010

GEOLOGICAL REPORT on the BA RESOURCES LTD JOSEPH PROPERTY in THOMAS TOWNSHIP

Porcupine Mining Division

Ontario

by

R. Bruce Durham Bsc. FGAC

and

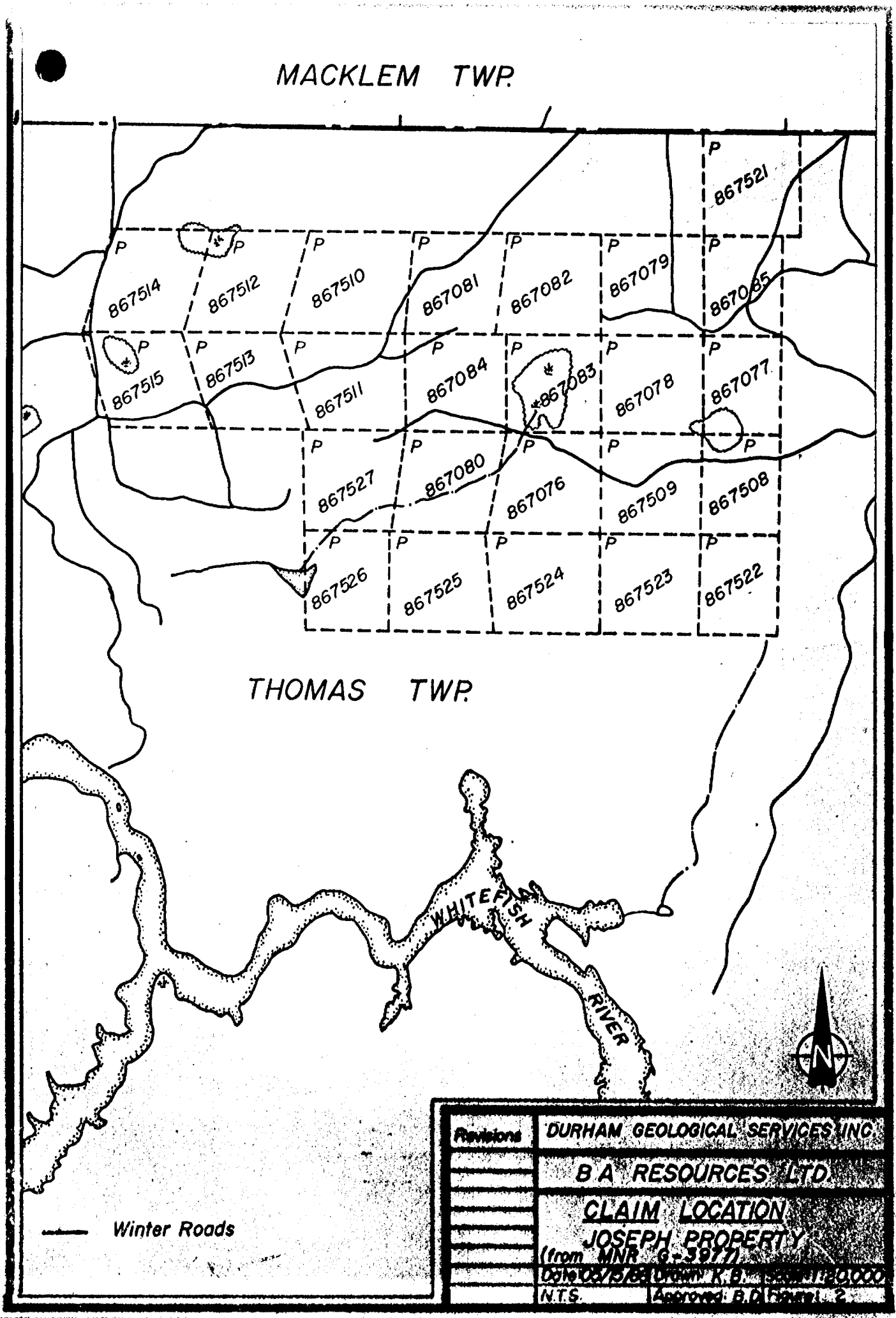
Kim Woytiuk Bsc.

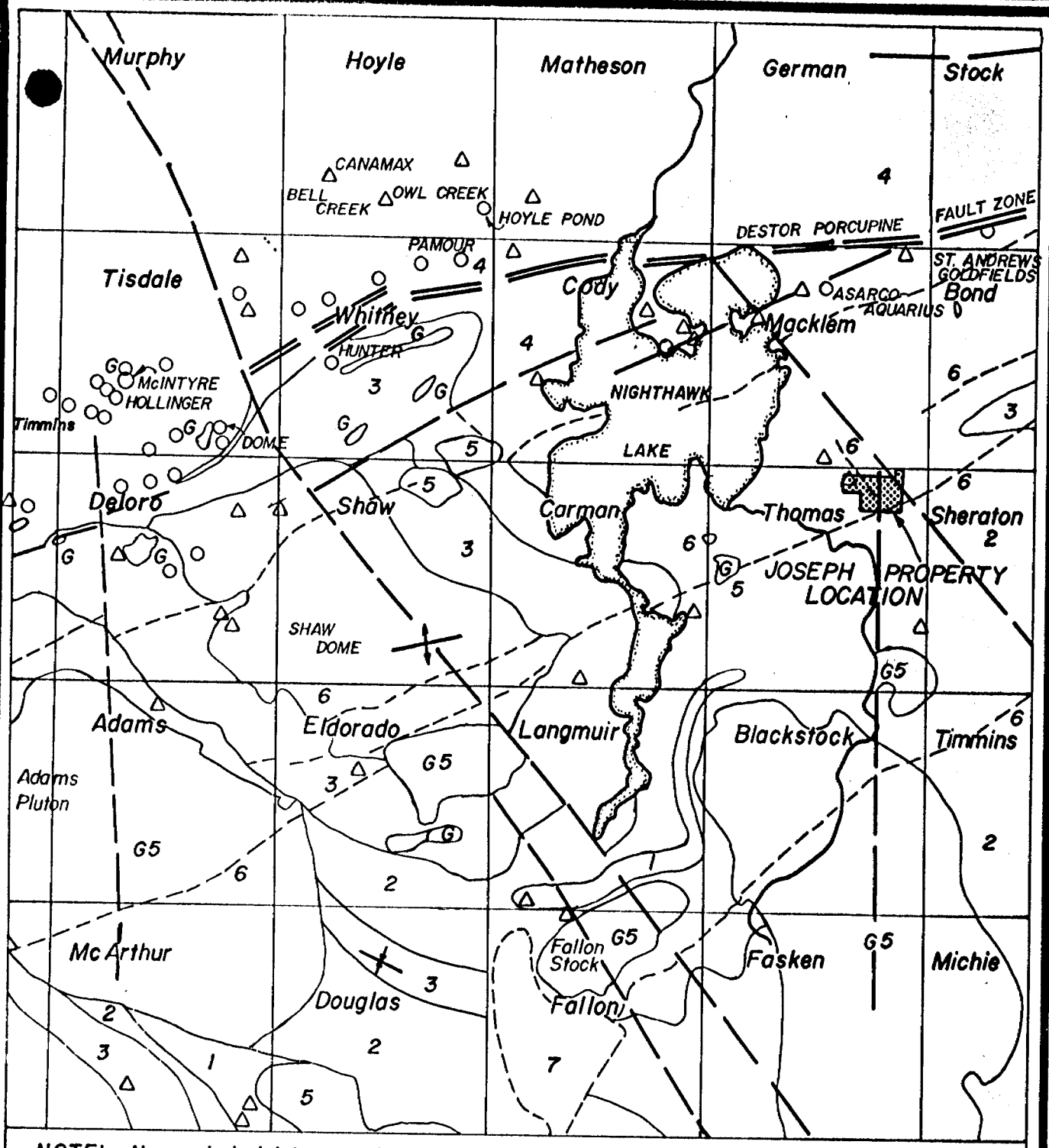
November 26, 1986

DURHAM GEOLOGICAL SERVICES INC.

Box 734
Timmins, Ontario
P4N 7G2

LIST OF FIGURES


MACKLEM TWP.
867521
867514
867512
867510
867081
867082
867079
867085
867515
867513
867511
867084
867083
867078
867077
867527
867080
867076
867509
867508
867526
867525
867524
867523
867522
THOMAS TWP.
WHITEFISH
RIVER
N
Winter Roads
Revisions
DURHAM GEOLOGICAL SERVICES INC.
B A RESOURCES LTD.
CLAIM LOCATION
JOSEPH PROPERTY
(from MNR G-3971)
Date 05/15/86 Drawn K.B.
N.T.S.
Approved B.D.
Figure 2



NOTE: No geological interpretation shown North of the Destor Porcupine Fault Zone.

LEGEND

- 7 Cobalt Sediments
- 6 Diabase
- 5 Granite
- 4 Sediments
- 3 Predominantly Felsic rocks (Deloro Group)
- 2 Predominantly Mafic Volcanics
- 1 Ultramafic flows

△ Gold Showing

○ Producing / Exproducing Gold Mine

Revisions	DURHAM GEOLOGICAL SERVICES INC.
	BA RESOURCES LTD.
	REGIONAL GEOLOGY
	(Modified after ODM 2205)
	Date: 05/15/86 Drawn: K.B. Scale: 1" = 4mi.
	NTS Approved: B.D. Figure: 3

INTRODUCTION

A detailed prospecting, sampling and geologic mapping program was carried out on the BA Resources Ltd., Joseph Property located in Thomas Township between October 8th and October 24th, 1986. The property was mapped at a scale of 1" = 200 feet. A total of 55 grab and chip samples were collected for gold assay.

The BA Resources Ltd., Joseph Property, lcoated in Thomas Township, approximately 38 km east of Timmins, Ontario is underlain by predonimantly basaltic rocks thought to be stratigraphically equivalent to the lower Tisdale Group of volcanics which host most of the gold deposits of the Porcupine Gold camp. The Porcupine Gold camp has produced in excess of 56,000,000 ounces of gold since the turn of the century. Renewed exploration in areas of favorable geology is continually defining additional reserves, and resulting in new discoveries, generally associated with zones of intense carbonate alteration and quartz veining.

The 25 claim BA Resources property covers an area of favorable geology that has been shown to have been sheared, carbonate altered, veined, and is known to have returned gold values as high as 0.05 ounces/ton gold from surface samples.

This report was prepared for Mr. Norman Chamberlist, President of BA Resources Ltd., subsequent to the completion of Phase 1, of a proposed three phase exploration program, designed to evaluate the gold potential of the property.

Specifically, the objectives of this project were to look for, and sample the following areas on the property which are favorable to gold mineralization:

1) Quartz ± tourmaline ± epidote veins, with or without sulphide mineralization.
2) any shear zones, fold or fault zones
3) to map and sample in detail the different types of alteration on the property.
4) areas of sulphide mineralization.

These environments have, in the vicinity of the BA Resources Ltd., property been shown to be favorable for concentrations of gold mineralization.

PROPERTY

The BA Resources Ltd., Joseph property located in Thomas Township consists of 25 unpatented mining claims in the Porcupine Mining Division of Ontario.

The numbers of the claims and their respective expiry dates are as follows:

P 867076	September 3, 1987
P 867077	September 3, 1987
P 867078	September 3, 1987
P 867079	September 3, 1987
P 867080	September 3, 1987
P 867081	September 3, 1987
P 867082	September 3, 1987
P 867083	September 3, 1987
P 867084	September 3, 1987
P 867085	September 3, 1987
P 867508	September 3, 1987
P 867509	September 3, 1987
P 867510	September 3, 1987
P 867511	September 3, 1987
P 867512	September 3, 1987
P 867513	September 3, 1987
P 867514	September 3, 1987
P 867515	September 3, 1987
P 867521	September 13, 1987
P 867522	September 13, 1987
P 867523	September 13, 1987
P 867524	September 13, 1987
P 867525	September 13, 1987
P 867526	September 13, 1987
P 867527	September 13, 1987

TOTAL: 25 claims

The claims were all staked by, and recorded in the name of, Sydney Joseph, holder of Ontario Prospectors license number M-21995.

Transfers for the 25 claims have been executed in favor of BA Resources Ltd., and have been recorded with the mining recorders office in Timmins.

The surface rights to the claims belong to the crown and as such pose no problem with respect to any possible future development work.

Location, Access and Facilities

The property is located in Thomas Township, 38 km east of Timmins, Ontario. The property is readily accessible via a gravel road system that extends southward from Hwy. 101, from a point approximately 25 km east of Timmins. This all weather gravel road, known as the Gibson Lake Road, extends through the extreme northeast corner of Thomas Township, within 2 km of the eastern portion of the property from that point.

Being located within 40 km of the city of Timmins, Ontario, one of the premiere mining camps in Canada, the property is well located with respect to; a qualified labor force, machine shops, support facilities, engineering, and so on.

A small mill facility operated by Asarco has recently been treating ore on a custom mill basis within 11 km of the property. Water and power supplies, while not located on the property, are located within a reasonable distance.

Ample coarse and fine aggregate are present within a large esker area 2 km east of the property. As such, the property must be considered to be ideally located with respect to infrastructure.

Previous Work

Considering the location and favorable geology of the area, the area has not been extensively explored.

In 1965, during the Timmins basemetal "rush" Markay Mining Corporation Limited carried out ground magnetic and Crone EM electromagnetic surveying using a 200 foot coil separation over much of the subject property. Three drill holes, totalling 1587.5 feet, were drilled, on and near the property during the summer of 1965 to test certain magnetic anomalies. Only 5 samples were selected and analysed for gold. No values were obtained. The current location of the drill core is unknown but interpretation of the original drill logs indicate a very favorable environment for gold mineralization. All rocks intersected were extensively carbonatized and terms and phrases

such as; sericite, shearing, quartz-carbonate veins, quartz-tourmaline viens, fault zones, talc chlorite schist, mariposite, and aplitic dyke, are used in the original drill logs to describe the geology of the bedrock encountered.

While geologic mapping and sampling were recommended, there is no report of such work having been carried out.

A sketch map showing work carried out, circa 1923, on the property by Foster-Trout Creek shows outcrops of carbonatized basalt cut by quartz and quartz-tourmaline viens and assays of up to 0.05 ounces/ton. Of the seventeen samples analysed, seven contained between 0.01 ounces/ton Au and 0.05 ounces/ton Au.

Mr. R. Bradshaw in his December 13, 1964 report for Markay Mines Ltd., indicated that assay values of up to 0.41 ounces/ton gold over 1.2 feet were obtained but the author was unable to confirm the source of the information. In his report he also mentioned that extensive stripping was carried out by the Leliever interest who held the property at one point. No records of this work are available.

A junior mining company by the name of WPM Resources Ltd., acquired a total of 27 unpatented claims which overlapped the western portion of the 25 claim block now held by BA Resources Ltd. The only work completed by this company consisted of the

collection of biogeochemical samples from 6 of the claims and subsequent analysis for silver, lead, copper and zinc. No anomalies were defined and the property was allowed to lapse.

Cominco Limited carried out airborne and ground geophysical surveys over a block of claims in Sheraton and Thomas Townships in 1971-1973, to the east of the subject property. The airborne and ground magnetic survey located an east northeast striking diabase dike but failed to define the general geologic trends in the area. The EM surveying located one conductor in the north half of Lot 9, Concession five of Sheraton Township which was later drilled (in 1974) and shown to be caused by graphite. Low copper-zinc values were obtained. No analyses were carried out for gold.

Noranda Exploration Co. carried out a magnetometer survey over a group of 6 contiguous unpatented mining claims in the eastern portion of Thomas Township, immediately east of the subject property. The only area of high magnetic gradient located was an NE-SW trending diabase dike.

A 1230 foot AQ sized diamond drill hole was put down by Noranda Exploration Co., in 1975 on a conductive zone known as the Nighthawk Geophysical Test Range conductor. The hole intersected numerous graphitic bands within intermediate to rhyolitic tuffaceous horizons.

A second deep drill hole was put down on the same claim group by Noranda Exploration Co. in November of 1983 approximately 450 m northeast of the hole drilled in 1976. Similar felsic agglomerate, lapilli, tuffs, graphitic tuffs, and argillites were intersected and the claims remain in good standing.

Dome Mines Limited hold the claims immediately adjacent to the north of the BA Resources Ltd., property in Thomas Township and also hold a large block of ground covering similar carbonatized volcanic rocks in Macklem Township.

A considerable amount of dirlling has been carried out on the property. The claims adjacent to the BA Resources, Joseph Property remain in good standing.

Much of the BA Resources Ltd., Joseph property was originally part of the Dome Mines Ltd., block of claims.

GEOLOGY

The BA Resources Ltd., Thomas Township property lies within the Abitibi greenstone metavolcanic belt, an 800 km long, 240 km wide suite of Archean volcanic rocks that stretches from Chibougamau, Québec on the east to the west of Timmins, Ontario.

While average rock exposure in the area is less than 10%, outcrop information coupled with geophysical interpretation, and drill hole information, indicate that the majority of the BA Resources Ltd., property and surrounding area are underlain by a suite of komatiitic and tholeiitic basaltic rocks, which, if not of the Tisdale Group of volcanics, are certainly similar to the Tisdale Group.

"Deloro Group" type rocks to the east in the extreme northeast corner of the townships of Thomas, Sheraton and Bond, and to the southwest in Carman Township indicate that the regional contact between the Deloro and Tisdale Group of rocks may be present on or near the BA Resources Ltd. property.

This regionally extensive contact has been shown to be important from an economic point of view in that many of the Porcupine gold deposits are located near this time stratigraphic boundary.

One of the other key features found near most of the gold deposits of the Porcupine Gold camp, is the Destor-Porcupine Fault zone. This zone of major regional faulting and structural adjustment passes through Macklem Township in an easterly direction approximately 6 miles north of the property.

The majority of the Porcupine gold deposits lie within approximately 10 km of this major structure which usually consits of a highly sheared zone of talc-chlorite carbonate schist of ultramafic composition.

Basaltic rocks in the vicinity of the BA Resources property are highly carbonatized and schisted in a southeasterly direction. Dips, while near vertical appear to be generally to the north.

The basaltic rocks are cut by felsite and diabase dikes, and by a variety of quartz, quartz-carbonate, and quartz-carbonate-tourmaline veins similar in nature to those that host the gold deposits in the Porcupine gold camp.

The diabase dikes are the youngest, and only non Archean rocks in the area.

Faulting in the area, both parallel to the Destor-Porcupine Fault and southeasterly, parallel to the Montreal River Fault appears to be extensive. Some faulting is also postulated parallel to the frequently well developed schistosity (east southeast).

The presence of extensive zones of mariposite, carbonate alteration, scattered veining, felsic intrusions, extensive shearing, and known gold mineralization makes this an excellent area to explore for mineable concentrations of gold mineralization.

GENERAL GEOLOGY

Lithology - Massive Mafic Metavolcanics

Massive mafic metavolcanics comprise the majority of the outcrop area on the property. These rocks are generally highly chlorite and carbonate altered rocks.

The carbonate alteration consists of ankerite (Mg - carbonate), and also Ca carbonate, in the ground mass of the rock. Contorted millimeter veinlets of Ca carbonate (primarily calcite) are quite common in these rocks. The alteration in these rocks is quite gradational and varies from strong to locally weak. Strong silicification occurs locally also. Fuschite is often a common accesory mineral. The rocks are massive and display a weakly developed foliation. No pillows or primary feature could be found.

Alteration

The mafic metavolcanic rocks on the property vary greatly in the type and strength of alteration. Therefore, special emphasis was placed on mapping these various types of alteration - i.e.: silicification, chloritization, and carbonitization. Some generalizations were found and are described below:

Two types of alteration in the mafic volcanics are predominant: (1) strong chlorite and carbonite alteration, and (2) strong chlorite and weak carbonate alteration.

1) Strong Chlorite and Strong Carbonate Alteration

This type of altered mafic metavolcanic is more predominant in two locations on the property.

1) the north central outcrop area along the east-west bush road giving access to the property, between L1600 W + 400 N.

and

2) the southeast outcrop area which is located between L 1200 E and L 1600 E.

These rocks generally weather a light brown to pale green in colour. The fresh surface is pale green to grey. The volcanics vary from fine to medium grained. Carbonate alteration in these rocks tend to be ankerite rich (which give the rock its brown weathered surface), and calcite is not as common. This rocks is fairly soft, but can locally be strongly silicified.

2) Strong Chlorite and Weak Carbonate Alteration

This type of alteration in the mafic metavolcanic rocks occurs primarily in the north-west outcrop area. These rocks are fine grained and weather brown to grey in colour, with fresh surfaces being dark green to black in colour. 1 mm X 3 mm elongate blebs of chlorite occur in these rocks.

Felsic Metavolcanics

Quartz Porphyritic Sericite ± Chlorite Schists

In the north central and northwest outcrop areas of the property, two felsic metavolcanic units occur. These rocks strike 314° and dip 72° North. Both units approximately 50 feet wide. Since the rocks are so

highly deformed (sheared and altered), it is difficult to determine the origin of the rocks. They could be thinly bedded quartz porphyritic crystal tuffs or represent sheared felsic dykes.

The rocks weather creamy white to pale green. The fresh surface varies from grey-brown to pale green. The rocks are fine grained with 1 mm to 3 mm sized quartz eyes. The quartz eyes vary from 5% to 70% locally, and are subhedral.

Alteration of these rocks varies from strong carbonate (ankerite) and sericite alteration to strong chlorite alteration. In some areas they are fuchsite bearing (1 - 3%).

Massive Mafic Dykes (Diabase)

Several northwesterly striking mafic dykes occur on the property. They vary from 50 to 150 feet in width. The mafic dykes are fine to medium grained. The weathered surface is brown and the fresh surface is grey. The rocks are weakly magnetic to non-magnetic. These rocks are hard with weak chlorite and weak carbonate (ankerite) alteration.

It is only through contact relationships and interpretation of magnetometer data that some of these dykes can be distinguished from the massive mafic volcanic host rocks.

Structure

All the rocks in the map area show a well developed southeasterly trending foliation (strike 118°) with very steep northerly to vertical dips (86° north to 90°).

Uncharacteristicly, the shallowest dips on the property are given by a narrow (50 foot wide) felsic metavolcanic unit in the north-central and northwestern outcrop area. This unit dips between 70° and 72° N.

Quartz Veining

A major set of parallel quartz and quartz-tourmaline veins and blebs occur roughly parallel to the regional foliation of the rocks. This vein set typically strikes 302° to 315°/Dip 080° to 086° North.

These veins are generally milky white to black in colour and contain up to 1 - 3% disseminated pyrite. The veins range from a minimum 5 cm to 10 cm width, and from 30 cm to 12 m in length. A chip sample taken from a quartz bleb on the north-central outcrop area, assayed 0.034 Au oz/ton. In the south-eastern outcrop area of the property another quartz vein yielded a gold assay of 180 ppb, which is above the background Au values obtained for the property.

A second set of parallel quartz veins occur perpendicular to the foliation. These veins strike 028° and dip 05° East. These quartz veins are often

contorted in shape and are milky white in colour, with no visible sulfides. They range up to 10 cm width and 3 m in length. Some of thses veins contain epidote and/or tourmaline.

A third, more rarely occuring set of parallel quartz veinlets strike 358° and dip 74° west. They are milky white in colour, with no visible sulfides. They are typically 1 cm width X 4 cm in length.

Shear Zones, Folding and Faults

One very small shear zone was found in the northwest corner of the map area, (grid co-ordinates 1140 N + 30 + 00 W), striking 046°. No dip could be ascertained.

Some minor Z drag folding occurred in quartz-tourmaline veins striking 058° and no plunges could be measured. This occurs in the southeastern outcrop area, grid coordinates 1605 E + 700 N.

No faults were observed on the property.

Mineralization

A total of 55 grab and chip samples were collected on the property and analysed for gold. Generally the rocks lack sulfide mineralization. Locally 1-3% disseminated pyrite occurs in the massive mafic volcanics and quartz veins on the property. Two highly anomalous gold assays were obtained in the sampling program. The first was sample A601, which

assayed 0.042 ounces/ton gold. This sample was taken from the southeastern outcrop area at grid location 780° N + 2070° E. This rock is a strongly altered massive mafic metavolcanic rock and is strongly carbonate altered (primarily ankerite), and contains weak chlorite alteration. The rock contained no visible sulfides.

The second anomalous gold assay occurred in (sample A622) a contorted quartz vein. The sample assayed 0.034 ounces/ton gold. This sample was collected in the north-central outcrop area, approximately 1 metre North of the dirt road. The grid coordinator of the sample location is 1450 W + 17 + 00 N. The vein is milky white in colour and approximately 10 cm in width by 30 cm length. This quartz vein parallels the well developed foliation and contains 1% disseminated pyrite.

The following chart gives a list of the samples collected and their gold content in parts per billion.

ABBREVIATIONS FOR SAMPLE DESCRIPTIONS

mmv.	massive mafic metavolcanics
strg.	strong
wk.	weak
mod.	moderate
med.	medium
altn.	alteration
v.s.	visible sulfides
chl.	chlorite
cbn.	carbonate
ank.	ankerite
qtz.	quartz
dissem.	disseminated
q.p.	quartz porphyritic
sc.	sericite

SAMPLE DESCRIPTIONS

SAMPLE #	ROCK TYPE	Au ASSAY ppb	ALTERATION	COLOUR WEATHERED SURFACE	COLOUR FRESH SURFACE	GRAIN SIZE	SULFIDES	COMMENTS
A 601	mmv.	0.042 oz/ton	strg. Cbn (ank)	light brown to pale green	pale green grey	Fine to Med.	No v.s.	
A 602	mmv.	23	strg Chl + wk to Mod. cbn. (mg + Ca) Altn. highly silicified	brown to green	dark green	Fine to Med.	No v.s.	
A 603	mmv.	14	Strg. Cbn (ank) + wk. Chl. + wk. sericite Altn. strg. silicified	brown	pale green to light grey	Fine to Med.	No v.s.	
A 604	Qtz - albite vein	180		white	white		No v.s.	20 cm X 40 cm length strike 298° Dip 86° N
A 605	mmv.	32	strg. Cbn (ank) altn.	brown	pale green	Fine to Med.	No v.s.	fuchsite bearing
A 607	mmv.	6	wk. Chl. + wk. Cbn. (ank) altn.	brown	grey	Fine to Med.	No v.s.	non-magnetic
A 608	mmv.	36	strg. to med. cbn. (ank) altn. + strg. to med. chl. altn.	brown	grey, green	Fine to Med.	No v.s.	contains mm wide contorted veinlets of calcite
A609	mafic dyke? or mmv.	8	strg. chl. + wk. Cbn (ank)	brown-green		Med. to Fine	No v.s.	mm to 2mm qtz + feldspar crystals. non-magnetic
A610	mmv.	8	strg. cbn. (ank) + wk. chl. strg. silicification	brown	dark green grey	Fine	No v.s.	qtz. + kspar. 10%
A611	chl. cbn. schist	21	strg. cbn (mg + Ca)+ strg. silicification	brown-green		Fine to Med.	No v.w.	fuchsite bearing 5%
A612	chl. cbn. schist	10	strg. to med. cbn. (ankerite) strg. silicification, strg chl.	tan cream to pale green	Pale green to light grey	Fine	No v.s.	fuchsite bearing 5%
A613	mmv.	7	strg. chl. + wk. cbn. (ank)	brown	pale to dark green	Fine	No v.s.	
A614	mmv.	6	strg. chl. + wk. cbn. (ank)	dark green to brown	dark green	Fine	No v.s.	chlorite has a preferred orientation parallel to the foliation
A615	mmv.	15	strg. to mod. cbn. (ank) + strg. to mod. chl.	dark green to brown	dark to pale green	Fine	No v.s.	fuchsite bearing

SAMPLE #	ROCK TYPE	Au ASSAY ppb	ALTERATION	COLOUR WEATHERED SURFACE	COLOUR FRESH SURFACE	GRAIN SIZE	SULFIDES	COMMENTS
A616	mmv.	45	strg. chl. + wk. cbn (ank)	dark green to brown	dark green	Fine	No v.s.	
A617	mmv.	14	stg. chl. + wk. cbn (ank)	dark green to black	dark green	Fine	No v.s.	
A618	mmv.	25	wk. chl. + wk. cbn (ank) strg. silicification	brown to black	dark green	Fine	1% dissem. pyrite	qtz. blebs (2 cm X 20 cm)
A619	mmv. + contor-ted qtz blebs	10	strg. silicification wk. chl. + wk. cbn. (ank)	pale green to brown		Fine	1% dissem. pyrite	qtz. blebs (2 cm X 20 cm) strike 136° / Dip 88° N.
A620	mmv.	7	strg. silicification strg. chl.	rusty brown	pale green		1% dissem. pyrite	1 mm wide contorted veinlets of qtz.
A621	chl. cbn. schist	48	strg. cbn. (mg + Ca) + wk. chl.	rusty brown	pale green	Fine	No v.s.	fuchsite bearing
A622	contort-ed qtz. bleb	0.034 oz/ton		milky white			1% dissem. pyrite	10 cm X 30 cm parallels foliation
A623	q.p. ch sc. schist felsic	15	strg. chl. + strg. sericite altn.	palegreen to white brown	pale green to yellow	Fine	No v.s.	qtz. eyes 3mm X 2mm 80% qtz eyes 1mm veinlets of calcite parallel to foliation
A624	mmv.	29	strg. chl. + wk. Cbn (ank) strg. silicification	brown to black	dark green	Fine	No v.s.	
A625	mmv.	8	strg. cbn (ank) + strg. chl. wk. sericite altn.	brown to green	dark to pale green + yellow	Fine to Med.	No v.s.	fuchsite bearing
A627	qtz. vein	26		milky white			No v.s.	10 cm X 3 m 2 drag folds - no plunges measured
A626	mmv.	48	strg. cbn (ank) + strg. chl. wk. sericite altn.	brown to green	dark to pale green + yellow	Fine to Med.	No v.s.	
A628	qtz. vein	26		milky white			No v.s.	40 cm X 3 m taken from blasted pit
A630	mmv.	41	strg. chl. + wk. cbn.	brown to green	pale green to dark grn	Fine to Med	No v.s.	non-magnetic

SAMPLE #	ROCK TYPE	Au ASSAY ppb	ALTERATION	COLOUR WEATHERED SURFACE	COLOUR FRESH SURFACE	GRAIN SIZE	SULFIDES	COMMENTS
A631	q.p. chl. sericite schist	14	strg. ank + wk to mod. sericite wk. chl.	rusty brown to pale green		Fine	No v.s.	15% qtz. eyes, qtz veinlets 1 cm X 10 cm parallel to foliation in this rock.
A632	qtz tourmaline vein	12		white + black			1% dissem. pyrite	6 cm X 6 cm parallel
A633	q.p. sericite schist	6	wk. to mod. cbn	white cream	grey - brown to yellow green	Fine Med.	No v.s.	
A634	q.p. sc. chl schist	22	strg. cbn. (ank) + wk. chl. + strg. sc.	palegreen brown		Fine	No v.s.	
A635	chl. cbn schist	11	strg. chl. + strg. mod. cbn (ank)	brown - green	pale to dark green		No v.s.	rock is very soft
A637	mmv.	15	strg. cbn + wk. chl.	brown - green	grey - black	Fine	1-5% dissem. pyrite arseno-pyrite	
A636	mmv.	10	strg. chl. + strg. to mod. cbn.	brown green	grey - black	Fine	No v.s.	
A638	chl. schist	11	strg. chl. wk. cbn.	green - black	pale to dark green	Fine	No v.s.	
A639	contorted qtz bleb	6		milky white			No v.s.	10 cm X 50 cm parallels foliation
A640	mmv.	8	strg. to mod. chl. wk. cbn.	brown	black	Fine	No v.s.	
A641	chl. sc. schist	114	strg. to mod. chl. mod. cbn. (mg + Ca) wk. sc.	light grey green	pale to dark green	Fine	No v.s.	
A642	q.p. sericit chl. schist	6	strg. cbn. (ank) wk. to mod. sericite	white to pale yellowy green	pale green	Fine	No v.s.	fuchsite bearing, 1-5% qtz. eyes
A643	q.p. sc. chl schist	12	strg sericite wk. chl. strg. to mod. cbn.	pink red brown to palegreen cream	pale green	Fine	No v.s.	fuchsite bearing, 1-5% qtz. eyes.
A644	qtz tourmaline vein	51		white + black			No v.s.	60 cm X 12 m parallels foliation

SAMPLE #	ROCK TYPE	Au ASSAY ppb	ALTERATION	COLOUR WEATHERED SURFACE	COLOUR FRESH SURFACE	GRAIN SIZE	SULFIDES	COMMENTS
A801	mmv.	21	strg. chl. + wk. cbn (ank)	light brown	dark grey	Fine	No v.s.	strongly foliated
A802	mmv.	7	strg. cbn. (ank)	rusty brown	light orange	Fine	No v.s.	fuchsite bearing
A803	mmv.	8	strg. cbn + strg. chl.	rusty brown	light orange	Fine	No v.s.	fuchsite bearing
A804	mmv.	14	strg. cbn. (Ca + mg)	light brown	dark grey		No v.s.	fuchsite bearing contains several qtz. calcite veinlets
A805	mmv.	10	strg. cbn. (ank)	light brown	orange		No v.s.	fuchsite bearing
A806	mmv.	18	strg. silicification strg chl. + cbn.	rust	light grey to black		No v.s.	contains several veinlets of K-spar
A807	mmv.	19	strg. cbn. (ank) + wk. chl.	light brown	light grey to black	Fine	No v.s.	
A808	mmv.	4	strg. cbn. (ank) + strg. chl.	dark brown	dark blue grey to lightgreen	Fine	No v.s.	contains several qtz calcite veinlets
A809	cbn. chl. schist	7	strg. cbn + chl.	rust	light green	Fine	No v.s.	contains qtz. - carbonate feldspar veinlets
A810	chl. sericite schist	7	strg. chl. + strg. sericite altn.	darkgreen	dark grey	Fine	No v.s.	contains qtz. - calcite veinlets
A811	chl. schist	15	strg. chl. + wk. cbn. altn.	dark brown	dark green	Med.	No v.s.	
A812	mmv.	6	strg. silicification wk. chl. + wk. cbn	light green brown	lime green		No v.s.	
A813	chl. sericite schist	15	strg. silicification strg. chl. + strg. sc. altn	rust	pink, pale green + yellow	Fine	1% dissem. pyrite	

CONCLUSIONS AND RECOMMENDATIONS

Phase 1 of a proposed 3 phase exploration program for the BA Resources Ltd., Joseph Property in Thomas Township has been completed. Phase 1 included line cutting, a magnetometer survey detailed geological mapping and prospecting; and assaying.

The objectives of this project were met, and further exploration for the property's gold potential is warranted for the following reasons:

1) Location
   a) Excellent all weather road access
   b) Proximity to a skilled labor pool
   c) Proximity to mining equipment and supplies
   d) Proximity to a custom mill facility
2) Very favorable geologic environment. The following indicators have been found to occur on the property.
   i) Quartz and quartz-tourmaline veins with gold values up to 0.04 oz/ton Au. And, old assay values of up to 0.05 ounces/ton Au.
   ii) Extensive shearing
   iii) Strong carbonate alteration (Mg and Ca), strong chlorite and sericite alteration; locally high silicification with gold values up to 0.034 oz/ton Au.

The alteration on the property in specifically two areas 1) the north central outcrop area and 2) the southeastern outcrop area; have considerable favorable alteration similar to the alteration in the vicinity of the gold deposits in the

Porcupine Gold Camp. This is an excellent area to explore for mineable concentrations of gold mineralization.

A preliminary induced polarization survey is recommended to attempt to delineate any zones of sulphide mineralization which might be associated with gold mineralization.

If considered warranted and target areas can be delineated a diamond drill program is recommended to test any zones of interest.

BUDGET

Phase 1 of a 3 phase exploration program recommended by consulting geologist R. Bruce Durham has been completed. The following two phase work program, estimated to cost $114,400.00 is recommended to more fully evaluate the potential of the BA Resources Ltd., Joseph Property, in Thomas Township.

PHASE II — Induced polarization surveying

20 day @ $1200/day for all equipment, men and plotting.	$ 24,000.00
Report	$ 3,000.00
Consulting, Supervision	$ 2,000.00
Contingency (10%)	$ 2,900.00
TOTAL ESTIMATED PHASE II COST	**$ 31,900.00**

PHASE III

Dependent upon definition of target after completion of Phases I & II.

Diamond Drilling 3000 feet of BQ diamond drilling @ $20/foot all inclusive	$ 60,000.00
Assaying, splitting, shipping	$ 5,000.00
Supervision, logging, report, drafting	$ 10,000.00
SUB TOTAL	$ 75,000.00
Contingency (10%)	$ 7,500.00
TOTAL PHASE III PROGRAM	**$ 82,500.00**
TOTAL OF PHASES II & III	**$ 114,400.00**

Respectfully submitted,

R. Bruce Durham Bsc. FGAC
Consulting Geologist

GEOLOGICAL ASSOCIATION OF CANADA
R. B. DURHAM
FELLOW

and

Kim Woytiuk Bsc.

November, 1986

SELECTED REFERENCES

Burrows, A.N.
1940: Geology of the Langmuir Sheraton area; Ontario Department of Mines Vol. 49, pt 4, 21 p. Accompanied by Map 49h scale 1" to 1 mile.

Durham, R.B.
1986: Report on the BA Resources Ltd., Joseph Property in Thomas Township, Porcupine Mining Division, Ontario.

Fyon, J. Andy and Crocket, J.H.
1983: Gold Exploration in the Timmins Area Using Field and Lithogeochemical Characteristics of Carbonate Zones; Ontario Geological Survey Study 26, 56 p. Accompanied by 2 Charts, 2 Maps.

Leahy, E.J.
1971: Geology of the Nighthawk Lake Area, District of Cochrane, Ontario. Ontario Department of Mines and Northern Affairs, GR 96, 47 p. Accompanied by Map 2222 scale 1" to 1 mile.

Pyke, D.R.
1981: Relationship of Gold Mineralization to Stratigraphy and Structure in Timmins and Surrounding Area.

Ministry of Natural Resources Assessment Work Files: Timmins

Markay Mining Corporation Ltd., Thomas Township.

Foster and Trout Creek Claims, Thomas Township.

CERTIFICATION

I, Kim Woytiuk, of 258 Wende Avenue, Timmins, Ontario, certify as follows concerning by November 24, 1986 report on the BA RESOURCES LTD., Joseph Property located in Thomas Township.

1. I am a graduate of the University of Windsor, Ontario, having obtained an Honours Bachelor of Science Degree in Geology in 1985.

2. I have been practicing my profession in Canada, since 1985.

3. I have no direct or indirect interest in the leases or securities of BA Resources.

4. That this report is a product of my knowledge of the area, and a compilation of previous available work.

Dated at Timmins
this 24th day of November, 1986

Kim Woytiuk

K. Woytiuk Bsc.

CERTIFICATION

I, R. Bruce Durham, of 1176 Delnite Road, Timmins, Ontario, certify as follows concerning my November 24th, 1986 report on the BA RESOURCES LTD., Joseph Property located in Thomas Township.

1. I am a graduate of the University of Western Ontario, having obtained a Bachelor of Science Degree in Geology in 1976.

2. I have been practicing my profession, primarily in Canada, since 1975.

3. I am a fellow of the Geological Association of Canada.

4. That this report, is a product of my knowledge of the area, and a compilation of available previous work.

Dated at Timmins
this 24th day of November, 1986

R. Bruce Durham Bsc. FGAC
Consulting Geologist

GEOLOGICAL ASSOCIATION OF CANADA
R. B. DURHAM
FELLOW

Dual
2.4980

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

10/87

2.9738.

Mi

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.

42A07NW0172 2.9738 THOMAS

900

Type of Survey(s)
Geological Mapping

Claim Holder(s)
BA Resources Ltd.

Address
402 - 1755 West Broadway, Vancouver, B.C.

Survey Company
Durham Geological Services

Date of Survey (from & to): 8 Day | 10 Mo. | 86 Yr. | 24 Day | 10 Mo. | 86 Yr.

Total Miles of line Cut

Name and Address of Author (of Geo-Technical report)
B. Durham - Box 734, Timmins, Ont.

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	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- 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: S ÷ 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.
	see	
	attached	
	list	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
FEB - 4 1987
MINING LANDS SECTION

RECORDED
JAN 14 1987

PORCUPINE MINING DIVISION
RECEIVED
JAN 14 1987

Total number of mining claims covered by this report of work: 25

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
500	Jan. 14/87	
	Date Approved as Recorded	Branch Director
	87.V.17	

Date: Jan. 13/87

Recorded Holder or Agent (Signature): R. Bruce Durham

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
R. Bruce Durham Box 734, Timmins, Ont.

P4N 7G2

Date Certified: Jan 13/87

Certified by (Signature): R. Bruce Durham

2.9738

The numbers of the claims and their respective expiry dates are as follows:

P 867076	September 3, 1987
P 867077	September 3, 1987
P 867078	September 3, 1987
P 867079	September 3, 1987
P 867080	September 3, 1987
P 867081	September 3, 1987
P 867082	September 3, 1987
P 867083	September 3, 1987
P 867084	September 3, 1987
P 867085	September 3, 1987
P 867508	September 3, 1987
P 867509	September 3, 1987
P 867510	September 3, 1987
P 867511	September 3, 1987
P 867512	September 3, 1987
P 867513	September 3, 1987
P 867514	September 3, 1987
P 867515	September 3, 1987
P 867521	September 13, 1987
P 867522	September 13, 1987
P 867523	September 13, 1987
P 867524	September 13, 1987
P 867525	September 13, 1987
P 867526	September 13, 1987
P 867527	September 13, 1987

TOTAL: 25 claims

MAP SYMBOLOGY

- Aerial Cableway
- Boundary
  - International
  - Interprovincial
  - District, Township, Indian Reserve
  - Approximate
  - Lot, Concession
  - Approximate
  - Park Boundary
- Bridge
- Road, Railroad
- Building
- Chimney
- Cliff, Pit, Pile
- Contours
  - Interpolated
  - Approximate
  - Depression
- Control Points
  - Horizontal
  - Vertical
- Culvert
- Falls
  - Double line river
- Fence, Hedge, Wall
- Feature Outline (Construction features, etc.)
- Flooded Land
- Lock
- Marsh or Swamp
- Mast
- Mine Head Frame
- Outcrop
- Pipeline (above ground)
- Railroad
  - Single Track
  - Double Track
  - Abandoned
  - Turntable
- Road
  - Highway, County, Township
  - Access (road of doubtful maintenance or significance, driveway)
  - Trail, Bush Road (portage, slip)
- Rapids
  - Double line river with multiple rapids
  - Double line river with multiple rapids
- Reservoir
- River, Stream, Canal
  - Approximate seasonal
  - Direction of Flow
- Rock
  - Significant
- Shoal
- Spot Elevation (lake elevations)
- Tower
- Transmission Line
  - Poles
  - Pylons
- Tunnel
- Utility Poles
- Wharf, Dock, Pier
- Wooded Area

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
R1	NRW 16/83		S.R. & M.R.	

S.R. & M.R. WITHDRAWN FROM STAKING SEC. 36 ORDER No. 16/83 (GEOLOGICAL / GEOPHYSICAL TESTING RANGE).

MACKEREL TWP.

CARMAN TWP.

SHERATON TWP.

BLACKSTOCK TWP.

McLEOD ISLAND

Whitefish River

McLeod Creek

Addison

CLM 283

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	R
CANCELLED	⊗
SAND & GRAVEL	S

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.

Metres 500 0 1000 Metres
Chains 10 0 10 20 30 40 50 60 70 Chains
Feet 500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000
GRID ZONE: 17

RESERVE FLOODING RIGHTS TO H.E.P.C. OF ONTARIO TO ELEVATION 903.5 T. & N.O. RAILWAY DATUM ON NIGHT HAWK LAKE.

R1 MR+SR withdrawn from staking under Section 36 - The Mining Act Order No. NRW 16/82

Rec'd Jan 22/85

TOWNSHIP

THOMAS

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

Ontario Ministry of Natural Resources — Land Management Branch

ORIGINAL COMPILATION: JULY, 1984
REVISED:

Number **G-3977**

4

5

MACKLEM TWP.

THOMAS TWP.

5-

-5

LEGEND

MAFIC METAVOLCANICS

1a Strong to Moderate Carbonate (Ankerite) Altered
b Strong to Moderate Chlorite Altered Massive Mafic Volcanics
Strong Carbonate (Ankerite) & weak Chlorite Altered
c ± Sericite Massive Mafic Volcanics
(Trong Carbonate (Ankerite) Altered Massive Mafic Volcanics & Fuschite Bearing
d Strong Chlorite Alteration & weak Carbonate (Ankerite) Altered Massive Mafic Volcanics
e Weak Chlorite & weak Carbonate Altered Massive Mafic Volcanics
f Strong Silicification, weak Chlorite & weak Carbonate (Ankerite) Altered Massive Mafic Volcanics
g Strong Silicification & Strong Chlorite Altered Massive Mafic Metavolcanics
h Chlorite Schist
i Chlorite Carbonate Schist
j Chlorite Sericite Schist
k Talc-Carbonate Rock
l Fuschite, Sericite Schist

FELSIC METAVOLCANICS

2a Quartz Porphyritic Sericite Schist
b Quartz Porphyritic Chlorite Sericite Schist & Fuschite Bearing
c Quartz, Porphyritic Chlorite Sericite Schist

MAFIC INTRUSIVE ROCKS

4a Massive Mafic intrusive Dyke (Diabase)

SYMBOLS

- Foliation, Strike & Dip
- Strike & Dip of Quartz veins
- Geological Boundary (interpretated)
- Pit (Shallow)
- Old Trench
- Drag Folds (No Plunge measured)
- Shear Zone
- Old Diamond Drill Hole
- Claim Line
- Claim Post
- Claim Post (located)
- Dirt Road
- Creek
- OLD TRENCH

TRENCH STRIKES 311/66 SW
GOLD ASSAYS RANGE FROM 0.02 Au oz/ton to 0.05 Au oz/ton over 224ft.
TAKEN FROM ASSESSMENT FILE
Sampling Reconnaissance of Thomas Twp 1923 Foster & Trout Creek Claims
SAMPLING BY Henry Hanson, October 30,1923

- Alder
- Birch
- Mf Mixed Forest
- Po Poplar
- Sp Spruce
- Ts Tamarack
- Sub Crop
- Sample Location

29738

REVISIONS	DURHAM GEOPHYSICAL SERVICES LTD. B.A. FELLOWS
	GEOLOGY JOSEPH PROPERTY
DATE Nov 25,1990	DRAWN
N.T.S.	APPROVED
SCALE FIGURE	