LA FRANCE EXPLORATIONS LIMITED

TYRRELL TOWNSHIP

DISTRICT OF TIMISKAMING

ONTARIO

June 7, 1976

J. D. McCANNELL

LA FRANCE EXPLORATIONS LIMITED
TYRRELL TOWNSHIP
ONTARIO

INTRODUCTION

The following report describes a group of 11 mining claims located in Tyrrell Township, District of Timiskaming, Ontario. The claims include several old gold showings on which work was carried out in the 1930's and 1940's. The property was mapped in detail under the supervision of the writer in ~~June~~ May of this year.

PROPERTY, LOCATION AND ACCESS

The property covered by this report consists of a group of eleven contiguous mining claims located in the south central part of Tyrrell Township, Larder Lake Mining Division, Ontario. Tyrrell Township is approximately 60 miles west of New Liskeard and 60 miles south of Timmins. The claims included in the group comprise about 440 acres and are numbered as follows: 393529, 393530, 393531, 393532, 393533, 393535, 393536, 393537, 393538, 429922 and 429923.

The claims group is readily accessible via a truck road that leads south from highway 560 at a point 3/4 of a mile east of Duncan Lake or 1 3/4 miles west of the east boundary of Tyrrell Township. The distance from highway 560 to the old camp buildings on the property, is 4 3/4 miles. A small amount of repair work on two old culverts would make it possible to drive a car or truck directly to these camps.

TOPOGRAPHY

The area of the claims group consists mostly of flat lying terrain with the occasional low hill and some scattered rock outcrops. The overburden is usually quite deep and is composed of sand and boulder glacial till. The entire land area is covered by a dense growth of both large and small timber. Indian Lake, a fairly large body of water occupies the extreme west central

J. D. McCANNELL

part of the claims group. A westerly flowing stream in the southeast and central part of the ground, flows into this lake.

There is a fair amount of rock outcrop in parts of the claims group but the exposures are usually quite small. Most of the outcrop occurs in the southeast quarter of the claims group with very little in the north half of the ground.

GENERAL GEOLOGY

The general geology of Tyrrell Township is shown in fair detail on Map No. 41b, published by the Province of Ontario Department of Mines in 1932, on the scale of one inch to three quarters of a mile. This map was prepared to accompany a portion of Volume XLI Part 2, Tyrrell-Knight Area by A.R. Graham. A more detailed sheet in uncoloured preliminary form, Map No. P766, Tyrrell Township, was published by the Division of Mines of the Ontario Department of Natural Resources in 1972 on the scale of one inch to one quarter mile. Fairly lengthy descriptive notes accompany this latter sheet.

The rock formations underlying Tyrrell Township are all of precambrian age. Exposures are scattered over the entire Township but at least seventy percent of the area is covered with a fairly heavy mantle of glacial sand and gravel.

The western two thirds of the Township is largely underlain by volcanic formations including both acid and basic flows and associated pyroclastics. The eastern one third is predominantly underlain by cobalt sediments including greywacke, slate, arkose and conglomerate. Small areas of these sediments also occur within the volcanic horizon. Pigeon Lake which probably occupies

a fault depression, and the lineament extending south from this lake, mark the main contact (probably a fault) between the volcanic and sedimentary rocks.

A fairly large mass of Timiskamian sediments, consisting mostly of greywacke, arkose and conglomerate, is exposed in the extreme south central part of Tyrrell Township.

Numerous small plugs and dikes of feldspar porphyry intrusive occur throughout the volcanic and older sedimentary rocks. These intrusives were believed by Graham to be related to a mass of granodiorite, of possible Algoman age, occurring in the south central part of Knight Township. This mass, which covers an area of about four square miles, is referred to in the Tyrrell-Knight Area report as the Pigeon Lake Granodiorite.

Quartz diabase dikes of Matachewan age, intrude the Keewatin, Timiskamian and Algoman formations. These dikes vary up to a few hundred feet in width, invariably strike north-south and are usually quite magnetic. Later Keweenawan olivine and quartz diabase dikes and sills are frequently encountered throughout the entire area and numerous sills of the quartz diabase are exposed in areas underlain by Cobalt sediments

Sulphide mineralization consisting of pyrite, pyrrhotite and some chalcopyrite is commonly associated with shearing in the volcanic and older sedimentary rocks. Gold often accompanies narrow quartz stringers and fine quartz threads occurring with the sulphide mineralization. Gold has also been noted in the general area, associated with silicification in zones of high carbonate alteration.

During the month of May, 1976, the eleven claims included in the group covered by this report, were geologically mapped and the results plotted on plan on the scale of 1 inch to 200 feet. This work was carried out by H. Dowhaluk and the writer.

The property lies on the east limb of a large syncline but top determinations were apparent only in the central part of the claims group. The tops were determined from volcanic pillows, grain gradation in the sediments and cross-bedding. The general strike is northwest and the formations, for the most part, dip steeply to the west.

The underlying formations provide a sequence of intermittent volcanic activity, weathering and sedimentation and have been divided into five units as shown on the geological plan. Unit 1 underlies the extreme northeast part of the ground and consists of a series of andesite flow rocks. They are metamorphosed to a schistose facies but retain a considerable amount of their basic volcanic appearance.

Unit 2 which lies immediately to the southwest of unit 1, consists mostly of a series of thinner beds of andesite flows which show evidence of considerable weathering and carbonatization. There were long periods of weathering between the successive volcanic flows which resulted in interbedded layers of arkosic rocks, into which this volcanic series has a tendency to grade. There are also cone-like masses of rhyolite and dacite throughout this series, which are probably a direct result of volcanism. The weathering of these volcanic rocks resulted in residual material such as quartz and kaolinite.

Unite 3 is largely all arkose with some thin beds of silty

rocks. The arkose is probably a result of the complete weathering and kaolinization of some of the volcanic formations. A small outcrop on the south boundary of claim 393537 shows clasts of completely decomposed volcanic rock up to four inches in diameter and which show up as patches on the weathered surface of the arkose. A few clasts of grey and brown chert, red jasper and white quartz are also present. What appears to be a rhyolitic cone was mapped in the arkose formations near the east side of Indian Lake.

Unit 4 consists entirely of a fairly fresh looking andesite flow rock. Pillowed lava is a prominant feature of this formation.

Unit 5 is an arkose sequence, quite similar to unit 3 but possibly with more fragments and pebbles which in places are sufficiently abundant to classify the rock as a conglomerate with an arkose matrix.

Dikes of Matachewan diabase intrude units 3, 4 and 5 and generally have a strike of north 30 degrees west. The texture is somewhat ophitic and the rock is strongly magnetic. An outcrop of feldspar porphyry observed on the point just north of the old La France Gold Mines Limited camps, could be a dike or a porphyritized arkose.

Zones of silicification, and carbonate alteration, often accompanied by variable amounts of finely disseminated pyrite and pyrrhotite, were observed at several locations on the claims group. These zones could form quite wide parallel bands conforming to the northwest strike of the formations and occur both in the volcanic and the sedimentary rocks. The intense silicification that is often present, could have resulted from the alteration and weathering of the original volcanic rocks. Narrow quartz veining, stringers

and thin threads are frequently present and are usually associated with these zones of silicification and carbonate alteration. Coarse free gold is sometimes associated with this quartz veining. Low gold values were also encountered throughout the silicified zones which the geological mapping indicated to be confined to the volcanic and sedimentary rocks of units 2 and 3. Gold values up to 0.05 ounces per ton were obtained from silicified and mineralized arkosic sediments and altered volcanics even when there were no quartz veinlets or fine quartz threads present in the rock. Occasional splashes of chalcopyrite and sphalerite as well as the odd fleck of galena and arsenopyrite were noted in some of the wider quartz stringers especially in the west zone trenches.

HISTORY AND EXPLORATION WORK

Tyrrell Township and Knight Township which adjoins Tyrrell on the north, have been the scene of considerable staking and prospecting activity dating back to the early part of this century when gold was first reported at Shiningtree. The most extensive exploration interest was in the 1930's when a major staking rush developed throughout the greenstone belt extending west and north from Gowganda. Although the only operating gold mine in the immediate area, the Tyranite Mines Limited, ceased operations in 1942, there was renewed interest in the exploration for gold in Tyrrell and Knight Townships in 1945 and 46. The area has remained fairly quiet with only sporadic isolated activity since the late 1940's and most of the claims, even some with known gold showings, have been allowed to lapse.

The current free market price of gold has resulted in many of the gold occurrences in the general area being re-examined.

Most of the ground included in the claims group discussed in this report, were formerly part of the property of a company known as La France Gold Mines Limited. That company carried out a program of exploration work during 1945 and 46 which consisted of surface prospecting, extensive trenching and 5,000 feet of diamond drilling. A good set of camps, consisting of five permanent buildings, was constructed and three of these buildings are still in fairly good condition.

The work carried out by La France Gold Mines Limited was largely confined to two parallel zones, about 700 feet apart and showing considerable silicification, some pyrite and pyrrhotite mineralization and containing some narrow quartz stringers and veinveinlets in places carrying both fine and coarse visible gold. The overburden was frequently found to be quite shallow along the strike of these zones and much of the trenching was in rock. The formations at both locations were recently observed by the writer to be weakly schistose. The most southwesterly zone was extensively trenched for a strike length of approximately 1,000 feet. Much of this trenching is still in fairly good condition especially where the overburden is shallow. The rock is a silicified arkose at the south end of the main zone and a well silicified and altered andesitic lava at the north end. The northeasterly zone is in a rhyolitic formation of volcanic origin. On a visit to the property on November 1st and 2nd, 1975, the writer took a chip sample across 12 feet of rock exposed in the trench near the north end of the main zone and one across 2 feet of parallel quartz stringers near the south end. The former returned an assay of 0.02 ounces of gold per ton and the latter 1.14 ounces per ton. The trenches were completely

dry at the time of the writer's 1975 visit.

Ten holes were drilled in the diamond drilling program carried out by La France Gold Mines Limited in 1946, for a total of 5,000 lineal feet. No drill plan or core logs are available to the writer but it was reported that very little of the core was split and assayed for gold. The core was stored in one of the old camp buildings and was still reasonably intact and in good condition in 1973. When the writer visited the property in November 1975 however, it was found that the core boxes had been dumped and the core scattered on the floor of the building in which it was stored. The core showed much brown carbonate alteration with some parts being well silicified and well mineralized with fine disseminated pyrite and pyrrhotite. A considerable number of quartz stringers and veins were also present. Many of these veins consisted of both quartz and calcite. There was evidence that some core had been split and probably assayed but the greater part of the favourable looking sections had not been sampled. The writer took three character samples from the core in November 1975 and the assay returns showed gold contents of 0.01, 0.03 and 0.04 ounces per ton. The first sample represented a quartz-calcite vein, the second silicified volcanic tuff and the third was split core showing quartz veining in a mineralized volcanic tuff. Although some core still remains in the boxes, it would be impossible to re-assemble any of the holes with any reasonable amount of accuracy.

Welsh-Mac Mines Limited who formerly held a block of claims adjoining the La France Gold Mines Limited property on the south and east, carried out fairly extensive surface exploration work on

their ground during the 1940's. That property was recently acquired and is still held by Getty Mines Limited, a wholly owned subsidiary of Getty Oils Limited of Calafornia.

In the early part of May, 1976, the writer carried out an examination of the claims group discussed in this report, which included line cutting, geological mapping, prospecting and some channel sampling. An attempt was made to pump out the old trenches, most of which are filled with water at this time of year. As the trenches in the two main zones are in low ground, there was no place to pump the water and they re-filled almost as fast as they were de-watered. At several locations however, the water level was lowered sufficiently to permit a reasonable examination and sampling of the exposed rock. A total of 48 channel samples were taken from various locations both in the trenches and from exposures of bedrock. Gold was present in all these samples and the values ranged from 0.01 ounces to the ton to 0.82 ounces per ton. The higher values were from narrow quartz veins and stringers but values in the range of 0.05 ounces per ton were obtained from channel samples across silic-ified and mineralized arkose and volcanic rocks showing no quartz veining or veinlets.

Picket lines were established at 400-foot intervals in an east-west direction to provide control for the geological mapping. The results of the mapping and sampling program were plotted on plan on the scale of 1 inch to 200 feet. The collars of all 13 diamond drill holes reported drilled on the property, which include 10 drilled by La France Gold Mines Limited in 1946 and 3 short holes drilled by E. La France for assessment work in 1958, were located and are shown on the geological plan. An attempt was made to drill

and blast some of the trenches to expose fresh rock. With the water in the trenches, this proved difficult however some success was obtained near the south end of the main zone and rock blasted from the trench showed coarse free gold in narrow quartz veins which confirmed the early reports of visible gold in some of these veins

CONCLUSIONS AND RECOMMENDATIONS

The ubiquitous occurence of gold on this claims group, both as coarse visible gold in narrow quartz veins and small amounts in the silicified sedimentary and volcanic rocks without quartz veining, undoubtedly provided the incentive for the exploration work carried out on this ground in the past. The previous work however, appeared to be entirely directed to locating a wide highgrade gold bearing quartz vein and when this hope did not materialize, interest in the property waned. The extensive east-west trenching carried out by La France Gold Mines Limited in 1945 and 46 was obviously an attempt to locate gold bearing quartz veins parallel to the northwest strike of the narrow veins in their southwest or main zone. The lack of systematic diamond drilling was also probably a result of their over enthusiastic attempt to locate such a vein.

The geological mapping and sampling recently completed under the direction of the writer, indicates a low tenure of gold to be quite prevalent throughout the wide zones of silicified and mineralized sedimentary and volcanic rocks in the central part of the claims group where La France Gold Mines Limited did most of their work in 1945 and 46. These zones occur in rocks shown as units 2 and 3 on the geological plan and which have a combined width of 2,500 feet. The exposures of bedrock are mostly quite small and are almost entirely confined to the south one third of the area on the

claims group underlain by rocks classified under units 1 and 2. The remaining parts of these formations have not been investigated for possible quartz veining or gold showings.

It is the writer's opinion that this property should be approached as a possible large tonnage low grade gold prospect. There is the possibility of gold bearing quartz veins or veinlets in which case these may act as sweeteners to a low grade deposit. It is recommended that a program of diamond drilling be undertaken by La France Explorations Limited on this ground with the initial program to consist of 1,500 lineal feet of drilling in a series of short holes to cross-section areas "A", "B", "C" and "E". Forty five degree holes drilled to depths of 150 to 250 feet should be sufficient for this initial check work. This drilling could be done with light equipment at a cost of $14.00 per foot for an overall cost of $21,000.00. Additional diamond drilling will be determined by the results of this first program.

Respectfully submitted,

James D. McCannell, P.Eng.,
Consulting Geologist.

Toronto, Ontario
June 7, 1976.

REGISTERED PROFESSIONAL ENGINEER
J. D. McCANNELL
PROVINCE OF ONTARIO

Ontario

Ministry of Natu

41P10SW0014 2.2168 TYRRELL

900

GEOPHYSICAL – GEOLOGI
TECHNICAL DATA STATEMENT

RECEIVED
by hand
AUG 6 1976
PROJECTS UNIT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological Mapping
Township or Area Tyrrell Township
Claim Holder(s) La France Explorations Limited
1014 - 111 Richmond St. W. Toronto, Ont
Survey Company J.D. McCannell, Cons. Geol.
Author of Report J.D. McCannell
Address of Author 326 Adelaide St. W. Toronto, Ont.
Covering Dates of Survey May 11 - June 11, 1976
(linecutting to office)
Total Miles of Line Cut nine miles

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
–Electromagnetic
–Magnetometer
–Radiometric
–Other
Geological 40
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: Aug. 6, 1976 SIGNATURE: J.D. McCannell
Author of Report or Agent

Res. Geol. L.D Qualifications 63.2502

Previous Surveys

File No.	Type	Date	Claim Holder
no previous survey			

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L -	393529
	393530
	393531
	393532
	393533
	393535
	393536
	393537
	393538
	429922
	429923

TOTAL CLAIMS 11

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____ (specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION
RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

OFFICE USE ONLY

Knight Twp. - M.228

Macmurchy Twp. - M.842

Milner Twp. - M.236

Leonard Twp. - M. 232

THE TOWNSHIP
OF

2.2168

TYRRELL

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	C.S.
LEASES	L
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.
PATENTED FOR SURFACE RIGHTS ONLY	

NOTES

400' Surface Rights Reservation along the shores of all lakes & rivers

DATE OF ISSUE
AUG 9 1976
SURVEYS AND MAPPING
BRANCH

PLAN NO. - M.253

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

41P10SW0014 2.2168 TYRRELL

200

Bob K.

KAME DELTA

KAME TERRACE COMPLEX

CEDAR SWAMP

BASE LINE

INDIAN LAKE

L-393529 L-393530 L-393531 L-393532 L-393533 L-393534 L-393535 L-393536 L-393537 L-393538 L-429922 L-429923

L-0-S L-4-S L-8-S L-12-S L-16-S L-20-S L-24-S L-28-S L-32-S L-36-S L-39+70 S

LEGEND

EON	ERA	Period		
PROTEROZOIC	PHANEROZOIC	CENOZOIC	QUATERNARY	Recent / Pleistocene	surficial
PROTEROZOIC	APHERIAN		Matachewan	dikes
ARCHEAN			KEEWATIN-TIMISKAMING	volcanics, sediments

- SWAMP DEPOSITS, SOIL
- SAND, GRAVEL, GLACIOFLUVIAL DEPOSITS
- DIABASE
- 5a ARKOSE (5a) of volcanic origin Includes chert-pebble conglomerate (5b)
- 4 ANDESITE flows, pillow lava (4v, 4p), fragmental lava (4f)
- 3 ARKOSE (3a) produced from weathered volcanic rock Includes chert-pebble conglomerate (3b) and cones of rhyolitic, carbonatized rocks (3r), feldspar porphyry
- 2 ANDESITE, carbonatized, weathered (2c), with interbeds of arkose (2a) and volcanic conglomerate (2b), cones of rhyolitic, carbonatized rocks (2r)
- ANDESITE, massive flows (1v)

SYMBOLS

- STRIKE AND DIP OF BEDDING, INCLINED, VERTICAL
- STRIKE AND DIP OF FOLIATION, INCLINED, VERTICAL
- STRIKE AND DIP OF VEIN, STRINGER SETS
- TOPS, BY GRAIN GRADATION, CROSS-BEDDING, PILLOWS
- OUTCROP WITH CONTACT, DEFINED, ASSUMED
- S SLUMP STRUCTURE
- GLACIAL STRIAE, TRIANGULAR GOUGES
- TRENCH
- K KETTLE
- CREST OF RIDGE
- SLOPE
- QV QUARTZ VEIN
- QS QUARTZ STRINGERS
- TOPOGRAPHIC BOUNDARY
- SWAMP, WET PLACES
- CREEK
- INTERMITTENT STREAM, DRAINAGE COURSE
- TRACTOR ROAD
- TRAIL
- BUILDING, RUINS OF BUILDING
- DIAMOND DRILL HOLE
- BEAVER DAM
- BEAVER HOUSE
- B SHOWING OF INTEREST

REGISTERED PROFESSIONAL ENGINEER J.D. McCANNELL PROVINCE OF ONTARIO

A

Scale: 1"=10'

B

1"=10'

E

1"=10'

D

Scale: 1"=10'

Gogama Gowganda Englehardt Shiningtree New Liskeard Lake Timiskaming COBALT PROPERTY SUDBURY NORTH BAY

INDEX MAP
SCALE: 1"=28 MI.

GEOLOGICAL PLAN

LaFRANCE EXPLORATIONS LIMITED

INDIAN LAKE PROPERTY

TYRRELL TOWNSHIP
DISTRICT OF TIMISKAMING
ONTARIO

SCALE: 1 IN. = 200 FT.	DATE: JUNE, 1976
RES. GEOL: H. DOWHALUK	CONS. GEOL: J.D. McCANNELL