone was not hit it can only be a pipe or even a pocket, not a sheet.							
0-5	CASING, Several flat outcrops.							
5-24	DACITE PROTOMYLONITE - NONMAGNETIC RQD 80%. (incl. 1 ft. broken) lower contact 20°, barren.							
	16.5-16.6 3-cm thick white quartz-vein with some calcite; 30° to 45°; fine pyrite along margin							
24-43.6	DARK DACITE RQD 80%. (incl. local broken core) lower contact 30°; greenish-gray chlorite-rich to med. dark gray siliceous, H=5-6. fine to very fine grained, local trace fine pyrite stringers; nonmagnetic, homogeneous with little bleaching along fractures.							
43.6-60	DACITE PROTOMYLONITE - NONMAGNETIC RQD 80% lower contact transitional through 2 ft of in situ brecciation; fragments < 5 cm; local 0.5-1.0 fine py stringers.							
	51.5-51.8 in situ breccia with white quartz matrix, fine py + hematite stains.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
60-	DARK DACITE RQD 85%							
120.6	lower contact sharp 20° medium-gray, very fine grained, H=6. local convolutions with quartz-calcite-chlorite and < 3% pyrite (3 such zones and 1% py in 1598) trace very fine py throughout; nonmagnetic, homogeneous.	74-78	1597	0.003	0.008	14	0	
		106.6-112.4	1598	0.003	0.008	NIL	0	
	broken core: 69-71 due to fracture along hole, only calcite plotting.							
120.6 - 149.3	GREEN-GRAY MEDIUM GABBRO WITH DACITE XENOLITHS RQD 90% upper contact 20°, lower irregular sharp; green-gray, medium grained gabbro with some 20% light to dark gray xenoliths < 5 cm, diffuse to sharp, all shapes, some stretched at 30° with perpendicular calcite tension fractures. local moderate foliation at 30° tra where more xenoliths near lower end. H = 4 to 7 (matrix to fragments), all nonmagnetic. trace py locally < 1% and less < 2cm patches at both contacts (1599 composite 120.2-121.2 and 148.8-149.6 0.5% py to ca. to pink reaction to E91 at lower contact). Sample 1602: for back ground, rare trace py, no reaction to E91 127-131 1% finely dis. pyrite with cubic tendency, no reaction.							
		COMPOSITE	1599	0.085	0.034	7	10	
		131-134	1602	0.018	0.010	7	0	
		127-131	1600	0.013	0.028	NIL	0	
	144-144.3 5% py-band at 45°, finely disseminated, few cubic	143.8-145.3	1601	0.010	0.029	NIL	0	
	Note: GR-90-C45 crossover at 160 ft. Yet here zone is practically absent, indicating it is a pipe or a pocket, not a sheet.							
149.3 - 190	DARK DACITE - TRANSITION TO PROTOMYLONITE RQD 80% lower contact transitional over few feet. medium-gray, very fine grained, H=6-7, some fragmental zone with dolomite-mil matrix indicate transition to protomylonite; few buff ophylite fragments, barren, non-magnetic. 152.5-154 4cm White Quers vein rimmed with epidote hematite stems and fine pyrite, some cubic, with quartz flooding in v. v. v.; 60° tra.							
		152.5-154	1603	0.007	0.002	7	0	
	156.-158 all H=7 dark gray matrix with buff angular < 10 cm fragments of ophylite with trace 3mm light phenocrysts; de-spharmite.							



FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	Ppb Ag	Ppb Au	Ppb Pd	CODES OF ANALYSES
174.5 - 178.5	GREEN GRAY MEDIUM GABBRO H=4, nonmagnetic, 0.5% py with + gr, no few patches < 2 cm and stringers < 5 cm long, upper contact brecciated with 2-cm quartz vein at 20° and pinkish granodiorite at both contacts.	174.5 - 178.5	1604	0.08	0.046		10	0	
190 - 300	DARK DACITE PROTOMYLONITE - NONMAGNETIC - 75 to 95% downhole medium to dark gray dacite fragments in some 50% chlorite-mil sharp or diffuse matrix of H=5, nonmagnetic, banding poor uphole, moderate wavy 45° downhole with zones of < 5 mm long chlorite stringers locally < 15%; one 5 mm py with magnetic min, else barren.								
198 - 206	JOINT parallel to hole, some broken core, calcite-epidote plating.								
300 - 356 END	MICACEOUS GRAY DIORITE RRD 85% upper contact transitional, fine diffuse shear lamination with biotite at some 30° changes to muscovite and 0° downhole, no cleavage developed; parallel orientation of muscovite causes patches of green < 5 cm long; H=4-6, nonmagnetic.								
340 - 356	< 5% pyrite, as 5 mm wide quartz-calcite-chlorite-pyrite vein parallel to hole over < 4 feet each (1605 - 39 py).	346.5 - 351.5	1605	0.006	0.384		89	0	
356	END OF HOLE CASING LEFT IN HOLE								

H. DAXL 30 JAN. 1990

*Handwritten signature*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

### OTHER INFO:

OLD CORE NEARBY.  
No ore horizon.

### ACID TESTS: at ft - DIP

50 ft - 73.5°  
200 ft - 72°

HOLE NUMBER GR-90-D75  
GRID REFERENCE 405 E / 140 N  
ELEVATION 65 ft. above lake  
AZIMUTH GRID SOUTH 180°  
DIP ANGLE 75°  
LENGTH 317 ft.

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN  
CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY: H. DAXL

DATES: 28 JAN. TO 28 JAN. 90 PAGE 1 OF 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP SHIFTED - EXPECT TO REACH 395 E. AT END OF HOLE. Estimated elevation: 15 ft. above setups A and B, 25 ft. above C (see D48).							
0-5	CASING, several flat outcrops.							
5-28.5	FINE PORPHYRITIC QUARTZ-GABBRO RQD 90% lower contact gradual over 1 ft., 70% dark green mafic. greenish gray fine grained with zones where chlorite < 8mm long stretched along core axis, barren, H=6-7, non-magnetic, some diffuse quartz and silicification?							
20.5-20.7	yellowish quartz vein 50° to contacts lined with some pyrite.	20.2-20.8	1594	0.000000		NIL	0	
28.5 - -57.5	DARK DACITE PROTOMYLONITE - NONMAGNETIC RQD 90% lower contact 25° banding subparallel to core axis and little apparent because fragments are only 30% and mostly diffuse. Nonmagnetic, barren except for one 1cm quartz-pyrite vein at 65° with minor quartz flooding at 34 ft.							
57.5	MEDIUM GRAINED QUARTZ-GABBRO-GREENGRAY RQD 95% lower contact 50°, green-gray mostly medium-grained with < 20% diffuse quartz-feldspar grains in chloritized fine gabbro. H=5-6, barren, non-magnetic.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
73- 127	GREENISH-GRAY DACITE RQD 90% lower contact gradual. greenish-gray, very fine grained, #=5-6 trace py as rare quartz-calcite-chlorite-pyrite stringers, or py stringers, one 1-cm patch or finely disseminated; non-magnetic;							
	82-87 Qtz-calcite-vein-set, 2 mm veinlets at few cm spacing (3%) parallel at 30° tea. trace pyrite (0.3% in 1595) finely disseminated irregular spots and in some Qtz-calcite veins.	83-85.5	1595	0.008	0.003	10	0	
127- 317 End	DARK DACITE PROTOMylonite - NONMAGNETIC RQD 90 (except broken core) as above, rare trace pyrite; banding wavy but likely 0-30°							
	Broken core: 170-187 much broken core, RQD 40%.							
	165-179 OLD FAULTZONE - locally many diffuse sericitized sheared quartz-rich buff fragments surrounded by gray quartz flooding all in chlorite-rich matrix, some veinlets of hematite-stained quartz; local 2% py with cubic tendency in the matrix (1596 has 1% py). Probably a fault zone with bleaching and subsequent quartz flooding later affected by large-scale mylonitization. Much broken core, nonmagnetic; irregular banding.	176-177.6	1596	0.008	0.003	NIL	0	
317	END OF HOLE H. DAXL 28 JAN. 1990 CASING LEFT IN HOLE							

*Jan 28 1990*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXE

### OTHER INFO:

OLD CORE NEARBY.  
N<sub>2</sub> Ni in ore horizon 48-62.

### ACID TESTS: at ft - DIP

50 ft - 90°  
200 ft - 89°  
356 ft - 90°

HOLE NUMBER  
GRID REFERENCE  
ELEVATION  
AZIMUTH  
DIP ANGLE  
LENGTH

GR-90-D90  
405 E / 140 N  
65 ft above lake  
VERTICAL - 0  
90°  
356 ft

DATES: 27 JAN TO 27 JAN, 1990 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP CORRECT same as D48, 15 ft above A and B, 25 ft above C (see D48).							
0-2	CASING several flat outcrops.							
2-21	DACITE PROTOMYLONITE - NONMAGNETIC RQD 60%. 5 ft of core ground near surface but barren. Described below.							
21-34.3	MEDIUM PHENOCRYST GABBRO (DIKE?) RQD 85%. Contacts over few cm. Green-gray medium-grained phenocrysts locally stretched by wavy foliation in lighter gray matrix. Barren, non-magnetic. 4-cm quartz vein with diss. py at wellrock at 55°. 20 cm from upper contact. H=5							
34.3-48.5	Cont. DACITE PROTOMYLONITE - NONMAGNETIC, RQD 60%. Described below; local trace pyrite.							
35-37	1% py, fine diss. and andirite 1-cm calcite-chlorite-quartz vein.	35-37	1573	0.008	0.008	5	0	A8

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
48.5 - 62.5	GREEN-GRAY MEDIUM-GRAINED GABBRO DIKE RQD 85% contacts mylonitized over few cm. Medium-green-gray and light gray, medium grained, homogeneous, local chloritized sharp fragments < 3 cm some aligned at 0-30°. nonmagnetic; < 1% pyrite finely disseminated or as few stringers mainly where chloritized (incl. fragments), H=5	60.2 - 62.6	1574	0.004	0.008	9	0	A8
62.5 - 267.5	Cont'd DACITE PROTOMYLONITE - NONMAGNETIC RQD 90% (excl. local broken core). Some 50% gray very fine grained sharp fragments up to bouldersize in greenish-gray matrix. Fragments show in situ brecciation, rounding, or stretching including tension gashes with calcite, all nonmagnetic; alignment subparallel wavy to core axis increasing to 20° downhole. Barren, in bones of sparse fragments the matrix resembles green-gray gabbro < 2 mm granitic, very rare 2 cm diffuse patches of diaspore in matrix (192.5); matrix is chlorite-rich. Broken core? 140-142 chlorite platy along quartz vein at 20°. 252-254 brittle, H=6-7.							
155.4-156.2	10-cm thick white barren quartz vein with sharp brecciated contacts at 30° crosscutting the banding of some 15° forming some 30° angle between them near core axis. Trace py along wallrock; 4-cm parallel quartz-calcite-epidote vein 1 ft. uphole; much weakly hercynitized silicification over 2 ft uphole but none below, rare trace pyrite, nonmagnetic.	153.2 - 156.2	1593	0.006	0.001	10	0	
267.5 - 299	FINE GABBRO - MAGNETIC (DIKE?) RQD 80% Upper contact 30° lower 20°, both with parallel foliation in wallrock. Medium-greenish-gray, very fine to fine grained towards center; gradually magnetic towards center M=0-2; H=6; rare trace py with magnetite, homogeneous.							



# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN  
CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAYL

### OTHER INFO:

CASING PULLED.  
10% SULFIDE 54-60 ft.  
in FN. GAB.  
2% py-cp 68-72.5

### ACID TESTS: at ft - DIP

50 ft - 41° DIP  
207 ft - 41° DIP

HOLE NUMBER GR-90-E43  
GRID REFERENCE 495 E / 010 N  
ELEVATION 54 ft above lake  
AZIMUTH GR. NORTH 0°  
DIP ANGLE 43°  
LENGTH 207 ft.

DATES: 31 JAN TO 1 FEB, 1990 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Ag	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT FOR E43 only. PIT SHOWING at 450 E / 057 N at elevation 43-47 ft with casing of old drillhole at pit bottom. Pit bottom 10 ft diameter at top of casing at elevation 43 ft. PIT SAMPLES listed on GR-90-C70, page 3.								
0-16	CASING on gentle slope to SW, but steep beyond 070 N and beyond 520 E due to relief of MAGNETIC DIABASE DIKE indicating a strike of $\approx 345^\circ$ , in fair agreement with the intersection at 124 ft. El. at 500 E / 100 N is 70 ft. As per section and surface plot on decenot, the dike dips $85^\circ$ E ( $345/85$ ). Therefore no ore possible along 600 E. Agrees with MAG-MAP.								
16-60	GRAY FINE GABBRO RQD 30-50 (incl. 7 ft broken core over several areas) Lower contact gradual over 1 foot with minor quartz flooding near it. Medium-gray, fine to very fine grained homogeneous with few subhedral rectangular to pinkish feldspar phenocrysts which between 48-52 ft are very locally $< 25\%$ $< 8$ mm; sulfide 10% below 54 ft above trace py only; nonmagnetic; H=6-7 although there seems to be no quartz, phenocrysts are H=6-7.	48-51	1606	0.014	0.011	100	0	0	
	51-54 trace, py-pn, nonmagnetic as a few stringers, feldspar phenocryst disappearing downhole.	51-54	1607	0.074	0.068	300	65/58	0	
54-60	10% SULFIDE PATCHES AND STRINGERS - FN. GAB. RQD 70% (Core fits well except for minor grinding) 6% py, 3% cp, 1% pn (nonmagnetic pink after E91 Ni-TEST). as irregular patches $< 2$ mm stringers $< 1$ cm wide at $50-80^\circ$ to a, and matrix between $< 2$ cm in situ brecciation. Sulfides $< 15\%$ locally. All in fine grains similar to above but with minor quartz flooding trace blue quartz $< 2$ mm and slightly chloritized H=5-6, nonmagnetic. (Pyrite is very fine grained aggregations and tends to be dull with brownish tinge?)	54-57	1608	0.412	0.257	900	75	50	20 PE, 0 RL } 6.5 ft - 0.55% Ni
		57-58.7	1609	0.619	0.834	3000	240	165	150 PE, 0 RL } 0.45% Cu + tr.
		58.7-60.5	1610	0.726	0.419	2400	216	85	100 PE, 0 RL } Ag Au Pt
		60.5-65.2	1611	0.025	0.020	100	27	0	







# TIMMINS NICKEL INC.

## OTHER INFO:

ACID TESTS: at ft - DIP

HOLE NUMBER GR-90-E68  
 GRID REFERENCE 495 E / 010 N  
 ELEVATION 54 ft. above lake  
 AZIMUTH GRID NORTH 0°  
 DIP ANGLE 68°  
 LENGTH 196 ft.

DIAMOND DRILL LOG 1.9 ft - 20% Sulfide (MAG) 64.3-66.2 ft  
 PROPERTY EVES 13 ft - 8% - 80-93 ft  
 TOWNSHIP GROVES 29.5 ft - 12% - 107.5-137 ft.  
 CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN  
 CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

DATES: 1 FEB. TO 2 FEB. 1990 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Ag	ppb Au	ppb Pd	ppb Pt	ppb Rh	CODES OF ANALYSES
	SETUP PERFECT casing direction afterwards correct although dip deviated due to sand, casing sprung back to 65°. PITSAMPLES listed on C70, page 3.										
0-12	CASING Sand on surface; Coarse gray granodiorite boulders cored 1 ft.										
12 - 64.3	FINE GRAY GABBRO Qz 85% gradual contact over 2 ft. Medium-gray, very fine grained, locally < 2% white euhedral K-feldspar phenocrysts < 6 mm, hornblende, non-magnetic; H=5-6, few py-clusters < 1 cm and locally < 1% fine dissemin. pyrite.										
	33-34 1% pyrite clusters	33-34	1618	0.00	0.04		NH	0			
	Sample 1619 - trace pyrite, for background.	60-63.3	1619	0.01	0.02		17	10			background
	63.3-64.3 1% fine dissemin. py, some in clusters, some 1 mm cubes	63.3-64.3	1620	0.01	0.09		0	10			
64.3-66.2	20% SULFIDE STRINGERS - MAGNETIC PO = py - 45° to (Qz ≈ 90%) 10% pyrochroite magnetic dull brown (altered?) 10% pyrite, trace chalcocite in chloritized in situ breccia, H=3-5.										
		64.3-66.2	1621	2.45	0.52	1400	75/105	300	120	0	4 ft - 1.40% Ni 0.41% Cu etc Ag Au PGE.
		66.2-68.3	1622	0.46	0.32		113	100	110	0	

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	Ppb Ag	Ppb Au	Ppb Pd	Ppb Pt	Ppb Rh	CODES OF ANALYSES
66.2 - 10.5	MEDIUM-GRAINED GRAY GABBRO - BLUE QUARTZ - RQD 95% contacts transitional over few feet. Gray, medium-grained, < 2% variably blue quartz, homogeneous, nonmagnetic, locally < 10% py+po as irregular shreds < 2mm some at 45° to, some connecting as a matrix, H=5-6. Barren samples: 1623, 1624, 1625.	66.2-68.3 68.3-72 72-76 76-80.3	1622 1623 1624 1625	0.46 0.08 0.03 0.03	0.32 0.01 0.01 0.01	113 0 0 9	100 0 0 0	110 0 0 0	0 0 0 0		Background
80.3-119.5	SULPHIDE ZONE 8% SULFIDE STRINGERS at 45° to. - py > cp = po RQD 90% all in above Gabbro, local in situ brecciation with 15% py-2% po-1% cp matrix (1629 - 2% pyrite reaction but nonmagnetic).	80.3-83.1 83.1-86 86-89.7 89.7-91.6 91.6-93.4 93.4-97 97-101 101-105	1626 1627 1628 1629 1630 1631 1632 1633	0.40 0.55 0.98 2.10 0.41 0.09 0.41 0.13	0.27 0.32 0.73 0.49 0.48 0.29 1.22 0.47	1500 1700 4400 6700 2800 2000 10400 2800	65 58 130 278 103 93 327 144	30 20 40 80 50 20 1140 120	50 0 50 100 380 0 2450 90	0 0 0 0 0 0 0 0	39.2 ft - 0.74% Ni 1.29% Cu
105 - 145	GRAY MED TO FINE GABBRO TRANSITION RQD 75% contacts both transitional (intermittent). Medium-gray; medium or fine grained. H=6-7, nonmagnetic. local poor foliation parallel to sulfide stringers at 45°. variable amount of sulfide stringers and matrix (avg. 10%) locally barren (1642) or finely disseminated 2% py with cubic tendency (1639 and 1640).	105-107.5 107.5-110 110-113 113-116.5 116.5-119.5 119.5-122.5 122.5-126.5 126.5-128.1	1634 1635 1636 1637 1638 1639 1640 1641	0.19 0.55 2.01 1.47 0.85 0.05 0.01 0.85	0.69 0.97 2.36 4.99 2.30 0.08 0.08 0.56	4700 5000 13400 26900 12300 65 10 3200	257 219 538 727 453 10 144	250 90 80 110 150 10 40	350 80 70 120 170 0 90	0 0 0 0 0 0 0 0	+ Ag Au PbE. 1.44 Ni 3.31 Cu 10.5 ft -
107.5 - 137	12% SULFIDE STRINGERS at 45° - py > po = cp. - RQD 90% < 15% py-po (nonmagnetic) and < 30% cp as matrix between in situ brecciations (1636 and 1637). According to pyrite reaction of Ni-test E91 the very fine-grained aggregate py-patches contain nickel. Breccia is mainly in finer zones of the above gabbro fine to medium transition.	128.1-132.6 132.6-137 137-140.5 140.5-144	1642 1643 1644 1645	0.03 0.63 0.23 0.45	0.22 0.30 0.15 0.48	200 1400 38 44	10 51 10 20	0 30 10 20	40 40 0 0	0 0 0 0	0.40% Ni 0.22% Cu ONLY
145 -	GRAY DACITE - KSPAR PHENOCRYSTS. RQD 75% lower contact brecciated, med. gray, very fine grained, 3% white euhedral K-spar phenocrysts of < 2mm; H=6-7, nonmagnetic, barren, hard and siliceous.	144-147.5 147.5-150.5	1646 1647	0.11 0.03	0.23 0.11	55/45 27	20 20				



**TIMMINS NICKEL INC.**

**DIAMOND DRILL LOG**

PROPERTY **EVES**  
 TOWNSHIP **GROVES**  
 CLAIM **1047171**

DRILLING COMPANY **TERRAURA** FOREMAN **YVAN FORTIN**

CORE SIZE **BQ** CORE STORED AT: **REDSTONE YARD** LOGGED BY **H. DAXL**

OTHER INFO:

15% Sulfide 176-177 ft.  
 2% " " 202-210 ft.

ACID TESTS: at ft - DIP

46 ft - 57.5°  
 200 ft - 57.5°

HOLE NUMBER

**GR-90-F60**

GRID REFERENCE

**500 E / 105 S**

ELEVATION

**43 ft. from lake**

AZIMUTH

**GRID NORTH 0°**

DIP ANGLE

**60°**

LENGTH

**307 ft.**

DATES: **3 FEB. TO 3 FEB. 1990**

PAGE **1** OF **3**

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT FOR F60 ONLY. BUT after moving the casing was loose pointing at direction 2° E, which would displace end of hole to 505 E, all due to loose sand, not due to removal of drill.							
0-10	CASING, Sand on surface.							
10-169	SPOTTED GRAY GABBRO RRD loose contact vague 80° but quartz-vein 10 cm below at 30° (without turning); medium-dark gray fine grained with < 5 mm shreds of soft variably < 15% dark-green altered phenocrysts, H=5-6 (spots H=2); local poor foliation 40-60°, nonmagnetic; spots are fine and smaller downhole. local trace pyrite; trace fine blue quartz seems to increase downhole, seen on both sides of fault, therefore some rock and silicified halo due to quartz veins.	80% increasing to 90% downhole, incl. broken core at 134-141.						
44.5-46	Quartz-calcite veining and matrix of in situ breccia, barren.							
54-55.6	FINE ACTINOLITIZED Xenolith. (OR DIKE at 50° and 80°) of mafic protomylonite with diffuse fragments and little matrix, boundary parallel to contacts, barren, nonmagnetic.							
57-58.5	DIKE greenish-melag. blv. fine grained, loose contact 50° barren, nonmagnetic, H=7.							
70.5-71.5	medium-grained greenish gabbro, 40% plagioclase, diffuse 45° parallel contacts. few py patches at lower contact, nonmagnetic.							
72.5-73.5	3-cm white euhedral quartz vein at 30°; few epidote and hematite stains, to pyrite < 8 mm over 1 ft up and 2 ft downhole.	715-75	1617	0.006	0.007	0/0	0	

TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-F60

PAGE 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu		ppb Au	ppb Pd	CODES OF ANALYSES
81.5-82	DIKE, very fine greenish melagabbro, 45°, sharp parallel contacts, H=5-6, nonmagnetic; trace pyrite.								
135-141	FAULT: parallel								
135-141	FAULT - VEINING OF QUARTZ-CALCITE-CHLORITE with hematite and some epidote staining along sides and trace of pyrite, subparallel to hole causing broken core, some in situ brecciation, nonmagnetic, hematite-stained quartz-flooding decreasing over 10 ft down hole, but absent uphole (consider low angle). Sample 1616 composite across unit. Fault planes with serpentine? and calcite. Same rock on both sides.	135-141	1616	0.024	0.017		0	0	
Cont'd	SPOTTED GRAY GABBRO								
160-160.5	White Quartz vein with epidote in center and some along sides, trace py on sides, fine subhedral coarse crystals, some silification holes of 2 feet.								
169-176.8	GREEN-GRAY MEDIUM GABBRO (one horizon) R20.75% Lower contact 45° with 15% py>cp>pn patches < 15 mm over bottom 1 ft (1742) and pink to E91; else trace; H=4 nonmagnetic, traces blue quartz and ankerite after pyrite; core appears less green than usual.	175.8-176.8	1742	0.957	0.815		113	130	60 ft ORR
169.2-169.5	4 cm vein of euhedral quartz some chlor-hem. staining between hex. grain, trace pyrite in wall rock.			0.93	0.80				1 ft - 0.94 % Ni 0.81 % Cu
176.8-202	FINE GREENISH-GRAY GABBRO R20.75% includes few quartz veins < 4 cm with minor chlorite and py < 5 mm some color; locally < 1% very fine py cubes (1744 - 0.5 ft.)	180-183.5	1744	0.007	0.003		27	0	
192.4-193	White QUARTZ-VEIN at 30° with chlorite-py stringers and one 3-cm patch of py-cp-pn (some pink to E91 all in 1743), all nonmagnetic.	192-193.2	1743	0.105	0.299		75	0	

TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-F60

PAGE 3 LAST

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
202 -	<sup>15H</sup> GREEN-GRAY MEDIUM-GRAINED GABBRO (one horizon) RQD 80-90%.							
249.5	upper contact 10 cm quartz-Kapax vein at 45° with 1% cp patches < 2 cm, and minor flooding over 3 ft. below, minor Kapax throughout. (Core appears less green than usual), no foliation, H=4-5, nonmagnetic (NM), barren below 210 ft. Lower contact sharp irregular.	201.5-205	1745	0.511	0.611	<sup>216</sup> 237	260	250 Pt, ORL } 7 ft - 0.57% Ni 0.53% Cu tr Ag Au PGE.
202 - 210	2% py > cp > pr patches < 4 cm, some pink to E91, disappear by 210 ft, trace blue quartz disappears by 230 ft, Kapax	205-208.5	1746	0.489	0.563	<sup>213</sup> 192	205	180 Pt, ORL
		208.5-211.5	1747	0.034	0.056	45	10	
249.5 -	GRAY FINE GABBRO RQD-80-90%							
307 END	medium gray, H=5, nonmagnetic, < 5% light gray phenocrysts < 4 mm locally, locally few amygdules with calcite < 5 mm; barren.							
307	END OF HOLE CASING LEFT IN HOLE, PLUGGED WITH CEDAR AS USUAL.							

*Handwritten signature: Ben Green*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

### OTHER INFO:

Intrac ore zone  
(85-89, 107-110 ft)

### ACID TESTS: at ft - DIP

55 ft - 40.5° DIP  
174 ft - 38.5° DIP

### HOLE NUMBER

GR-90-643

### GRID REFERENCE

300 E / 057 S

### ELEVATION

35 ft.

### AZIMUTH

GRIDNORTH 0°

### DIP ANGLE

43°

### LENGTH

220 ft.

DATES: 4 FEB. TO 5 FEB 1990 PAGE 1 OF 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT for G43, after pulling off drill casing loose but same perfect direction, exact location of hole. el. at 300 E / BLO = 43 ft, el. at 300 E / 100 N = 48 ft.							
0-9	CASING, despite adjacent outcrop, at bottom of moderate slope, flat southward to 300 S.							
9-38	FINE GRAY GABBRO - 2% py RQD 35% (some broken core - weathering) lower contact vague over 5 cm towards a further 10 cm quartz flooding, foliation parallel to below at 45°. medium-gray, fine grained, few diffuse light patches and stringers containing some calcite, diffuse local banding at 45°. H=5, nonmagnetic; 2% py as fine disseminated irregular dots, sometimes cubic, with some trend at 45° parallel to banding, throughout, no larger patches.							
		20-25	1648	0.011	0.006	0	0	
		35-38	1649	0.014	0.011	0	0	
38-78	GREEN-GRAY XENOLITH-RICH-MED. GABBRO-BLUE QUARTZ - RQD 20% at upper contact abrupt slope of fine py. At unit above but similar fine disseminated light brownish dots (pyroclastic) sulfides are only larger patches and contain diagenetic. Near upper contact it is green-gray medium grained with foliation at 45°. Xenoliths more abundant - downhole up to 60% at 3 ft (probably some are dikes). They are mostly fine greenish-gray gabbro, some with dark green patches < 5 mm, and a magnetic granodiorite with some crystallization. Banding is generally at 45°; nonmagnetic. H=5-7. The fine light brown dots seem to grade into pyrite at 55 ft below which a trace pyrite is throughout. Fe is py-cp-po-pm							



FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	as in the ore zone < 2 cm diffuse (at 52 ft - reacted pink and moderately magnetic - half patch in sample 1650).	51.6 - 52.1	1650	0.094	0.259	24	30	30 Pt, 0-RL
	Quartz - flooding < 15% and < 3% blue quartz in the more homogeneous upper part without xenoliths (38-51 ft).	75 - 79	1701	0.043	0.026	0	0	
78 -	GREEN-GRAY MEDIUM-GRAINED GABBRO RQD 95%							
145	lower contact broken but 1 cm quartz-calcite vein at 80° separates medium-grained unaltered foliation from convoluted or sheared that grades into mylonite over 1 ft. green-gray (outside core green and white) no quartz H=4-5 increasing downhole, medium-grained, poor foliation at 45° nonmagnetic, few quartz-calcite veins < 1 cm at various angles. Rare trace of py-cx-po-pr as < 2 cm irregular nonmagnetic patches that leached pink (85.6, 88.5, 107.5, 109.3, 85.6 and 88.5 not in sample 1702). rock splits only perpendicular to foliation.	85.3 - 88.6	1702	0.029	0.017	7	0	
145 -	Quartz - PROTOMYLONITE - MAGNETIC. RQD 90%.							
220 END	Medium-gray fine to aphanitic quartzite fragments < 10 cm in chlorite-rich greenish-gray matrix. The fragments are 60% and sometimes stretched into eyes, usually quite sharp and subrounded-subangular (brecciated in situ). The foliation increases to moderate at 45° downhole. Locally the matrix but also fragments are magnetic (M=0-2). All is barren.							
220	END OF HOLE. #. DAXL 5 FEB. 1990 CASING LEFT IN HOLE, and fairly loose but not disturbed.							

*Handwritten signature/initials*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN H. Leprieux

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

OTHER INFO:  
CASING RUINED  
1.7' - 4' 10" py sp. (191.6-193.3)

ACID TESTS: at ft - DIP  
56 ft - 40° DIP  
206 ft - 37° DIP

HOLE NUMBER GR-90-H45  
GRID REFERENCE 300 E / 140 S  
ELEVATION 32 ft  
AZIMUTH GRID NORTH 0°  
DIP ANGLE 45°  
LENGTH 266 ft

DATES: 5 FEB TO 6 FEB. 1990 PAGE 1 OF 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT for H45, started without shifting; BENT CASING WHEN PULLED OFF THE DRILL (difficult with 45° holes).							
0-20	CASING, Cedar swamp, 2 ft very wet mud not frozen, flat from 643 to 280 S; cobbles of pink granite and magnetic medium-grained dull-gray diabase (M=3).							
20-178.7	GRAY DACITE BRECCIA - CHLORITIZED - NM RQD 80-90% lower contact = 60° parallel to banding, banding 60° over some 20 ft uphole; medium-dark gray aphanitic hard diffuse fragments ≤ 6 ft in chlorite-rich greenish-gray softer matrix H=4-6, nonmagnetic, local zones of ±1% fine py with cubic tendency (1% - 1748, 0.5% - 1749), rare py stringers.	133-136	1748	0.013	0.007	0	0	
		174-178.3	1749	0.012	0.003			
35.4-36 and 43.5-43.7	DIABASE OFFSHOOTS - MAGNETIC dark gray, chilled aphanitic, homogeneous, H=7, M=3, first 20°, second 45° too.							
76-116	QUARTZ-CALCITE (3-10%) STRINGERS of late in-situ brecciation, barren.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu		ppb Au	ppb Pd	CODES OF ANALYSES
178.7-	GREEN-GRAY MEDIUM-GRAINED GABBRO (ore horizon) RQD 90%								
211.5	upper contact $\approx 60^\circ$ subparallel to $45^\circ$ shear foliation that disappears downhole; quartz-calcite flooding of 5 cm at contact and locally downhole; lower contact diffuse.	178.3-183	1750	0.035	0.018				
	Green-gray and white medium-grained H=4 nonmagnetic.	183-186.6	1751	0.020	0.005				
	Several stringers (at 30%) or patches of py > qt > prpo (pink to E91) (4% in 1753), also some of 1% very fine py often cubic (1755) or of 0.5%ankerite after and very fine pyrite (1754). rare trace fine blue quartz.	186.6-191.6	1752	0.020	0.009				
	191.6-193.3 4% py > prpo stringers at 30°.	191.6-193.3	1753	0.312	0.187		161	20	
	1992-203.9 Dacite Breccia xenolith 2% py very finely dissem. medium-gray, greenish mottled diffuse matrix; H=4-6, nonmagnetic (1756).	193.3-196.8	1754	0.037	0.015		7	0	
		196.8-199.3	1755	0.021	0.012		17	0	
		199.3-204.1	1756	0.013	0.009		7	0	
		204.1-207.5	1757	0.071	0.065				
		207.5-211.8	1758	0.055	0.038				
211.5-	DARK DACITE BRECCIA - CHLORITIZED - MAGNETIC RQD 95%								
266 END	medium-gray sharp fragments in chloritic matrix H=4-7, frequently magnetic downhole H=0-2, minor shear foliation locally at $45^\circ$ lower, 2-cm quartz-calcite-py- magnetite vein at $60^\circ$ at 218 ft.	211.8-216	1759	0.010	0.007		0	0	
266	END OF HOLE 6 FEB. 1990 H. DAX CASING BENT WHEN REMOVED DRILL.								

*See Legend*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN K. LAPIERRE  
CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY H. DAXL

### OTHER INFO:

TRACE OREZONE <4% -  
256-266 ft.  
1.7' - 3% py>gr -264.2-265.7

### ACID TESTS: at ft - DIP

50 ft - 61° DIP  
147 ft - 60° DIP  
297 ft - 61° DIP

HOLE NUMBER  
GRID REFERENCE  
ELEVATION  
AZIMUTH  
DIP ANGLE  
LENGTH

GR-90-I65  
015 E / 108 S  
20 ft  
GRID NORTH 0°  
65°  
317 ft.

DATES: 7 FEB TO 8 FEB, 1990 PAGE 1 OF 4

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT, not shifted, compass set at 7° W declination, agrees with GRIN at BLO/000.							
	CLIFF SHOWING AT BAY - See last page of log, and also log L45.							
	LAKESHORE WITH CLIFFS is <30 ft West of this section: SOME OUTCROPS THROUGH SNOW: 200 S fine gabbro at little bay with gully. near 100 S pink felsic protomylonite, fd. 55/80° S (no magnetic effect). BLO fine gabbro 100-150N pink felsic protomylonite - magnetic, fd. 20/75° S (at L0/100N - per grid, no magnetic effect), contact at 015 E / 75 N.							
0-10	CASING, very hummocky, pinkish medium-grained granite boulder, top of steep slope to lake.							
10-45	DARK DACITE PROTOMYLONITE - NONMAGNETIC lower contact transitional over few feet. diffuse dark dacite fragments in greenish-gray matrix, some fine diffuse veining with pinkish alteration below, H=5-7, nonmagnetic, barren; banding at 45°.	RQD 50-80% (incl. broken core 25-26, 29-31).						
14.2 - 18.3	PINKISH GRANODIORITE (FRAGMENT? XENOLITH?) med. grained, barren, lower contact at 50° and still med. grained.							

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	Ppb Au	Ppb Pd	CODES OF ANALYSES
45 - 116	PINK RHYOLITE PROTOMYLONITE - MAGNETIC RQD lower contact 45° with pinkish halo downhole. 50 to 90% of pinkish aphanitic fragments < 1 ft in diameter - or staurolite - with matrix of sharp subangular to subrounded downhole and aligned or shelled at 45°. Matrix is locally magnetic (M=0-2) and magnetite stringers occur from 97-101 ft; H=6-7; 1 ft - spotted gabbro fragments at 82-83 and 90-91; 1% py. finely dis. in matrix below 67 ft; barren before.	50-80% (excl. broken core 67-84 ft)						
67-84	FAULT? 1% py. finely dis. in matrix; much broken core;	69-72	1703	0.004	0.006	7	0	
67-116	1% py. finely disseminated in matrix.							
97-101	Magnetite stringers, few < 5mm or anastomosing, parallel to foliation of 45°; 1% pyrite as dissem. in matrix.	97-101	1704	0.006	0	10	0	
102-106	fine granodiorite 4-ft. fragment; light gray pinkish and greenish tinge.							
116 - 151	GREEN-GRAY FINE-MEDIUM GABBRO (ore horizon?) RQD - 80% upper contact 45° with pink halo of quartz-Kspas flooding over 1 ft downhole; lower contact transited through xenoliths zone. Medium-green-gray; dry core is green-gray and white and lighter than usual; med. grained < 2 mm; quite homogeneous; H=5-6, nonmagnetic. some rusty joints, barren except between xenoliths (1705 for bedrock); rare trace below quartz.							
131-133.3		131-133.3	1705	0.007	0.002	0	0	
144-151	large xenoliths of pinkish med. grained granodiorite grading into gray dacite with 0.5% py. finely disseminated after cubic; from unit below. Matrix between xenoliths is same as above but more chloritic and 1% py as fine sometimes cubic disseminations, and few patches 2 cm with no reaction to Ni test but trace spectra of op (Sample 1706).	149.5-151.7	1706	0.057	0.038	17	0	
151 - 205	FINE GRAY GABBRO - 1% PYRITE - PINKISH XENOLITHS. RQD 40-60% (excl. broken core 177-188 ft) lower contact 45° across R. 1 cm pink quartz-Kspas vein. med. gray very fine grained, H=5-6, partly very finely relicified? nonmagnetic, homogeneous, < 2% py frequent as fine to							



TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-I65

PAGE 4 LAST

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Ag	ppb Au	ppb Pd	CODES OF ANALYSES
293-307	greenish gray variably fine to medium grained gabbro, transitional contacts, possibly a fragment, H=5-6, nonmagnetic.								
317	END OF HOLE CASING LEFT IN HOLE, ALL CASINGS PLUGGED WITH CEDAR POSTS THAT CAN ONLY BE UNSCREWED.	H. DAXL	8 FEB. 1990						
CLIFF SHOWING AT BAY: 030-040 E/060 N at 8-25 ft to 40 ft from bay, removed snow over 12 ft wide-15 ft high, (SEE ALSO LOG L45) Continuous chip samples taken all across zone (which may continue wet under snow) from W to E. Attitude of sulfide stringers locally approx. parallel to contact with fine grained gabbro (dike?) East (195/85W) CONTINUOUS SAMPLES: Greenish chloritized gabbro, H=4-5, nonmagnetic, slightly schistose, estimated true thickness. (FAULT?)									
1714	0.5% fine pyrite, 4 ft.	4 ft.	1714	0.063	0.083	800	34	25	40 Pt, 0 Rh, 0.005% Co, AB
1715	0.5% fine py and rare gp, rare green copperstonia on cleavage, 2 ft.	2 ft.	1715	0.071	0.161	1320	82	30	60 Pt, 0 Rh, 0.005% Co, AB
1716	5% py, <10% rare magnetic oxides, patches <1 cm and stringers <8 mm thick, somewhat convoluted, 3 ft.	3 ft	1716	1.660	1.346	8100	463 466	215	440 Pt, 0 Rh, 0.024% Co, AB
1717	2% pyrite, 15% gossaned and schistose, 0-2 ft from east contact.	2 ft.	1717	0.463	0.256	3000	185	70	145 Pt, 0 Rh, 0.012% Co, AB
1719	2% pyrite, 15% gossaned and schistose, from some 10-15 up on cliff, 0 to 2 ft. from E-contact, same horizon as 1717.	2 ft.	1719	0.190	0.209	4600	357 346	75	110 Pt, 0 Rh, 0.004% Co, AB
<p>Codes of Analyses: AB = Ni Cu Co Cd Ag Pb Zn Mn by aqua regia problem. Freshly.</p> <p style="text-align: right;">* 5 ft - 1.19 % Ni 0.91 % Cu + tr Ag Au PGE.</p>									

**TIMMINS NICKEL INC.**

**DIAMOND DRILL LOG**

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

OTHER INFO:  
NO ORE HORIZON.

ACID TESTS: at ft - DIP  
50 ft - 65° DIP  
257 ft - 64° DIP

HOLE NUMBER GR-90-J68  
GRID REFERENCE 200 E / 046 S  
ELEVATION 38 ft.  
AZIMUTH GRID NORTH 0°  
DIP ANGLE 68°  
LENGTH 257 ft.

DATES: 9 FEB. TO 10 FEB. 1990 PAGE 1 OF 2

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT							
0-14	CASING, deep clean yellow fine sand, gray at 14 feet; cobbles of magnetic diabase of 2 mm granitic, greenish feldspar and also perthite granite.							
14-40	DACITE BRECCIA - CHLORITIC MATRIX - MAGNETIC RQD - 75% lower contact transitional as sharp angular dacite fragments become the main component and the matrix becomes less chloritic; locally weakly magnetic (M=0-1); H=4-5; barren; poor foliation at 30°.							
25-25.2	White quartz-vein and flooding, 14% pyrite mainly cubes < 2mm.							
40-95	DARK DACITE TRANSITION TO PROTOMYLONITE - NONMAGNETIC RQD 90% 20% in situ brecciation with chlorite-rich matrix. H=5-7 nonmagnetic, barren except one py-patch seen, banding near 30°.							
90-90.3	White quartz-vein at 30° with some py-patches at wallrock.							
95-257 END	MAGNETIC PROTOMYLONITE OF DARK DACITE TO SOME GRANODIORITE RQD 90-95% 60-95% fragments of dark dacite and some light granodiorite downhole, in chlorite-to sericite-rich locally magnetic matrix (M=0-3); H=5-7. banding at 40 to 30° downhole. Rare local < 1% pyrite all in matrix (sample 1713). Below 208 matrix is sericite-rich instead of chlorite-rich	152-154	1713	0.010	0.002	10	0	



TIMMINS NICKEL INC.  
DIAMOND DRILL LOG

PROPERTY: EVES

HOLE NUMBER: GR-90-J68

PAGE 2 LAST

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
122-138	FINE GRAY GABBRO DIKE contacts 60° homogeneous barren nonmagnetic. H=6; medium gray, fine grained, local diffuse light plerone crystals. < 8 mm.							
184-208	GARNETS < 2% < 5 mm, brownish red, euhedral mainly in matrix, matrix is mostly quite magnetic M=1-3, barren, garnet dismax in sample 1718.	196-199	1718	0.008	0.002	17	0	
208-257	END Sericite matrix with minor chlorite.							
257	END OF HOLE CASING LEFT IN HOLE	H. DAXL	10 FEB 1990					

*Handwritten signature*

# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047171

DRILLING COMPANY TERRAURA FOREMAN XUAN FORTIN

CORE SIZE BQ CORE STORED AT: REDSTONE YARD LOGGED BY

### OTHER INFO:

WATER VEIN at 99 ft,  
4-cm gap in quartz vein.  
IP anomaly is < 1% py in  
shear zone 55-84.

### ACID TESTS: at ft - DIP

50 ft - 45° DIP  
200 ft - 43° DIA

HOLE NUMBER GR-90-K47  
GRID REFERENCE 1000 E / 140 S  
ELEVATION 35 ft  
AZIMUTH GRID NORTH 0°  
DIP ANGLE 47°  
LENGTH 224 ft.

K. Lapierre  
H. DAXL

DATES: 10 FEB. TO 11 FEB 1990 PAGE 1 OF 3

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT, on top of gentle north slope, 6 ft. elevation difference over 70 ft slope, level on top and bottom, approx. 35 ft d.							
	OUTCROP at 900 E / 150 S on top of steep N-slope on road, is gray fine nonmagnetic barren gabbro, 60% plagioclase.							
0-6	CASING.							
6-100	GRAY BASALT RQD 75-90%							
	lower contact transitional over 20 ft.							
	Medium gray, aphanitic H=6 nonmagnetic, homogeneous with local shearing at 35-45° and chloritization. several quartz-calcite-chlorite veins bearing < 5% often cubic py with dissemination into wallrock < 2% locally, and most trace of chalcopryrite in samples 1720 and 1724.	28.5-30.5	1720	0.006	0.003	27	0	
		89.5-92.5	1724	0.007	0.005	31	10	
17-27	Feldspar porphyroblasts < 20%, gradual zone, frequently subhedral < 1 cm diffuse or smaller sharp, light gray, barren.							
55-84	SHEAR ZONE 35-45° poor cleavage light greenish duff fragments drawn out in darker greenish matrix variable quartz veining with calcite-chlorite-pyrite, locally < 1% py. likely representing the IP anomaly aimed at.	58.5-60.7	1721	0.008	0.003	0	0	
		67-68.6	1722	0.008	0.006	0	0	
		70.3-72.3	1729	0.006	0.004	34	0	
73-76.5	INTERMEDIATE DIKE-MAGNETIC, M=0-1, H=7, aphanitic brittle upper contact 75° lower 30° trace py as fine stringers and as quartz-calcite-chlorite-pyrite veins towards lower contact.	74-77	1723	0.007	0.003	7	0	





# TIMMINS NICKEL INC.

## DIAMOND DRILL LOG

PROPERTY EVES  
TOWNSHIP GROVES  
CLAIM 1047111

DRILLING COMPANY TERRAURA FOREMAN YVAN FORTIN

CORE SIZE BQ CORE STORED AT: NO CORE.

### OTHER INFO:

STOPPED IN OVERBURDEN  
SINCE CLUTCH ENDED.

CASING PULLED.

### ACID TESTS: at ft - DIP

NIL

### HOLE NUMBER

GR-90-L45

### GRID REFERENCE

110 E / 020 S

### ELEVATION

30 ft

### AZIMUTH

GRID NORTH 0°

### DIP ANGLE

45°

### LENGTH

20 ft

LOGGED BY H. DAXL

DATES: 11 FEB. TO 11 FEB 1990 PAGE 1 OF 1 (LAST)

FOOTAGE feet	DESCRIPTION OF CORE	SAMPLE INTERVAL	SAMPLE NUMBER	% Ni	% Cu	ppb Au	ppb Pd	CODES OF ANALYSES
	SETUP PERFECT, on top of steep slope to the bay at the lake just south off the road, near split end of cliff, showing at 030-040 E / 060 N, at 8 ft, see LOGS GR-90-I65							
0-20 END	STILL IN OVERBURDEN, much sand and cobbles of granite, granodiorite, gabbro.							
20	END OF HOLE CLUTCH ENDED, CONTRACT ENDED, NO CHARGE FOR THIS HOLE. CASING PULLED H. DAXL 11 FEB 1990							
NOTE: OLD HOLE dipping NW had sulfide but they were not analysed (see sketch of 1953). The rock units are EW subvertical but the east contact of the cliff showing is 195/85W to brittle gabbro (dike?) with parallel foliation in the sulfide-bearing gabbroed medium-grained gabbro of the showing. The foliation in the pink quartzite protomylonite at 20/100N is 20/75E (per grid as well as compass) but in the east the contact more likely trends E-W subvertical. The foliation and contact attitude maybe due to a subsidiary fault but if the showing is in Knicker trending NS, drilling towards NW would be safer. The small footage left had no chance to solve this puzzle. The IP anomaly on line 2E, may come from line 1E and the purpose of this L45 hole would have been to test that. Yet a similar hole of 1953 near 150 E reports no sulfide. In the east in the pit showing there is a N-S as well as an E-W subvertical trend of the sulfides, but the cliff showing foliation is N-S only.								

DOCUMENT No. W/9006:604<sup>20</sup>



41P12SE0501 15 GROVES

900

Mining Act

Report of Work

Name and Address of Recorded Holder Blue Falcon Mines Ltd 20 Advance Blvd. Brampton, Ont L6T 4R7	Prospector's Licence No. T-12411
	Telephone No. 416 792-2335

Summary of Distribution of Credits and Work Performance

Mining Division PORCUPINE	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.
	Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.	
Township or Area GROVES	P	1047171	231		P	1034274	215					
Total Assessment Credits Claimed	P	1034334	215		P	1036307	215					
Type of Work Performed (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work <input type="checkbox"/> Mechanical equipment <input type="checkbox"/> Power Stripping other than Manual (maximum credit allowed - 100 days per claim) <input checked="" type="checkbox"/> Diamond or other Core drilling <input type="checkbox"/> Core Specimens	P	1034335	215		P	1036308	215					
	P	1034336	215		P	1036309	215					
	P	1034337	215		P	1036310	215					
	P	1034338	215		P	1036311	215					
	P	1034270	215									
	P	1034271	215									
	P	1034272	215									
P	1034273	215										

ONTARIO GEOLOGICAL SURVEY  
JUL 10 1990  
RECEIVED

Dates when work was performed From: JANUARY 6/90 to: Feb 28/90	Total No. of Days Performed <del>6036</del> 6016	Total No. of Days Claimed <del>6036</del> 3456	Total No. of Days to be Claimed at a Future Date NONE ON THESE CLAIMS * 2560
---	---	---	--

All the work was performed on Mining Claim(s): Indicate no. of days performed on each claim. * (See note No. 1 on reverse side)	Mining Claim P.1047171	No. of Days 6,036	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	
Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days	Mining Claim	No. of Days

Required information eg. type of equipment, Names, Addresses, etc. (See Table on reverse side)  
If space below is insufficient, attach schedules with required information and location sketches

This report is also needed for 12<sup>KL</sup> adjacent claims that were filed for Relief on this same date. Claims # 1041785 thru to P.1041786 inclusive.

- If problems please phone Ken Lapierre (705) 267-7389.

- Gord Leliever is the president of Blue Falcon Mines Ltd.

Certification of Beneficial Interest \* (See Note No. 2 on reverse side)

I hereby certify that, at the time the work was performed, the claims covered in this report of work were recorded in the current recorded holder's name or held under a beneficial interest by the current recorded holder.

Date: April 6, 1990  
Recorded Holder or Agent (Signature): Ken Lapierre

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Address of Person Certifying: Ken Lapierre P.O. Box 1021 Timmins, Ontario

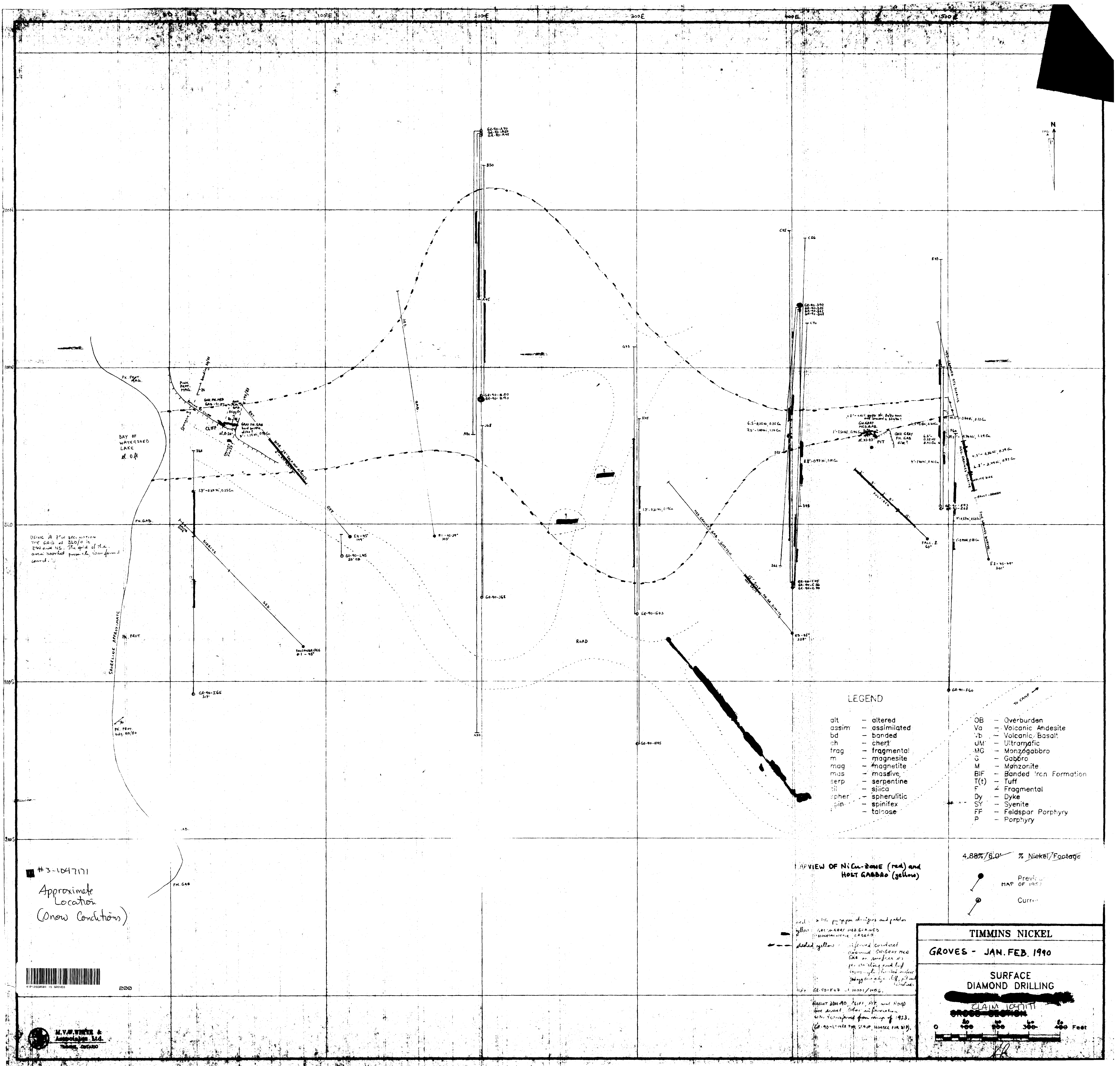
Telephone No.: 267-7389  
Date: April 6/90  
Certified By (Signature): Ken Lapierre

For Office Use Only

Work Assignments

RECORDED  
APR - 6 1990

RECEIVED  
APR 6 1990  
@ 2:00pm



USING A 7°W DECLINATION  
THE GRID OF 510/0 IS  
EQUATED TO THE GRID OF THE  
ORIGINAL MAP. THE GRID OF THE  
ORIGINAL MAP IS 100°W.

**LEGEND**

alt	- altered	OB	- Overburden
assim	- assimilated	Va	- Volcanic Andesite
bd	- banded	Vb	- Volcanic Basalt
ch	- chert	UM	- Ultramafic
frag	- fragmental	MG	- Monzogabbro
m	- magnetite	G	- Gabbro
mag	- magnetite	M	- Monzonite
mas	- massive	BIF	- Banded Iron Formation
serp	- serpentine	T(t)	- Tuff
sl	- sllica	F	- Fragmental
spher	- spherulitic	Dy	- Dyke
spin	- spinifex	SY	- Syenite
tal	- talrose	FF	- Feldspar Porphyry
		P	- Porphyry

VIEW OF Ni-Cu-ZONE (red) and  
HOST GABBRO (yellow)

4.88%/6.0% % Nickel/Footage

Previous  
MAP OF 1957

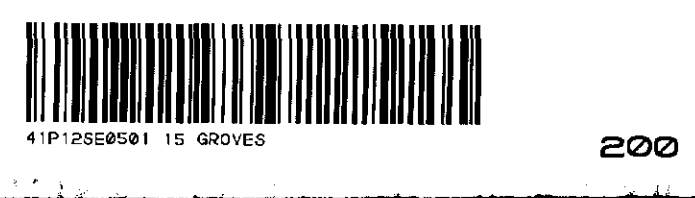
Current

#3-104771  
Approximate  
Location  
(Snow Conditions)

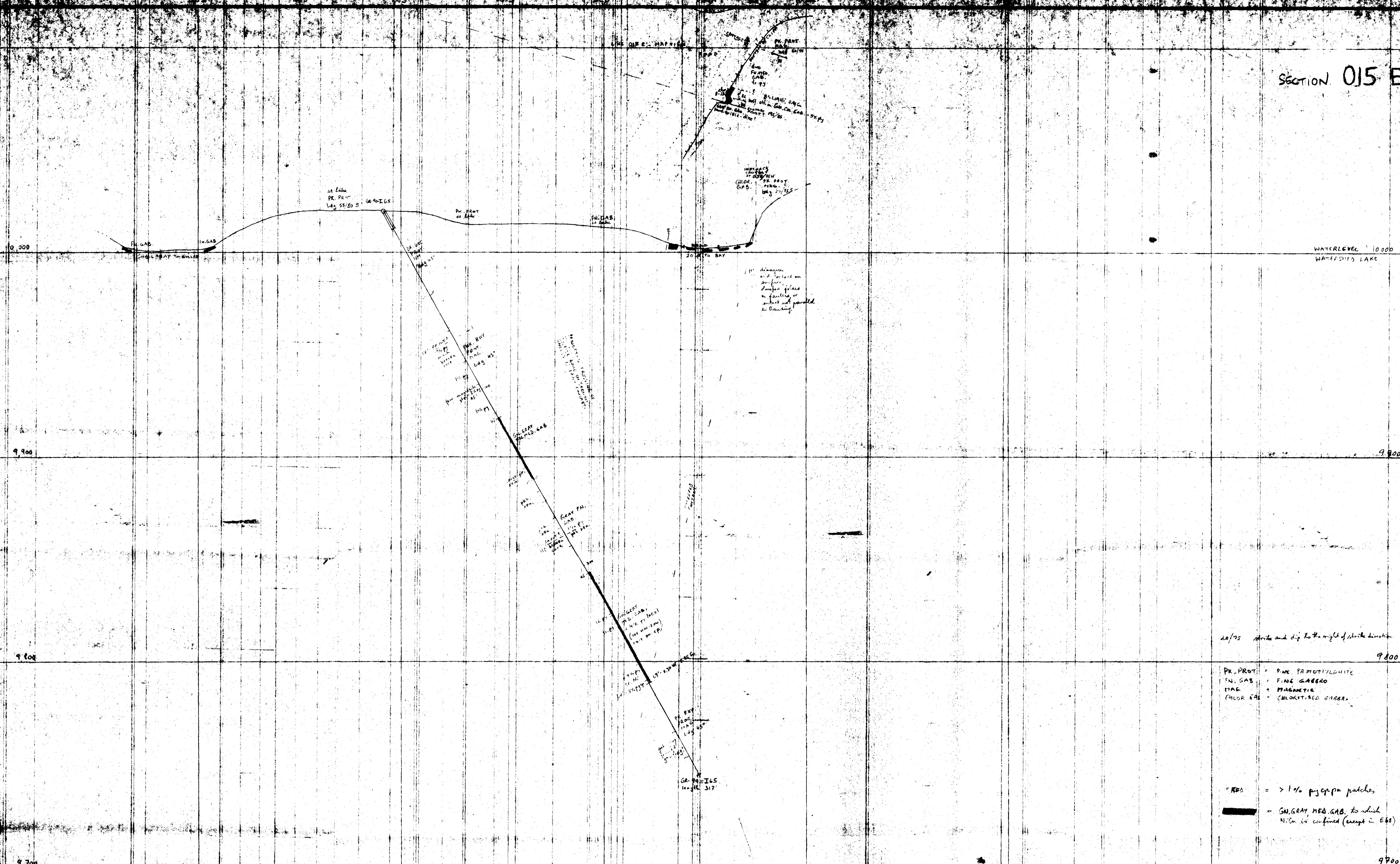
red - 1/4" pipe design and pattern  
yellow - 1/4" pipe design and pattern  
dotted yellow - 1/4" pipe design and pattern

**TIMMINS NICKEL**  
GROVES - JAN. FEB. 1990

**SURFACE  
DIAMOND DRILLING**  
CLAIM IDENTIFICATION  
0 100 200 300 400 Feet



SECTION 015 E



20/75 strike and dip to the right of strike direction

PK. PROT. = Dark PROMETHEANITE  
 FM. GAB. = Fine GABBRO  
 MAG. = MAGNETITE  
 CHLOR. GAB. = CHLORITISED GABBRO.

\*KPS = > 1% pyrope patches  
 SW. GRAY MED. GAB. to which Ni is confined (except in E61)

LEGEND

- alt - altered
- asim - assimilated
- bd - banded
- ch - chert
- frag - fragmental
- m - magnetite
- mag - massive
- serp - serpentine
- sil - silica
- spher - spherulitic
- spin - spinifex
- t - talcose

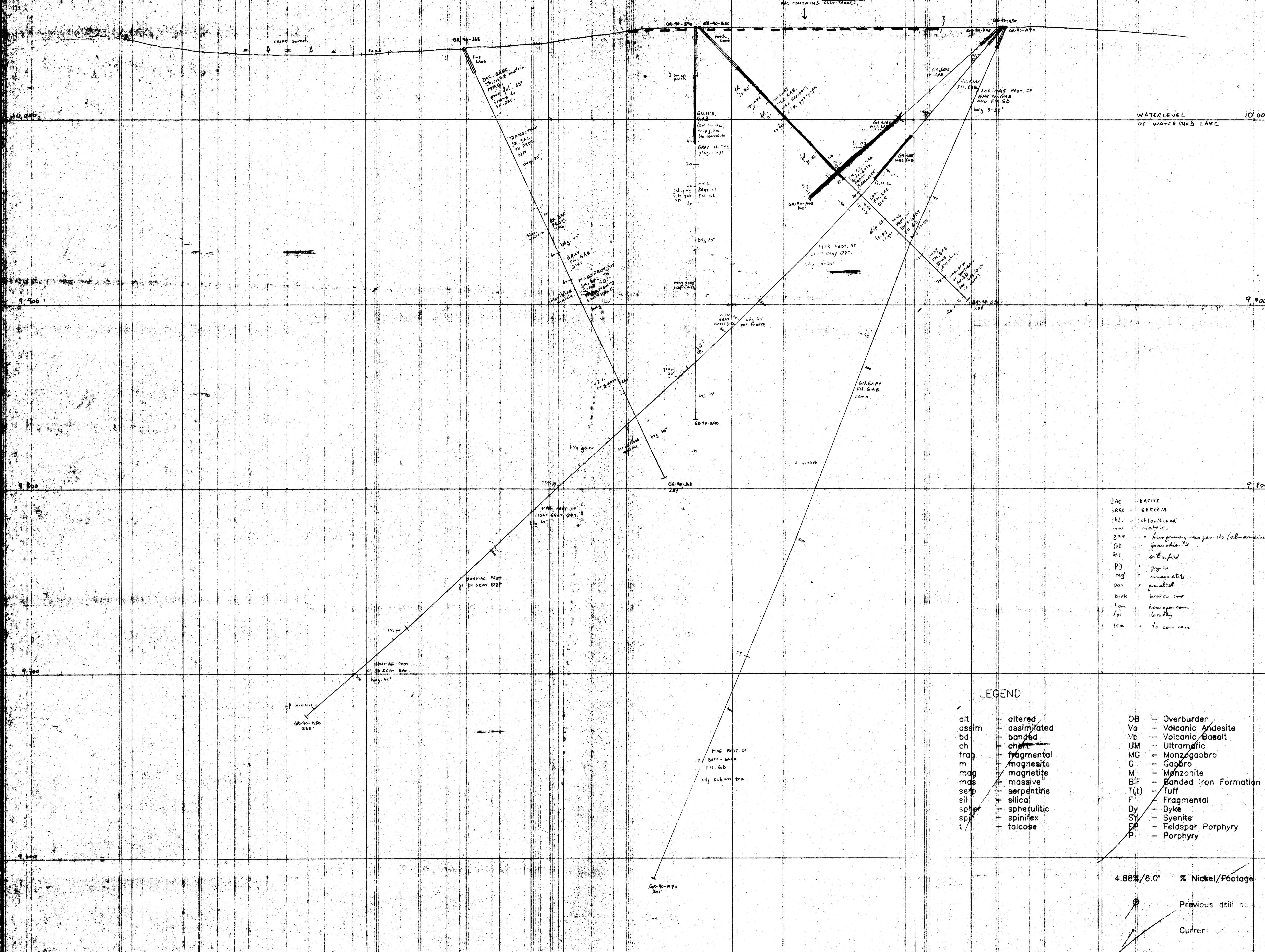
- OB - Overburden
- Va - Volcanic Andesite
- Vb - Volcanic Basalt
- UM - Ultramafic
- MG - Monzogabbro
- G - Gabbro
- M - Monzonite
- BIF - Banded Iron Formation
- T(t) - Tuff
- F - Fragmental
- Dy - Dyke
- Sy - Syenite
- FR - Feldspar Porphyry
- P - Porphyry

- 6.0' % Nickel/Footage
- Previous drill hole
- Current drill hole

**TIMMINS NICKEL**  
 GROVES - JAN. FEB. 1990  
 SURFACE  
 DIAMOND DRILLING  
 CROSS-SECTION 015 E



NOTE: ONE HORIZON OCCURS ONLY  
 OTHERS HAVE 100-FT. SPACINGS  
 HERE BELOW (BASED ON G.A.S.)  
 AND CONTAINS ONLY TRACES.



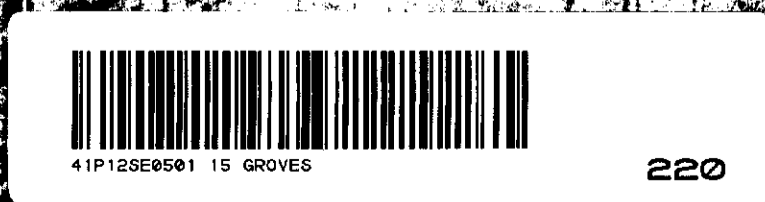
Dac	DACTITE
SREC	SERICITE
chl	chloritoid
mat	matrix
gar	garnet
GD	gabbro
Sil	silica
Pj	pyroxene
Mgt	magnetite
par	paralite
brk	breccia core
hem	hematite
loc	locally
tea	to core

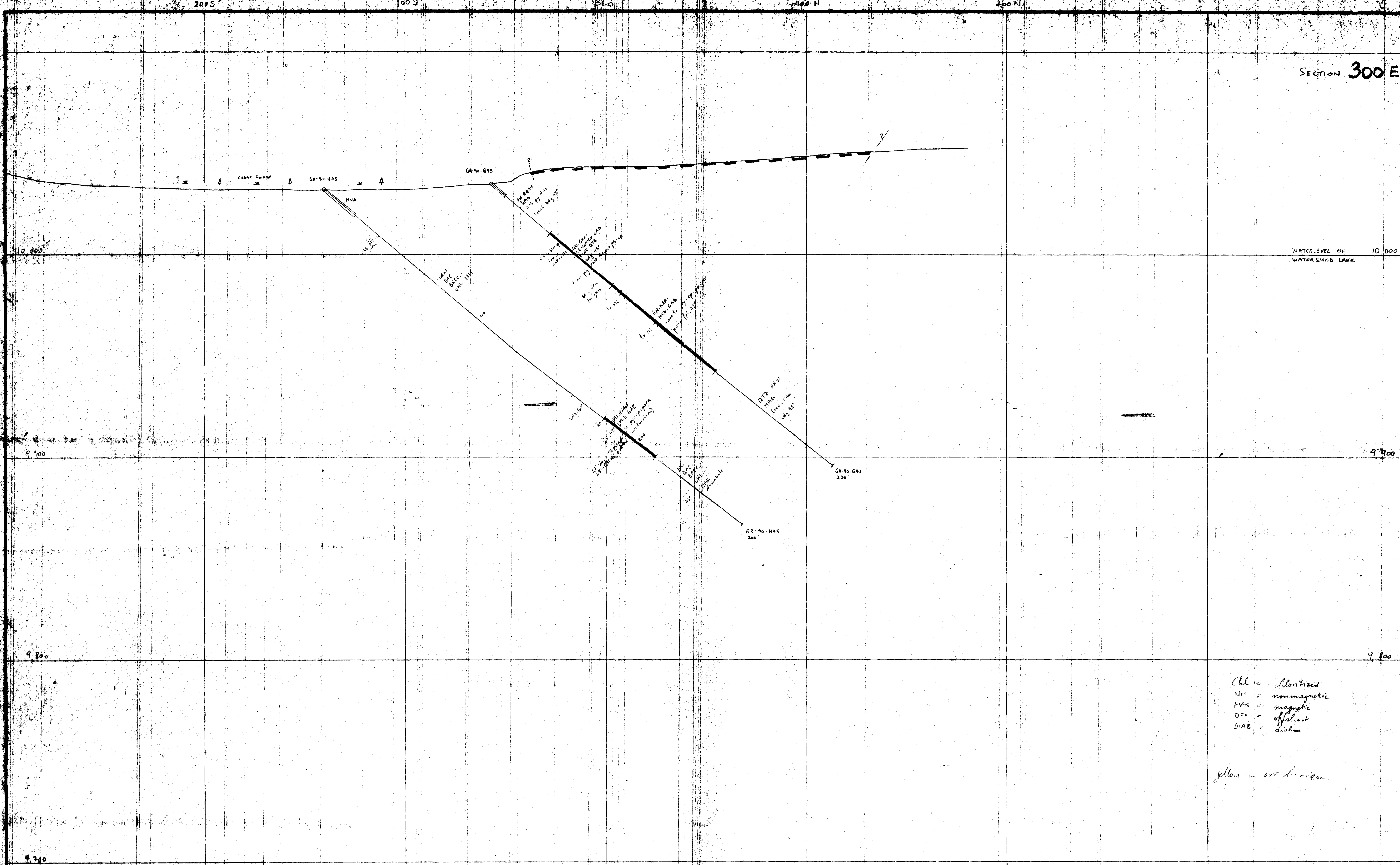
LEGEND

alt	altered	OB	Overburden
assim	assimilated	Va	Volcanic Andesite
bd	banded	Vb	Volcanic Basalt
ch	cherty	UM	Ultramafic
frag	fragmental	MG	Monzogabbro
m	magnetite	G	Gabbro
mag	magnetite	M	Monzonite
mas	massive	BIF	Banded Iron Formation
serp	serpentine	T(t)	Tuff
sil	silica	F	Fragmental
spher	spherulitic	Dy	Dyke
spin	spinifex	Sy	Syenite
t	talcose	FP	Feldspar Porphyry
		P	Porphyry

4.88% / 6.0' % Nickel / Footage  
 Previous drill hole  
 Current

**TIMMINS NICKEL**  
 GROVES - JAN. FEB. 1990  
 SURFACE  
 DIAMOND DRILLING  
 CROSS-SECTION 200 E





WATERLEVEL OF WATERSHED LAKE 10,000

Chl = chlorite  
 NM = nonmagnetic  
 MAG = magnetic  
 OFE = offshoot  
 DIAB = diabase

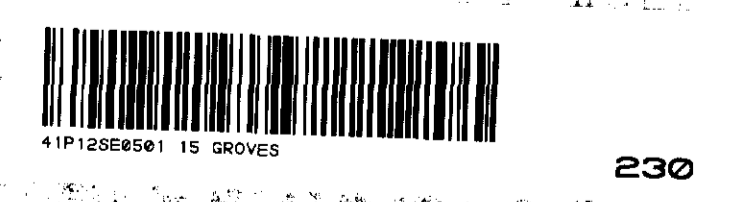
Yellow = ore horizon

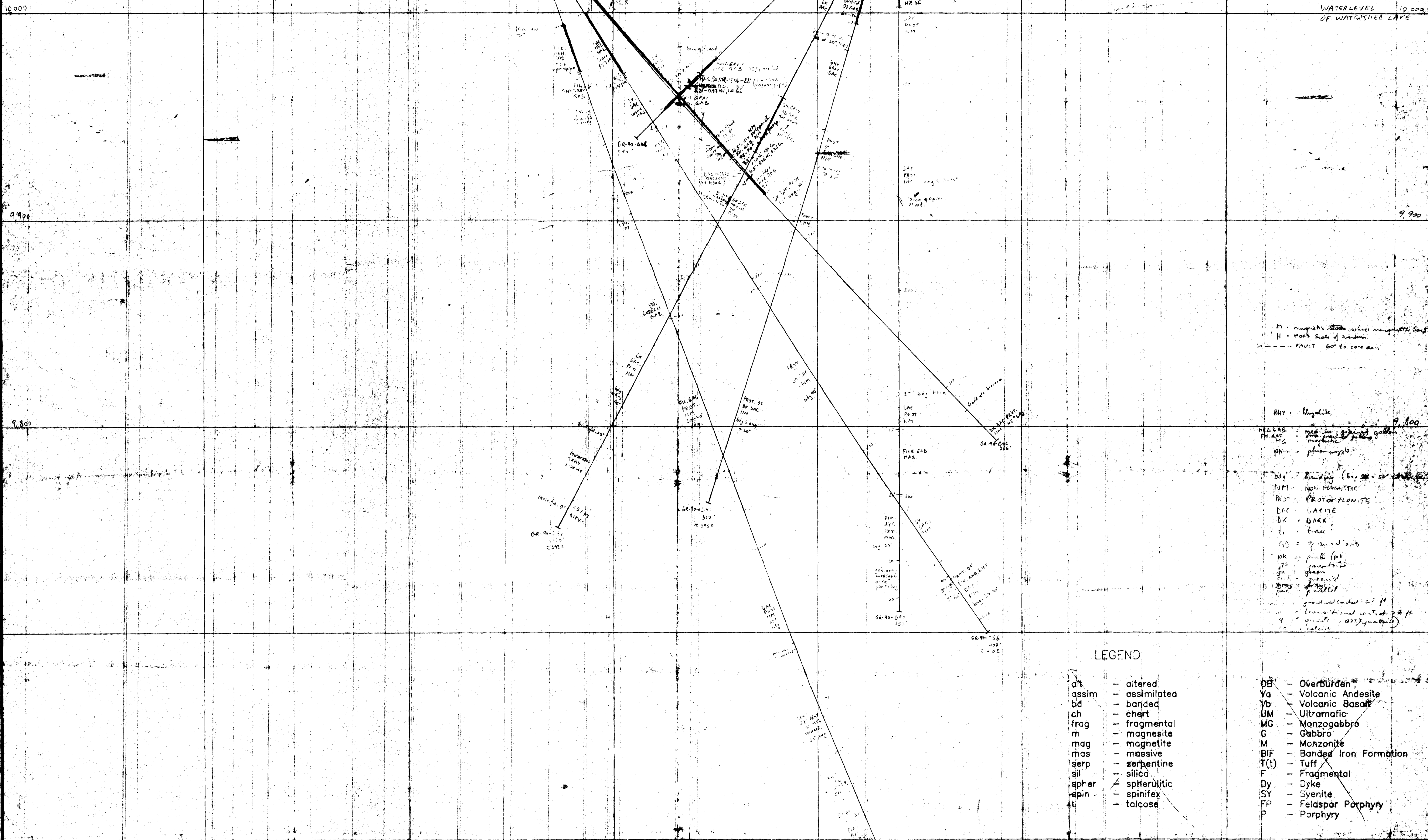
LEGEND

- |       |               |      |                         |
|-------|---------------|------|-------------------------|
| alt   | - altered     | OB   | - Overburden            |
| assim | - assimilated | Va   | - Volcanic Andesite     |
| bd    | - banded      | Vb   | - Volcanic Basalt       |
| ch    | - chert       | UM   | - Ultramafic            |
| frag  | - fragmental  | MG   | - Monzogabbro           |
| m     | - magnesite   | G    | - Gabbro                |
| mag   | - magnetite   | M    | - Monzonite             |
| mas   | - massive     | BIF  | - Banded Iron Formation |
| serp  | - serpentine  | T(t) | - Tuff                  |
| sil   | - silica      | F    | - Fragmental            |
| spher | - spherulitic | Dy   | - Dyke                  |
| spin  | - spinifex    | SY   | - Syenite               |
| t     | - talcose     | FP   | - Feldspar Porphyry     |
|       |               | P    | - Porphyry              |

4.88% / 6.0' % Nickel / Footage  
 ○ Previous drill hole  
 ● Current drill hole

**TIMMINS NICKEL**  
 GROVES - JAN. FEB. 1990  
 SURFACE  
 DIAMOND DRILLING  
 CROSS-SECTION 300 E  
 0 20 40 60 80 100 Feet





WATER LEVEL OF WATERSHED LAKE 10,000

M - magnetic strike-slip fault  
H - north-south fault  
--- FAULT 60° to core axis

RHY - Rhyolite

GR-40-01  
GR-40-02  
GR-40-03  
GR-40-04  
GR-40-05  
GR-40-06  
GR-40-07  
GR-40-08  
GR-40-09  
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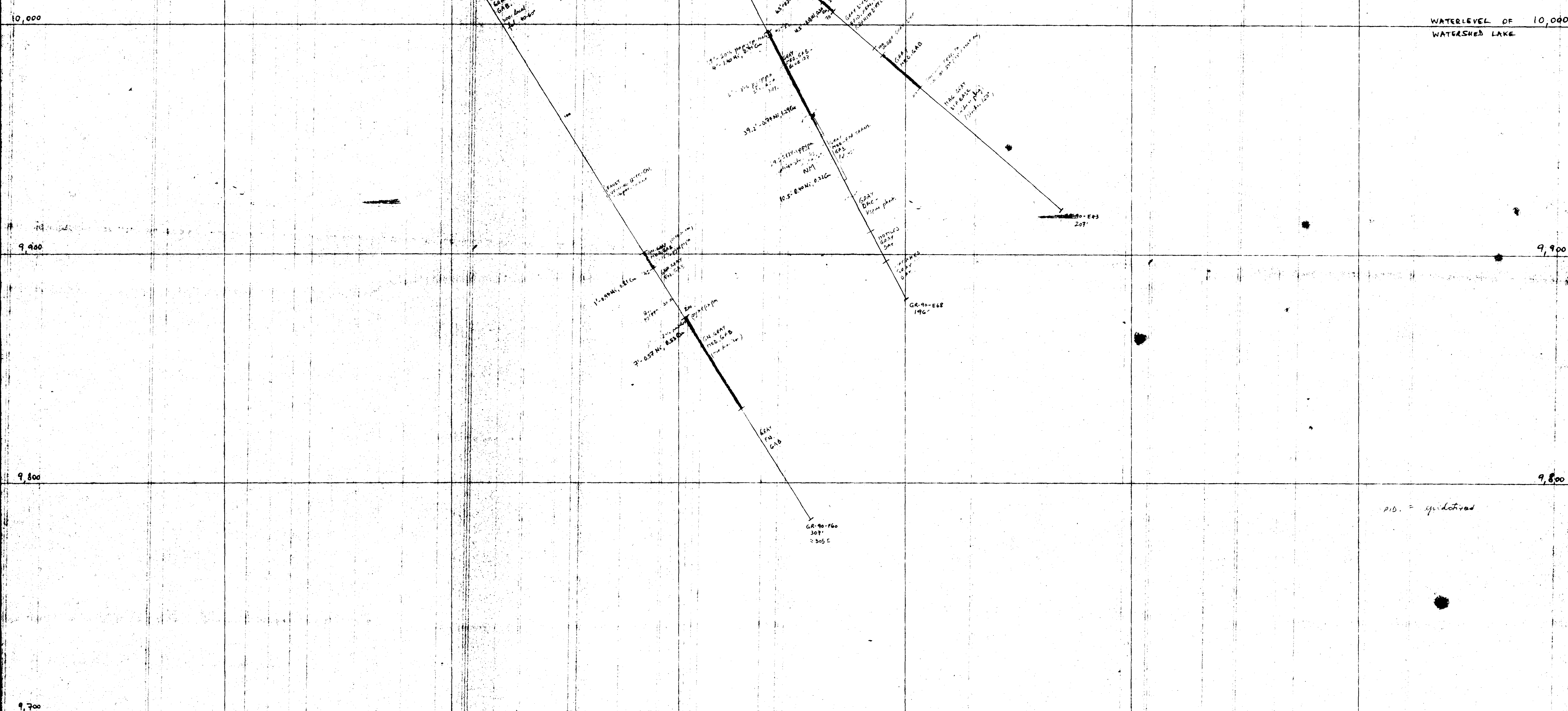
LEGEND

- |       |               |      |                         |
|-------|---------------|------|-------------------------|
| alt   | - altered     | OB   | - Overburden            |
| assim | - assimilated | Va   | - Volcanic Andesite     |
| bd    | - banded      | Yb   | - Volcanic Basalt       |
| ch    | - chert       | UM   | - Ultramafic            |
| frag  | - fragmental  | MG   | - Monzogabbro           |
| m     | - magnetite   | G    | - Gabbro                |
| mag   | - magnetite   | M    | - Monzonite             |
| mas   | - massive     | BIF  | - Banded Iron Formation |
| serp  | - serpentine  | T(t) | - Tuff                  |
| sil   | - silica      | F    | - Fragmental            |
| spher | - spherulitic | Dy   | - Dyke                  |
| spin  | - spinifex    | SY   | - Syenite               |
| tl    | - talcose     | FP   | - Feldspar Porphyry     |
|       |               | P    | - Porphyry              |

4.88%/6.0' % Nickel/Footage  
 ○ Previous drill hole  
 ● Current drill hole

**TIMMINS NICKEL**  
 GROVES - JAN. FEB. 1990  
 SURFACE  
 DIAMOND DRILLING  
 CROSS-SECTION

SECTION 500 E



WATERLEVEL OF 10,000 WATERSHED LAKE

LEGEND

- alt - altered
- assim - assimilated
- bd - banded
- ch - chert
- frag - fragmental
- m - magnetite
- mag - magnetite
- mas - massive
- serp - serpentine
- sil - silica
- spher - spherulitic
- spin - spinifex
- t - talcose
- OB - Overburden
- Va - Volcanic Andesite
- Vb - Volcanic Basalt
- UM - Ultramafic
- MG - Monzogabbro
- G - Gabbro
- M - Monzonite
- BIF - Banded Iron Formation
- T(t) - Tuff
- F - Fragmental
- Dy - Dyke
- SY - Syenite
- FP - Feldspar Porphyry
- P - Porphyry

4.88%/6.0' % Nickel/footage

⊙ Previous drill hole

↗ Current drill hole

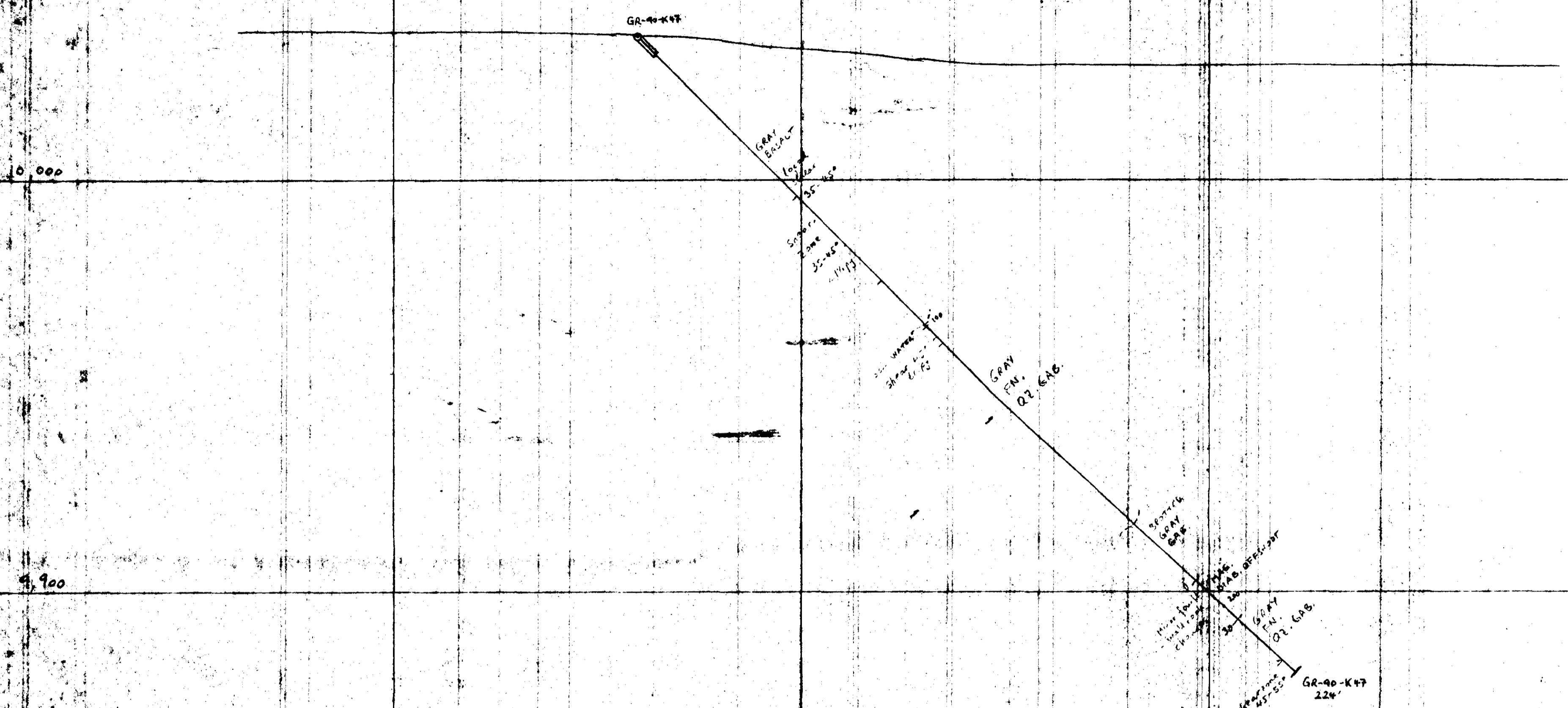
**TIMMINS NICKEL**

GROVES - JAN. FEB. 1990.

**SURFACE DIAMOND DRILLING**



**CROSS-SECTION 500 E**

SECTION 1000 E



LEGEND

- |       |               |      |                         |
|-------|---------------|------|-------------------------|
| alt   | - altered     | OB   | - Overburden            |
| assim | - assimilated | Va   | - Volcanic Andesite     |
| bd    | - banded      | Vb   | - Volcanic Basalt       |
| ch    | - chert       | UM   | - Ultramafic            |
| frag  | - fragmental  | MG   | - Monzogabbro           |
| m     | - magnetite   | G    | - Gabbro                |
| mag   | - magnetite   | M    | - Monzonite             |
| mas   | - massive     | BIF  | - Banded Iron Formation |
| serp  | - serpentine  | T(t) | - Tuff                  |
| sil   | - silica      | F    | - Fragmental            |
| spher | - spherulitic | Dy   | - Dyke                  |
| spin  | - spinifex    | SY   | - Syenite               |
| t     | - talcose     | FP   | - Feldspar Porphyry     |
|       |               | P    | - Porphyry              |

4.88%/6.0' % Nickel/Footage  
 Previous drill hole  
 Current drill hole

**TIMMINS NICKEL**  
 GROVES - JAN. FEB. 1990  
 SURFACE  
 DIAMOND DRILLING  
 CROSS-SECTION 1000 E

