010

2.13402

Geological Report

Concession 5, Lots 6 &7

McCart Township

Timmins Area

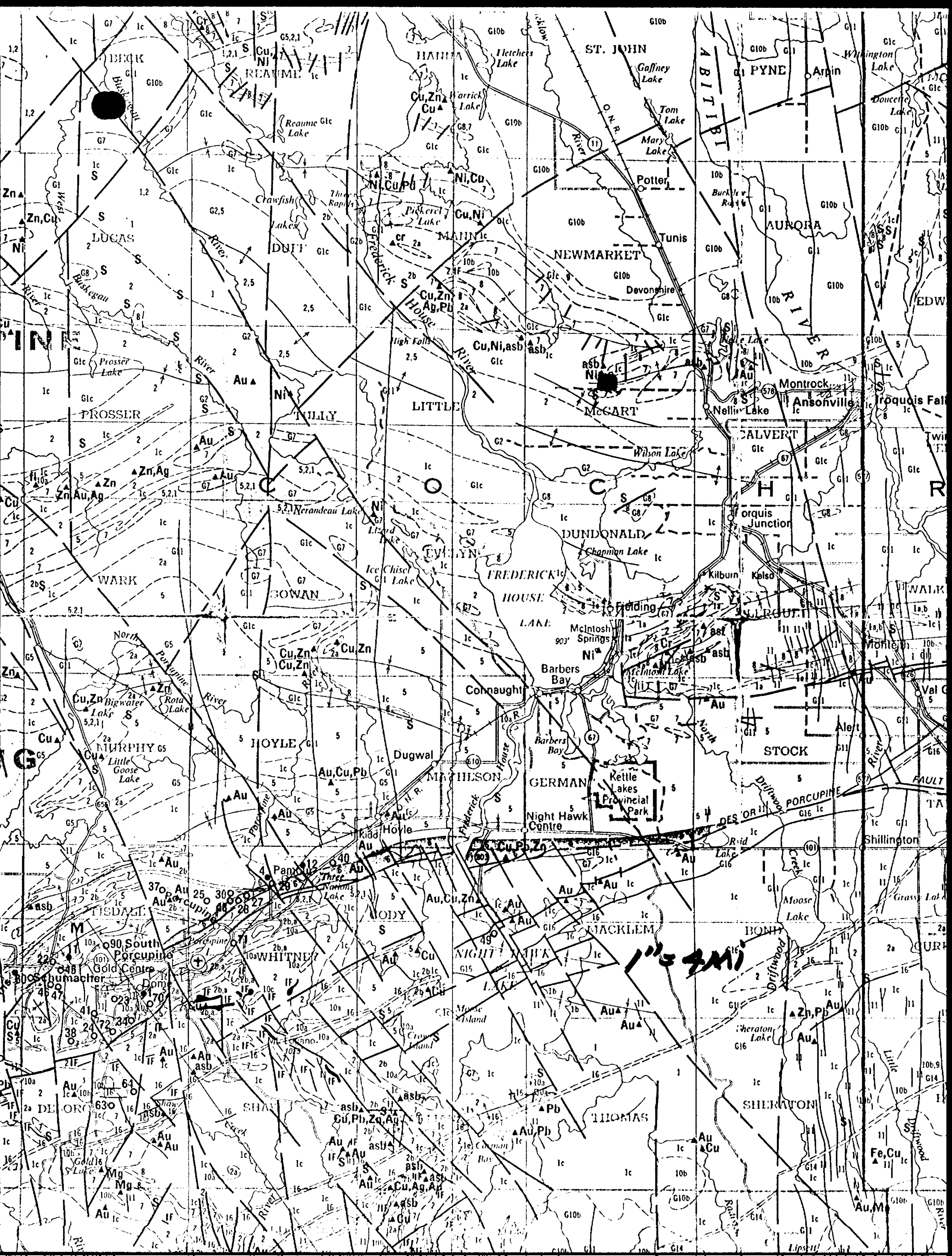
June, 1990

D. R. Pyke

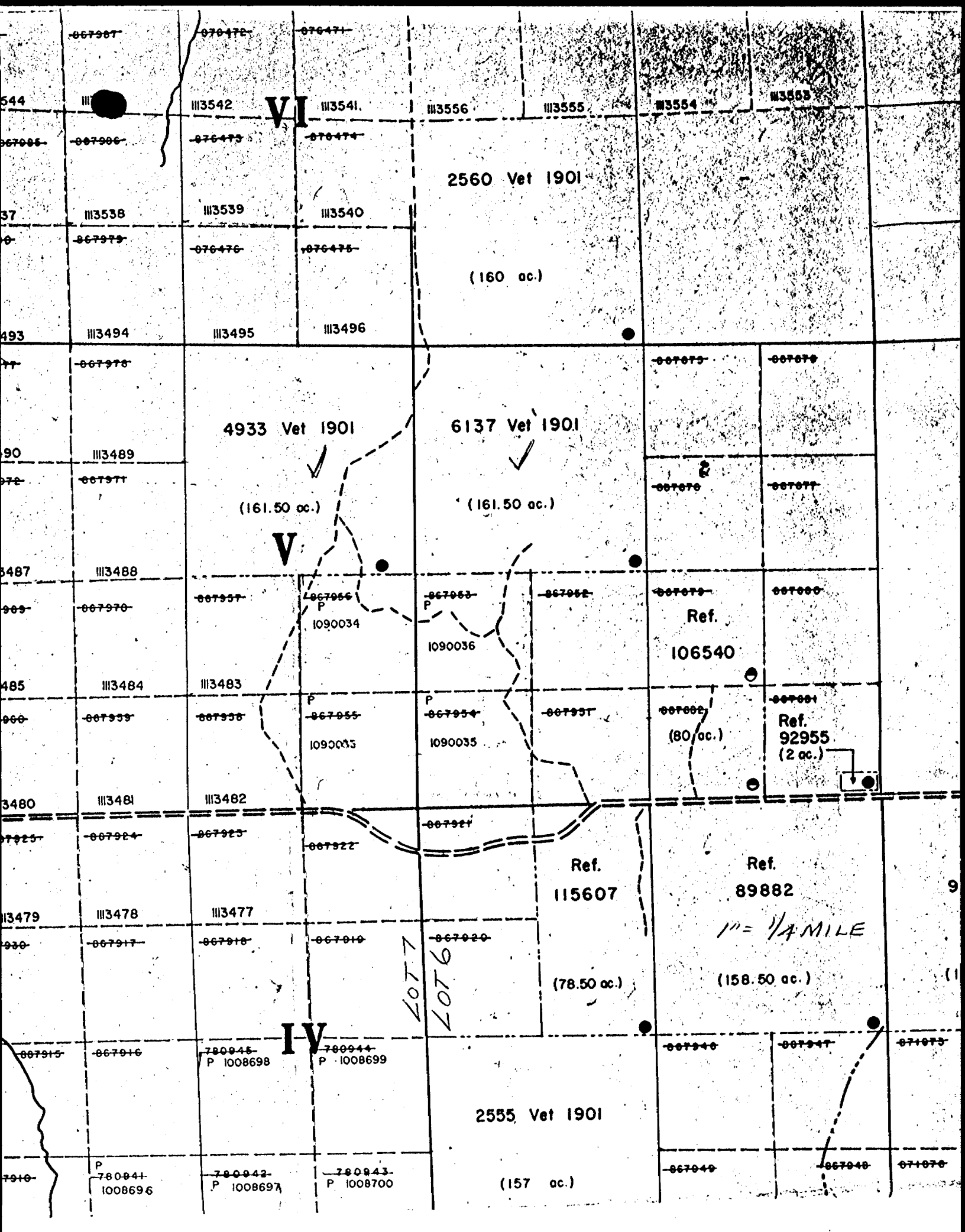
CONTENTS

Maps - 1 included

Figures - 2 included



BECK
REAUME
HANNA
ST. JOHN
PYNE
Arpin
ABITIBI
LUCAS
DUFF
MANN
NEWMARKET
AURORA
Reaume Lake
Fletchers Lake
Gaffney Lake
Tom Lake
Mary Lake
Warrick Lake
Wilkington Lake
Doucette Lake
Potter
Tunis
Devonshire
Crawfish Lake
Three Rapids
Pickerel Lake
Buckeye Rapids
High Falls
Frederick House River
Buskegau River
West River
PROSSER
Prosser Lake
TULLY
LITTLE
McCART
Nellie Lake
Montrock
Ansonville
Iroquois Falls
CALVERT
Wilson Lake
Nellie Lake
Nerandeau Lake
Lizard Lake
EVELYN
DUNDONALD
Chapman Lake
Iroquois Junction
Kilburn
Kelso
WARK
GOWAN
Ice Chisel Lake
FREDERICK HOUSE LAKE
Fielding
McIntosh Springs
McIntosh Lake
Barbers Bay
Connaught
WALKER
Monteith
Val Gagné
North Porcupine River
Bigwater Lake
Rota Lake
MURPHY
Little Goose Lake
HOYLE
Dugwal
MATHESON
GERMAN
Kettle Lakes Provincial Park
Night Hawk Centre
STOCK
Alert
Driftwood River
PORCUPINE DESTOR FAULT
Shillington
Kidd
Hoyle
Pamour
Three Nations Lake
Porcupine
TISDALE
South Porcupine
Gold Centre
Schumacher
Porcupine L.
WHITNEY
CODY
NIGHT HAWK LAKE
MACKLEM
BOND
Moose Lake
Mouse Island
Crown Island
Sheraton Lake
SHERATON
THOMAS
DELORO
SHAW
Connaught Bay
Gold Lake
1" = 4 mi


VI
V
IV
2560 Vet 1901
(160 ac.)
4933 Vet 1901
(161.50 ac.)
6137 Vet 1901
(161.50 ac.)
Ref.
106540
(80 ac.)
Ref.
92955
(2 ac.)
Ref.
115607
(78.50 ac.)
Ref.
89882
1" = 1/4 MILE
(158.50 ac.)
2555 Vet 1901
(157 ac.)
LOT 7
LOT 6
1090034
1090036
1090033
1090035
1008698
1008699
1008696
1008697
1008700
III3538
III3539
III3540
III3541
III3542
III3555
III3556
III3553
III3554
III3494
III3495
III3496
III3489
III3488
III3484
III3483
III3481
III3482
III3478
III3477

Geological Report

McCart Township Area

Introduction

This report covers the general geology of the following four claims in the north central part of McCart Township, Porcupine Mining Division:

P1090033	-	SE1/4, S1/2, Lot 7, Conc 5
P1090034	-	NE1/4, S1/2, Lot 7, Conc 5
P1090035	-	SW1/4, S1/2, Lot 6, Conc 5
P1090036	-	NW1/4, S1/2, Lot 6, Conc5

Access and Location

The claim group is approximately 30 miles NE of Timmins and 8 miles west of Iroquois Falls. Highway 11 passes within 3.5 miles of the property in Calvert Township, where a good road extends west along the Concession 4-5 boundary, directly to the property.

Previous Work

Other than regional compilation maps, the only published map of McCart Township is a preliminary map by Satterly (1953).

Nickel mineralization was known to occur on the property as early as 1916 (Baker, 1917), when samples from the Don O'Connor property in Lot 7, Conc 5 reportedly contained up to 3 per cent nickel.

During the 1950's, asbestos fibre was extensively explored for in the ultramafics in Lots 6 & 7 of Concession 5. Although a number of trenches were noted in the ultramafics on the current property, some of which contain minor fibre, the bulk of the exploration work appears to have been

Undertaken in the north half of Lots 6 & 7.

In 1957, Geo-Technical Development Company Limited conducted magnetic and electrical resistivity surveys over the property. Although five drill holes were recommended to test various resistivity anomalies, there is no record of follow-up drilling.

In 1961, Union Mining Corporation drilled one hole (#U-2) for 763 feet to test the serpentinite - volcanic contact zone in the north part of the property along which Ni-sulphide mineralization was known to occur. Only minor pyrrhotite and pyrite was reported, and most of this was confined to a graphitic argillite at the serpentinite - volcanic contact. No assays are reported.

In 1986, Ferderber Geophysics flew a magnetic-VLF survey over a large part of the NW quarter of M cCart Township, which included the present claims. No follow-up work was reported.

Recently, the Ontario Geological Survey (1988) flew a combined magnetic and INPUT survey over the north Timmins area, which included McCart Township.

Present Survey

The present survey was done intermittently by D. Pyke over the period August 21-October 2, 1989. A total of four days were spent on the property. An aerial photogragh at a scale of 1 inch to 400 feet was used for mapping control. As there is extensive barren outcrop exposure on the claim group, it was not necessary to run systematic traverse lines, as one can easily inspect the outcrops with a high degree of precision as to location.

Property Geology

The map as presented is at best preliminary, as both the quality and

[redacted]xtent of bedrock exposure is unique for the north Timmins area, and certainly warrants a more detailed examination.

There are essentially two main rock types underlying the property: - 1) ultramafic intrusive rocks consisting largely of serpentinized dunite - peridotite and, 2) komatiitic volcanics - dominately basaltic, with lesser ultramafic compositions.

The ultramafic intrusive rocks, confined to the SE and northern part of the property, are commonly massive, orange brown, orange grey to blue grey weathering, and dark blue black or locally medium green on fresh surfaces. Irregular fracturing and local development of asbestos fibre is common. In the NW part of the property one to two meter wide pyroxene-rich zones impart a layering to an otherwise homogeneous appearing massive rock.

The komatiitic volcanics are medium grey weathering, light to medium grey fresh, and generally display a characteristic polygonal jointing or polysuturing structure on the weathering surface which is diagnostic of komatiitic flows. Pyroxene spinifex, consisting of elongate subparallel pyroxene crystals to 4 inches in length was observed at two localities and form zones up to 3 feet thick overlying a serpentine-tremolite basal portion up to 30 feet thick. Most of the basaltic komatiites are pillowed, some of which are seen to form elongated tubes up to 10 feet in length. Columnar jointing is pronounced in the flows immediately south of the serpentinite contact in the north half of the property.

Structurally, the rocks trend in an east to NE direction, and where dips were discernable, appear to be largely at a shallow (20-30 degree) angle to the north. An east trending anticline-syncline pair is recognized on the basis of pillow facings, and from the known dips,would be highly overturned to the south.

[redacted]lineralization

Discontinuous 'pockets' of pyrrhotite-pyrite mineralization (3-5%) form rusty weathering gossan zones at the contact of the serpentinite and komatiitic volcanics, and locally up to 400 feet north of the contact zone. A number of old pits and treenches are evident along this zone which forms part of the long recognized mineralized area locally containing up to 3 percent nickel (Baker, 1917). Sampling of the mineralized outcrops and trenches was not undertaken during the present survey.

Recommendations and Conclusions

Because of the excellent rock exposure on the claim group it is recommended that detailed mapping and selective prospecting be undertaken. Although a number of trenches occur along the known mineralized zone at or near the serpentinite-komatiite contact, there is as yet no detailed structural information as to the attitude and plunge of the sulphide zones. Only minimum drilling is known to have been undertaken, and it is doubtful if the platinum potential of the ultramafic complex has been addressed. In addition, a VLF and magnetic survey should be completed over the property to assist in establishing the geological data base.

W. R. Eyke.

References

Baker, M B.

1917: Ontario Bureau Mines, Vol XXVI, p.270-271

Ontario Geological Survey

1988: Airborne Electromagnetic and Magnetic Survey, Timmins Area, McCart Township, Map 81058, Scale 1:20,000.

Satterly, J.

1953: McCart Township: Ontario Department Mines, Preliminary Map P16, Scale 1"=1/4 mile.

2.13402

N

Spruce
Balsam

1090036

1090034

1090035

1090033

U-2.

Pit

Trenches

Trench

LEGEND

ARCHEAN

2 — Ultramafic Intrusive Rocks
Dunite, peridotite, pyroxenite

1a, 1b — Komatiitic Volcanic Rocks
1a - Basaltic Komatiite
1b - Ultramafic Komatiite.

SYMBOLS.

- Outcrop area
- Geological boundary
- Top determination from pillows
- xxxx Pyroxene spinifex
- Anticlinal axis
- Synclinal axis
- Claim post
- Diamond drill hole

0 400 800
1" = 400 FT.

CONC V

CONC IV

LOT 7 | LOT 6

Geological Map, Mc Cart Township. Oct/89.

D R Fulle

1:M.R. PORCUPINE MIN.DIV. TO:MINING LANDS

42A15SW0103 2.13402 MCCART

900

Ontario (Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT No. W 9006·60265

Mining Act 2.13402

"Expenditures" section may be entered in the "Expend. Days Cr." columns. Do not use shaded areas below.

Type of Survey(s): Geological

Township or Area: McCART

Claim Holder(s): B. RAINE

Prospector's Licence No.: M21026

Address: P.O. Box 390 Schumacher Ont. P0N1G0

Survey Company: D.F. PYKE & ASSOCIATES

Date of Survey (from & to): 21 8 89 / 2 10 89 (Day / Mo. / Yr.)

Total Miles of Line Cut

Name and Address of Author (of Geo-Technical report): D. Pyke 31 DeBair Cres. Thornhill Ont L3T2M3

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions: 1 or first survey: Enter 40 days. (This includes line cutting) For each Additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	20
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
P	1090033	
	1090034	
	1090035	
	1090036	

Prefix	Mining Claim Number	Expend. Days Cr.

RECORDED MAR - 5 1990

PORCUPINE MINING DIVISION RECEIVED MAR 5 1990 11:25

ONTARIO PROPERTIES AUG 07 1990

RECEIVED

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits: Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 4

For Office Use Only

Total Days Cr. Recorded: 80

Date Recorded: MAR. 5/90

Date Approved as Recorded: July 17, 1990

Mining Recorder

Date: Mar 2/90

Recorded Holder or Agent (Signature): D K Pyke.

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 Postal Address of Person Certifying: D R. Pyke 31 DeBair Cres. Thornhill Ont L3T2M3

731 1913

Date Certified: Mar 2/90

Certified by (Signature): D K Pyke.

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

2.13402

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) GEOLOGICAL

Township or Area MCCART

Claim Holder(s) B. RAINE

Survey Company D.R. PYKE & ASSOCIATES.

Author of Report D. PYKE

Address of Author 31 DELAIR CRES THORNHILL L3T3M3

Covering Dates of Survey AUG/89 – JUNE/90 (linecutting to office)

Total Miles of Line Cut /

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	1090033
	1090034
	1090035
	1090036.

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	20
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____ (enter days per claim)

DATE: June 29/90 SIGNATURE: D.R. Pyke
Author of Report or Agent

Res. Geol. _____ Qualifications 2.3899

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 4

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(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 _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

TOWNSHIP OF NEWMARKET

TOWNSHIP OF LITTLE

TOWNSHIP OF CALVERT

REFERENCES

NOTE

LOT AND CONCESSION LINES SHOWN HEREON ARE PROJECTED FROM THE BEST INFORMATION AVAILABLE, BUT THEIR TRUE POSITION IS NOT GUARANTEED.

FOR LEGAL AND SURVEY PURPOSES CONSULT THE ORIGINAL SURVEY PLANS AND FIELD NOTES OF RECORD IN THE DEPARTMENT OF LANDS AND FORESTS, TORONTO.

ACREAGES SHOWN IN RESPECT OF PATENTED LOTS ARE IN ACCORDANCE WITH AREA GRANTED.

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
		14/12/70	S.R.& M.R.	38666
WITHDRAWN	M.R.O. 71/64			

200

Devonshire Lake

Wilson Lake

Herman Lake

Little Slim Creek

Frederick House River

Plan M-242

2.13402

REFERENCES

TOPOGRAPHY

LAKES, RIVERS, ETC., FROM FOREST RESOURCES INVENTORY SHEETS № 486804 AND 487804

SURVEYS

TOWNSHIP OF McCART SUBDIVIDED BY A.D. GRIFFIN, O.L.S., 1904. FIELD NOTE BOOK 1533.

WEST LIMIT OF McCART TOWNSHIP (SEE LITTLE TWP.) SURVEY BY J.W. FITZGERALD, O.L.S., 1904. FIELD NOTE BOOK 1402.

EAST LIMIT OF McCART TOWNSHIP (SEE CALVERT TWP.) SURVEY BY ALEXANDER BAIRD, O.L.S., 1904. FIELD NOTE BOOK 1009.

THIRD MERIDIAN (EAST LIMIT OF McCART TWP) BY WILLIAM GALBRAITH, O.L.S., 1904. FIELD NOTE BOOK 2363.

BASE LINE (SOUTH LIMIT OF McCART TWP.) BY T.J. PATTEN, O.L.S., 1903. FIELD NOTE BOOK 2460.

LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" , SURFACE RIGHTS ONLY	
" , MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 20 CHAINS

FEET 0 1000 2000 4000 5000 8000
METRES 0 200 1000 2000
(1 KM.) (2 KM.)

TOWNSHIP

McCART

M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ontario Ministry of Natural Resources
Ministry of Northern Development and Mines

Date JULY 1986

Number G-3541