

## ROUSSEAU GROUP

# TURNBULL AND ROBB TOWNSHIPS

LINE CUTTING, CLAIM LINE REHABILITATION

## AND MAGNETOMETER SURVEY

Submitted for assessment work 1993 By E. C. Charters Adiamantine Enterprise Schumacher, ON.

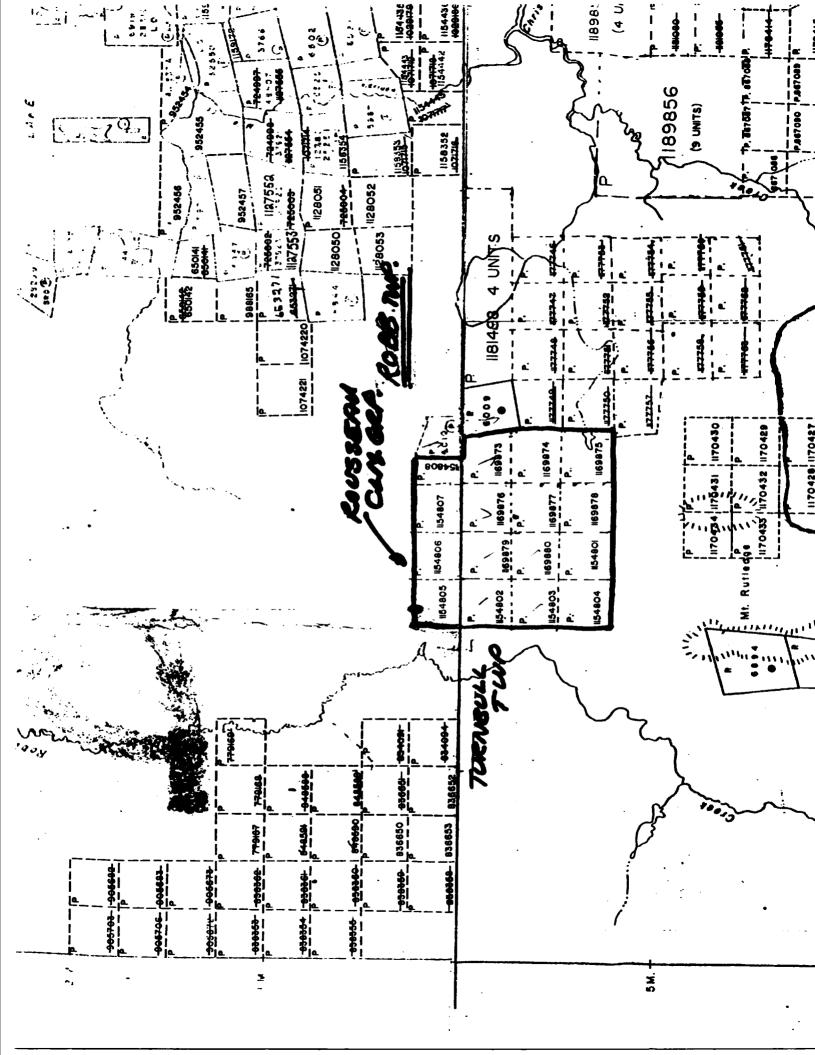
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### PROPERTY:

The property comprises a group of sixteen mining claims P1169873 to claim P1169880 inclusive and claims P1154801 to claim 1154808 inclusive owned by Robert Rousseau of 179 Birch St. South Timmins Ont. The property is located in Robb and Turnbull townships, 18 miles northwest of Timmins ON. Access is from highway 676 north from highway 101 west. Thence from LeClair Avenue around Kamiskotia Lake almost to the end where an ATV road is taken west and south for 1.25 miles. A footpath leads south 150 metres and then west 300 metres down the Niven Baseline that separates Robb from Turnbull township until the number one post of claim P1169873 is reached. The claims are tied on to two Patented claims to the east in Robb and Turnbull township, claims 6009 and claim 6010. N.T.S. map reference is 42/A/12.

The terrain is a mixture of high rolling hills with sparse large spruce birch and poplar and low swampy ground overgrown in cedar swamp. The hills have abundant outcrop and occasional mineral zones area seen. Boulders that seem to be local to the area, sometimes mineralized, occur of altered, chloritized andesite of greenschist facies, weakly mineralized porphyritic gabbro, quartz and rhyolite.

Prominent geological features are the east-west running weakly folded rhyolite porphyry on the border of Robb and Turnbull townships, that typically forms high outcrop. Where it contacts various rocktypes it is altered by dark blue chlorite and is weakly sheared. Locally stringers of chalcopyrite and pyritite approach massiveness in structure. These mineralized pod structures can be followed by geophysics as this survey would indicate. The property also encloses three multi channel Questor INPOT anomalies that are known to be co-incident with Zinc-Copper-Gold mineralization. Mespi Mines proved this by drilling in 1965. The INPOT survey was performed in 1987 and is called the O.G.S. Kiectromagnetic and Total Intensity Magnetic Survey for the district of Cochrane and Timiskaming and is on maps 81068 and 81076. Geology is repersented on Map 2205, Timmins-Kirkland Lake Geological Compilation Series.

## SURVKY and WORK PERFORMED:

The lines were cut north-south from a baseline that was cut from the number one post of claim P1154808 to the number three post of claim 1154805 for a distance of 1400 metres. A tie line was cut from the number one post of claim P1154808 to the number four post of claim B1154805 for a distance of 1400 metres. A line was cut down the east boundary of the claim group from the number one post of claim P1169873 to the number two post of claim P1169875 for a distance of 1200 metres. A tie line was cut from the number two post of claim P1169875 for 1000 metres west. Thence lines were established at one hundred metre spacings from the number two post of claim P1154808 for 800 metres west for a total of 18400 metres of cut line. Stations were established every 25 metres along the lines and total of 15400 metres were read at each station by magnetometer. Lines read were lines 0 through 700 west (1600 metres for each line) and tie line 1600 north for 800 metres, baseline 1200 north for 1000 metres and tie line 0+0 north for a distance of 800 metres.

Claim lines were brushed out and post locations were re-established for the sixteen claims for a total of ten line miles of work.

#### MAGNETOMETER SURVEY

#### MRTHOD:

At first the baseline was read and corrected for diurnal variations during reading by applying a correction factor according to the difference between a station read at different times of day. By dividing the time difference by the gamma difference and assuming linearity of differential for all intervening stations read between that twice read station a correction factor of minutes over minutes per gamma was applied to each reading and subsequent readings where there was a one gamma change, to bring the baseline readings to reference a particular datum. Crossline readings were taken in a loop on the baseline and any variation from corrected baseline values for the baseline reference stations at each end of the loop supplied a difference over time and a difference in day to day datum. A factor that combined the day to day difference and the difference due to time of day was applied to readings on that loop in the same manner as the corrections to the baseline readings. A Barringer Research Proton free-precession magnetometer, model GM-122-2-0-2 was for the survey, using a six foot staff to mount the sensor head which is omni-directional. Serial number of the magnetometer was 6237.

### RESULT:

Several prominent features are noted that are of interest. A group of highs of between 100 and 700 gamma above background (58000 gamma) run from the southeast of the baseline 1200 north at line 0 west,1150 metres north to line 700 west,1275 metres north. These highs are co-incident with previous vertical loop anomalies read by Dominion Gulf in 1955 and Pyrrhotite and Chalcopyrite showings on the claim group. This broad band of highs is approximately 700 metres in length and 300 metres wide. At line 0 west,1150 north the source of these highs can tentatively be identified in mineralized outcrop. The highs are also co-incident with a Porphyritic rhyolite conatact that was mapped by Middleton in 1973. The aerial survey of the Timmins camp by Questor INPUT in 1987 shows a four channel anomaly also co-incident with the above mentioned features.

Other than this predominant feature a dyke striking northwest through the middle of the claim group along line 700 west can barely be discerned

and is mildly magnetic. It is seen in outcrop. Several isolated highs of limited extent occur throughout the property but cannot be explained except perhaps by the presence of Pyrrhotite enriched ,diabase or magnetite boulders. These can be seen at line 500 west,100 north and line 700 west,675 north.

Other features of linearity exist suggesting parallel faulting in a westerly direction to from line 0 west, 900 north to line 700 west, 950 north. This may be a regional fault that Strangway for Dominion Gulf in 1955 suggested may cross Turnbull and Godfrey Townships. A major dislocation seems to exist as well, between line 100 west, 1200 north and line 700 west, 1600 north. This prominent feature suggests a northwest trending fault that crosses major east west linearities (which are parallel to baseline) Another linearity that suggests itself running northeasterly across the property from 500 west, 125 north to line 200 west, 1000 north. To the northwest some weaker parallel expressions exist.

The favourable target are assumed to be those magnetic highs where the sulfides are known to occur and there is associated conductivity however weak. Extreme lows could also indicate pyritic alteration zones that are characteristic of the Kamiskotia area. A widely spaced horizontal loop conductivity survey should be carried out to test this hypothesis.

**K.C.** Charters

Adiamantine Enterprise

Box 1232

Schumacher Ont.

PON-1GO

705-267-6579

Dear Sir:

This is to attest and certify that I, Kric Craig Charters am a Graduate of Haileybury School of Mines with a technical certificate and have seventeen years field experience in the mining industry, many of them in exploration. I am the person who carried out the survey on the property in question and I am solely responsible for the execution of the plotting and interpretation therefrom. It is done to the standards with which I have become familiar, in the industry by working on many similar surveys for mining companies, and the training I received from my educational background.

Yours truly;

C.C. Charters

E. Charto

Sept 28 1993



## ROUSSEAU GROUP

## TURNBULL AND ROBB TOWNSHIPS

## GEOLOGICAL SURVEY AND COMPILATION

Submitted to meet OPAP
Work requirement 1993
By Adiamantine Enterprise
Schumacher, ON.

The property has seen several companies attention since the mid fifties. Karlier work including the trenches on the adjacent patents cannot be documented. The main target has been sulfide associations.

The companies that worked the claims proper are; The Turnbull syndicate 1970, Mespi Mines ,1964, Dominion Gulf ,1956, and the present claim holders. Two companies Mespi and the Turnbull syndicate drilled anomalies on the claims. It was judged by Bell in 1968 that the Mespi people overshot their target with two shallow holes in 50 feet of overburden. The Mespi holes Torchia One and Two do not seem to adequately explain the aerial conductor or the quite strong JRM "shootback conductor" of 26%. They hit a weakly mineralized zone with attendant carbonate and sericite alteration as soon as they collared the rock beneath overburden. The actual conductor should have been fifty feet further down hole. If the Mespi holes were to hit a dipping conductor as is classically indicated by the JRM anomaly they would have to have backed up an additional about 100 feet in order to intersect it at depth. It is as if the holes hit the alteration zone but not the "meat". Also they could not have even crossed the strike of a pit which is mapped on the Mespi work as having sulfides in it. So they missed possibly two zones.

The present author feels that P.T. George also missed his target on what would now be claim P1169873. His indication of drilling a "reverse crossover" in VLF reveals his lack of knowledge of the characteristics of that instrument at that early time. VLF instruments do not exhibit reverse crossover characteristics. A negative dip means that the conductor is behind you. His (George's) intersection of Gabbro also indicates that he was south of the anomaly because that is the rocktype seen south of the showing on the adjacent claims. All in all, the performance of the two companies seems to be cursory in the light of mines that were found in similar environments nearby (Kam-Kotia, Genex, Canadian Jamieson, Jameland, Kidd Creek) and the volume of work done in follow up of similar alteration and conductance indicators in the Noranda camp.

Bob Rousseau the present claimholder, a partner in the claim worked for Dominion Gulf on the claims at the time his father held claims to the east and was able to identify their camp near the present claims. Although Dominion Gulf must have seen the showing on the adjacent Patents they make no mention of it in their assessment file reports. Strangway (for Dominion Gulf 1956) however, did recommend drilling an anomaly near the township boundary that is the long north west trending VEM anomaly seen on the compilation map. Robert Middleton told me that he also recommended such a feature be drilled in Turnbull when he made his report to the Government in 1973 on the Geology of Turnbull, Godfrey, Jamieson, and Robb Townships.

However the lack of apparent conductivity of the Jamieson showing on patented claim 6009 and the magnetic feature in line with it north of the township boundary have to be explained in the light of the abundant sulfides seen in the accompanying sample. Thomas Skimming in the T-2529 report tries to explain the non-conductive nature of such showings by relating to the conductive overburden known to exist in the area north of the township boundary which can be seen in the accompanying profiles of the flightlines (Questor INPUT survey) in which the first three channels "light up" for a wide low grade conductor. He says this type of "contact deposit" would elude detection under conductive drift. If it was magnetic as well it would have a doubly suppressive effect upon perceived conductance. This is a fact about the showing which exhibits unstable magnetic readings on the ground at +1000 gamma above background when the sensor is held 12 feet above ground.

## Turnbull Work continued:

When referring to the compilation map which accompanies the magnetic survey report, one should note that the geology shows on surface as andesite and gabbro. This andesite is called a high silica andesite of about 68 % silica by the early report of Dominion Gulf in 1956. Whole rock analysis was done at the time on selected samples. It should be noted however that in the same region in 1964 Mespi mines intersected rhyolite of a fragmental nature in two holes indicating that rhyolite bands may be present but not evident due to capping or overburden. It is not clear from the magnetics which rock type is represented by a particular signature as both gabbro and volcanics exhibit the same amplitude magnetically in this area on occasion. (Middleton, Geophysics of Robb and Turnbull Twps. 1973).

Of all the work done on the property the earliest work done by Strangway for Dominion Gulf seems to be the most clearly thought out. His recommendations most of which have not been tested still have some weight. He notes in his discussion of the sulfide occurrences co-incident with his primary VKM conductor "E-2" that "some drilling should be done here." Mespi Mines later tested the area but their holes did not apparently cross the co-incident sulfide zones. Attention should be drawn to the mysterious broad East-West fault that disappears as it contacts the gabbro. (Strangway, Dominion Gulf, 1955) One interpretation is that it could be sulfides in a shear zone. It is just south of a non conductive mineralized and magnetic zone that contains sparse chalcopyrite in a rather well mineralized zone. It is coincident with a broad but definite 4 channel aerial INPUT anomaly. (O.G.S. EM survey, Cochrane Dist. 1987) It is possible that it may be a zone of varying sphalerite and pyrite that is weakly conductive. The ground magnetics show an unusual anomaly in this region but the highs and lows characteristic of faults are absent.

The accompanying assessment work by the author of a magnetic survey found when crossing the George Jamieson copper showing on claim 6009 that it betrayed a "signature" of about 1000 gamma above background (58000 nanoteslas). This signature could be followed rigorously to the northwest at about 290 degrees azimuth and could be seen to be quite sharply defined. The plotted magnetic map shows a distinct magnetic anomaly on strike with this phenomenon just north of the township line in claim P1154807 that could quite confidently be said to be the same material as the showing. A hole to test this anomaly will doubtless hit sulfides and since the buried deposit has quite a strong high still it may be assumed that it will be higher grade at least in pyrrhotite. It then becomes apparent that the aerial expression of a magnetic high north of the township line in claim P1154806 then is not a magnetic gabbro as it should be further noted by the accompanying material the gabbro has no magnetic signature differing from the surrounding rocks in this area. Therefore it would seem that this rather large anomaly is in fact a buried sulfide body of a fair size. To support this it is noted that Rhyolites have been mapped in the northwest corner of claim 6010 adjacent to this anomaly.

A survey was carried out on the claims belonging to R. Rousseau in Turnbull Township by the author. Mapping rock out crop and samples was done on the lines and additional tie ins of Geology were done to the claim lines where lines were not cut. In the vicinity of some pits west of line seven hundred west a compass and pace traverse was done to facilitate mapping in this area. It was thought important to tie in the geology of the adjacent patents to the claims of Rousseau's because of the magnetic indication of the signature of the sulfides on the adjacent claims carrying over into the Rousseau ground without attendant rock exposure. Accordingly a compass and pace survey was mapped of this exposed geology. Samples which Rousseau took during his prospecting of the ground were sent away for assay to Bondar Clegg for copper, gold and in some cases for whole rock analysis. These were mapped into the compilation map from his notes. Measurements referred to are in metres unless otherwise noted.

Except in one place on line zero at the baseline and one place on line seven hundred west, 400 m. south, there is no rock exposure on the cut lines upon which the magnetic survey was done. There are some indications that the bedrock may be not too deepjust north of the baseline for 100 metres from line two hundred west to line five hundred west from the appearance of angular boulders and the strength of magnetic readings but there are no exposures of outcrop.

It appears that due to the nature of the main area of outcrop west of line seven hundred west being the predominant rock exposure of the area and its magnetic signature being much the same as the rest of the property it would appear that the property is underlain by the same or related rock sequences. These rock types are from examination of this exposed area, rhyolite, andesite, basalt and gabbro. The gabbro appears in this area as narrow dykes, the majority of the rock is an amygdular somewhat mafic rock that has sulfides in the amygdules. It is clearly of volcanic origin and fine grained, possibly basalt. In other places the volcanics are lighter coloured and could correspond to the rock that Dominion Gulf analysed in this area as being 68 % SiO2. This would then classify as an upper intermediate rock of possible andesite/dacite composition. This rock is also massive and fine grained. These rock type are mapped collectively as "6" on the compilation.

Other rocks observed in the core library from Mespi Mines drill hole Tor 1 and Tor 2 were a brick red, waxy, aphanitic and sericitic rock. Similar rocks are described elswhere in reports on the rocks of Turnbull Township as rhyolite.

The gabbroic rocks both at this outcrop and the adjacent area east of the claims are porphyritic to coarsely grained and equigranular, exhibiting a rough development of angularly intergrown crystals. Whole rock analysis reveals them to be locally high in titanium and chromium. Fine grained sulfides are prevalent but only near contacts are present in appreciable amounts.

Sulfide mineralogy is present in pits in the outcrop area west of line seven hundred. Fine grained disseminated pyrrohtite, pyrite, chalcopyrite and sphalerite are present in minor amounts near quartz veining. Small amounts of sulfides of this nature have been found in Turnbull Township at the Lally Mine and at other showings. This raises the question of the association of this mineralization with a possible gold horizon related to east-west faulting. This cannot be established without further study. Quartz veins carrying economic copper ore were prevalent in the Kam-Kotia mine according to the mine geologist Cliff Mackenzie so it cannot be said in this area that the pit showings do not have a massive sulfide association because of the presence of quartz veining. The Tor 1 and Tor 2 holes of Mespi Mines report sulfide stringers and observation of the core reveals narrow crenulated massive pyrite stringers in the rock of about one half inch in width. These stringers could emanate from a massive sulfide body at depth.

Rast of line zero at the number one claim post of claim P1169873 can be seen a massive high outcrop that forms a hill of about 75 feet in height the outcrop has a pale bleached appearance and is locally high in sulfides. This feature extends eastward for about 200 metres where it underlies the adjacent patented claims 6009 and 6010. It has a distinctly low magnetic signature of about 58300 gamma and below. The rock contacts to the south a coarse grained gabbroic rock and in the region of the contact takes on a bluish chloritic and sheared appearance. Locally sulfide mineralization is quite intense ranging up to 40 % sulfides for a zone running east-west about 50 feet in width. Chalcopyrite and pyrrhotite and pyrite can be observed in the rock in most places at the contact. Sulfides in the gabbro proper to the south are sparse except at the contact or within about five feet from it. This mineralized contact zone can be traced on the surface for over 200 feet in a southeasterly direction.

The pale bleached rock has been described as a quartz-porphyry of monzonitic composition in other literature (Middleton Geology of Robb and Turnbull Townships 1973) but has a distinct fine grained appearance and may be according to some authorities a sub-volcanic rock. Its macrocrysts of feldspar are common to the Kam-Kotia group rhyolites and the presence of blueish quartz eyes does not alter its identification as a volcanic rock. Quartz eyes are more common in tuffs and volcanics than they are in intrusives. A whole rock analysis of this rock by Falconbridge Ltd. revealed a silica composition of 74% and low sodium and potassium oxide content of less than 1%. The monzonitic composition and low potassium is consistent with an altered rhyolite.

The sulfide zone has a distinct magnetic signature and can be traced westerly where the sulfides dissappear under overburden. The zone of magnetic highs is seen over the felsic rock where moderate sulfides are seen about 200 metres west of the patents. No trace of the gabbroic contact is seen at this point. It may be that the deposit of sulfides is independent of the contact of the gabbro and is related solely to the altered felsic rock.

The last suite of rocks mentioned by the author are the diabase dykes which strike north west through the property. They are part of the Hearst swarm and fill regional faults which strike through the area. These faults are observable from the air where distinct topographical features of fault scarps run for many miles north south. the relief on these faults is typically fifty feet or more. The diabase is mildly to not magnetic and is lightly mineralized. the gabbro is thought to be much younger and not an apophyses of the diabase.

The map produced from these field observations is coupled with a compilation of available geological and geophysical information available from the Timmins and district assessment files of the ministry of Northern Development and mines. The plotting of map information was done by digitization of the scaled maps available in these files and tied in to the features evident in the field. Companies whose data were used to compile the information include Mespi Mines, the Dominion Gulf company, the Turnbull Syndicate, and New Walcoro Mines Ltd.

## Geological Interpretation:

In the region of the showing of George Jamieson's on claim 6009 the author had occasion to sample what is mapped as a quartz porphyry. The rock was aphanitic of ground mass, pale green and milky with a distinct conchoidal fracture and exhibited sparse large twisted crystals of feldspar. The quartz is described elsewhere in literature as "blueish eyes". Rock of this type is identical in description with rhyolite of the Kam-Kotia area. (Middleton, geology of Robb and Turnbull Townships, 1973). In some places the phenocrysts are quite large and crowded together and the rock has a bleached appearance. The magnetic signature is uniformly low. The magnetic low that occupies claim P1169877 may be the same type of rock because its magnetic signature is identical to the porphyritic rhyolite mentioned. Since it is adjacent to a group of twelve channel conductors and some sulfide showings it tends to upgrade these indicators considerably if this correlation is accepted.

Both Nelson Hogg, Provincial Geologist for Timmins and Robert Middleton considered the quartz porphyry to be of rhyolitic association and coeval with the volcanics of the Kam-Kotia camp and possibly subvolcanic. The author concludes that the varying crystallization of the rock is characteristic of a high silica flow in the caldera of a volcano. The limited spread and curved layout of the mass is also remniscent of an interior confined flow. Thus proximal vent facies is to be expected.

The Jamieson showing may then be a "Kuroko" type deposit. These are quite limited true replacement deposits that are near extrusive flow vents and form beneath flows. They are characterized by high carbonatization and high temperature mineralization. Their mineralization is not of the usual type and may be missed by a "vent" expert. One contemporaneous deposit is forming near an active Volcano in Japan near Kuroko island. (Note the Mespi holes that talked about pervasive carbonatization and sericite.)

### Recommendations:

It would appear then that three distinct targets exist to be tested on the property that have not yet been truly tried.

- 1: The 12 channel Questor INPUT anomaly should be located and drilled at a moderate depth accounting for its dip and depth of overburden.
- 2: A Max-Min (horizontal loop) survey over the Dominion Gulf VRM fault indication should be drill tested across its entire width of 400 feet.
- 3: Finally the magnetic body on strike with the Jamieson showing should be drilled at about 300 foot depth and some downhole geophysics done.
- 4: The possibility of rock geochemistry leading to an orebody at depth beyond 600 feet should not be ignored as it was successful in the Noranda camp and the only indication was the right rocks and being on the Horne fault. We now know that blind orebodies exist in these rocks in the Timmins camp at depths up to 8000 feet.

K.C Charters
Mining Technician
HSM
October 25 1993.

The following is the text of a letter sent to a Vancouver Junior company in an attempt to deal the property:

Since the property is one that has mineralization in a known mining camp the value of the deal has to stem not from its initial promotional value but from the probability that it will become a mine or in the near term a very interesting play. The present prospector feels that the only way to share in its value is through betting on its future value by positioning himself with a way of earning fair return from an active company. That is he wants shares and a way of earning more as the deal progresses. The VSE regulations designed to protect shareholders against too many arms length deals that deplete the treasury are not a satisfactory solution to his interests and knowledge of the probability of the vast increase that can occur in equity value upon favourable drilling results.

The property is an excellent bet for the following reasons.

- 1: No less than four practicing Geologists have recommended it be drilled who have done extensive work in the area. Middleton, Skimming, Strangway and Darke.
- 2: The work done on the property has been judged by competent authority to have missed its targets. (D. Bell and the author)
- 3. The same volcanic package hosted five other producing mines in copper the area. McIntyre, Genex, Kam-Kotia, Jameland and Kidd Creek.
- 4. There are presently by two companies Moneta and Falconbridge three successful Zinc finding exploration plays in the Kamiskotia Volcanics. (Godfrey and Robb Townships.
- 5. A +10,000,000 ton orebody was found at depth by Falconbridge near the Kidd Creek Mine this year.
- 6. A 6,000,000 ton Copper-Zinc-Gold-Selenium-Cadmium-Silver reserve is held by Falconbridge at the Kam-Kotia mine in Robb Township. There is active exploration in this area.
- 7. Westminer Canada has taken a large land package in the area over five townships and promised to spend \$1,000,000 dollars.
- 8. Falconbridge has 6,000,000 tons of 1% copper,1% zinc found in Dundonald Twp. east of Timmins found recently.
- 9. Infrastructure and inexpensive skilled labour is readily available in this area.
- 10. Two gold mines have started in this area in the last five years on moderate grade (.135-.200 ounces per ton.) and are making money. (St. Andrews and American Barrick-Holt McDermott.)
- 11. Unused milling capacity to the tune of 3000 tons per day exists in the area that could be refurbished. (McIntyre Mill.)
- 13. Dome Mines runs successfully at grades below .12 oz. per ton after spending sixty million on mill improvements in the mid eighties..

### Reasons Continued:

14: Dome is putting in a super pit in Deloro and Tisdale Township which will run at about .06-.08 grade at a high capital cost.

## The Deal:

The property owner wants:

- 1. Stock, free trading
- 2. Cash down.
- 3. A multi year deal with payments doubling each year for five years.
- 4. Pre production payments at the end of five years.
- 5. A royalty on smelted metals that can be partially bought out only.
- 6. A work committment in each calendar year.

E.C.Charters October 25 1993

