010

GEOLOGICAL REPORT

ON

NORMINEX PROPERTY

DENYES - SWAZE TOWNSHIP BOUNDARY

BY

J. F. Davies

January, 1984

Introduction

This report describes the results of a geological survey and examination of gold-bearing quartz veins on the property of Norminex Limited at the boundary between Swayze and Denyes townships, northeastern Ontario. The work was carried out in the latter part of October, 1983.

Location

The property consists of three claims, P682272 to P682274 inclusive, straddling the boundary between Swaze and Denyes townships at approximately 47°49'N latitude and 82°44'W longitude. Chapleau is situated about 32 miles west, and Timmins about 78 miles northeast of the property.

The area is accessible by float- or ski-equipped aircraft which can land on Swaze Lake, about ¼ mile east of the claim group.

Topography

The topography of the area is typical of much of the Precambrian Shield of northeastern Ontario. Low rocky ridges are separated by a few swampy depressions. The rock ridges generally trend NNE and appear to reflect underlying bedrock structure. Most of the rock ridges are covered by a thin mantle of moss and coniferous growth or by glacial material and soil supporting birch and poplar. Very little rock is cleanly exposed making tracing of individual lithologies extremely difficult.

Geology

The claims are underlain mainly by felsic to intermediate volcanic rocks. Three main types can be recognized but because of poor exposure

and their apparent random distribution they have not been shown separately on the accompanying map. Intrusive into the felsic volcanic rocks are a few narrow diabase dykes, some of which are exposed and others which are inferred from magnetic data.

The felsic volcanic unit consists of 1) massive fine rhyolite, 2) crystal tuff or porphyritic rhyolite and 3) quartz-sericite schist. The massive rhyolite is a fine-grained light grey to buff rock consisting largely of quartz and feldspar with minor micas and chlorite. It is generally lacking in any obvious primary structures.

The crystal tuff or porphyritic rhyolite is a medium-grained "seedy" greyish green to pink-coloured rock containing small white to pink feldspar phenocrysts in a greenish grey chloritic matrix. In places where pink feldspars are abundant and the rock is essentially massive, this phase has the appearance of an intrusive rock. However, no cross-cutting relationships were observed. Apart from a weak secondary foliation in places this porphyritic phase is essentially structureless.

A third, apparently minor, phase of the felsic volcanic unit is a thinly laminated, fine-grained, light cream-coloured quartz-sericite schist. This phase may represent sheared rhyolite or, alternatively, a laminated tuff in which the primary foliation has been accentuated by shearing.

A fine- to medium-grained dark grey dense diabase cuts the volcanic rocks on claim P682274. This dyke is reflected in the strong magnetic pattern shown on the magnetic map. The trend of the dyke is NNW approximately parallel to the two main quartz veins on claims P682272 and P682273. A strong NNE-trending magnetic high crosses diagonally through claim P682272 and probably represents an unexposed diabase dyke as discussed below.

Structure and Alteration

Although the volcanic rocks display a regional easterly trending foliation in places, the structures of more economic significance trend northerly. The exposed diabase dyke and the gold-bearing quartz veins occupy the same northerly trending fracture system. In addition remnants of a sheared and altered mafic dyke occur in the same fracture as that occupied by the quartz vein on claim P682273. Clearly this northerly-trending fracture has experienced several periods of adjustment both prior to and following the emplacement of the diabase and the quartz vein.

Several distinct topographic lineaments are clearly visible on air photographs. Ground examination has revealed these to be well-defined linear depressions. The most prominent of these lineaments trends 023° through claims P682272 and P682273. Coincident with this lineament is a strong linear magnetic high similar to that over the diabase on claim P682274. The volcanic rocks exposed on either side of the depression are strongly schistose and carbonatized. The schistosity is parallel or sub-parallel to the strike of the depression. This feature is interpreted as a carbonatized schistose diabase which has weathered differentially relative to the volcanic rocks to form the linear depression. Such a structure can be considered favourable for hosting quartz veins.

A less-pronounced yet distinct, linear depression trends north through the central part of claim P682273, approximately parallel to the quartz vein about 350 feet to the east. A weak magnetic high coincides with this lineament, similar to the weak magnetic high over the quartz vein to the east, along which a small altered diabase dyke occurs.

Gold-Bearing Quartz Veins

The property is part of a group of claims originally staked by

J. F. Derrough in 1932 and on which several gold-bearing quartz veins were discovered. Work done at that time has been summarized by Rickaby (1934).

The main vein, on claim P682273, was trenched for 400 feet and a length of 220 feet of almost continuous quartz was exposed. The quartz occurs in lenses up to 5 feet wide and the footwall rocks are silicified and cut by tension cracks filled with quartz. The vein strikes northerly and dips about 75°E. A narrow highly carbonatized chloritic dyke (probably originally diabase) occurs on the footwall side of the vein zone.

Rickaby (1934) reports assay results from chip samples across a wide part of the vein:

	oz. Au/ton
a) 8 inches, quartz with heavy sulfide	2.22
b) 24 inches, chiefly quartz	0.15
c) 36 inches, altered wall-rock	0.03
d) 56 inches, quartz	0.24
e) 24 inches, quartz	0.32

The vein material is well-fractured and more than one generation of quartz is apparent. Sulfides occur in fractures in the quartz and consist mainly of pyrite, chalcopyrite and minor galena. Pyrite is also present in the silicified volcanic wallrock and in the carbonatized diabase.

During the present work the trenches were partly cleaned out and a series of chip and grab samples taken. The sample plan is attached.

		Oz. Au/ton
D-1	Carbonatized diabase, 1% finely disseminated pyrite	0.01
D-2	White quartz and chalcopyrite	1.65

		oz Au/ton
D-3	Silicified wall-rock, irregular ½" patches of vein quartz, minor disseminated pyrite	0.03
D-4	Sheared wallrock with 1/20" seams of fine pyrite	0.06
D-5	Light dense massive silicified wallrock, minor fine pyrite	0.02
D-6	Heavily carbonatized diabase, fine disseminated pyrite	0.09
D-7	Sheared carbonatized wallrock, no visible sulfides	0.01
D-8	White cherty silicified with small small clots of fine pyrite	0.07
D-9	Light silicified, minor disseminated pyrite and irregular ½" patches quartz	0.04
D-10	Vein quartz, fine disseminated pyrite	0.11

Rickaby (1934) reports that the property was optioned to Kirkland Hudson Bay Mines, who put down eleven short holes on this vein. No assay results were reported.

As in many gold-bearing quartz veins the distribution of gold in this vein appear to be erratic. The trenches should be thoroughly cleaned out and the entire vein re-sampled.

A second large vein, on claim P682272, strikes north and dips almost vertically. It is exposed across widths of 10 to 15 feet and can be traced for approximately 400 feet. At its north end the vein swings northeasterly parallel to the schistosity in the host rhyolite and an adjacent lineament. The vein consists of quartz of two generations, one a fine sugary mixture of quartz and carbonate which occurs largely of breccia-like fragments embedded in white glassy quartz. The wallrocks are somewhat carbonatized. Sulfides, largely pyrite, chalcopyrite and galena, occur sparsely as narrow streaks occupying fractures in the quartz. Rickaby (1934) reports that

channel sampling revealed low values in gold. Time did not permit sampling of this vein during the present work. However, the vein is well exposed in a number of trenches and should be re-sampled.

A considerable amount of trenching was done on claim P682274 in 1932 by Dome Mines Limited (Rickaby, 1934). Most of these trenches are now filled and little rock is exposed. Numerous small veins, some carrying gold, are reported. These veins strike northerly, parallel to the other veins.

Other Potential Vein-bearing Structures

The linear topographic depressions situated on claims P682272 and 682273 warrant investigation. These have been described in the section on Structure and Alteration. Rock exposed along the edges of these depressions should be sampled and assayed for trace amounts of Au, Cu and possibly As. Soil geochemistry may also be useful, if appropriate samples can be obtained.

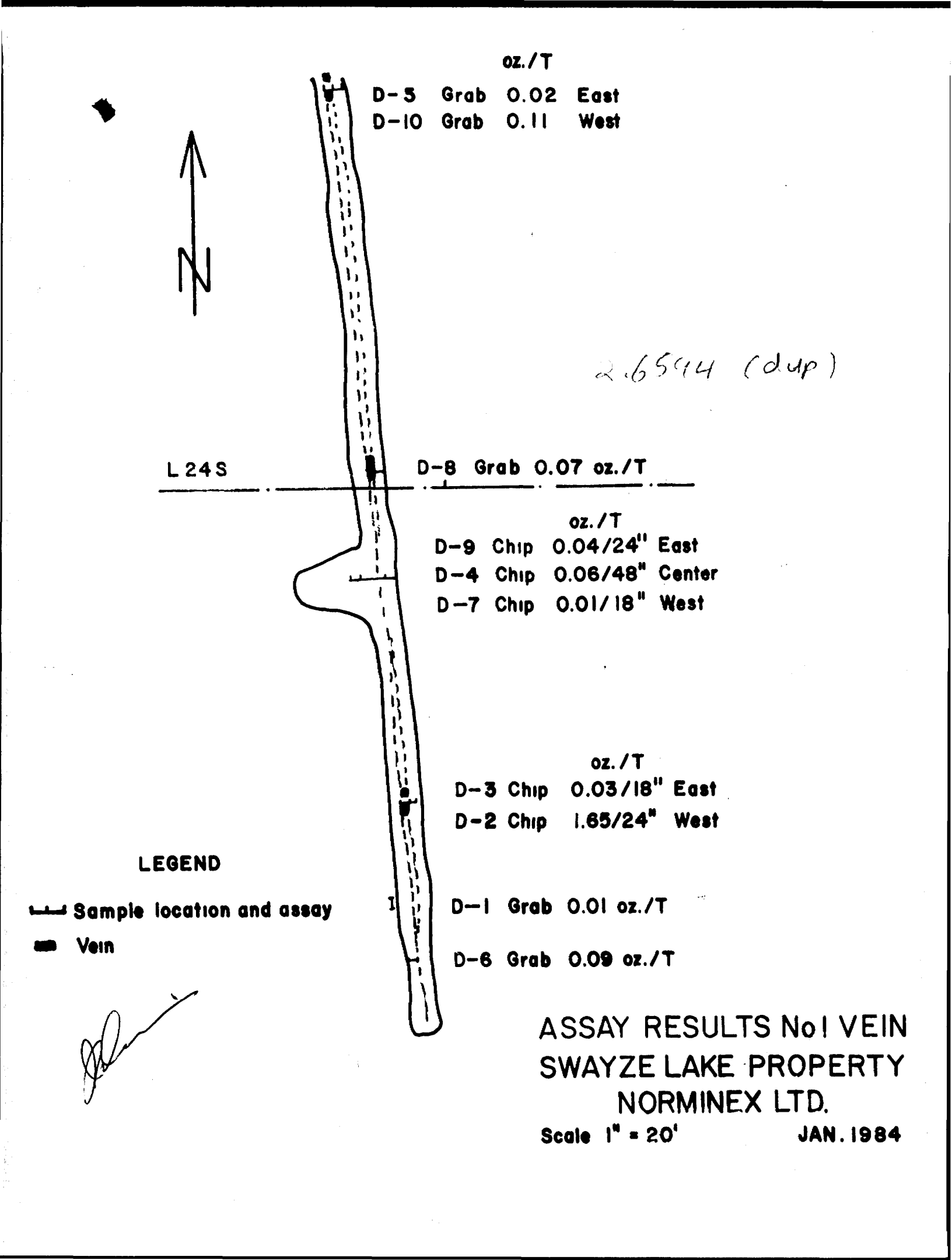
Recommendations

1. All of the trenches should be cleaned out and the surface exposures of the veins systematically sampled.

2. Rock exposures along the edges of the lineaments should be sampled and analyzed for trace amounts of Au, Cu, and As.

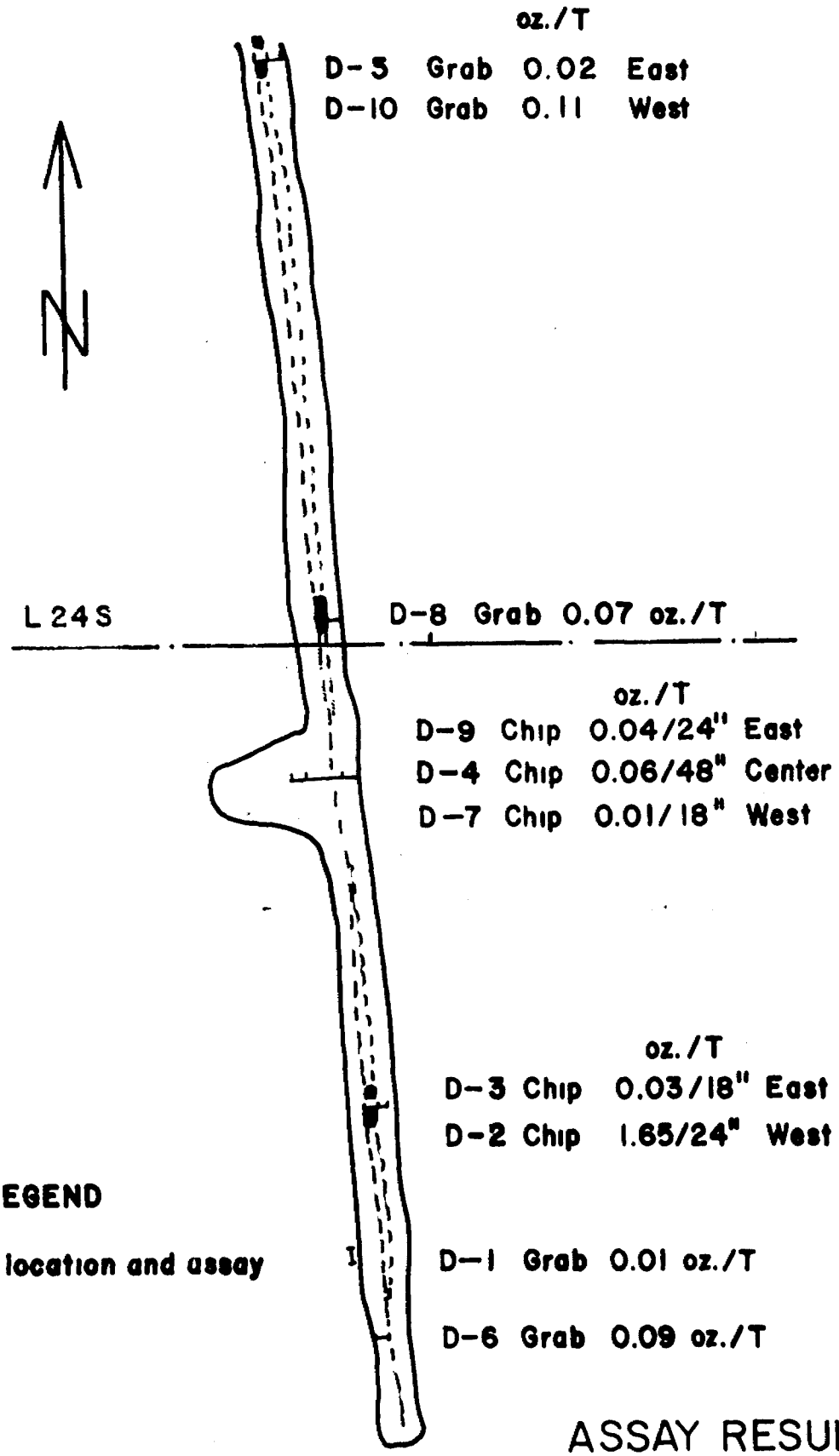
3. Soil geochemical surveys should be conducted over the entire property.

4. At least two drill holes should be put down on the lineament trending 023° through claims P682272 and P682273 and a further two on the lineament trending north through claim P682273. Decisions as to where to locate these holes may depend on the results of the geochemical work.



ASSAY RESULTS No 1 VEIN
SWAYZE LAKE PROPERTY
NORMINEX LTD.

Scale 1" = 20' JAN. 1984



ASSAY RESULTS No 1 VEIN
SWAYZE LAKE PROPERTY
NORMINEX LTD.

Scale 1" = 20' JAN. 1984

2.6574

MAGNETOMETER SURVEY

FOR

NORMINEX LIMITED

DENYES-SWAYZE TOWNSHIP CLAIMS

L.D.S.Winter
B.A.Sc.,M.Sc.,F.G.A.C.
December 16, 1983

1. INTRODUCTION

Norminex Limited holds three claims in Denyes and Swayze townships, Porcupine Mining Division, Ontario. The writer was requested by Dr.J.F. Davies, vice-president of Norminex Limited to lay out lines on the claim group and conduct a magnetometer survey of the property along lines spaced at 400 foot intervals.

The work was done by and under the supervision of the author on October 20 to 23 inclusive, 1983. The following report outlines the work done and presents the results of the survey.

2. PROPERTY

2.1 LOCATION

The claims are located between the 4 and 5 mile posts on the north-south boundary between Denyes and Swayze townships, Porcupine Mining Division, at approximately 47°-49'N. latitude, 82°-44'W. longitude. The town of Chapleau is 32 miles west of the property and Timmins is 78 miles to the northeast.

2.2 ACCESS

The property can only be reached by air. Float or ski equipped aircraft can land on Swayze Lake 1/4 mile east of the property.

2.3 TOPOGRAPHY AND VEGETATION

The area is typical of the Canadian Shield with low relief consisting of swampy areas and adjacent bedrock ridges covered by a thin layer of glacial drift. A number of northeast trending swamps and valleys are considered to be controlled by the bedrock geology.

The ridges are forested with birch, poplar, jackpine and spruce with spruce and alders common in the wet areas and swamps.

3. GEOLOGY

This area of the Canadian Shield is underlain by an approximately east-west trending, metamorphosed, folded and faulted sequence of Archean volcanic and sedimentary rocks. On the 3 claims the bedrock units consist of carbonatized and sericitized felsic metavolcanics. These felsic metavolcanics are generally well foliated to schistose and are intruded by felsite dikes. Diabase dikes are present as northerly trending intrusives. Gold mineralization, where observed, is associated with minor sulphide mineralization, carbonatization, sericitization, silicification and quartz veining.

Following an extensive period of erosion the Precambrian units were covered in part by Pleistocene deposits of glacial till as well as Recent Stream and swamp deposits.

4. SURVEY GRID

Approximately north-south trending gold-bearing quartz veins had been located on the property in the 1930's (Rickaby, 1934) and air-photo interpretation had indicated a number of north to northeast trending structures. Due to these considerations the picket lines were run east-west, to pick up these north-south trends, even though the volcanic units trend approximately east-west.

The north-south Denyes-Swayze township line was used as a base line, was brushed out, chained and picketed and lines were run east and west from the base line at 200-and 400 foot intervals. The lines were run by compass, and were chained and flagged at 100 foot intervals.

5. MAGNETOMETER SURVEY

5.1 SURVEY PROCEDURE

The magnetometer survey was carried out using a

McPhar M700 Fluxgate Magnetometer with readings being taken along east-west picket lines at 50 foot intervals. A base station of 1110 nT was established at the baseline and L0+00 (Map 1). The baseline was surveyed to establish secondary base stations at the intersection of each picket line and the base line. No untoward magnetic disturbances were experienced during the survey and the readings were corrected for diurnal drift by comparison with the secondary base station readings at the beginning and end of each line-loop. The results are plotted and contoured on the enclosed map.

5.2 RESULTS AND INTERPRETATION

The magnetic relief is approximately 2300 nT with the maximum values being in the eastern half of claim P682274 and along a north-northeast trending dike-like feature in the western half of claims P682272 and P682273.

The magnetics suggest there may be 3 volcanic units on the property trending approximately east-west. The most northerly one lies from the northern boundary of claim P682272 to L12S with values of about 1100 nT $\pm$. The second one lies between L12S and L20S and shows values of 900 to 1000 nT. A third unit giving values of +1000 nT lies south of L20S.

A series of magnetic highs, from L24S at the west claim boundary to L0+00S at 5+50W, suggests a dike-like feature, probably a diabase dike. Similar features are present at L28S:8+50W to L18S:6+00W and L28S:1+50W to the baseline at 24+00S and are interpreted to be mafic dikes.

The relatively high magnetics with associated lows in the eastern part of claim P682274 are considered to be a north-south fault structure, possibly with a mafic dike along its eastern edge.

The approximately north-south trending, ill-defined zone of irregular magnetics lying between the baseline and 6+00W may be a zone of shearing, dike intrusion and mineralization since it is within this zone that one gold-bearing quartz vein occurs.

6. SUMMARY AND CONCLUSIONS

The 3 claims in Denyes and Swayze townships were surveyed with a fluxgate magnetometer along lines 400 feet apart and 200 feet apart in some areas. The survey tentatively suggests east-west trending volcanic units cut by north to north-northeast trending diabase and/or mafic dikes as well as zones of shearing, dike intrusion and mineralization. The magnetics do not appear to specifically indicate quartz veining and known gold mineralization.

It is considered that some of the geological features could be better defined by more intermediate lines at 200 foot intervals and if further work is considered for the property it is suggested that this additional magnetic surveying be done.

Respectfully submitted,

L.D.S. Winter

L.D.S.Winter
B.A.Sc., M.Sc., F.G.A.C.
December 16, 1983

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

Personnel Names, Addresses and Man Days

Field Work

L.D.S.Winter	1849 Oriole Dr. Sudbury, Ontario P3E 2W5	4 Man-days
R.E.Whitehead	1239 Paquette St. Sudbury, Ontario P3A 3X9	

Reports and Map

L.D.S.Winter	2½ Man-days

PROGRAM STATISTICS

SURVEY GRID

0.5 line-miles chained and picketed
3.4 line-miles chained and flagged

MAGNETOMETER SURVEY

3.4 line-miles surveyed
368 station readings

CLAIMS SURVEYED

P682272	100%
P682273	100%
P682274	100%

REFERENCES

1. Rickaby, H.C., 1934 Geology of the Swayze Gold Area, Ontario Dept. of Mines, Vol. 43, Pt.3

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#

W8406.099

The Mir

41015SE0083 2.6594 SWAYZE

900

Type of Survey(s): Geological and Geophysical	Township or Area: Swaze and Denyes Tps.
Claim Holder(s): Norminex Limited	Prospector's Licence No.
Address: 1239 Paquette Street, Sudbury, Ontario P3A 2X9	
Survey Company: Norminex Limited	Date of Survey (from & to): 20 Day / 10 Mo. / 83 Yr. — 23 Day / 10 Mo. / 83 Yr.
Name and Address of Author (of Geo-Technical report): J.F. DAVIES and L.D.S. Winter (address as above)	Total Miles of line Cut: 4

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	40
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

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.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	682272	
	682273	
	682274	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
MAY 11 1984
LANDS SECTION

RECEIVED
MAR 5 1984

Total number of mining claims covered by this report of work: 3

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
180	March 5/84	Stanley
	Date Approved as Recorded	Mining Recorder
	[illegible]	[illegible]

Date	Recorded Holder or Agent (Signature)
March 3, 1984	[signature]

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: J.F. DAVIES 1239 Paquette Street Sudbury, Ontario P3A 2X9

Date Certified	Certified by (Signature)
March 3 1984	[signature]

Ontario — Geochemical and Expenditures)

The Mining Act Copy

Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
— Do not use shaded areas below.

Type of Survey(s): Geological and Geophysical

Township or Area: Swaze and Denyes Twps.

Claim Holder(s): Norminex Limited

Prospector's Licence No.: T 1279

Address: 1239 Paquette Street, Sudbury, Ontario P3A 3X9

Survey Company: Norminex Limited

Date of Survey (from & to): 20 10 83 | 23 10 83 (Day | Mo. | Yr. | Day | Mo. | Yr.)

Total Miles of line Cut: 4

Name and Address of Author (of Geo-Technical report): J.F. DAVIES and L.D.S. Winter, Norminex Limited as above

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	40
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Expend. Days Cr.	Mining Claim Prefix	Number	Expend. Days Cr.
P	682272				
	682273				
	682274				

Registered provided March 3/84

Copy only

Total number of mining claims covered by this report of work: 3

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures				Total Days Credits
$	÷	15	=	

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.

Date: ~~Feb.~~ Mar 3/84

Recorded Holder or Agent (Signature): [signature]

RECEIVED APR - 9 1984 MINING LANDS SECTION

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

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: J.F. DAVIES 1239 Paquette Street Sudbury, Ontario P3A 2X9

Date Certified: Mar 3/84

Certified by (Signature): [signature]

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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 Savage and Denges Twp

Claim Holder(s) Norminex Limited

Survey Company Norminex Limited

Author of Report J.F. Davies

Address of Author 1239 Paquette Street, Sudbury

Covering Dates of Survey Oct 22 - 23 1983
(linecutting to office)

Total Miles of Line Cut 3.9

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	682272
P	682273
P	682274

If space insufficient, attach list

TOTAL CLAIMS _____

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: March 31, 1984 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 4452

Previous Surveys

File No.	Type	Date	Claim Holder

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 _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

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) MAGNETOMETER

Township or Area DENYES & SWAYZE TWPS.

Claim Holder(s) NORMINEX LIMITED

Survey Company L.D.S. WINTER, GEOLOGICAL CONSULTANT

Author of Report L.D.S. WINTER

Address of Author 1849 ORIOLE DR., SUDBURY, P3E 2W5

Covering Dates of Survey OCTOBER 20 - 23, 1983 INCLUSIVE
(linecutting to office)

Total Miles of Line Cut - 0.5
- CHAINED & FLAGGED - 3.4.

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 40
--Radiometric _____
--Other _____
Geological _____
Geochemical _____

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

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

DATE: Dec. 16/83 SIGNATURE: L.D.S. Winter
Author of Report or Agent

Res. Geol. _____ Qualifications 2 1503

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

P 68 2272
P 68 2273
P 68 2274

If space insufficient, attach list

TOTAL CLAIMS _____

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 368 Number of Readings 368

Station interval 50 feet Line spacing 200ft & 400ft.

Profile scale

Contour interval 100nT. and 50nT.

MAGNETIC

Instrument McPHAR M 700

Accuracy – Scale constant 20nT. PER SCALE DIVISION: ESTIMATE TO 5 nT.

Diurnal correction method BASE LINE SURVEYED TO ESTABLISH SECONDARY BASE STATIONS THEN ALL LINES TIED TO SECONDARY STATIONS

Base Station check-in interval (hours) 0.5 to 0.75 HOURS.

Base Station location and value BASE LINE & L0+00

VALUE: 1110 nT.

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 _____

_____

_____

_____

_____

_____

_____

_____

_____

1984 04 27

Your File:
Our File: 2.6594

Mr. Bruce Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Magnetometer) and Geological Survey submitted under Special Provisions ((credit for Performance and Coverage) on mining claims P 682272 et al in the Townships of Swaze and Denyes.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-6918

A. Barr:sc

cc: Norminex Limited
1239 Paquette Street
Sudbury, Ontario
P3A 3X9

Mining Lands Section

File No 2.6594

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

✓ GEOLOGICAL

not GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

L.D. - Lgd.

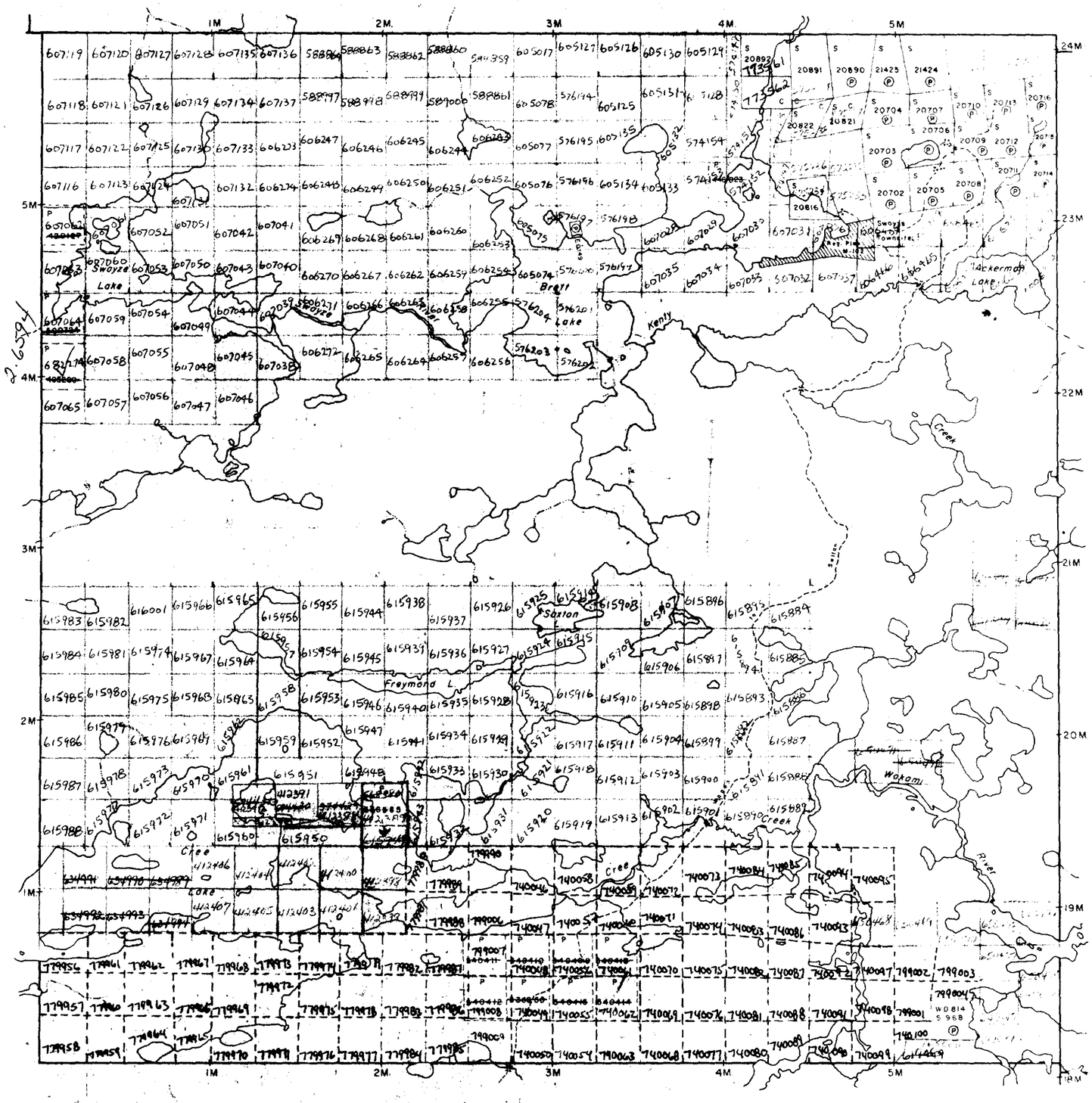
R. Hurst

Signature of Assessor

June 22/84

Date

Rollo Twp.–M.1082



THE TOWNSHIP
OF

SWAYZE

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

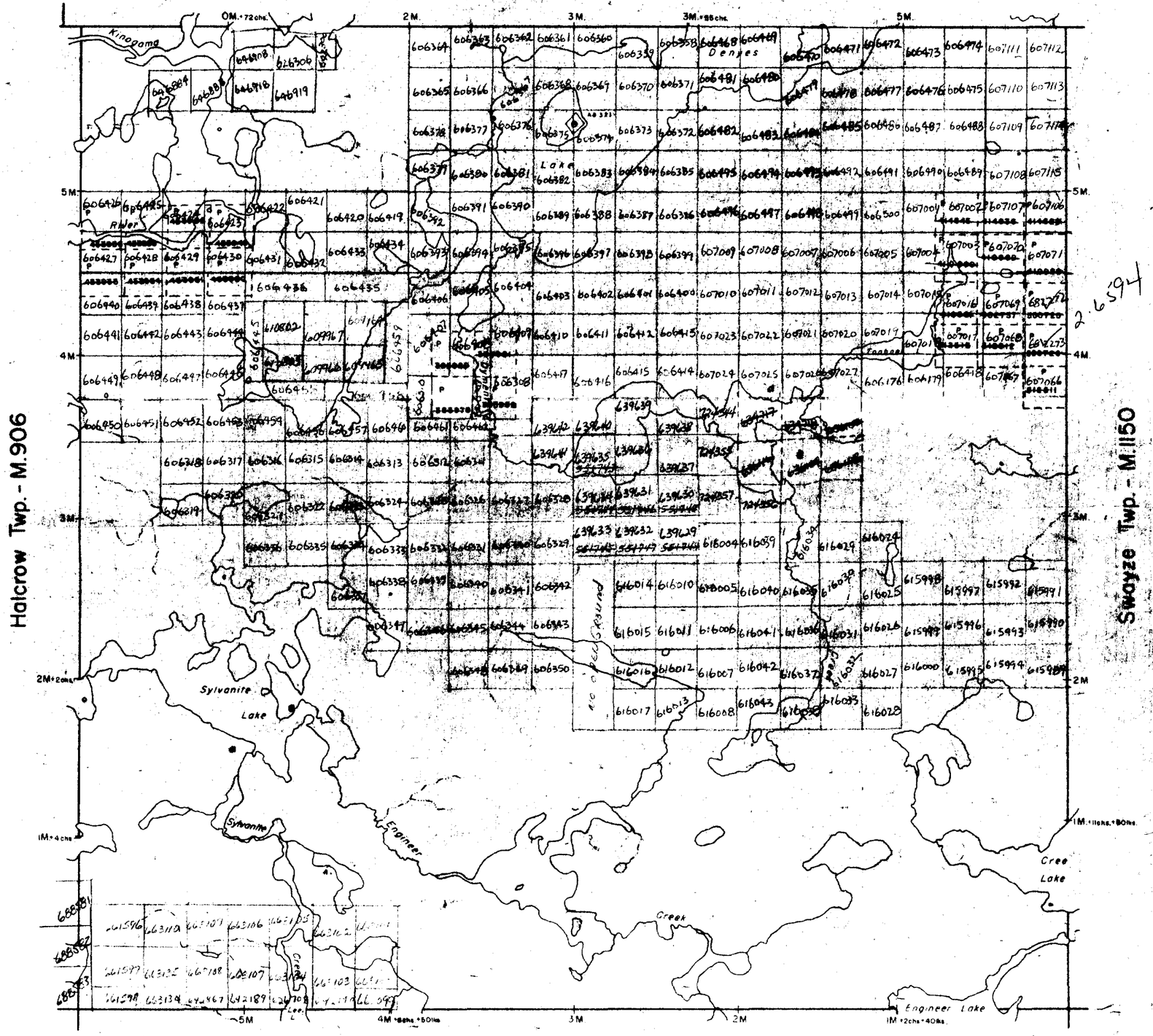
NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

PLAN NO. M.1150

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Raney Twp. - M.1069



THE TOWNSHIP OF

DENYES

DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.
PATENTED FOR S.R.O.	

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

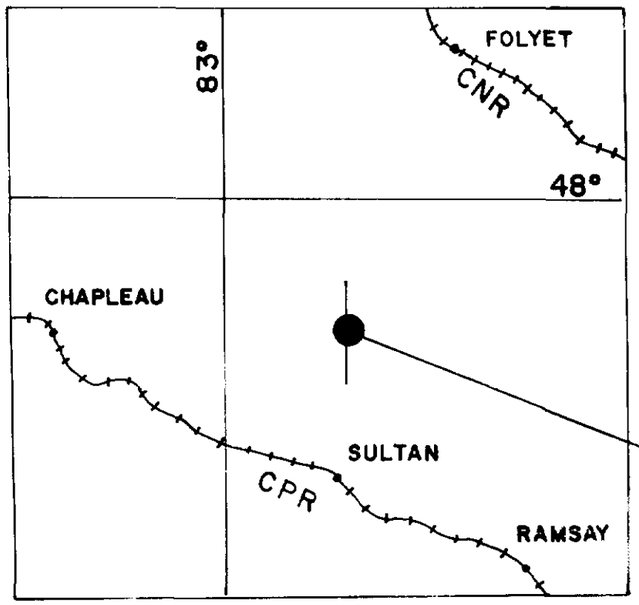
2.6594

PLAN NO. M.758

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

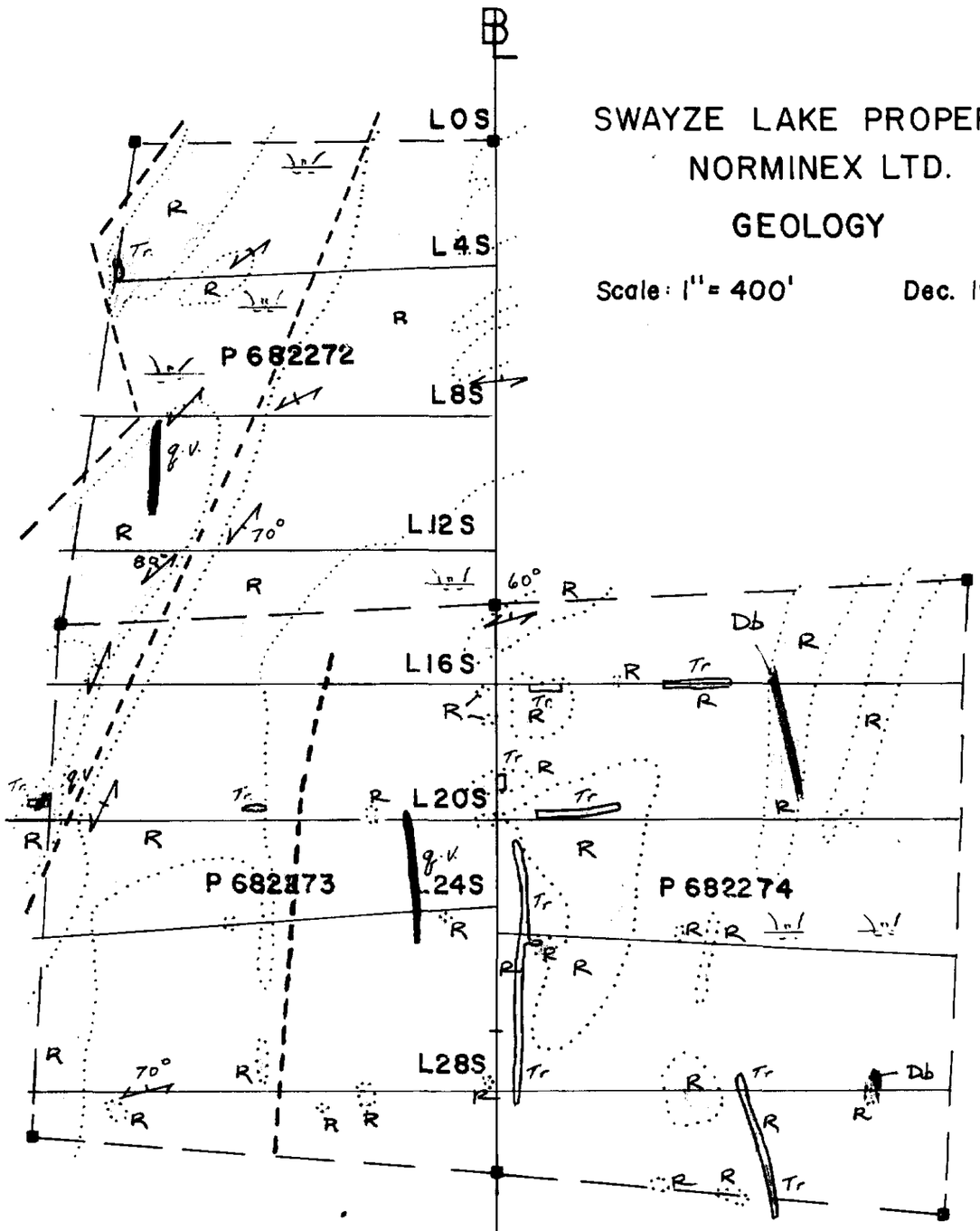
SWAYZE LAKE PROPERTY
NORMINEX LTD.
GEOLOGY

Scale: 1" = 400' Dec. 1983



INDEX MAP 1" = 16 Mi.

- Db — Diabase
- R — Rhyolite, crystal tuff, quartz sericite schist
- Schistosity
- Quartz vein
- Linear topographic depression
- Trench
- Outcrop area
- Swamp
- Claim post and lines
- Survey lines



Ph.D

B

L 0

L 4 S

P 682272

L 8 S

L 12 S

L 16 S

L 20 S

P 682273

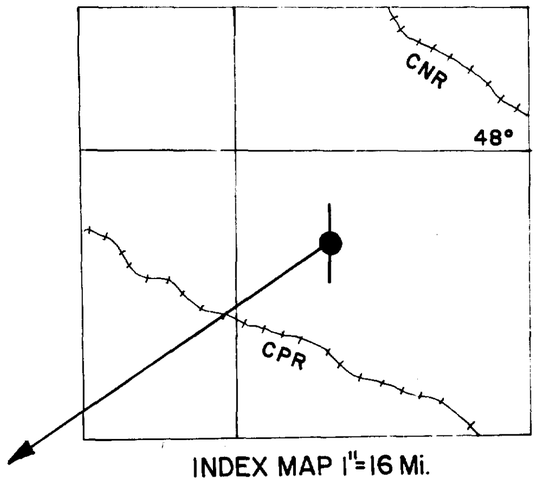
P 682274

L 24 S

L 28 S

DENYES TWP.

SWAYZE TWP.



INDEX MAP 1"=16 Mi.

LEGEND

Claim post and lines

Survey lines

Soil sample location B horizon

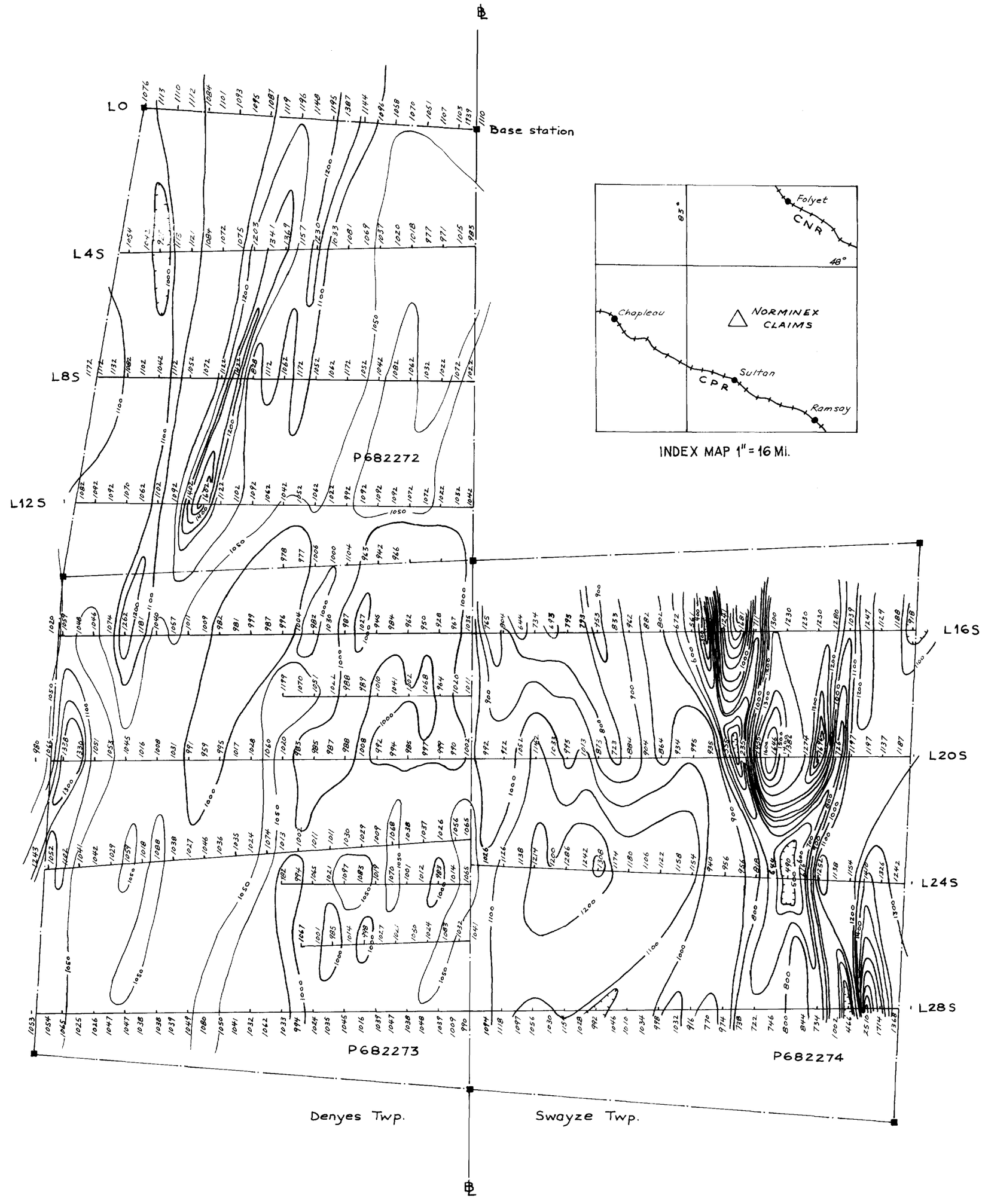
all samples sieved to <80 mesh

2.6594

SWAYZE LAKE PROPERTY
NORMINEX LTD.
SOIL GEOCHEMISTRY

Scale: 1" = 400' Dec. 1983

PhD



INDEX MAP 1" = 16 Mi.

LEGEND

Claim post & claim line

Flagged survey line

Isomagnetic lines — 1000

- interval 100 nT.
- 50 nT. between 1000 nT. & 1100 nT.

Magnetic low-

Base station- BL: Lo+00 : 1110 nT.

Instrument- McPHAR M 700

NORMINEX CLAIM GROUP

DENYES & SWAYZE TWP

MAGNETOMETER SURVEY

Scale 1" = 200'

December '83
L.D.S. Winter

GEOLOGICAL ASSOCIATION OF CANADA
L. D. S. Winter
FELLOW

2.6594