ASSESSMENT REPORT
TRENCHING and GEOLOGY
on the

MARGARET 1 (76178)
DOROTHY 2 (76179)
BETTY 3 (76180)

In the Claim Group:
CAMERON 1 (75982)
BOB 3 (76094)
BOB 5-6 (76096-76097)
MARGARET 1 (76178)
DOROTHY 2 (76179)
BETTY 3 (76180)
EMIDELL 12-13 (91827-91828)
EMIDELL 14 (91879)

WHITEHORSE MINING DISTRICT
N.T.S.: 105 D/11
LATITUDE: 60° 37' 37" N, LONGITUDE: 135° 3' 30" W
(NAD 83 ZONE 8)
(EASTING: 496 860m, NORTHING: 6 721 260m)

Owned and Operated by:

H. COYNE & SONS LTD.
14 MacDonald Road
Whitehorse, Yukon
Y1A 4L1

Prepared by:

Rick J. Zuran, B.Sc.
December 24, 2001

Field Work Completed on November 3rd & 4th, 2001
1. SUMMARY AND RECOMMENDATIONS

During November 3rd and 4th, 2001, a brief investigation by the author for H. Coyne and Sons Ltd. was conducted on the BETTY 3, DOROTHY 1, and MARGARET 1 claims, located approximately 10 kilometres due south of the city centre of Whitehorse, Yukon Territory. The three claims are part of a larger group of ten claims; Group Number HW04549. Work accomplished, at an expenditure of $2,742.00, consisted of 1:2,000 scale geological mapping and 824 cubic yards excavated from 2 trenches.

Earlier trenching on ORO 4 claim, 250 metres to the north, intersected spectacular massive chalcopyrite mineralization and anomalous gold in east-northeast trending structures hosted in marble and skarn; not covered in this report. An attempt to target similar structures on part of the BETTY 3, DOROTHY 1, and MARGARET 1 claims failed to intersect significant mineralization. However, considering the winter mapping conditions, and limited time and area of work; the author feels that with a more rigorous understanding of the claim area and surrounding Whitehorse Copper Belt more targets could be generated.

Recommendations on Claim Group # HW04549 and the surrounding area are as follows:

1). Digital compilation of all previous: (a) geochemical data with special note to gold results; (b) drill hole locations and summaries; (c) geophysical anomalies (mag & IP); (d) geological mapping and structural elements; (e) summary of mined out areas; and (f) old grid lines and reference points.
* this should be done for the whole Whitehorse Copper Belt.

2). Air photo interpretation covering the McIntyre Pluton and satellite intrusives.

3). Rock and soil geochemistry program using "ultra trace analysis" for gold and bismuth, antimony, and tungsten. Samples should target high intensity jointing inside and beyond the pluton particularly in embayment areas.

4) These areas could be trenched if surface results are favourable.
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6. INTRODUCTION

During the period November 1-4, 2001, 1:2 000 scale surface geological mapping and 3 trenches were excavated on the claims ORO 4, DOROTHY 2, and BETTY 3. The intention was to map and trench any potential gold bearing east northeast trending structures. Encouraging mineralization was excavated on claim OR0 4 (TR01-1), subsequently parallel structures were targeted on claims MARGARET 1, DOROTHY 2 and BETTY 3.

This assessment report deals only with work done on MARGARET 1, DOROTHY 2 and BETTY 3 of claim group # HW04549. The report describes the work done on November 3rd and 4th, 2001 and the interpretation of this geological data. The author refers the reader to previous reports listed in the reference section for additional information on the Whitehorse Copper Belt, etc.

6.1 Claim Status

The property consists of 10 quartz claims covering 96.8 hectares, staked in accordance with the Quartz Mining Act, and are shown on Quartz Claim Sheet 105 D/11 within the Whitehorse Mining District. All the claims are 100% owned by H. Coyne and Sons Ltd. of Whitehorse. The 10 claims are grouped under Document Number HW04549. Claim status is summarized in Table 1 below. Refer to Figure 1.

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<th>EXPIRY DATE</th>
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<td>Jan 1, 2006</td>
</tr>
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<td>76094</td>
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<td>76095-76097</td>
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<td>Jan 1, 2004</td>
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<td>CAMERON 1</td>
<td>75982</td>
<td>Aug 7, 1961</td>
<td>Jan 1, 2004</td>
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<td>DOROTHY 2</td>
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<td>Aug 7, 1961</td>
<td>Jan 1, 2006</td>
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<tr>
<td>EMIDELL 12-13</td>
<td>91827-91828</td>
<td>Mar 17, 1965</td>
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<td>EMIDELL 14</td>
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<td>Mar 30, 1965</td>
<td>Jan 1, 2004</td>
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<td>MARGARET 1</td>
<td>76178</td>
<td>Aug 1, 1961</td>
<td>Jan 1, 2005</td>
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</table>

* subject to approval of 2001 assessment work.

6.2 Location and Access

The claim group (# HW04549) is centred on latitude 60° 37' 23", longitude 135° 3' 2" and located 10.5 kilometres due south from Whitehorse city centre as the crow flies, or just 1 kilometre south of the Little Chief open pit mine. These claims plot on the NTS 105 D/11 1:50 000 scale topographic map sheet.

Access is by the Mt. Sima Ski Hill Road, a well graded 2 wheel drive gravel road that connects onto the west side of the Alaskan Highway. The Mt. Sima Ski Hill Road can be reached by driving 5.4 kilometres south of the Robert Service Road / Alaskan Highway turn off. The claim group can be accessed by driving a further 3.3 kilometres west then south along the Mt. Sima Ski Hill Road. The road passes through the centre of the claim group.
6.3 Topography, Vegetation and Climate

The relief on the claim group is 70 metres, ranging from 845 to 915 metres elevation above sea level. Topography comprises small hills and local flat areas with the ground rising to the west in elevation. Steeper hills with small clifftly scattered outcrops are noted locally along stream drainages.

Vegetation consists of grasses, second growth black and white spruce, minor alpine fir in hilly terrain with increased alder bush in low wet areas along stream beds. More open bush of primarily Lodge Pole Pine can be experienced locally in the flat areas.

Climate in the Whitehorse area is considered northern interior continental with moderate to low precipitation of some 250 to 300 mm annually. Temperature ranges from commonly 20-25°C in the summers down to -15 to -40°C in the winters. Permafrost is discontinuous and often found on north and steeper east facing slopes. Exploration is best done during the snow free months from May to October. Trenching is still possible 2-3 weeks after the first snow fall as was done for this assessment work.

7. HISTORY

This is a brief history capsule of the claim group and surrounding Whitehorse Copper Belt. The author suggests reading from the list of references compiled at the end of this report for a more complete history of the area and other claims of the belt. Claims assessed in this report are in blue type. Refer to Figure 2.

1897 Copper King was discovered in the Whitehorse Copper Belt.

1898 On July 6th the COPPER KING claim was first staked by Jack McIntyre.
-also on July 6th, John Hanly staked the ORA - a neighbouring claim.
-September 15th, Andrew Oleson and William McTaggart staked the LITTLE CHIEF and the BIG CHIEF.
-"later in the year" W.A. Puckett staked the ANACONDA (north end of the belt).

1899 Many of the significant claims of the Whitehorse Copper Belt were staked.
-July 7th, Angus McKinnon staked the LAST CHANCE.
-July 7th, Ole Dickson staked RABBIT'S FOOT.
-also on July 7th, H.E. Porter staked the PUEBLO. He named the creek flowing through his claim after himself.
-July 12th, Capt. John Irving staked the ARCTIC CHIEF.
-July 16th, Sam McGee staked the WAR EAGLE.
-August 5th, William Woodney staked the GRAFTER.
-August 22nd, Gustave Gervais staked the VALERIE.

1900 The first ore was mined from the Whitehorse Copper Belt. LAST CHANCE claim was relocated and rechristened the BEST CHANCE.
-J. McIntyre hand cobbled 9 tons of ore containing 46.4% Cu and 11 ounces Ag from his COPPER KING claim.
-in May, British American Corporation (BAC) mined 3 tons from the PUEBLO claims.
-Sam McGee stockpiled 50 tons of ore on the WAR EAGLE claim.

During the period 1900-1905 some 500 claims were staked in the Whitehorse Copper Belt, 200 of which met assessment requirements. By 1907 many more claims were staked and some 4000 tons of ore from the Whitehorse Copper Belt had been shipped to outside smelters. In 1908 the price of copper dropped and only sporadic mining was carried out until the on set of World War 1 in 1914.

1916 Production at the Pueblo Mine reached a high of 250 tons/day.

1917 On March 21 six men lost their lives at a cave in at the Pueblo Mine.
Copper prices dropped, copper production was sporadic by 1920.

1927 Richmond Yukon Company carried out prospecting on the PUEBLO, TAMARAC, and WAR EAGLE-LEROI claim groups.

Copper prices dropped from 18 to 8 cents/lb and with the onset of the depression activity in the belt was minimal.

1947 Noranda Mines Ltd. staked 66 claims in the WHITEHORSE GP. and 22 claims in the DUGDALE GP. These claims included the Big Chief, Little Chief, Keewenaw and Valerie sites. From 1949 - 1951, the company drilled 3048 m, and carried out a work program of detailed geological mapping and geophysics.

1950 Hudson Bay Exploration and Development Company optioned claims in the Dugdale Lake area and staked an additional 23 claims. In 1953, the company drilled 10 holes (682 m) in the Dugdale Lake area which included the Cowley Creek property.

1955 Imperial Mines and Metals Ltd. acquired several claims in the Whitehorse Copper Belt. In 1956, the company conducted magnetometer surveys and drilling on the BEST CHANCE claims. In March 1957, the company changed their name to New Imperial Mines Ltd. By 1961, the company held many of the high-grade producing claims of the copper belt including the Pueblo, Copper King, Carlisle and War Eagle.

1961 On August 1st the BETTY 3 and MARGARET 1 were staked, and on August 7th the BOB 3, 5 & 6, CAMERON 1, and DOROTHY 2 were staked. D.J. Maclsaac bulldozed trenches the SUE claims on the Cowley Creek property.

1963 New Imperial Mines Ltd. expanded its holdings on the copper belt controlling 310 claims through staking and option agreements. The company drilled 3658 m on the ARCTIC claims and announced a reserve of 700 000 tons at 1.2% Cu, 25% iron, and 1$/ton in Au & Ag.

In August of 1964 Sumitomo Metal Mining Company of Japan took an exclusive option to buy mill concentrates in return for contributing capital for mill financing. Accelerated exploration from 1963 to 1965 outlined 5.0 million tonnes of open pit reserves in six separate deposits grading 1.2% Cu. In November 1965 an 1800 tonne/day mill was recommended.

1965 On March 17th, the EMIDELL 12 & 13 were staked, and on March 30 the EMIDELL 14 was staked.

Continued exploration increased reserves and the mine design. New Imperial Mines Ltd. (B. Hilker), carried out deep hole drilling below the open pit limits of the Little Chief ore body and proved up an additional reserve of 3.5 million tonnes at 2.15% Cu. The open pit, once mined out, would be followed by underground mining at the Little Chief.

New Imperial Mines Ltd. began milling ore from its open pit operations on May 1st, 1967. The Little Chief pit was mined out in 1969.

The new company Whitehorse Copper Mines was approved by shareholders in August, 1971.

Underground mining started April, 1973 at the Little Chief.

1975 On October 1st, drill hole NS-1 was completed (110.3 m) in the south part of BOB 5.
1981 The entire belt was flown with airborne EM & magnetic surveys. A total of 51 diamond drill holes of NQ and BQ were drilled on JEAN 11, PUEBLO 1, EMIDELL 13, 14, VERONA, JIM 13.15, and SUE 3,4 for a total of 9 362 m.

1982 During February to May diamond drilling was carried out on the EMIDELL 12F (ddh NS-17; 115.8 m), BOB 6 (ddh's NS-18 & 19), and BOB 3 (ddh NS-20; 543.5 m).

During the period March 1967 to the end of 1982 a total of 10 247 936 tonnes of ore were mined; 2 851 870 at 1.06% Cu from open pits; and 7 396 116 tonnes at 1.50% Cu from the Little Chief underground deposit. Precious metals averaged 0.7 g/t Au and 13.0 g/t Ag. The Little Chief was the best producer representing 70% of the total production. The last production day was December 22nd, 1982 and the mill closed down December 31st, 1982.

After the mine closed, 3 holes (1171 m) were drilled at the Cowley Park, Black Cub, War Eagle & Best Chance deposits and near Rabbit's Foot Canyon, mainly exploring for gold-rich skarns. Part of the property was optioned in 1989 to Aurora Gold Ltd which performed line cutting and in 1990 drilled seven reverse circulation holes totalling 500 m and a mag and VLF survey in 1991. Other claims were allowed to lapse. (Minfile Occurrence # 105D-053)

In 1990, W.B. Wallis restaked the Rabbit's Foot showing as the Fox cl (YB27111) and trenched in two areas east and west of the shafts. B. Scott staked the Carl, Railway, and Big Fair cl (YB27182) in the Keewenaw-Black Cub area. R. Stack prospected on the Polar group. H. Larsen performed blast trenching in the Arctic Chief area in 1990 and 1991. H. Coyne restaked an area south of Arctic Chief as Thule cl (YB35746) in Mar/91. Between Jan and Mar/94 B. Scott staked FYDB cl 1-16 (YB46665) overtop of the tailing impoundment area of the Whitehorse Copper Mine. Scott sampled the tailings in Jun/94 and drilled 7 shallow auger holes the following January. In Dec/95 Scott drilled 7 deeper auger holes which penetrated through the tailings pile. (Minfile Occurrence # 105D-053)

1998 CAMERON 1, EMIDELL 12-14, BOB 3, 5 & 6, DOROTHY 2, AND BETTY 3 were transferred from Hudson Bay Exploration and Development Company Limited to H. Coyne & Sons Ltd.
Area of Assessment Work (2001)
Geological Mapping & Trenching

Claim Group # HW04549

H. COYNE & SONS LTD.

CLAIM BLOCK LOCATION MAP
Yukon

WORK BY: R. Zoran, B.Sc.
SCALE: 1:20,000
NTS: 105 D/11
FIGURE: 1
8. REGIONAL GEOLOGY

The claim area is located within the western margin of the Whitehorse Trough, which is in turn in the Intermontane morphogeological belt. It comprises relatively recessive weathering terranes of island arc Stikinia and accretionary wedge/subduction complex ocean crust Cache Creek. Regional northwest trending features define the prominent structure in the trough. These two terranes are intruded/overlain by three post accretionary plutonic suites and four hypabyssal to extrusive and sedimentary units. Refer to Figure 2.

The rocks of Stikinia Terrane include the basement of Devonian to Permian arc volcanics and platform carbonates/fringing carbonate reefs and thick deposits of turbiditic greywacke derived from them overlain by Triassic and Lower Jurassic arc volcanics, volcaniclastics, chert, carbonate, and arc-derived clastics intruded by comagmatic plutonic rocks. Some faunas of the Upper Triassic reefs are Tethyan in aspect. This terrane hosts the Upper Triassic Aksala Formation rocks of the Lewes River Group. The Aksala Formation are sub-divided into Late Norian red coloured clastic rocks of the Mandana Member; Norian locally thick carbonate rocks of the Hancock Member; and Carnian calcareous greywackes of the Casca Member. Locally these members host exoskarns within the Whitehorse Copper Belt (Minfile Occurrence # 105D053) Refer to Figure 3.

The rocks of Cache Creek Terrane include Mississippian to Lower Jurassic oceanic volcanics and sediments including radiolarian chert, greywacke, argillite, basalt, shallow water carbonate and alpine type ultramafics. Tethyan fusilinid faunas with no known counterparts in North American strata led to the early recognition that the Cache Creek is an 'exotic' terrane in the Cordillera. In the Yukon, the Cache Creek hosts small mesothermal gold veins and podiform chromite. These rocks lie 30 kilometres east of the Whitehorse Copper Belt.

Three post accretion plutonic suites occur in the region: (1) the mid-Cretaceous (mKp; 105-112 Ma) Whitehorse Suite; (2) Late Cretaceous to Tertiary (LKp; 64-85 Ma) Prospector Mountain Suite; and (3) the Early Tertiary (ETN; 54-58 Ma) Nisling Range Suite. The Whitehorse Suite comprises grey, medium to coarse grained, generally equigranular granitic rocks of felsic , intermediate, locally mafic and rarely syenitic composition. These rocks host several endoskarns within the Whitehorse Copper Belt. The local intrusive is named the "Mt. McIntyre Pluton" and is anomalous in copper and gold. Refer to Figure 2.

Finally, the region comprises Upper Jurassic and Lower Cretaceous (uJKT; 98.9-159.4 Ma) Tantalus Formation clastic sedimentary rocks; mid-Cretaceous (mKN; 90-110 Ma) Mount Nansen intermediate to felsic hypabyssal and volcanic flow rocks; Upper Cretaceous (uKC; 65-98.5 Ma) Carmacks Group basic with locally felsic volcanic rocks; and Pliocene (MPMC; 1.65-23.7 Ma) Miles Canyon basalt with local dykes. These rocks namely the Tantalus Formation and the Miles Canyon basalts locally cover depressions in the paleotopography.
During November 3rd and 4th, 2001, geological mapping at a scale of 1:2,000 and two trenches totalling 824 cubic yards were excavated on the DOROTHY 2 (76179) and BETTY 3 (76180) claims.

Geological mapping was carried out using a Garmin 12xl hand held gps unit for control of mapping outcrops. This unit is rated for +/-15 metres in the manual; however, in practice often produced an accuracy of up to +/-5 metres when comparing it to known landmarks. The unit was calibrated for Nad 83, Zone 8. Approximately 6 hectares of ground was mapped where the three claims Margaret 1, Dorothy 2 and Betty 3 meet. Refer to Figure 3.

The trenches, TR01-02 and TR01-03, were spotted using both the gps and a topoline machine. Trees in the trenching area were first cut down, bucked up, then stacked off to the side before digging the trenches. A Catepillar 225 excavator was used for clearing the top organic layer and piling it to one side, then excavating the overburden and piling it to the other side of the trench. After the trenches were completed pickets were placed every 10 metres in the trench for detailed 1:200 scale geological mapping. The length and volume of material removed for TR01-02 & TR01-03 is noted in Table 2 below. Refer to Plates 1 to 3.

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<td>total</td>
<td>630</td>
<td>824</td>
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Two rock samples were taken from TR01-02 and analysed for 35 elements by ALS Chemex Labs in North Vancouver (AuZF42+MEICP41m assay). Sample preparation procedures include initial downsizing of rock sample using a jaw crusher then fine crushing of rock chips to better than 70% at ~2mm particle size. Sample size was further reduced so that at least 85% of the material was pulverized to better than 75 micron (200 mesh). Gold sample weight was 50 grams dissolved into "Zeeman Aqua Regia Gold" solution for "Ultra Trace Analysis" (range: 0.0001-0.1 ppm). Gold analysis is carried out using the Zeeman furnace and AAS (atomic absorption spectrophotometer). The other 34 elements were analyzed using aqua regia digestion and ICP-AES (inductively coupled plasma-atomic emission spectroscopy). Major rock forming elements and more resistive metals are only partially dissolved.

9.1 Geological Mapping

Although, geological mapping is not recommended in November because of snow cover; about 20% of the area mapped contained scattered outcrop on the side and tops of small hills as well as along depressive stream drainages.

Three units were observed in the field: (1) Upper Triassic calcareous siltstone of the Hancock Member (?uTrAK2); (2) mid-Cretaceous Whitehorse Suite granitic rocks of the
Mt. McIntyre Pluton (mKgW); and Pliocene Miles Canyon (?) intermediate to mafic dyke rocks. Refer to Figures 3 and 4 for detailed lithological descriptions.

Structure included a prominent east-northeast trending joint set dipping steeply to the north throughout the map area. Numerous aphanitic intermediate to mafic dykes averaging 1 meter wide are coincident with the joints. It was this structural direction that hosted anomalous gold results in trench TR01-01 on claim ORO #4, 350 metres to the north-northwest from TR01-02. The joints are also sub-parallel to a large fault 130 metres south of TR01-02.

Mineralization was reported as minor disseminated pyrite (2%) within siltstone associated with local fine grain skarn. The sulphides are near a hornblende-diorite contact in the west part of the map area.

9.2 Trenching

Trenching was targeted on the possibility of intersecting gold bearing east-northeast trending structures in flattish to recessive topography. No significant mineralization was intersected.

Trench TR01-02 was situated 175 meters east-northeast of the pyrite mineralization and orientated at 148° Az. Very weak calcite-chlorite alteration in hornblende granodiorite was intersected along east-northeast trending joints to the north and south of an intermediate to mafic dyke. The trench was abandoned as it was becoming too deep towards the southeast end. Two rock chip samples taken in the trench were weakly anomalous and returned highs of 16 ppb Au, 258 ppm Cr and 109 ppm V.

A second attempt to trench 35 metres to the southeast failed to intersect bedrock (TR01-03). The trench was reclaimed. Refer to Figure 5.
LITHOLOGY LEGEND

**Miocene to Pliocene MILES CANYON**

| MPMC | dark red to brown weathering, columnar jointed olivine basalt flows, commonly amygdaloidal and vesicular; ultramafic xenoliths. |

**mid-Cretaceous WHITEHORSE SUITE**

| mKgW | biotite-hornblende granodiorite, hornblende quartz diorite and hornblende diorite; leucocratic, biotite hornblende granodiorite locally with sparse grey and pink potassium feldspar phenocrysts. Includes: Whitehorse Suite, Casino granodiorite, McClintock granodiorite and Nisling Range granodiorite. |

| mKqW | biotite quartz-monzonite, biotite granite and leucogranite, pink granophyric quartz monzonite, porphyritic biotite leucogranite, locally porphyritic (K-feldspar) hornblende monzonite to syenite, and locally porphyritic leucocratic quartz monzonite. Includes: Mt. McIntyre Suite, Whitehorse Suite, Casino Intrusions, Mt. Ward Granite, Coffee Creek Granite. |

**Upper Triassic, Camian to Norian AKSALA**

| uTrAK | mixed clastic-carbonate assemblage divisible into three dominant facies including calcareous greywacke (1), locally thick carbonate (2) and red-coloured clastics (3). |

| uTrAK1 | brown shale, black and minor red siltstone, greenish, calcareous greywacke and interbedded bioclastic, argillaceous limestone; igneous or limestone-clast pebble and cobble conglomerate; laharc debris flows, rare feldspar-augite porphyry flows. |

| uTrAK2 | massive to thick bedded limestone; minor thin bedded argillaceous to sotly limestone; coarsely crystalline, massive dolostone; minor laminated chert; massive to poorly bedded, limestone conglomerate debris flows and tanglelomite. |

| uTrAK3 | red weathering, medium bedded, green and red greywacke and pebble conglomerate; red shale partings and minor interbedded, red, bioturbated siltstone; crystal-rich greywacke and shale; coarse grain tan brown, massive lithic arenite. |

from Gordey and Makepeace, 1999.

**ABBREVIATIONS USED IN FIGURES**

<table>
<thead>
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<th>DIA</th>
<th>diabase</th>
<th>ble</th>
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<td>FEL</td>
<td>feldspar</td>
<td>cal</td>
<td>calcite</td>
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<tr>
<td>GRD</td>
<td>granodiorite</td>
<td>dy</td>
<td>clay</td>
</tr>
<tr>
<td>HBL</td>
<td>hornblende</td>
<td>cog</td>
<td>coarse grained</td>
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PROPERTY GEOLOGY
Claim Group #HW04549

SYMBOL LEGEND
- see Figure 3 for Lithologies
  
  * see FIGURE 4 for Lithology Legend
  
  geological contact
  joint with joint/metre
  limit of outcrop
  locator dot for structure
  approximate limit
  trench
  geological contact
  inferred fault
  claim line
  road

H. COYNE & SONS LTD.

WORK BY: R.Zuran, B.Sc.
SCALE: 1:2000
NTS: 105 D/11
FIGURE: 4
**Lithology Legend Inset**

- **Miocene-Pliocene MILES CANYON (?)**
  - MPMC(?) dk rd to bn weathering, columnar jointed olivine basalt flows, local dykes (Miles Canyon Basalt)

- **mid-Cretaceous WHITEHORSE SUITE**
  - mKgW bio-hbl granodiorite, hbl qtz diorite, and hbl diorite. (Whitehorse Suite)

**HBL GRD (mKgW)**
- dk gy mesocratic, 15% mafics cog hypidiomorphic, fr x (spy?)
- zone of weak calcite-cly alteration along joint set bil mesocromatic to leucocromatic.
- HBL GRD (mKgW) dk gy mesocratic, 20% mafics cog hypidiomorphic.

**INT-MAF VOL DYKE (MPMC?)**
- gr with aphanitic ground rocks fig gy gn 5% chloritic flecks (<1mm)

**SAMPLE #** | **TRENCH METERAGE** | **WIDTH (m)** | **NOTES**
--- | --- | --- | ---
140516 | 4.6-4.9 | 0.3 | weak clay-calcite altered granodiorite along joints.
140517 | 1.2-1.7 | 0.5 | sample across high frequency joint set with rare calcite stringers.

**H. COYNE & SONS LTD.**

**TRENCH COMPILATION MAP**

**TRO1-2**
Betty & Dorothy Claims
Whitehorse Copper Belt

**WORK BY:** R.Zuren, B.Sc. **SCALE:** 1:200

**NTS:** 105 D/11 **FIGURE:** 5
PLATE 1: Trench Site TR01-02. Ground preparation included: cutting, bucking and stacking trees; and removing topsoil to one side.

PLATE 2: Trench Site TR01-02; looking northwest. Intersection of ENE trending intermediate to mafic dyke. No outcrop at SE end of trench.

PLATE 3: Trench Site TR01-03. Dug to 5 metre depth. Boulders of hornblende granodiorite pulled out; no outcrop intersected.

Hornblende Granodiorite (mKgW)

Intermediate - Mafic fine-grained dyke (MPMC ?)

Hornblende Granodiorite (mKgW)
10. CONCLUSIONS AND DISCUSSION

Although, significant mineralization was not intersected in trenching, the author feels that finding undiscovered gold bearing structures is promising in the claim area and Whitehorse Copper Belt.

Many of the Cretaceous-Tertiary age intrusive rocks in the last 10 years have been revisited prospects with regards to mineral exploration. An increased regional data base has proven older copper porphyry targets to have significant gold potential. New models such as the Thermal Aureole Gold (TAG), gold porphyry systems and structurally controlled gold are a possibility in the Whitehorse Copper Belt. In addition, the fact that there is abundant limestone (Hancock Member) about the intrusives introduces other gold and multi-element models such as carbonate replacement deposits and Carlin-type deposits.

The claim group has previously been worked for skarn-type copper mineralization. Through past work, reported gold, silver and other elements are proof of further rich mineral potential. A new approach targeting new geological models is needed.
11. STATEMENT OF COSTS

Detailed geological mapping at 1:2,000 and two trenches were excavated over the Betty, Dorothy 2, and Margaret claims (Group #HW04549) on November 3rd & 4th, 2001. Expenditures for the mineral assessment are listed below.

FIELD PERSONNEL

Rick J. Zuran (Geologist)
Box 34003
Whitehorse, YT
Y1A 7A3

Robbie Morris (Hoe Operator)
Catepillar Excavator model #225
14 MacDonald Road
Whitehorse, YT
Y1A 4L2

Jim Coyne (helper)
14 MacDonald Road
Whitehorse, YT
Y1A 4L2

Alf Gould (helper)
14 MacDonald Road
Whitehorse, YT
Y1A 4L2

SAMPLING COSTS

ALX Chemex; 2 rock samples @ $26/ea $ 52.00
(AuZF42+MEICP41m analysis)

Sample bags, flagging, topoline, gear $ 10.00

Car rental 2 days @ $50/day $ 100.00

REPORT PREPARATION

Rick J. Zuran: one day of report writing @ 350/day $ 350.00

TOTAL ASSESSMENT VALUE: $ 2,742.00
12. STATEMENT OF QUALIFICATIONS

I, Rick J. Zuran, B.Sc., with a residence of Box 34003, Whitehorse, Yukon Territory, Y1A 7A3, Canada, do certify that:

1. I am a graduate of the University of British Columbia with a Bachelor Degree in Geological Sciences (1988).

2. I have been engaged in mineral /field exploration since 1977 for base metals, uranium, precious metals in the Yukon Territory, Northwest Territories, British Columbia, Labrador, Saskatchewan, and Montana.

3. I have been associated as an employee or consultant with the following universities, companies or government departments:

   University of Ottawa
   University of British Columbia
   Denison Mines Ltd.
   Anaconda Canada Expl. Ltd.
   Selco Ltd.
   BP Minerals Ltd.
   OBI Resources Ltd.
   Mt. Skukum Gold Mining Corp.
   Total Energold Corp.
   North American Metals Corp.
   Kennecott Canada Inc.
   Aurum Geological Consultants Inc.
   Yukon Territorial Government
   Indian and Northern Affairs Canada

4. I am a member of the Yukon Chamber of Mines.

5. I have no direct or indirect interest in the properties or securities owned by H. Coyne and Sons Ltd., nor do I expect to receive any.

6. The work described in this report is based on field work conducted November 3rd and 4th, 2001, supervised by myself.

7. I am the author of this report.

Dated at Whitehorse, Yukon Territory this 24th day of December, 2001.

Respectfully submitted,

Rick J. Zuran, B.Sc.
13. REFERENCES


Tenney, D., 1981, The Whitehorse Copper Belt: Mining Exploration and Geology (1967-1980). Department of Indian and Northern Affairs, Geology Section, Department of Indian and Northern Affairs, Geology Section, Yukon Region, Bulletin 1, 29 pages.

APPENDIX - Assay Results
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