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VLF-EM RESULTS

BRYCE TOWNSHIP, ONT.

Sept. 25/90

Rodney H. Spooner P. Eng.

Qual 2.11380

TABLE OF CONTENTS

INTRODUCTION _____ PAGE 1

DU GRID RESULTS _____ PAGE 2

EAST EXTENSION GRID RESULTS _____ PAGE 2

NO. 1 POST GRID RESULTS _____ PAGE 3

CONCLUSIONS _____ PAGE 4

RECOMMENDATIONS _____ PAGE 5

INSERTS AND ENCLOSURES

PROPERTY LOCATION MAP 1: 300,000

CLAIM MAP

VLF-EM PROFILE MAP 1: 2000 all grids

INTRODUCTION

During the period May 12 to 27,1990 the author and several assistants carried out a programme of exploration, funded by the Ontario Prospectors' Assistance Programme, consisting of linecutting, VLF-EM surveys, geological mapping, soil sampling, overburden stripping and channel sampling, blasting, and limited prospecting. This report is a supplement to my report of June 15,1990, entitled " Exploration Report Bryce Twp., Ont.". Its purpose is to discuss more fully the EM-16 survey of the grids that were cut during the May,1990 exploration programme.

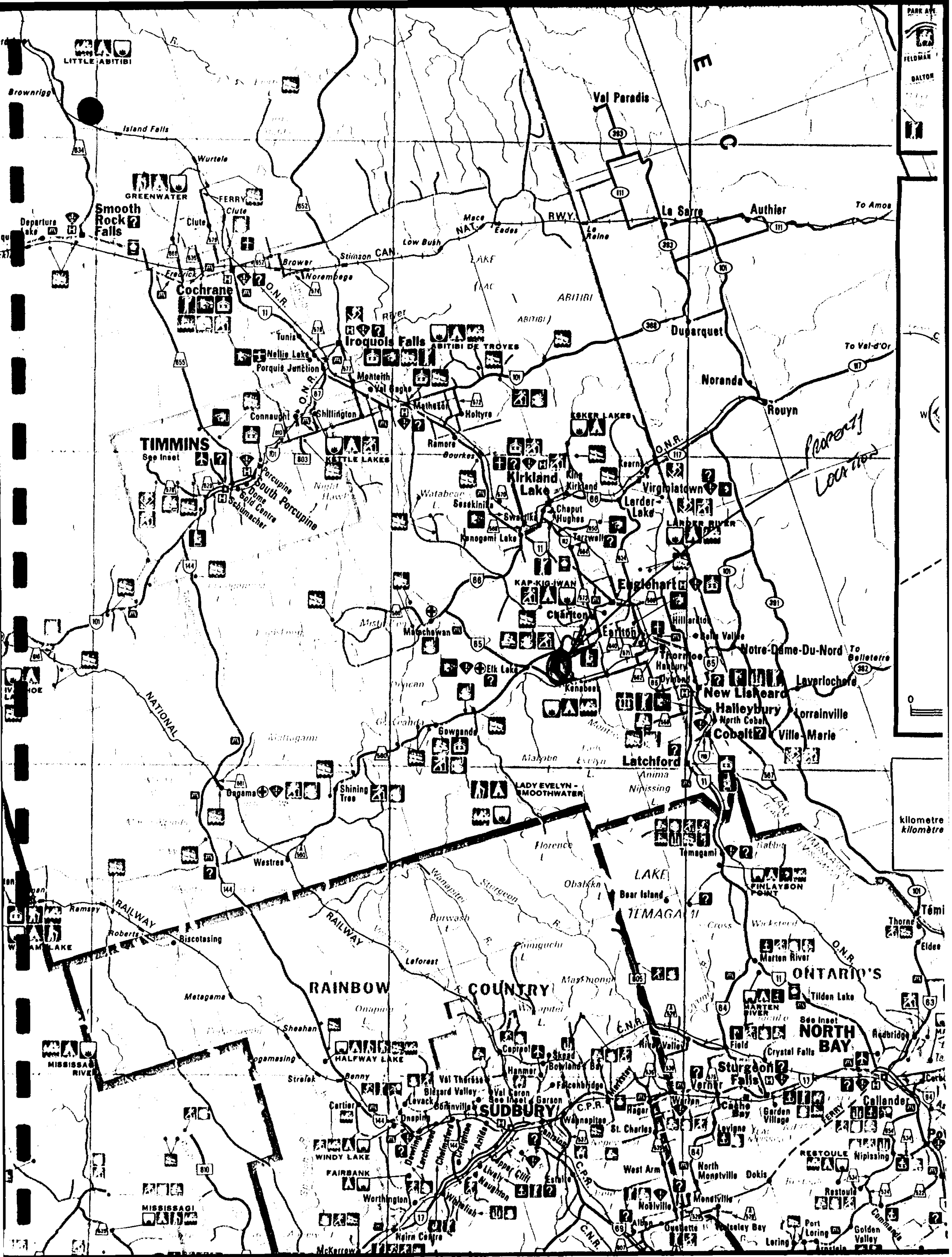
The work areas were selected on areas priorized by previous exploration done by the author and associates. The claims which were directly involved in this round are : L1047203, 1046165, 1046166, 1012971, 1012972, 1012973, 1012974, 1013276, and 1013277.

Two new grids were established and one old grid was extended eastward. A total of 13.05 kilometers was cut, with chaining at 20 meter intervals. EM-16 surveys, reading the Cutler, Maine transmitter (24.0 K Hz.), was done at 20 meter reading intervals over the cross-lines, a total of 11.65 kilometers. All readings were taken facing north. The operator for all the surveys this year was the author. A map has been produced at a scale of 1:2000, and is appended with this report.

The claims are located in Bryce Township S-1/2, Lot 9 concession 11. They can be easily reached by road, via Highway 65 and the Osseo grid road. A logging road and an open field provide good access through the property.

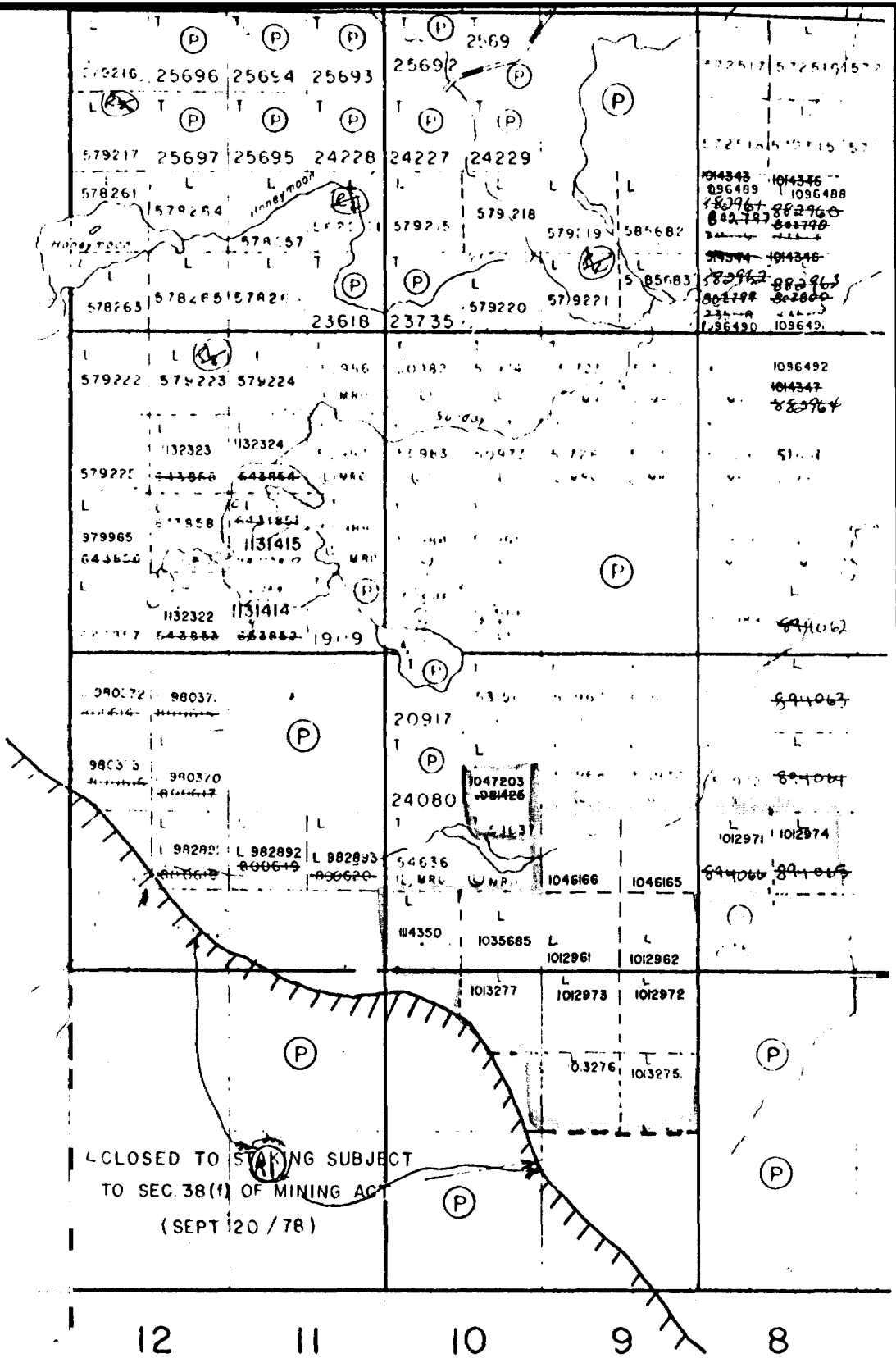
The claims are presently part of a contiguous 14-claim group held by the author.

A small, cat-mounted backhoe was brought in to excavate EM conductors, but it was unable to reach bedrock, then broke down. A larger machine replaced it and it too was unsuccessful in excavating to bedrock on the same conductors. It did, however, very successfully clear overburden from two other main zones of interest, the DU and JS zones. In conjunction with this, the crew used Wajax pumps to sluice shallow overburden and clean outcrops after the backhoe was done. The GD Zone, stripped and trenched last year, was further dug out by hand, blasted, and hosed down this year to better expose the shear.



LITTLE ABITIBI
Brownrigg
Island Falls
Wurtele
GREENWATER
FERRY
Clute
Smooth Rock Falls
Departure Lake
Low Bush
Mace
Eades
Stimson
CAN. NAT. RWY.
Brower
Frederick
Cochrane
Norembega
O.N.R.
LAKE ABITIBI
Val Paradis
Le Sarre
Authier
To Amos
La Reine
Duparquet
To Val-d'Or
Noranda
Rouyn
Tunis
Iroquois Falls
ABITIBI DE TROYES
Nellie Lake
Porquis Junction
Monteith
Val Gagne
Matheson
Holtyre
Shillington
Connaught
TIMMINS
See Inset
Ramore
Bourkes
KETTLE LAKES
ESKER LAKES
Porcupine
South Porcupine
Dome
Gold Centre
Schumacher
Night Hawk
Kirkland Lake
King Kirkland
Kearns
Virginiatown
Larder Lake
LARDER RIVER
Watabeag L.
Sesekinika
Swastika
Chaput Hughes
Kenogami Lake
Tarzwell
KAP-KIG-IWAN
Englehart
Charlton
Matachewan
Earlton
Hilliardton
Belle Vallee
Notre-Dame-Du-Nord
To Belleterre
Thornloe
Hanbury
Dymond
Elk Lake
Kenabeek
New Liskeard
Haileybury
North Cobalt
Cobalt
Latchford
Lorrainville
Ville-Marie
Laverlochere
Gowganda
Shining Tree
Gogama
LADY EVELYN - SMOOTHWATER
NATIONAL
RAILWAY
Westree
Temagami
FINLAYSON POINT
LAKE TEMAGAMI
Bear Island
Obabika L.
Florence L.
Ramsey
Roberts
Biscotasing
Laforest
RAINBOW COUNTRY
ONTARIO'S NORTH BAY
Marten River
Tilden Lake
Thorne
Eldee
Metagama
Sheahan
HALFWAY LAKE
MISSISSAGI RIVER
Benny
Val Therese
Blezard Valley
Val Caron
Garson
Falconbridge
Hanmer
Capreol
Skead
Bowlands Bay
River Valley
Sturgeon Falls
Field
Crystal Falls
Redbridge
Verner
Cache Bay
Garden Village
Lavigne
Callander
Cartier
Levack
Onaping
SUDBURY
C.P.R.
C.N.R.
Wahnapitae
St. Charles
Hagar
Warren
WINDY LAKE
FAIRBANK
Worthington
Lively
Copper Cliff
Naughton
Whitefish
Estaire
West Arm
North Monetville
Dokis
Monetville
Noelville
Alban
Wolseley Bay
Port Loring
Loring
Golden Valley
Restoule
RESTOULE
Nipissing
MISSISSAGI
Nairn Centre
Property Location
kilometre

TUDHOPE TWP. M - 252



"THIS MAP SHOWS THE APPROXIMATE LOCATION OF THE BOUNDARIES OF THE AREA WHICH IS THE SUBJECT OF CURRENT LITIGATION. THE EXACT LOCATION WILL BE SHOWN FOLLOWING CONFIRMATION BY THE PARTIES TO THE ACTION."

CA

DU GRID RESULTS

The VLF survey did not pick up any strong conductive horizons nor did it delineate any definite weaker trends. The profiles are very flat. They show a gradual positive in-phase buildup towards grid north, where a diabase dike cuts volcanic strata, from a probable conductive zone off grid to the south. This southerly zone is a deep valley underlain by conglomerates and occupied by a creek.

A few very weak shoulders on the in-phase suggest that very weakly conductive shears may be "seen" by the EM, but these are hardly traceable and have not been interpreted on the map.

EAST EXTENSION GRID RESULTS

Extensions of some of the previously identified conductors have been shown by this survey. Other trends were not picked up and are presumed to be cut off by a diabase dike. Conductances are weak and are typical of shear-related responses seen on the GD grid, to the west. In-phase readings are strongly influenced by a structure giving deep negative readings, but the trends continue eastward to the diabase dike contact, where they end.

The structure mentioned in the previous paragraph has been tentatively interpreted as a northwest-trending fault zone which has cut the dike and formed a lineament traceable for several kilometers to the northwest.

Backhoe work undertaken this Spring discovered that dry, lacustrine clays overlying conductors along trend are at greater than 20 feet thick. The clays are dry, so have not masked the conductive horizons to the extent one would have expected.

The responses on the other (grid south) side of the dike are very flat, reminiscent of the results obtained on the DU grid, a couple of hundred meters to the southwest.

There is a very marked difference in tenor of the results between the DU grid, to the south, and the GD and East Extension grids, to the north of the dike. There are at least four definite conductive trends on the GD grid. They all occur in a shallow valley whose axis contains a creek and a couple of beaver ponds. Geologically, the terranes are quite similar, however there is a very extensive clay cover and also conglomerate of an unknown thickness and extent. The conductive swarm abuts the diabase to the south and weakens across the creek, to the north. The strongest VLF is not in the creek, but up on the southern flank of the valley, north of the dike contact. The GD zone is on the north side of the creek. It has been partially stripped of overburden, and a strong shear is revealed which coincides with a weakly conductive VLF anomaly.

Previous VLF-EM surveys by our crews outlined several weak northwest-trending anomalies, probably shear-derived, in the vicinity of the GD occurrence. These are roughly parallel to the inferred fault cutting through the East Extension grid.

NO. 1 POST GRID RESULTS

The grid is oriented to pick up any northerly-trending conductors. An earlier survey was done to test for easterly trends but no conductors were found in that survey. The new survey may have delineated weak, northwest conductive horizons. Two trends, possibly 200 meters long can be recognized in the northern half of the grid.

The author ran three short test lines over the east-west line of trenches that comprise the No. 1 Post zone. Very careful surveying showed that a consistent but subtle cross-over occurs on the shear. The in-phase went from -2 forty meters north of the shear to +5 fifty meters south.

CONCLUSIONS

It appears that the shear conductivities are greatly enhanced by the presence of clay overburden. The logical conclusion is that a combination of water and clay in the fractures has produced discreet conductors which are resolvable with VLF-EM techniques. It is moot whether some other type of EM survey would serve to outline these structural breaks where this combination is not in force.

So far, the mineralized shears are all roughly east-west striking, and it is these that future work should focus on. Reported work a few kilometers west has found interesting amounts of gold (0.75 oz/t) in shears of this orientation. Adjacent properties also contain good gold grades in similar structures.

Shears mapped in outcrop by the author do not yield VLF anomalies, the GD Zone being the noteable exception.

A fault northwest-striking fault zone is inferred partly from VLF data and partly from topographical evidence. This zone strikes through the common boundary between claim 1046165 and 1012971, and would be assumed to cut the extension of the GD zone to the east.

A strong shear structure, outcropping at the No. 1 Post Zone, gives only a very subtle VLF indication. Without either a persistent trend, or visible field evidence, one would be hard-pressed to interpret the structure from VLF data.

Weak VLF trends parallel or sub-parallel to the interpreted fault, can be tentatively pencilled in on the No. 1 Post grid. Previous surveys have also indicated that these features are present.

RECOMMENDATIONS

Any further geophysical work should consist of a fairly detailed magnetic survey, probably a total field survey, over the grids. Horizontal loop EM is recommended to confirm the VLF-EM conductors on the GD grid. At the time of any future survey it is suggested that several lines be run over the DU zones, as well as some in the vicinity of the No. 1 Post zone.

In my report dated June 15/90, I suggest that it may be precautionary to accurately locate the boundary of claim 1047203 (No.1 Post grid) because the occurrence is so close to the claim line. I also reiterate that recommendation here.

If results of work recommended in my report entitled " Geological Report, Bryce Township, Ont, ", dated Sept.25/90 and results of my recommendations above, are positive, then diamond drilling of the GD grid shear zones and any other target resulting from these recommendations should be considered.

Rodney H. Spooner P. Eng. MEIC

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GRID GEOLOGY

BRYCE TOWNSHIP PROPERTY

Sept. 25/90

2.13581

Rodney H. Spooner P. Eng.

TABLE OF CONTENTS

INTRODUCTION _____ PAGE 1

REGIONAL GEOLOGICAL SETTING _____ PAGE 2

DU GRID GEOLOGY _____ PAGE 3

DU GRID OCCURRENCES _____ PAGE 4

EAST EXTENSION GRID GEOLOGY _____ PAGE 6

NO. 1 POST GRID GEOLOGY _____ PAGE 7

CONCLUSIONS _____ PAGE 8

RECOMMENDATIONS _____ PAGE 9

INSERTS AND ENCLOSURES

PROPERTY LOCATION MAP 1: 300,000

CLAIM MAP

GRID GEOLOGY MAP 1: 2000 all grids

DETAIL GEOLOGY AND SAMPLE LOCATION MAPS
DU A & B zones 1: 200
DU C & JS zones 1: 200
GD Zone 1:50

INTRODUCTION

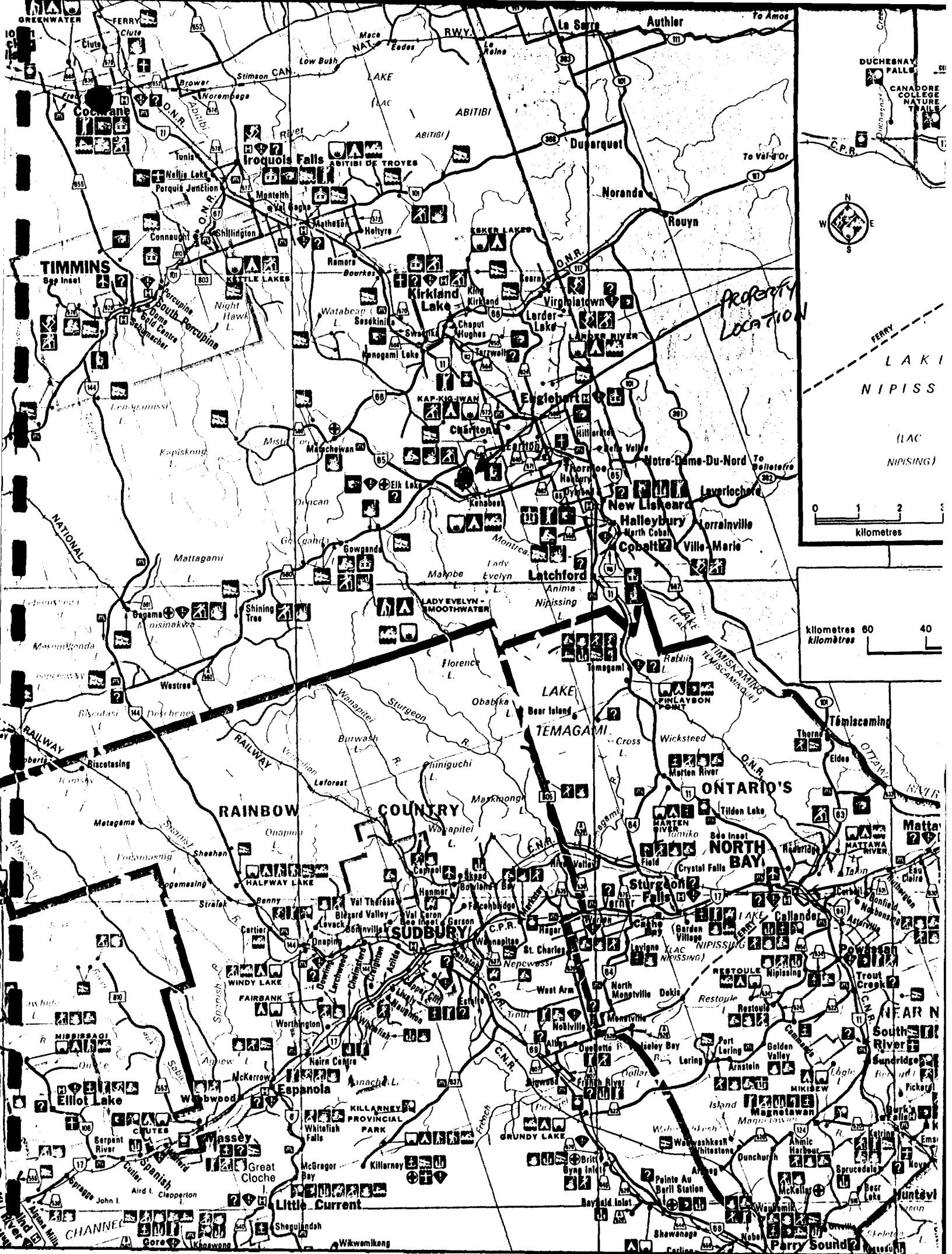
During the period May 12 to 27,1990 the author and several assistants carried out a programme of exploration, funded by the Ontario Prospectors' Assistance Programme, consisting of linecutting, VLF-EM surveys, geological mapping, soil sampling, overburden stripping and channel sampling, blasting, and limited prospecting.

This report is a supplement to my report of June 15,1990, entitled " Exploration Report Bryce Twp., Ont.". Its purpose is to discuss more fully the geology of the grids that I mapped during the May,1990 exploration programme.

Three separate grids were cut on the claim group__ the No. 1 Post Grid, on claim 1047203; the East Extension Grid, on 1012971 & 1012974; and the DU Grid, on 1012961,1012962,1012972, 1012973, & 1013277. A total of 13 kilometers of grid were mapped by the author during the period of May 12 - 27,1990. A map has been produced at a scale of 1:2000, and is appended with this report.

The claims are located in Bryce Township S-1/2, Lot 9 concession 11. They can be easily reached by road, via Highway 65 and the Osseo grid road. A logging road and an open field provide good access through the property.

The claims are presently part of a contiguous 14-claim group held by the author.


PROPERTY LOCATION
TIMMINS
See Inset
Cochrane
Iroquois Falls
Kirkland Lake
Englehart
New Liskeard
Haileybury
Cobalt
Ville-Marie
Latchford
Temagami
Témiscaming
SUDBURY
NORTH BAY
Sturgeon Falls
Callander
Powassan
Espanola
Elliot Lake
Massey
Little Current
Parry Sound
Huntsville
RAINBOW COUNTRY
ONTARIO'S NEAR NORTH
TEMAGAMI
LAKE ABITIBI
LAKE NIPISSING
Timmins
Cochrane
Iroquois Falls
Kirkland Lake
Englehart
New Liskeard
Haileybury
Cobalt
Ville-Marie
Latchford
Temagami
Témiscaming
SUDBURY
NORTH BAY
Sturgeon Falls
Callander
Powassan
Espanola
Elliot Lake
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Little Current
Parry Sound
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ONTARIO'S NEAR NORTH
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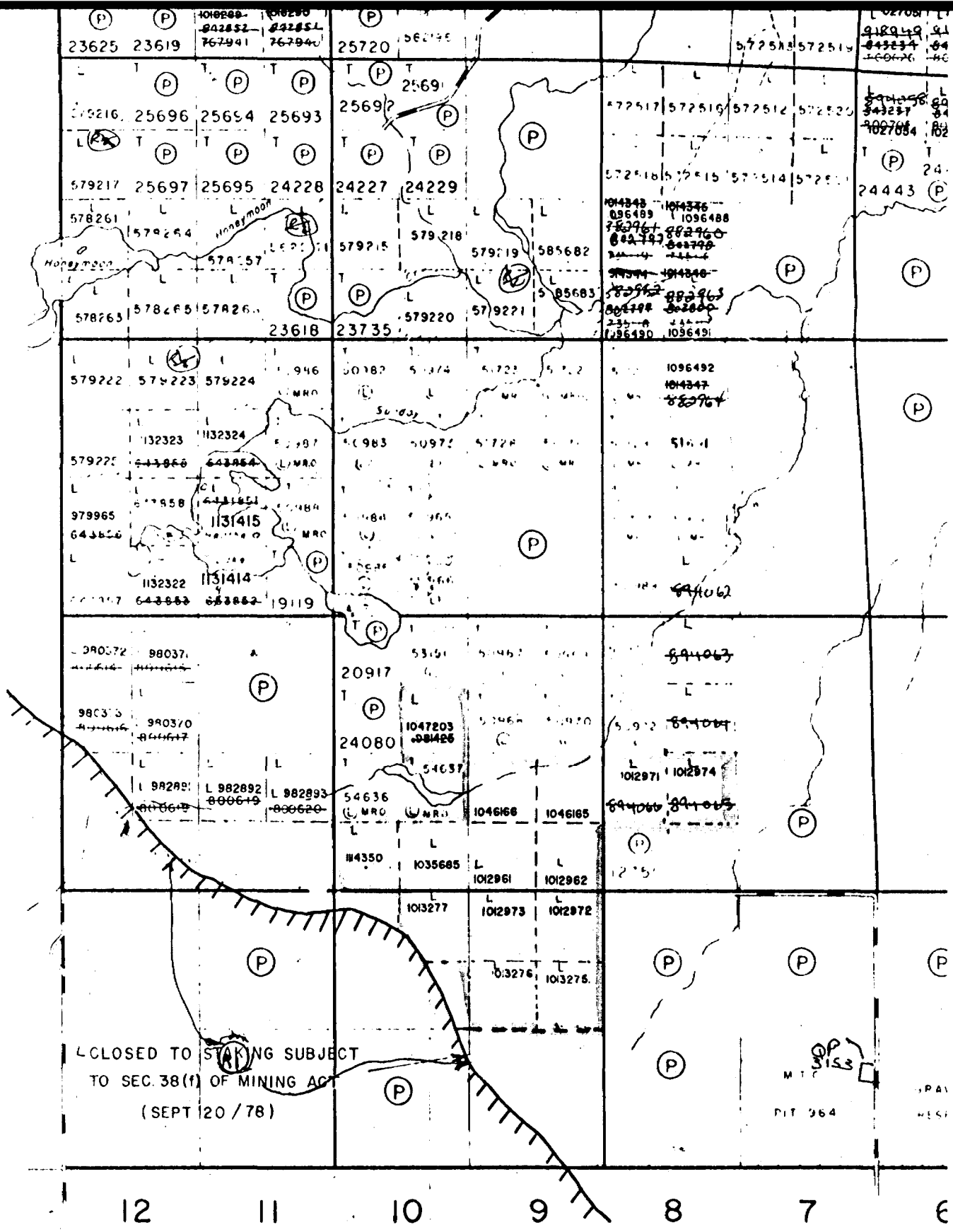

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REGIONAL GEOLOGICAL SETTING

Table of Formations

Nippissing Diabase
intrusive contact
Cobalt Group(Gowganda Conglomerate)
Felsic to Intermediate Intrusives
intrusive contact
Abitibi Greenstones

The claim group is situated at the south end of the Abitibi Belt, where it is overlain by onlapping, weakly metamorphosed conglomerates. A sill of Nipissing Diabase cuts the volcanics in a roughly east-west structure. The bedrocks occur on higher ground which is bordered on the south and east by thick lacustrine clays.

Regional metamorphic grades are of the greenschist facies range. The Britcanna Porphyry, outcropping a few kilometers from the claims has raised metamorphic gradients to amphiboloite facies near its contacts.

Several old gold showings exist in both the immediate vicinity and in the general area. Although no economic deposits have been located to date, some high-grading was done in earlier years at a couple of the prospects in the area.

DU GRID GEOLOGY

By far the most common rocks on the grid are felsic fragmentals, mostly fine tuffs but also coarse heterolithic lapilli tuffs, blocky tuffs, and crystal tuffs. A sequence of more mafic pyroclastics was recognized , as were thin intercalations of mafic flows. Narrow rhyolite flows are present in the north half of the grid, not far from the diabase contact.

In general, the southern part of the grid is underlain by finer grained and more mafic varieties, while the north part is more felsic and fragments are coarser. Rhyolite flows occur in the central and northern sections of the grid. Some very coarse lithic fragmentals occur in the south, adjacent to the DU zones. The bedding strikes from 245 to 255, in general, and dips around 75 north.

The diabase is probably only about 125 meters wide, maximum, on this grid, and is unremarkable mineralogically. It grades from finer grained at the margins to coarse grained centrally. No contacts were seen between the diabase and enclosing rocks, but it doesn't appear that there has been any great amount of alteration or deformation accompany the intrusion. Other rock types noted during the survey were very narrow feldspar-phyric dikes or flows and one wider sill at the DU "B" zone.

Several zones of carbonatized, sheared, and schistose rocks were mapped. Quartz veins and/ or vein networks sometimes accompany the structures.

Conglomerates of the Gowganda Formation occur along the very southern limits of the survey. These are dark, fine grained gritty rocks which are sometimes difficult to differentiate from the pyroclastic rocks. In fact there were several old diggings seen on the property that were testing quartz veins in the conglomerate. One outcrop was seen where conglomerate was incorporated in a shear. Quartz veins or lenses are fairly common in this unit. Usually, a close inspection of the outcrop revealed coarse granitoid cobbles and/or maroon jasper fragments.

The target zones had been previously identified by prospecting. The 1:2000 mapping ties in the occurrences and indicates that westerly-trending shears giving rise to veining and alteration are probably the important mineralizing features on the claims. I say probably because there is a weak topographic linear, trending in a northwest direction, that runs along the DU A, B, & C zones. There is evidence for small pull-apart structures at the A zone that would tend to corroberate this idea, but the only other evidence is the linear itself. It may well be a spillway from Spring runoff. Aerial photographic study is inconclusive, but it does hint that this feature continues along strike.

DU GRID OCCURRENCES

There five separate occurrences which have been located to date. They are all shear zones, trending west-northwest, which have quartz veining parallel the strike of the shear, and in some cases, cross-cutting veins. Mineralization of the shears is skimpy, and the majority of the samples collected contain nil to weakly anomalous concentrations of gold. Alteration in the structures is minimal, except for fairly pervasive carbonate development in a few of them. The major exceptions are the DU A and B zones, where chlorite and pyrite alteration of the wall rocks has occurred. Gold values in the A zone are significant in both wall rock and vein assays. Channel samples have run 0.327 oz/t across 1.35 meters, 0.11 oz/t across 1.2 meters, and grab samples have returned up to 0.229 oz/t. A sample from a narrow vein on the south side of the outcrop, taken during mapping, assayed 5279 ppb. (0.153 oz/t equivalent).

The DU A zone contains quartz and quartz-carbonate veins cutting coarse felsic fragmentals striking 245, dipping 75 north. The sheared volcanics are schistose, chlorite sericite carbonate rocks where they have been sheared. Unsheared rocks are thickly bedded, with only slight flattening of cobbles in a fine grained, matrix.

Vein orientations of 310/75 SW, 255/80 S, 265/80 S, 288/75 S, and 320/35 SW have been measured. A set of tension veins oriented at 270/80 S are possible evidence for a northwest-trending structure, the DU Linear, shown on the enclosed map and discussed above. A joint set, at 245/70 N, is also present. A lithological contact was measured striking 260, dipping 80 north.

The DU B zone is about 25 meters northwest of the A zone but is hosted by a feldspar porphyry dike which cuts felsic crystal tuffs. Coarse heterolithic tuffs are present just northwest of the crystal tuffs. The dike is extensively quartz-veined, whereas the tuffs are noteably deficient but for one narrow vein. This vein is the site of an old trench.

The preferred clast orientation in the tuffs is 232/72 N. The dike contact strikes 220 and dips 68 NW. A narrow shear lies along the contact but is slightly discordant, at 222/ vertical. Quartz veining is present in the shear, but no veins were seen that cut the contact. Vein attitudes are 222/ vertical, 310/65S, and 320/50 S. The northwest-striking veins may be pull-apart structures related to the shear running along the contact.

Only sparse sulphide mineralization is present in any of the veins, and little or no alteration has occurred in the wall rocks. The veins are very similar to those in the A zone in that they look like typical "bull quartz" veins- clean white, non-mineralized. The best channel sample ran 0.028 oz/t across 0.9 meters, indicating that anomalous gold is present.

The DU C zone is a new structure discovered during the mapping. It was sluiced off to expose a strong shear in a sequence of rhyolite and fine felsic tuffs striking 225 and

dipping 60 NW. Other rhyolitic outcrops occur to the north while mafic tuffs are mapped to the west. The shear is at least 3 meters wide and contains subordinate gash veins and stockwork veining. The shear has a strong schistossity developed, oriented at 245/55 N. Only trace amounts of gold are indicated in the channel sampling.

The JS zone is also a shear/vein occurrence, and it has been trenched by earlier workers. It is cutting a sequence of massive felsic to intermediate volcanic flows which have been brecciated and sheared across a width of 5 meters. The hanging wall(north) contact is sinuous and has a dip varying from 70 N to vertical. A central zone of stronger shearing has developed a schistose fabric within which small quartz veins are sparsely present. The volcanics carry less than 1% fine disseminated primary pyrite.A 0.35 meter-wide vein in the central part of the exposure carries good sulphide mineralization, including chalcopyrite, pyrite, molybdenite, and galena. It is this vein that attracted the previous workers, however we did not attain anything but trace amounts of gold in our sampling. Base metal analyses were not done, but values would have been measured in the ppm ranges.

Old trenches were found in sheared and veined tuffs and thin rhyolites west of the DU zone in the extreme southwest corner of the grid. Minor hematization of the veins has occurred.Grab samples carry negligible values.

A series of old trenches were found in the northeast part of the grid, exposing a shear cutting rhyolite and pyroclastics. The shear occupies an east to southeast-trending linear. Moderate quartz flooding is present in places, and minor chalcopyrite and malachite was seen. Grab samples indicate that negligible gold is present in the structure.

EAST EXTENSION GRID GEOLOGY

Exposures on the grid are limited except for the diabase which forms a ridge ringed with coarse talus. Overburden is mostly lacustrine clays although there is a glaciofluvial outwash ridge at slightly higher elevations on the grid.

Other than the diabase, there are only three or four outcrops exposed on the grid. These are within a saddle-shaped break in the diabase ridge. Conglomerates onlap onto coarse felsic pyroclastics at on locale,and nearby is a small outcropping of a mafic or intermediate flow. A couple of other small outcrops of pyroclastic rocks, between the diabase and the conglomerate, are similar to those observed on the DU grid in proximity to the diabase. A small outcrop of diabase, 50 meters from the ridge, may be a plug-like outlier intruding the volcanics.

The valley which breaks the diabase ridge can be traced topographically for some distance towards the northwest. Also, VLF-EM coverage hints at a northwest-trending structure. The EM coverage is incomplete and any interpretation regarding the structure ,using this data, is tenuous. I would tentatively suggest that the break represents a fault structure.

A brief word concerning the reason for the East Extension Grid: The GD Zone, which lies north and west of the new grid, is an east-west shear, cutting felsic tuffs, which has been picked up on VLF surveys. The same surveys have delineated several other parallel conductive trends, probably derived from clay and water-filled shears. The GD zone has returned up to 0.05 oz/t gold, as has a parallel shear a few 10's of meters north of the GD. These schists carry pyrite, chalcopyrite, minor quartz veining, sericite, fuchsite, and carbonate, indicating that significant alteration has occurred at this sites. Overburden stripping of the GD zone has been unsuccessful in baring the entire width of the shear. Also, backhoe work this season was unsuccessful in penetrating the clays over the other conductors.

The new grid was planned to follow these conductors eastward and hopefully find a spot where overburden was thin enough to permit stripping, but again the crew was stymied so the cause of the conductors hasn't been ascertained.

NO. 1 POST ZONE GRID GEOLOGY

The mapping indicates that virtually the entire grid is underlain by felsic pyroclastic rocks, variably coarse lithic to fine lapilli tuffs. The extreme south side of the property contains conglomerate, some of which was seen to be in contact with pyroclastic outcrops. An old trench (see map) was seen to partially excavate a shear which cut a conglomerate-volcanic contact. A white quartz lens was the target of the work, but it was contained in the sediments and may not have been related to the shear.

Along the east central part of the grid, several outcrops of diabase in an area about 40 x 20 meters intrude the pyroclastic sequence. Another diabase occurrence was seen on the far west side of the grid. This outcrop contained finely disseminated pyrite and pyrrhotite in amounts of 1 to 2%.

The main area of interest is right in the extreme northeast corner of the claim, at the number 1 corner post. A series of old trenches follow a strong shear along a distance of 35 meters, or so. The structure cuts felsic tuffs and is from 0.6 to 2.0 meters wide. The zone has been brecciated and strong schistossity has been developed, allowing for fairly deep weathering. Minor pyrite, fuchsite, carbonate, and sericite is present in the rocks. Pyrite mineralization is best developed in the easternmost, and largest, pit. Here, pyrite content is up to 10 and the shear is at least 2 meters wide. Quartz veining occupies the central part of the shear, but does not form a massive unit within the structure, rather a series of narrow, parallel veins which have probably been brecciated themselves. Coarse limonite fragments in the vein material in the talus indicate that heavy sulphide mineralization is present in fresher rock at depth. The best assay, 1053 ppb. Au comes from the pyrite-rich portion. Other analyses ranged up to 739 ppb.

Twelve meters south of this shear is another small pit which exposes a narrow shear in felsic tuffs. Minor quartz veining accompanies the shear, but only sparse sulphide mineralization is present. Gold values are negligible.

Several other west northwest-trending shears were seen during the mapping however they were all barren of both quartz veining and sulphides.

CONCLUSIONS

Virtually the entire gridded areas are underlain by fragmental volcanics with minor intercallations of both felsic and mafic flows. The sequence is intruded by a centrally located diabase dike which has thrown off a few small plug-like outliers which seem to be sulphide mineralized to a greater extent than the main body of the dike.

Structures of mineralogical significance are generally oriented east-west. They are shear zones of undetermined sense which are up to several meters in width and some of which carry significant quartz flooding and alteration. Best gold values come from the DU A zone, which has returned channel samples of 0.327 oz/t across 1.35m (4.4 ft.), 0.11 oz/t for 4 ft., and grab samples ranging up to 0.229 oz/t.

Other shears that were sampled carry lower gold values and are much less altered, except for the GD zone. It has been well altered, but best assays are only in the 0.05 oz/t range. The shear has not been adequately stripped and sampled along strike.

The VLF-EM indicates that several parallel shears are present in the vicinity of the GD occurrence.

The No. 1 Post zone is well mineralized with sulphides, and has interesting alteration chemistry, but gold content is low. The bulk of the shear lies outside the claim boundary , however there are numerous mineralized shears reported in the nearby properties which contain strong concentrations of gold, so it could be assumed that the claim is a prospective host for one or more of them, too.

RECOMMENDATIONS

The priority area resulting from work to date is around the DU zones. Efforts should be made to trace the DU zones, especially the A zone, to the west. All other prospective areas are of secondary interest, at this stage, however certain recommendations can be made.

Results are spotty from the A zone, however I feel that the zone deserves diamond drilling. Significant gold is present in the structure and the only way to further evaluate it is diamond drilling.

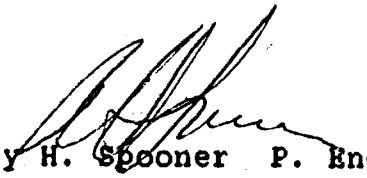
The entire property should be intensively prospected.

Permits could be sought to enable a backhoe to cross the creek south of the GD zone. A considerable amount of stripping could be done to better expose the shear both along and across strike. Since results are low, this work is of lesser priority and should only be done if it is convenient during exploration of other sections of the claims.

There appears to be little one can do to further evaluate the VLF conductors outlined south of the GD zone. If further exploration upgrades the quality of gold assays along the GD shear, a priority would be to carry out a MaxMin horizontal loop EM survey to determine the veracity of the VLF interpretation. If a horizontal loop survey confirms the trends, they could be tested with a Wacker drill, or even a small diamond drill.

Efforts should be made to trace the No. 1 Post shear westward, onto the claim. Geochem results suggest that it may continue for another 100 meters, at least. Detailed prospecting recommended above would be necessary to assist in this endeavour.

Since the No. 1 Post zone's location on the claim is so marginal, the location of the claim with respect to Concession lines should be confirmed prior to much expenditure of time and money.



Rodney H. Spooner P. Eng., MEIC

Qual 2.11380

Ministry of Northern Development and Mines
Ontario

M.L.

DOCUMENT No W9008.252

41P09NE0015 2.13581 BRYCE

900

Report of Work
Mining Act
(Geophysical, Geological and Geochemical)

2.13581

Type of Survey(s)	Mining Division	Township or Area
GEOLOGICAL	LARDER LAKE	BRYCE

Recorded Holder(s)	Prospector's Licence No.
RODNEY SPOONER	E 33032

Address	Telephone No.
BOX 450 LA RONGE SASK. S0J1L0	(306) 425-2828

Survey Company

Name and Address of Author (of Geo-Technical Report)
RODNEY SPOONER (SAME)

Date of Survey (from & to): 18 Day 08 Mo. 90 Yr. — 27 Day 08 Mo. 90 Yr.

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	
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Other	
	Geological	20
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Other	

Total miles flown over claim(s)

Date: Aug 27/90 — Recorded Holder or Agent (Signature)

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
L	1012961				
L	1012962				
L	1012972				
L	1012973				
L	1047203				
L	1012971				

RECEIVED
SEP 17 1990
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 6

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: GARY CLAYTON DUNN Box 997 LA RONGE SASK. S0J 1L0 Telephone No. (306) 425-3626

Date: Aug 25/90 — Certified By (Signature)

Received Stamp:
RECEIVED
LARDER LAKE
MINING DIVISION
SEP 4 1990
TIME 9.45am

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
120	Sept 4/90	for
	Date Approved as Recorded	Provincial Manager, Mining Lands
	See Revised Work Statement	

1362 (89/06)

Ministry of Northern Development and Mines
Ontario

M.L

DOCUMENT No. W9008.253

Oct 6

Instructions
- Please type or print.
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims covered exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Mining Act — Report of Work (Geophysical, Geological and Geochemical Surveys)

2.18581

Type of Survey(s): VLF EM-16 SURVEY	Mining Division: LARDER LAKE	Township or Area: BRYCE
Recorded Holder(s): RODNEY SPOONER		Prospector's Licence No.: E 33032
Address: BOX 450 LA RONGE SASK. SOJILO		Telephone No.: (306) 425-2828
Survey Company: HIGHPOINT CONTRACTING LTD.		
Name and Address of Author (of Geo-Technical Report): BOX 450 LA RONGE SASK. SOJILO		Date of Survey (from & to): 12 Day 05 Mo. 90 Yr. — 27 Day 05 Mo. 90 Yr.

Credits Requested per Each Claim in Columns at right

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

Total miles flown over claim(s).

Date: Aug 30/90 — Recorded Holder or Agent (Signature):

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
L	1047203				
L	1012971				
L	1012961				
L	1012962				
L	1012972				
L	1012973				

RECEIVED SEP 11 1990 MINING LANDS SECTION

Total number of mining claims covered by this report of work: 6

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in this Report of Work, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying: GARY CLAYTON DUNN BOX 995 LA RONGE SASK.

Telephone No.: (306) 425 3626

Date: Aug 30/90

Certified By (Signature):

For Office Use Only

Received Stamp: RECEIVED LARDER LAKE MINING DIVISION SEP. 6 1990 TIME 9:38 am

Total Days Cr. Recorded	Date Recorded	Mining Recorder
240	Sept 6/90	for
	Date Approved as Recorded	Provincial Manager, Mining Lands
	See Revised Work Statement	

1362 (89/06)

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.13581

Date: Oct. 25/90

Mining Recorder's Report of Work No.: W9008.252

Recorded Holder: Rodney Spooner

Township or Area: Bryce Twp.

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	L 1012961 - 962 incl. 1012971 - 973 incl. 1047203
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 14.1 days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

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

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File: 2.13581

Date: Oct. 25/90

Mining Recorder's Report of Work No.: W9008.253

Recorded Holder: Rodney Spooner

Township or Area: Bryce Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	L 1012961 - 962 incl.
Electromagnetic 31 days	1012971 - 973 incl.
Magnetometer ____ days	1047203
Radiometric ____ days	
Induced polarization ____ days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

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

828 (85/12)

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

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

Telephone: (705) 670-7264
Fax: (705) 670-7262

Your File: W9008.252 & 253
Our File : 2.13581

November 30, 1990

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

Dear Madam/Sir:

RE: Notice of Intent dated October 25, 1990 for Geophysical (Electromagnetic) and Geological Surveys submitted on Mining Claims L 1012961 et al in Bryce Twp.

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

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

Yours ~~sincerely~~,

R.C. Gashinski
A/Provincial Manager, Mining Lands
Mines and Minerals Division

LJ/dvl
Enclosure

cc: Mr. W.D. Tieman
Mining and Lands Commissioner
Toronto, Ontario

Resident Geologist
Cobalt, Ontario

Rodney Spooner
LaRonge, Sask.

Gary Dunn
LaRonge, Sask.

geology reference-COBALT
RESIDENT GEO.

ROBILLARD TWP M - 579

THE TOWNSHIP
OF

BRYCE

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1 INCH 40 CHAINS

TUDHOPE TWP M - 252

BEAUCHAMP TWP M-412

CANE TWP M-211

VI V IV III II I

12 11 10 9 8 7 6 5 4 3 2 1

CLOSED TO STAKING SUBJECT TO SEC 38(1) OF MINING ACT (SEPT 20/78)

2.13581

SRO

LEGEND

PATENTED LAND ● or (P)
CROWN LAND
LEASE (L)
LOCATED LAND
LICENSE OF OCCUPATION
MINING RIGHTS ONLY
SURFACE RIGHTS ONLY
ROADS
IMPROVED ROADS
KING'S HIGHWAYS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES
CANCELLED
PATENTED S R O

NOTES

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

Areas withdrawn from staking under Section 43 of the Mining Act (

File	Date	Disposition

(R) Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W 65/83

(SR) Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W 18/86

SURFACE AND MINING OPEN FOR STAKING SECTION 36/80 APRIL 14/1990 ORDER O-L9-90 NER

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE _____ TIMISKAMING MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
POK 1TO
705-642-3222

PLAN NO. M-282

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

DATE OF ISSUE
NOV 19 1990
LAKE OFFICE

41P09NE0015 2.13581 BRYCE

200

SUBJECT OF CURRENT

LEGEND

1	undivided felsic pyroclastics : matrix usually fine to very fine grained, grey to dark grey, often poorly sorted; fragments highly variable in size, but range is usually consistent within outcrops, usually angular and tuffaceous, but large bombs noted; heterolithic, mostly matrix supported; minor feldspar porphyry (fp) infrequent rhyolitic flows, more common mafic flows.
1 a	coarse pyroclastic rocks, fragments ovoid to sub round, characteristic pitted outcrop surfaces, some variations, clast-supported, massive, clast size commonly 3-5 cm
1 b	rhyolite flow, aphanitic, cream-coloured and knobby weathered surface, usually scattered small rusty patches.
1 c	mafic flow, very fine grained to aphanitic, dark grey to greenish, massive.
1 d	carbonatized tuffs, usually sheared and schistose.
1 e	**mafic tuffs, fine grained, black, often chloritic, slotted or spotted appearance**
2	cobalt group metasediments : conglomerates matrix very fine grained, dark grey, occasionally gritty, cobbles range from tiny (3 mm) angular jasper fragments to large (20-30 cm) granitoid boulders.
3	nipissing diabase : medium-grained, holocrystalline, black with poorly developed feldspar laths; contact zone usually finer grained, massive; little or no veining or alteration noted.

shear, usually develops flaggy or schistose rocks

contact (defined - assumed)

outcrop, outcrop area containing up to 90% outcrop

strike/dip of foliation, inclined, vertical

quartz - quartz carbonate vein/dip

stripped area

trench

x 1540 - 22 rock sample location and gold content in ppb

2.13581

BRYCE TOWNSHIP

GEOLOGICAL MAPPING and SAMPLING

WORK BY: HIGHROCK CONTRACTING LTD.

Compiled by: R SPOONER		Dwg. No.
Drafted by: G.D	26 06/90	
N.T.S.: 41P 9	SCALE 1:2,000	
Disposition(s):		

N

GD Grid

actual claim boundary

1046166

1046165

1012971

1012974

EAST EXTENSION GRID

L 8+50 E

L 9+00 E

L 9+50 E

actual claim boundary

BL 6+80 S

L 10+00 E

L 10+50 E

L 11+00 E

L 11+50 E

L 12+00 E

L 12+50 E

L 13+00 E

L 13+50 E

L 14+00 E

L 1+50 E

L 2+00 E

L 2+50 E

L 3+00 S

L 3+50 E

1012961

L 4+50 E

L 5+00 E

L 5+50 E

L 6+00 E

L 6+50 E

L 7+00 E

L 7+50 E

1012962

4+35 N

4+00 N

3+00 N

2+00 N

3+00 N

2+40 N

1+80 N

1+40 N

1+00 N

0+00

1012973

1012972

(6+70 E)

(3+00 S)

DU GRID

L 5+00 E

L 5+50 E

L 6+00 E

L 6+50 E

L 2+00 E

L 2+50 E

L 3+00 E

L 3+50 E

L 4+00 E

L 4+50 E

1013276

1013275

CONDUCTOR AXIS

INTERPRETED FAULT

+20

+10

0

-10

-20

DIP

QUADRATURE

Tx : CUTLER MAINE

2.13581

BRYCE TOWNSHIP

VLF EM SURVEYS

WORK BY:
HIGHROCK CONTRACTING LTD.

Compiled by: / /

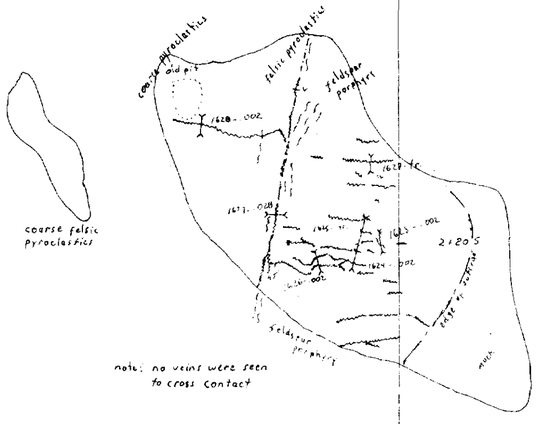
Drafted by: GD / /

N.T.S.: 41 P 9 SCALE 1:2,000

Disposition (s):

Dwg. No.

DU B ZONE



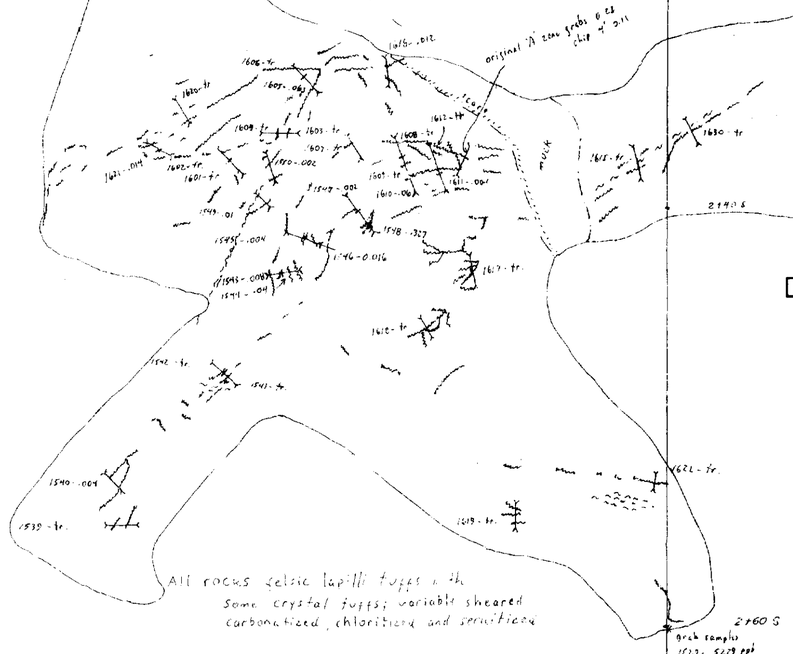
3+50E

note: line separation here is 45m

4+00E

N

3+20S



DU A ZONE

LEGEND

- QUARTZ VEIN
- SHEAR STRIKE/DIP
- SAWED CHANNEL SAMPLE
- 1603 - .001 SAMPLE NUMBER & GOLD CONTENT IN OZ/T
- STRIPPED AREAS

2.13581

BRYCE TOWNSHIP

DETAILED SKETCH

DU A & B ZONES

WORK BY: HIGHROCK CONTRACTING LTD.

Compiled by: R SPOONER / /	Dwg. No.
Drafted by: G D 5/07/90	
N.T.S.: 41 - P - 9 SCALE 1:200	
Disposition(s):	

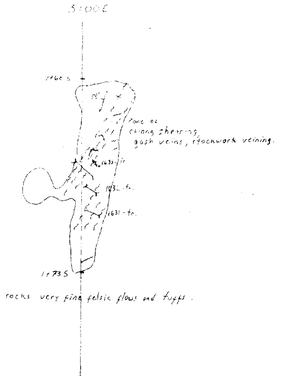
#3 - 2.01573
#2 - 2.01573
approx. 3+00S
3+00S

N

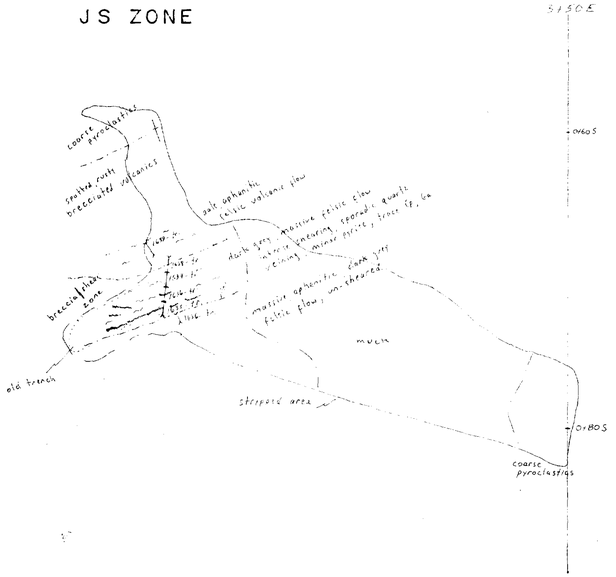
LEGEND

- QUARTZ VEIN
- SHEAR STRIKE / DIP
- SAWED CHANNEL SAMPLE
- 1603-.005 SAMPLE NUMBER & GOLD CONTENT IN OZ/T
- STRIPPED AREAS

DU C ZONE



JS ZONE



2.13581

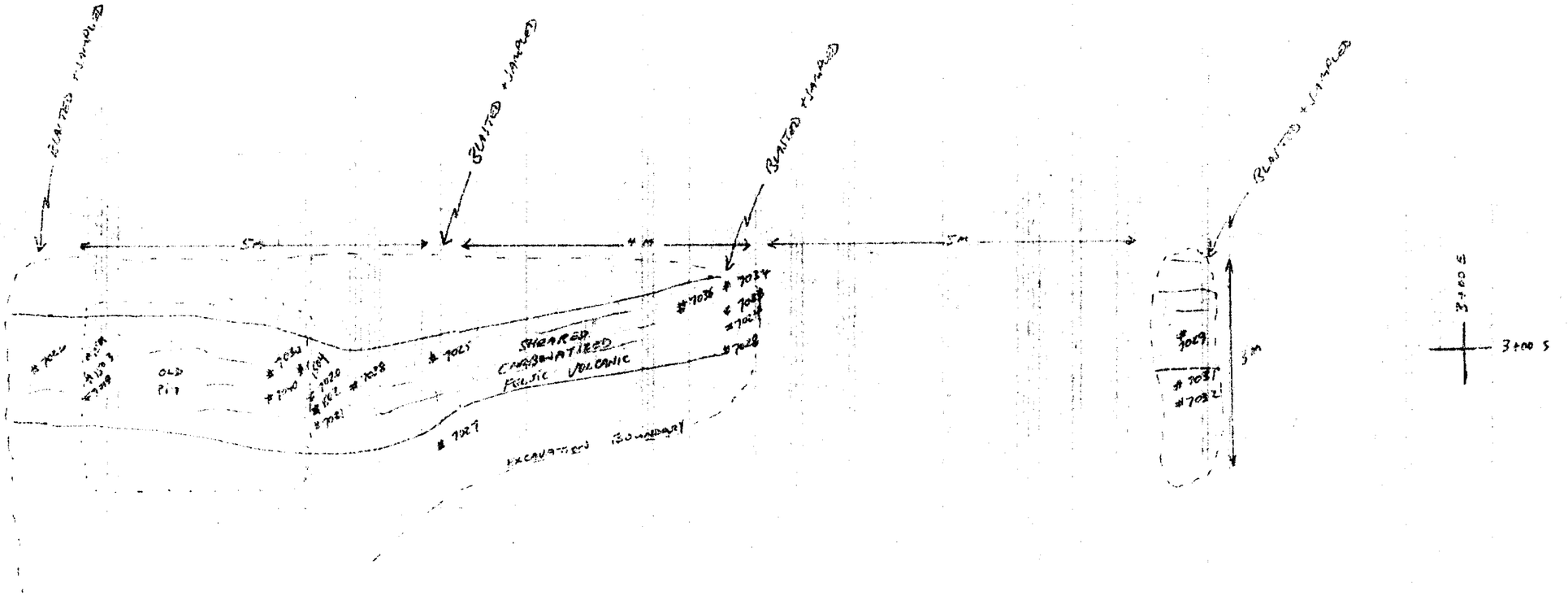
BRYCE TOWNSHIP

DETAILED SKETCH

DU C & JS ZONES

WORK BY: HIGHROCK CONTRACTING LTD.

Compiled by: R SPOONER / /	Dwg. No.
Drafted by: G D 05 07/90	
N.T.S. 41-P-9 SCALE 1:200	
Disposition(s):	



SAMPLE NO.	DESCRIPTION	Au	Cu ppm
1501	4' WIDE SHEAR, WEAKLY CHALCOPYRITIC PYRITE	.009 oz/Ton	380
1502	" "	.002 "	4800
1503	4' WIDE SHEAR, QTZ VEIN + CHALCO.	.012 "	760
1504	4' WIDE SHEAR, PERVASIVE PYRITE STRINGERS	.022 "	400
7019	" "	N/A	N/A
7020	QV IN SHEAR	207 ppb	"
7021	STRINGERS of PYRITE - CHALCOPYRITE IN SHEAR	228 "	"
7023	BANDED QTZ CHLORITE, CHALCO IN SHEARED VOLCANIC	170 "	"
7024	WALLROCK, CONTAINS PYRITE, CALCITE STRINGERS	17 "	"
7025	GREEN SHEARED VOLCANIC, PYRITE + CALCITE	21 "	"
7026	QV WITH VISIBLE CHALCOPYRITE	347 "	"
7027	WALL ROCK, CRAG CUTTING CALCITE STRINGERS	19 "	"
7028	SHEARED WITH CALCITE, CHALCO + PYRITE JOINT CHLORITE	160 "	"
7029	SHEARED VOLCANICS	21 "	"
7030	SHEARED VOLCANICS STRINGERS of PERVADED PYRITE, PUSCHITE	230 "	"
7031	SHEARED MAFIC TUFF	52 "	"
7032	" "		
7034	QV IN SHEAR	190 ppb	289
7036	CHALCO + PYRITE STRINGERS IN SHEAR	180 ppb	1343
7038	4' WIDE SHEAR ZONE	178 ppb	352

SAMPLE NO	DESCRIPTION	Au	Cu ppm
7040	SHEARED VOLCANICS, DISSEMINATED PYRITE, PUSCHITE	245 ppb	7102

2.13581

BRYCE TOWNSHIP

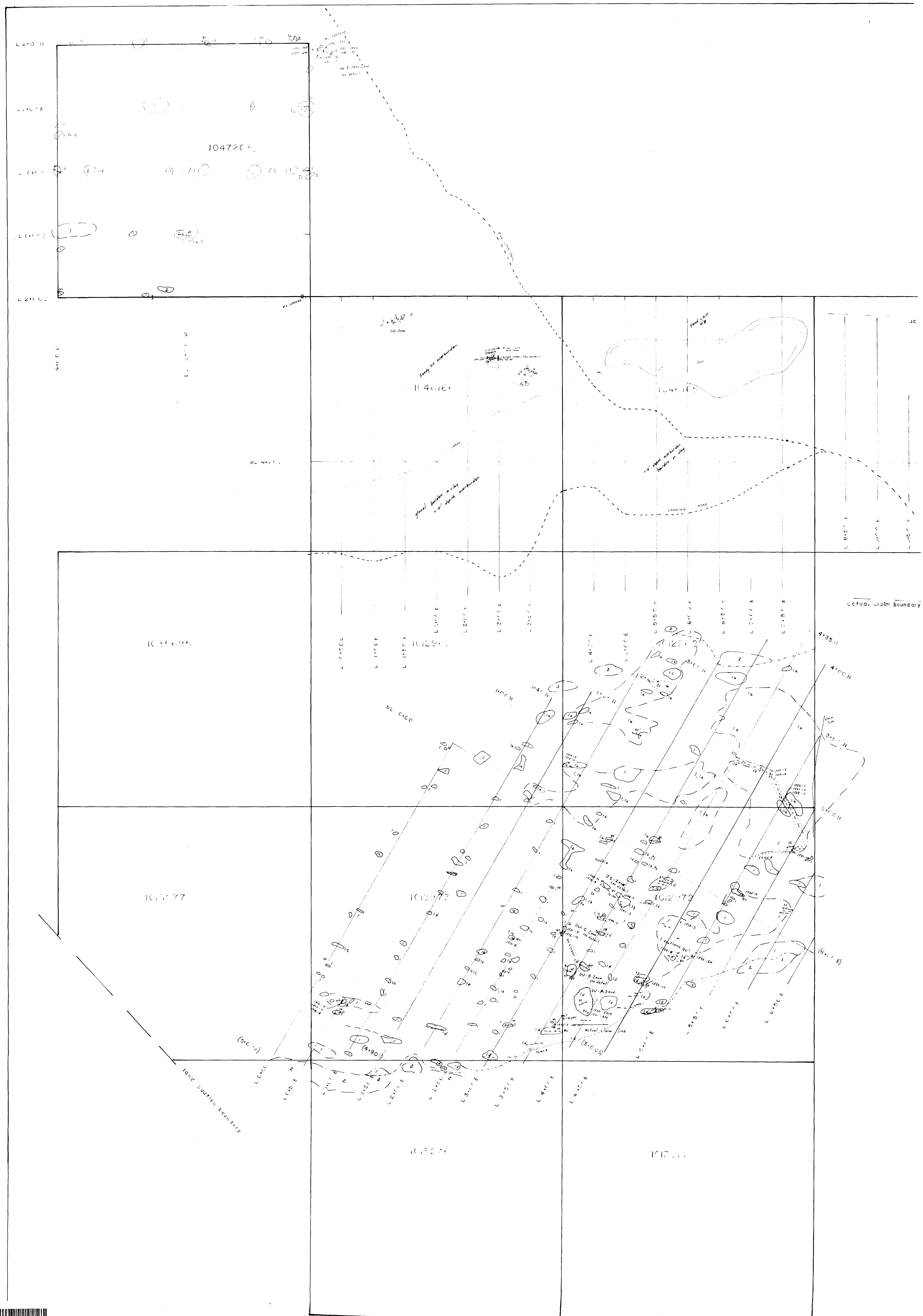
GD SHEAR ZONE

TRENCHING + SAMPLING LOCATIONS + ASSAYS

WORK BY: HIGHROCK CONTRACTING LTD.

Compiled by: GARY DUNN P.Eng
Drafted by: [illegible]
N.T.S. 41 P/8 SCALE 1:1
Dissemination:

Dwg. No.


actual claim boundary
4+00N
actual claim line

L 2+00N

L 1+00N

L 0+00

L 1+00S

L 2+00S

4+00 W

BL 2+00 W

1047203

#1 POST GRID

GD GRID

1046166

1046165

BL 4+60S

1035685

1012961

1012962

L 0+50E

L 1+00E

L 1+50E

L 2+00E

L 2+50E

L 3+00E

L 3+50E

L 4+50E

L 5+00E

L 5+50E

L 6+00E

L 6+50E

L 7+00E

L 7+50E

L 8+50E

L 9+00E

actual clai

4+35N

4+00N

3+00N

2+00N

3100N

2+40N

1+80N

1+40N

1+00N

BL 0+00

1013277

1012973

1012972

(6+70E)

(5+60S)

(4+90S)

(3+00S)

L 5+00E

L 5+50E

L 6+00E

L 6+50E

GRID

land caution boundary

L 0+00

L 0+50E

L 1+00E

L 1+50E

L 2+00E

L 2+50E

L 3+00E

L 3+50E

L 4+00E

L 4+50E

1013276

1013275