

42A13SE0009 2.12201 GEARY

A Report of the Property of

DAVID J. MEUNIER

Geary Township,
Porcupine Mining Division,
Ontario

bу

R.P. Bowen, P.Eng.

RECEIVED

[[B 17 1989

MINING LANDS SELLION

R.P. BOWEN ENGINEERING INC. P.O. Box 5010, PMS, South Porcupine, Ontario P0N 1K0

(705) 235-5139

30 December 1988



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Geology Map 1"=400 feet (back pocket)

SUMMARY

This report describes the geology underlying the David Meunier claim group in Geary Township, Porcupine Mining Division, Ontario. The claim group is comprised of 15 staked mining claims.

There was no outcrop on the claims and traverses were made by walking the claim lines during and after staking.

It is recommended that lines be cut and ground geophysical surveys be conducted in an attempt to obtain a more complete geological picture of the underlying geology.

INTRODUCTION

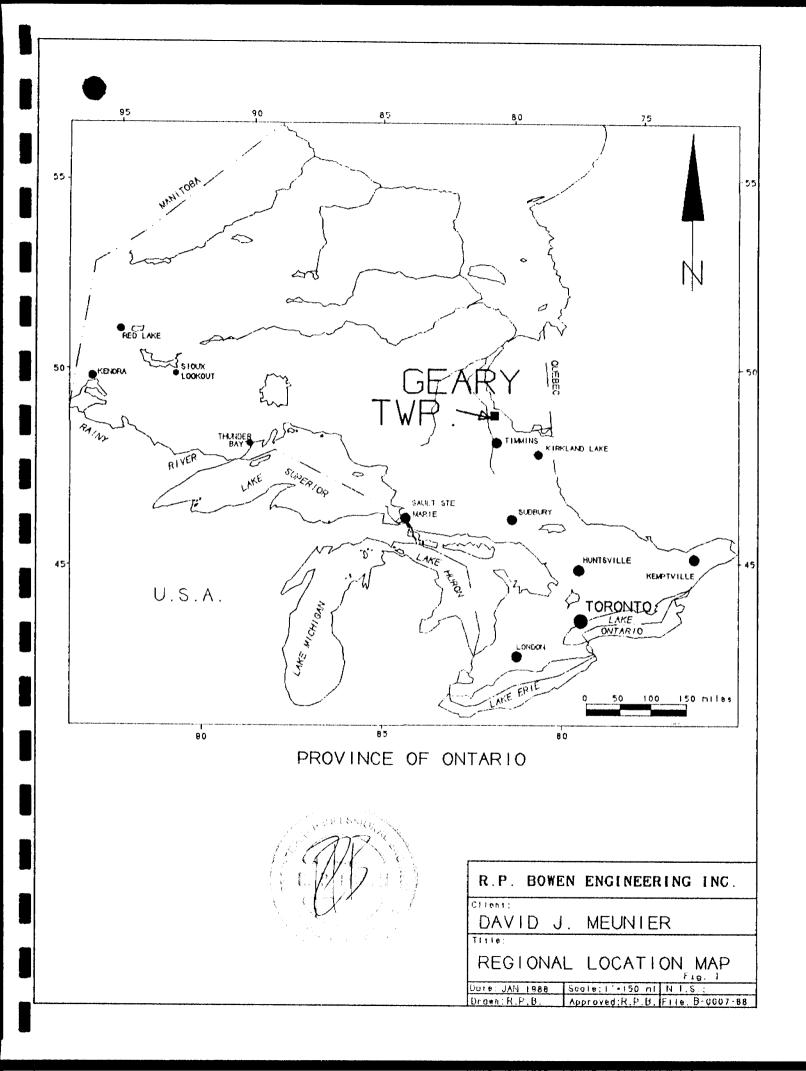
This report describes the geology underlying a block of 20 staked mining claims in Geary Township, Ontario, Porcupine Mining Division.

The claims are held by Mr. David J. Meunier, License M-17157 of 403 Dome Street, South Porcupine, Ontario PON 1HO.

The survey was conducted by R.P. Bowen Engineering Inc., P.O. Box 5010, PMS, South Porcupine, Ontario PON 1KO.

Location and Access

Geary Township lies approximately 25 miles north of Timmins, Figure 1. Geary Township may be reached by a forest access road going north from Highway 576 at Kamiskotia Lake or south from Highway 11 west of Smooth Rock Falls. This road passes approximately three quarters of a mile from the northwestern corner of the claim block.

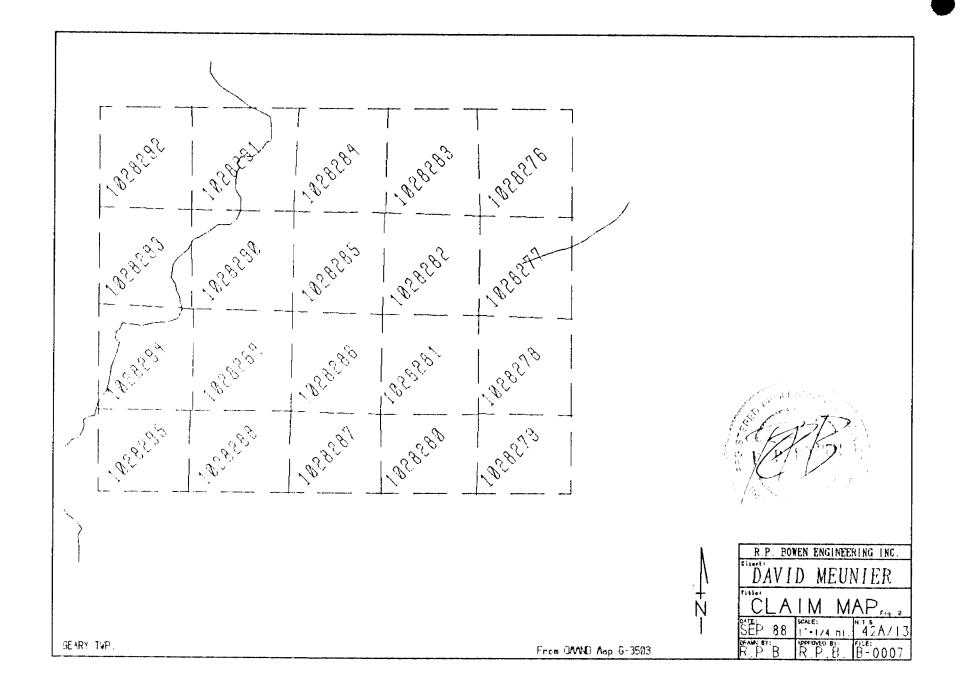


Claims Covered in this Survey

A total of 20 contiguous staked mining claims were covered in this survey.

Claim Number

- P-1028276
- P-1028277
- P-1028278
- P-1028279
- P-1028280
- P-1028281
- P-1028282
- P-1028283
- P-1028284
- P-1028285
- P-1028286
- P-1028287
- P-1028288
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- P-1028290
- P-1028291
- P-1028292
- P-1028293
- P-1028294
- P-1028295



PREVIOUS WORK

Of the several companies that have submitted work in Geary Township only the Keevil Mining Group Ltd. actually diamond drilled on the present Menuier claims. C.C. Huston Property Grid No. 2, T-575, 1955

Grid number two covered the ground west and on strike to the present claim block. A few weak conductors were delineated in geophysical work, however, no follow-up work was done.

The Consolidated Mining and Smelting Company of Canada Limited, T-1034, 1965 Cominco held ground south of the property and conducted an electromagnetic survey and drilled three holes into TURAM conductors. The drilling intersected mostly talc-chlorite and chlorite schists with graphitic slate and pyritic conductors. Great Basin Mines Limited, T 1277, 1965

Great Basin held a block of claims covering the eastern claims up to the township boundary. These 12 claims were surveyed with magnetic and EM methods. The magnetics delineated several diabase dikes. No follow-up work was recommended. Gulf Minerals Canada Limited, T-2367, 1981

Gulf conducted a large exploration program over several townships and several grids were cut over selected areas in Geary Township although none were on the present Meunier claim group. Diamond drilling east of the property intersected intermediate tuffs, wacke with graphitic and basalt tuff. Grids O, P and Q were cut and magnetic surveys conducted over them. Several diamond drill holes were drilled as follow-up.

- P-1 West of the property intersected basalts, komatiites, graphitic-pyrite tuffs and rhyolite with lesser ultramafics.
- Q-1 Collared in oxide iron formation then pyrite with an alternating series of andesite and pyrite to basalt, graphite and ultramafics.
- N-1 Rhyolite tuffs and a pyritic zone were encountered.
- U-1 Intermediate to felsic ash flow tuff with quartz-carbonate veining and calcite-ankerite-sericite alteration was described.
- U-2 Intermediate tuff with quartz-carbonate veining and similar alteration to U-1 was intersected.

Keevil Mining Group Limited., T-1002, 1965

The Keevil Group staked 9 claims over what now is the present Meunier claim group. They conducted a ground magnetic survey over 9 claims and an electromagnetic survey over 6 claims. Follow-up diamond drilling was done on the defined conductors. The first hole (T-65-16) drilled directly down a diabase dike. The next hole (T-65-16A) was stepped over to the west and intersected 5 feet of 0.17 oz/ton gold. The other holes (T-65-17 and T-65-19) intersected felsic tuffs and chemical metasediments as well as graphitic slates that contained sulfides.

Leitch Gold Mines Ltd., T-995, 1965

Leitch staked 15 claims west of the present claims. One diamond drill hole was put down and intersected graphitic chert, intermediate and felsic tuffs. No significant assays were returned, but, shearing and mineralization were prevalent.

David Meunier, T-3129, 1986

David Meunier staked 78 claims and had a geological survey conducted over the claim group in 1986. The claims were not optioned and money was not raised to continue work and they were allowed to lapse. The present claims were restaked over the north-central part of this block.

Phelps Dodge Corporation of Canada Limited, T-1706, 1975

Phelps Dodge conducted a number of large scale surveys and staked numerous claim blocks over geological and geophysically interesting ground. One such group was south of the present claim block. Nothing of significance was detected from the ground magnetic and electromagnetic surveys and no follow-up work was done. Young Davidson Mines, T-1783, 1977

In the same general area of the Cominco drilling Young Davidson staked a group of claims. Ground magnetic and electromagnetic surveys were conducted delineating several conductors. Five diamond drill holes were put down as follow-up. Holes 1 and 2 intersected altered and sheared metavolcanics with sheared diorite. Alteration was carbonate, (Hole one lost circulation and had to be terminated before bedrock was reached so it was redrilled). Hole 3 intersected peridotite and talc-chlorite schist and diorite. Hole 4 intersected peridotite, mafic metavolcanics, a lamprophyre dike and some carbon-rich and amygdaloidal sections. No assays of significance were reported, however, four of the claims were taken to lease for both surface and mining rights.

Yukeno Mines Limited, T-948, 1965

Sulmac Exploration Services Limited conducted ground magnetometer and electromagnetic surveys over claims to the southwest of the present claims. The magnetics indicated a north-south diabase dike along the west side of the property. Lines were cut parallel (east-west) to the stratigraphy so only the dikes were discerned.

GENERAL GEOLOGY

Regional Geology

The regional geology underlying the area of Geary Township is a synformal structure about an east trending axis. Felsic to intermediate pyroclastics ranging from breccias to tuffs with lesser flows form the inner portion of the synform with mafic metavolcanic flows on the outer portions of the limbs. The sequence appears to be repeated further out on the limbs. Lesser mafic and felsic hypabyssal intrusives are noted locally. Cherty beds are noted in diamond drill core and mineralization is noted in diamond drilling north and west of the property. metasedimentary rocks were encountered in diamond drilling as well, however, they were a minor percentage. They were often graphitic slates and were often pyritized indicating deposition in a reducing environment. Alteration appears to be mainly chlorite and carbonate with lesser sericite and green mica and sulfides. Minor komatitic units are indicated by the presence of talc schists. Shearing is described as schistose and other penetrative fabric descriptions. Diabase dikes cut all lithologies and was intersected in at least one diamond drill hole.

Property Geology

The immediate Meunier claims are underlain by a series of predominately felsic to intermediate metavolcanic tuffs and pyroclastics with lesser mafic flows. Only minor clastic and chemical metasedimentary units are present as interpreted from diamond drilling. Graphitic slates with pyrite and felsic tuffs and associated pyroclastics that have been pyritized are part and parcel of the same package. Cherty beds may indicate exhalites at the hiatus between volcanic eruptions. The axis of the syncline described in the foregoing section passes through the Meunier property. Metamorphism appears to greenschist in grade.

Alteration from diamond drilling records is chlorite, sericite, green mica and pyrite. Mineralization is mainly pyrite, however, pyrrhotite and chalcopyrite was also reported. One gold assay of 0.17 ounces gold per ton was reported in the Keevil records.

CONCLUSIONS AND RECOMMENDATIONS

This property is covered with a deep mantle of glacial overburden and a comprehensive program of geophysics including ground magnetic and horizontal loop electromagnetic surveys followed up in selected areas with induced polarization/resistivity surveys will be the most cost effective way to map the underlying geology. Overburden reverse circulation drilling may be used to trace any lodgement till gold trains to a source could be used as a tool to help select diamond drill targets.

REFERENCES

Bright, E.G. and Hunt, D.S.

1972:

Geary Township, District of Cochrane; Ontario Department of Mines and Northern Affairs, Prelim. Map P.739, Timmins Data Series, scale 1 inch to 4 mile. Data compiled 1971.

Pyke, D.R. et al

1973:

Timmins-Kirkland Lake Sheet, Map 2205, Ontario division of Mines, Ministry of Mines and Northern Affairs, scale 1:253,440.

ASSESSMENT WORK FILES

C.C. Huston Property Grid No. 2, T-575, 1955

The Consolidated Mining and Smelting Company of Canada Limited, T-1034, 1965

Great Basin Mines Limited, T-1277, 1965

Gulf Minerals Canada Limited, T-2367, 1981

Keevil Mining Group Ltd., T-1002, 1965

Leitch Gold Mines Ltd., T-995, 1965

David Meunier, T-3129, 1986

Phelps Dodge Corporation of Canada Limited, T-1706, 1975

Young Davidson Mines, T-1783, 1977

Yukeno Mines Limited, T-948, 1965

CERTIFICATION

I, R.P. Bowen, P.Eng., of 142 Eric Crescent, Porcupine, Province of Ontario, certify as follows concerning my report on the Geary Township, Ontario property of David Meunier and dated 30 December 1988.

- 1) I am a member in good standing of:
 - a) The Association of Professional Engineers of the Province of Ontario
 - b) The Canadian Institute of Mining and Metallurgy
 - c) The Society of Mining Engineers of the A.I.M.E.
 - d) The American Society of Photogrammetry and Remote Sensing
- 2) I am a graduate of Michigan Technological University, Houghton, Michigan with a B.S. degree in Geological Engineering obtained in 1970 and a B.S. degree in Engineering Administration obtained in 1971.
- I am a graduate of Mc Gill University, Montreal, Quebec with a Diploma in Geological Sciences obtained in 1972 and a M.Sc. (Applied) in Minerals Exploration obtained in 1973.
- 4) I have been practising my profession in Canada and the United States for the past 20 years.
- I have no direct interest in the properties, leases, or securities of David Meunier nor do I expect to receive any.
- 6) The attached report is the product of:
 - a) Data listed in the references.
 - b) Assessment work files Timmins Resident Geologist's Office and the Toronto Assessment Records Office.
 - c) Discussions with colleagues who have worked in the area.
 - d) My personal acquaintance with the Timmins geology and other properties in the area, some of which I have examined and worked on for other companies.
 - e) A personal visit to the property both from 25 to 30 November 1986 and 9 to 23 May 1988.

Dated this 30th day of December 1988 Timpins, Ontario

R.P. Bowen, P.Eng.

Ministry of VV 8's Norther i' Development and Mines

W/8906 COCTO Report of Work

(Geophysical, Geological, Geochemical and Expenditures





Certified by (Signature)

	2.1220	/	Mini	42A13SE0009 2	.12201 GEAR	**************************************		000
Type of Survey(s)	•				Lownship		_	900
Claim Holder(s) 4 06/0	BL				Cil	Prospector	s Licence No.)
Address	MBPNO					M- 3	20028	
Survey Company	BUK	///	اللاث	Date of Survey	(from & to)	ון	otal Miles of line	Cut
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For first survey:	Geophysical	Claim	Prefix	Number	Days Cr.	Prefix	Number	Days Cr.
Enter 40 days, (This	- Electromagnetic		P_	102822				
· includes line cutting)	- Magnetometer			1028277				
For each additional survey: using the same grid:	- Radiometric		11 11000	1028278				
Enter 20 days (for each)	· Other			1028271				
	Geological	27)	λ	1 1	*			
	Geochemical		4 9 1	1028280				
Man Days	Geophysical	Days per		1028281				
Complete reverse side		Claim		1028252				
and enter total(s) here	- Electromagnetic			1025283				
RECEIVI	- Magnetometer			1028284				
ILC LIVI	- Barliometric			1028285	-			
JAN 2 i 198	9 - Other			1028286				
O/ACC - 100	Geological			1028287	İ			
MINING LANDS SE	CT4014·····cat	[1026285		i !		
Airborne Credits		Days per Claim		1		1		
Note: Special provisions	i - Electromagnetic			1028789				
credits do not apply to Auboine Surveys.	Magnetometer			1028290				
to windering Surveys.	Radiometric			1021291				
Expenditures (excludes powe	i :			1028292		DE	CODDE	.
Type of Work Performed	.c. stellphingr			1025213		HE	CORDE	
				1025244				
Performed on Claim(s)				1028295	-		AN 1 3 198	39 [[
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choice. Enter number of days in columns at right.	c eredits per claim selecte			For Office Use Or s College Becomes	7	Kining I	?	
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Certification Vesifying Repor	it of Work		-t	your year	wia >	rane		ار
Thereby certify that I have a por witnessed same during and	personal and intimate kr	owledge of and the ann	the facts set exed report is	forth in the Report a true.	f Work annex	ed hereto, ha	izing performed t	w work
Name and Postal Address of Pers	on Certifying	τ			·/			



Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

April 20, 1989

Mining Lands Section 3rd floor, 880 Bay Street Toronto, Ontario M5S 1Z8

Telelephone: (416) 965-4888

Your file: W8906-020 Our file: 2.12201

Mining Recorder Ministry of Northern Development and Mines 60 Wilson Avenue Timmins, Ontario P4N 2S7

Dear Sir:

Re: Notice of Intent dated March 14, 1989 Geological Survey submitted on Mining Claims P 1028276 et al

in the Geary Township.

UNTARIC GEOLOGICAL SURVEY ASSESSIVIENT FILES OFFICE

APR 26 1989

RECEIVED

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan

Provincial Manager, Mining Lands

Mines & Minerals Division

AB:eb
Enclosure

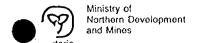
cc: Mr. G.H. Ferguson
Mining and Lands Commissioner
Toronto, Ontario

Mike Wabano Timmins, Ontario

R.P. Bowen
Porcupine, Ontario

Resident Geologist Timmins, Ontario

David J. Meunier South Porcupine, Ontario



Technical Assessment Work Credits

2.12201 Mining Recorder's Report of W8906-020 March 14, 1989

Date

Recorded Holder Mike Wabano				
Township or Area Geary Township				
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed			
Geophysical				
Electromagneticdays	P 1028276 to 295 incl.			
Magnetometer days				
Radiometricdays				
Induced polarizationdays				
Other days				
Section 77 (19) See "Mining Claims Assessed" column				
Geologicaldays				
Geochemical days				
Man days [Airborne [
Special provision (X) Ground (C)				
Credits have been reduced because of partial coverage of claims.				
Credits have been reduced because of corrections to work dates and figures of applicant.				
Special credits under section 77 (16) for the following m	ining claims			
No credits have been allowed for the following mining claims				
not sufficiently covered by the survey insufficient technical data filed				
Credits reduced due to excessive spacing between traverse lines.				

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.



837 (85/12)

Ministry of Northern Development and Mines

Geophysical-Geological-Geochemical Technical Data Statement

File	

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s)	logical	
Township or Area Geary		MINING CLAIMS TRAVERSED
Claim Holder(s) Day 10	i we unter	List numerically
• •	owen Engineering Inc.	P 10282 76 (prefix) (number)
Address of Author South		
		P 1028278
Covering Dates of Survey_9 Total Miles of Line Cut		P 1028279
		P 1028280
SPECIAL PROVISIONS CREDITS REQUESTED	DAYS Geophysical per claim	P 1028281 P 1028282 P 1028283 P 1028284
	Electromagnetic	P. 1028282
ENTER 40 days (includes	-Magnetometer	P 1028283
line cutting) for first survey.	Radiometric	P 1028284
ENTER 20 days for each additional survey using	Other	P 1028285
same grid.	Geological 20	P 1028286
AIDDODNE ODEDITE (co)	Geochemical	
	al provision credits do not apply to airborne surveys) omagneticRadiometric	P. 102828.7
	(enter days per claim)	P 1028288
DATE: 30 Sep 1988 s	SIGNATURE: Author of Report or Agent	P 1028289
		P 1028290
	2 2011	P 1028291
Res. Geol(Previous Surveys	Qualifications 2:225/	P 1028292
File No. Type Da	te Claim Holder	P 1028293
		P 1028294
		. P. 1028295
		TOTAL CLAIMS 20

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Nu	mber of Stations	Number	of Readings	
Sta	tion interval	Line space	ing	
Pro	file scale			
Cor	ntour interval			
oj I	nstrument			
⊞	Accuracy — Scale constant			
I I	Diurnal correction method			
	Base Station check-in interval (hours)			
F	Base Station location and value		2	
-				
ol I	nstrument			
	Coil configuration			
3 0	Coil separation			
¥ ¥	Accuracy	was the second s		
χ X	Method: Fixed transmitter	☐ Shoot back	☐ In line	Parallel line
i F	Frequency	(
	arameters measured			
I	nstrument			
S	cale constant			
	Corrections made		· · · · · · · · · · · · · · · · · · ·	
- KA - B				
51 B	ase station value and location	e de la companya de l		
E	levation accuracy			
I	nstrument			
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P	rarameters – On time	F ₁	requency	***************************************
×	Off time	R	ange	
VII	- Delay time			
STI	- Integration time			
RESISTIVITY T	ower			
	Electrode array			
F	electrode spacing			
Γ	ype of electrode			

INDUCED POLARIZATION



I

SELF POTENTIAL	
Instrument	Range
Survey Method	
Corrections made	
	· · · · · · · · · · · · · · · · · · ·
RADIOMETRIC	
Instrument	
Values measured	
Energy windows (levels)	· · · · · · · · · · · · · · · · · · ·
Height of instrument	Background Count
Size of detector	
Overburden	
1)	ype, depth — include outcrop map)
OTHERS (SEISMIC, DRILL WELL LOGGIE	NG ETC.)
Type of survey	
Instrument	
Accuracy	
Parameters measured	
Additional information (for understanding re	esults)
AIRBORNE SURVEYS	
Type of survey(s)	
Instrument(s)	
(5	specify for each type of survey)
Accuracy(s	specify for each type of survey)
Aircraft used	
Sensor altitude	
Navigation and flight path recovery method.	
Aircraft altitude	Line Spacing
Miles flown over total area	Over claims only

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken						
Total Number of Samples	ANALYTICAL METHODS					
Type of Sample(Nature of Material) Average Sample Weight Method of Collection	p. p. m. p. p. b.					
	Cu, Pb, Zn, Ni, Co, Ag, M	•				
Soil Horizon Sampled						
Horizon Development		•				
Sample Depth	Extraction Method					
Terrain	Analytical Method	 				
	Reagents Used					
Drainage Development	Field Laboratory Analysis					
Estimated Range of Overburden Thickness	No. (·				
	A land and Mark and					
	Reagents Used					
SAMPLE PREPARATION (Includes drying, screening, crushing, ashing) Mesh size of fraction used for analysis	Commercial Laboratory (
	Extraction Method					
	Analytical Method					
	Reagents Used					
General	General					

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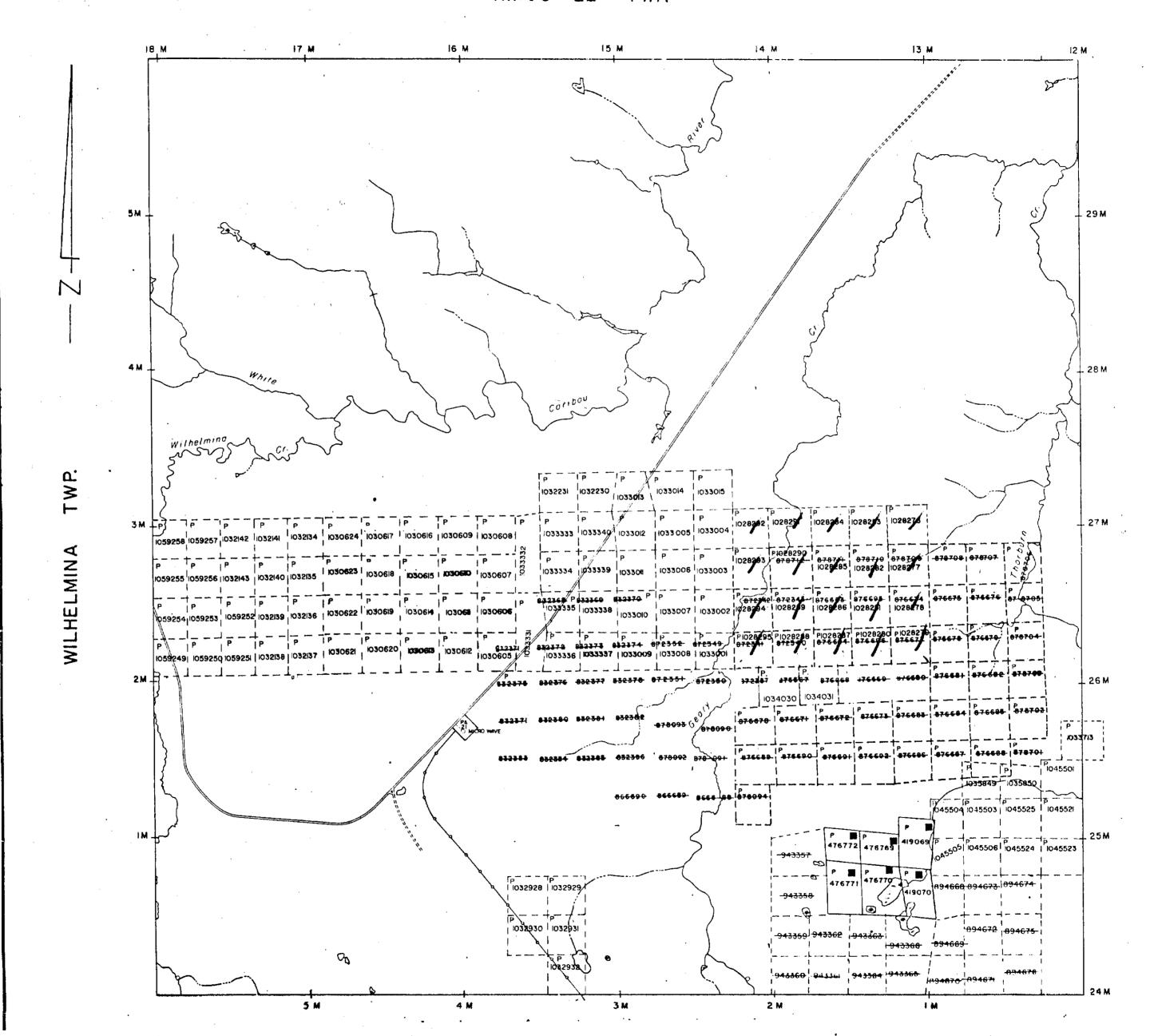
Clocke

AS WITHDRAWN FROM DISPOSITION

VI.T.O. — MINING RIGHTS ONLY S.R.O. — SURFACE RIGHTS ONLY

.+ s. - MINING AND SURFACE RIGHTS

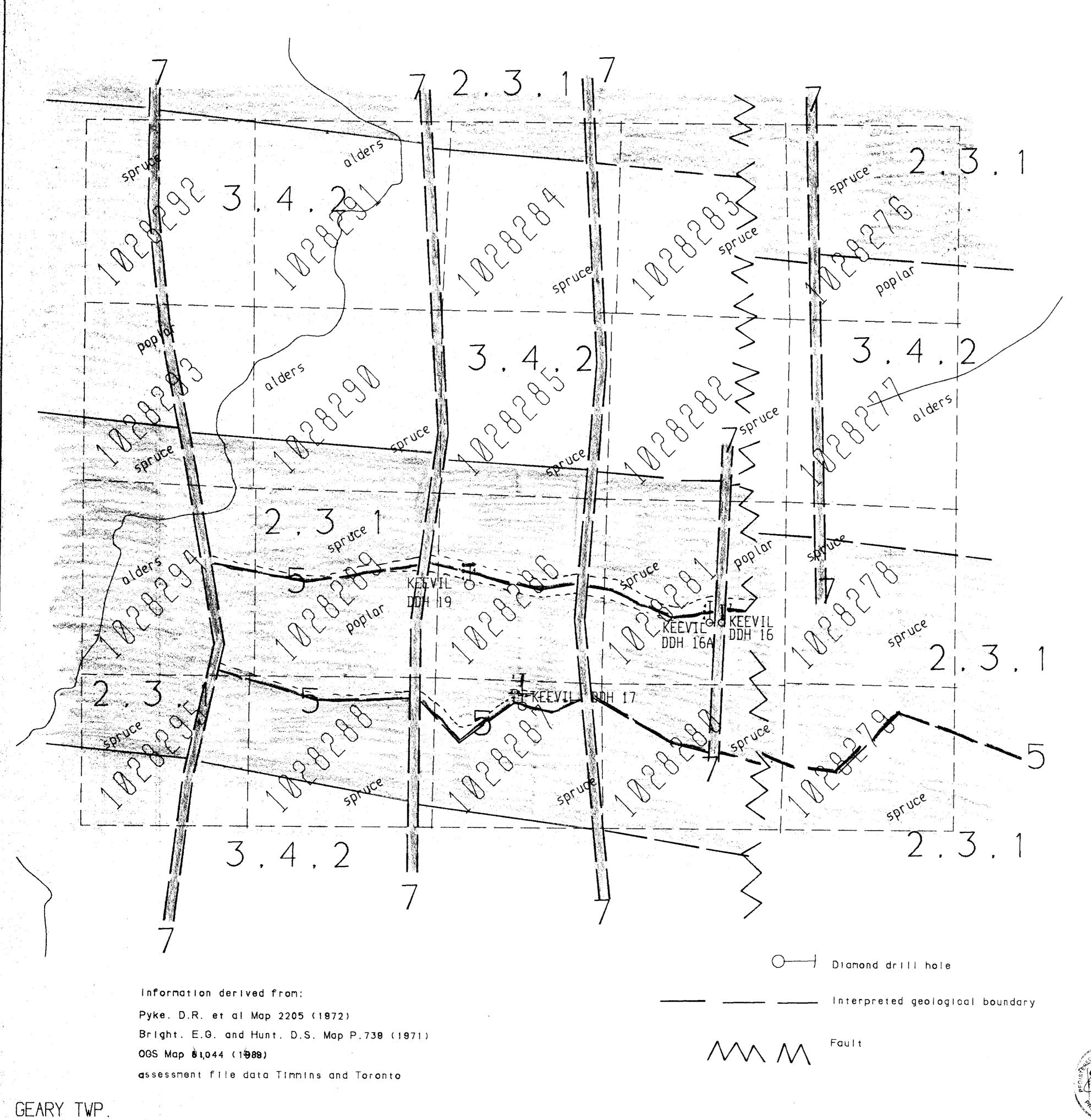
Order No. Date Disposition File



DECENTED IN THE BUILDING OF THE PARTY OF THE



THORBURN TWP.



LEGEND

LATE TO MIDDLE ARCHEAN

MAFIC INTRUSIVE ROCKS

Diabase dike

/NTRUSIVE CONTACT

EARLY ARCHEAN

CLASTIC METASEDIMENTARY ROCKS

- Slate & quartzite

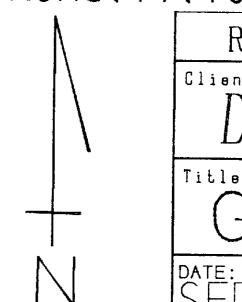
 CHEMICAL METASEDIMENTARY ROCKS
- Sulfide and graphite units

 FELSIC METAVOLCANIC ROCKS
- 4 Tuffs & pyroclastics

 INTERMEDIATE METAVOLCANIC ROCKS
- 3 Tuffs & flows

MAFIC METAVOLCANIC ROCKS
Flows & chlorite schists

Komatiitic units 2.12201



R.P. BOWEN ENGINEERING INC.

Client:

DAVID MEUNIER

GEOLOGY MAP

DATE: SCALE: 400 N.T.S. 42A/13

DRAWN BY: APPROVED BY: FILE:
R.P.B. R.P.B. B-0007

LUEARY