

DUNFRAZIER GOLD EXPLORATION INC. SUITE 302, 67 RICHMOND STREET WEST TORONTO, ONTARIO

> GEOLOGICAL SURVEY OF THE **BAG LAKE PROPERTY** DOGPAW LAKE AREA KENORA DISTRICT, ONTARIO

> > MINING LANDS SECTION

OCT 17 1985

RECEIVED

BY

MICHAEL OGDEN, B.A.Sc., P.Eng.

toronto, ontario 2000 R 383

OCTOBER 1985

INTRODUCTION AND SUMMARY

The showings and drill core in the vicinity of zones 1A and 1B were examined and mapped by the writer in the fall of 1983. The recommendations at that time were to (1) expand the claim block from 24 to 41 claims; (2) complete a geological survey over the 41 claims with perhaps some geophysical help to (3) lay out a drill program.

This report covers the geological survey during which some 13 substantial zones of rusty carbonate mineralization have been found and innumerable little zones whose continuity is in doubt.

Seven drill holes of a 10-hole program of 4000 feet are laid out on the ground.

PROPERTY, LOCATION AND ACCESS

The property, comprised of 66 claims, forms a roughly oblong block of ground 3 miles long east and west, by about 1½ miles wide, lying ½ mile east of Highway 71, 9 miles south of Sioux Narrows and 16 miles north of Nestor Falls, some 55 miles southeast of Kenora, Ontario.

Access is readily afforded by the new Falconbridge/Nuinsco truck road that extends across the northern half of the property from about mileage $\frac{1}{2}$ to almost $4\frac{1}{2}$.

The 41 claims included in this survey are numbered as follows:

4 claims numbered K 535352-353, 356-357

5 " K 575868-872, inc.

15 " K 487021-035,

16 " K 747337-352, "

1 " " K 778731

An additional 25 claims have just been staked but were not surveyed. They are numbered as follows:

4 claims numbered K 863480-483, inc.

10 " K 863545-554. '

11 " K 839012-022, "

REFERENCES

- 1. Bag Lake Property of Dunfrazier by Michael Ogden, November 1984.
- Geology of the Cedartree Lake Area, Davies & Morin, Ontario M.N.R. 1976,
 Geoscience Report 134.
- 3. Maps and Reports of Nuinsco Resources Limited, Cameron Lake Property.

HISTORY

There is an extensive history of prospecting and small mine development of the area, dating back to the turn of the century. Typical examples might be the Horseshoe mine some 6 miles northwest, which produced about 37,000 tons, to a depth of 500 feet, of 0.3 oz. gold per ton from a 1- to 3-foot-wide quartz vein in a big quartz feldspar porphyry dyke in basalt lava. The Wendigo, about 22 miles northwest, mined some 206,000 tons of 0.33 oz. gold and almost ½% copper from a shear zone in basalt about 6 feet wide by 400 feet long. A 1- to 5-foot-wide quartzitic veining within the shear carried the values for some 200 feet along strike and 1700 feet in depth. Both of these and others were in operation during the late 30's and early 40's.

The original discovery of gold on this property was made in the summer of 1960 by Andy Knapp, working for Gunnar Mining Ltd. He panned gold from the carbonate zones near the zero zero of what is now called the Gulf Minerals grid on Showings 1A and 1B (see map). These were trenched by Gunnar along with the pits and trenches from 240 m to 360 m (800' - 1200' E) southeast along the base line. The claims lapsed.

Mr. Knapp staked the ground in 1980 and Gulf Minerals Canada Limited took an option on it. They took a lot of lithogeochemical samples, did a brief geological map, cut the grid over showings 1A, 1B and almost to 1C, and did a detail VLF over the grid. The VLF indicated a continuation of the base line mineralization. A drilling program followed with 3475 feet in 9 holes.

Some interesting assays were obtained under the sheared, carbonatized and pyritic quartz-feldspar-porphyry at 270 m (900'E) southeast and the base line, e.g., 0.21 oz. of gold over 3.3 feet in a 32-foot-wide intersection of altered porphyry that ran 0.045 oz. gold.

The VLF anomaly was probably conductive clays in the swamp as no significant mineralization was found under it in four holes.

The last hole got 0.15 oz. gold over 4.0 feet of a 9-foot quartz feldspar porphyry near the base line at 60 m northwest (200'W).

Gulf concluded the zone was patchy and too narrow and returned the property to Mr. Knapp.

I examined the known showings and drill core for a few days in August and again in October of 1983. There was some evidence of north-south faulting and possible mineralization extending under the 60 m west (200'W) at the base line. This led to the conclusion that the mineralization might have been drilled the wrong way, i.e., we should be looking for north-south zones. If that was true, then more ground should be staked to include some big north-south lineaments to the east and a detailed geological survey should be done over all the ground to see what could be found.

Another 17 claims were staked in 1983 and 1984 to bring the group to 41 claims. This geological survey has found a dozen more major showings of rusty carbonate with mappable lengths of 300 feet (100 m) or more.

THE GEOLOGICAL SURVEY

The field work was done by Michael Ogden, B.A.Sc., Mining Geology,
Toronto 1950, P.Eng., during the period August 20 to October 2. During that
time he was ably assisted by Andy Knapp of Toronto from August 20 - 30 and
Darcy Berry of Nestor Falls from September 1 - 18 and Dean Brown of Nestor
Falls from September 21 - October 1. Report and map preparation continued
by Ogden to October 16.

Pace and compass lines at 400-foot intervals or less were traversed through the bush, parallel to the topography, thus avoiding swamps, beaver ponds and lakes as much as possible, so as to stay in outcrop areas. The assistant moved 100 feet at a time on a careful compass course and Ogden quartered behind looking for outcrop, near outcrop or "rusty rubble", i.e., rusty rock debris in the soil or an upturned tree root.

As is obvious from the map, it went well except on the northeast claims (487024, 727337, 727338) where local magnetics warped the traverse (and the claim shapes). This also happened a little in the centre of the claim block where long lines had to be corrected part way through.

TOPOGRAPHY AND SOILS

The property is mostly gentle rolling hills underlain by sand and gravel with about 10% boulders. Near bedrock there are many big boulders. Gravel for road building is readily available although it has an undesirable boulder content.

The forest is mixed of jackpine, spruce and some balsam with poplar and scattered birch. The low ground and valleys are cedar or spruce swamp with tag alders which give way to grassy swamp in the open areas. The low ground seems to be underlain by clay and sand not by peat bogs, so there is a firm bottom to the wet areas.

GENERAL GEOLOGY

The area of the claim block is underlain by Archean basalt flows which often display pillow lava.

Davies & Morin (Ref. 2) consider these to be intruded by the gabbro of Bag Lake. I could not find any intrusive contacts and hence am inclined to consider the coarser grained gabbro to be the centre of a big flow of lava. Whatever its source, it is parallel to the commonly observed stratification on the property and on to the east (i.e., a little east of due north).

The above rocks have been locally intruded by what appears to be swarms of quartz-feldspar-porphyry dykes. Davies & Morin display these as long ($\frac{1}{2}$ to 1 mile) dykes, whereas my detail mapping has enough exposure to indicate many discontinuities, although a general north-south trend remains with a local tendency to strike parallel to the common northwest lineation of grain.

The two main areas of quartz feldspar porphyry dykes are north-south through the vicinity of showings Nos. 1 and 2 and north-south through showings Nos. 4 and 5, including branches at 9, 10 and 11.

ROCK TYPES

<u>Basalt</u> is a sugary-grained rock of about 60% mafic and 40% felsic minerals. It resembles a fine-grained gabbro but can frequently be found with well-formed pillows which attest to its undersea origin.

Fine-grained basalt is similar in composition to the above but with aphanitic grain. The mapping shows it to resemble a separate formation, parallel to the gabbro and just west of it, through the west side of Bag Lake and beyond to the north. It occasionally occurs elsewhere but no other pattern was discernible.

<u>Gabbro</u> is a rock salt size grained rock of 40 - 60% mafic and the rest feldspar. No intrusive contacts could be found so it may be the centre of a

particularly thick flow.

Quartz feldspar porphyry is just that, of granular granitic texture (sugar to rock salt) some 3-15% quartz. When sheared and altered, the grain size diminishes so that the rock resembles a pink or rusty felsite.

<u>Diorites</u>: the basalt or the gabbro sometimes grades into a dioritic composition but the effect is quite local.

THE MINERAL SHOWINGS AND RECOMMENDATIONS

The survey uncovered at least one new showing of rusty, carbonated, sheared, pyritic rock every day, from which it may be concluded that most, if not all, of the big ones have been found, but there are probably many more small showings yet to be located.

The 13 showings with designated numbers can be traced for 300 feet or more, and one of them for more than 2 miles (No. 5). Their significance becomes apparent when compared to the 400-foot-long shear of the old Wendigo as described under History.

The No. 1 Showing is exposed at roadside between 5E and 6E (flagged markings at 100-foot intervals along the road). This No. 1C seems to be the northwesterly extension of the original trenched (1A) on the base line of the Gulf picket line grid. Their drilling showed the mineralization lacked continuity. However, the strong, north-trending shear zone through the northeast bay of Bag Lake (1B) has rusty shearing and alteration exposed on both sides of it. An interesting gold assay (0.15 oz/4.0 ft.) in altered rocks was found within it (Hole 9). Therefore, the shear zone should be drilled with a couple of east-west holes about 400 feet apart under the bay of Bag Lake. Thirteen to fourteen hundred feet of drilling would be required to test this possibility of the original drilling having been on the lesser branch of the intersecting gold mineralization.

The No. 2 Showing is exposed at 23E alongside the road and twice more on the Gulf grid for a length of 800 feet. It strikes at 330°, appears to be vertical, and lies in or alongside a quartz feldspar porphyry dyke. Two holes of 200 feet each are proposed to test the zone at 200-foot intervals near the road where gold has been panned from a 10-foot-wide rusty carbonated shear in basalt between two arms of the quartz feldspar porphyry dyke.

The No. 3 Showings are exposed along the roadway from 59E to 63E. They look impressive and trend northerly but cannot be followed, i.e., no extension on strike can be found in the bush, nor could gold be panned from the best-looking one at $59\frac{1}{2}E$.

They seem to be pods of carbonatization and are not worth testing for now.

The No. 4 Showing at 70 - 71E consists of 2 highly-carbonated and sheared zones of aphanitic basalt, about 3 feet wide, striking northwest and lying between two arms of a wide (up to 700 feet) and long (7000 feet) quartz-feldspar-porphyry dyke that trends a little west of north. Gold was panned here, but as the zones seem to lack continuity as at 1A, no drilling is suggested for now.

Zone No. 5 is exposed along the road from 91E to 96½E and is the biggest one. Shearing and alteration, sometimes intense with silicification, and pyrite has been traced for at least 2 miles in length with widths up to 550 feet. The initial interpretation as indicated on the accompanying map shows No. 5 as a big Y-shaped zone with the widest section under the Y at the road. There are 4 to 6 branches from it, trending southeasterly (Nos. 9, 10, 11, 12 and others beyond 5N).

One hole of some 900 feet in length is recommended to test this zone at the widest portion, i.e., drill to the northwest under the road from $96\frac{1}{2}E$. This would probe about 600 feet of shearing, carbonatization, silicification,

sulphides and mica schist.

Another hole should be placed 800 feet northeast beside the road to probe northwest across one of the narrowest known portions of the No.5 zone, i.e., under a beaver dam. A 600-foot hole would suffice.

The No. 5 zone may be a separate stratigraphic horizon of volcanic agglomerate, fragmentals and breccia for, as shown on the map, the rocks along it often have such an appearance, but it is very rare elsewhere.

The No. 6 Showings lie alongside the road from 46E to 49E and, like No. 3, they seem to be disconnected blobs. However, the 6B is carbonatized, quartzitic, sheared basalt with pyrite, and it strikes parallel to the big No. 5 and extends for a possible 2000 feet.

Two holes are recommended here: one under the trenched portion 200 feet north of the road and another under the road to test the possible intersection of zones 6 and 6B. About 500 feet of drilling would be required.

Mineralized Zone No. 7 in the centre of the claim block has been found to date along a length of 2000 feet with an apparent width of 10 to 20 feet. It is a sheared, carbonated and siliceous zone of basalt with some quartz feldspar porphyry. The zone is poorly exposed, its presence being indicated solely by rusty rubble in the overburden in one place.

Zone No. 8, near the southeast corner of the property has been traced for 800 feet with widths of 10 to 30 feet. It is almost along strike of No. 11 and may be one and the same, which would then give it a length of 2500 feet. The zone is a rusty, carbonated, quartzitic shear at 310°, without quartz-feldspar porphyry, and No. 11 is similar but with the porphyry. Both have a little pyrite.

Zone 9 on the east boundary of the initial 41 claims is an intensely sheared, carbonated and quartzitic basalt with scattered rusty quartz feldspar porphyry over a width of 25 feet along the north slope of a ridge of rock for

almost 400 feet.

Zone 10 is parallel to 9 and 600 feet north of it. It is a 10-foot-wide rusty carbonated shear in basalt some 250 feet in exposed length.

Zone 11, as mentioned under 8, is a 15-foot-wide highly-sheared and carbonatized zone of basalt and quartz feldspar porphyry. A vertical 1- to 3-inch-wide, east-west quartz vein with a little pyrite is exposed on the west face of the massive basalt outcrop. Some blasting has been done here, but the vein is only a foot or so in length.

A 2- to 3-foot-wide zone of rusty fault breccia in the basalt is exposed for 10 to 20 feet some 100 feet south of the vein and Showing No. 11. This may be related to the pond lineament.

The No. 12 Showings are a vague zone of rusty basalts with more than usual pyrite content, that show on the map for a length of 4000 feet. They are located near the middle of the south quarter of the claim block.

No. 13 is similar to 12 but forms the left arm of the Y of No. 5 as it branches off to the northwest.

THE PROPOSED DRILL PROGRAM

Eight to ten holes have been recommended with at least a pair of holes under Showings Nos. 1, 2, 6B and 5, for a total of 4000 feet of diamond drilling.

Respectfully submitted,

Michael Ogden, B.A.Sc., P.Eng.

Toronto, Ontario

October 1985

Ministry of Resources

Report of Work

(Grophysical, Geological, Geochemical and Expenditures)



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H.B.40 ENGINEERING LTD.

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Name and Address of Author (of Geo Technical report)

MICHAEL OGDEN, B.A.SC., P. ENG. RR-4 STOUFF-VILLE ONT. LOH ILO

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Certification Verifying Report of Work

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

STOUFFVILLE MICHAEL OGDEN, RR4

Mining Lands Section

File No 28545

Control Sheet

TYPE OF SURVEY	GEOPHYSICAL GEOLOGICAL GEOCHEMICAL EXPENDITURE
MINING LANDS COMMENTS:	
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Date

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Your File: 197-85 Our File: 2.8545

Mining Recorder
Ministry of Northern
Development & Mines
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Sir:

RE: Notice of Intent dated 1985 12 04 Geological Survey on Mining Claims K 535352, et al, in the Dogpaw Lake Area

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,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-4888

SH:bc

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Dunfrazier Gold Exploration Inc. Suite 302 67 Richmond Street West Toronto, Ontario M5H 1Z5 cc: Resident Geologist Kenora, Ontario

Mr. Michael Ogden R.R. #4
Stouffville, Ontario LOH 1L0



Technical Assessment Work Credits

File

2.8545

Date

1985 12 04

Mining Recorder's Report of Work No.

197-85

DUNFRAZ	TIER GOLD EXPLORATION	INC
Township or Area	LAKE AREA	
Type of survey and nur	mber of	Mining Claims Assessed
Assessment days credit p	per claim	Timing Citing Passacu
Electromagnetic	days	K 535352-53-56-57 575868 to 872 inclusive
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Special credits under section 77 (1	6) for the following mining cl	aims
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not sufficiently covered by the		cient technical data filed



Dec 18/85

· 1985 12 04

Your File: 197-85 Our File: 2.8545

Mining Recorder
Ministry of Northern Affairs and Mines
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

\$.E. Nundt Director

Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

R) · SH/mc

Encls.

cc: Dunfrazier Gold Exploration Inc Suite 302 67 Richmond Street West Toronto, Ontario M5H 1Z5

> Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario

Michael Ogden R.R.#4 Stouffville, Ontario LOH 1LO



Notice of Intent for Technical Reports

1985 12 04 2.8545/197-85

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

1985 10 25 File: 2.8545

Mining Recorder
Ministry of Northern Affairs and Mines
808 Robertson Street
Box 5080
Kenora, Ontario
P9N 3X9

Dear Sir:

We received reports and maps on October 17, 1985 for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims K 535352, et al, in the Area of Dogpaw Lake.

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

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

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-4888

AB/mc

cc: Dunfrazier Gold Exploration Inc. Suite 302 67 Richmond Street West Toronto, Ontario M5H 1Z5





