

2. 14458



32D04NW0172 2.14458 LABEL

010

REPORT

ON

A MAGNETOMETER AND GEOLOGICAL SURVEY

CUNNINGHAM - STALMACK PROPERTY

LEBEL TOWNSHIP, ONTARIO

1991 OPAP

PERSON'S NAME
MINISTRY, BOARD OR COMMISSION
DIVISION OR BRANCH
CITY, BUILDING, ROOM NO.
PERSON'S NAME
MINISTRY, BOARD OR COMMISSION
DIVISION OR BRANCH
CITY, BUILDING, ROOM NO.
PERSON'S NAME
MINISTRY, BOARD OR COMMISSION
DIVISION OR BRANCH

LARDER LAKE  
MINING DIVISION

RECEIVED  
JAN 23 1992  
M T  
LARDER LAKE  
ON

Opap-462

L. J. Cunningham, B.Sc., P.Eng.  
Mining Engineer

8th January, 1992

Qual. 65.1603

A REPORT ON  
A MAGNETOMETER SURVEY  
OF  
CLAIM L.1096919 & PARTS OF CLAIMS L.27140, L.27510 & L.27511  
LEBEL TOWNSHIP  
LARDER LAKE MINING DIVISION, ONTARIO

INTRODUCTION

During the period 1 - 15th October, 1991 a magnetometer survey was completed over the subject claims which are part of a larger group owned by the writer and Alexander Stalmack.

LOCATION      Figures 1 and 2

The property is located 10 km. east of Kirkland Lake and is easily accessed by a powerline which crosses Highway 66 (1 km. west of the Lebel/Gauthier Townships boundary) and claim L.1096920, approximately 400 feet north of claim L.1096919.

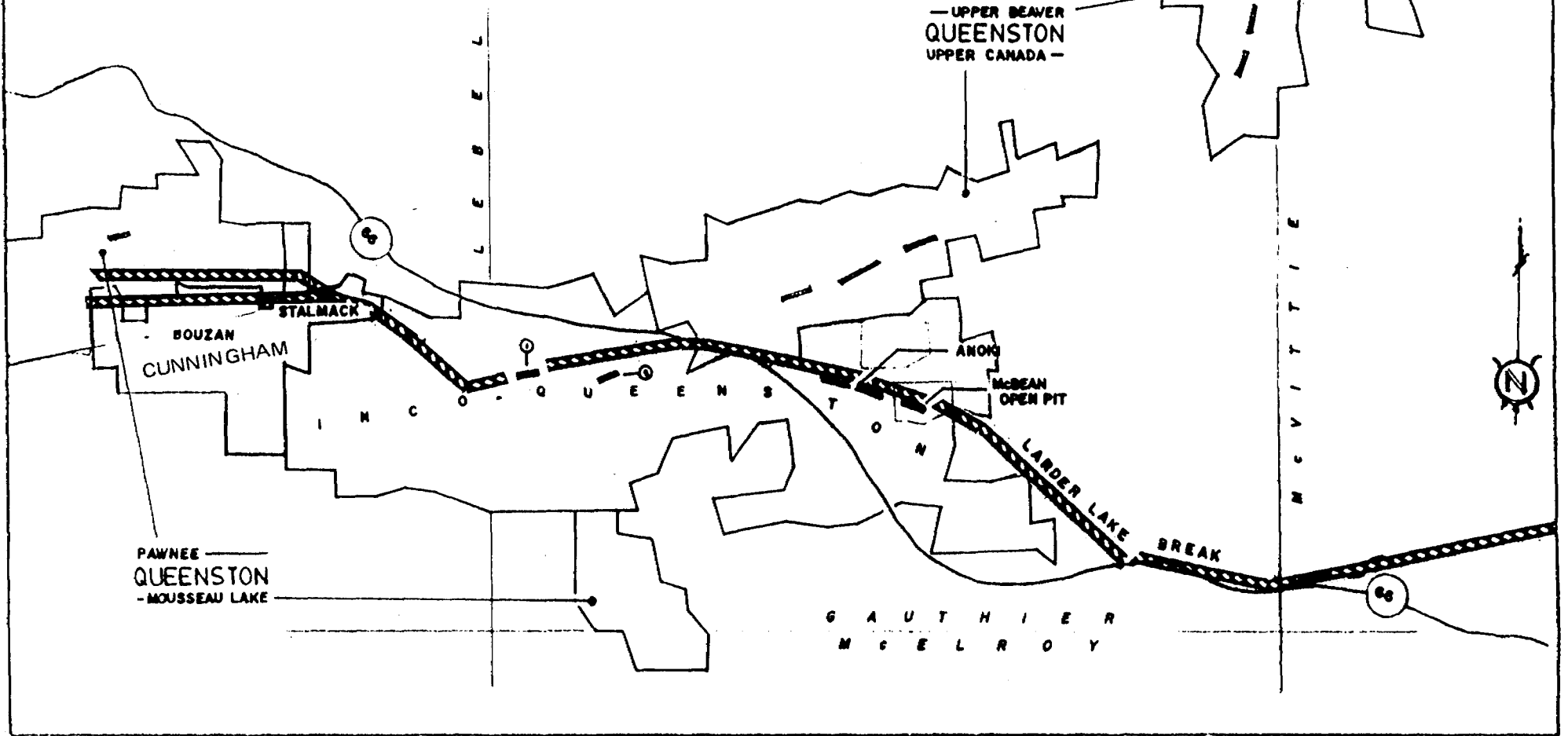
PROCEDURE

For claim L.1096919 lines were cut at 200 foot centres and base station readings established for each line along the south boundary. For claim L.27140 base station readings were established at 200 foot centres along the north boundary and lines were cut at 200 foot centres north for  $\pm$  400 feet to the creek within claim L.S. 457. Lines at 200 foot spacing were also cut south approximately 400 feet to base line 150 N.

Note: For this survey an old Inco-Queenston grid was re-established. It consisted of 3 east/west base lines - 140N, 150N, 162N and north/south grid lines at 400 foot centres. Extra lines at 200 foot centres were cut. The new grid was cut easterly into claims L.27510 and 27511 to the flooded area. The survey of these two claims was complicated by a wide, flooded, sinuous stream system with many beaver dams. The survey was designated to interpret the complicated geology resulting from folding, faulting, diking and cross fracturing. The creeks followed the folds & faults and limited access to the critical areas. Overburden increases rapidly from claim L.1096919 to the east & southeast and reaches depths in excess of 100 feet.

A portable proton magnetometer, Geometrix Model G.816, with an accuracy of  $\pm$  1 gamma was utilized. Headings were taken at 25 foot intervals with the sensor mounted on an 8 foot staff. Readings were taken at each station until two were repeated with a  $\pm$  1 gamma difference. The survey was completed in loops

# KING KIRKLAND LARDER LAKE REGION

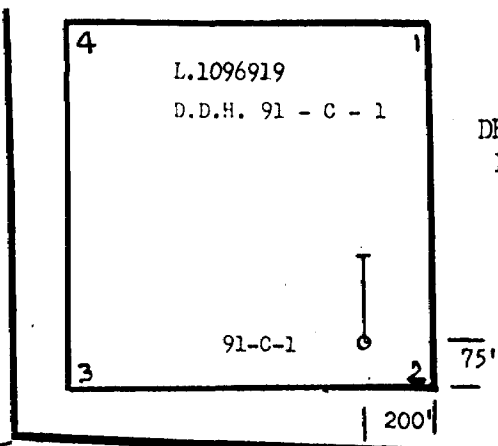


showing CUNNINGHAM and GOLD ZONES

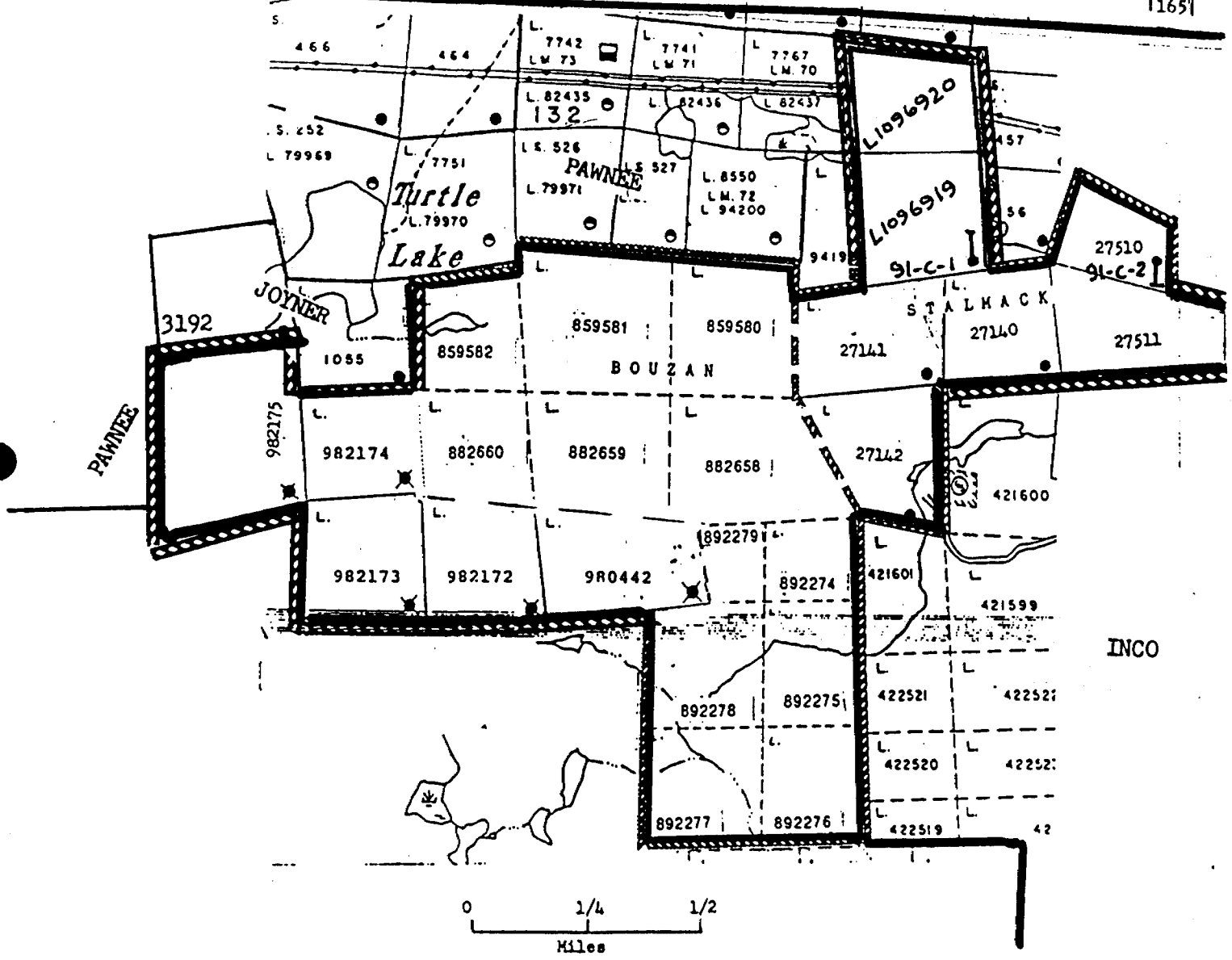
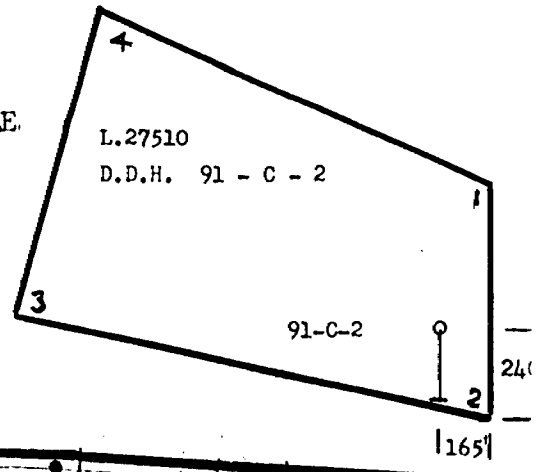
UPPER CANADA }  
UPPER BEAVER } FORMER PRODUCERS  
McBEAN OPEN PIT }

PAWNEE > PROMISING GOLD MINERALIZATION  
ANOKI > UNDERGROUND DEVELOPMENT  
① BIROCO > PROMISING DRILL  
② ESKER > INDICATED GOLD MINERALIZATION

FIGURE 1



DETAILS  
DRILL HOLE  
LOCATIONS



TOTAL 24 claims

- 5 Patented (27140-2; 27510-11)
- 19 Unpatented
  - 859580-2
  - 882658-60
  - 892274-79
  - 980442
  - 982172-5

200 days  
work  
recorded

1096919-20

CUNNINGHAM GROUP  
LEBEL TOWNSHIP

FIGURE 2

- up one line, down the next and returning to the established base line within one hour intervals. The loops were balanced for diurnal drift.

### RESULTS

Outcrop is plentiful on claim L.1096919.

Existing geological maps had shown the Lebel Stock in contact with trachytic rocks near the south boundary of claim L.1096919. However, prospecting by the writer & Stalmack revealed a narrow, east/west band of mafic volcanics with minor interflow sediments (chert, iron formation) in contact with the Lebel Syenite Stock. A broad band of trachytic rocks are well exposed to the north and are separated from the mafic volcanic by a swampy depression which was speculated to define a fault (the Larder Lake Break) separating the Larder Lake Group (mafic volcanics) from the Temiskaming Group (trachytic rocks)

A drill hole, 91-1, confirmed the existence of a major fault as speculated.

### Claim L.1096919

Mag readings over the Lebel Syenite Stock are in a range of 700 - 800 gammas. There is an increase to 800 - 1000 gammas over the mafic volcanics of the Larder Lake Group. There is no recognized magnetic depression over the fault. Trachytic rocks (flow, coarse & fine pyroclastics) cover the balance of the claims and register a pronounced magnetic high with sharp peaks to 5000 gammas and pronounced depressions to 800 - 1000 gammas. Along the north boundary of the claim, the trachyte flows, which are normally magnetically high, are markedly depressed with readings falling to 0 and -500 gammas. These low values overlie carbonatized, silicified and potassic-altered, reddish flows in which (it is suspected) magnetite has been altered to hematite. This alteration and destruction of magnetite parallels, and is believed related to, a strong deformation zone located a few hundred feet to the north at a trachyte flow - sedimentary contact. This deformation zone was traced by the writer for 2500 feet to the southeast where it disappears under overburden and for 3000 feet to the west where it again disappears under overburden.

To the east of claim L.1096919 across Claims L.S.457, L.27140, L.27510 and L.27511 the magnetics show the fold in the units. The magnetically high trachytic units are indicated across claim L.27510 into L.27511. Overburden is

rapidly increasing to the east which complicate the interpretation. Outcrop is plentiful in the north half of claim L.27510, being predominantly conglomerate and greywacke with lesser volcanoclastics. The trachyte flow/conglomerate contact was exposed by the writer & Stalmack near the No. 3 post of claim L.27510 and 50 feet west of the collar of drill hole 91-2 in the southeast corner of claim L.27510. Immediately north of the approximate central point of the north boundary of claim L.27510 bedding in the sediments strike N/S with near vertical dips emphasizing the pronounced fold in the formation.

Excavation of old trenches immediately west of the collar of drill hole 91-2 exposed highly altered (carbonatized, silicified) reddish trachyte in contact with conglomerate - with the contact striking east-northeasterly - suggesting that the units were reverting to the general easterly strike. The collar location of hole 91-2 was selected because of this exposure and the presence of shallow overburden. A similar hole drilled from south to north probably would have encountered + 100 feet of overburden. Considering the limited funds available (OPAP) this risk could not be taken even though it was recognized that dips were southerly. The magnetically low readings readily traced the deformation zone and the alteration across claim L.27510 and easterly into claim L.S.498 where the trachyte/sediment contact was intersected in hole 51-C-13 to yield 0.07 oz./ton over 2.4 feet.

Magnetometer surveys recorded by Inco-Queenston on claim L.9772 show a magnetic high (east of claim L.27511) which is interpreted as the extension of the trachytic rocks. A magnetic low to the south probably reflects the presence of Larder Lake Group mafic volcanics overthrust on the trachytes by the Larder Lake Break. A magnetic low near the north boundary of L.9772 confirms the deformation zone and associated alteration which is readily traceable across the map area easterly from L.1096919.

Two diabase dikes with north-northeasterly strike are known (O.D.M. Map 53a) to occur immediately north of claim L.27510 and the easterly dike has been traced by drilling (D.D.H. 51-C-13) into claim L.S. 498 approximately 250 feet east of D.D.H. 91-2.

Two diabase dikes with similar spacing are located 1000 - 2000 feet south of claim L.27142. These locations to the north and south of the property are approximately 3000 feet apart with the intervening area devoid of outcrop and covered by deep overburden. These dikes are thought to occupy a zone of N/NE fracturing and faulting. Strong N/NE striking faulting and shearing is well exposed in the vicinity of the east dike on the power line 800 feet northeast of No. 1 post of L.27510.

may reflect brittle failure related to sharp folding.

The north northeasterly striking diabase dike intersected in drill hole 51-13 on claim L.S. 498 is well exposed on the power line 1,000 feet northeast of the drill hole. Strong parallel shearing is exposed over widths of 50 feet along the easterly margins of the dike. It is suggested that this shearing would probably persist southerly into claim L.27511 under Jordan Lake to the Larder Lake fault.

Hole 91-2 was drilled to test the deformation zone and gold mineralization indicated on the Commodore property (now Lukovich L.S. 498; hole 51-13).

The hole is summarized as follows:

0	-	23	Overburden
23	-	81	Sediments
81	-	228	4 distinct, altered, weakly fractured and mineralized (pyrite) trachyte flows separated by sheared and mylonitized mafic trachytic rock. The flows are 19, 18, 49 and 10 feet wide
228	-	461	Trachyte Agglomerate

Gold values within the flows are anomalous but low with the upper flow being the most promising. Micro brecciation with fine random quartz-feldspar, hairlike fracturing and fine disseminated pyrite yielded 245 PPB gold over 19 feet. In the writer's opinion this alteration and mineralization is similar to (i) the exposure of the Commodore zone on Highway 66 within the east part of claim L.S. 497 and (ii) the Inco Queenston 180 E zone. Figure 4 is a N/S section through hole 91-2 and Inco hole 82615.

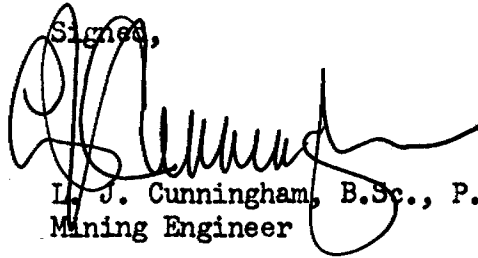
### CONCLUSIONS

A magnetometer survey and mapping on lines at 200 foot centres supported by extensive prospecting between lines with special emphasis along the strike of geologically important structures and contacts has made three significant contributions to the geology of Lebel Township.

1. The Larder Lake fault has been relocated approximately 1,200 - 1,400 feet north of the previously assumed position over a strike length of 10,000 feet (Jordan Lake to Turtle Lake).
2. The previously defined structure ( 100 feet green carbonate rock which cuts through the Lebel Stock) is interpreted as the Bouzan fault - a looped branch segment of the Larder Lake fault.
3. A major, laterally extensive, deformation zone has been defined across the Cunningham-Stalmack claims.

The Larder Lake fault (as newly defined) and the deformation zone have been sparsely tested and are excellent exploration targets for gold mineralization.

Signed,



L. J. Cunningham, B.Sc., P.Eng.  
Mining Engineer

Dated at  
Kirkland Lake, Ontario  
8 January, 1992

2.14458



REPORT  
ON  
GEOLOGY  
OF  
CLAIMS L.1096919 and L.1096920  
LEBEL TOWNSHIP  
LARDER LAKE MINING DIVISION, ONTARIO

INTRODUCTION

These 2 claims were mapped on lines at 200 foot centres, to provide a geologically interesting crosssection across 2,700 feet of Temiskaming & Larder Lake Group rocks north of the Lebel Stock.

DESCRIPTION

The Lebel syenite is a massive equigranular, medium grained, uniformly textured and coloured pink rock. Chilling was not observed at the contact with the Larder Lake Group volcanics .

The Larder Lake Group rocks form an east-west band, 300 - 500 feet thick flanking the north contact of the syenite. They are mafic to ultramafic volcanics with minor interflow chert and iron formation (oxide & sulphide facies). These volcanics are fine grained - pale green to blue in colour, sheared, deformed, sometimes schistose and often carbonatized, occasionally they are syenitized. The interflow sediments appear undeformed and consist of discontinuous 1 - 2 foot white, creamy, massive chert and a similar thickness of lean oxide and/or sulphide iron formation. The interflow sediments attracted the attention of early prospectors who trenched the unit in the 1920-30's. Four old trenches were located on L.1096919 and three new ones were completed by the writer. Prospecting by the writer beyond claim L.1096919 traced the Larder Lake Group rocks (and located numerous trenches) westerly to Turtle Lake. These rocks have traditionally (O.D.M. Map 53a) been considered part of the Temiskaming rocks although Jensen, L.S. O.G.S. (personal communication) was aware of their existence.

The Larder Lake Group rocks are flanked on the north by an easterly flowing creek some 100 - 300 feet wide across claim L.1096919 and by a continuous depression westerly to Turtle Lake. North of this low ground, trachytic rocks are well exposed. The writer concluded that a fault must occupy this depression that separated the two rock units. Prospecting by the writer failed to locate exposure of the fault either on L.1096919 or westerly to Turtle Lake. Three trenches, dug by backhoe in 1990 in the southeast corner of claim L.1096919 exposed the syenite and mafic volcanics but attempts to extend the trenches

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northward toward the suspected fault encountered excessive overburden ( $\pm$  25 feet).

In 1991 hole 91-C-1 was drilled from south to north to test for a fault. The results were most conclusive. 118 feet of fault gouge was encountered with 80 feet of lost core. The recovered gouge consists of mud with recognizable fragments of green carbonate, talc chlorite schist and mauve coloured, decomposed material suggestive of an original syenitic rock.

A summary log:

0	-	53	Overburden
53	-	138	Larder Lake Group volcanics, interflow sediment
138	-	256	Fault Larder Lake Break
256	-	400	Temiskaming Group trachyte tuff and flows

North of the depression which marks the fault, a horizontal width of approximately 300 feet of trachytic flows are well exposed in the western part of the claim and poorly exposed in the east. The flows are multicoloured, predominantly red to brown with variations from grey to cream - often spotted. Textures vary from fine grained to porphyritic. They are magnetic with sharp changes from strongly to weakly magnetic. Flow contacts were not observed.

A band of fine grained, thinly bedded tuff, 200 - 300 feet wide, cross the claim north of the above mentioned flows. They are uniformly grey in colour. Dips are highly variable from  $20^{\circ}$  to  $70^{\circ}$  and the impression is that they are broadly folded with a generally east-west strike.

200 feet of trachyte flows with a high magnetic response flank the tuffs on the north - they are similar to the trachytic flows to the south of the tuffs. There is a rapid change in magnetic response in the vicinity of the major deformation zone which defines the contact between trachyte flows and sedimentary rocks. The trachyte flow becomes noticeably altered - silicified, carbonatized, sericitized and presumably magnetite has been converted to hematite.

Deformation of the sediments has been intense in comparison to the trachyte flows which, being hard, resistant rocks, are altered but not noticeably deformed. Near the contact the conglomerate have been intensely sheared - pebble stretched and matrix converted to sericite. This deformation diminishes northward and away from the fault but is strong and pervasive over widths up to 100 feet. The clastic rocks, a mixed package of conglomerate, greywacke, siltstone and volcanoclastics, are approximately 600 feet wide and are terminated by an easterly striking mafic syenite intrusive about 200 feet wide which extends across claim L.1096920. It has pronounced, high magnetic response (assessment file, Cunningham, 1990). This unit is typical of the mafic syenite which is prevalent

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in the producing mines of Kirkland Lake. It is a dark, medium grained, massive rock resembling a diorite. They are plentiful near the Teck-Label Townships' border but are rare in the rest of Label Township.

North of the mafic syenite, coarse mafic syenitic tuffs (agglomerate) cover the balance of claim L.1096920 except near the claim boundary in the northeast corner of the claim where reddish brown trachyte flows are exposed.

There is considerable east-west shearing in the sediments and tuffs adjacent to the contact areas of the mafic syenite. This has been the subject of considerable trenching estimated of 1920-30 vintage. Figure 3 is a north/south stratigraphic section across claims L.1096919-20.

The magnetometer survey to the east of claim L.1096919 readily defines the magnetically high trachytic rocks and the magnetically low rocks (both trachyte and sediments) of the deformation zone.

Prospecting and stripping by the owners revealed extensive old trenching in the northwest corner of claim L.27510 which obviously was designed to test the alteration and deformation associated with the trachyte-sediments contact. Several deep pits were dug in an unsuccessful attempt to locate the trachytes to the south of the contact, (circa 1920-30).

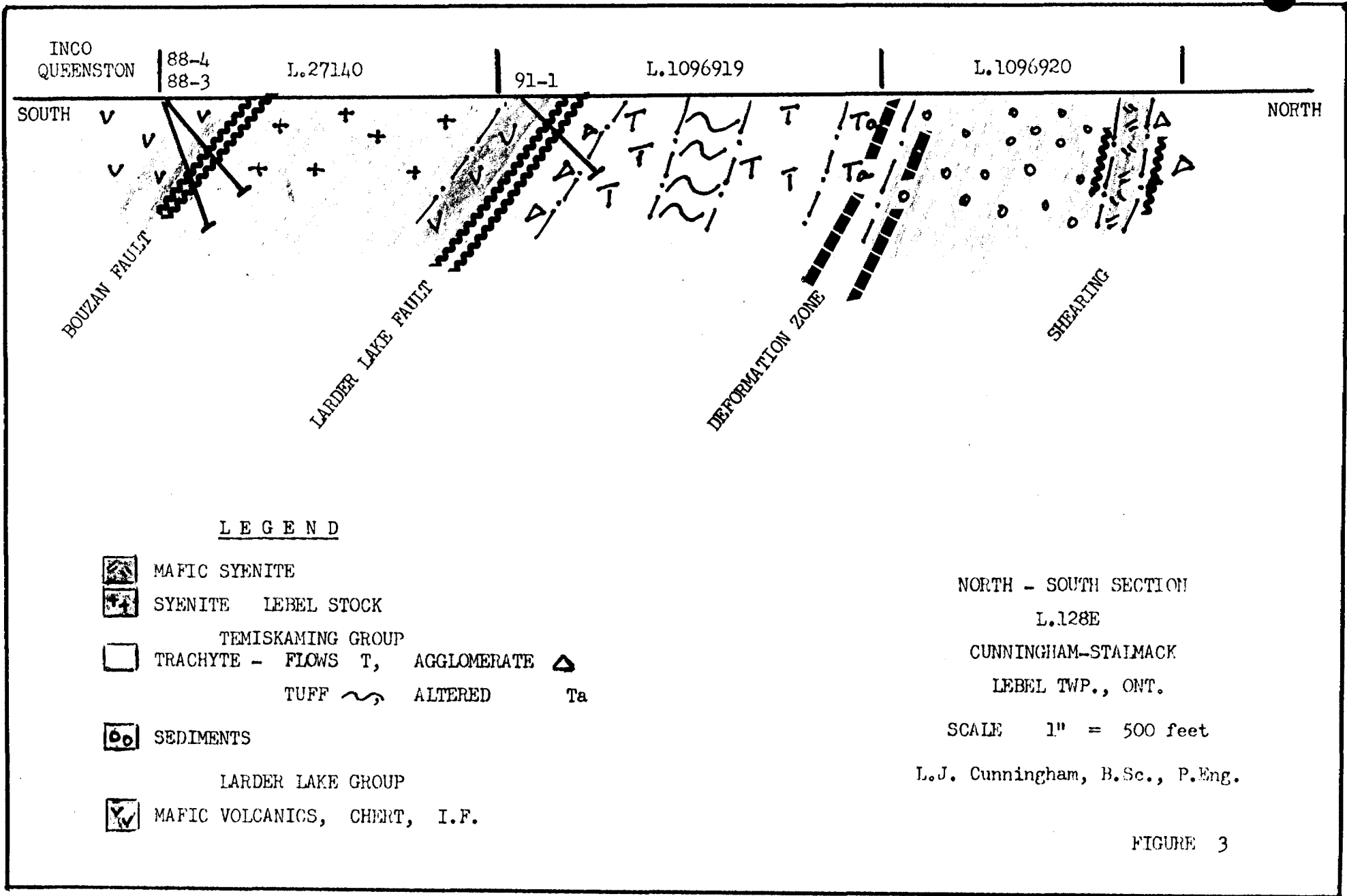
A north northeasterly striking diabase dike is exposed less than 1,000 feet to the north of the northwest corner of claim L.27510. However, prospecting and stripping in the area of the extensive trenching failed to locate a diabase dike.

Excavation of old trenches in the southeast corner of claim L.27510 and west of the collar of hole 91-2 exposed highly altered (carbonatized, silicified) reddish trachyte flow in contact with conglomerate with an east northeasterly contact suggesting that the units were reverting to the normal easterly strike.

It is now obvious that the trenching on claims L.1096919 and L.27510 as well as observed trenching on the intervening trenches L.S. 456-7 was concentrating on the alteration and deformation associated with the deformation zone defined by the magnetometer survey and mapping.

Greywacke beds with a north south strike and steep dips located immediately north of the central part of the north boundary of claim L.27510 indicate the pronounced folding within the geological units. The sediments have adjusted to this strong folding by flattening and stretching but the rigid trachyte flows would probably fail by brittle fracturing.

The writer suggests that the widespread, widely spaced north northeast striking fracturing pattern observed in the trachyte flows on claim L.1096919,



A widespread, widely spaced fracture pattern striking N/NE is evident in the trachytic rocks on claim L.1096919. This fracture pattern has resulted in the formation of a series of terraces usually occupied by beaver ponds which are progressively lower from west to east. Consequently trachytic outcrop is very limited east of claim L.1096919. Surprisingly the N/NE fracturing is not evident within the sedimentary rocks which are severely stretched and flattened along the bedding direction.

A 9 foot diabase dike is noted in Commodore D.D. Hole 50-C-21 and presumably has a N/NE strike. This dike occurrence is directly north of Inco 180E zone.

Widely spaced N/NE striking fracturing is noted in the outcrop of the Commodore zone on highway 66.

In summary, a zone of N/NE striking fracturing and faulting exists over a distance of 7000 feet from the Morris Kirkland in the west to the Commodore in the east, - it is occupied by a porphyry dike (Morris Kirkland) and at least 3 diabase dikes.

The westerly dike, assuming it remains roughly parallel to the east dike, should extend in a southerly direction across the westerly part of claim L.27510 and 27511. The diabase dikes, if present, may be very difficult to isolate within the highly magnetic trachytic rocks. It is possible that the westerly diabase dike is responsible for the north/south contour lines in the northwest corner of claim L.27511.

The easterly dike was not recognized in the limited survey north of Jordan Lake. Two narrow ( $\pm$  3 feet) fine grained mafic dikes, presumed to be diabase, were cut in hole C.88-13. They occur between the presumed position of the two major dikes. Narrow, fine grained dikes are not uncommon in the Kirkland Lake area in proximity to major dikes.

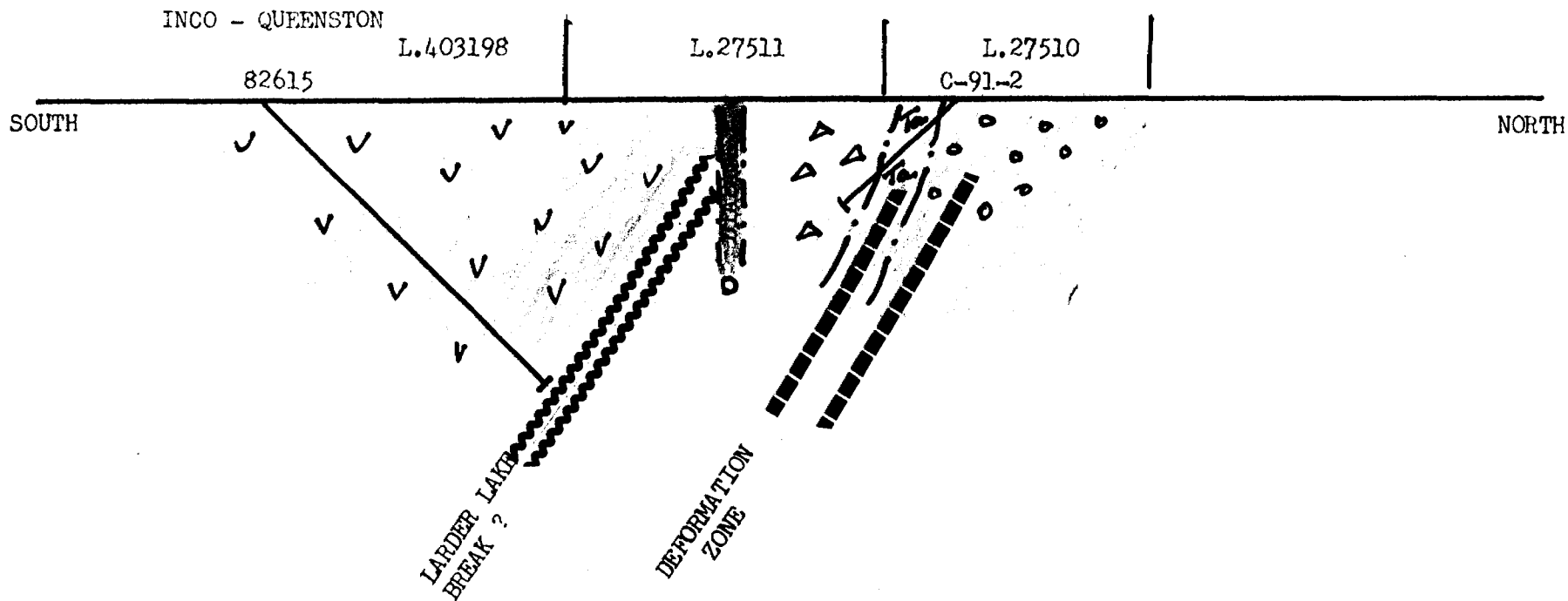
#### CONCLUSIONS

The syenite of the Lebel Stock is recognizable by a consistent flat low (700 - 800 gammas) magnetic response.

The mafic volcanics of the Larder Lake Group which flank the Lebel Stock exhibit higher but constant 800 - 1000 gamma readings.

The Larder Lake Break, separating the mafic volcanics and the trachyte, is not detectable by a magnetic low.

The trachytic rocks are readily recognized by a strong magnetic response



LEGEND



DIABASE

TEMISKAMING GROUP



TRACHYTE - FLOWS T, AGGLOMERATE  $\Delta$   
ALTERED Ta



SEDIMENTS

LARDER LAKE GROUP



MAFIC VOLCANICS CHERT I.F.

NORTH - SOUTH SECTION

L. 152E

CUNNINGHAM-STALMACK

LEBEL TWP., ONT.

SCALE 1" = 500 feet

L.J. Cunningham, B.Sc., P.Eng.

FIGURE 4

Magnetometer Survey  
Lebel Twp. 8 Jan. '92

- 5 -

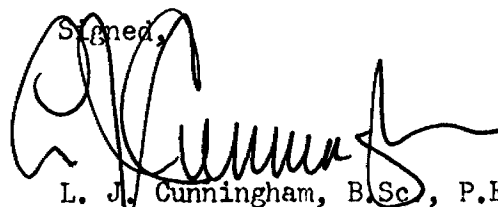
and are traceable from claim L.1096919 southeasterly beyond the property into claim L.9772. There is one exception to this generalization - the trachytic rocks near the strong deformation zone which marks the trachyte/sedimentary contact are altered and non-magnetic - presumably magnetite has been converted to hematite.

The sediments are magnetically low.

It was not possible to trace two suspected diabase dikes across claims L.27510 and 27511 presumably due to deep overburden and the high magnetic content of the trachytic rocks.

The writer's interpretation of the geology is shown as Map 4.

Signed,



L. J. Cunningham, B.Sc., P.Eng.  
Mining Engineer

Dated at  
Kirkland Lake, Ontario  
8th January, 1992

2. 14458

Report of Work Done  
After Recording Claim

Mining Act

DOCUMENT No.

W 9280-00007

will be used for correspondence. Questions about  
rent and Mines, Fourth Floor, 159 Cedar Street,

2.14458

assessment work or consult the Mining

Personal information collected  
this collection should be directed to  
Sudbury, Ontario, P3E 6A5.



32004NW0172 2.14458 LEBEL

900

- Instructions:
- Please Refer Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
  - A sketch must accompany this form.

L. J. CUNNINGHAM

1 McPHEE AVENUE  
KIRKLAND LAKE, ONTARIO  
P2N 1M1

Recorded Holder(s)		Client No.	123019
Address		Telephone No.	705-567-5620
Mining Division	LARDER Lake	M or G Plan No.	G 639
Township/Area	LEBEL		
Dates Work Performed	From: OCT 17 1992	To: OCT 28 1992	

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Geological SURVEY
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECEIVED

FEB 03 1992

MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ 1740<sup>00</sup>

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
L. J. CUNNINGHAM	
1 McPHEE AVENUE	
KIRKLAND LAKE, ONTARIO	
P2N 1M1	

ALEXANDER STALHACK 7 MAIN ST. Apt. 2. Kirkland Lake, Ont. P2N 3C8

(attach a schedule if necessary)

Certification of Beneficial Interest \* See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
	22 Jan 92	[Signature]

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying		
L. J. CUNNINGHAM 1 McPHEE AV. Kirkland Lake, Ont. P2N1M1		
Telephone No.	Date	Certified By (Signature)
705-567-5620	22 Jan 92	[Signature]

For Office Use Only

Total Value Cr. Recorded  \$1740.00 (BANKED)	Date Recorded	Minister's Record	Received Stamp
	Deemed Approval Date	Date Approved	
	Date Notice for Amendments Sent		
	JANUARY 29/92	[Signature]	
	April 28/92		





Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 870-7264.

Les renseignements personnels contenus dans la présente formule ont été recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de renseignements au chef provincial des terrains miniers, ministère Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 870-7264.

**1. Direct Costs/Coûts directs** **GEOLOGY**

Type	Description	Amount Montant	Totals Total global
Work	Labor		
<p>This statement re geological mapping applies to claim L.1096919 and 1096920. Line cutting costs for L.1096919 have been applied for on the magnetometer survey. <u>Additional lines (1 mile) were cut on L.1096920</u></p>			
	Line cutting L.1096919 1 mile	300.00	
	Field work 4 miles lines @ 200' centres, geologist + helper @ 150.00/mile	600.00	
	Report preparation	500.00	
	Drafting, printing	200.00	
Equipment Rental Location de matériel	Type		
<b>Total Direct Costs</b> Total des coûts directs			<b>1,600.00</b>

**2. Indirect Costs/Coûts indirects**

\*\* Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total glob
Transportation Transport	Type Vehicle 4 days @ 25.00/day		100.00
Food and Lodging Nourriture et hébergement	Bush lunches 4 x 2 x 5.00		40.00
Mobilization and Demobilization Mobilisation et démobilisation			
<b>Sub Total of Indirect Costs</b> Total partiel des coûts indirects			<b>140.00</b>
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)		Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)	
			<b>1,740.00</b>

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées de ce présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

**Filing Discounts**

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

**Remises pour dépôt**

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

**Certification Verifying Statement of Costs**

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

**Attestation de l'état des coûts**

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

that as Recorded holder I am authorized (Recorded Holder, Agent, Position in Company)

Et qu'à titre de \_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

to make this certification

à faire cette attestation.

Signature: [Signature] Date: 29 Jan 92



Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

- Instructions:**
- Please type or print and submit in duplicate.
  - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
  - A separate copy of this form must be completed for each Work Group.
  - Technical reports and maps must accompany this form in duplicate.
- to, must accompany this form.

**L. J. CUNNINGHAM**  
 1 McPHEE AVENUE  
 KIRKLAND LAKE, ONTARIO  
 P2N 1M1

Recorded Holder	1 McPHEE AVENUE KIRKLAND LAKE, ONTARIO P2N 1M1		Client No. 123019
Address	P2N 1M1		Telephone No. 705-567-5620
Mining Division	LARDER Lake.	Township/Area Lebel	M or G Plan No. G 639
Dates Work Performed	From: 1 NOV	To: 7 NOV 1992	

**Work Performed (Check One Work Group Only)**

Work Group	Type
Geotechnical Survey	MAGNETOMETER
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs \$ 1920<sup>00</sup>

**Note:** The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

**Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)**

Name	Address
L. J. CUNNINGHAM 1 McPHEE AVENUE KIRKLAND LAKE, ONTARIO P2N 1M1	

ALEXANDER STALHACK 7 MANST. Apt 2. Kirkland Lake. Ont P2N 1M1  
 (attach a schedule if necessary)

**Certification of Beneficial Interest \* See Note No. 1 on reverse side**

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date 22 Jan 92	Recorded Holder/Agent (Signature) <i>[Signature]</i>
--	-------------------	---

**Certification of Work Report**

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying L. J. CUNNINGHAM 1 McPHEE AV. Kirkland Lake. Ont. P2N 1M1		
Telephone No. 705-567-5620	Date 22 Jan 92	Certified By (Signature) <i>[Signature]</i>

**For Office Use Only**

Total Value Cr. Recorded  81920.00 (checked)	Date Recorded JANUARY 29/92	Mining Recorder <i>[Signature]</i>	Received Stamp
	Deemed Approval Date April 29/92	Date Approved	
	Date Notice for Amendments Sent		



Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4<sup>e</sup> étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs **MAGNETOMETER**

2. Indirect Costs/Coûts indirects

\*\* Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.  
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

This statement applies to claim L.1096919 which was surveyed on lines @ 200 ft. centres (2 line files) & readings at 25 ft. spacing.

- 1) Line cutting & Baseline 2 miles 600.00
- 2) Field work 2 miles @ 250.00 500.00
- 3) Report preparation 500.00
- 4) Drafting, printing 200.00

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		50.00
	Vehicle 2 days @ 25.00/day	50.00	
Food and Lodging Nourriture et hébergement	Lunches 2 x 2 @ 5.00		20.00
Mobilization and Demobilization Mobilisation et démobilité			

Equipment Rental Location de matériel	Type	Amount	Total
	Magnetometer		50.00
Total Direct Costs Total des coûts directs			1,850.00

Sub Total of Indirect Costs Total partiel des coûts indirects		70.00
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)	Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)	1,920.00

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	× 0.50 =

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	× 0,50 =

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Recorded holder I am authorized (Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente : que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de \_\_\_\_\_ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature [Signature] Date 29 Jan 92



Ontario

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Mining Lands Branch  
Geoscience Approvals Section  
159 Cedar Street  
4th Floor  
SUDBURY, Ontario  
P3E 6A5

Mining Recorder  
Ministry of Northern  
Development and Mines  
4 Government Road East  
KIRKLAND LAKE, Ontario  
P2N 1A2

Toll Free: 1-800-465-3880  
Telephone: (705) 670-7264  
Fax: (705) 670-7262

Our File: 2.14458  
Your File: W9280.00007  
W9280.00008

March 23, 1992

Dear Sir:

**SUBJECT: APPROVAL OF ASSESSMENT WORK SUBMITTED ON MINING CLAIMS  
L 1096919 AND 1096920 LABEL TWP..**

The assessment work credits listed on the above Report of Work have been approved as of March 20, 1992. The work has been credited under Section 12 and 14, of the Mining Act Regulations, as they pertain to geological and geophysical surveys.

Please indicate this on your records.

Yours sincerely,

Ron C. Gashinski  
Senior Manager, Mining Lands Branch  
Mines and Minerals Division

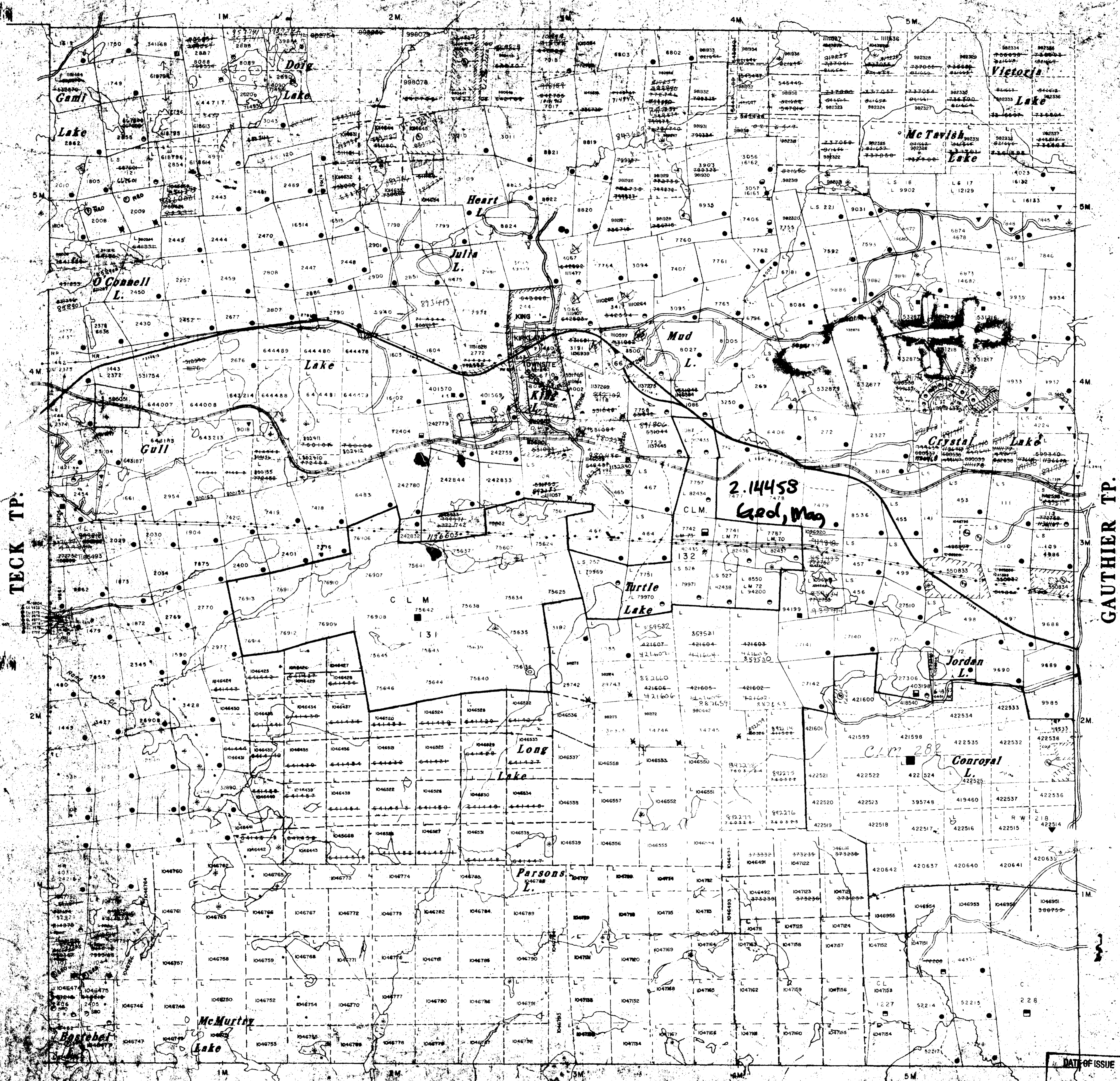
TK  
DT/jl  
Enclosures:

cc: Assessment Files Office  
Toronto, Ontario

Resident Geologist  
Kirkland Lake, Ontario



MORRISETTE TP.



**TOPOGRAPHY**  
LAKES AND STREAMS  
ROCKS AND Boulders

**SURVEYS**  
FIELD BOOKS, 1850-1860  
PLAN BOOKS, 1860-1880

**HIGHWAYS**  
HIGHWAY THROUGH CROWN LANDS  
TRANSPORTATION AND COMMUNICATIONS SURVEY

- AREAS WITHDRAWN**
- S.R. - SURFACE RIGHTS**
- 1. WHO-FILE NO. 10/92
  - 2. CROWN RES.
  - 3. SAND AND GRAVEL
  - 4. GRAVEL FILE 38581
  - 5. GRAVEL FILE 3816
  - 6. M.T.C. GRAVEL PIT No. 513
  - 7. GRAVEL FILE 28795
  - 8. GRAVEL FILE 42554
  - 9. GRAVEL FILE 105110
- MINING AND SURFACE RIGHTS WITHDRAWN FROM STATION**
- 1. MINING AND SURFACE RIGHTS WITHDRAWN FROM STATION
  - 2. ORDERS W-9/86 and W-50/86 (except L 548487)
  - 3. Respected by Order: O-64/86 NR
  - 4. O-39/87 NR
  - 5. O-3/88 L
  - 6. MINING AND SURFACE RIGHTS WITHDRAWN FROM STATION
  - 7. ORDER W-22/86
  - 8. Respected by Order: O-14/88

**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-PERMANENT 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	◓
CANCELLED	○
SAND & GRAVEL	□

SCALE: 1 inch 20 chains

**TOWNSHIP**

**LEBEL**  
2.1458

M.N.R. ADMINISTRATIVE DISTRICT  
**KIRKLAKE**  
MINING DIVISION  
**LARDER LAKE**  
LAND TITLES / REGISTER DIVISION  
**TIMISKAMING**

**DATE OF ISSUE**  
20 01 1982

**MINISTRY OF Natural Resources and Land Management**  
Ontario

**G-039**

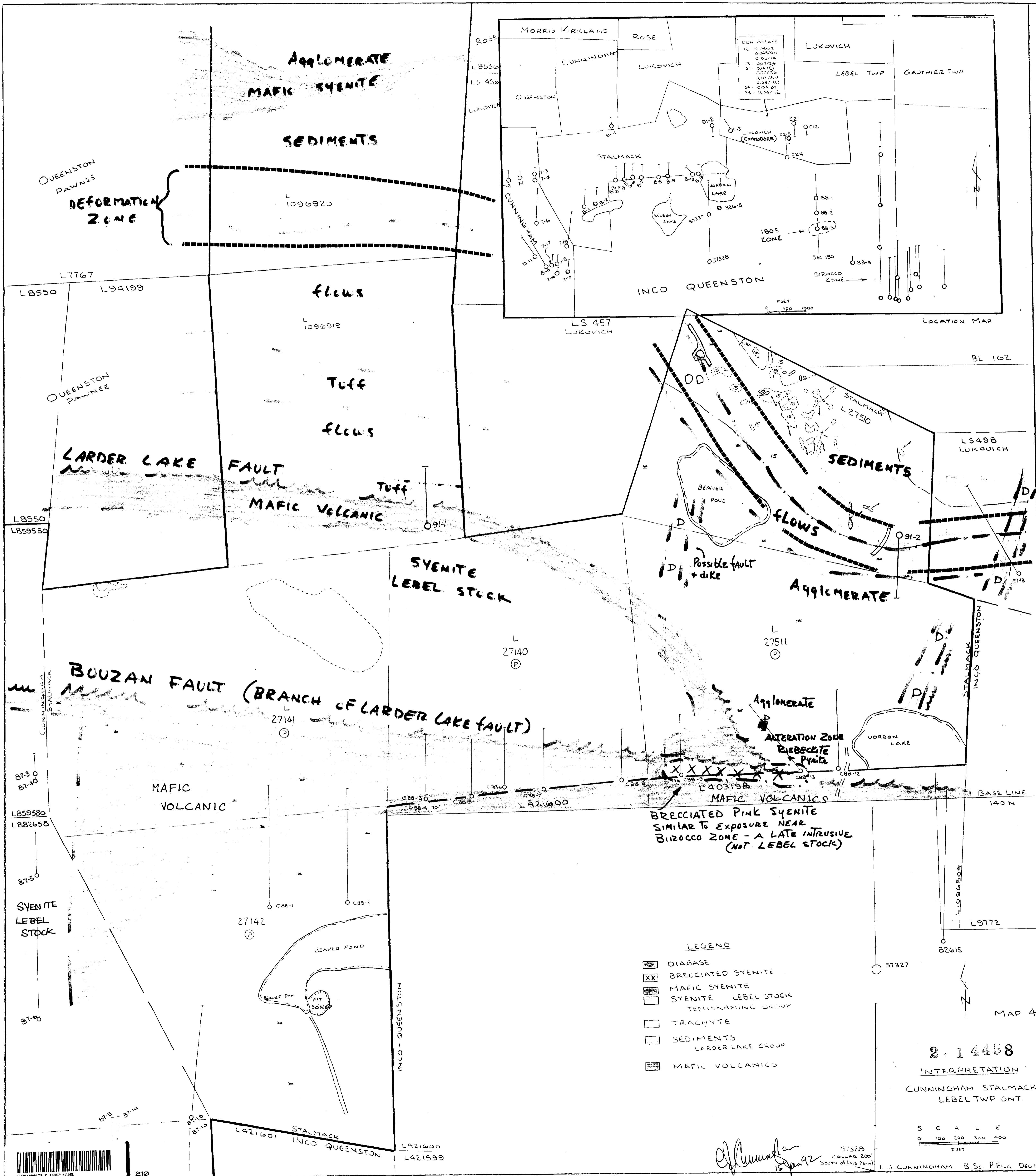
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES FOR ADDITIONAL INFORMATION ON THE STATUS OF THE CLAIMS SHOWN HEREON.

**NO TRACE OF FORESTRY ACTIVITY**  
THE FORESTRY ACT AND REGULATIONS APPLY TO ALL LANDS WITHIN THE DISTRICT OF LARDER LAKE. OPERATIONS UNDER THE FORESTRY ACT FOR THIS AREA CAN BE CONTACTED THROUGH THE FORESTRY DIVISION.



BOSTON TP.









DOH ASSAYS

12.	0.08/02
13.	0.05/00
13.	0.07/24
21.	0.14/18
21.	0.07/15
21.	0.07/10
24.	0.08/102
24.	0.08/127
28.	0.04/12

- SYMBOLS**
- TRENCH
  - DRILL HOLE
  - BEDDING
  - SHEARING
  - FRACTURING
  - FAULT
  - C- CARBONATIZATION
  - GEOLOGICAL CONTACT

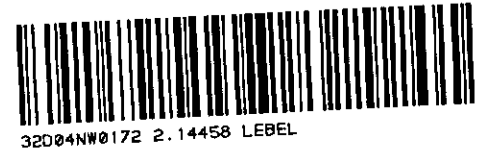
- LEGEND**
- DIABASE
  - SYENITE - LEBEL STOCK
  - MAFIC SYENITE INTRUSIVE CONTACT
  - TEMISKAMING GROUP
  - SEDIMENTS - CONGLOMERATE (S) GREWTACKE (G) VOLCANICLASTIC (V)
  - TRACHYTE - FLOWS (T) - BEDDED TUFF (T) - AGGLOMERATE (A)
  - FAULT (L.L.B.) CONTACT LARDER-LAKE GROUP
  - MAFIC VOLCANICS MINOR CHERT IRON FORMATION

NOTE: GEOLOGY OF CLAIM L-27510 FROM ASSESSMENT FILES BY INCO.

2.14458

**GEOLOGY**  
CLAIMS L1096919 and L1096920  
CUNNINGHAM-STALMACK  
LEBEL TWP. ONT.

SCALE  
0 100 200 300 400  
FEET

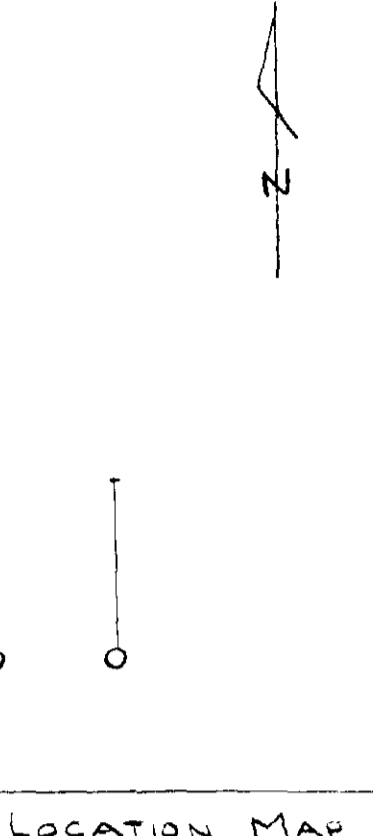


*[Handwritten signature]*  
57328  
COLLAR 200'  
SOUTH OF THIS POINT



DATA SUMMARY

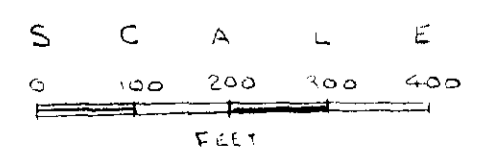
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20	0.05240



2.1445

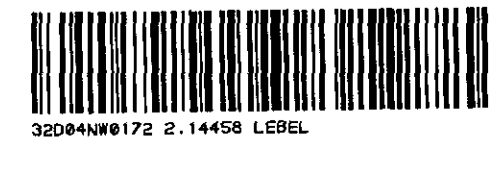
MAP 1

READINGS  
MAGNETOMETER SURVEY  
LINES 1096919 and parts of  
LS 457, L27140, L27510, 11  
CUNNINGHAM - STALMACK  
LEBEL TWP. ONT.  
READINGS IN GARDEN'S  
READINGS REDUCED BY 88000 GMM.  
SEPT - OCT 1991



*[Signature]*  
15 Jan 92

57323  
COLLAR 200'  
SOUTH OF THIS POINT  
L.J. CUNNINGHAM B.Sc. P.ENG. DEPT.







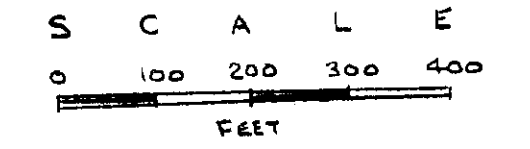
DOH ASSAYS

12	0.08/12
13	0.08/14
21	0.07/14
007/15	0.07/15
007/15	0.07/15
24	0.08/27
25	0.08/12

LOCATION MAP

MAP 2

2.14488  
 CONTOURS  
 MAGNETOMETER SURVEY  
 CLAIM L1096919 and PARTS OF  
 LS 457-L27140-L27510-11  
 CUNNINGHAM - STALMACK  
 LEBEL TWP. ONT.



*[Handwritten signature]*  
 15/1/92

57328  
 COLLAR 200'  
 SOUTH OF THIS POINT

L.J. CUNNINGHAM, B.Sc. P.ENG. DECI

