GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE
BIG TROUT LAKE PROPERTY
PATRICIA MINING DIVISION, ONTARIO
AUGUST - SEPTEMBER, 1987
LATITUDE 53°40' NORTH
LONGITUDE 89°56' WEST
NTS 53-G/12

ON BEHALF OF
697895 ONTARIO LTD.
TORONTO, ONTARIO

RECEIVED
MAY 27, 1988
MINING LANDS SECTION

CONWOOYO GOLDFIELDS LIMITED
1660, 444 - 5TH AVENUE S.W.
CALGARY, ALBERTA T2P 2T0

J. GROOTENBOER, Ph. D.
MAY 10, 1988

J. GROOTENBOER, Ph. D.
MAY 10, 1988
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<td>Geology Along South Shore of Big Trout Lake, Ontario</td>
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INTRODUCTION

This report was prepared by Contwoyto Goldfields Limited on behalf of 697895 Ontario Ltd. of Toronto Ontario. Contwoyto carried out a program of geological mapping and rock chip sampling during the period August 31 to September 4, 1987. The work was conducted by the author (See Appendix III).

The property is underlain by the eastern basal part of the Big Trout Lake Complex (BTLC). This layered mafic/ultramafic complex displays many affinities to the "Bushveld" type of stratiform intrusion that is the primary source of chromium and platinum group elements (PGE's) in the world. These affinities, together with reported significant PGE values in the BTLC, indicate that the BTLC exhibits moderate potential for hosting concentrations of PGE's.

Location and Access:

The Big Trout Lake property is situated in extreme northwestern Ontario, 250 km north of the village of Pickle Lake (Figure 1). The claims which were investigated are centered on 53°40' North latitude and 89°56' West longitude, within NTS map-sheet 53G-12.

Access to the property from Pickle Lake is via float or ski equipped aircraft to Big Trout Lake or to several of the larger lakes on the property. Daily scheduled flights also connect Pickle Lake and Big Trout Lake. Access from the community of Big Trout Lake to Sioux Lookout is via a winter road. The 800 inhabitants of Big Trout Lake are serviced by a small general store and trading post.

Property Status:

The hammer-shaped Big Trout Lake property comprises 169 claims totalling 6,759 acres. The property is located in the Patricia Mining Division. The claims are shown on Figure 2 and listed in Table 1.

The property is subject to a joint venture agreement between Contwoyto Goldfields Limited, Calgary, Alberta, and 697895 Ontario Ltd., a wholly owned Canadian subsidiary of Greater Pacific Investments Ltd., Sydney, Australia.
BIG TROUT LAKE PROPERTY

LOCATION MAP

FIGURE 1
**TABLE 1 - CLAIM STATISTICS**

<table>
<thead>
<tr>
<th>Claim Numbers</th>
<th>Claim</th>
<th>Area</th>
<th>Recording Date</th>
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<td>42</td>
<td>Beardy Creek</td>
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<td>April 01, 1988</td>
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<tr>
<td>Pa 976081-976116</td>
<td>36</td>
<td>Neeigueabins Lake</td>
<td>April 01, 1987</td>
<td>April 01, 1988</td>
</tr>
<tr>
<td>Pa 976119-976160</td>
<td>42</td>
<td>Beardy Creek</td>
<td>April 01, 1987</td>
<td>April 01, 1988</td>
</tr>
<tr>
<td>Pa 976161-976164</td>
<td>4</td>
<td>Neeigueabins Lake</td>
<td>April 01, 1987</td>
<td>April 01, 1986</td>
</tr>
<tr>
<td>Pa 976169-976213</td>
<td>45</td>
<td>Beardy Creek</td>
<td>April 01, 1987</td>
<td>April 01, 1988</td>
</tr>
</tbody>
</table>

**TOTAL: 169 Claims**

**Physiography:**

The property is characterized by almost flat relief. Topographical variations, mainly attributed to eskers and other surficial deposits, do not exceed 25 meters. Bedrock exposures represent less than 1% of the total surface area and are almost exclusively confined to lake shores. Large areas of the property do not have any outcrop. Big Trout Lake covers the northern "hammer head" part of the property. The area is principally forested by relatively dispersed, small spruce trees.

**PREVIOUS WORK**

Tyrell (1913) carried out reconnaissance geological mapping in the Big Trout Lake area as part of the Hudson Bay exploring expedition of 1912. Hudec (1964) mapped the area at a scale of 1 inch = 2 miles. The geological map was modified by Sage and Troop (1974) during Operation Winnisk for the Ontario Geological Survey. Wittacker (1980) studied the general nature of the peridotitic rocks belonging to the Big Trout Lake Complex (BTLC) and the geochemistry of the chromites in the ultramafic rocks. He reported a close association of sulphide grains with chromite and the presence of net-textured sulphides in the peridotitic rocks. Borthwick and Naldrett (1982) investigated the geology and geochemistry of the Big Trout Lake Complex with particular emphasis on the PGE and chromite distribution. Borthwick (1986) reported on the geology and geochemistry of the BTLC.

Minor exploration activity in the early part of the century was focused on gold showings in the greenstone belt. In the 1970's, Canadian Nickel Company (Inco Ltd.) apparently flew an electromagnetic survey over the area. The results of this survey were not filed for assessment credit. Inco subsequently drill tested (at least nine holes totalling 14,500 feet) the southern extension of of the layered intrusion and intersected peridotite containing chromitite seams. One series of holes, 10 km north of
Nemeigusabins Lake, was designed to evaluate the gross layering of the Big Trout Lake Complex. The chromium potential was evaluated (including beneficiation studies) but the prospect was considered uneconomic at that time.

In 1980-83, Canadian Occidental Petroleum Ltd. carried out an exploration program over five grids covering parts of the Big Trout Lake Complex. An airborne magnetometer survey was mentioned in their report but was not filed for assessment credit. One of the grids (#4) was immediately to the west of the southern part of the Big Trout Lake property. Canadian Occidental Petroleum Ltd. filed eight holes for assessment credit but show eleven holes on one of their maps. Eight chromitite and chromite-rich layers were intersected. A considerable amount of petrographic and analytical work was done on the core. Several hundred samples were analysed for PGE's.

The land portion of the previously known ultramafic portion of the Big Trout Lake Complex was acquired by International Platinum Corporation in 1985.

In late 1985, drilling outlined a 160-foot wide zone of anomalous PGE values separate from the known chromite horizons (Postle et al, 1986). International Platinum Corporation has recently carried out an airborne and ground electromagnetic/magnetic survey over its property. The airborne survey was filed for assessment credit, but the information is not yet available, pending approval by the Ontario Department of Mines.

In its 1986 Annual Report, International Platinum Corporation reports a previously drilled intersection in the BILC in which hole B1-2 returned 0.28 ounces platinum group metals per ton over 6.7 feet. As well, International Platinum Corporation announced that the first hole of its 1988 drill programme returned 0.15 ounces per ton platinum group metals over two feet, with a ratio of Pd:Pt of 2:1 (Mining Journal, March, 1988).

The property of International Platinum Corporation adjoins to the south and west, the main claim block in the area under option by Contwoyto Goldfields Limited.

**REGIONAL GEOLOGY**

The Big Trout Lake property is located within the Sachigo River greenstone belt (Figure 3). This east-west trending belt is one of the many that comprise the Archean Superior Province of the Canadian Shield.

Metavolcanic and metasedimentary rocks are the oldest rocks of the greenstone belt. The metavolcanic rocks are predominantly mafic to intermediate in composition. The metasedimentary rocks are mainly volcaniclastic in nature while paragneisses of unknown origin are common in the Severn Lake area.
Granitoids
Migmatitic rocks
Mafic to ultramafic intrusive rocks
Felsic volcanics
Mafic to intermediate volcanics

Fault
Geological contact (approx.)
Anticline
Syncline

LEGEND

1  2  5  6
Granitoids
Migmatitic rocks
Mafic to ultramafic intrusive rocks
Felsic volcanics
Mafic to intermediate volcanics

Fault
Geological contact (approx.)
Anticline
Syncline

simplified from: Ontario Dept. of Mines Geological Map No. 2045.

GENERAL GEOLOGY OF BIG TROUT LAKE COMPLEX

FIGURE 3
The Big Trout Lake Complex (BTLC) intrudes the supracrustal rocks as a sill near the contact between the metavolcanic and metasedimentary rocks. This complex forms a 90 km long Z-shaped body along the northern and southern shores of the eastern part of Big Trout Lake. The BTLC is predominantly anorthositic in composition but displays gabbroic and ultramafic phases. A basal unit of chromite-rich peridotite and dunite is overlain by anorthosite, olivine gabbro, gabbro (including a distinctive cumulate unit), and quartz-bearing gabbro. Geophysical evidence suggests that the ultramafic rocks are restricted to the southern limb of the Complex. Banding and cumulate textures have been interpreted by Hudec (1964) as evidence for very slow cooling and fractionation within a large magma chamber.

During the Kenoran Orogeny, the supracrustal rocks and the BTLC were intruded by large granitic batholiths, subjected to several phases of deformation, and regionally metamorphosed to the upper greenschist or lower amphibolite facies.

1987 SUMMER EXPLORATION PROGRAM

Detailed geological mapping and lithogeochemical sampling were carried out along a single traverse along the south shore of Big Trout Lake. Excellent outcrops represent a cross section of the lower ultramafic/mafic portion of the Big Trout Lake Complex. Several units of ultramafic peridotite and pyroxenite (occasionally pyrite and chalcopyrite bearing) were found to outcrop within the staked area and appear to represent favourable host rock environments for Platinum Group Element (PGE) mineralization.

Only a few representative hand specimens of peridotite and pyroxenite were collected owing to the limited time available and to the dangerous conditions prevailing along certain stretches of the shore-line at the time the work was conducted.

Operations at Big Trout Lake were conducted from the Indian village of the same name where accommodation was provided in a cabin of the Band Office. The Band Office also assisted in hiring an Indian guide and boat for crossing the lake. Owing to unstable weather conditions prevailing in September, the crossing proved difficult and dangerous. It was nevertheless possible to carry out work along the south shore during four days. The limited amount of time available led to only the most critical work (geological mapping, rock chip sampling) being carried out. It also proved to be impossible to investigate the small islands within the claim area. Outcrop conditions along many sections of the south shore are excellent, but conditions are frequently dangerous when the wind is from the north. Some areas could only be investigated superficially and it proved to be especially difficult to obtain petrological hand specimens. The area inland from the immediate shore is covered by thick glacial overburden and no outcrops appear to be present at all.
**GEOLOGICAL MAPPING:**

A 2 km long stretch of the southern shore of Big Trout Lake was mapped by hipchain and compass at a scale of 1:10,000. The field observations have been compiled onto an uncontrolled map at 1:1,000 scale (Map 1). Isolated outcrops of granite protrude through the beach sand in the eastern extremity of the claim area. The footwall contact of the Big Trout Lake Complex was not observed in the field, but lies within a 100 meter wide area devoid of outcrop.

The lowermost exposed rocks of the Complex consist of pitted olivine-bearing peridotites. The peridotites outcrop along the shore over a distance of 160 meters. The rocks are severely disturbed by WNW-trending faults and dykes. Their true stratigraphic thickness is difficult to estimate, but could be anywhere from 20 to 100 metres. It is thus possible that up to 200 metres stratigraphic thickness of ultramafic rocks may be present in the claim area. The peridotites are interbedded with, and faulted against, rocks of generally gabbroic composition. Towards the west these gabbros grade into very coarse-grained anorthosites (potato anorthosite).

The central portion of the area mapped consists of relatively thinly interbedded anorthosites, pyroxenites, and gabbros. These rocks are all coarse grained and in many cases pegmatitic. Feldspar crystals in the potato anorthosite are frequently 10-20 cm in diameter, and pyroxenes of 5-10 cm are not uncommon. A characteristic pegmatitic pyroxenite contains magnetite crystals up to 5 cm in diameter and gives rise to very strong magnetic anomalies. All rocks strike north-south, dips are vertical to steeply to the west, and compositional layering indicates that the stratigraphic top is to the west. Several WNW-trending dykes and faults are present, often showing evidence of reactivation, as well as intrusion of late-stage anorthosite. Other similar faults, dykes and shear zones are inferred to be present in several areas lacking in outcrop.

The western portion of the traverse is underlain predominantly by anorthosite, frequently "potato" anorthosite, interbedded with pyroxenites of a few metres thick. Two units of pegmatitic magnetite-rich pyroxenite are present and are again strongly magnetic. Another magnetic anomaly is associated with a 3 metre wide unit of pyrite and chalcopyrite-rich pyroxenite (Stn 90). A few thin (less than 3 metres wide) sulphide-bearing peridotites also occur interlayered with pyroxenites. The western portion of the shore line runs NE to SW, perpendicular to the dominant direction of faulting, and numerous faults and dykes can be observed. The predominant fault direction is WNW, but several north-south faults are also present. The rocks generally strike northerly, and dip to the west at 70-85°. Compositional layering suggests the stratigraphic top to be to the west.
Mineralization:

Both pyrite and chalcopyrite were found to be present in minor quantities in most outcrops examined. No chromite was noted, but it is unlikely that minor quantities of chromite, if present, would have been distinguished from the magnetite which is often present.

Significant mineralization was observed only at the following stations (Map 1):

- **Station 28:** Irregular lenses of pyrite and chalcopyrite-bearing pyroxenite occur in anorthosite over a width of 2 metres.
- **Station 81:** Disseminated sulphides in 2 metre wide, massive peridotite interlayered with pyroxenites.
- **Station 90:** Zone (3 m wide) of complexly intermixed, sulphide-rich pyroxenite, pegmatitic gabbro, and pegmatitic anorthosite.

Structure:

The layered rocks of the Big Trout Lake Complex generally strike north-south and dip steeply to the west. West-northwest-trending faults, dykes and shear zones are prominent, though the displacement on many of these seems to be minor. There is considerable evidence for reactivation of such faults and shears. Discontinuities in outcrops suggest the presence of north-south trending faults, but none could be seen in the outcrop. It is very likely that many of the discontinuities in outcrop along the lakeshore mark the position of further faults and/or shear zones.

**Lithogeochemistry**

A total of 92 representative rock chip samples were collected, with emphasis on the sampling of all peridotite and pyroxenites as well as all sulphide-bearing outcrops. Samples were collected over stratigraphic widths of two metres or less. All samples were shipped to the Ottawa laboratories of Bondar Clegg for sample preparation and analysis for Pt, Pd, Au, Cu, Ni, and Cr.

The analytical results are given in Appendix I and the analytical techniques are given in II. Sample locations are shown on Map 1.
Sample values have been categorized in the following manner:

<table>
<thead>
<tr>
<th>METAL</th>
<th>RANGE</th>
<th>BACKGROUNDS</th>
<th>QUANTITY ABOVE BACKGROUND</th>
<th>ANOMALOUS VALUES</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pd (ppb)</td>
<td>&lt; 2 to 6</td>
<td>&lt; 2</td>
<td>3</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Pt (ppb)</td>
<td>&lt; 15</td>
<td>&lt; 15</td>
<td>0</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Cr (ppm)</td>
<td>27 to 279</td>
<td>50</td>
<td>170</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Ni (ppm)</td>
<td>12 to 116</td>
<td>30</td>
<td>98</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Cu (ppm)</td>
<td>8 to 858</td>
<td>70</td>
<td>200</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Au (ppb)</td>
<td>4 to 40</td>
<td>2</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
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</table>

Only three samples returned values above background for PGE's (A-87023, A-87028, A-87040). Sample A87040 (6 ppb Pd) was also anomalous in Ni (104 ppm).

Four samples (A-87004, A-87006, A-87011, A-87015) contained both anomalous Cr and Ni values.

Three samples (A-87016, A-87081, A-87085) contain anomalous Cu, with above background Au or anomalous Au.

A preliminary evaluation of lithogeochemistry results suggests, from east to west, weak zonation anomalies of Cu-Au, PGE's, and Ni-Cr.

CONCLUSIONS

Ultramafic peridotites and pyroxenites outcrop within the claims under option to Contwoyto Goldfields Limited.

Peridotites are most common near the eastern (basal) contact of the Big Trout Lake Complex and ultramafic rocks with a thickness of up to 200 metres may be present in this area on the property. Detailed ground magnetic surveys should be able to distinguish the peridotites from the granites to the east.

In the western half of the area mapped, four separate zones of pyroxenite occur, each of which contains pegmatitic magnetite-bearing pyroxenite layers. Peridotites may be associated with some of these pyroxenite units and were found to outcrop at one locality. Three of the four pyroxenite zones correspond to anomalous or above background values of Cr-Ni, PGE's, and Cu-Au.
Pyrite and chalcopyrite are present in significant quantities at several localities associated with pyroxenite and peridotite.

The presence of peridotites and pyroxenites near the base of the Big Trout Lake Complex suggests good potential for PGE mineralization similar to that located by previous drilling in the area.

RECOMMENDATIONS

It is recommended that the area be explored for PGE mineralization on a systematic basis. The exploration programme should encompass the following elements:

(1) Petrographic analysis of hand specimens collected to date.

(2) Further petrographic sampling.

(3) Compilation of geophysical and borehole data from exploration activities to the south with the view to establishing a relationship between mineralized intersections and magnetic signatures.

(4) Detailed magnetic survey of the area held under claim. An accuracy of ± 2 gamma is desirable to distinguish the peridotite granite contact. The survey would aid in tracing lithologies south from the lakeshore, indicate major faults and shears, and provide magnetic data to compare with that compiled under 3) above.

(5) Drilling:

a) If targets cannot be accurately defined, a programme of systematic stratigraphic drilling of peridotite and pyroxenite sequences is recommended.

b) Specific drilling targets should be outlined on the basis of similarities to magnetic data and borehole intersections from exploration activities to the south.
CERTIFICATION

I, Jan Grootenboer, of Proveniersplein 1a, 3033 EA Rotterdam, The Netherlands, do hereby certify that:

(1) I obtained a Ph.D. in geology/geochemistry in 1970 from McMaster University, Hamilton, Ontario, and have practised my profession continuously since graduation.

(2) I have twenty-three years experience in mineral exploration around the world and have been employed by major British, South African, and Canadian mining companies.

(3) I have five years experience in platinum exploration, including four years of experience in exploration for primary platinum deposits of the Bushveld type.

(4) I am the author of the report entitled "Geological and Geochemical Report on the Big Trout Lake Property, Patricia Mining Division, Ontario, August - September, 1987".

(5) I am a consulting geologist with offices located in Rotterdam, The Netherlands.

(6) I do not own nor do I expect to receive any interest (direct or indirect or contingent) in the property described herein, nor in the securities of Contwoyto Goldfields Limited.

Dated at Rotterdam, this 10th day of May, 1987.

J. Grootenboer, Ph.D.
REFERENCES


Ontario Department of Mines: Assessment Files.


APPENDIX I

ANALYTICAL RESULTS
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APPENDIX II

ANALYTICAL METHODS
APPENDIX II

SAMPLE PREPARATION AND ANALYTICAL TECHNIQUES
USED BY

BONDARCLEGG
5420 CANOEK ROAD
OTTAWA, ONTARIO K1J BX5

ROCK SAMPLE PREPARATION

The samples were crushed to -10 mesh, and using a Jones riffler, a 300 gram split was obtained. The split samples were pulverized to 100% -150 mesh and fixed weight analysed by the following methods.

DETERMINATION OF COPPER AND NICKEL BY
ATOMIC ABSORPTION SPECTROSCOPY

This analytical method provides the following precision for the above listed elements:

<table>
<thead>
<tr>
<th>Concentration Level</th>
<th>Precision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection Limit</td>
<td>±100%</td>
</tr>
<tr>
<td>10 x D.L.</td>
<td>± 10%</td>
</tr>
<tr>
<td>100 x D.L.</td>
<td>± 5%</td>
</tr>
</tbody>
</table>

Analysis:

1. 0.5 gm of material is digested using a mixture of HCl-HNO₃ acids.

2. The concentrated solution is then diluted and the above listed elements are determined using a Varian 10 Flame Atomic Absorption Spectrometer.

3. Bondar-Clegg's "in house" reference standards are run as quality references.
GEOCHEMICAL DETERMINATION OF GOLD, PLATINUM, AND PALLADIUM BY FIRE ASSAY LEAD COLLECTION - DIRECT CURRENT PLASMA - EMISSION SPECTROSCOPY

This analytical technique provides a detection limit of 1 ppb for gold, 15 ppb for platinum, and 2 ppb for palladium with measurement precisions as follows:

<table>
<thead>
<tr>
<th>Concentration Level</th>
<th>Precision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detection Level</td>
<td>±100%</td>
</tr>
<tr>
<td>10 x D.L.</td>
<td>± 10%</td>
</tr>
<tr>
<td>100 x D.L.</td>
<td>± 5%</td>
</tr>
</tbody>
</table>

Please note, due to the discrete grain like behaviour of the above elements, the actual precision and accuracy of the determinations will depend on the representivity of the subsample taken for analysis.

Analysis:

1. 20 gm of sample is weighed into a fusion crucible.
2. The sample is then mixed with a lead oxide base flux. Silica powder, flour, or potassium nitrate are added to the mixture depending on the characteristics of the sample, e.g. KNO₃, an oxidizing agent is added to rock samples containing large amounts of sulphide mineralization.
3. An 8 mg silver inquart is added to the mixture.
4. Twenty-two samples, a chemical blank, and a synthetic standard are fused at 1100°C for no less than 45 minutes.
5. The fusion melt liquid is poured into cast iron moulds and allowed to cool.
6. The collecting agent, lead metal is then separated from the "glass like" slag.
7. The lead "button" is then heated at 800°C on a magnesium rich crucible referred to as a cupel. The lead is absorbed, leaving the precious metals (Au, Pt, Pd, and Ag) on the surface of the cupel in the form of a bead, referred to as a dore bead.
8. The dore bead is then digested in aqua-regia (3:1 HCl:HNO₃).
DETERMINATION OF CHROMIUM
BY X-RAY FLUORESCENCE SPECTROMETRY

This analytical method provides a detection limit of 1 ppm for chromium with precisions as follows:

<table>
<thead>
<tr>
<th>Concentration Level</th>
<th>Precisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ppm</td>
<td>±100%</td>
</tr>
<tr>
<td>10 ppm</td>
<td>± 30%</td>
</tr>
<tr>
<td>100 ppm</td>
<td>± 5%</td>
</tr>
</tbody>
</table>

Analysis:

1. 5 gm of sample is pressed into a pellet using a 15 ton hydraulic press.

2. Chromium is determined using a Siemens S.R.S Wavelength Dispersive X-Ray Spectrometer with the following instrumental parameters in place:
   a) W X-Ray generation tube
   b) Kα, on crystal LiF100
   c) Gas-flow Proportional Counter
   d) Fine collimator set at 0.15°

3. The following Canmet and U.S.G.S. reference standards are used as calibration references:

   SD-1, SD-2, SD-3, SD-4, Sy-, Sy-3, UM-1, UM-2, UM-3, UM-4.
# APPENDIX III

## SUMMARY OF PERSONNEL

<table>
<thead>
<tr>
<th>NAME/ADDRESS</th>
<th>POSITION</th>
<th>1987</th>
<th>MAN</th>
<th>DAYS</th>
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<tbody>
<tr>
<td>J. Grootenboer</td>
<td>Consulting</td>
<td>August 31 to</td>
<td>5</td>
<td></td>
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<tr>
<td>Proveneirsplein</td>
<td>Geologist</td>
<td>September 4, 1987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#1A, 3303 EA</td>
<td></td>
<td>November 16 to</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Rotterdam,</td>
<td></td>
<td>November 22, 1987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I, John N. Schindler of Calgary, Alberta do hereby swear that Invoice #0133869 pertaining to Report No. 088-00036.0 from Bondar Clegg & Company Ltd. in the amount of $4,186.00 has been paid in full.

John N. Schindler

Sworn before me at Calgary, Alberta this 24th day of May 1988.

Sandra E. Gordon
Notary Public

My Commission expires December 31, 1990
Ministry of Northern Development and Mines

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Type of Survey(s)
Geological, Geochemical

Claim Holder(s)
Patricia MD

Address
697895 Ontario Ltd.

Survey Company
112 Adelaide Street East, Toronto, Ontario

Contwoyto Goldfields Limited

Prospector's Licence No.
T4898

Date of Survey (from & to)
31.08.87 to 04.09.87

Total Miles of line XX
0.75 traversed

Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Geological
Geochemical

Man Days

Complete reverse side and enter total here.

Special Provisions

For first survey:
Enter 40 days. (This includes line cutting)

For each additional survey:
Using the same grid:
Enter 20 days (for each)

Expenditures (excludes power stripping)
Type of Work Performed

Calculation of Expenditure Days Credits

Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date
March 30, 1988

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.

Name and Postal Address of Person Certifying
John Schindler, Contwoyto Goldfields Limited, 1650, 700 - 9th Ave. S.W.

Certified by (Signature)

Date Certified
March 30, 1988
Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

### Type of Survey: Geological Mapping

<table>
<thead>
<tr>
<th>Technical Days</th>
<th>Technical Days Credits</th>
<th>Line-cutting Days</th>
<th>Total Credits</th>
<th>No. of Claims</th>
<th>Days per Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.478</td>
<td>66.35</td>
<td></td>
<td></td>
<td>5</td>
<td>13.27</td>
</tr>
</tbody>
</table>

### Type of Survey: Geochemical Survey

<table>
<thead>
<tr>
<th>Technical Days</th>
<th>Technical Days Credits</th>
<th>Line-cutting Days</th>
<th>Total Credits</th>
<th>No. of Claims</th>
<th>Days per Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.32</td>
<td>16.25</td>
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<td></td>
<td>5</td>
<td>3.25</td>
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### Type of Survey

<table>
<thead>
<tr>
<th>Technical Days</th>
<th>Technical Days Credits</th>
<th>Line-cutting Days</th>
<th>Total Credits</th>
<th>No. of Claims</th>
<th>Days per Claim</th>
</tr>
</thead>
</table>

### Type of Survey

<table>
<thead>
<tr>
<th>Technical Days</th>
<th>Technical Days Credits</th>
<th>Line-cutting Days</th>
<th>Total Credits</th>
<th>No. of Claims</th>
<th>Days per Claim</th>
</tr>
</thead>
</table>

... (continued with more types of surveys)
Ministry of Northern Development and Mines

Ontario

Report of Work

(geophysical, geological, geochemical and expediens)

Type of Surveys:

- Geophysical
- Electromagnetic
- Magnetometer
- Radiometric
- Other

Claim Holder(s):

697895 Ontario Ltd.

Address:

112 Adelaide Street East, Toronto, Ontario

Survey Company:

Contwoyto Goldfields Limited

Date of Survey:

Day: 31, Month: 08, Year: 87

Mine No.:

Patricia MD

Township or Area:

Beardy Creek

Prospector’s Licence No.:

T4898

Mine Claims Traversed (List in numerical sequence):

- Prefix: PA, Number: 976122
- Prefix: PA, Number: 976123
- Prefix: PA, Number: 976124
- Prefix: PA, Number: 976125
- Prefix: PA, Number: 976126
- Prefix: PA, Number: 976127
- Prefix: PA, Number: 976128
- Prefix: PA, Number: 976129
- Prefix: PA, Number: 976130
- Prefix: PA, Number: 976176
- Prefix: PA, Number: 976189
- Prefix: PA, Number: 976190
- Prefix: PA, Number: 976203

Credif's Requested per Each Claim in Columns at right:

For first survey:

- Enter 40 days (this includes line cutting)

For each additional survey:

- Using the same grid:

Man Days

- Enter 20 days (for each)

Total Miles of line Cut

- 1/4

Expenditures (excludes power stripping):

- Assays

  Type of Work Performed

  - Assays: 92 x 27.274 = $2,509.15

Perform on Claims:

- 976124, 976125, 976176, 976189

Calculation of Expenditure Days Credits:

- Total Expenditures: $2,509.15
- Total Days Credits: 15

InSTRUCTIONS:

- Special provisions credits do not apply to Airborne Surveys.

- Total number of mining claims covered by this report of work: 13

- For Office Use Only

Date of Certification:

March 30, 1988

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.

Name and Postal Address of Person Certifying:

John Schindler, Contwoyto Goldfields Limited, 1650, 700 - 9th Ave. S.W.

Calgary, Alberta T2P 3V4
<table>
<thead>
<tr>
<th>Claim</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>976123</td>
<td>0</td>
</tr>
<tr>
<td>976124</td>
<td>26</td>
</tr>
<tr>
<td>976125</td>
<td>.5</td>
</tr>
<tr>
<td>976176</td>
<td>43</td>
</tr>
<tr>
<td>976189</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>92</td>
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</table>