TECHNICAL REPORT ON THE DUGGAN PROPERTY KNIGHT, TYRELL, TOWNSHIPS, SHININGTREE DISTRICT, ONTARIO, CANADA

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Table of Contents

1.0	Summary	4				
	Introduction	5				
	Reliance on Other Experts	6				
	.0 Property Description & Location					
	Physiography, Access, Climate, Local Resources & Infrastructure	8				
	History	9				
	Geological Setting	11				
	7.1 Regional Geology	11				
	7.2 Precambrian	12				
	7.3 Mafic Intrusive Rocks	14				
	7.4 Proterozoric	15				
8.0	Deposit Types	19				
9.0	Local Geology	23				
10.0		24				
11.(24				
12.0	-	25				
	12.1 Current Program	33				
13.0		55				
14.(56				
15.0		57				
16.0		57				
17.0		57				
18.0		57				
19.0	O Other Relevant Data & Information	58				
20.0	0 Interpretation & Conclusions	67				
21.0		68				
22.0		72				
23.0		75				

List of Illustrations

- Fig. 1 & Fig. 1a Location Map
- Fig. 2 3D Satellite/Terrain Model
- Fig. 3 Satellite- Compilation Plan
- Fig. 4 Property Location Relative to Regional Magnetics
- Fig. 5 Property Location/Regional Geology
- Fig. 6 Duggan Property Area, Geology etc
- Fig. 7 Surface Plan, Geology, Trench Area, Gold anomalies, Planned Drill Holes
- Fig. 8 To Surface DDH Projection, Gold Intersections.

List of Tables

Table I Description of Lithologic Units	11
Table II Duggan DDH Geology	26
Table III Duggan DDH Au Assays	27

Appendices

Appendix IAvailable Duggan Drill LogsAppendix IIGeology Map, Carter 1983Appendix III Geology Map, Jojns, 2003

1.0 Summary

Duggan Property

Considerable surface exploration and diamond drilling have been completed on a limited part of the Duggan property. A large area still remains to be tested. The main stripped/trench zone originally discovered in 1938 comprises a 100m x 250m alteration zone with anomalous gold content (>100ppb). Sporadic high gold values over narrow widths, associated with sulphide and visible gold (up to 5.93oz.ton) have been intersected in drilling and trenching.

Current drilling (has confirmed the known mineral zones, indicating a 43-101 compliant 30m 2.9g/t gold zone with sporadic high gold sections from 60 to 150m : this assay occurred in hole Dugg-07-3 in a quartz/syenite breccia zone with abundant disseminated sulphide. Hole Dugg-07-9 intersected the same zone, 220 metres north of hole 3 (assays pending). Current drilling has also indicated several new zones and the association of anomalous gold and sometimes Ni to 2000 ppm within the Milly Creek Pluton. Whole rock geochemistry indicates the Milly Creek Pluton to be of bimodal composition consisting of Syenite with an average of 60% SiO2 and a gabbroic-diorite phase averaging 53% SiO2. Similarities exist to the Nippissing Diabase, a pervasive dike-sill intrusive event in the area.

The Duggan alteration zone occurs within Syenodiorite (compositionally syenite grey to pink in colour) and is part of the Milly Creek pluton, a felsic-intermediate stock with a low to high airborne magnetic response (Fig: 4) and it is also marginal to a Potash/airborne radiometric high, probably representing sericite/K feldspar content. Alteration is pervasive and varies from pink, to black to greenish mineral assemblages. Plates I to IV. Structural/schist zones also seem to have some control of alteration and mineralization (Plate IV). Also of interest and possible mineralizing significance is the presence of angular mafic blocks within the Syenodiorite (Plate V) indicating the occurrence of explosive activity in the geological formation process.

Previous Drill sections indicated an alteration/Au anomaly zone possibly extending northward and to depth: Testing was limited past 60m and then only to 150m. Current

Drilling has indicated continuity of gold along a pyritized Shear NNW for 670m and to a depth of 240m.

Other Properties

Some 1733 m of drilling have been completed in 4 holes (933m on MacMurchy and 800m on Churchill), with a few assays returned showing sporadic anomalous Au associated with quartz veins(Bennett showing) in diabase and a 1m section of 7.43% Ni and 2.1 gms Pt, Pd, Au on the MacMurchy claims. This zone occurs within a carbonate-graphite-sulphide breccia/schist within carbonate/green to beige ultramafic volcanic.

The current program has indicated significant Au and Ni, Pt mineralization/potential has been indicated on the Creso properties A second Phase \$ 1.8M exploration program is recommended.

2.0 Introduction

This report has been prepared at the request of Creso Resources for properties optioned from Pat Rosko of Kirkland Lake, Ontario. This report covers the Duggan claims in Knight, Tyrrell, in the Shiningtree District of Ontario. It is an excerpt of the more comprehensive Compilation Report that reviews the regional features of the area and includes other claim groups acquired by Creso.

A current visit was made to the property on June 29,30,2007 and a current exploration program is underway. To date report work has comprised obtaining and reviewing AFRI exploration assessment data, previous work reports, Government geological maps and reports and Airborne Magnetic, AEM and Satellite image data from the OGS and GSC. Pertinent data was converted to XL database, CAD and to Tiff image formats for Layered GIS compilation. All reference government data and working data files are attached on DVD with the compilation report.

The Duggan property located to the northeast shore of McIntire Lake about one mile from the Tyranite mine has received considerably more work. Mineralization here is contained almost

entirely within altered monzonite and diorite Alteration comprizes pervasive calcite and hematization and moderate silicification. Quartz and quartz-calcite stringers are common throughout the zone. Fragments of mafic and ultramafic volcanic rocks have pervasive chlorite and calcite alteration with trace amounts of disseminated pyrite. Pyrite is the main sulphide mineral, with trace amounts of chalcopyrite and arsenopyrite. Visible gold is occurs in small amounts throughout the zone and is also found with pyrite and chalcopyrite, values to over 5oz Au/ton were obtained sporadically.

Diamond drilling of forty (40) holes was completed on the Duggan Zone in three phases during 1987-1988, and another 4 holes in 1997. Additional surface work was also done. Trench and Drill Data is presented in summary tables and surface maps and cross sections. Drill plans and sections were prepared using Autocad GIS and Interdex drill hole software. Satellite and geophysical data was prepared using priority imaging software. All recorded Assay data is prospective and not currently 43-101 compliant.

3.0 Reliance On Other Experts

This report has been prepared by M.V.W. White for Creso Resources. The information, conclusions, opinions, and estimates contained herein are based on:

a: Information available to the writer the time of preparation of this report,

b: Assumptions, conditions, and qualifications as set forth in this report, and

c: Data, reports, and other information supplied by Creso and other third party sources.

For the purpose of this report, the writer has relied on ownership information provided by Creso. White has not researched property title or mineral rights for the Project and expresses no legal opinion as to the ownership status of the property.

4.0 **Property Description and Location**

Properties are located within the Shiningtree area of Northeastern Ontario, within Knight-Tyrell Townships. The Duggan zone is located 1.5 km west of the main Tyranite Shaft on the NE shore of Mcintyre Lake. The history of the both the Duggan (Rosko/Creso) Property and the adjoining Tyranite Mine are included as earlier exploration programs were generally coincident and of similar setting.

Township / <u>Area</u>	<u>Claim</u> <u>Number</u>	<u>Recording</u> <u>Date</u>	<u>Claim Due</u> <u>Date</u>	<u>Status</u>	Percent Option
Knight	1242759	June 5, 2001	June 5, 2009	А	100%
Knight	3008011	Dec. 31, 2002	Dec. 31, 2008	A	100%
Tyrrell	3006759	June 8, 2004	June 8, 2008	А	100%
Tyrrell	3008013	June 8, 2004	June 8, 2008	А	100%
Tyrrell	4210174	May 25, 2006	May 25, 2008	А	100%

DESCRIPTION OF PROPERTY GROUP

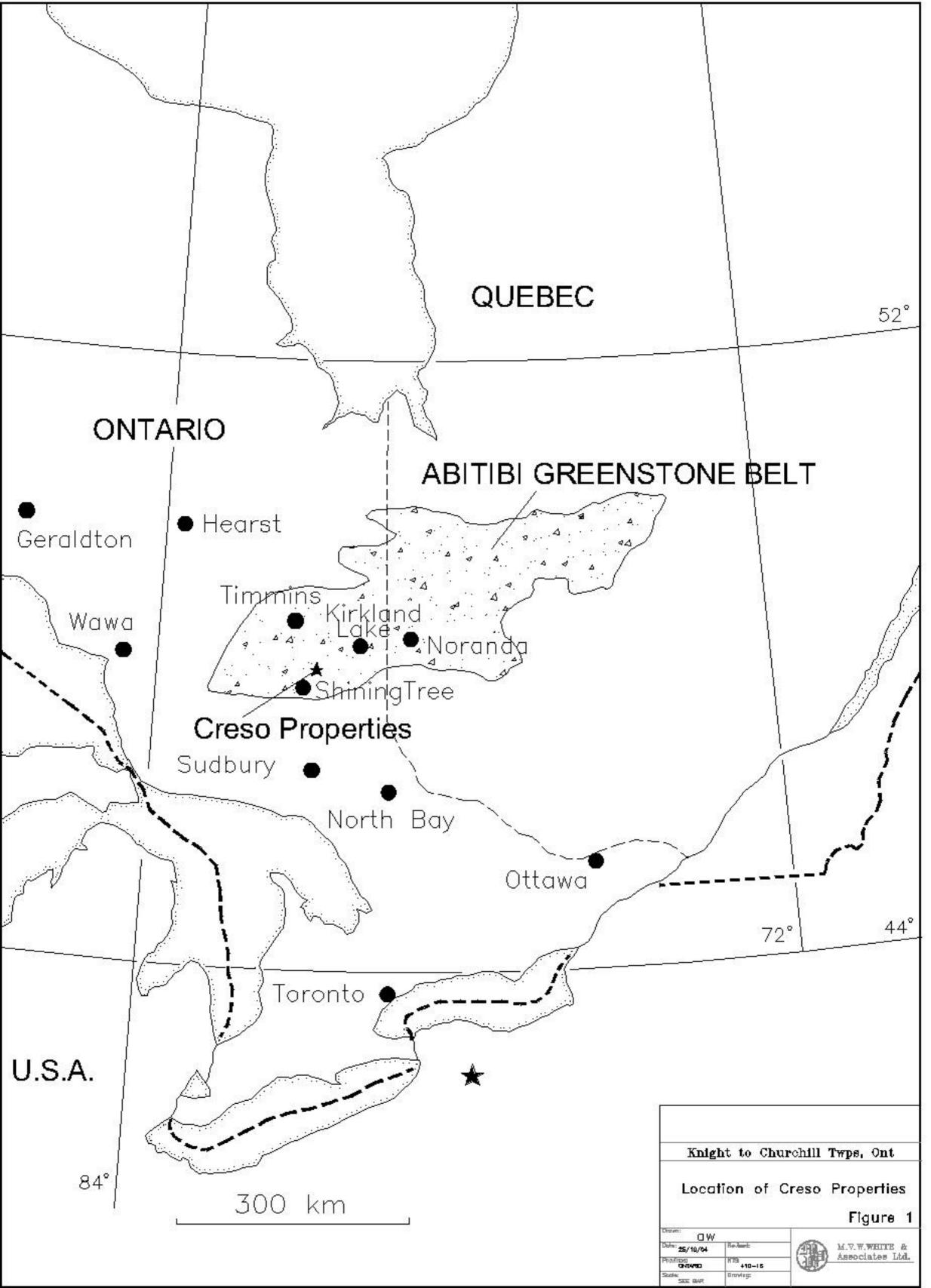


Figure 1a

Knight/TyrrellClaims

Churchill Claims

MacMurchy Claims

560

5.0 Physiography, Climate, Accessability, Local Resources and Infrastructure

The map-area is one of moderate relief, the maximum being 152 m. encountered in terrain underlain both by metavolcanic rocks and Middle Precambrian Huronian rocks and diabase sills. Topography and related structural trends are indicated along with property locations in Fig:2. The Middle Precambrian rocks form elongated, north-south ridges reflecting the prevailing strike. In some areas there are large extensive areas covered by glacial and swamp deposits. Sand and gravel cover more or less extensive areas.

Drainage is easterly in Natal Township into Pigeon and Duncan Lakes located in Knight Township, thence northerly and easterly via the West Montreal River in eastern Knight Township to the Montreal River, which drains ultimately into the St. Lawrence River.

The Creso properties can be reached by traveling east or west along Hwy 560 from.Temiskaming Shores (Hwy 11) or Shiningtree. (Hwy 144). Logging roads and all-terrain vehicle trails provide additional access throughout the properties as indicated on fig: 1a. The climate in the region is suitable for year round operations in exploration and mining development. The average winter temperature (December to February) is -9° C and the average summer temperature (June to August) is $+16^{\circ}$ C. The average annual winter snowfall is 285 cm and the average annual rainfall is 805 mm.

Local resources are currently restricted to various tourism operations that can supply meals and accommodation. Infrastructure consists of various access trails and a main hydro line several Kilometres to the west of the property. The old Tyranite mine 1.5 km east at one time had infrastructure that could possibly be revived? The mining facilities of Kirkland Lake and Sudbury are 100 km NE and S respectively as the crow flies.

6.0 History

Recorded exploration activity in the map-area began in 1930 in Knight Township, and in 1945 in Natal Township. This continued up to 1967 in Natal Township, but extended up to 1971 in Knight Township, with a lull activity there from 1940-43. Exploration in Knight Township was carried out primarily for gold in the early years, but later, from 1965, nickel was actively sought. In Natal Township exploration activity was mainly for copper. Work areas and assessment summaries after Carter 1983 are listed in Appendix II and Johns, ma , 2003; Appendix IV.

Property History

The first recorded exploration work was for gold, and was carried out by Porcupine Mines Limited in 1930, who trenched a metavolcanic-granodiorite contact on their nine-claim property in the southwestern part of Knight Township at the northern end of McIntyre Lake. Part of the property was later trenched by a Mr. Duggan in 1937, and later diamond drilled in 1938, when 13 holes totaling 596 m (1,955 feet) were put down.

In 1931, the L.O. Hedlund property, one mile (1.6 km) to the east of the former McIntyre Porcupine Mines Limited property, Knight Township, was staked by L.O. Hedlund and optioned to Waite and later to trenching and diamond drilling for gold were carried out on the property which extends into Tyrell Township to the south. In 1936 it was taken over by Tyranite Mines Limited who sank a three-compartment shaft in Township to the south, where all major development was carried out. Between 1936 & 1942 some 31,352 oz gold and 4,860 oz silver were extracted from 231,810 tons of ore grading 0.147 oz Au/ton.

There is little recorded work on the properties until 1986. From 1986-1988 Tyrell Holdings, Dalhousie Oil Company and Norwin Resources(Gunnar Gold/Mill City) performed bedrock stripping, geological mapping, magnetometer, VLF and IP surveys and 43,135 ft of Diamond Drilling in (94 holes) within the Tyranite Mine area and the Duggan Zone (11 holes, 2001-01 to 11), and 7 short holes through the mineralized zone (1316-33 to 39).In 1991 Northfield minerals performed 2153 ft of Diamond Drilling and in 1995-1996 Haddington Resources Drilled 10,433 ft.

In 1997 Tyranex Gold Sydicate/Mill City Gold drilled 12 holes for 12,882 ft on main shear zones of the property including 4 holes on the Duggan Zone (97-223 to 226).

Fig:2 3D Satellite-DEM Terrain Model

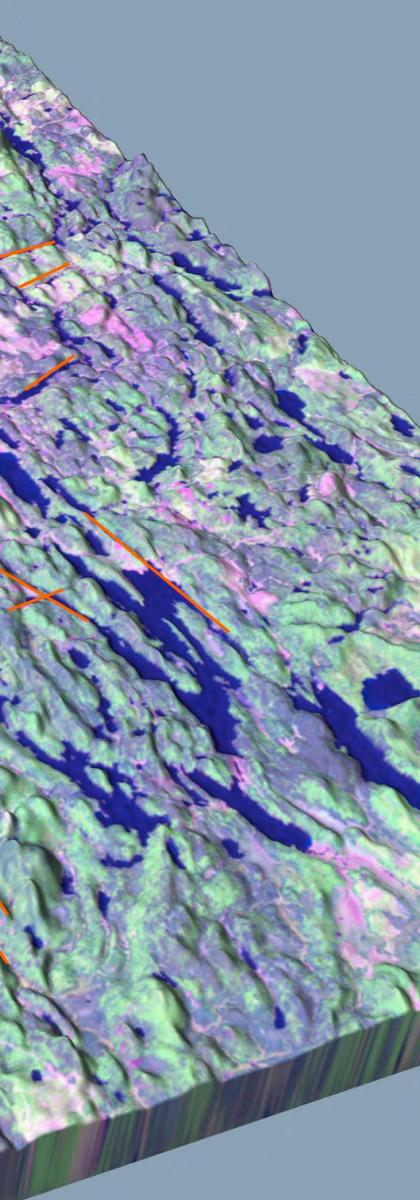
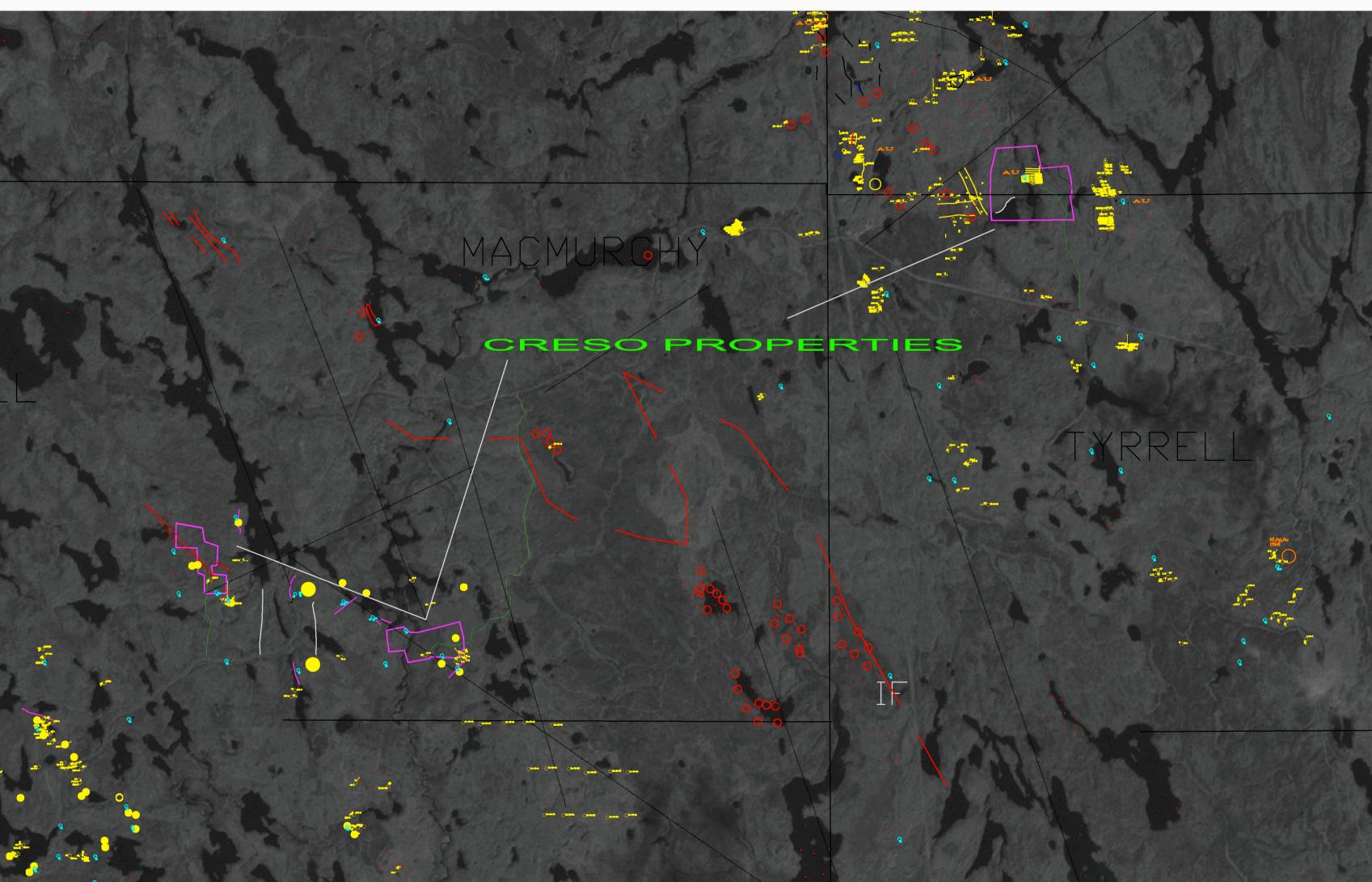


Fig:3 Properties Relative to Satellite (Band 8) and Compilation Data; Yellow-Drill holes, Cyan-Mineral deposits, Red AEM, Red lines-Fe formation I



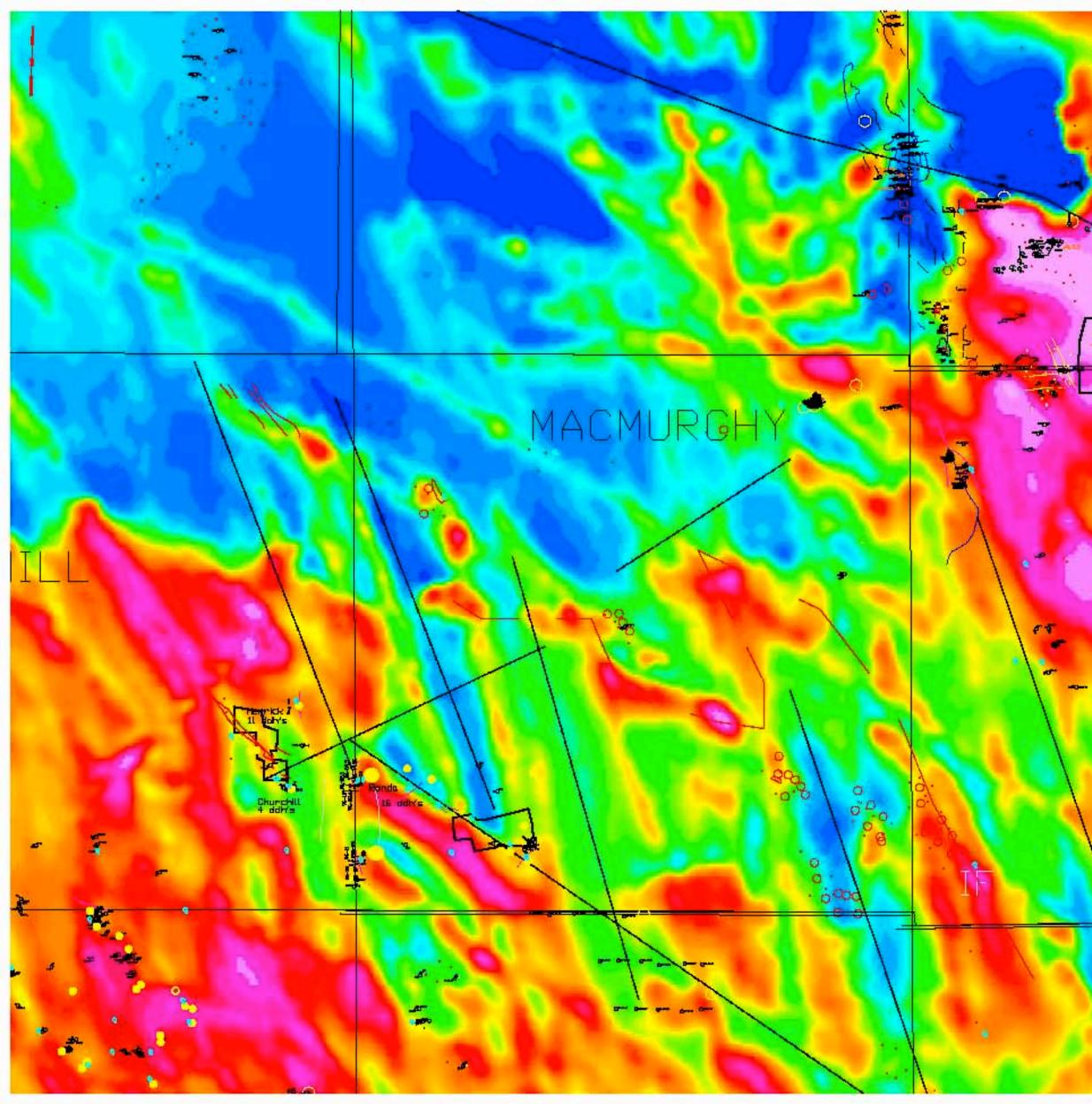
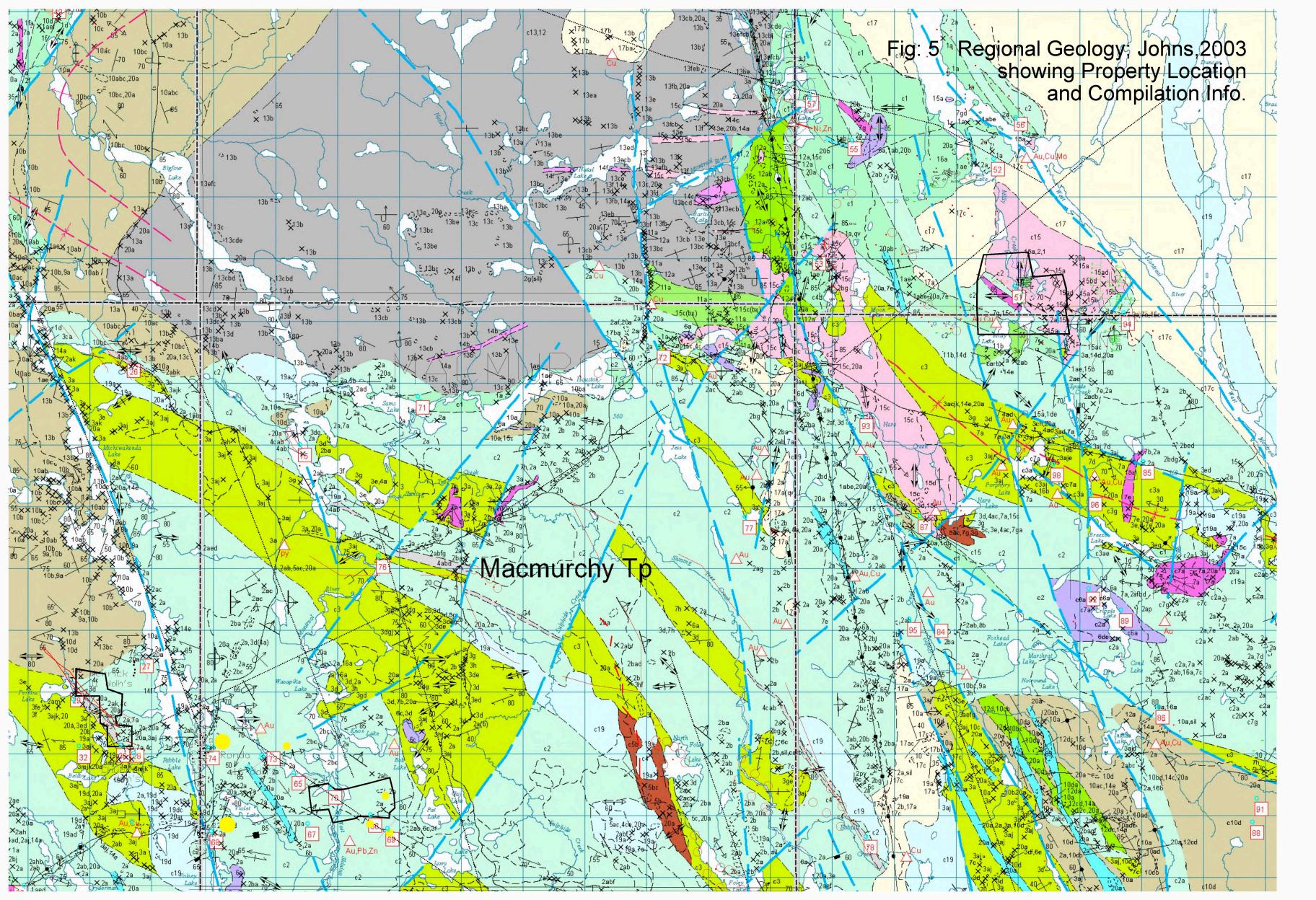


Fig: 4 Total Field Regional Magnetics showing Property Location and Compilation Info.

TYRRELL



7.0 Geological Setting

7.1 Regional geology.

Regional geology is summarized from Carter, 1976, 1983, and Johns, 2003 and illustrated on attached maps () after Johns, 2003. Full PDF maps with detailed legend attached Appendix IV. Table I and the following are listings and descriptions of lithologic units and types of mineral occurrences in the regional setting after Carter, 1983.

TABLE I - LITHOLOGIC UNITS

PHANEROZOIC CENOZOIC QUATERNARY PLEISTOCENE AND RECENT Sand, gravel, swamp and stream deposits Unconformity PRECAMBRIAN MIDDLE PRECAMBRIAN MAFIC INTRUSIVE ROCKS (NIPISSING-TYPE)-19 Diabase, leucodiabase Intrusive Contact HURONIAN SUPERGROUP-17 **COBALT GROUP GOWGANDA FORMATION** Orthoconglomerate, paraconglomerate, arenite, wacke, siltstone, argillite, siltstonemudstone, slate, gravelly arenite. Unconformity EARLY PRECAMBRIAN MAFIC INTRUSIVE ROCKS (MATACHEWAN-TYPE) Diabase, porphyritic diabase, leucodiabase, and granophyric diabase, as dikes. Intrusive Contact

FELSIC TO INTERMEDIATE INTRUSIVE ROCKS-15 Homblende-biotite granitoid rocks, pink and grey; feldspar-homblende granitoid porphyry; granitoid-basalt contact rock. Intrusive Contact METAVOLCANICS AND METASEDIMENTS METASEDIMENTS Chert, greywacke, Iron Formation ALKALIC METAVOLCANICS Mafic and intermediate aphanitic and porphyritic flows; tuff, lapilli tuff and tuff-breccia SUBALKALIC METAVOLCANICS THOLEIITIC AND CALC-ALKALIC METAVOLCANICS-2,3 Mafic, intermediate, and felsic aphanitic, porphyritic, pillowed, amygdaloidal, coarse-grained and variolitic flows; tuff, lapilli tuff and tuff-breccia; amphibolite. KOMATIITIC METAVOLCANICS-1 Serpentinized dunitic and peridotitic komatiites, basaltic komatiite; serpentinite, serpentine-carbonate breccia, green carbonate rock, lapilli tuff, homblende wehrlite.

7.2 Precambrian geology

The Early Precambrian rocks comprise a suite of metavolcanic rocks and associated intrusives, metasedimentary rocks, intrusive felsic to intermediate plutonic rocks, and intrusive diabase dikes. The metavolcanic rocks belong to the subalkalic and alkalic metavolcanic rock series Volcanic rocks comprise Ultamafic(Komatitic),equivalent of dunites and peridotites and their metasomatized equivalents: And mafic to felsic series consisting of and calcalkalic suites. Both flows and pyroclastics are present, but pyroclastics are rare amongst the mafic rock types. The mafic and intermediate flows were extruded subaqueously as they show pillowed structures. Pyroclastic rocks occur predomionatly as intermediate rocks: They are mainly tuffs and crystal tuffs that were deposited subaqueously. Well-preserved sedimentary structures comprising graded bedding, load casting and ball and

flame structures are common. Some of these sedimentary rock units grade upwards into a green cherty rock which is rhyolitic in composition. The metavolcanic and metasedimentary rocks are folded about a synclinal axis which trends and plungesN50W and is located in central Natal Township. The synclinal axis is sinuous and in the northwestern part of Natal Township it swings northwards. On the basis of this structure, the rocks in Knight and northeastern Natal Township occur on the northeastern limb of the syncline and the rocks in southwestern Natal Township occur on the southwestern limb. Stratigraphically, tholeiitic and calcalkalic metavolcanic rocks in the northeastern part of Knight Township form the lowest exposed rocks in the map-area. These are succeeded by komatiitic ultramafic and rocks which are subsequently overlain by interlayered calcalkalic and alkalic volcanic rocks. All the rocks have been affected by regional metamorphism under greenschist conditions.

Plutonic Rocks

Intermediate plutonic rocks occur mainly as two masses: the Lafricain pluton located in northeastern Knight Township and the Milly Creek pluton located at the middle part of the southern boundary of Knight Township. The Lafricain pluton is believed by Carter to be the southwestern end of the Round Lake batholith. No plutonic rocks of any kind occur in Natal Township. Owing to the almost complete alteration of the feldspars the rocks cannot be assigned modally to members of the series granite-diorite. Two common types occur: a pink to brown equigranular to porphyritic rock; and a grey, equigranular, horn-blende-feldspar rock. Massive rocks are more common than the porphyritic types. It is believed that the pink to brown rocks are granitic and the grey rocks granodioritic. Both plutons are elongated in the direction of the regional trend of the metavolcanic-meta-sedimentary rocks. The commonest rock types observed in both plutonic rocks are a grey, or pink to brown, mediumgrained massive hornblende granitoid. The pink granitoid may be porphyritic locally, where feldspar or feldspar and hornblende occur as phenocrysts. In these rocks quartz is not commonly visible on the weathered surface. The feldspar is either pink or brownish and the ferromagnesian mineral is green-ish black, usually well-crystallized hornblende. Biotite is rarely observed. In thin section the rock shows hypidiomorphic granular texture with anhedral quartz, potash feldspar (microline and orthoclase) and interstitial to dominant, altered, subhedral, plagioclase feldspar (clear parts of which are albite, The major mineral is euhedral, subhedral and anhedral pleochroic yellow-green hornblende. Accessory minerals are chloritized biotite, sphene, apatite, and opaque magnetite, and pyrite. Porphyritic rocks are of similar aspect and they contain phenocrysts of hornblende and feldspar in a brownish, grained matrix. The rock is probably a porphyritic quartz monzonite in the classification of Ayres (1972).

Another example is described as pink in hand specimen and shows phenocrysts of quartz measuring 4 mm by 3 mm, dark reddish-brown feldspar phenocrysts measuring 7 mm by 5 mm, and green hornblende phenocrysts measuring 4 mm by 2 mm, set in a pale-pink, medium-grained, quartz-feldspathic matrix. In thin section the reddish-brown feldspar phenocrysts consist of altered plagioclase and perthitic feldspar (some grains of which are epidotized)in a matrix of composite, sutured, interstitial quartz grains, and euhedral and subhedral slightly altered brownish plagioclase (clear parts of which are albite,). The feldspar phenocrysts are particularly highly altered to a dusky brown colour in thin section. The hornblende is pale green pleochroic, and occurs in euhedral and subhedral grains. Accessory minerals consist of sphene, leucoxene-sphene, apatite and opaque ilmenite. Most of the opaque ilmenite occurs as subhedral and anhedral grains in the hornblende. The granitoid-basalt contact rock consists of angular and rounded fragments of basalt varying from 5.1-10.2 cm (2-4 inches) set in the pink hornblende granitoid rock as matrix. The rock occurs at the contact of the granitoid and the intruded mafic metavolcanic rocks.

7.3 Mafic intrusive rocks (Matachewan type)

These rocks occur as diabase dikes most of which are 30-45 m wide and trend about Some of the dikes can be traced intermittently for distances of up to about 213 m (700 feet). The best exposed dike is that along the Hydro Electric Power Commission transmission line in eastern Natal Township. This dike is regarded as part of the dike collinear with it in northwestern Tyrrell Township (Carter, 1977). The characteristic rock type is a dark-green, dark-grey, or black, medium-grained rock on the fresh surface, which weathers to a rusty brown surface showing well developed ophitic texture in most cases. The rock is always magnetic. The rock type from the dike on the Hydro Electric Power Commission transmission line in south-

eastern Natal Town-ship, is medium-grained, dark green and shows rude ophitic texture on the weathered surface. In thin section it shows sub-ophitic texture consisting of a plexus of randomly oriented lath-shaped grains of plagioclase feldspar, most of which is saussuratized and partly encloses equant grains of augite which are surrounded by interstitial areas of Micropegmatitic quartz, and opaque, rectangular, and polygonal grains of magnetite. A few of the plagioclase feldspar laths are fresh, and these are labradorite Fine-grained diabase is usually black consisting of grains 0.5 mm or less, or are aphanitic. Such diabase forms the chilled edges of the dikes. The diabase dikes form part of a northwesterly trending magnetic regional dike swarm. They range in width from 15 to 60 m (15-200 feet), and consist of dark green and black, fine to medium-grained diabase.

Porphyritic diabase is similar, but is black in colour and contains subrounded phenocrysts of yellow feldspar. Granophyric diabase are medium to fine-grained diabase showing irregular and interstitial dark red patches of micropegmatite. The rocks occur throughout the map-area and cut the metavolcanic/metasedimentary and granitoid rocks. They are thus the latest of the Early Precambrian rocks.

Igneous rocks of the Middle Precambrian are represented by diabase. These mafic rocks may be dark green or mottled black and grey, massive rocks, which vary from fine to coarsegrained. Medium-grained rocks are the commonest type. The rocks occur mainly as an arcuate, gently concave-east, north trending sill intrusive into the Huronian sedimentary rocks in the east-central part of Knight Township. Small, unconnected masses of diabase overlie Early Precambrian metavolcanic rocks in northeastern Knight Township and may represent erosional remnants of a former flatlying sill.

7.4 **Proterozoic:**

Huronian

Proterozoic rocks comprise mostly Sediments and are observed in east-central Knight Township where the northern end of Metikemedo Lake connects with West Montreal River. Here the slates are associated with a north-south photo-lineament and a north south reach of the river. The rocks are aphanitic, dark greenish-black in colour and have a well-developed slaty cleavage which strikes north-south. They are regarded to have been formed by dynamic metamorphism of associated with faulting or shearing, as they can be seen to grade into uncleavaged mudstones nearby.

Siltstones are grey fine-grained rocks, thinly bedded, with separation planes 2 cm apart, and showing colour bands in shades of grey, 1 mm thick. These rocks are widely distributed throughout the map-area but do not form thick units. They occur mostly in Knight Township.

Wackes are dark greenish-grey, med ium-grained rocks which are widely distributed within the map-area but are commoner in the eastern part of the map-area than the western. The rocks consist of equant grains of quartz and feldspar 0.5 mm across and rare chips of subangular and subrounded brown jasper 0.5 mm x

1.5 set in a dark greenish matrix. A renites are pink, grey, greyish-white, yellow and pale reddish-brown, fine-grained rocks consisting predominantly of quartz and feldspar. The grain size of these rocks is remarkably uniform, the grains being usually les than 0.5 mm, in maximum dimension. Coarser grained varieties are much less In the fine grained rocks components are rare. The fine-grained arenites are common in the map area and are well exposed along the shores of Duncan Lake. Bedding is well developed and the rocks occur as thick bedded units 25-41 cm (10-16 inches) in thickness. In the coarser varieties, called pebbly arenites, lithic fragments are common and form the pebbles. These pebbles are angular to subangular, range from 2 mm x 2 mm to 1 cm x 1 cm across, and consist mainly of pink granitic rocks. A few of the larger fragments are of quartz or feldspar. A medium-grained arkose resembling a pink granitic rock occurs at an outcrop near the southwestern end Brush Lake in southwestern Knight Township. The rock is light pink in colour, is massive and even-grained, and contains grains of feldspar and quartz mm long.

A reddish-brown quartz-hematite-arenite breccia unit has also been observed. The breccia consists of angular fragments of arenite up to 23 cm (9 inches) long set in a quartz-hematite matrix, and angular fragments of vein quartz and hematite in a quartz matrix. Interlayered

units with 2 mm thick of alternating clay and fine silt size particles are also observed. They have the appearance of varved clays, Orthoconglomerates occur in the lower part of the Gowganda Formation in east-central Natal Township and within a band about 1 mile of either shore of Lake, in Knight Township. The orthoconglomerates consist mainly of subrounded and rounded clasts of quartz, granite and aphanitic volcanic rocks. These are set in a medium to coarse, sand-sized, dark-grey, greywacke matrix. The clasts range in size from 3 mm x 2 mm to 22 mm x 15 mm. The framework is disrupted, Rocks with such a matrix are well developed along the H.E.P.C. transmission line in northern Natal Township but here the fragments are much larger measuring from 1 cm to 25 cm. In Knight Township the matrix can be of arkosic as well as of greywacke composition. Paraconglomerates are best developed in the middle part of the Gowganda Formation sequence as exposed in the map-area. They can be best studied in the area east of Duncan Lake in Knight Township. The rocks differ from the orthoconglomerates in that the clasts consist entirely of granitic rocks widely separated from each other in a or shale matrix to form a disrupted framework

MAFIC INTRUSIVE ROCKS (NIPISSING TYPE)

Nipissing-type mafic intrusive rocks occur primarily as an arcuate concave-eastwards sill about 214 m (700 feet) thick and dipping approximately 250 east, in accordance with the Gowganda sediments which it intrudes, in east-central Knight Township. This sill is regarded as part of a cone sheet intrusion. These mafic rocks also occur as dikes trending in southeastern Knight Township; as smaller north-trending sills in the Gowganda sediments in east-central and eastern Knight Township; and as small isolated bodies overlying Early Precambrian metavolcanic rocks, possibly as erosion remnants of a sill, in northeastern Knight Township. Medium-grained diabase, which is the typical rock type, is a greenish-black or black massive rock on the fresh surface, and weathers to give a reddish brown rough surface. This weathered surface shows a coarse, crude, ophitic texture. In thin section the rocks shows coarse ophitic to subophitic texture, consisting of fresh and altered brown saussuritized plagioclase (labradorite, and fresh, and chloritized augite forming a framework which encloses interstitial irregular grains of quartz, micropegmatite and graphic quartz-feldspar intergrowths. Opaque grains consist of magnetite or This rock type comprises most

of the mafic rock forming the sills and dikes. Coarse-grained diabase is less common and in hand specimen shows radiating amphibole and pyroxene grains measuring mm long by 3 mm wide enclosing rudely equant grains of pale green feldspar and pyroxene. Coarse ophitic texture is visible on the weathered surface. A thin section from this rock shows a coarse subophitic texture formed by partially and completely uralitized augite and completely saussuritized plagioclase feldspar. The augite is altered to green and pale brownish actinolite, some of which is plumose, and pale brown biotite. In the alteration of augite to biotite, magnetite or ilmenite is re-leased. Interstitial areas are occupied by coarse micro-pegmatite. Opaque minerals consist of irregular patches, string-ers and subhedral grains of magnetite or ilmenite. Fine-grained diabase is similar to the medium-grained type except that it is blacker in appearance and is of fresher aspect. Leucodiabase is lighter coloured than the typical diabase and has a colour index of about 30.

This rock type is medium grained and shows a megascopically granular texture. The rock is fresh and in thin section shows coarse subophitic texture in which largely fresh augite partly encloses relatively unaltered plagioclase. The augite is in places wholly and partly uralitized to a brownish, fibrous amphibole, and pale green and yellow chlorite. Some of the augite shows her-ringbone and exsolut ion structures. Interstitial micropegmatite and quartz are present. Accessory minerals consist of brown biotite, epidote and opaque magnetite.

CENOZOIC

Sand, gravel and alluvium comprise the Pleistocene and Recent deposits of the Cenozoic in the map-area. They occur as blanket deposits and as eskers. The blanket deposits occur in southwestern Natal Township and central and north-central Knight Township. In the latter area extensive swamp deposits occur consisting of muskeg and fine yellow silty deposits. Coarse sand and gravel occur as eskers aligned north-south in southwestern and south-central Natal Township, and in southeastern and southwestern Knight Township

STRUCTURAL GEOLOGY

The rocks are folded about a plunging synclinal axis located in Natal Township, the axial trace of which trends N60°W over most of the township. In the northwestern part of the township the axial trace trends generally northward, and the plunge is about northwesterly. Rocks in northeastern Natal Township and in Knight Township are on the northeastern limb of the syncline, whilst those in southwestern Natal Township are on the southwestern limb. The rocks are steeply dipping, the dip varying from 350-850, but dips are in the range 80-850. Structural evidence is derived from the coincidence of photo/satellite-lineaments, Fig: 3 combined with lithological trends.

Several major faults cross the map area diagonally as indicated from the 3D Terrain in Fig:2

8.0 Deposit Types

The deposits of the regional map-area are concordant and discordant vein-type deposits of copper, silver, gold and asbestos, and concordant stratabound nickel deposits associated with ultramafic rocks. The deposits occur within Early Precambrian ultramafic rocks, mafic to felsic metavolcanics, granitoid rocks and diabase dikes, and within Middle Precambrian sedimentary and mafic igneous rocks.

DEPOSITS ASSOCIATED WITH EARLY PRECAMBRIAN METAVOLCANICS CONCORDANT STRATABOUND NICKEL DEPOSITS

Stratabound nickel deposits are represented by the deposit on the property of Arthur Lake Mines Limited. The deposit is associated with northwesterly trending ultramafic rocks, and is described as consisting of sooty and crystallized disseminated pentlandite in a breccia unit, known locally as 'deckerite', in concordant ultramafic rocks. The rocks trend N3OW and the breccia unit was described in the company reports to be up to 240 m wide. The mineralization is regarded by the author as primary and associated with komatilitic volcanism, as the deckerite is regarded as an ultramafic lapilli tuff. The best assay from drilling in such rocks was 0.88 percent Ni over 1,2 m (Resident Geologist's files, Ontario Ministry of Natural Resources, Kirkland Lake).

CONCORDANT GOLD VEIN DEPOSITS

Concordant gold vein deposits comprise mineralized shears and fractures which trend north, roughly parallel

to the trend of their Early Precambrian metavolcanic host rocks. These are exemplified by (1) the gold deposits, examined by Timiskaming Nickel Limited, northwest of Moon Lake in southwestern Knight Township; (2) the Metikemedo deposit about 1.2 km east-southeast of Arthur Lake; and (3) the Hurst deposit about 0.4 km northeast of the southern end of Pigeon Lake. All of these are in Knight Township. The gold occurs in quartz veins in shears in alkalic rocks in the first occurrence and in mafic metavolcanics in the other.

DISCORDANT VEIN DEPOSITS

Copper

A set of short quartz veins trending on average N80-85E occupies a zone about 1.5 km wide trending N80-85E and parallel to a line joining Little Pigeon and Seganku Lakes in northern Natal Township. This trend is markedly discordant with the axis of folding in the area which is N35W. No shearing or alteration in veins or wall rocks enclosing the veins was observed by the author or reported by companies. These veins are regarded as fissure veins occupying shear joints and related to the folding in the Early Precambrian rocks. The deposits are not obviously related to any intrusive granitic body, and may be of volcanic origin.

Asbestos

Asbestos occurs as irregular, ramifying veins and stringers of soft cross fibre asbestos in black serpentinite. The serpentinite unit is concordant with the regional structure, and may be extrusive.

Deposits Associated with Early Precambrian Granitoid Rocks

VEIN-TYPE GOLD DEPOSITS

Within the Milly Creek granitoid pluton, in the southwestern part of Knight Township, mineralization occurs at three places: (1) the north end of McIntyre Lake near its western contact with mafic metavolcanics; (2) 400 m east of Spade Lake near its eastern boundary

with Cobalt sedimentary rocks; and (3) at a promontory on the northern shore of Pigeon Lake, at the southern end of the lake, near the northern contact of the pluton.

At the north end of McIntyre Lake the gold occurs in quartz-carbonate veinlets in fractures oriented N4OW and N15W at the contact of "granodiorite and greenstone" (Graham 1932, p.57). The "greenstone" is regarded by the author as a large xenolith of mafic metavolcanics in the granitoid rock. The mineralized zone itself trends N1 OW. East of Spade Lake, gold occurs in a fracture zone trending N1 OW, parallel to the contact of granitoid rocks and a basaltic xenolith enclosed in the Milly Creek Pluton.

At the northern end of the Milly Creek Pluton, gold and molybdenite occur in a quartz vein, the Hurst deposit, striking NO6E in fractured granodiorite.

Deposits Associated with Matachewan-Type Diabase Dikes UNCLASSIFIED COPPER DEPOSITS

In southeastern Natal Township about 1.2 km south of the central part of Natal Lake, an occurrence of copper in a north-northwesterly trending diabase dike was observed. The copper occurs as malachite staining on ramifying quartz-calcite veining, the trend of which could not be determined. Many of these dikes show considerable epidote alteration, e.g. the dike along the east shore of Natal Lake. As these dikes may range in age from Early to Late Precambrian — similar trending dikes were observed to cut Gowganda Formation rocks in Leonard Township (Carter 1977a, Map 2359) — and as silver is associated with the diabase cutting the Middle Precambrian sedimentary rocks, these diabase dikes may contain copper and silver mineralization.

DEPOSITS ASSOCIATED WITH MIDDLE PRECAMBRIAN GOWGANDA SEDIMENTARY ROCKS

DISCORDANT VEIN-TYPE COPPER-COBALT DEPOSITS

Structural data in Knight Township indicate that the rocks of the Gowganda Formation trend north-northeasterly in the northern part of the township, northerly in the central part, and north-northwesterly in the southern part, to form a slightly concave-eastwards arcuate pattern. This may be the case also in Natal Township, but structural data are absent there. With respect to this trend, the mineralized veins in northern Knight Township (Duncan Lake occurrence) and northern Natal Townships (McIntyre Porcupine Mines Limited) are discordant. A characteristic feature of these quartz veins is the common occurrence of specular hematite with the copper.

STOCKWORK COPPER-BEARING QUARTZ VEINS

A convincing example of a quartz stockwork containing copper is the Sommerville occurrence in south-central Natal Township. The stockwork consists of a rectangular network of quartz veins ranging from 2 cm to 1 m wide, in remarkably mature arenite.

Deposits Associated with Nipissing-Type Diabase CONCORDANT VEIN-TYPE SILVER-GOLD DEPOSITS

Nipissing-type diabase occurs mainly as a concordant gently-curved concave-eastwards sill in the Gowganda Formation in east-central Knight Township, and as northeasterly trending dikes in southeastern Knight Township. The most important silver deposit is the Coulis vein system (Guaranty Trust Company of Canada property) which consists of two intersecting veins, the more prominent of which is concordant with the trend of the sill.

UNCLASSIFIED COPPER DEPOSITS

Because of poor exposure, copper deposits in the Duncan Lake diabase sill in the southern part of Knight Township (Duncan Lake occurrence) and in the northeast trending dikes in southeastern Knight Township (Polliwog Lake occurrence) cannot be classified on the basis of their relative trend with respect to the sill and dikes respectively.

9.0 Local Geology

Local geology relative to the property area is shown on Fig:4 (John's 2004).

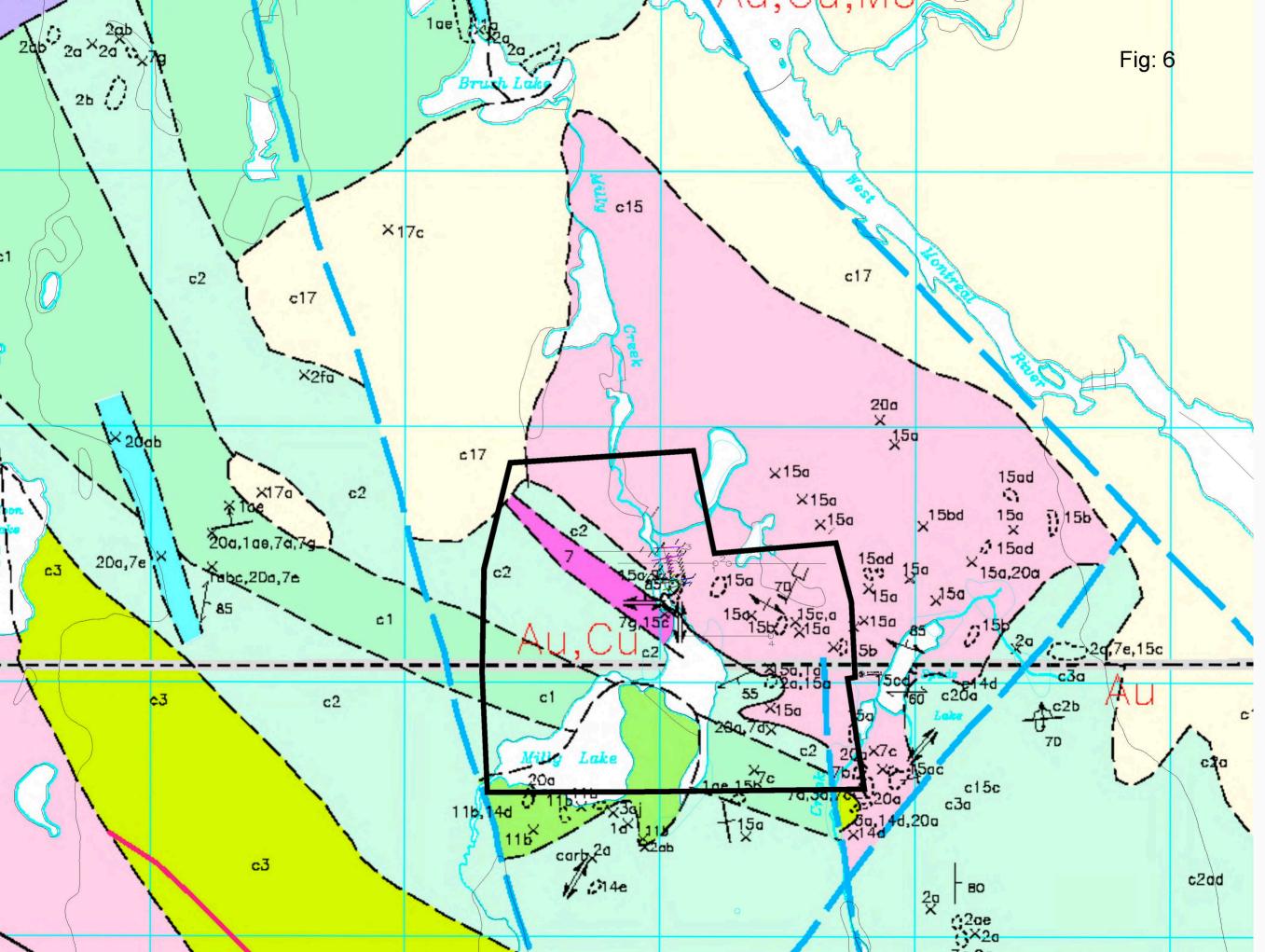
Similar to the Main Tyranite Shear/mineral zone to the east, the Duggan Zone mineralization occurs both within the Milly Creek intrusives and mafic and ultramafic volcanics, immediately to the south. The regional Milly Creek Fault system, occurs as two main faults, one lying immediately to the west of the Duggan Zone(along the creek bed) and the other a short distance to the east. The Duggan Zone appears to lie just south of the point where the two faults converge. i.e. at a splay in the Milly Creek Fault. The topographic feature of the main branch of the Milly Creek Fault, namely a steep or overhanging western scarp and a more gentle west dipping east scarp suggest that this fault dips westerly?. Trend and dip of the Duggan Zone mineralization, is not certain. The west and northwest part of the claim group appears bounded by Huronian sediments. Current drilling indicates that some 300 metres below the surface mineral /syenodiorite a 100 m zone of mafic ultramafic rocks was intersected, possibly indicating a north northeast dip to this unit exposed to the south east.

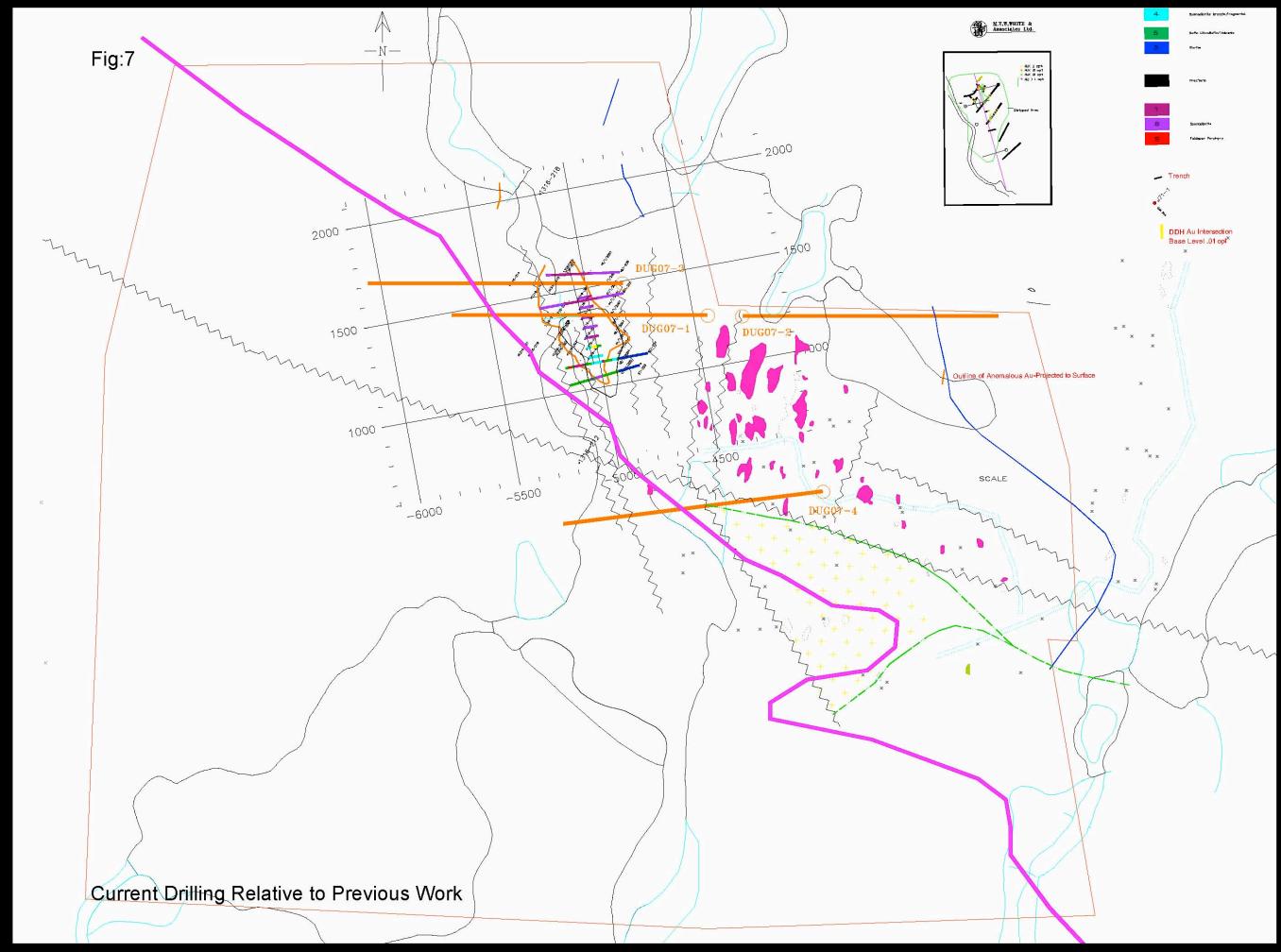
<u>Mill,/ Creek Stock:</u> Most of the rocks exposed are the felsic phase of the Milly Creek Stock referred to by the field term syenodiorite. This a feldspar-rich rock with a variable mafic content. Small to several metre mafic inclusions are common.(Plate I). A short distance east of the Duggan Zone a roof pendant or large xenolith of massive ultra mafic was mapped (Beecham 1987).

Feldspar Porphyry Stock and Dyke Swarm:

Feldpar porphyry is exposed in a triangular area, eastward from McIntyre Lake at the south contact of the Milly Creek Stock.. Outcrop in this area is sparse and it is not clear whether these outcrops are part of a small stock or a dyke swarm: individual dykes mapped, and the elongation of the exposures trends about 100 °.The area east of the McIntyre Lake appears to be the main intrusive centre for the feldspar porphyry. The dyke swarm in the shaft area may emanate from this centre.

The feldspar porphyries seem to be oriented along a 100° to 110° trend. They cut (and post date) the Milly Creek intrusives.?





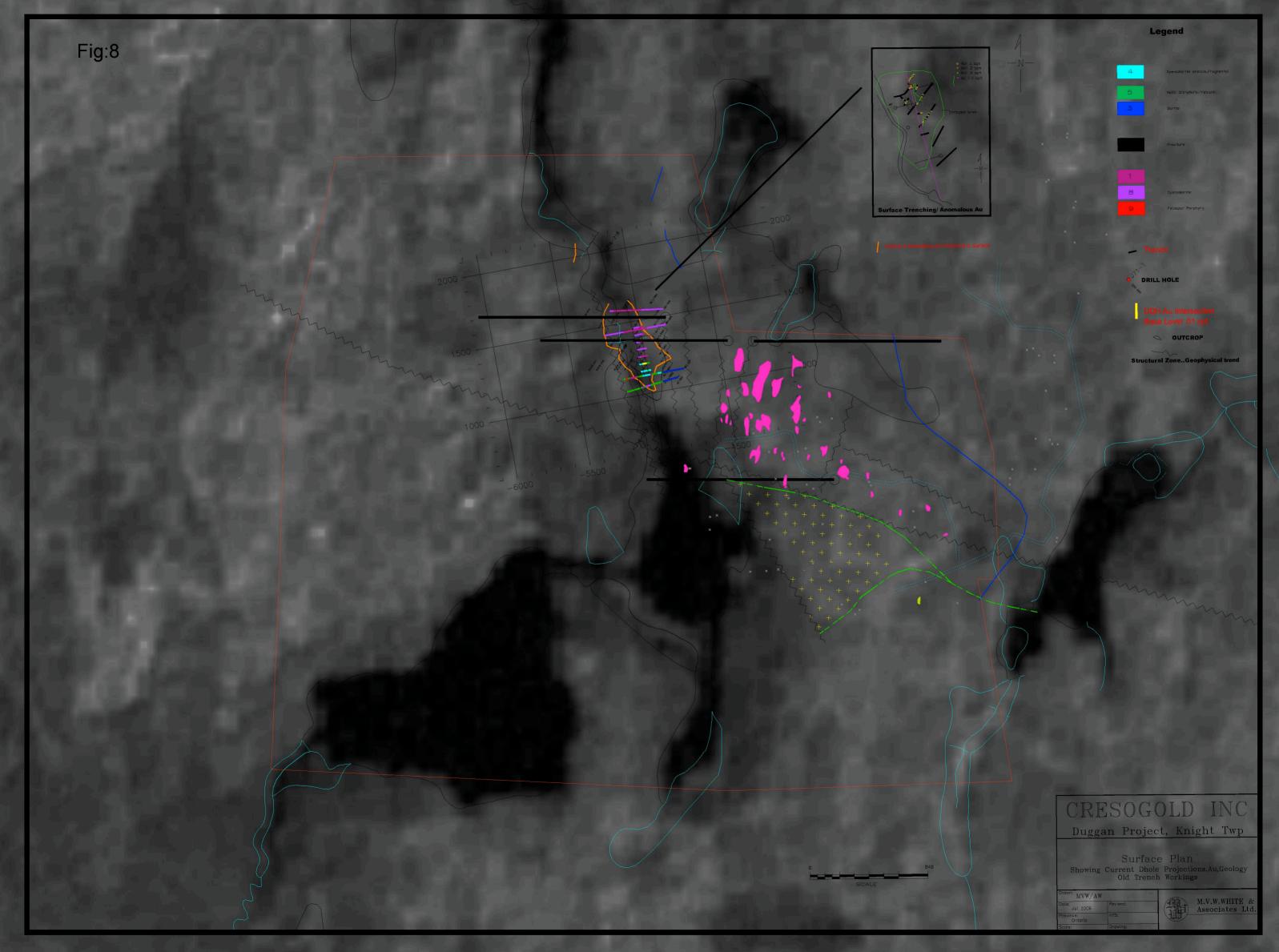




Plate II

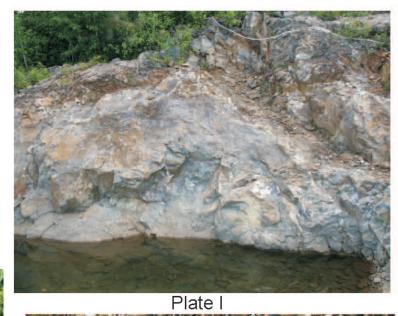




Plate III



Plate IV



Plate V

Duggan Zone



10.0 Mineralization

Duggan Zone Mineralization is contained almost entirely within altered monzonite and diorite Alteration comprises pervasive calcite and hematization and moderate silicification. Quartz and quartz-calcite stringers are common throughout the zone. Fragments of mafic and ultramafic volcanic rocks have pervasive chlorite and calcite alteration with trace amounts of disseminated pyrite. Pyrite is the main sulphide mineral, with trace amounts of chalcopyrite and arsenopyrite. Visible gold is occurs in small amounts throughout the zone and is also found with pyrite and chalcopyrite (Norwin Resources, 1988b).

Figure 6 through 18 shows plans and sections of drilling and trenching. Table II,III,IV below give a summary of significant diamond drilling of the Duggan Zone specifically of high grade intersections, Data shows the zone cannot be correlated with any confidence from hole to hole and there is a strong nugget effect problem hence bulk sampling will likely be required to evaluate the true grade of the zone. However the main alteration zone trends approximately N-S and has dimensions of some 200m x 100 m. with anomalous Au values (>100ppb). The zone has probable extensions to the north and to depth.

In contrast to the Main Tyranite shear to the East where gold is fine-grained and associated with pyrite, the Duggan Zone contains coarse visible gold which causes sampling problems to arise. Norwin Resources (1988b) concluded that it may not be possible to determine the actual grade of the zone by drilling and recommended that evaluation of the zone be done by a ramp

11.0 Exploration

The first recorded exploration work was for gold, and was carried out by Porcupine Mines Limited in 1930, which trenched a metavolcanic-granodiorite contact on their nine-claim property in the southwestern part of Knight Township at the northern end of McIntyre Lake. Part of the property was later trenched by a Mr. Duggan in 1937, and later diamond drilled in 1938, when 13 holes totaling 596 m (1,955 feet) were put down.

In 1931, the L.O. Hedlund property, one mile (1.6 km) to the east of the former McIntyre Porcupine Mines Limited property, Knight Township, was staked by L.O. Hedlund and optioned to Waite and later to trenching and diamond drilling for gold were carried out on the property which extends into Tyrell Township to the south. In 1936 it was taken over by Tyranite Mines Limited who sank a three-compartment shaft in Township to the south, where all major development was carried out. Between 1936 & 1942 some 31,352 oz gold and 4,860 oz silver were extracted from 231,810 tons of ore grading 0.147 oz Au/ton.

There is little recorded work on the properties until 1986. From 1986-1988 Tyrell Holdings, Dalhousie Oil Company and Norwin Resources(Gunnar Gold/Mill City) performed bedrock stripping, geological mapping, magnetometer, VLF and IP surveys and 43,135 ft of Diamond Drilling in (94 holes) within the Tyranite Mine area and the Duggan Zone (11 holes, 2001-01 to 11), and 7 short holes through the mineralized zone (1316-33 to 39).In 1991 Northfield minerals performed 2153 ft of Diamond Drilling and in 1995-1996 Haddington Resources Drilled 10,433 ft.

In 1997 Tyranex Gold Sydicate/Mill City Gold drilled 12 holes for 12,882 ft on main shear zones of the property including 4 holes on the Duggan Zone (97-223 to 226).

12.0 Drilling

Some 50 holes were drilled on the property between 1937, 1986 to 1997, only drill logs of geology were found for 11 holes and 37 for gold assays. Available assay data is listed below (Table IV). Core types are not defined but assumed to be Ax,Aq,Bq and Nq: No old core was found. There is no documentation as to drilling procedures. Based on old mapping drilling was assumed to east west. But current GPS location surveying indicated orientation was based on Magnetic and not True North thus orientation has an offset of 10 degrees and parallels the McIntyre lake/stream structural trend. Drill hole survey data is not available except for holes 223-226. Any elevation data and drill hole azimuth data is inconsistent though generally believed to E-W on a magnetic North grid.-

TABLE II - DDH Summary Geology

Hole	From	То		Geology	Description
97-223	0	11.5		Casing	
97-223	11.5	165.7	tr	Diorite, grey, magnetic	variable py,some FP
97-223	165.7	288	tr	Mafic/UM	mostly massive, some fractures sections/FP dykes
97-223	288	334.8	low	Syenodiorite	Massive to Altered, red alt/veins
97-223	334.8	352.4	med	Mafic/UM	Altered, calcite veins
97-223	352.4	370.7	low	Syenodiorite	Altered, calcite veins, reddish
97-223	370.7	521.7	tr	Mafic/UM	Massive, some FP dykes ,402.5,443.3
97-224	0	9.8		Casing	
97-224	9.8	203.5		Diorite, grey, magnetic	minor epidote, calcite veins
97-224	203.5	220		Mafic/UM	
97-224	220	250.7		Breccia	70% Syenodirite,30% mafic
97-224	250.7	304		Mafic/UM	Green, blue calcite veins
97-224	304	317.8		Altered Syenodiorite,py	Silica, calcite altn
97-224	317.8	353		Breccia, Mafic	magnetic
97-224	353	387.4		Breccia,Syenodirite	mafic frags
97-224	387.4	439		Mafic/UM	massive, some shears
97-224	439	502		Altered Syenodiorite,py	
97-224	502	520		Mafic/UM, fractured	Fault,vg at 508
97-224	520	542		FP	
97-224	542	561		Mafic/UM fractured	Fault, massive after 550
97-225	0	4.9		Casing	
97-225	4.9	187.5		Syenodiorite, grey	
97-225	187.5	377.5	low	Altered syenodiotite	wide anomalous Au
97-225	377.5	411	low	Alterd syenodiorite, pyritic	pale green, micaceous, altered feld, chlorite, qtz
97-225	411	590.6	low	Syenodiorite, grey	
97-226	0	13.6		Casing	
97-226	13.6	224		Syenodirite-Diorite	Mg,diabasic
97-226	224	493.6		Altered Syenodirite	veins,qtz,calcite,331,4ft calcte vein,466,8ft qtz vn
97-226	493.6	531.5		Syenodirite-Diorite	
1316-33	0	23		Breccia,Syenodiorite	breccia,mafic frags
1316-33	23	68		Breccia,Syenodiorite,Mineralized	
1316-33	68	76.5		Mafic/Um	Chlorite
1316-33	76.5	100		Breccia, Syenodiorite	
1316-34	0	32		Breccia,Syenodiorite	Basalt?
1316-34	32	72		Mineralized section	qtz stringers etc
1316-34	72	100		Mafic, monzonite frags	2%py
1316-35	0	1.8		Casing	
1316-35 1316-35	0 1.8	1.8 26.8		Casing Syenodiorite	

1316-35	26.8	96.7		Altered Syenodiorite, mineralized	
1316-36	0	1		Casing	
1316-36	1	100	Low	Syenodiorite	altered sections anomalous Au,70-77 carbed
1316-37	0	3.2		Casing	
1316-37	3.2	42.2	low	Syenodiorite	
1316-37	42.2	102.2	mod	Altered Syenodiorite	72.2 to 84.2, Au zone
1316-38	0	77	low	Syenodiorite	
1316-38	77	97.7	mod	Altered Syenodiorite	80.3to 97.7 Au zone
1316-39	0	4.4		Casing	
1316-39	4.4	64.7		Syenodirite	
1316-39	64.7	98.3	mod	Altered Syenodiorite, sulphides	

TABLE III - DDH Summary & Gold Intersections

	-				
					AU
Dhole	Sample	From	То		OZ
2001-1		120		130	0.149
2001-1		182		215	0.044
2001-2					
2001-3		150		159	0.053
2001-3		170		210	0.068
2001-3					
2001-4		287		306	0.05
2001-5					
2001-6		259		267	0.19
2001-7		155		159	0.297
2001-8		132.3		134	0.06
2001-8		147		150.5	0.165
2001-8		165		168	0.157
2001-8		177		180	0.165
2001-8		189		192	0.146
2001-8		213		216	0.177
2001-8		240		245	0.118
2001-8		270		275	0.156

2001-9		116	129	0.05
2001-9		180	195	0.27
2001-9		200	206	0.117
2001-9		212	232.5	0.086
2001-9		244	256	0.101
2001-10		145	154.2	0.271
2001-10		229.5	240	0.392
1316-33		23	28	0.185
1316-34		38.8	52	0.071
1316-34		38.5	43.5	0.104
1316-35		39.4	42.4	0.13
1316-35		48.4	60.4	0.135
1316-35		85.9	88.9	0.126
1316-36		70	80	0.056
1316-37		54.2	57.2	0.058
1316-37		72.2	75.2	0.12
1316-38		80.3	92.3	0.148
1316-39		28.9	31.9	0.078
1316-39		67.7	70.7	0.069
97-223	4706	288	292	0.008
97-223	4707	292	295	0.01
97-223	4709	300	303.3	0.053
97-223	4713	321.5	325	0.016
97-223	4714	325	328	0.079
97-223	4719	348	352	0.006
97-223	4720	352	357	0.011
97-223	4721	357	361.5	0.01
97-223	4722	361.5	365	0.006
97-223	4723	365	367.5	0.019
97-223	4724	367.5	370.7	0.01
97-223	4728	402.5	407.2	0.005
97-224	4730	304	307	0.01
97-224	4731	307	310	0.067
97-224	4732	310	314	0.031
97-224	4733	314	317.8	0.018
97-224	4735	357	361.5	0.039

97-224	4761	437.5	439	0.118
97-224	4742	439	442	0.012
97-224	4743	442	445	0.014
97-224	4744	445	450	0.009
97-224	4746	455	459	0.013
97-224	4748	463	467	0.009
97-224	4750	470	474	0.023
97-224	4753	484	489	0.006
97-225	4765	162.5	164.5	0.02
97-225	4767	191.5	193.5	0.086
97-225	4772	210	211.5	0.051
97-225	4784	265	270	0.006
97-225	4785	270	275	0.042
97-225	4786	275	280	0.026
97-225	4787	280	285	0.013
97-225	4788	285	289	0.028
97-225	4789	305	310	0.015
97-225	4790	310	315	0.012
97-225	4791	315	320	0.064
97-225	4792	320	325	0.125
97-225	4793	325	330	0.077
97-225	4795	336	341.5	0.01
97-225	4796	341.5	346.5	0.039
97-225	4797	346.5	349	0.032
97-225	4798	349	353	0.092
97-225	4799	353	358	0.075
97-225	4800	358	363	0.065
97-225	4801	363	368	0.016
97-225	4802	368	373	0.034
97-225	4803	373	377.5	0.021
97-225	4804	377.5	382	0.01
97-225	4805	382	387	0.064
97-225	4806	387	392	0.044
97-225	4807	392	397	0.019
97-225	4808	397	401	0.082
97-225	4809	401	405	0.015

97-225	4810	405	408	0.009
97-225	4814	416	421	0.006
97-225	4815	472	473	0.011
97-225	24522	473	476.3	0.011
97-225	4816	506	508	0.04
97-225	4817	508	511	5.93
97-225	4818	511	513	0.004
97-225	4819	572	575	0.006
97-226	4824	222	223	0.006
97-226	4825	230	235	0.016
97-226	4826	235	240	0.008
97-226	4827	240	245	0.048
97-226	4828	245	250	0.034
97-226	4829	250	253	0.008
97-226	4830	253	256	0.02
97-226	4831	256	258.7	0.131
97-226	4832	258.7	263	0.009
97-226	4833	263	268	0.02
97-226	4835	283	285.6	0.12
97-226	4836	285.6	288	0.122
97-226	4837	288	293	0.079
97-226	4838	293	297	0.019
97-226	4839	297	302	0.035
97-226	4840	313	317.5	0.025
97-226	4842	336.9	340.2	0.08
97-226	4843	340.2	344.4	0.048
97-226	4844	344.4	347.5	0.015
97-226	4845	347.4	350.5	0.014
97-226	4846	35035	355	0.005
97-226	4847	355	360	0.031
97-226	4848	360	364.5	0.002
97-226	4849	364.5	369.5	0.039
97-226	4850	369.5	372	0.017
97-226	4851	372	374.6	0.049
97-226	4852	374.6	377	0.04
97-226	4853	377	382	0.03

97-226	4856	392	397	0.013
97-226	4857	397	402	0.024
97-226	4858	402	407	0.031
97-226	4859	407	410	0.099
97-226	4860	410	413	0.005
97-226	4861	413	416.2	0.197
97-226	4862	416.2	420	0.012
97-226	4863	420	425	0.01
97-226	4864	425	429.5	0.059
97-226	4865	429.5	434.8	0.02
97-226	4866	435.8	440	0.001
97-226	4867	440	445	0.08
97-226	4872	460.6	463	0.051
97-226	4873	463	466.7	0.042
97-226	4874	466.7	469.7	0.075
97-226	4875	469.7	472.7	0.114
97-226	4876	472.7	474.7	0.102
97-226	4877	474.7	477.5	0.02
97-226	4878	477.5	482.5	0.004
97-226	4879	482.5	487	0.011
97-226	4880	487	490	0.029
97-226	4881	490	494	0.025
97-226	4883	499	504	0.007
1316-201		257	260.5	0.049
1316-201		383.8	388.8	0.05
1316-201		404.3	404.3	0.083
1316-201		637	639.5	0.076
1316-201		645	653	0.171
1316-202		79.5	84	0.171
1316-202		154	161	0.079
1316-202		203	207	0.212
1316-203		106	108.5	0.087
1316-203		309.5	315	0.1
1316-204		83	86	0.086
1316-204		165	180	0.08
1316-205		202.5	205.5	0.177

1316-205	205	207.5	0.055
1316-205	241	246.5	0.144
1316-205	357.5	360	0.053
1316-205	510.5	526	0.051
1316-206	286	288	0.199
1316-206	288	290	0.092
1316-206	290	292	0.045
1316-206	354	357	0.08
1316-206	362.5	365.8	0.064
1316-207	41	43.5	0.057
1316-207	158	163	0.142
1316-207	262.5	267.5	0.886
1316-207	425	427.5	0.154
1316-208	37.5	41	0.145
1316-208	114.5	118	0.279
1316-208	141	143.5	0.248
1316-208	148.5	151	0.061
1316-208	216	218.5	0.134
1316-208	235	239	0.194
1316-208	252	254	0.082
1316-208	382	384.5	0.073
1316-209	271	273	0.053
1316-209	281	283	0.057
1316-209	283	285	0.207
1316-209	325	327	0.06
1316-209	375	377	0.146
1316-209	387	389	0.067
1316-209	446	458	0.065
1316-210	77	81	0.257
1316-210	125	131	0.099
1316-210	152	162	0.202
1316-210	231	241	0.335
1316-210	260	262	0.094
1316-212	466	471	0.05
1316-214	285	288.5	0.075
1316-214	309	312	0.807

1316-214	375	377.5	0.149
1316-214	439	441.5	0.138
1316-214	516	525.5	0.055
1316-216	380	382.5	0.055
1316-216	516	531	0.065
1316-216	536	551	0.106
1316-216	556	569	0.173
1316-218	127	132	0.055
1316-218	167	177	0.048
1316-218	347.5	350.5	0.273
1316-219	671.5	676.5	0.128
1316-219	689	694	0.05
1316-219	711	719.5	0.106
1316-221	145	148	0.077
1316-221	381.5	383.5	0.005
1316-221	1007	1009	0.068

12.1 CURRENT PROGRAM

The 3300 m drilling program is currently underway. Completed and suggested hole locations are shown on Figs: below

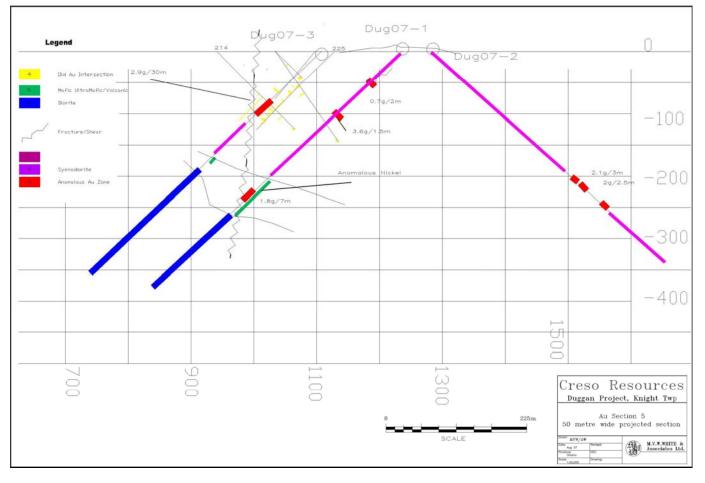
To date 5 holes have been completed for approximately 2470 metres, an additional 800m is underway.

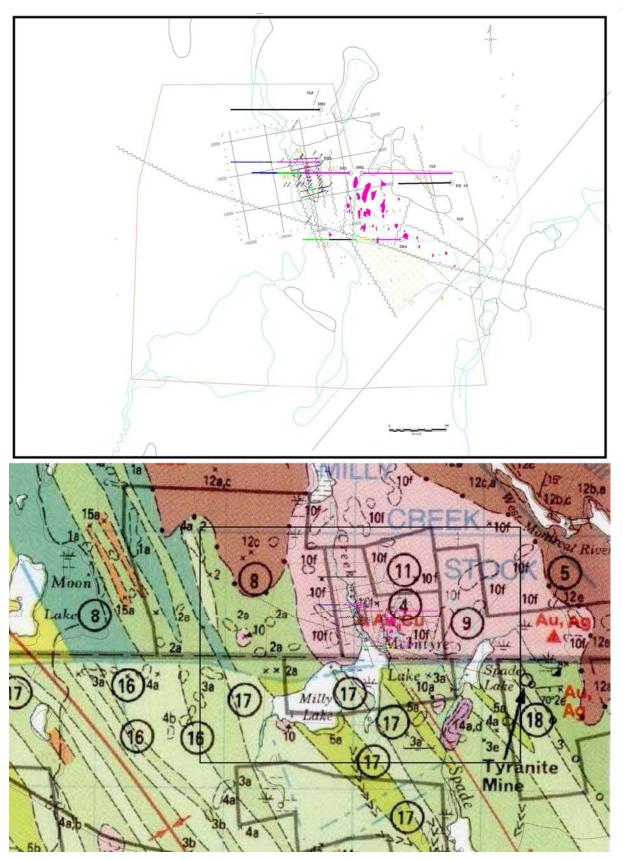
Geology and assays for holes Dug07-1 to 4 are indicated on the attached Tables and compiled section, below. Preliminary Whole rock geochemistry, Table below: indicates little compositional difference (all Syenite) between the grey (diorite, more magnetic) and pink(Syenodiorite) ; the writer contributes this to more alteration within the pink phase and conversion of magnetite to pyrite and hematite.

Significant pyritized/shear zones are indicated in Hole#1 and #3 within syenodiorite and within a 100m altered Mafic-ultamafic unit, Hole 1 and 4. Anomalous gold intersection are indicated below. Hole 2 indicates a new anomalous Au zone, within an extensive Syenodiorite interval. Hole #2 is currently being resampled. It consists primarily of intrusive syenodiorite with mafic sections and isolated pyritic zones.

The whole rock table illustrates various anomalous intersections: coloured portions and the association of Au with enriched sulphide, Soda (Na2O) or Potash(K2O). Another interesting feature is enrichment of Ni in some Syenodiorite sections exclusive of

ultramafic zones.





	Depth	Au	SiO2100	SiO2	Al2O3	Fe203	CaO	MgO	Na2O	K2O	TiO2	P2O5	Cr2O3	Co	Cu	Ni	Zn	LOI	С	S
DUG-1-07	27	Nil	44.53	41.37	8.14	15.32	7.66	18.14	0.27	0.04	1.42	0.21	0.15	110	204	761	150	5.9	< 0.01	0.09
DUG-1-07	27	3	62.10	57.73	10.02	7.36	10.22	3.66	0.6	2.31	0.49	0.39	0.06	33	<5	105	29	5.48	0.02	0.09
DUG-1-07	36.1	3	47.66	44.9 59.3	7.65 14.7	12.98 5.83	9.03 4	17.03 4.83	0.56	0.25 1.8	1.29 0.6	0.15 0.2	0.17 0	90 22	101 <5	827 64	97 35	4.73 2.34	<0.01 0.06	0.07 <0.01
DUG-1-07	45	Nil	60.93																	
DUG-1-07	61	665	59.71	56.77	14.44	7.31	3.12	5.54	3.72	3.01	0.68	0.28	0.03	37	<5	117	73	3.84	0.25	0.49
DUG-1-07	63	7	61.18	59.76	14.58	6.1	4.8	4.08	5.11	2.31	0.54	0.2	0.02	44	21	436	47	1.44	0.08	0.04
DUG-1-07	68	Nil	62.89	61.07	15.39	4.7	3.86	3.64	5.55	2.12	0.44	0.17	0.02	28	15	889	61	1.81	0.09	0.03
DUG-1-07	82	Nil	60.29	59.08	14.98	6.65	5.19	4.15	4.99_	1.94	0.58	0.23	0.02	31	227	221	69	0.78	0.03	0.06
DUG-1-07	86 87	Nil 2	56.71	52.7	15.91	6.05	6.34 5.22	4.32 4.17	5.78 4.64	0.84	0.61	0.24 0.22	0.02	47	<5 15	602 465	31	6.12	1.12	0.18
DUG-1-07 DUG-1-07	87 93	7	60.24 60.20	58.78 58.57	14.99 14.99	6.59 6.43	5.32 5.12	4.17	4.84	2.06 1.95	0.59 0.57	0.22	0.02	38 32	15	128	48 27	1.49 1.59	0.04 0.04	0.03
DUG-1-07	105	, Nil	59.89	58.74	15.14	6.82	5.88	4.1	4.41	1.95	0.56	0.22	0.02	41	32	475	50	1.5	0.04	0.04
DUG-1-07	117	Nil	59.96	58.25	14.63	7.19	4.84	4.54	4.63	2.05	0.57	0.21	0.03	46	27	187	39	1.66	0.07	0.04
DUG-1-07	123	10	59.70	58.32	15.05	6.68	5.98	4.32	4.34	1.96	0.59	0.22	0.04	35	37	221	47	1.44	0.03	0.03
DUG-1-07	135	27	59.74	58.37	15.04	6.67	5.74	4.34	4.27	2.22	0.59	0.23	0.03	45	20	430	41	1.48	0.07	0.04
DUG-1-07	146	3806	54.05	48.86	13.33	7.37	9.28	3.71	4.23	2.68	0.57	0.22	0.02	97	18	478	30	8.5	2.01	2.05
DUG-1-07	150	69	58.24	56.48	14.42	8	5.55	5.17	4.38	1.89	0.63	0.23	0.03	82	21	1099	53	2.04	0.11	0.05
DUG-1-07	163	7	60.76	59.97	14.45	6.69	4.62	4.3	6.04	1.65	0.58	0.22	0.02	37	12	465	27	1.07	< 0.01	0.03
DUG-1-07	180	Nil	60.78	59.96	14.58	6.61	6.04	4.38	4.24	1.82	0.59	0.22	0.02	36	23	352	48	0.96	0.01	0.04
DUG-1-07	190	Nil	60.90	59.54	14.56	6.29	5.49	4.27	4.42	2.16	0.59	0.22	0.03	44	50	_1155_	73	1.54	0.12	0.04
DUG-1-07	218	Nil	59.48	58.02	13.98	7.47	5.97	4.74	4.82	1.53	0.58	0.24	0.02	52	36	887	18	1.85	0.16	0.03
DUG-1-07	225	3	59.95	58.6	14.28	6.64	6.05	4.6	4.46	2.07	0.59	0.24	0.02	29	97	87	84	1.46	0.05	0.03
DUG-1-07	237	Nil	57.58	56.01	13.77	7.63	7.03	5.23	4.26	2.07	0.69	0.28	0.09	39	36	125	75	1.94	0.22	0.05
DUG-1-07	246	Nil	57.31	55.89	14.19	7.65	6.59	5.31	4.69	1.98	0.7	0.3	0.02	38	50	114	66	1.54	0.14	0.04
DUG-1-07	252	Nil	58.21	57.22	14.53	7.19	6.07	5.1	4.3	2.62	0.73	0.28	0.03	31	29	97	70	1.32	0.04	0.04
DUG-1-07	261	Nil	61.57	60.12	14.57	6.43	4.39	3.93	5.12	2.13	0.47	0.29	0.02	24	97	56	138	1.5	0.1	0.03
DUG-1-07	264	Nil	62.74	60.71	14.72	5.23	4.76	4.04	4.53	1.91	0.46	0.22	0.03	21	7	43	57	2.08	0.13	0.03
DUG-1-07 DUG-1-07	273	Nil	57.62	49.66	13.45	4.4	11.19	2.69	0.25	3.69	0.57	0.16	0.02	20	7	14	33 72	12.73 23.33	2.45	0.05 0.04
DUG-1-07 DUG-1-07	284 291	2 134	58.84 59.47	45.07 54.66	11.14 14	5.62 6.25	5.11 5.48	4.72 5.1	3.56 4.33	0.61 1.12	0.48 0.55	0.14 0.19	0.02	22 26	41 <5	9 54	46	7.03	1.19 1.01	0.04
DUG-1-07	294	89	58.07	52.16	12.24	6.09	8.45	5.88	3.5	0.61	0.35	0.19	0.02	26	8	188	47	9.06	1.69	0.13
DUG-1-07	303	Nil	47.43	44.59	7.43	10.33	7.18	22.41	1.01	0.18	0.34	0.03	0.39	81	<5	1263	40	5.02	0.24	0.19
DUG-1-07	333	116	54.63	49.96	14.26	7.89	8.72	5.06	4.04	0.43	0.68	0.25	0.03	30	29	62	78	7.41	2.03	4.08
DUG-1-07	342	Nil	58.52	54.36	14.89	6.14	2.97	8.75	3.96	0.84	0.5	0.21	0.03	25	78	82	59	6.1	0.47	0.22
DUG-1-07	360	Nil	62.54	56.95	14.48	2.36	7.04	3.08	5.71	0.89	0.33	0.12	0.01	19	<5	96	20	7.92	1.52	0.05
DUG-1-07	372	Nil	48.57	45.88	7.3	10.26	8.34	20.9	0.67	0.14	0.36	0.03	0.43	71	<5	1529	52	4.52	0.27	0.11
DUG-1-07	378	Nil	55.68	51.73	13.97	7.95	6.78	5.88	4.45	1	0.66	0.25	0.03	32	<5	56	66	6.12	0.14	0.08
DUG-1-07	385	14	63.27	58.65	13.79	5	4.52	3.86	4.24	1.81	0.44	0.21	0.03	19	5	20	53	6.57	0.94	0.05
DUG-3-07	2.1	Nil	57.37	55.61	15.02	7.02	6.02	5.64	4.7	1.87	0.58	0.25	0.03	34	23	157	47	2.06	0.11	0.02
DUG-3-07	13.5	14	58.53	57.14	15.25	6.53	6.01	5.11	4.83	1.72	0.58	0.24	0.03	30	22	95	47	1.89	0.09	0.04
DUG-3-07	17.5	Nil	58.74	57.12	15.58	6.36	5.75	4.41	4.58	2.36	0.62	0.22	0.03	29	26	64	51	1.59	0.03	0.02
DUG-3-07	27	Nil	59.03	57.28	15.45	6.27	5.46	4.47	4.57	2.48	0.57	0.22	0.04	30	18	113	40	1.82	0.09	0.02
DUG-3-07	34.6	2	57.48	56.01	15.56	6.95	5.71	5.1	4.46	2.51	0.66	0.24	0.03	32	7	201	51	1.42	0.05	0.02
DUG-3-07	35.3	189	57.03	53.89	15.47	7.22	5.03	5.33	4.5	1.97	0.65	0.23	0.03	30	16	93	73	4.75	0.65	0.5
DUG-3-07	41	3	57.59	53.03	13.69	5.89	8.68	3.37	4.59	1.93	0.52	0.21	0.03	30	48	66	37	7.26	1.67	1.62

																		3	7	
DUG-3-07	51	Nil	57.41	55.85	14.56	7.28	6.75	5.58	4.64	1.59	0.57	0.23	0.05	33	49	135	64	1.8	0.09	0.04
DUG-3-07	57	Nil	59.43	57.61	14.96	6.42	5.38	4.7	4.51	2.28	0.61	0.23	0.04	29	6	361	47	2.29	0.22	0.03
DUG-3-07	66	3	55.11	50.99	15.22	7.22	7.17	4.25	4.11	2.29	0.74	0.3	0.03	32	<5	110	55	6.93	1.27	0.02
DUG-3-07	78	Nil	60.77	56.95	14.85	5.86	5.08	4	4.3	1.66	0.57	0.23	0.03	24	21	131	50	5.84	0.98	0.06
DUG-3-07	78	113	60.95	56.7	14.8	5.28	5.49	3.78	4.13	1.8	0.6	0.2	0	22	47	44	46	6.31	1.13	0.2
DUG-3-07	87.3	943	68.16	63.48	10.22	8.09	5.41	1.23	0.67	2.88	0.82	0.23	0.05	45	<5	92	11	5.63	1.06	5.01
DUG-3-07	90	7	58.34	56.67	14.65	6.62	5.62	5.18	4.24	2.94	0.71	0.25	0.03	33	15	85	51	2.01	0.26	0.04
DUG-3-07	98	1824	58.66	56.52	14.91	6.74	6.23	4.87	3.96	2.07	0.61	0.24	0.03	32	58	71	50	3.24	0.55	0.18
DUG-3-07	107.9	Nil	57.28	52.96	14.46	6.5	7.06	4.57	3.63	2.24	0.59	0.25	0.03	30	40	88	46	7.21	1.35	0.04
DUG-3-07	113.9	384	60.46	54.87	11.45	5.33	9.52	3.38	2.09	3.27	0.49	0.16	0.04	27	11	47	25	8.21	2.1	2.18
DUG-3-07	124.2	45	58.08	53.14	12.89	6.26	9.7	2.73	3.17	2.65	0.58	0.14	0.03	25	25	151	25	7.71	2.09	2.79
DUG-3-07	129.5	638	52.58	48	15	7.12	9.89	2.85	1.92	5.4	0.8	0.2	0	34	120	58	33	7.91	2.13	3.6
DUG-3-07	134	651	66.24	61.87	12.99	7.01	4.87	1.81	0.82	3.27	0.5	0.15	0.06	35	17	173	21	5.77	1.07	4
DUG-3-07	134	693	75.36	71.4	9.66	6.82	1.46	1.98	<0.01	2.7	0.5	0.1	0.1	26	<5	<5	30	3.93	0.27	2.9
DUG-3-07	143.5	3	59.92	56.45	13.83	6.05	5.88	5.69	3.67	1.67	0.54	0.21	0.05	29	41	89	53	5.34	0.89	0.08
DUG-3-07	147	Nil	59.80	54.29	13.56	5.69	6.52	5.65	2.37	1.82	0.49	0.22	0.04	23	14	75	50	8.5	1.4	0.11
DUG-3-07	156	10	62.13	57.78	13.21	5.39	5.29	5.17	4.1	1.17	0.48	0.21	0.04	24	5	43	54	6.12	0.97	0.07
DUG-3-07	168	17	61.21	59.21	14.43	6.33	5.32	4.57	4.16	1.82	0.53	0.17	0.03	27	73	44	55	2.33	0.26	0.13
DUG-3-07	180.7	Nil	58.92	57.32	14.49	7.01	6.7	5.19	4.03	1.6	0.51	0.22	0.03	28	80	53	60	2.03	0.22	0.19
DUG-3-07	193.8	14	60.37	58.71	14.22	6.14	5.69	5.2	4.61	1.67	0.51	0.26	0.04	24	8	45	53	1.98	0.13	0.05
DUG-3-07	209.8	27	56.88	55.25 35.1	15.46 3.13	6.79 10	7.89 2.9	6.01	3.73 <0.01	1.07 0.6	0.47 0.2	0.26 0	0.04 0.6	30 146	49 <5	186 1975	59 104	2.22 10.8	0.08 0.61	0.05 0.1
DUG-3-07	227.9	10	39.78	50	14.2	9.71	8.66	7.98	3.54	1.1	0.2	0.2	0.0	37	54	58	71	2.98	0.34	0.1
DUG-3-07	234	17	51.91	51.3	17.9	7.15	7.15	6.58	3.76	1.8	0.4	0.2	0	28	<5	113	59	2.94	0.21	<0.01
				51.5	17.9	7.15	7.15	0.50	5.70	1.0	0.4	0.2	Ū	20	~	115	57	2.74	0.21	<0.01
DUG-3-07	238.5	Nil	53.20	42.5	13.6	10.8	9.1	8.93	2.62	0.5	1.1	0.3	0	46	72	99	81	9.63	1.63	0.8
DUG-3-07	245.8	Nil	47.44	43.7	14.8	11.4	8.4	6.4	< 0.01	2.3	0.9	0.3	0	41	42	80	61	11	1.89	< 0.01
			10.15																	
DUG-3-07	249.8	Nil	49.47	39.4	5.27	8.51	8.32	24.7	< 0.01	0	0.3	0	0.5	73	18	1254	42	12.5	1.88	0.1
DUG-3-07 DUG-3-07	255.3 270.1	Nil	45.28 54.31	50	13.6	7.79	7.83	6.5	3.83	0.3	0.7	0.3	< 0.01	27	11	84	79	7.21	1.25	0.3
DUG-3-07 DUG-3-07		Nil	53.42	51.6	14.2	9.29	7.74	6.99	4.12	1.2	1	0.3	< 0.01	40	13	129	71	2.48	0.27	< 0.01
DUG-3-07 DUG-3-07	285 297.3	Nil 7	56.19	52	13.4	8.12	8.45	4.72	3.65	0.9	0.9	0.3	< 0.01	36	66	98	75	6.85	1.3	0
DUG-3-07 DUG-3-07	305	, Nil	54.97	53.6	14.9	8.51	7.37	6.54	4.04	1.4	0.7	0.2	< 0.01	34	35	69	68	1.95	0.15	< 0.01
DUG-3-07	318	Nil	55.39	54	15.3	8.38	7.16	6.12	4.11	1.3	0.7	0.2	< 0.01	32	58	72	58	1.86	0.13	0
DUG-3-07	337	Nil	55.10	52.8	16.1	7.79	6.04	6.4	4.42	1.2	0.7	0.2	< 0.01	34	34	44	59	3.51	0.34	< 0.01
DUG-3-07	357	Nil	53.51	51.9	15.4	8.87	7.28	6.93	4.23	1.3	0.6	0.4	< 0.01	34	23	222	55	2.29	0.2	< 0.01
DUG-3-07	393	10	51.45	49.9	13.9	9.09	9.46	8.17	3.75	1.3	0.8	0.5	0	36	<5	88	123	2.27	0.12	0.1
DUG-3-07	411	Nil	54.11	51.9	15.5	8.11	6.21	7.38	4.88	0.8	0.7	0.3	< 0.01	39	36	79	72	3.5	0.28	0
DUG-3-07	426	14	54.10	52.7	14.4	9.14	8.01	7.22	3.67	1	0.8	0.3	< 0.01	39	26	116	58	1.84	0.08	< 0.01
DUG-3-07	430.5	7	52.93	51.6	14.6	9.26	9.42	6.8	3.99	0.6	0.8	0.3	< 0.01	38	99	46	73	1.95	0.13	0
DUG-3-07	449.5	144	55.01	46	7.01	5.62	19.2	3.99	1.02	0.1	0.4	0.1	< 0.01	21	129	<5	53	15.8	3.92	0.2
DUG-3-07	451.5	Nil	46.24	42.6	8.81	10.3	9.83	19	0.37	0.1	0.4	0.1	0.5	68	11	1303	143	7.76	0.87	0.2
DUG-1-07	468	2	53.62	52.4	15.1	9	8.41	6.8	3.7	1.2	0.7	0.2	< 0.01	34	<5	60	44	1.63	0.08	< 0.01
DUG-3-07	468	Nil	48.32	44.1	3.2	9.5	12.3	21	0.05	0	0.1	0	1	66	<5	2667	123	8.36	1.15	0
DUG-3-07	469	7	54.76	52.7	14.6	7.58	9.56	5.94	4.36	0.5	0.6	0.3	< 0.01	30	30	92	329	3.47	0.37	0.5
DUG-2-07	23.5	27	61.53	59.78	15.11	5.77	3.88	4.25	5.75	1.66	0.55	0.21	0.03	27	23	63	64	2.32	0.04	0.1

																		3	8	
DUG-2-07	27	34	46.78	45.14	14.08	16.12	9.09	5.68	2.9	1.65	1.36	0.16	0.03	73	116	137	100	1.9	0.06	0.21
DUG-2-07	37	Nil	48.08	46.29	13.6	15.39	9.42	5.76	2.72	1.32	1.32	0.15	0.03	62	108	86	82	2.58	0.01	0.18
DUG-2-07	47	Nil	47.30	45.85	13.68	15.8	8.72	6.44	3.6	1.18	1.22	0.14	0.02	69	99	128	97	1.66	0.03	0.13
DUG-2-07	54	55	59.28	57.67	15.62	6.01	4.94	4.3	6.15	1.62	0.58	0.22	0.03	29	9	85	44	1.58	0.01	0.05
DUG-2-07	74.9	Nil	61.22	59.31	15.12	5.72	5.15	3.77	5.12	1.77	0.52	0.21	0.02	21	18	57	42	2.69	0.32	< 0.01
DUG-2-07	90	Nil	62.39	61.24	15.17	5.64	4.88	3.76	4.6	1.9	0.54	0.21	0.02	19	<5	84	32	1.39	0.04	< 0.01
DUG-2-07	117	Nil	62.04	60.95	15.29	5.69	5.23	3.77	4.52	1.83	0.53	0.21	0.04	20	<5	58	24	1.3	0.02	< 0.01
DUG-2-07	140.9	10	57.00	51.25	13.53	5.51	10.02	3.32	5.04	0.46	0.51	0.18	0.02	21	522	90	21	9.71	2.17	0.14
DUG-2-07	159	Nil	62.07	60.82	15.38	5.62	4.73	3.81	4.81	1.87	0.53	0.21	0.02	20	56	26	35	1.44	0.05	< 0.01
DUG-2-07	180	Nil	62.19	61.46	15.17	5.61	5.37	3.86	4.48	1.91	0.54	0.22	0.03	22	<5	45	34	1	0.01	< 0.01
DUG-2-07	209.9	Nil	62.57	61.43	15.16	5.37	4.29	3.94	5	2.02	0.55	0.21	0.03	21	<5	76	37	1.54	0.02	< 0.01
DUG-2-07	243		63.35	61.65 60.5	14.8 14.8	5.27 5.62	4.56 5.31	3.62 4.31	4.93 4.58	1.6 1.8	0.51 0.5	0.2 0.2	0.02	19 21	31 5	13 70	21 42	2.33 1.69	0.1 0.1	0.01 <0.01
DUG-2-07	269	34	61.81	59.9	15	5.69	4.74	4.34	5.24	2	0.5	0.2	0	18	13	57	69	1.7	0.04	<0.01
DUG-2-07	291	7	61.21	58.6	14.6	4.84	5.03	3.47	4.83	2.3	0.5	0.2	0	17	89	22	36	5.08	0.92	0.7
DUG-2-07	302.3	271	62.08	84.8	3.97	2.06	2.53	0.75	0.72	1.8	0.1	0	0.1	9	<5	<5	<5	1.64	0.38	0.7
DUG-2-07	302.8	319	87.52																	
DUG-2-07	330	21	61.51	60.08	14.82	5.8	4.82	4.28	5.09	1.84	0.56	0.19	0.03	22	43	47	40	1.76	0.11	< 0.01
DUG-2-07	334.6	3953	70.27	64.74	8.01	3.79	9.28	1.91	2.96	0.93	0.29	0.09	0.04	14	<5	16	<5	7.26	1.91	1.57
DUG-2-07	374.1	17	60.63	56.26	14.71	5.54	5.14	4.77	3.75	1.74	0.54	0.21	0.03	20	<5	63	34	6.78	1.04	0.03
DUG-2-07	398.8	339	57.93	52.08	13.84	6.59	8.23	4.69	0.07	3.23	0.71	0.31	0.03	23	<5	26	24	9.69	1.71	0.28
DUG-2-07	402	2	53.84	46.86	11.36	7.66	12.03	5.48	0.04	1.95	0.76	0.69	0.04	30	85	52	19	12.6	2.53	0.03
DUG-1-07	403	Nil	55.07	50.85	14.29	9.3	5.52	7.05	3.33	0.53	0.97	0.34	0.03	40	12	103	68	7.32	0.97	0.01
DUG-2-07	411		57.74	56.63	14.02	7.41	7.32	5.4	4.2	1.86	0.69	0.3	0.03	27	<5	58	52	1.73	0.08	< 0.01
DUG-2-07	432		57.44	56.07	14.08	7.31	7.6	5.25	4.22	1.88	0.68	0.3	0.03	27	<5	93	54	1.95	0.14	< 0.01
DUG-2-07	447		55.80	54.65	13.93	8.3	9.41	5.55	3.36	1.51	0.68	0.3	0.03	28	9	41	66	1.61	0.08	< 0.01
DUG-2-07	465		57.24	55.76	14.35	7.5	7.03	5.25	4.41	1.81	0.75	0.32	0.02	28	7	38	58	2.21	0.2	< 0.01
DUG-2-07	486		57.68	56.54	14.54	7.4	7.18	5.16	3.98	1.99	0.7	0.29	0.03	28	90	41	58	1.51	0.03	< 0.01
DUG-2-07	503.8		56.88	55.45	14.09	7.49	9.41	4.81	3.83	1.29	0.66	0.27	0.03	26	<5	55	44	2.2	0.23	< 0.01

Hole	Depth of Sample	Au	Check	Ag	As	Co	Cu	Ni	Pb	Zn
DUG-07-1	59.5 - 60.2	960	864	0.2	<5	19	15	62	1	66
	58.5 - 59	555	597	0.2	<5	20	19	63	1	71
	144.5 - 145.5	106	-	0.1	<5	13	36	47	1	35
	145.5 - 146.5	5486	4800	0.7	<5	20	36	70	6	46
	146.5 - 147.5	254	-	0.1	<5	22	67	105	3	67
	147.5 - 148.5	237	-	0.3	<5	16	197	59	2	45
	261 - 262	2	-	0.1	<5	9	79	35	1	59
	262 - 263	3	Nil	0.1	<5	11	55	34	2	40
	263 - 264	Nil	-	0.1	<5	11	30	36	3	38
	264 - 265	Nil	-	0.1	<5	12	31	36	1	43
	265 - 266	Nil	-	0.1	<5	16	33	52	1	54
	266 - 267	86	110	0.1	<5	17	95	63	1	46
	267 - 268	Nil	-	0.1	<5	19	25	83	1	48
	268 - 269	720	586	0.1	<5	21	83	99	11	55
	269 - 270	34	-	0.1	<5	19	78	53	1	55
	270 - 271	2	-	0.1	<5	18	45	52	1	41
	271 - 272	Nil	-	0.1	<5	17	64	44	1	42
	272 - 273	Nil	-	0.1	<5	21	84	53	1	50
<u> </u>	273 - 274	Nil	-	0.1	<5	22	35	51	1	58
	274 - 275	Nil	-	0.1	<5	18	18	44	1	46
	275 - 276	Nil	-	0.1	<5	20	18	46	1	53
	276 - 277	10	-	0.1	<5	21	29	49	1	47
	277 - 278	2	-	0.1	<5	20	27	55	1	51
	278 - 279	Nil	-	0.1	<5	20	45	49	1	55
	279 - 280	Nil	-	0.1	<5	21	33	54	1	57
	280 - 281	Nil	-	0.1	<5	19	19	47	1	45
	281 - 282	Nil	Nil	0.1	<5	19	63	49	1	67
	282 - 283	Nil	-	0.1	<5	20	41	52	1	54
	283 - 284	Nil	-	0.1	<5	21	44	54	1	55
	284 - 285	Nil	-	0.1	<5	22	29	57	1	60
	285 - 286	Nil	-	0.1	<5	24	90	69	1	61
	286 - 287	Nil	-	0.1	<5	19	31	52	1	54
	287 - 288	Nil	-	0.1	<5	22	12	51	3	54
	288 - 289	Nil	-	0.1	<5	27	67	110	1	52
	289 - 290	Nil	-	0.1	<5	22	41	88	1	44
	290 - 291	Nil	-	0.1	<5	21	57	77	1	45
	291 - 292	10	-	0.1	<5	22	74	85	1	51
	292 - 293	7 N'1	-	0.1	<5	25	32	86	1	57 52
	293 - 294	Nil	-	0.1	<5	23	56	93 75	1	53
	294 - 295	Nil	-	0.1	<5	26	34	75	1	53
_	295 - 296	Nil 7	- N:1	0.1	<5	33 24	44 28	222	1	66 19
	296 - 297	7	Nil	0.1	95	34	38	269	1	18

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29	97 - 298	Nil	-	0.1	85	47	25	263	1	16
	98 - 299	Nil	-	0.1	377	60	39	571	1	18
29	99 - 300	Nil	-	0.1	107	72	58	1030	1	18
<u> </u>	00 - 301	Nil	-	0.1	57	61	55	643	48	46
	01 - 302	Nil	Nil	0.1	15	63	35	944	391	388
30	02 - 303	2	-	0.1	<5	62	53	805	49	52
30	03 - 304	10	-	0.4	61	66	43	894	26	33
30	04 - 305	Nil	-	0.1	226	44	52	701	41	24
30	05 - 306	Nil	-	0.1	<5	33	42	469	8	23
30	06 - 307	Nil	Nil	0.1	61	58	37	570	78	41
30	07 - 308	Nil	-	0.1	82	72	73	1030	548	25
30	08 - 309	7	-	0.1	10	67	71	1050	15	19
30	09 - 310	3	-	0.1	<5	62	152	465	1	22
31	10 - 311	14	-	0.1	<5	52	221	357	1	21
31	11 - 312	2	-	0.1	<5	25	7	349	1	43
31	12 - 313	Nil	-	0.1	<5	75	69	447	1	41
31	13 - 314	Nil	-	0.1	<5	53	30	425	1	21
31	14 - 315	Nil	-	0.1	<5	61	39	418	1	25
31	15 - 316	Nil	-	0.1	<5	60	67	457	1	31
31	16 - 317	3	-	0.1	<5	31	4	322	1	63
31	17 - 318	7	-	0.1	<5	51	58	762	1	41
31	18 - 319	2	-	0.1	<5	52	42	488	1	23
31	19 - 320	Nil	-	0.1	<5	26	9	285	1	38
32	20 - 321	Nil	-	0.1	<5	37	19	351	1	54
32	21 - 322	7	-	0.1	<5	47	73	366	1	25
32	22 - 323	Nil	-	0.1	<5	80	38	731	1	19
32	23 - 324	Nil	Nil	0.1	<5	83	40	678	1	16
	24.0 - 324.5	17	-	0.1	<5	69	119	343	1	17
	24.5 - 325.0	Nil	-	0.1	17	73	75	300	1	13
<u> </u>	25.0 - 325.5	2	-	0.1	<5	22	33	169	1	30
— —	25.5 - 326.0	7	-	0.1	<5	19	73	207	1	35
	26.0 - 326.5	21	-	0.1	<5	45	77	393	1	27
	26.5 - 327.0	Nil	-	0.1	<5	57	61	716	1	18
	27.0 - 327.5	Nil	-	0.1	<5	78	30	1450	1	22
— — —	27.5 - 328.0	7	-	0.1	<5	60	40	_1080_	1	22
<u> </u>	28.0 - 328.5	2	-	0.1	<5	48	44	693	1	45
	28.5 - 329.0	7	-	0.1	6	60	83	728	5	26
	29.0 - 329.5	Nil	-	0.1	41	77	67	936	17	21
	29.5 - 330.0	Nil	-	0.1	37	69	65	928	5	21
— —	30.0 - 330.5	Nil	-	0.1	10	73	72	_844	2	21
	30.5 - 331.0	165	-	0.7	7	47	67	_713	7	66
	31.0 - 331.5	154	-	0.8	<5	57	65	880	9	105
	31.5 - 332.0	864	-	2.4	<5	38	58	466	22	85
	32.0 - 332.5	1337	-	1.1	<5	22	43	156	4	30
33	32.5 - 333.0	682	-	0.3	<5	19	31	95	6	29

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	333.0 - 333.5	5486	-	1.4	<5	20	17	95	6	39
	333.5 - 334.0	6583	-	1.1	<5	21	21	98	6	45
	334.0 - 334.5	603	-	0.1	<5	23	13	110	3	81
	334.5 - 335.0	1639	-	0.5	<5	33	22	141	27	56
	335.0 - 335.5	819	-	0.9	<5	40	57	537	27	74
	335.5 - 336.0	250	-	0.3	<5	23	120	122	1	100
	336.0 - 336.5	257	-	0.1	<5	26	48	119	1	107
	336.5 - 337.0	2595	-	0.6	<5	22	36	118	6	58
	337.0 - 337.5	1382	1272	0.9	6	38	51	601	8	62
_	337.5 - 338.0	Nil	-	0.2	6	57	108	1160	1	45
_	338.0 - 338.5	Nil	-	0.2	<5	51	133	1070	1	42
_	338.5 - 339.0	123	-	0.5	<5	41	41	545	13	95
_	339.0 - 339.5	2	-	0.1	<5	44	100	856	1	58
	339.5 - 340.0	Nil	-	0.2	<5	50	124	800	7	44
	340.0 - 340.5	58	-	0.1	<5	37	251	841	1	58
	340.5 - 341.0	7	-	0.1	<5	22	81	110	1	53
	341.0 - 341.5	2	-	0.1	<5	27	176	230	1	69
	341.5 - 342.0	Nil	-	0.1	<5	33	140	582	1	64
	342.0 - 342.5	Nil	-	0.2	<5	20	100	129	1	56
	342.5 - 343.0	230	-	0.2	<5	21	47	114	1	54
	343.0 - 343.5	17	-	0.2	<5	16	139	74	2	38
	343.5 - 344.0	24	-	0.1	<5	14	57	71	7	45
	344.0 - 344.5	10	-	0.1	<5	72	52	_449	1	18
	344.5 - 345.0	Nil	Nil	0.1	37	61	80	681	1	28
	345.0 - 345.5	10	-	0.1	22	69	67	_743	1	25
	345.5 - 346.0	14	-	0.1	60	70	74	688	1	27
	346.0 - 346.5	Nil	-	0.1	<5	26	91	_271	1	61
	346.5 - 347.0	Nil	-	0.1	196	75	59	742	1	24
	347.0 - 347.5	Nil	-	0.2	88	81	69	660	1	25
	347.5 - 348.0	Nil	-	0.1	23	65	44	_841	1	25
	348.0 - 348.5	Nil	Nil	0.1	12	61	64	725	1	30
	348.5 - 349.0	2	-	0.2	<5	75	72	_753	1	25
	349.0 - 349.5	Nil	-	0.1	<5	55	83	743	1	33
	349.5 - 350.0	Nil	-	0.1	<5	61	70	796	1	31
	350.0 - 350.5	Nil	-	0.1	<5	80	75 62	948	5	32
	350.5 - 351.0	Nil	-	0.2	<5	68 (7	63	_756	2	35
	351.0 - 351.5	Nil	-	0.2	<5	67	62	900	1	20
	351.5 - 352.0	Nil	-	0.2	44	71	60 91	758	1	23
	352.0 - 352.5	Nil	- NT:1	0.1	34	62	81 79	692	1	22
	352.5 - 353.0	Nil	Nil	0.3	17	61 52	78 70	637	1	23
	353.0 - 353.5	2 N:1	-	0.3	21	52 50	79 85	612	1	21
	353.5 - 354.0	Nil Nil	-	0.2	50 °	59 19	85 15	680	1	26 27
	354.0 - 354.5	Nil Nil	-	0.1	8	18	15	354	1	37
	354.5 - 355.0	Nil	-	0.1	11 16	42	32 8	574	1	44 25
	355.0 - 355.5	10	-	0.1	16	24	0	485	6	35

									42
355.5 - 356.0	Nil	-	0.1	<5	23	13	283	1	35
356.0 - 356.5	Nil	Nil	0.1	53	51	8	505	1	43
356.5 - 357.0	Nil	-	0.1	<5	44	14	974	1	52
357.0 - 357.5	17	-	0.1	12	57	93	841	1	58
357.5 - 358.5	58	-	0.1	45	71	148	864	1	63
358.5 - 359.0	Nil	-	0.1	<5	19	88	88	3	32
359.0 - 359.5	Nil	-	0.1	<5	16	63	85	10	30
359.5 - 360.0	3	-	0.1	<5	17	7	105	1	25
360 - 361	Nil	-	0.1	<5	26	36	242	1	38
361 - 362	Nil	-	0.1	<5	16	10	95	1	29
362 - 363	31	-	0.1	<5	24	6	157	2	44
363.0 - 363.5	Nil	-	0.1	<5	19	8	219	1	59
363.5 - 364.0	62	-	0.1	12	55	89	735	1	49
364.0 - 364.5	72	-	0.1	<5	20	47	163	1	44
364.5 - 365.0	Nil	-	0.1	26	17	8	86	1	36
365.0 - 365.5	10	7	0.1	15	42	51	528	1	63
365.5 - 366.0	Nil	-	0.1	8	30	81	459	1	44
366.0 - 366.5	Nil	-	0.1	<5	37	43	517	1	57
366.5 - 367.0	Nil	-	0.1	<5	34	32	449	1	79
367.0 - 367.5	Nil	-	0.1	<5	26	38	255	1	67
367.5 - 368.0	Nil	-	0.1	64	48	97	531	4	36
368.0 - 368.5	Nil	-	0.1	73	66	134	596	1	21
368.5 - 369.0	Nil	-	0.1	66	58	94	606	1	23
369.0 - 369.5	Nil	-	0.1	57	47	87	566	1	20
369.5 - 370.0	Nil	-	0.1	95	65	67	_700	1	19
370.0 - 370.5	Nil	-	0.1	85	63	74	696	1	20
370.5 - 371.0	Nil	Nil	0.1	34	56	55	652	1	16
371.0 - 371.5	Nil	-	0.1	20	72	45	660	1	19
371.5 - 372.0	Nil	-	0.1	31	58	56	529	1	21
372.0 - 372.5	Nil	-	0.1	11	64	46	_681	1	20
372.5 - 373.0	Nil	-	0.1	10	56	71	_568	1	18
373.0 - 373.5	Nil	-	0.1	19	64	86	_449	1	21
373.5 - 374.0	3	-	0.1	21	55	164	412	1	23
374.0 - 374.5	10	-	0.1	14	24	43	220	1	23
374.5 - 375.0	Nil	Nil	0.1	<5	12	9	89	1	27
375.0 - 375.5	Nil	-	0.2	11	60	185	_511	1	38
375.5 - 376.0	Nil	-	0.2	<5	57	140	564	1	41
376.0 - 377.0	Nil	-	0.1	<5	7	27	30	1	23
378.7 - 379.1	Nil	-	0.1	<5	18	15	391	1	44
433.5 - 434.2	Nil	-	0.1	<5	20	125	62	5	60
442.2 - 442.7	Nil	-	0.1	<5	20	56	57	2	66
450.9 - 451.9	Nil	-	0.1	<5	17	35	53	1	52
451.9 - 452.9	Nil	-	0.1	<5	18	57	55	1	51
453.3 - 453.7	Nil	-	0.1	20	17	62	55	1	52
486.5 - 486.7	Nil	-	0.1	<5	11	16	53	6	61

	87.5 - 488.3	Ni).1).1	<5	13 12			55 44	1	64 50
	19.3 - 419.8 94.6 - 495.1	Ni 17).1).1	<5 15	12			44 46	1 1	50 43
	10.0 - 510.1	Ni).2	<5	75			+0 154	20	43 66
	10.0 510.1	111	1	``			15	ľ	11	131	20	00
Sample Number	Depth	A	Au C	Check	Ag	j	As (Со	Cu	Ni	Pb	Zn
50551	36 - 37	DUG-3-07	154	-		0.2	<5	16	72	58	11	56
50552	37 - 38		291	-		0.2	<5	15	55	64	16	54
50553	38.0 - 38.7	_	161	-		0.2	<5	16	83	61	1	58
50503	63 -64		10	-		0.1	<5	13	26	35	1	42
50504	64 - 65 65 - 66		14 247	-		0.1	<5	15	151	44 50	1	53 72
50505 50506	65 - 66 66 - 67		Nil	-		0.1 0.1	<5 <5	18 10	63 30	58 30	30 1	72 33
50507	67-68		Nil	Nil		0.1	<5 <5	10	34	33	1	31
50508	68 - 69		168	-		0.1	<5	16	51	66	26	55
50509	69 - 70		Nil	-		0.1	<5	18	47	68	1	57
50510	70 - 71		65	-		0.1	<5	19	34	80	3	61
50511	71 - 72		41	-		0.1	<5	17	12	61	16	51
50512	72 - 73		137	-		0.1	<5	15	143	64	2	53
50513	73 - 74		Nil	-		0.1	<5	14	40	60	1	48
50514	74 - 75		Nil	-		0.1	<5	16	87	67	1	63
50515	75 - 76		Nil	-		0.1	<5	16	57	65	1	59
50516	76 - 77		237	-		0.1	<5	18	55	71	1	67
50517	77 - 78		830	-		0.2	<5	15	58	56	1	48
50518 50519	78 - 79 70 - 80		538 130		72	0.3 0.1	<5 <5	16 16	42 59	61 66	1	50 61
50519	79 - 80 80 - 81		130	- '	Z	0.1	<5 <5	16	39 37	64	6 1	60
50520	81 - 82		45	-		0.1	<5	17	25	70	1	62
50522	82 - 83		590	-		0.3	<5	16	39	60	1	55
50523	83 - 84		58	-		0.1	<5	17	14	62	1	64
50524	84 - 85		6994	-		0.8	8	19	18	65	10	24
50525	85 - 86		2112	-		0.8	<5	15	52	51	1	55
50526	86 - 87		110	-		0.1	<5	14	72	42	1	45
50527	87 - 88		909	-		0.2	<5	15	144	48	69	49
50528	88 - 89		Nil	-		0.1	<5	7	60	22	1	24
50529	89 - 90		55	-		0.1	<5	7	37	31	1	27
50530 50531	90 - 91 91 - 92		10 168	-		0.1	<5	6 10	33	27 44	1	23 33
50531 50532	91 - 92 92 - 93		Nil	- Nil		0.2 0.1	<5 <5	10 7	125 31	44 29	90 1	33 26
50532	92 - 93 93 - 94		391	-		0.1	<5 <5	7	57	29 29	7	20
50534	94 - 95		1125	-		0.7	<5	9	342	36	4	69
50535	95 - 96		31	-		0.2	<5	9	23	34	1	34
50536	96 - 97		106	-		0.1	<5	8	27	29	1	28
50537	97 - 98		2318	-		0.7	<5	10	77	40	1	35
50538	98 - 99		497	44	12	0.3	<5	18	48	138	2	50
50539	99 - 100		939	-		0.6	<5	16	37	56	131	43
50540	100 - 101		Nil	-		0.1	<5	9	57	31	1	33

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50541	101 - 102	Nil	_	0.1	<5	8	50	28	1	 29
50542	102 - 103	223	-	0.1	<5	9	76	35	6	32
50543	103 - 104	Nil	_	0.2	<5	12	53	42	7	38
50544	104 - 105	648	583	0.1	<5	16	54	57	3	50
50545	105 - 106	Nil	- 000	0.1	<5	18	43	66	1	57
50546	106 - 107	Nil	_	0.1	<5	20	35	65	1	67
50547	107 - 108	24	-	0.1	<5	21	35	69	1	69
50404	108.0 - 108.5	Nil	-	0.1	<5	18	21	71	1	64
50405	108.5 - 109.0	Nil	-	0.1	<5	17	33	58	1	55
50406	109.0 - 109.5	Nil	-	0.1	<5	20	43	68	1	63
50407	109.5 - 110.0	130	-	0.1	<5	19	51	58	1	63
50408	110.0 - 110.5	1224	-	0.2	<5	18	65	62	1	52
50409	110.5 - 111.0	1118	-	0.2	<5	13	35	48	1	33
50410	111.0 - 111.5	494	-	1.1	<5	12	26	50	1	38
50411	111.5 - 112.0	23863	25234	3.4	<5	15	40	49	5	66
50412	112.0 - 112.5	14263	14263	1.6	<5	12	20	46	2	29
50413	112.5 - 113.0	1457	-	0.4	<5	12	13	42	5	28
50414	113.0 - 113.5	494	-	0.2	<5	14	62	61	2	32
50415	113.5 - 114.0	261	-	0.2	<5	15	43	62	1	47
50416	114.0 - 114.5	192	-	0.2	<5	12	23	66	1	56
50417	114.5 - 115.0	199	-	0.2	<5	15	129	58	1	60
50418	115.0 - 115.5	994	-	0.2	<5	12	23	45	1	42
50419	115.5 - 116.0	429	-	0.1	<5	11	25	40	1	35
50420	116.0 - 116.5	1433	-	0.2	<5	9	27	30	1	34
50421	116.5 - 117.0	583	-	0.2	<5	11	33	42	1	43
50422	117.0 - 117.5	528	-	0.3	<5	17	40	57	1	48
50423	117.5 - 118.0	603	-	0.1	<5	20	20	68	1	61
50424	118.0 - 118.5	1491	-	0.4	<5	17	41	64	1	41
50425	118.5 - 119.0	1053	-	0.7	<5	17	21	55	10	20
50426	119.0 - 119.5	854	-	0.4	10	14	22	47	2	21
50427	119.5 - 120.0	33806	31680	2.9	<5	18	21	61	2	39
50428	120.0 - 120.5	665	-	0.2	<5	17	69	60	1	49
50429	120.5 - 121.0	24	-	0.1	<5	18	47	62	1	54
50430	121.0 - 121.5	Nil	-	0.1	<5	17	59	59	1	53
50431	121.5 - 122.0	86	-	0.1	<5	17	43	61	1	55
50432	122.0 - 122.5	79	-	0.1	<5	18	23	70	1	56
50433	122.5 - 123.0	Nil	-	0.1	<5	19	19	73	1	58
50434	123.0 - 123.5	230	-	0.2	<5	17	71	57	1	48
50435	123.5 - 124.0	127	-	0.1	<5	16	36	51	1	50
50436	124.0 - 124.5	34	-	0.2	<5	17	44	56	1	38
50437	124.5 - 125.0	51	-	0.1	<5	18	46	65	1	43
50438	125.0 - 125.5	432	-	0.2	<5	19	65	57	1	55
50439	125.5 - 126.0	2475	-	0.9	<5	18	113	56	1	58
50440	126.0 - 126.5	699		0.6	<5	20	490	72	1	59
50441	126.5 - 127.0	562	741	0.4	<5	19	28	64 70	4	25
50442	127.0 - 127.5	240	-	0.3	<5	20	18	72	3	22
50443	127.5 - 128.0	672	535	0.4	<5	18	38	61	4	30 25
50444	128.0 - 128.5	713	-	0.4	<5	17	90	54	3	25

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50445	128.5 - 129.0	775	-	0.3	<5	18	75	55	2	
50446	129.0 - 129.5	927	-	0.2	9	19	97	55	2	37
50447	129.5 - 130.0	1234	-	0.3	<5	19	73	58	4	22
50448	130.0 - 130.5	816	720	0.2	<5	17	19	50	5	17
50449	130.5 - 131.0	459	-	0.2	<5	14	15	38	5	15
50450	131.0 - 131.5	4937	-	1.5	<5	8	7	27	5	13
50451	131.5 - 132.0	7474	-	2	<5	11	9	40	10	25
50452	132.0 - 132.5	19337	19200	10.3	<5	15	17	47	53	33
50453	132.5 - 133.0	17829	-	3.7	<5	16	9	110	33	16
50454	133.0 - 133.5	374	-	0.2	<5	7	8	24	6	7
50455	133.5 - 134.0	363	-	0.4	<5	17	13	46	4	27
50456	134.0 - 134.5	830	-	0.2	7	18	104	55	4	54
50457	134.5 - 135.0	370	-	0.1	<5	13	53	62	1	25
50458	135.0 - 135.5	278	-	0.1	<5	14	78	117	8	53
50459	135.5 - 136.0	405	-	3.1	<5	35	23	540	27	31
50460	136.0 - 136.5	12686	-	16.5	<5	28	45	388	24	42
50461	136.5 - 137.0	4389	5280	1.1	6	17	27	62	9	36
50462	137.0 - 137.5	1262	-	0.1	7	17	48	57	3	47
50463	137.5 - 138.0	507	-	0.1	<5	15	21	58	2	42
50464	138.0 - 138.5	8914	-	1.1	<5	15	17	70	2	45
50465	138.5 - 139.0	891	-	0.1	<5	14	28	57	1	41
50466	139.0 - 139.5	79	-	0.1	<5	14	30	60	1	47
50467	139.5 - 140.0	27	-	0.1	<5	16	15	118	1	53
50468	140.0 - 140.5	384	-	0.1	<5	12	26	47	1	41
50469	140.5 - 141.0	1183	-	0.3	<5	16	44	56	2	54
50470	141.0 - 141.5	147	-	0.1	<5	15	28	59	1	56
50471	141.5 - 142.0	10	-	0.1	<5	17	28	66	1	57
50472	142.0 - 142.5	1038	-	0.1	<5	15	23	62	1	41
50473	142.5 - 143.0	7	-	0.1	<5	20	24	81	1	60
50474	143.0 - 143.5	3	-	0.1	<5	18	53	77	1	48
50475	143.5 - 144.0	14	3	0.1	<5	15	47	74	1	47
50476	144.0 - 144.5	Nil	-	0.1	<5	18	43	78	1	51
50477	144.5 - 145.0	25	-	0.1	<5	19	32	78	1	53
50478	145.0 - 145.5	490	-	0.1	<5	14	26	57	1	34
50479	145.5 - 146.0	106	-	0.1	<5	22	37	89	1	65
50480	146.0 - 146.5	2	-	0.1	<5	23	39	97	1	61
50481	146.5 - 147.0	Nil	-	0.1	<5	22	50	103	1	66
50482	147.0 - 147.5	Nil	-	0.1	<5	21	36	93	1	64
50483	147.5 - 148.0	257	-	0.1	<5	20	27	88	1	63
50484	148.0 - 148.5	6926	-	1.8	<5	16	52	55	7	26
50485	148.5 - 149.0	1687	1701	0.6	39	22	29	67	23	35
50486	149.0 - 149.5	120	-	0.5	<5	21	9	62	9	28
50487	149.5 - 150.0	1385	-	0.4	<5	18	11	63 63	10	38
50488	150.0 - 150.5	Nil	-	0.1	<5	13	30	68 75	4	53
50489	150.5 - 151.0	45	-	0.1	<5	18	13	75 00	1	52
50490	151.0 - 151.5	120	-	0.1	<5	15	12	69 79	2	57 56
50491	151.5 - 152.0	2	-	0.1	<5	17 17	14	78 75	1	56
50492	152.0 - 152.5	10	-	0.1	<5	17	20	75	1	50

50493 $152.5 - 153.0$ Nil- 0.1 <5 14 18 67 1 48 50494 $153.0 - 153.5$ 14 - 0.1 <5 16 11 73 1 53 50495 $153.5 - 154.0$ 7 - 0.1 <5 17 19 81 1 57 50496 $154.0 - 154.5$ 2 - 0.1 <5 13 7 65 1 46 50497 $154.5 - 155.0$ Nil- 0.1 <5 12 37 59 1 45 50498 $155.0 - 155.5$ 211 - 0.1 <5 14 27 65 1 47 50499 $155.5 - 156.0$ Nil- 0.1 <5 14 27 65 1 49 50500 $156.0 - 156.5$ Nil- 0.1 <5 14 39 65 1 50 50502 $157.0 - 157.5$ Nil- 0.1 <5 14 39 65 1 50 50550 $216.0 - 217.2$ 226 - 0.1 <5 14 70 47 1 45 50554 $232.0 - 233.2$ Nil- 0.1 <5 23 59 92 1 66 50555 $241.0 - 242.0$ 17 - 0.1 <5 23 57 76 1 73 50556 $252.5 - 256.5$ Nil- 0.1 <5											46
50495 $153.5 - 154.0$ 7 $ 0.1$ <5 17 19 81 1 57 50496 $154.0 - 154.5$ 2 $ 0.1$ <5 13 7 65 1 46 50497 $154.5 - 155.0$ Nil $ 0.1$ <5 12 37 59 1 45 50498 $155.0 - 155.5$ 21 $ 0.1$ <5 14 25 65 1 47 50499 $155.5 - 156.0$ Nil $ 0.1$ <5 14 27 65 1 49 50500 $156.5 - 157.0$ 41 $ 0.1$ <5 14 39 65 1 50 50502 $157.0 - 157.5$ Nil $ 0.1$ <5 14 39 65 1 50 50548 $178.8 - 179.8$ Nil $ 0.1$ <5 16 85 202 8 30 50549 $181.0 - 182.0$ Nil $ 0.1$ <5 16 85 202 8 30 50550 $216.0 - 217.2$ 226 $ 0.1$ <5 14 70 47 1 45 50554 $232.0 - 233.2$ Nil $ 0.1$ <5 23 59 92 1 66 50555 $241.0 - 242.0$ 17 $ 0.1$ <5 22 88 703 1 39 50556 $252.5 - 256.5$ NilNi	50493	152.5 - 153.0	Nil	-	0.1	<5	14	18	67	1	48
50496 $154.0 - 154.5$ 2 $ 0.1$ <5 13 7 65 1 46 50497 $154.5 - 155.0$ Nil $ 0.1$ <5 12 37 59 1 45 50498 $155.0 - 155.5$ 211 $ 0.1$ <5 14 25 65 1 47 50499 $155.5 - 156.0$ Nil $ 0.1$ <5 14 27 65 1 49 50500 $156.0 - 156.5$ Nil $ 0.1$ <5 19 44 79 1 58 50501 $156.5 - 157.0$ 41 $ 0.1$ <5 14 39 65 1 50 50502 $157.0 - 157.5$ Nil $ 0.1$ <5 13 36 61 7 38 50548 $178.8 - 179.8$ Nil $ 0.1$ <5 16 85 202 8 30 50549 $181.0 - 182.0$ Nil $ 0.1$ <5 14 70 47 1 45 50550 $216.0 - 217.2$ 2266 $ 0.1$ <5 23 59 92 1 66 50554 $232.0 - 233.2$ Nil $ 0.1$ <5 28 201 433 1 50 50555 $241.0 - 242.0$ 17 $ 0.1$ <5 28 703 1 39 50558 $265.9 - 266.6$ Nil $-$	50494	153.0 - 153.5	14	-	0.1	<5	16	11	73	1	53
50497 $154.5 - 155.0$ Nil- 0.1 <5 12 37 59 1 45 50498 $155.0 - 155.5$ 21 - 0.1 <5 14 25 65 1 47 50499 $155.5 - 156.0$ Nil- 0.1 <5 14 27 65 1 49 50500 $156.0 - 156.5$ Nil- 0.1 <5 19 44 79 1 58 50501 $156.5 - 157.0$ 41 - 0.1 <5 14 39 65 1 50 50502 $157.0 - 157.5$ Nil- 0.1 <5 16 85 202 8 30 50548 $178.8 - 179.8$ Nil- 0.1 <5 16 85 202 8 30 50549 $181.0 - 182.0$ Nil- 0.1 <5 14 70 47 1 45 50550 $216.0 - 217.2$ 226 - 0.1 <5 22 51 98 1 68 50554 $232.0 - 233.2$ Nil- 0.1 <5 23 59 92 1 66 50555 $241.0 - 242.0$ 17 - 0.1 <5 22 88 703 1 39 50556 $252.5 - 256.5$ NilNil- 0.1 <5 22 88 703 1 39 50558 266.6 Nil- 0.1	50495	153.5 - 154.0	7	-	0.1	<5	17	19	81	1	57
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50496	154.0 - 154.5	2	-	0.1	<5	13	7	65	1	46
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50497	154.5 - 155.0	Nil	-	0.1	<5	12	37	59	1	45
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50498	155.0 - 155.5	21	-	0.1	<5	14	25	65	1	47
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50499	155.5 - 156.0	Nil	-	0.1	<5	14	27	65	1	49
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	50500	156.0 - 156.5	Nil	-	0.1	<5	19	44	79	1	58
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	50501	156.5 - 157.0	41	-	0.1	<5	14	39	65	1	50
50549 181.0 - 182.0 Nil - 0.1 <5	50502	157.0 - 157.5	Nil	-	0.1	<5	13	36	61	7	38
50549 181.0 - 182.0 Nil - 0.1 <5											
50550 216.0 - 217.2 226 - 0.1 <5	50548	178.8 - 179.8	Nil	-	0.1	<5	16	85	202	8	30
50561 219.6 - 220.6 10 - 0.1 <5	50549	181.0 - 182.0	Nil	-	0.1	<5	14	70	47	1	45
50554 232.0 - 233.2 Nil - 0.1 <5	50550	216.0 - 217.2	226	-	0.1	<5	22	51	98	1	68
50555 241.0 - 242.0 17 0.1 <5	50561	219.6 - 220.6	10	-	0.1	<5	13	56	36	1	34
50556 252.5 - 253.5 Nil - 0.1 <5	50554	232.0 - 233.2	Nil	-	0.1	<5	23	59	92	1	66
50557 255.5 - 256.5 Nil Nil 0.1 <5	50555	241.0 - 242.0	17	-	0.1	<5	28	201	433	1	50
50558 265.9 - 266.6 Nil - 0.1 <5	50556	252.5 - 253.5	Nil	-	0.1	<5	32	131	456	1	58
50559 268.5 - 270.0 Nil - 0.1 <5	50557	255.5 - 256.5	Nil	Nil	0.1	<5	52	88	703	1	39
50562297.3 - 298.0Nil-0.1<52989109189350563320.3 - 321.3Nil-0.1<5	50558	265.9 - 266.6	Nil	-	0.1	<5	29	12	102	1	84
50563 320.3 - 321.3 Nil - 0.1 <5	50559	268.5 - 270.0	Nil	-	0.1	<5	23	57	76	1	73
50560 364.1 - 365.3 31 - 0.1 <5 25 48 91 1 60	50562	297.3 - 298.0	Nil	-	0.1	<5	29	89	109	18	93
	50563	320.3 - 321.3	Nil	-	0.1	<5	22	94	68	1	68
50564 391.6 - 392.5 21 - 1.4 <5 31 520 82 103 33	50560	364.1 - 365.3	31	-	0.1	<5	25	48	91	1	60
	50564	391.6 - 392.5	21	-	1.4	<5	31	520	82	103	33

Sample Number	Depth of Sample	Hole	Au	Check	Ag	As	Co	Cu	Ni	Pb	Zn
50378	24.2 - 25.0	DUG-07-2	189	0.2	<5 27	7	143	36 2	5	127	
50379	25 - 26		82	-	0.2	<5	33	87	39	397	162
50380	26 - 27		Nil	-	0.2	<5	22	151	29	10	89
50381	27 - 28		Nil	-	0.2	<5	26	150	31	24	104
50382	28 - 29		Nil	-	0.1	<5	24	137	30	9	100
50383	29 - 30		27	-	0.1	<5	22	141	28	4	73
50384	30 - 31		Nil	-	0.1	<5	21	133	28	1	70
50385	31 - 32		Nil	-	0.2	<5	23	153	33	4	86
50386	32 - 33		Nil	-	0.1	<5	23	147	31	1	81
50387	33 - 34		7	Nil	0.1	<5	22	154	30	1	86
50388	34 - 35		Nil	-	0.1	<5	24	142	38	1	90
50389	35 - 36		Nil	-	0.1	<5	26	152	38	28	123
50390	36 - 37		Nil	-	0.1	<5	24	141	35	1	83
50391	37 - 38		Nil	-	0.1	<5	22	135	31	1	77
50392	38 - 39		2	-	0.1	<5	25	146	33	1	97
50393	39 - 40		Nil	-	0.1	<5	24	144	31	1	88
50394	40 - 41		Nil	-	0.1	<5	24	143	33	3	100
50395	41 - 42		14	-	0.1	<5	23	125	29	3	85
50396	42 - 43		10	-	0.1	<5	23	138	30	2	85

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50397	43 - 44		2	-	0.1	<5	23	144	29	1	84
50398	44 - 45		Nil	-	0.1	<5	24	154	32	1	112
50399	45 - 46	_	3	-	0.1	<5	23	153	31	1	84
50400	46 - 47	_	Nil	-	0.1	<5	22	148	30	1	71
50401	47 - 48		Nil	-	0.2	<5	21	149	31	1	72
50402	48 - 49		10	Nil	0.2	<5	23	151	30	1	82
50403	49 - 50		Nil	-	0.2	<5	17	118	29	38	83
50565	300.0 - 300.5		110	-	0.1	<5	12	22	46	1	41
50566	300.5 - 301.0		151	-	0.1	<5	13	12	50	1	46
50567	301.0 - 301.5		21	-	0.1	<5	10	15	47	1	39
50568	301.5 - 302.0		823	-	0.1	<5	20	49	77	6	71
50569	302.0 - 302.5		295	-	0.1	<5	18	61	64	1	74
50570	302.5 - 303.0		799	-	0.9	<5	16	13	55	47	44
50571	303.0 - 303.5		2174	-	1.1	<5	15	38	53	52	42
50572	303.5 - 304.0		2222	-	0.7	<5	15	46	56	8	49
50573	304.0 - 304.5		600	-	0.1	<5	16	37	54	1	53
50574	304.5 - 305.0		3130	3051	0.6	<5	16	27	60	12	44
50575	305.0 - 305.5		573	-	0.3	<5	16	33	56	3	50
50576	305.5 - 306.0		82	48	0.1	<5	11	22	42	1	35
50593	308.6 - 309.6		325	-	0.2	<5	17	52	75	2	56
50577	321.0 - 321.4		2469	-	0.6	<5	14	41	54	33	48
50578	322.6 - 323.0		929	-	0.4	<5	15	60	61	27	64
50587	331.0 - 331.6		2475	-	0.7	<5	14	40	61	31	46
50579	333.8 - 334.6		202	-	0.1	<5	15	31	58	1	51
50580	334.6 -335.6		1704	-	0.7	<5	17	97	63	15	56
50581	369.2 - 370.2		559	-	0.2	<5	15	100	55	3	50
50582	370.2 - 371.2		638	-	0.1	<5	14	45	57	2	46
50583	371.2 - 372.2		360	-	0.1	<5	13	46	49	2	42
50584	372.2 - 373.2	_	1611	1714	0.1	<5	11	35	41	1	35
50585	373.2 - 374.2	_	27	-	0.1	<5	14	23	63	1	41
50586	374.2 - 374.9	_	720	-	0.3	<5	29	76	70	2	73
50588	399.0 - 400.0		38	-	0.1	<5	18	45	59	1	48
50589	400.0 - 401.0		24	-	0.1	<5	18	77	91	1	49
50590	401.0 - 402.0		34	-	0.1	<5	21	44	61	1	52
50591	402.0 - 403.0		165	-	0.2	<5	29	63	70	4	62
50592	415.1 - 416.2		651	-	0.2	<5	20	47	79	141	55
	Depth of Sample Hole		Au (Check	Aσ	As	Co	Cu	Ni	Ph	Zn

	Depth of Sample	Hole		Au	Check	Ag	As	Co	Cu	Ni	Pb	Zn
4	5.5	DUG -4-07	50598	Nil	-	0.2	<5	13	133	27	92	54
9	10		50599	31	-	0.1	<5	12	135	25	1	48
21.6	22.3		50600	27	-	0.1	<5	12	51	42	7	51
22.3	23		50601	10	-	0.2	<5	10	40	18	2	84
23	24		50602	55	-	0.1	<5	12	78	47	2	99
24	25		50603	21	-	0.1	<5	10	28	98	1	56
27	25		50005	<i>2</i> 1	-	0.1	\smallsetminus	10	20	70	1	50

												48
25	26		50604	17	_	0.1	<5	10	48	28	1	40 72
23 26	20 27		50605	10		0.1	<5	10	48 39	28 27	1	53
20 27	28		50605	24	-	0.1	<5 <5	20	48	26	1	49
	28 29				-							
28			50607	27	-7	0.1	<5	11	28	28	1	43
29 20	30		50608	2	7	0.1	<5	13	70	31	2	52
30	31		50609	27	-	0.1	<5	13	55	22	1	51
31	32		50610	Nil	-	0.2	<5	12	42	22	1	52
32	33		50611	10	-	0.2	<5	11	68	25	1	60
33	34		50612	7	-	0.2	<5	10	78 70	20	6	68
34	35		50613	21	-	0.4	<5	10	70	20	4	59
35	36		50614	Nil	-	0.3	<5	10	81	19	2	53
36	37		50615	Nil	-	0.4	<5	9	77	19	1	37
37	38		50616	Nil	-	0.3	<5	9	76	17	1	35
38	39		50617	3	-	0.2	<5	8	65	17	1	26
39	40	_	50618	Nil	-	0.1	<5	10	48	19	1	35
40	41		50619	Nil	Nil	0.1	<5	11	26	21	1	49
41	42		50620	Nil	-	0.1	<5	14	33	19	1	40
42	43		50621	Nil	-	0.1	<5	15	30	22	1	53
43	44		50622	Nil	-	0.2	<5	12	49	21	1	57
44	45		50623	Nil	-	0.3	<5	10	54	18	1	41
45	46		50624	Nil	-	0.4	<5	12	31	19	1	34
46	47		50625	10	-	0.2	<5	11	59	19	1	55
47	48		50626	7	-	0.1	<5	12	89	21	1	54
48	49.5		50627	Nil	-	0.4	<5	17	311	24	1	40
49	50		50628	Nil	-	0.1	<5	11	55	23	1	72
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51	52		50630	Nil	-	0.7	<5	10	116	18	1	40
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53	54		50632	Nil	_	0.6	<5	9	69	19	1	29
54	55		50633	Nil	_	0.2	<5	9	66	18	2	30
55	56		50634	Nil	_	0.5	<5	9	59	20	2	23
56	57		50635	7	_	0.2	<5	11	17	35	1	45
57	58.5		50636	Nil	_	0.2	<5	12	21	18	1	20
58.5	60		50637	Nil	_	0.1	<5	11	31	19	1	31
60	61		50638	2	_	0.1	<5	12	44	21	1	41
61	62		50639	Nil	_	0.1	<5	9	56	20	1	45
62	63		50640	14		0.1	<5	12	50 64	20 19	1	46
63	64		50641	Nil	-	0.1	<5 <5	8	51	18	4	4 0 39
64	65	_	50642	7	-	0.1	<5	9	69	20	4	32
65	66		50642	, Nil	-	0.1	<5	9	09 78	18	4	43
					- NGI							
66 67	67 68		50644	Nil Nil	Nil	0.1	<5	10 °	54 44	18 16	28	52 30
67 68	68 60		50645	Nil	-	0.1	<5	8	44 56	16 17	6	30
68 60	69 70		50646	Nil	-	0.3	<5	9	56	17	10	39
69 70	70		50647	Nil	-	0.1	<5	8	53	18	1	33
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71	72		50649	Nil	_	0.1	<5	9	71	19	5	49 32
72	72 73	_	50650	0.01		0.1	<5	8	77	20	3	32
72	73 74	- Holo4	50651	Nil	-	0.2	<5	o 9	63	20 17	1	24
73 74		_Hole4			- N1:1	0.2		9 7				
	75 76		50652	0.01	Nil		<5		151	14	1	26
75 76	76 77		50653	Nil	-	0.1	<5	6	35	14	1	16
76	77	<u> </u>	50654	Nil	-	0.1	<5	7	26	15	1	19 25
77	78		50655	Nil	-	0.1	<5	8	51	18	1	25
78	79	_	50656	Nil	-	0.1	<5	8	52	16	1	25
79	80		50657	Nil	-	0.1	<5	8	38	18	1	27
80	81		50658	Nil	-	0.1	<5	10	33	20	1	35
81	82		50659	Nil	-	0.1	<5	10	30	22	1	33
82	83		50660	Nil	-	0.1	<5	10	35	21	1	35
83	84		50661	Nil	-	0.1	<5	8	48	17	1	32
84	85		50662	Nil	-	0.1	<5	6	134	11	2	41
85	86		50663	7	-	0.1	<5	7	41	14	1	31
86	87		50664	Nil	-	0.1	<5	8	45	21	1	36
87	88		50665	10	7	0.1	<5	9	64	17	1	28
88	89		50666	7	-	0.1	<5	11	66	18	1	31
89	90		50667	Nil	-	0.1	<5	8	55	17	1	21
90	91		50668	Nil	-	0.1	<5	8	55	16	1	23
91	92		50669	Nil	-	0.1	<5	8	70	15	1	20
92	93		50670	Nil	-	0.1	<5	9	52	16	1	21
93	94		50671	Nil	-	0.1	<5	9	59	17	1	28
94	95		50672	Nil	-	0.1	<5	7	51	16	1	25
95	96		50673	34	-	0.1	<5	8	47	17	1	27
96	97		50674	2	-	0.1	<5	8	58	18	1	27
97	98		50675	Nil	Nil	0.1	<5	8	69	18	1	26
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99	100		50677	Nil	-	0.1	<5	9	36	19	1	29
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103	104		50681	Nil	-	0.1	<5	6	29	17	1	17
104	105		50682	Nil	-	0.1	<5	7	24	21	1	19
105	106		50683	Nil	-	0.1	<5	7	25	23	1	39
106	107		50684	Nil	-	0.1	<5	10	46	21	1	28
107	108		50685	7	-	0.1	<5	9	28	19	1	27
108	109		50686	Nil	Nil	0.1	<5	6	7	23	1	49
109	110		50687	Nil	-	0.1	<5	7	21	21	1	38
110	111		50688	Nil	-	0.1	<5	10	58	18	1	33
111	112		50689	Nil	_	0.1	<5	9	86	17	1	39
112	113		50690	Nil	-	0.1	<5	8	22	16	1	35
112	114		50691	Nil	-	0.1	<5	9	34	18	1	37
114	115		50692	Nil	-	0.1	<5	10	65	43	1	35
115	116	—	50692	Nil	Nil	0.1	<5	9	55	20	1	24
115	110		50075	1,11	1 111	0.1	\ J	,	55	20	T	<i>4</i> -7

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116	117			50694	Nil	_	0.2	<5	8	74	43	1	31
117	118			50695	Nil	_	0.2	<5	10	40	26	1	33
118	119			50696	Nil	_	0.2	<5	6	51	16	1	21
119	120			50697	Nil	_	0.2	<5	6	66	16	1	23
120	120			50698	2	_	0.1	<5	7	67	15	1	23 14
120	121			50699	$\frac{2}{10}$	_	0.2	<5	4	64	13	1	15
121	122			50700	Nil	_	0.0	<5 <5	10	86	13	1	13 27
122	123	Но	10/	50700	Nil	-	0.2	<5 <5	10	42	17	1	32
123	124		104	50701	Nil	- Nil	0.1	<5	10	42 31	30	127	245
124	125			50702	Nil		0.2	<5 <5	46	233	477	8	24 <i>3</i> 88
125	120			50703	2	-	0.1	<5 <5	40 52	168	505	8 1	73
120	127	_		50704	2 Nil	-	0.1	<5	26	51	253	1	43
138	139			50705	7	-	0.1	<5	20 12		233 53		43 43
						-			12	16		1	
140	141			50707	Nil	-	0.3	<5		14 13	22 12	1	48 21
141	142			50708	Nil	-	0.1	<5	7			1	31 46
142	143			50709 50710	Nil	-	0.2	<5	9 21	9	13 45	1	46 77
143	144	_		50710	Nil	-	0.1	<5	21	28	45 64	1	77
144	145			50711	Nil	-	0.1	<5	21	17	64 57	9	66
145	146			50712	Nil	-	0.1	<5	20	12	57	1	66 50
146	147			50713	Nil	-	0.1	<5	24	61	60 82	1	59 59
147	148			50714	Nil 7	- NT:1	0.1	<5	23	65 04	82	1	58
148	149	_		50715	7 N'1	Nil	0.3	<5	25	94 94	81	1	51
149	150			50716	Nil	-	0.3	<5	27	84	201	1	46
375	376			50717	24	-	0.1	<5	27	40	221	1	21
376	377			50718	10	-	0.1	<5	16	15	100	1	31
377	378			50719	7	-	0.1	<5	20	46	139	1	20
378	379			50720	2	7	0.1	<5	41	55	527	1	12
379	380			50721	Nil	-	0.1	<5	38	64	401	1	19
380	381			50722	Nil	-	0.1	<5	47	96	583	1	16
381	382			50723	7	-	0.1	<5	40	69	493	1	19
382	383			50724	Nil	-	0.1	<5	46	55	_537_	1	22
383	384			50725	Nil	-	0.1	<5	34	54	282	1	26
384	384.5			50726	Nil	-	0.1	<5	17	37	93	1	36
384.5	385			50727	216	-	0.1	<5	21	32	108	2	37
385	385.5			50728	134	-	0.1	<5	54	40	_545_	1	105
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386	386.5			50730	219	-	0.1	<5	21	39	85	9	35
386.5	387			50731	158	171	0.2	<5	26	25	129	13	45
387	387.5			50732	113	-	0.1	<5	23	46	118	1	49
387.5	388			50733	281	-	0.1	<5	20	55	101	1	36
388	388.5			50734	89	-	0.1	<5	37	61	311	1	35
388.5	389			50735	99	-	0.1	<5	28	54	193	1	39
389	389.5			50736	213	-	0.1	<5	15	63	72	3	25
389.5	390 200 5			50737	175	-	0.1	<5	16	73	90	5	51
390	390.5			50738	288	-	0.3	<5	16	86	78	4	27

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390.5	391		50739	199	-	0.1	<5	15	68	67	1	28
391	391.5		50740	Nil	_	0.1	<5	19	77	121	1	47
391.5	392		50741	27	-	0.1	<5	10	34	25	1	24
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392.5	393		50743	Nil	-	0.1	<5	12	40	25	1	24
393	393.5		50744	38	-	0.1	<5	10	27	24	1	25
393.5	394		50745	Nil	-	0.1	<5	14	25	27	3	27
394	394.5		50746	137	-	0.1	<5	13	32	28	1	26
394.5	395		50747	Nil	-	0.1	<5	11	13	26	1	29
395	395.5		50748	38	-	0.1	<5	13	27	30	1	33
395.5	396		50749	34	-	0.2	<5	17	35	35	1	37
396	396.5		50750	14	-	0.1	<5	12	30	26	1	28
396.5	397	Hole4	50751	Nil	-	0.1	<5	18	21	38	1	40
347	347.5		50752	7	-	0.1	<5	19	45	86	1	51
397.5	398		50753	Nil	-	0.1	<5	51	100	456	1	34
398	399		50754	51	10	0.1	<5	37	71	323	1	21
399	400		50755	3	-	0.1	<5	44	68	361	1	26
400	400.5		50756	Nil	-	0.1	<5	63	83	481	1	24
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401.5	402.5		50758	Nil	-	0.1	<5	50	41	529	1	30
402.5	403.5		50759	Nil	Nil	0.1	<5	58	53	517	1	33
403.5	404.5		50760	14	-	0.1	<5	56	60	529	1	46
404.5	405		50761	Nil	-	0.1	<5	61	105	612	1	40
405	405.5		50762	7	-	0.1	<5	57	131	551	1	43
405.5	406.5		50763	Nil	-	0.1	<5	63	55	_603_	1	33
406.5	407.5		50764	Nil	-	0.1	<5	55	47	542	1	39
407.5	408.5		50765	Nil	Nil	0.1	<5	47	54	538	1	28
408.5	409.5		50766	10	-	0.1	<5	53	35	585	1	34
409.5	410.5		50767	3	-	0.1	<5	58	39	593	1	41
410.5	411	_	50768	Nil	-	0.2	<5	33	611	358	4	33
411	411.5	_	50769	Nil	-	0.2	<5	12	623	47	4	9
411.5	412	_	50770	Nil	-	0.1	<5	11	310	38	3	9
412	412.5		50771	27	-	0.1	<5	11	381	44	3	11
412.5	413	_	50772	Nil	-	0.1	<5	14	24	55	2	14
413	413.5	_	50773	113	-	0.1	<5	29	12	215	2	27
413.5	414	_	50774	27	-	0.1	<5	10	13	37	1	16
414	414.5	_	50775	Nil	-	0.1	<5	39	23	393	1	36
414.5	415		50776	Nil	-	0.1	<5	53	37	572	1	36
415	415.5		50777	Nil	-	0.1	<5	67 26	51	731	1	55 52
415.5	416		50778	147	-	0.1	<5	36	31	_387_	1	52 20
416	416.5		50779	110 21	-	0.1	<5	46	39 42	442	3	39 25
416.5	417	_	50780	31 NH	- N1:1	0.1	<5	37	42 85	361	1	35
417 417 5	417.5		50781	Nil Nil	Nil	0.1	<5	61 57	85 66	663	3	65 30
417.5	418		50782	Nil Nil	-	0.1	<5		66 52	618 575	1	39 46
418	418.5		50783	Nil	-	0.1	<5	48	53	575	1	46

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418.5	419		50784	Nil	-	0.1	<5	41	31	569	1	35
419	419.5		50785	295	-	0.1	<5	39	38	466	1	45
419.5	420		50786	Nil	-	0.1	<5	45	63	450	1	28
420	420.5		50787	Nil	-	0.1	<5	55	31	566	1	35
420.5	421		50788	Nil	-	0.1	<5	49	40	563	1	37
421	421.5		50789	Nil	-	0.1	<5	52	44	522	1	36
421.5	422		50790	Nil	Nil	0.1	<5	49	33	566	1	43
422	422.5		50791	425	-	0.1	<5	55	35	606	1	55
422.5	423		50792	1269	-	0.1	<5	41	49	401	1	36
423	423.5		50793	651	-	0.1	<5	24	36	217	1	37
423.5	424		50794	2400	2373	0.1	<5	47	70	728	1	44
424	424.5		50795	977	-	0.1	<5	55	51	578	1	36
424.5	425		50796	1107	-	0.1	<5	29	22	270	1	37
425	425.5		50797	905	-	0.1	<5	40	41	730	1	71
425.5	426		50798	Nil	Nil	0.1	<5	48	21	563	1	44
426	427		50799	Nil	-	0.1	<5	43	23	552	1	34
427	428		50800	3	-	0.1	<5	52	30	594	1	24
428	429	Hole4	50801	Nil	-	0.1	<5	47	24	614	1	43
429	430		50802	168	-	0.1	<5	30	8	210	1	38

	Depth	Au	SiO2	Al2O3	Fe203	CaO	MgO	Na2O	K2O	TiO2	P2O5	LOI	Ni	S	С
DUG-1- 07	27	Nil	44.52	8.76	16.49	8.24	19.52	0.29	0.04	1.53	0.23	5.9	761	0.09	< 0.01
DUG-1- 07	27.3	3	62.10	10.78	7.92	10.99	3.94	0.65	2.48	0.53	0.42	5.48	105	0.09	0.02
DUG-1- 07	36.1	3	47.66	8.12	13.78	9.58	18.08	0.59	0.27	1.37	0.16	4.73	827	0.07	<0.01
DUG-1- 07	61	665	59.71	15.19	7.69	3.28	5.83	3.91	3.17	0.72	0.29	3.84	117	0.49	0.25
DUG-1- 07	63	7	61.18	14.93	6.24	4.91	4.18	5.23	2.36	0.55	0.20	1.44	_436 _	0.04	0.08
DUG-1- 07	68	Nil	62.89	15.85	4.84	3.97	3.75	5.72	2.18	0.45	0.18	1.81	889	0.03	0.09
DUG-1- 07	82	Nil	60.29	15.29	6.79	5.30	4.24	5.09	1.98	0.59	0.23	0.78	221	0.06	0.03
DUG-1- 07	86	Nil	56.71	17.12	6.51	6.82	4.65	6.22	0.90	0.66	0.26	6.12	_602 _	0.18	1.12
DUG-1- 07	87	2	60.24	15.36	6.75	5.45	4.27	4.76	2.11	0.60	0.23	1.49	465	0.03	0.04
DUG-1- 07 DUG-1-	93	7	60.20	15.41	6.61	5.26	4.53	4.97	2.00	0.59	0.23	1.59	128	0.04	0.04
07	105	Nil	59.89	15.44	6.95	6.00	4.18	4.50	2.01	0.57	0.23	1.1	475	0.03	0.02
DUG-1- 07 DUG-1-	117	Nil	59.96	15.06	7.40	4.98	4.67	4.77	2.11	0.59	0.22	1.66	187	0.04	0.07
07 DUG-1-	123	10	59.70	15.41	6.84	6.12	4.42	4.44	2.01	0.60	0.23	1.44	221	0.03	0.03
07	135	_27	59.74	15.39	6.83	5.88	4.44	4.37	2.27	0.60	0.24	1.48	_430 _	0.04	0.07
DUG-1- 07 DUG-1-	146	3806	54.05	14.75	8.15	10.27	4.10	4.68	2.96	0.63	0.24	8.5	478	2.05	2.01
07 DUG-1-	150	69	58.24	14.87	8.25	5.72	5.33	4.52	1.95	0.65	0.24	2.04	_1099_	0.05	0.11
07 DUG-1-	163	7	60.76	14.64	6.78	4.68	4.36	6.12	1.67	0.59	0.22	1.07	465	0.03	< 0.01
07 DUG-1-	180	Nil	60.78	14.78	6.70	6.12	4.44	4.30	1.84	0.60	0.22	0.96	352	0.04	0.01
07 DUG-1-	190	Nil	60.90	14.89	6.43	5.62	4.37	4.52	2.21	0.60	0.23	1.54	_1155_	0.04	0.12
07 DUG-1-	218	Nil	59.48	14.33	7.66	6.12	4.86	4.94	1.57	0.59	0.25	1.85	887	0.03	0.16
07 DUG-1-	225	3	59.95	14.61	6.79	6.19	4.71	4.56	2.12	0.60	0.25	1.46	87	0.03	0.05
07 DUG-1-	237	Nil	57.58	14.16	7.84	7.23	5.38	4.38	2.13	0.71	0.29	1.94	125	0.05	0.22
07 DUG-1-	246	Nil	57.31	14.55	7.84	6.76	5.45	4.81	2.03	0.72	0.31	1.54	114	0.04	0.14
07 DUG-1-	252	Nil	58.21	14.78	7.31	6.17	5.19	4.37	2.67	0.74	0.28	1.32	97	0.04	0.04
07 DUG-1-	261	Nil	61.57	14.92	6.58	4.50	4.02	5.24	2.18	0.48	0.30	1.5	56	0.03	0.1
07	264	Nil	62.74	15.21	5.40	4.92	4.17	4.68	1.97	0.48	0.23	2.08	43	0.03	0.13

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DUG-1- 07	273	Nil	57.62	15.61	5.11	12.98	3.12	0.29	4.28	0.66	0.19	12.73	14	0.05	2.45
DUG-1- 07	284	2	58.84	14.54	7.34	6.67	6.16	4.65	0.80	0.63	0.18	23.33	9	0.04	1.19
DUG-1- 07	291	134	59.47	15.23	6.80	5.96	5.55	4.71	1.22	0.60	0.21	7.03	54	0.11	1.01
DUG-1- 07	294	89	58.07	13.63	6.78	9.41	6.55	3.90	0.68	0.53	0.21	9.06	188	0.13	1.69
DUG-1- 07	303	Nil	47.43	7.90	10.99	7.64	23.84	1.07	0.19	0.36	0.03	5.02	1263	0.19	0.24
DUG-1- _07 	333	116	54.63	15.59	8.63	9.54	5.53	4.42	0.47	0.74	0.27	7.41	62	4.08	2.03
07 DUG-1-	342	Nil	58.52	16.03	6.61	3.20	9.42	4.26	0.90	0.54	0.23	6.1	82	0.22	0.47
07 DUG-1-	360	Nil	62.54	15.90	2.59	7.73	3.38	6.27	0.98	0.36	0.13	7.92	96	0.05	1.52
07 DUG-1-	372	Nil	48.57	7.73	10.86	8.83	22.13	0.71	0.15	0.38	0.03	4.52	1529	0.11	0.27
07 DUG-1-	378	Nil	55.68	15.04	8.56	7.30	6.33	4.79	1.08	0.71	0.27	6.12	56	0.08	0.14
07	385	14	63.27	14.88	5.39	4.88	4.16	4.57	1.95	0.47	0.23	6.57	20	0.05	0.94
DUG-2-	Depth	Au	SiO2	A12O3	Fe203	CaO	MgO	Na2O	K2O	TiO2	P2O5	LOI	Ni	S	С
07 DUG-2-	23.5	27	61.53	15.55	5.94	3.99	4.37	5.92	1.71	0.57	0.22	2.32	63	0.1	0.04
07	27	34	46.78	14.59	16.70	9.42	5.89	3.01	1.71	1.41	0.17	1.9	137	0.21	0.06
DUG-2- 07	27	Nil	10 00	14.13	15.99	0.79	5.98	2.83	1.37	1.37	0.16	2.58	96	0.18	0.01
DUG-2- 07	37 47	Nil	48.08 47.30	14.13	16.30	9.78 9.00	5.98 6.64	2.85 3.71	1.22	1.26	0.16 0.14	2.38 1.66	86 128	0.18	0.01
DUG-2- 07	54	55	59.28	16.06	6.18	5.08	4.42	6.32	1.67	0.60	0.14	1.58	85	0.15	0.03
DUG-3- 07	2.1	Nil		15.49	7.24	6.21	5.82	4.85	1.93	0.60	0.25	2.06	157		0.11
DUG-3- 07	13.5	14	58.53	15.62	6.69	6.16	5.23	4.95	1.76	0.59	0.25	1.89	95	0.02	0.09
DUG-3- 07	17.5	Nil	58.74	16.02	6.54	5.91	4.53	4.71	2.43	0.64	0.23	1.59	64	0.02	0.03
DUG-3- 07	27	Nil	59.03	15.92	6.46	5.63	4.61	4.71	2.56	0.59	0.23	1.82	113	0.02	0.09
DUG-3- 07	34.6	2	57.48	15.97	7.13	5.86	5.23	4.58	2.58	0.68	0.25	1.42	201	0.02	0.05
DUG-3- 07	35.3	189	57.03	16.37	7.64	5.32	5.64	4.76	2.08	0.69	0.24	4.75	93	0.5	0.65
DUG-3- 07	41	3	57.59	14.87	6.40	9.43	3.66	4.98	2.10	0.56	0.23	7.26	66	1.62	1.67
DUG-3- 07	51	Nil	57.41	14.97	7.48	6.94	5.74	4.77	1.63	0.59	0.24	1.8	135	0.04	0.09
DUG-3- 07	57	Nil	59.43	15.43	6.62	5.55	4.85	4.65	2.35	0.63	0.24	2.29	361	0.03	0.22
DUG-3-	66	3	55.11	16.45	7.80	7.75	4.59	4.44	2.48	0.80	0.32	6.93	110	0.02	1.27

_	_													5:	5
07															
DUG-3- 07	78	Nil	60.77	15.85	6.25	5.42	4.27	4.59	1.77	0.61	0.25	5.84	131	0.06	0.98
DUG-3-		1,11		10100	0.20	02	,			0.01	0.20	0101	101		
_07	87.3	943	68.16	10.97	8.69	5.81	1.32	0.72	3.09	0.88	0.25	5.63	92	5.01	1.06
DUG-3- 07	90	7	58.34	15.08	6.82	5.79	5.33	4.37	3.03	0.73	0.26	2.01	85	0.04	0.26
DUG-3-	70	/	50.54	15.00	0.02	5.17	5.55	ч.57	5.05	0.75	0.20	2.01	05	0.04	0.20
_07	98	1824	58.66	15.47	6.99	6.47	5.05	4.11	2.15	0.63	0.25	3.24	71	0.18	0.55
DUG-3- 07	107.9	Nil	57.28	15.64	7.03	7.64	4.94	3.93	2.42	0.64	0.27	7.21	88	0.04	1.35
 DUG-3-	107.9		57.20	15.04	7.05	7.04	4.94	5.95	2.42	0.04	0.27	7.21	00	0.04	_1.55 _
07	113.9	384	60.46	12.62	5.87	10.49	3.72	2.30	3.60	0.54	0.18	8.21	47	2.18	2.1
DUG-3- 07	124.2	45	58.08	14.09	6.84	10.60	2.98	3.46	2.90	0.63	0.15	7.71	151	2.79	2.09
 DUG-3-	124.2	43	38.08	14.09	0.84	10.00	2.98	5.40	2.90	0.05	0.15	/./1	151	2.19	2.09
_07	134	651	66.24	13.91	7.51	5.21	1.94	0.88	3.50	0.54	0.16	5.77	173	4	1.07
DUG-3- 07	1425	2	50.02	14.69	6.42	6.24	6.04	2.00	1.77	0.57	0.22	5.24	80	0.08	0.89
07 DUG-3-	143.5	3	59.92	14.68	6.42	6.24	6.04	3.90	1.//	0.57	0.22	5.34	89	0.08	0.89
_07	147	Nil	59.80	14.94	6.27	7.18	6.22	2.61	2.00	0.54	0.24	8.5	75	0.11	1.4
DUG-3-	150	10	(2.12	14.20	5 90	5 (0)	5.50	4 4 1	1.20	0.52	0.22	(12)	12	0.07	0.07
07 DUG-3-	156	10	62.13	14.20	5.80	5.69	5.56	4.41	1.26	0.52	0.23	6.12	43	0.07	0.97
07	168	17	61.21	14.92	6.54	5.50	4.72	4.30	1.88	0.55	0.18	2.33	44	0.13	0.26
DUG-3-	100 7		50.00	14.00	7.01	6.00	5.04		1.64	0.50	0.00	2.02	50	0.10	0.00
07 DUG-3-	180.7	Nil	58.92	14.90	7.21	6.89	5.34	4.14	1.64	0.52	0.23	2.03	53	0.19	0.22
07	193.8	14	60.37	14.62	6.31	5.85	5.35	4.74	1.72	0.52	0.27	1.98	45	0.05	0.13
DUG-3-	2 00 C			1	< 0.0	0.4.0	6 10	2 0 4		0.40			104	0.05	0.00
07	209.8	27	56.88	15.92	6.99	8.12	6.19	3.84	1.10	0.48	0.27	2.22	186	0.05	0.08

13.0 Adjacent Properties

Adjacent ground is held by various groups, considerable exploration work has been done with the discovery of numerous showings. Of particular significance is the Tyranite property to the east with the previous mine shaft 1.5 km east of the Duggan gold zone. The geological setting of the Tyranite deposit is similar if not equivalent to the Duggan setting.

Between 1936 & 1942 some 31,352 oz gold and 4,860 oz silver were extracted from 231,810 tons of ore grading 0.147 oz Au/ton. Current reserves are speculative

There is little recorded work on the properties until 1986. From 1986-1988 Tyrell Holdings, Dalhousie Oil Company and Norwin Resources(Gunnar Gold/Mill City) performed bedrock

stripping, geological mapping, magnetometer, VLF and IP surveys and 43,135 ft of Diamond Drilling in (94 holes)

Some limited chemistry from mapping of local rock types was taken from the adjoining property (Juby) to the southwest. Results in Table below

Samp		Al2O	Fe2O								
le	Sio2	3	3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	LOI
1405	49.45	13.33	12.1	8.11	3.92	.76	1.98	.98	.46	.12	9.38
	52.38	13.71	10.42	7.17	4.56	3.04	.6	1.02	.21	.12	7.58
	39.68	10.9	14.34	12.58	4.77	.99	1.08	.8	.55	.1	15
	46.36	13.26	11.69	10.4	3.59	1.7	1.46	.98	.39	.12	10.67
	47.53	12.8	10.71	7.47	7.91	2.31	.32	.72	.22	.1	9.14
	45.46	10.96	12.53	10.02	6.66	1	.5	.62	.42	.06	12.64
	39.82	10.74	9.9	12.44	6.15	.53	1.64	.58	.37	.08	15.97
	47.08	10.68	7.48	12.65	5.33	1.94	1.18	.6	.31	.06	13.48
	38.30	10.20	13.41	14.34	4.63	1.17	.92	.76	.58	.1	16.24
	48.14	13.11	10.77	8.13	4.78	2.23	.84	.91	.23	.12	9.24
	46.95	12.74	11.27	9.27	4.9	1.54	.96	.96	.31	.12	9.99
	44.98	8.93	11.52	1.094	9.55	.1	.08	.51	.31	.04	13.15
	51.13	13.91	10.71	5.86	6.56	2.07	1.14	.8	.22	.1	7.83
	36.62	10.77	13.04	15.27	6.93	.93	.32	.61	.38	.08	15.67
1419	40.81	9.83	9.69	15.83	5.22	2.53	.04	.45	.38	.04	14.76

14.0 Sampling Method and Approach

There is limited info on sampling method or approach: indications of sampling procedure are in Table IV above, and attached drill logs. Drilling from the 1997 drill program appears more organized.

Current sampling involves selection of samples on a visual basis; on basis of sulphide mineral content and rock alteration. Samples containing greater than 1% sulphide or with Quartz veining are sampled at 0.5 to 1m intervals and where more uniform at 1 to 1.5 m intervals. Whole rock samples are taken at 10 m intervals to check rock type and intensity of alteration. Selected samples are taken for petrographic analysis to confirm rock type and alteration.

Currently core is being logged at the secure Kirkland Lake facilities of Rosko Mining Inc. The facilities are locked when the site is not occupied.

All core marked for sampling is cut in half with a diamond saw by an on site technician.

15.0 Sampling Preparation, Analysis and Security

There is limited or no info on sample preparation, quality control, adequacy of sampling or security on previous work and data obtained is considered not 43-101 compliant.

Current sample preparation and assaying is being performed by Swasika Laboratories, in their secure facilities at Swastika, Ontario. Whole rock samples are sent from there to ALS Laboratories in Vancouver.

16.0 Data Verification

There is very limited or no info on previous work. Current work requires that Assays are consistently referred to laboratory standards and duplicated at consistent intervals. In addition core logger takes periodic duplicate samples for both mineral assay and whole rock. Duplicate assaying of selected samples is requested periodically.

17.0 Mineral Processing-Metallurgical Testing

There is limited or no info. Some work was reported to account for erratic gold distribution but results not available.

Current work recommends the compliant acquisition and testing of a suitable bulk sample.

18.0 Mineral Resources

A mineral resource is defined under NI 43-101 as a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form or quantity and of such grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of

a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. On this basis the property has no defined reserves but contains a mineralized zone of anomalous to several once gold over a northerly trending area 100 by 250 m tested to 100m below surface and that appears open at depth

19.0 Other Relevant Data and Information

Additional Exploration Potential CHURCHILL MacMURCHY CLAIMS

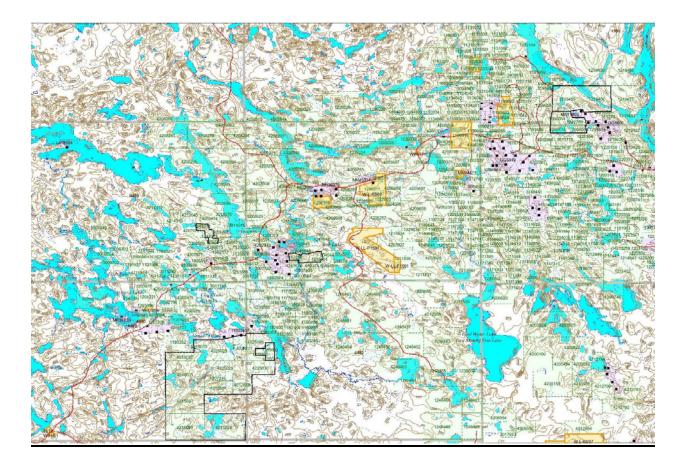
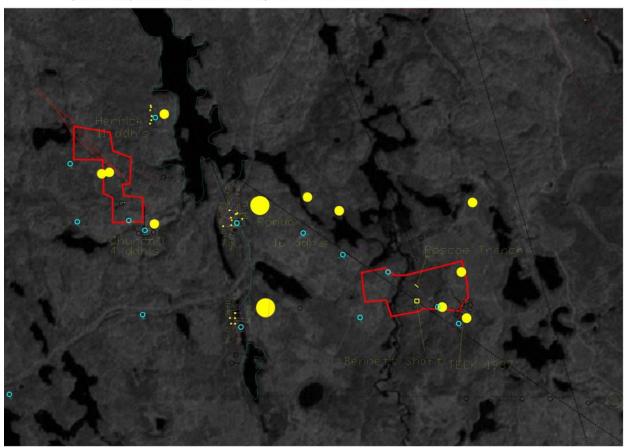


Fig: 19 MacMurchy & Churchill Properties Relative to Regional Satellite: Shows Mineral deposits:blue, Old Drill holes, Location Table V data etc



Extensive work has been done in the area from 1912. Figs: 19 to 21.

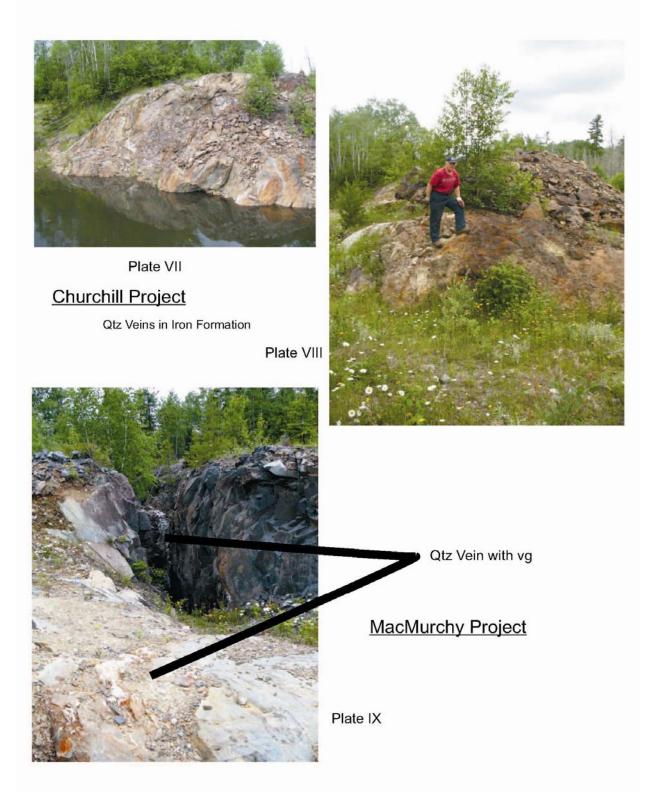
Gold showings exist on the property and in the vicinity. Appendix X describes previous work within the property vicinities and lists example assays.

Most of exploration activity has been restricted to quartz veins discovered in surface exposure. These veins pinch and swell and it appears that little attention has been paid to define and study structural continuity beyond the surface extent of these veins. Nor has the importance of alteration and disseminated sulphide been considered as an important control of mineralization.

Quartz veining has NE to NS orientations with most of the gold related to the more northerly trending veins. Visible gold is common in the veining making it difficult to establish continuity of high values. Regardless of this channel sampling and diamond drilling has produced significant though erratic gold assays. These veins appear open along strike and may be connected over several kilometres in a North-South direction. (i.e. there is structural continuity between Herrick and Ronda).

The showings on the Churchill claim group appear related to crosscutting Quartz veining within iron Formation, (Plates VII, VIII. Showings on the MacMurchy property and Bennett

shaft appear related to Quartz veining within Diabase. (PlateIX)



The writer has noted that in recent work white quartz veining is important in localizing gold mineralization. Pyritic concentrations are also indicative of better gold values.

On the MacMurchy claims Mr. Pat Rosko's previous work on the property has focused on detailed geological mapping of the area immediately surrounding the Bennett Mine shaft. This mapping outlined several previously unrecognized features local to the Bennett vein. Fault and vein locations and orientations reveal a complicated deposit from the development point of view:

Hand stripping of the vein exposed approximately 18 feet (on strike) of rust-stained, fractured white quartz vein, approximately 8-10 inches in width.

Twenty-seven holes were drilled seven feet in depth using an air plugger run by a compressor. The work was then loaded with stick powder and blasted using non-electric caps and an electric detonator. The blast was examined and several grab samples were chosen and the most promising sent for assay. Values to .149opt were obtained

"Short strike lengths between fault interruptions leave low tonnage high-grade (but nuggety) targets which may be offset too drastically to consider mining them in any type of adjoining development".

-- (Bennett Project, By Michael Nemcsok for Pat Rosko, 1 Mar 2002)

Prior to Mr. Rosko's work on the property, Mayflower Metals Limited, Shining Tree Gold Mines Limited, Copperquest Inc., and Strike Minerals Inc. had all reported work on the claims.

Ontario Division of Mines Geoscience Report 152 contains a brief description of the property's most prominent feature, and then held by Mayflower Metals Limited.

"The original deposit, the Bennett vein, occurs in the southwestern part of claim TRS2507 (L) and extends northwest into the adjoining claim TRS 8262 (L). It is a shear 120m (400ft) long and 0.6 to 2.4 m (2 to 8 feet) wide striking N6OW at right ankles to the general schistosity, and dipping vertically. Lenticular quartz veins occur in the shear zone associated with albite, talc, sericite and calcite as gangue. Ore minerals are gold and pyrite. The bedrock of the area consists of massive and pillowed metabasalts.

In a joint press release from Copperquest Inc. and Strike Minerals Inc., dated 15 June 1994,

"A bulk Sample of 2000 tons was extracted from the Bennett vein in 1981, and yielded a purported 6000 ounces of gold for a return of 3.0 ounces per ton Au."

Adjacent Properties

The following are excerpts from reports of exploration on adjacent properties, locations indicated on Location Fig: 19 above.

Previous Work Churchill Claim Vicinity

Ronda Property (Ribble vein)

1912 Gold discovered by 2 prospectors, names unknown, who were ?grubstaked' by Mrs. Asa Ribble.

1913 Sharin Mines Ltd. did trenching; no assays available; (One plan dated 1913 shows the No.1 Shaft and 3 levels of workings and a mill site just east of the No.1 Shaft. It is uncertain if the workings were put in and a mill built this early or in the 1918-1923 period as reported in Ontario Geological Survey publications).

1916 - 1917 Surface stripping and trenching by T.R. Jones of Buffalo Mines (Cobalt).

1918 - 1923 Shaft sinking (No.1, 2 compartment) to over 150 Ft; crosscutting on 100' level; shaft deepening to 208'; by Wasapika G.M. under direction of Geo. R. Rogers.

1934 - 1935 De-watering, drifting and re-sampling, installation of 100 t/day mill, by Neville Canadian.

1935 - 1939 No. 1 shaft deepened to 325 Ft; 100', 200', 300' levels put in and 3 compartment, vertical, 3 compartment winze sunk from 300' to 700 Ft, and then raised to surface, known as No.2 Shaft with levels at 300', 425', 550' and 675'; 5379 Ft of drifting and crosscutting; 535 Ft of surface diamond drilling in 3 holes; 5401 Ft of underground drilling in 22 holes; installation of 125 t/day mill.

1939 - 1940 Production maintained for one year only. 2727 oz Au and 4830 oz Ag recovered.

Foisey Vein

Circa 1919 1600 Ft of trenching.

1971 Channel samples by J.J. Moore

1975 Geophysics, magnetics and VLF EM and 2 drill holes on claims immediately south of Foisey Vein.

Miller-Adair

1916 - 1919 Vein traced 150 Ft in strike length at south boundary of claims, south part of present claim 1200310.

1954 One 15 Ft drill hole by Grantland Gold Mines.

1994 Haddington Resources.

Upon release of the area from a Land Caution, a program of stripping and channel sampling was undertaken in 1994 some 202 channel samples were taken with a diamond saw over parts of the Ribble Vein and Foisey Vein and analyzed for gold and silver.

1996 Some 16 holes were drilled into the Ribble Vein (Ronda Mine Area) and Foisey Veins. Some significant assays were recovered. The veins remain open along strike.

Herrick

1918 J.A. Knox discovered the Kingsley Vein, a north trending auriferous quartz vein west of the south end of Michiwakenda Lake.

1919 - 1923 Herrick Gold Mines Limited acquired the property and carried out trenching and sampling and 955 metres of diamond drilling in 4 holes. BY the end of 1919 a two compartment shaft had been sunk to a depth of 15 metres.

When work ceased in 1923 the shaft was at a depth of 94 metres with levels developed at 15m, 30m, 60m and 90m. Lateral workings on the 90m level consisted of 80m of crosscutting and 190m of drifting. Drifting on the 30m level extended for 75m.

1933 Consolidated Ontario Gold Mines Limited was incorporated in January 1933 to consolidate scattered land holdings in the area including the Herrick property. The Herrick shaft was to be deepened to 235m to mine ore intersected in drill hole number three (5.7 g/ton over 15m). This was never accomplished.

1935 Grantland Gold Limited acquired the Herrick Mine.

1940 Sylvanite Gold Mines Limited cleaned out the trenches and verified historical surface values by sampling.

1962 - 1969 Matachewan Canadian Gold Limited owned the property from 1962 to 1969. Triton Exploration Limited assumed ownership from 1969 to 1974 when the patented land reverted to the Crown in lieu of payment of taxes. 751160 Ontario Inc. acquired the property by staking on June 1, 1988.

From results of historical data the property appeared to have the potential to host mineable reserves of 1,732 tonnes per vertical metre at a grade of 7.2 grams Au per tonne over a mining width of 1.8m with a 50% dilution factor.

1989 Unocal performed line cutting, ground geophysics (Mag and VLF), geology, stripping, channel sampling and 11 diamond drill holes for 1473 metres. All holes except one intersected gold values over 3.4 g/t.

Churchill

1918 Claims TRS 3741, 3773, 3774 and 4044 comprised the former Churchill Mining and Milling Property. This company incorporated in 1918 and carried out surface work on veins discovered by J.A. Knox on TRS 3774.

1918 - 1933 Surface stripping carried out during 1918 to 1933 exposed four vein systems with veins No. 3 and No.1 returning economic gold values. The No.3 vein was exposed for a length of 90m with an average gold value of 27.5 g/ton over a width of 1.2m (18 channel samples). Vein No. 1 was exposed for 30.5m with a width of 1.2m with an average gold value of 29.4 g/ton (Laird, 1934).

1934 A two compartment shaft was sunk to a depth of 33 metres with 20m of drifting and 47m of crosscutting completed on the 32m level. A ten ton stampmill was erected and recovered 154 grams of gold from 10.4 tonnes of ore. Operations were suspended in 1936.

1971 - 1974 Triton Exploration Limited owned the Churchill patents from 1971 to 1974. In 1974 the patents reverted to the Crown due to non payment of taxes.

1988 The property was acquired by 751160 Ontario Inc. on June 1, 1988 when the Crown opened the property for staking.

1989 Unocal acquired the property and performed linecutting, ground geophysics (MAG and VLF-EM), surface stripping, channel sampling, geology and 461 metres of diamond drilling in 4 holes.

Channel			
Sample			
Results			
Herrick			
Line	Au g/t	Width(m)	
14+70N	8.5	1.6	
14+10N	6.8	1	
13+96N	7.9	1.8	
13+70N	9.8	2	
13+56N	6.6	1	
13+51N	14.7	1	
13+03N	8.8	1.5	
12+87N	56.5	1	
11+80N	5.7	2.6	
11+74N	3.9	2	
11+55N	12.5	1.5	
11+36N	4.9	1.4	
11+15N	4.2	1	
Churchill			
0+62W	1.31	1	
0+37W	6.22	1	
0+16W	2.62	1	
0+11W	1.89	0.4	
0	3.6	1	
50	1.2	1.6	
Summary of Surface Assays, Ribble Vein:			
	Grade	Hor.width	Length
	g/t AU	(m)	m
North Part 1+55N to 2+24N	3.92	1.66m	69.5
Middle Part, Vein Zone 1+05N to	4.49	5.64	64
1+55N	4.74	2.5.0	40
South Part	4.74	2.56	48
Adjacent to		2.36	
No.1 Shaft, 0+08S to 0+40N	8.22		24

MacMurchy Property

Teck performed work immediately south of the SE property boundary. Anomalous Gold and silver intersections (below) were obtained.

Some MacMurchy intersections./Teck 1987,Proximal to S boundary MacMurchy Claims

SAMPLE	HOLE	INTERVAL in meters
<u>#</u>	<u>#</u>	
K 7543	T-2	59.0 - 60.0 Au
44	T-2	61.0 - 61.3 Q.V.,
		Au
45	T-2	63.0 - 63.5 Au
46	T-2	64.8 - 65.0 Au
47	T-1	98.5 - 99.5 Au
48	T - 1	101.2 - 101.7 Au
49	T-1	101.7 - 101.8 Au
50	T-1	101.8 - 102.3 Au
51	T - 1	98.0 - 98.6 Au
52	T-3	65.0 - 66.0 Au,
		Ag
53	T-3	66.0 - 67.0 Au,
		Ag
54	T-3	67.0 - 68.0 Au,
		Aq
55	T-3	68.0 - 69.0 Au,
		Ag
56	T-3	69.0 - 70.0 Au,
		Ag
57	T-3	70.0 - 71.0 Au,
		Ag
58	T-3	71.0 - 72.0 Au,
		Ag
59	T-3	72.0 - 73.0 Au, Ag
60	T-3	104.0 - 105.0 Au
61	T-3	105.0 - 106.0 Au
62	T-3	106.0 - 107.0 Au
63	T-3	9.0 - 10.0 Au, Ag
64	T-3	$10.0 - 11.0 \mathrm{Au}$
		Ag
65	T-3	11.0 - 12.0 Au,

		07
66	T-3	Aq 12.0 - 13.0 Au,
00	1-5	Ag
67	T-4	42.0 - 43.0 Au, Ag
	T 4	5
68	T-4	43.0 - 43.5 Au, Ag
69	T-4	43.5 - 44.5 Au,
		Ag
70	T-4	44.5 - 46.0 Au,
		Ag
71	T-6	31.8 - 32.8 Au
72	T-6	32.8 - 33.8 Q.V., Au
73	T-6	33.8 - 34.8 80% Qtz Au
74	T-6	34.8 - 35.8 Au
75	T-6	35.8 - 36.8 Au
76	T-6	36.8 - 37.8 Au
77	T-6	37.8 - 38.5 Au
78	T-6	38.5 - 39.5 Au
79	T-6	39.5 - 40.5 Au
80	T-6	40.5 - 41.5 Au

20.0 Interpretation and Conclusions Geological Setting of Gold Mineralization

Previous work in the area has indicated extensive gold mineralization throughout the region, to data this has been almost entirely related to quartz veining with minor indications related to disseminations within volcanic rocks. Vein systems trend in various directions with the most prominent being in a NNW-SSE direction. Veins pinch and swell and generally lack continuity.

Current ongoing work by Creso has indicated that there may be a more important controlling aspect. The prominent NNW-SSE structural trend appears to control the geological occurrence of Diabase dyke systems and Nippissing intrusive dykes and sills. Gold bearing veins seem to occur marginal to and within Nippissing rocks particularly the Bennett zone on the MacMurchy property and adjacent property gold occurrences.

On the Duggan property current drilling for geological information has shown gold to occur within shear zones and vein systems in Syenodiorite and within ultramafic volcanics. Gold intersections in Holes Dugg07-1,3 and 4 appear related to a NNW shear that cuts both rock types and gold zones are anomalous over widths of several metres with sporadic 1 to 6 gram sections.

In hole 3 a quartz breccia system contains sporadic High gold (vg specks) intersections to 33 grams and averaging 2.9 grams over 30 m. Hole Dugg07-3 was drilled to test Au results of previous drilling between hole 97-225 and 97-226.

Geological extrapolation currently indicates a mineralized gold zone varying from 5 to 40 m along a NNW shear for 450 m and to a depth 240m.

In addition a new gold zone has been intersected in geology test hole Dugg07-3. Anomalous gold to several grams occurs over 60m, 200m below surface entirely within Syenodiorite. Shear direction is postulated to be NNW but not definite.

Preliminary whole rock assays indicate a single syenitic intrusive rock type with anomalous gold related to a pinkish more altered phase with enrichment in sulphides, Sodium /or more rarely Potassium. These altered phases appear to be broadly associated with magnetic lows. The intrusives as previously indicated intrude mafic-ultramafic volcanics and are probably the prime hydrothermal source of gold mineralization in related structures.

Other Mineralization

Both syenite intrusive and ultramafic volcanic rocks show local enrichment in Ni (over 400ppm). Also preliminary results from drilling on the MacMurchy claims has indicated a 1m section, 301-302 m, in Hole 6 of 7.4% Ni and 2gms of Pt,Pd, Au combined, within a carbonate,graphite, sulphide breccia. The cause of this mineralization is currently not known but does indicate Ni, Pt potential for the area.

Exploration Potential

Current exploration has indicated that gold mineralization is more widespread than originally thought. It is structurally and intrusive related. Appearing with Syenodiorite intusives and marginal to same at Ultramafic mafic volcanic contacts, the mafic zones are magnetic highs though older magnetic data is blurred and not exactly located. The planned airborne magnetic/radiometric survey and satellite structural study is expected to define more detail and localize structures and gold targets.

Preliminary findings so far define a favourable exploration potential for the newly enlarged Creso property situation for both Au and Ni,Pt.

21.0 Recommendations

Based on Previous and current work this report recommends two further work programs for a total of \$ 2.4 M in exploration, see Tables below:

To date some 4200 m of NQ drilling have been completed with an additional 800 m underway .Some Assay and whole rock chemistry returned.

A combination of a detailed airborne Vtem, Magnetic and Radiometric Survey is recommended to better define geology, alteration and structure; flown at 100m spacings in 2 directions...N-S and E-W. Detailed geophysical follow up to outline disseminated sulphides/Graphite and alteration (high resitivity) is also recommended. A detailed structural study is also recommended from geophysical and detailed satellite data

A new UTM based, ground grid needs to be established over the property as positioning of old lines and grid directions and drill hole locations is not clear. OBM base maps and GPS systems have been acquired for this purpose.

A stripping bulk sampling of the main/known mineralized zone should also be undertaken to establish actual gold content.

Following the above, 3000 m of drilling is proposed and depending on the results contained a third phase of 7000m of drilling is recommended.

COST ESTIMATE PHASE II EXPLORATION PROGRAM, Creso Properties

ELEMENT	UNIT COST EST	COST in \$	REMARKS
Gridding: 100km linecutting		30,000	Contract
Ground EM Mag/IP survey 100km		120,000	
Project Management, Geological: mapping/	2 Geologist plus 1 assistant approx 200 man days. @700/day	140,000	Mapping, logging, project and drill supervision,
Assay: Au, Base metals Lithogochem	1200 rock @ 50.00 ea Au, Cu, Zn, As, etc.	60,000	
	and 300 whole rock : \$30	9,000	
Accommodation, meals, support, logistics:	100 day food/accom 2 persons		Hotel, camp, etc.
Core storage, Racks, equipment, setup, etc.		7,000	setup, equipment etc
Vehicles; Rental and Mileage costs	20,000 km	21,000	Lease and other
Drilling, Duggan Property etc.	3,000m @70.00	210,000	6-10 NQ holes
	Field Supplies labour 2 pers, 300 man days @\$350	105,000	Rosko and core splitter wages, 240man days
Backhoe Stripping,	110.00/ hr backhoe, 1 mo	25,000	
Cleaning, and Washing, Channel Sampling	250.00/day pressure Pump, 20 day, 2 men	10,000	
Bulk Sampling	1, 2,	70,000	
	4000 line km	190,000	
Geotechnical Assessment/report		19,000	
*	ESTIMATE	1,039,000	
	CONTINGENCY 10%	104,000	
	TOTAL	\$1,143,000 say1,150,000	

COST ESTIMATE PHASE III EXPLORATION PROGRAM, Creso Properties

ELEMENT	UNIT COST EST	COST in \$	REMARKS
Project Management,	2 Geologist plus 1	140 000	Mapping, logging,
Geological:	assistant approx 200		project and drill
mapping/sampling etc:	man days. @700/day		supervision,
Core Logging, cutting	man days. @ 700/day		supervision,
Assay: Au, Base metals	3000 rock @ 50.00 ea	150,000	
Lithogochem	Au, Cu, Zn, As, etc.	10 0,000	
	and 700 whole rock	21,000	
	\$30	,	
Accommodation, meals,	200 day food/accom	46,000	Hotel, camp, etc.
Support, Logistics:	2 persons		· · · ·
Core storage, Racks,		15,000	setup, equipment
equipment, setup etc			etc
Vehicles; Rental and	20,000 km	21,000	Lease and other
Mileage costs			
Drilling, Duggan Property etc	7,000m @70.00	700,000	15-30 NQ holes
Field Support: labour	Field Supplies labour	35.000	Rosko and core
Consumables and	2 pers, 100 man days		splitter
equipment.	@\$350		wages, 240man
equipment.	C 4550		days
			aays
Geotechnical		27,000	
Assessment/report		, ,	
	ESTIMATE	1,155,000	
	CONTINGENCY 10%	115,000	
	TOTAL	\$ 1,270,000 say	
		\$1,300,000	

REFERENCES

Beecham, A.W. Jan 1996	Report of Diamond Drilling Nov., Dec., 1995, Tyranite Property, An Exploration Project Designated Under the Ontario Mineral Incentive,Program, Knight & Tyrrell Twps. District of Timiskaming.
Beecham, A.W. Sept. 1996	Report of Diamond drilling Nov.1995-Feb.1996, Tyranite Project, Knight & Tyrrell Twps. For Haddington Resources Ltd.
Beecham, A.W. Jan-Mar 1997	Report of Diamond Drilling Tyranite Main Zone & Duggan Zone, Knight&Tyrrell Twps. District of Timiskaming NE, Ont, NTS 41-P-11 For Tyranex Gold Inc. and Mill City Gold Mining Corporation.
Beecham, A.W. Nov 1997	Report of Summer 1997 Program Trenching and Mapping Follow up of 1987 B-Horizon Soil Geochemistry, Tyranite Property Knight and Tyrrell Twps, Gowganda Area, District of Timiskaming, N.E. Ont. For Tyranex Gold Inc and Mill City Gold Mining Corporation.
Beesley, T.J. Jan 1995	Work Proposal to Accompany Ontario Mineral Incentive Program Application for Designation 1995, Haddington Resources Inc. Tyranite Joint Venture.
Bryant, J.G. Apr 1977	Report of Geochemical and Geophysical Surveys, West Montreal River, Hare Lake, Cripple Lake, Foley Lake 'A', 'B' and 'C', Bigfour Lake and Arthur Lake Claim Groups in Knight, Tyrrell, MacMurchy and Natal Twps., Larder Lake Mining Division. For Getty Mining Northeast, Limited.
Carter, M.V. 1977	Geology of MacMurchy and Tyrrell Twps, District of Sudbury and Timiskaming, Ontario Division of Mines, Report 152, incl. Map 2365
Carter, M.V. 1980	Geology of Connaught and Churchill Twps, District of Sudbury, Ontario Geological Survey, Report 190.
Carter, M.V. 1981	Natal and Knight Twps, Districts of Sudbury and Timiskaming, Ontario Geological Survey, OFR 5337, 160 p., 22 Tables, 17 Photos, 10 Figures and 2 Preliminary Maps. Ontario Geological Survey, Open File 5337.
Carter, M.V. 1983	Geology of Natal and Knoight Twps, District of Sudbury and Timiskaming , Ontario Geological Survey, Report 225, Incl. Map 2465.
Carter, M.V. 1989	Geology of Shining Tree Area, Districts of Sudbury and Timiskaming, M.N.D.M., Ontario Geological Survey, Report 240, Incl. Map 2510 (1:50,000).
Filo, J.K.	Final 1991 Compilation On The Arthur lake Knight and Natal Twps.

	73
Dec 1991	Prospect Shining Tree Area, Northern Ontario.
Filo, J.K. Mar 1992	Progress Report On Diamond Drilling for KRL Resources Corp./Cross Lake Minerals Joint Venture Knight and Natal Twps, Arthur Lake Prospect, Shining Tree Area, Northern Ontario.
Filo, J.K. Apr 1994	Progress Report On Diamond Drilling For KRL Resources Corp./SEG Exploration Inc. Joint Venture Knight and Natal Twps., Decker Prospect Shining Tree Area, Northern Ontario, Part I of III.
Filo, J.K. Apr 2004	Progress Report On Diamond Drilling For The International KRL Resources Corp. Hemlo North Shore and Harte Resources Corp. Decker Prospect Joint venture In Knight and Natal Twps., Shining Tree- Gowganda Area of Northern Ontario.
Fugro 2004	Report On Airborne Magnetic and Geotem Survey, Copper Hill Project, Gowganda, Ontario For International KRL Resources Corp.
Gordon, J.B. & Lovell H.L. et al 1979	Gold Deposits Of Ontario, Part 2, O.G.S. Mineral Department, Cir 18.
Graham, A.R. 1932	Tyrrell-Knight Area, Districts of Timiskaming and Sudbury, Ontario. O.D.M. Ann. Rep. XLI Pt II & Map 41b, (1:47,520)
Meikle, R.J. 1989	Geophysical Report On The Tyranite Property For Gunnar/Mill City Gold Inc.
Mullen, D.V. 2000	Exploration Work Report Tyrrell Property Knight and Tyrrell Townships. L-1193848 et al. NTS 41-P-11, Larder Lake Mining Division District Of Timiskaming, Ontario.
Norwin Res. Ltd. 1987	Progress Report June-Sept, 1987 Tyranite Propert, Knight and Tyrrell Townships, Ontario, For Gunnar Gold/Mill City Inc.
Norwin Res. Ltd. 1987	Tyranite Property, Knight and Tyrrell Twps, Soil Geochemistry "B" Horizon Au, (map 1:2400)., For Gunnar Gold/Mill City Gold Inc.
Norwin Res. Ltd. 1987	Tyranite Property, Knight and Tyrrell Twps, Magnetometer Survey Total Field (map 1:2400). For Gunnar Gold/Mill City Gold Inc.
Norwin Res. Ltd. 1987 1988	Tyranite Property, Knight and Tyrrell Twps, Geophysical Compilation Map (map 1:2400) For Gunnar Gold/Mill City Gold Inc. Norwin Res.Ltd. Summary Report On The Power Stripping Program, Tyranite Project Knight and Tyrrell Townships, For Gunnar Gold/Mill City Gold Inc.

Pearson, W.M. Mar 1995	Report On The Tyranite Gold Property, Gowganda Area, Ontario. For Northfield Minerals Inc./Mill City Gold Mining Corp.
Puskas, F. June 1997	Proposals For Follow Up Of Soil Geochemistry and I.P. Surveys, Untitled Internal Report.
Ramsey, E ?	An Investigation Into The Recovery Of Gold From The Duggan Ore Sample Labeled Property No. 2. For Mr. Raymond Belecque, Mill Superintendent Foxpoint Resources Ltd.
Sial Geosc. Inc. 1998	 Shinning Tree Airborne Consortium, Technical Supervision: Strategex Ltd. NTS Maps: 41P/07-10-11 and 14, Latitude 47 degrees 37 N, Longitude 8103 W. High Sensitivity Radiometric, Magnetic Gradiometric and VLF Survey, Shining Tree-Gowganda Area, Ontario.
Syberg, F.J.R. 1992	Report On Geophysical Surveys For KRL Resources Corp., Arthur Lake Property Natal and Knight Townships, Ontario. NTS 41P/11, 47 degrees 42N Latitude, 81 degrees 45W Longitude.
Syberg, F.J.R. 1994	Report On Geophysical Surveys Arthur Lake Property, Arthur Lake, Natal and Knight Townships. Shining Tree Area, Ontario For KRL Resources Corp. and SEG Explorations Inc.
Sylvanite Staff G.L.H.&D.K.B. 1939	Outcrop Plan Showing Diamond Drilling, Tyranite G.M.L., Ontario Geological Survey, Assessment Files, Tyrrell Township.
Temmex Res. Corp 2002-2003	Diamond Drill Holes JU 02-01 to JU 03-20. All Holes Drilled On Ontario Mining Lease 105357, Perimeter Survey Claim 296, G 8000292.
Watkins, J.J. & Melling, D.R. et al. Jul 1998	The Decker Property Mine Potential and Recommendations. Natal and Knight Townships, Larder Lake Mining Division Northeastern, Ontario, NTS 41P/11 For Copper Dome Mines Ltd

Certificate Of Qualifications

Michael V. White

1. I am a Consulting Geologist based at 38 Riverside Dr., Kearney, Ontario, Canada, POA 1M0. 2. I am a graduate of McMaster University, Hamilton, Ontario, in 1968 with a Bachelor of Science degree in Geology, and McGill University, Montreal, Quebec, in 1976 with a Master of Science degree in Geological Sciences.

3. I am registered as a Professional Geoscientist (No. 1328) Association of Professional Geoscientists of Ontario(APGO).

I have worked as a geologist for a total of 38 years since my graduation. My relevant experience for the purpose of the Technical Report is:

 Twenty years experience as an Exploration/Consulting Geologist across Canada and in other countries

• Preparation of numerous reviews and technical papers on exploration and mining projects around the world .

• Exploration Manager for a major Mining Company in charge of mineral exploration in Ontario and Québec

- Senior Geologist for a major Mining Company in charge of mineral exploration research in Canada.

• Exploration Geologist with a major Exploration company in charge of exploration projects in Newfoundland and Labrador

4. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.

5. I have visited the Project.

6. I am responsible for the overall preparation of the Technical Report.

7. I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.

9. I have read National Instrument 43-101, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.

10. To the best of my knowledge, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report clear and not misleading.

Mw9/2007 Dated

(Signed & Sealed)

0F88 MICHAELV MANTE PRACTISING MEMB 1328

APPENDIX I DRILL HOLES

TYRANEX GOLD INC.

DIAMOND DRILL HOLE LOG

HOLE No.97-223

Property	Тр		Azimuth	Date started	Corrected Dip	Tests	(⁰)	Remarks	Location S	Sketch
Tyranite	Knight Tp.		Grid 265-270°	20th Jan. 1997	Depth	Mag Az	True Az	Dip		
Project	Lot & Conc.		Dip-45°	Date Completed	200'	273°	264°	45°		
				23rd Jan.1997	521.7'	273°	264°	45°		
Claim # GG6649	Co-ordinates		Length (metres)	Drilled by:						
(lease)	N	Е	521.7'	St.Lambert D.						
Grid # Underground:	3521.55	6672.03	Collar Elevation	Logged by:					H	88
Surface:	10+80N		9919.65	A.W. Beecham						

Ft		DESCRIPTION	Sample	And and the second second					ASSAYS	
From	To		Number	From	To	Length	% Py	opt Au		Avg.
		Objectives:- Test down plunge from high grade intersection in 1316-10								
0	11.5	CASING								
60-03 K - 1045-0		GREY DIORITE								
11.5	70.0'	Med-grey-med. coarse grained, equigran to weakly porphyritic, some small elongate								
		feldspar, 65-85% 1-3mm feldspar, 15-35% clusters + interstitial dark green,								
		chloritized mafic; mod. magnetic; 5-10%, 5mm-10mm mafic inclusion, scattered								
		large(5cm) mafic inclusions;								
		Structure: Massive, undeformed.								
		Siructure Massive, underormed.								
		Alteration & Veins: Most fresh + unaltered . Minor pink streaks.								
]				ļ			
		Mineralization: tr Py throughout.								
		Remarks: 0.6' at top red brown feldspar mica lamp, could be boulder.								3
70.0	165.7	SYENODIORITE								
70.0	105.7	As above with 10-15% mafics.								
		Weakly-mod magnetic; It. grey usually pink.								
		Struct: Massive, unaltered - intursive bx at top -see remarks.								
		"sand seam" at 157.5"	4701	93.5	97.0	3.5	tr	nil		
			4702	97.0	99.0	2.0	tr	0.001		
		Veins;Alteration:94-99.0 minor pink siliceous streaks.								
		97.5 minor pink qtz white calc. tr Py 45°								
		Min:See Veins: tr Py here + there;								
		Remarks:70 -96.5 15% 0.3-1.5 ft. mafic inclusions					1			
		84-84.7 Feldspar porphyry dyke;	1							
165.7	222.0	MAFIC -ULTRA MAFIC VOLCANICS	ſ				ĺ			
		Dk. grey-green f.g. normal metabasalt with talcose sections; strongly magnetic.	1				1			

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HOLE No.97-223

Pg. 2 of 5

Ft.		DESCRIPTION	Sample						ASSAYS
From	To		Number	From	То	Length	% Py	opt Au	
		Struct: Mostly massive - flow structured							
		199 - close packed bx or polysuture joints. Sections of broken core 0.5-1ft.							
		Sections of broken core 0.5-11.							
		Alt. & Veins: No significant alt'n.						34	15 15
		Minor calcite - qtz. + calcite veinlets;	i.						
		182-183 - 1/2" lt. grey calcite veinlets;	4703	181	183	2.0	1	nil	
							-		
		Min:tr - Py here + there;5% over 0.3 at 182'							
		<u>Remarks:</u> 172.7 - 174.8 syenodiorite dyke							
		187.0 - 189.0 syenodiorite dyke							
		206.7 - 209.5 syenodiorite dyke							
222.0	247.0	Franting d Marin II M. Valantian Fruit Zana							
222.0	247.0	Fractured Mafic U.M. Volcanics - Fault Zone As above	ia.			<u> 1</u>			
		A3 400vC							
		Struct:Broken core throughout with gouge seams here + there include.2" at 235.5;							
		fractures at 45.60, 20°							
		1947 - MURINI LIANDRAND							
		Veins: Calcite in gouge + as minor lt. grey veinlets;							
247.0	288	MASSIVE MAFIC-ULTRAMAFIC VOLCANICS							
		As above; strongly magnetic.							
		<u>Struct:</u> 225.5 1/2" gouge at 45°							
		Schistosity in bottom 2' 2' at about 45°							
		Alteration & Veins: A few % lt. grey calcite veins; strongly pervasive calcite	4704	278	283	5.0	<u>-</u> 1	0.001	
		from 278 - end of unit.	4705	283	288	5.0	-	19	
		<u>Min:</u> Nil.	25				ř.		
0.00000	1010201201		[8			
288	304	ALTERED SYENODIORITE							
		Med. coarse grained brick red 90% feldspar; 5-10% chl.'d mafics mod.magnetic -							
		strongly altered sections - non mag.	4706	288	292	4.0	tr	0.008	
		Struct: Massive - weakly fract. Strong alt. sstreaks + q.v. at 45°	4707 4708	292 295	295 300	3.0 5.0	1 tr	0.010 0.001	
		Der more intersorte - meaning mater. Set only all. Sourcans + d.v. at +3	4708	300	303.3	3.3	1	0.001	
			1 1102	500	505.5	5.5	L *	0.000	

DH No.97-223

HOLE No. 97-223 Pg.3 of 5

Ft.		DESCRIPTION	Sample						ASSAYS
From	То		Number	From	То	Length	% Ру	opt Au	
		Alteration & Veins: A few % white green qtz +/- calc. up to 1/2"; white qtz. in centre							
		of strong red alt'n; pervasive and strong streaks red (hem-carb) alteration.							
		Min: diss'd Py up to 3% - 4% over 2" qv. selvages.							
303.3	320	GREY SYENODIORITE							
		As above; mod. mag.							
		Struct: Mass; weakly fract'd.							
		Alt:Weakly altered - indistinct feldspar.	4710	303.3	308	4.7	tr	0.001	
			4727	308	313	5.0	tr	0.003	
		Remarks: 310.3 - 0.6ft. include. mafic volc.	4711	313	318	5.0	1/2	nil	
			4712	318	321.5	3.5	tr	nil	
320	328	ALTERED SYENODIORITE							
		As above							
		Struct: Modstrongly fract'd at 20°- 35°	4713	321.5	325.0	3.5	1-2	0.016	
		<u>Swawn</u> ava. Baongry nave a at 20 55	4714	325.0	328.0	3.0	1(v.g.)	and the second s	
		Alt; & Veins: Weak pervasive red with strong orange red alt'n with white q.v. up to							
		1/2" + up to 3-4% Py over 3"in vein selvages;							
		- 327.41/2" grey q.v. with 5 small clusters v.g.							
		Min Par uning							
		Min:See veins.					- 51		
328	334.8	DIORITE	2						
		Dk. grey, 80-90% feldspar +/- biotite +/- horneblende - could be type of lamp. dyke;	4715	328	333	5.0	-	0.001	
			0						
334.8	352.4	ALTERED MAFIC VOLCANICS							
		Dk. grey-green, f.g. mod. to hard; mag.					ĺ		
		Struct:Shattered + recemented.					2		
			4716	333	338	5.0		nil	
		Veins & Alt;342 - 352 30% light grey diffuse calcite	4717	338	343	5.0		0.003	
		strongly pervasive calcite	4718	343	348	5.0		nil	
		A few % white calcite veinlets	4719	348	352	4.0		0.006	
		349 - 352 - 50% carb. include. e,g, pink calcite					1		
		Minuriana I atrophy Du in hottom 21							
		Min:wisps + streaks Py in bottom 2'							
		1	I				1		

HOLE No.97-223

Pg. 4 of 5

Ft.		DESCRIPTION	Sample	84	15 - 55 57	1 4 4			ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	
352.4		ALTERED SYENODIORITE			200		`		
		As above; red, pink, lt. grey							
						-			
		<u>Struct</u> :Strongly fractured + recemented;	4720	352	357	5.0	1	0.011	
		Some incipient bx'n	4721 4722	357 361.5	361.5 365.0	4.5 3.5	1/2 1-2	0.010 0.006	
		Alt; & Veins: 352.4 - 362 most strong red alt'n	4722	365	367.5	2.5	3-4	0.008	
	1	362 - 370.7 strong pervasive sil'n + a little red red alt;	4724		370.7	3.2	2	0.019	
	1	Minor chl. in cracked sections. A few % lt. grey calc veinlets		001.0	01011		27	0.010	
		0.7							
		Min:Diss'd Py with brick red streaks, 'red alt'n' in upper part + with sil'n in							
		lower part.							
		354.3 -isolated small blebs Cp in calcite veinlets:							
370.7	402 5	MASSIVE MAFIC (U.M.) FLOWS							
570.7	402.0	Dk. grey, f.g. relatively soft mostly carbonate + a little chl. Strongly magnetic;							
		slightly talcose.							
		Struct: Mostly massive; some calc. vein may mark polysuture joints;							
		mod. fr'd; minor broken core; top1.5 - 2'					İ		
		sheared + bx'd.							
		Veins & Alteration: Seems to be pervasive carb'd (non-fizzy)							
		A few % It. grey calcite veinlets up to 1/4"							
			4725		372.3	1.6	4	0.003	
		0.6' shattered grey calc. minor qtz. vein with 3-4% dips fine Py in selvage +	4726	372.3	377.0	4.7	<u> 192</u> 0	0.001	
		adjacent sheared volcanics.							
		Min:See 'Veins'							
402.5	407.2	FRACT'D SYENODIOR. DYKE					1		
		Lt. grey, m.g. feldspar rich;							
			1.722	10.8				0.005	
		Struct:Shattered, broken throughout.	4728	402.5	407.2	47	tr	0.005	
		Alteration: Non-mag. + appeaars to be weakly sil'd throughout. Minor red							
		alt'n in middle.							
			1				a a		
		Min:tr Py	1						
		1	1				1		

₩ 949

HOLE No.97-223

Pg. 5 of 5

Ft.		DESCRIPTION	Sample	1993	••••	-	- <u>-</u>		ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	
407.2	443.3	MAFIC ULTRAMAFIC VOLCANICS As above. Dk. grey green, f.g. H=4-5 strongly magnetic.							
		Struct: Massive or indistinct bx +/or polystructure joints. 407.7 -408.7 broken with gouge seams up to 1/4" - small fault							×
		<u>Alt.& Veins:</u> Minor white calc. veinlets							
		Remarks: 423.4-427.2 med. feldspar porphyry dyke.							
443.3	457.5	FELDSPAR PORPHYRY DYKE Med. dk. grey matrix 40% 1-3m Lt.grey feldspar pheno x; non-mag.					E.		
		Struct: Middle so massive, + flow band 2-3' from contacts							
		Min:tr Py as scattered grains + on fractures							
457.5	471.5	MASSIVE - POLY-SUT. JOINTED MAFIC U.M. FLOWS As above 407.2 - 443.3					5		
		Struct:Minor broken core							
471.5	521.7	MAFIC U.M. FLOWS Med. to dk. grey-green. f.g. + uniform to speckled (as seen near main zone) Speckled are 2-3mm augen with black chl. matrix. Strongly mag. $H=5$ A little bladed to massive spinifex							
		Structure: Polysuture joints?							
	(159m) 521.7	END OF HOLE. A.W.Becham 25/1/97							

TYRANEX GOLD INC.

DIAMOND DRILL HOLE LOG

HOLE No.97-224

Property	Тр		Azimuth	Date started	Corrected	Dip	Tests	(ീ	La	ocation Sketch
TYRANITE	KNIGHT TP		grid 265-270°true	23rd Jan. 1997	Depth	Mag. Az	True Az	Dip		
Project	Lot & Conc.		Dip	Date Completed	200'	280°	271°	40°	÷.	
Duggan Zone			-41°	26th Jan. 1997	443'	278°	269°	40°		
Claim # GG6649 (lease)	Co-ordinates		Length (metres)	Drilled by:	561'	273.5°	264°	41°		
	N	E	561.0'	St.Lambert Drill.						
Grid # Underground	3577.25	6717.94	Collar Elevation	Logged by:					* read by driller	9090 12
Surface	11+30		9929.61	A.W. Beecham						

Ft.		DESCRIPTION	Sample			-	-		ASSAYS	
From	To		Number	From	То	Length	% Py	opt Au		Avg.
		OBJECTIVES: TEST DOWN PLUNGE FROM HIGH GRADE								
		INTERSECTION IN D.H. 1316-10.					4			
0	9.8	CASING								
1212										
9.8	116'	GREY DIORITE								
		Med - lt. grey, med- c.g. equigrannular to slightly porphyritic								
		60-80% feldspar 15-40% mafics - homeblende								
		A few % 0.5-2cm mafic inclusion								
							1			
		Struct: Massive undeformed, scattered inclusions 5-20cm of gabbro + mafic volc.								
							с.			
		Alt: & Veins: Relatively fresh + unaltered								
		Remarks: Lower contact alternating sections of diorite + syenodiorite.					4			
		<u>Remarks</u> . Lower contact alternating sections of diorne $+$ sychodiorne.								
116	203.5	GREY SYENODIORITE								
		Med. lt. grey -some texture as above but only with 10-15% mafics								
		Inclusive mafic volc. + gabbro								
		Struct: Massive - weakly fr'd.								
		Alt: & Veins: Minor epidote - calcite veinlets;	6							
		rite a venisivinor epidod - caleia venincis,								
		Remarks:1.3' maf. volc. inclusion at 201'	8							
203.5	220	MAFIC - U.M. VOLCANICS.								
		dk. green, blue-green, f.g. H=3-4 Magnetic.	1							
		Composed of carb (non-fizzy) chl + a little talc.					3			
		Struct:Strongly fract'd - fractures parallel to core- broken								
		Subulstongry navi u - fractures parafiel to core- oroken	ł.				2			
						DH No.	97-224	1	Page No. 1	

DIAMOND DRILL HOLE LOG HOLE No. 97-224 Pg. 2 of 5

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HOLE No. 97-224

Pg. 2 of 5

Ft		DESCRIPTION	Sample						ASSAYS	
From	То		Number	From	То	Length	% P	opt Au		
220	250.7	SYENODIORITE - MAFIC VOLC. INTRUSIVE BX				<u> </u>				
		As above - 70% syendiorite -30% mafic volcanics. volc. sections up to 6'								
		Struct: strongly fract broken sections;						a	20 100	
250.7	304.0	MAFIC - U.M. FLOWS								
	1000 33.00	Dk. green-blue green $H=4$;								
		Mostly f.g.								
		Bladed apinifex texture 264-269'								
		Mostly non-fizzy carb. chlorite + a little magntite; strongly negative								
		Starst Delventure iniste some by or manine								
		<u>Struct:</u> Polysuture joints, some bx or massive fract'd - perferred orintation nearly parallel to core;								
		Sections of broken core.								
		Alt: & Veins: Minor white calcite veins + sections of pervasive calcite alt'n	ļ							
		Strong bleaching + pervasive calcite								
		303-304'								
		Remarks: Probably komatiitic basalt;								
304.0	317.8	ALTERED SYENODIORITE								
		Pink, lt. grey, med. to f.g. $H = 5-6$, non-magnetic.	4729	300	304	4.0	-	0.001		
			4730	304	307	3.0	tr	0.010		
		Struct: Shattered + re-cemented	4731 4732	307 310	310 314	3.0 4.0	39*1110*11*10*11*19	0.067 0.031		
		Alt; & Veins: Mod. strong pervasive sil'n. A little weak red alt. Texture obliterated	4732	314	314 317.8	3.8	-	0.031		
		Minor white qtz. veinlets.	4758	317.8		3.2	-	0.001		
		······ 1 ····				25				
		<u>Min:</u> 1-2 -2% diss'd Py in sil'd + red alt'd zones								
		<u>Remarks:</u> 307-310 - grey bleached mafic volc. with strong calc alt. + veining.	ļ							
317.8	353	MAFIC - U.M. VOLCANIC BRECCIA								
		As above $H=4$ magnetic.								
		leenee bi saketi bahay X₩aake dare								
		Struct: Primary volc. bx. + short section shearing in top 4' at 45° at 320'								
		Sections broken here + there.								
	8		l							

DH No.97-224

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HOLE No. 97-224

Pg.3 of 5

Ft.		DESCRIPTION	Sample						ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	
		Alt: & Veins: Strong pervasible calc. numerous calcite veinlets in top 5'							
		A few white calcite veinlets with tr Py							24
									105.1
353	387.4	ALTERED SYENODIORITE - INTRUSIVE BX.							
		As above, pink to dull red magnetic except whre strongly altered. Up to 20%	4734	354	357	3.0	tr	0.002	
	6	mafics -15-20% mafic - u.m. volc. angular, fragments up to 1'	4735	357	361.5	4.5	1-2	0.039	
		N 1 1 1 1 1 1 1 1 1 1	4736	361.5	365	3.5	tr	0.001	
		Struct: Mostly undeformed - altered sections appear shattered.	4737	365	370	5.0	-	nil	
			4738	370	373	3.0	tr1/2	nil	
		Alt; & Veins: Sections of strong red alteration 355-361 and 373-376'	4739	373	376.7	3.7	1/2	0.002	
		Minor white calc. veinlets: minor sil'n around volc. include. in otherwise unaltered rock.	4740	376.7	379.0	2.3	-	0.002	
		TOCK.				1			
		Min:2-3% Py - some coarse (3mm) Py with white calcite.							
		<u>IVILL</u> 2-5 % Fy - Some coarse (Smill) Fy with white carene.							
387.4	439.0	MASSIVE MAFIC - U.M. VOLCANICS							
507.4	409.0	As above. dk. blue green, f.g. H=4; magnetic.							
		Struct: Massive; or with polysuture joints.							
		437.5 - 438.1 Strong shear at 50° with a little gouge							
		Alt: & Veins: 2-3% white calc; veinlets except below 420 where calc. veins increase							
		to 5-8%							
		435-438 8-10% white calc. + calc. qtz. vein in bleached + pervasively calc. altd.							
		zone;							
		437.5 - 438 30% dull grey mottled sil'n - q.v. + 20% wispy white q.v. along shear at							
		50° with 2-3% fine Py; minor lt. grey qtz. bx.	a second to						
			4741	434	437.5	3.5		0.001	
		Min:trPy in grey calc + qtz calc veinlets. See veins tr Cp Sph 438 in hairline q.v.	<u>4761</u>	437.5	439.0	1.5	3	0.118	
439.0	474.5	ALTERED SYENODIORITE							
		As above. Dull red + grey, slightly alt'd to bright orange- red where strongly altered							
				100		• •			
		Struct: 445-450 intrusive bx to 30% alt'd maf. volc. inclusions. Strongly	4742	439	442	3.0	2-3	0.012	
		alt'd sections appear shattered + recemented	4743	442	445	3.0	2-3	0.014	
		Alle R.V. in Discussion of the descent of the descent of the sector of t	4744	445	450	5.0	1	0.009	
		Alt: &Veins:Discontinous + strong orange-red alt. (hem, carbonate silica?) Red alt'n	4745	450	455	5.0	1/2-1	0.002	
		pervasive from 439-445 and affects only 25% of rock below-controlled by fract.	4746	455	459	4.0	2	0.013	

DH No. 97-224 Page

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HOLE No.97-224

Pg. 4 of 5

Ft.	A 100 M 10	DESCRIPTION	Sample	000000000					ASSAYS
From	То		Number		То	Length	% Py	opt Au	
		with calcqtz. calc.	4747	459	463	4.0	tr	0.003	
		Minor white qtz up to3/8 e.g. at 448'	4748	463	467	3.0	1-2	0.009	
		Mod. pervasive calc with strong red alt'n. Some coarse Py with grey calc.	4749	467	470	3.0	1/2	0.002	
		Blebs dk. Py (5% over 0.5 ') at 444.7' + at 444'	4750	470	474	4.0	1/2-1	0.023	2
								384	,5
74.5	502	RED ALTERED SYENODIORITE	00000000						
		As above relatively coarse grained with 20-25% mafic incl	4751	474	479	5.0	-	0.001	
		some 1cm horneblende.Mod. mag.	4752	479	484	5.0	tr -1/2	0.002	
			4753	484	489	5.0	tr	0.006	
		Struct: Mostly massive, undeformed except short altered sections which appear	4754	489	494	5.0		nil	
		shattered + recemented; Lower Ct as a fault	4755	494	499	5.0	tr	nil	
			4756	499	502	3.0	tr	nil	
		Alt: & Veins: Mod. strong brick red alt near Cts + only weakly alt'd in middle							
		Short sections stroong red alt texture obliterated e.g. at 482' + 497- end in thin							
		sectioons red alt'n.							
		Min:Minor fine Py with red alt'n.							
2.0	520.	FRACTURED MAF-VOLCFAULT ZONE	4757	502	505	3.0	tr	nil	
		As above.	1				ļ		
		Charles Charles for her her di anna anime anna davalare Erretare							
		Struct: Strong fault at top makes by 4" gouge - minor gouge elsewhere. Fractures							
		+ broken throughout.							
		Min:2-5% Py in 4" gouge at top.							
		<u>Will</u> 2-5 % Fy In 4 gouge at top.							
20.	542.	FELDSPAR PORPHYRY DYKE							
	542.	Lt. grey with dk.grey at contacts.							
		Med f.g. rock.					2		
		^50% chl'd mafic; non-mag.							
		Struct: Middle is massive with flow banding up to 7'from contacts at 40°							
		Mod. fract'd.							
		Alteration: Lt. grey colour -probably bleaching							
			4759	527	532	5.0	1/2	nil	
		Min: 1/2% diss. Py throughout	4760	532	537	5.0	tr-1/2	nil	
		, , ,							
42	550	FRACTURED MAF. U.M. VOLC FAULT ZONE							
		As above.	4762	537	542	5.0	tr	nil	
			4763	542	547	5.0	tr-1/2	nil	
		Struct:broken throughout, a little gouge	4764	547	551	4.0	tr-1/2	0.001	
		n an transfer an	10 men av ol				3. 3.		

DH No. 78-224 Page No. 4

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HOLE No. 79-224

Pg. 5 of 5

Ft.		DESCRIPTION	Sample	4000					ASSAYS
From	То		Number	From	To	Length	% Py	opt Au	
		Min:Minor coarse Py with calc. in fractures.							
550.	561.0	MAF. U.M. VOLCANICS							
		As above; Coarse bladed spinifex							84
		550-555.					-	20	
							-		
		<u>Struct:</u> Some fine flow bx-chl matrix;							
		Min:tr - minor Py on fractures							
	561.0	END OF HOLE							
		GENERAL REMARKS:							
		437.5 - 474 Mineralized syenodior, sheared, faulted contact with komatiitic volc. similar setting to main Tyranite structure;							
		Expect significant values 445-474ft.							
		A TET TE AND A TETAT							
		A.W. Beecham.							
		the struct							
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TYRANEX GOLD INC.

DIAMOND DRILL HOLE LOG

HOLE No. 97-225

Property	Тр		Azimuth	Date started	Corrected	Dip	Tests	(⁰)	Location Sketch
TYRANITE	KNIGHT TP		265grid -270°true	26th Jan. 1997	Depth	Mag. Az	True Az	Dip	
Project	Lot & Conc.		Dip	Date Completed					
DUGGAN ZONE			-44°	28TH Jan. 1997	200'	279°		4 4°	
Claim # GG 6649 (lease)	Co-ordinates		Length (metres)	Drilled by:	590.6°	270°		44°	
	N	E	521.7'	St.Lambert					7
Grid # Underground	3903.09	6619.37	Collar Elevation	Logged by:					ə4 :
Surface	14+45		9917.96	A.W. Beecham					

FromToNumberFromToLength% Pyopt0'4.9'CASING	Au Moppm Avg
0' 4.9' CASING 4.9' 45.6' GREY SYENORITE Med. lt. grey 70-80% feldspar - gram size- 3mm-f.g. then typical syenodiorite; magnetic weakly fsp. porphyritic; 1-2%	
4.9' 45.6' <u>GREY SYENORITE</u> Med. lt. grey 70-80% feldspar - gram size- 3mm-f.g. then typical syenodiorite; magnetic weakly fsp. porphyritic; 1-2%	
Med. lt. grey 70-80% feldspar - gram size- 3mm-f.g. then typical syenodiorite; magnetic weakly fsp. porphyritic; 1-2%	
Struct: Massive uniform + undeformed.	
Veins & Alteration: Minor calcepidote veinlets	
45.6' 51.2' <u>FELDSPAR PORPHYRY DYKE</u> Meddull grey, 15-20% 0.5 -2mm feldspar phenox; non-magnetic; Appears bleached.	
Min:Minor Py films on joints	
51.2' 187.5' <u>GREY SYENODIORITE</u> As above, except med. c.g. mod. weakly mag.	
Struct: Mostly massive + uniform undeformed.	
Alt; & Veins: Minor calcite-epidote. Minor white calcite veinlets.4765162.5164.52.0tr-1/20.01635 - white calc veinlets + minor red alt. + a little Py; tr C.p. 163'163'162.5164.52.0164.5164.5164.5164.5	0
187.5' 230.5' RED ALTERED SYENODIORITE Texture, as above; mod. mag. 4766 187 191.5 4.5 - 0.0 4767 191.5 193.5 2.0 3 0.0	10.
4768 193.5 198.0 4.5 - n	
Struct: Massive, undeformed; mod. fractured here + there 4769 198 203 5.0 tr 0.0	
4770 203 207 4.0 tr 0.0)]

DH No. 97-225 Pag

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HOLE No. 97-225

Pg. 2 of 5

Ft		DESCRIPTION	Sample		/9				ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	020
		Alt:Mod. red staining, texture preserved.	4771	207	210	3.0	457)	0.001	
		A few % white orange calcite - qtz veins up to 1/2"Minor white ch. in Py in	4772	210	211.5	1.5	1	0.051	
		selvage.	4773	211.5	217.0	5.5	tr	nil	
		Banded lt. grey-calc-qtz. chl in red alt'd selvage + diss'd Py c.g. at 193',219,228.	4774	217.0	222	5.0		nil	
			4775	222	227	5.0	-	nil	
		Min: Conc. of Py up to 3 or 4% / 2" veiin selvages;	4776	227.0	230	3.0	1-2	0.002	
.30.5'	288.5	RED ALTERED SYENODIORITE	1						
		As above, except looks f.g. due to alt; remnants of normal c.g. material; weakly	4777	230	235	5.0	tr	0.001	
	3	mag.	4778	235	240	5.0	tr	0.004	
			4779	240	245	5.0	tr	0.003	
		Struct: Mostly massive, strongly altered sections shattered + re-cemented;	4780	245	250	5.0	1/2-1	0.003	
			4781	250	255	5.0	tr	nil	
		Alt; & Veins: Strongly alt; with texture obliterated; mod. strong red altered	4782	255	260	5.0	1/2-1	0.004	
		throughout with short sections strong red alt'n along 30° fract.	4783	260	265	5.0	tr	0.003	
		A few % white + orange calc. +/- chlorite up to 1" thick. at 60° to 20°;	4784	265	270	5.0	tr	0.006	
		Minor white qtz. up to 1/2"	4785	270	275	5.0	1/2	0.042	
		247.3 - 0.7 Strong red brown slil'n with white qtz. + calc.viens +8% Py -35°	4786	275	280	5.0	1/2	0.026	
		257.0 - 0.4 Strong it. brown sil'n with 20% white $q.v. + qtz bx + 3\%$ Py.	4787	280	285	5.0	1/2	0.013	
			4788	285	289	4.0	1/2	0.028	
88.5'	305'	ALTERED SYENODIORITE	4789	305	310	5.0	tr	0.015	
		As above. Med. grey; magnetic.	4790	310	315	5.0	tr	0.012	
			4791	315	320	5.0	1	0.064	
		Alt: & Veins: Texture partly obliterated - a little pervasive calc.	4792	320	325	5.0	1/2-1	0.125	
		De Marine Contra Gen Lett Mari	4793	325	330	5.0	2	0.077	
05'	350'	ALTERED SYNODIORITE	4794	330	336	6.0	tr	0.003	
		Mod. red alt'n throughout with short sections of strong red-orange alt. 1/3 of unit							
		Red alt.'d sections have 1/8-1/4 calcite or qtz. calcite centre;	Avg.	<u>315</u>	<u>330</u>	<u>15.0</u>		<u>0.084</u>	
		315' 2" pink calc. chl. vein at 40°							
		316.5-322 - qtz calc red alt; + py paralle to core. 325-328 " " " " "							
		341.5-349.5 - 5-8% white to grey qtz. calc. with up to 7-8% Py selvages/1' in	4795	336	341.5	5.5	tr	0.010	
		zones of strong orange red alt'n.	4796		346.5	5.0	4	0.039	
			4797	346.5		2.5	2-3	0.032	
		Min:See Veins.	1000 AU - 200				2000 B 100	-000-00-00-00-0	
			Avg.	<u>341.5</u>	349	<u>7.5</u>		0.037	
350.0'	377.5	RED ALTERED SYENODIORITE - DIORITE		<u></u>	2.22				
2004 11: THE REAL PROPERTY OF	1997 No. 1997 No.	As above. Relatively c.g. ^ 25% chl'd mafic;modstrongly mag.	1				1		

DH No.97-225

HOLE No. 97-225

Pg.3 of 5

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Ft.		DESCRIPTION	Sample		- 62				ASSAYS
From	То		Number	From	Contract of the local division of the local	Length	% Py	opt Au	<u>1 171 - 275</u>
1.5.0-3153 dfb dfb dfb		Struct: Only weakly fractured; undeformed	4798	349	353	4.0	-	0.092	
			4799	353.0	358.0	5.0	~	0.075	2
		Alt; & Veins: Pervasive red alt. throughout, most of texture preserved. Minor lt	4800	358.0	363	5.0	- '	0.065	22
		grey + pink calc. veinlets.	4801	363.0	368	5.0	<u>-</u>	0.016	
		370.4 1-5" pink calc. chl at 40°	4802	368	373	5.0	tr-1/2	0.034	
		369 -3/8 white + grey qtz. + calc. with strong orange selvage + Py.	4803	375	377.5	4.5	tr	0.021	
		Min:See Veins. ttr Py here + there in calc. veinlet selvages.							
377.5'	405.0'	ALTERED PYRITIZED DIORITE							
		Pale green grey or dk. green;							
		Med. c.g. remnant texture preserved - non-magnetic.							
		Composed of altered feldspar, green micas, dk. chlorite							
		Struct:* is not pervasively deformed - some sections shattered + recemented	4804	377.5	382	4.5	2-3	0.010	
		Small faults as follows:	4805	382	387	5.0	2	0.064	
		385.5 -0.5' broken with 1/4" gouge at 20 ° + 45°	4806	387	392	5.0	2-3	0.044	
		395.5 - slip with minor gouge at 60°	4807	392	397	5.0	3-4	0.019	
		399.7 - 401 broken + grey qtzchl 1/2 gouge seams at 30°	4808	397	401	4.0	4-6	0.082	
			4809	401	405	4.0	4-5	0.015	
		Alt: & Veins: Strong pervasive pale green mica? (sericite)				8 8			
		most of feldspar destroyed. Mafica completely chloritized.	Avg.	<u>382</u>	<u>401</u>	<u>19.0</u>		<u>0.051</u>	
		Short sections of sil'n mainly along veinlets							
		Some pervasive carb. include. calcite.							
		Strong red alt'n only in top 2'							
		-a little white mica here + there							
		A few % It. grey to white contorted q.v. up to 3/8" 30-40°							
		399.7-401 -60% dull grey + white qtz. with blebs chl. + Py (fault) 30°							
		Min: Abundant fine to med. grained (up to 2-3mm) dull Py inpregnation - diss'n							
		'stringy' concontration throughout most of unit. Conc. up to 8%/1'							
		Not conc. q.v. selvage	9						
		Diss'n Py with red alt'n at top tr Cp in qtz. carb veins c.g. 388'							
		Remarks: Contacts arbitiary.							
		Only well proportion strongly sil'd or q.v. + may not contain Au values							
		8							

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9

HOLE No.97-225

Pg. 4 of 5

Ft.		DESCRIPTION	Sample						ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	
05.0'	411.0'	ALTERED SYENODIORITE & QUARTZ VEINS				A490 0710			
		As above; weakly mag. between veins.				10			
		Struct: Shattered + cemented by qtz. at 45° ; $35^\circ + 0^\circ$						ы	6
		Veins & Alteration: 20% white light grey to 'smokey' dk. grey qtz. 0.5 vein at	4810	405	408	3.0	2-3	0.009	
		bottom; Calc with qtz; as minor veinlets + a little pervasive alt; Minor qtz bx at	4811	408	411	3.0	2-3	0.003	
		410'. A little green mica in matrix.		400	411	5.0	23	0.005	
		Min: Py diss'd through rock + concentrated in q.v. selvages.							
		Minor Cp. in q.v. at bottom.							
		407 - Minor grey purple mineral + possible minor scheelite in q.v. 407 - tr. Cp in q.v.							
			4812	411.0	413.3	2.3	tr	nil	
11.0'	590.6'	GREY SYENODIORITE - DIORITE	4813		416.0	2.7	tr	0.001	
		20-25% mafics; As above mod. magnetic.Becomes relatively c.g. down + contains up to 25% mafics.	4814	416.0	421.0	5.0	tr	0.006	
			4815	472	473	1.0	1/2	0.011	
		Struct: Fractured with a little veining here + there - especially top 2'	24522	473	476.3	3.3	tr	0.011	
		509 - 14 - 1/2' gouge + bx -(vein) 45°	Second California Configuration			1			
		565-571 - Strongly fract'd + a little gouge, fract. at 30°	4816	506	508	2.0	11 2.	0.040	
		CONFIDENTIAL CONTINUATION CONTINUES AND AND AND CONTINUES AND	4817	508	511	3.0	1 (<u>v.g</u> .)	5.93.	*
		Veins & Alt: Feldspar weakly alt'd in top 2'	4818	511	513	2.0	10	0.004	
		minor thin zones (1/4") red alt'n, minor Py at 421.7 + 420'	24523	513	516	3.0	22	0.001	
		Minor white $q.v.1/8 - 1/4$ " at 413 + 414.2	24524	516	518.2	2.2	tr	0.005	
		Minor thin epidote calcite veinlets							
		472.6 - 1/2' calc. + selvage with Py at 30°	24525	528.5	531.0	2.5	tr.	0.002	
		509-510.5 - small fault with sections of red alt'n + diss'd + white q.v. and	22322	00000	000000	5.25		101 212121	
		'vuggy' lt. grey calc. veinlets 40°	4819	572	575	3.0		0.006	
		572.5 - 572.5 Pink qtz. feldspar streaks - blebs- (alt'n or inclusions?)	4820	575	578	3.0	tr	0.001	
		586.3 2" grey banded calc. vein at 35°	4821	585.5		1.5	-	0.005	
		587.5 3" banded with wallrock partings white qtz. + calc. 45° in 1% Py.	4822	587	588	1.0	tr-1/2	0.003	
		<u>Min:</u> See Veins + Alt'n							
		END OF HOLE A.W.Beecham. Autoric							
	*	<u>V.G.</u> as scattered grains up to 0.5 mm + abundant fine gold along hairline black qtz- Py veins cutting red alteration. Gold recognized in 2 veins at 508.6 and 509.1-509.8 tr. pale grey-silver mineral							
		Gn or telluride.tr Cp here + there.							

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HOLE No. 97-225

Pg. 5 of 5

Ft.		DESCRIPTION	Sample				Line & Line 1		ASSAYS	
rom	To		Number	From	To	Length	% Py	opt Au		
		General Comments:								
		(1) trace amounts Cp in lt. grey calcite here + there throughout most								
		sections.								
							ē.		31. -	
		(2)West side of mineralization end so abruptly against almost completely barren						*4		
		unaltered rock.								
			1							
									10.5%	
							1			
			1							
			1							
		1	I				I			

Tyranex Gold Inc.

DIAMOND DRILL HOLE LOG

HOLE No.97-226

Property	Тр	Azimuth	Date started	Corrected	Dip	Tests	(°)		Location Sketch
TYRANITE	KNIGHT TP	grid 265-270°true	28th Jan. 1997	Depth	Mag. Az	True Az	Dip		
Project	Lot & Conc.	Dip	Date Completed	Collar	-	-	45°		
Dugan Zone		-45°	31st Jan.1997	200'	278°		45°		
Claim # GG6651	Co-ordinates	Length	Drilled by:	530.53	283°		45°		
(lease)		530.5'	St.Lambert Drilling						2
Grid # Underground	4009.01N; 6618.45	Collar Elevation	Logged by:					14	N2
Surface	section: 15+50N	9919.81	A.W. Beecham						

Ft.		DESCRIPTION	Sample	1	-1311203 9				ASSAYS	10 .1 10 00	
From	To		Number	From	To	Length	% Py	opt Au		Mo ppm	Avg.
1		OBJECTIVES:	6 - 5 A						200800		
		1000 1000 11 100					5				
0	13.6	CASING:					ê				
13.6	224	MEDIUM GRAIINED SYENODIORITE -DIORITE Med. lt. grey 80-85% feldspar - remainder dk. green homeblende. Feldspars 0.5 - 2mm - randomly orientated, coarse diabasic ; Mod. to weakly mag grain size increases downward; sparse, small f.g. mafic inclusions.									
		Struct: Massive, uniform, undeformed. Minor sections of broken core at 67' 135-138'									
		<u>Alteration & Veins:</u> Fresh relatively unaltered; Minor It. grey calcite veinlets, minor epidote-calcite. 139 -1/4 -1/2" grey qtz.carb; in 3/4" Py'c selvage 222.5 white qtz. + qtz. bx - 2-3" at 70° tr Py - no alt'n + tr fine dk. grey-blue min? (MoS2 ?)	4823 4824	138.5 222	140.0 223	1.5		0.003 0.006			
		Min:See Alt'n + Veins.	1021	LLL	245	1.0		0.000			
224	313.5	<u>ALTERED SYENODIORITE</u> Med. dull grey to pale red; Fine alt'd to med.c.g., mag. except where strongly alt'd.				U U					
		Struct: Mod. strongly fract'd at 30° + recemented.	1025	220	225	5.0	t-	0.016			
		314 - fract. + c.g. calcite with minor gouge at 05°	4825 4826	230 235	235 240	5.0	tr tr	0.018			
		Veins & Alt: Numerous short sections (1/2-2") red alt'n with pervasive calcite	4827	240	245	5.0	tr	0.048			
		Alt'n zones have thin 'core' of calcite or lt. grey white qtz; fine diss'd Py in calcite	4828	245	250	5.0	tr	0.034			
		+ q.v. selvages.	4829	250	253	3.0	tr	0.008			
		236.7 - 3/4 white qtz. 30°	4830	253	256	3.0	tr	0.020			
		258' - 5" 75% q.v. thinnly banded at 40°	4831	256	258.7	2.7	2-3	0.131			
		283.1-285.5 white qtz. bx vein-30% qtz. pale green alt'd frag;a little white+orange	4832	258.7	263	4.3	tr	0.0009			
		calcite + 2-3% pale f.g. Py streaks dk. Py; -vein at 30°	4833	263	268	5.0	tr	0.020			

DH No. 97-226

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HOLE No. 97-226

Pg. 2 of 5

Ft		DESCRIPTION	Sample						ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	
		Min: See Veins. Diss'n Py in vein selvages + short sections of red alt'n.	4834	280	283	3.0		0.002	
			4835	283	285.6	2.6	2	0.120	
			4836	285.6	288.0	2.4	1	0.122	
			4837	288.0	293	5.0	1/2	0.079	25.
			4838	293	297	4.0	1/2	0.019	13
			4839	297	302	5.0	1/2	0.035	
313.5	317.3	CALCITE VEIN - FAULT							
		Pale rose, very coarse >1cm;Black chloritic inclusions, clasts in top 1.5 +	4840	313	317.5	4.5	-	0.025	
		elsewhere occurs interstically to calcite crystals.				0.0000000000			
317.3	336.9	ALTERED SYENODIORITE							
	0.004050329	As above, dull red + grey; mod. mag.							
			4841	334	336.9	2.9	tr	0.003	
		Alt: & Veins: Minor lt. grey calcite.							
336.9	377	ALTERED SYENODIORITE							
	1000	Med. grey, lt. grey, pale red brown;	4842	336.9	340.2	3.3	1	0.080	
		Weakly altered section mag. $H = 5$ to 6	4843		344.4	4.2	1/2	0.048	
		······································	4844		347.5	3.1	1-2	0.015	
	8	Struct: Altered sections strongly fract 50' to 45' to 10°	4845		350.5	3.0	1-2	0.014	
		- network fracturing.	4846		355.0	4.5	tr-1/2	0.005	
		now ork musuring.	4847		360.0	5.0	1-2	0.031	
	2	Alt;60% of unit bleached or red altered - in short sections along fractures +.	4848		364.5	4.5		0.002	
		networks of fractures strong pervasive calcite in bleached + red alt. material.	4849		369.5	5.0	2	0.039	
	2	Hard throughout weak silicif'n	4850		372.0	2.5	2	0.017	
		Strong 'opaline' silicif'n 372-374 with fine qtz. veinlets.	4851		374.6	2.6	3	0.049	
		Shong opamic shon in 572-574 what the que, volliges.	4852		377.0	2.4	2	0.040	
	9	Veins: 337.3 -2" lt. grey qtz. bx'd at 10°	4052	574.0	577.0	2.7	"	0.040	
		339 - 340.1 white + grey thin banded to bx q.v. at minor fine Py. +	Ave.	336 0	<u>377.0</u>	<u>40.1</u>		0.030	
		dusty Py at contacts -35°	HAVE.	500.7	577.0	<u>40,1</u>		<u>A1020</u>	
		Minor It. grey qtz. here + there some // to core.							
		Minor R. grey quz. nere + mere some // to core.							
		Min-Fine diss'd By in bleached + red alt'd rongs + wain salvages							
	4	Min:Fine diss'd Py in bleached + red alt'd zones + vein selvages.					1		
377.0	205 0	INTERMEDIATE BIOTITC INTRUSIVE	4853	277	292	50		0.030	
377.0	393.0		11111111111111111111111111111111111111	377 382	382	5.0	45		
	*	Med. grey + pink med. c.g. Texture same as main intrusive; Appears weakly	4854		387	5.0		0.001	
	19 11	feldspar phyric. Mostly fsp. 2-4% dk. brown 1-2 biotite;	4855	387	392	5.0	- 1/0	0.003	
			4856	392	397	5.0	[tr-1/2	0.013	

DH No.97-226

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HOLE No. 97-226

Pg.3 of 5

Ft.		DESCRIPTION	Sample						ASSAYS
From	То		Number	From	То	Length	% Py	opt Au	
		Veins & Alteration: 382.4" c.g. grey + orange calcite with intersticial black chl.				1.1.1.1.1 - 4.1.1. N			
		Minor weak red alteration - fract. controlled with weak Py selvages.						14	1
								14	
		<u>Remarks</u> : Contacts appear grad. + appear to be phase of Milly Creek pluton.							
05.0	440.0	AT TERER STENARION							
195.0	429.3	ALTERED SYENODIORITE As above, dull only mostly non-mag. except for weakly alt'd sections.							
		As above, duit only mostly non-mag, except for weakly all a sections.							
	*	Struct: Short sect. fract.'d + recemented Preferred overtation of vein ^ 10° - 20°							
						3			
		Alt; & Veins: Mod. strong pervasive alt. include. bleaching calcite + weak red alt'n, a	4857	397	402	5.0	1	0.024	
		little pale green mica.	4858	402	407	5.0	tr-1/2	0.031	
		3-5% lt. grey-white qtz. veinlets with calcite with pyritic selvages	4859	407	410	3.0	1/2-1	0.099	
		408 2" irregular qtz. + Py selvage	4860	410	413.0	3.0	1 27	0.005	
		420.5 2" qtz. bx vein at 10°	4861	413.0		3.2	1/2-1	0.197	
		425-427.8 10% 1/4 qtz. veinlets Py selvages	4862	416.2		3.8	1/2	0.012	
		427.8-429.0 (0.5') qtz bx Py selvage 15°	4863	420	425.0	5.0	1/2-1	0.010	
			4864	425.0	426.5	4.5	2-3	0.059	
		Min:Diss'd Py with conc. up to 2% over 3" strongest altered sections; diss Py as q.v.							
		selvages.							
		415.3 2" banded grey q.v. + black chl. 15°							
29.3	457	ALTERED SYENODIORITE - DIORITE							
		As above; typical texture; med. dull grey-red, mod. to weakly mag. Speckled							
		in places with 1-2% dk. brown biotite;	4865	429.5	434.8	5.3	tr	0.020	
			4866	434.8	440	5.2	tr	0.001	
		Struct: mostly massive + undeformed.	4867	440	445	5.0	<u>-</u>	0080	
			4868	445	448	3.0	1	nil	
		Alt: & Veins: Pervasive weak feldspar alt; weak red alt; Minor white qtz. + qtz.	4869	448	453	5.0	1	0.001	
		calcite veinlets up to 1/2"	4870	453	457	4.0	1/2	0.001	
		446.5 1" calc. chl. vein at 15°							
		<u>Min</u> : tr Py in selvages of $q.v. +$ streaks red orange alteration.							
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Į						
157	466.7	STRONGLY ALTERED SYENODIORITE SHEAR WITH FAULT	1						
1999 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 -		Pale grey, pale green $H = 3-4$.							
		Non-magnetic							
		ă.					.		

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HOLE No.97-226

Ft.	12 SATES-	DESCRIPTION	Sample			1			ASSAYS
From	To		Number	From	То	Length	% Py	opt Au	
		Struct: Strongly fract'd to shattered in broken core + a little gouge from 460.5-							
		461.5 with fracture 05° to 00°							
		Fracture + vein along core from 462-466.7							
									20
		Alt; & Veins: Strongly altered - abundant pale green mica and a little pervasive	4871	457	460.6	3.6	1	0.001	
		calcite - probably non-fizzy carbonate	4872	460.6	463.0	2.4	1	0.051	
		462-466.7 1/4 -1/2" grey calc. + black chlor. // to core.	4873	463.0	466.7	3.7	1-2	0.042	
		Min:1-2% diss'd Py mainly in calc. vein selvages;	8						
66.7	474.7	GREY & WHITE OTZ. BX VEIN	ł						
NU. 7	T/T. /	Mottled grey, white + med. grey							
		35% altered mafic frag.							
		55 to ancient mane mag.							
		Struct:Streaky banded.							
	3	Fine re-bx in with dk. green matrix over 3" at bottom . Minor gouge at bottom -	4874	466.7	469.7	3.0	2	0.075	
		banding + fracturing at 5-40°	4875	469.7		3.0	2	0.114	
			4876	472.7		2.0	2	0.102	
		Alt; & Veins: Wallrock fragments strongly silicified	20000000		1000000000		10752		
		-2 generations of qtz. + minor calc. veinlets(2" calcite at bottom)	Avg.	466.7	474.7	<u>8.0</u>		0.096	
		-streaks + wisps pale green mica;		<u></u>					
		2" c.g. white calcite at bottom;							
		Min: 2% diss'd Py mainly at contacts of $q.v. + bx$ frag.							
		471.7 -films blue grey sectile metallic mineral on fractprobably not MoS2							
		Remarks: Probably contains only low values;							
		and a sufficient second because the second							
474.7	493.6	STRONGLY ALTERED SYENODIORITE							
		As above; light orange red to dull red, grey; non-mag;							
		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							
		Struct: Strongly fract'd to locally bx with chl., calcite + qtz. cement;							
			1			2			
		Alt: & Veins: Strong red alt; affects 60% of unit; Strong pervasive calcite;				52	·		
		Grey calcite +/- quartz veinlets up to 1/2" at 45° to 0°							
		A little green mica.	4877	474.7	477.5	2.8		0.020	
			4878	477.5	482.5	5.0		0.004	
		Min:Diss'd Py in red alteration.	4879	482.5		4.5		0.011	
			4880	487.0		3.0	1-2	0.029	
		Remarks: 474.7-475.7 c.g. chl. rich rock.	4881		494.0	4.0	1	0.025	
		un v+asuni interinationi atri ♥n interinatione kularitationed	and the second	1.0000000000000000000000000000000000000	-sector 2020 - 20	400			

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HOLE No. 79-226

Pg. 5 of 5

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Ft.	-	DESCRIPTION	Sample		6 5			37 OZS	ASSAYS	
From	To		Number	From	To	Length	% Py	opt Au		
493.6	512.0	WEAKLY ALTERED SYENODIORITE -DIORITE								
		As above, relatively c.g. magnetic.	4000	101.0	100.0	50	•			
		Struct: Massive undeformed; minor fract. in upper part.	4882 4883		499.0 504.0	5.0 5.0	tr tr	nil 0.007		
		<u>Struct.</u> Massive underormen, millor mact. in upper part.	4884		504.0	4.5	tr	0.007		
		Alt; & Veins: Weak red alt. staining.	4004	504.0	506.0	4.5	u	0.001		
		Minor lt. grey calc - chl. vein with sparse Py in selvages; Minor lt. grey -white.	20							
		qtz calcite veinlet + minor Py in selvages								
			50 1							
512.0	531.5	GREY SYENODIORITE -DIORITE								
		As above; relatively c.g scattered f.g. mafic inclusions;								
	531.5	END OF HOLE								
		A.W.Beecham								
		100000000000000000000000000000000000000	di seconda			2				
						3				
						5				
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						DH No.	97-220	5 F	Page No. 5	
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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-33

NTS:	Township: Knight
Claim #: GG 6649	Coordinates: L11+50N; 50+50W
Dip: -45°E	Length: 100.0'
Casing: 0 - 2.0'	Elevation:
Date Completed: October 23, 1987	Date Logged: October 24, 1987
Core Location: Tyranite Mine Site	Samples Shipped:
Overburden:	Checked: D. Pilkey Jan. 8, 1988
	Claim #: GG 6649 Dip: -45°E Casing: 0 - 2.0' Date Completed: October 23, 1987 Core Location: Tyranite Mine Site

Acid Dip Tests

1. None taken

2.

<u>Purpose</u> Shallow sample hole to test Duggan Zone.

Conclusions Significant Intersection: 23 to 28 - 5 ft. @ 0.185 oz gold/ton.

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-33

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	23.0	BASALT MONZONITE BRECCIA (ALTERATION ZONE)	Rock consists of an intensely altered monzonite matrix, supporting subrounded, altered basalt fragments. Fragments are fine grain, black light green in colour, exhibiting strong to intense alteration. Fragment sizes vary from 1" to 5 feet in drill hole length. Percentage of fragments is difficult to determine due to blocky nature of core. Alteration of fragments is marked by moderate per- vasive chloritization and intense pervasive car- bonatization. Carbonate consists of medium fine grain, white to pinkish red calcite. Calcite stringers and veinlets from hairline fracture fillings to 1/2" calcite veins form 2-5% of rock. Monzonite alteration consists of intense pervasive calcite alteration in a medium fine grain, weakly foliated intrusive rock. Monzonites contain small irregular calcite stringers. Stringers often have subparallel sections of black chlorite along veinlet margins. Weak hematization is noted along calcite veins. Minor epidote is also present. Large basalt fragment occurs from 20.0 - 23.0'. Sulphide mineralization is present in the form of fine-medium grain, euhedral disseminated pyrite cubes. Sulphides locally reach 1-2% but on average are 1%. Sections of strong goethite alteration are noted in the blocky section of core. Core is very blocky from 0 - 13.0'.	56522 56523 56525 56526 56527 56528 56529	0 3.0 6.0 9.0 12.0 15.0 18.0 21.0	3.0 6.0 9.0 12.0 15.0 18.0 21.0 23.0	3.0' 3.0' 3.0' 3.0' 3.0' 2.0'	69 485 20 78 56 80 8 58

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
23.0	68.0	MONZONITE (ALTERATION ZONE) MINERA- LIZATION ZONE	Rock is intensely altered medium grain, moderately foliated monzonites. Small fragments of chloritized,	56530	23.0	25.5	2.5' oz/t	6771 0.197
			calcite rich basalt are still present, but now 1% or less of rock. One larger fragment @ 45.2' -	56531	25.5	28.0	2.5' oz/t	5915 0.173
			46.1', seems to have well developed spinifex tex- ture suggesting an ultramafic composition. Large	56532	28.0	30.5	2.5' oz/t	1229 0.0358
			dark green needles are noted, many show flexing	56533	30.5	33.0	2.5'	167
			and buckling.	56534	33.0	35.5	2.5'	466
			Monzonite varies from almost all plagioclase and	56535	35.5	38.0	2.5'	678
			altered hornblende to half plagioclase and alkali	56536	38.0	40.5	2.5'	2599
			feldspar. Alkali feldspar percentage may be high				oz/t	0.0758
			due to hematite staining.	56537	40.5	43.0	2.5'	594
			Alteration consists of intense calcite throughout	56538	43.0	45.5	2.5'	265
			zone, with 5-7% calcite veinlets, up to 1.5" in	56539	45.5	48.0	2.5'	470
			width.	56540	48.0	50.5	2.5'	973
			Calcite veinlets run from 45° - 80° T.C.A., with	56541	50.5	53.0	2.5'	437
			uniform hematization found on either side of the	56542	53.0	55.5	2.5'	539
			veinlets. Some veinlets also have subparallel	56543	55.5	58.0	2.5'	253
			fragments of chlorite, but chloritization is mini-	56544	58.0	60.5	2.5'	837
-			mal throughout the monzonite. Epidotization is	56545	60.5	63.0	2.5'	388
			weak and spotty through monzonite.	56546	63.0	65.5	2.5'	255
			Sections of the monzonite show relict feldspar	56547	65.5	68.0	2.5'	158
			porphyry textures.	56548	68.0	70.5	2.5'	<5 <
			Sulphide mineralization consists of 7-10% fine	56549	70.5	73.0	2.5'	₹5
			euhedral, cubic pyrite. Small blebs of randomly oriented pyrite are also evident. Trace amounts of chalcopyrite are found.	56550	73.5	76.5	3.0'	∢ 5
68.0	76.5	BASALTS (ALTERATION ZONE)	Basalts are fine grain, black to dark green in colour, showing moderately developed foliation. Alteration consists of moderate strong calcite and strong pervasive chloritization. Calcite is also present as veinlets blebs and irregular pat- ches, forming 10-15% of rock. Veinlets have ran- dom orientation, commonly offset along fractures @ 75° T.C.A.					

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	From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
4 *			cont'd	Spotty zones of intense pervasive hematite altera- tion are found. 1-2% local accumulation of cubic pyrite is noted, but on average sulphide mineralization is 1%.					
	76.5	100.0	MONZONITE BASALT BRECCIA	Same as interval 0 - 23.0, calcite alteration slightly less intense, except in basalt fragments. Spotty hematization in monzonite. Small calcite veinlets still common, forming 2-3% of rock. Trace 1% localized pyrite noted. Pyrite brassy and euhedral in character. Two small (1") quartz veins seen. Vein milky white, weakly calcite rich, trace pyrite.	56551 56552 56553 56554 56555 56556 56557 56558	76.5 79.0 82.0 85.0 88.0 91.0 94.0 97.0	79.0 82.0 85.0 88.0 91.0 94.0 97.0 100.0	2.5' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0'	189 54 9 6 168 179 7 7

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-34

Property: Tyranite	NTS:	Township: Knight
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 6649	Coordinates: L12+00N; 50+50W
Azimuth: 090°	Dip: -45°E	Length: 100.0'
Logged By: D. Pilkey	Casing: 0 - 2.0'	Elevation:
Date Started: October 23, 1987	Date Completed: October 24, 1987	Date Logged: October 25, 1987
Core Size: BQ	Core Location:	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: D. Prior Jan. 6, 1988

Acid Dip Tests

1. None taken

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2.

<u>Purpose</u> Shallow sample hole to test Duggan Zone.

<u>Conclusions</u> Significant Intersections: 38.5 to 52 - 13.5 ft @ 0.071 oz gold/ton including 38.5 to 43.5 - 5 ft @ 0.104 oz gold/ton

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

Hole No: 1316-35

0 1.75 CASING 1.75 CASING 1.75 26.8 MONZONITE GRANO- DIORITE Mottled grey-pink-black to grey-white-black coarse 56637 2.0 3.9 1.9 grained monzonite; base colour of rock (pink or 56638 3.9 6.9 3.0 grey-white) is dependent on respective amounts of 56639 6.9 9.9 3.0 orthoclase and plagioclase as well as the degree 56640 9.9 12.9 3.0 of hematitic staining of leukocratic minerals; rock 56641 12.9 14.9 2.0 appears "gneissoid" in that it displays a sub-linear 56642 14.9 17.9 3.0 flow alignment of melanocratic minerals (probably 56643 17.9 20.9 3.0 hornblende). Alteration occurs as carbonatized, epidote enriched 56645 23.9 27.4 3.5		Width (ft)	To (ft)	From (ft)	Sample No.	Description		To (ft)	From (ft)
GRANO- DIORITEgrained monzonite; base colour of rock (pink or grey-white) is dependent on respective amounts of orthoclase and plagioclase as well as the degree56638 56639 566403.0 9.9Of hematitic staining of leukocratic minerals; rock56641 5664112.9 14.914.9 2.0 3.0 0 11.914.9 3.0 3.0 3.0 11.914.9 3.0 							5 CASING	1.75	0
silicified bands and black chloritized patches of host rock. MINERA- LIZED 12.9' - 14.75'; Sequence of moderate-heavy altera- LIZED tion in monzonite host rock; characterized ZONE by veinlets and bands of grey-white, fleshy (12.9' - pink and white calcite which are intruded 14.75') by black chloritic strings, threads and lenticular blebs, as well as reddish-orange hematized and green epidote-enriched mon- zonite. Sulphide mineralization: Altered sequence profusely mineralized with pale yellow con- densed blebs and euhedral crystals of pyrite. 19.2'; Matrix of monzonite rock unit darkens with black patches and with band foliations as it becomes increasingly chloritized. 22.25' - 23.6'; Blackish green mafic volcanic sec- tion (andesite) intruding monzonite @ 100° T.C.A.; section is weakly-moderately altered with grey-white calcite strings, threads and lenticular blebs as well as hematized - gossanized patches.	27 5 9 1123 116 101 43	3.0 3.0 3.0 2.0 3.0 3.0 3.0	6.9 9.9 12.9 14.9 17.9 20.9 23.9	3.9 6.9 9.9 12.9 14.9 17.9 20.9	56638 56639 56640 56641 56642 56643 56643	<pre>grained monzonite; base colour of rock (pink or grey-white) is dependent on respective amounts of orthoclase and plagioclase as well as the degree of hematitic staining of leukocratic minerals; rock appears "gneissoid" in that it displays a sub-linear flow alignment of melanocratic minerals (probably hornblende). Alteration occurs as carbonatized, epidote enriched silicified bands and black chloritized patches of host rock. 12.9' - 14.75'; Sequence of moderate-heavy altera- tion in monzonite host rock; characterized by veinlets and bands of grey-white, fleshy pink and white calcite which are intruded by black chloritic strings, threads and lenticular blebs, as well as reddish-orange hematized and green epidote-enriched mon- zonite. Sulphide mineralization: Altered sequence profusely mineralized with pale yellow con- densed blebs and euhedral crystals of pyrite. 19.2'; Matrix of monzonite rock unit darkens with black patches and with band foliations as it becomes increasingly chloritized. 22.25' - 23.6'; Blackish green mafic volcanic sec- tion (andesite) intruding monzonite @ 100° T.C.A.; section is weakly-moderately altered with grey-white calcite strings, threads and lenticular blebs as well as hematized -</pre>	8 MONZONITE GRANO- DIORITE MINERA- LIZED ZONE (12.9' -		

1						page	2	
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	23.8' - 24.1'; Greenish-black medium grained mafic intrusive (diabase) @ 120° T.C.A.; diabase intruded intermittently by calcitic veinlets (grey-reddish-white in colour @ 70° T.C.A.)					
26.8	96.7	ALTERATION ZONE (ALTERED MONZONITE GRANO- DIORITE * ZONE OF EX- TENSIVE SULPHIDE MINERA- LIZATION 26.8 - 57.4	<pre>Extreme profuse alteration of monzonite sequence; rock unit displays a "montage" of various colours and textures. 26.8' - 36.7'; Remnant structures of monzonite/ granodiorite unit still evident as a medium-coarse grained felsic intrusive with severe reddish-orange hematitic staining and olive green epidote enrich- ment of leukocratic minerals (plagioclase, ortho- clase, quartz); also abundant through sequence are greenish-black chloritic patches of host rock, black chloritic strings and threads, fleshy-white calcite veinlets and pods, grey carbonaceous patches and calcareous enrichment of rock through the entire sequence. 36.7' - 40.0'; Altered rock now displays rare rem- nant structures of monzonite sequence, base colour of rock is grey black indicating pro- minent chloritic alteration grading into a texture dominated by white siliceous vein- lets, sineous linear aligned siliceous threads; and ashen-grey coloured threads, tributaries of flow-aligned siliceous threads; also transecting sequence are grey- white calcareous veinlets, strings. 40.0'; Profuse alteration shown with little evidence of monzonite host rock; sequence is grey- green to olive green, fine to medium grained, denoting extreme chlorite alteration and epidote enrichment, remnant leukocratic minerals from host monzonite unit occur as reddish-orange hematized veinlets and pat- ches; textures throughout sequence vary from calcite and silicic veins or bands intruding the epidote enriched hematized monzonite to</pre>	56646 56647 56648	27.4 30.4 33.4	30.4 33.4 36.4	3.0 3.0 3.0	209 76 11

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page 3

From	То
(ft)	(ft)

cont'd

the more pronounced "marbled" or "swirling" pattern created by the intermingling of green altered monzonite with intruding cream-coloured siliceous lenses and veinlets and grey-white calcite veinlets and pods.

40.0' - 67.9'; The most striking textural feature occurs from 40.0' to 41.3' where a definite segregated flow banding takes place; greywhite siliceous veinlets flow alternately with light black chloritized monzonite giving this section a "zebra - stripe" effect, this flow pattern strikes core axis at 135° and is fed by a dendritic-like pattern of black chloritic: a minor brecciated texture is also apparent as angular carbonaceous and siliceous fragments transected by chloritic and pyritic strings and tributaries: fuchsite (mariposite) appears with siliceous and quartzose veinlets and intrusions as apple green flecks or freckles and as brecciated apple green patches in the altered monzonite sequence. Sulphide mineralization: Profuse sulphide

mineralization occurs throughout the entire altered sequence as pyritic stringers, disseminated flecks and blebs and as euhedral pyritic crystals.

67.9' - 82.9'; Greyish-green to blackish green moderate to heavily altered monzonite; monzonite structural features reappear as dark blackish green highly chloritized medium coarse grained subhedral crystals; plagioclase predominates leukocratic mineral composition; sequence is profusely carbonatized throughout with frequent calcitic veins, patches, tributaries and blebs. (Calcite veins are grey-white to fleshywhite in colour); monzonite unit is also

Sample	From	To	Width	Au
No.	(ft)	(ft)	(ft)	(ppb) 07/
56649	36.4	39.4	3.0	1066 0.0:
56650	39.4	42.4	3.0	4462 0.13
56651	42.4	45.4	3.0	371
56652	45.4	48.4	3.0	224
56653	48.4	51.4	3.0	3036 D. 081
56654	51.4	54.4	3.0	6065 0.17
56655		57.4	3.0	4292 0.12
56656	57.4	60.4	3.0	5119 0.14
56657	60.4	63.4	3.0	<5
56658	63.4	67.9	4.5	1387 0.04

					page	4	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	MINERALI- ZATION: 82.9 - 100.0 90.1' 91.9'	<pre>moderately silicified with transecting white and cream coloured quartz veinlets; epi- dote-enrichment of host rock also occurs intermittently; fuchsite (mariposite) appears as apple-green staining in monzo- nite matrix peripheral to quartz veinlets and less conspicuously in sporadic blebs throughout sequence. Sulphide mineralization: disseminated pyri- tic blebs occur only sporadically through sequence as pale yellow subhedral crystals. 100.0'; Monzonite becomes extremely altered with little evidence of relic structures; sequence is greyish olive green predominantly with minor sections greenish-grey; unit is profusely carbonatized with grey-white len- ses, grey-white and amber-white veinlets - strings - tributaries. Monzonite is mode- rately silicified with white quartz vein- lets and strings. Also observed were black chloritic strings, blebs and intermittent fuchsite (mariposite) blebs with zones of fuchsite and carbonaceous epidote enriched host rock. 90.75'; Dark olive-pea green coloured altered monzonite; (fuchsite-chlorite-epidote en- riched); transected by white quartz vein- lets, strings, blebs; heavily mineralized with disseminated pyrite blebs. 93.0'; Zone of pale greenish grey brecciated carbonatized monzonite; radiating black chloritic strings and fuchsite are also prominent. 100.0'; Crimson red hematized stained altered monzonite. Sulphide mineralization; Moderately mine- ralized with disseminated flecks, condensed blebs and stringers of pyrite.</pre>	56659 56660 56663 56664 56665 56666 56667 56668	67.9 70.9 73.9 76.9 79.9 82.9 85.9 88.9 91.9 94.9	70.9 73.9 76.9 79.9 82.9 85.9 88.9 91.9 94.9 96.7	3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.2	74 1690 D.D (5 15 4317 D.13 2483 0.07 1536 0.01 43
96.7	Е. О. Н.						

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-36

2.

Property: Tyranite (Duggan)	NTS:	Township: Knight
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 6649	Coordinates: L13+00N; 503+50W
Azimuth: 090°	Dip: -45°E	Length: 100.0'
Logged By: D. Pilkey	Casing: 2.0'	Elevation:
Date Started: October 25, 1987	Date Completed: October 26, 1987	Date Logged: October 27, 1987
Core Size: BQ	Core Location:	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: D. Pilkey Jan. 8, 1988
·	Acid Dip Tests	. `

1. None taken

<u>Purpose</u> Shallow sample hole to test Duggan Zone.

<u>Conclusions</u> Significant Intersection:

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70 to 80 - 10 ft. @ 0.0562 oz gold/t.

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

November 5, 1987

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Hole No. 1316-36

From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
0	1.0	Casing		56869	1.0	4.0	3.0	< 5
1.0	100.0	Monzonite	1.0' - 38.8' Rock consists of medium grained, massive to weakly foliated monzonite. Composition of monzonite	56870	4.0	7.0	3.0	< 5
			is 35%, black euhedral hornblende grains. Hornblende grains show very weak chlorite alteration. The	56871	7.0	10.0	3.0	171
			remainder of the rock consists primarily of subhedral white plagioclase grains and pinkish white to orange	56872	10.0	13.0	3.0	753
				56873	13.0	16.0	3.0	221
			Monzonites contain \ll 2% basalt fragments, which range	56874	16.0	19.0	3.0	131
			from $4/8$ " - 2" in length. Basalt fragments are round to subrounded in character. Fragments show strong	56875	19.0	22.0	3.0	< 5
			pervasive chloritization and strong - intense per- vasive carbonatization.	56876	22.0	25.0	3.0	924
			Monzonites show very weak spotty calcite alteration and	56877	25.0	28.0	3.0	34
		mino calc is w		56878	28.0	31.0	3.0	9
			is white in colour and commonly show weak fracture cont- rolled chloritization. Finely disseminated pyrite occurs	56879	31.0	34.0	3.0	9
			on either side of the vein with strong pervasive hematite giving the veinlets strong alteration halos. Sulphide	56880	34.0	36.0	2.0	∠5
			abundances along the veinlets reach 1-2%, and <1% elsewhere.	56881	36.0	38.8	2.8	62
			38.8' - 42.6' (Alteration and mineralized zone) 56		38.8	40.7	1.9	295
			Monzonites are now showing a gradational change from weakly altered to strongly altered. Primary monzonite 5 textures are still clearly visible. Rock now contains moderate pervasive calcite alteration, with weak fracture controlled calcite veining.	56883	40.7	42.6	1.9	40

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From (ft)	To (ft)		Description	Sample No.	From (ft)	T.o (ft)	Width (ft)	Au (ppb) oz/t
		Monzonite (Cont'd)	Zones of intense pervasive hematite alteration are much more abundant with pyrite forming 1-2% over entire length.					
			42.6 - 100.0: Monzonites now show strong to intense alteration. The rock is fine grained, moderately foliated, and vary in colour from red, pink to light	56884	42.6	45.0	2.4	7
			green, reflecting different phases of alteration.	56885	45.0	47.5	2.5	17
			The entire zone exhibits a strong to intense pervasive calcite alteration. No evidence of primary texture	56886	47.5	50.0	2.5	93
			and mineralogy are present. The zone contains strongly hematized section and on average all of the	56887	50.0	52.5	2.5	96
			zone contains weak-moderate hematite alteration.	56888	52.5	55.0	2.5	456
			Chloritization is present as very fine, chlorite slips with zones of chloritization being less hematitic in	56889	55.0	57.5	2.5	452
			character.	56890	57.0	60.0	2.5	740
			Silicification varies from moderate quartz veining to strong zones of pervasive silicification. Quartz is generally milky white to glassy and contains minor amounts of pyrite and moderate calcite alteration.					
			Hematization zones are controlled by the presence of sulphide mineralization, with the most intense hematite in areas of pyrite mineralization.	~				
			Sulphides occur as euhedral, brassy yellow grains and cubes, blebby pyrite and chalcopyrite and fine foliation controlled pyrite veinlets. Chalcopyrite blebs are very scarce and commonly are associated with larger calcite veinlets, but are always ∠ 1%. Foliations run @65° - 80° T.C.A.					
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					Page 3		
	Description	Sample No.	From (ft)	To (ft)	Width (ft)	A (ppb)	
	53.0' - 53.8': Zone is characterized by intense pervasive and fracture controlled calcite alteration, with strong pervasive silicification. Rock has a weak translucent grey appearance. Minor foliation controlled chlorite is noted as small black elongate lenses. Zone contains 2%, large pyrite cubes and tetrahedrons. Grains approach %" in width. Zone also contains minor foliation controlled chalcopyrite smears along planes @ 60° T.C.A.						
	55.5' A small, strongly silicified zone of 3" width is noted. The zone contains 5% large white calcite	56891	60.0	62.5	2.5	535	
	blebs. Calcite commonly is rimmed by chlorite and occassional pyrite. Pyrite is euhedral and brassy	56892	62.5	65.0	2.5	175	
	yellow, forming 3 - 4% of zone.	56893	65.0	67.5	2.5	292	
		56894	67.5	70.0	2.5	558	
	75.0' - 77.0': A zone of intense carbonatized monzonite. Rock is fine grained, light greenish	56895	70.0	72.5	2.5	2386	0.070
	grey in colour.	56896	72.5	75.0	2.5	1875	0.0546
	Zone contains 2%, irregular, milky white calcite stringers. Veinlets are %" or less in width and	56897	75.0	77.5	2.5	1488	0.0434
	run @ 70° T.C.A. Veinlets commonly are offset by a fracture system @ 30 - 40° T.C.A. Strong	56898	77.5	80.0	2.5	1951	0.0569
	pervasive calcite alteration is also present.	56899	80.0	82.5	2.5	864	
	Silicification is also abundant occuring as moderate to strong pervasive alteration. Minor	56900	82.5	85.0	2.5	704	
	blebby chlorite alteration is also present. Spotty hematite alteration is associated with disseminated	56901	85.0	87.5	2.5	706	0.0546 0.0434
	pyrite mineralization. Pyrite cubes and fine stringers form 2% of zone.	56902	87.5	90.0	2.5	627	
		56903	90.0	92.5	2.5	1086	

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From (ft)

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To (ft)

						Page 4	
From (ft)	Io (ft)	Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
		82.5' - 85.0: Zone contain 3-5% pyrite stringers running @ 35°-40° T.C.A. Host rock is strongly hematite and intense calcite altered monzonite. Minor chlorite alteration occurs subparallel to pyrite stringers.					
		95.5' - 97.5': Rock shows strong pervasive calcite alteration, and now exhibit moderate pervasive	56904	92.5	95.0	2.5	811
		chloritization. Rock is moderately foliated, fine grained greenish grey in colour. Zone may represent	56905	95.0	97.5	2.5	1285
		an altered basalt fragment.	56906	97.5	100.0	2.5	2023

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-37

Property: Tyranite (Duggan)	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG6649	Coordinates: L13+50N; 50+50W
Azimuth: 090°	Dip: -45°E	Length: 102'
Logged By: R. deGagne	Casing: 0 - 3.2'	Elevation:
Date Started: October 26, 1987	Date Completed: October 27, 1987	Date Logged: October 29, 1987
Core Size: BQ	Core Location:	Samples Shipped:
Drill Company: Bill Link	Overburden: 1'	Checked: D. Pilkey Jan. 8, 1988

Acid Dip Tests

1. None done

2.

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<u>Purpose</u> Shallow sample hole to test Duggan Zone.

<u>Conclusions</u> Significant Intersections:

54.2 to 57.2 - 3 ft @ 0.0584 oz gold/ton 72.2 to 75.2 - 3 ft @ 0.120 oz gold/ton



2.

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-37

	<u> </u>					HO16	No: 1316	»-37
From (ft)	To (ft)		Drill Log Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb
0	3.2	CASING						
3.2	42.2		-grey to pinkish-grey medium grained - homo- geneous through sequence -alteration: weakly carbonatized, contains hematite - stained pyritic bands. Sulphides: pyrite as disseminated blebs, subhedral-anhedral crytals confined to hematized sections. Sulphide Zones: 12.75' - 14.2' 32.9' - 34.6' 35.2' - 40.25'					
42.2	102.0	MONZONITE GRANODIORITE	Profusely, intensely altered -no observable monzonite features -variegated texture -epidote-enriched, carbonatized, silicified, chloritized -observable fuchsite (mariposite) -grades into strongly hematized brick-red monzonite -profuse pyrite mineralization throughout sequence (disseminated pyrite specks, condensed pyritic blebs, interstitial stringers)					
102.0		Е.О.Н.	Sulphide Zones: 43.3' to 90.2'					
		2.0						

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-37

From	То		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	3.2'	CASING (O/B)						
3.2'	42.2'	GRANODIORITE	Mottled whitish-grey to pinkish grey medium- coarse grained felsic intrusive (monzonite/ granodiorite); where rock unit is unaltered, a homogenous granular texture is displayed with leukocratic subhedral crystals of pla- gioclase, orthoclase, quartz; ferro-magnetite minerals are randomly dispersed, also present are lenticular and podular "freckles" or "splotches" of black chlorite; Alteration within monzonite sequence is most conspicuous as bright orange-red hematitic pigmentations in host rock (predominantly as pyritic rich foliations or bands surrounding intruding white calcitic veinlets), also apparent are veinlets of white anhedral quartz and white subhedral calcite; grey-white calcareous stringers, black chloritic blebs, strings and isolated patches of chloritized monzonite. SULPHIDE MINERALIZATION: Sulphides are almost entirely confined to hematized pigments of monzonite where they occur as dis- seminated pyrite blebs; also evident are subhedral pyrite crystals white calcite veinlets; The pyrite-rich hematitic stains occur discontinuously through monzonite succession.	56908 56909	3.2 6.2	6.2 9.2	3.03.0	13 6

				pag	re 2	
From To (ft) (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	ZONES OF SULPHIDE MINERALIZATION: 1) 12.75' - 14.2' 2) 32.9' - 34.6' 3) 35.2' - 40.25'	56910 56911 56912 56913	9.2 12.2 15.2 18.2	12.2 15.2 18.2 21.2	3.0 3.0 3.0 3.0 3.0	27 345 77 25
	 11.6' - 14.2': Alteration zone within monzonite sequence characterized by dark greenish-black chloritized host rock, white quartz "wedges" or "tongues", veinlets and lens of pink-white calcite, patches grey-purple carbonatized monzonite, and orange-red hematized monzonite saturated with disseminated pyrite blebs and grey-white calcitic string. 33.0': 1/4" - 1/2" veinlet of white anhedral calcite (at 80° T.C.A.) bounded on either periphery by black-grey chloritic threads; veinlet is "sandwiched" between brick-red hematite enriched foliations of monzonite which contain disseminated pyrite blebs; two subhedral crystals of pyrite (2mm in diameter) are present within calcite veinlet. 33.0' - 34.7': Alteration zone in monzonite distinguished by dark green-grey highly chloritized-carbonatized host rock, hematite-epidote stained foliations, while calcite lens and grey-white carbonaceous strings; Sequence is saturated with disseminated pyrite blebs; Pyritic wedge (2 - 4mm in diameter) is present in calcite veinlet. 	56913 56914 56915 56916 56917 56918 56919 56920	18.2 21.2 24.2 27.2 30.2 33.2 36.2 39.2	21.2 24.2 27.2 30.2 33.2 36.2 39.2 42.2	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	25 66 85 156 75 203 526 304
	35.4' - 41.2': Zone of diffuse hematitic staining of monzonite; Segments of green-black chloritized and epidote enriched host rock;					

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page 3

Width (ft)

> 3.0 3.0 3.0

> 3.0

3.0 3.0 3.0

To (ft)

> 45.2 48.2 51.2

54.2 57.2 60.2 63.2 OZI TN

0.0534

Au (ppb)

458 351 1012

To (ft)			Sample No.	From (ft)
	cont'd	Sequence permeated by transecting veinlets and threads of white to grey-white calcite and disseminated pyrite blebs.	56921 56922 56923	42.2 45.2 48.2
	ALTERED MONZONITE/ GRANODIORITE	<pre>Excessively altered monzonite sequence; Structural properties, characteristics of monzonite diminish abruptly and are denoted only by periodic appear- ances of brick-red hematized and dark blackish- green heavily chloritized-carbonatized host rock. ALTERATION: The intense alteration of this seq- uence give the texture a polychromatic "marbled" or variegated appearance; included in this mosaic are: apple-green patches of epidote-enriched monzonite host rock; veinlets and wedges of white amorphous quartz running both across and concordant to core axis; Lenses, patches of black chloritized host rock and dendritic trib- utaries that transect core irregularly giving altered rock an almost brecciated outlook; Sequence is moderately carbon- atized with pink-flesh coloured anhedral- subhedral calcite veinlets and calcareous grey-white strings; Noticeable to a lesser extent are sea green-emerald green patches of fuchsite (mariposite) endowed monzonite. SULPHIDE MINERALIZATION: The altered monzonite sequence is permeated with pyrite mineral- ization; It occurs as disseminated flecks and blebs, isolate subhedral-euhedral crystals and interstitial tributaries and strings.</pre>	56924 56925 56926 56927	51.2 54.2 57.2 60.2

From To (ft) (ft)

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au OZI (ppb) TN
		cont'd ZONE OF	less variegated and more homogenous as structural features reappear; colour of monzonite is pale brick red indicating pro- minent hematitic staining; Periodic patches of pale green epidote - enriched host rock	56928 56929 56930 56931 56932	63.2 66.2 69.2 72.2 75.2	66.2 69.2 72.2 75.2 78.2	3.0 3.0 3.0 3.0 3.0	419 560 314 4122 0.120 1522 0.0444
		SULPHIDE MINERALIZATION (43.3' - 90.2')	are also distinguishable; Sequence is mod- erately carbonatized (with sporadic grey white calcite strings); tributaries of black chloritic strings abound as do veinlets and lenses of white amorphous quartz.	56933 56934 56935 56936 56937	78.2 81.2 84.2 87.2 90.2	81.2 84.2 87.2 90.2 93.2	3.0 3.0 3.0 3.0 3.0	1159 0.0238 1985 421 706 1553 0.0453
		71 51	SULPHIDES: Pyrite mineralization occurs regularly throughout unit as: disseminated flecks in host rock; condensed podular blebs prominent in quartz lenses and interstitially as a replacement for differentially eroded chlorite in stringers.	56938 56939	93.2 96.2	96.2 102.0	3.0 3.0	636 580
			 - 73.3': Grey, highly silified section of monzonite host rock. - 102.0': Pale brick-red monzonite grades into a dark olive green colour, remnent monzonite features are difficult to detect; section profusely carbonatized with fleshy pink veinlets, pods, wedges - grey-white 					
			strings and pervasive white flecks satur- ated in host rock. Streams of black chlorite are also prominent as are black chlorite podular blebs; Pyrite mineralization is evident through sequence as disseminated flecks and isolated interstitial pyritic strings and blebs is but less frequent					
		100.7'	relative to prior sequences. - 102.0': Monzonite returns as brick red brecciated subrounded "islands" cut by black chloritic tributaries.					

E.O.H.

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page 4

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-38

Property: Tyranite	NTS:	Township: Knight
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 6649	Coordinates: L14+00N; 50+50W
Azimuth: 090°	Dip: -45°E	Length: 97.7'
Logged By: R. de Gagne	Casing: 0 - 1.0'	Elevation:
Date Started: October, 27, 1987	Date Completed: October 28, 1987	Date Logged: October 31, 1987
Core Size: BQ	Core Location:	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: D. Pilkey Jan. 8, 1988

Acid Dip Tests

1. None taken

Purpose Shallow sample hole to test Dggan Zone.

<u>Conclusions</u> Significant Intersections:

80.3 to 92.3; 12 ft. @ 0.148 oz gold/ton.

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

2.25

Hole No: 1316-38

From (ft)	To (ft)		Drill Hole Summary	Samj No	ple D.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	77.3	GRANODORITE	 -homogeneous throughout section -weakly altered -contains frequent banded sections of red hematized host rock -pyrite mineralization indigenous to hematized sectors - occurring as dissem- inated blebs, isolated subhedral to anhedral crystals. SULPHIDE ZONE: 37.25 to 74.3 						
77.3	93.7	ALTERED MONZONITE/ GRANODIORITE	-chloritized, carbonatized, silicified hematized; textured variegated although alteration is not as intense as observed in D.D.H.'s to the south, as remnant monzonite features can still be seen irregularly through sequence.						
93.7	97.7	MONZONITE/ GRANODIORITE	SULPHIDE ZONE: 77.5 to 93.7 -carbonatized, moderately chloritized -epidote enriched -weakly hematized -contains brecciated section of chloritized- monzonite fragments. -spare disseminated pyrite mineralization						
	97.7	E.O.H.							

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-38

rom ft)	To (ft)	Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	77.3'	MONZONITE/ 0' - 37.25': Mottled black, white grey to pale	53914	0	4.3	4.3	19
		GRANODIORITE pink medium to coarse grained felsic	53915	4.3	7.3	3.0	16
		intrusive (monzonite); leucocratic min-	53916	7.3	10.3	3.0	13
		erals include anhedral - subhedral	53917	10.3	13.3	3.0	308
		crystals of plagioclase, alkali feldspar,	53918	13.3	16.3	3.0	115
		quartz; sequence is homogeneous for the	53919	16.3	19.3	3.0	6
		most part but is interrupted intermit-	53920	19.3	22.3	3.0	75
		tently by transecting laminations of	53921	22.3	25.3	3.0	215
		brick-red hematized host rock which are	53922	25.3	28.3	3.0	9
		in turn cut by white calcitic veinlets;	53923	28.3	31.3	3.0	78
		also discernable are black blebs of	53924	31.3	34.3	3.0	77
		chlorite and pods of chloritized monzon-	53925	34.3	37.3	3.0	67
		ite; unit is weakly - moderately carbon-	53926	37.3	40.3	3.0	351
		atized as denoted by occasional grey-white	53927	40.3	43.3	3.0	222
		calcareous veinlets.	53928	43.3	46.3	3.0	268
		SULPHIDE MINERALIZATION: Sulphides in the form of	53929	46.3	49.3	3.0	390
		anhedral - subhedral crystals of pyrite,	53930	49.3	52.3	3.0	145
		as well as pyritic blebs are confined to the	e 53931	52.3	55.3	3.0	247
		hematitic stained monzonite bands (2" - 4"			3		
		wide).					
		37.25' - 74.3': Structural properties of monzonite					
		are still evident but rock unit has under-					
		gone intense hematization as witnessed by					
		its brick-red coloration; also evident but					
		less frequent are dark olive green folia-					
		tions and patches of epidote-enriched host					
		rock. Monzonite is transected irregularly					
		by white quartz veinlets and grey carbon-					
		axceous threads and strings; frequent lenses	5				
		and wedges of grey-white to fleshy-white					
		calcite are also observed.					

From To (ft) (ft)

con't

Pyritic mineralization permeates sequence as pale yellow anhedral blebs, disseminated flecks and isolated subhedral crystals.

74.3' - 77.3': Once prominent brick-red hematite stained monzonite is now waning and grades into a dark greenish-grey medium grained monzonite that is freckled with chloritic blebs; sequence is cross-cut by brick red

> hematized veinlets of monzonite host rock and bands of carbonaceous green epidoteenriched monzonite which in turn is penetrated by grey-white calcitic and black chloritic veinlets, strings.

- 74.8': 1" band of carbonaceous greenish-red epidote enriched, hematized monzonite @ 110° T.C.A.; band is transected by parallel white calcitic veinlets running concordant with strike of band.
- 75.7': 1" 2" band of green epidote-enriched monzonite with minor brick red hematite stained host rock @ 110° T.C.A., striking parallel to band are two veinlets of white calcite and a black chlorite string.
- 76.7': 1" 2" band of pale olive green epidote enriched slightly carbonatized and silicified monzonite @ 110°, band is cut by a parallel veinlet of grey-white amorphous calcite; disseminated pyrite flecks are discernable throughout band.

77.3 93.7 ALTERED Sequence of altered felsic intrusive (monzonite); MONZONITE alteration is not as intense as observed in pre-GRANODIORITE vious core from D.D.H.'s to the south (ie - D.D.H.'s 37, 36, 35) which may be due to a waning or pinching out of lenticular alteration zone to the north. page 2

Sample	From	То	Width	Au
No.	(ft)	(ft)	(ft)	(ppb)
53932	55.3	58.3	3.0	484
53933	58.3	61.3	3.0	266
53934	61.3	64.3	3.0	63
53935	64.3	67.3	3.0	446
53936	67.3	70.3	3.0	240
53937	70.3	72.3	2.0	254
53938	72.3	74.3	2.0	2273
53939	74.3	77.3	3.0	589

page 3

E.O.H.

91

3

4

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-39

Property: Tyranite	NTS:	Township: Knight
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG6649	Coordinates: L14+50N; 50+50W
Azimuth: 090°	Dip: -45°E	Length: 98.3'
Logged By: R. deGagne	Casing: 0 - 4.4'	Elevation:
Date Started: October 28, 1987	Date Completed: October 29, 1987	Date Logged: November 3, 1987
Core Size: BQ	Core Location: Tyranite Mine Site	Samples Shipped:
Drill Company: Bill Link	Overburden: 2'	Checked: D. Pilkey Jan. 8, 1988

Acid Dip Tests

1. None taken

<u>Purpose</u> Short sample hole to test Duggan Zone.

<u>Conclusions</u> Significant Intersections:

28.9 to 31.9 - 3 ft @ 0.0778 oz gold/ton 67.7 to 70.7 - 3 ft @ 0.0687 oz gold/ton

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

2

Hole No: 1315-39

From (ft)	To (ft)	Drill Log Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	4.4	CASING (O/B)					
4.4	64.7	MONZONITE/ GRANODIORITE -mottled black, grey-white; medium - coarse -weakly to moderately carbonatized -irregular hematite - stained brick-red bandings SULPHIDE ZONE: 44.1' - 46.8' 47.3' - 51.2' 57.7' - 59.8'					
64.7	98.3	ALTERED MONZONITE/ GRANODIORITE GRANODIORITE SULPHIDE ZONE: 64.7' - 81.9' 92.1' - 98.3'	-				
	98.3	E.O.H.					

DIAMOND DRILL LOG

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Hole No: 1316-39

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)	(°1/5)
0	4.4	CASING							
4.4	64.7	MONZONITE GRANO-	Mottled black, grey, white medium to coarse grained monzonite; prominent leucocratic	56940 56941	4.4 7.9	7.9 10.9	3.5 3.0	99 47	
		DIORITE	minerals include anhedral - subhedral crystals	56942	10.9	13.9	3.0	36	
		(SULPHIDE	of plagioclase, alkali feldspar and minor	56943	13.9	16.9	3.0	38	
		ZONES:)	quartz and dark ferro-magnetite minerals dis-	56944	16.9	19.9	3.0	71	
			play a weak "gheissic" flow alignment.	56945	19.9	22.9	3.0	531	
			Sequence is subject to sporadic intrusions	56946	22.9	25.9	3.0	147	
			by bands of brick-red hematized monzonite	56947	25.9	28.9	3.0	12	
			(1" to 4" wide). These bands are permeated	56948	28.9	31.9	3.0		0.0775
			with sulphides (disseminated flecks and	56949	31.9	34.9	3.0	24	
			pyritic blebs; monzonite unit is moderately	56950	34.9	37.9	3.0	22	
			to extremely carbonatized with numerous	. 56951	37.9	40.9	3.0	114	
			transecting greyish-white and flesh coloured	56952	40.9	43.9	3.0	64	
			veinlets, wedges and less frequently miarolitic	56953	43.9	46.9	3.0	820	
			cavities of subhedral calcite crystals along	56954	46.9	49.9	3.0	228	
			fractures; black splotches of chlorite and	56955	49.9	52.9	3.0	134	
			threads of black carbonaceous chlorite.	56956	52.9	55.9	3.0		
			43.9' - 59.8'; Increased frequency of brick-	56957	55.9	58.9	3.0	196	
			red hematite stained sections of monzonite.	56958	58.9	61.9	3.0	224	

SULPHIDE MINERALIZATION: Pyritic disseminated flecks and blebs exclusive to hematized monzonite segments.

						page	2	
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) $(c \frac{1}{2} t)$
(ft) 64.7	(ft) 98.3	SULPHIDE ZONE (64.7 - 81.9)	81.9': Polychromatic (brick-red, green, olive, white, grey moderately variegated, altered monzonite; grain size ranges from medium to coarse relic monzonite features that have been extensively hematized, chloritized, and epidote-enriched to amorphous- subhedral crystals of intruding cal- cite veinlets, wedges, and patches; also present are cross-cutting threads of black chlorite and podular blebs of the same; sequence extremely carbon- ized, even through remnant monzonite matrix. SULPHIDE MINERALIZATION: Sulphides present as diffuse pyrite blebs flecks and subdral to euhedral crystals. 92.0': Olive green epidote enriched altered monzonite in phenocrysts of greenish-yellow carbonate. Sequence is profusely carbonatized grey white veinlets of calcite cross-cutting core axis as well as numerous grey-white calcitic strings, wedges and tributaries of calcareous black chlorite are also	No. 56959 56960 65961 65962 65963 56964 56965	(ft) 61.9 64.7 67.7 70.7 73.7 76.7 79.7	(ft) 64.7 67.7 70.7 73.7 76.7 79.7 81.1	(ft) 2.8 3.0 3.0 3.0 3.0 1.4	(ppb)(c1/t) 233 917 2356 C.c6\$7 1459 1286 794 925
			abundant.					

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page 3

7

Width

Au

81.1' -	92.0': Olive green epidote enriched
	altered monzonite in phenocrysts of
	greenish-yellow carbonate; sequence
	is profusely carbonatized grey-white
	veinlets calcitic strings, wedges and
	tributaries of calcareous black chlorite
	are also abundant.

- 81.1' 92.1: Conspicuously absent from sequence is the brick-red hematite-stained alteration that was prevalent in previous sections.
- 85.9' 88.4': Zone of grey-white calcitic tributaries, lenses, wedges, get in a matrix of olive-green epidote-enriched monzonite variegated nature of calcite gives sequence a "marbled" appearance; an obtrusive black chloritic "tongue" (¹/4"d.) is noted at 86.6'. SULPHIDE MINERALIZATION: Sporadic throughout sequence are disseminated blebs of pyrite.
- 92.1' 98.3': Dark olive green fine to medium grained epidote-enriched monzonite; unit is moderately carbonatized with grey, white and flesh-coloured veinlets of transecting calcite, sequence is also moderately chloritized with black threads.
- 97.1' 98.3': Sequence becomes moderately silicic in white amorphous pods, wedges and fingers that transect host rock. SULPHIDE MINERALIZATION: Altered monzonite is permeated with pyrite flecks, blebs throughout.

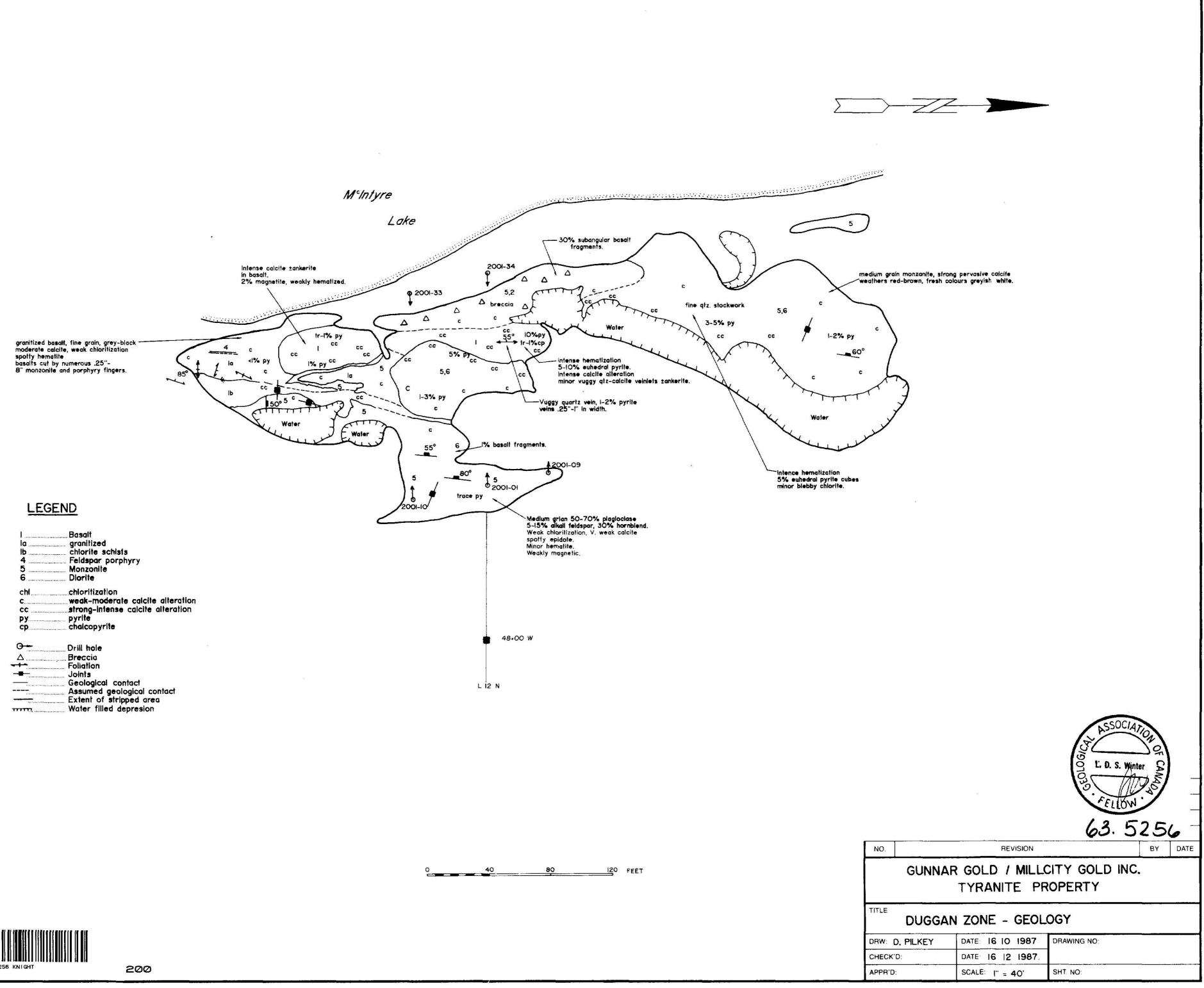
No.	(ft)	(ft)	(ft)	(ppb)
56966	81.1	84.1	3.0	1343
56967	84.1	87.1	3.0	1457
56968	87.1	90.1	3.0	1211
56969	90.1	92.1	2.0	587
56970	92.1	94.1	2.0	629
56971	94.1	96.1	2.0	794
55972	96.1	98.3	2.2	1113

To

Sample

From

E. O. H.

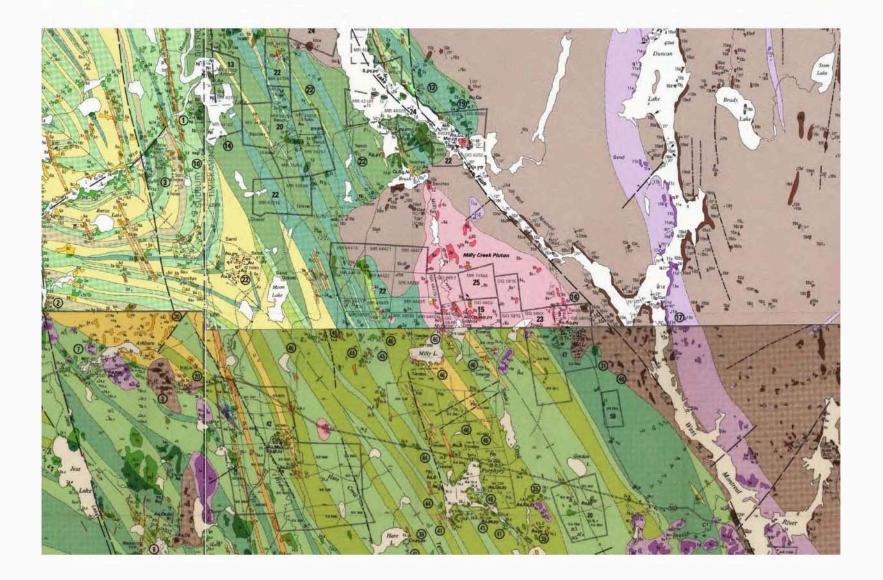




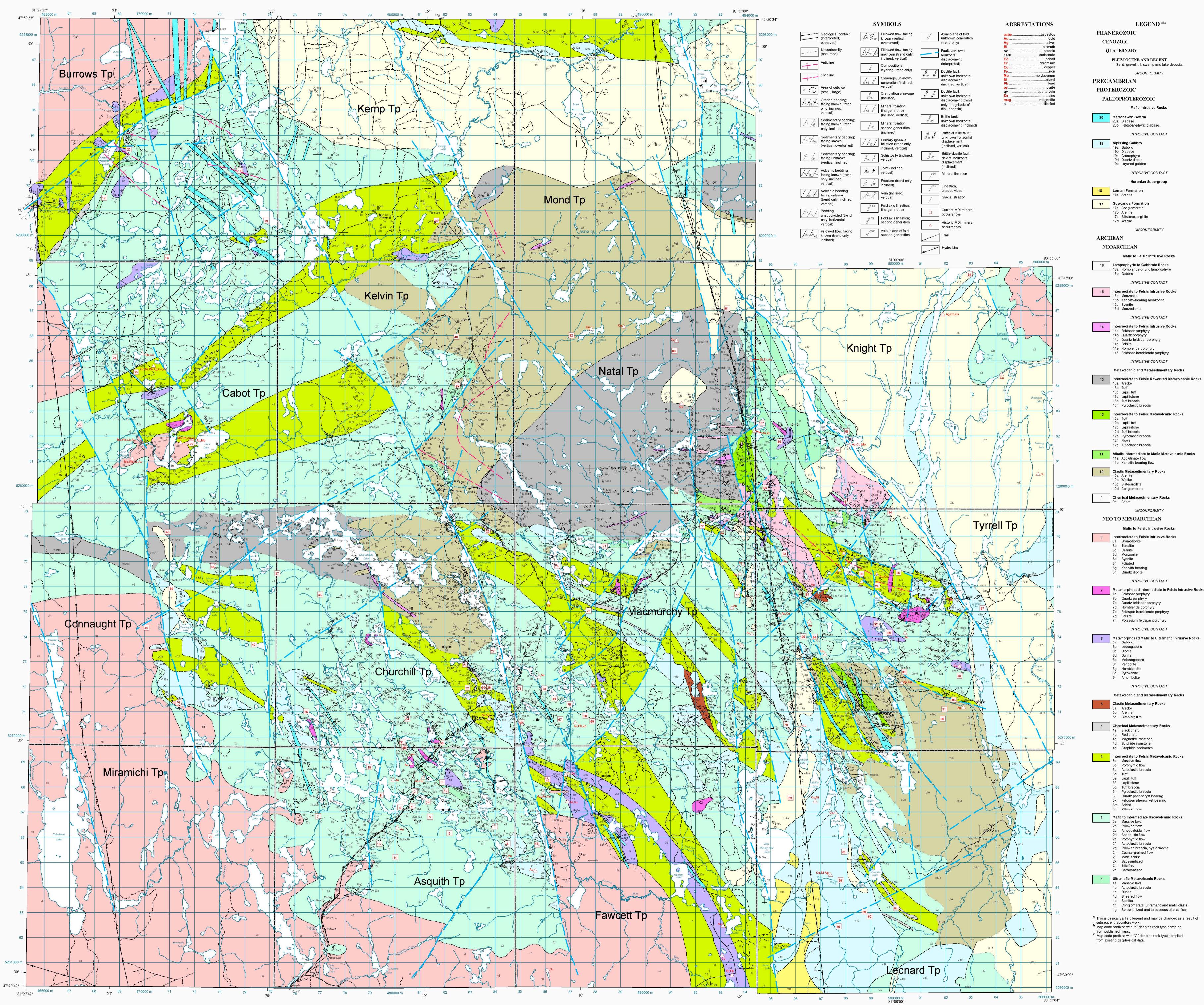
ABSO

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Appendix II



Appendix III



🕅 Ontario

Ontario Geological Survey

MAP P.3521

PRECAMBRIAN GEOLOGY

SHINING TREE AREA

Scale 1:50 000 0 1

2 kr

This map is published with permission of the Senior Manager,

Precambrian Geoscience Section, Ontario Geological Survey.

Shining Tree

Westree

47°30'1

1cm equals 10km

NTS References: 41 P/6, 7, 10, 11, 14, 15

1000 m

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SOURCES OF INFORMATION Base map derived from maps of the Ontario Basic Mapping Program, Surveys, Mapping and Remote Sensing Branch, Ontario Ministry of Natural Resources, scale 1:20 000, with modifications by staff of the Ministry of Northern Development and Mines. Universal Transverse Mercator (UTM) co-ordinates are in North American Datum 1927 (NAD27), Zone 17. Carter, M.W. 1977. Geology of Fawcett and Leonard townships; Ontario Geological Survey, Map 2359, scale 1:31 680. Carter, M.W. 1977. Geology of Macmurchy and Tyrrell townships;

Location Map

Ontario Geological Survey, Map 2365, scale 1:31 680. Carter, M.W. 1980. Geology of Connaught and Churchill townships; Ontario Geological Survey, Map 2414, scale 1:31 680. Carter, M.W. 1983. Geology of Natal and Knight townships; Ontario Geological Survey, Map 2465, scale 1:31 680. Carter, M.W. 1986. Geology of Cabot and Kelvin townships; Ontario Geological Survey, Map 2470, scale 1:31 680. Carter, M.W. 1987. Geology of the Shining Tree area; Ontario Geological Survey, Map 2510, scale 1:50 000. Johns, G.W. 1999. Precambrian geology, Shining Tree area (east half); Ontario Geological Survey, Map P.3389, scale 1:30 000. Johns, G.W. 2000. Precambrian geology, Shining Tree area (west half); Ontario Geological Survey, Map P.3420, scale 1:30 000.

Machado, G. and Longuépée, H. 2002. Precambrian geology, Burrows, Kemp and Mond townships; Ontario Geological Survey, Map P.3445, scale 1:20 000. Ontario Geological Survey 1996. Ontario airborne magnetic and electromagnetic surveys, Shining Tree area; Ontario Geological Survey, ERLIS Data Set 1003, 455 Mbytes. Magnetic declination 10°28'W in 2002.

Geology is not tied to surveyed lines.

CREDITS

Geology by G.W. Johns and assistants, 1996, 1997, 1998, 1999. Information for the area was acquired and compiled for a final published scale of 1:50 000. Selective use was made of outcrop data from previous maps to constrain the contacts and extent of units on this map. Users should refer to previous published maps for full information. Outcrops in critical areas accessible from roads and shoreline were examined and the information was plotted on the map

To enable the rapid dissemination of information, this map has not received a technical edit. Discrepancies may occur for which the Ontario Ministry of Northern Development and Mines does not assume liability. Users should verify critical information. Issued 2003.

Information from this publication may be quoted if credit is given. It is recommended that reference to this map be made in the following

Johns, G.W. 2003. Precambrian geology, Shining Tree area; Ontario Geological Survey, Preliminary Map P.3521, scale 1:50 000.

CURRENT MDI MINERAL OCCURRENCES

	Property #	Name	Status*	Primary** Commodity	Secondary** Commodity	Township	MDI #
Felsic Intrusive Rocks		Buckingham Carter	Di Di	Au Au		Asquith Asquith	MDI41P11SE00006 MDI41P11SW00015
		Downey	Di	Au		Asquith	MDI41P11SE00024
		Gibson	Di	Au		Asquith	MDI41P11SW00012
		Holding, Robert Kubiak, N.	Di Di	Au Au		Asquith Asquith	MDI41P11SE00008 MDI41P11SE00009
У	7	McGuire	Di	Au		Asquith	MDI41P11SW00006
		McRae Moore	Di Di	Au Au		Asquith Asquith	MDI41P11SW00005 MDI41P11SW00007
		Moore-McDonald	Di	Au		Asquith	MDI41P11SE00005
		Thompson-Peterson	Di	Au	Cu, Ni, Pb	Asquith	MDI41P11SE00004
		Clarke Jesse James	Oc Oc	Au Au	Cu, NI, PD Cu, Pb	Asquith Asquith	MDI41P11SE00042 MDI41P11SW00018
afic Intrusive Rocks	14	Midvale	Oc	Cu		Asquith	MDI41P11SW00029
		Steep, E. Hanna	Oc Oc	Au Zn	Pb,Zn	Asquith Burrows	MDI41P11SW00017 MDI41P14SW00011
		McKay, Don	Öc	Fe		Burrows	MDI41P14SW00007
		Newmont Paymaster	Oc Oc	Zn Au		Burrows Burrows	MDI41P14SW00010 MDI41P14SW00004
		Richardson Creek	Oc	Au	Mo, Pb	Burrows	MDI41104NW00053
		Sirola	Oc	Au	0	Burrows	MDI41P14SW00003
		Actuate 1 Actuate 2	Oc Oc	Au Au, Cu	Cu	Cabot Cabot	MDI41P11NW00017 MDI41P11NW00018
	24	Jonsmith-Glenburk	Oc	Ag, Au, Co	Cu, Ni, Pb	Cabot	MDI41P11NW00015
	77.5	Saville Okawakenda-Michiwakenda	Oc a Di	Au, Mo Fe	Cu, Pb	Cabot Churchill	MDI41P11NW00014 MDI41P11NE00012
arv Rocks		Herrick	Mo	Au		Churchill	MDI41P11SE00020
aly RUCKS		Churchill	Oc	Au		Churchill	MDI41P11SE00018
		Cochrane Gold Corona	Oc Oc	Au Au	Fe	Churchill Churchill	MDI41P11SE00019 MDI41P11SE00056
	31	Gosselin	Oc	Au, Cu	Ag	Churchill	MDI41P11SW00024
		Gunter Jonsmith	Oc Oc	Au Cu		Churchill Churchill	MDI41P11SE00023 MDI41P11NW00016
		Onitap	Oc	Au		Churchill	MDI41P11SW00013
is is		Pacesetter	Oc	Au		Churchill	MDI41P11SW00008
		Royal Mining Texas Gulf	Oc Oc	Au Au		Churchill Churchill	MDI41P11SE00022 MDI41P11NW00009
	38	Gosselin, Fred	Di	Au	<u></u>	Churchill, Asquith	MDI41P11SW00004
		Active Mines Ltd. Cousineau Showing	Oc Oc	Cu Au	Zn	Connaught Connaught	MDI41P11NW00013 MDI41P11NW00010
		Elephant Head Lake	Oc	Cu	Ag, Au, Zn	Connaught	MDI41P11SW00026
nic Rocks		Little Esther Lake	Oc	Cu		Connaught	MDI41P11SW00025
		Picket Lake Coniston	Oc Pr	Cu Cu	Ag, Au	Connaught Connaught	MDI41P11NW00021 MDI41P11NW00012
	45	Burke	Oc	Au		Fawcett	MDI41P11SE00002
		Jonsmith Raylloyd	Oc Oc	Ag, Au, Cu Cu	asbe, Ni	Fawcett Fawcett	MDI41P11SE00038 MDI41P11SE00060
		Road Group	Oc	Cu, Zn	4000,11	Kelvin	MDI41P11NE00034
		Timiskaming	Oc	Au, Cu, Zn Zn	Ag, Ni, Pb	Kelvin	MDI41P11NE00030 MDI41P14SE00003
		HBOG, Rat-Tail Lake Duggan Zone	Di Do	Au		Kemp Knight	MDI41P143E00003 MDI41P11NE00023
	52	Brush Lake	Oc	Au	Cr, Cu, Ni	Knight	MDI41P11NE00045
		Decker Duncan Lake	Oc Oc	Au Ag, Au		Knight Knight	MDI41P11NE00019 MDI41P15SW00004
	55	Gardner	Oc	Au		Knight	MDI41P11NE00020
		Wahbic Arthur Lake	Oc Oc	Au Ni	Cu, Mo Ag, Au, Co,	Knight Knight, Natal	MDI41P11NE00041 MDI41P11NE00044
iic Rocks	57	Antiful Lake	00	TNI .	Cu, Zn	Tunght, Natar	
		Archibald	Oc	Au		Leonard Leonard	MDI41P11SE00032 MDI41P11SE00071
		Caswell-Eplett-Neelands Greave	Oc Oc	Ag Ag		Leonard	MDI41P11SE00068
		Silver Pack	Oc	Co		Leonard	MDI41P11SE00069
		Sullivan, M.J. Temiskaming Project	Oc Oc	Ag Ag		Leonard Leonard	MDI41P11SE00062 MDI41P11SE00070
9		Syndicate		- 			
		Fournier Atlas	Pr Oc	Fe Au	A. C.	Leonard Macmurchy	MDI41P11SE00061 MDI41P11SE00045
		Bennett	Di	Au	Ag, Co	Macmurchy	MDI41P11SE00011
		Featherstone, C.J.	Di	Au		Macmurchy	MDI41P11SE00017
		Foisey, Frank Kingston Claim	Di Di	Au Au		Macmurchy Macmurchy	MDI41P11SE00012 MDI41P11SE00013
	70	McIntyre-McDonald	Di	Au		Macmurchy	MDI41P11SE00015
		Sams Lake Tenendo	Di Di	asbe Au		Macmurchy Macmurchy	MDI41P11NE00010 MDI41P11NE00003
	73	Lake Caswell	Do	Ag, Au	Cu, Mo	Macmurchy	MDI41P11SE00049
		Wasapika Big Four Lake	Mo	Au	Cu, Zn, Ag	Macmurchy	MDI41P11SE00016
		Big Four Lake Brunet Vein	Oc Oc	Fe Cu		Macmurchy Macmurchy	MDI41P11NE00025 MDI41P11NE00032
l mafic clasts)	77	Brunet, C.W.	Oc	Au	Ag, Cu	Macmurchy	MDI41P11NE00027
altered flow	78	Shining Tree Creek	Di	Fe		Macmurchy, Leonard, Tyrrell	MDI41P11SE00031
anged as a result of		Ola Lake Buffalo-Ankerite	Oc Oc	Au, Cu Cu		Miramichi Natal	MDI41P11SW00031 MDI41P11NE00028
compiled	81	McIntyre No. 7	Oc	Cu		Natal	MDI41P11NE00031
		Teegama Anglehart, E.	Oc Di	Cu Au		Natal Tyrrell	MDI41P11NE00029 MDI41P10SW00013
compiled	84	Byberg, A.	Di	Au		Tyrrell	MDI41P11SE00028
	85	Gordon	Di	Au Au		Tyrrell Tyrrell	MDI41P10NW00006 MDI41P10SW00012
		Lafrance MacCallum-Lacarte	Di Di	Au Au		Tyrrell	MDI41P11NE00024
	88	Matachewan	Di	Au		Tyrrell	MDI41P10SW00014
		Mid-Tyrrell Matachewan Owl Lake	Di Di	Au asbe		Tyrrell Tyrrell	MDI41P11SE00030 MDI41P10SW00015
	1230 B	Welsh-Mac	Di	Au		Tyrrell	MDI41P10SW00011
	92	Witherspoon, J.A.	Di	Au		Tyrrell	MDI41P11NE00017
		Matona Tyranite	Dr Mr	Au Au, Ag	Ag	Tyrrell Tyrrell	MDI41P11NE00014 MDI41P11NE00013
	95	Duggan, Gardiner, Harkin	Oc	Au	Ag, Cu	Tyrrell	MDI41P11SE00064
		Lorenzo and Shahen Mosher Lake	Oc Oc	Au Ag	Cu Au	Tyrrell Tyrrell	MDI41P11NE00038 MDI41P10NW00023
					Au Cu	Tyrrell	MDI41P10N000023 MDI41P11NE00039
	98	Timiskaming Nickel	Oc	Au	Cu	rynon	WD14TPTTNE00039

Oc - Occurrence; Pr - Prospect; Mo - Mine without reserves; Mr - Mine with reserves. ** For explanation of elements, see ABBREVIATIONS.