



42A14SE0006 OM91-62 TULLY

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**SUMMARY REPORT** *OM 91-352*  
**OF THE**  
**1991 EXPLORATION PROGRAM**  
**TULLY TOWNSHIP PROPERTY**  
**PORCUPINE MINING DIVISION, ONTARIO**  
**FOR**  
**CYPRUS GOLD (CANADA) LIMITED**  
**NTS 42A11**

**Report No. 649**  
**A.C.A. Howe International Limited**  
**Murray C. Rogers**  
**March 25, 1991**



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2.	Petrographic Descriptions of Selected Rock Samples	Seperate Report



**SUMMARY**

Cyprus Gold (Canada) Ltd. ("Cyprus") recently completed an exploration program on the Tully Township property in Northern Ontario. The objective of the program was to delineate and expand two areas of gold mineralization known as the Texmont and Frankfield Zones, with the purpose of outlining large (> 1,000,000 tonne), economic gold deposits. The program consisted of core relogging and sampling, grid establishment, geophysical surveying and diamond drilling.

The property lies 40 kilometres northeast of the City of Timmins, and is comprised of forty six contiguous mining leases and claims in three groups, which straddle the boundary between Prosser and Tully Township.

Originally staked as a base metal prospect to cover airborne electromagnetic conductors, the property was drilled by Intex Mining Company in 1968-69 resulting in the discovery of a gold deposit which was named the Texmont Zone. Further drilling by Intex and Frankfield Explorations Ltd. of a separate electromagnetic conductor lying about one kilometre east of the Texmont Zone resulted in the discovery of a second gold deposit, which was named the Frankfield Zone. Drill indicated reserves for the two zones were estimated by Pearson (1989) at 114,000 tons grading 0.22 ounces gold per ton for the Texmont Zone and 310,000 tons grading 0.21 ounces gold per ton for the Frankfield Zone.

The property lies geologically within the Abitibi Subprovince of the Canadian Shield. The Archean-aged rocks have been regionally metamorphosed to greenschist facies. Both the Texmont and Frankfield Zones are characterized by a generally east-west striking stratigraphy, which dips steeply to the north. Mafic to intermediate flows and less common graphitic-tuffaceous interflow horizons host the gold mineralization ("Main Zone"), which lies stratigraphically above and semiconcordant with the contact of a heavily serpentized ultramafic flow. Average widths of the Main Zone range from two to five metres. The gold occurs as inclusions within fine-grained arsenopyrite, which is exhibited as halos surrounding dark grey, randomly oriented quartz veins. The mineralized zones are typically altered to an assemblage of iron carbonate and fine-grained sericite. Local silicification is commonly associated with the quartz veining.

Cyprus' exploration program was completed during the period December 11, 1990 to March 8, 1991, and initially consisted of relogging drill core from Gowest Resources' 1990 drill program, and further sampling on portions of 15 holes from their 1988-90 drill programs. No new mineralized intersections were encountered during this resampling program, although a number of weakly mineralized sections were outlined which in effect increased the mineralized width of some of the known gold-bearing intervals.

Field activities were initiated with the establishment of a picket-line grid, which totalled 42.79 line-kilometres, over the northern section of the property, covering both the Intex & Frankfield gold deposits. Total field and gradient magnetic surveys, and a Max-Min horizontal loop electromagnetic survey were completed over the entire grid area. The resulting magnetic data assisted in the interpretation of the geology of the area, and exhibited a linear magnetic high trending to the north-northwest across the property and which may represent a fault structure. Interpretation of the magnetic and electromagnetic data indicates a right-hand or dextral displacement along this fault structure of approximately 800 metres. Realignment of the rock units along this fault structure results in a general alignment of both the Texmont and Frankfield gold zones to a position of stratigraphic equivalency.

Cyprus' exploration effort also included the completion of a diamond drill program which consisted of nine core holes totalling 4,385 metres. The purpose of the drilling was to examine the downdip potential of both the Texmont and Frankfield Zones. Both deposits had been previously defined by drilling to a vertical depth of 150 metres with several additional deeper holes on the Frankfield Zone ranging down to a depth of 560 metres. Cyprus' program resulted in the completion of drill holes T-91-1 to T-91-6 inclusive and T-91-9 which examined the down-dip potential of the Frankfield Zone. Hole T-91-8 tested the Texmont Zone, while Hole T-91-7 examined a geophysical target to the west of the Texmont Zone. A total of 1016 split core samples were submitted for gold analysis. Local sections were also analyzed for arsenic.

To-date, diamond drilling has delineated a near surface strike-length for the Frankfield Zone of about 480 metres. The strike-length appears to decrease with depth, along a steep westerly plunge to a length of about 200 metres at a vertical depth of 300 metres. The deepest intersection (2.37 grams gold/tonne over 3.0 metres) was encountered in hole T-91-6 at 600 vertical metres.

The Texmont Zone was found to strike east-northeast and has been traced by drilling over a strike length of 120 metres. A westward plunge for the deposit has been inferred. Hole T-91-8 encountered the Main Zone mineralization at a vertical depth of 360 metres yielding an interval grading 2.27 grams gold/tonne over 3.0 metres.

The results of the drill program on the Frankfield Zone confirmed previous drill results with the best intersection from this program derived from holes T-91-1 (4.55 gm.gold/tonne/5.0 metres), T-91-2 (4.77 gm.gold/tonne/6.05 metres) and T-91-5 (6.35 gm.gold/tonne/2.0 metres). The gold mineralization within both deposits was found to be irregular and somewhat discontinuous in nature. Although there is a general east-west trend to the deposits, the style of the mineralization suggests that the vein zones may be concentrated in discrete pods and shoots angled away from the main trend of the zone.

Based upon the results of Cyprus' drill program, it appears that both the Texmont and Frankfield deposits have been adequately examined, and there is no apparent potential remaining for the occurrence of large (>1 million tonne), economic gold deposits to exist within the areas presently outlined by drilling. Further work on these zones is not warranted at this time.

However, good potential exists for finding other gold deposits on the remainder of the claim group, which remains relatively unexplored. An exploration program is therefore proposed which would comprise an expansion of the existing grid, additional magnetic and horizontal loop electromagnetic surveying, followed by 'Pionjar' overburden sampling to delineate and prioritize additional exploration targets. A 1500 metre diamond drill program would follow to test selected targets. The recommended program, if fully implemented, would require an exploration expenditure of \$165,000 Canadian.

**INTRODUCTION**

Mr. Alvin Jackson, Exploration Manager of Cyprus Gold (Canada) Ltd. (Cyprus), 1810 - 1055 West Hastings Street, Vancouver, B.C. commissioned A.C.A. Howe International Limited (Howe) to supervise and complete an exploration program on the Tully Township property located in the Timmins area of northern Ontario.

The following report provides a detailed review of the exploration program which was carried out by Cyprus on the property during the period of December 11, 1990 to March 8, 1991. An exploration program has also been recommended to further evaluate the gold potential of the claim group.

Conclusions and recommendations which are presented in this report are based upon information gained from earlier exploration and from an assessment of the recently acquired information from the Cyprus program.

## **PROPERTY DESCRIPTION, LOCATION, ACCESS AND TOPOGRAPHY**

The property straddles the boundary of Tully and Prosser Townships, 40 kilometres northeast of the city of Timmins in northern Ontario (Figure 1).

Access to the west end of the claim group is available by a gravel and clay road which was constructed by New Texmont Exploration Ltd. ("New Texmont") in 1988. The road branches off from Highway 655 at a point 33 kilometres north of Timmins. Total length of the road is 14.2 kilometres from the highway to the Texmont Zone. The east end of the property is accessible via a 29 kilometre long timber road from Highway 610 at Connaught.

The Tully Township property is comprised of three contiguous claim groups which total 46 claims, and can be described as follows (Figure 2):

N.T.S. 42A\11; Latitude 48° 44' N; Longitude 81° 11' W

### **Gowest Claim Group**

<b><u>Township</u></b>	<b><u>Claim No</u></b>	<b><u>No</u></b>	<b><u>Status</u></b>	<b><u>Title</u></b>
Prosser	P.508391-394	4	Unpatented	50.0% Gowest Amalgamated Resources Ltd.
Tully	P.508389-390	2	Unpatented	31.8% New Texmont Exploration Ltd.
Tully	P.508395-402	8	Unpatented	18.2% Frankfield Explorations Ltd.

### **New Texmont Claim Group**

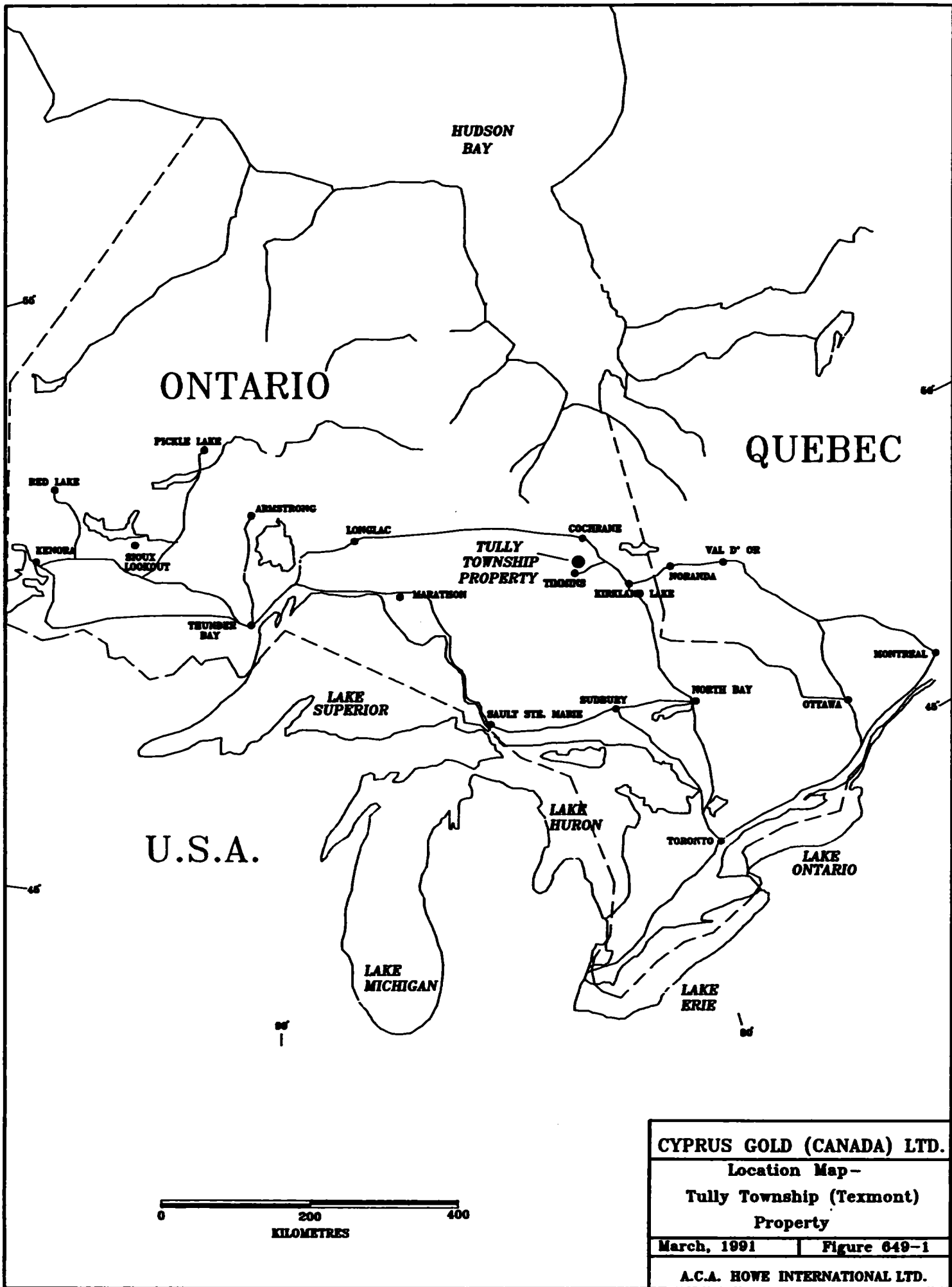
Tully	P.97938-949	12	Leased	63.6% Intex Mining Company, 36.4%
Tully	P.99286-289	4	Leased	Frankfield Explorations Ltd.
Tully	P.100437-442	6	Leased	(New Texmont owns 50% of Intex Mining)

### **Cyprus Gold Claim Group**

Tully	P.1156260-264	5	Unpatented	100% Cyprus Gold (Canada) Ltd.
Tully	P.1170904-908	5	Unpatented	

Cyprus has the option to earn up to a 70% interest in both the Gowest Amalgamated Resources ("Gowest") and New Texmont claim groups by making cash and exploration expenditures over four years.

Topographically, the area consists of flat swamps and coniferous forest. Relief rarely exceeds 10 metres over the property area. Glacial overburden generally ranges from 3 to 50 metres in thickness. The West Buskeau Creek represents the only natural source of water in the immediate property area and lies approximately 500 metres west of the western property boundary.





## **HISTORY OF EXPLORATION**

Originally staked as a base metal prospect following the Kidd Creek discovery to cover airborne electromagnetic conductors, the property was drilled in 1968-69 by Intex Mining Company Ltd. (Intex) who discovered a gold deposit which was named the Texmont Zone.

In 1969, McIntyre Mines Ltd. discovered a gold deposit of about 350,000 tons in a similar geological environment on the Nickel Offsets property, two kilometres to the south of the Texmont Zone.

Further drilling by Intex and Frankfield Explorations Ltd. (Frankfield) of an electromagnetic conductor resulted in the discovery of a second gold deposit, named the Frankfield Zone, which lies about one kilometre east of the Texmont Zone. Drilling in 1980 and 1982 on the Gowest property which lies to the north, intersected the downdip extension of the Frankfield Zone. In 1987, New Texmont optioned the Gowest property and carried out a program of diamond drilling in 1988, 1989 and early 1990.

Drill indicated reserves for the two zones were estimated by Pearson (1989) at 114,000 tons grading 0.22 oz gold/ton (103,600 tonnes of 7.53 gm gold/tonne) for the Texmont Zone and 310,000 tons grading 0.21 oz gold/ton (282,800 tonnes of 7.19 gm gold/tonne) for the Frankfield Zone.

## **CURRENT AREA ACTIVITY**

Exploration in the area was quite active during the winter of 1990-91. Falconbridge Exploration was engaged in a reconnaissance diamond drill program in Prosser Township. Homestake Mining Co. carried out a diamond drill program on its property in northeast Tully Township.

There was also some staking activity in the area. Silversides Resources staked a group of claims in east-central Tully Township apparently on speculation concerning the Cyprus program.



## **REGIONAL GEOLOGY**

The Tully Township property lies within the Abitibi Subprovince of the Canadian Shield. The rocks, which are of Archean age, have been regionally metamorphosed to greenschist facies. A wide range of rock types occur in the area including ultramafic to felsic flows, mafic to felsic pyroclastics, ultramafic and mafic intrusives and a variety of sedimentary rock types (Table 1 and Figure 3).

An east-west trending, steeply dipping stratigraphy is dominant in the area. Broad east-west trending folds and north to northwest trending faults characterize the structural geology.

The Kidd Creek Mine, which is a world class volcanogenic, base metal, massive sulfide deposit, lies 15 kilometres to the southwest of the property and the Porcupine gold camp, which has produced more than 50 million ounces of gold, is situated 40 kilometres to the south-southwest (Figure 4).

## **PROPERTY GEOLOGY AND MINERALIZATION**

Glacial overburden covers almost the entire property. The geology can therefore only be interpreted from geophysical results and from drill core, which is mainly available from the northern half of the property that hosts both the Texmont and Frankfield gold zones.

Both the Texmont and Frankfield Zones are characterized by a similar north to south stratigraphy of mafic and intermediate flows with minor, narrow, interflow ash tuff and carbonaceous-graphitic sedimentary horizons. Ultramafic flows occur as occasional, narrow (<10 metre) units in the lower portion of the sequence and as a thick (>200 metre) basal unit. The stratigraphic sequence strikes generally east-west with a dip of 75° - 85° to the north. The top of the sequence is believed to be north facing. The sequence appears to be relatively undeformed, although narrow (<20 metre) "deformation zones" of strongly foliated, veined and brecciated material have been occasionally noted. A strong north-northwest (?) trending fault was intersected in previous drilling at grid reference 0+00 X 1430E. The displacement of this fault is unknown.

The mafic to intermediate flows are generally massive and fine grained (< 1mm) with occasional amygdaloidal, variolitic or pillowed features. Mafic to intermediate ash tuffs generally occur as narrow (<5 metre) interflow units, commonly in contact with or intermixed with graphitic sedimentary horizons. The graphitic horizons occur as narrow (<5 metre) interflow horizons which are commonly intermixed with volcanic material and may locally contain up to 50% pyrite or pyrrhotite. The ultramafic flows have generally undergone intense hydrous alteration to a fine grained talc-serpentine-carbonate mineralogy. Occasional remnant spinifex texture indicates the flow origin of the rock and rare remnant mineralogy infers a peridotite precursor. More detailed descriptions of the rock types can be found in the drill logs (Appendix 1) and the petrographic descriptions (Appendix 2).

Table 1 - Table of Regional Rock Types

**PHANEROZOIC**  
**CENOZOIC**  
**QUATERNARY**  
**PLEISTOCENE AND RECENT**  
 Glacial drift, sand, gravel, lake, stream and  
 swamp deposits  
**UNCODIFIED**

**PRECAMBRIAN**  
**MAFIC INTRUSIVE ROCKS**  
**10** 10 Diabase rocks  
**INTRUSIVE CONTACT**

**EARLY PRECAMBRIAN**  
**KAPISKASING METAMORPHIC COMPLEX**  
**9** 9a Amphibol (pyroxene-quartz-feldspar granulite)  
 9b Metasedimentary granulites (amphibole-pyroxene-quartz  
 gneisses)  
 9c Leucocratic granulites (pyroxene-garnet-quartz feldspar)  
 9d Metasedimentary-metavolcanic gneisses (upper amphibole  
 facies)  
**INTRUSIVE CONTACT**

**INTERMEDIATE TO FELSIC INTRUSIVE ROCKS**  
**8** 8 Unsubdivided  
 8a Granite, granodiorite, quartz monzonite, tonalite,  
 quartz diorite  
 8b Aplite  
 8c Pegmatites  
 8d Syenite  
**INTRUSIVE OR GRABATIONAL CONTACT**

**MIGMATITES**  
**7** 7 Unsubdivided  
 7a Gneiss-quartz-feldspar gneiss (metasedimentary migma-  
 tites)  
 7b Hornblende-quartz-feldspar gneiss/diorite (metavolcanic  
 migmatite)

**MAFIC TO ULTRAMAFIC INTRUSIVE ROCKS**  
**6** 6 Unsubdivided  
 6a Gabbro, diorite  
 6b Pyroxenite, gneiss  
 6c Ultramafic and serpentinized rocks  
 6d Lamprophyre dikes  
**INTRUSIVE CONTACT**

**METAVOLCANICS AND METASEDIMENTS**  
**Metasediments**  
**5** 5 Unsubdivided  
 5a Sandstone, arkose, quartzite  
 5b Muds  
 5c Conglomerate  
 5d Shale, argillite, shale  
 5e Slate  
 5f Graphitic metasediments  
 5g Chert  
 5h Ferruginous chert

**Metavolcanics**  
**4** 4 Unsubdivided  
 4a Pyroxenite, ash to agglomerate  
 4b Flow

**Felsic Metavolcanics**  
**3** 3 Unsubdivided  
 3a Ash, lapilli, tuff  
 3b Breccia to agglomerate fragmentals  
 3c Dike and stocks (quartz-feldspar)  
 3d Flow, massive to foliated  
 3e Flow, pillowed to amygdaloidal  
 3f Flow, porphyritic  
 3g Graphitic horizon  
 3h Carbonatized horizon

**Intermediate Metavolcanics**  
**2** 2 Unsubdivided  
 2a Ash, lapilli, tuff  
 2b Breccia to agglomerate fragmentals  
 2c Dike  
 2d Flow, massive to foliated  
 2e Flow, pillowed to amygdaloidal  
 2f Flow, porphyritic  
 2g Graphitic horizon  
 2h Carbonatized horizon

**Mafic Metavolcanics**  
**1** 1 Unsubdivided  
 1a Ash, lapilli, tuff  
 1b Breccia to agglomerate fragmentals  
 1c Dike  
 1d Flow, massive to foliated  
 1e Flow, pillowed to amygdaloidal  
 1f Flow, porphyritic  
 1g Graphitic horizon  
 1h Carbonatized horizon  
 1i Amphibolite, ophiolitic schist  
 1j Ultramafic flow, sills/dikes

**IF IRON FORMATION**

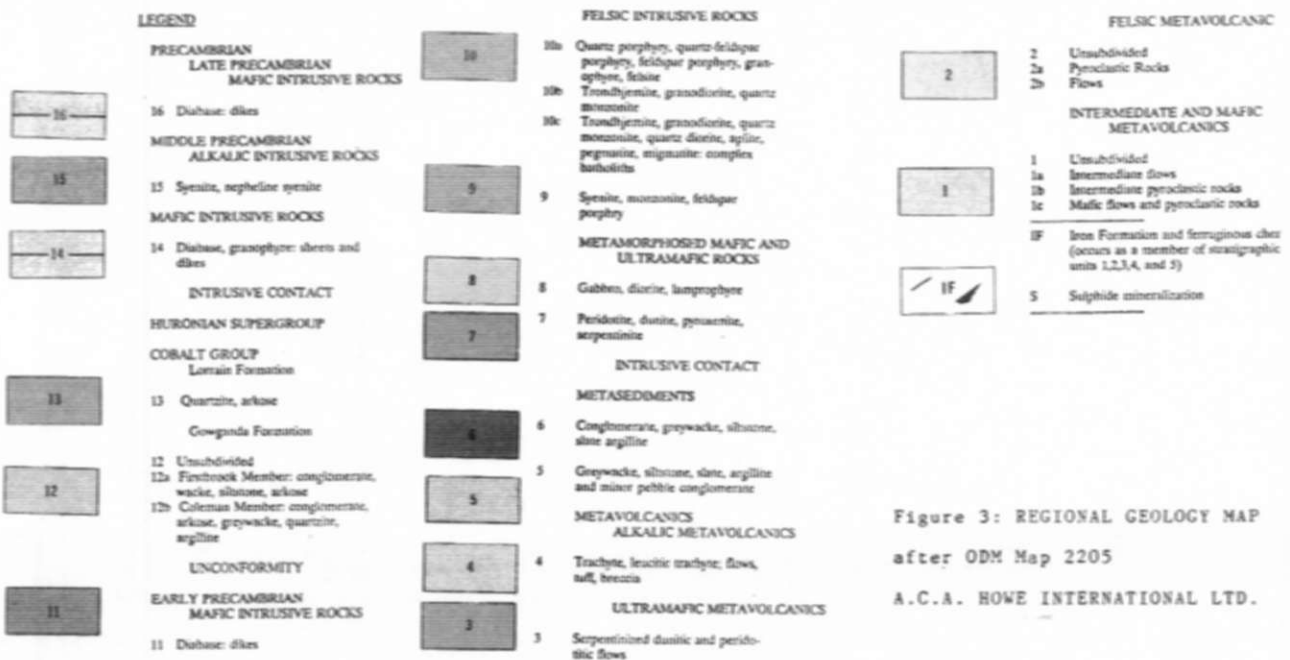


Figure 3: REGIONAL GEOLOGY MAP after ODM Map 2205  
A.C.A. HOWE INTERNATIONAL LTD.

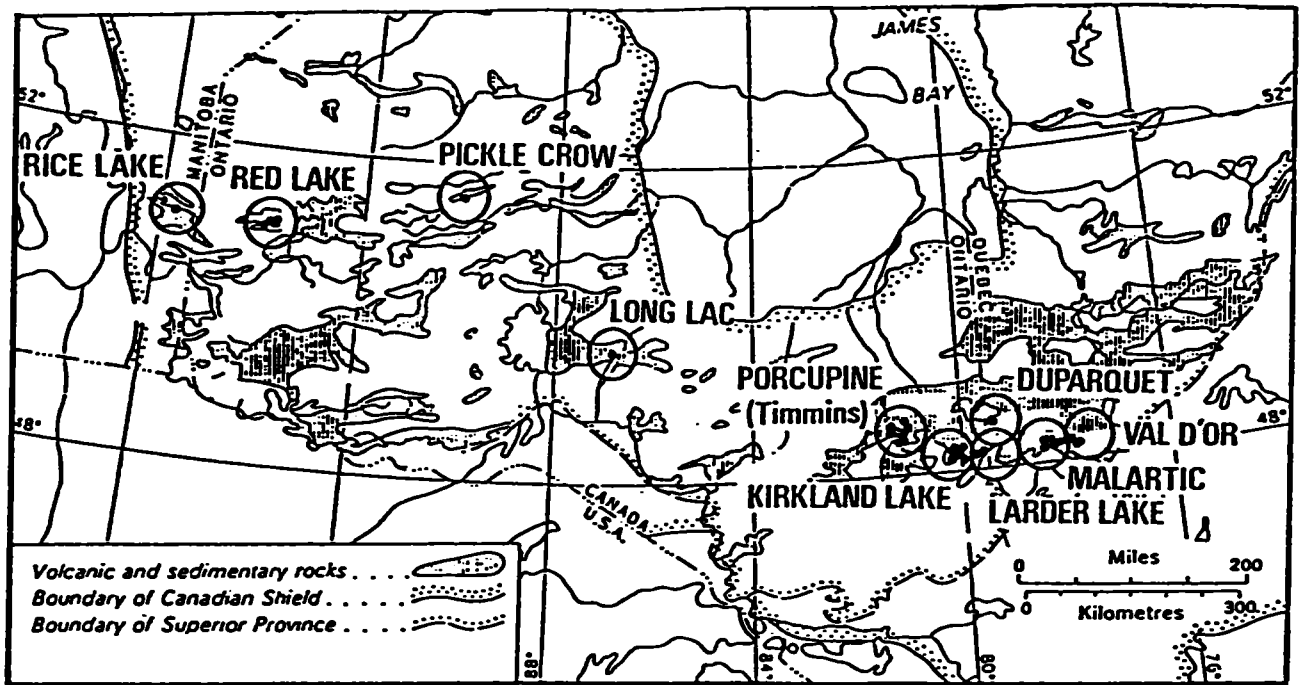


Figure 4a. Location of Porcupine Camp in relation to other major gold producing camps in the Superior Province of the Canadian Shield.

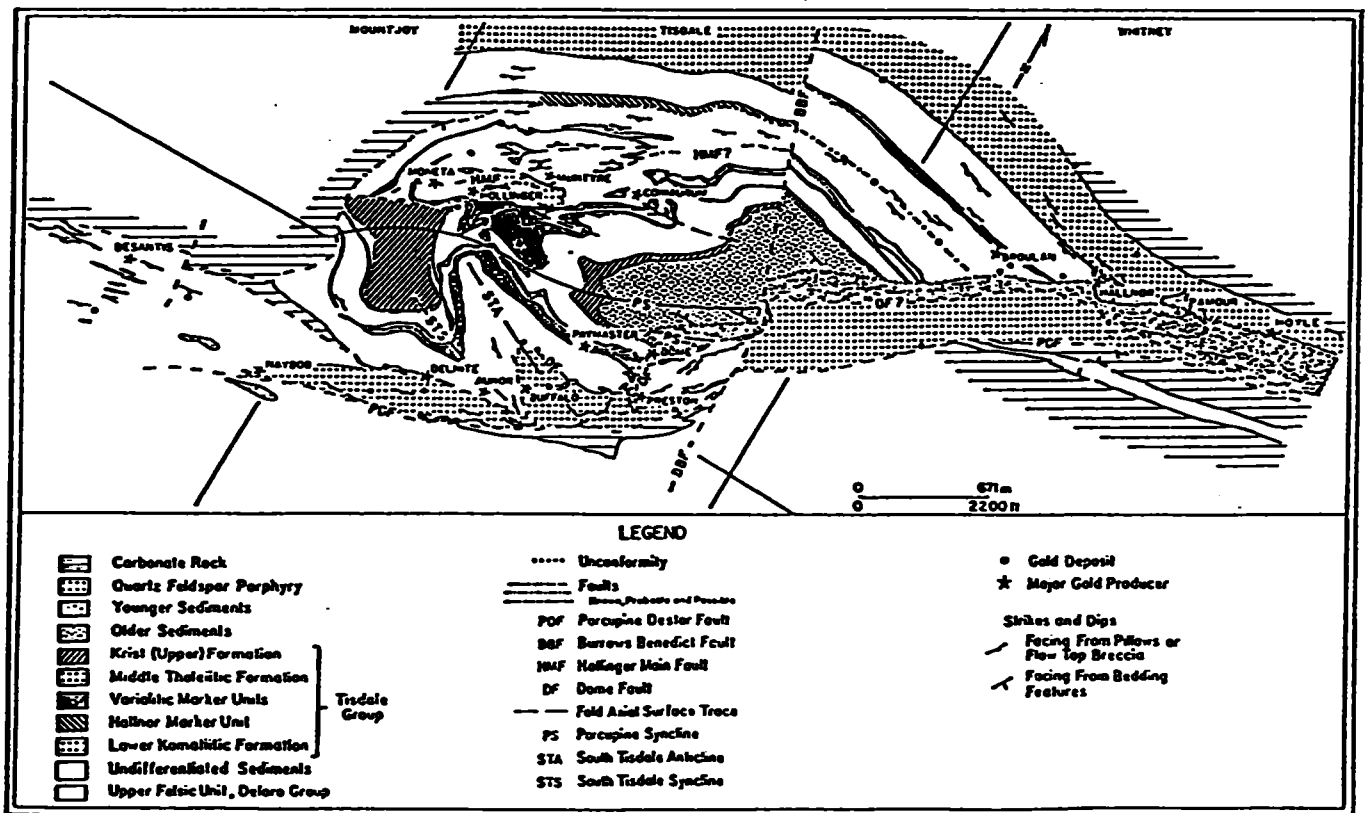


Figure 4b Generalized geology of the Porcupine camp. Compiled from Ontario Geological Survey 1 inch to 1000 feet and 1 inch to 1/2 mile scale maps of Tisdale, Whitney, Deloro, Ogden and Mountjoy Townships.

Visual and petrographic observations indicate that carbonate, iron carbonate, sericite and to a lesser degree, silica alteration are the common forms of alteration associated with the deposits. Calcite alteration occurs pervasively, as infilling of amygdules and as random veining throughout most of the stratigraphy. Pervasive iron carbonate alteration and fine grained, pervasive sericite alteration occur locally either in combination or as separate alteration products. Silicification is generally found only locally and is associated with quartz veining. Chlorite-epidote alteration is also a common feature in certain areas but is principally related to greenschist facies metamorphism of the rocks.

Significant gold mineralization in both deposits is hosted by mafic to intermediate flows commonly containing appreciable amounts of graphitic material, and much less commonly by distinct graphitic horizons. The base of the primary gold mineralized zone (Main Zone) is found to vary from a position at the footwall ultramafic flow contact up to 25 metres above the contact and is generally subparallel to the stratigraphy. Drilling indicated that significant mineralized intervals generally ranged from 2 to 5 metres in width, but have also occurred over widths of up to 22.5 metres (hole 89G0-3). Typically the higher grade zones are usually found within wider intervals of weakly mineralized material.

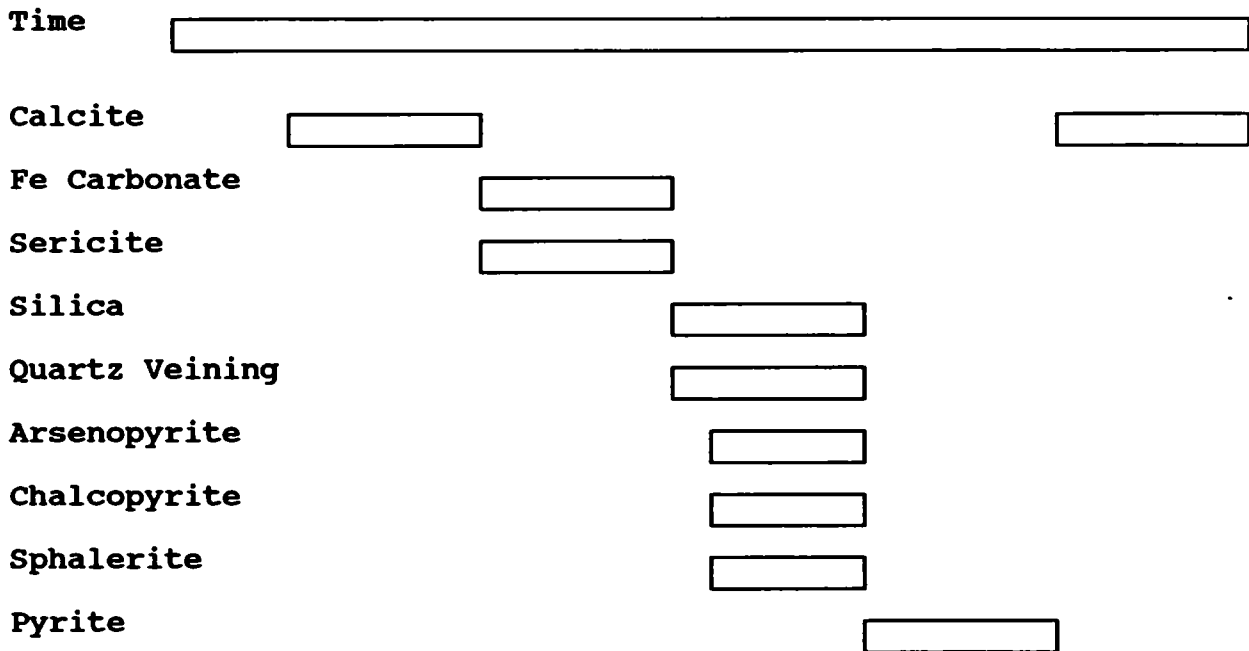
Visual, petrographic and analytical evidence indicates that the gold in this environment occurs as inclusions within arsenopyrite. Free gold has not been observed. The mineralization occurs as sulfidic halos associated with medium to dark grey, randomly orientated quartz veining. The sulfides mainly consist of pyrite and arsenopyrite with occasional traces of sphalerite and chalcopyrite. The pyrite occurs as fine grained ( $\leq 1.0$  mm) disseminations and clusters comprising 2-15% of the core intersection. Fine grained (0.2 mm) arsenopyrite occurs as disseminated needles, clusters and bands comprising 1-30% by volume. Arsenopyrite is also exhibited as inclusions within pyrite grains. The gold content exhibits a positive correlation with the arsenopyrite content. Very fine grained ( $\leq 0.2$  mm), disseminated sphalerite and chalcopyrite are found locally in trace ( $< 0.5\%$ ) amounts and as inclusions in pyrite.

Grey quartz veining ranges from 1% up to 50% locally in the mineralized sections. The grey colour is due to abundant fluid inclusions in the quartz.

The mineralized zones are typically pervasively altered to iron carbonate with common, fine grained sericite. Local silicification is also commonly associated with the quartz veining.

Occasional narrow, weakly mineralized intervals are also found in the hangingwall sequence. These often have the same style of mineralization as the Main Zone, or occur as extensively quartz veined and silicified intervals containing minor (1-3%) pyrite.

A general paragenetic sequence of the Main Zone alteration and mineralization can be inferred from visual and petrographic observations, and is represented in the following diagram.



## **DESCRIPTION OF THE EXPLORATION PROGRAM**

Cyprus' exploration program was carried out from December 11 to 21, 1990 and January 3 to March 8, 1991. The program consisted of core relogging and sampling, grid establishment, geophysical surveying and diamond drilling.

Core relogging and additional sampling of portions of 15 holes was completed (Appendix 1). This included New Texmont holes 88-FI-2 to 88-FI-13 inclusive and Gowest holes 89-G0-3 and 90-G0-5. Hole 90-G0-4 was completely relogged. A total of 209 core samples were collected for gold analysis.

A picket line grid of 42.79 kilometres was established over the northern section of the Tully Township property. The east-west baseline was established along the survey boundary between Concessions II and III for a distance of 1,840 metres. Approximately 40.90 line-kilometres of grid line was cut with 25 metre stations on lines spaced at 40 metre intervals over the western and eastern portions of the property, and 80 metre intervals over the central portion of the grid. The entire base line was surveyed with a laser transit at 100 metre intervals.

Total field and gradient magnetic surveys were completed over the entire grid area utilizing an OMNI-IV Plus proton precession magnetometer. A total of 3,420 total field and gradient readings were taken at a sample interval of 12.5 metres. All readings were corrected for diurnal variations using an OMNI-IV base-station recorder. Both the gradient and total field magnetic data was processed using the GEOSOFT system which presents the readings in a bi-directional gridding algorithm resulting in pronounced lineations in both the down-line and across-line directions. The total field magnetic data has been contoured at an interval of 25 gammas (Figures 5-6). The vertical gradient data has been contoured using an interval of 2 gammas (Figure 7).

A total of 42.31 line-kilometres of horizontal-loop electromagnetic surveying was completed over the grid area utilizing a Max-Min I electromagnetic unit coupled with an APEX M.M.C. datalogger. Three frequencies (222 Hz, 444 Hz and 888 Hz) were recorded at 25 metre station intervals along all of the grid lines. The data has been plotted on stacked profile maps (1:2,000 scale) each of which displays one frequency illustrating both the in-phase and quadrature profiles (Figures 8-10).

The diamond drill program consisted of nine core holes which totalled 4,385 metres. Information on the drill holes, which are numbered T-91-1 to T-91-9 inclusive, are summarized in Table 2 and their locations displayed on the drill plans (Figures 11-13). The purpose of the drilling was to examine the downdip potential of both the Texmont and Frankfield Zones at vertical depths down to 600 metres. Both deposits had been previously well defined to a vertical depth of 150 metres, with several additional deeper holes on the Frankfield Zone ranging down to a depth of 560 metres.

TABLE 2  
TULLY TWP. PROJECT - DIAMOND DRILLING PROGRAM SUMMARY

HOLE NO	ZONE	LOCATION (METRES)	ELEVATION (METRES)	DIP (DEGREES)	AZIMUTH (DEGREES)	DRILLING DATES	LENGTH (METRES)	COMMENTS	MINERALIZATION (INTERVAL: GR./AU/TONNE)
T-91-1	Frankfield	1479.53 E; 251.75 N	2.08	-66	180	Jan. 16-26/91	495.6	Casing left 116 samples	430.7-435.7: 4.55/5.0
T-91-2	Frankfield	1560 E; 168 N	2.86	-60	180	Jan. 26-31/91	321.85	Casing left 97 samples	259.7-265.75: 4.77/6.05 285.85-288.55: 2.29/2.7
T-91-3	Frankfield	1560 E; 250 N	2.51	-60	180	Jan. 31 - Feb. 6/91	381.9	Casing left 121 samples	342.75-346.75: 2.86/4.0 342.75-351.75: 1.67/9.0
T-91-4	Frankfield	1318 E; 192 N	2.47	-60	180	Feb. 1-9/91	541.5	Casing left 135 samples	
T-91-5	Frankfield	1560 E; 300 N	1.71	-65	180	Feb. 6-13/91	468.2	Casing left 128 samples	415.5-424.0: 3.50/8.5 422.0-424.0: 6.35/2.0
T-91-6	Frankfield	1480 E; 402 N	0.91	-65	180	Feb. 9-25/91	793.05	Casing left 139 samples	675.7-678.7: 1.75/3.0 686.2-689.2: 2.37/3.0
T-91-7	Texmont	080 E; 119 N	2.64	-61	180	Feb. 13-16/91	263.95	Casing left 68 samples	
T-91-8	Texmont	404 E; 308 N	8.20	-65	180	Feb. 17-22/91	483.4	Casing left 104 samples	158.8-160.3: 5.28/1.5 301.15-304.15: 2.22/3.0 334.45-337.45: 1.00/3.0 428.9-431.9: 2.27/3.0
T-91-9	Frankfield	1320 E; 272 N	2.47	-60	180	Feb. 18-26/91	636.1	Casing left 108 samples	237.5-239.0: 3.65/1.5



Drill holes T-91-1 to T-91-6 inclusive and T-91-9 examined the Frankfield Zone. Hole T-91-8 tested the Texmont Zone. The magnetic survey outlined a flexure in the basal ultramafic unit to the west of the Texmont Zone which was examined by hole T-91-7.

The drilling program was carried out from January 16 to February 26, 1991 utilizing two wireline drills, a BBS-35 and a BBS-37, which cored with NQ-sized drilling tools. A core recovery of nearly 100% was achieved for all of the holes. A Tropari compass was employed in all of the holes to determine downhole dips and azimuths. Casing was left in all of the holes, each of which has been marked with survey stakes and labelled with plastic tags. The core is stored on the property at the end of the access road, north of the Intex pit.

Drill collars were surveyed with respect to established reference points, employing a transit and tape. Elevations were surveyed using a transit and levelling rod. A large number of the 1988-90 drill hole collars were also located and surveyed. The boundary of the Texmont pit was also surveyed. The survey plan is presented as Figure 14.

A total of 1016 split core samples were submitted for analysis at Swastika Laboratories, Swastika, Ontario. Individual sample lengths generally ranged from 1.0 to 1.5 metres. The samples were analyzed for gold, and various mineralized sections were also analyzed for arsenic. Initially the gold determinations were obtained by fire assay, digested by acid and finished with atomic absorption analysis. Later analysis for gold and all of the arsenic determinations were made by atomic absorption analysis. Regular internal checks were carried out of the assays results. A second laboratory was also used to carry out check assays on some of the sample pulps. Good correlation between the assays was achieved.

## **RESULTS OF THE EXPLORATION PROGRAM**

The objective of the diamond drill program was to examine the downdip potential of both the Texmont and Frankfield Zones with the purpose of outlining large (>1,000,000 tonne), economic gold deposits. The results of the drill program are summarized below and illustrated in Figures 15 to 61, inclusive.

### **Frankfield Zone**

#### **Hole No T-91-1 (1479.53 E; 251.75 N)**

<b>Interval (metres)</b>	<b>Width</b>	<b>Grade (gm Au/T)</b>	<b>Description (metres)</b>
180.9-183.6	2.7	2.07	Andesite flows with graphite, 1-10% po-py, grey quartz veining (qv)
296.7-298.2	1.5	1.07	Graphitic horizon, 1-10% po-py, qv
430.7-435.7	5.0	4.55	Intermediate (int) flows, Fe carb, qv, py, asp, Main Zone

#### **Hole No T-91-2 (1560 E; 168 N)**

259.7-265.75	6.05	4.77	Int flows, Fe carb, qv, py, asp, Main Zone
285.85-288.35	2.7	2.29	Int flows, Fe carb, qv, py, asp, Main Zone

#### **Hole No T-91-3 (1560 E; 250 N)**

170.1-174.6	4.5	1.18	Graphitic horizon, 5-70% py, 2-3% qv
310.0-313.5	3.5	0.92	Int flows, 20-30% qv, py, asp
332.75-336.75	4.0	1.22	Int flows, qv, py, asp, Main Zone
342.75-351.75	9.0	1.67	Int flows with graphite, Fe carb, qv, py, asp, Main Zone

**Hole No T-91-4 (1318 E; 192 N)**

499.7-501.2	1.5	0.94	Graphitic sediments, 2-50% py, Fe carb, qv, fault zone
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**Hole No T-91-5 (1560 E; 300 N)**

415.5-424.0	8.5	3.50	Int flows, silica, qv, py, asp, Main Zone
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437.5-439.5	2.0	1.91	Graphitic sediments, qv, py, asp, Main Zone
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**Hole No T-91-6 (1480 E; 402 N)**

<b>Interval</b>	<b>Width</b>	<b>Grade</b>	<b>Description</b>
501.7-502.7	1.0	1.31	Int flows, graphite, 2-3% qv, po, py
580.0-584.7	3.0	1.05	Graphite, int flow, qv, py-po
675.7-678.7	3.0	1.75	Int flows, graphite, qv, py, po, asp, Main Zone
686.2-689.2	3.0	2.37	Int flows, graphite, qv, py, po, asp, Main Zone

**Hole No T-91-9 (1320 E; 272 N)**

102.7-104.2	1.5	1.44	Ultramafic flow, qv,
137.9-139.4	1.5	1.71	Mafic flows, silica, qv, py
237.5-239.5	1.5	3.65	Int flows, qv, py, asp
243.5-245.0	1.5	1.65	Int flows, qv, py, asp

Holes T-91-2, 91-3 and 91-5 were drilled on line 1560 E, intersecting the Main Zone of the Frankfield deposit at vertical depths of 210, 260 and 320 metres, respectively (Figure 45). On line 1480 E, drill holes T-91-1 and 91-6 encountered the Main Zone at respective vertical depths of 360 and 600 metres (Figure 41). Holes T-91-4 and 91-9 were drilled on line 1320 E to test the hypothesis of a westerly plunge of the Frankfield deposit. Neither hole intersected the Main Zone mineralization. The "footwall" ultramafic unit was intersected at vertical depths of 420 and 500 metres respectively (Figure 35).

**Texmont Zone****Hole No T-91-7 (080 E; 119 N)**

164.75-169.25	4.5	0.53	Int ash tuff, 5-100% py
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**Hole No T-91-8 (404 E; 308 N)**

158.8-160.3	1.5	5.28	Int flows, qv, py, silica, Fe carb
301.15-304.15	3.0	2.22	Int flows, qv, silica
334.45-337.45	3.0	1.00	Int flows, qv, silica, py
428.9-431.9	3.0	2.27	Mafic flows, graphite, qv, py, asp, Main Zone

Drill hole T-91-8 on line 400 E encountered the Main Zone of the Texmont deposit at a vertical depth of 360 metres (Figure 22). On line 080 E to the west of the Texmont Zone, hole T-91-7 failed to intersect any significant mineralization. The "footwall" ultramafic unit was encountered at a vertical depth of 185 metres (Figure 15).

A number of geophysical features were outlined by the magnetic and electromagnetic surveys. Prominent magnetic highs were found at the south end of the grid at about 100 S to 300 S from 1120 E to 1840 E and from 0 to 400 E. These broad features represent thick ultramafic flow sequences. Magnetic lows to the north of the highs are the result of alteration of the ultramafics to talc-serpentine with a coincident destruction of magnetite. A northeast-trending magnetic high from the baseline at 400 E to 720 E X 200 N represents an ultramafic flow unit, with a magnetic low caused by talc-serpentine-altered material to the north. Irregular magnetic highs from line 0 to 520 E at 300 N to 500 N probably represent a mixed volcanic sequence with local ultramafic flows and/or pyrrhotite-bearing graphite units. Another area of irregular magnetic highs from 1440 E to 1680 E at 300 N to 450 N is the result of a mixed sequence of mafic to intermediate flows with local pyrrhotite-bearing graphitic horizons.

A linear magnetic high trending at 330° crosses the baseline at 1040 E. This could represent a fault. If a dextral motion is interpreted for the fault with an approximate 800 metre displacement, a realignment would move the eastern end of the ultramafic flow unit (magnetic high) at 850 E x 300 N to the southeast to align with the ultramafic flow unit (magnetic high) at 1200 E x 300 S. This would result in the lateral continuity of the "footwall" ultramafic flow units, a general alignment of the Texmont and Frankfield Zones, and further consistency in the magnetic pattern to the north.

A strong, east-west trending electromagnetic conductor with a steep northerly dip occurs at 80 N to 100 N on lines 1520 E to 1840 E. Both the in-phase and out-of-phase readings display good coincidental responses. Drill hole logs indicate that a graphitic horizon is the likely source of the anomaly. Local coincidental magnetic highs reflect the pyrrhotite-rich portions of the graphitic horizon.

Another good conductor was found to trend from 1640 E X 175 N through to 1840 E X 275 N, increasing in amplitude towards the northeast. Drill hole logs indicate a graphitic horizon is the source of the anomaly, with local coincident magnetic highs reflecting pyrrhotite enrichment. An east-west trending conductor is indicated by both in-phase and out-of-phase responses from 1200 E to 1280 E at 050 S and can be traced by weak quadrature responses to about 1600 E. Dispersed graphitic material is the source of the anomaly. A steeply dipping, east-northeast trending anomaly which displays in-phase and out-of-phase responses can also be traced from line 0 to 320 E at 50 N to 100 N. Drill hole logs again indicate that a graphitic horizon is the source of the anomaly, it's local magnetic high associated with a localized pyrrhotite concentration.

## **DISCUSSION AND CONCLUSIONS**

The 1991 drill program adequately examined the economic potential of both the Texmont and Frankfield deposits. Neither zone represents a large, economic gold deposit. In general, the results of the exploration were found to be comparable to those obtained by the previous exploration programs which were directed towards these zones.

As defined by the drill programs, the Frankfield Zone has an east-west strike and a dip of 80°-85° to the north, roughly parallel to that of the stratigraphy. As interpreted from the longitudinal section (Figure 62), the deposit has a near surface strike extent of about 480 metres (1320 E to 1800 E) which shortens with increasing depth along a steep, westerly plunge to an indicated strike length of about 200 metres (1440 E to 1640 E) at a vertical depth of 300 metres. The deepest intersection was in hole T-91-6 at 600 vertical metres.

The Texmont Zone also strikes in an east-northeast direction and dips about 75° to the north, again generally parallel to the stratigraphy. A 120 metre (320 E to 440 E) strike length extending to a vertical depth of 150 metres has been outlined for the deposit. A westward plunge for the zone has been inferred. Hole T-91-8 encountered the deposit at a depth of 360 metres, exhibiting a down plunge continuation of the zone to at least that depth.

An interpretation of all of the exploration results completed on the property indicates that the only laterally continuous zone of gold mineralization is found within the Main Zone of both the Texmont & Frankfield deposits. The Main Zone of mineralization within both of these deposits exhibits a similar style of mineralization. Gold is associated with fine grained arsenopyrite, which occurs as halos surrounding dark grey quartz veins. The veins and sulfides were probably emplaced along structurally fractured zones within the host rocks, which had been made brittle by early stage iron carbonate alteration.

The Main Zone of gold mineralization is generally hosted by intermediate flows at or near the contact with a thick "footwall" ultramafic flow sequence. This apparent stratigraphic control may be related to a primary syngenetic preconcentration of the gold or due to structural control imparted by a brittle/ductile transition at the contact.

The gold mineralization in both deposits was found to be irregular and somewhat discontinuous in nature. Although there is an overall east-west trend to the deposits, the random attitudes of the quartz veining and sulfides which were encountered indicate that the vein zones may occur as more discrete pods and shoots angled away from the trend. Drilling downdip into some of these high grade shoots may account for some of the exceptional intersections (i.e. 89-G0-3 : 5.45 gm gold/tonne/22.65 metres) which apparently do not have very much lateral continuity.

## **RECOMMENDATIONS**

The Texmont and Frankfield deposits appear to have been adequately explored with no apparent potential remaining for the occurrence of a large deposit within the areas presently outlined by drilling. Further work on either of these zones is not warranted at this time.

However, only a relatively small portion of the entire property has been adequately explored. Good potential exists for finding other gold deposits within the remainder of the claim grouping which encompasses a similar geological environment to that of the known deposits.

An exploration program is therefore proposed to evaluate the economic potential of the southern and eastern portion of the property. The proposed program would initially consist of an expansion of the existing grid followed by an expansion of the magnetic survey coverage, combined with horizontal-loop electromagnetic surveying over selected areas of the property. The proposed grid would consist of lines at 100 metre intervals with stations spaced at 25 metres. Fill-in lines may be required in some localities.

The expansion of the magnetic survey coverage would be effective in outlining the ultramafic flow units which occur as broad, uniform magnetic highs and have been found to be associated with the gold mineralization. Talc-serpentine altered ultramafics would be represented by adjacent, uniform magnetic lows. Graphitic horizons, which are commonly found within the ore zone stratigraphy and occasionally host the gold mineralization, will be outlined as linear conductors by the electromagnetic surveys.


A Pionjar overburden sampling program is also recommended to effectively prioritize any prospective targets outlined from the geophysical program. The proposed sampling program would involve the testing of the basal till horizon at regular intervals, down-ice from the geophysical targets. The heavy mineral concentrate from each till sample would be assayed for both gold and arsenic.

Following the completion of the surface geophysical surveys and till sampling program, a 1500 metre program of reconnaissance diamond drilling is envisioned to test the selected targets. Emphasis would be placed on targets which are coincident with the interpreted ultramafic flow contacts, with priority given to targets with magnetic and electromagnetic responses coincidental with anomalous gold-arsenic values in the basal till.

The recommended program if completed in its entirety, would require an exploration expenditure of \$165,000.00 Canadian, and has been budgeted as follows:

Grid establishment - 50 line km @ \$200/km	\$ 10,000
Magnetic survey - 50 line km @ \$125/km	6,250
Max-Min E.M. survey - 25 line km @ \$250/km	6,250
Pionjar overburden sampling - 20 days @ \$600/d	12,000
Heavy mineral analysis - 60 samples @ \$30/sample	1,800
Diamond drill program - (all inclusive) 1500 metres @ \$75/metre	112,500
Miscellaneous (approx.11%)	<u>16,200</u>
<b>Total</b>	<b>\$ 165,000</b>

Respectfully submitted,

  
 Murray C. Rogers, M.Sc., FGAC  
 Consulting Geologist

Toronto, Ontario  
 March 25, 1991



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**CERTIFICATE**

I, Murray C. Rogers, of 1032, 95 Trailwood Drive, Mississauga, Ontario, hereby certify that:

1. I am currently working on a contract basis as a senior project geologist with A.C.A. Howe International Limited, with offices at 22 Front Street West, Suite 1400, Toronto, Ontario M5J 1C4.
2. I am a graduate of the University of Calgary, Alberta with a Bachelor of Science (1977) degree in geology and of Queen's University, Kingston, Ontario with a Masters of Science (1982) degree in geology.
3. I have practised my profession in excess of twelve years.
4. I am a Fellow of the Geological Association of Canada.
5. I have personal knowledge of the project, being the geologist responsible for the on-site supervision of the program.
6. I have not received, nor do I expect to receive any interest, directly or indirectly, in the properties or securities of Cyprus Gold (Canada) Ltd., or any related companies.

  
Murray C. Rogers, M.Sc., FGAC

Toronto, Ontario  
March 25, 1991



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**APPENDIX 1**

**DIAMOND DRILL LOGS, ASSAY LOGS**  
**AND**  
**ASSAY CERTIFICATES FOR**  
**HOLES T-91-1 TO T-91-9**  
**AND**  
**RELOGGED PORTIONS OF**  
**HOLES 88-FI-2 TO 88-FI-13,**  
**89-G0-3, 90-G0-4 AND 90-G0-5**

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp - Frankfield Zone	REMARKS:	Casing left in hole
HOLE NO:	T-91-1	LOGGED BY:	M. Rogers
LENGTH:	495.6 metres	STARTED:	Jan. 16/91
CLAIM NO:		FINISHED:	Jan. 26/91
LOCATION:	14+79.53 E; 2 + 51.75 N		
ELEVATION:	2.08 metres		
AZIMUTH:	180°		
DIP:	-66		

FROM	TO	DESCRIPTION	
0	14.6	Overburden	
14.6	132.95	<p><b>Andesite Flows (2d, 2e); medium green, fine grained ( <math>\leq</math>.5 mm), hardness 3-4, massive to locally pillowed, mafic-intermediate composition, local weakly developed schistosity at 45° to core axis, generally <math>\leq</math>.5% disseminated (dissem.) pyrite (py), common (1-5%), oval to elongate calcite-filled amydules, pervasive calcite alteration (2h), common (1-10%), random and irregular calcite veinlets, local, 1-5%, irregular and random quartz veinlets with .5-5% py commonly, local, minor argillite lenses and interbeds.</b></p>	
	33.3	38.15	Variably bleached section due to sericite (?) alteration.
	47.0	47.6	10-30% lenses of argillite; local calcite veining to 50%
	49.3	53.6	Lighter coloured section; bleached due to sericite (?) alteration.
			Local weak schistosity at 55.0 metres at 30° - 35° to c.a.
	53.9	59.25	5-20% lenses and fragments of argillite; locally common (up to 50%) calcite veining; local, 1-2% blebs of py.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
57.8	59.25	10-30% calcite veining generally parallel to foliation, local 1-5% quartz veinlets; .5-2% dissem. and blebbed py.
59.25	62.35	Lighter coloured, "bleached" section due to sericite (?) alteration.
62.35	64.3	20-100%, grey quartz - calcite veining, generally irregular, random to foliation parallel, .5-1% dissem. pyrrhotite (po).
64.3	79.25	1-20% argillite lenses and interbeds; common (1-10%) calcite veining; local graphitic lenses (2g).
75.1	77.3	Extensive quartz and calcite veining; local graphitic lenses with 1-3% blebbed py. (2g).
84.2	88.0	Common (1-25%) graphite lenses (2g); extensive quartz and calcite veining - generally random; calcite and silica alteration (2g).
87.3	88.0	5-50% po and py as dissem, stringers and blebs.
88.0	131.3	Generally massive andesite flows with 1-10% carbonaceous and graphitic sediments (2g) as lenses, stringers and fragments, commonly with .5-5% py-po associated; pervasive calcite alteration; common veining, local elongate calcite-filled amygdules, local, weak schistosity at 35°-45° to c.a., local flow breccia.
110.8	111.1	White-grey quartz vein.
111.7	111.9	White quartz vein at 30° to c.a.
114.4	117.25	Lighter coloured section probably due to sericite (?) alteration.
120.5	122.8	Lighter coloured section due to sericite (?) alteration.

FROM	TO	DESCRIPTION
123.4	131.3	Extensive (5-30%) grey quartz and calcite veining, irregular and random to foliation parallel, local .5-3% dissem and stringer po-py, local bleaching - sericite (?), common in-situ brecciation; possible very fine (<<.5mm) asp. up to 1%.  Sharp contact at 45° to c.a.
132.95	135.15	<b>Andesite Ash Tuff (2a)</b> ; medium grey-green, fine-grained ( $\leq 1\text{mm}$ ), schistosity at 45° to c.a., hardness 3-4, intermediate composition, pervasive calcite alteration, $\leq .5\%$ py as dissem. and stringers, local, blebs of po, 1-10% calcite veinlets - irregular, random to foliation parallel. Sharp contact at 45° to c.a.
135.15	215.2	<b>Andesite Flows (2d,2e)</b> ; similar description to 14.6- 132.95; generally massive, locally amygdaloidal (calcite-filled), rare pillows, pervasive calcite alteration, common irregular and random quartz and calcite veining, minor ( $\leq 1\%$ ) py-po, local carbonaceous-graphitic lenses.
160.0-161.4		Barren, white quartz veining (50%) subparallel to c.a.
173.3-188.5		Common (1-10%) stringers, lenses and fragments of carbonaceous and graphitic sediment in the volcanic rock generally with py and po (2g).
180.9-183.6		5-20% graphitic lenses with 1-10% po-py locally as dissem., stringers and blebs.
182.7-183.2		Grey quartz veining with 1-3% py (2g).
		Weak schistosity at 40°-45° to c.a. throughout this part of the section.
214.2-215.2		Lighter coloured section - minor bleaching; contact zone.
		Sharp contact

FROM	TO	DESCRIPTION
215.2	244.9	<p><b>Andesite Flows (2d); medium green, fine grained (1mm), massive, hardness 3-4, intermediate composition, weak to locally strong, pervasive calcite alteration, generally <math>\leq</math>.5% dissem. py-po, common (1-5%), irregular and random calcite and quartz veinlets, local, 1-5% graphitic lenses, rare, calcite-filled amygdules, distinct in appearance from previous flows, slightly coarser and more mafic; epidote present.</b></p> <p>236.2-236.55      50% calcite veining.</p> <p>Gradational contact</p>
244.9	292.2	<p><b>Intermediate flows (2d); medium grey, fine grained ( &lt;1 mm), hardness 3-4, massive, intermediate composition, more felsic in appearance than previous unit, local, 1-5%, calcite-filled amygdules, no apparent foliation, common, pervasive, weak-strong calcite alteration, generally <math>\leq</math> .5% dissem. po-py, common 1-10%, irregular and random calcite veinlets, local, minor quartz veining.</b></p> <p>245.65 - 246.15   70% barren calcite veining.</p> <p>257.9 - 258.1      Grey quartz vein with .5% dissem. py.</p> <p>263.1 - 263.7      Interbed of carbonaceous argillite; 35% irregular and random calcite veinlets, brecciation.</p> <p>272.9 - 273.6      Extensive (30-80%) white and grey quartz veining with 1% dissem. py.</p> <p>273.6 - 274.9      5-10% irregular and random quartz veinlets; almost total carbonatization (calcite) of host rock; brecciation.</p> <p>274.9 - 299.0      Strong pervasive calcite alteration.</p> <p>278.85 - 285.65   Well developed section of local, small pillows, flow top breccias and irregular, light coloured chilled material; extensive calcite alteration.</p>

FROM	TO	DESCRIPTION
		<p>285.1 - 289.7 Fe carbonate alteration; medium to dark brown carbonate initially along quartz veinlets and as irregular blebs from 285.1 - 286.6; then as large patches and zones of weak to strong intensity from 286.6 - 288.4 and as blebs and along veinlets to 289.7; section contains 5-10% quartz veinlets with 1% py.</p> <p>Indistinct contact.</p>
292.2	295.75	<p><b>Andesite Ash Tuff (2a);</b> very similar to 132.95 - 135.15; weak schistosity at 60° to c.a., pervasive calcite alteration.</p> <p>Sharp contact</p>
295.75	298.0	<p><b>Graphitic Sedimentary Horizon (2g);</b> dark grey - black, fine grained (&lt;.5 mm), well developed schistosity at 50°-60° to c.a., mainly graphitic sediments with minor andesitic material, common (1-10%) py-po as dissem., stringers and blebs, local, extensive quartz veining, common (1-5%), random and irregular calcite veinlets, bleached chill zones at both contacts.</p> <p>Gradational contact over 30 cm.</p>
298.0	319.6	<p><b>Intermediate Flows (2d,2e);</b> very similar to 244.9 - 292.2; generally massive with common, calcite-filled amygdules, local, small pillows, local flow top breccia, common, random, quartz and calcite veining, common, weak-strong, pervasive calcite alteration, local Fe carbonate alteration, weak foliation locally at 55° to c.a.</p> <p>299.85 - 300.35 Extensive, medium brown Fe carb. alteration.</p> <p>300.35 - 309.5 Common Fe carb. alteration, buff - medium brown colour, weak - strong, occurs pervasively, as infilling of amygdules and as stringers and veinlets.</p> <p>309.5 - 313.25 Bleached zone due to very strong, pervasive calcite alteration.</p> <p>311.85 - 312.95 70% grey quartz veining with 10% Fe carbonate as stringers and veinlets; 1% py, local silicification.</p>



FROM	TO	DESCRIPTION
		315.5 - 315.7 Graphitic sedimentary interbed. 319.1 - 319.6 Sharp contact with .5 meter chill margin
319.6	325.1	<b>Intermediate Ash Tuff (2a);</b> very similar to 132.95 - 135.15 description; fine grained ( $\leq 1$ mm), weak foliation at 50°-55° to c.a., pervasive calcite alteration.  Sharp contact with altered chill margin from 325.1 - 325.8.
325.1	371.0	<b>Intermediate Flows (2d, 2e);</b> similar to 298.0 - 319.6; medium grey, fine grained ( $< 1$ mm), massive to weakly foliated at 55° to c.a., intermediate composition, common calcite-filled and local Fe carb.-filled amygdules, local small pillows, weak-strong, pervasive calcite alteration, local Fe carbonate alteration, 1-5% calcite veinlets, 1-5% quartz veinlets, local flow breccia.  325.1 - 325.6 Pervasive, strong, light brown Fe carbonate alteration. 325.6 - 327.7 Fe carbonate alteration as veinlets and as filling for amygdules. 339.1 - 343.55 1-10% graphitic lenses, patches and fragments with minor (.5-1%) dissem. po-py. 333.85 - 334.85 5% quartz veining. 343.55 - 348.7 5 - 20% graphitic lenses; 1-5% quartz veinlets, .5-5% po-py as dissem. blebs and stringers, pervasive calcite alteration. 348.0 - 348.15 Graphitic interflow sedimentary horizon with 40% py.; bleached chill zone 347.8 - 348.0. 348.7 - 349.2 Weak - moderate pervasive Fe carbonate alteration. D.Z. 351.9 - 371.0 Common (5-10%), irregular, random to foliation parallel white and grey quartz veining, .5-2% dissem py-po locally, rare chalcopyrite (cp), pervasive calcite alteration, local Fe carbonate alteration, mod.-well developed schistosity at 45°-55° to c.a., common brecciation, deformation zone (D.Z.).

FROM	TO	DESCRIPTION
	354.9 - 359.6	Fe carbonate alteration - pervasive, lenses and patches.
	361.3 - 363.7	Fe carb. alteration - pervasive, lenses and patches.
	363.7 - 364.7	Completely talc-carbonate altered rock, probably ultramafic unit (6c).
	364.7 - 371.0	Fe carb. alteration - pervasive, lenses and patches; local graphite lenses.
	366.1 - 367.2	10-50% graphitic sediment.
		Sharp contact.
371.0	379.8	<b>Ultramafic Rock:</b> totally altered to d. grey - black talc and minor carbonate, extremely soft, mod.-well developed foliation at 45°-60° to c.a. but locally highly variable due to deformation, local white quartz veining. (6c).
	F.Z. 378.0 - 378.5	Badly broken core; fault zone.
	F.Z. 379.6 - 381.2	Badly broken core; fault zone.
		Contact in fault zone
379.8	460.6	<b>Intermediate Flows (2d,2e);</b> very similar to 325.1-371.0 description, generally mafic, local carbonate-filled amydules, common, weak-strong pervasive calcite alteration, local Fe carbonate alteration, common, (1-20%) white - grey, irregular, random quartz veining, common calcite veinlets, generally $\leq 5\%$ dissemin. po-py.
	379.8 - 389.8	Fe carbonate alteration as pervasively and as dissemin.
	395.9 - 396.4	50% grey quartz veining.
	402.2 - 424.95	1-5% white-grey quartz veins with < 1% py; host contains generally $\leq 5\%$ very fine, dissemin. py, locally to 1-2%, possible very fine asp (<.5%) rarely.
	424.95 - 431.0	Weak-mod. dissemin. gradually to pervasive, buff Fe carbonate alteration, weak reaction to acid, generally .5-1% dissemin. py, rare, <.5%, very fine (<<.5mm) asp.

FROM	TO	DESCRIPTION
427.0	427.7	5-15% grey, random quartz veining.
428.15	428.5	10% grey, random quartz veining
429.0	429.7	80% grey, quartz veining.
431.0	435.35	Pervasive, buff Fe carbonate; 2-40% sulfides locally-py and asp as dissem. and masses, very fine grained (<.5mm), local, random grey quartz veining.
431.0	431.65	2-3% py, .5-1% asp.
431.65	432.05	5% py, 10-30% asp, 25% grey quartz veining.
432.05	432.6	2-3% py, 2-3% asp.
432.6	433.45	50% grey quartz veining; 2-3% py, 5% asp on average.
433.45	434.3	1% py, .5-1% asp.
434.3	435.35	1% py, 1-20% asp, average 2-3%.
435.35	444.85	Weak - moderate, buff Fe carb. alteration, 1-3% fine dissem. py, rare, <.5%, very fine asp, common, 1-10% grey, random quartz veining, rare hematite along veins.
444.85	448.35	2-10%, random, grey quartz veining.
448.35	451.4	Weak, buff, pervasive Fe carb. alteration, $\leq$ 1% dissem. py, 1-3%, random, grey quartz veinlets.
451.4	460.6	Generally 1-5%, random, grey quartz veining, $\leq$ 1%, very fine dissem. to blebs of py, rare malachite stain along fractures, rare hematite in quartz veins, weak pervasive calcite alteration.

Sharp contact

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<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
460.6	495.6	<b>Totally Talc-Carbonate Altered Ultramafic (6c); medium grey-green, very soft, fine grained, massive, composed almost totally of talc with common veinlets and infillings of carbonate, rare quartz veining, no appreciable magnetite.</b>
	495.60 metres	End of Hole.

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A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-1 Client: Cyprius

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	96.0	M	50 <sup>+</sup>	11.9 <sup>+</sup>	29.8	50 <sup>+</sup>	11.9 <sup>+</sup>
2	100.0	M	50	11.9	61.4	42	9.5
3	100.0	M	55	13.1	69.0	46	11.0
4	100.0	M	28	7.1	97.5	28	7.1
5	100.0	M	17	3.6	85.2	17	3.6
6	100.0	M	18	4.1	90.1	18	4.1
7	100.0	M	22	5.1	93.0	22	5.1
8	100.0	M	16	3.7	95.3	16	3.7
9	100.0	M	16	3.8	98.8	16	3.8
10	100.0	M	17	4.0	89.5	17	4.0
11	100.0	M	13	2.9	93.3	13	2.9
12	100.0	M	16	3.7	97.7	16	3.7
13	100.0	M	23	5.1	86.7	23	5.1
14	100.0	M	32 <sup>+</sup>	7.6 <sup>+</sup>	78.6	27 <sup>+</sup>	6.4
15	100.0	M	21	4.9	89.5	21	4.9
16	100.0	M	20	4.7	90.0	20	4.7
17	100.0	M	19	4.2	92.2	19	4.2
18	100.0	M	14	3.3	97.3	14	3.3
19	100.0	M	18	4.1	93.2	16	3.6
20	100.0	M	14	3.2	98.9	14	3.2
21	100.0	M	13	3.0	92.0	13	3.0
22	100.0	M	16	3.6	92.0	16	3.6
23	100.0	M	14	3.4	95.5	14	3.4
24	100.0	M	21	4.8	89.7	19	4.4
25	100.0	M	23	5.4	91.8	23	5.4
26	100.0	M	16	3.6	92.2	16	3.6
27	100.0	M	19	4.3	94.3	19	4.3

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-1 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100.0	M	27	6.1	81.8	27	6.1
29	100.0	M	16	3.7	98.0	16	3.7
30	100.0	M	22	5.0	90.9	22	5.0
31	100.0	M	13	2.9	93.3	13	2.9
32	100.0	M	10	2.2	98.8	10	2.2
33	100.0	M	21	4.7	89.8	21	4.7
34	100.0	M	14	3.2	97.7	13	3.0
35	100.0	M	22	5.0	93.2	22	5.0
36	100.0	M	21	4.8	89.8	21	4.8
37	100.0	M	24	5.3	85.6	21	4.7
38	100.0	M	15	3.4	96.6	15	3.4
39	100.0	M	29	6.6	86.4	29	6.6
40	100.0	M	19	4.4	90.7	19	4.4
41	100.0	M	15	3.4	92.0	15	3.4
42	100.0	M	15	3.4	93.1	15	3.4
43	100.0	M	23	5.3	85.1	23	5.3
44	100.0	M	30	6.8	77.3	28	6.4
45	100.0	M	31	7.4	88.1	26	6.2
46	100.0	M	26	5.8	83.1	26	5.8
47	100.0	M	24	5.4	92.1	24	5.4
48	100.0	M	28 <sup>+</sup>	6.5	77.9	28 <sup>+</sup>	6.5
49	100.0	M	17	3.8	93.3	17	3.8
50	100.0	M	18	4.1	95.5	18	4.1
51	100.0	M	24 <sup>+</sup>	5.5 <sup>+</sup>	88.6	24 <sup>+</sup>	5.5 <sup>+</sup>
52	100.0	M	21	4.8	94.3	21	4.8
53	100.0	M	20	4.7	95.3	20	4.7
54	100.0	M	21	4.6	88.0	21	4.6

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-21-1 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
55	100.0	M	28 <sup>+</sup>	6.6	83.5	28 <sup>+</sup>	6.6
56	100.0	M	25	5.7	82.8	25	5.7
57	100.0	M	24	5.3	87.9	24	5.3
58	100.0	M	25	5.6	86.7	25	5.6
59	100.0	M	27 <sup>+</sup>	8.5 <sup>+</sup>	64.7	30 <sup>+</sup>	6.9
60	100.0	M	23 <sup>+</sup>	5.4 <sup>+</sup>	91.8	23 <sup>+</sup>	5.4 <sup>+</sup>
61	100.0	M	18	4.0	94.4	18	4.0
62	100.0	M	17	3.8	92.1	16	3.6
63	100.0	M	17 <sup>+</sup>	3.9 <sup>+</sup>	94.4	17 <sup>+</sup>	3.9 <sup>+</sup>
64	100.0	M	21	4.7	95.5	21	4.7
65	100.0	M	28	6.4	86.2	27	6.2
66	100.0	M	21 <sup>+</sup>	5.0 <sup>+</sup>	89.3	21 <sup>+</sup>	5.0 <sup>+</sup>
67	100.0	M	24	5.5	85.2	24	5.5
68	100.0	M	21	5.1	96.4	21	5.1
69	100.0	M	15	3.4	96.6	15	3.4
70	100.0	M	18	4.0	86.7	18	4.0
71	100.0	M	16	3.7	96.5	16	3.7
72	100.0	M	10	2.2	93.4	10	2.2
73	100.0	M	16	3.6	93.3	16	3.6
74	100.0	M	16	3.6	95.5	16	3.6
75	99.0	M	23 <sup>+</sup>	5.8 <sup>+</sup>	89.0	23 <sup>+</sup>	5.8 <sup>+</sup>
76	100.0	M	21	4.6	87.6	21	4.6
77	100.0	M	29 <sup>+</sup>	6.0 <sup>+</sup>	76.3	25 <sup>+</sup>	5.2 <sup>+</sup>
78	100.0	M	22 <sup>+</sup>	5.6 <sup>+</sup>	92.4	22 <sup>+</sup>	5.6 <sup>+</sup>
79	100.0	M	25 <sup>+</sup>	5.7 <sup>+</sup>	85.2	19 <sup>+</sup>	4.3 <sup>+</sup>
80	98.0	M	47 <sup>+</sup>	11.1 <sup>+</sup>	61.2	47 <sup>+</sup>	11.1 <sup>+</sup>
81	100.0	M	33 <sup>+</sup>	7.8 <sup>+</sup>	72.9	33 <sup>+</sup>	7.8 <sup>+</sup>

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-1 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
82	100.0	M	37 <sup>+</sup>	9.4 <sup>+</sup>	92.1	31 <sup>+</sup>	7.8 <sup>+</sup>
83	98.0	S	54 <sup>+</sup>	12.7 <sup>+</sup>	52.9	44 <sup>+</sup>	10.4 <sup>+</sup>
84	79.0	S	50 <sup>+</sup>	11.9 <sup>+</sup>	15.5	50 <sup>+</sup>	11.9 <sup>+</sup>
85	82.0	M	39 <sup>+</sup>	10.1 <sup>+</sup>	72.7	39 <sup>+</sup>	10.1 <sup>+</sup>
86	100.0	M	30 <sup>+</sup>	7.5 <sup>+</sup>	79.8	30 <sup>+</sup>	7.5 <sup>+</sup>
87	100.0	M	22 <sup>+</sup>	4.9 <sup>+</sup>	82.0	22 <sup>+</sup>	4.9 <sup>+</sup>
88	100.0	M	22	5.0	84.1	22	5.0
89	100.0	M	40	9.9	100	21	5.18 <sup>+</sup>
90	100.0	M	35	8.0	84	34 <sup>+</sup>	7.8 <sup>+</sup>
91	100.0	M	24 <sup>+</sup>	6.5 <sup>+</sup>	91	27 <sup>+</sup>	7.3 <sup>+</sup>
92	100.0	M	43	9.6	96.5	22 <sup>+</sup>	4.8 <sup>+</sup>
93	100.0	M	25 <sup>+</sup>	5.5 <sup>+</sup>	87	25 <sup>+</sup>	5.6 <sup>+</sup>
94	100	M	20 <sup>+</sup>	5.0 <sup>+</sup>	100	22 <sup>+</sup>	5.5 <sup>+</sup>
95	100	M	21	4.9	98	21	4.9
96	100	M	18	4.2	97	18	4.2
97	100.0	M	22	4.4	90.9	22	4.4
98	100.0	M	18 <sup>+</sup>	4.1	87.7	16 <sup>+</sup>	3.7
99	100.0	M	27 <sup>+</sup>	6.0 <sup>+</sup>	83.5	27 <sup>+</sup>	6.0 <sup>+</sup>
100	100.0	M	46 <sup>+</sup>	10.7 <sup>+</sup>	51.2	37 <sup>+</sup>	8.6 <sup>+</sup>
101	100.0	M	32 <sup>+</sup>	7.4 <sup>+</sup>	83.9	32 <sup>+</sup>	7.4 <sup>+</sup>
102	100.0	M	27 <sup>+</sup>	6.6 <sup>+</sup>	79.3	27 <sup>+</sup>	6.6 <sup>+</sup>
103	97.0	S-M	35 <sup>+</sup>	8.5 <sup>+</sup>	72.0	35 <sup>+</sup>	8.5 <sup>+</sup>
104	94.0	S	60 <sup>+</sup>	13.6 <sup>+</sup>	40.9	60 <sup>+</sup>	13.6 <sup>+</sup>
105	98.0	S	50 <sup>+</sup>	12.2 <sup>+</sup>	57.3	50 <sup>+</sup>	12.2 <sup>+</sup>
106	100.0	S	46 <sup>+</sup>	10.6 <sup>+</sup>	58.6	46 <sup>+</sup>	10.6 <sup>+</sup>
107	100.0	S	47 <sup>+</sup>	10.6 <sup>+</sup>	64.0	47 <sup>+</sup>	10.6 <sup>+</sup>
108	100.0	S	25	5.7	78.4	25	5.7





**\*\* BORSURV \*\*****SURVEY DATA AND CALCULATED CO-ORDINATES (metres)****PROPERTY: TULLY TWP.  
HOLE NO: 91-1  
GRID: FRANKFIELD****DATE: JANUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI**

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-66.00	180.00	1479.530	251.750	2.080
65.00	-63.00	180.00	1479.530	223.767	-56.588
127.50<--	-60.00	180.50	1479.400	193.945	-111.514
190.00	-57.00	181.00	1478.972	161.291	-164.804
296.00	-54.00	180.00	1478.448	101.255	-252.162
435.00	-51.00	180.00	1478.448	16.637	-362.438
495.60	-50.00	180.00	1478.448	-21.910	-409.198

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-1

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	14.60	1479.53	245.46	-11.10	none
2D,2E,CARB	84.20	1479.49	214.61	-73.46	45.0
2D,2E,2G,PO,	88.00	1479.48	212.79	-76.80	45.0
2D,2E,CARB	132.95	1479.36	191.10	-116.16	45.0
2A,CARB	135.15	1479.35	189.95	-118.04	45.0
2D,2E,CARB	173.30	1479.09	170.02	-150.57	45.0
2D,2E,2G,CAR	188.50	1478.98	162.08	-163.53	45.0
2D,2E,CARB	215.20	1478.85	147.02	-185.57	45.0
2D,CARB	244.90	1478.70	130.20	-210.05	45.0
2D,CARB	285.10	1478.50	107.43	-243.18	50.0
2D,FE CARB	289.70	1478.48	104.82	-246.97	50.0
2D,CARB	292.20	1478.47	103.41	-249.03	50.0
2A,CARB	295.75	1478.45	101.40	-251.96	60.0
2G,PY,PO	298.00	1478.45	100.04	-253.75	55.0
2D,2E,CARB,F	319.60	1478.45	86.89	-270.88	55.0
2A,CARB	325.10	1478.45	83.54	-275.25	55.0
2D,2E,CARB,F	339.10	1478.45	75.02	-286.36	55.0
2D,2E,2G,CAR	348.70	1478.45	69.17	-293.97	55.0
2D,2E,CARB,F	351.90	1478.45	67.22	-296.51	55.0
D.Z.,2D,2E,C	363.70	1478.45	60.04	-305.87	50.0
D.Z.,6C,TALC	364.70	1478.45	59.43	-306.66	50.0
D.Z.,2D,2E,C	371.00	1478.45	55.60	-311.66	50.0
6C,TALC,CARB	379.80	1478.45	50.24	-318.64	55.0
2D,2E,CARB,F	431.00	1478.45	19.07	-359.26	55.0
2D,2E,FE CAR	435.35	1478.45	16.41	-362.71	55.0

**SUMMARY LITHO LOG**  
**PROPERTY: TULLY TWP.**  
**HOLE No.: 91-1**

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<b>LITHO UNIT</b>	<b>DEPTH</b>	<b>EASTINGS</b>	<b>NORTHINGS</b>	<b>ELEVATION</b>	<b>CORE ANGLE</b>
<b>2D,2E,CARB,F</b>	<b>460.60</b>	<b>1478.45</b>	<b>0.35</b>	<b>-382.19</b>	<b>55.0</b>
<b>6C,TALC,CARB</b>	<b>495.60</b>	<b>1478.45</b>	<b>-21.91</b>	<b>-409.20</b>	<b>55.0</b>

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-1

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
57.75	59.25	1.50	NIL	NIL	NIL
59.25	60.75	1.50	NIL	NIL	NIL
60.75	62.25	1.50	NIL	NIL	NIL
62.25	63.25	1.00	NIL	NIL	NIL
63.25	64.25	1.00	0.000	0.010	NIL
75.10	76.60	1.50	0.001	0.010	NIL
76.60	77.60	1.00	NIL	NIL	NIL
84.20	85.70	1.50	NIL	NIL	NIL
85.70	87.20	1.50	NIL	NIL	NIL
87.20	88.00	0.80	NIL	NIL	NIL
101.30	102.80	1.50	NIL	NIL	NIL
102.80	104.30	1.50	NIL	NIL	NIL
110.80	112.30	1.50	0.005	0.170	NIL
123.40	124.90	1.50	0.006	0.190	NIL
124.90	126.40	1.50	0.008	0.270	NIL
126.40	127.90	1.50	0.005	0.160	NIL
127.90	129.40	1.50	0.002	0.070	NIL
129.40	130.90	1.50	0.010	0.330	NIL
130.90	132.40	1.50	0.002	0.070	NIL
160.00	161.50	1.50	0.001	0.020	NIL
180.90	182.40	1.50	0.028	0.950	NIL
182.40	183.60	1.20	0.101	3.170	NIL
262.60	263.70	1.10	0.001	0.020	NIL
272.90	273.60	0.70	0.001	0.030	NIL
273.60	275.10	1.50	0.001	0.040	NIL
285.00	286.50	1.50	NIL	NIL	NIL
286.50	288.00	1.50	NIL	NIL	NIL
288.00	289.70	1.70	NIL	NIL	NIL
292.20	293.70	1.50	NIL	NIL	NIL
293.70	295.20	1.50	NIL	NIL	NIL
295.20	296.70	1.50	0.000	0.010	NIL
296.70	298.20	1.50	0.031	1.070	NIL
298.20	299.80	1.60	NIL	NIL	NIL
299.80	301.30	1.50	NIL	NIL	NIL
301.30	302.80	1.50	NIL	NIL	NIL
302.80	304.30	1.50	0.004	0.140	NIL
304.30	305.80	1.50	0.001	0.020	NIL
305.80	307.30	1.50	NIL	NIL	NIL
307.30	308.80	1.50	NIL	NIL	NIL
308.80	309.50	0.70	0.000	0.010	NIL
311.85	312.95	1.10	0.002	0.060	NIL
325.10	326.10	1.00	0.000	0.010	NIL
326.10	327.70	1.60	0.000	0.010	NIL
333.85	334.85	1.00	NIL	NIL	NIL
343.55	345.00	1.45	NIL	NIL	NIL
345.00	346.50	1.50	0.018	0.620	NIL
346.50	348.00	1.50	0.000	0.010	NIL
348.00	349.50	1.50	0.002	0.070	NIL
351.90	353.40	1.50	NIL	NIL	NIL
353.40	354.90	1.50	0.000	0.010	NIL

ASSAY LOG

PROPERTY: TULLY TWP.

HOLE No.: 91-1

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
354.90	356.40	1.50	NIL	NIL	NIL
356.40	357.90	1.50	0.000	0.010	NIL
357.90	359.40	1.50	0.001	0.030	NIL
359.40	360.90	1.50	0.001	0.010	NIL
360.90	362.40	1.50	0.001	0.040	NIL
362.40	363.90	1.50	0.000	0.010	NIL
363.90	365.40	1.50	0.001	0.020	NIL
365.40	366.90	1.50	0.000	0.010	NIL
366.90	368.40	1.50	0.000	0.010	NIL
368.40	369.90	1.50	0.000	0.010	NIL
369.90	371.10	1.20	0.000	0.010	NIL
376.75	377.75	1.00	0.000	0.010	NIL
380.95	382.50	1.55	0.000	0.010	NIL
382.50	384.00	1.50	0.000	0.010	NIL
384.00	385.50	1.50	0.000	0.010	NIL
385.50	387.00	1.50	0.000	0.010	NIL
387.00	388.50	1.50	0.000	0.010	NIL
388.50	390.00	1.50	0.001	0.020	NIL
390.00	391.00	1.00	0.000	0.010	NIL
395.40	396.40	1.00	0.001	0.020	NIL
402.20	403.70	1.50	0.000	0.010	NIL
403.70	405.20	1.50	NIL	NIL	NIL
405.20	406.70	1.50	NIL	NIL	NIL
406.70	408.20	1.50	NIL	NIL	NIL
408.20	409.70	1.50	NIL	NIL	NIL
409.70	411.20	1.50	NIL	NIL	NIL
411.20	412.70	1.50	NIL	NIL	NIL
412.70	414.20	1.50	NIL	NIL	NIL
414.20	415.70	1.50	NIL	NIL	NIL
415.70	417.20	1.50	NIL	NIL	NIL
417.20	418.70	1.50	NIL	NIL	NIL
418.70	420.20	1.50	NIL	NIL	1.000
420.20	421.70	1.50	0.000	0.010	1.000
421.70	423.20	1.50	NIL	NIL	1.000
423.20	424.70	1.50	NIL	NIL	10.000
424.70	426.20	1.50	0.002	0.050	150.000
426.20	427.70	1.50	0.001	0.040	120.000
427.70	429.20	1.50	0.002	0.070	140.000
429.20	430.70	1.50	0.006	0.200	170.000
430.70	431.70	1.00	0.108	3.790	4300.000
431.70	432.70	1.00	0.242	8.300	710000.000
432.70	433.70	1.00	0.130	4.170	7800.000
433.70	434.70	1.00	0.021	0.710	2200.000
434.70	435.70	1.00	0.162	5.550	9500.000
435.70	437.20	1.50	0.000	0.010	80.000
437.20	438.70	1.50	NIL	NIL	60.000
438.70	440.20	1.50	0.002	0.070	90.000
440.20	441.70	1.50	0.000	0.010	40.000
441.70	443.20	1.50	0.004	0.130	60.000
443.20	444.70	1.50	NIL	NIL	60.000

ASSAY LOG

PROPERTY: TULLY TWP.

HOLE No.: 91-1

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FROM	TO	WIDTH	Au oz\t	Au gr\T	As ppm
444.70	446.20	1.50	NIL	NIL	60.000
446.20	447.70	1.50	NIL	NIL	50.000
447.70	449.20	1.50	NIL	NIL	60.000
449.20	450.70	1.50	NIL	NIL	42.000
450.70	452.20	1.50	0.000	0.010	42.000
452.20	453.70	1.50	0.000	0.010	45.000
453.70	455.20	1.50	0.011	0.370	200.000
455.20	456.70	1.50	0.007	0.250	300.000
456.70	458.20	1.50	0.000	0.010	50.000
458.20	459.70	1.50	NIL	NIL	25.000
459.70	461.10	1.40	NIL	NIL	55.000
461.10	462.60	1.50	NIL	NIL	18.000
462.60	464.10	1.50	NIL	NIL	3.000
466.60	468.10	1.50	NIL	NIL	1.000
475.80	477.30	1.50	NIL	NIL	4.000
487.60	489.10	1.50	NIL	NIL	4.000

AVERAGED ASSAY INTERVALS

PROPERTY: TULLY TWP.

HOLE No: 91-1

1. HW ( 2.70 d.t. Core Angle: 90 2.70 t.t.)

FROM: 180.90

EASTINGS: 1479.03  
NORTHINGS: 166.05  
ELEVATION: -157.05

0.060 Au oz\t  
2.070 Au gm\T  
0.000 As ppm

TO: 183.60

EASTINGS: 1479.02  
NORTHINGS: 164.64  
ELEVATION: -159.35

2. HW ( 1.50 d.t. Core Angle: 90 1.50 t.t.)

FROM: 296.70

EASTINGS: 1478.45  
NORTHINGS: 100.83  
ELEVATION: -252.72

0.031 Au oz\t  
1.070 Au gm\T  
0.000 As ppm

TO: 298.20

EASTINGS: 1478.45  
NORTHINGS: 99.92  
ELEVATION: -253.91

3. MZ ( 5.00 d.t. Core Angle: 90 5.00 t.t.)

FROM: 430.70

EASTINGS: 1478.45  
NORTHINGS: 19.25  
ELEVATION: -359.03

0.133 Au oz\t  
4.546 Au gm\T  
146180.000 As ppm

TO: 435.70

EASTINGS: 1478.45  
NORTHINGS: 16.19  
ELEVATION: -362.98



## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp - Frankfield	REMARKS:	Casing left in hole
HOLE NO:	T-91-2	LOGGED BY:	M. Rogers
LENGTH:	321.85 metres	STARTED:	Jan. 26/91
CLAIM NO:		FINISHED:	Jan. 31/91
LOCATION:	15+60 E; 1 + 68 N		
ELEVATION:	2.86 metres		
AZIMUTH:	180°		
DIP:	-60°		

FROM	TO	DESCRIPTION
0	8.2	Overburden
8.2	92.35	Intermediate flows (2d, 2e); medium green-greenish-grey, fine grained ( $\leq 1$ mm), massive, common, silica and calcite-filled amygdules, local pillows, rare schistosity at 55° to core axis, intermediate composition, epidote in local sections, rare, black talc along fractures, weak-strong, pervasive calcite alteration, common (1-5%), irregular and random calcite veinlets, common (1-5%), grey-white, random and irregular quartz veinlets, generally $\leq 5\%$ disseminated (dissem.) pyrite (py) - pyrrhotite (po), common, lenses, stringers and patches of carbonaceous-graphitic sediment with 1-3% po-py, rarely to 10% as stringers.
	8.2 - 16.6	Variable epidote alteration.
	65.85 - 70.5	Moderate, buff Fe carbonate alteration occurring pervasively, and as patches and lenses; $\leq 1\%$ dissem. py, local quartz veining.
	77.3 - 78.25	20% - 50% graphitic sediment, foliation at 45° to c.a. (2g).
	81.6 - 82.6	50% graphitic sediment, foliation at 45° to c.a., 80.4 - 82.6 2-20% po as stringers and blebs, 10 - 30% calcite veining, 1-2% quartz veining.
	85.1 - 87.2	Moderate, pervasive, buff Fe carb. alteration.
	88.85 - 92.35	5-10% graphitic sediment as lenses and patches with 1-5% py-po.

FROM	TO	DESCRIPTION
		Gradational contact.
92.35	99.3	Graphitic - carbonaceous sedimentary rock (2g) - Intermediate flow (2d); dark grey - black, fine grained ( $\leq 1\text{mm}$ ), weak - strong foliation at $45^\circ$ - $60^\circ$ to c.a., 50-100% graphitic and carbonaceous sediment with the remainder as intermixed and interbedded flow material of intermediate composition, 2-25% py as dissems., blebs and stringers with graphitic material, extensive (2-30%), random and foliation parallel calcite veining, 1-5%, random and foliation parallel, grey quartz veining, common brecciation.
		Gradational contact.
99.3	170.4	Intermediate flows (2d,2e); very similar to 8.2 - 92.35 description; generally massive with common, calcite-filled and silica-filled amygdules, weak-strong, pervasive calcite alteration, local Fe carb. alteration, common calcite and quartz veining, generally $\leq 5\%$ dissem. py., local lenses of carbonaceous and graphitic sediments, local foliation at $55^\circ$ to c.a., local epidote.
99.3	- 100.6	5-10% graphitic lenses with 1-2% py.
111.6	- 112.6	Average 10% grey quartz veins, Fe carb. alteration.
114.6	- 115.9	Weak epidote alteration.
120.5	- 121.15	Extensive silicification with 2-3% dissem. py.
121.75	- 126.55	3-10% irregular and random quartz veining.
131.0	- 139.5	Variably bleached due to weak-moderate silicification associated with 2% locally 30% grey and purple quartz veining, minor epidote, .5-1% dissem. po on average, local chlorite, weak.
139.5	- 147.3	Weak, pervasive silica alteration; associated bleaching, occasional quartz veins.
141.0	- 142.9	5% grey quartz veining.
147.3	- 151.75	Weak-strong Fe carbonate alteration; buff -d. brown, occurs pervasively and as blebs and stringers, foliation at $45^\circ$ - $55^\circ$ to c.a., minor (1-2%), grey quartz veinlets.
151.75	- 152.5	Strong calcite alteration; foliation at $50^\circ$ to c.a.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
	152.5 - 154.4	Fe carbonate alteration; same as 147.3-151.75 description, 5% calcite veinlets, foliation at 50°-55° to c.a.
	147.3 - 154.4	Probable, minor deformation zone (D.Z.).
	154.4 - 163.4	Weak-strong, pervasive calcite alteration; Fe carb. alteration as stringers, blebs and amygdule fillings, 5% calcite veinlets, 1-2% quartz veinlets, local foliation at about 50° to c.a., generally ≤ 1% dissem. and stringer py-po, very common amygdules, local flow-top breccia, local, minor sericite, rare amethyst veins.
	163.4 - 165.3	Mod. - strong, pervasive calcite alteration.
	165.3 - 166.2	Weak, pervasive Fe carb. alt. with local blebs and stringers.
	169.9 - 170.4	Mod. - strong silicification; 5%, random, white quartz veining.
		Sharp contact.
170.4	171.85	Intermediate ash tuff (2a); buff, fine grained (≤ 1 mm), massive, moderate-strong pervasive Fe carbonate alteration, 1-2% quartz veinlets, contains broken sections.
		Sharp contact.
171.85	176.1	Intermediate flows (2d, 2c); same as 99.3-170.4 description; generally massive with common amygdules, rare pillows and flow-top breccia, local graphitic-carbonaceous interflow units, common calcite alteration, local Fe carbonate alteration, generally 1-3% calcite veinlets and 1% quartz veinlets, generally ≤.5% dissem. py-po.
	172.5 - 172.75	Extensively talc altered ultramafic unit (6c)
	173.75 - 176.1	Weak-moderate, pervasive Fe carb. alt., local silicification with quartz veining of 5% overall.
		Sharp contact at 45° to c.a.

FROM	TO	DESCRIPTION
176.1	184.2	Ultramafic unit (6c), probable flow; dark grey-black, fine grained (< 1 mm), massive-foliated at 45° to c.a., totally altered to talc and minor carbonate, minor remnant magnetite, common (1-5%) calcite veinlets, common (1-2%) quartz veinlets generally parallel to foliation, local interflow graphitic sediment horizons.
176.9	- 177.4	Interflow unit of 20-100% graphitic sediment with 1-10% py.
183.7	- 184.2	Fine grained "chilled" margin.
		Sharp contact at 45° to c.a.
184.2	184.75	Graphitic sedimentary unit (2g); black, fine grained, well developed foliation at 45° - 60° to c.a., composed of graphite and 3-10% po.
		Sharp contact at 50° to c.a.
184.75	301.75	Intermediate flows (2d, 2e); similar to previous descriptions; medium grey, fine grained (< 1mm), generally massive, common, calcite-filled amygdules, intermediate composition, local graphitic sedimentary lenses-interbeds, general weak-strong, pervasive calcite alteration, 1-2% on average, random calcite veinlets, local, random quartz veinlets, general ≤.5% dissem. py-po, local, weak foliation at 50°-55° to c.a., local Fe carbonate alteration.
197.9	- 206.5	Variable weak-moderate, pervasive Fe carb. alt., generally ≤ 1% dissem. py, 1% to locally 5% grey quartz veining, local, minor silicification.
255.7	- 272.95	Moderate-strong, pervasive Fe carbonate alteration, bleached buff colour; local weak foliation at 50°-55° to c.a., common (1% to locally 50%), random, grey quartz veining, 2-30% sulfides-py and asp, py as dissem. and stringers and blebs, asp (.5-30%) as very fine (<.5mm) dissems.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
255.7	- 259.75	1-2% dissemin. py, trace (<.5%) dissemin. asp.
259.75	- 261.9	2-30% asp, average 5-10%, 1-20% py; 10-50%, random, grey quartz veining.
261.9	- 263.5	1-3% py, < 1% asp.
263.5	- 264.7	1-5% py, ≤ 1% asp.
264.7	- 265.75	1-5% py, 2-25% asp, average 5-10%, 5%, grey quartz veining.
265.75	- 273.0	1-2% py, ≤ 1% asp.
271.2	- 275.2	5% average, grey, random quartz veining, locally to 80%.
273.0	- 281.7	1-2% dissemin. py, local, <.5% asp.
281.7	- 288.55	Fe carbonate alteration as weak-strong pervasive, stringers, blebs and patches.
281.7	- 285.85	1-2% dissemin. py, ≤ 1% asp.
285.85	- 287.15	25% - 50%, random, dark grey quartz veining, extensive Fe carb. alt., 1-3% py, 2-25% asp (average 3-5%).
287.15	- 287.9	1% py, < 1% asp.
287.9	- 288.55	50%, dark grey quartz veining with Fe carb. alt., 1-2% py, average 5% asp.
288.5	- 297.4	Pervasive calcite alteration; average .5-1% dissemin. py, rare, trace (<.5%) asp., local chlorite stringers.
297.4	- 300.85	Moderate, pervasive talc-chlorite alteration.
300.85	- 301.75	Interflow carbonaceous-graphitic sedimentary horizon with local 1-10% blebs and stringers of py; common black talc along fractures. (2g).

Sharp contact.

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-2 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100.0	M	31	7.2	81.4	31	7.2
2	100.0	M	26 <sup>+</sup>	5.9 <sup>+</sup>	85.2	24 <sup>+</sup>	5.5 <sup>+</sup>
3	100.0	M	20	4.6	87.4	20	4.6
4	100.0	M	15	3.5	92.0	15	3.5
5	100.0	M	23 <sup>?</sup>	5.1	88.9	23 <sup>?</sup>	5.1
6	100.0	M	30	6.7	80.9	30	6.7
7	100.0	M	27	8.2	85.4	27	8.2
8	100.0	M	25	5.7	87.5	25	5.7
9	100.0	M	20	4.5	92.1	20	4.5
10	100.0	M	26	6.0	88.5	26	6.0
11	100.0	M	23	5.1	87.8	21	4.7
12	100.0	M	27	6.1	87.6	27	6.1
13	100.0	M	20	4.7	94.1	20	4.7
14	100.0	M	13	3.0	95.5	13	3.0
15	100.0	M	27 <sup>+</sup>	6.1 <sup>+</sup>	84.3	27 <sup>+</sup>	6.1 <sup>+</sup>
16	100.0	M	26	6.0	80.5	26	6.0
17	100.0	M	18	4.2	98.8	18	4.2
18	100.0	M	20	4.4	93.3	20	4.4
19	100.0	M	33	7.3	75.6	30	6.7
20	98.0	S	42 <sup>+</sup>	9.5 <sup>+</sup>	63.6	42 <sup>+</sup>	9.5 <sup>+</sup>
21	98.0	S	42 <sup>+</sup>	9.8 <sup>+</sup>	61.6	37 <sup>+</sup>	8.6 <sup>+</sup>
22	100.0	S-M	19	4.6	96.2	19	4.6
23	100.0	M	17	3.7	97.7	17	3.7
24	100.0	M	22 <sup>+</sup>	5.0	89.8	22 <sup>+</sup>	5.0
25	100.0	M	13	3.0	96.5	13	3.0
26	100.0	M	17	3.8	79.8	13	3.0
27	100.0	M	17	3.8	83.3	17	3.8

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FROM	TO	DESCRIPTION
301.75	321.85	Ultramafic flow (6c); totally talc-carbonate altered; little original texture or mineralogy, light-medium greenish-grey, very soft, very fine grained (<.5 mm), local brecciation, common calcite veinlets, massive, no remnant magnetite, rare remnant spinifex texture.
	320.25 - 321.05	75% white calcite veining.
		End of Hole 321.85 metres.

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A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-2 Client: Cypius

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100.0	M	19	5.8	95.4	19	5.8
29	100.0	M	17	4.0	93.0	17	4.0
30	100.0	M	14	3.1	93.3	14	3.1
31	100.0	M	21	4.8	88.5	18	4.1
32	100.0	M	21	4.8	89.8	21	4.3
33	100.0	M	29	6.4	79.1	29	6.4
34	100.0	M	17	3.9	96.6	17	3.9
35	100.0	M	21	4.8	89.8	21	4.8
36	100.0	M	23	5.1	84.4	21	4.7
37	97.0	M	64 <sup>+</sup>	15.6 <sup>+</sup>	52.4	55 <sup>+</sup>	13.4 <sup>+</sup>
38	97.0	M	35 <sup>+</sup>	8.4 <sup>+</sup>	81.9	35 <sup>+</sup>	8.4 <sup>+</sup>
39	100.0	M	25	5.7	87.5	25	5.7
40	100.0	M	27	6.1	87.6	27	6.1
41	100.0	M	21	4.7	92.1	21	4.7
42	100.0	M	21	4.8	90.9	21	4.8
43	100.0	M	19	4.4	92.0	19	4.4
44	100.0	M	20	4.4	94.5	19	4.2
45	100.0	M	20	4.5	93.2	18	4.1
46	98.0	M	34 <sup>+</sup>	7.9 <sup>+</sup>	72.1	30 <sup>+</sup>	7.0 <sup>+</sup>
47	100.0	M	21	4.7	94.4	21	4.7
48	100.0	M	20	4.5	85.2	20	4.5
49	100.0	M	15	3.3	93.3	15	3.3
50	100.0	M	18	4.1	93.2	18	4.1
51	100.0	M	17	3.8	94.4	17	3.8
52	100.0	M	19	4.2	92.2	19	4.2
53	100.0	M	17	3.9	94.3	16	3.6
54	100.0	M	25	5.6	78.9	23	5.1





\*\* BORSURV \*\*

## SURVEY DATA AND CALCULATED CO-ORDINATES (metres)

PROPERTY: TULLY TWP.  
HOLE NO: 91-2  
GRID: FRANKFIELD

DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-60.00	180.00	1560.000	168.000	2.860
75.00	-57.00	179.00	1560.342	128.814	-61.088
174.00	-56.00	179.00	1561.296	74.181	-143.643
231.00<--	-54.00	178.75	1561.938	41.493	-190.334
288.00	-52.00	178.50	1562.761	7.200	-235.857
321.85	-52.00	178.50	1563.306	-13.633	-262.531

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-2

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	8.20	1560.04	163.72	-4.13	none
2D,2E,CARB	65.85	1560.30	133.59	-53.29	55.0
2D,2E,FE CAR	70.50	1560.32	131.17	-57.25	55.0
2D,2E,CARB	81.60	1560.41	125.17	-66.59	55.0
2G,PO	82.60	1560.42	124.62	-67.43	55.0
2D,2E,CARB,F	92.35	1560.51	119.24	-75.56	55.0
2G,2D	99.30	1560.58	115.40	-81.35	55.0
2D,2E,CARB,F	131.00	1560.88	97.91	-107.79	55.0
2D,2E,CARB,Q	139.50	1560.96	93.22	-114.87	55.0
2D,2E,CARB	147.30	1561.04	88.92	-121.38	55.0
2D,2E,FE CAR	154.40	1561.11	85.00	-127.30	55.0
2D,2E,CARB,F	170.40	1561.26	76.17	-140.64	50.0
2A,FE CARB	171.85	1561.27	75.37	-141.85	50.0
2D,2E,CARB,F	176.10	1561.32	72.98	-145.36	55.0
6C	184.20	1561.41	68.33	-152.00	55.0
2G	184.75	1561.42	68.02	-152.45	55.0
2D,2E,CARB	197.90	1561.56	60.47	-163.22	55.0
2D,2E,FE CAR	206.50	1561.66	55.54	-170.27	55.0
2D,2E,CARB	255.70	1562.29	26.63	-210.06	55.0
2D,2E,FE CAR	272.90	1562.54	16.28	-223.80	55.0
2D,2E,CARB,P	281.70	1562.67	10.99	-230.83	55.0
2D,2E,FE CAR	288.55	1562.77	6.86	-236.29	55.0
2D,2E,CARB	300.85	1562.97	-0.71	-245.98	55.0
2G	301.75	1562.98	-1.26	-246.69	55.0
6C,TALC,CARB	321.85	1563.31	-13.63	-262.53	55.0

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 2

PROPERTY: TULLY TWP.

HOLE No.: 91-2

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FROM	TO	WIDTH	Au oz\t	Au gm\t	As ppm
11.50	13.00	1.50	NIL	NIL	N.S.
14.00	15.50	1.50	NIL	NIL	N.S.
23.20	24.70	1.50	NIL	NIL	N.S.
31.80	33.30	1.50	NIL	NIL	N.S.
49.10	50.60	1.50	0.000	0.010	N.S.
52.20	53.70	1.50	NIL	NIL	N.S.
65.85	67.35	1.50	NIL	NIL	N.S.
67.35	68.85	1.50	NIL	NIL	N.S.
68.85	70.35	1.50	NIL	NIL	N.S.
77.30	78.30	1.00	0.000	0.010	N.S.
80.40	81.40	1.00	NIL	NIL	N.S.
81.40	82.70	1.30	NIL	NIL	N.S.
85.10	86.10	1.00	NIL	NIL	N.S.
86.10	87.20	1.10	NIL	NIL	N.S.
92.30	93.80	1.50	0.003	0.090	N.S.
93.80	95.30	1.50	0.001	0.050	N.S.
95.30	96.80	1.50	NIL	NIL	N.S.
96.80	98.30	1.50	NIL	NIL	N.S.
98.30	99.80	1.50	0.007	0.250	N.S.
102.40	103.90	1.50	NIL	NIL	N.S.
108.50	110.00	1.50	NIL	NIL	N.S.
111.55	113.05	1.50	NIL	NIL	N.S.
120.30	121.30	1.00	NIL	NIL	N.S.
121.30	122.80	1.50	NIL	NIL	N.S.
122.80	124.30	1.50	NIL	NIL	N.S.
124.30	125.80	1.50	NIL	NIL	N.S.
133.15	134.65	1.50	NIL	NIL	N.S.
134.65	136.15	1.50	NIL	NIL	N.S.
136.15	137.65	1.50	NIL	NIL	N.S.
140.50	142.00	1.50	NIL	NIL	N.S.
142.00	143.50	1.50	NIL	NIL	N.S.
147.30	148.80	1.50	NIL	NIL	N.S.
148.80	150.30	1.50	NIL	NIL	N.S.
150.30	151.80	1.50	0.001	0.020	N.S.
151.80	153.30	1.50	NIL	NIL	N.S.
153.30	154.80	1.50	NIL	NIL	N.S.
159.10	160.60	1.50	NIL	NIL	N.S.
160.60	162.10	1.50	NIL	NIL	N.S.
169.90	170.90	1.00	0.003	0.090	N.S.
170.90	171.90	1.00	0.001	0.010	N.S.
173.75	175.00	1.25	0.002	0.080	N.S.
175.00	176.20	1.20	NIL	NIL	N.S.
176.20	177.70	1.50	NIL	NIL	N.S.
182.65	184.20	1.55	NIL	NIL	N.S.
184.20	184.75	0.55	0.001	0.050	N.S.
184.75	186.25	1.50	NIL	NIL	N.S.
197.90	199.40	1.50	0.001	0.030	N.S.
199.40	200.90	1.50	0.002	0.070	N.S.
200.90	202.40	1.50	0.009	0.320	N.S.
202.40	203.90	1.50	0.010	0.370	N.S.

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ASSAY LOG

Page 2 of 2

PROPERTY: TULLY TWP.

HOLE No.: 91-2

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FROM	TO	WIDTH	Au-oz\T	Au-gm\T	As-ppm
203.90	205.40	1.50	0.001	0.050	N.S.
205.40	206.90	1.50	0.010	0.310	N.S.
216.70	218.20	1.50	0.001	0.020	N.S.
226.80	228.30	1.50	NIL	NIL	N.S.
228.30	229.80	1.50	NIL	NIL	N.S.
233.00	234.50	1.50	NIL	NIL	N.S.
238.00	239.50	1.50	NIL	NIL	N.S.
243.75	245.25	1.50	NIL	NIL	N.S.
254.20	255.70	1.50	NIL	NIL	27.000
255.70	257.20	1.50	NIL	NIL	29.000
257.20	258.70	1.50	NIL	NIL	40.000
258.70	259.70	1.00	0.001	0.030	160.000
259.70	260.70	1.00	0.110	3.770	8800.000
260.70	261.90	1.20	0.292	10.010	NIL
261.90	263.50	1.60	0.017	0.570	1400.000
263.50	264.70	1.20	0.016	0.550	2300.000
264.70	265.75	1.05	0.320	10.970	NIL
265.75	267.25	1.50	0.001	0.020	90.000
267.25	268.75	1.50	NIL	NIL	70.000
268.75	270.25	1.50	0.001	0.020	90.000
270.25	271.75	1.50	NIL	NIL	60.000
271.75	273.25	1.50	0.001	0.040	80.000
273.25	274.75	1.50	0.001	0.040	55.000
274.75	276.25	1.50	NIL	NIL	55.000
276.25	277.75	1.50	NIL	NIL	60.000
277.75	279.25	1.50	NIL	NIL	60.000
279.25	280.75	1.50	NIL	NIL	50.000
280.75	282.25	1.50	NIL	NIL	29.000
282.25	283.75	1.50	NIL	NIL	32.000
283.75	285.00	1.25	0.007	0.250	30.000
285.00	285.85	0.85	0.001	0.040	80.000
285.85	287.15	1.30	0.044	1.510	3200.000
287.15	288.55	1.40	0.088	3.020	3900.000
288.55	290.00	1.45	0.003	0.110	240.000
290.00	291.50	1.50	0.001	0.030	70.000
291.50	293.00	1.50	NIL	NIL	27.000
293.00	294.50	1.50	NIL	NIL	14.000
294.50	296.00	1.50	NIL	NIL	19.000
296.00	297.50	1.50	NIL	NIL	70.000
297.50	299.00	1.50	NIL	NIL	9.000
299.00	300.50	1.50	NIL	NIL	3.000
300.50	301.75	1.25	NIL	NIL	NIL
301.75	303.25	1.50	NIL	NIL	N.S.
303.25	304.75	1.50	NIL	NIL	N.S.
308.20	309.70	1.50	NIL	NIL	N.S.
312.75	314.25	1.50	NIL	NIL	N.S.
320.00	321.50	1.50	NIL	NIL	N.S.

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing left in hole
HOLE NO:	T-91-3	DRILLED BY:	
LENGTH:	381.9 metres	LOGGED BY:	MRogers
CLAIM NO:		STARTED:	Jan. 31/91
LOCATION:	L 1560 E; 250 N	FINISHED:	Feb. 6/91
COORDINATES:			
ELEVATION:	2.51 metres		
AZIMUTH:	180°		
DIP:	-60°		

FROM	TO	DESCRIPTION
0	8.55	Overburden
8.55	170.8	Intermediate flows (2d,2e); medium grey, fine grained (</mm), massive to weakly foliated at 45° to core axis, intermediate composition, weak-strong, pervasive calcite alteration, common calcite-filled amygdules, common (1-10%), random and irregular calcite veinlets, generally 1-2%, random and irregular, white-grey quartz veining, locally higher, occasional to common lenses, patches and interbeds of graphitic-carbonaceous sediment, generally ≤.5% disseminated (dissem.) pyrite (py) pyrrhotite (po), commonly up to 10% po-py with graphitic material, local Fe carbonate alteration.
	15.9 - 19.2	3-10% white-grey quartz veining.
	27.35 - 28.9	3-5% white quartz veining.
	36.5 - 93.25	Moderate - strong, pervasive, calcite alteration; light green, bleached appearance; occasional, buff section with minor Fe carbonate alteration.
	93.25 - 96.5	Pervasive calcite alteration; medium grey colour, not bleached in appearance.
	96.5 - 137.8	Moderate - strong, pervasive calcite alteration; local intervals with buff coloured, pervasive Fe carb. alteration; bleached in appearance.
	116.75 - 117.55	60%, light grey, quartz veining at low angle to c.a., 1% dissem. py.

FROM	TO	DESCRIPTION
		129.6 - 134.6 5% overall graphitic sedimentary lenses and 5% quartz-carb. veinlets.
		137.8 - 145.35 Pervasive calcite alteration; lacks bleached appearance.
		145.35 - 148.0 L. grey, bleached section due to pervasive calcite alt.
		148.0 - 170.8 Pervasive calcite alteration.
		164.1 - 170.8 5% to 30% graphitic sedimentary lenses and beds, increasing in content towards lower contact; 1-10% py as dissem., stringers and blebs; 2-3%, random, grey quartz veins.
		Gradational contact.
170.8	174.05	Graphitic sedimentary unit (2g); black, fine grained (<.5 mm), generally massive, soft, composed of graphite and 5-70% dissem., blebbed and nodular pyrite, 2-3%, random, grey and pink quartz veining.
		Gradational contact.
174.05	201.45	Intermediate flows (2d, 2e); similar to 8.55 - 170.8 description; pervasive calcite alteration, local to common graphitic lenses, common (1-5%) calcite veinlets, common (1-2%) quartz veinlets, generally $\leq 1\%$ dissem. py.
		174.05 - 175.5 5-10% graphitic lenses, 1-5% py.
		177.1 - 184.4 Slightly bleached appearance due to calcite alteration.
		184.4 - 194.0 Strongly bleached due to strong, pervasive calcite alt.
		189.9 - 193.9 5-10%, random, white-grey, quartz veining.
		200.4 - 201.45 20-50%, white-grey, quartz veining; common breccia; occasional lenses of talc-carbonate.
		Sharp veined contact.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
201.45	209.3	<p>Ultramafic rock, probable flow (6c); totally altered to talc and minor carbonate; dark grey, very fine grained, very soft, local foliation at 60° to c.a., no original texture or mineralogy, occasional, white quartz vein.</p> <p>Sharp contact at 60° to c.a.; breccia at contact.</p>
209.3	212.0	<p>Intermediate ash tuff (2a); medium grey, fine grained (<math>\leq 1</math> mm), massive, intermediate composition; weak, pervasive, calcite alteration, 1-2%, random, quartz veinlets.</p> <p>Sharp contact.</p>
212.0	214.5	<p>Intermediate flows (2d,2e); same as 174.05 - 201.45 description.</p>
212.45	213.55	<p>25-50%, random, grey quartz veining with 5-15% Fe carb. stringers, extensive silicification, 2-5% disseminated py; common silicification to 215.0.</p> <p>Sharp contact.</p>
214.5	217.85	<p>Intermediate ash tuff (2a); similar to 209.3 - 212.0 description; moderate, pervasive Fe carb. alt.</p> <p>Sharp contact.</p>
217.85	258.2	<p>Intermediate flows (2d, 2e); similar to 174.05 - 201.45 description; weak-strong, pervasive calcite alt., local Fe carb. alt., common, random, white-grey quartz veining.</p>
220.8	231.1	<p>2-10%, grey quartz veining; local, 1-3% py, associated silicification, minor, brown, Fe carb. along veins.</p>
231.1	237.2	<p>5% up to 100% locally, light grey to dark grey, random quartz veining, extensive, local silicification, common chlorite, common, pervasive, carbonate alt., generally 2-10%, blebs and veinlets of Fe carbonate, generally 1-3% py, common in situ breccia.</p>



FROM	TO	DESCRIPTION
		237.2 - 242.6 Very strong, pervasive calcite alteration; extensive bleaching.
		242.6 - 250.05 Chlorite altered amygdaloidal and pillowed flows; Fe carb. filled amygdules; local, extensive calcite veinlets; local, extensive silica veinlets with Fe carbonate stringers; local silicification with quartz veining.
		250.05 - 258.2 Common Fe carbonate alt. occurring locally pervasively, also as med.- dark brown blebs and stringers; common, white - grey quartz veining, local, 1-2% dissem. py., common silicification with veining.
		252.35 - 252.7 White quartz vein at low angle to c.a.
		Sharp contact
258.2	260.2	Ultramafic rock, probable flow (6c); totally altered to talc-carbonate; similar to 201.45-209.3; local foliation at 60°-65° to c.a.
		Sharp contact at 60° to c.a.
260.2	361.6	Intermediate flows (2d, 2e); similar to 174.05-201.45 description; general, weak-strong, pervasive calcite alteration, generally 1-2%, random quartz veins, common (1-5%) lenses and patches of graphitic sediment, local Fe carbonate alteration.
		260.2 - 260.5 Graphitic sedimentary interflow horizon (2g).
		271.2 - 280.8 Variable 10% to locally 90% silicification; 2-3%, grey quartz veins, 5-30%, d.brown Fe carb. alt as veinlets directly related to degree of silicification; ≤1% dissem. py; local breccia; local quartz veining up to 50%; local po as blebs and dissem. of 1-3%.
		280.8 - 298.5 Weak-strong, pervasive calcite alt.; generally 2-5%, locally higher, random, white-l.grey quartz veins; generally ≤ 1% py.
		287.65 - 290.4 3 - 20%, white - l. grey quartz veining.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
	348.3 - 348.85	3-5% asp on average, 1-5% py; minor, d. grey quartz veining.
	348.85 - 350.05	1% py, ≤.5% asp; common graphite.
	350.05 - 351.0	3-5% asp average, locally to 30%, 1-3% py, 10-50% grey quartz veining; common graphite lenses.
	352.4 - 361.6	L. green colour due to fine grained chlorite; common chlorite lenses and veinlets; 352.4 - 352.7: flow-top breccia.
		<b>Sharp, broken contact</b>
361.6	381.9	<b>Ultramafic rock, probable flow (6c); totally altered to talc-carbonate; medium-dark grey, fine grained, soft, massive, no original textures or mineralogy.</b>
		<b>End of Hole 381.9 meters.</b>

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-3 Client: Cyparis

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100.0	M	25	5.7	85.1	25	5.7
2	98.0	M	46 <sup>+</sup>	10.7 <sup>+</sup>	55.8	46 <sup>+</sup>	10.7 <sup>+</sup>
3	100.0	M	27	6.2	82.8	27	6.2
4	100.0	M	26	6.0	89.5	24	5.6
5	100.0	M	25	5.5	74.7	25	5.5
6	100.0	M	27	6.3	94.2	27	6.3
7	100.0	M	24	5.3	84.6	24	5.3
8	100.0	M	19	4.4	96.6	19	4.4
9	100.0	M	23	5.1	83.3	20	4.4
10	100.0	M	20	4.6	92.0	20	4.6
11	100.0	M	24	5.7	98.8	21	5.0
12	100.0	M	13	2.9	87.6	13	2.9
13	100.0	M	22	4.9	93.3	20	4.5
14	100.0	M	17	3.9	95.4	17	3.9
15	100.0	M	14	3.2	94.3	14	3.2
16	100.0	M	17	3.8	92.1	17	3.3
17	100.0	M	18	4.0	92.1	18	4.0
18	100.0	M	22	5.1	93.1	22	5.1
19	100.0	M	15	3.4	92.0	15	3.4
20	100.0	M	18	4.2	93.0	16	3.7
21	100.0	M	16	3.6	91.0	16	3.6
22	100.0	M	21	4.8	88.6	21	4.8
23	100.0	M	17	3.9	95.6	17	3.9
24	100.0	M	18	4.1	97.7	18	4.1
25	100.0	M	30 <sup>+</sup>	6.8 <sup>+</sup>	73.9	26 <sup>+</sup>	5.9 <sup>+</sup>
26	100.0	M	29	6.6	83.0	25	5.7
27	100.0	M	27	6.1	83.1	27	6.1

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-3 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100.0	M	16	3.6	100.0	16	3.6
29	100.0	M	24	5.3	90.0	24	5.3
30	100.0	M	15	3.3	93.3	15	3.3
31	100.0	M	13	2.9	100.0	13	2.9
32	100.0	M	14	3.2	90.9	14	3.2
33	100.0	M	23	5.2	90.9	21	4.8
34	100.0	M	14	3.1	92.3	14	3.1
35	100.0	M	19	4.4	95.3	19	4.4
36	98.0	M	37 <sup>+</sup>	8.2 <sup>+</sup>	71.6	37 <sup>+</sup>	8.2 <sup>+</sup>
37	96.5	S	50 <sup>+</sup>	12.3 <sup>+</sup>	54.3	50 <sup>+</sup>	12.3 <sup>+</sup>
38	100.0	S	26 <sup>+</sup>	6.0 <sup>+</sup>	81.4	24 <sup>+</sup>	5.6 <sup>+</sup>
39	100.0	M	32 <sup>+</sup>	7.1 <sup>+</sup>	73.3	29 <sup>+</sup>	6.4 <sup>+</sup>
40	100.0	M	28	6.7	92.9	28	6.7
41	100.0	M	35	7.7	79.1	35	7.7
42	100.0	M	27	6.2	83.9	27	6.2
43	100.0	M	25	5.6	86.7	25	5.6
44	100.0	M	37	8.6	88.4	34	7.9
45	100.0	S	22	4.9	93.3	22	4.9
46	100.0	S-M	25	5.7	95.4	21	4.8
47	100.0	M	22	5.1	81.6	17	3.9
48	100.0	M	41 <sup>+</sup>	9.9 <sup>+</sup>	61.4	36 <sup>+</sup>	8.7 <sup>+</sup>
49	100.0	M	14	2.8	87.0	14	2.8
50	100.0	M	25	6.7	96.0	25	6.7
51	100.0	M	18	4.0	88.8	17	3.8
52	100.0	M	22	5.1	87.4	17	3.9
53	100.0	M	20	4.7	91.9	20	4.7
54	100.0	M	36 <sup>+</sup>	8.3 <sup>+</sup>	70.1	36 <sup>+</sup>	8.3 <sup>+</sup>

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-3 Client: Cyprus

Property: Tolly Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
55	100.0	M	19	4.4	90.8	18	4.1
56	100.0	M	23	5.3	87.2	21	4.9
57	100.0	M	28	6.3	82.0	25	5.6
58	100.0	M	43 <sup>+</sup>	9.9 <sup>+</sup>	51.7	43 <sup>+</sup>	9.9 <sup>+</sup>
59	100.0	M	20	4.5	92.1	20	4.5
60	100.0	M	38 <sup>+</sup>	8.0 <sup>+</sup>	52.6	32 <sup>+</sup>	6.7 <sup>+</sup>
61	100.0	M-H	18 <sup>+</sup>	4.0 <sup>+</sup>	82.0	16 <sup>+</sup>	3.6 <sup>+</sup>
62	100.0	M-H	19	4.4	91.9	16	3.7
63	100.0	M	16	3.6	90.9	15	3.4
64	100.0	M	11	2.5	96.6	11	2.5
65	100.0	M	13	3.0	98	15	3.5
66	100.0	M	20	4.65	91	23	5.3
67	100.0	M	22	5.12	90	21	4.7
68	100.0	M	19	4.4	95.5	19	4.4
69	100.0	M	27 <sup>+</sup>	7.2 <sup>+</sup>	88.2	25 <sup>+</sup>	6.7 <sup>+</sup>
70	100.0	M	22	4.4	93.0	22	4.4
71	100.0	M	17	4.0	100.0	17	4.0
72	100.0	M	21	4.6	94	21	4.6
73	100.0	M	24	5.6	93	17	4.7
74	100.0	M	15	3.3	95	13	2.7
75	100.0	M	22	4.9	36	17	3.0
76	100.0	M	12	2.7	100	12	2.7
77	100.0	M	14	3.2	91	14	3.2
78	100.0	H	23	5.3	47	23	5.3
79	100.0	H	21	4.0	93	20	4.0
80	100.0	H	15	3.2	95	15	3.2
81	92.0	S	50 <sup>+</sup>	12.7 <sup>+</sup>	29.1	50 <sup>+</sup>	12.7 <sup>+</sup>



\*\* BORSURV \*\*

## SURVEY DATA AND CALCULATED CO-ORDINATES (metres)

PROPERTY: TULLY TWP.  
HOLE NO: 91-3  
GRID: FRANKFIELD

DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-60.00	180.00	1560.000	250.000	2.510
99.00	-56.00	175.50	1562.060	197.578	-81.447
121.00<--	-54.25	174.62	1563.142	185.046	-99.496
143.00<--	-52.50	173.75	1564.472	171.989	-117.152
187.00	-49.00	172.00	1567.925	144.365	-151.225
241.50<--	-45.50	170.50	1573.552	107.801	-191.246
296.00	-42.00	169.00	1580.558	69.060	-228.933
381.90	-42.00	169.00	1592.738	6.397	-286.412

SUMMARY LITHO LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-3

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	8.55	1560.18	245.47	-4.74	none
2D,2E,CARB	96.50	1562.01	198.90	-79.33	45.0
2D,2E,CARB,F	137.80	1564.16	175.07	-112.98	45.0
2D,2E,CARB	170.80	1566.65	154.54	-138.68	45.0
2G,PY	174.05	1566.91	152.49	-141.20	45.0
2D,2E,CARB	201.45	1569.42	134.67	-161.84	50.0
6C,TALC,CARB	209.30	1570.23	129.40	-167.60	60.0
2A,CARB	212.00	1570.51	127.59	-169.58	60.0
2D,2E,FE CAR	214.50	1570.76	125.91	-171.42	60.0
2A,FE CARB	217.85	1571.11	123.67	-173.88	60.0
2D,2E,CARB	220.80	1571.41	121.69	-176.05	60.0
2D,2E,CARB,Q	237.20	1573.11	110.69	-188.09	60.0
2D,2E,CARB	242.60	1573.69	107.02	-192.01	60.0
2D,2E,FE CAR	258.20	1575.70	95.93	-202.79	60.0
6C,TALC,CARB	260.20	1575.96	94.51	-204.18	60.0
2D,2E,CARB	271.20	1577.37	86.69	-211.78	60.0
2D,2E,SIL,FE	280.80	1578.60	79.86	-218.42	60.0
2D,2E,CARB,Q	298.50	1580.91	67.24	-230.61	60.0
2D,2E,CARB,F	306.00	1581.98	61.77	-235.62	60.0
2D,2E,FE CAR	326.20	1584.84	47.03	-249.14	60.0
2D,2E,FE CAR	352.40	1588.56	27.92	-266.67	60.0
2D,2E,CHL	361.60	1589.86	21.21	-272.83	60.0
6C,TALC,CARB	381.90	1592.74	6.40	-286.41	60.0



\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 3

PROPERTY: TULLY TWP.

HOLE No.: 91-3

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FROM	TO	WIDTH	Au oz\t	Au g\m\T	As ppm
8.55	10.05	1.50	NIL	NIL	N.S.
15.90	17.40	1.50	NIL	NIL	N.S.
17.40	18.90	1.50	NIL	NIL	N.S.
24.35	25.85	1.50	NIL	NIL	N.S.
27.35	28.85	1.50	NIL	NIL	N.S.
37.70	39.25	1.55	NIL	NIL	N.S.
42.00	43.50	1.50	NIL	NIL	N.S.
50.60	52.10	1.50	NIL	NIL	N.S.
52.75	54.25	1.50	NIL	NIL	N.S.
59.25	60.75	1.50	NIL	NIL	N.S.
61.55	63.05	1.50	NIL	NIL	N.S.
67.10	68.60	1.50	TRACE	0.010	N.S.
71.45	72.95	1.50	NIL	NIL	N.S.
75.10	76.60	1.50	NIL	NIL	N.S.
80.90	82.40	1.50	NIL	NIL	N.S.
83.90	85.40	1.50	NIL	NIL	N.S.
87.20	88.70	1.50	NIL	NIL	N.S.
93.25	94.75	1.50	NIL	NIL	N.S.
98.60	100.10	1.50	NIL	NIL	N.S.
104.45	105.95	1.50	NIL	NIL	N.S.
110.25	111.75	1.50	NIL	NIL	N.S.
116.75	118.25	1.50	TRACE	0.010	N.S.
120.70	122.20	1.50	NIL	NIL	N.S.
129.60	131.10	1.50	TRACE	0.010	N.S.
131.10	132.60	1.50	NIL	NIL	N.S.
132.60	134.10	1.50	NIL	NIL	N.S.
138.75	140.25	1.50	NIL	NIL	N.S.
146.60	148.10	1.50	0.009	0.315	N.S.
156.05	157.55	1.50	NIL	NIL	N.S.
164.10	165.60	1.50	0.002	0.065	N.S.
165.60	167.10	1.50	NIL	NIL	N.S.
167.10	168.60	1.50	0.001	0.034	N.S.
168.60	170.10	1.50	0.001	0.048	N.S.
170.10	171.60	1.50	0.025	0.864	N.S.
171.60	173.10	1.50	0.041	1.396	N.S.
173.10	174.60	1.50	0.037	1.272	N.S.
179.60	181.10	1.50	NIL	NIL	N.S.
183.40	184.90	1.50	NIL	NIL	N.S.
189.90	191.40	1.50	NIL	NIL	N.S.
191.40	192.90	1.50	NIL	NIL	N.S.
192.90	194.40	1.50	NIL	NIL	N.S.
200.25	201.75	1.50	NIL	0.041	N.S.
209.00	210.50	1.50	NIL	NIL	N.S.
210.50	211.50	1.00	NIL	NIL	N.S.
211.50	212.50	1.00	NIL	NIL	N.S.
212.50	214.00	1.50	0.007	0.243	N.S.
215.20	216.70	1.50	NIL	NIL	N.S.
220.80	222.30	1.50	NIL	NIL	N.S.
222.30	223.80	1.50	NIL	NIL	N.S.
223.80	225.30	1.50	NIL	NIL	N.S.

\*\* BORSURV \*\*

ASSAY LOG

Page 2 of 3

PROPERTY: TULLY TWP.

HOLE No.: 91-3

FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
225.30	226.80	1.50	NIL	NIL	N.S.
226.80	228.30	1.50	NIL	NIL	N.S.
228.30	229.80	1.50	NIL	NIL	N.S.
229.80	231.30	1.50	NIL	NIL	N.S.
231.30	232.80	1.50	0.001	0.034	N.S.
232.80	234.30	1.50	0.004	0.147	N.S.
234.30	235.80	1.50	0.004	0.137	N.S.
235.80	237.30	1.50	NIL	NIL	N.S.
243.85	245.35	1.50	0.003	0.103	N.S.
245.35	246.85	1.50	NIL	NIL	N.S.
246.85	248.35	1.50	NIL	NIL	N.S.
248.35	249.85	1.50	NIL	NIL	N.S.
249.85	251.35	1.50	NIL	NIL	N.S.
251.35	252.85	1.50	0.007	0.254	N.S.
252.85	254.35	1.50	0.006	0.190	N.S.
254.35	255.85	1.50	0.004	0.130	N.S.
255.85	255.86	0.01	NIL	NIL	N.S.
260.20	261.70	1.50	NIL	NIL	N.S.
263.40	264.90	1.50	NIL	NIL	N.S.
271.20	272.70	1.50	NIL	NIL	N.S.
272.70	274.20	1.50	0.001	0.024	N.S.
274.20	275.70	1.50	NIL	NIL	N.S.
275.70	277.20	1.50	0.000	0.010	N.S.
277.20	278.70	1.50	0.006	0.219	N.S.
278.70	280.20	1.50	0.003	0.099	NIL
280.20	281.70	1.50	NIL	NIL	N.S.
286.85	288.35	1.50	NIL	NIL	N.S.
288.35	289.85	1.50	NIL	NIL	N.S.
289.85	291.35	1.50	NIL	NIL	N.S.
299.10	300.60	1.50	NIL	NIL	N.S.
300.60	302.10	1.50	NIL	NIL	N.S.
308.50	310.00	1.50	0.001	0.041	80.000
310.00	311.00	1.00	0.022	0.744	2300.000
311.00	312.00	1.00	0.039	1.330	NIL
312.00	313.50	1.50	0.023	0.780	2700.000
313.50	315.00	1.50	0.001	0.031	60.000
315.00	316.50	1.50	NIL	NIL	70.000
316.50	318.00	1.50	NIL	NIL	80.000
318.00	319.50	1.50	NIL	NIL	70.000
319.50	321.00	1.50	NIL	NIL	80.000
321.00	322.50	1.50	0.000	0.014	80.000
322.50	324.00	1.50	NIL	NIL	50.000
324.00	325.50	1.50	NIL	NIL	36.000
325.50	327.00	1.50	NIL	NIL	40.000
327.00	328.50	1.50	NIL	NIL	340.000
328.50	330.00	1.50	NIL	NIL	45.000
330.00	331.50	1.50	NIL	NIL	36.000
331.50	332.75	1.25	0.000	0.017	34.000
332.75	333.75	1.00	0.054	1.865	1900.000
333.75	334.75	1.00	0.024	0.819	1800.000

\*\* BORSURV \*\*

ASSAY LOG

Page 3 of 3

PROPERTY: TULLY TWP.

HOLE No.: 91-3

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
334.75	335.25	0.50	0.021	0.730	900.000
335.25	336.75	1.50	0.043	1.474	1500.000
336.75	338.25	1.50	0.001	0.038	100.000
338.25	339.25	1.00	NIL	NIL	40.000
339.25	341.25	2.00	NIL	NIL	60.000
341.25	342.75	1.50	NIL	NIL	60.000
342.75	343.75	1.00	0.214	7.337	6789.000
343.75	344.75	1.00	0.024	0.823	3500.000
344.75	345.75	1.00	0.004	0.127	1600.000
345.75	346.75	1.00	0.092	3.158	NIL
346.75	347.75	1.00	NIL	NIL	160.000
347.75	348.75	1.00	0.017	0.600	4800.000
348.75	349.75	1.00	0.006	0.213	700.000
349.75	350.75	1.00	0.025	0.874	6500.000
350.75	351.75	1.00	0.056	1.920	3700.000
351.75	353.25	1.50	NIL	NIL	2700.000
353.25	354.75	1.50	NIL	NIL	4.000
354.75	356.25	1.50	NIL	NIL	4.000
356.25	357.75	1.50	NIL	NIL	2.000
357.75	359.25	1.50	NIL	NIL	5.000
359.25	361.60	2.35	NIL	NIL	3.000
361.60	367.60	6.00	NIL	NIL	1.000

AVERAGED ASSAY INTERVALS  
PROPERTY: TULLY TWP.  
HOLE No: 91-3

1. HW ( 4.00 d.t. Core Angle: 90 4.00 t.t. )

FROM: 332.75 EASTINGS: 1585.77  
NORTHINGS: 42.25  
ELEVATION: -253.52

0.038 Au oz\T  
1.315 Au gm\T  
1600.000 As ppm

TO: 336.75 EASTINGS: 1586.34  
NORTHINGS: 39.33  
ELEVATION: -256.20

2. MZ ( 4.00 d.t. Core Angle: 90 4.00 t.t. )

FROM: 347.75 EASTINGS: 1587.90  
NORTHINGS: 31.31  
ELEVATION: -263.56

0.026 Au oz\T  
0.902 Au gm\T  
3925.000 As ppm

TO: 351.75 EASTINGS: 1588.46  
NORTHINGS: 28.39  
ELEVATION: -266.24

3. MZ ( 4.00 d.t. Core Angle: 90 4.00 t.t. )

FROM: 342.75 EASTINGS: 1587.19  
NORTHINGS: 34.96  
ELEVATION: -260.22

0.083 Au oz\T  
2.861 Au gm\T  
2972.250 As ppm

TO: 346.75 EASTINGS: 1587.75  
NORTHINGS: 32.04  
ELEVATION: -262.89

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing left in hole
HOLE NO:	T-91-4	DRILLED BY:	
LENGTH:	541.5 metres	LOGGED BY:	M.Rogers
CLAIM NO:		STARTED:	Feb 1/91
LOCATION:	L 13+18 E; 1 + 92 N	FINISHED:	Feb 9/91
COORDINATES:			
ELEVATION:	2.47 metres		
AZIMUTH:	180°		
DIP:	-60°		

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FROM	TO	DESCRIPTION
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21.3	318.6	Intermediate flows (2d,2e); medium greenish-grey, fine-grained ( $\leq$ 1mm), massive, intermediate composition, generally $\leq$ .5% disseminated (dissem.) pyrite (py), 1-3%, random and irregular calcite veinlets, generally 1%, random and irregular, white-l. grey quartz veinlets, greenish coloration due to probable fine-gr. chlorite, common, dark green chlorite stringers, local-common, calcite-filled amygdules, weak, local foliation at 50° to core axis.
	36.2 - 39.0	1-2%, l. grey quartz veining with 1-2% py.
	39.0 - 43.0	5-50%, l. grey quartz veining. Gradual change in colour at about 44.0 meters from medium greenish-grey to medium grey due to disappearance of chlorite.
	43.0 - 49.0	2-5%, l. grey quartz veining with $\leq$ 1% py.
		From about 44.0 meters the gradual appearance of local, pervasive calcite alteration; bleaching commonly associated. Rare pillow development and flow top breccia. Gradual reappearance at about 55.0 meters of fine grained chlorite.
	62.5 - 66.0	Common pillow development.
		Beginning of occasional lenses and narrow beds of graphitic sediment at 73.0 meters; generally with py.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
75.0	- 86.1	Generally 2-5%, locally up to 75%, grey quartz veining; commonly with graphite lenses and minor py.
83.55	- 83.95	75%, grey quartz veining with 1-2% py.
86.1	- 113.0	Generally 1-3%, random, grey quartz veining with minor (1-2%)py.
Pervasive calcite alteration appears to be more common downhole.		
102.95	- 103.55	50%, grey quartz veining with 1% py.
108.5	- 139.7	Mod. bleaching due to pervasive calcite alt., moderate-strong intensity.
118.6	- 121.7	5% average, random, grey quartz veins.
126.4	- 139.7	Local, weak, pervasive, buff-coloured Fe carbonate alt.
139.7	- 147.7	5-50%, random, l. grey and minor purple quartz veining with pervasive Fe carbonate alteration and generally $\leq$ 1% py-po, common, minor, graphitic lenses.
147.7	- 152.95	Weak-moderate, pervasive, buff Fe carb. alt with 1-2% quartz veining, locally higher; minor graphite.
152.95	- 156.1	2-10%, random, grey quartz veining; moderate, buff Fe carb. alt. occurring pervasively; minor graphite.
156.1	- 156.8	Moderate, pervasive Fe carb. alt., 1-2% quartz veinlets; minor graphite.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
156.8	- 204.15	Moderate-strong, pervasive, calcite alteration; 1-2% grey quartz veinlets; common, mild bleaching; local weak foliation at 45° to c.a., common (1-5%) graphite lenses.
171.25	- 174.1	20-75% graphitic sediment (2g) with 1% to locally 10% po, common soft-sediment breccia; 1-2% quartz veinlets.
174.7	- 181.4	Mod.-strong bleaching due to calcite alteration.
182.2	- 183.1	10-20% graphitic sedimentary lenses.
181.4	- 204.15	Weak-mod. bleaching due to calcite alt.
183.95	- 185.1	10-50%, grey quartz veining locally.
194.2	- 194.8	50%, grey quartz veining.
203.95	- 204.35	30%, white quartz veining.
204.15	- 207.55	Fine-grained chlorite.
207.55	- 208.35	Moderate, pervasive, Fe carbonate alteration.
208.35	- 216.4	Fine grained chlorite; local white quartz veining.
216.4	- 230.1	Weak-strong, pervasive calcite alteration; generally 1-3% quartz veining; local, pervasive Fe carb. alt.
230.1	- 233.45	Fine grained chlorite alt.
233.45	- 242.3	Weak-strong, pervasive calcite alt; 1-2% quartz veining; local Fe carb. alt., local, minor chlorite.
242.3	- 243.1	Mod. pervasive Fe carb. alt. with 3-5%, grey quartz veining.

FROM	TO	DESCRIPTION
	244.9 - 247.5	Weak-mod., pervasive Fe carb. alteration.
	248.8 - 249.5	10-80% white quartz veining.
	247.5 - 289.7	Weak-strong, pervasive calcite alteration; local bleaching; common, weak-moderate pervasive, buff Fe carb. alteration; 1-3%, random, grey quartz veining.
	289.7 - 291.25	20 - 100% graphitic sedimentary interflow (2g); 2-10% blebs, dissems. and lenses of po, foliation at 50° to c.a.
	291.25 - 305.25	Mod.-strong, pervasive calcite alteration; common bleaching, local sections with weak-moderate, pervasive, buff Fe carb. alteration; common lenses, patches and narrow beds of graphitic sediment with 1-10% po.
	294.35 - 318.6	Bleached section due to carb. alteration.
	295.9 - 296.7	25%-100% graphitic sediment; 1-10% po (2g).
	299.5 - 300.45	20%-100% graphitic sediment, 1-5% po.
	304.4 - 305.25	Calcite veinlet stockwork.
	305.25 - 318.6	L. greenish-grey, bleached appearance; variable, pervasive calcite alteration; common, minor silicification; common, fine-grained chlorite; 3-20%, random calcite veinlets; 1-2%, random, white-grey-purple quartz veinlets.
		Indistinct Contact
318.6	320.65	Ultramafic rock, probable flow; (6c); totally altered to talc and minor carbonate, d. grey, fine-grained (<1 mm), soft, massive.
		Sharp contact at 45° to c.a.



FROM	TO	DESCRIPTION
320.65	407.65	Intermediate flows (2d,2e); similar description to 21.3-318.6; local foliation at 50° to c.a.
320.65	354.9	Weak-strong, pervasive carbonate alteration; generally calcite but locally Fe carb. especially associated with quartz veining; local white-grey quartz veining.
323.5	332.5	Mod.-well developed foliation at 50° to c.a., deformation zone (D.Z.); 326.4 - 331.0: 10-60%, random, white-l.grey quartz veining with extensive, strong, pervasive, Fe carb. alt.; epidote in veins; 2-5% graphitic lenses; local, 1-2% py.; Fe carb. alt. continues as blebs to 335.5.
340.1	342.2	5-20% Fe carb. alt. as d. brown blebs and patches; 2-3% quartz veins.
340.1	354.9	Common, l. green colour due to fine gr. chlorite-epidote-carbonate.
347.1	349.85	Minor deformation zone (D.Z.); well dev. foliation at 55° to c.a.; sericite and calcite alteration; local sedimentary lenses; 2-3% quartz veining.
354.9	407.65	Generally unaltered; local, white-pink, random, silica veinlets; common calcite veinlets; common, fine gr., chlorite alt.; local, 1-2% po as stringers; 354.9-361.3: 5-10%, pinkish-white quartz veinlets.
377.6	407.65	Occasional, random amethyst veinlets commonly with 1-3% py-po; commonly associated chlorite veinlets. Sharp contact at 45° to c.a.
407.65	410.2	Intermediate ash tuff (2a); medium grey, very fine grained ( $\leq 0.5$ mm), massive, intermediate composition. Sharp contact.

FROM	TO	DESCRIPTION
410.2	489.75	Intermediate flows (2d,2e); similar to previous general descriptions; generally unaltered, except common to extensive fine grained chlorite, common, random calcite veinlets, common (1-3%), random, white-grey-purple quartz veinlets, generally $\leq 1\%$ dissem. py-po, locally to 2-3% with quartz veins.
411.7 -	413.55	5-10%, white-grey quartz veining with 2-3% po; local silicification.
416.0 -	419.6	5-20%, white-purple quartz veining with 1-3% po; common silicification.
419.6 -	429.15	3-10% white-purple-grey quartz veining with 1-3% po; local silicification; po locally to 10% as stringers, $\leq 1\%$ py, occasional .5-2% chalcopryrite (cp) with po.
434.6 -	437.6	2-10%, random, white-purple quartz veins with 1-3% po, $\leq 1\%$ py, $< 1\%$ cp.
440.2 -	444.0	5-10%, l.-d. grey quartz veining with po and minor py and rare cp; veining generally subparallel to foliation at about $30^{\circ}$ - $45^{\circ}$ to c.a.
444.0 -	447.2	Extensive purple quartz veining and silicification with chl., epidote and 1-3% po, $< 1\%$ py, local .5-1% cp.
447.2 -	479.2	Relatively unaltered except very common fine-gr. chlorite; generally 1-2%, locally to 30% purple-white-l.grey quartz veining with 1-2% po., $\leq 1\%$ py and occasional $\leq 1\%$ cp; local, pervasive calcite alt; local silicification.
451.7 -	452.05	30% purple quartz veining.
479.2 -	489.75	Mod.-strong, pervasive calcite alt.; common, fine grained chlorite alt.; 1-10%, veinlets and stringers of d. brown, fibrous actinolite; 1-2% quartz veins.

FROM	TO	DESCRIPTION
		Sharp contact at 60° to c.a.
489.75	502.85	Interbedded sequence of graphitic sedimentary rocks (5f) and argillites (5d); graphitic argillites black, fine grained (<.5 mm), well developed foliation at 55° to c.a., composed of graphite and 2-50%, dissemin., blebbed and nodular py, interbedded with medium-dark grey argillite, fine grained (<.5 mm); pervasive calcite alteration, local buff-coloured pervasive Fe carb. alt. in argillite locally, very common, light grey quartz veining locally, particularly in graphitic sections.
489.75	492.0	Argillite section.
492.0	492.55	Graphitic argillite; 25%-50% py.
492.55	494.4	Interbedded graphitic arg. and argillite with 5-70%, l. grey, quartz veining; 1-5% py.
494.4	495.7	Mainly argillite with 5% quartz veining and 1-3% py.
495.7	496.8	Graphitic argillite with 5-30% py and 20%, grey quartz veining.
496.8	497.6	Argillite with pervasive Fe carb. alt.
497.6	502.85	Graphitic argillite with 2-10% py; 2-5%, grey, quartz veining.
499.85	501.35	Fault Zone; badly broken core.
		Broken contact

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<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
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502.85 541.5

Ultramafic flows (6c); totally altered to talc and minor carbonate; l. green-d.grey, fine grained (<.5 mm), massive, very little remnant texture except rare spinifex, no original mineralogy, common, random calcite veinlets.

503.6 - 506.4 Extremely broken section with local gouge; Fault Zone (F.Z.).

525.0 - 533.2 Common broken sections; Fault Zone (F.Z.).

Progressively less altered downsection. Some sections with some original mineralogy and spinifex texture near bottom of hole.

End of Hole 541.5 meters.

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-4 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100.0	M	23	5.2	83.1	23	5.2
2	100.0	M	21	4.6	84.6	21	4.6
3	100.0	M	46 <sup>+</sup>	10.7 <sup>+</sup>	56.8	42 <sup>+</sup>	9.8 <sup>+</sup>
4	100.0	M	29	6.6	73.9	29	6.6
5	100.0	M	25	5.8	82.6	25	5.8
6	100.0	M	25	6.0	96.4	25	6.0
7	100.0	M	15	3.3	94.6	15	3.3
8	100.0	M	18	4.2	94.1	18	4.2
9	100.0	M	18	4.0	89.9	18	4.0
10	100.0	M	21	4.9	90.6	19	4.5
11	100.0	M	23	5.1	90.0	23	5.1
12	100.0	M	21	4.8	94.3	21	4.8
13	100.0	M	22	5.1	90.7	22	5.1
14	100.0	M	21	4.8	81.8	19	4.3
15	100.0	M	17	3.7	100.0	17	3.7
16	100.0	M	15	3.6	95.2	15	3.6
17	100.0	M	21	4.9	93.0	21	4.9
18	100.0	M	18	4.3	90.9	18	4.3
19	100.0	M	19	4.3	95.5	19	4.3
20	100.0	M	24	5.6	90.7	24	5.6
21	100.0	M	22	4.8	87.9	20	4.4
22	100.0	M	17	4.0	100.0	17	4.0
23	100.0	M	21	4.7	92.2	21	4.7
24	100.0	M	19	4.3	94.4	19	4.3
25	100.0	M	21	4.8	92.0	21	4.8
26	100.0	M	18	4.1	94.3	18	4.1
27	100.0	M	21	4.7	90.0	21	4.7

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-4 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100.0	M	19	4.4	91.9	16	3.7
29	100.0	M	22	5.1	93.1	22	5.1
30	100.0	M	21	4.6	84.6	21	4.6
31	100.0	M	23	5.3	93.0	23	5.3
32	100.0	M	20	4.7	95.3	20	4.7
33	100.0	M	24	5.6	93.0	24	5.6
34	100.0	M	17	3.8	95.5	17	3.8
35	100.0	M	30	6.9	88.5	30	6.9
36	100.0	M	18	4.2	98.8	18	4.2
37	100.0	M	21	4.7	80.9	21	4.7
38	100.0	M	24	5.8	89.2	24	5.8
39	100.0	M	24	5.6	91.9	24	5.6
40	100.0	M	17	4.0	98.8	17	4.0
41	100.0	M	22	5.0	93.2	22	5.0
42	100.0	M	20	4.5	90.9	20	4.5
43	100.0	M	19	4.2	91.1	18	4.0
44	100.0	M	23	5.4	82.4	23	5.4
45	100.0	M	18	4.0	93.3	18	4.0
46	100.0	M	24	5.5	87.5	24	5.5
47	100.0	M	20	4.5	96.6	20	4.5
48	100.0	M	22	5.0	89.8	22	5.0
49	100.0	M	15	3.4	94.3	15	3.4
50	100.0	M	26	5.9	87.5	24	5.5
51	100.0	M	23	5.3	88.4	22	5.1
52	100.0	M	24	5.5	89.7	24	5.5
53	100.0	M	24	5.4	87.6	24	5.4
54	100.0	M	23	5.3	88.4	23	5.3

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-4 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
55	100.0	M	20	4.5	87.5	20	4.5
56	100.0	M	18	4.2	95.5	18	4.2
57	100.0	M	12	2.7	96.6	12	2.7
58	100.0	M	17 <sup>+</sup>	4.0 <sup>+</sup>	89.5	17 <sup>+</sup>	4.0 <sup>+</sup>
59	100.0	M	13	2.9	93.3	13	2.9
60	100.0	M	14	3.5	100	17	4.2
61	100.0	M	18	4.0	100	18	4.0
62	100.0	M	21	5.0	89	22	5.3
63	100.0	M	25	5.2	96	24	5.6
64	100.0	M	20	4.4	98	20	4.4
65	100.0	M	21	4.9	95	19	4.4
66	100.0	M	19	4.1	87.1	19	4.1
67	100.0	M	17	3.9	96.6	17	3.9
68	100.0	M	16	4.9	97.7	16	4.9
69	100.0	M	25	5.7	90.9	24	5.5
70	100.0	M	21	4.9	94.1	21	4.9
71	100.0	M	27	6.0	84.4	26	5.8
72	100.0	M	16	3.7	97.7	16	3.7
73	100.0	M	18	4.2	93.0	18	4.2
74	100.0	M	15	3.3	92.4	15	3.3
75	100.0	M	29	6.8	75.3	27	6.4
76	100.0	M <sup>o</sup>	19	4.4	92.0	19	4.4
77	100.0	M	15	3.3	96.7	15	3.3
78	100.0	M	18	4.0	89.9	18	4.0
79	100.0	M	20	4.5	92.0	20	4.5
80	100.0	M	21	4.8	89.7	21	4.8
81	100.0	M	16	3.6	95.6	16	3.6

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-4 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
82	100.0	M	24	5.5	82.8	24	5.5
83	100.0	M	18	4.0	92.1	16	3.6
84	100.0	M	15	3.3	92.3	15	3.3
85	100.0	M	18	4.0	94.4	18	4.0
86	100.0	M	14	3.5	100	14	3.5
87	100.0	M	16	3.7	100	16	3.7
88	100.0	M	17	4.2	100	17	4.2
89	100.0	M	14	4.2	100	14	4.2
90	100.0	M	14	3.2	100	14	3.2
91	100.0	M	21	4.8	85.2	21	4.8
92	100.0	M	13	3.0	100.0	13	3.0
93	100.0	M	15	3.3	94.4	15	3.3
94	100.0	M	11	2.5	95.5	11	2.5
95	100.0	M	14	3.2	94.3	14	3.2
96	100.0	M	18	4.2	85.3	18	4.2
97	100.0	M	21	4.7	99	21	4.7
98	100.0	M	18	4.5	100	18	4.5
99	100.0	M	22	5.1	99	22	5.1
100	100.0	M	15	3.3	100	15	3.3
101	100.0	M	15	3.4	97	15	3.4
102	100.0	M	15	3.4	99	15	3.4
103	100.0	M	21	4.8	88.6	21	4.8
104	100.0	M	20	4.4	90.1	20	4.4
105	100.0	M	19	4.4	97.7	19	4.4
106	100.0	M	18	4.0	96.6	18	4.0
107	100.0	M	25	5.7	83.9	25	5.7
108	100.0	M	31	6.8	78.0	31	6.8





\*\* BORSURV \*\*

## SURVEY DATA AND CALCULATED CO-ORDINATES (metres)

PROPERTY: TULLY TWP.  
HOLE NO: 91-4  
GRID: FRANKFIELD

DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-60.00	180.00	1318.000	192.000	2.470
105.00	-60.00	182.50	1316.855	139.512	-88.463
219.50	-57.00	181.50	1314.767	79.723	-186.090
317.60	-56.00	180.00	1314.058	25.582	-267.894
434.60	-55.00	177.50	1315.504	-40.671	-364.317
541.50	-54.00	177.00	1318.482	-102.677	-451.346

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-4

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	21.30	1317.77	181.35	-15.98	none
2D,2E,CHL	44.00	1317.52	170.01	-35.64	50.0
2D,2E,CARB	75.00	1317.18	154.51	-62.48	50.0
2D,2E,CARB,Q	86.10	1317.06	148.96	-72.09	50.0
2D,2E,CARB	126.40	1316.46	128.34	-106.71	50.0
2D,2E,CARB,F	139.70	1316.22	121.39	-118.05	50.0
2D,2E,FE CAR	156.80	1315.91	112.46	-132.63	50.0
2D,2E,CARB	171.25	1315.65	104.92	-144.95	50.0
2G,PO	174.10	1315.59	103.43	-147.38	50.0
2D,2E,CARB	204.15	1315.05	87.74	-173.00	50.0
2D,2E,CHL	207.55	1314.98	85.96	-175.90	50.0
2D,2E,FE CAR	208.35	1314.97	85.55	-176.58	50.0
2D,2E,CHL	216.40	1314.82	81.34	-183.45	50.0
2D,2E,CARB,F	289.70	1314.26	40.98	-244.63	50.0
2G,PO	291.25	1314.25	40.12	-245.92	50.0
2D,2E,CARB,F	305.25	1314.15	32.40	-257.60	50.0
2D,2E,CARB,S	318.60	1314.07	25.02	-268.72	50.0
6C,TALC,CARB	320.65	1314.10	23.86	-270.41	50.0
2D,2E,CARB	323.50	1314.13	22.24	-272.76	50.0
2D,2E,D.Z.,F	332.50	1314.24	17.15	-280.17	50.0
2D,2E,CARB	340.10	1314.34	12.84	-286.44	50.0
2D,2E,CHL,CA	347.10	1314.42	8.88	-292.21	50.0
2D,2E,D.Z.,S	349.85	1314.46	7.32	-294.47	50.0
2D,2E,CHL,CA	354.90	1314.52	4.46	-298.63	55.0
2D,2E,CHL	407.65	1315.17	-25.41	-342.11	55.0

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-4

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
2A	410.20	1315.20	-26.85	-344.21	55.0
2D,2E,CHL,Q.	429.15	1315.44	-37.59	-359.83	55.0
2D,2E,CHL	434.60	1315.50	-40.67	-364.32	55.0
2D,2E,CHL,Q.	447.20	1315.85	-47.98	-374.57	55.0
2D,2E,CHL	479.20	1316.75	-66.54	-400.63	55.0
2D,2E,CARB	489.75	1317.04	-72.66	-409.22	55.0
5F,5D,PY,Q.V	502.85	1317.41	-80.26	-419.88	55.0
6C,TALC,CARB	541.50	1318.48	-102.68	-451.35	55.0

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-4

FROM	TO	WIDTH	Au oz\T	Au gm\T	As ppm
27.95	29.25	1.30	NIL	NIL	N.S.
36.20	37.70	1.50	NIL	NIL	N.S.
37.70	39.20	1.50	NIL	NIL	N.S.
39.20	40.70	1.50	NIL	NIL	N.S.
40.70	42.20	1.50	NIL	NIL	N.S.
42.20	43.70	1.50	NIL	NIL	N.S.
43.70	45.20	1.50	NIL	NIL	N.S.
45.20	46.70	1.50	NIL	NIL	N.S.
46.70	48.20	1.50	0.000	0.010	N.S.
48.20	49.70	1.50	NIL	NIL	N.S.
53.10	54.60	1.50	NIL	NIL	N.S.
56.70	58.20	1.50	NIL	NIL	N.S.
62.80	64.30	1.50	NIL	NIL	N.S.
67.30	68.80	1.50	NIL	NIL	N.S.
75.00	76.50	1.50	NIL	NIL	N.S.
76.50	78.00	1.50	NIL	NIL	N.S.
78.00	79.50	1.50	NIL	NIL	N.S.
79.50	81.00	1.50	NIL	NIL	N.S.
81.00	82.50	1.50	NIL	NIL	N.S.
82.50	84.00	1.50	NIL	NIL	N.S.
84.00	85.50	1.50	0.000	0.010	N.S.
85.50	87.00	1.50	NIL	NIL	N.S.
89.25	90.75	1.50	NIL	NIL	N.S.
97.95	99.45	1.50	NIL	NIL	N.S.
102.40	103.90	1.50	0.001	0.020	N.S.
105.85	107.35	1.50	NIL	NIL	N.S.
109.70	111.20	1.50	NIL	NIL	N.S.
118.80	120.30	1.50	NIL	NIL	N.S.
129.15	130.65	1.50	NIL	NIL	N.S.
136.05	137.55	1.50	NIL	NIL	N.S.
139.70	141.20	1.50	NIL	NIL	N.S.
141.20	142.70	1.50	NIL	NIL	N.S.
142.70	144.20	1.50	NIL	NIL	N.S.
144.20	145.70	1.50	NIL	NIL	N.S.
145.70	147.20	1.50	NIL	NIL	N.S.
147.20	148.70	1.50	NIL	NIL	N.S.
148.70	150.00	1.30	NIL	NIL	N.S.
150.00	151.30	1.30	NIL	NIL	N.S.
151.30	152.80	1.50	NIL	NIL	N.S.
152.80	154.30	1.50	NIL	NIL	N.S.
154.30	155.80	1.50	NIL	NIL	N.S.
158.70	160.20	1.50	NIL	NIL	N.S.
160.20	161.70	1.50	NIL	NIL	N.S.
161.70	163.20	1.50	NIL	NIL	N.S.
171.25	172.75	1.50	0.000	0.010	N.S.
172.75	174.25	1.50	0.000	0.010	N.S.
182.00	183.50	1.50	NIL	NIL	N.S.
183.50	185.00	1.50	NIL	NIL	N.S.
185.00	186.50	1.50	NIL	NIL	N.S.
189.10	190.60	1.50	NIL	NIL	N.S.

\*\* BORSURV \*\*

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-4

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FROM	TO	WIDTH	Au oz\T	Au gm\T	As ppm
193.50	195.00	1.50	NIL	NIL	N.S.
195.00	196.50	1.50	NIL	NIL	N.S.
203.95	205.45	1.50	NIL	NIL	N.S.
207.50	208.50	1.00	NIL	NIL	N.S.
209.30	210.90	1.60	NIL	NIL	N.S.
218.60	220.10	1.50	NIL	NIL	N.S.
222.20	223.70	1.50	NIL	NIL	N.S.
227.40	228.90	1.50	NIL	NIL	N.S.
242.10	243.60	1.50	NIL	NIL	N.S.
243.60	245.10	1.50	NIL	NIL	N.S.
245.10	246.60	1.50	NIL	NIL	N.S.
248.45	249.95	1.50	NIL	NIL	N.S.
255.95	257.45	1.50	NIL	NIL	N.S.
257.45	258.95	1.50	NIL	NIL	N.S.
258.95	260.45	1.50	NIL	NIL	N.S.
262.35	263.85	1.50	NIL	NIL	N.S.
266.80	268.30	1.50	NIL	NIL	N.S.
274.10	275.60	1.50	NIL	NIL	N.S.
284.60	286.10	1.50	NIL	NIL	N.S.
289.70	291.20	1.50	0.000	0.007	N.S.
295.60	297.10	1.50	NIL	NIL	N.S.
299.00	300.50	1.50	NIL	NIL	N.S.
300.50	302.00	1.50	NIL	NIL	N.S.
307.70	309.20	1.50	NIL	NIL	N.S.
309.20	310.70	1.50	NIL	NIL	N.S.
323.40	324.90	1.50	NIL	NIL	N.S.
324.90	326.40	1.50	0.001	0.031	N.S.
326.40	327.90	1.50	0.002	0.060	N.S.
327.90	329.40	1.50	NIL	NIL	N.S.
329.40	330.90	1.50	NIL	NIL	N.S.
330.90	332.40	1.50	NIL	NIL	N.S.
332.40	334.00	1.60	NIL	NIL	N.S.
340.10	341.60	1.50	NIL	NIL	N.S.
341.60	343.10	1.50	NIL	NIL	N.S.
347.10	348.60	1.50	NIL	NIL	N.S.
348.60	350.10	1.50	NIL	NIL	N.S.
355.65	357.15	1.50	NIL	NIL	N.S.
357.15	358.65	1.50	NIL	NIL	N.S.
358.65	360.15	1.50	NIL	NIL	N.S.
360.15	361.65	1.50	NIL	NIL	N.S.
367.30	368.80	1.50	NIL	NIL	N.S.
377.25	378.75	1.50	NIL	NIL	N.S.
381.90	383.40	1.50	NIL	NIL	N.S.
383.40	384.90	1.50	0.000	0.007	N.S.
396.05	397.55	1.50	NIL	NIL	N.S.
398.80	400.30	1.50	NIL	NIL	N.S.
404.00	405.50	1.50	NIL	NIL	N.S.
405.50	407.00	1.50	NIL	NIL	N.S.
410.20	411.70	1.50	NIL	NIL	N.S.
411.70	413.20	1.50	NIL	NIL	N.S.

ASSAY LOG

PROPERTY: TULLY TWP.

HOLE No.: 91-4

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As. ppm
416.00	417.50	1.50	NIL	NIL	N.S.
417.50	419.00	1.50	NIL	NIL	N.S.
419.00	420.50	1.50	NIL	NIL	N.S.
420.50	422.00	1.50	NIL	NIL	N.S.
422.00	423.50	1.50	NIL	NIL	N.S.
423.50	425.00	1.50	NIL	NIL	N.S.
428.75	430.25	1.50	NIL	NIL	N.S.
434.60	436.10	1.50	NIL	NIL	N.S.
436.10	437.60	1.50	NIL	NIL	N.S.
440.20	441.70	1.50	NIL	NIL	N.S.
441.70	443.20	1.50	NIL	NIL	N.S.
443.20	444.70	1.50	NIL	NIL	N.S.
444.70	446.20	1.50	NIL	NIL	N.S.
446.20	447.70	1.50	NIL	NIL	N.S.
450.40	451.90	1.50	NIL	NIL	N.S.
451.90	453.40	1.50	NIL	NIL	N.S.
455.80	457.30	1.50	NIL	NIL	N.S.
457.30	458.80	1.50	NIL	NIL	N.S.
460.60	462.10	1.50	NIL	NIL	N.S.
462.10	463.60	1.50	0.000	0.010	N.S.
465.40	466.90	1.50	NIL	NIL	N.S.
471.75	473.25	1.50	NIL	NIL	N.S.
476.60	478.10	1.50	0.000	0.010	N.S.
479.20	480.70	1.50	NIL	NIL	N.S.
483.40	484.90	1.50	NIL	NIL	N.S.
487.00	488.50	1.50	NIL	NIL	N.S.
492.20	493.70	1.50	0.001	0.030	N.S.
493.70	495.20	1.50	0.001	0.020	N.S.
495.20	496.70	1.50	0.004	0.137	N.S.
496.70	498.20	1.50	NIL	NIL	N.S.
498.20	499.70	1.50	0.002	0.075	N.S.
499.70	501.20	1.50	0.027	0.936	N.S.
501.20	502.70	1.50	0.007	0.213	N.S.
506.70	508.20	1.50	NIL	NIL	N.S.
516.20	517.70	1.50	NIL	NIL	N.S.

AVERAGED ASSAY INTERVALS

PROPERTY: TULLY TWP.

HOLE No: 91-4

1. MZ (-4.50 d.t. - Core Angle: 90 - 4.50 t.t.)

FROM: 498.20

EASTINGS: 1317.28  
NORTHINGS: -77.56  
ELEVATION: -416.09

0.012 Au oz\t  
0.418 Au gm\T  
-0.000 As ppm (Cut to: 0.000)

TO: 502.70

EASTINGS: 1317.40  
NORTHINGS: -80.17  
ELEVATION: -419.76



## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing
HOLE NO:	T-91-5		left in
			hole
LENGTH:	468.2 meters	DRILLED BY:	
CLAIM NO:		LOGGED BY:	MRogers
LOCATION:	15 + 60 E; 3+00N	STARTED:	Feb 6/91
COORDINATES:		FINISHED:	Feb 13/91
ELEVATION:	1.71 meters		
AZIMUTH:	180°		
DIP:	-65°		

FROM	TO	DESCRIPTION
0	9.15	Overburden
9.15	224.8	Intermediate flows (2d,2e); medium-dark grey, fine grained (<1mm), weakly foliated at 40°-45° to core axis, intermediate composition, generally ≤.5% disseminated (dissem.) pyrite (py) - pyrrhotite (po), common, calcite - filled amygdules, common (1-10%), random, irregular-straight, calcite veinlets, moderate-strong, pervasive calcite alteration, minor (1%), random, white-grey quartz veining, locally to 10-50%; common lenses, patches and narrow beds of graphitic sediment, usually with 1-3% py-po, local bleaching due to carbonate alteration, local Fe carbonate alteration, usually as stringers with quartz veins but progressively as pervasive sections.
41.3	- 43.6	3-50%, white - l. grey quartz veining.
49.1	- 52.1	2-50%, white - l. grey quartz veining.
53.0	- 53.85	5-70%, white - l. grey quartz veining.
66.5	- 70.65	2-10%, grey quartz veining; .5-2% dissem. py; rare, .5-1%, v. fine arsenopyrite (asp).
89.6	- 94.4	5-30%, white quartz veining at generally low angles to c.a.
105.1	- 112.45	5-30%, white - l. grey quartz veining with minor po-py

FROM	TO	DESCRIPTION
142.55	- 151.8	Variable bleaching due to pervasive calcite alteration and local sections of buff colored Fe carbonate alt., generally 1-2% grey quartz veins; minor dissem. py-po.
149.9	- 150.3	L. grey quartz vein.
155.5	- 163.35	Variably bleached section due to mainly pervasive, buff colored Fe carb. alt; generally 1-2% quartz veining, $\leq$ .5% py-po generally.
163.35	- 165.4	10-20% graphitic lenses with 1-2% fine gr. pyrite.
165.4	- 166.7	Bleached by pervasive Fe carb. alt.
166.7	- 197.4	Pervasive calcite alteration; minor, local bleaching; 1-3% grey quartz veining; mafic in appearance, possible 1d unit, massive flows for part of section.
197.4	- 208.4	Extensive sericite alteration with minor carb. alt., moderate - strong; local light-dark grey quartz veining with silicification; generally $\leq$ 1% dissem. py - (po), local 1-5% as blebs and stringers; 1-2% quartz veining locally to 75%; veins generally with 1-5% py, rare, $<$ .5%, fine gr. asp.
205.0	- 205.5	75% grey quartz veining with 3-5% py and $<$ .5% asp.
215.4	- 224.8	Mod.-strong, pervasive calcite alt.; variable bleaching.

Sharp contact at 60° to c.a.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
224.8	225.85	Graphitic sedimentary unit (2g); black, fine gr. (<.5mm), well dev. foliation at 55° - 60° to c.a., composed of graphite and 2-15% py as dissem., blebs and stringers, 3-5%, quartz veinlets.  Sharp contact at 60° to c.a.
225.85	230.9	Intermediate flows (2d) - Graphitic sedimentary rock (2g); mainly massive flows with 10-35% lenses and beds of graphitic sediment, 1-5% py, 1-5% quartz veining.
228.9	230.0	Extremely broken zone; Fault Zone (F.Z.)  Sharp broken contact
230.9	254.8	Intermediate flows (2d, 2e); similar to 9.15-224.8 description; general pervasive calcite alteration.  230.9 - 232.0 Mod., pervasive Fe carb. alt.  232.0 - 234.4 5-25%, white quartz veining  235.55 - 241.9 Generally 3-30%, random, white-grey quartz veining; pervasive calcite alt., local, pervasive Fe carb. alt. with veining; minor 1-2% py locally; local, minor chlorite, 5-10%, d. brown actinolite.  240.5 - 241.4 Massive, white quartz vein.  243.1 - 254.8 Generally 3-30%, locally to 100%, random, white-grey quartz veining; common silicification; local pervasive Fe carb. alt.; 1-3% dissem. py; local chlorite; 5-20%, d. brown actinolite.  252.1 - 252.9 Massive, white quartz vein.
254.8	257.25	Ultramafic flow (6c); totally altered to d. grey talc-carbonate; minor quartz veining. Indistinct contacts.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
257.25	259.25	Intermediate flow (2d); foliation at 55° to c.a.; extensive sericite alteration.  Sharp contact
259.25	263.9	Ultramafic flow (6c); totally altered to talc-carbonate.  Sharp contact at 50° to c.a.
263.9	269.3	Mafic-intermediate flows (1d,2d); similar to 9.15-224.8 description; d. grey, massive, mod. - strong, pervasive calcite alteration, common calcite veining, 1-5%, grey quartz veining with 1-2% py, local buff Fe carb. alteration.  Gradational contact
269.3	344.5	Intermediate flows (2d, 2e); similar to previous units; l-med., greenish-grey, fine gr. (<1mm), massive, intermediate composition, relatively unaltered except v. common, fine gr. chlorite, 1-3% calcite veinlets, generally 1-2%, random quartz veinlets, ≤ 1% dissem. py-po; local silicification; common chlorite lenses, locally variolitic.
269.3	- 280.3	Bleached appearance; minor silicification.
303.4	- 309.5	Common - extensive (5-50%), white-purple-grey, random quartz veining with common silicification, local 1-3% py-po.
309.5	- 344.5	Common, weak-strong, pervasive calcite alteration; variable but generally minor chlorite; local, buff Fe carb. alt., 2-3% random, grey quartz veins with local silicification .5% - 2% py as dissem. and stringers; Fe carb. alt. occurs pervasively as blebs, stringers and filling amygdules, buff to dark brown color, common occurrence.

FROM	TO	DESCRIPTION
	339.5 - 340.1	40%, d. grey quartz veining with silicification; 1-5% py, 1-10% asp as fine gr. dissem. and masses.
	341.25 - 341.55	30% - 50% graphitic sediment with 10% po; foliation at 60° to c.a. Sharp contact
344.5	350.2	Interbedded sequence of Graphitic sedimentary rock (2g) and Ultramafic flows (6c); graphitic units are black, fine grained, well foliated at 60° to c.a., composed of graphite, 2-15% py-po and minor chert lenses; ultramafic is light grey, fine grained, massive and totally altered to talc-carbonate; minor quartz and calcite veining.  Sharp contact at 60° to c.a. with common graphitic lenses for another meter.
350.2	435.55	Intermediate volcanic flows (2d,2e); med. grey, fine gr. (<1mm), massive, intermediate composition, locally common calcite-filled amygdules, weak-strong, pervasive calcite alteration, generally 2-3% calcite veinlets and 1-2% quartz veinlets, local, pervasive, buff-colored Fe carb. alt, generally ≤ 1% dissem. py-po.
	361.5 - 402.8	Relatively unaltered section, except minor, fine gr. chlorite, weak, pervasive calcite locally; 2-10%, random, white - l. grey quartz veining with local silicification.
	402.8 - 410.55	Variable weak-mod., pervasive, buff-colored; Fe carbonate alt; 2-3%, grey quartz veining; 1% dissem. py.
	408.4 - 408.9	5% l.-d. grey quartz veining with 2-10%, fine gr. asp and 1-5% py; strong pervasive Fe carb. alt.
	408.9 - 410.55	1-2% py.
	410.55 - 411.2	1-15% asp, 1-2% py, 1-5% grey quartz veinlets.

FROM	TO	DESCRIPTION
411.2	- 412.5	75%, l. grey quartz veining, local 1-10% asp, 2-3% overall.
412.5	- 415.45	Extensive silicification with 2-10%, l. grey quartz veining; 1-5% py, $\leq$ 1% asp.
415.45	- 416.85	5-30%, l. grey quartz veining, extensive silicification, 2-10% dissem and blebbed py, 2-15% fine gr. asp as dissem and patches.
416.85	- 422.25	1-2% quartz veining, variable silicification, 1-3% py, $<$ 1% asp.
422.25	- 423.35	2-3% asp., 3-5%, grey quartz veining, 2-5% py; silicification.
423.35	- 423.75	5-10% asp, 2-10% py, 15% quartz veining, silicification.
423.75	- 424.6	1-2%, grey, quartz veining, 1-2% py, $<$ 1% asp, variable silicification.
428.25	- 431.7	1-3% py, minor silicification, $<$ 1% asp; Fe carb. alt.
431.7	- 432.4	3-4%, d. grey quartz veining; silicification; 1-2% py, average 2-3% asp.
432.4	- 433.3	1-2% py, $\leq$ 1% asp
433.3	- 434.0	2-3%, d. grey quartz veining, 1-2% py, 2-3% av. asp.
434.0	- 434.65	2-3%, d. grey quartz veining, 1-3% py, $\leq$ 1% asp.
434.65	- 435.1	3-5%, d. grey quartz veining, 2-3% py, 1-2% asp average.
Gradational contact.		

FROM	TO	DESCRIPTION
435.55	439.5	Graphitic sedimentary unit (2g); black, fine grained (<.5 mm), massive, composed of graphite with 1-5% py, local, grey quartz veining, local .5-2% asp.
435.1	- 437.05	1%, grey quartz veining, 1-2% py, <1% asp.
437.05	- 437.75	3-5%, d. grey quartz veining, 2-3% py, 1-2% asp.
437.75	- 439.5	1% grey quartz veining, 1-2% py, <.5% asp.
Sharp contact		
439.5	468.2	Ultramafic flows (6c); totally altered to talc-carbonate; l. greenish grey-black, fine grained (<.5mm), very soft, no original mineralogy, remnant spinifex texture locally, common calcite veinlets, occasional, grey, quartz veinlets.
End of Hole 468.2 meters.		

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-5 Client: CYPRUS

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
Box 1	100.0	M	36 <sup>r</sup>	8 <sup>r</sup>	72	8 <sup>r</sup>	36 <sup>r</sup>
2	99	M	23 <sup>r</sup>	5.5 <sup>r</sup>	85	23 <sup>r</sup>	5.5 <sup>r</sup>
3	100	M	16	3.7	90	16	3.7
4	100.0	M	27	6.4	84.7	27	6.4
5	100.0	M	15	3.5	96.5	15	3.5
6	100.0	M	23	5.2	89.9	23	5.2
7	100.0	M	18	4.1	90.9	18	4.1
8	100.0	M	16	3.7	100.0	16	3.7
9	100.0	M	23	5.1	84.6	20	4.4
10	100.0	M	17	4.1	97.6	17	4.1
11	100.0	M	22	5.1	76.7	19	4.4
12	100.0	M	21	4.8	92.0	20	4.5
13	100.0	M	24	5.4	88.8	22	4.9
14	100.0	M	30	7.0	67.4	30	7.0
15	100.0	M	32	7.2	87	23	5.2
16	100.0	M	27	6.1	86	26	5.9
17	100.0	M	21	4.7	93	21	4.7
18	100.0	M	24	5.7	93	23	5.4
19	100.0	M	17	3.9	92	17	3.9
20	100.0	M	24	5.6	99	24	5.6
21	100.0	M	17	3.8	92	17	3.8
22	100.0	M	19	4.4	100	16	3.7
23	100.0	M	17	3.9	95	16	3.6
24	100.0	M	17	3.9	100	17	3.9
25	100.0	M	19	4.3	94.3	19	4.3
26	100.0	M	17	4.0	97.6	17	4.0
27	100.0	M	30	6.7	88.2	22	4.8



A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-5 Client: Syngas

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness		# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
		soft	med hard					
28	100.0	M		14	3.2	89.8	14	3.2
29	100.0	M		15	3.4	94.3	15	3.4
30	100.0	M		16	3.6	93.2	16	3.6
31	100.0	M		15	3.6	97.6	15	3.6
32	100.0	M		18	4.1	88.6	18	4.1
33	100.0	M		13	4.1	99	11	2.6
34	100.0	M		12	2.7	98	12	2.7
35	100.0	M		14	3.2	95	14	3.2
36	100.0	M		14	3.3	99	15	3.5
37	100.0	M		18	4.2	96	17	4.0
38	100.0	M		18	4.1	85	18	4.1
39	100.0	M		17	4.0	100	17	4.0
40	100.0	M		17	3.9	96	17	3.9
41	100.0	M		19	4.4	96	17	4.0
42	100.0	M		22	4.9	90	22	4.9
43	100.0	M		14	3.1	94	14	3.1
44	100.0	M		20	4.7	89	15	3.5
45	100.0	M		16	3.7	96	16	3.7
46	100.0	M		18	4.0	93	16	3.6
47	100.0	M		30 <sup>+</sup>	7.2 <sup>+</sup>	72.2	30 <sup>+</sup>	7.2 <sup>+</sup>
48	100.0	M		27	6.3	80.2	25	5.8
49	100.0	M		30	7.1	74.1	30	7.1
50	100.0	M		24	5.4	84.3	24	5.4
51	75.0	S		100 <sup>+</sup>	26.0 <sup>+</sup>	29.9	100 <sup>+</sup>	26.0 <sup>+</sup>
52	100.0	M		50 <sup>+</sup>	13.0 <sup>+</sup>	51.9	50 <sup>+</sup>	13.0 <sup>+</sup>
53	100.0	M		24	5.8	95.2	24	5.8
54	100.0	M		21 <sup>+</sup>	5.0 <sup>+</sup>	79.8	21 <sup>+</sup>	5.0 <sup>+</sup>

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-5 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
55	100.0	M	32	7.4	83.7	30	7.0
56	100.0	M	23	5.8	89.7	21	4.8
57	93.0	M	47 <sup>+</sup>	10.9 <sup>+</sup>	40.7	43 <sup>+</sup>	10.0 <sup>+</sup>
58	100.0	M	22	5.3	95.2	22	5.3
59	100.0	M	24	5.3	90.0	24	5.3
60	100.0	M	16	3.6	98.9	16	3.6
61	100.0	M	18	4.0	91.1	18	4.0
62	100.0	M	15	3.4	92.0	15	3.4
63	100.0	M	14	3.3	96.5	14	3.3
64	100.0	M	13	3.0	94.3	13	3.0
65	100.0	M	12	2.7	96.7	12	2.7
66	100.0	M	19	4.3	98	19	4.3
67	100.0	M	12	2.7	99	12	2.7
68	100.0	M	16	3.6	92	16	3.6
69	100.0	M	13	3.0	100	13	3.0
70	100.0	M	16	3.5	100	16	3.5
71	100.0	M	13	3.6	100	13	3.6
72	100.0	M	17	3.9	98	17	3.9
73	100.0	M	15	3.3	96	15	3.3
74	100.0	M	19	4.4	100	18	4.1
75	100.0	M	13	2.9	98	12	2.6
76	100.0	M	18	4.0	100	18	4.0
77	100.0	M	12	2.7	100	12	2.7
78	100.0	M	40	8.9	85	33	7.3
79	100.0	M	20	6.0	10	21	4.1
80	100.0	M	20	4.7	95	19	4.0
81	100.0	M	17	4.5	100	17	4.0

**A.C.A. Howe International Limited**

**Rock Core Quality Limited**

**Drill Hole No:** \_\_\_\_\_ **Client:** \_\_\_\_\_

**Property:** \_\_\_\_\_ **Project:** \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100	M	17	3.1	100	14	3.1
2	100	M	17	3.9	100	17	3.9
3	100	M	17	3.1	100	11	2.1
5	100	M	12	2.3	100	12	2.3
6	100	M	13	3.0	100	13	3.0
7	100	M	17	3.7	95	17	3.7
8	100	M	20	4.5	98	19	4.3
9	100	M	24	5.5	95	20	4.5
10	100	M	18	4.1	99	18	4.1
11	100	M	16	3.6	98	16	3.6
12	100	M	15	3.4	99	15	3.4
13	100.0	M	29	6.6	99	29	6.6
14	100.0	M	12	2.7	100	12	2.7
15	100.0	M	12	2.7	100	19	2.7
16	100.0	M	20	4.5	100	19	4.5
17	100	M	13	3.0	100	13	3.0
18	100	M	20	4.5	100	20	4.5
19	100	S	29 <sup>+</sup>	6.7 <sup>+</sup>	57	29 <sup>+</sup>	6.7 <sup>+</sup>
100	100	S	43 <sup>+</sup>	10.5 <sup>+</sup>	50	43 <sup>+</sup>	10.5 <sup>+</sup>
101	100	S	35 <sup>+</sup>	8.1 <sup>+</sup>	57	35 <sup>+</sup>	8.1 <sup>+</sup>
102	100	S	44 <sup>+</sup>	9.3 <sup>+</sup>	50	44 <sup>+</sup>	9.3 <sup>+</sup>
103	100	S	41 <sup>+</sup>	10.5 <sup>+</sup>	47	41 <sup>+</sup>	10.5 <sup>+</sup>
104	100	S	47 <sup>+</sup>	11.5 <sup>+</sup>	51	47 <sup>+</sup>	11.5 <sup>+</sup>
105	100.3	S	26	6.0	94.3	26	6.0
106	100.3	S	11	7.9	57.1	11	7.9

\*\* BORSURV \*\*

## SURVEY DATA AND CALCULATED CO-ORDINATES (metres)

PROPERTY: TULLY TWP.  
HOLE NO: 91-5  
GRID: FRANKFIELD

DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-65.00	180.00	1560.000	300.000	1.710
64.50<--	-59.00	176.50	1560.925	269.733	-55.240
96.75<--	-56.00	174.75	1562.247	252.456	-82.440
129.00	-53.00	173.00	1564.245	233.835	-108.695
225.00	-52.00	169.00	1573.387	176.113	-184.857
282.50<--	-49.50	169.50	1580.173	140.371	-229.384
340.00	-47.00	170.00	1586.986	102.694	-272.283
404.10<--	-45.00	170.50	1594.527	58.810	-318.392
468.20	-43.00	171.00	1601.939	13.300	-362.920

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-5

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	9.15	1560.13	295.71	-6.37	none
2D,2E,CARB	41.30	1560.59	280.62	-34.76	45.0
2D,2E,CARB,Q	53.85	1560.77	274.73	-45.84	45.0
2D,2E,CARB	142.55	1565.54	225.69	-119.44	45.0
2D,2E,CARB,F	151.80	1566.42	220.13	-126.78	45.0
2D,2E,FE CAR	166.70	1567.84	211.17	-138.60	45.0
2D,1D,CARB	197.40	1570.76	192.71	-162.96	45.0
2D,2E,SER,Q.	208.40	1571.81	186.09	-171.69	50.0
2D,2E,CARB	224.80	1573.37	176.23	-184.70	50.0
2G,PY,Q.V.	225.85	1573.49	175.59	-185.51	55.0
2D,2G,PY,Q.V	230.90	1574.08	172.45	-189.43	55.0
2D,2E,CARB,F	254.80	1576.90	157.59	-207.93	55.0
6C,TALC,CARB	257.25	1577.19	156.07	-209.83	55.0
2D,SER	259.25	1577.43	154.82	-211.38	55.0
6C,TALC,CARB	263.90	1577.98	151.93	-214.98	55.0
1D,2D,CARB	269.30	1578.62	148.58	-219.16	55.0
2D,2E,CHL	303.40	1582.65	126.68	-244.98	55.0
2D,2E,Q.V.,S	309.50	1583.37	122.68	-249.53	55.0
2D,2E,CARB,F	339.50	1586.93	103.02	-271.91	55.0
2D,2E,Q.V.,S	340.10	1587.00	102.63	-272.35	60.0
2D,2E,CARB,F	344.50	1587.52	99.61	-275.52	60.0
2G,6C,PY,PO	350.20	1588.19	95.71	-279.62	60.0
2D,2E,CARB	361.50	1589.52	87.97	-287.75	60.0
2D,2E,CHL	402.80	1594.37	59.70	-317.46	60.0
2D,2E,FE CAR	410.55	1595.27	54.23	-322.87	60.0

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-5

\*\* BORSURV \*\*  
Page 2 of 2

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
2D,2E,SIL,Q.	435.55	1598.16	36.48	-340.24	60.0
2G,Q.V.,PY,A	439.50	1598.62	33.68	-342.98	60.0
6C,TALC,CARB	468.20	1601.94	13.30	-362.92	60.0

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 3

PROPERTY: TULLY TWP.

HOLE No.: 91-5

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
22.40	23.90	1.50	NIL	NIL	3.000
35.70	37.20	1.50	NIL	NIL	N.S.
37.20	38.70	1.50	NIL	NIL	N.S.
41.25	42.75	1.50	NIL	NIL	N.S.
42.75	44.25	1.50	TRACE	0.030	N.S.
49.10	50.60	1.50	NIL	NIL	N.S.
50.60	52.10	1.50	NIL	NIL	N.S.
53.00	54.00	1.00	NIL	NIL	N.S.
66.50	68.00	1.50	NIL	NIL	N.S.
68.00	69.50	1.50	NIL	NIL	N.S.
69.50	71.00	1.50	NIL	NIL	N.S.
75.30	76.80	1.50	NIL	NIL	N.S.
84.10	85.60	1.50	NIL	NIL	N.S.
89.60	91.10	1.50	NIL	NIL	N.S.
91.10	92.60	1.50	NIL	NIL	N.S.
92.60	94.10	1.50	N.S.	N.S.	N.S.
98.10	99.60	1.50	NIL	NIL	N.S.
105.75	107.25	1.50	TRACE	0.010	N.S.
110.80	112.30	1.50	NIL	NIL	N.S.
114.15	115.65	1.50	NIL	0.240	N.S.
124.55	126.05	1.50	NIL	NIL	N.S.
136.05	137.55	1.50	NIL	NIL	N.S.
142.20	143.70	1.50	TRACE	0.590	N.S.
147.10	148.60	1.50	NIL	NIL	N.S.
149.20	150.70	1.50	TRACE	0.150	N.S.
155.50	157.00	1.50	NIL	0.010	N.S.
161.15	162.65	1.50	NIL	NIL	N.S.
162.65	164.15	1.50	NIL	NIL	N.S.
164.15	166.65	1.50	NIL	NIL	N.S.
168.20	169.70	1.50	NIL	NIL	N.S.
169.70	171.20	1.50	NIL	NIL	N.S.
175.15	176.65	1.50	NIL	NIL	N.S.
189.30	190.80	1.50	TRACE	0.040	N.S.
198.80	200.30	1.50	NIL	0.010	N.S.
200.30	201.80	1.50	TRACE	0.220	N.S.
201.80	203.30	1.50	TRACE	0.160	N.S.
203.30	204.80	1.50	TRACE	0.180	N.S.
204.80	206.30	1.50	0.020	0.730	N.S.
206.30	207.80	1.50	TRACE	0.123	N.S.
207.80	209.30	1.50	NIL	NIL	N.S.
209.30	211.40	2.10	0.010	0.310	N.S.
214.20	215.70	1.50	0.010	0.370	N.S.
224.00	225.50	1.50	TRACE	0.130	N.S.
225.50	227.00	1.50	0.004	0.250	N.S.
227.00	228.50	1.50	0.006	0.223	N.S.
228.50	230.00	1.50	0.059	2.030	N.S.
230.00	231.00	1.00	0.004	0.151	N.S.
231.50	233.00	1.50	NIL	NIL	N.S.
233.00	234.50	1.50	NIL	NIL	N.S.
235.55	237.05	1.50	NIL	NIL	N.S.

PROPERTY: TULLY TWP.

HOLE No.: 91-5

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FROM	TO	WIDTH	Au - oz\t	Au - gm\T	As - ppm
237.05	238.55	1.50	NIL	NIL	N.S.
238.55	240.05	1.50	NIL	NIL	N.S.
240.05	241.55	1.50	NIL	NIL	N.S.
241.55	243.05	1.50	NIL	NIL	N.S.
243.05	244.60	1.55	NIL	NIL	N.S.
244.60	246.10	1.50	TRACE	0.147	N.S.
246.10	247.60	1.50	0.007	0.254	N.S.
247.60	249.10	1.50	NIL	NIL	N.S.
249.10	250.60	1.50	NIL	NIL	N.S.
250.60	252.10	1.50	NIL	NIL	N.S.
252.10	253.60	1.50	NIL	NIL	N.S.
253.60	255.10	1.50	NIL	NIL	N.S.
263.90	265.40	1.50	NIL	NIL	N.S.
265.40	266.90	1.50	NIL	NIL	N.S.
269.70	271.20	1.50	NIL	NIL	N.S.
278.00	279.50	1.50	NIL	NIL	N.S.
303.40	304.90	1.50	0.001	0.021	N.S.
304.90	306.40	1.50	0.000	0.010	N.S.
306.40	307.90	1.50	0.000	0.010	N.S.
307.90	309.40	1.50	0.000	0.014	N.S.
314.00	315.50	1.50	0.001	0.034	N.S.
317.10	318.60	1.50	0.001	0.021	N.S.
318.60	320.00	1.40	0.000	0.014	N.S.
320.00	321.50	1.50	0.000	0.017	N.S.
328.50	330.00	1.50	0.000	0.014	N.S.
330.00	331.50	1.50	0.000	0.014	N.S.
334.80	336.30	1.50	0.000	0.014	N.S.
336.30	337.80	1.50	NIL	NIL	N.S.
337.80	339.30	1.50	NIL	NIL	N.S.
339.30	340.30	1.00	0.032	1.111	N.S.
340.30	341.80	1.50	0.000	0.010	N.S.
344.50	346.00	1.50	0.001	0.024	N.S.
346.00	347.50	1.50	NIL	NIL	N.S.
347.50	349.00	1.50	NIL	NIL	N.S.
349.00	350.50	1.50	0.001	0.021	N.S.
356.40	357.90	1.50	0.001	0.021	N.S.
364.55	366.05	1.50	0.000	0.017	N.S.
366.05	367.55	1.50	0.001	0.027	N.S.
369.65	371.05	1.40	0.001	0.034	N.S.
371.05	372.55	1.50	0.000	0.014	N.S.
372.55	374.05	1.50	0.001	0.021	N.S.
382.85	384.15	1.30	0.000	0.010	N.S.
385.65	387.15	1.50	0.000	0.014	N.S.
393.95	395.45	1.50	0.000	0.010	N.S.
395.45	396.95	1.50	0.000	0.014	N.S.
402.55	404.05	1.50	0.000	0.017	N.S.
404.05	405.55	1.50	0.000	0.007	N.S.
405.55	407.05	1.50	0.001	0.027	N.S.
407.05	408.05	1.00	0.001	0.024	N.S.
408.05	409.05	1.00	0.098	3.350	N.S.



\*\* BORSURV \*\*

ASSAY LOG

Page 3 of 3

PROPERTY: TULLY TWP.

HOLE No.: 91-5

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
409.05	410.55	1.50	0.010	0.357	N.S.
410.55	411.50	0.95	0.055	1.896	N.S.
411.50	412.50	1.00	0.012	0.415	N.S.
412.50	413.50	1.00	0.007	0.240	N.S.
413.50	414.50	1.00	0.004	0.127	N.S.
414.50	415.50	1.00	0.025	0.857	N.S.
415.50	417.50	2.00	0.242	8.297	N.S.
417.50	419.00	1.50	0.001	0.024	N.S.
419.00	420.50	1.50	0.002	0.052	N.S.
420.50	422.00	1.50	0.007	0.243	N.S.
422.00	423.00	1.00	0.248	8.503	N.S.
423.00	424.00	1.00	0.122	4.197	N.S.
424.00	425.50	1.50	0.001	0.045	N.S.
425.50	427.00	1.50	0.000	0.014	N.S.
427.00	428.50	1.50	0.000	0.007	N.S.
428.50	430.00	1.50	0.002	0.062	N.S.
430.00	431.50	1.50	0.023	0.785	N.S.
431.50	432.50	1.00	0.001	0.041	N.S.
432.50	434.00	1.50	0.019	0.638	N.S.
434.00	435.00	1.00	0.011	0.381	N.S.
435.00	436.50	1.50	0.012	0.415	N.S.
436.50	437.50	1.00	0.012	0.422	N.S.
437.50	438.50	1.00	0.046	1.593	N.S.
438.50	439.50	1.00	0.064	2.205	N.S.
439.50	441.00	1.50	0.001	0.045	N.S.
441.00	442.50	1.50	0.000	0.017	N.S.
447.80	449.30	1.50	0.001	0.024	N.S.
452.55	454.05	1.50	0.000	0.010	N.S.

**\*\* BORSURV \*\***

**AVERAGED ASSAY INTERVALS**

Page 1 of 1

PROPERTY: ~~TULLY-TWP.~~

HOLE No: 91-5

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1. MZ (8.50-d.t.—Core-Angle: 90—8.50-t.t.)

FROM: 415.50

EASTINGS: 1595.84

NORTHINGS: 50.72

ELEVATION: -326.31

0.102 Au oz\T

3.504 Au-gm\T

-0.000 As ppm (Cut to: 0.000)

TO: 424.00

EASTINGS: 1596.83

NORTHINGS: 44.68

ELEVATION: -332.22

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing left
HOLE NO:	T-91-6		in hole -
LENGTH:	793.05 metres		hole
LOCATION:	L 1480 E; 402 N		deepened
COORDINATES:			from 716.95
ELEVATION:	0.91 metres		to 793.05
AZIMUTH:	180°	LOGGED BY:	MRogers
DIP:	-65°	STARTED:	Feb. 9/91
		FINISHED:	Feb. 25/91

FROM	TO	DESCRIPTION
0	13.25	Overburden
13.25	69.5	Mafic - intermediate flows (1d, 2d); medium-dark green, fine grained (1 mm), massive, mafic-intermediate composition, extensive fine-grained chlorite, also 1-3% chlorite veinlets and stringers, minor, random quartz veinlets, generally ≤.5% disseminated (dissem.) pyrite (py).
	17.6 - 20.65	Badly broken core, fault zone.
		Gradational change
69.5	574.1	Intermediate - mafic flows (2d,e,1d,e), med - dark, greenish grey, fine grained (< 1mm), massive, mafic-intermediate composition, occasional calcite-filled amygdules, relatively unaltered except very common, fine grained chlorite, generally ≤ .5%, dissem. py-po, local stringers, occasional, random quartz veins, rare, local, pervasive calcite alteration; at approximately 110.0 meters weak-strong, pervasive calcite alteration begins to occur very commonly; local chlorite veinlets and patches; generally 1-2% quartz veining.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
	119.5	Lighter colored sections, common, apparently due to calcite alteration.
128.25	- 132.9	1-15%, grey plagioclase (?) phenocrysts of .5-2 mm.
132.95	- 151.85	2-10%, random, white-grey calcite veins; 1-5% quartz veins; rare in situ breccia.
149.6	- 151.85	5%, grey quartz veining; mod. bleaching due to pervasive calcite and local silica alt.
158.9	- 160.7	2-3% grey quartz veining; local silicification, .1% py, 3-5% calcite veining.
164.8	- 574.1	Occasional lenses, patches and narrow beds of graphitic sediment; usually with minor py.
172.0		Noticeable gradual decrease in chlorite content with a change in rock color from light to medium greenish-grey to light-medium grey until 182.2 where there is no chlorite; pervasive calcite.
202.75	- 203.1	L. grey quartz vein with 3-5% py.
214.35	- 215.85	5-100% locally, l. grey quartz veining.
246.0	- 247.0	5-10%, random, grey quartz veining.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
256.95	- 260.7	5-50%, l. grey, random quartz veining; associated 5-15%, graphitic lenses with minor po.
262.2	- 273.1	2-5%, grey quartz veining, minor silicification; ≤ 1% py-po generally; common graphitic lenses; local veining to 100%.
273.1	- 298.2	1-5%, grey quartz veining, locally to 10-20%; common graphitic lenses; ≤ 1% py-po, 2-15% calcite veining.
298.2	- 318.2	Generally 1% quartz veining, locally to 5-10%, occasional graphite lenses.
318.2	- 322.3	10-20% graphitic lenses, 3-5%, grey quartz veining, 1-5% po.
322.3	- 366.0	1-2%, grey quartz veining, 3-10% calcite veinlets, 5-10% graphitic lenses, ≤ 1% po-py, locally 2-3%, quartz veining locally to 10-20%; mod.- strong, pervasive calcite alt.
366.0	- 375.2	Mod.- strong, pervasive calcite alt.; local, weak, pervasive, buff-colored Fe carb. alt., 1-2%, random, l.grey quartz veinlets, 2-3% calcite veining, 1% graphite lenses.
375.2	- 389.6	1-3%, grey quartz veining, 3-10% calcite veining, 5-20% graphite lenses, 1-3% py-po, mod. - strong, pervasive Fe carb. alt - buff colored.
376.8	- 378.65	10-35% graphitic lenses with 2-20% py - po.

FROM	TO	DESCRIPTION
389.6	- 391.6	5-20% l.grey quartz veining; silicification; 5-30% dissems. and masses of py.
391.6	- 403.2	Mod. - strong, pervasive calcite and common Fe carb. alt; generally 1-2% quartz veinlets, local graphite lenses, 1% py, locally 2-5%.
398.8	- 399.8	20-30% graphitic lenses.
402.4	- 403.2	5%, l. grey quartz veining, local silicification; 2-5% py.
403.2	- 424.5	Mod. - strong pervasive Fe carb. alteration, buff colored; 1-2%, grey quartz veinlets, 2-5% calcite veinlets, generally $\leq$ 1% py-po, occasional lenses of graphitic sediment.
424.5	- 435.54	D. grey volcanic with strong, pervasive calcite alteration; 2-3% grey quartz veining.
435.4	- 442.7	Mod. - strong sericite alt., local, 2-3%, l.- d. grey quartz veinlets with assoc. silicification; 441.0-441.95 10-30% graphite; generally $\leq$ 5% py.
442.7	- 449.4	Mod.- strong pervasive calcite alt. with common fine gr. chlorite.
449.4	- 473.5	Relatively unaltered except extensive, fine gr-chlorite; 2-5%, white-l. grey-purple, random quartz veining with local silicification, local chlorite stringers, local chloritic pillow selvages local 1-3% po, locally variolitic.
470.25	- 470.75	5% coarse gr. (1-10 mm) plagioclase phenocrysts.

FROM	TO	DESCRIPTION
473.5	- 483.6	Relatively unaltered massive flow except with extensive, fine gr. chlorite, lacks significant veining.
483.6	- 492.8	Extensive fine-gr. chlorite, 2-3%, white-l. grey-purple quartz veining, local 1-3% po. with veining, local silicification, local 1-2% py and rare $\leq$ 1% cp with veins.
492.8	- 496.0	Pervasive calcite alt.
496.0	- 503.4	Mod.-strong, pervasive Fe carb. alt., 2-3%, l. grey quartz veins, 3-10% graphitic lenses with po-py.
501.85	- 502.3	Graphitic unit (2g) with 75% massive py and minor grey quartz veining.
503.4	- 510.3	3-10% grey, random quartz veining, locally to 100%, extensive pervasive Fe carb. alt., common silicification with veining, generally 1-2% py.
510.3	- 513.65	Mod. - strong pervasive calcite alteration.
509.4	- 510.15	Massive white - l. grey quartz vein.
513.65	- 518.15	D. brown, strong, pervasive Fe carb. alt. with 2-3% quartz veins.
518.15	- 519.05	Weak - mod. silicification.
519.05	- 547.2	Strong, pervasive calcite alteration; extensive fine-gr. chlorite; 1% grey quartz veining, locally to 10% - 20%, local foliation at 50° to c.a.

FROM	TO	DESCRIPTION
	527.9 - 528.2	20% - 50% l. grey quartz veining with 2-5% py.
	533.35 - 534.4	Mod. - strong, d. brown, Fe carb. alt.
	539.8 - 547.2	2-5%, random, white-grey and purple quartz veining with 1-3% py, occasional Fe carb. alt.
	547.2 - 556.8	Fine gr. chlorite alt; local, weak, pervasive calcite alteration, 1-5%, purple-white-l. grey quartz veinlets.
	556.8 - 560.65	Mod. - strong, pervasive calcite alt., minor, fine gr. chlorite, 2-10% white-grey quartz veining, local pervasive, buff colored Fe carb. alt. generally with veining.
	560.65 - 572.5	Variolitic flow, weak-mod., pervasive calcite alt., local, fine gr. chlorite, 1-2% quartz veining.
	572.5 - 574.1	Strong, pervasive Fe carb. alt. with 3-5%, grey quartz veining.
		Veined contact
574.1	580.35	Graphitic - carbonaceous sedimentary unit (2g) with extensive quartz veining (Q.V.); d. grey - black, fine grained (<.5mm), local foliation at 50° to c.a., graphitic -carbonaceous sediment with 5-100% locally, grey, random quartz veining, .5-5% py-po as dissem., local pervasive calcite and Fe carb. alt., common (1-5%) calcite veinlets.
	574.85 - 575.5	100%, grey quartz veining with 1-3% py.
	579.3 - 580.4	10-30%, grey quartz veining.



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<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
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699.9 793.05

Ultramafic flows (6c); totally altered to talc-carbonate; medium greenish-grey, fine grained (<.5mm), massive, no original mineralogy, occasional remnant spinifex texture, 5-10%, random, calcite veinlets.

700.3 - 701.5 5% quartz veining with 5% py.

Hole deepened from 716.95 meters.

Common badly broken sections.

Less calcite veining downhole to average 1-3%.

Gradual change downhole to common d. grey-black color and local occurrence of some remnant original mineralogy and textures; occasional serpentine along fractures; still remains extensively to totally altered to talc.

End of Hole 793.05 meters.

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**FROM      TO              DESCRIPTION**


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664.9   -   680.6   Weak-mod., pervasive calcite alt.; common (1-20%) lenses of graphite, local foliation at 55° to c.a., 1-3% and locally higher % random, grey quartz veining, 1-2% py-po, locally to 5%.

680.6   -   689.9   Strong, pervasive, calcite alteration, 5-25% graphite lenses, 1-5% dissem. and stringer py-po, 2-10%, random, grey quartz veinlets.

680.6   -   686.25   1-5% py-po; rare, ≤5% arsenopyrite (asp).

686.25   -   686.55   Average 5% asp.

686.55   -   687.8   1% asp.

687.8   -   688.7   Average 5% asp.

688.7   -   689.9   ≤ 1% asp

Gradational contact

689.9 693.1   Graphitic sedimentary unit (2g); similar to previous descriptions; generally 2-3% grey quartz veining, 1-3% py, generally ≤5% asp, common talc fractures, pervasive, calcite alt.

692.25   -   692.5   5% asp, 30% quartz veining.

Gradational contact

693.1 699.9   Interbedded sequence of talc-carbonate altered ultramafic flows (6c) and graphitic sediments (2g); no appreciable mineralization except ≤ 1% py; strong, pervasive calcite alt. of graphitic sediment.

Gradational contact

# Rock Quality Log

Hole No. T-91-6

Box No.	Core Recovery %	Hardness H.M.S	Pieces of Core	Pieces/meter	RQD %	No. of Fractures	Fractures/m.
1	100.0	M	23	5.3	93.1	23	5.3
2	85.0	M	25 <sup>+</sup>	4.8 <sup>+</sup>	46.2	25 <sup>+</sup>	4.8 <sup>+</sup>
3	100.0	M	25	5.6	87.6	23	5.2
4	100.0	M	24	5.6	83.7	22	5.1
5	100.0	M	27	6.3	77.9	23	5.3
6	100.0	M	27	6.4	91.7	25	6.0
7	100.0	M	29	6.5	69.7	25	5.6
8	100.0	M	25	5.7	71.3	25	5.7
9	100.0	M	23	5.5	91.7	23	5.5
10	100.0	M	23	5.4	88.2	21	4.9
11	100.0	M	30	7.1	78.6	24	5.7
12	100.0	M	19	4.3	96.6	19	4.3
13	100.0	M	19	4.2	88.9	19	4.2
14	100.0	M	19	4.2	92.2	19	4.2
15	100.0	M	16	3.7	95	16	3.7
16	100.0	M	18	4.1	98	18	4.1
17	100.0	M	26	5.9	100	24	5.9
18	100.0	M	14	3.1	100	14	3.1
19	100.0	M	23	5.5	100	20	4.8
20	100.0	M	18	4.0	96	18	4.0
21	100.0	M	22	5.0	94	22	5.0
22	100.0	M	22	5.0	93	22	5.0
23	100.0	M	17	3.9	100	17	3.9
24	100.0	M	17	3.9	99	17	3.9
25	100.0	M	27	6.3	89	24	5.6
26	100.0	M	21	4.8	100	21	4.8
27	100.0	M	18	1.8	98	18	1.8
28	100.0	M	31	6.9	86	30	6.7
29	100.0	M	22	5.1	90.7	22	5.1

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-6 Client: Cypres

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
30	100.0	M	22	5.2	92.9	22	5.2
31	100.0	M	20	4.5	87.5	20	4.5
32	100.0	M	26 <sup>+</sup>	6.1 <sup>r</sup>	88.2	26 <sup>+</sup>	6.1 <sup>r</sup>
33	100.0	M	35	8.5	92	27	5.7
34	100.0	M	11	4.6	100	17	4.1
35	100.0	M	27	6.4	90	21	4.7
36	100.0	M	15	3.5	100	16	3.7
37	100.0	M	26	5.1	100	16	5.1
38	100.0	M	50	11.0	96	22	5.2
39	100.0	M	24	5.1	100	21	4.7
40	100.0	M	17	3.8	100	17	3.8
41	100.0	M	14	3.3	100	14	3.3
42	100.0	M	25 <sup>+</sup>	5.7 <sup>r</sup>	92	25 <sup>+</sup>	5.7 <sup>r</sup>
43	100.0	M	22	5.4	100	22	5.4
44	100.0	M	18 <sup>+</sup>	4.2 <sup>r</sup>	91	18 <sup>+</sup>	4.2 <sup>r</sup>
45	100.0	M	22	5.1	94	22	5.1
46	100.0	M	20	4.6	100	20	4.6
47	100.0	M	20	4.6	100	20	4.6
48	100.0	M	23 <sup>r</sup>	5.3 <sup>r</sup>	96	23 <sup>+</sup>	5.3 <sup>r</sup>
49	100.0	M	19	4.2	96	19	4.2
50	100.0	M	24	6.2	100	24	6.2
51	100.0	M	25 <sup>+</sup>	5.9 <sup>r</sup>	78	25 <sup>+</sup>	5.9 <sup>r</sup>
52	100.0	M	23	5.7	100	22	5.4
53	100.0	M	21	4.7	91	19	4.2
54	100.0	M	17	3.8	98	17	3.8
55	100.0	M	17	4.0	100	17	4.0
56	100.0	M	15	3.4	100	15	3.4

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-6 Client: CYPRUS

Property: JULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
57	100.0	M	17	4.0	100	17	4.0
58	100.0	M	19	4.3	97	19	4.3
59	100.0	M	20	4.9	100	20	4.9
60	100.0	M	15	3.3	97	15	3.3
61	100.0	M	15	3.4	100	15	3.4
62	100.0	M	12	2.8	100	12	2.8
63	100.0	M	15	3.4	100	15	3.4
64	100.0	M	16	3.7	100	16	3.7
65	100.0	M	23	5.1	94	22	4.9
66	100.0	M	21	5.1	98.8	21	5.1
67	100.0	M	19	4.4	96.6	19	4.4
68	100.0	M	15	3.4	96.6	15	3.4
69	100.0	M	14	3.2	90.9	14	3.2
70	100.0	M	22	5.1	100.0	22	5.1
71	100.0	M	19	4.6	100.0	19	4.6
72	100.0	M	27	6.0	96	27	6.0
73	100.0	M	27	6.0	97	27	6.0
74	100.0	M	25	6.25	100	25	6.25
75	100.0	M	16	3.7	100	16	3.7
76	100.0	M	18	4.2	100	18	4.2
77	100.0	M	21	4.8	97	21	4.8
78	100.0	M	24	6.3	100	21	5.5
79	100.0	M	21	4.7	98	21	4.7
80	100.0	M	21	6.8	100	21	6.8
81	100.0	M	16	3.3	92	16	3.3
82	100.0	M	30	6.8	94	20	4.5
83	100.0	M	15	3.1	94	15	3.1

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-7

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	10.00	79.93	113.93	-5.98	none
2H, 2D, 2E, D.Z	49.00	79.67	94.13	-39.58	40.0
2D, 2E, FE CAR	68.40	79.36	83.73	-55.95	40.0
2G, PY	71.25	79.30	82.18	-58.34	45.0
2A, 2G	87.45	79.00	73.36	-71.92	45.0
2G, PY	91.25	78.92	71.29	-75.11	50.0
2A, 2G, PY, 5C,	110.15	78.56	61.00	-90.96	50.0
2A, 5C, CARB, F	164.75	77.02	29.96	-135.85	50.0
2A, 5C, CARB, P	168.65	76.90	27.73	-139.04	50.0
2A, 5C, CARB	173.50	76.75	24.95	-143.01	50.0
2A, 5C, CARB, Q	181.05	76.53	20.63	-149.20	50.0
2A, 5C, CARB	188.55	76.28	16.26	-155.29	50.0
2A, 5C, CARB, Q	195.35	76.06	12.27	-160.79	50.0
2A, SIL, BX, Q.	210.00	75.57	3.67	-172.64	50.0
2A, SER	225.00	75.07	-5.13	-184.78	50.0
2A, SER, TALC,	228.85	74.94	-7.39	-187.89	50.0
6C, TALC, CARB	263.95	73.77	-27.99	-216.29	50.0

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 2

PROPERTY: TULLY TWP.

HOLE No.: 91-7

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FROM	TO	WIDTH	Au_oz\t	Au_gm\T	As ppm
10.00	11.50	1.50	NIL	NIL	N.S.
11.50	13.00	1.50	0.000	0.014	N.S.
13.00	14.50	1.50	NIL	NIL	N.S.
14.50	16.00	1.50	0.000	0.010	N.S.
16.00	17.50	1.50	NIL	NIL	N.S.
17.50	19.00	1.50	0.000	0.017	N.S.
22.65	24.15	1.50	0.000	0.014	N.S.
30.15	31.65	1.50	0.000	0.010	N.S.
41.45	42.95	1.50	0.000	0.010	N.S.
48.25	49.75	1.50	0.000	0.014	N.S.
55.40	56.90	1.50	NIL	NIL	N.S.
68.00	69.50	1.50	0.001	0.027	N.S.
69.50	71.00	1.50	0.001	0.024	N.S.
71.00	72.50	1.50	NIL	NIL	N.S.
77.20	78.70	1.50	0.000	0.017	N.S.
81.10	82.60	1.50	NIL	NIL	N.S.
87.15	88.65	1.50	0.007	0.243	N.S.
88.65	90.15	1.50	0.006	0.198	N.S.
90.15	91.65	1.50	0.001	0.027	N.S.
94.25	95.75	1.50	0.004	0.134	N.S.
97.45	98.95	1.50	0.001	0.024	N.S.
103.95	105.45	1.50	0.000	0.017	N.S.
107.35	108.85	1.50	0.001	0.048	N.S.
111.60	113.10	1.50	0.000	0.017	N.S.
116.10	117.60	1.50	NIL	NIL	N.S.
120.70	122.20	1.50	NIL	NIL	N.S.
130.00	131.50	1.50	0.012	0.425	N.S.
134.50	136.00	1.50	0.001	0.031	N.S.
142.10	143.60	1.50	0.000	0.014	N.S.
148.25	149.75	1.50	0.001	0.011	N.S.
156.20	157.70	1.50	0.001	0.031	N.S.
164.75	166.25	1.50	0.026	0.878	N.S.
166.25	167.75	1.50	0.011	0.387	N.S.
167.75	169.25	1.50	0.009	0.319	N.S.
173.00	174.50	1.50	0.006	0.213	N.S.
174.50	176.00	1.50	0.001	0.024	N.S.
176.00	177.50	1.50	0.001	0.038	N.S.
177.50	179.00	1.50	0.003	0.113	N.S.
179.00	180.50	1.50	0.002	0.075	N.S.
187.75	189.25	1.50	0.001	0.048	N.S.
189.25	190.75	1.50	0.002	0.072	N.S.
190.75	192.25	1.50	0.001	0.034	N.S.
192.25	193.75	1.50	0.004	0.144	N.S.
193.75	195.25	1.50	0.003	0.036	N.S.
195.25	196.75	1.50	0.001	0.021	N.S.
196.75	198.25	1.50	NIL	NIL	N.S.
198.25	199.75	1.50	0.000	0.014	N.S.
199.75	201.25	1.50	0.000	0.010	N.S.
201.25	202.75	1.50	0.001	0.024	N.S.
202.75	204.25	1.50	0.001	0.027	N.S.

ASSAY LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-7

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
204.25	205.75	1.50	0.000	0.017	N.S.
205.75	207.25	1.50	0.000	0.014	N.S.
207.25	208.75	1.50	0.000	0.010	N.S.
208.75	210.25	1.50	NIL	NIL	N.S.
210.25	211.75	1.50	0.000	0.014	N.S.
211.75	213.25	1.50	0.000	0.010	N.S.
213.25	214.75	1.50	0.000	0.007	N.S.
214.75	216.25	1.50	NIL	NIL	N.S.
216.25	217.75	1.50	0.000	0.010	N.S.
217.75	219.25	1.50	0.000	0.007	N.S.
219.25	220.75	1.50	NIL	NIL	N.S.
220.75	222.25	1.50	0.000	0.010	N.S.
222.25	223.75	1.50	NIL	NIL	N.S.
223.75	225.25	1.50	0.000	0.010	N.S.
225.25	226.75	1.50	0.000	0.014	N.S.
226.75	228.25	1.50	NIL	NIL	N.S.
228.25	229.75	1.50	NIL	NIL	N.S.



## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing left in hole
HOLE NO:	T-91-8		
LENGTH:	483.4 metres	DRILLED BY:	
CLAIM NO:		LOGGED BY:	MRogers
LOCATION:	4 + 04 E; 3 + 08 N	STARTED:	Feb. 17/91
COORDINATES:		FINISHED:	Feb. 22/91
ELEVATION:	8.20 metres		
AZIMUTH:	180°		
DIP:	-65°		

FROM	TO	DESCRIPTION
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0	6.1	Overburden
6.1	65.85	Intermediate flows (2e); locally amygdaloidal; l. grey - l. - med. greenish-grey, fine grained ( $\leq 5\text{mm}$ ), common, weak-mod. developed foliation at $40^\circ$ - $45^\circ$ to core axis, intermediate composition, common-extensive variable silicification and sericitization resulting in bleaching, occasional graphitic lenses, local, weak, pervasive, calcite alteration, 1-3%, random, white-grey quartz veinlets, $\leq 1\%$ disseminated (dissem.) pyrite (py), sericite and silica alteration occurs pervasively and ranges from weak-strong, local, minor breccia; locally 1-3% py with veining or strong silicification.
	55.85 - 56.35	Graphitic sedimentary unit (2g) with 20% quartz veining and 10% py.
		Gradational alteration decrease in intensity to about 65.85 where there is no significant silica or sericite alteration.
65.85	67.65	Intermediate flow (2e); amygdaloidal; strong pervasive calcite alteration.
		Gradational contact over 10 cm.
67.65	72.9	Intermediate-mafic flow, feldspar porphyry (2f); med. - dark grey, fine grained ( $\leq 5\text{mm}$ ) with 10-20% white feldspar phenocrysts of 1 mm, massive, intermediate composition, 1-3%, random, calcite veinlets, 1%, random, quartz veinlets.
		Gradational contact.

FROM	TO	DESCRIPTION
72.9	84.55	<p>Mafic - intermediate flows (2d, 2e); med. - dark grey, fine gr. (<math>\leq 5</math> mm), massive, mafic-intermediate composition, generally <math>\leq 1\%</math> dissem. py, common, fine gr. chlorite, strong-mod. pervasive calcite alteration, 3-10%, random, calcite veinlets, <math>\leq 1\%</math> quartz veinlets, 1-3% chlorite stringers.</p> <p>Sharp contact at <math>45^\circ</math> to c.a.</p>
84.55	86.0	<p>Intermediate tuff (2a); l. - med. grey, grain size 1-10mm, foliation at <math>55^\circ</math> to c.a., heterolithic clasts, weak calcite alteration.</p>
84.55	-	85.0 Brecciated chert with 5-10% py; local 5-30% quartz veining.
		Sharp contact at $55^\circ$ to c.a.
86.0	337.6	<p>Intermediate flows (2d,2e); med. grey, fine gr (<math>\leq 5</math> mm), massive, intermediate composition, mod. - strong, pervasive calcite alteration, common, calcite-filled amygdules, local chloritic-carbonate pillow selvages, 2-5%, random, calcite veinlets, generally <math>\leq 1\%</math> quartz veinlets, <math>\leq 5\%</math> dissem. py, local, buff-coloured Fe carbonate alteration usually with quartz veining, common, minor, fine gr. chlorite, local, weak foliation at <math>50^\circ</math> to c.a.</p>
115.95	-	117.65 10% calcite veining, 5%, white quartz veining.
118.7	-	119.55 30-50%, white, quartz stockwork.
118.7	-	130.9 V. common, fine-gr. chlorite alteration; none-weak carb. alt., weak foliation at $50^\circ$ - $55^\circ$ to c.a.
130.9	-	141.55 Generally weak-mod., pervasive calcite alt.; common fine gr. chlorite, common, minor bleaching due to calcite alt., 1%, random quartz veining.

FROM	TO	DESCRIPTION
135.65	- 136.85	Common quartz veining with minor silicification and py.
141.55	- 145.5	Carbonate, Fe carb. altered section with 3-5%, grey quartz veining and local silicification, 1-3% py with veining, well developed foliation at 50° to c.a., minor deformation zone (D.Z.).
145.5	- 147.65	Mod., pervasive, buff coloured, Fe carb. alteration.
147.65	- 159.0	Mod. - strong, pervasive, calcite alteration, 2-5%, random, grey quartz veining; local, buff-coloured Fe carb. alteration.
159.0	- 160.35	10-20%, white - grey - purple quartz veining, 1-2% py; silica and Fe carb. alteration.
160.35	- 229.45	Weak-strong, buff-grey pervasive sericite alt., 2-5%, random, white-l. grey-purple quartz veining; local silicification, 1-3% py with veining.
178.6	- 181.2	2-10%, random, l. grey, quartz veining; locally 5-20% graphitic lenses; sericite and silica alteration, 2-10% py locally with graphite, local breccia.
198.55	- 202.05	10-50%, white-l. grey, random, quartz veining, extensive silicification, local sericite, 1-5%, fine gr. dissem. py.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
202.05	- 205.5	3-5% quartz veining, common silicification, local sericite.
229.45	- 245.45	Mod. - strong. pervasive, Fe carbonate alteration, generally 1-2% quartz veinlets and 2-5% calcite veinlets, local sericitic sections to 238.15.
238.25	- 240.25	5-10%, l. grey, random quartz veining.
243.2	- 247.35	5-10% calcite veinlets, 3% quartz veinlets.
245.45	- 246.45	Mod. - strong sericite alt.
246.45	- 268.9	Mod. - strong, pervasive, l. - med. brown, Fe carbonate alteration, common sections of only sericite alteration, generally 1-3%, random quartz veining, locally higher %, 2-5%, calcite veining, local foliation at 40° - 45° to c.a.
268.9	- 281.4	Mod. - strong, pervasive Fe carbonate and calcite alteration, grey-tan, common foliation at 40° to c.a., local, calcite-filled amygdules, 1-2% quartz veining and 2-5% calcite veining parallel to foliation generally.
281.4	- 291.4	5% to locally 80%, random, l. grey, quartz veining with common silicification, 1-2% py, local breccia.
291.4	- 299.95	Mod. - strong, pervasive iron carb. alteration; 2-5%, random, grey quartz, veining, 1-5%, calcite veining, local silicification with veining, 1-2% py with veining.
299.95	- 303.05	Generally 5% but locally to 30%, white-grey, quartz veining, common silicification, 1-2% py-po.

FROM	TO	DESCRIPTION
	317.45 - 334.5	2-5%, locally 10-15%, random, l. grey - purple, quartz veining, common silicification.
	299.95 - 337.6	Common, weak, pervasive, calcite alteration, local, pervasive Fe carb. alteration, 1-3%, l. grey-purple quartz veining.
	334.5 - 337.6	20-50%, white-l. grey, quartz veining with 1-2% py; common silicification.
		Veined contact.
337.6	452.9	Mafic flows (1d); d. grey, fine grained ( $\leq 5$ mm), massive, mafic composition, significant magnetite content, weak-strong pervasive, calcite alteration, common, fine grained chlorite, 2-5% chlorite stringers, generally, 1%, quartz veinlets, 1-3% calcite veinlets.
	370.0 - 398.0	Gradational increase in fine gr. chlorite content so that it occurs extensively with a proportional decrease in calcite alteration to weak-mod. intensity.
	398.0 - 409.5	Lacks chlorite alteration, mod. - strong, pervasive calcite alt.
	409.5 - 424.4	Weak - strong sericite alteration grey-buff, 2-3%, l. grey-purple quartz veining, locally to 10-20%, local silicification.
	424.4 - 437.9	Weak-mod., pervasive calcite alteration; 2-10%, random, l-d. grey quartz veining with 1-10% py, common, 1-10%, graphitic lenses, rare, <.5%, dissem. asp.
	437.9 - 452.25	Weak - mod., pervasive calcite alteration, 1-2%, grey, quartz veining, 5-20%, random calcite veining, weak foliation at 50° to c.a., 2-10% graphitic lenses.

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<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
	452.25 - 452.9	Extensive, fine gr. chlorite alt.  Sharp contact
452.9	483.4	Ultramafic rock, probable flows (6c), totally altered to talc-carbonate, d. grey-black, fine gr. (<.5mm), massive, composed of talc and 10-20%, calcite stringers and veinlets, no original mineralogy.  End of Hole 483.4 meters.

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A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-E Client: CYPRUS

Property: TULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100	M	16 <sup>r</sup>	3.8 <sup>r</sup>	89	16 <sup>r</sup>	3.8 <sup>r</sup>
2	100	M	23 <sup>r</sup>	5.3 <sup>r</sup>	81	23 <sup>r</sup>	5.3 <sup>r</sup>
3	100	M	26	5.9	90	24	5.4
4	100	M	17	3.9	94	17	3.9
5	100	M	31 <sup>+</sup>	7.1 <sup>+</sup>	86	31 <sup>+</sup>	7.1 <sup>+</sup>
6	100	M	16 <sup>r</sup>	3.7 <sup>r</sup>	92	16 <sup>r</sup>	3.7 <sup>r</sup>
7	100	M	23 <sup>+</sup>	5.3 <sup>+</sup>	88	23 <sup>+</sup>	5.3 <sup>+</sup>
8	100	M	25 <sup>+</sup>	5.6 <sup>r</sup>	88	25 <sup>+</sup>	5.6 <sup>r</sup>
9	100	M	22	5.1	100	21	4.9
10	100	M	24	5.3	91	24	5.3
11	100	M	25	5.7	86	25	5.7
12	100	M	23 <sup>r</sup>	5.3 <sup>r</sup>	85	23 <sup>r</sup>	5.3 <sup>r</sup>
13	100	M	15 <sup>r</sup>	3.3 <sup>r</sup>	96	15 <sup>r</sup>	3.3 <sup>r</sup>
14	100	M	23	5.2	82	23	5.2
15	100	M	15 <sup>r</sup>	3.5 <sup>r</sup>	93	15 <sup>r</sup>	3.5 <sup>r</sup>
16	100	M	12	2.7	94	12	2.7
17	100	M	18	4.0	93	18	4.0
18	100	M	16	3.7	97	16	3.7
19	100	M	17 <sup>r</sup>	3.8	96	17	3.8
20	100	M	18	4.2	100	18	4.2
21	100	M	21	4.7	94	21	4.7
22	100	M	15 <sup>+</sup>	3.5 <sup>r</sup>	98	15 <sup>+</sup>	3.5 <sup>r</sup>
23	100	M	15	3.4	100	15	3.4
24	100	M	32	7.2	92	20	4.5
25	100	M	16	3.9	100	16	3.9
26	100.0	M	21	4.9	91.9	19	4.4
27	100.0	M	20	4.6	92.0	20	4.6

**\*\* BORSURV \*\*****SURVEY DATA AND CALCULATED CO-ORDINATES (metres)****PROPERTY: TULLY TWP.  
HOLE NO: 91-7  
GRID: TEXMONT****DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI**

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-61.00	180.00	80.000	119.000	2.640
53.20	-58.00	181.50	79.647	92.001	-43.199
118.35<--	-56.00	182.50	78.408	56.540	-97.838
183.50	-54.00	183.50	76.453	19.222	-151.206
263.95	-54.00	183.00	73.772	-27.989	-216.291



A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-E Client: CYPRUS

Property: TULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100.0	M	17	4.3	94.3	17	4.3
29	100.0	M	16	4.0	89.9	16	4.0
30	100.0	N	14	3.1	94.4	14	3.1
31	100.0	N	16 <sup>+</sup>	4.0 <sup>+</sup>	88.9	14 <sup>+</sup>	3.5 <sup>+</sup>
32	100.0	M	24	5.5	84.1	24	5.5
33	100.0	M	16	3.6	95.5	16	3.6
34	100.0	N	16	3.6	93.3	16	3.6
35	100.0	N	16	3.6	95.5	16	3.6
36	100.0	M	18	4.1	92.0	18	4.1
37	100.0	M	22	5.0	94.3	22	5.0
38	100.0	M	17	3.8	95.5	17	3.8
39	100.0	M	15	3.4	94.4	15	3.4
40	100.0	M	20	4.7	87.2	20	4.7
41	100.0	M	19	4.4	92.0	19	4.4
42	100.0	M	25	5.7	89.8	25	5.7
43	100.0	M	25	5.8	91.9	25	5.8
44	100.0	M	22	5.3	91.6	20	4.8
45	100.0	M	26 <sup>+</sup>	5.8 <sup>+</sup>	74.4	26 <sup>+</sup>	5.8 <sup>+</sup>
46	100.0	M	16	3.7	93.0	16	3.7
47	100.0	M	23	5.6	91.5	23	5.6
48	100.0	M	18	4.1	90.8	18	4.1
49	100.0	M	20	4.7	91.8	20	4.7
50	100.0	M	27	6.2	83.9	27	6.2
51	100.0	M	15	3.4	94.4	15	3.4
52	100.0	M	24	5.3	92.0	24	5.3
53	100.0	M	20	4.6	87.8	20	4.6
54	100.0	M	17	3.9	93.9	17	3.9

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-3 Client: Cypcus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness		# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
		soft	med hard					
55	100.0	M		24	5.4	88.3	24	5.4
56	100.0	M		20	4.5	94.3	20	4.5
57	100.0	M		36	8.3	75.9	36	7.3
58	100.0	M		23	5.3	94.2	23	5.3
59	100.0	M		23	5.2	81.8	23	5.2
60	100.0	M		24	5.3	84.4	24	5.3
61	100.0	M		27	6.7	79.1	27	6.3
62	100.0	M		20	4.6	89.7	20	4.6
63	100.0	M		22	5.0	88.6	22	5.0
64	100.0	M		17	3.9	92.0	17	3.9
65	100.0	M		21	4.7	86.5	21	4.7
66	100	M		16	3.6	100	16	3.6
67	100	M		14	3.1	100	14	3.1
68	100	M		14	3.1	100	14	3.1
69	100	M		18	4.6	100	18	4.6
70	100	M		19	4.0	91	19	4.0
71	100	M		21	4.9	98	21	4.9
72	100.0	M		10	2.4	100.0	10	2.4
73	100.0	M		12	2.7	93.3	12	2.7
74	100.0	M		12	2.7	97.8	12	2.7
75	100.0	M		18	4.0	91.0	18	4.0
76	100.0	M		15	3.4	95.5	15	3.4
77	100.0	M		12	2.7	95.5	12	2.7
78	100.0	M		12	2.8	98.9	12	2.8
79	100.0	M		20	4.5	91.0	20	4.5
80	100.0	M		23	5.3	90.8	23	5.3
81	100.0	M		13	3.0	94.3	13	3.0

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-9 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
82	100.0	M	13	2.9	95.5	13	2.9
83	100.0	M	16	3.7	98.9	16	3.7
84	100	M	17	3.7	93	17	3.7
85	100	M	12	2.8	100	12	2.8
86	100	M	14	2.9	96	14	2.9
87	100	M	10	2.3	100	10	2.3
88	100	M	19	5.6	100	19	5.6
89	100	M	15	2.6	77	15	2.6
90	100.0	M	16	4.1	100.0	16	4.1
91	100.0	M	16	3.6	96.6	16	3.6
92	100.0	M	13	2.9	97.8	13	2.9
93	100.0	M	13	3.0	97.6	13	3.0
94	100.0	M	14	3.1	95.6	14	3.1
95	100.0	M	10	2.3	96.6	10	2.3
96	100.0	M	15	3.7	98.8	15	3.7
97	100.0	M	18	4.0	91.2	18	4.0
98	100.0	M	35	8.0	64.8	29	6.6
99	100.0	M	26 <sup>+</sup>	6.1 <sup>+</sup>	88.2	22 <sup>+</sup>	5.2 <sup>+</sup>
100	100.0	M	19	4.4	93.1	19	4.4
101	100.0	M	24	5.5	82.8	24	5.5
102	100.0	S-M	23	5.3	90.7	23	5.3
103	100.0	S	43 <sup>+</sup>	9.7 <sup>+</sup>	53.9	43 <sup>+</sup>	9.7 <sup>+</sup>
104	100.0	S	30 <sup>+</sup>	7.9 <sup>+</sup>	85.5	30 <sup>+</sup>	7.9 <sup>+</sup>
105	100.0	S	46 <sup>+</sup>	10.5 <sup>+</sup>	45.5	46 <sup>+</sup>	10.5 <sup>+</sup>
106	100	S	33 <sup>r</sup>	8.2 <sup>r</sup>	71	33 <sup>r</sup>	8.2 <sup>r</sup>
107	100	S	30 <sup>r</sup>	7.0 <sup>r</sup>	75	30 <sup>r</sup>	7.0 <sup>r</sup>
108	100	S	40 <sup>r</sup>	10.2 <sup>r</sup>	44	40 <sup>r</sup>	10.2 <sup>r</sup>
109	100	S	31 <sup>r</sup>	7.8 <sup>r</sup>	54	31 <sup>r</sup>	7.8 <sup>r</sup>
110	100	S	23 <sup>r</sup>	10.9 <sup>r</sup>	59	23 <sup>r</sup>	10.9 <sup>r</sup>

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A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-6 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
111	100.0	M	14	3.1	97.8	14	3.1
112	100.0	M	18	4.0	95.6	18	4.0
113	100.0	M	19	4.4	83.7	19	4.4
114	100.0	M	17	3.9	97.7	17	3.9
115	100.0	M	14	3.3	100.0	14	3.3
116	100.0	M	20	4.2	94	20	4.2
117	100.0	M	20	4.7	100.0	20	4.7
118	100.0	M	17	4.7	100.0	17	4.7
119	100.0	M	18	4.2	100.0	18	4.2
120	100.0	M	14	3.1	95	14	3.1
121	100.0	M	11	2.6	100	11	2.6
122	100.0	M	13	2.9	99	13	2.9
123	100.0	M	15	3.4	100	15	3.4
124	100.0	M	17	3.8	100	17	3.8
125	100.0	M	19	4.2	96	19	4.2
126	100.0	M	16	3.2	86	16	3.2
127	100.0	M	16	3.7	100	16	3.7
128	100.0	M	16	3.7	96	16	3.7
129	100.0	M	22	4.8	91	21	4.6
130	100.0	M	15	3.5	100	15	3.5
131	100.0	M	21	4.8	98	21	4.8
132	100.0	M	22	5.1	97	22	5.1
133	100.0	M	15	3.4	89.9	15	3.4
134	100.0	M	22	4.9	89.9	22	4.9
135	100.0	M	22	5.1	96.5	22	5.1
136	100.0	M	20	4.3	90.2	20	4.3
137	100.0	M	15	3.5	97.7	15	3.5

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-6 Client: Cyprius

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
138	100.0	M	20	4.7	93.0	20	4.7
139	100.0	M	19	4.3	87.6	19	4.3
140	100.0	M	20	4.7	94.1	20	4.7
141	100.0	M	20	4.4	90.1	20	4.4
142	100.0	M	24	5.6	92.9	24	5.6
143	100.0	M	15	3.4	94.3	15	3.4
144	100.0	M	20	4.3	88.0	20	4.3
145	100.0	M	23	5.1	86.8	23	5.1
146	100.0	M	19	4.5	97.6	19	4.5
147	100.0	M	15	3.4	90.9	15	3.4
148	100.0	M	22	4.9	88.8	22	4.9
149	100.0	M	36 <sup>+</sup>	8.7 <sup>+</sup>	65.1	36 <sup>+</sup>	8.7 <sup>+</sup>
150	98.0	M	34 <sup>+</sup>	8.2 <sup>+</sup>	55.4	30 <sup>+</sup>	7.2 <sup>+</sup>
151	100.0	M	37 <sup>+</sup>	9.0 <sup>+</sup>	65.9	37 <sup>+</sup>	9.0 <sup>+</sup>
152	100.0	M	25 <sup>+</sup>	5.9 <sup>+</sup>	80.0	25 <sup>+</sup>	5.9 <sup>+</sup>
153	100.0	M	24	5.9	82.9	24	5.9
154	100.0	M	20	4.8	86.9	20	4.8
155	100.0	M	24	5.6	81.4	22	5.1
156	100.0	S	30	6.7	62.2	26	5.8
157	100.0	S	24	5.6	69.8	24	5.6
158	100.0	S	25 <sup>+</sup>	5.7 <sup>r</sup>	52	25 <sup>+</sup>	5.7 <sup>r</sup>
159	100.0	S	36 <sup>+</sup>	8.9 <sup>r</sup>	45	36 <sup>+</sup>	8.9 <sup>r</sup>
160	100.0	S	35 <sup>+</sup>	6.2 <sup>+</sup>	35	35 <sup>+</sup>	6.2 <sup>+</sup>
161	100.0	S	33 <sup>+</sup>	9.2 <sup>+</sup>	81	33 <sup>+</sup>	9.2 <sup>+</sup>
162	100.0	S	11 <sup>+</sup>	6.7 <sup>r</sup>	48	11 <sup>+</sup>	6.7 <sup>r</sup>



\*\* BORSURV \*\*

## SURVEY DATA AND CALCULATED CO-ORDINATES (metres)

PROPERTY: TULLY TWP.  
HOLE NO: 91-6  
GRID: FRANKFIELD

DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI

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DEPTH	INCLINATION	BEARING	EASTINGS	NORTHINGS	ELEVATION
0.00	-65.00	180.00	1480.000	402.000	0.910
85.50	-65.00	180.00	1480.000	365.868	-76.579
267.00	-63.00	179.50	1480.347	286.303	-239.710
392.30	-61.00	178.00	1481.630	227.492	-350.344
520.25	-59.00	178.50	1483.584	163.547	-461.152
716.95	-55.00	179.00	1485.921	56.442	-626.118
793.05	-55.00	178.00	1487.064	12.807	-688.456

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-6

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	13.25	1480.00	396.40	-11.10	none
1D,2D,CHL	69.50	1480.00	372.63	-62.08	45.0
2D,1D,CHL	110.00	1480.05	355.13	-98.60	45.0
2D,1D,CARB	132.95	1480.09	345.07	-119.23	45.0
2D,1D,CARB,Q	151.85	1480.13	336.78	-136.21	45.0
2D,1D,CARB	256.95	1480.33	290.71	-230.68	45.0
2D,1D,CARB,Q	298.20	1480.67	271.66	-267.26	45.0
2D,1D,CARB	366.00	1481.36	239.84	-327.12	45.0
2D,1D,CARB,F	375.20	1481.46	235.52	-335.25	45.0
2D,1D,FE CAR	389.60	1481.60	228.76	-347.96	45.0
2D,1D,CARB,F	403.20	1481.80	222.04	-359.78	45.0
2D,1D,FE CAR	424.50	1482.12	211.40	-378.23	45.0
1D,CARB	435.40	1482.29	205.95	-387.67	45.0
2D,1D,SER	442.70	1482.40	202.30	-393.99	45.0
2D,1D,CARB	449.40	1482.50	198.96	-399.79	45.0
2D,1D,CHL	492.80	1483.17	177.27	-437.38	50.0
2D,1D,CARB	496.00	1483.21	175.67	-440.15	50.0
2D,1D,FE CAR	501.85	1483.30	172.74	-445.22	50.0
2G,PY	502.30	1483.31	172.52	-445.61	50.0
2D,1D,FE CAR	510.30	1483.43	168.52	-452.53	50.0
2D,1D,FE CAR	519.05	1483.57	164.15	-460.11	50.0
2D,1D,CARB,C	547.20	1483.90	148.87	-483.75	50.0
2D,1D,CHL	556.80	1484.02	143.64	-491.81	50.0
2D,1D,CARB,Q	572.50	1484.20	135.10	-504.97	50.0
2D,1D,FE CAR	574.10	1484.22	134.22	-506.31	55.0



**SUMMARY LITHO LOG**  
**PROPERTY: TULLY TWP.**  
**HOLE No.: 91-6**

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<b>LITHO UNIT</b>	<b>DEPTH</b>	<b>EASTINGS</b>	<b>NORTHINGS</b>	<b>ELEVATION</b>	<b>CORE ANGLE</b>
2G,Q.V.	582.60	1484.32	129.60	-513.44	55.0
2D,2E,CARB,C	657.80	1485.22	88.65	-576.51	55.0
2D,CARB	680.60	1485.49	76.23	-595.63	55.0
2D,CARB,Q.V.	689.90	1485.60	71.17	-603.43	55.0
2G,PY,ASP	693.10	1485.64	69.43	-606.12	55.0
2G,6C	699.90	1485.72	65.73	-611.82	55.0
6C,TALC,CARB	793.05	1487.06	12.81	-688.46	55.0

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-6

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FROM	TO	WIDTH	Au oz\l	Au gm\T	As ppm
50.25	51.75	1.50	0.000	0.010	N.S.
68.05	69.55	1.50	NIL	NIL	N.S.
99.00	100.50	1.50	NIL	NIL	N.S.
113.10	114.60	1.50	NIL	NIL	N.S.
119.00	120.50	1.50	NIL	NIL	N.S.
133.70	135.20	1.50	0.000	0.010	N.S.
140.00	141.50	1.50	NIL	NIL	N.S.
143.60	145.10	1.50	NIL	NIL	N.S.
149.70	151.20	1.50	NIL	NIL	N.S.
159.25	160.75	1.50	NIL	NIL	N.S.
169.40	170.90	1.50	NIL	NIL	N.S.
177.30	178.80	1.50	0.000	0.014	N.S.
180.25	181.75	1.50	NIL	NIL	N.S.
188.20	189.70	1.50	NIL	NIL	N.S.
194.50	196.00	1.50	NIL	NIL	N.S.
201.70	203.20	1.50	0.000	0.010	N.S.
214.35	215.85	1.50	0.000	0.010	N.S.
223.20	224.70	1.50	0.000	0.014	N.S.
227.20	228.70	1.50	NIL	NIL	N.S.
236.80	238.30	1.50	NIL	NIL	N.S.
246.00	247.50	1.50	0.000	0.014	N.S.
251.30	252.80	1.50	NIL	NIL	N.S.
254.50	256.00	1.50	0.000	0.010	N.S.
256.00	257.50	1.50	0.000	0.014	N.S.
257.50	259.00	1.50	0.000	0.010	N.S.
259.00	260.50	1.50	0.001	0.021	N.S.
260.50	262.00	1.50	NIL	NIL	N.S.
262.00	263.50	1.50	0.000	0.007	N.S.
263.50	265.00	1.50	0.000	0.014	N.S.
265.00	266.50	1.50	0.000	0.014	N.S.
266.50	268.00	1.50	0.000	0.014	N.S.
268.00	269.50	1.50	NIL	NIL	N.S.
269.50	271.00	1.50	NIL	NIL	N.S.
271.00	272.50	1.50	NIL	NIL	N.S.
281.55	283.05	1.50	0.011	0.391	N.S.
283.05	284.55	1.50	NIL	NIL	N.S.
289.50	291.00	1.50	NIL	NIL	N.S.
295.40	296.90	1.50	0.000	0.010	N.S.
296.90	298.40	1.50	0.000	0.014	N.S.
318.00	319.50	1.50	0.000	0.007	N.S.
319.50	321.00	1.50	0.001	0.021	N.S.
321.00	322.50	1.50	0.000	0.010	N.S.
328.30	329.80	1.50	NIL	NIL	N.S.
332.20	333.70	1.50	NIL	NIL	N.S.
338.20	339.70	1.50	0.000	0.010	N.S.
342.80	344.30	1.50	0.000	0.007	N.S.
345.75	347.25	1.50	0.003	0.100	N.S.
349.50	351.00	1.50	NIL	NIL	N.S.
359.20	360.70	1.50	NIL	NIL	N.S.
368.15	369.65	1.50	NIL	NIL	N.S.

ASSAY LOG

PROPERTY: TULLY TWP.

HOLE No.: 91-6

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
375.25	376.75	1.50	NIL	NIL	N.S.
376.75	378.25	1.50	0.002	0.075	N.S.
378.25	379.75	1.50	NIL	NIL	N.S.
379.75	381.25	1.50	NIL	NIL	N.S.
381.25	382.75	1.50	NIL	NIL	N.S.
382.75	384.25	1.50	0.021	0.710	N.S.
384.25	385.75	1.50	0.001	0.024	N.S.
385.75	387.25	1.50	0.006	0.219	N.S.
387.25	388.75	1.50	0.000	0.014	N.S.
388.75	390.25	1.50	0.014	0.487	N.S.
390.25	391.75	1.50	0.018	0.631	N.S.
391.75	393.25	1.50	0.003	0.089	N.S.
398.30	399.80	1.50	NIL	NIL	N.S.
401.40	402.90	1.50	0.000	0.014	N.S.
402.90	404.40	1.50	0.000	0.010	N.S.
407.70	409.20	1.50	0.000	0.014	N.S.
415.10	416.60	1.50	0.000	0.010	N.S.
416.60	418.10	1.50	0.000	0.007	N.S.
421.20	422.70	1.50	0.000	0.014	N.S.
428.80	430.30	1.50	0.001	0.024	N.S.
436.00	437.50	1.50	0.000	0.017	N.S.
437.50	439.00	1.50	NIL	NIL	N.S.
439.00	440.50	1.50	NIL	NIL	N.S.
440.50	442.00	1.50	NIL	NIL	N.S.
442.00	443.50	1.50	0.000	0.010	N.S.
452.25	453.75	1.50	NIL	NIL	N.S.
456.55	458.05	1.50	0.000	0.010	N.S.
465.50	467.00	1.50	0.000	0.012	N.S.
483.60	485.10	1.50	NIL	NIL	N.S.
489.60	491.10	1.50	NIL	NIL	N.S.
492.40	493.90	1.50	NIL	NIL	N.S.
498.90	500.40	1.50	NIL	NIL	N.S.
501.70	502.70	1.00	0.038	1.310	N.S.
503.40	504.90	1.50	0.000	0.017	N.S.
504.90	506.40	1.50	0.002	0.069	N.S.
506.40	507.90	1.50	0.001	0.034	N.S.
507.90	509.40	1.50	0.003	0.086	N.S.
509.40	510.90	1.50	0.001	0.038	N.S.
513.60	515.10	1.50	NIL	NIL	N.S.
515.10	516.60	1.50	NIL	NIL	N.S.
516.60	518.10	1.50	0.001	0.029	N.S.
518.10	519.60	1.50	NIL	NIL	N.S.
527.90	529.40	1.50	0.017	0.576	N.S.
533.35	534.85	1.50	0.000	0.017	N.S.
539.80	541.30	1.50	0.001	0.021	N.S.
541.30	542.80	1.50	NIL	NIL	N.S.
546.10	547.60	1.50	0.011	0.381	N.S.
550.70	552.20	1.50	NIL	NIL	N.S.
558.90	560.40	1.50	0.001	0.021	N.S.
572.50	574.00	1.50	0.013	0.442	N.S.

\*\* BORSURV \*\*

ASSAY LOG

PROPERTY: TULLY TWP.

HOLE No.: 91-6

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
574.00	575.50	1.50	0.007	0.247	N.S.
575.50	577.00	1.50	0.011	0.363	N.S.
577.00	578.50	1.50	0.002	0.079	N.S.
578.50	580.00	1.50	0.002	0.079	N.S.
580.00	581.50	1.50	0.026	0.902	N.S.
583.20	584.70	1.50	0.035	1.197	N.S.
606.90	608.40	1.50	0.000	0.010	N.S.
620.80	622.30	1.50	0.000	0.014	N.S.
631.10	632.60	1.50	0.001	0.027	N.S.
637.85	639.35	1.50	0.000	0.017	N.S.
645.20	646.70	1.50	0.003	0.100	N.S.
657.80	659.30	1.50	0.000	0.014	N.S.
665.20	666.70	1.50	0.007	0.254	N.S.
666.70	668.20	1.50	0.003	0.093	N.S.
668.20	669.70	1.50	0.001	0.031	N.S.
669.70	671.20	1.50	0.001	0.045	N.S.
671.20	672.70	1.50	0.000	0.010	N.S.
672.70	674.20	1.50	0.000	0.007	N.S.
674.20	675.70	1.50	0.001	0.027	N.S.
675.70	677.20	1.50	0.062	2.129	N.S.
677.20	678.70	1.50	0.040	1.368	N.S.
678.70	680.20	1.50	0.002	0.058	N.S.
680.20	681.70	1.50	0.068	2.321	N.S.
681.70	683.20	1.50	0.007	0.243	N.S.
683.20	684.70	1.50	0.010	0.329	N.S.
684.70	686.20	1.50	0.013	0.446	N.S.
686.20	687.20	1.00	0.042	1.440	N.S.
687.20	688.20	1.00	0.071	2.431	N.S.
688.20	689.20	1.00	0.094	3.233	N.S.
689.20	690.20	1.00	0.006	0.216	N.S.
690.20	691.20	1.00	0.011	0.363	N.S.
691.20	692.20	1.00	0.018	0.631	N.S.
692.20	693.20	1.00	0.052	1.779	N.S.
693.20	694.70	1.50	0.002	0.058	N.S.
694.70	696.20	1.50	0.000	0.014	N.S.
696.20	697.70	1.50	0.021	0.717	N.S.
697.70	699.20	1.50	0.003	0.106	N.S.
699.20	700.20	1.00	0.001	0.051	N.S.
700.20	701.70	1.50	0.000	0.017	N.S.

AVERAGED ASSAY INTERVALS

PROPERTY: TULLY TWP.

HOLE No: 91-6

1. HW ( 3.00 d.t. Core Angle: 90 3.00 t.t.)

FROM: 675.70 EASTINGS: 1485.43  
NORTHINGS: 78.90  
ELEVATION: -591.52

0.051 Au oz\t  
~~1.748 Au gm\T~~  
-0.000 As ppm (Cut to: 0.000)

TO: 678.70 EASTINGS: 1485.47  
NORTHINGS: 77.27  
ELEVATION: -594.04

2. MZ ( 3.00 d.t. Core Angle: 90 3.00 t.t.)

FROM: 686.20 EASTINGS: 1485.56  
NORTHINGS: 73.19  
ELEVATION: -600.33

0.069 Au oz\t  
~~2.368 Au gm\T~~  
-0.000 As ppm (Cut to: 0.000)

TO: 689.20 EASTINGS: 1485.59  
NORTHINGS: 71.55  
ELEVATION: -602.85

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing left in hole
HOLE NO:	T-91-7	DRILLED BY:	
LENGTH:	263.95 metres	LOGGED BY:	M.Rogers
CLAIM NO:		STARTED:	Feb. 13/91
LOCATION:	0 + 80 E; 1 + 19 N	FINISHED:	Feb. 16/91
COORDINATES:			
ELEVATION:	2.64 metres		
AZIMUTH:	180°		
DIP:	-61°		

FROM	TO	DESCRIPTION	
0	10.0	Overburden	
10.0	68.4	Extensively carbonatized rock; probable intermediate flows (2d, 2e, 2h) with 5-10% graphitic lenses; l.- med. brown, fine grained (<1mm), well developed foliation at 35° - 45° to c.a., strong, pervasive, tan Fe carbonate alteration, 2-20%, random to foliation parallel calcite veinlets, 1-2%, random to foliation parallel grey quartz veinlets, generally <1% disseminated (dissem.) pyrite (py), local, in situ brecciation, occasional, calcite-filled amygdules; common sericite alteration locally; foliation is only weakly developed locally in sections; generally 3-10% graphitic lenses; as well as other siliceous sedimentary material.	
26.4	-	26.9	Lost core; probable fault.
10.0	-	49.0	Strongly foliated zone; deformation zone (D.Z.); extensive calcite veining; mod. - strong Fe carb. and local sericite alteration.
59.55	-	60.5	2-3% plagioclase phenocrysts.
49.0	-	64.3	Weakly foliated - massive flows, locally amygdaloidal, weak-mod, pervasive Fe carb. alt, 1-5% calcite veining, 1-2% grey quartz veining.
64.3	-	68.4	Mod. foliation with weak pervasive Fe carb. alt.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
		Gradational contact
68.4	71.25	Graphitic sedimentary unit (2g); black, fine gr. (<.5mm), well developed foliation at 40°-50° to c.a., composed of graphite (30-70%), siliceous sediment and 1-10% py, 3-5%, grey quartz veining parallel to foliation.
		Gradational contact.
71.25	87.45	Intermediate volcanic ash tuffs (2a) - graphitic sedimentary lenses (2g); medium - dark grey, very fine grained (<.5 mm), well developed foliation at 40° - 50° to c.a., intermediate tuffs with generally 5-10% and locally higher lenses and narrow beds of graphitic sediment, high sedimentary component to unit, generally ≤1% py, locally to 10% with graphite, relatively fresh, 2-5%, random - foliation parallel calcite veinlets, 1-2%, random -foliation parallel quartz veinlets, local calcite alteration.
		Gradational contact.
87.45	91.25	Graphitic sedimentary unit (2g); similar to 68.4 - 71.25 description; well developed foliation at 50° to c.a., mainly graphite with local 10-30% ash tuff, 5-70% locally py as dissem, stringers, blebs and massive, 2-3% calcite veinlets and 1-2% grey quartz veinlets parallel to foliation.
		Gradational contact.
91.25	110.15	Intermediate ash tuffs (2a) and graphitic sediment (2g); thoroughly intermixed and interbedded lenses of tuff and sediment, approximately 65/35: tuff/graphite but locally variable, 2-10% py with graphitic lenses, well dev. foliation at 50° to c.a., generally 2-5% calcite veinlets and 1-2% grey quartz veinlets parallel to foliation, extensive "soft sediment" brecciation, similar to 71.25-87.45 general description; general decrease in graphite content downsection to average 5-20%, common carbonate alteration from about 93.0, mainly weak-mod. pervasive calcite but also local buff-tan coloured Fe carb. alteration.
		Gradational contact.

FROM	TO	DESCRIPTION
110.15	195.35	Intermediate ash tuff (2a) - "conglomerate" (5c); l.- med. grey, very fine gr. (<.5 mm) with extensive, generally elongate, rounded-angular fragments of 1-50 mm believed to be the result of the slumping of semi-consolidated material, fragments are monolithic with a matrix of graphitic or ash material, occasional, narrow ( $\leq 50$ cm wide) unbroken sections; well developed foliation at $45^{\circ}$ - $50^{\circ}$ to c.a., intermediate composition with common 1-20% graphite lenses, 1-5% py as dissems., blebs and stringers, common, weak-mod., pervasive Fe carb. alt-buff-tan coloured, generally 1-2% calcite veinlets and 1% quartz veinlets parallel to foliation, relatively unaltered over significant sections.
		Gradational contact.
164.75	- 168.65	5-locally 100% py as dissem., stringers and massive; 1-10% graphite.
173.5	- 181.05	Extensive (30-50%) calcite veining-random, pervasive calcite alt., 2-3%, random, white quartz veining, 3-5%, locally to 10% py, brecciation of host.
188.55	- 189.05	50% white - l. grey quartz veining.
191.1	- 192.7	10-50%, white - l. grey, random quartz veining; 1-5% py, common graphitic material.
193.15	- 193.8	75% massive, white, quartz veining.
193.8	- 195.35	Common (3-5%), random, grey quartz veining; weak - mod. silicification, bleaching, local chlorite-epidote, 1-3% py.

Gradational contact.



FROM	TO	DESCRIPTION
195.35	228.85	<p>Intermediate ash tuff (2a); extensively altered; l. greenish-brown, fine grained (&lt;1mm), massive, altered composition, mod., pervasive silicification, common chlorite and epidote, generally 1-2% disseminated, locally to 5%, common, local brecciation, 2-10%, random, dark grey quartz veining, possible fuchsite locally - fine grained, local, white quartz veins.</p> <p>Sharp decrease in silicification and increase in sericite alteration from about 210.0 meters with significant reduction in quartz veining (1%) Ser. is med. - dark brown with extensive dark grey calcite veinlets. Very common brown talc - carbonate for last few meters of lower contact. Probable original mixed ultramafic flow and intermediate tuff sequence.</p> <p>Gradational contact.</p>
228.85	263.95	<p>Ultramafic rock; probable flows (6c); totally altered to talc with 10-30% random calcite veinlets, d. grey - black, fine grained, massive, no original texture or mineralogy, 1-2%, white - l. grey quartz veins.</p> <p>End of Hole 263.95 meters.</p>

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-7 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100.0	S-M	50 <sup>+</sup>	12.0 <sup>+</sup>	39.8	50 <sup>+</sup>	12.0 <sup>+</sup>
2	100.0	S-M	50 <sup>+</sup>	12.0 <sup>+</sup>	56.6	50 <sup>+</sup>	12.0 <sup>+</sup>
3	100.0	S-M	40 <sup>+</sup>	9.2 <sup>+</sup>	54.0	40 <sup>+</sup>	9.2 <sup>+</sup>
4	82.0	S-M	22 <sup>+</sup>	4.9 <sup>+</sup>	66.3	22 <sup>+</sup>	4.9 <sup>+</sup>
5	100.0	S-M	23	5.2	78.7	23	5.2
6	100.0	S-M	21	4.6	82.4	21	4.6
7	100.0	S-M	29	6.9	76.2	29	6.9
8	100.0	S-M	26	5.9	88.6	23	5.2
9	100.0	S-M	30	6.3	78.4	30	6.3
10	100.0	M	27	6.2	86.2	27	6.2
11	100.0	M	24	5.4	80.9	24	5.4
12	100.0	M	24	5.5	95.5	23	5.2
13	100.0	M	25	5.8	98	23	5.3
14	100.0	M	30 <sup>+</sup>	6.8 <sup>+</sup>	93	30 <sup>+</sup>	6.8 <sup>+</sup>
15	100.0	M	24 <sup>+</sup>	5.8 <sup>+</sup>	85	24 <sup>+</sup>	5.8 <sup>+</sup>
16	100.0	M	29 <sup>+</sup>	7.4 <sup>+</sup>	100	29 <sup>+</sup>	7.4 <sup>+</sup>
17	100.0	M	23	5.2	90	23	5.2
18	100.0	M	26	6.4	88.9	26	6.4
19	100.0	S	50 <sup>+</sup>	10.9 <sup>+</sup>	50.0	50 <sup>+</sup>	10.9 <sup>+</sup>
20	100.0	M	21	4.8	89.7	21	4.8
21	100.0	M	19	4.4	96.6	19	4.4
22	100.0	M	21	4.8	95.5	21	4.8
23	100.0	M	20	4.4	87.8	20	4.4
24	100.0	M	16	3.7	97.7	16	3.7
25	100.0	M	28	6.4	72.4	28	6.4
26	100.0	M	21	4.8	93.1	21	4.8
27	100.0	M	18	4.0	97.8	18	4.0

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-7 Client: Cyprus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100.0	M	14	3.3	98.8	14	3.3
29	100.0	M	18	4.0	84.6	18	4.0
30	100.0	M	13	3.0	97.7	13	3.0
31	100.0	M	19	4.3	91.0	19	4.3
32	100.0	M	15	3.4	90.8	15	3.4
33	100.0	M	18	4.1	94.3	18	4.1
34	100.0	M	19	4.3	89.8	19	4.3
35	100.0	M	21	4.9	98.8	21	4.9
36	100.0	M	19	4.3	89.9	19	4.3
37	100.0	M	16	3.6	85.4	16	3.6
38	100.0	M	18	4.3	98.8	18	4.3
39	100.0	M	15	3.3	91.1	15	3.3
40	100.0	M	20	5.2	100.0	20	5.2
41	100.0	M	13	3.0	99	13	3.0
42	100.0	M	28	6.4	98	22	5.0
43	100.0	M	20 <sup>r</sup>	4.6 <sup>r</sup>	98	20 <sup>r</sup>	4.6 <sup>r</sup>
44	100.0	M	15	3.4	100	15	3.4
45	100.0	M	13 <sup>r</sup>	3.1 <sup>r</sup>	100	13 <sup>r</sup>	3.1 <sup>r</sup>
46	100.0	M	16	3.6	100	16	3.6
47	100.0	M	21	4.4	91	21	4.4
48	100.0	M	15	3.5	100	15	3.5
49	100.0	M	20	4.7	100	20	4.7
50	100.0	M	17	3.9	100	17	3.9
51	100.0	S	22	4.9	99	20	4.9
52	100.0	S	17	3.9	100	17	3.9
53	100.0	S	11	2.5	98	11	2.5
54	100.0	S	12	2.8	94.3	12	2.8



**\*\* BORSURV \*\*****SURVEY DATA AND CALCULATED CO-ORDINATES (metres)****PROPERTY: TULLY TWP.  
HOLE NO: 91-8  
GRID: TEXMONT****DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI**

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<b>DEPTH</b>	<b>INCLINATION</b>	<b>BEARING</b>	<b>EASTINGS</b>	<b>NORTHINGS</b>	<b>ELEVATION</b>
0.00	-65.00	180.00	404.000	308.000	8.200
96.30	-61.00	182.50	403.046	264.291	-77.604
215.20	-58.00	179.50	401.993	203.954	-180.052
309.70	-56.00	180.00	402.218	152.486	-259.306
483.40	-49.00	179.50	402.679	46.745	-397.111

SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-8

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	6.10	403.94	305.23	2.76	45.0
2E,SER,SIL	65.85	403.35	278.11	-50.47	45.0
2E,CARB	67.65	403.33	277.29	-52.08	45.0
2F	72.90	403.28	274.91	-56.75	45.0
2D,2E,CHL,CA	84.55	403.16	269.62	-67.13	50.0
2A,Q.V.,PY	86.00	403.15	268.97	-68.43	50.0
2D,2E,CARB	141.55	402.65	241.33	-116.59	50.0
2D,2E,CARB,F	159.00	402.49	232.47	-131.63	50.0
2D,2E,SER,SI	229.45	402.03	196.19	-192.00	50.0
2D,2E,FE CAR	245.45	402.07	187.48	-205.42	50.0
2D,2E,FE CAR	268.90	402.12	174.71	-225.09	50.0
2D,2E,FE CAR	281.40	402.15	167.90	-235.57	50.0
2D,2E,Q.V.,S	291.40	402.17	162.45	-243.96	50.0
2D,2E,FE CAR	337.60	402.29	135.50	-281.44	50.0
1D,CARB	370.00	402.38	115.78	-307.15	50.0
1D,CHL	398.00	402.45	98.73	-329.36	50.0
1D,CARB	409.50	402.48	91.73	-338.48	50.0
1D,SER	424.40	402.52	82.66	-350.30	50.0
1D,CARB,Q.V.	437.90	402.56	74.44	-361.01	50.0
1D,CARB	452.90	402.60	65.31	-372.91	50.0
6C,TALC,CARB	483.40	402.68	46.75	-397.11	50.0

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-8

FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
12.00	13.50	1.50	NIL	NIL	N.S.
15.00	16.00	1.00	NIL	NIL	N.S.
27.00	28.50	1.50	NIL	NIL	N.S.
30.60	32.10	1.50	NIL	NIL	N.S.
34.50	36.00	1.50	NIL	NIL	N.S.
39.00	40.50	1.50	NIL	NIL	N.S.
41.90	43.40	1.50	NIL	NIL	N.S.
46.20	47.70	1.50	NIL	NIL	N.S.
51.50	53.00	1.50	NIL	NIL	N.S.
53.00	54.50	1.50	NIL	NIL	N.S.
54.50	56.00	1.50	0.001	0.040	N.S.
56.00	57.50	1.50	0.001	0.050	N.S.
57.50	59.00	1.50	NIL	NIL	N.S.
59.00	60.50	1.50	NIL	NIL	N.S.
84.55	86.00	1.45	0.000	0.010	N.S.
87.50	89.00	1.50	0.000	0.010	N.S.
99.70	101.20	1.50	NIL	NIL	N.S.
108.00	109.50	1.50	NIL	NIL	N.S.
115.95	117.65	1.70	0.046	1.590	N.S.
118.50	119.85	1.35	NIL	NIL	N.S.
135.65	137.15	1.50	0.000	0.010	N.S.
141.60	143.10	1.50	0.000	0.010	N.S.
143.10	144.60	1.50	0.001	0.020	N.S.
144.60	146.10	1.50	NIL	NIL	N.S.
150.10	151.60	1.50	NIL	NIL	N.S.
157.30	158.80	1.50	0.000	0.010	N.S.
158.80	160.30	1.50	0.154	5.280	N.S.
160.30	161.80	1.50	0.002	0.070	N.S.
161.80	163.30	1.50	NIL	NIL	N.S.
163.30	164.80	1.50	NIL	NIL	N.S.
164.80	166.30	1.50	0.000	0.010	N.S.
170.20	171.10	0.90	0.000	0.010	N.S.
173.10	174.60	1.50	NIL	NIL	N.S.
177.80	179.30	1.50	0.001	0.030	N.S.
179.30	180.80	1.50	NIL	NIL	N.S.
180.80	182.30	1.50	NIL	NIL	N.S.
184.70	186.20	1.50	NIL	NIL	N.S.
186.20	187.70	1.50	NIL	NIL	N.S.
190.80	192.30	1.50	NIL	NIL	N.S.
193.35	194.85	1.50	NIL	NIL	N.S.
194.85	196.35	1.50	NIL	NIL	N.S.
197.50	198.50	1.00	0.001	0.030	N.S.
198.50	199.50	1.00	0.001	0.020	N.S.
199.50	200.50	1.00	NIL	NIL	N.S.
200.50	201.50	1.00	0.015	0.510	N.S.
201.50	202.50	1.00	0.002	0.060	N.S.
202.50	204.00	1.50	NIL	NIL	N.S.
204.00	205.50	1.50	NIL	NIL	N.S.
205.50	205.51	0.01	NIL	NIL	N.S.
209.40	210.90	1.50	NIL	NIL	N.S.

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-8

FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
213.60	215.10	1.50	NIL	NIL	N.S.
220.80	222.30	1.50	NIL	NIL	N.S.
226.30	227.80	1.50	NIL	NIL	N.S.
231.00	232.50	1.50	NIL	NIL	N.S.
238.70	240.20	1.50	NIL	NIL	N.S.
243.20	244.70	1.50	NIL	NIL	N.S.
250.40	251.90	1.50	NIL	NIL	N.S.
254.30	255.80	1.50	NIL	NIL	N.S.
255.80	257.30	1.50	0.001	0.020	N.S.
265.50	267.00	1.50	0.002	0.060	N.S.
268.90	270.40	1.50	NIL	NIL	N.S.
276.15	277.65	1.50	NIL	NIL	N.S.
281.45	282.95	1.50	NIL	NIL	N.S.
282.95	284.45	1.50	NIL	NIL	N.S.
284.45	285.95	1.50	NIL	NIL	N.S.
285.95	287.45	1.50	NIL	NIL	N.S.
287.45	288.95	1.50	0.003	0.100	N.S.
288.95	290.45	1.50	0.004	0.130	N.S.
290.45	291.95	1.50	NIL	NIL	N.S.
298.15	299.65	1.50	0.003	0.090	N.S.
299.65	301.15	1.50	0.017	0.590	N.S.
301.15	302.65	1.50	0.089	3.040	N.S.
302.65	304.15	1.50	0.041	1.410	N.S.
304.15	305.65	1.50	0.001	0.020	N.S.
309.10	310.60	1.50	0.000	0.010	N.S.
318.30	319.80	1.50	NIL	NIL	N.S.
321.90	323.40	1.50	0.000	0.010	N.S.
323.40	324.90	1.50	0.001	0.050	N.S.
326.90	328.40	1.50	0.000	0.010	N.S.
328.40	329.90	1.50	0.001	0.020	N.S.
334.45	335.95	1.50	0.028	0.960	N.S.
335.95	337.45	1.50	0.030	1.040	N.S.
349.20	350.70	1.50	NIL	NIL	N.S.
361.80	363.30	1.50	0.000	0.010	N.S.
374.50	376.00	1.50	NIL	NIL	N.S.
384.20	385.70	1.50	NIL	NIL	N.S.
406.10	407.60	1.50	NIL	NIL	N.S.
409.45	410.95	1.50	NIL	NIL	N.S.
410.95	412.25	1.30	NIL	NIL	N.S.
412.25	413.75	1.50	NIL	NIL	N.S.
413.75	415.25	1.50	0.000	0.010	N.S.
415.25	416.75	1.50	NIL	NIL	N.S.
416.75	418.25	1.50	0.001	0.020	N.S.
424.40	425.90	1.50	0.000	0.010	50.000
425.90	427.40	1.50	0.001	0.020	60.000
427.40	428.90	1.50	0.001	0.040	60.000
428.90	430.40	1.50	0.102	3.500	3800.000
430.40	431.90	1.50	0.030	1.030	2500.000
431.90	433.40	1.50	0.001	0.030	80.000
433.40	434.90	1.50	0.010	0.360	680.000



\*\* BORSURV \*\*

ASSAY LOG

Page 3 of 3

PROPERTY: TULLY TWP.

HOLE No.: 91-8

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FROM	TO	WIDTH	Au oz\T	Au g\T	As ppm
434.90	436.40	1.50	0.010	0.350	420.000
436.40	437.90	1.50	0.000	0.010	70.000
444.30	445.80	1.50	0.001	0.020	17.000
449.90	451.40	1.50	0.001	0.020	120.000
452.95	454.45	1.50	0.000	0.010	10.000

AVERAGED ASSAY INTERVALS  
PROPERTY: TULLY TWP.  
HOLE No: 91-8

1. HW ( 1.50 d.t. - Core Angle: 90 - 1.50 t.t. )

FROM: 158.80

EASTINGS: 402.49  
NORTHINGS: 232.57  
ELEVATION: -131.46

0.154 Au oz\T  
5.280 Au gm\T  
-0.000 As ppm

TO: 160.30

EASTINGS: 402.48  
NORTHINGS: 231.81  
ELEVATION: -132.75

2. HW ( 3.00 d.t. - Core Angle: 90 - 3.00 t.t. )

FROM: 301.15

EASTINGS: 402.20  
NORTHINGS: 157.14  
ELEVATION: -252.14

0.065 Au oz\T  
2.225 Au gm\T  
-0.000 As ppm

TO: 304.15

EASTINGS: 402.20  
NORTHINGS: 155.51  
ELEVATION: -254.65

3. HW ( 3.00 d.t. - Core Angle: 90 - 3.00 t.t. )

FROM: 334.45

EASTINGS: 402.28  
NORTHINGS: 137.42  
ELEVATION: -278.94

0.029 Au oz\T  
1.000 Au gm\T  
-0.000 As ppm

TO: 337.45

EASTINGS: 402.29  
NORTHINGS: 135.59  
ELEVATION: -281.32

4. MZ ( 3.00 d.t. - Core Angle: 90 - 3.00 t.t. )

FROM: 428.90

EASTINGS: 402.53  
NORTHINGS: 79.92  
ELEVATION: -353.87

0.066 Au oz\T  
2.265 Au gm\T  
3150.000 As ppm

TO: 431.90

EASTINGS: 402.54  
NORTHINGS: 78.10  
ELEVATION: -356.25

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Twp.	REMARKS:	Casing left in hole
HOLE NO:	T-91-9	DRILLED BY:	
LENGTH:	636.1 metres	LOGGED BY:	MRogers
CLAIM NO:		STARTED:	Feb. 18/91
LOCATION:	1320 E; 272 N	FINISHED:	Feb. 26/91
COORDINATES:			
ELEVATION:	2.47 metres		
AZIMUTH:	180°		
DIP:	-60°		

FROM	TO	DESCRIPTION
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0	15.2	Overburden
15.2	88.4	<p>Mafic flows (1d); dark green, fine grained (1 mm), massive, mafic composition, extensive, fine grained chlorite alteration, weak-strong, pervasive, calcite alteration, generally <math>\leq 5\%</math>, disseminated (dissem.) pyrite (py), 1-2%, random, calcite veinlets, <math>\leq 1\%</math>, random quartz veinlets, common (2-5%), chlorite stringers, local quartz veining of 2-10%.</p> <p>Gradational contact over 50 cm.</p>
88.4	115.0	<p>Ultramafic flows (6b), peridotite; d. grey-black, fine grained (<math>\leq 5</math> mm), massive, very mafic composition, significant magnetite content, peridotitic composition, possible local spinifex texture, strong, pervasive calcite alteration, 1-2% dissem. and blebbed py-po, local, random, white-grey quartz veining, occasional, calcite-filled amygdules.</p> <p>Gradational decrease in mafic content starting at about 115 meters, increase in occurrence of calcite-filled amygdules, also gradual decrease in magnetite content.</p>
115.0	161.65	<p>Mafic flows (1d, 1e); dark grey, fine grained (<math>\leq 5</math> mm), massive, local calcite-filled amygdules, mafic composition, generally <math>\leq 5\%</math> dissem. py-po, 1%, random quartz veinlets, mod-strong, pervasive, calcite alteration, 2-3%, random calcite veinlets, local 1-3% py-po with quartz veinlets.</p>

FROM	TO	DESCRIPTION
		134.9 - 141.1 Extensive silicification with 3-90%, l.grey, quartz veining, 1-10%, dissem. and blebbed py with veining; 137.45-140.15: 50%-90% quartz veining.
		159.75 - 160.35 Badly broken core; probable minor fault.
		Gradational indistinct contact.
161.65	387.7	Intermediate flows (2d, 2e); medium grey, fine grained ( $\leq 5$ mm), local foliation at $40^\circ$ to c.a., intermediate composition, local calcite and silica-filled amygdules, 1-2%, random, grey quartz veining, locally higher %, weak-strong, pervasive, calcite alteration, local, buff-coloured, Fe carbonate alteration, generally $\leq 1\%$ py-po, locally up to 5% with veining, 2-5%, random calcite veining, local silicification with quartz veining, occasional graphitic lenses.
		168.45 - 171.85 Strongly foliated at $40^\circ$ to c.a., 5-20%, grey quartz veining generally parallel to foliation, common silicification, 1-5% py.
		205.75 - 215.3 3% to locally 50%, random, l. grey, quartz veining; general silicification; 2-5% graphitic lenses, 1-5% dissem. and blebbed po, $\leq 1\%$ py.
		215.3 - 234.55 Strong, pervasive calcite alteration; mafic-intermediate composition; 1-2%, grey quartz veining, locally higher %.
		224.4 - 226.6 5-10%, random, grey, quartz veining, 2-3% py.
		234.55 - 246.95 5-75%, l. grey, random-foliation parallel quartz veining, 2-20% py with veining as dissem., blebs and stringers, local foliation at $35^\circ$ - $40^\circ$ to c.a., common silicification, 241.95 - 242.0: 2-3% asp, 243.8 - 243.9: 2-3% asp.

FROM	TO	DESCRIPTION
246.95 -	293.95	Mod. - strong, pervasive, calcite alteration; local, buff-coloured, Fe carb. alt., generally 1-2%, grey, quartz veining, locally higher %, 1-10% calcite veining, generally $\leq 1\%$ py-po, local po to 5-10%, intermediate amygdaloidal flows (2e); local, 1-3%, graphitic lenses.
284.95 -	286.2	10-50% graphitic sediment (2g), 2-3% quartz veining, 2-5% po with graphite, breccia.
284.5 -	293.95	5-10% and locally higher % graphitic lenses.
293.95 -	320.9	Mod. - strong, pervasive, Fe carbonate alteration, 1-5% and locally higher %, random, l. grey quartz veining, local silicification.
320.9 -	326.45	5-30% graphitic lenses with 1-10% py-po.
326.45 -	343.0	1-5% graphitic lenses, locally with 1-10% py-po.
333.1 -	335.5	3% grey quartz veining, graphitic lenses, 3-10% po.
320.9 -	350.25	Weak-strong, pervasive calcite alteration.
335.5 -	336.95	3-10% po.
338.3 -	343.0	1-15% po, 2-5%, grey quartz veining.
350.25 -	361.5	Strong, pervasive, tan coloured, Fe carb. alteration; generally 1% quartz veins, common, interflow units of graphitic sediment.
361.5 -	368.8	Strong, pervasive calcite alteration.
368.8 -	372.45	Strong, pervasive Fe carb. alteration; 3-30%, l. grey quartz veining, local silicification; minor (1-3%) py; 371.95-372.25: graphitic interflow unit with po.

FROM	TO	DESCRIPTION
		372.45 - 387.7 Strong, pervasive calcite alt., local, brown, Fe carbonate alt. generally with quartz veining, generally 1-2% random, grey, quartz veining, locally to 10%.
		374.7 - 383.2 Mod. - strong, pervasive Fe carbonate alteration; 380.85 - 383.2: 2-10% quartz veining, 1-2%, dissem. py.
		Sharp contact at 50° to c.a.
387.7	391.25	Ultramafic rock, probable flow (6c); black, fine gr. (<.5 mm), foliation at 55° to c.a., composed principally of talc with lesser carbonate, local quartz veining.
		Sharp contact at 55° to c.a.
391.25	406.2	Intermediate flows, probable (2d); extensively altered; common, mod.-strong, pervasive Fe carbonate alteration, 5-30%, purple - l. grey, random quartz veining, common silicification, common epidote, 1-2% dissem. py, common, fine gr. chlorite.
		400.5 - 405.5 Mod. - strong, pervasive, sericite alteration; 1-2% grey quartz veining.
		405.5 - 406.2 Same as 391.25 - 401.0 description.
406.2	553.55	Intermediate flows (2d, 2e); med. - dark grey, fine gr. (< 1mm), massive, intermediate composition, common, weak-strong, calcite alteration, local, brown, Fe carbonate alteration, occasional, calcite-filled amygdules, local variolites, generally 1-2%, random, quartz veining but locally higher %, generally 1-5%, calcite veinlets, generally ≤.5% po-py, locally higher with veining.
		413.85 - 416.7 20-40%, white, quartz-calcite veining.
		437.1 - 478.8 Relatively unaltered except local, fine gr. chlorite.
		459.1 - 460.7 Intermediate ash tuff unit (2a); grain size ≤ 1mm.

FROM	TO	DESCRIPTION
	478.8 - 495.9	Weak-strong, pervasive, calcite alteration, common, 1-10%, random, calcite veinlets, generally 1-2%, locally higher %, random, quartz veining, local siliceous chloritic pillow selvages, local .5-3% po-py with quartz veining.
	495.9 - 543.9	Relatively unaltered except local - common minor-extensive fine gr. chlorite; generally 1-2%, random quartz veining, locally to 5%-10%, white-l. grey-purple, local silicification with veining, minor (1-2%) po-py and rare, $\leq 1\%$ cp with veins; variolitic flows.
	517.95 - 518.25	Massive, white quartz vein.
	519.6 - 520.0	Badly broken core; minor fault zone.
	540.5 - 543.1	5-10%, l. grey-purple, random, quartz veining with 1-3% po.
	543.9 - 553.55	Intermediate flows, very distinct from previous flows, minor variolites, strong, pervasive, calcite alteration, weak foliation at 50° to c.a., generally 1-2% quartz veining, $\leq .5\%$ , dissem. po-py.
		Sharp contact at 45° to c.a. - chilled margin.
553.55	555.35	Graphitic sedimentary unit (2g), black, fine gr. ( $\leq .5\text{mm}$ ), local foliation at 45°-55° to c.a., composed of graphite and 20-100% blebbed, nodular and massive pyrite.
		Sharp contact at 50° to c.a.; chilled volcanic margin.
555.35	588.4	Intermediate variolitic flows; (2d), med. grey, fine gr. ( $\leq .5\text{mm}$ ), massive, intermediate composition, variolitic, generally unaltered except local - common, minor - extensive, fine gr. chlorite, 1-3%, random, white-l. grey-purple quartz veining, minor calcite alt. near upper contact, 1-3% po with quartz veining, also local $\leq 1\%$ py and rare, $< 1\%$ cp with veining, local sections with 10-20% quartz veining.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
	566.55 - 566.85	Massive, white quartz vein.
	568.6 - 569.35	20-30% quartz veining
	580.6 - 584.65	5-10% quartz veining with common areas of silicification.
	587.9 - 588.4	Graphitic sedimentary interflow horizon (2g) with 3-10% py, foliation at 55° - 65° to c.a.
		Sharp, chilled contact.
588.4	605.25	Intermediate flows (2d); med. grey, fine gr. (<1mm), massive to weakly foliated at 55° to c.a., intermediate composition, weak-mod., pervasive, calcite alteration, generally 1-2%, random quartz veinlets.
	602.8 - 605.25	Fine gr (<.5mm), mod.-strong silicification, chill margin.
		Sharp contact at 50° to c.a.
605.25	636.1	Ultramafic flow (6e); totally altered to talc; medium greenish-grey, fine gr. (<.5mm), massive, no original mineralogy, local, remnant spinifex texture.
		End of Hole 636.1 meters.



A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-9 Client: CYPRUS

Property: TULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
1	100	M	20	5.2	100	20	5.2
2	100	M	25	5.8	86	25	5.8
3	100	M	28	7.0	97	25	6.25
4	100	M	25	5.1	81	23	4.6
5	100	M	25	5.4	92	25	5.4
6	100	M	27	7.3	100	25	6.8
7	100.0	M	22	5.3	85.5	22	5.3
8	100.0	M	21	4.9	89.4	21	4.9
9	100.0	M	28	6.2	74.7	26	5.7
10	100.0	M	25	5.8	86.0	25	5.8
11	100.0	M	20	4.7	91.9	20	4.7
12	100.0	M	19	4.4	88.5	19	4.4
13	100.0	M	32	7.0	72.5	32	7.0
14	100	M	29	6.8	93	29	6.8
15	100	M	20	4.5	94	20	4.5
16	100	M	19 <sup>r</sup>	4.4 <sup>r</sup>	92	19 <sup>r</sup>	4.4 <sup>r</sup>
17	100	M	23	5.4	93	23	5.4
18	100	M	17	4.0	98	17	4.0
19	100	M	15	3.3	90	15	3.3
20	100	M	16	3.8	100	16	3.8
21	100	M	19	4.4	92	19	4.4
22	100	M	15	3.6	96	15	3.6
23	100	M	22	4.7	93	22	4.7
24	100	M	15	3.5	95	15	3.5
25	100	M	18 <sup>r</sup>	4.2 <sup>r</sup>	84	18 <sup>r</sup>	4.2 <sup>r</sup>
26	100	M	18	4.3	86	18	4.3
27	100	M	17	3.9	96	17	3.9

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-9 Client: CYPRUS

Property: JULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
28	100	M	18	4.2	99	18	4.2
29	100	M	22	4.2	73	22	4.2
30	100	M	23	5.3	96	23	5.3
31	100	M	17	4.2	100	14	4.2
32	100	M	22	5.0	90	22	5.0
33	100	M	18	4.2	97	18	4.2
34	100	M	15 <sup>+</sup>	3.8 <sup>+</sup>	89	15 <sup>+</sup>	3.8
35	100	M	17	3.9	91	17	3.9
36	100	M	12	2.8	100	12	2.8
37	100	M	22	4.9	90	22	4.9
38	100	M	21	4.8	94	21	4.8
39	100.0	M	24	5.9	79.3	19	4.6
40	100.0	M	17	3.8	80.0	17	3.8
41	100.0	M	17	4.0	98.8	17	4.0
42	100.0	M	21	4.8	95.4	21	4.8
43	100.0	M	20	4.5	92.0	20	4.5
44	100.0	M	20	4.5	89.8	20	4.5
45	100	M	21	5.2	100	21	5.2
46	100	M	24	5.4	90	22	5.4
47	100	M	19	4.3	95	19	4.3
48	100	M	23	5.2	95	20	5.2
49	100	M	18	4.2	100	18	4.2
50	100	M	18	4.2	100	18	4.2
51	100	M	20	4.6	100	20	4.6
52	100	M	18	4.1	93	18	4.1
53	100	M	20	4.5	100	20	4.5
54	100	M	17	3.9	91	17	3.9

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-9 Client: CYPRUS

Property: TULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
55	100	M	22 <sup>+</sup>	5.2 <sup>r</sup>	99	22 <sup>r</sup>	5.2 <sup>+</sup>
56	100	M	22	4.9	90	22	4.9
57	100	M	24	5.4	95	24	5.4
58	100	M	20	4.5	94	20	4.5
59	100	M	20	4.4	94	20	4.4
60	100	M	21	4.8	96	21	4.8
61	100	M	19	4.4	99	19	4.4
62	100.0	M	22 <sup>+</sup>	4.9 <sup>+</sup>	82.6	22 <sup>+</sup>	4.9 <sup>+</sup>
63	100.0	M	16	4.0	100.0	16	4.0
64	100.0	M	28	6.2	75.8	25	5.5
65	100.0	M	20	4.7	93.0	20	4.7
66	100.0	M	20	4.5	93.2	20	4.5
67	100.0	M	20	4.5	98.8	20	4.5
68	100.0	M	18	4.0	96.7	18	4.0
69	100.0	M	17	4.0	97.6	17	4.0
70	100.0	M	18	4.1	96.6	18	4.1
71	100	M	18	4.3	97	18	4.3
72	100	M	22	5.1	90	22	5.1
73	100	M	15	3.6	95	15	3.6
74	100	M	20	4.4	92	18	4
75	100	M	23 <sup>+</sup>	5.9 <sup>+</sup>	75	23 <sup>r</sup>	5.9 <sup>+</sup>
76	100	M	10	2.4	99	10	2.4
77	100	M	20	4	83	20	4
78	100	M	20 <sup>r</sup>	5.8 <sup>+</sup>	96	20 <sup>r</sup>	5.8 <sup>+</sup>
79	100	M	23	5.6	100	23	5.6
80	100	M	18	4.1	94	18	4.1
81	100	M	18	4.5	100	18	4.5

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-9 Client: CYPRUS

Property: TULLY Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
82	100	M	17	3.9	98	17	3.9
83	100	M	19	4.4	94	19	4.4
84	100.0	M	18	4.0	85.4	18	4.0
85	100.0	M	24 <sup>+</sup>	6.2 <sup>+</sup>	88.5	21 <sup>+</sup>	5.4 <sup>+</sup>
86	100.0	M	11	2.4	88.7	11	2.4
87	100.0	M	27	6.7	85.2	27	6.7
88	100.0	M	38 <sup>+</sup>	9.6 <sup>+</sup>	77.2	38 <sup>+</sup>	9.6 <sup>+</sup>
89	100.0	M	22	4.8	87.0	22	4.8
90	100	M	21	5.1	100	21	5.1
91	100	M	29 <sup>+</sup>	6.4 <sup>+</sup>	82	29 <sup>+</sup>	6.4 <sup>+</sup>
92	100	M	16	3.5	96	16	3.5
93	100	M	12	2.6	94	12	2.6
94	100	M	19	4.5	95	19	4.5
95	100	M	16	3.6	96	16	3.6
96	100	M	16	3.7	95	16	3.7
97	100	M	18	4.0	89	18	4.0
98	100	M	20	5.0	100	20	5.0
99	100.0	M	12	2.7	96.6	12	2.7
100	100.0	M	18	4.1	95.4	17	3.9
101	100.0	M	21	4.8	86.4	21	4.8
102	100.0	M	17	4.0	90.5	15	3.6
103	100.0	M	14	3.3	98.8	14	3.3
104	100.0	M	17	3.9	90.9	17	3.9
105	100.0	M	17	4.0	100.0	17	4.0
106	100.0	M	21	4.8	85.1	21	4.8
107	100.0	M	18	4.2	96.5	18	4.2
108	100.0	M	16	3.7	86.0	16	3.7

A.C.A. Howe International Limited

Rock Core Quality Limited

Drill Hole No: T-91-9 Client: Cyrus

Property: Tully Project: \_\_\_\_\_

Core Tray #	Core Recovery %	Hardness soft med hard	# pieces of core per tray	# pieces of core per met/ft	Core Quality %	# of Fractures	No. of Fractures per met/ft
109	100.0	M	25	5.6	85.4	25	5.6
110	100.0	M	31	7.2	80.2	31	7.2
111	100.0	M	18	4.2	93.0	18	4.2
112	100.0	M	18	4.0	92.1	18	4.0
113	100.0	M	22	5.1	87.2	22	5.1
114	100.0	M	11	2.5	98.9	11	2.5
115	100.0	M	13	3.0	94.3	13	3.0
116	100.0	M	18	4.4	92.7	18	4.4
117	100.0	M	16 <sup>+</sup>	3.5 <sup>+</sup>	68	16 <sup>+</sup>	3.5 <sup>+</sup>
118	100.0	M	17 <sup>+</sup>	4.9 <sup>+</sup>	100	17 <sup>+</sup>	4.9 <sup>+</sup>
119	100.0	M	17	3.9	100	17	3.9
120	100.0	M	14	3.2	72	14	3.2
121	100.0	M	15	3.3	100	15	3.3
122	100.0	M	15	2.9	78	15	2.9
123	100.0	M	21	5.0	95	21	5.0
124	100.0	M	18	4.2	78	18	4.2
125	100.0	M	30	6.5	89	28	6.5
126	100.0	M	24	5.5	89	24	5.5
127	100.0	M	12	2.8	100.0	12	2.8
128	100.0	M	16 <sup>+</sup>	3.4 <sup>+</sup>	89	16 <sup>+</sup>	3.4 <sup>+</sup>
129	100.0	M	16	3.8	99	16	3.8
130	100.0	M	15	3.4	97.1	15	3.4
131	100.0	M	21	4.8	87.5	21	4.8
132	100.0	M	17	3.9	100.0	17	3.9
133	100.0	M	21	4.7	89.5	21	4.7
134	100.0	M	28 <sup>+</sup>	6.2	78.0	28 <sup>+</sup>	6.2
135	100.0	M	27 <sup>+</sup>	6.2 <sup>+</sup>	73.6	27 <sup>+</sup>	6.2 <sup>+</sup>



**\*\* BORSURV \*\*****SURVEY DATA AND CALCULATED CO-ORDINATES (metres)****PROPERTY: TULLY TWP.  
HOLE NO: 91-9  
GRID: FRANKFIELD****DATE: FEBRUARY, 1991  
SURVEY BY: MCR  
INSTRUMENT: TROPARI**

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<b>DEPTH</b>	<b>INCLINATION</b>	<b>BEARING</b>	<b>EASTINGS</b>	<b>NORTHINGS</b>	<b>ELEVATION</b>
0.00	-60.00	180.00	1320.000	272.000	2.470
87.50	-58.00	184.00	1318.427	226.962	-72.532
206.30	-58.00	182.00	1315.132	164.093	-173.280
303.90	-56.00	182.50	1313.046	110.978	-255.135
389.20	-54.00	178.50	1312.619	62.053	-325.008
508.10	-52.00	180.50	1313.243	-9.500	-419.966
636.10	-51.00	178.50	1313.938	-89.178	-520.140

SUMMARY LITHO LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-9

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
O.B.	15.20	1319.73	264.18	-10.56	none
1D,CHL,CARB	88.40	1318.40	226.49	-73.30	40.0
6B,CARB	115.00	1317.66	212.41	-95.85	40.0
1D,1E,CARB	134.90	1317.11	201.88	-112.73	40.0
1D,1E,Q.V.,S	141.10	1316.94	198.60	-117.99	40.0
1D,1E,CARB	161.65	1316.37	187.72	-135.41	40.0
2D,2E,CARB	168.45	1316.18	184.12	-141.18	40.0
2D,2E,Q.V.,S	171.85	1316.09	182.32	-144.06	40.0
2D,2E,CARB	205.75	1315.15	164.38	-172.81	40.0
2D,2E,SIL,Q.	215.30	1314.94	159.20	-180.83	40.0
2D,2E,CARB	234.55	1314.53	148.72	-196.97	40.0
2D,2E,Q.V.,P	246.95	1314.26	141.97	-207.37	40.0
2D,2E,CARB,F	293.95	1313.26	116.39	-246.79	40.0
2D,2E,FE CAR	320.90	1312.96	101.23	-269.06	40.0
2D,2E,CARB	350.25	1312.81	84.39	-293.10	40.0
2D,2E,FE CAR	361.50	1312.76	77.94	-302.32	40.0
2D,2E,CARB,F	387.70	1312.63	62.91	-323.78	40.0
6C,TALC	391.25	1312.63	60.82	-326.65	50.0
2D,FE CARB,Q	406.20	1312.71	51.82	-338.58	50.0
2D,2E,CARB	437.10	1312.87	33.23	-363.26	50.0
2D,2E,CHL	459.10	1312.99	19.99	-380.83	50.0
2A	460.70	1312.99	19.03	-382.11	50.0
2D,2E,CHL	478.80	1313.09	8.13	-396.57	50.0
2D,2E,CARB	495.90	1313.18	-2.16	-410.22	50.0
2D,2E,CHL	543.90	1313.44	-31.78	-447.98	50.0



SUMMARY LITHO LOG  
PROPERTY: TULLY TWP.  
HOLE No.: 91-9

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LITHO UNIT	DEPTH	EASTINGS	NORTHINGS	ELEVATION	CORE ANGLE
2D,2E,CARB	553.55	1313.49	-37.79	-455.54	50.0
2G,PY	555.35	1313.50	-38.91	-456.94	50.0
2D,CHL	588.40	1313.68	-59.49	-482.81	50.0
2D,CARB	605.25	1313.77	-69.97	-496.00	55.0
6C,TALC	636.10	1313.94	-89.18	-520.14	55.0

ASSAY LOG  
 PROPERTY: TULLY TWP.  
 HOLE No.: 91-9

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FROM	TO	WIDTH	Au oz\t	Au gm\T	As ppm
17.30	18.80	1.50	TRACE	TRACE	N.S.
28.80	30.30	1.50	NIL	NIL	N.S.
30.30	30.31	0.01	NIL	NIL	N.S.
47.10	48.60	1.50	0.002	0.080	N.S.
58.50	60.00	1.50	0.003	0.090	N.S.
63.30	64.80	1.50	NIL	NIL	N.S.
76.35	77.85	1.50	0.000	0.010	N.S.
86.50	88.00	1.50	NIL	NIL	N.S.
88.65	90.15	1.50	0.003	0.110	N.S.
94.50	96.00	1.50	0.003	0.100	N.S.
102.70	104.20	1.50	0.042	1.440	N.S.
128.00	129.50	1.50	0.001	0.040	N.S.
134.90	136.40	1.50	0.001	0.050	N.S.
136.40	137.90	1.50	0.007	0.240	N.S.
137.90	139.40	1.50	0.050	1.710	N.S.
139.40	140.90	1.50	0.002	0.060	N.S.
152.10	153.60	1.50	NIL	NIL	N.S.
165.20	166.70	1.50	0.002	0.070	N.S.
168.20	169.70	1.50	0.007	0.230	N.S.
169.70	171.20	1.50	0.001	0.030	N.S.
171.20	172.70	1.50	0.000	0.010	N.S.
180.30	181.80	1.50	0.001	0.020	N.S.
185.00	186.50	1.50	0.001	0.040	N.S.
190.30	191.80	1.50	0.000	0.010	N.S.
194.70	196.20	1.50	TRACE	TRACE	N.S.
199.00	200.50	1.50	NIL	NIL	N.S.
201.90	203.40	1.50	0.001	0.020	N.S.
205.75	207.25	1.50	0.003	0.120	N.S.
207.25	208.75	1.50	0.021	0.730	N.S.
208.75	210.25	1.50	0.022	0.760	N.S.
210.25	211.75	1.50	0.003	0.100	N.S.
211.75	213.25	1.50	0.007	0.230	N.S.
213.25	214.75	1.50	0.003	0.120	N.S.
214.75	216.25	1.50	0.001	0.050	N.S.
224.40	225.90	1.50	0.005	0.180	N.S.
225.90	227.40	1.50	0.001	0.020	N.S.
234.50	236.00	1.50	0.009	0.310	N.S.
236.00	237.50	1.50	0.017	0.580	N.S.
237.50	239.00	1.50	0.106	3.650	N.S.
239.00	240.50	1.50	0.015	0.520	N.S.
240.50	242.00	1.50	0.013	0.450	N.S.
242.00	243.50	1.50	0.015	0.520	N.S.
243.50	245.00	1.50	0.048	1.650	N.S.
245.00	246.50	1.50	0.006	0.210	N.S.
249.00	250.50	1.50	0.008	0.290	N.S.
250.50	252.00	1.50	0.001	0.030	N.S.
252.00	253.50	1.50	0.000	0.010	N.S.
253.50	255.00	1.50	0.000	0.010	N.S.
255.00	256.50	1.50	NIL	NIL	N.S.
270.80	272.30	1.50	0.000	0.010	N.S.

ASSAY LOG

PROPERTY: TULLY TWP.

HOLE No.: 91-9

=====

FROM	TO	WIDTH	Au oz\t	Au gr\T	As ppm
280.65	382.15	101.50	0.002	0.060	N.S.
283.50	285.00	1.50	0.001	0.020	N.S.
285.00	286.50	1.50	0.004	0.150	N.S.
294.00	295.50	1.50	0.000	0.010	N.S.
303.90	305.40	1.50	0.000	0.010	N.S.
308.50	310.00	1.50	NIL	NIL	N.S.
315.10	316.60	1.50	NIL	NIL	N.S.
321.00	322.50	1.50	0.003	0.110	N.S.
322.50	324.00	1.50	0.006	0.200	N.S.
324.00	325.50	1.50	0.002	0.070	N.S.
325.50	327.00	1.50	0.001	0.050	N.S.
327.00	328.50	1.50	0.010	0.360	N.S.
333.10	334.60	1.50	0.015	0.510	N.S.
334.60	336.10	1.50	0.006	0.200	N.S.
336.10	337.60	1.50	0.008	0.290	N.S.
339.25	340.75	1.50	0.003	0.110	N.S.
340.75	342.25	1.50	0.001	0.040	N.S.
342.25	343.75	1.50	0.004	0.140	N.S.
350.50	352.00	1.50	0.001	0.020	N.S.
356.70	358.20	1.50	0.001	0.020	N.S.
368.80	370.30	1.50	0.001	0.020	N.S.
370.30	371.80	1.50	0.003	0.120	N.S.
371.80	373.30	1.50	0.001	0.030	N.S.
382.15	383.65	1.50	0.001	0.020	N.S.
391.25	392.75	1.50	0.001	0.030	N.S.
392.75	394.25	1.50	0.005	0.180	N.S.
394.25	395.75	1.50	0.001	0.040	N.S.
395.75	397.25	1.50	0.001	0.030	N.S.
397.25	398.75	1.50	0.004	0.130	N.S.
398.75	400.25	1.50	0.003	0.090	N.S.
400.25	401.75	1.50	0.001	0.030	N.S.
405.00	406.50	1.50	0.001	0.020	N.S.
415.10	416.60	1.50	0.000	0.010	N.S.
425.60	427.10	1.50	0.000	0.010	N.S.
432.20	433.70	1.50	0.001	0.030	N.S.
434.70	436.20	1.50	0.018	0.630	N.S.
449.05	450.55	1.50	NIL	NIL	N.S.
460.50	462.00	1.50	0.000	0.010	N.S.
477.50	479.00	1.50	0.000	0.010	N.S.
485.50	487.00	1.50	0.008	0.290	N.S.
491.30	492.80	1.50	NIL	NIL	N.S.
500.50	502.00	1.50	0.000	0.010	N.S.
505.35	506.85	1.50	0.000	0.010	N.S.
509.20	510.70	1.50	0.000	0.010	N.S.
517.80	519.30	1.50	0.001	0.020	N.S.
521.65	523.15	1.50	0.000	0.010	N.S.
532.80	534.30	1.50	NIL	NIL	N.S.
540.50	542.00	1.50	0.001	0.020	N.S.
542.00	543.50	1.50	NIL	NIL	N.S.
553.25	554.75	1.50	0.003	0.120	N.S.



AVERAGED ASSAY INTERVALS

PROPERTY: TULLY-TWP.

HOLE No: 91-9

=====

1. HW ( 1.50 d.t. — Core Angle: 90 — 1.50 t.t. )

FROM: 237.50

EASTINGS: 1314.47  
NORTHINGS: 147.11  
ELEVATION: -199.45

0.106 Au oz\T

3.650 Au gm\T

-0.000 As ppm

TO: 239.00

EASTINGS: 1314.43  
NORTHINGS: 146.30  
ELEVATION: -200.70

## DIAMOND DRILL LOG

CLIENT:	Cyprus Gold	SHEET NO:	1
NAME OF PROPERTY:	Tully Township	REMARKS:	Relogged
HOLE NO:	90-4		
DRILLED BY:	Dominik		
CLAIM NO:	CON II/III	LOGGED BY:	K. Johnson
LOCATION:	L4700E x 1425 N	STARTED:	Feb. 13/90
COORDINATES:		FINISHED:	Feb. 26/90
ELEVATION:	951 feet		
AZIMUTH:	180°		
DIP:	-68°		

FROM	TO	DESCRIPTION
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0.0	78	<u>Casing (B.W.)</u>
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78.0	1218.7	<u>Andesitic Flows</u>
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- Uniform lavas, fine grained, light green to slightly darker alternating sequence of pillowed flows with distinct dark green to black, schistose pillow selvages; occ. brecciated flow top/btm.
- Up to 10% quartz-carbonate stringers throughout at random orientations.
- @ 1213' occ. graphitic band w up to 5% fine pyrite in discontinuous stringers and fracture fillings.

1218.7	1233.7	<u>Graphitic Horizon (Interflow)</u>
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- Up to 10% nodular sulfide clasts? of fine-grained pyrite w trace pyrrhotite, 70% black amorphose graphite cut by irreg. qtz.-carbonate stringers and discontinuous stringers and fracture fillings of pyrite/po.; occ. fragment of andesitic lava up to 4 inches; rounded pyrite & qtz-carb. clasts indicates brecciation of zone after deposition.
- @ 1233.5 to 1233.7: up to 50% fine nodules of pyrite.

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
1233.7	1273.0	<p><u>Carbonatized Andesite Flow</u></p> <ul style="list-style-type: none"> <li>- fine-grained flow; yellow-brown to beige colour w up to 15% qtz-carb. along fractures @ random orientations; up to 10% fine, interstitial iron carbonate gives rise to beige colouring of unit; up to 3% finely dissem. pyrite throughout and is associated w iron carb. alteration.</li> <li>- gradational to andesitic lavas at 1273.0</li> </ul>
1273.0	1340.1	<p><u>Andesitic Lavas/Flows</u></p> <ul style="list-style-type: none"> <li>- gradational from carbonitized lavas above; as prev. flow unit from 78 to 1218.7 feet.</li> </ul>
1340.1	1346.9	<p><u>Graphitic Horizon (Interflow)</u></p> <ul style="list-style-type: none"> <li>- As previous; up to 20% fine nodular pyrite hosted in graphitic sed (60%) w 10 to 15% irreg. qtz-carb. stringers throughout; exhibits moderate brecciation at 1345.0 feet as prev.</li> </ul>
1346.9	1353.2	<p><u>Carbonatized Andesite Flow</u></p> <ul style="list-style-type: none"> <li>- as previous; yellow-brown to beige colouring w up to 10% interstitial iron carbonate and 15% random qtz-carbonate stringers.</li> </ul> <p>1348.0 - 1353.2:            Transitional zone between graphitic interflow horizon and underlying lavas; grades from 20% down to 10% fine-gr. pyrite; beige-green coloured matrix indicative of iron-carbonate alteration which lessens down-hole as does pyrite.</p> <p>N.B. Zone sampled to 1353.9' w no significant assay results.            N.B. Rep Sa. for thin section from 1353.0.</p>
1353.2	1403.4	<p><u>Andesite Flow</u></p> <ul style="list-style-type: none"> <li>- As previous, occasional pillow selvage w moderate white carbonate alteration associated; 5 to 10% quartz-carbonate veining and alteration.</li> </ul>

<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
1403.4	1419.0	<p><u>Carbonatized Andesite</u></p> <ul style="list-style-type: none"> <li>- Grey to light beige in colour, fine grained w up to %5 qtz-carbonate stringers noted at random orientations.</li> <li>- occ. graphitic seds up to 3 inches in width as interflows units; exhibit up to 7% pyrite in these sections.</li> </ul>
1419.0	1630.0	<p><u>Andesite Flow</u></p> <ul style="list-style-type: none"> <li>- as previous; pillowed; gradational contact with carbonatized andesites above and below the section.</li> </ul>
1630.0	1696.3	<p><u>Carbonatized Andesite</u></p> <ul style="list-style-type: none"> <li>- tan to beige with green tinge, cut by thin irregular fractures, appears silicified (but is soft &amp; can easily be cut by a knife); 20% interstitial iron carbonate throughout; fracturing increases in intensity down-hole; trace euhedral growths of fine pyrite; fine grained as is unaltered andesite, prob. carbonatized unit which is footwall to GIF, and thus indicates folding?</li> </ul>
1696.3	1713.8	<p><u>Graphitic Interflow Horizon</u></p> <ul style="list-style-type: none"> <li>- black graphitic sediments, fine grained amorphous cut by 30% white qtz. carbonate veins up to 1.75 feet in width at random orientations; graphitic seds at 70° to c.a.; host up to 20% coarse nodules of fine pyrite; pyrite nodules up to 0.75 inch diameter &amp; are subangular.</li> </ul> <p>1709.3 to 1711.0: cherty component, light grey to tan, hard &amp; siliceous w 20% GIF &amp; 5% fine diss. stringer pyrite; probably exhalite sequence.</p> <p>1711.0 to 1712.8: graphitic sequence w 40% nodular pyrite; brecciated appearance suggests debris flow.</p> <p>1712.8 to 1713.8: tuffs interbedded w GIF.</p>



FROM	TO	DESCRIPTION
1713.8	1754.7	<p data-bbox="516 373 727 401"><u>Graphitic Tuffs</u></p> <ul data-bbox="516 453 1432 730" style="list-style-type: none"> <li>- green-grey to black, mottled and schistose texture w slight schistosity at 60° to c/a; up to 5% graphitic component w 3 to 5% white/grey interstitial carbonate; unit cross-cut by occasional white qtz. vein up to 0.5 inch with sideritic alteration along vein selvages, at 40 to 45° to c/a; fragmental texture to unit indicative of tuffaceous derivation; could possibly be reworked tuffs w graphitic component being derived from underlying graphitic interflow (again suggesting fold w ranging now to south).</li> </ul>
1754.7	1782.0	<p data-bbox="516 768 854 795"><u>Andesite Flows, pillowed</u></p> <ul data-bbox="516 846 1432 947" style="list-style-type: none"> <li>- green, fine-grained w massive texture as previous; pillow selvages evident w carbonate alteration associated over widths up to 1 inch; becomes more massive at 1782.0.</li> </ul>
1782.0	1811.0	<p data-bbox="516 984 711 1012"><u>Andesite Flow</u></p> <ul data-bbox="516 1062 1432 1125" style="list-style-type: none"> <li>- fine grained, green, massive w only occasional pillowed section; trace qtz-carb. veining.</li> </ul>
1811.0	1850.3	<p data-bbox="516 1163 831 1190"><u>Pillowed Andesite Flow</u></p> <ul data-bbox="516 1241 1432 1377" style="list-style-type: none"> <li>- green to dark green w abundant chlorotic pillows selvages; occ. sections exhibit bleached vesicles to 0.25 inch diameter; occ. brecciated flow top\btm. w calcitic alteration; brecciated sections exhibit slight schistosity at 50° to c/a.</li> </ul>
1850.3	1870.2	<p data-bbox="516 1415 1081 1442"><u>Carbonated Tuff Horizon (MAIN ZONE)</u></p> <ul data-bbox="516 1493 1432 1734" style="list-style-type: none"> <li>- Fine grained, siliceous in approximately but soft; tan to yellow beige, lithic tuff horizon cut by thin dark grey qtz-filled fractures; 60% fine interstitial iron carbonate gives rise to beige colouring; up to 4% pyrite/pyrrhotite in this discont. stringers; sharp contact w lavas above at 60° to C/A; becomes slightly brecciated at 1852; qtz injection at 1857.4 to 1861.5; white qtz. carb - tarm. vein from 1861.5 to 1866.0.</li> </ul>

FROM	TO	DESCRIPTION
		1850.3 to 1857.4: carbonated lithic tuff; 3% pyrite, <u>trace arsenopyrite</u>
		1857.4 to 1861.5: random qtz. injection in lithic tuff; slight porphyritic texture to zone; moderately to high shearing; 5% pyrite, <u>1% very fine arsenopyrite</u> in lenses to 0.5 inch.
		1861.5 to 1866.0: White quartz-carbonate vein w trace pyrite in coarse, subrounded growths; trace tourmaline infine; prismatic crystals.
		1866.0 to 1867.8: lithic tuff, carbonatized w 15% qtz. injection, <u>10% very fine crystals of arsenopyrite</u> ; 2% stringer pyrite.
		1867.8 to 1868.5: injection quartz in carb. lithic tuff; cut by 1 inch white qtz-carbonate vein at 20° to C/A.
		1868.5 to 1869.2: carbonated tuff, yellow-beige as before, becomes interbedded gradationally with f. gr. lavas down-hole.
1870.2	1882.1	<u>Andesite Flow</u>  - green, fine-grained & massive.  1874.4 to 1876.1: intense qtz-carbonate veining w chloritic selvages; irregular pattern, coarse clot of pyrite at 1875.2.
1882.1	1965.1	<u>Andesite Flow</u>  -dk green, medium grained flow; massive w 8% interstitial carbonate (white, calcite); chlorotic, w mottled texture, prob. med-grained flow; equigranular texture.
1965.1	2012.0	<u>Andesite Flow; Pillowed</u>  -as prev., fine grained, green w carb. + chloritized pillow selvages.
2012.0	2012.5	<u>Graphitic Interflow Horizon</u>  -80% graphitic w calcite and sylvite alteration at 45° to C/A in thin stringers; trace sulfides.

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<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
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2012.5 2025.9

Andesite Flow

- fine grained green; massive; occ. graphitic horizon from 0.1 inch width to 0.2 foot; 1% folded gh-cb stringers w axis at 40° to C/A evident at 2019.0.

2025.9 2081.0

Carbonatized Tuff Horizon (Welded Tuff?)

- as prev. unit @ 1850.3 feet but exhibits much less iron carbonate alteration @ 3 to 5%; very fine gr. lithic tuff, med. grey to black (dark grey) w grnd. section to wispy bands of light tan to beige-iron carbonate altered sections @ 50° to C/A.
- Up to 15% finely disseminated pyrite in carbonate altered sections over core widths of up to 0.8 feet; secondary pyrite along irreg. fractures @ 5%; <2% white qtz.- carb. veining up to 0.75 inch widths at 45° to C/A.

2028.9 to 20320: slight cataclastic brecciation w minor qtz. injection; 3% qtz. cb; 2% pyrite w wispy schlerin of iron-cb alteration; trace v. fine arsenopyrite.

2032.0 to 2043.3: minor iron - cb. alt. of v. fine lithic tuffs; 3% fine-med pyrite disseminations; 25 to 35% paragonitic? partings minor qtz.injection.

2043.3 to 2046.5: 20% iron cb. alter. over short sections to 0.3 feet, 5% diss & stringers pyrite, trace arsenopyrite.

(Min. Zone) 2048.1 to 2052.7: 10% to 15% v. fine pyrite diss. throughout w up to 5% v. fine needles arsenopyrite barely distinguishable in matrix. Good iron carbonate alteration in partings and brecciated bands; 3% red hematite noted on fractures which exhibit graphite on slips; carb. & sulfides well bonded at 45° to C/A.

- from 2052.7 grades into dk. grey lithic tuff w 1% med. pyrite in diss. stringers slight iron cb. alteration foliation at 450 to C/A.

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<b>FROM</b>	<b>TO</b>	<b>DESCRIPTION</b>
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2072.0 to 2082.0: moderate partings of iron carbonate alteration in wispy bands at 45° to C/A; 2% pyrite, trace to 2% faint lenses of v.v. fine arsenopyrite in carbonate-alt. sections; asp. mineralization more noticeable in sections with qtz. injection: up to 5%.

2082.0 2086.0

**Contact Zone with Talc Peridotite**

- dark green, appears like andesite flow; grades into grey-black talcose peridotite; Trace pyrite.

2086.0 2192.0

**Talc Peridotite (Serpentinite)**

- black grey, cut by random qtz-cb (calcite) filled fractures, non-magnetic, talcose; trace pyrite.

2192.0

**End of hole**

\*\* BORSURV \*\*

ASSAY LOG  
PROPERTY: TULLY  
HOLE No.: 90-4

Page 2 of 2

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FROM	TO	WIDTH	AU	Au-g/t
568.85	570.04	1.19	0.310	10.630
<del>570.04</del>	<del>570.58</del>	<del>0.55</del>	<del>NIL</del>	<del>NIL</del>
570.58	572.11	1.52	NIL	NIL
617.49	618.41	0.91	NIL	NIL
<del>618.41</del>	<del>619.35</del>	<del>0.94</del>	<del>0.102</del>	<del>3.498</del>
619.35	621.18	1.83	0.062	2.126
621.18	622.25	1.07	0.010	0.343
<del>622.25</del>	<del>622.80</del>	<del>0.55</del>	<del>0.002</del>	<del>0.069</del>
622.80	623.62	0.82	0.112	3.840
623.62	624.17	0.55	NIL	NIL
<del>624.17</del>	<del>625.27</del>	<del>1.10</del>	<del>0.052</del>	<del>1.783</del>
625.27	625.97	0.70	0.352	12.070
625.97	626.52	0.55	0.024	0.823
<del>626.52</del>	<del>627.43</del>	<del>0.91</del>	<del>0.038</del>	<del>1.303</del>
627.43	628.50	1.07	0.062	2.126
628.50	629.26	0.76	0.064	2.195
<del>629.26</del>	<del>630.63</del>	<del>1.37</del>	<del>0.028</del>	<del>0.960</del>
630.63	631.54	0.91	0.042	1.440
631.54	633.07	1.52	0.070	2.400
<del>633.07</del>	<del>634.59</del>	<del>1.52</del>	<del>0.238</del>	<del>8.161</del>
634.59	636.12	1.52	N.S.	N.S.

AVERAGED ASSAY INTERVALS

PROPERTY: TULLY

HOLE No: 90-4

=====

1. HW (-1.80-d.t. Core Angle: 90 -1.80 t.t.)

FROM: 374.23 ----- EASTINGS: 1427.19  
NORTHINGS: 221.38  
ELEVATION: -327.90

0.050 AU  
1.708 Au g/t

TO: 376.03 ----- EASTINGS: 1427.19  
NORTHINGS: 220.39  
ELEVATION: -329.40

2. HW ( 2.07 d.t. Core Angle: 90 2.07 t.t.)

FROM: 408.46 ----- EASTINGS: 1427.19  
NORTHINGS: 202.49  
ELEVATION: -356.45

0.044 AU  
1.521 Au g/t

TO: 410.53 ----- EASTINGS: 1427.19  
NORTHINGS: 201.34  
ELEVATION: -358.17

3. HW ( 4.91 d.t. Core Angle: 90 4.91 t.t.)

FROM: 565.13 ----- EASTINGS: 1427.19  
NORTHINGS: 112.26  
ELEVATION: -484.35

0.184 AU  
6.296 Au g/t

TO: 570.04 ----- EASTINGS: 1427.19  
NORTHINGS: 109.13  
ELEVATION: -488.14

4. MZ (-10.42-d.t. Core Angle: 90 -10.42 t.t.)

FROM: 624.17 ----- EASTINGS: 1427.19  
NORTHINGS: 74.22  
ELEVATION: -529.50

0.097 AU  
3.332 Au g/t

TO: 634.59 ----- EASTINGS: 1427.19  
NORTHINGS: 67.25  
ELEVATION: -537.24

AVERAGED ASSAY INTERVALS

PROPERTY: TULLY

HOLE No: 90-4

=====

5. MZ ( 9.33 d.t. Core Angle: 90 9.33 t.t.)

FROM: 625.27

EASTINGS: 1427.19

NORTHINGS: 73.49

ELEVATION: -530.31

0.102 AU

3.514 Au g/t

TO: 634.59

EASTINGS: 1427.19

NORTHINGS: 67.25

ELEVATION: -537.24

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 90-GO-5

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FROM	TO	DESCRIPTION
1893	1902	Intermediate - Mafic volcanic flow; heavy talc-chl alt; several smoky qtz. stringers at many orientations to c.a.; 1% fine to med. dissem. py; minor graphite.
1902	1988	Intermediate volcanics; light greenish-brown colour; Fe-carb. & sericite alt; moderate chl. alt; few qtz-carb. veins at various orientations <1% - trace py.

**NOTE:** The following intersections were previously sampled.

<u>Sample #</u>	<u>Interval</u>
9926	1965 - 1969.3
9802	1969.3- 1972
9927	1972 - 1976
9928	1976 - 1981
9929	1981 - 1986.5



\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 3

PROPERTY: tully  
HOLE No.: 90-5

=====

FROM	TO	WIDTH	AU	Au-g/t
28.74	29.38	0.64	N.S.	N.S.
32.16	32.37	0.21	N.S.	N.S.
34.11	34.41	0.30	N.S.	N.S.
53.64	74.98	21.34	N.S.	N.S.
72.21	72.85	0.64	N.S.	N.S.
72.85	73.43	0.58	N.S.	N.S.
73.43	74.04	0.61	N.S.	N.S.
76.29	76.66	0.37	N.S.	N.S.
79.16	79.71	0.55	N.S.	N.S.
79.71	80.01	0.30	N.S.	N.S.
80.01	80.47	0.46	N.S.	N.S.
80.47	81.38	0.91	N.S.	N.S.
81.38	81.81	0.43	N.S.	N.S.
86.56	87.17	0.61	N.S.	N.S.
88.51	88.85	0.34	N.S.	N.S.
108.42	108.69	0.27	N.S.	N.S.
110.25	110.70	0.46	N.S.	N.S.
110.70	111.10	0.40	N.S.	N.S.
111.10	111.56	0.46	N.S.	N.S.
159.32	159.59	0.27	N.S.	N.S.
167.09	167.46	0.37	N.S.	N.S.
170.35	170.99	0.64	N.S.	N.S.
171.66	172.30	0.64	N.S.	N.S.
175.72	175.90	0.18	N.S.	N.S.
175.90	176.72	0.82	N.S.	N.S.
176.72	176.91	0.18	N.S.	N.S.
176.91	177.82	0.91	N.S.	N.S.
177.82	179.07	1.25	N.S.	N.S.
182.76	183.43	0.67	N.S.	N.S.
184.31	185.23	0.91	N.S.	N.S.
195.50	196.05	0.55	N.S.	N.S.
200.68	200.89	0.21	N.S.	N.S.
206.20	206.84	0.64	N.S.	N.S.
206.84	207.51	0.67	N.S.	N.S.
216.32	217.20	0.88	N.S.	N.S.
217.20	217.93	0.73	N.S.	N.S.
217.93	218.33	0.40	N.S.	N.S.
220.28	220.89	0.61	N.S.	N.S.
237.59	237.96	0.37	N.S.	N.S.
251.76	252.25	0.49	N.S.	N.S.
265.24	265.48	0.24	N.S.	N.S.
284.56	284.93	0.37	N.S.	N.S.
284.93	286.51	1.58	N.S.	N.S.
286.51	287.00	0.49	N.S.	N.S.
289.77	290.81	1.04	N.S.	N.S.
289.77	290.81	1.04	N.S.	N.S.
290.81	291.54	0.73	N.S.	N.S.
294.38	294.86	0.49	N.S.	N.S.
318.52	318.82	0.30	N.S.	N.S.
328.36	329.15	0.79	N.S.	N.S.

\*\* BORSURV \*\*

ASSAY LOG

Page 2 of 3

PROPERTY: tully

HOLE No.: 90-5

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FROM	TO	WIDTH	AU	Au-g/t
331.01	331.62	0.61	N.S.	N.S.
331.62	332.29	0.67	N.S.	N.S.
332.29	333.08	0.79	N.S.	N.S.
333.08	334.06	0.98	N.S.	N.S.
334.06	334.67	0.61	N.S.	N.S.
357.16	358.44	1.28	N.S.	N.S.
362.19	363.17	0.98	N.S.	N.S.
377.71	378.26	0.55	N.S.	N.S.
378.26	378.74	0.49	0.004	0.137
378.74	379.23	0.49	0.004	0.137
379.23	380.39	1.16	0.002	0.069
380.39	380.54	0.15	0.008	0.274
380.54	381.43	0.88	0.022	0.754
381.43	381.94	0.52	0.018	0.617
381.94	382.46	0.52	0.006	0.206
432.45	433.39	0.94	N.S.	N.S.
436.87	437.69	0.82	N.S.	N.S.
438.36	439.03	0.67	N.S.	N.S.
440.04	440.56	0.52	N.S.	N.S.
441.29	442.57	1.28	N.S.	N.S.
442.57	443.54	0.98	N.S.	N.S.
455.52	456.59	1.07	N.S.	N.S.
458.21	458.57	0.37	N.S.	N.S.
458.57	459.24	0.67	0.012	0.411
459.24	460.46	1.22	N.S.	N.S.
463.75	464.33	0.58	N.S.	N.S.
473.05	474.27	1.22	N.S.	N.S.
473.05	474.27	1.22	N.S.	N.S.
474.27	474.76	0.49	N.S.	N.S.
540.17	540.78	0.61	N.S.	N.S.
540.17	540.78	0.61	N.S.	N.S.
545.59	545.83	0.24	N.S.	N.S.
545.59	545.83	0.24	N.S.	N.S.
556.23	556.56	0.34	N.S.	N.S.
565.89	567.45	1.55	N.S.	N.S.
569.67	570.43	0.76	0.002	0.069
570.43	570.68	0.24	0.002	0.069
570.68	571.04	0.37	0.004	0.137
577.90	578.51	0.61	0.002	0.053
579.82	580.95	1.13	TRACE	0.031
580.95	582.47	1.52	0.029	1.008
582.47	584.00	1.52	TRACE	0.017
584.00	585.52	1.52	TRACE	0.034
585.52	587.04	1.52	NIL	NIL
587.04	588.57	1.52	NIL	NIL
588.57	590.09	1.52	TRACE	0.010
590.09	591.62	1.52	NIL	NIL
591.62	593.14	1.52	NIL	NIL
593.14	594.66	1.52	NIL	NIL
594.66	596.19	1.52	NIL	NIL

\*\* BORSURV \*\*

ASSAY LOG  
 PROPERTY: tully  
 HOLE No.: 90-5

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FROM	TO	WIDTH	AU	Au-g/t
596.19	597.71	1.52	NIL	NIL
597.71	598.93	1.22	NIL	NIL
600.24	601.06	0.82	N.S.	N.S.
606.12	607.25	1.13	N.S.	N.S.
607.25	608.50	1.25	N.S.	N.S.
608.50	609.51	1.01	N.S.	N.S.
609.51	611.43	1.92	N.S.	N.S.
611.43	612.62	1.19	N.S.	N.S.
612.62	613.62	1.01	N.S.	N.S.
613.62	615.05	1.43	N.S.	N.S.
615.05	616.49	1.43	N.S.	N.S.
616.49	617.52	1.04	0.018	0.617
617.52	618.47	0.94	0.204	6.995
618.47	619.72	1.25	0.008	0.274
619.72	620.66	0.94	N.S.	N.S.
620.66	622.19	1.52	N.S.	N.S.
622.19	622.74	0.55	N.S.	N.S.
622.74	623.92	1.19	N.S.	N.S.
623.92	625.36	1.43	N.S.	N.S.
625.36	626.70	1.34	N.S.	N.S.
626.70	627.89	1.19	N.S.	N.S.
627.89	629.08	1.19	N.S.	N.S.
629.08	629.44	0.37	N.S.	N.S.
629.44	629.69	0.24	N.S.	N.S.
629.69	630.54	0.85	N.S.	N.S.
630.54	631.73	1.19	N.S.	N.S.
631.73	632.70	0.98	N.S.	N.S.
632.70	634.50	1.80	0.148	5.075
634.50	634.65	0.15	0.232	7.955
634.65	635.81	1.16	0.052	1.783
635.81	636.12	0.30	0.010	0.343
636.12	637.12	1.01	0.078	2.675
637.12	637.64	0.52	0.028	0.960
637.64	639.01	1.37	0.042	1.440
639.01	640.84	1.83	0.079	2.709
640.84	641.91	1.07	0.004	0.137
641.91	642.58	0.67	0.006	0.206
642.58	642.91	0.34	0.048	1.646
642.91	643.34	0.43	0.080	2.743
643.34	644.38	1.04	0.088	3.018
644.38	645.90	1.52	0.002	0.069
646.60	648.31	1.71	N.S.	N.S.
652.82	653.37	0.55	N.S.	N.S.
658.18	658.43	0.24	N.S.	N.S.
662.51	663.37	0.85	N.S.	N.S.

**AVERAGED ASSAY INTERVALS**

PROPERTY: ~~tully~~

HOLE No: 90-5

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1. HW ( 1.37 d.t. Core Angle: 90 1.37 t.t.)

FROM: 569.67 ----- EASTINGS: 1563.11  
NORTHINGS: 162.32  
ELEVATION: -502.04

0.003 AU  
0.087 Au g/t

TO: 571.04 ----- EASTINGS: 1563.18  
NORTHINGS: 161.49  
ELEVATION: -503.13

2. HW ( 0.94 d.t. Core Angle: 90 0.94 t.t.)

FROM: 617.52 ----- EASTINGS: 1565.69  
NORTHINGS: 132.85  
ELEVATION: -539.63

0.204 AU  
6.995 Au g/t

TO: 618.47 ----- EASTINGS: 1565.74  
NORTHINGS: 132.24  
ELEVATION: -540.35

3. MZ ( 3.11 d.t. Core Angle: 90 3.11 t.t.)

FROM: 632.70 ----- EASTINGS: 1566.54  
NORTHINGS: 123.08  
ELEVATION: -551.22

0.116 AU  
3.990 Au g/t

TO: 635.81 ----- EASTINGS: 1566.72  
NORTHINGS: 121.07  
ELEVATION: -553.59

4. MZ ( 4.72 d.t. Core Angle: 90 4.72 t.t.)

FROM: 636.12 ----- EASTINGS: 1566.74  
NORTHINGS: 120.88  
ELEVATION: -553.82

0.062 AU  
2.141 Au g/t

TO: 640.84 ----- EASTINGS: 1567.00  
NORTHINGS: 117.84  
ELEVATION: -557.43

AVERAGED ASSAY INTERVALS

PROPERTY: tully

HOLE No: 90-5

5. MZ ( 1.80 d.t. Core Angle: 90 1.80 t.t.)

FROM: 642.58

EASTINGS: 1567.10  
NORTHINGS: 116.72  
ELEVATION: -558.76

0.079 AU  
2.697 Au g/t

TO: 644.38

EASTINGS: 1567.20  
NORTHINGS: 115.56  
ELEVATION: -560.13

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-2

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FROM	TO	DESCRIPTION
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418	422	Mafic volcanic flow; dark green to black; fine grained; light chlorite-carb alt., few irreg. qtz-carb. fractures + veinlets of various angles to c.a.
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422	490	Carbonate altered mafic volcanics; light grey-green; intense pervasive carb. alt. + many irreg. qtz-carb. fractures + veinlets @ many orientations to c.a.; tr to <1% fine to medium subhedral py.
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Note: 476-496 previously sampled

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 2

PROPERTY: tully

HOLE No.: 88-2

=====

FROM	TO	WIDTH	Au	Au-g/t
13.72	14.72	1.01	N.S.	N.S.
38.74	40.08	1.34	N.S.	N.S.
40.08	41.45	1.37	N.S.	N.S.
41.45	42.03	0.58	N.S.	N.S.
65.38	66.29	0.91	0.002	0.069
66.29	66.60	0.30	N.S.	N.S.
66.60	67.79	1.19	N.S.	N.S.
67.79	68.67	0.88	N.S.	N.S.
68.67	69.16	0.49	N.S.	N.S.
69.16	70.71	1.55	N.S.	N.S.
70.71	711.31	640.60	N.S.	N.S.
71.23	71.93	0.70	N.S.	N.S.
71.93	73.37	1.43	N.S.	N.S.
82.60	83.12	0.52	N.S.	N.S.
83.12	83.55	0.43	N.S.	N.S.
83.55	84.00	0.46	N.S.	N.S.
128.63	130.15	1.52	NIL	NIL
130.15	131.67	1.52	NIL	NIL
131.67	133.20	1.52	NIL	NIL
133.20	134.72	1.52	NIL	NIL
134.72	136.25	1.52	NIL	NIL
136.25	137.77	1.52	NIL	NIL
137.77	139.29	1.52	NIL	NIL
139.29	140.82	1.52	NIL	NIL
140.82	142.34	1.52	NIL	NIL
142.34	143.87	1.52	NIL	NIL
143.87	145.08	1.22	TRACE	0.010
145.08	146.61	1.52	N.S.	N.S.
146.61	148.13	1.52	N.S.	N.S.
148.13	149.66	1.52	0.006	0.206
149.66	151.18	1.52	0.004	0.137
151.18	151.70	0.52	TRACE	TRACE
151.70	152.64	0.94	TRACE	TRACE
152.64	153.68	1.04	0.002	0.069
153.68	154.38	0.70	0.004	0.137
154.38	155.20	0.82	TRACE	TRACE
155.20	155.75	0.55	TRACE	TRACE
155.75	156.48	0.73	TRACE	TRACE
156.48	156.67	0.18	TRACE	TRACE
156.48	157.28	0.79	N.S.	N.S.
157.28	158.80	1.52	N.S.	N.S.
158.80	159.71	0.91	N.S.	N.S.
159.71	160.32	0.61	N.S.	N.S.
160.32	161.39	1.07	N.S.	N.S.
161.39	162.15	0.76	N.S.	N.S.
162.15	163.37	1.22	N.S.	N.S.
163.37	164.90	1.52	0.046	1.577
164.90	166.30	1.40	0.050	1.714
166.30	167.18	0.88	N.S.	N.S.
167.94	168.71	0.76	N.S.	N.S.

\*\* BORSURV \*\*

ASSAY LOG

Page 2 of 2

PROPERTY: tully

HOLE No.: 88-2

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FROM	TO	WIDTH	Au	Au g/t
169.47	170.23	0.76	N.S.	N.S.
170.99	171.75	0.76	N.S.	N.S.
172.52	173.28	0.76	N.S.	N.S.
174.04	174.80	0.76	N.S.	N.S.
175.56	176.33	0.76	N.S.	N.S.
177.09	177.85	0.76	N.S.	N.S.
178.61	179.37	0.76	N.S.	N.S.
180.14	180.90	0.76	N.S.	N.S.
181.66	182.42	0.76	N.S.	N.S.
183.18	183.95	0.76	N.S.	N.S.
184.71	185.47	0.76	N.S.	N.S.
186.23	186.99	0.76	N.S.	N.S.
187.76	188.52	0.76	N.S.	N.S.
189.28	190.04	0.76	N.S.	N.S.
190.80	191.57	0.76	N.S.	N.S.
192.33	193.09	0.76	N.S.	N.S.
193.85	194.61	0.76	N.S.	N.S.
195.38	196.14	0.76	N.S.	N.S.
196.90	197.66	0.76	N.S.	N.S.
198.42	199.19	0.76	N.S.	N.S.



AVERAGED ASSAY INTERVALS

PROPERTY: tully

HOLE No: 88-2

1. MZ ( 2.93 d.t. -- Core Angle: 90 2.93 t.t.)

FROM: 163.37	EASTINGS: 1493.52
	NORTHINGS: -31.39
	ELEVATION: -129.16

0.048 Au  
1.643 Au g/t

TO: 166.30	EASTINGS: 1493.52
	NORTHINGS: -33.23
	ELEVATION: -131.43

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-3

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FROM	TO	DESCRIPTION
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296	314.5	Mafic volcanic flow; dark green to black; fine grained; light to moderate pervasive carb. alt. throughout; several irreg. qtz-carb. fractures and veinlets at various orientations; minor wispy chl. stringers; trace sulphides.
	311 - 314.5	Several white qtz. veins < ¼" - 4" at various orientations; 1-5% chl along fractures; <1% fine dissem. py.
314.5	334	Mafic volcanics; as above - lighter green-grey colour; increased carb. alteration; several white qtz. veins + fractures mainly @ 50° & subparallel to c.a.; <1% fine dissem. py; minor Fe carb. staining in qtz veins.

\*\* BORSURV \*\*

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 88-3

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FROM	TO	WIDTH	AU	AG (GMS)
94.79	96.32	1.52	0.001	0.041
96.32	97.84	1.52	NIL	NIL
97.84	99.36	1.52	NIL	NIL
99.36	100.89	1.52	NIL	NIL
106.40	106.98	0.58	0.026	0.890
120.00	125.00	5.00	0.111	3.150

AVERAGED ASSAY INTERVALS

PROPERTY: tully

HOLE No: 88-3

=====

1. MZ (- 5.00 d.t. Core Angle: 90 - 5.00 t.t.)

FROM: 120.00 ----- EASTINGS: 1524.00  
NORTHINGS: -26.67  
ELEVATION: -95.68

0.111 AU  
3.150 AU (GMS)

TO: 125.00 ----- EASTINGS: 1524.00  
NORTHINGS: -29.78  
ELEVATION: -99.60

2. HW ( 0.58 d.t. Core Angle: 90 0.58 t.t.)

FROM: 106.40 ----- EASTINGS: 1524.00  
NORTHINGS: -18.23  
ELEVATION: -85.02

0.026 AU  
0.890 AU (GMS)

TO: 106.98 ----- EASTINGS: 1524.00  
NORTHINGS: -18.59  
ELEVATION: -85.47

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-4

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FROM	TO	DESCRIPTION
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398.3	480	Mafic volcanic flow; dark green to black; fine grained; speckled with very fine white feldspar; light to moderate chloritization; minor pervasive carb. in places with several irregular qtz-carb. veinlets & stringers < ½" - 1" @ various orientations to c.a.; trace fine to medium subhedral py cubes.
	408 - 413.5	many very irreg. qtz-carb. veins ½" - 1" at various orientations; heavy chl alt; trace py.
	436 - 441	as above.
	451 - 480	increased pervasive carb. alt; nil to trace sulphides; minor irreg. qtz. fractures & veinlets at various orientations.
480	494.5	Mafic to int. tuff; fine tuff fragments < 3mm, banded @ 45° to c.a.; light pervasive carb. alt; light grey-green colour; several white qtz. veins < ½" - 3" @ 45 - 70° to c.a.; trace sulphides throughout.

ASSAY LOG  
 PROPERTY: tully  
 HOLE No.: 88-4

FROM	TO	WIDTH	AU	Au g/t
14.02	15.54	1.52	TRACE	TRACE
15.54	16.76	1.22	TRACE	TRACE
38.10	38.53	0.43	TRACE	TRACE
38.53	38.95	0.43	TRACE	TRACE
38.95	39.93	0.98	TRACE	TRACE
39.93	40.78	0.85	TRACE	TRACE
40.78	41.54	0.76	TRACE	TRACE
41.54	42.25	0.70	N.S.	N.S.
42.25	42.89	0.64	N.S.	N.S.
124.36	126.03	1.68	NIL	NIL
130.00	135.00	5.00	N.S.	N.S.
132.89	134.42	1.52	0.001	0.038
143.26	144.78	1.52	NIL	NIL
144.78	146.30	1.52	NIL	NIL
146.30	147.83	1.52	NIL	NIL
151.12	151.42	0.30	TRACE	TRACE
151.42	152.16	0.73	0.012	0.411
152.16	153.28	1.13	0.002	0.069
153.28	154.47	1.19	TRACE	TRACE
154.47	155.75	1.28	TRACE	TRACE
155.75	157.00	1.25	TRACE	TRACE
157.00	158.28	1.28	0.002	0.069
158.28	159.71	1.43	TRACE	TRACE
159.71	160.17	0.46	TRACE	TRACE
160.17	161.70	1.52	TRACE	TRACE
161.70	162.28	0.58	TRACE	TRACE
162.28	163.37	1.10	TRACE	TRACE
163.37	163.74	0.37	TRACE	TRACE
163.74	165.14	1.40	0.026	0.892
165.14	166.42	1.28	0.006	0.206
166.42	167.94	1.52	TRACE	TRACE
167.94	169.47	1.52	N.S.	N.S.
169.47	170.99	1.52	N.S.	N.S.
170.99	172.52	1.52	N.S.	N.S.
172.52	173.71	1.19	TRACE	TRACE
173.71	174.28	0.58	0.044	1.509
174.28	175.56	1.28	0.032	1.097
175.56	177.09	1.52	0.018	0.617
177.09	177.79	0.70	N.S.	N.S.
177.79	179.37	1.58	N.S.	N.S.
180.14	180.90	0.76	N.S.	N.S.
181.66	182.42	0.76	N.S.	N.S.
183.18	183.95	0.76	N.S.	N.S.
184.71	185.47	0.76	N.S.	N.S.
186.23	186.99	0.76	N.S.	N.S.
187.76	188.52	0.76	N.S.	N.S.
189.28	190.04	0.76	N.S.	N.S.
190.80	191.57	0.76	N.S.	N.S.
192.33	193.09	0.76	N.S.	N.S.
193.85	194.61	0.76	N.S.	N.S.

**\*\* BORSURV \*\***

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 88-4

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FROM	TO	WIDTH	AU	Au-g/t
195.38	196.14	0.76	N.S.	N.S.
196.90	197.66	0.76	N.S.	N.S.
198.42	199.19	0.76	N.S.	N.S.





## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-5

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FROM	TO	DESCRIPTION
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351.5	463	Mafic volcanic flow; dark green to black; fine grained; light to moderate pervasive carb-chl alt. throughout; several qtz-carb. fractures & veinlets <math>< 1/16'' - 1/8''</math> at various orientations to c.a; trace pyrite as fine-medium sized subhedral cubes in both veinlets & wall rock.
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@ 361 white qtz-carb. vein 1" wide @ 30° to c.a.; trace pyrite.

397	- 402	increased qtz-carb. veining <math>< 1/4'' - 1''</math> at various orientations to c.a.; core moderately chl-carb. altered; <math>< 1\%</math> fine subhedral py.
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402	- 422.5	increased pervasive chl-carb. alt; core lighter green colour; <math>< 1\% - 1\%</math> fine to medium py; several irreg. qtz-carb. fractures & veinlets at many orientations.
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422.5	- 463	Mafic volcanic flow as before
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NOTE: 535 - 558 - previously split

\*\* BORSURV \*\*

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 88-5

Page 1 of 1

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FROM	TO	WIDTH	AU	Au g/t
15.33	15.82	0.49	N.S.	N.S.
36.82	37.19	0.37	0.002	0.069
37.19	38.56	1.37	TRACE	TRACE
38.56	38.95	0.40	TRACE	TRACE
108.81	110.34	1.52	NIL	NIL
117.96	119.48	1.52	NIL	NIL
119.48	121.01	1.52	NIL	NIL
121.01	122.53	1.52	NIL	NIL
122.53	124.05	1.52	NIL	NIL
124.05	125.58	1.52	NIL	NIL
125.58	127.10	1.52	0.011	0.381
127.10	128.78	1.68	0.028	0.967
135.33	136.85	1.52	NIL	NIL
148.22	149.47	1.25	N.S.	N.S.
149.47	150.72	1.25	TRACE	TRACE
150.72	151.79	1.07	N.S.	N.S.
151.79	152.70	0.91	N.S.	N.S.
152.70	154.23	1.52	N.S.	N.S.
154.23	154.96	0.73	N.S.	N.S.
154.96	155.75	0.79	N.S.	N.S.
155.75	157.28	1.52	N.S.	N.S.
157.28	158.80	1.52	N.S.	N.S.
158.80	160.32	1.52	N.S.	N.S.
160.32	161.85	1.52	N.S.	N.S.
161.85	163.37	1.52	N.S.	N.S.
163.37	164.90	1.52	TRACE	TRACE
164.90	166.42	1.52	TRACE	TRACE
166.42	167.33	0.91	TRACE	TRACE
167.33	167.64	0.30	N.S.	N.S.
169.47	170.23	0.76	N.S.	N.S.
170.99	171.75	0.76	N.S.	N.S.
172.52	173.28	0.76	N.S.	N.S.
174.04	174.80	0.76	N.S.	N.S.
175.56	176.33	0.76	N.S.	N.S.
177.09	177.85	0.76	N.S.	N.S.
178.61	179.37	0.76	N.S.	N.S.
180.14	180.90	0.76	N.S.	N.S.
181.66	182.42	0.76	N.S.	N.S.
183.18	183.95	0.76	N.S.	N.S.

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**DIAMOND DRILL LOG**

**CLIENT:** Cyprus Gold  
**NAME OF PROPERTY:** Tully Twp.  
**HOLE NO:** 88-FI-6

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**FROM TO DESCRIPTION**

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262.3 339.3 Mafic - intermediate volcanics; dark green; fine grained; moderate pervasive carbonatization; minor scattered chl. alt; few irreg. qtz-carb. veinlets & stringers @ various orientations; trace py.

\*\* BORSURV \*\*

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 88-6

FROM	TO	WIDTH	AU	Au g/t
84.12	85.65	1.52	NIL	NIL
85.65	87.17	1.52	NIL	NIL
96.32	97.84	1.52	NIL	NIL
97.84	99.36	1.52	NIL	NIL
117.65	119.18	1.52	N.S.	N.S.
119.18	120.70	1.52	N.S.	N.S.
120.70	122.22	1.52	N.S.	N.S.
122.22	123.75	1.52	N.S.	N.S.
123.75	125.27	1.52	N.S.	N.S.
125.27	126.80	1.52	N.S.	N.S.
126.80	128.32	1.52	N.S.	N.S.
128.32	129.84	1.52	N.S.	N.S.
129.84	130.30	0.46	TRACE	TRACE
130.30	131.37	1.07	0.026	0.892
131.37	132.89	1.52	TRACE	TRACE
132.89	134.42	1.52	TRACE	TRACE
134.42	135.24	0.82	TRACE	TRACE
135.24	136.25	1.01	0.036	1.234
136.25	137.77	1.52	0.110	3.772
137.77	138.44	0.67	TRACE	TRACE
138.44	138.99	0.55	0.252	8.641

AVERAGED ASSAY INTERVALS

PROPERTY: tully  
HOLE No: 88-6

1. MZ-( 2.74 d.t. Core Angle: 90 2.74 t.t.)

FROM: 136.25 EASTINGS: 1630.68  
NORTHINGS: -26.09  
ELEVATION: -101.91

0.112 AU  
3.824 Au g/t

TO: 138.99 EASTINGS: 1630.68  
NORTHINGS: -28.02  
ELEVATION: -103.86

2. HW (10.00 d.t. Core Angle: 90 10.00 t.t.)

FROM: 90.00 EASTINGS: 1630.68  
NORTHINGS: 6.44  
ELEVATION: -69.05

-0.000 AU  
-0.000 Au g/t

TO: 100.00 EASTINGS: 1630.68  
NORTHINGS: -0.57  
ELEVATION: -76.17

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-7

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FROM	TO	DESCRIPTION
161	264.3	Interbedded fine-grained intermediate volcanics, tuff, and brecciated volcanics; light grey-green; tuff fragments <math>< \frac{1}{8}"</math> - 1"; lightly banded @ 40°-50° to c.a.; several very irreg. qtz-carb. fractures & veinlets @ various orientations to c.a.; minor Fe & Fe-carb. staining throughout; <math>< 1\%</math> fine-medium sized subhedral-anhedral pyrite dissem. throughout.
	200 - 223	increased Fe staining along many irreg. micro fractures.
	230 - 264	increased pervasive carb. alt.; less Fe staining; several calcite filled amygdules <math>< \frac{1}{8}"</math> - <math&gt;\frac{1}{2}&quot;&lt; &amp;="" &lt;math&gt;&lt;="" -="" <math&gt;\frac{1}{4}&quot;&lt;="" @="" \frac{1}{16}&quot;&lt;="" across="" fracturing="" math&gt;="" minor="" nil="" orientations;="" qtz-carb.="" sulphides.<="" td="" trace="" various="" veinlets="" with=""></math&gt;\frac{1}{2}&quot;&lt;>
<u>NOTE:</u>	264.3 - 281	previously samples

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 1

PROPERTY: tully

HOLE No.: 88-7

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FROM	TO	WIDTH	AU	Au g/t
8.23	85.65	77.42	N.S.	N.S.
49.07	50.60	1.52	NIL	NIL
50.60	52.12	1.52	NIL	NIL
52.12	53.64	1.52	TRACE	0.010
53.64	55.17	1.52	NIL	NIL
55.17	56.69	1.52	NIL	NIL
56.69	58.22	1.52	NIL	NIL
58.22	59.74	1.52	NIL	NIL
59.74	61.51	1.77	NIL	NIL
61.51	62.79	1.28	N.S.	N.S.
62.79	64.31	1.52	0.001	0.038
64.31	65.84	1.52	NIL	NIL
65.84	67.36	1.52	0.013	0.429
67.36	68.88	1.52	TRACE	0.014
68.88	70.41	1.52	NIL	NIL
70.41	71.93	1.52	NIL	NIL
71.93	73.46	1.52	NIL	NIL
73.46	74.98	1.52	TRACE	0.024
74.98	76.50	1.52	NIL	NIL
76.50	78.03	1.52	NIL	NIL
78.03	79.55	1.52	NIL	NIL
79.55	80.56	1.01	NIL	NIL
80.56	81.08	0.52	N.S.	N.S.
81.08	82.60	1.52	N.S.	N.S.
82.60	84.12	1.52	N.S.	N.S.
85.65	87.17	1.52	N.S.	N.S.
87.17	88.70	1.52	N.S.	N.S.
88.64	90.16	1.52	TRACE	TRACE
90.16	91.23	1.07	0.020	0.686
91.23	91.68	0.46	0.151	5.178
91.68	92.17	0.49	0.528	18.105
92.17	92.69	0.52	0.062	2.126
92.69	94.03	1.34	0.092	3.155
94.03	95.34	1.31	0.002	0.069
95.34	96.32	0.98	TRACE	TRACE
96.32	97.84	1.52	TRACE	TRACE
97.84	99.36	1.52	0.004	0.137
99.36	100.16	0.79	0.002	0.069
100.89	101.65	0.76	N.S.	N.S.
102.41	103.17	0.76	N.S.	N.S.
103.94	104.70	0.76	N.S.	N.S.

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AVERAGED ASSAY INTERVALS

PROPERTY: tully  
HOLE No: 88-7

1. MZ ( 2.80 d.t. Core Angle: 90 2.80 t.t.)

FROM: 91.23

EASTINGS: 1684.02  
NORTHINGS: -7.55  
ELEVATION: -71.76

0.172 AU  
5.895 Au g/t

TO: 94.03

EASTINGS: 1684.02  
NORTHINGS: -9.28  
ELEVATION: -73.97

2. HW ( 3.57 d.t. Core Angle: 90 3.57 t.t.)

FROM: 80.56

EASTINGS: 1684.02  
NORTHINGS: -0.97  
ELEVATION: -63.37

-0.000 AU  
-0.000 Au g/t

TO: 84.12

EASTINGS: 1684.02  
NORTHINGS: -3.17  
ELEVATION: -66.18

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-8

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FROM	TO	DESCRIPTION
91	115	Mafic to intermediate volcanics; fine grained; dark green; light pervasive carb. alt; a few very irreg. white qtz. veinlets $< \frac{1}{4}$ " - $\frac{1}{2}$ " @ various orientations; minor Fe-staining throughout; $< 1\%$ fine dissem. py.
96.5	- 101.5	increased Fe staining; $< 1\%$ fine dissem. py, trace Asp.
101.5	- 109	CORE MISSING
109	- 109.8	Sulphide band subparallel to c.a.; $10\%$ dissem. py; $< 1\%$ Asp mottled with white quartz.
109.8	- 115	$< 1-2\%$ dissem. py, tr. asp in irreg. band $< \frac{1}{8}$ " at $50^\circ$ to c.a. light carb. alt.
172	211	Mafic volcanic flow; dark green-black; fine grained; moderate pervasive carb. alt; several irreg. qtz.-carb. fractures & veinlets at various orientations; trace dissem. py throughout.
211	248	Brecciated & altered mafic volcanics; light grey-green colour; moderately fractured & brecciated with qtz.-carb. matrix; several white qtz.-veins $\frac{1}{8}$ " - $\frac{1}{2}$ " @ $40-60^\circ$ to c.a.; light pervasive carbonate alt; lightly sericitized $< 1\%$ fine dissem. py; brown Fe-carb staining throughout.

NOTE: 302-345 previously sampled.

\*\* BORSURV \*\*

ASSAY LOG  
 PROPERTY: tully  
 HOLE No.: 88-8

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FROM	TO	WIDTH	AU	Au g/t
27.89	29.41	1.52	NIL	NIL
29.38	30.18	0.79	0.371	12.722
29.41	30.94	1.52	NIL	NIL
33.22	34.75	1.52	NIL	NIL
62.79	64.31	1.52	NIL	NIL
64.31	65.84	1.52	NIL	NIL
65.84	67.36	1.52	NIL	NIL
67.36	68.88	1.52	NIL	NIL
68.88	70.41	1.52	TRACE	0.010
70.41	71.93	1.52	NIL	NIL
71.93	73.46	1.52	NIL	NIL
73.46	74.98	1.52	NIL	NIL
83.52	83.97	0.46	0.002	0.069
83.97	84.73	0.76	0.012	0.411
84.73	85.80	1.07	0.002	0.069
85.80	86.68	0.88	TRACE	TRACE
86.68	88.21	1.52	TRACE	TRACE
88.21	89.73	1.52	TRACE	TRACE
89.73	91.26	1.52	TRACE	TRACE
91.26	92.26	1.01	TRACE	TRACE
92.26	93.51	1.25	0.064	2.195
93.51	94.79	1.28	N.S.	N.S.
94.79	96.32	1.52	N.S.	N.S.
96.32	98.02	1.71	0.002	0.069
98.02	99.36	1.34	N.S.	N.S.
99.36	100.89	1.52	N.S.	N.S.
100.89	102.17	1.28	N.S.	N.S.
102.17	103.39	1.22	TRACE	TRACE
103.39	104.33	0.94	TRACE	TRACE
104.33	104.73	0.40	0.048	1.646
104.73	105.03	0.30	TRACE	TRACE
105.03	106.56	1.52	0.002	0.069
106.56	107.17	0.61	TRACE	TRACE
107.17	108.14	0.98	N.S.	N.S.

AVERAGED ASSAY INTERVALS

PROPERTY: tully

HOLE No: 88-8

1. HW ( 0.79 d.t. Core Angle: 90 0.79 t.t.)

FROM: 29.38

EASTINGS: 1729.74  
NORTHINGS: 31.16  
ELEVATION: -23.52

0.371 AU  
12.722 Au g/t

TO: 30.18

EASTINGS: 1729.74  
NORTHINGS: 30.69  
ELEVATION: -24.16

2. HW ( 1.25 d.t. Core Angle: 90 1.25 t.t.)

FROM: 92.26

EASTINGS: 1729.74  
NORTHINGS: -8.36  
ELEVATION: -72.39

0.064 AU  
2.195 Au g/t

TO: 93.51

EASTINGS: 1729.74  
NORTHINGS: -9.17  
ELEVATION: -73.34

3. MZ ( 0.40 d.t. Core Angle: 90 0.40 t.t.)

FROM: 104.33

EASTINGS: 1729.74  
NORTHINGS: -16.19  
ELEVATION: -81.58

0.048 AU  
1.646 Au g/t

TO: 104.73

EASTINGS: 1729.74  
NORTHINGS: 16.45  
ELEVATION: -81.88

**DIAMOND DRILL LOG**

**CLIENT:** Cyprus Gold  
**NAME OF PROPERTY:** Tully Twp.  
**HOLE NO:** 88-FI-9

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**FROM TO DESCRIPTION**

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361 399.6 Mafic volcanic flow; dark green to black; fine grained; moderate pervasive carbonate alt. throughout; lightly chloritized; several irreg. qtz-carb. fractures <math>\frac{1}{2}</math>" at various angles to c.a.; trace dissem. py.

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 2

PROPERTY: tully

HOLE No.: 88-9

=====

FROM	TO	WIDTH	AU	Au-g/t
15.06	16.25	1.19	N.S.	N.S.
36.12	36.97	0.85	0.002	0.069
36.97	37.92	0.94	0.002	0.069
37.92	38.71	0.79	TRACE	TRACE
38.71	39.32	0.61	0.028	0.960
39.32	39.68	0.37	0.008	0.274
39.68	41.30	1.62	TRACE	TRACE
44.29	46.02	1.74	N.S.	N.S.
46.02	47.55	1.52	N.S.	N.S.
47.55	49.07	1.52	N.S.	N.S.
49.07	50.60	1.52	N.S.	N.S.
50.60	52.12	1.52	N.S.	N.S.
52.12	53.64	1.52	N.S.	N.S.
53.64	55.17	1.52	N.S.	N.S.
55.17	56.69	1.52	N.S.	N.S.
56.69	58.22	1.52	N.S.	N.S.
58.22	59.74	1.52	N.S.	N.S.
59.74	61.26	1.52	N.S.	N.S.
61.26	62.79	1.52	N.S.	N.S.
62.79	64.31	1.52	N.S.	N.S.
64.31	64.77	0.46	N.S.	N.S.
64.77	65.84	1.07	0.008	0.274
65.84	66.75	0.91	0.038	1.303
66.75	67.36	0.61	N.S.	N.S.
67.36	68.88	1.52	N.S.	N.S.
68.88	70.41	1.52	N.S.	N.S.
70.41	71.93	1.52	N.S.	N.S.
71.93	73.46	1.52	N.S.	N.S.
73.46	74.25	0.79	N.S.	N.S.
74.25	74.98	0.73	N.S.	N.S.
74.98	75.90	0.91	0.012	0.411
75.90	76.50	0.61	N.S.	N.S.
76.50	78.03	1.52	N.S.	N.S.
78.03	79.55	1.52	N.S.	N.S.
79.55	80.77	1.22	N.S.	N.S.
114.60	116.13	1.52	NIL	NIL
116.13	117.65	1.52	TRACE	0.010
117.65	119.18	1.52	NIL	NIL
130.24	131.67	1.43	N.S.	N.S.
134.11	135.94	1.83	N.S.	N.S.
135.94	137.46	1.52	N.S.	N.S.
137.46	138.99	1.52	N.S.	N.S.
138.99	139.48	0.49	N.S.	N.S.
139.48	140.91	1.43	N.S.	N.S.
140.91	142.43	1.52	N.S.	N.S.
142.43	143.96	1.52	N.S.	N.S.
143.96	145.48	1.52	N.S.	N.S.
145.48	147.00	1.52	N.S.	N.S.
147.00	148.53	1.52	N.S.	N.S.
148.53	149.66	1.13	N.S.	N.S.

**\*\* BORSURV \*\***

ASSAY LOG

Page 2 of 2

PROPERTY: tully

HOLE No.: 88-9

=====

FROM	TO	WIDTH	AU	Au-g/t
149.66	151.18	1.52	N.S.	N.S.
<del>151.18</del>	<del>152.70</del>	<del>1.52</del>	<del>N.S.</del>	<del>N.S.</del>
152.70	153.01	0.30	N.S.	N.S.
153.01	154.08	1.07	N.S.	N.S.
<del>154.08</del>	<del>155.33</del>	<del>1.25</del>	<del>0.030</del>	<del>1.029</del>
155.33	156.76	1.43	0.096	3.292
156.76	157.89	1.13	0.002	0.069
<del>157.89</del>	<del>158.80</del>	<del>0.91</del>	<del>0.250</del>	<del>8.572</del>
158.80	160.32	1.52	0.170	5.829
160.32	161.85	1.52	0.058	1.989
<del>161.85</del>	<del>163.37</del>	<del>1.52</del>	<del>0.002</del>	<del>0.069</del>
163.37	163.98	0.61	TRACE	TRACE
164.90	165.66	0.76	N.S.	N.S.
<del>166.42</del>	<del>167.18</del>	<del>0.76</del>	<del>N.S.</del>	<del>N.S.</del>
167.94	168.71	0.76	N.S.	N.S.
169.47	170.23	0.76	N.S.	N.S.
<del>170.99</del>	<del>171.75</del>	<del>0.76</del>	<del>N.S.</del>	<del>N.S.</del>

**\*\* BORSURV \*\***

**AVERAGED ASSAY INTERVALS**

Page 1 of 1

PROPERTY: ~~tully~~

HOLE No: 88-9

=====

1.-MZ ( 7.77-d.t.---Core-Angle:-90---7.77-t,t.)

FROM: 154.08

EASTINGS: 1768.00

NORTHINGS: 15.69

ELEVATION: -116.03

0.097 AU

3.324 Au g/t

TO: 161.85

EASTINGS: 1768.00

NORTHINGS: 10.59

ELEVATION: -121.89



## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-10

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FROM	TO	DESCRIPTION
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346	372.7	Mafic to intermediate flow; fine-grained; dark green-grey; lightly carbonatized throughout; banded @ 40° to c.a.; trace sulphides.
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346	-	360	Several white-qtz.- carb. veins <math>\frac{1}{2}</math>" - 2" at low angles to c.a.; trace irreg. blebs py, cpy, sph.
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360	-	372.7	Speckled with fine yellow-cream feldspar; less intense carbonatization; <math><1\%</math> fine dissem. py; light sericite alt.
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**NOTE:**

372	-	386	Previously sampled some sections of core missing.
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482	-	503.7	Previously sampled
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\*\* BORSURV \*\*

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 88-10

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FROM	TO	WIDTH	AU	Au-g/t
28.01	29.26	1.25	N.S.	N.S.
29.26	31.15	1.89	N.S.	N.S.
31.15	32.10	0.94	N.S.	N.S.
32.10	33.83	1.74	N.S.	N.S.
33.83	35.36	1.52	N.S.	N.S.
35.36	36.88	1.52	N.S.	N.S.
36.88	38.40	1.52	N.S.	N.S.
38.40	39.93	1.52	N.S.	N.S.
39.93	41.45	1.52	N.S.	N.S.
41.45	42.98	1.52	N.S.	N.S.
42.98	43.43	0.46	N.S.	N.S.
43.43	44.20	0.76	N.S.	N.S.
44.20	45.90	1.71	N.S.	N.S.
44.20	44.84	0.64	N.S.	N.S.
45.90	47.55	1.65	N.S.	N.S.
47.55	48.92	1.37	N.S.	N.S.
48.92	49.35	0.43	N.S.	N.S.
49.35	50.44	1.10	N.S.	N.S.
110.49	112.01	1.52	0.017	0.576
112.01	113.60	1.58	TRACE	0.010
113.60	114.06	0.46	0.166	5.692
114.06	115.09	1.04	TRACE	TRACE
115.09	116.52	1.43	0.115	3.943
116.52	117.65	1.13	0.002	0.069
117.65	119.18	1.52	N.S.	N.S.
119.18	120.70	1.52	N.S.	N.S.
120.70	122.22	1.52	N.S.	N.S.
122.22	123.75	1.52	N.S.	N.S.
123.75	125.27	1.52	N.S.	N.S.
125.27	126.80	1.52	N.S.	N.S.
126.80	127.62	0.82	N.S.	N.S.
127.62	128.02	0.40	0.014	0.480
128.02	129.84	1.83	0.022	0.754
129.84	131.37	1.52	0.006	0.206
131.37	131.98	0.61	0.034	1.166
131.98	132.89	0.91	N.S.	N.S.
132.89	134.42	1.52	N.S.	N.S.
134.42	135.94	1.52	N.S.	N.S.
135.94	137.46	1.52	0.002	0.069
137.46	138.99	1.52	N.S.	N.S.
138.99	140.51	1.52	N.S.	N.S.
140.51	142.19	1.68	N.S.	N.S.
142.19	142.74	0.55	TRACE	TRACE
142.74	143.56	0.82	TRACE	TRACE
143.56	144.84	1.28	0.008	0.274
144.84	146.30	1.46	0.038	1.303
146.30	146.91	0.61	TRACE	TRACE
146.91	148.13	1.22	N.S.	N.S.
148.13	149.66	1.52	N.S.	N.S.
149.66	151.18	1.52	N.S.	N.S.

**\*\* BORSURV \*\***

ASSAY LOG

Page 2 of 2

PROPERTY: tully

HOLE No.: 88-10

=====

FROM	TO	WIDTH	AU	Au-g/t
151.18	152.70	1.52	N.S.	N.S.
152.70	153.53	0.82	N.S.	N.S.
154.23	154.99	0.76	N.S.	N.S.
155.75	156.51	0.76	N.S.	N.S.
157.28	158.04	0.76	N.S.	N.S.
158.80	159.56	0.76	N.S.	N.S.

**AVERAGED ASSAY INTERVALS**

PROPERTY: tully

HOLE No: 88-10

=====

1.- MZ- ( 2.93-d.t. Core-Angle: 90 2.93 t.t. )

FROM: 113.60

EASTINGS: 1813.56  
NORTHINGS: 39.49  
ELEVATION: -91.60

0.082 AU

2.823 Au g/t

TO: 116.52

EASTINGS: 1813.56  
NORTHINGS: 37.73  
ELEVATION: -93.93

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-11

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FROM	TO	DESCRIPTION
1014.5	1031	Mafic-int volcanic - flow top breccia? dark green-grey; fine grained: heavily brecciated with carb. & qtz. microfractures; lightly chloritized; <1% fine disse. py.
1031	1062.2	Mafic-ultramafic flow; dark green to black; speckled with very fine white-cream feldspars; several very irreg. white qtz-carb. fractures & veinlets @ various orientations; trace sulphides; mod. talc-chl alt.
1062.2	1090.5	<u>BOX 56 - MISSING</u> ; according to old logs the ultramafic ends @ 1085 and the flow breccia starts again.
1090.5	1129	Mafic - int volcanic flow; brecciated in places;; light green-grey colour: many very irreg. qtz-carb. fractures & veinlets at many orientations to c.a.; many carbonate filled amygdules; tr - <1% fine disse. py.

\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully  
HOLE No.: 88-11

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FROM	TO	WIDTH	AU	Au-g/t
88.27	89.76	1.49	TRACE	TRACE
89.76	91.26	1.49	TRACE	TRACE
91.26	91.56	0.30	TRACE	TRACE
91.56	92.42	0.85	TRACE	TRACE
92.42	93.60	1.19	TRACE	TRACE
93.60	94.79	1.19	TRACE	TRACE
94.79	96.32	1.52	0.002	0.069
96.32	97.84	1.52	0.002	0.069
97.84	99.36	1.52	NIL	NIL
99.36	99.70	0.34	TRACE	TRACE
99.70	100.89	1.19	TRACE	TRACE
100.89	102.41	1.52	TRACE	TRACE
102.41	103.33	0.91	TRACE	TRACE
103.33	104.49	1.16	TRACE	TRACE
104.49	105.46	0.98	TRACE	TRACE
105.46	106.98	1.52	N.S.	N.S.
106.98	108.51	1.52	N.S.	N.S.
108.51	110.03	1.52	N.S.	N.S.
110.03	111.56	1.52	N.S.	N.S.
111.56	113.08	1.52	N.S.	N.S.
113.08	114.60	1.52	N.S.	N.S.
114.60	116.13	1.52	N.S.	N.S.
116.13	117.65	1.52	N.S.	N.S.
117.65	119.18	1.52	N.S.	N.S.
119.18	120.70	1.52	N.S.	N.S.
120.70	122.22	1.52	N.S.	N.S.
122.22	123.75	1.52	N.S.	N.S.
123.75	125.27	1.52	N.S.	N.S.
125.27	126.80	1.52	N.S.	N.S.
126.80	128.32	1.52	N.S.	N.S.
128.32	129.84	1.52	N.S.	N.S.
129.84	131.37	1.52	N.S.	N.S.
131.37	132.89	1.52	N.S.	N.S.
132.89	134.42	1.52	N.S.	N.S.
134.42	135.94	1.52	N.S.	N.S.
135.94	137.46	1.52	N.S.	N.S.
137.46	138.99	1.52	N.S.	N.S.
138.99	140.51	1.52	N.S.	N.S.
140.51	142.04	1.52	N.S.	N.S.
142.04	143.56	1.52	N.S.	N.S.
143.56	145.08	1.52	N.S.	N.S.
145.08	146.61	1.52	N.S.	N.S.
146.61	148.13	1.52	N.S.	N.S.
148.13	149.66	1.52	N.S.	N.S.
149.66	151.18	1.52	N.S.	N.S.
151.18	152.70	1.52	N.S.	N.S.
152.70	154.23	1.52	N.S.	N.S.
154.23	155.75	1.52	N.S.	N.S.
155.75	157.28	1.52	N.S.	N.S.
157.28	158.80	1.52	N.S.	N.S.

\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully

HOLE No.: 88-11

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FROM	TO	WIDTH	AU	Au-g/t
158.80	160.32	1.52	N.S.	N.S.
160.32	161.85	1.52	N.S.	N.S.
161.85	163.37	1.52	N.S.	N.S.
163.37	164.90	1.52	N.S.	N.S.
164.90	166.42	1.52	N.S.	N.S.
166.42	167.94	1.52	N.S.	N.S.
167.94	169.47	1.52	N.S.	N.S.
169.47	170.99	1.52	N.S.	N.S.
170.99	172.52	1.52	N.S.	N.S.
172.52	174.04	1.52	N.S.	N.S.
174.04	175.56	1.52	N.S.	N.S.
175.56	177.09	1.52	N.S.	N.S.
177.09	178.61	1.52	N.S.	N.S.
178.61	180.14	1.52	N.S.	N.S.
180.14	181.66	1.52	N.S.	N.S.
181.66	183.18	1.52	N.S.	N.S.
183.18	184.71	1.52	N.S.	N.S.
184.71	186.23	1.52	N.S.	N.S.
186.23	187.76	1.52	N.S.	N.S.
187.76	189.28	1.52	N.S.	N.S.
189.28	190.80	1.52	N.S.	N.S.
190.80	192.33	1.52	N.S.	N.S.
192.33	193.85	1.52	N.S.	N.S.
193.85	195.38	1.52	N.S.	N.S.
195.38	196.90	1.52	N.S.	N.S.
196.90	198.42	1.52	N.S.	N.S.
220.95	221.44	0.49	0.038	1.303
221.44	222.17	0.73	0.008	0.274
222.17	222.99	0.82	0.002	0.069
309.37	310.90	1.52	NIL	NIL
310.90	312.42	1.52	NIL	NIL
312.42	314.25	1.83	NIL	NIL
314.25	315.77	1.52	NIL	NIL
315.77	317.30	1.52	TRACE	0.010
317.30	318.82	1.52	TRACE	0.007
318.82	320.34	1.52	NIL	NIL
332.38	334.06	1.68	NIL	NIL
334.06	335.58	1.52	NIL	NIL
335.58	337.11	1.52	NIL	NIL
337.11	338.63	1.52	NIL	NIL
338.63	340.16	1.52	NIL	NIL
340.16	341.68	1.52	NIL	NIL
341.68	343.20	1.52	NIL	NIL
361.49	363.02	1.52	N.S.	N.S.
363.02	364.54	1.52	N.S.	N.S.
364.54	366.06	1.52	N.S.	N.S.
370.64	372.16	1.52	N.S.	N.S.
372.16	373.68	1.52	N.S.	N.S.
373.68	375.36	1.68	N.S.	N.S.
375.36	375.67	0.30	0.006	0.206

**\*\* BORSURV \*\***

ASSAY LOG

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PROPERTY: tully  
HOLE No.: 88-11

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FROM	TO	WIDTH	AU	Au-g/t
375.67	376.76	1.10	0.006	0.206
<del>376.76</del>	<del>378.16</del>	<del>1.40</del>	<del>0.591</del>	<del>20.265</del>
378.16	378.90	0.73	0.265	9.087
378.90	379.78	0.88	0.128	4.389
<del>379.78</del>	<del>381.30</del>	<del>1.52</del>	<del>0.012</del>	<del>0.111</del>
381.30	382.83	1.52	0.006	0.206
382.83	383.13	0.30	TRACE	TRACE
<del>383.13</del>	<del>383.89</del>	<del>0.76</del>	<del>N.S.</del>	<del>N.S.</del>
384.35	385.11	0.76	N.S.	N.S.
385.88	386.64	0.76	N.S.	N.S.
387.40	388.16	0.76	N.S.	N.S.
388.92	389.69	0.76	N.S.	N.S.
390.45	391.21	0.76	N.S.	N.S.
391.97	392.73	0.76	N.S.	N.S.
393.50	394.26	0.76	N.S.	N.S.
395.02	395.78	0.76	N.S.	N.S.
<del>396.54</del>	<del>397.31</del>	<del>0.76</del>	<del>N.S.</del>	<del>N.S.</del>



AVERAGED ASSAY INTERVALS

PROPERTY: tully

HOLE No: 88-11

=====

1. MZ ( 3.02 d.t. Core Angle: 90 3.02 t.t.)

FROM: 376.76

EASTINGS: 1645.92  
NORTHINGS: 25.82  
ELEVATION: -310.32

0.376 AU  
12.905 Au g/t

TO: 379.78

EASTINGS: 1645.92  
NORTHINGS: 24.11  
ELEVATION: -312.80

2. HW ( 0.49 d.t. Core Angle: 90 0.49 t.t.)

FROM: 220.95

EASTINGS: 1645.92  
NORTHINGS: 117.29  
ELEVATION: -184.17

0.038 AU  
1.303 Au g/t

TO: 221.44

EASTINGS: 1645.92  
NORTHINGS: 117.00  
ELEVATION: -184.57

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-12

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FROM	TO	DESCRIPTION
661	670	Mafic volcanics; light green-grey; fine grained; moderate pervasive carbonatization; many very irreg. qtz-carb. fractures & veinlets at many orientations to c.a.; trace py.
670	757	Mafic volcanics; dark green to grey; fine-grained weak pervasive carbonatization; few qtz-carb. veinlets & fractures; nil-trace sulphides; light to mod. talc-chl alt in places.
757	787	Mafic volcanics; light green-yellow; very minor pervasive carb; moderate sericite & silicification; several very irreg. white-grey qtz-carb. veinlets @ various orientations to c.a.; red-brown Fe-carb. staining throughout; <1% fine dissem py in veinlets & wall rock.

NOTE: 777.3-862.3 previously sampled.

\*\* BORSURV \*\*

ASSAY LOG

Page 1 of 4

PROPERTY: tully

HOLE No.: 88-12

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FROM	TO	WIDTH	AU	Au-g/t
10.97	11.73	0.76	N.S.	N.S.
12.50	13.26	0.76	N.S.	N.S.
14.02	14.78	0.76	N.S.	N.S.
15.54	16.31	0.76	N.S.	N.S.
17.07	17.83	0.76	N.S.	N.S.
18.59	19.35	0.76	N.S.	N.S.
20.12	20.88	0.76	N.S.	N.S.
21.64	22.40	0.76	N.S.	N.S.
23.16	23.93	0.76	N.S.	N.S.
24.69	25.45	0.76	N.S.	N.S.
26.21	26.97	0.76	N.S.	N.S.
27.74	28.50	0.76	N.S.	N.S.
29.26	30.02	0.76	N.S.	N.S.
30.78	31.55	0.76	N.S.	N.S.
32.31	33.07	0.76	N.S.	N.S.
33.83	34.59	0.76	N.S.	N.S.
35.36	36.12	0.76	N.S.	N.S.
36.88	37.64	0.76	N.S.	N.S.
38.40	39.17	0.76	N.S.	N.S.
39.93	40.69	0.76	N.S.	N.S.
41.45	42.21	0.76	N.S.	N.S.
42.98	43.74	0.76	N.S.	N.S.
44.50	45.26	0.76	N.S.	N.S.
46.02	46.79	0.76	N.S.	N.S.
47.55	48.31	0.76	N.S.	N.S.
49.07	49.83	0.76	N.S.	N.S.
50.60	51.36	0.76	N.S.	N.S.
52.12	52.88	0.76	N.S.	N.S.
53.64	54.41	0.76	N.S.	N.S.
55.17	56.17	1.01	N.S.	N.S.
56.17	56.48	0.30	N.S.	N.S.
56.48	56.88	0.40	N.S.	N.S.
56.88	57.18	0.30	N.S.	N.S.
58.22	58.98	0.76	N.S.	N.S.
59.74	60.50	0.76	N.S.	N.S.
61.26	62.03	0.76	N.S.	N.S.
62.79	63.55	0.76	N.S.	N.S.
64.31	65.07	0.76	N.S.	N.S.
65.84	66.60	0.76	N.S.	N.S.
85.65	87.17	1.52	N.S.	N.S.
150.57	151.18	0.61	N.S.	N.S.
151.18	152.70	1.52	N.S.	N.S.
152.70	154.23	1.52	0.004	0.137
154.23	155.69	1.46	0.002	0.069
155.69	157.28	1.58	TRACE	TRACE
157.28	158.80	1.52	TRACE	TRACE
158.80	160.08	1.28	0.002	0.069
160.08	160.84	0.76	TRACE	TRACE
160.84	161.39	0.55	0.002	0.069
161.39	163.07	1.68	TRACE	TRACE

\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully  
HOLE No.: 88-12

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FROM	TO	WIDTH	AU	Au g/t
163.07	164.59	1.52	TRACE	TRACE
164.59	166.12	1.52	TRACE	TRACE
166.12	167.03	0.91	TRACE	TRACE
178.61	180.14	1.52	0.002	0.069
180.14	181.66	1.52	TRACE	TRACE
181.66	182.27	0.61	0.002	0.069
182.27	183.49	1.22	TRACE	TRACE
183.49	184.71	1.22	TRACE	TRACE
184.71	185.99	1.28	TRACE	TRACE
185.99	186.78	0.79	TRACE	TRACE
198.42	199.95	1.52	N.S.	N.S.
199.95	201.47	1.52	N.S.	N.S.
201.47	203.00	1.52	NIL	NIL
203.00	204.52	1.52	NIL	NIL
207.57	209.09	1.52	TRACE	0.021
213.66	215.19	1.52	NIL	NIL
218.54	220.16	1.62	NIL	NIL
219.76	220.16	0.40	0.014	0.480
220.16	220.52	0.37	0.016	0.549
220.52	220.80	0.27	0.112	3.840
220.80	221.28	0.49	N.S.	N.S.
221.28	222.81	1.52	NIL	NIL
222.81	224.64	1.83	NIL	NIL
224.64	226.16	1.52	NIL	NIL
226.16	227.69	1.52	NIL	NIL
227.69	229.21	1.52	NIL	NIL
229.21	230.73	1.52	NIL	NIL
230.73	232.26	1.52	NIL	NIL
232.26	233.78	1.52	TRACE	0.017
233.78	235.31	1.52	0.002	0.062
235.31	236.92	1.62	TRACE	0.007
236.83	238.41	1.58	0.078	2.675
238.41	239.39	0.98	0.002	0.069
239.39	240.49	1.10	0.088	3.018
240.49	241.83	1.34	0.004	0.137
241.83	242.62	0.79	0.004	0.137
242.62	244.14	1.52	0.119	4.081
244.14	245.67	1.52	0.078	2.675
245.67	247.19	1.52	0.189	6.481
247.19	248.72	1.52	0.105	3.600
248.72	249.42	0.70	0.014	0.480
249.42	250.09	0.67	0.034	1.166
250.09	251.09	1.01	0.088	3.018
251.09	251.76	0.67	0.016	0.549
251.76	252.98	1.22	0.012	0.411
252.98	253.62	0.64	0.004	0.137
253.62	254.81	1.19	0.060	2.057
254.81	255.70	0.88	0.026	0.892
255.70	256.34	0.64	0.046	1.577
256.34	257.86	1.52	0.246	8.435

\*\* BORSURV \*\*

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 88-12

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FROM	TO	WIDTH	AU	Au g/t
257.86	258.53	0.67	0.103	3.532
258.53	259.60	1.07	0.054	1.852
259.60	260.76	1.16	0.042	1.440
260.76	261.40	0.64	0.010	0.343
261.40	262.83	1.43	N.S.	N.S.
263.96	264.72	0.76	N.S.	N.S.
265.48	266.24	0.76	N.S.	N.S.
267.00	267.77	0.76	N.S.	N.S.
268.53	269.29	0.76	N.S.	N.S.
270.05	270.81	0.76	N.S.	N.S.
271.58	272.34	0.76	N.S.	N.S.
273.10	273.86	0.76	N.S.	N.S.
274.62	275.39	0.76	N.S.	N.S.
276.15	276.91	0.76	N.S.	N.S.
279.20	279.96	0.76	N.S.	N.S.
280.72	281.48	0.76	N.S.	N.S.
282.24	283.01	0.76	N.S.	N.S.
283.77	284.53	0.76	N.S.	N.S.
285.29	286.05	0.76	N.S.	N.S.
286.82	287.58	0.76	N.S.	N.S.
288.34	289.10	0.76	N.S.	N.S.
289.86	290.63	0.76	N.S.	N.S.
291.39	292.15	0.76	N.S.	N.S.
292.91	293.67	0.76	N.S.	N.S.
294.44	295.20	0.76	N.S.	N.S.
295.96	296.72	0.76	N.S.	N.S.
297.48	298.25	0.76	N.S.	N.S.
299.01	299.77	0.76	N.S.	N.S.
300.53	301.29	0.76	N.S.	N.S.
302.06	302.82	0.76	N.S.	N.S.
303.58	304.34	0.76	N.S.	N.S.
305.10	305.87	0.76	N.S.	N.S.
306.63	307.39	0.76	N.S.	N.S.
308.15	308.91	0.76	N.S.	N.S.
309.68	310.44	0.76	N.S.	N.S.
311.20	311.96	0.76	N.S.	N.S.
312.72	313.49	0.76	N.S.	N.S.
314.25	315.01	0.76	N.S.	N.S.
315.77	316.53	0.76	N.S.	N.S.
317.30	318.06	0.76	N.S.	N.S.
318.82	319.58	0.76	N.S.	N.S.
320.34	321.11	0.76	N.S.	N.S.
321.87	322.63	0.76	N.S.	N.S.
323.39	324.15	0.76	N.S.	N.S.
324.92	325.68	0.76	N.S.	N.S.
326.44	327.20	0.76	N.S.	N.S.
327.96	328.73	0.76	N.S.	N.S.
329.49	330.25	0.76	N.S.	N.S.
331.01	331.77	0.76	N.S.	N.S.
332.54	333.30	0.76	N.S.	N.S.

**\*\* BORSURV \*\***

ASSAY LOG

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PROPERTY: tully  
HOLE No.: 88-12

=====

FROM	TO	WIDTH	AU	Au-g/t
334.06	334.82	0.76	N.S.	N.S.
335.58	336.35	0.76	N.S.	N.S.

**AVERAGED ASSAY INTERVALS**

PROPERTY: ~~tully~~

HOLE No: 88-12

~~1. HW (-0.27 d.t. Core Angle: 90 0.27 t.t.)~~

~~FROM: 220.52~~

~~0.112 AU  
3.840 Au g/t~~

~~TO: 220.80~~

~~EASTINGS: 1472.90  
NORTHINGS: 24.90  
ELEVATION: -180.80~~

~~EASTINGS: 1472.90  
NORTHINGS: 24.73  
ELEVATION: -181.01~~

2. MZ (18.14 d.t. Core Angle: 90 18.14 t.t.)

FROM: 242.62

0.087 AU  
2.971 Au g/t

TO: 260.76

EASTINGS: 1472.90  
NORTHINGS: 11.28  
ELEVATION: -198.20

EASTINGS: 1472.90  
NORTHINGS: 0.10  
ELEVATION: -212.48

## DIAMOND DRILL LOG

CLIENT: Cyprus Gold  
NAME OF PROPERTY: Tully Twp.  
HOLE NO: 88-FI-13

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FROM	TO	DESCRIPTION
892	929	Mafic volcanic flow; dark green-black; fine grained; pervasive carb. alt; minor talc-chl alt.; several irreg. qtz-carb. fractures & veinlets <1% sulphides.
929.6	949	Box 48 Missing
949	987.5	Intermediate - mafic tuff; bleached yellow-brown; very minor carb; moderate sericite alt; very fine frags < 1mm-lightly banded @ 40-60° to c.a.; moderately microfractured with qtz-carb. veinlets; <1% fine dissem. py.

**NOTE:** The following intervals have been previously sampled:

820 - 892  
911 - 913.5  
916 - 918.5  
921 - 923.5  
926 - 928.5  
931 - 933.5  
951 - 953.5  
956 - 958.5  
961 - 963.5  
966 - 968.5  
971 - 973.5  
976 - 978.5  
981 - 983.5



\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully  
HOLE No.: 88-13

=====

FROM	TO	WIDTH	AU	Au g/t
23.01	23.99	0.98	TRACE	TRACE
23.99	24.54	0.55	0.098	3.360
24.54	25.73	1.19	0.002	0.069
25.73	27.65	1.92	0.078	2.675
193.46	195.01	1.55	N.S.	N.S.
195.01	195.77	0.76	N.S.	N.S.
210.62	211.38	0.76	N.S.	N.S.
212.14	212.90	0.76	N.S.	N.S.
213.66	214.43	0.76	N.S.	N.S.
215.19	215.95	0.76	N.S.	N.S.
216.71	217.47	0.76	N.S.	N.S.
218.24	219.00	0.76	N.S.	N.S.
219.76	220.52	0.76	N.S.	N.S.
221.28	222.05	0.76	N.S.	N.S.
222.81	223.57	0.76	N.S.	N.S.
224.33	225.09	0.76	N.S.	N.S.
225.86	226.62	0.76	N.S.	N.S.
227.38	228.14	0.76	N.S.	N.S.
228.69	229.09	0.40	0.026	0.892
229.09	229.67	0.58	N.S.	N.S.
230.43	231.19	0.76	N.S.	N.S.
231.95	232.71	0.76	N.S.	N.S.
233.48	234.24	0.76	N.S.	N.S.
235.00	235.76	0.76	N.S.	N.S.
236.52	237.29	0.76	N.S.	N.S.
238.05	238.35	0.30	N.S.	N.S.
238.35	239.57	1.22	N.S.	N.S.
239.57	241.10	1.52	N.S.	N.S.
241.10	242.62	1.52	N.S.	N.S.
242.62	244.14	1.52	N.S.	N.S.
244.14	245.67	1.52	N.S.	N.S.
245.67	247.19	1.52	N.S.	N.S.
247.19	248.72	1.52	N.S.	N.S.
248.72	250.24	1.52	N.S.	N.S.
250.24	251.06	0.82	N.S.	N.S.
251.06	251.76	0.70	0.078	2.675
251.76	253.29	1.52	N.S.	N.S.
253.29	254.81	1.52	N.S.	N.S.
254.81	256.34	1.52	N.S.	N.S.
256.34	257.86	1.52	N.S.	N.S.
257.86	259.38	1.52	N.S.	N.S.
259.38	259.87	0.49	N.S.	N.S.
259.87	260.82	0.94	0.165	5.658
260.82	261.12	0.30	N.S.	N.S.
261.12	262.43	1.31	N.S.	N.S.
262.43	263.96	1.52	N.S.	N.S.
263.96	265.48	1.52	N.S.	N.S.
265.48	267.00	1.52	N.S.	N.S.
267.00	268.92	1.92	N.S.	N.S.
268.92	269.32	0.40	N.S.	N.S.

\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully

HOLE No.: 88-13

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FROM	TO	WIDTH	AU	Au g/t
269.32	270.05	0.73	0.056	1.920
270.05	271.58	1.52	0.062	2.126
271.58	271.88	0.30	N.S.	N.S.
271.88	273.41	1.52	NIL	NIL
273.41	274.93	1.52	NIL	NIL
274.93	276.45	1.52	NIL	NIL
276.45	277.67	1.22	NIL	NIL
277.67	278.43	0.76	N.S.	N.S.
278.43	279.20	0.76	TRACE	0.031
279.20	279.96	0.76	N.S.	N.S.
279.96	280.72	0.76	NIL	NIL
280.72	281.48	0.76	N.S.	N.S.
281.48	282.24	0.76	NIL	NIL
282.24	283.01	0.76	N.S.	N.S.
283.77	284.53	0.76	N.S.	N.S.
284.84	285.29	0.46	N.S.	N.S.
285.29	286.51	1.22	N.S.	N.S.
286.51	288.04	1.52	0.054	1.852
288.04	289.13	1.10	0.026	0.892
289.13	289.74	0.61	0.034	1.166
289.86	290.63	0.76	N.S.	N.S.
290.63	291.39	0.76	TRACE	0.007
291.39	292.15	0.76	N.S.	N.S.
292.15	292.91	0.76	NIL	NIL
292.91	293.67	0.76	N.S.	N.S.
293.67	294.44	0.76	NIL	NIL
294.44	295.20	0.76	N.S.	N.S.
295.20	295.96	0.76	NIL	NIL
295.96	296.72	0.76	N.S.	N.S.
296.72	297.48	0.76	NIL	NIL
297.48	298.25	0.76	N.S.	N.S.
298.25	299.01	0.76	TRACE	0.010
299.01	299.77	0.76	N.S.	N.S.
299.77	300.53	0.76	NIL	NIL
300.53	301.29	0.76	N.S.	N.S.
302.06	302.82	0.76	N.S.	N.S.
303.58	304.34	0.76	N.S.	N.S.
305.10	305.87	0.76	N.S.	N.S.
306.63	307.39	0.76	N.S.	N.S.
308.15	308.91	0.76	N.S.	N.S.
309.68	310.29	0.61	N.S.	N.S.
314.25	315.01	0.76	N.S.	N.S.
315.77	316.53	0.76	N.S.	N.S.
317.30	318.06	0.76	N.S.	N.S.
318.82	319.58	0.76	N.S.	N.S.
319.52	319.83	0.30	0.002	0.069
319.83	320.95	1.13	0.024	0.823
320.95	321.96	1.01	0.066	2.263
321.96	322.26	0.30	N.S.	N.S.
322.26	322.63	0.37	N.S.	N.S.

\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully

HOLE No.: 88-13

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FROM	TO	WIDTH	AU	Au g/t
323.39	324.15	0.76	N.S.	N.S.
324.92	325.68	0.76	N.S.	N.S.
326.44	327.20	0.76	N.S.	N.S.
327.96	328.73	0.76	N.S.	N.S.
329.49	330.25	0.76	N.S.	N.S.
331.01	331.16	0.15	N.S.	N.S.
331.16	331.93	0.76	0.002	0.069
331.93	332.14	0.21	0.405	13.887
332.14	332.44	0.30	0.369	12.653
332.44	332.89	0.45	0.014	0.480
332.89	334.06	1.17	0.048	1.646
334.06	334.85	0.79	0.018	0.617
335.58	336.35	0.76	N.S.	N.S.
337.11	337.87	0.76	N.S.	N.S.
338.63	339.39	0.76	N.S.	N.S.
340.16	340.92	0.76	N.S.	N.S.
341.68	342.44	0.76	N.S.	N.S.
343.20	343.97	0.76	N.S.	N.S.
344.73	345.49	0.76	N.S.	N.S.
346.25	347.01	0.76	N.S.	N.S.
347.78	348.54	0.76	N.S.	N.S.
349.30	350.06	0.76	N.S.	N.S.
350.82	351.59	0.76	N.S.	N.S.
352.35	353.11	0.76	N.S.	N.S.
353.87	354.63	0.76	N.S.	N.S.

**AVERAGED ASSAY INTERVALS**

PROPERTY: tully

HOLE No: 88-13

~~1. HW ( 3.66 d.t. Core Angle: 90 3.66 t.t. )~~

~~FROM: 23.99 EASTINGS: 1798.00  
NORTHINGS: 231.51  
ELEVATION: -18.06~~

~~0.056 AU  
1.931 Au g/t~~

~~TO: 27.65 EASTINGS: 1798.00  
NORTHINGS: 229.63  
ELEVATION: -21.20~~

2. HW ( 0.70 d.t. Core Angle: 90 0.70 t.t. )

FROM: 251.06 EASTINGS: 1798.00  
NORTHINGS: 105.76  
ELEVATION: -207.09

0.078 AU  
2.675 Au g/t

TO: 251.76 EASTINGS: 1798.00  
NORTHINGS: 105.36  
ELEVATION: -207.67

3. HW ( 0.94 d.t. Core Angle: 90 0.94 t.t. )

FROM: 259.87 EASTINGS: 1798.00  
NORTHINGS: 100.75  
ELEVATION: -214.34

0.165 AU  
5.658 Au g/t

TO: 260.82 EASTINGS: 1798.00  
NORTHINGS: 100.22  
ELEVATION: -215.12

~~4. HW ( 0.73 d.t. Core Angle: 90 0.73 t.t. )~~

~~FROM: 269.32 EASTINGS: 1798.00  
NORTHINGS: 95.38  
ELEVATION: -222.12~~

~~0.056 AU  
1.920 Au g/t~~

~~TO: 270.05 EASTINGS: 1798.00  
NORTHINGS: 94.97  
ELEVATION: -222.72~~

AVERAGED ASSAY INTERVALS

PROPERTY: tully

HOLE No: 88-13

5. HW ( 1.52 d.t. Core Angle: 90 1.52 t.t.)

FROM: 286.51	EASTINGS: 1798.00
	NORTHINGS: 85.51
	ELEVATION: -236.19

0.054 AU  
1.852 Au g/t

TO: 288.04	EASTINGS: 1798.00
	NORTHINGS: 84.62
	ELEVATION: -237.43

6. MZ ( 1.01 d.t. Core Angle: 90 1.01 t.t.)

FROM: 320.95	EASTINGS: 1798.00
	NORTHINGS: 65.57
	ELEVATION: -264.27

0.066 AU  
2.263 Au g/t

TO: 321.96	EASTINGS: 1798.00
	NORTHINGS: 64.98
	ELEVATION: -265.09

7. MZ ( 0.52 d.t. Core Angle: 90 0.52 t.t.)

FROM: 331.93	EASTINGS: 1798.00
	NORTHINGS: 59.21
	ELEVATION: -273.22

0.384 AU  
13.161 Au g/t

TO: 332.44	EASTINGS: 1798.00
	NORTHINGS: 58.91
	ELEVATION: -273.64

\*\* BORSURV \*\*

ASSAY LOG  
 PROPERTY: tully  
 HOLE No.: 89-3

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FROM	TO	WIDTH	AU	Au-g/t
143.29	143.44	0.15	N.S.	N.S.
252.07	253.59	1.52	N.S.	N.S.
253.59	255.12	1.52	N.S.	N.S.
255.12	256.64	1.52	N.S.	N.S.
256.64	258.17	1.52	N.S.	N.S.
258.17	259.69	1.52	N.S.	N.S.
259.69	261.21	1.52	N.S.	N.S.
261.21	262.74	1.52	N.S.	N.S.
262.74	264.26	1.52	N.S.	N.S.
264.26	265.79	1.52	N.S.	N.S.
265.79	267.31	1.52	N.S.	N.S.
267.31	268.83	1.52	N.S.	N.S.
268.83	270.36	1.52	N.S.	N.S.
270.36	271.88	1.52	N.S.	N.S.
271.88	273.41	1.52	N.S.	N.S.
273.41	274.93	1.52	N.S.	N.S.
274.93	276.45	1.52	N.S.	N.S.
276.45	277.98	1.52	N.S.	N.S.
277.98	279.50	1.52	N.S.	N.S.
279.50	281.03	1.52	N.S.	N.S.
281.03	282.55	1.52	N.S.	N.S.
282.55	284.07	1.52	N.S.	N.S.
284.07	285.60	1.52	N.S.	N.S.
285.60	287.12	1.52	N.S.	N.S.
287.12	288.65	1.52	N.S.	N.S.
288.65	290.17	1.52	N.S.	N.S.
290.17	291.69	1.52	N.S.	N.S.
291.69	293.22	1.52	N.S.	N.S.
293.22	294.74	1.52	N.S.	N.S.
294.74	296.27	1.52	N.S.	N.S.
296.27	297.79	1.52	N.S.	N.S.
297.79	299.31	1.52	N.S.	N.S.
299.31	300.84	1.52	N.S.	N.S.
300.84	302.36	1.52	N.S.	N.S.
302.36	303.89	1.52	N.S.	N.S.
303.89	305.41	1.52	N.S.	N.S.
305.41	306.93	1.52	N.S.	N.S.
306.93	308.46	1.52	N.S.	N.S.
308.46	309.98	1.52	N.S.	N.S.
309.98	311.51	1.52	N.S.	N.S.
311.51	313.03	1.52	N.S.	N.S.
313.03	314.55	1.52	N.S.	N.S.
314.55	316.08	1.52	N.S.	N.S.
316.08	317.60	1.52	N.S.	N.S.
317.60	319.13	1.52	N.S.	N.S.
319.13	320.65	1.52	N.S.	N.S.
320.65	322.17	1.52	N.S.	N.S.
322.17	323.70	1.52	N.S.	N.S.
323.70	325.22	1.52	N.S.	N.S.
325.22	326.75	1.52	N.S.	N.S.

\*\* BORSURV \*\*

ASSAY LOG

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PROPERTY: tully  
HOLE No.: 89-3

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FROM	TO	WIDTH	AU	Au g/t
326.75	327.66	0.91	N.S.	N.S.
343.51	345.03	1.52	N.S.	N.S.
345.03	346.56	1.52	N.S.	N.S.
346.56	348.08	1.52	N.S.	N.S.
348.08	349.60	1.52	N.S.	N.S.
349.60	350.82	1.22	N.S.	N.S.
354.91	355.40	0.49	N.S.	N.S.
396.42	397.40	0.98	0.016	0.549
397.40	399.23	1.83	0.008	0.274
399.23	400.05	0.82	0.038	1.303
400.05	401.42	1.37	0.020	0.686
401.42	402.94	1.52	0.018	0.617
402.94	404.47	1.52	0.026	0.892
404.47	405.23	0.76	0.016	0.549
405.23	405.99	0.76	0.042	1.440
405.99	407.52	1.52	0.012	0.411
407.52	408.13	0.61	0.010	0.343
408.13	409.04	0.91	0.008	0.274
409.04	410.56	1.52	0.028	0.960
410.56	411.39	0.82	0.002	0.069
411.39	412.09	0.70	0.016	0.549
412.09	413.55	1.46	0.002	0.069
455.10	456.13	1.04	N.S.	N.S.
456.13	457.14	1.01	N.S.	N.S.
501.36	502.22	0.85	N.S.	N.S.
502.22	502.52	0.30	N.S.	N.S.
502.52	503.53	1.01	N.S.	N.S.
503.53	504.57	1.04	N.S.	N.S.
504.57	505.30	0.73	N.S.	N.S.
505.30	505.91	0.61	N.S.	N.S.
505.91	506.97	1.07	N.S.	N.S.
527.91	529.44	1.52	TRACE	TRACE
529.44	530.96	1.52	TRACE	TRACE
530.96	532.48	1.52	0.026	0.892
532.48	533.19	0.70	0.002	0.069
533.09	533.86	0.76	0.002	0.069
533.86	534.19	0.34	0.042	1.440
534.19	534.95	0.76	0.050	1.714
534.95	535.29	0.34	TRACE	TRACE
558.33	558.76	0.43	0.022	0.754
558.76	559.55	0.79	0.112	3.840
559.55	560.07	0.52	0.014	0.480
560.07	560.71	0.64	0.108	3.703
560.71	561.35	0.64	0.018	0.617
561.35	561.75	0.40	0.008	0.274
561.75	562.90	1.16	0.022	0.754
562.90	563.30	0.40	0.218	7.475
563.30	563.79	0.49	0.044	1.509
563.79	564.09	0.30	0.693	23.763
564.09	564.40	0.30	0.481	16.493

ASSAY LOG  
PROPERTY: tully  
HOLE No.: 89-3

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FROM	TO	WIDTH	AU	Au-g/t
564.40	565.25	0.85	0.074	2.537
565.25	566.50	1.25	0.264	9.053
566.50	566.84	0.34	0.148	5.075
599.51	599.88	0.37	0.018	0.617
599.88	600.58	0.70	0.024	0.823
600.58	600.88	0.30	0.034	1.166
600.88	602.59	1.71	0.002	0.069
602.59	603.29	0.70	TRACE	TRACE
603.29	604.75	1.46	0.180	6.172
604.75	605.15	0.40	0.006	0.206
605.15	605.64	0.49	0.302	10.356
605.64	606.06	0.43	0.176	6.035
606.06	607.16	1.10	0.002	0.069
607.16	607.77	0.61	0.072	2.469
607.77	608.68	0.91	0.018	0.617
608.68	609.29	0.61	0.058	1.989
609.29	609.90	0.61	0.148	5.075
609.90	610.21	0.30	0.472	16.185
610.21	610.51	0.30	0.400	13.716
610.51	610.94	0.43	0.918	31.478
610.94	611.34	0.40	0.048	1.646
611.34	611.85	0.52	0.428	14.676
611.85	612.19	0.34	0.046	1.577
612.19	613.26	1.07	0.342	11.727
613.26	614.78	1.52	0.114	3.909
614.78	615.15	0.37	0.230	7.887
615.15	615.45	0.30	0.288	9.876
615.45	616.30	0.85	0.312	10.698
616.30	617.83	1.52	0.188	6.447
617.83	619.35	1.52	0.068	2.332
619.35	620.05	0.70	0.236	8.092
620.05	620.88	0.82	0.062	2.126
620.88	622.40	1.52	0.028	0.960
622.40	623.38	0.98	0.006	0.206
623.38	624.35	0.98	0.014	0.480
624.35	625.08	0.73	0.018	0.617
625.08	625.94	0.85	0.414	14.196
625.94	626.97	1.04	TRACE	TRACE
626.97	627.61	0.64	TRACE	TRACE
627.61	627.98	0.37	TRACE	TRACE

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**AVERAGED ASSAY INTERVALS**

PROPERTY: ~~tully~~

HOLE No: 89-3

~~1. MZ (22.65 d.t. Core Angle: 90 22.65 t.t.)~~

~~FROM: 603.29~~

~~EASTINGS: 1487.72~~

~~NORTHINGS: 25.26~~

~~ELEVATION: -472.81~~

~~0.159 AU~~

~~5.454 Au g/t~~

~~TO: 625.94~~

~~EASTINGS: 1487.72~~

~~NORTHINGS: 8.97~~

~~ELEVATION: -488.54~~

2. HW ( 8.08 d.t. Core Angle: 90 8.08 t.t.)

FROM: 558.76

EASTINGS: 1487.72

NORTHINGS: 57.30

ELEVATION: -441.87

0.138 AU

4.728 Au g/t

TO: 566.84

EASTINGS: 1487.72

NORTHINGS: 51.49

ELEVATION: -447.48

3. HW ( 0.76 d.t. Core Angle: 90 0.76 t.t.)

FROM: 534.19

EASTINGS: 1487.72

NORTHINGS: 75.10

ELEVATION: -424.94

0.050 AU

1.714 Au g/t

TO: 534.95

EASTINGS: 1487.72

NORTHINGS: 74.54

ELEVATION: -425.46



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# Swastika Laboratories

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1W-2132-RA1

## Assay Certificate

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Assn: **MR. A. JACKSON/MR. K. JOHNSON**

Date: JAN-25-91

Copy 1. 1810-1055 W. HASTINGS ST. VANCOUVER B.C.  
2. VGE 2E9 FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO ONT. M5J 1C4

We hereby certify the following Assay of 38 CORE samples submitted JAN-23-91 by MURRAY C. ROGERS.

Sample Number	Au g/tonne	Au oz/ton	Au check g/tonne	Au check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton
7001	Nil					
7002	Nil					
7003	Nil					
7004	Nil					
7005	0.01	.001				
7006	0.04	.001	0.05	.001		
7007	Nil					
7008	Nil					
7009	Nil					
7010	Nil					
7011	Nil					
7012	Nil					
7013	0.17	.005				
7014	0.19	.006				
7015	0.27	.008	0.47	.014		
7016	0.16	.005				
7017	0.07	.002				
7018	0.33	.010				
7019	0.07	.002				
7020	0.02	.001				
7021	0.95	.028				
7022	3.47	.101	3.35	.098	3.60	.105
7023	0.02	.001				
7024	0.03	.001				
7025	0.04	.001				
7026	Nil					
7027	Nil					
7028	Nil					
9814	0.13	.004				
9815	Nil					

Certified by *Sonja Gardner*

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244. FAX (705) 642-3300



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1W-2132-RA1

## Assay Certificate

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **MR. A. JACKSON/MR. K. JOHNSON**

Date: **JAN-25-91**

- Copy 1. 1810-1055 W.HASTINGS ST.VANCOUVER B.C.
- 2. VGE 2E9 FAX 604-685-3635 & 416-368-2579
- 3. 1400-22 FRONT ST.W. TORONTO ONT.M5J 1C4

We hereby certify the following Assay of 38 CORE samples submitted JAN-23-91 by MURRAY C. ROGERS.

Sample Number	Au g/tonne	Au oz/ton	Au check g/tonne	Au check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton
9816	0.15	.004				
9817	0.73	.021				
9818	0.04	.001				
9819	Nil					
9820	Nil					
9821	0.62	.018	0.42	.012		
9822	0.03	.001				
9823	Nil					

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244. FAX (705) 642-3300



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## Assay Certificate

1W-2154-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **MR. A. JACKSON/MR. K. JOHNSON**

Date: **JAN-31-91**

Copy 1. 1810-1055 W.HASTINGS ST.VANCOUVER B.C.  
2. VGE 2E9 FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST.W.TORONTO ONT M5J 1C4

We hereby certify the following Assay of 53 ROCK samples submitted JAN-25-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au check g/tonne
7029	Nil	
7030	Nil	
7031	0.01	
7032	1.07	1.15
7033	Nil	
7034	Nil	
7035	Nil	
7036	0.14	
7037	0.02	
7038	Nil	
7039	Nil	
7040	0.01	
7041	0.06	
7042	0.01	
7043	0.01	
7044	Nil	
7045	Nil	
7046	0.62	0.50
7047	0.01	
7048	0.07	
7049	Nil	
7050	0.01	
7051	Nil	
7052	0.01	
7053	0.03	
7054	0.04	
7055	0.04	
7056	0.01	
7057	0.02	0.03
7058	0.01	

Certified by *R. Landin*

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## Assay Certificate

1W-2154-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Ann: **MR. A. JACKSON/MR. K. JOHNSON**

Date: **JAN-31-91**

- Copy 1. 1810-1055 W. HASTINGS ST. VANCOUVER B.C.
- 2. VGE 2E9 FAX 604-685-3635 & 416-368-2579
- 3. 1400-22 FRONT ST. W. TORONTO ONT M5J 1C4

We hereby certify the following Assay of 53 ROCK samples submitted JAN-25-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au check g/tonne
7059	0.01	
7060	0.01	
7061	0.01	
7062	0.01	
7063	0.01	
7064	0.01	
7065	0.01	
7066	0.01	
7067	0.01	
7068	0.02	
7069	0.01	0.01
7070	0.02	
7071	0.01	
7072	Nil	
7073	Nil	
7074	Nil	
7075	Nil	
7076	Nil	
7077	Nil	
7078	Nil	
7079	Nil	
7080	Nil	
7081	Nil	Nil

Certified by R. Landin

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Page 1 of 2

## Assay Certificate

1W-2170-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **MR. A. JACKSON/ MR. K. JOHNSON**

Date: **FEB-07-91**  
Copy 1. 1810-1055 W.HASTINGS ST.VANCOUVER, B.C.  
2. VGE 2E9 FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST.W.TORONTO,ONT M5J 1C4

We hereby certify the following Assay of 35 ROCK samples submitted JAN-28-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne	Au check g/tonne	As ppm
7082	Nil				1
7083	0.01				1
7084	Nil				1
7085	Nil				10
7086	0.06	0.07			150
7087	0.04				120
7088	0.07				140
7089	0.20				170
7090	3.70				4300
7091	8.30	8.23	7.47	7.34	>10000
7092	4.47				7800
7093	0.71				2200
7094	5.55	5.42			9500
7095	0.01				80
7096	Nil				60
7097	0.07				90
7098	0.01				40
7099	0.13				60
7100	Nil				60
7101	Nil				60
7102	Nil				50
7103	Nil				60
7104	Nil				42
7105	0.01				42
7106	0.01				45
7107	0.37	0.36			200
7108	0.25				300
7109	0.01				50
7110	Nil				25
7111	Nil				55

Certified by Donna Gardner

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# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,  
POJ 1KO

HAILEYBURY, ONTARIO

1991  
TEL: 672-3107  
FAX: (705) 672-5843

## Certificate of Analysis

NO. 0121

DATE: March 08, 1991

SAMPLE(S) OF: Pulp (18)

RECEIVED: March 1991

SAMPLE(S) FROM: A.C.A. Howe International,

Sample #	Oz. Gold
7083	Trace
7084	0.006
7085	Trace
7086	0.002
7087	0.002
7088	Trace
7089	0.008
7090	0.082
7091	0.223**
7092	0.122**
7093	0.022
7094	0.146**
7095	Trace
7096	Trace
7097	0.002
7098	Trace
7099	0.004
7100	Trace

NOTE: \*\* denotes checked.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

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1W-2170-RA1

## Assay Certificate


Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **MR. A. JACKSON/ MR. K. JOHNSON**

Date: **FEB-07-91**

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- 2. VGE 2E9 FAX 604-685-3635 & 416-368-2579
- 3. 1400-22 FRONT ST.W.TORONTO,ONT M5J 1C4

We hereby certify the following Assay of 35 ROCK samples submitted JAN-28-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne	Au check g/tonne	As ppm
7112	Nil				18
7113	Nil				3
7114	Nil				1
7115	Nil				<1
7116 not rec'd					

Certified by 

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## Assay Certificate

1W-2213-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-14-91**

Copy 1. 1810-1055 W. HASTINGS ST. VANCOUVER B.C.  
2. FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 97 ROCK samples submitted FEB-04-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au oz/ton	Au check g/tonne	Au check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	As ppm
7117	Nil						
7118	Nil						
7119	Nil						
7120	Nil						
7121	0.01	.001					
7122	Nil						
7123	Nil						
7124	Nil						
7125	Nil						
7126	0.01	.001					
7127	Nil						
7128	Nil						
7129	Nil						
7130	Nil						
7131	0.09	.003	0.13	.004			
7132	0.05	.001					
7133	Nil						
7134	Nil						
7135	0.25	.007	0.24	.007			
7136	Nil						
7137	Nil						
7138	Nil						
7139	Nil						
7140	Nil						
7141	Nil						
7142	Nil						
7143	Nil						
7144	Nil						
7145	Nil						
7146	Nil						

Certified by Donna Gardner

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## Assay Certificate

1W-2213-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-14-91**

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2. FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 97 ROCK samples submitted FEB-04-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au oz/ton	Au check g/tonne	Au check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	As ppm
7147	Nil						
7148	Nil						
7149	Nil						
7150	0.02	.001					
7151	Nil						
7152	Nil						
7153	Nil						
7154	Nil						
7155	0.09	.003	0.07	.002			
7156	0.04	.001					
7157	0.08	.002					
7158	Nil						
7159	Nil						
7160	Nil						
7161	0.05	.001					
7162	Nil						
7163	0.03	.001					
7164	0.07	.002					
7165	0.32	.009					
7166	0.33	.010					
7167	0.05	.001					
7168	0.33	.010	0.41	.012			
7169	0.02	.001					
7170	Nil						
7171	Nil						
7172	Nil						
7173	Nil						
7174	Nil						
7175	Nil						27
7176	Nil						29

Certified by Wanda Gardner

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## Assay Certificate

1W-2213-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-14-91**

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3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 97 ROCK samples submitted FEB-04-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au oz/ton	Au check g/tonne	Au check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	As ppm
7177	Nil						40
7178	0.03	.001					160
7179	3.77	.110					8800
7180	10.01	.292	9.74	.284			>10000
7181	0.57	.017					1400
7182	0.55	.016					2300
7183	10.97	.320	10.63	.310	10.77	.314	>10000
7184	0.02	.001					90
7185	Nil						70
7186	0.02	.001					90
7187	Nil						60
7188	0.04	.001					80
7189	0.04	.001					55
7190	Nil						55
7191	Nil						60
7192	Nil						60
7193	Nil						50
7194	Nil						29
7195	Nil						32
7196	0.25	.007					30
7197	0.04	.001					80
7198	1.51	.044					3200
7199	3.02	.088	2.95	.086			3900
7200	0.11	.003					240
7201	0.03	.001					70
7202	Nil						27
7203	Nil						14
7204	Nil						19
7205	Nil						70
7206	Nil						9

Certified by Donna Gardner

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1W-2213-RA1

## Assay Certificate

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: FEB-14-91

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2. FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 97 ROCK samples submitted FEB-04-91 by MURRAY ROGERS.

Sample Number	Au g/tonne	Au oz/ton	Au check g/tonne	Au check oz/ton	Au 2nd g/tonne	Au 2nd oz/ton	As ppm
7207	Nil						3
7208	Nil		Nil				<1
7209	Nil						
7210	Nil						
7211	Nil						
7212	Nil						
7213	Nil						

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## Assay Certificate

1W-

Company: **A.C.A. HOWE INTERNATIONAL**

Project:

Attn:

Date: FE

Copy 1. VANCOUVER

2. TORONTO

We hereby certify the following Assay of 59 ROCK samples submitted FEB-06-91 by .

Sample Number	Au ppb	Au check ppb
07214	Nil	Nil
07215	Nil	
07216	Nil	
07217	Nil	
07218	Nil	
07219	Nil	
07220	Nil	
07221	Nil	
07222	Nil	
07223	Nil	
07224	Nil	
07225	10	Nil
07226	Nil	
07227	Nil	
07228	Nil	
07229	Nil	
07230	Nil	
07231	Nil	
07232	Nil	
07233	Nil	
07234	Nil	
07235	10	
07236	Nil	
07237	10	
07238	Nil	
07239	Nil	
07240	Nil	
07241	315	278
07242	Nil	
07243	65	

Certified by Donna Gardner

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1W-

## Assay Certificate

Company: **A.C.A. HOWE INTERNATIONAL**

Project:

Ann:

Date: FE

Copy 1. VANCOUVER

2. TORONTO

We hereby certify the following Assay of 59 ROCK samples submitted FEB-06-91 by .

Sample Number	Au ppb	Au check ppb
07244	Nil	
07245	34	
07246	48	
07247	864	
07248	1395	1378
07249	1272	1347
07250	Nil	
07251	Nil	
07252	Nil	
07253	Nil	
07254	Nil	
07255	41	
07256	Nil	
07257	Nil	
07258	Nil	
07259	243	257
07260	Nil	
07261	Nil	
07262	Nil	
07263	Nil	
07264	Nil	
07265	Nil	
07266	Nil	
07267	Nil	
07268	34	
07269	147	117
07270	137	
07272	103	
07273	Nil	

Certified by Dennis Gardiner

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## Assay Certificate

1W-2265-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-13-91**  
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2. FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 75 SPLIT CORE samples submitted FEB-07-91 by .

Sample Number	Au ppb	Au check ppb	As ppm
7274	Nil		
7275	Nil		
7276	Nil		
7277	254	206	
7278	190		
7279	130		
7280	Nil		
7281	Nil		
7282	Nil		
7283	24		
7284	Nil		
7285	10		
7286	219	240	
7287	99		
7288	Nil		
7289	Nil		
7290	Nil		
7291	Nil		
7292	Nil		
7293	Nil		
7294	41		
7295	744		
7296	1330	1029	
7297	780		
7298	31		
7299	Nil		
7300	Nil		
7558	Nil		
7559	Nil		
7560	Nil		

Certified by Donna Gardner

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## Assay Certificate

1W-2265-RA1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Ann: **K. JOHNSON/A. JACKSON**

Date: **FEB-13-91**  
Copy 1. 1810-1055 W. HASTINGS ST. VANCOUVER B.C.  
2. FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 75 SPLIT CORE samples submitted FEB-07-91 by .

Sample Number	Au ppb	Au check ppb	As ppm
7561	Nil		
7562	Nil		
7563	Nil		
7564	Nil		
7565	Nil		
7566	Nil		
7567	Nil		
7568	Nil		
7569	Nil		
7570	7	Nil	
7571	Nil		
7572	Nil		
7573	Nil		
7574	Nil		
7575	Nil		
7701	Nil		
7702	Nil		
7703	14		
7704	Nil		
7705	Nil		
7706	Nil		
7707	62		
7708	Nil		
7709	Nil		
7710	17		
7711	1865	1875	
7712	819		
7713	730		
7714	1474		
7715	38		

Certified by Lonna Hedner

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1W-2265-RA1

## Assay Certificate

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-13-91**

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 3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Assay of 75 SPLIT CORE samples submitted FEB-07-91 by .

Sample Number	Au ppb	Au check ppb	As ppm
7716	Nil		
7717	Nil		
7718	Nil		
7719	7337	7543	6789
7720	823		
7721	127		
7722	3158	2949	
7723	Nil		
7724	600		
7725	213		
7726	874		
7727	1920	2191	
7728	Nil		
7729	Nil		
7730	Nil		

Certified by Donna Gardner

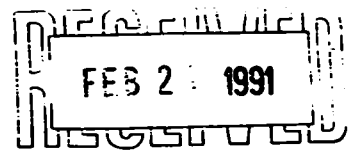
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## Geochemical Analysis Certificate

1W-2298-RG1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-14-91**

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2. 1400-22 FRONT ST. W. TORONTO, ONT.  
3. FAX 604-685-3635 & 416-368-2579

We hereby certify the following Geochemical Analysis of 36 ROCK samples submitted FEB-12-91 by .

Sample Number	Au ppb	As ppm
7576	Nil	
7577	31	
7578	55/65	
7579	Nil	
7580	Nil	
7581	Nil	
7582	Nil	
7583	Nil	
7584	Nil	
7585	Nil	
7586	Nil	
7587	Nil	
7588	Nil	
7589	Nil	
7590	Nil	
7591	Nil/Nil	
7592	Nil	
7593	Nil	
7594	7	
7595	Nil	
7596	Nil	
7597	Nil	
7598	Nil	
7599	Nil	
7600	Nil	
7601	Nil	
7602	Nil	
7603	Nil	
7604	Nil	
7605	Nil/Nil	

Certified by *Donna Gardner*

P.O. Box 10, Swastika, Ontario P0K 1T0  
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## Geochemical Analysis Certificate

1W-2298-RG1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-14-91**

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2. 1400-22 FRONT ST. W. TORONTO, ONT.  
3. FAX 604-685-3635 & 416-368-2579

We hereby certify the following Geochemical Analysis of 36 ROCK samples submitted FEB-12-91 by .

Sample Number	Au ppb	As ppm
7606	Nil	
7731	Nil	2
7732	Nil	5
7733	Nil	3
7734	Nil	1
7735	Nil	3

Certified by Donna Harvey

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## Geochemical Analysis Certificate

1W-2299-RG1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A.JACKSON**

Date: **FEB-15-91**

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2. FAX 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST.W.TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 95 ROCK samples submitted FEB-12-91 by .

Sample Number	Au ppb	Au check ppb
07607	Nil	
07608	Nil	
07609	Nil	Nil
07610	Nil	
07611	Nil	
07612	Nil	
07613	Nil	
07614	Nil	
07615	Nil	
07616	Nil	
07617	Nil	Nil
07618	Nil	
07619	Nil	
07620	10	
07621	Nil	
07622	Nil	
07623	7	
07624	Nil	
07625	Nil	
07626	Nil	
07627	31	
07628	17	
07629	137	117
07630	Nil	
07631	75	
07632	936	874
07633	243	
07634	Nil	
07635	Nil	
>07651	Nil	

Certified by Donna Gardner

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## Geochemical Analysis Certificate

1W-2356-RG1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: FEB-22-91

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2. FAX TO 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 15 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb
07636	21	
07637	10	
07638	10	
07639	14	
07640	34	27
07641	21	
07642	14	
07643	17	
07644	14	
07645	14	10
07646	14	
07647	Nil	
07648	Nil	
07649	1111	1087
07650	10	

Certified by Donna Gardner

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## Geochemical Analysis Certificate

1W-2299-RG1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A.JACKSON**

Date: **FEB-15-91**

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3. 1400-22 FRONT ST.W.TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 95 ROCK samples submitted FEB-12-91 by .

Sample Number	Au ppb	Au check ppb
07652	10	
07653	Nil	
07654	24	
07655	Nil	
07656	Nil	
07657	58	
07658	Nil	
07659	147	189
07660	10	
07661	Nil	
07662	Nil	
07663	Nil	
07664	Nil	
07665	Nil	
07666	Nil	
07667	38	
07668	10	
07669	216	
07670	161	
07671	182	
07672	727	706
07673	123	
07674	Nil	
07675	339	
07676	374	
07677	127	
07678	243	
07679	223	
07680	2033	1985
07681	151	

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## Geochemical Analysis Certificate

1W-2299-RG1

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Project: **CYPRUS GOLD**  
Ann: **K. JOHNSON/A.JACKSON**

Date: **FEB-15-91**

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3. 1400-22 FRONT ST.W.TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 95 ROCK samples submitted FEB-12-91 by .

Sample Number	Au ppb	Au check ppb
07682	Nil	
07683	Nil	
07684	Nil	
07685	Nil	
07686	Nil	
07687	Nil	
07688	Nil	
07689	Nil	
07690	147	
07691	254	278
07692	Nil	
07693	Nil	
07694	27	
07695	Nil	
07696	175	178
07697	Nil	
07698	Nil	
07699	Nil	
07700	Nil	
07735	Nil	
07736	Nil	
07737	Nil	
07738	Nil	
07739	34	41
07740	Nil	
07741	Nil	
07742	Nil	
07743	Nil	
07744	Nil	
07745	Nil	

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Project: **CYPRUS GOLD**  
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We hereby certify the following Geochemical Analysis of 95 ROCK samples submitted FEB-12-91 by .

Sample Number	Au ppb	Au check ppb
07746	Nil	
07747	Nil	
07748	Nil	
07749	Nil	Nil
07750		

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## Geochemical Analysis Certificate

1W-2358-RG1

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Date: **FEB-21-91**

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3. 1400-22 FRONT ST. W. TORONTO, ONT

We hereby certify the following Geochemical Analysis of 47 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	As ppm
07751	24			
07752	Nil			
07753	Nil			
07754	21			
07755	21			
07756	17	10		
07757	27			
07758	34			
07759	14			
07760	21			
07761	10			
07762	14			
07763	10			
07764	14			
07765	17			
07766	7			
07767	27			
07768	24			
07769	3350	3370		
07770	357			
07771	1896			
07772	415			
07773	240			
07774	127			
07775	857			
07776	8297	8572	8194	
07777	24			
07778	62	65		
07779	243			
07780	8503	8091	7989	

Arsenic results to follow.

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We hereby certify the following Geochemical Analysis of 47 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	As ppm
07781	4197			
07782	45			
07783	14			
07784	7			
07785	62			
07786	785	960		
07787	41			
07788	638			
07789	381			
07790	415			
07791	422			
07792	1593			
07793	2205	2537		
07794	45			
07795	17			
07796	24			
07797	10			

Arsenic results to follow.

Certified by Donna Gardner

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## Geochemical Analysis Certificate

1W-2290-RG1

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Date: **FEB-14-91**

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We hereby certify the following Geochemical Analysis of 80 ROCK samples submitted FEB-11-91 by .

Sample Number	Au ppb
9201	Nil
9202	38
9203	Nil
9204	Nil
9205	Nil
9206	Nil
9207	Nil
9208	Nil
9209	381/322
9210	967/861
9211	Nil
9212	Nil
9213	Nil
9214	Nil
9215	Nil
9216	Nil
9217	Nil
9218	Nil
9219	Nil
9220	Nil
9221	Nil
9222	10
9223	41/41
9224	Nil
9225	Nil
9226	Nil
9227	Nil
9228	Nil
9229	Nil
9230	Nil

Certified by Donna Gardner

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1W-2290-RG1

## Geochemical Analysis Certificate

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We hereby certify the following Geochemical Analysis of 80 ROCK samples submitted FEB-11-91 by .

Sample Number	Au ppb
9231	Nil
9232	Nil
9233	Nil
9234	Nil
9235	Nil
9236	10
9237	Nil
9238	Nil
9239	Nil
9240	Nil
9241	Nil
9242	38
9243	Nil
9244	429/449
9245	14
9246	Nil
9247	Nil
9248	Nil
9249	24
9250	Nil
9251	Nil
9252	Nil
9253	Nil
9254	Nil
9255	Nil/Nil
9256	Nil
9257	Nil
9258	Nil
9259	Nil
9260	Nil

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We hereby certify the following Geochemical Analysis of 80 ROCK samples submitted FEB-11-91 by .

Sample Number	Au ppb
9261	10
9262	Nil
9263	Nil
9264	Nil
9265	Nil
9266	10
9267	Nil
9268	576/566
9269	10
9270	Nil
9271	Nil
9272	Nil
9273	Nil
9274	10
9275	7
9276	Nil
9277	Nil/Nil
9278	Nil
9279	Nil
9280	Nil

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We hereby certify the following Geochemical Analysis of 46 ROCK samples submitted FEB-11-91 by .

Sample Number	Au ppb	Au check ppb
9281	Nil	
9282	Nil	
9283	Nil	
9284	Nil	
9285	Nil	
9286	21	34
9287	Nil	
9288	Nil	
9289	Nil	
9290	Nil	
9291	Nil	
9292	Nil	
9293	Nil	
9294	Nil	
9295	Nil	
9296	17	
9297	62	34
9298	7	
9299	Nil	
9300	Nil	
9301	Nil	
9302	Nil	
9303	31	45
9304	Nil	
9305	Nil	
9306	7	
9307	Nil	
9308	Nil	
9309	Nil	
9310	Nil	

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1W-2291-RG1

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Project: **CYPRUS-TULLY**  
Ann: **K. JOHNSON/A. JACKSON**

Date: **FEB-14-91**

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We hereby certify the following Geochemical Analysis of 46 ROCK samples submitted FEB-11-91 by .

Sample Number	Au ppb	Au check ppb
9311	10	
9312	Nil	
9313	53	
9314	31	
9315	1008	1015
9316	17	
9317	34	
9318	Nil	
9319	Nil	
9320	10	
9321	Nil	
9322	Nil	
9323	Nil	
9324	Nil	
9325	Nil	
9326	Nil	

Certified by Donna Gardner

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## Geochemical Analysis Certificate

1W-2359-RG1

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 Project: **CYPRUS GOLD**  
 Attn: **K. JOHNSON/A. JACKSON**

Date: FEB-21-91

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 2. FAX TO 604-685-3635 & 416-368-2579  
 3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 14 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
3901	Nil
3902	14
3903	Nil
3904	10
3905	Nil
3906	17
3907	14/10
3908	10
3909	10
3910	14
3911	Nil
3912	27
3913	24
3914	Nil

Certified by Donna Gardner

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## Geochemical Analysis Certificate

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 Project: **CYPRUS GOLD**  
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Date: **FEB-22-91**

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We hereby certify the following Geochemical Analysis of 63 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
3915	17
3916	Nil
3917	243/243
3918	198
3919	27
3920	134
3921	24
3922	17
3923	48
3924	17
3925	Nil
3926	Nil
3927	425/442
3928	31
3929	14
3930	41
3931	31
3932	878/912
3933	387
3934	319
3935	213
3936	24
3937	38
3938	113
3939	75
3940	48
3941	72/69
3942	34
3943	144
3944	86

Certified by

Donna Gardner

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We hereby certify the following Geochemical Analysis of 63 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
3945	21
3946	Nil
3947	14
3948	10
3949	24
3950	27
3951	17/14
3952	14
3953	10
3954	Nil
3955	14
3956	10
3957	7
3958	Nil
3959	10
3960	7
3961	Nil
3962	10
3963	Nil
3964	10
3965	14
3966	Nil
3967	Nil
3968	Nil/Nil
3969	Nil
3970	Nil
3971	10
3972	10
3973	Nil
3974	Nil

Certified by Donna Gardner

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1W-2355-RG1

## Geochemical Analysis Certificate

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Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/ A. JACKSON**

Date: **FEB-22-91**

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We hereby certify the following Geochemical Analysis of 63 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
3975	Nil
3976	10/14
3977	10

Certified by *Hanna Gardner*

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## Geochemical Analysis Certificate

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Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-27-91**

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3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 23 SPLIT CORE samples submitted FEB-22-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb
3978	41		
3979	48	69	
3980	Nil		
3981	Nil		
3982	10		
3983	10		
3984	Nil		
3985	Nil		
3986	1591	1920	Hole 91-8
3987	Nil		
3988	10		
3989	10		
3990	17		
3991	Nil		
3992	Nil		
3993	10		
3994	5280	4639	5177
3995	65		
3996	21		
3997	Nil		
3998	10		
3999	10		
4000	Nil		

Certified by Donna Jackson

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## Geochemical Analysis Certificate

1W-2357-RG1

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We hereby certify the following Geochemical Analysis of 71 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
9701	10
9702	Nil
9703	Nil
9704	Nil
9705	Nil / 10
9706	10
9707	Nil
9708	Nil
9709	Nil
9710	Nil
9711	Nil
9712	14
9713	Nil
9714	Nil
9715	Nil / Nil
9716	10
9717	10
9718	14
9719	Nil
9720	Nil
9721	14
9722	Nil
9723	10
9724	14
9725	10
9726	21
9727	Nil
9728	7
9729	14
9730	14 / 10

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We hereby certify the following Geochemical Analysis of 71 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
9731	14
9732	Nil
9733	Nil
9734	Nil
9735	391/398
9736	Nil
9737	Nil
9738	10
9739	14
9740	7
9741	21
9742	10
9743	Nil
9744	Nil
9745	10/10
9746	7
9747	10
9748	Nil
9749	Nil
9750	Nil
9751	Nil
9752	75
9753	Nil
9754	Nil
9755	Nil
9756	710
9757	24
9758	219
9759	14
9760	487/507

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Project: **CYPRUS GOLD**  
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Date: **FEB-21-91**

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We hereby certify the following Geochemical Analysis of 71 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb
9761	631
9762	89
9763	Nil
9764	14
9765	10
9766	14
9767	10
9768	7
9769	14
9770	24/21
9771	17

Certified by *Gonna Gardner*

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## Geochemical Analysis Certificate

1W-2360-RG1

Company: **A.C.A. HOWE INTERNATIONAL**  
Project: **CYPRUS GOLD**  
Attn: **K. JOHNSON/A. JACKSON**

Date: **FEB-21-91**

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3. 1400-22 FRONT ST. W. TORONTO, ONT.

We hereby certify the following Geochemical Analysis of 11 SPLIT CORE samples submitted FEB-19-91 by .

Sample Number	Au ppb
501	247/267
9772	Nil
9773	Nil
9774	Nil
9775	10
9776	Nil
9777	10
9797	381
9798	Nil
9799	21
9800	442/408

Certified by *Lonna Gardner*

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1W-2353-RG1

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We hereby certify the following Geochemical Analysis of 19 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb
9778	12	
9779	Nil	
9780	Nil	
9781	Nil	
9782	Nil	
9783	1310	1365
9784	17	
9785	69	
9786	34	
9787	86	
9788	38	
9789	Nil	
9790	Nil	
9791	29	
9792	Nil	
9793	576	621
9794	17	
9795	21	
9796	Nil	

Certified by Donna Anderson

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## Geochemical Analysis Certificate

1W-2354-RG1

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Date: **FEB-21-91**

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We hereby certify the following Geochemical Analysis of 38 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	As ppm
502	363	285	
503	79		
504	79		
505	902		
506	1197		
507	10		
508	14		
509	27		
510	17		
511	10		
512	14		
513	254		
514	93		
515	31		
516	45		
517	10		
518	7		
519	27		
520	2129	2064	
521	1368		
522	58		
523	2321		
524	243		
525	329		
526	446		
527	1440		
528	2431		
529	3233	3312	
530	216		
531	363		

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We hereby certify the following Geochemical Analysis of 38 SPLIT CORE samples submitted FEB-19-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	As ppm
532	631		
533	1779		
534	58		
535	14		
536	717		
537	106		
538	51		
539	17		

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Ann: **K. JOHNSON/A. JACKSON**

Date: **FEB-27-91**

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We hereby certify the following Geochemical Analysis of 52 SPLIT CORE samples submitted FEB-22-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb
540	7		
541	Nil		
542	82	79	
543	93		
544	Nil		
545	10		
546	Nil		
547	106		
548	103		
549	1440	1646	
550	41		
551	51		
552	237		
553	1714	1471	
554	48		
555	Nil		
556	72		
557	233		
558	31		
559	10		
560	17		
561	38		
562	10		
563	3		
564	Nil		
565	17		
566	123		
567	734	631	
568	758		
569	103		

Hold 91-9.

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1W-2391-RG1

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Date: **FEB-27-91**

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We hereby certify the following Geochemical Analysis of 52 SPLIT CORE samples submitted FEB-22-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb
570	230		
571	117		
572	51		
573	175		
574	24		
575	312		
576	576		
577	3651	4183	4011
578	523		
579	453		
580	518		
581	1646	1539	
582	209		
583	285		
584	31		
585	10		
586	10		
587	Nil		
588	14		
589	24		
590	147	137	
591	10		

Hide: 91-9

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## Geochemical Analysis Certificate

1W-2428-RG1

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Project: **CYPRUS GOLD**  
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Date: **MAR-13-91**

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2. FAX TO 604-685-3635 & 416-368-2579  
3. 1400-22 FRONT ST.W.TORONTO,ONT.

We hereby certify the following Geochemical Analysis of 86 SPLIT CORE samples submitted FEB-27-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	Au check 2nd ppb	As ppm
592	10				
593	Nil				
594	Nil				
595	106	123			
596	202				
597	72				
598	45				
599	363				
600	511	453			
601	199				
602	292				
603	110				
604	38				
605	141				
606	24				
607	21				
608	17				
609	117				
610	31				
611	58				
612	21				
613	27				
614	175	185			
615	38				
616	34				
617	130				
618	86				
619	34				
620	17				
621	10				

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1W-2428-RG1

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We hereby certify the following Geochemical Analysis of 86 SPLIT CORE samples submitted FEB-27-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	Au check 2nd ppb	As ppm
622	14				
623	34				
624	627	747			
625	Nil				
626	10				
627	10				
628	291				
629	Nil				
630	10				
631	14				
632	10				
633	17				
634	10				
635	Nil				
636	21				
637	Nil				
638	123	120			
639	34				
640	Nil				
641	Nil				
642	Nil				
643	Nil				
644	21				
645	10				
646	10				
647	Nil				
749	Nil				
750	10				
751	Nil	Nil			
752	Nil				

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We hereby certify the following Geochemical Analysis of 86 SPLIT CORE samples submitted FEB-27-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb	Au 2nd ppb	Au check 2nd ppb	As ppm
753	Nil				
754	Nil				
755	Nil				
756	Nil				
757	10				
758	Nil				
759	17				
760	10				50
761	21				60
762	41				60
763	3497	3634	4183	3703	3800
764	1029				2500
765	75				80
766	363				680
767	350				420
768	14				70
769	21				17
770	17				120
771	10				10

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1W-2390-RG1

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Date: **FEB-26-91**

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We hereby certify the following Geochemical Analysis of 39 SPLIT CORE samples submitted FEB-22-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb
701	27	31
702	Nil	
703	Nil	
704	Nil	
705	Nil	
706	Nil	
707	Nil	
708	Nil	
709	27	
710	17	
711	Nil	
712	511	542
713	62	
714	Nil	
715	Nil	
716	Nil	
717	Nil	
718	Nil	
719	Nil	
720	Nil	
721	Nil	
722	Nil	
723	Nil	
724	Nil	
725	17	17
726	Nil	
727	62	
728	Nil	
729	Nil	
730	Nil	

↑

Hold 91-B.

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## Geochemical Analysis Certificate

1W-2390-RG1

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3. 1400-22 FRONT ST. W. TORONTO, ONT

We hereby certify the following Geochemical Analysis of 39 SPLIT CORE samples submitted FEB-22-91 by MURRAY ROGERS.

Sample Number	Au ppb	Au check ppb
731	Nil	
732	Nil	
733	103	
734	127	
735	Nil	
736	93	
737	590	
738	3038	3182
739	1413	

Certified by *Donna Anderson*

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## Geochemical Analysis Certificate

1W-2405-RG1

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Project: **CYPRUS GOLD**  
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Date: **FEB-27-91**

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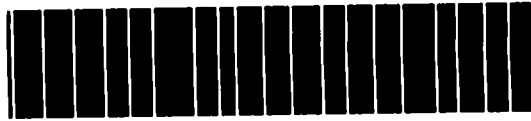
We hereby certify the following Geochemical Analysis of 9 SPLIT CORE samples submitted FEB-22-91 by .

Sample Number	Au ppb	Au check ppb
740	21	
741	10	
742	Nil	Nil
743	10	
744	48	
745	10	
746	17	
747	963	
748	1035	1025

*Hold 91-B.*

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42A14SE0006 OM91-62 TULLY

030

**APPENDIX 2**  
**PETROGRAPHIC DESCRIPTIONS**  
**OF**  
**SELECTED CORE SAMPLES**

**DESCRIPTIONS OF REPRESENTATIVE SAMPLES  
DRILL HOLE NO. 90-4  
TULLY TOWNSHIP PROPERTY, ONTARIO**

**Sample No. TU-1**

1218.7      1233.7

**Graphitic Horizon (Interflow)**

- Up to 10% nodular sulfide clasts? of fine-grained pyrite w trace pyrrhotite, 70% black amorphose graphite cut by irreg. qtz-carbonate stringers and discontinuous stringers and fracture fillings of pyrite/po.; occ. fragment of andesitic lava up to 4 inches; rounded pyrite & qtz-carb. clasts indicates brecciation of zone after deposition.

**Sample No. TU-2**

1346.9      1353.2

**Carbonatized Andesite Flow**

- as previous; yellow-brown to beige colouring w up to 10% interstitial iron carbonate and 15% random qtz-carbonate stringers.

**Sample No. TU-3**

1630.0      1696.3

**Carbonatized Andesite**

- tan to beige with green tinge, cut by thin irregular fractures, appears silicified (but is soft & can easily be cut by a knife); 20% interstitial iron carbonate throughout; fracturing increases in intensity down-hole; trace euhedral growths of fine pyrite; fine grained as is unaltered andesite, prob. carbonatized unit which is footwall to GIF, and thus indicates folding?

**Sample No. TU-4**

1696.3      1713.8

**Graphitic Interflow Horizon**

- black graphitic sediments, fine grained amorphous cut by 30% white qtz. carbonate veins up to 1.75 feet in width at random orientations; graphitic seds at 70° to c.a.; host up to 20% coarse nodules of fine pyrite; pyrite nodules up to 0.75 inch diameter & are subangular.

**Sample No. TU-5**

1713.8      1754.7

**Graphitic Tuffs**

- green-grey to black, mottled and schistose texture w slight schistosity at 60° to c/a; up to 5% graphitic component w 3 to 5% white/grey interstitial carbonate; unit cross-cut by occasional white qtz. vein up to 0.5 inch with sideritic alteration along vein selvages, at 40 to 45° to c/a; fragmental texture to unit indicative of tuffaceous derivation; could possibly be reworked tuffs w graphitic component being derived from underlying graphitic interflow (again suggesting fold w ranging now to south).

**Sample NO. TU-6,7 and 8**

1850.3      1870.2

**Carbonated Tuff Horizon (MAIN ZONE)**

- Fine grained, siliceous in appearance but soft; tan to yellow beige, lithic tuff horizon cut by thin dark grey qtz-filled fractures; 60% fine interstitial iron carbonate gives rise to beige colouring; up to 4% pyrite/pyrrhotite in this discont. stringers; sharp contact w lavas above at 60° to C/A; becomes slightly brecciated at 1852; qtz injection at 1857.4 to 1861.5; white qtz. carb - tarm. vein from 1861.5 to 1866.0.

**Sample No. TU-9**

1882.1      1965.1

**Andesite Flow**

- dk green, medium grained flow; massive w 8% interstitial carbonate (white, calcite); chlorotic, w mottled texture, prob. med-grained flow; equigranular texture.

**Sample No. TU-10 to TU-14**

2025.9      2081.0

**Carbonatized Tuff Horizon (Welded Tuff?)**

- as prev. unit @ 1850.3 feet but exhibits much less iron carbonate alteration @ 3 to 5%; very fine gr. lithic tuff, med. grey to black (dark grey) w grnd. section to wispy bands of light tan to beige-iron carbonate altered sections @ 50° to C/A.
- Up to 15% finely disseminated pyrite in carbonate altered sections over core widths of up to 0.8 feet; secondary pyrite along irreg. fractures @ 5%; <2% white qtz.- carb. veining up to 0.75 inch widths at 45° to C/A.

2028.9 to 20320: slight cataclastic brecciation w minor qtz. injection; 3% qtz. cb; 2% pyrite w wispy schlerin of iron-cb alteration; trace v. fine arsenopyrite.

2032.0 to 2043.3: minor iron - cb. alt. of v. fine lithic tuffs; 3% fine-med pyrite disseminations; 25 to 35% paragonitic? partings minor qtz.injection.

2043.3 to 2046.5: 20% iron cb. alter. over short sections to 0.3 feet, 5% diss & stringers pyrite, trace arsenopyrite.

(Min. Zone) 2048.1 to 2052.7: 10% to 15% v. fine pyrite diss. throughout w up to 5% v. fine needles arsenopyrite barely distinguishable in matrix. Good iron carbonate alteration in partings and brecciated bands; 3% red hematite noted on fractures which exhibit graphite on slips; carb. & sulfides well bonded at 45° to C/A.

- from 2052.7 grades into dk. grey lithic tuff w 1% med. pyrite in diss. stringers slight iron cb. alteration foliation at 450 to C/A.

**Sample No. TU-15**

2086.018      2192.0

- Talc Peridotite (Serpentinite)
- black grey, cut by random qtz-cb (calcite) filled fractures, non-magnetic, talcose; trace pyrite.



## PETROGRAPHIC SUMMARY

SAMPLE No. TU-1 (core sample & polished thin section)

### SUMMARY & TEXTURAL DESCRIPTION

This sample is so heavily altered - mainly sericitized and pyritized - that there is almost nothing recognizable remaining from the protolith. It could be an intensely altered intermediate volcanic or volcanic breccia, or possibly a tuffaceous or volcanogenic sediment, although the evidence is sketchy. The protolith was probably dominated by felsic minerals - there is only a small amount of chlorite and essentially no other mafic minerals in the alteration assemblage. Feldspar was definitely an important component of the protolith. Some of the relict feldspars are reasonably coarse-grained, sometimes almost euhedral, and ranging up to 1.5 mm or more, possibly remnants of original phenocrysts. There are suggestions of relict angular fragments, which could be a texture inherited from a brecciose or tuffaceous protolith, although alternatively it could be a deformational texture. The remainder of the sample is extremely fine-grained and intensely sericitized, sometimes with suggestions of layering or banding.

The sulphide assemblage is overwhelmingly dominated by pyrite, with only minor sphalerite. The pyrite occurs as masses of fine, predominantly idiomorphic cubes, which coalesce into coarser, rounded masses. Some of the coarsest masses have a nodular to almost framboidal appearance, with suggestions of concentric and radial growth zonations, speckled textures, and sawtooth overgrowth rims of fine, euhedral pyrite grains. Minor graphite was also observed, mainly concentrated in one intensely sericitized zone or band which cuts across the thin section. It is possible that this is a remnant of a band of interlayered graphitic sedimentary material, although again the evidence for this is sketchy.

The coarsest pyrite masses are typically fractured, with well-developed chalcedonic fringes developed in pressure shadows around the edges and within pulled-apart fractures. Also associated with chalcedonic material in the pressure shadows is some carbonate, and fibrous chlorite forming micaceous "beards" on the pyrite masses. The fibrous grains in the pressure shadow fringes are typically curved, indicating continued deformation.

Aside from the heavy pyritization and associated pressure shadows, the alteration assemblage is mainly characterized by intense, pervasive sericitization. In the graphitic band, this material is so fine-grained that it is more properly referred to as "micaceous" because it is very difficult to identify; it tends to be stained reddish buff-coloured, with suggestions of colloform textures. Sericite in this band is also concentrated into fine, criss-crossing, stringer-like veinlets. Carbonate is also present throughout the sample, typically in irregular masses associated with remobilized quartz. There may also have been minor recrystallization of feldspar associated with the alteration.

## MINERALOGY

≈50% Opaques, consisting (in order of decreasing abundance) of:

**Pyrite:** overwhelmingly the dominant opaque mineral; idiomorphic to subidiomorphic grains (mostly cubes), ranging from extremely fine to 1 mm, and coalescing into much coarser, blocky to rounded masses of several mm to cm; some of the coarser masses are clearly composed of finer grains which have coalesced, sometimes creating a slightly framboidal-looking texture; other coarse pyrite masses look nodular, with concentric and/or radiating growth zonations, and sometimes a rim or corona of euhedral grains around the edge; some of the coarsest masses have been fractured and pulled apart, with pressure shadow fringes of chalcedonic-textured quartz, carbonate and chlorite, and later growth of euhedral crystals around the outer edges.

**Oxide:** minor; probably ilmenite; noticeably lighter and less brown in colour than the sphalerite, with distinct anisotropy; occurs in small (0.2 mm and much less), irregular masses or clusters of finer grains, does not tend to show the platy habit typical of graphite, nor the characteristic very strong bireflectance, although it is possible that minor graphite is present.

**Sphalerite:** accessory; very easy to miss; similar to the graphite but distinctly browner, and isotropic, with internal reflections; occurs as fine (0.1 mm and much less), irregular inclusions in pyrite; mainly honey-coloured internal reflections (rather than red) indicate a relatively iron-poor composition.

≈30% **Sericite:** ranges from very fine (0.2 mm), platy grains, to masses of extremely fine (e.g. 10 μ or less), essentially unidentifiable micaceous material (probably mainly sericite); some concentration of sericite into fine, stringer-type veinlets, and minor occurrence of platy sericite in micaceous pressure shadow "beards" around coarse pyrite masses; otherwise it is predominantly a heavily pervasive alteration; the sericitic material in the graphitic band mentioned above is typically stained reddish-buff, and displays a colloform-type banding.

≈7% **Quartz & Quartzofeldspathic Material:** occurs mainly as fibrous, chalcedonic-textured material forming well-developed pressure shadow fringes around the coarsest pyrite masses, and in pulled-apart fractures cutting these masses; some of these pressure shadow fringes are very well-developed; the fibrous grains are typically strongly curved, indicating continued deformation; associated with carbonate + chlorite; some quartz also occurs in irregular, vein-like masses, associated with carbonate and minor recrystallized feldspar; finally, there is some extremely fine-grained, essentially unidentifiable felsic material in some of the heavily sericitized portions of the sample; this is probably a mixture of very fine-grained feldspar ± quartz, inherited from the protolith.

- ≈5% Carbonate:** clear and colourless; effervesces in cold HCl, hence at least some calcite is present; occurs in pressure shadows around coarse pyrite masses, associated with chalcedonic quartz and chlorite; carbonate also occurs as coarse (e.g. 1-1.5 mm), irregular masses, typically associated with quartz + recrystallized feldspar.
- ≈5% Feldspar:** probably much more abundant prior to alteration; occurs as fragments of grains, and occasionally as preserved subhedral to almost euhedral grains up to 1.5 mm; only plagioclase (no alkali feldspar) was definitely identified; there also appears to have been some vein-type recrystallization of feldspar associated with the alteration, i.e. minor recrystallized albitic feldspar occurring in irregular masses with quartz and carbonate.
- 2-3% Chlorite:** occurs mainly or exclusively as micaceous "beards", associated with fibrous quartz and carbonate, in pressure shadows around coarse, fractured pyrite masses; elongated, almost fibrous grains, with long dimensions oriented perpendicular to grain boundaries; weak to moderate pleochroism, colourless to pale green, with low, slightly anomalous interference colours.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-2 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This is an intensely altered sample, with clear indications of pressure solution (refer to Photos 1 & 2). The alteration assemblage is dominated by a carbonate which does not effervesce in cold HCl, hence probably an iron carbonate. Extremely fine-grained sericitic material is also moderately to heavily pervasive. Veinlets and stringers criss-cross the sample. Some of the stringers are typical of pressure solution residue, marked by extremely fine-grained opaque material, with sericite and/or carbonate and/or traces of tourmaline associated.

There is very little that can be said with confidence about the protolith, except that it contained predominantly felsic minerals (e.g. feldspar and/or quartz), and was probably reasonably fine-grained.

### MINERALOGY

**≈40% Carbonate:** no sign of effervescence in cold HCl, so it is most likely an iron carbonate; heavily pervasive, and also concentrated into cross-cutting veinlets; irregular masses, up to 0.5 mm, mostly much finer.

**≈30% Quartz, Feldspar & Quartzofeldspathic Material:** much of this is very fine-grained, and heavily overprinted by the carbonate-sericite alteration, therefore very difficult to identify; however, both quartz and feldspar (plagioclase) are definitely present; some identifiable quartz occurs as part of the alteration assemblage, in lenses and veinlets associated with carbonate and/or sericite and/or opaque stringers and/or pyrrhotite.

**≈25% Sericite:** very fine to extremely fine (0.1 mm and much less), platy, flaky and needle-like grains; moderately to heavily pervasive, and also concentrated into veinlets and stringers, associated with opaque material.

**≈5% Opaques, consisting (in order of decreasing abundance) of:**

**Pyrite:** occurs mainly as slightly poikilitic, subidiomorphic to idiomorphic cubes and six-sided grains, sometimes with rough or jagged grain boundaries; ranges from 1 mm or slightly coarser, down to very fine, ave. ≈0.5 mm.

**Pyrrhotite:** slightly less abundant than pyrite; occurs as very fine, irregular inclusions in pyrite, and as coarser (0.3 mm, up to 1 mm), irregular, poikilitic masses.

Oxide: minor; tends to be extremely fine-grained (e.g. 20  $\mu$  and less), fairly evenly distributed throughout, and concentrated into trails and stringers associated with pressure solution; irregular grains (generally not platy or needle-like); grey, low reflectivity, with distinct anisotropy; internal reflections are present, which is not consistent with graphite, although it could be the result of the extremely fine grain size (i.e. an anomalous optical effect).

Chalcopyrite: trace to accessory; very fine, irregular inclusions in pyrrhotite, and as free grains.

Acc. Chlorite: very pale and weakly pleochroic, colourless to pale green, with low, slightly anomalous interference colours; small, irregular clusters of fine, platy to almost fibrous grains; associated with sericite.

Tr. Tourmaline: very fine (e.g. 0.1 mm and less), stubby prismatic grains, closely associated with trails of opaque material marking pressure solution; strongly pleochroic, clear to brown; there may also be some cryptocrystalline (i.e. sub-microscopic) tourmaline associated with the pressure solution stringers.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-3 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This sample, described as andesitic footwall material, is completely unlike sample TU-9 (the other footwall sample), but it is similar in many respects to the preceding sample TU-2 (refer to Photos 3 & 4). It is an intensely carbonated sample, but with no sign of effervescence in cold HCl (hence probably an iron carbonate). The protolith, which is almost completely obscured by the alteration, appears to have been feldspathic or quartzofeldspathic, and probably relatively fine-grained. There are some discrete carbonate masses which may be pseudomorphs after originally coarser (e.g. 0.5 mm) feldspar grains. There are also some patches with an unusual texture, of reddish-brown iron carbonate apparently pseudomorphing an originally fine-grained, needle-like, felty-textured mineral, probably also feldspar.

The evidence, which is very sketchy, therefore points towards an intermediate (or possibly felsic?) volcanic rock with intense iron carbonate-dominated alteration.

### MINERALOGY

**~60% Carbonate:** heavily pervasive; does not effervesce in cold HCl, which suggests an iron carbonate; many grains display a reddish-brown colour in plane polarized light, which is also consistent with iron carbonate; the carbonate occurs in a number of forms: (1) heavily pervasive, fine, irregular masses; (2) discrete masses with straight edges, which could be pseudomorphs after original feldspars; (3) dark, reddish-brown, needle-like forms, which appear to be carbonate pseudomorphs after an originally acicular, fine-grained mineral, probably also feldspar; (4) cross-cutting veinlets, often associated with chlorite  $\pm$  quartz.

**~35% Quartz, Feldspar & Quartzofeldspathic Material:** both quartz and feldspar are present, although much of the felsic material is so fine-grained and/or so heavily altered that it is impossible to identify with certainty; the protolith appears to have been fine-grained, although there are suggestions that some coarser feldspars may once have been present; quartz in the alteration assemblage occurs in lenses and veinlets, usually associated with carbonate  $\pm$  chlorite; there also may have been minor recrystallization of feldspar associated with the alteration.

**2-3% Chlorite:** weakly pleochroic, colourless to pale green, with very low, slightly anomalous interference colours; very fine, flaky grains; usually associated with carbonate veining.

**Acc. Opaques,** consisting (in order of decreasing abundance) of:

**Pyrite:** the occurrence of a single relatively coarse grain (1.5 mm) immediately makes this the most abundant sulphide; the coarse grain is subidiomorphic, finely poikilitic, associated with quartz veining; there are other extremely fine (e.g. 5  $\mu$ ) pyrite grains scattered throughout the sample.

**Sphalerite:** only a few fine (e.g. 0.2 mm), irregular grains; strong red internal reflections indicates an Fe-rich composition; associated with carbonate veining; in one case, chalcopyrite, pyrite and sphalerite occur in a small cluster together.

**Oxide:** grey, low reflectivity, extremely fine (e.g. 5  $\mu$ ), lightly scattered throughout; some grains show internal reflections, although this could be an artifact of the extremely fine grain size.

**Chalcopyrite:** trace; extremely fine.

**Pyrrhotite(?):** trace; extremely fine.

**Arsenopyrite(?):** trace; extremely fine.

**Acc. Sericite:** very fine (0.1 mm), flaky grains; associated with clusters of carbonate.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-4 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

Of the samples described so far, this one is most similar to TU-1, although there are noticeable differences between the two samples (refer to Photos 5 - 8). This sample is intensely altered, with essentially no convincing evidence as to the nature of the protolith. The thin section is dominated by roughly alternating bands of pyritic and graphitic material. The pyritic material varies from masses of very fine grains, to very coarse, blocky, fractured masses. Where it is fractured, the pyrite is associated with well-developed chalcedonic-textured quartz and carbonate in gashes and pressure shadows. The interbanded graphitic material ranges from strongly foliated but extremely fine-grained, almost sub-microscopic material, to coarser (e.g. 0.4 mm), discrete platy grains of graphite.

Aside from the chalcedonic quartz associated with fractured pyrite masses, there is clear evidence of silicification, in the form of fine criss-crossing quartz veinlets, and possibly even quartz flooding. Iron carbonate is also abundant.

### MINERALOGY

**≈50% Opaques, consisting (in order of decreasing abundance) of:**

**Graphite:** in strongly foliated bands; ranges from extremely fine, almost sub-microscopic but heavily graphitic material, to discrete, relatively coarse, platy grains (individual, platy grains of 0.4 mm or more); shows the strong bireflectance and anisotropy which are characteristic of graphite; (note: this is distinctly browner, less grey than the "oxides" described in other samples, clearly identifiable as graphite; also distinctly brown by comparison with the much greyer sphalerite).

**Pyrite:** almost as abundant as the graphitic material; the pyrite varies from masses and clusters of extremely fine (0.05 mm and less), subidiomorphic grains, to very coarse, blocky, fractured masses; pyritic bands alternate with graphitic bands, and sometimes they are closely intergrown.

**Sphalerite:** accessory; slightly reddish to golden internal reflections; irregular masses.

**≈35% Quartz, Feldspar & Quartzofeldspathic Material:** only traces of feldspar were definitely identified, but there is quite a lot of very fine-grained to extremely fine-grained felsic material, which could include appreciable feldspar; a few very fine feldspar grains were observed in association with quartz-carbonate veining; quartz is definitely the dominant felsic mineral (occurring mainly in the



alteration assemblage), and there is clear evidence of silicification; quartz occurs in very fine, criss-crossing veinlets throughout the sample; in coarser-grained masses associated with carbonate; and in well-developed, chalcedonic-textured pressure shadows and pulled-apart gashes associated with coarse, fractured pyrite masses.

**=15% Carbonate:** the lack of effervescence in cold HCl suggests an iron carbonate; heavily but unevenly pervasive; associated with pyrite masses; in gashes and veinlets, associated with graphitic material, and with chalcedonic-textured quartz.

**Acc. Sericite.**

**Tr. Chlorite:** in very fine stringers; iron-stained.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-5 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This thin section does not contain any of the graphitic material described in TU-4, but instead is dominated by a strongly foliated alteration assemblage consisting of iron carbonate + sericite + chlorite + quartz. Aside from a few augen of relict fractured feldspar grains, there is essentially no indication as to the nature of the protolith. The foliation is strong but rough, defined mainly by anastomosing stringers of chlorite and, to a lesser extent, by sericitic stringers and lenses.

### MINERALOGY

- ≈35% Carbonate: lack of effervescence in cold HCl suggests an iron carbonate; heavily pervasive throughout; relatively even grain size, ≈0.2-0.4 mm, with a few slightly coarser-grained lenses and bands.
- ≈35% Chlorite: very fine, almost fibrous, in anastomosing stringers and lenses, defining the foliation; weak pleochroism, colourless to pale green, with very low, slightly anomalous greyish-green interference colours.
- ≈20% Sericite: occurs in clumps, clusters and lenses of platy grains; not as strongly foliated as the chlorite; ave. grain size ≈0.3 mm and less; much of the sericite is iron-stained.
- ≈10% Quartz, Feldspar & Quartzofeldspathic Material: there are some augen up to 0.8 mm in length, which appear to be relict fractured feldspar grains; there are also a few lenses of quartz, and minor quartz occurs in association with carbonate lenses.

Acc. Opaques, consisting (in order of decreasing abundance) of:

**Pyrite:** fine subidiomorphic to irregular grains; ave. ≈0.2-0.3 mm.

**Pyrrhotite:** approximately the same abundance as pyrite; irregular masses, elongated parallel to foliation; ave. ≈0.2 mm, occasionally coarser.

**Sphalerite:** accessory; strong red internal reflections indicate an iron-rich composition; 0.3 mm and less, roughly equant grains.

**Chalcopyrite:** accessory to trace.

**Arsenopyrite:** accessory to trace; very fine, irregular grains; can be closely intergrown with pyrite ± pyrrhotite ± sphalerite.

Oxide: trace; extremely fine grain size; very lightly disseminated; low reflectivity, grey.

Pentlandite(?): trace; flame-like exsolution within pyrrhotite grains.

Tr.-Acc. Tourmaline: clusters of fine (e.g. 0.2 mm), euhedral prismatic hexagonal grains; strong colour and pleochroism, colourless to yellowish-brown, with strong colour zonation (colourless core, brown rim); the colour suggests elbaite to dravite composition, although colour in tourmalines can be quite variable and is not always a reliable indicator of composition; seems to be associated with chloritic stringers.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-6 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This is another sample which is so intensely altered that nothing convincing remains of the protolith. The sample is dominated by an alteration assemblage consisting of an iron carbonate + an (apparently) iron-rich sericite, with less abundant chlorite. Patches of very fine-grained quartzofeldspathic material may be the only thing left of the protolith; remobilized and recrystallized quartz in veins and irregular masses also forms part of the alteration assemblage. The alteration overall is patchy and complex, with pervasively carbonatized, strongly foliated sericitic and chloritic material cut by later carbonate veins, which are in turn cut by foliated sericitic material. The carbonate veins, which range from semi-conformable to cross-cutting, show open-space-filling textures, such as comb structure with quartz running along the centerline. The intensely sericitized and chloritized material shows evidence of pressure solution.

The sulphide assemblage in this sample differs from those previously described, in the lack of pyrite, the dominance of pyrrhotite, and the presence of appreciable arsenopyrite. The pyrrhotite, which is by far the dominant sulphide, occurs as irregular, poikilitic lenses, elongated parallel to the banding or foliation. Arsenopyrite typically occurs as euhedral, rhomb-shaped grains, included in pyrrhotite masses.

### MINERALOGY

≈45% Carbonate: no effervescence in cold HCl, suggests an iron carbonate; finely and intensely pervasive, closely associated with sericitic and chloritic material; also occurs in coarser-grained, semi-conformable to cross-cutting masses and veinlets; the largest vein (≈1 mm wide) shows open-space-filling textures, with quartz down the centerline; this vein cross-cuts intensely carbonatized and sericitized material, but is in turn cut off by foliated sericitized material.

≈25% Quartz, Feldspar & Quartzofeldspathic Material: mostly extremely fine-grained (e.g. 20 μ and less), essentially unidentifiable quartzofeldspathic material; this may be inherited from the protolith, but there are no convincing relict textures; coarser-grained quartz occurs in irregular, obviously recrystallized masses, and in veinlets associated with carbonate; the only clearly identifiable feldspar appears to be minor recrystallized albitic feldspar, associated with masses of quartz in the alteration assemblage.

≈15% Sericite: very pale buff colour suggests an iron-rich composition; strongly foliated, pervasive and in bands and stringers; very fine, needle-like to fibrous grains.

≈10% Chlorite: (difficult to distinguish from sericite, because the section is cut a bit too thin); occurs in very fine stringers of fibrous material; pale, weakly pleochroic, with very low, slightly anomalous interference colours; associated with sericite stringers.

≈5% Opaques, consisting (in order of decreasing abundance) of:

**Pyrrhotite:** overwhelmingly the dominant sulphide; relatively coarse (1 mm and more), very irregular, poikilitic masses, elongated parallel to foliation or banding.

**Arsenopyrite:** distinctly less abundant than pyrrhotite; fine (0.1-0.2 mm), euhedral rhomb-shaped grains; often occurs as inclusions in pyrrhotite.

**Chalcopyrite:** minor to accessory; irregular masses, often associated with pyrrhotite.

**Oxide:** minor to accessory; extremely fine grain size (e.g. 10  $\mu$  and less); strong anisotropy, strong internal reflections (which is not typical of graphite); irregular grains, lightly disseminated and confined to certain bands, trails and stringers; there is one surface on the hand sample which is graphitic-looking, suggesting that there may be thin bands of graphitic material throughout the sample (which would appear as thin trails or stringers in the thin section), although there is nothing that strikes me as looking graphitic in the thin section.

**Pyrite:** trace; irregular masses, closely associated with pyrrhotite.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-7 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

Although it is similar mineralogically to the preceding sample (TU-6), this sample differs from TU-6 in being coarser-grained overall, and dominated by vein quartz. The sample could almost be described as a breccia, with small, angular fragments of intensely carbonatized and sericitized quartzofeldspathic material, floating in a matrix of coarse-grained vein quartz (this texture is easily observed by holding the thin section up to the light).

The carbonate, which does not effervesce in cold HCl and is thus probably an iron carbonate, seems to belong predominantly to a relatively early stage of alteration. That is, the angular fragments represent material which was intensely carbonatized, then subsequently overprinted and engulfed by the vein quartz. However, there appears to have been some later sparry-textured recrystallization of carbonate, forming sawtooth-like rims along the edges of some of the vein quartz material. Much of the carbonate is rather dark, reddish-brown in colour, which is also consistent with iron carbonate.

The sulphides and other opaque material are concentrated within the angular carbonatized fragments; the vein quartz is essentially free of sulphides, although the quartz is cloudy due to abundant fluid inclusions. Pyrite and arsenopyrite are the two most abundant sulphides.

### MINERALOGY

**≈75% Quartz, Feldspar & Quartzofeldspathic Material:** coarse-grained (e.g. several mm) vein quartz accounts for at least 70% of the thin section; good-sized (e.g. 10-30  $\mu$ ) fluid inclusions are abundant in the vein quartz, and it would definitely be feasible to do a fluid inclusion study on this quartz if desired; the fluid inclusions, some of which are "dirty", define concentric growth zonations in many of the quartz grains, and cause the cloudy appearance of the quartz; aside from the vein quartz, there is some very fine-grained (e.g. 0.2 mm and less) felsic material which contains a small amount of identifiable feldspar (plagioclase); this material, which apparently represents what little is left of the protolith, has been intensely carbonatized, and broken into angular fragments as described above.

**≈15% Carbonate:** intense, pervasive, fine-grained carbonatization of quartzofeldspathic material in the angular fragments; much of this is a relatively dark, cloudy, reddish-brown colour in plane polarized light; no effervescence in cold HCl, suggests an iron carbonate; there is also some coarser-grained (e.g. 0.3-0.4 mm),

sparry-textured carbonate which forms rims along the edges of some of the vein quartz.

≈5% Sericite: tends to occur as discrete masses or clusters of fine (e.g. 0.2 mm and less), platy to flaky grains; occasionally as stringers.

3-5% Opaques, consisting (in order of decreasing abundance) of:

**Pyrite:** fine (e.g. 0.2-0.3 mm), irregular to subidiomorphic grains, often closely associated with arsenopyrite.

**Arsenopyrite:** almost as abundant as pyrite (difficult to judge, because they are very unevenly distributed); clusters of fine (e.g. 0.2 mm), idiomorphic, rhomb-shaped grains.

**Oxide:** and/or possibly minor graphite; minor to accessory; fine (0.1 mm and much less), irregular grains, with strong anisotropy; grey, low reflectivity; associated with angular fragments of material with dark banding and sericitic stringers.

**Sphalerite:** trace to accessory; fine (0.1 mm), irregular grains, usually adjacent to pyrite; honey-coloured internal reflections suggests a relatively iron-poor composition.

**Chalcopyrite:** trace; very fine, irregular grains, as inclusions in pyrite.

**Pyrrhotite:** trace; very fine, irregular inclusions in pyrite.

## PETROGRAPHIC SUMMARY

SAMPLE No. TU-8 (core sample & polished thin section)

### SUMMARY & TEXTURAL DESCRIPTION

This sample consists of relatively fine-grained quartzofeldspathic material (both minerals are present, but not always distinguishable), with a heavily overprinted alteration assemblage that is dominated by iron carbonate and sulphides (refer to Photos 9 & 10). Textures in the protolith are obscured, but there are suggestions of relict feldspar grains up to almost 1 mm; could this suggest an intrusive protolith? The iron carbonate is fairly evenly disseminated throughout the sample, along with abundant fine-grained arsenopyrite. Pyrite is also abundant, but coarser-grained and less evenly disseminated than the arsenopyrite, tending to occur in clusters and coarse masses. Sericite and chlorite occur mainly or exclusively in pressure shadows around the coarse pyrite masses.

### MINERALOGY

≈35% Quartz, Feldspar & Quartzofeldspathic Material: although both quartz and feldspar are definitely present, much of the felsic material is difficult to identify because of heavy alteration overprinting and fine grain size (typically 0.2 mm and less); relict feldspar grains up to almost 1 mm are discernible; some quartz occurs in pressure shadows around coarse pyrite grains, sometimes with chalcedonic or fibrous texture.

≈30% Opaques, consisting (in order of decreasing abundance) of:

Pyrite: medium-sized (ave. ≈0.2-0.5 mm) subidiomorphic to idiomorphic grains (cubes), ranging up to very coarse (several mm) masses; the coarsest masses are not conformable to the foliation; inclusions of arsenopyrite are common, suggesting pyrite crystallized later than the arsenopyrite.

Arsenopyrite: almost as abundant as pyrite, but much finer-grained, relatively evenly disseminated; can occur as inclusions in pyrite, but more commonly occurs as "free" grains (i.e. in gangue); fine (ave. ≈0.2, but up to 0.8 mm or more in length), elongated idiomorphic rhomb-shaped and needle-like grains.

Oxides: and/or possibly some graphite(?); masses or clusters of extremely fine-grained, almost flocky-textured material; low grey, with internal reflections; I strongly suspect this is an iron oxide associated with the iron carbonate, but difficult to identify because of the very fine grain size.

Sphalerite: trace to accessory; strong red internal reflections suggest an iron-rich composition; very fine, irregular grains as inclusions in pyrite.



**Chalcopyrite:** trace to accessory; very fine, irregular inclusions in pyrite.

**Pyrrhotite:** trace; very fine, irregular inclusions in pyrite.

**≈30% Carbonate:** evenly and heavily pervasive; mostly fine-grained (0.2 mm); some concentration into coarser-grained conformable lenses and veinlets; no sign of effervescence in cold HCl, suggests an iron carbonate; some of the carbonate is reddish-brown in colour, other grains are associated with clusters of extremely fine-grained iron oxide; both of these features are typical of iron carbonates.

**3-5% Sericite:** occurs mainly as flaky to platy grains, up to 0.5 mm or more, in pressure shadows around coarse pyrite grains; associated with chlorite.

**2-3% Chlorite:** weak pleochroism, colourless to pale green, with low, slightly anomalous interference colours; platy and flaky grains up to 0.4 mm occur with sericite, in pressure shadows around coarse pyrite grains.

**Tr. Biotite:** or possibly iron-stained chlorite.

## PETROGRAPHIC SUMMARY

SAMPLE No. TU-9 (core sample & polished thin section)

### SUMMARY & TEXTURAL DESCRIPTION

Although logged as a medium-grained andesitic flow, I would be inclined to describe this as an intrusive rock, and possibly closer to gabbro (or diabase) than to diorite (andesite) in composition (refer to Photos 11 - 14). The rock consists of tabular subhedral plagioclase grains (ave.  $\approx 1$  mm, ranging up to 2 mm in length), with a relatively coarse-grained (1-3 mm) mafic mineral. The composition of the plagioclase cannot be reliably determined because of its alteration (mainly epidotization, which indicates that it was a relatively calcic plagioclase to begin with). The mafic mineral is green with moderate pleochroism; it appears to be an amphibole now (probably actinolite), but judging by its occurrence and relict crystal outlines the amphibole may be pseudomorphous after an original calcic clinopyroxene. The relict actinolite-pyroxenes sometimes partially to totally enclose plagioclase laths, in what is referred to as subophitic to ophitic texture.

The alteration assemblage is characteristic of greenschist facies metamorphism of a mafic protolith. In addition to the apparent actinolite pseudomorphism of clinopyroxenes, the alteration assemblage includes chlorite + epidote + leucoxene + minor carbonate. Both chlorite and carbonate occur as patchy alteration of the actinolite-pyroxenes. The "leucoxene" is typical of rutile-dominated alteration pseudomorphous after skeletal ilmenite. Epidote occurs throughout the sample, and causes the cloudiness that is characteristic of altered calcic plagioclases.

### MINERALOGY

$\approx 40\%$  Feldspar: exclusively plagioclase; ranges from fine (e.g. 0.3 mm) to 2 mm or more in length (ave. length  $\approx 1$  mm); elongated, tabular, subhedral grains; cloudy due to epidote-dominated alteration; composition not determined, but the predominance of epidote in the alteration assemblage indicates an originally calcic composition.

$\approx 30\%$  Amphibole/Pyroxene: as discussed above, the dominant mafic mineral now appears to be an amphibole, but may have originated as pseudomorphous alteration of pyroxene; occurs as relatively coarse (1-3 mm) grains, interstitial to and partially or totally enclosing plagioclase laths; original crystal outlines are mostly either irregular against feldspars, or obscured by alteration, so it is difficult to tell whether the original mineral was an amphibole or a pyroxene (although this mode of occurrence is more typical of pyroxene); now shows moderate pleochroism, almost colourless to yellowish-green, and I suspect actinolite; needle-like to fibrous crystals growing out of the ends of many of the grains would also be consistent with actinolite.

≈10% Chlorite: patchily intergrown with actinolite + carbonate, in what appear to be pseudomorphs after pyroxene; chlorite also occurs alone, in very fine-grained, interstitial masses; the chlorite is slightly paler in colour than the amphibole, with weak to moderate pleochroism, pale yellow to light green, with distinctly anomalous purple interference colours.

≈10% Epidote: (more abundant than it looks at first glance); occurs as extremely fine-grained alteration of plagioclase, causing the characteristic cloudiness; also occurs throughout as fine (e.g. 0.2-0.3 mm), prismatic grains; most of the prismatic grains show the pale greenish-yellow pleochroism typical of epidote.

≈5% Opaques, consisting (in order of decreasing abundance) of:

"Leucoxene": actually semi-transparent, rather than opaque; occurs as medium-grained (e.g. 0.5-0.8 mm), irregular grains and masses, typically with well-developed skeletal internal structures; reddish-brown colour in plane polarized light; in reflected light, a mixture of low reflectivity grays, with variable anisotropy and abundant internal reflections; this is almost certainly a rutile-dominated, "leucoxene"-type alteration pseudomorphous after ilmenite, probably with minor ilmenite remaining.

Chalcopyrite: accessory; extremely fine-grained (e.g. 20  $\mu$  and less).

Pyrrhotite: trace.

2-3% Carbonate: the sample shows minor effervescence in cold HCl, indicating that at least some calcite is present; occurs as patchy alteration of amphibole/pyroxene; clear and colourless; also alters feldspars; some discontinuous carbonate veinlets.

Acc. Quartz(?) and/or Apatite(?): colourless mineral filling interstices between plagioclase and amphibole grains; looks like quartz, except that most grains display one or more of the following features: (1) slightly anomalous bluish interference colours, (2) biaxial, off-centered and/or optically negative interference figures, (3) twinning, (4) zonation; all of these features are uncharacteristic and, in fact, probably contraindicative of quartz; however, I cannot get a good uniaxial negative interference figure on any of the grains in order to confirm an alternative identification, the most likely of which would be apatite.

Tr.-Acc. Sericite(?): extremely fine-grained as alteration of feldspars.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-10 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This sample is similar in some respects to samples TU-8 and TU-7 (refer to Photo 15). It resembles TU-7 in that relatively coarse-grained vein quartz is an important part of the assemblage, although not as dominant as it is in TU-7. In terms of mineralogy, this sample is probably most similar to TU-8, but the alteration is much more patchy and unevenly distributed than in that sample. The texture of the protolith has been almost entirely obscured by the alteration assemblage, although it is clear that felsic minerals (feldspar and/or quartz) were the major components of the protolith. For the first time in this group of samples, both plagioclase and alkali feldspar were tentatively identified, which may suggest a felsic (rather than intermediate) protolith.

The alteration is dominated by a heavily pervasive iron carbonate. There may be more than one generation of carbonatization represented; for example, reddish-brown, cloudy, coarse-grained iron carbonate is often cut by veinlets of a clear, colourless carbonate. There also appears to have been some sparry-textured recrystallization of clear carbonate along the edges of the vein quartz masses, as described in sample TU-7. Cloudy quartz with abundant fluid inclusions occurs in irregular, coarse-grained masses and veinlets, which appear to post-date most (but not all) of the carbonatization.

Both carbonate and quartz masses are cut by stringers and foliated lenses of heavily sericitized material, also associated with minor chloritic stringers and with trails and anastomosing stringers of extremely fine-grained oxide material. The occurrence of sericitic and chloritic stringers in association with irregular, anastomosing opaque stringers clearly suggests pressure solution. This also happens to be the main sulphide environment in this sample; very fine, idiomorphic arsenopyrite rhombs, as well as coarse, subidiomorphic pyrite grains are both closely associated with, and concentrated in, the heavily sericitized material.

### MINERALOGY

**~35% Quartz, Feldspar & Quartzofeldspathic Material:** fine-grained, heavily overprinted, essentially unidentifiable felsic material is quite abundant; some of the felsic material is identifiable as feldspar; at least one grain of alkali feldspar was tentatively identified, which may suggest a relatively felsic protolith composition; there has clearly been minor recrystallization of (albitic) feldspar in association with alteration; recognizable quartz occurs mainly in irregular, relatively coarse-grained masses and veinlets; as in TU-7, this quartz tends to be cloudy due to the presence of abundant fluid inclusions.

**≈30% Carbonate:** heavily pervasive in certain parts of the sample, but at least partially overprinted by vein quartz alteration, and also overprinted by intense sericitization; the carbonate does not effervesce in cold HCl; much of it is quite reddish-brown in colour, which also suggests an iron carbonate; there is apparently some later carbonate as well, since veinlets of clear carbonate cut some of the reddish-brown masses; there is also some relatively clear, sparry-textured carbonate associated with some of the quartz veins.

**≈20% Sericite:** concentrated into heavily foliated masses and stringers; very fine (0.1 mm and much less), flaky to fibrous grains; close association with arsenopyrite and pyrite.

**≈10% Opaques, consisting (in order of decreasing abundance) of:**

**Pyrite:** relatively coarse, subidiomorphic cubes, e.g. 0.5-1.0 mm, coalescing into very coarse (several mm), blocky, irregular masses; usually slightly poikilitic, especially at the centers of grains; fine inclusions of chalcopyrite, pyrrhotite and arsenopyrite.

**Arsenopyrite:** distinctly less abundant, also much finer-grained than the pyrite; fine (e.g. 0.1-0.2 mm), idiomorphic, rhomb-shaped grains; can occur as inclusions in pyrite; with pyrite, concentrated within heavily sericitized material and in association with chloritic stringers.

**Oxides:** minor to accessory; extremely fine grain size; disseminated and in trails and stringers, closely associated with heavy sericitization; this is almost certainly an oxide residue related to pressure solution.

**Pyrrhotite:** trace; fine, irregular inclusions in pyrite.

**Chalcopyrite:** trace; fine, irregular inclusions in pyrite; occasional free grains.

**3-5% Chlorite:** occurs in very fine, irregular, anastomosing stringers, associated with sericitization and with very fine stringers of oxide and other opaque material; the chlorite is very fine-grained, essentially fibrous; weakly pleochroic, colourless to very pale green, with very low, slightly anomalous interference colours; also forms pressure shadow fringes around some coarse pyrite grains; there is quite a close association of chlorite stringers with arsenopyrite.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-11 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This sample is similar in many respects to the preceding sample, TU-10 (refer to Photos 16 - 21). It consists of fine-grained quartzofeldspathic material (apparently all that remains of the protolith, largely obscured), with heavy but patchy carbonatization. The carbonate is probably mainly an iron carbonate, but signs of minor effervescence in HCl suggest at least a small amount of (possibly late-stage) calcite. Cross-cutting this fine-grained material are irregular masses and veinlets of relatively coarse-grained, cloudy vein quartz, associated with a coarse-grained carbonate.

As in TU-10, the quartz-carbonate masses and veinlets are abruptly cut by masses of foliated and stringer-type material, which in this case are mainly concentrations of blade-like arsenopyrite grains, associated with irregular, anastomosing stringers of chlorite. The intense sericitization observed in sample TU-10 is not present in this sample; in fact, no sericite at all was observed in this sample. A minor but possibly interesting note is that some of the chlorite in this sample has a distinctly buff-brown colour, which may be transitional to the more intense, unusual pink colour observed in samples TU-13 and particularly TU-14.

### MINERALOGY

≈40% Quartz, Feldspar & Quartzofeldspathic Material: (1) very fine-grained (e.g. 0.1 mm and less), heavily overprinted felsic material, essentially unidentifiable (although probably both quartz and feldspar are present); (2) coarse-grained, cloudy vein quartz with abundant (but mostly small) fluid inclusions, occurring in irregular masses and veinlets, associated with iron carbonate; (3) minor occurrences of recrystallized (alibitic) feldspar in association with quartz-carbonate masses and veinlets; (4) minor chalcedonic-textured quartz, forming in pressure shadows around coarse pyrite grains.

≈40% Carbonate: fine-grained, heavily pervasive (in what appears to be a relatively early stage of alteration); cut by masses and veinlets of quartz + coarse-grained carbonate (grain sizes up to 1 mm or more); much of the coarser-grained carbonate, in particular, is distinctly reddish-brown in colour, which (along with the general lack of effervescence in HCl) suggests that an iron carbonate is dominant; there may be a small amount of calcite present.

≈15% Opaques, consisting (in order of decreasing abundance) of:

**Arsenopyrite:** mostly fine (e.g. 0.2 mm), idiomorphic rhombs and blade-like grains, ranging up to 0.6 mm or more; concentrated in foliated bands, often (but

not always) associated with chloritic stringers; can occur as inclusions in pyrite; in some areas, the fine arsenopyrite grains coalesce into coarser, elongated, blocky masses.

**Pyrite:** slightly less abundant, but much coarser-grained than the arsenopyrite; clusters of coarse (up to several mm), subidiomorphic cubes; a number of the finer pyrite grains (e.g. 0.2-0.3 mm) display atoll structures (i.e. hollow cores) with carbonate at the core, which may suggest carbonatization of the pyrite.

**Oxides:** minor to accessory; grain sizes are extremely fine (on the order of a couple of microns and less, almost sub-microscopic); associated with stringer-type material, in this case mainly arsenopyrite and chlorite; this is almost certainly an oxide residue related to pressure solution.

**Chalcopyrite:** trace; very fine, irregular inclusions in pyrite; occasional free grains.

≈5% **Chlorite:** mostly very pale green, weakly pleochroic, with very low, slightly anomalous interference colours ranging from bluish to greyish-green; essentially fibrous grains, occurring mainly in fine, irregular, anastomosing stringers, closely associated with arsenopyrite; some of the chlorite occurs as platy grains forming pressure shadow fringes around coarse pyrite grains; this chlorite tends to have a distinctly buff-brown to pinkish-brown colour, with very low birefringence (almost isotropic; compare to the unusual pink chlorite(?) described in TU-13 and TU-14.

**Tr. Tourmaline:** small clusters of very fine, prismatic grains, associated with stringers of chlorite and arsenopyrite; brownish colour.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-12 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This sample is very similar in most respects to the preceding (TU-11), except that the chloritic stringers associated with arsenopyrite are much more fully developed in this sample. Another difference is that the occurrence of recrystallized (albitic) feldspar in association with quartz-carbonate lenses and veinlets is much more common in this sample than in any of the previously described samples (refer to Photos 22 & 23). The sample consists of fine-grained, heavily carbonatized quartzofeldspathic material (much of which is identifiable as feldspar in this case). Veins and lenses of coarser-grained quartz, carbonate and feldspar criss-cross the sample. Some of these are rimmed by thin bands or coronae of fibrous chlorite. As in TU-11, sericite is almost totally absent from the assemblage, except for a small piece of sericitized material in one corner of the thin section.

### MINERALOGY

**≈50% Quartz, Feldspar & Quartzofeldspathic Material:** more feldspar is identifiable in this sample than in any others of this group (except for TU-9, which is different); feldspar was clearly a major component of the fine-grained quartzofeldspathic material which is the only relict from the protolith; the texture of the protolith is unclear, due to heavy overprinting and some deformation; recrystallized (albitic) feldspar is quite common in the alteration assemblage, occurring as tabular grains, mainly in coarse-grained lenses associated with carbonate + quartz; quartz occurs in relatively coarse-grained, irregular veinlets, masses and lenses, mainly associated with carbonate.

**≈35% Carbonate:** minor, localized effervescence in cold HCl suggests the presence of at least some calcite, but the majority of the carbonate appears to be an iron carbonate (non-effervescent, distinctly reddish-brown in plane polarized light); occurs as moderately to heavily pervasive, fine-grained carbonatization, and also in coarser-grained lenses, associated with quartz and feldspar, and rimmed by fibrous chlorite; the coarser-grained, later-stage carbonate may be the calcite (it is clear and colourless).

**≈10% Chlorite:** occurs mainly in fibrous stringers, associated with arsenopyrite and with irregular oxide trails and stringers (pressure solution); platy grains also form rims and pressure shadows around coarse pyrite grains; chlorite is pale green, weakly pleochroic, with low, slightly anomalous interference colours; there is also an occurrence of fibrous chlorite forming a rim or corona around some of the coarse-grained carbonate-quartz-feldspar lenses (see photos).

**2-3% Opaques,** consisting (in order of decreasing abundance) of:



**Pyrite:** mainly concentrated in one clusters of coarse, subidiomorphic cubes and fractured, blocky masses; slight growth zonations are suggested in some grains.

**Arsenopyrite:** minor; clusters of fine (0.2 mm and less), idiomorphic, rhomb-shaped and bladed grains.

**Sphalerite:** accessory; fine, roughly equant grains; honey-coloured internal reflections suggest a relatively iron-poor composition.

**Oxides:** accessory; extremely fine grain size; in trails and stringers; this is clearly an oxide residue related to pressure solution.

**Chalcopyrite:** trace.

**Pyrrhotite:** trace.

**Acc. Sericite:** mostly confined to one corner of the thin section; very fine, almost fibrous, in stringers and foliated bands.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-13 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

The style and mineralogy of alteration in this sample is somewhat different than in preceding samples, more like that in TU-14, described below (refer to Photos 24 - 28). The sample (i.e. what is left of the protolith) consists of very fine-grained rather intensely strained quartzofeldspathic material. Moderate to heavy carbonate alteration is unevenly distributed, in irregular masses and veinlets. As in TU-12, recrystallized (albitic) feldspar is common in this sample, occurring mainly in irregular lenses, masses and veinlets associated with quartz + carbonate. In fact, the albitic feldspar is probably more important than quartz in the alteration assemblage.

Associated with, and partially superimposed on the carbonate-feldspar-quartz alteration is a network of fine, very irregular, anastomosing stringers of what appears to be a very green biotite (probably the Fe<sup>3+</sup>-rich biotite, called annite; refer particularly to Photos 27 & 28). The annite is very fine-grained, needle-like to almost fibrous. A network of fibrous to almost colloform-textured annite is also characteristic of the alteration in sample TU-14. In some cases it forms rims around carbonate-feldspar masses, in what may be an extension or variation of the chlorite-rimming texture described in TU-12.

Fine-grained arsenopyrite is heavily disseminated throughout much of the sample, usually concentrated in bands. Although some of the arsenopyrite is associated with chloritic stringers as in preceding samples, much of it is superimposed directly on the quartzofeldspathic material. Subidiomorphic pyrite cubes, typically much coarser-grained than the arsenopyrite, are also disseminated throughout the sample, often concentrated in bands with arsenopyrite. Many of the pyrite cubes display well-developed atoll textures (i.e. hollow cubes). This is usually interpreted as a replacement texture, although in this case it is not clear what is replacing the pyrite, and it could be a growth texture instead (refer particularly to Photos 24 - 26).

Another point of similarity between this sample and TU-14 is the presence in both samples of a pink mineral, which may be an unusual composition of chlorite. In this sample, the mineral is platy to fibrous, occurring in small, irregular masses and stringers. It resembles chlorite in every way, including the slightly anomalous interference colours, except that it ranges from buff-coloured to distinctly pink, instead of green. Note that chromian chlorite is typically pink in colour. A green chlorite is also present, mainly in stringers associated with arsenopyrite.

### MINERALOGY

**≈40% Quartz, Feldspar & Quartzofeldspathic Material: at least 10% of the sample consists of recrystallized feldspar, i.e. albitic feldspar which is clearly part of**

the alteration assemblage; it occurs in irregular, relatively coarse-grained masses, closely associated with carbonate and (to a lesser extent) quartz; the albitic feldspar is typically tabular, subhedral, ranging up to 1 mm or more in length; the only part of the "protolith" that is still visible is a very fine-grained, quite strongly strained quartzofeldspathic material, with heavy alteration, particularly arsenopyrite, obscuring the original textures and mineralogy; quartz also occurs in irregular masses and veinlets, but in this sample it is not as abundant as the feldspar.

**≈25% Carbonate:** no effervescence in cold HCl, indicates that an iron carbonate is probably dominant; concentrated in relatively coarse-grained, irregular masses, bands and veinlets, mainly associated with recrystallized (albitic) feldspar and, to a lesser extent, with quartz; carbonate masses are often rimmed by fibrous or needle-like annite; most of the carbonate is clear, some is distinctly reddish-brown in plane polarized light.

**≈25% Opaques,** consisting (in order of decreasing abundance) of:

**Arsenopyrite:** heavily disseminated throughout the sample, typically concentrated in bands; elongate rhomb-shaped to blade-like idiomorphic grains, ave. ≈0.1-0.4 mm.

**Pyrite:** slightly less abundant than arsenopyrite; subidiomorphic grains, typically coarser-grained than the arsenopyrite (ave. pyrite ≈0.4-1.0 mm); many grains show atoll structures, i.e. hollow cores; it is not clear whether it is a growth texture or a replacement texture in this case.

**Oxide:** minor; extremely fine grain size; occurs in trails, associated with chloritic stringers and with arsenopyrite; probably a sign of pressure solution; also associated with iron carbonate, possibly a replacement feature.

**Sphalerite:** trace; predominantly honey-coloured internal reflections indicates a relatively iron-poor composition; fine, roughly equant grains; minor chalcopyrite "disease".

**Chalcopyrite:** trace; mainly as very fine, irregular inclusions in pyrite.

**≈5% Chlorite:** there may be a range of compositions of chlorite present; the "normal" chlorite is very fine-grained, essentially fibrous, weakly pleochroic, pale green, occurring in fine, anastomosing stringers closely associated with arsenopyrite, and forming pressure shadow fringes on pyrite grains; there appears to be a colour gradation into a more buff-coloured chlorite, ranging into a mineral which is distinctly pink, with moderate pleochroism; this mineral looks like a chlorite, but the colour is unusual and may indicate high chromium content; the pink mineral is slightly more abundant than the "normal" chlorite.

3-5% Biotite: looks like the Fe<sup>3+</sup>-bearing biotite endmember, called annite; very fine (e.g. 0.1 mm and much less), needle-like to fibrous grains, in a network of very irregular, anastomosing stringers; sometimes forms rims around carbonate-feldspar masses; moderate to strong pleochroism, typical of biotite but very green; can also be closely intergrown with the pink chlorite (see below); the only other possible interpretation of this mineral would be a green sericite, but even the most strongly coloured sericites would not normally be this dark in plane polarized light.

Tr. Allanite or Piedmontite(?): looks like an orange-coloured epidote mineral.

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-14 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

The style and mineralogy of the alteration in this sample is quite similar to that described in sample TU-13 above, except that coarse-grained vein quartz is more important in this sample (refer to Photos 29 - 32). The sample consists of a very fine-grained, quite strongly strained quartzofeldspathic material (the last remnants of the protolith), with heavy, patchy but roughly banded alteration superimposed. The alteration in this sample is dominated by coarse-grained bands and irregular masses of cloudy vein quartz. The vein quartz, as well as the fine-grained quartzofeldspathic material, exhibits signs of strain, such as kink banding and strong undulatory extinction. The carbonate in this sample, some of which is iron carbonate (although minor localized effervescence in cold HCl indicates that some calcite must also be present), is typically associated with a network of green biotite stringers (see below). Also as in TU-13, sericite is almost totally absent from the alteration assemblage. Recrystallized (albitic) feldspar was also not observed, which distinguishes this sample from TU-13, in which albite is an important part of the alteration assemblage.

Associated with and/or superimposed on the carbonate-quartz alteration is an irregular, interconnected network of stringers, of the green biotite (annite) discussed in the description of TU-13. In this sample, the annite network is quite well-developed, to the extent that some of the stringers exhibit almost colloform banding. Carbonate, some of which is quite coarse-grained, is quite closely associated with this annite banding. Also associated with the network of annite stringers are very fine, irregular opaque stringers, which seem to be composed of extremely fine-grained oxide material, clearly suggesting pressure solution.

Fine-grained arsenopyrite is heavily disseminated throughout the sample, typically as irregular patches and bands. In much of the sample it is closely associated with the annite-carbonate network, but in some cases it is superimposed directly on the strained quartzofeldspathic material (as in TU-13). Pyrite, typically slightly coarser-grained, is also associated with the arsenopyrite.

A final point of similarity between this and TU-13 is the presence of the pink chromian chlorite(?) described above. In this case, the pink colour and pleochroism are even stronger than in TU-13.

### MINERALOGY

~50% Quartz, Feldspar & Quartzofeldspathic Material: unlike sample TU-13, only a very small amount of feldspar was definitely identified in this sample, although feldspar may be a major component of the strained, fine-grained quartzofeldspathic material which seems to be the only remnant of the protolith;

**Tr.-Acc. Tourmaline:** clusters of very fine, prismatic grains; brownish to deep reddish-brown colour; associated with the annite-carbonate-opaque network; also indicative of pressure solution.

**Tr. Sericite:** extremely fine needles, closely intergrown with the annite (which strengthens the identification of this mineral as a biotite and not a green muscovite).

## PETROGRAPHIC SUMMARY

**SAMPLE No. TU-15 (core sample & polished thin section)**

### SUMMARY & TEXTURAL DESCRIPTION

This sample is distinctly different from the others described in this group of samples (refer to Photos 33 & 34). This is a medium-fine-grained ultramafic intrusive which has undergone hydrous alteration. The mineral assemblage now is dominated by serpentine + talc + carbonate. There may be some sericite intergrown with the talc; when fibrous and fine-grained the two minerals are essentially impossible to distinguish optically. There could also be minor chlorite intergrown with the serpentine; a magnesian chlorite would be colourless with low anomalous bluish interference colours and, if fibrous, would be difficult to distinguish from the serpentine. However, the serpentine-talc assemblage is typical of hydrous metamorphism of an ultramafic protolith.

Nicely preserved relict olivine grain outlines are clearly visible within the fibrous serpentine (although the olivine itself has been totally serpentinized). The relict texture indicates an original grain size for the olivines of  $\approx 0.3$  mm, with subhedral to euhedral, equant to slightly elongated habit and cumulate texture. The material interstitial to the relict olivines (now mostly talc) was probably originally a coarse-grained pyroxene.

A magnesian carbonate (magnesite) would be expected in an assemblage like this if there was some  $\text{CO}_2$  in the metamorphic fluid. However, the carbonate in this sample tends to be concentrated in lenses and veinlets, and effervesces in cold HCl, suggesting instead late-stage calcite alteration.

### MINERALOGY

$\approx 50\%$  Talc: very fine-grained, fibrous; essentially impossible to distinguish from sericite.

$\approx 30\%$  Serpentine: colourless, fibrous, with low, slightly anomalous bluish interference colours; forms pseudomorphs after equant to slightly elongated, euhedral to subhedral olivines.

$\approx 20\%$  Carbonate: effervesces in cold HCl, probably indicating calcite rather than magnesite or an iron carbonate; occurs in irregular lenses, gashes and veinlets; clear and colourless.

Acc. Opaques, consisting (in order of decreasing abundance) of:

Pyrite: fine, irregular to subidiomorphic masses.

**Ilmenite(?)**: approximately the same abundance as pyrite; a brownish-grey oxide with moderate anisotropy; elongated, very fine tabular to needle-like grains; chromite would be more typical in a rock of this composition, but chromite would be isotropic, and most likely equant rather than needle-like.

**Pyrrhotite**: trace; fine, irregular, elongated masses.

**Chalcopyrite**: trace; fine, irregular masses.



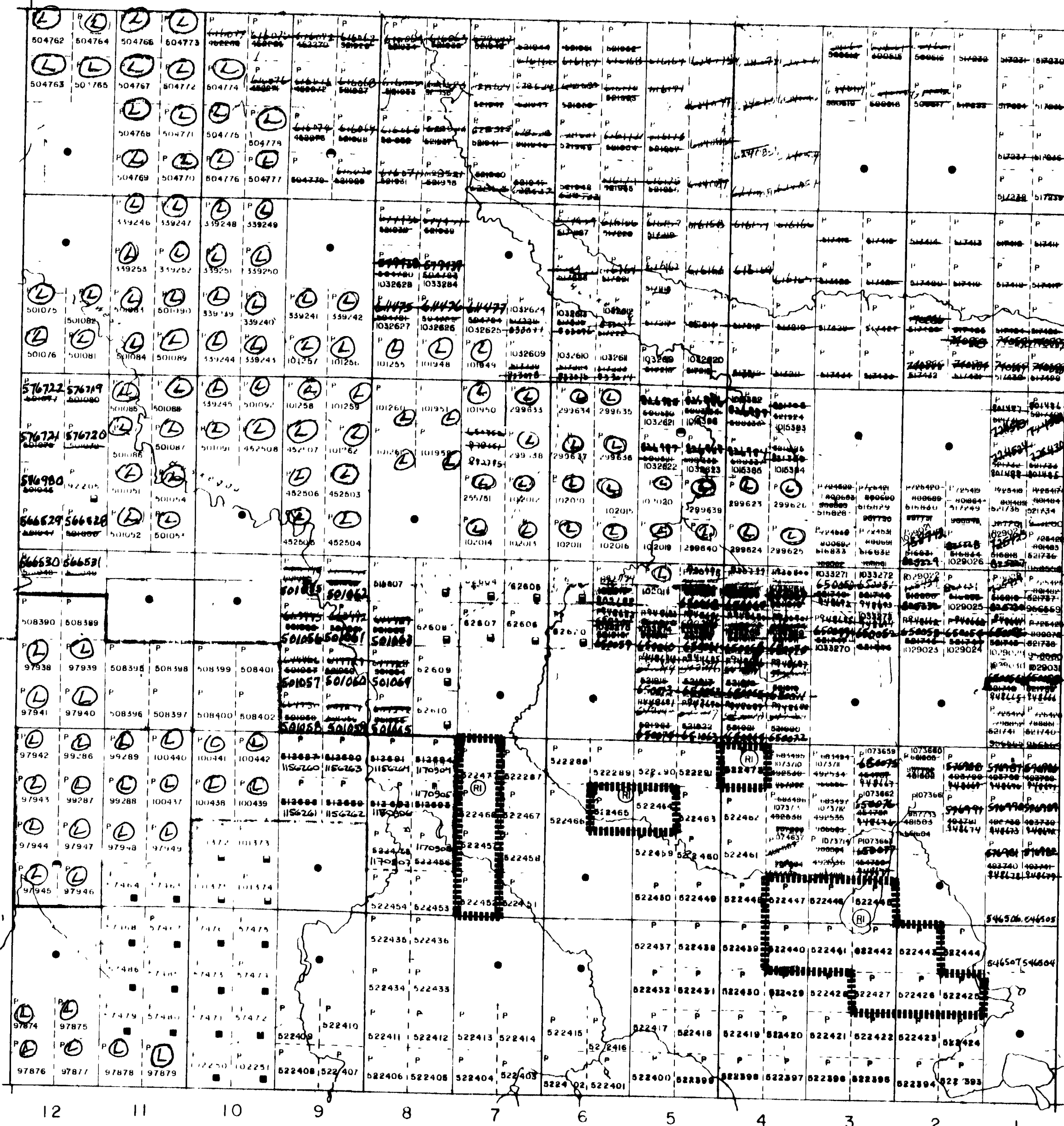
NOTES

400' surface rights reservation along the shores of all lakes and rivers.

(R) MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING, SALE OR LEASE, SECTION 36 THE MINING ACT RSO 1990

DUFF Tp. M 466

PROSSER Tp. M.571



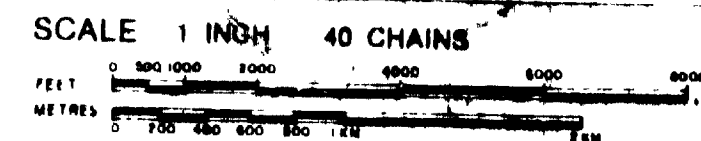
GOWAN Tp. M.285

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS BASE LINES ETC
- LOTS, MINING CLAIMS PARCELS, ETC
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	○
MINING RIGHTS ONLY	◐
LEASE SURFACE & MINING RIGHTS	◑
SURFACE RIGHTS ONLY	◒
MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
CROWN LAND SALE	CS
ORDER IN COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊘
SAND & GRAVEL	⊚



ACRES	HECTARES
40	16

Received Oct. 1/79

TOWNSHIP

**TULLY**

DISTRICT

COCHRANE

MINING DIVISION

PORCUPINE



Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date Nov. 1978

Plan No.

Whitney Block  
Queen's Park, Toronto

M.607



NOTES:

400' surface rights reservation along the shores of all lakes and rivers.

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
  - TOWNSHIPS, BASE LINES, ETC
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRANSVERSE MONUMENT

DISPOSITION OF CROWN LANDS

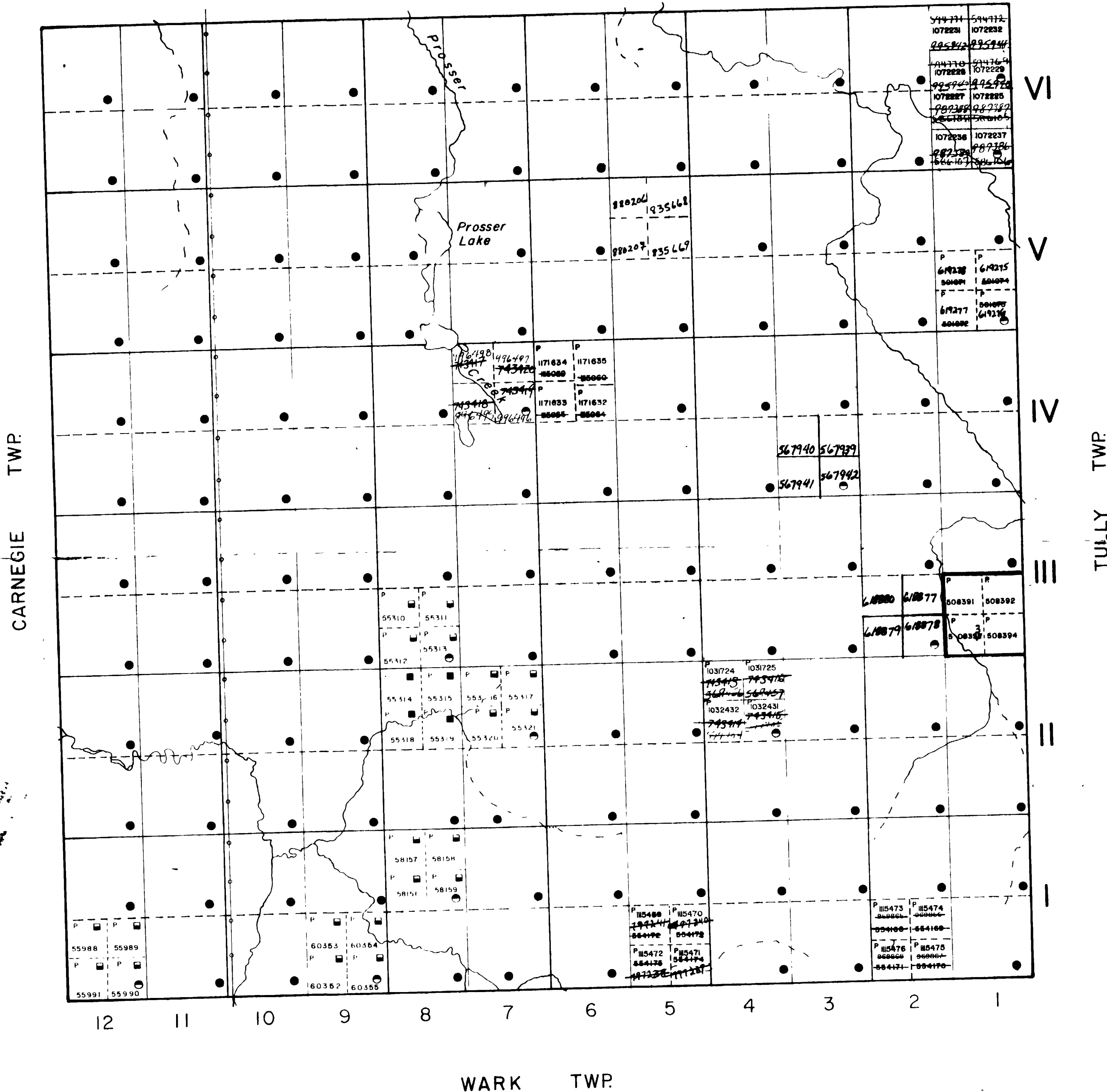
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MINING RIGHTS ONLY	◐
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MINING RIGHTS ONLY	◻
LICENCE OF OCCUPATION	◄
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊖
SAND & GRAVEL	⊙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP 380, SEC 63, SUBSEC 1

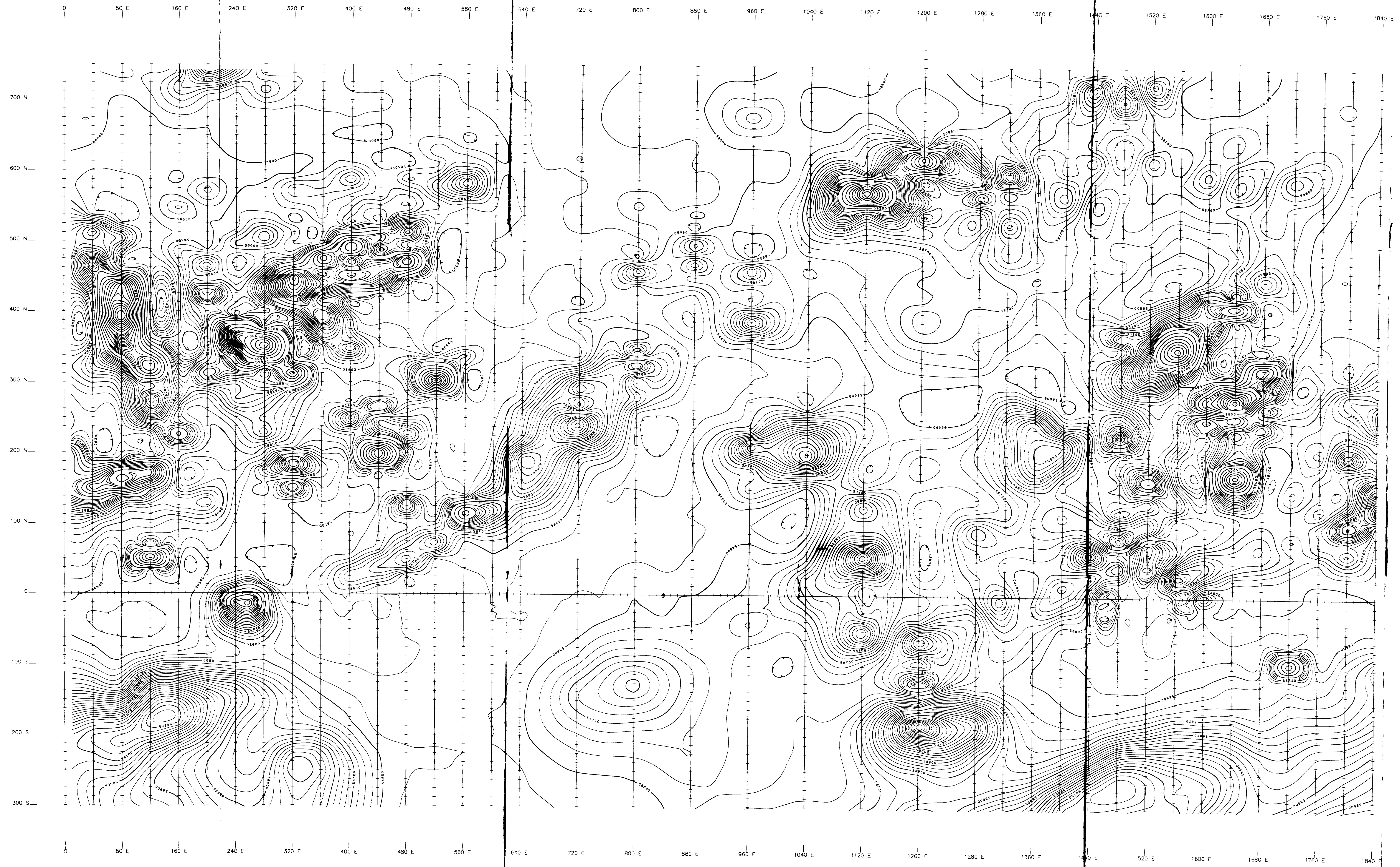
REC-1  
JAN 7 1991

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

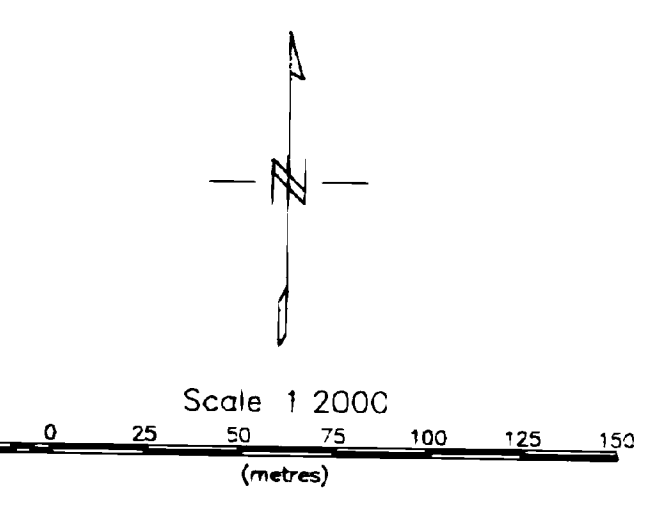
LUCAS TWP







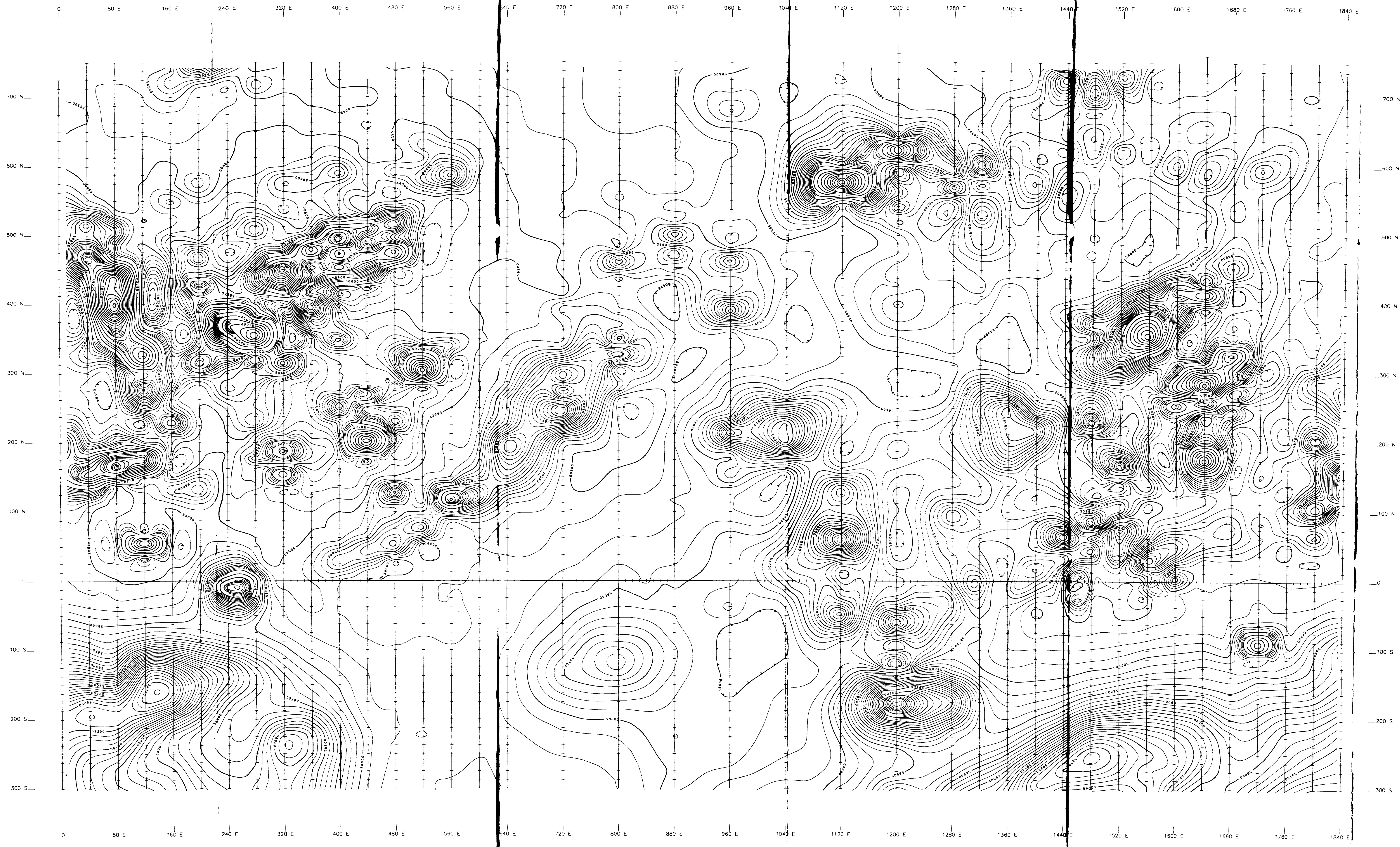
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 ——— 100 nanoTeslas  
 ——— 500 nanoTeslas



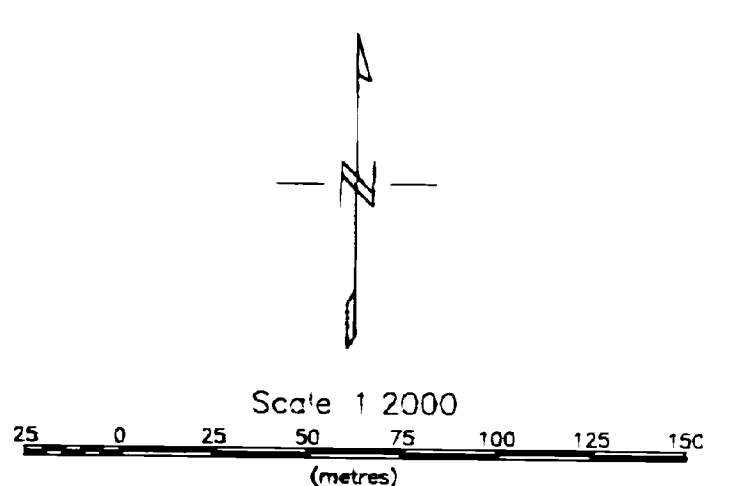
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 TOTAL MAGNETIC FIELD  
 TULLY TOWNSHIP PROPERTY  
 SOWEST - FRANKFIELD OPTION  
 PORCUPINE MINING DISTRICT, ONTARIO  
 DATA BY A.C.A. HOWE INTERNATIONAL LIMITED  
 PLOTTED/PROCESSED BY PATERSON, GRANT & WATSON LIMITED

Figure 649-5





Contour Intervals  
 ——— 25 nanoteslas  
 ——— 100 nanoteslas  
 ——— 500 nanoteslas

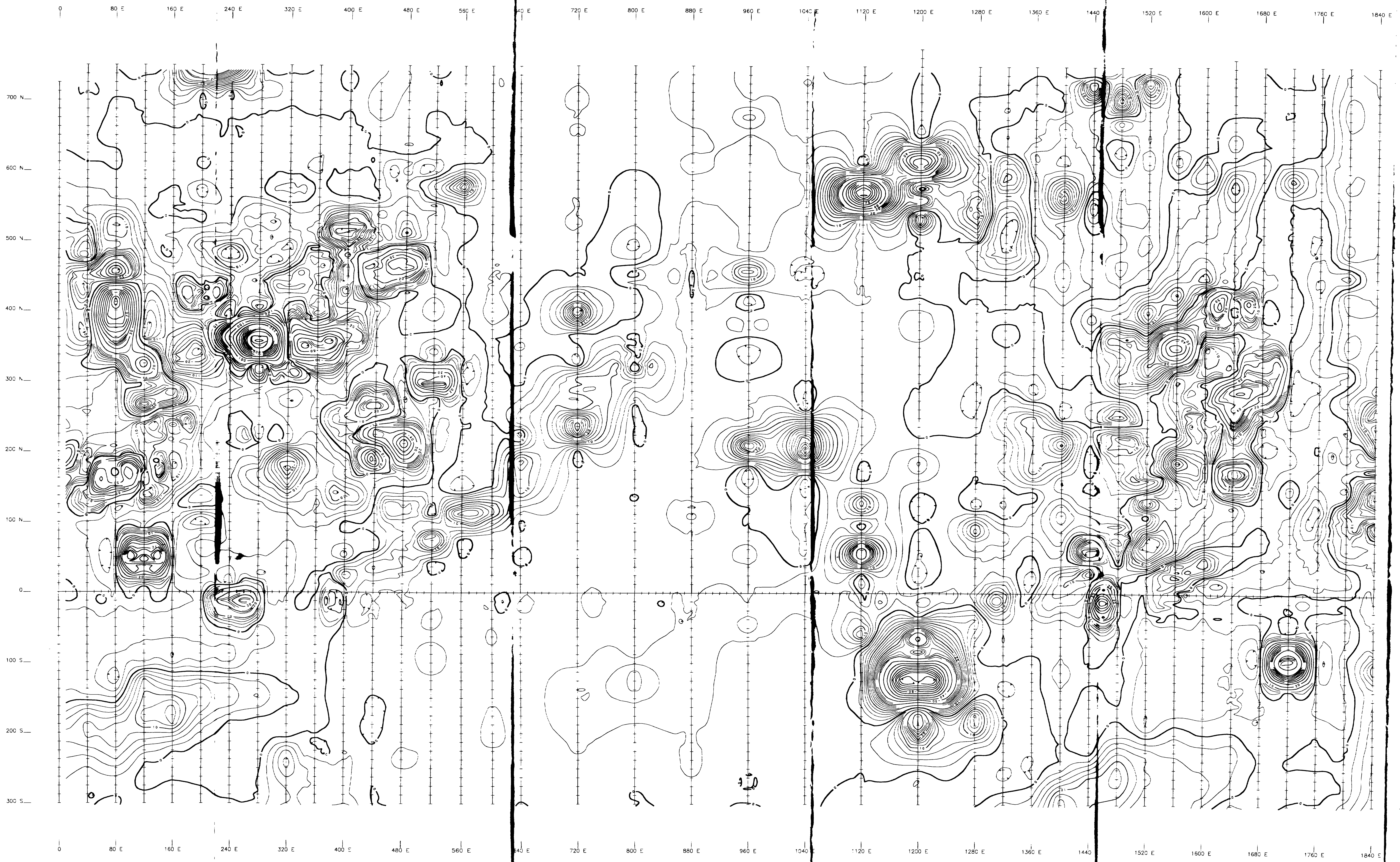


CYPRUS GOLD (CANADA) LTD.  
 POLE REDUCED TOTAL MAGNETIC FIELD  
 TULLY TOWNSHIP PROPERTY  
 GOWEST - FRANKFIELD OPTON  
 PORCUPINE MINING DISTRICT, ONTARIO  
 DATA BY A.C.A. HOWE INTERNATIONAL LIMITED  
 PLOTTED/PROCESSED BY PATERSON, GRANT & WATSON LIMITED

Figure 649-6

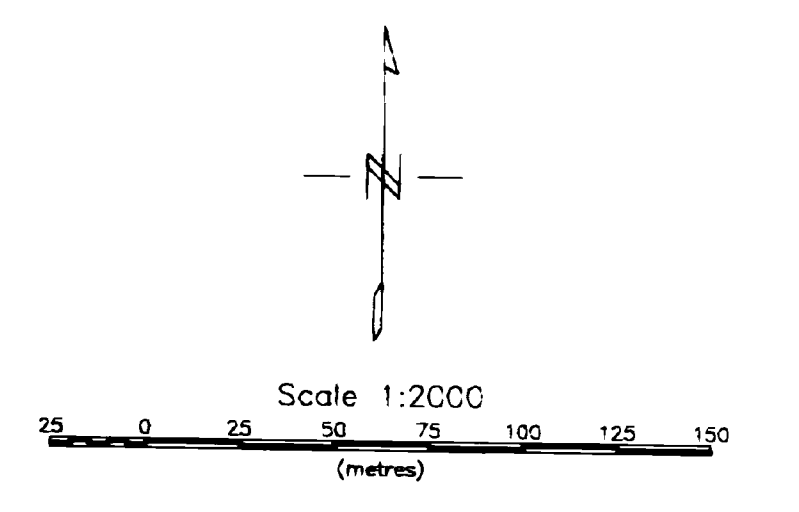






Contour intervals

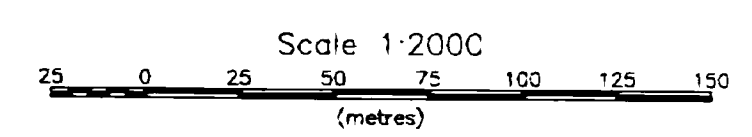
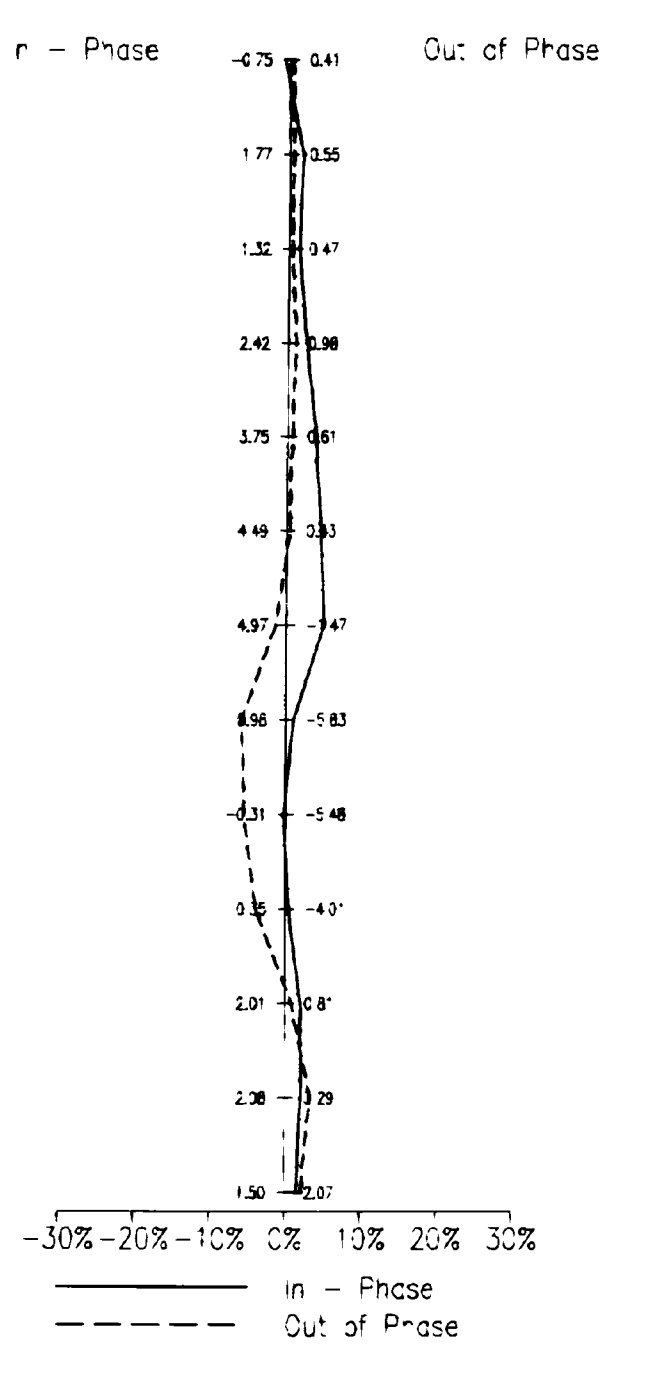
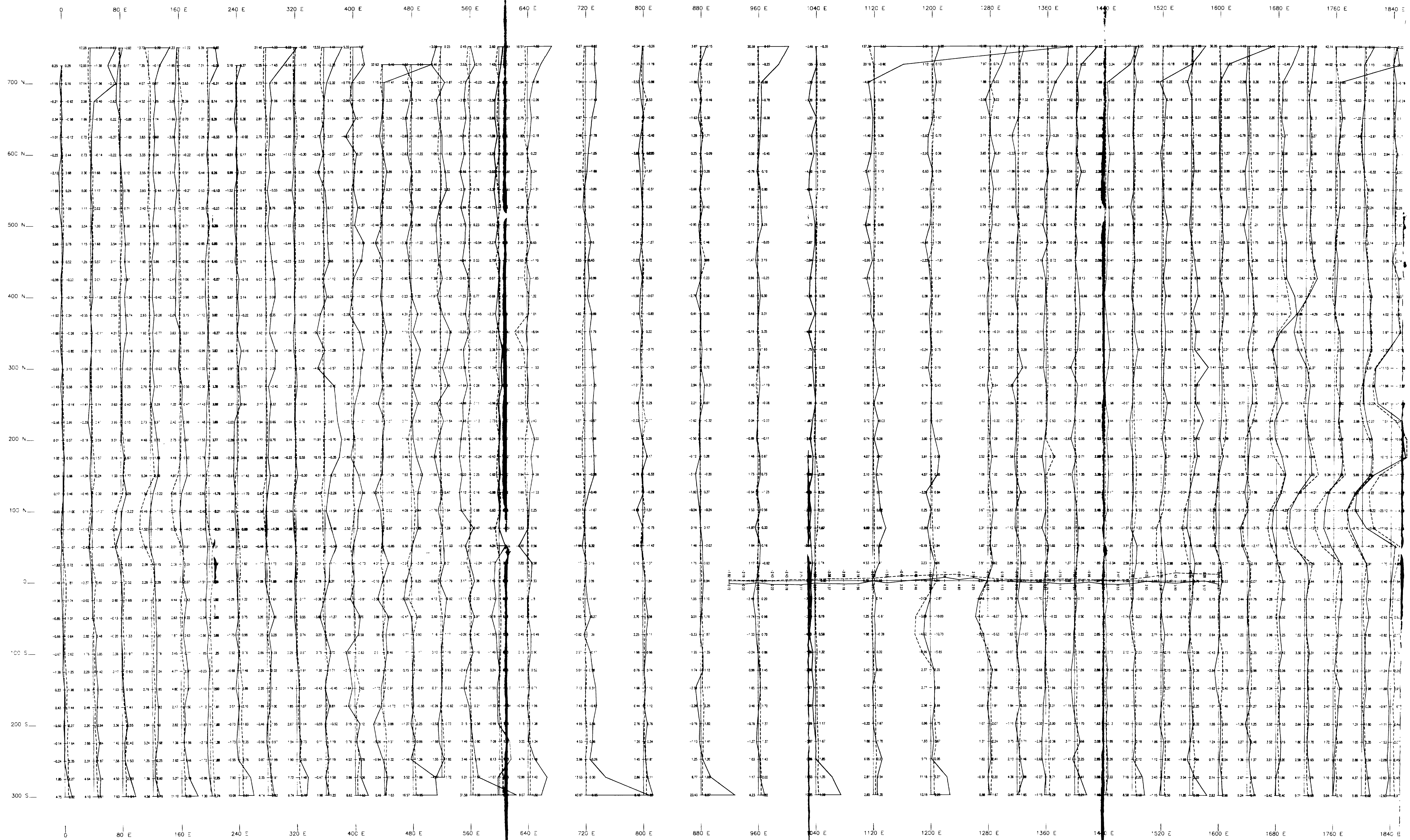
- 2 nanoteslas/metre
- 10 nanoteslas/metre
- 50 nanoteslas/metre
- 250 nanoteslas/metre
- 1000 nanoteslas/metre



CYPRUS GOLD (CANADA) LTD.  
 MEASURED VERTICAL MAGNETIC GRADIENT  
 TULLY TOWNSHIP PROPERTY  
 GOWEST - FRANKFIELD OPTION  
 PORCUPINE MINING DISTRICT, ONTARIO  
 DATA BY A.C.A. HOWE INTERNATIONAL LIMITED  
 PLOTTED/PROCESSED BY PATERSON, GRANT & WATSON LIMITED

Figure 649-7



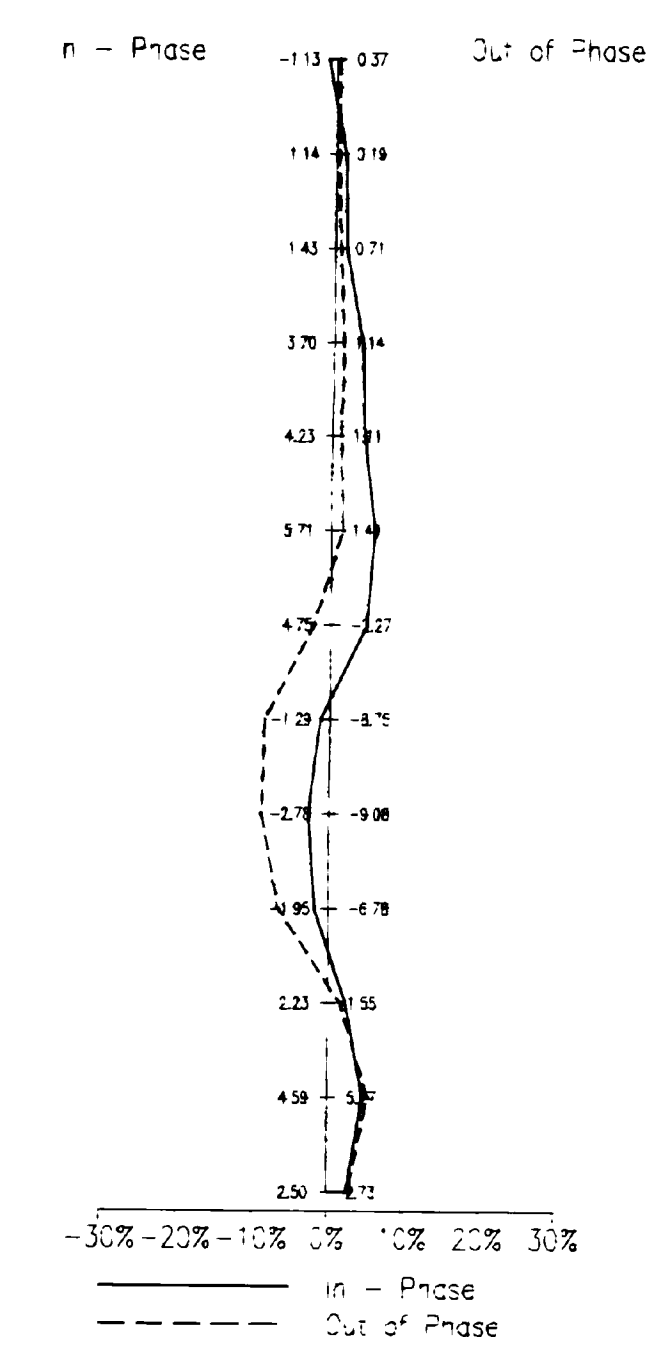
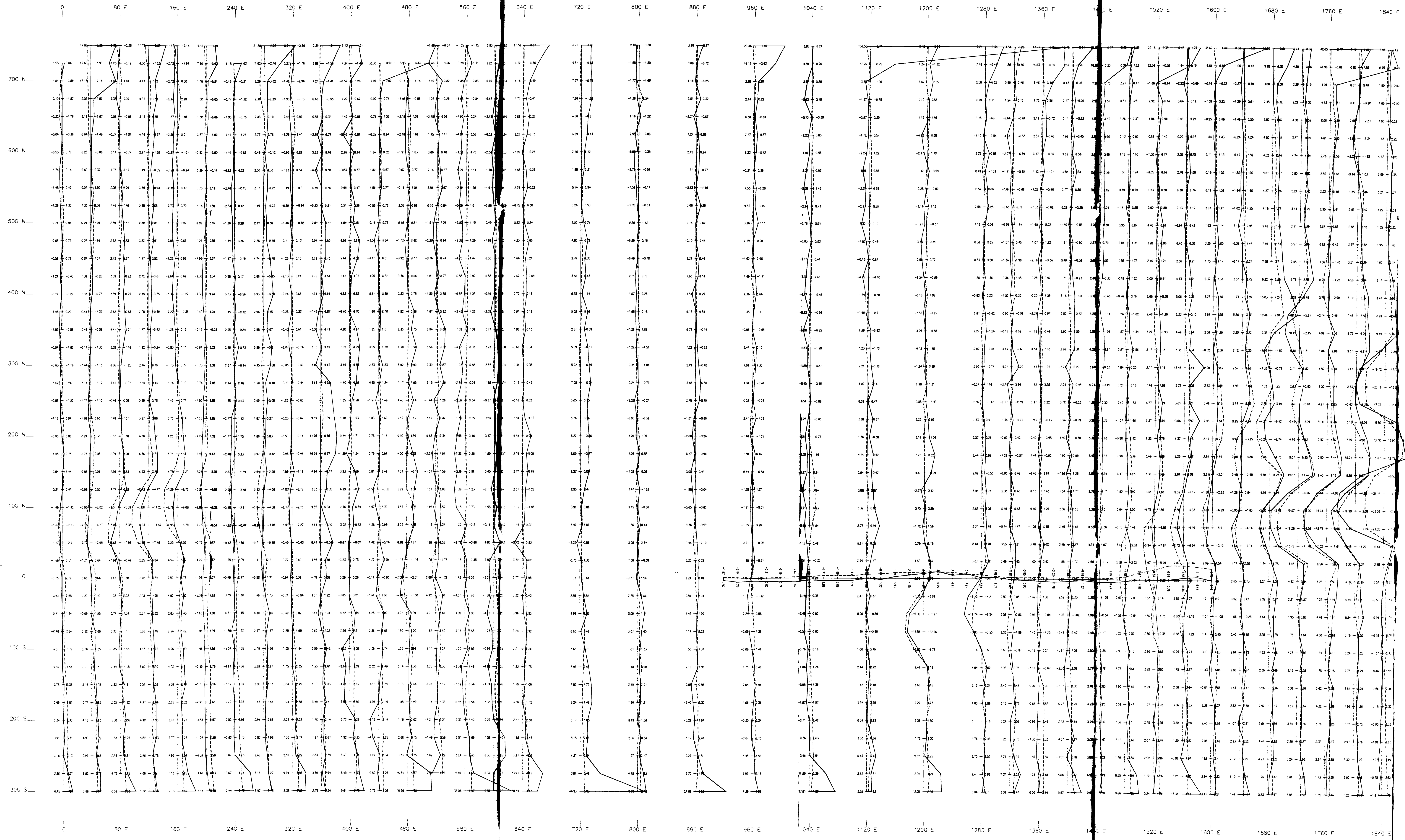


CYPRUS GOLD (CANADA) LIMITED  
 MAX-MIN HORIZONTAL LOOP EM SURVEY  
 STACKED PROFILES - FREQUENCY 222 Hz  
 TULLY TOWNSHIP PROPERTY  
 COWEST - FRANKFIELD ZONE  
 PORCUPINE MINING DISTRICT, ONTARIO  
 PLOTTED BY PATERSON, GRANT & WATSON LIMITED

Figure 649-8







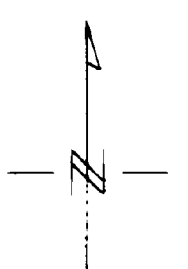
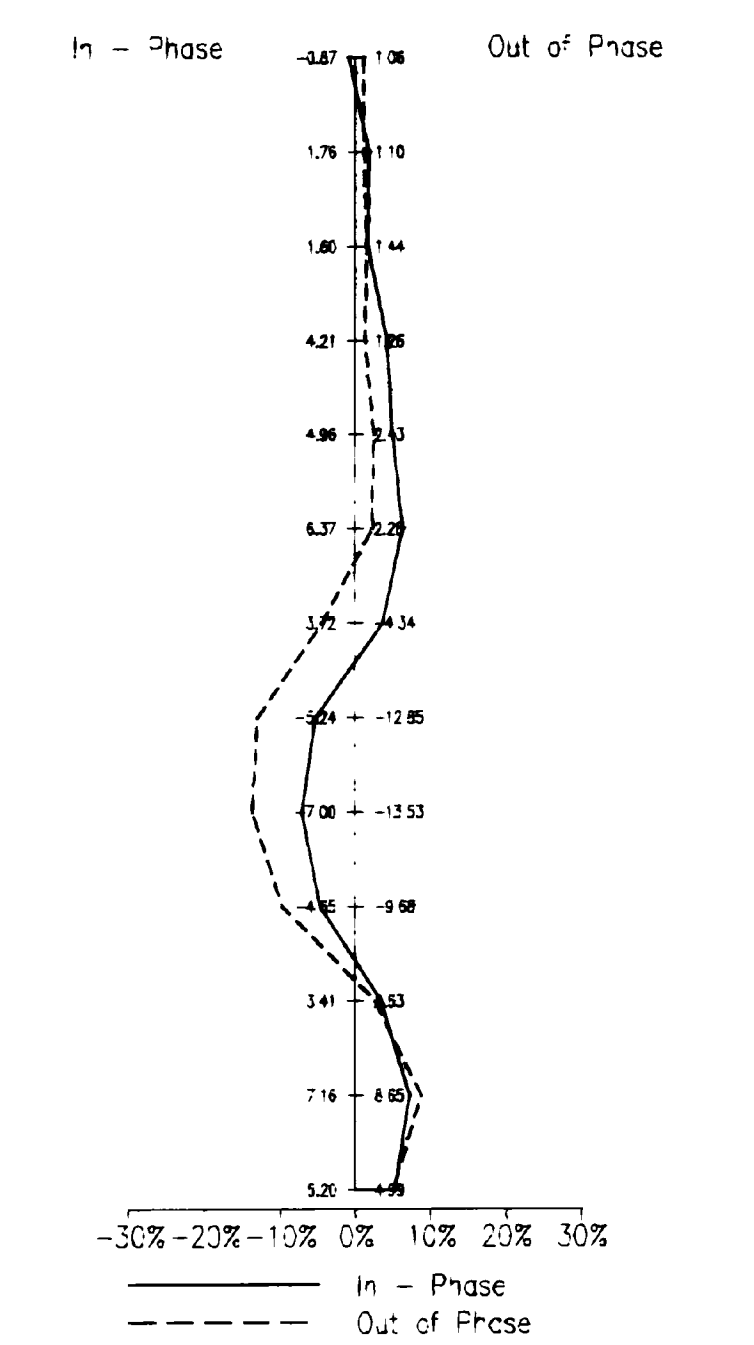
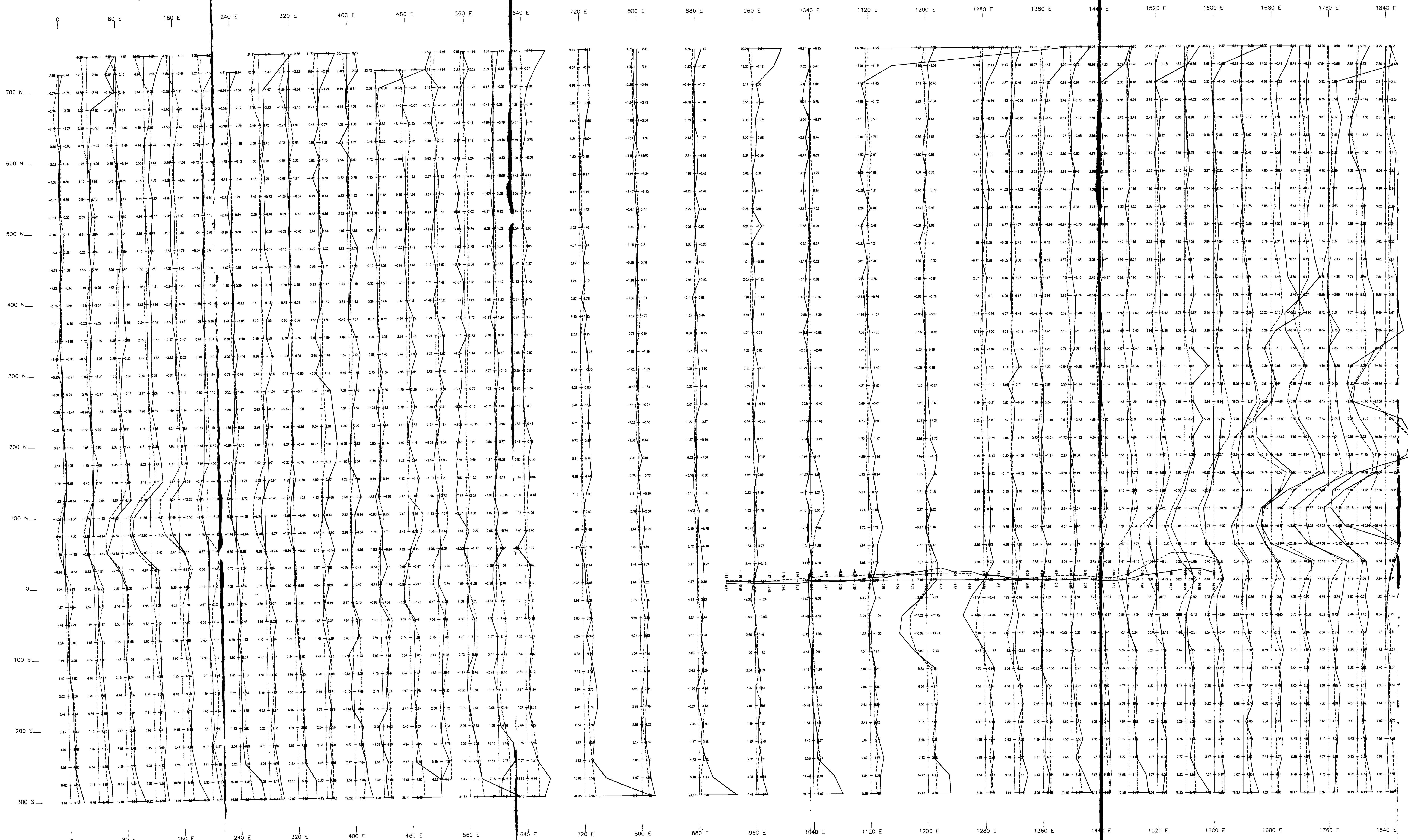
Scale 1:2000  
(metres)

CYPRUS GOLD (CANADA) LIMITED  
 MAX-MIN HORIZONTAL LOOP M SURVEY  
 STACKED PROFILES - FREQUENCY 444 Hz  
 TULLY TOWNSHIP PROJECT  
 QOWEST - FRANKFIELD 307  
 PORCUPINE MINING DISTRICT, ON -410  
 PLOTTED BY PATERSON, GRANT & WATSON LIMITED

Figure 649-9







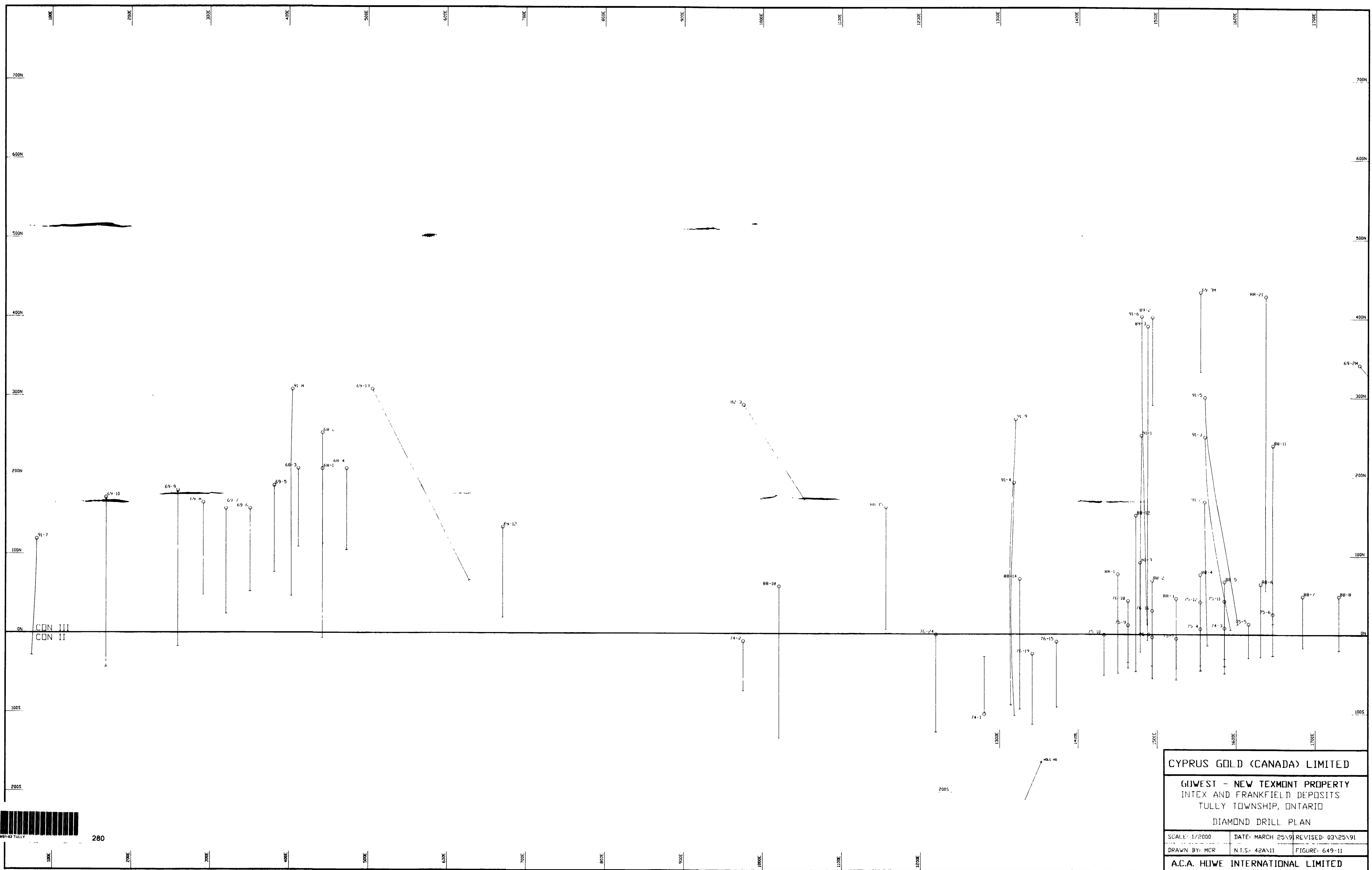
Scale 1:2000  
(metres)

CYPRUS GOLD (CANADA) LIMITED  
 MAX-MIN HORIZONTAL LOOP EM SURVEY  
 STACKED PROFILES - FREQUENCY 889 Hz  
 FULLY TOWNSHIP PROPERTY  
 GOWEST - FRANKFORD OPTION  
 PORCUPINE MINING DISTRICT, ONTARIO  
 PLOTTED BY PATERSON, GRANT & WATSON LIMITED

Figure 649-10

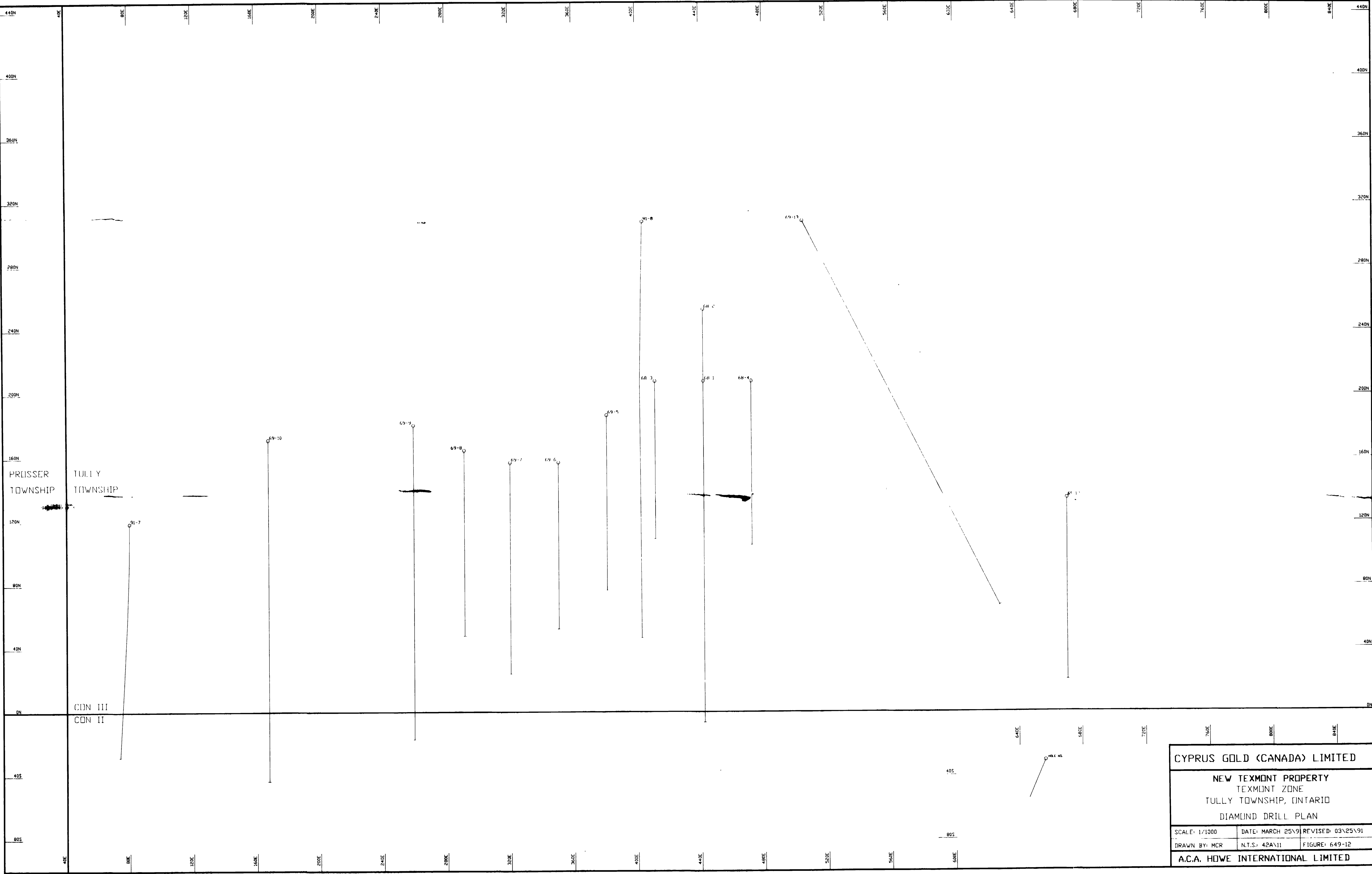






280

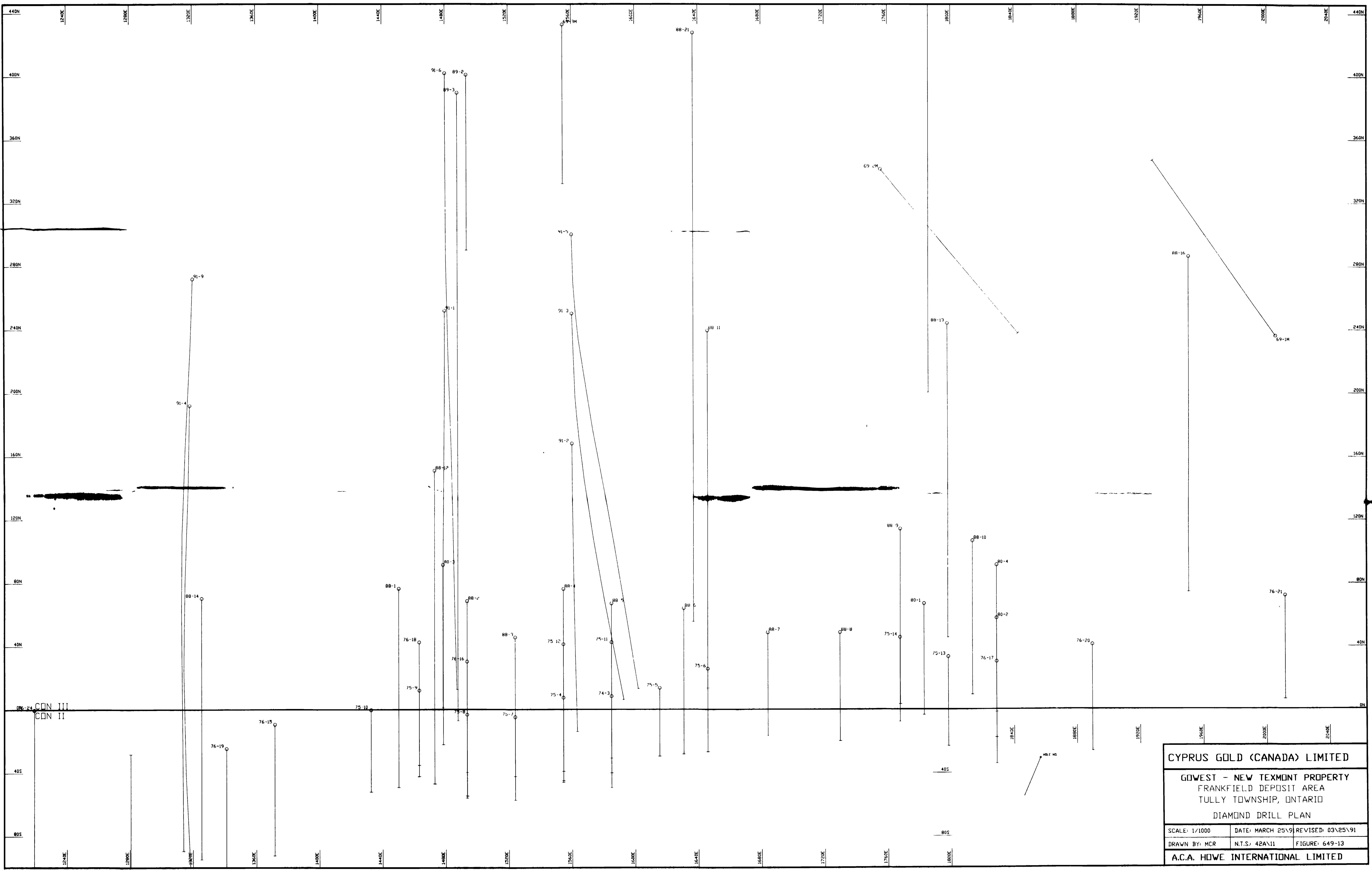
CYPRUS GOLD (CANADA) LIMITED	
GOWEST - NEW TEXMONT PROPERTY INTEX AND FRANKFIELD DEPOSITS TULLY TOWNSHIP, ONTARIO	
DIAMOND DRILL PLAN	
SCALE: 1/2000	DATE: MARCH 25/91
DRAWN BY: MCR	REVISED: 03/25/91
N.T.S.: 42A/11	FIGURE: 649-11
A.C.A. HOWE INTERNATIONAL LIMITED	



PRISSIER TOWNSHIP  
TULLY TOWNSHIP

CON III  
CON II

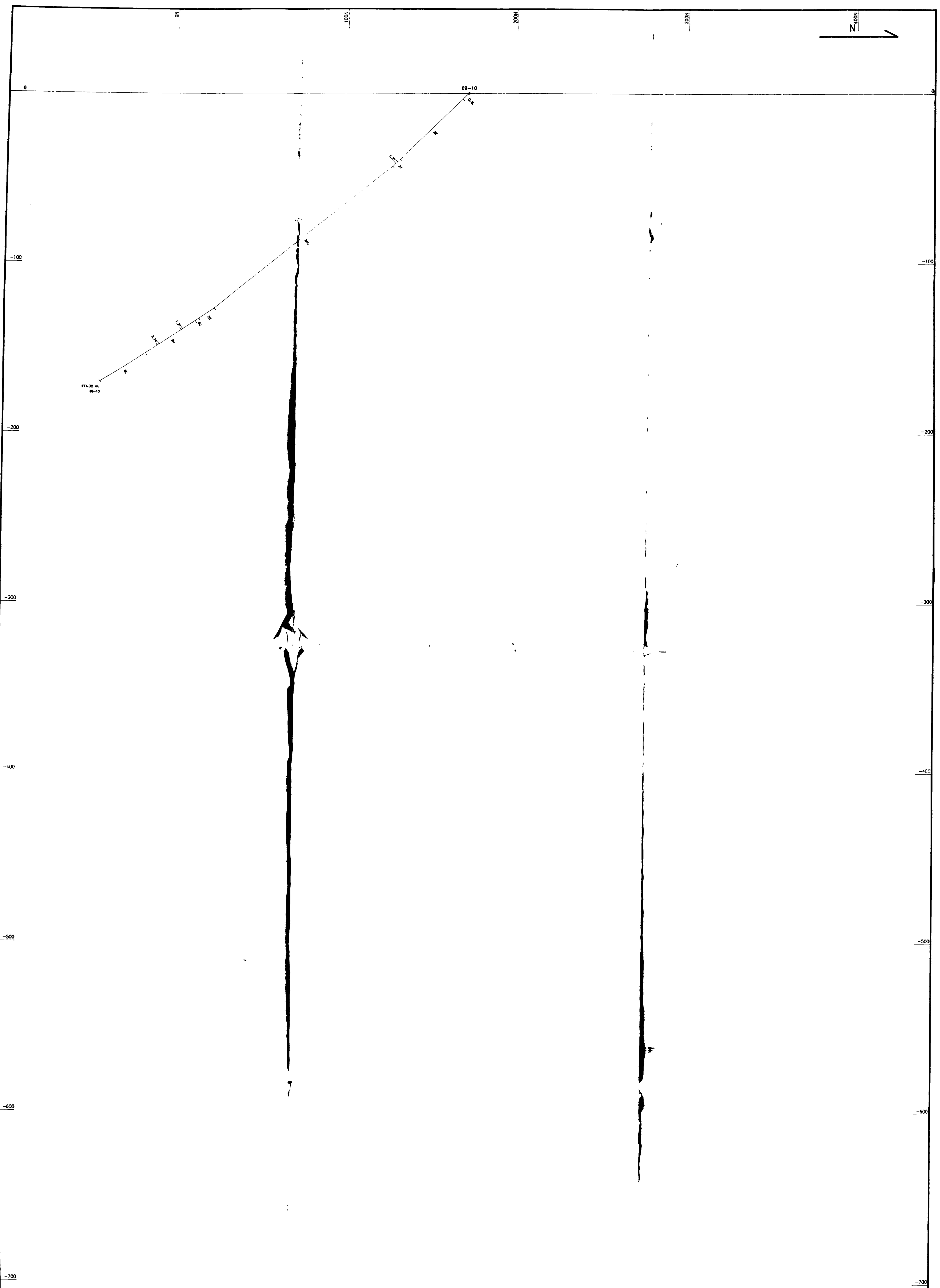
CYPRUS GOLD (CANADA) LIMITED		
NEW TEXMONT PROPERTY TEXMONT ZONE TULLY TOWNSHIP, ONTARIO DIAMOND DRILL PLAN		
SCALE: 1/1000	DATE: MARCH 25\91	REVISED: 03\25\91
DRAWN BY: MCR	N.T.S.: 42A\11	FIGURE: 649-12
A.C.A. HOWE INTERNATIONAL LIMITED		



CYPRUS GOLD (CANADA) LIMITED		
GOWEST - NEW TEXMONT PROPERTY FRANKFIELD DEPOSIT AREA TULLY TOWNSHIP, ONTARIO DIAMOND DRILL PLAN		
SCALE: 1/1000	DATE: MARCH 25\91	REVISED: 03\25\91
DRAWN BY: MCR	N.T.S.: 42A\11	FIGURE: 649-13
A.C.A. HOWE INTERNATIONAL LIMITED		

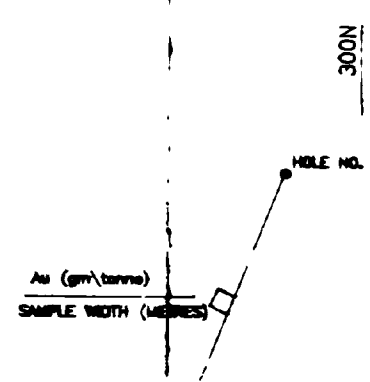






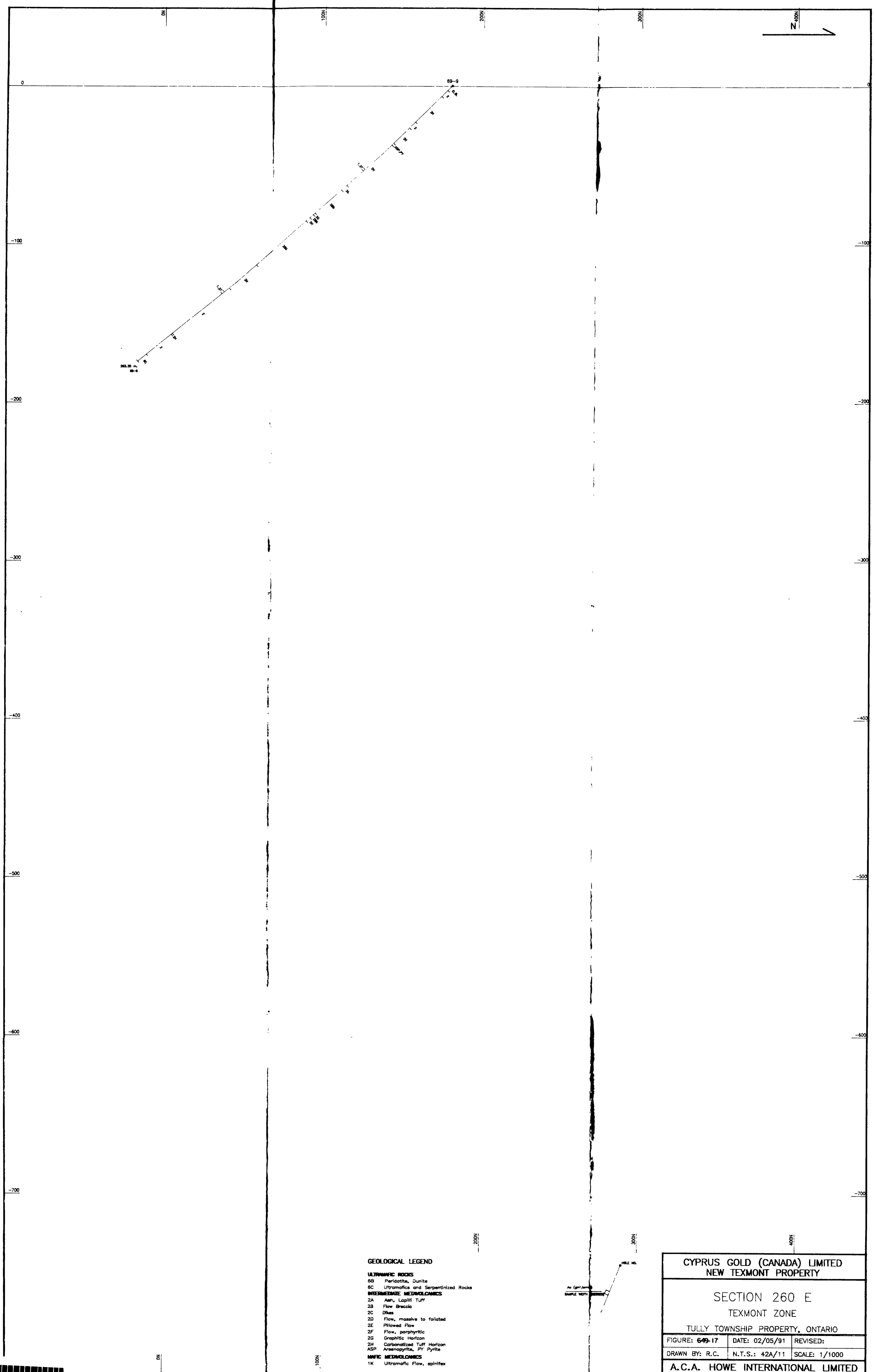
**GEOLOGICAL LEGEND**

- ULTRAMAFIC ROCKS**  
 6B Peridotite, Quartzite  
 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAVOLCANICS**  
 2A Ash, Lapilli Tuff  
 2B Flow Breccia  
 2C Dikes  
 2D Flow, massive to foliated  
 2E Pillowed Flow  
 2F Flow, porphyritic  
 2G Graphitic Horizon  
 2H Carbonatized Tuff Horizon  
 ASP Arsenopyrite, Py Pyrite
- MAFIC METAVOLCANICS**  
 1K Ultramafic Flow, spinifex



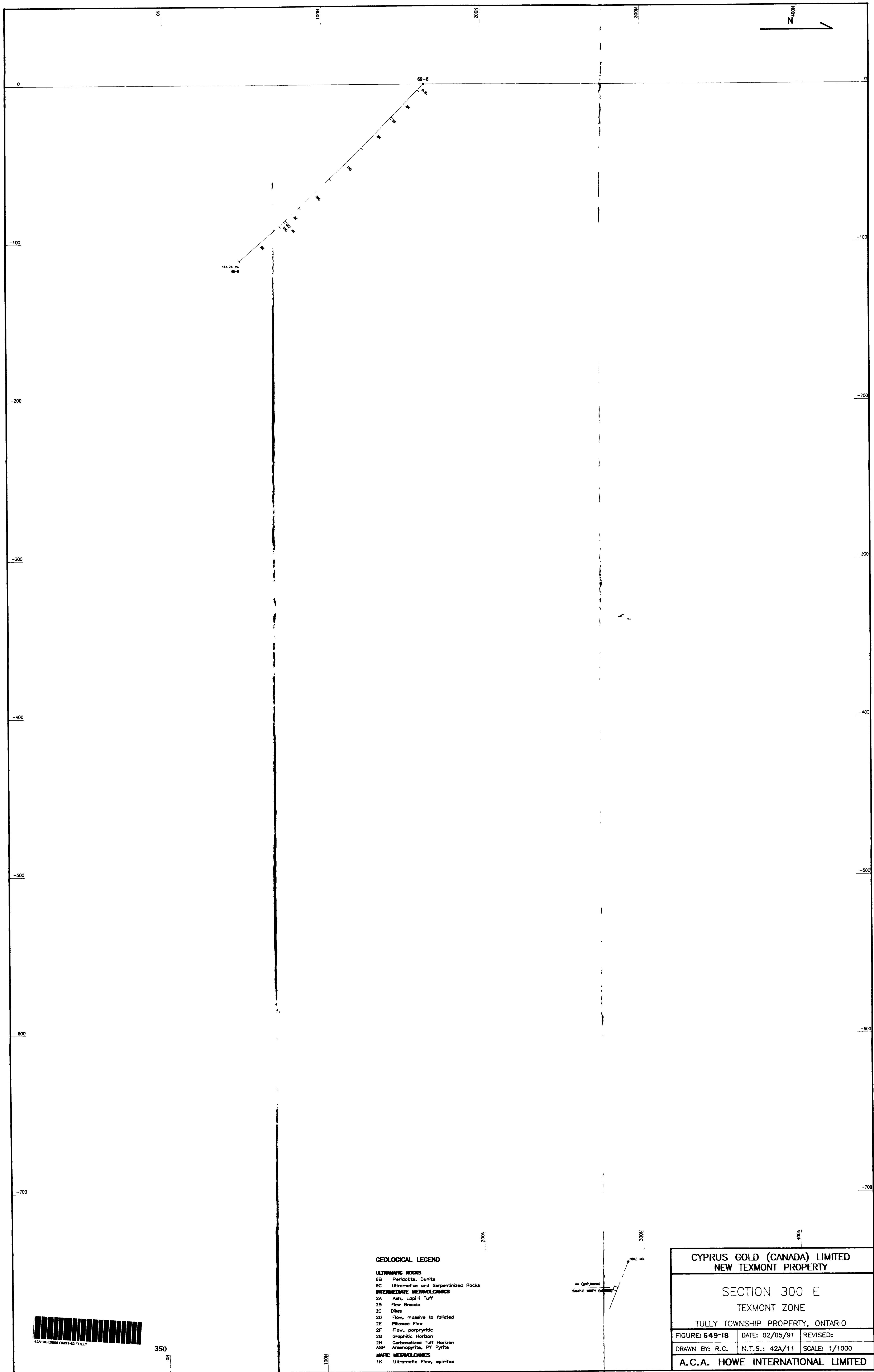
330

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 160 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-16	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



- GEOLOGICAL LEGEND**
- ULTRAMAFIC ROCKS**
- 6B Peridotite, Dunite
  - 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAVOLCANICS**
- 2A Ash, Lapilli Tuff
  - 2B Flow Breccia
  - 2C Dikes
  - 2D Flow, massive to foliated
  - 2E Pillowed Flow
  - 2F Flow, porphyritic
  - 2G Graphitic Horizon
  - 2H Carbonized Tuff Horizon
  - ASP Arsenopyrite, PY Pyrite
- MAFIC METAVOLCANICS**
- 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 260 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-17	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



**GEOLOGICAL LEGEND**

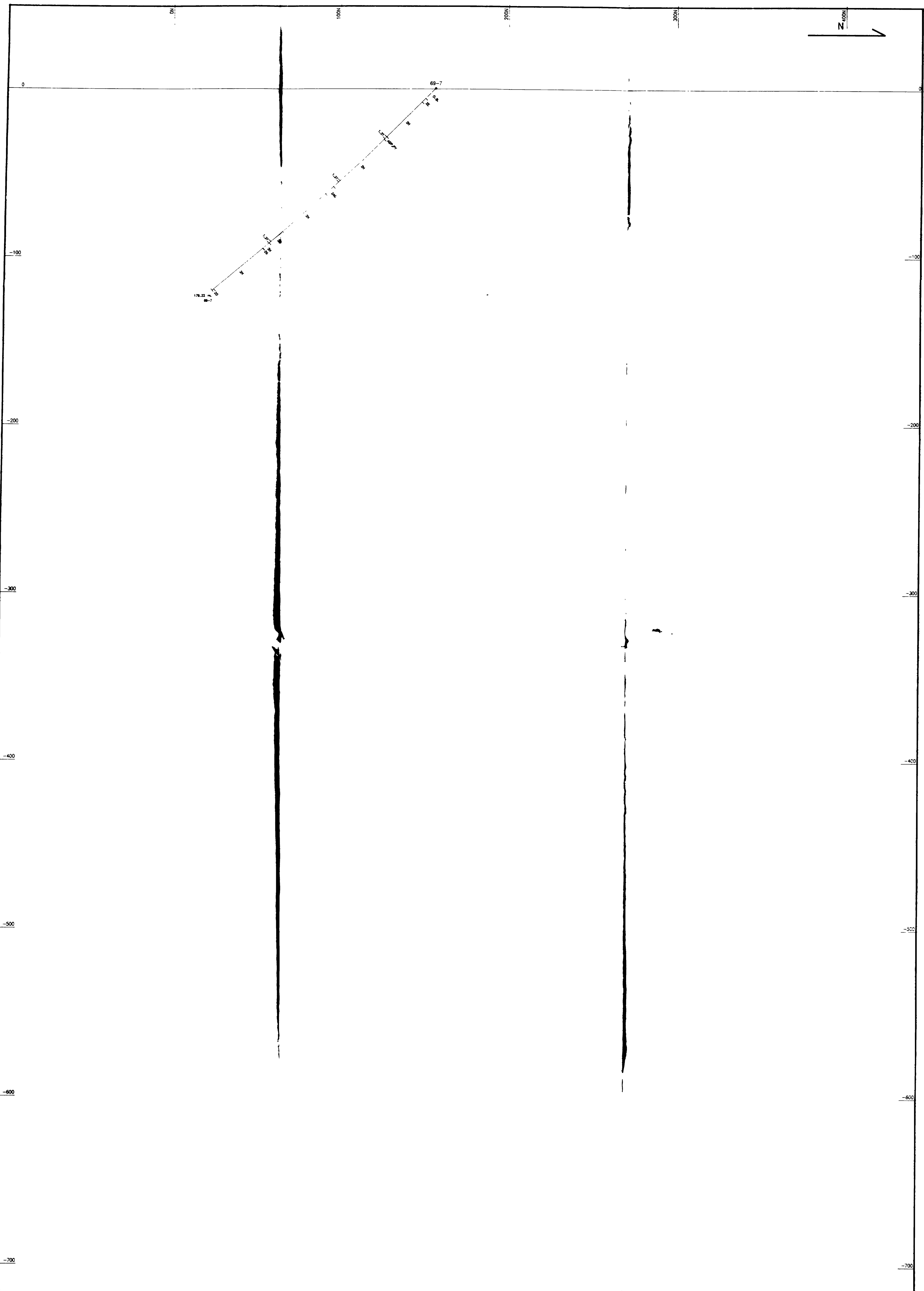
- ULTRAMAFIC ROCKS**  
 6B Peridotite, Dunite  
 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAVOLCANICS**  
 2A Ash, Lapilli Tuff  
 2B Flow Breccia  
 2C Dikes  
 2D Flow, massive to foliated  
 2E Pillowed Flow  
 2F Flow, porphyritic  
 2G Graphitic Horizon  
 2H Carbonatized Tuff Horizon  
 ASP Arsenopyrite, PY Pyrite
- MAFIC METAVOLCANICS**  
 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 300 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-18	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



350

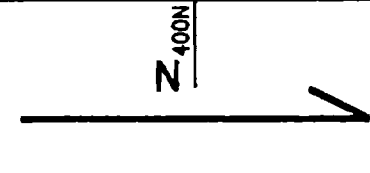
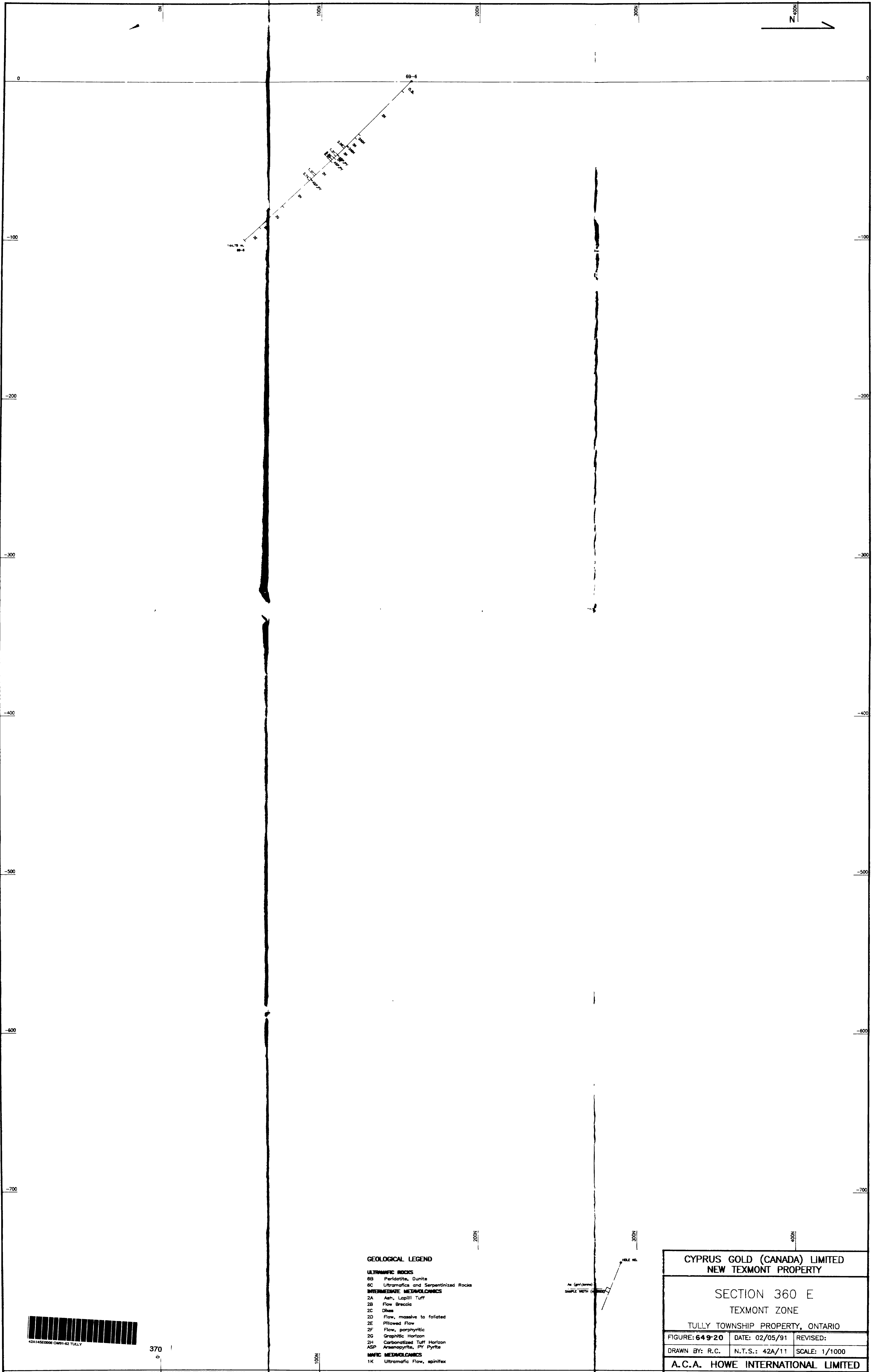




- GEOLOGICAL LEGEND**
- ULTRAMAFIC ROCKS**  
 6B Peridotite, Dunite  
 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAVOLCANICS**  
 2A Ash, Lapilli Tuff  
 2B Flow Breccia  
 2C Dikes  
 2D Flow, massive to foliated  
 2E Pillowed Flow  
 2F Flow, porphyritic  
 2G Graphitic Horizon  
 2H Carbonatized Tuff Horizon  
 ASP Arsenopyrite, PY Pyrite
- MAFIC METAVOLCANICS**  
 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 320 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-19	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



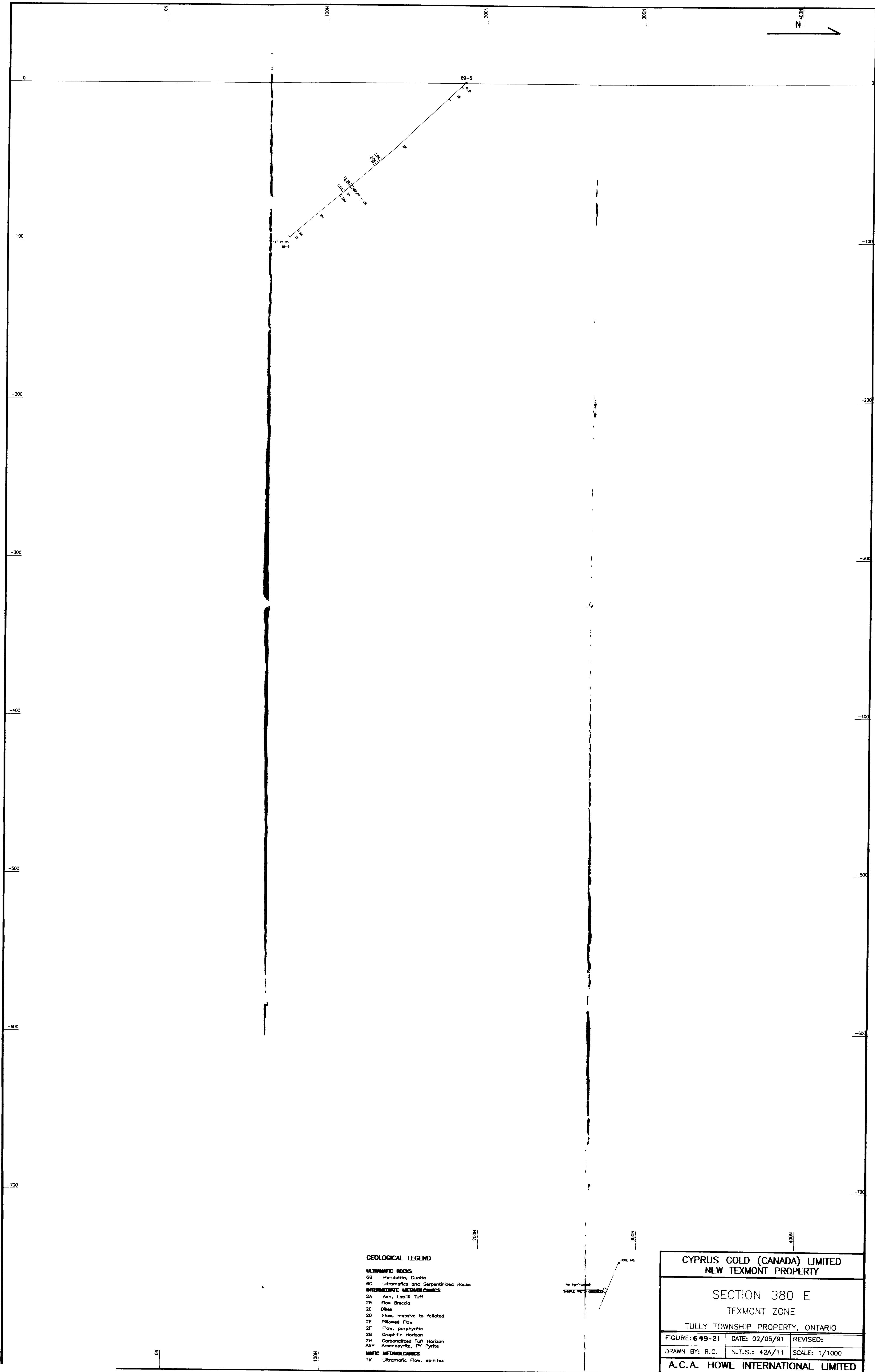


- GEOLOGICAL LEGEND**
- ULTRAMAFIC ROCKS**
  - 6B Peridotite, Dunite
  - 6C Ultramafics and Serpentinized Rocks
  - INTERMEDIATE METAVOLCANICS**
  - 2A Ash, Lapilli Tuff
  - 2B Flow Breccia
  - 2C Dikes
  - 2D Flow, massive to foliated
  - 2E Rilled Flow
  - 2F Flow, porphyritic
  - 2G Graphitic Horizon
  - 2H Carbonatized Tuff Horizon
  - ASP Arsenopyrite, PY Pyrite
  - MAFIC METAVOLCANICS**
  - 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 360 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-20	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



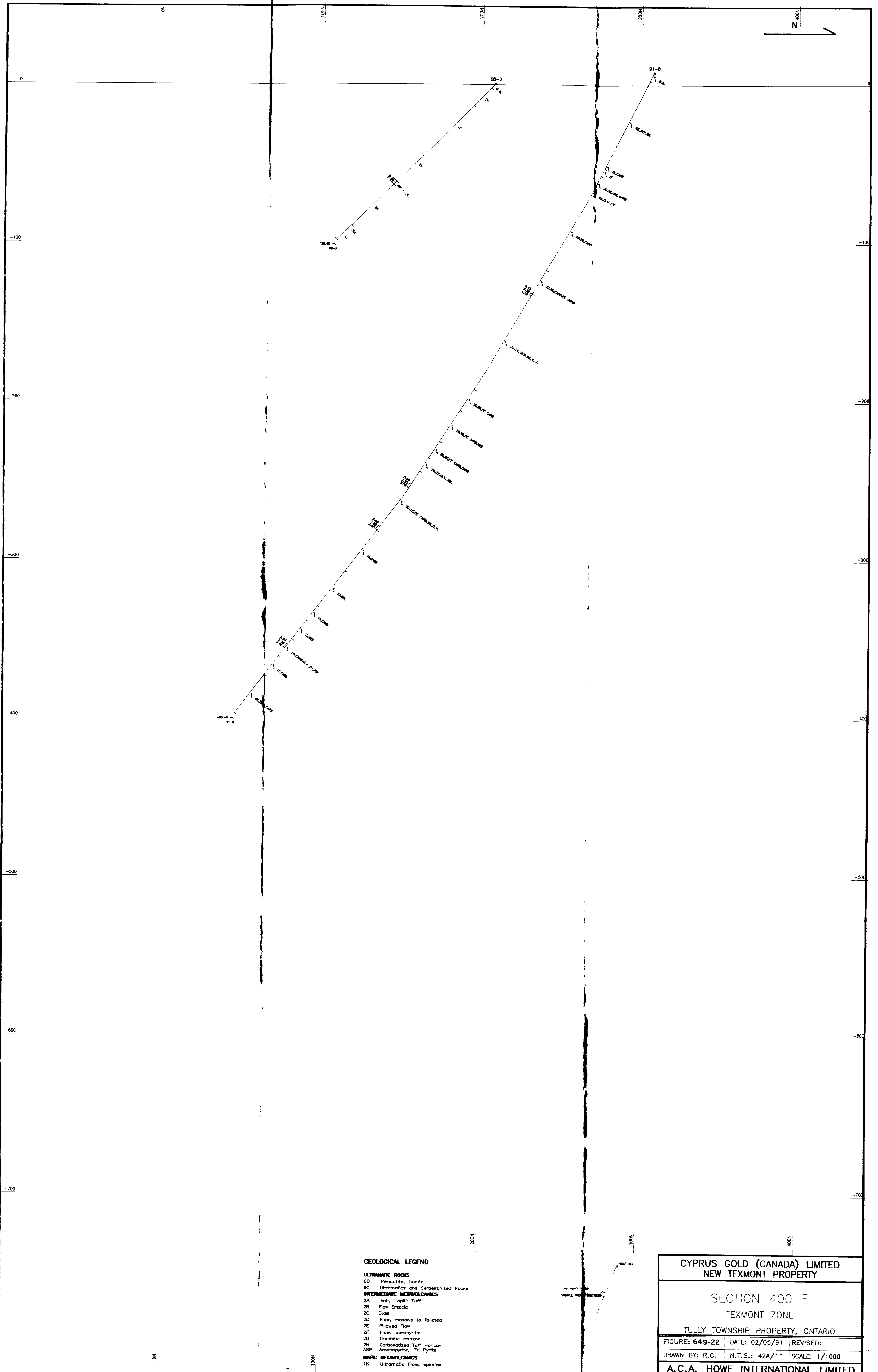
370



**GEOLOGICAL LEGEND**

- ULTRAMAFIC ROCKS**  
 6B Peridotite, Dunite  
 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAMOLCANICS**  
 2A Ash, Lapilli Tuff  
 2B Flow Breccia  
 2C Dikes  
 2D Flow, massive to foliated  
 2E Pillowed Flow  
 2F Flow, porphyritic  
 2G Graphitic Horizon  
 2H Carbonatized Tuff Horizon  
 ASP Arsenopyrite, Pyrite
- MAFIC METAMOLCANICS**  
 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 380 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-21	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		

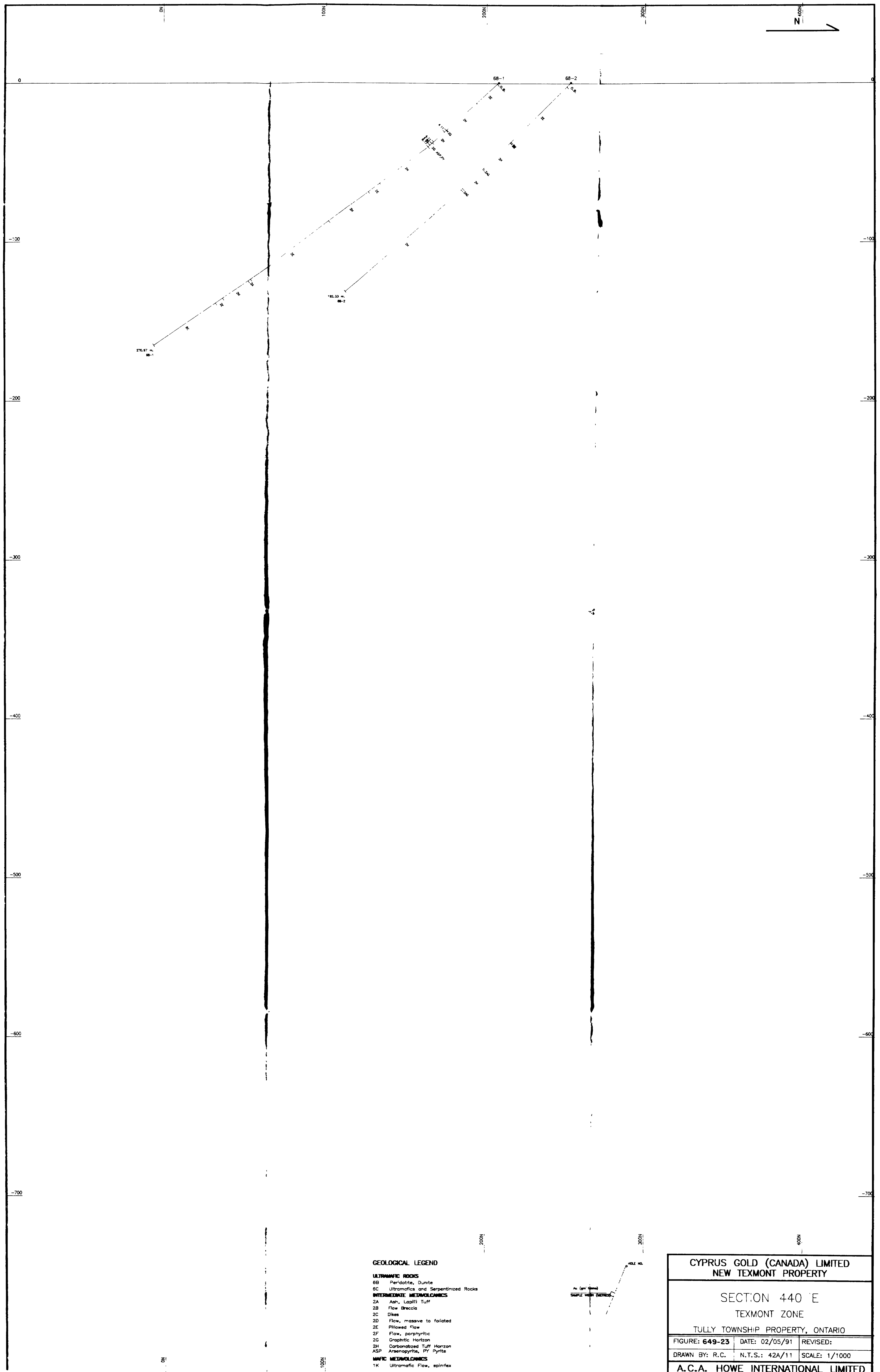


**GEOLOGICAL LEGEND**

- ULTRAMAFIC ROCKS**
- 6B Peridotite, Dunite
- 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAMOLCANICS**
- 2A Ash, Lapilli Tuff
- 2B Flow Breccia
- 2C Dikes
- 2D Flow, massive to foliated
- 2E Pillowed Flow
- 2F Flow, porphyritic
- 2G Graphitic Horizon
- 2H Carbonatized Tuff Horizon
- ASP Arsenopyrite, PY Pyrite
- MAFIC METAMOLCANICS**
- 1K Ultramafic Flow, spinifex

<b>CYPRUS GOLD (CANADA) LIMITED</b> NEW TEXMONT PROPERTY		
SECTION 400 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-22	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
<b>A.C.A. HOWE INTERNATIONAL LIMITED</b>		

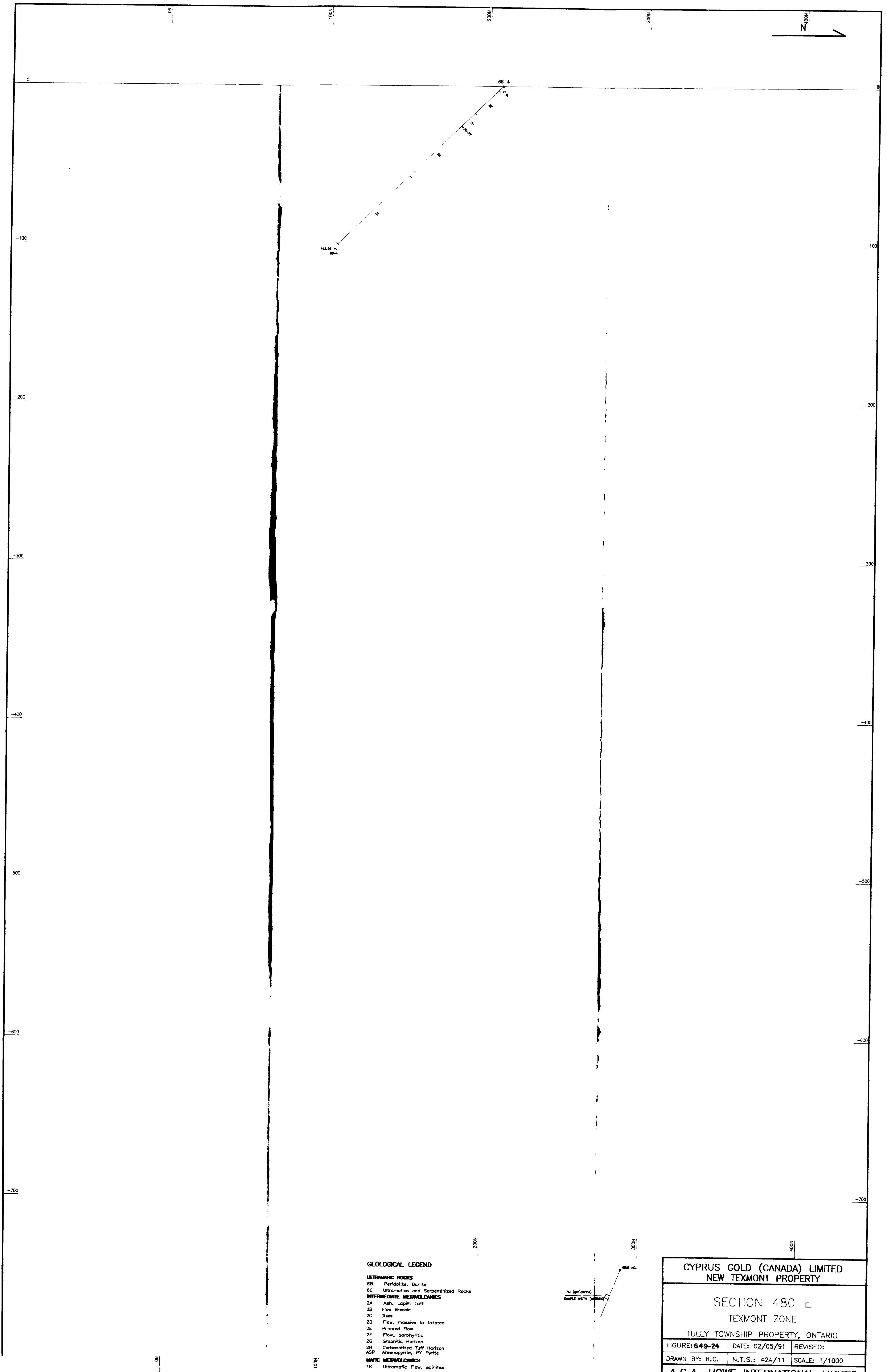




- GEOLOGICAL LEGEND**
- ULTRAMAFIC ROCKS**
  - 6B Peridotite, Dunite
  - 6C Ultramafics and Serpentinized Rocks
  - INTERMEDIATE METAVOLCANICS**
  - 2A Ash, Lapilli Tuff
  - 2B Flow Breccia
  - 2C Dikes
  - 2D Flow, massive to foliated
  - 2E Pillowed Flow
  - 2F Flow, porphyritic
  - 2G Graphitic Horizon
  - 2H Carbonatized Tuff Horizon
  - ASP Arsenopyrite, PY Pyrite
  - MAFIC METAVOLCANICS**
  - 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 440 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-23	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



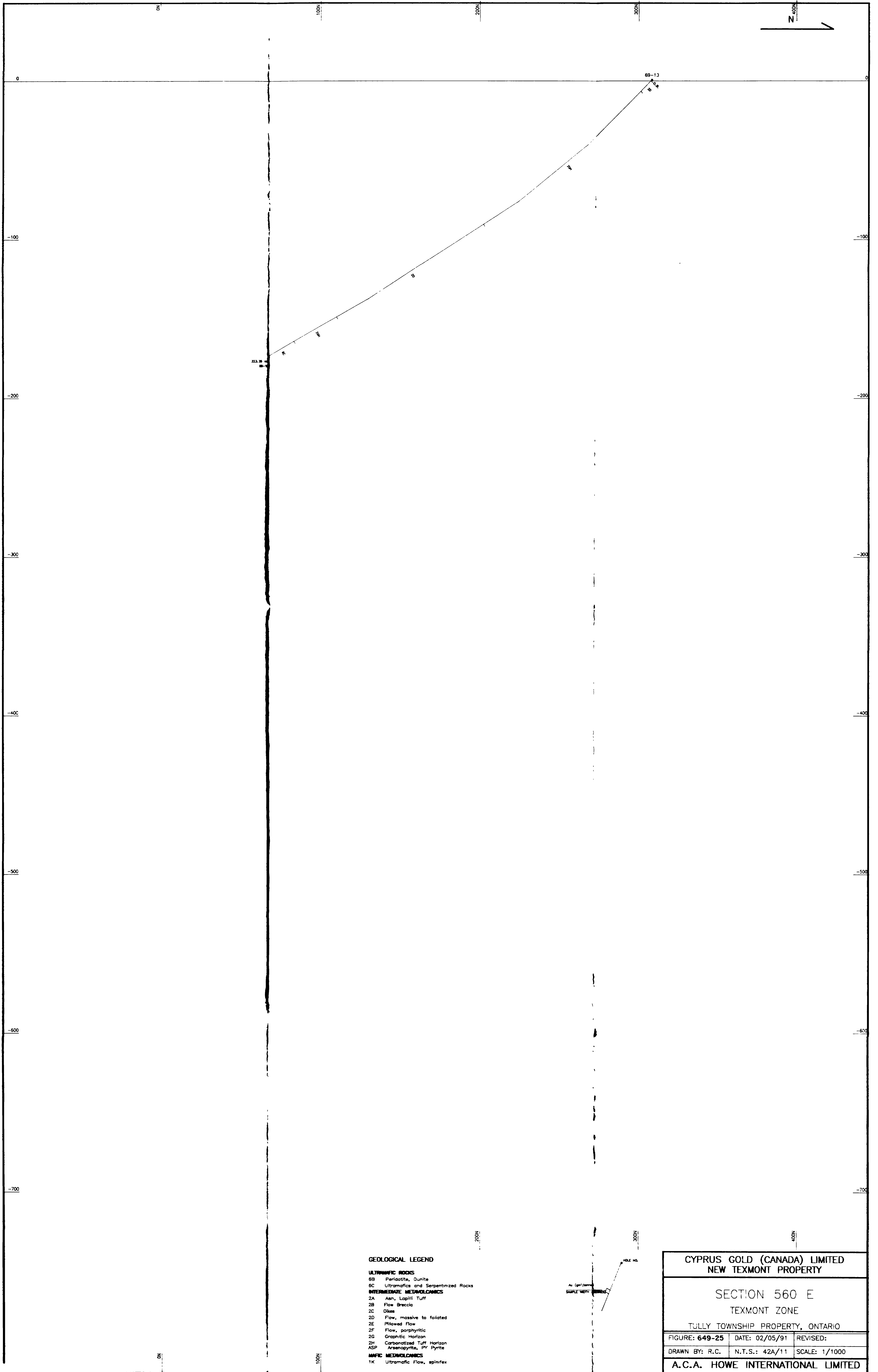


**GEOLOGICAL LEGEND**

- ULTRAMAFIC ROCKS**  
 6B Peridotite, Dunite  
 6C Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAVOLCANICS**  
 2A Ash, Lapilli Tuff  
 2B Flow Breccia  
 2C Dikes  
 2D Flow, massive to foliated  
 2E Pillowed Flow  
 2F Flow, porphyritic  
 2G Graphitic Horizon  
 2H Carbonatized Tuff Horizon  
 ASP Arsenopyrite, Pyrite
- MAFIC METAVOLCANICS**  
 1K Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 480 E TEXMONT ZONE TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-24	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		





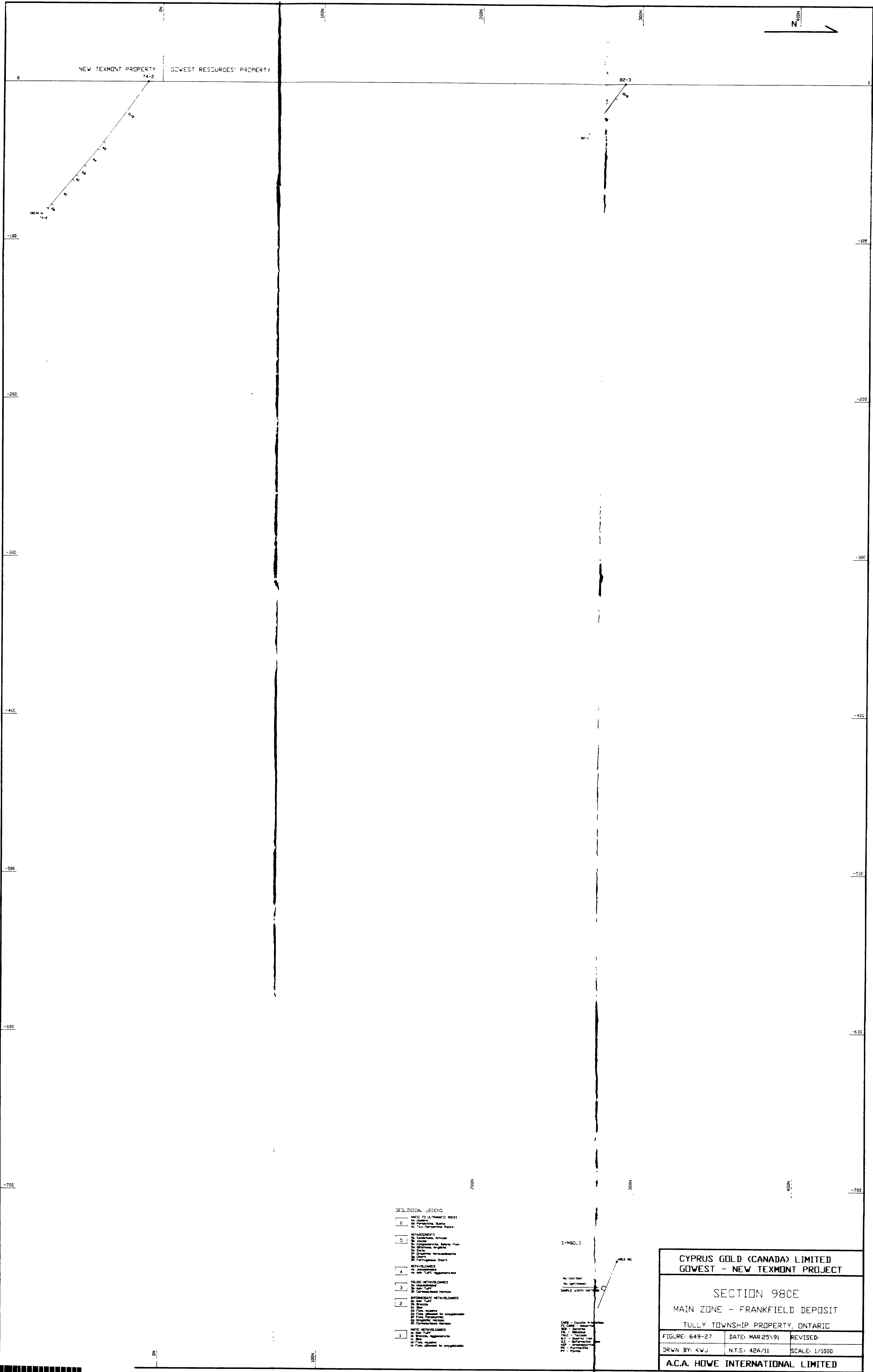
- GEOLOGICAL LEGEND**
- ULTRAMAFIC ROCKS**
- BB Peridotite, Dunite
  - BC Ultramafics and Serpentinized Rocks
- INTERMEDIATE METAVOLCANICS**
- 2A Ash, Lapilli Tuff
  - 2B Flow Breccia
  - 2C Dikes
  - 2D Flow, massive to foliated
  - 2E Pillowed Flow
  - 2F Flow, porphyritic
  - 2G Graphitic Horizon
  - 2H Carbonatized Tuff Horizon
  - ASP Arsenopyrite, Py Pyrite
- MAFIC METAVOLCANICS**
- TK Ultramafic Flow, spinifex

CYPRUS GOLD (CANADA) LIMITED NEW TEXMONT PROPERTY		
SECTION 560 E TEXMONT ZONE		
TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-25	DATE: 02/05/91	REVISED:
DRAWN BY: R.C.	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		









NEW TEXMONT PROPERTY  
74-2

GOWEST RESOURCES PROPERTY

N

0  
-100  
-200  
-300  
-400  
-500  
-600  
-700

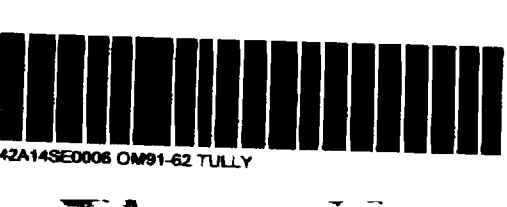
0  
-100  
-200  
-300  
-400  
-500  
-600  
-700

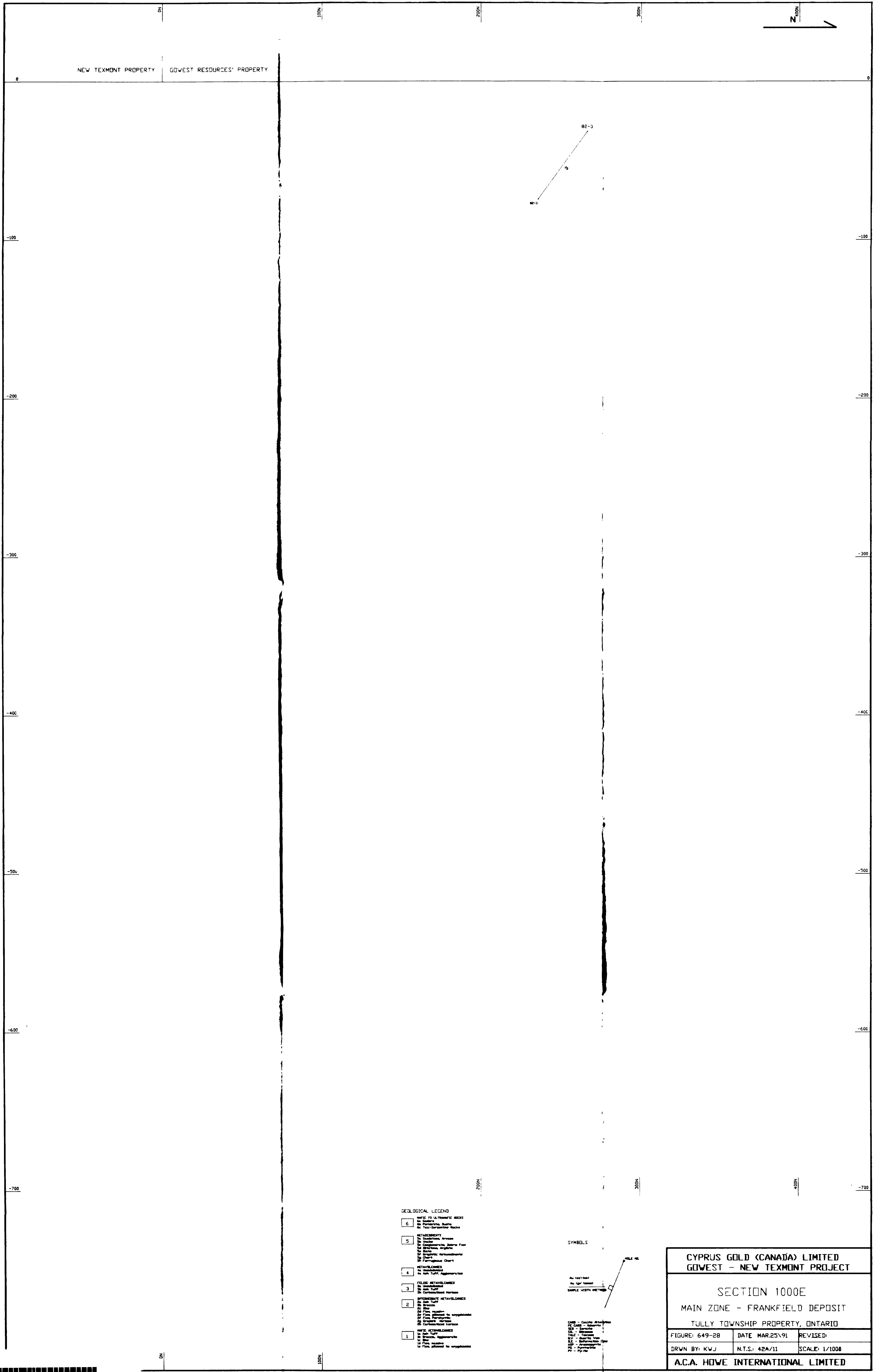
1000  
2000  
3000

- GEOLOGICAL LEGEND
- 6 METEORIC ULTRAMAFIC ROCKS
    - 6a Basalt
    - 6b Pyroxene Basalt
    - 6c Tuff-Serpentine Rocks
  - 5 METASANDSTONE
    - 5a Sandstone, Arkose
    - 5b Sandstone, Silty
    - 5c Conglomerate, Basalt Flow
    - 5d Silty Sandstone
    - 5e Sandstone, Argillaceous
    - 5f Sandstone, Micaceous
    - 5g Sandstone, Cherty
    - 5h Sandstone, Cherty
  - 4 METAVOLCANICS
    - 4a Andesite
    - 4b Ash Tuff, Agglomerate
  - 3 FELSIC METAVOLCANICS
    - 3a Andesite
    - 3b Ash Tuff
    - 3c Carbonaceous Horizon
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a Ash Tuff
    - 2b Basalt
    - 2c Basalt
    - 2d Basalt
    - 2e Basalt, andesite to andesitic
    - 2f Basalt, andesite to andesitic
    - 2g Basalt, andesite to andesitic
    - 2h Basalt, andesite to andesitic
    - 2i Basalt, andesite to andesitic
    - 2j Basalt, andesite to andesitic
  - 1 METEORIC METAVOLCANICS
    - 1a Basalt, Agglomerate
    - 1b Basalt, Agglomerate
    - 1c Basalt, Agglomerate
    - 1d Basalt, Agglomerate
    - 1e Basalt, Agglomerate
    - 1f Basalt, Agglomerate
    - 1g Basalt, Agglomerate
    - 1h Basalt, Agglomerate
    - 1i Basalt, Agglomerate
    - 1j Basalt, Agglomerate

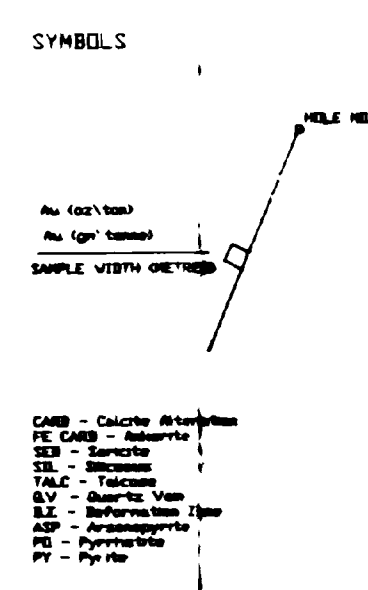
- SYMBOLS
- As (solid) - As (solid)
  - As (open) - As (open)
  - SAMPLE WITH INCISION
- CMG - Caliche  
 TC - Tuff  
 S - Sandstone  
 F - Felsic  
 I - Intermediate  
 M - Metavolcanic  
 U - Ultramafic

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 980E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-27	DATE: MAR 25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		

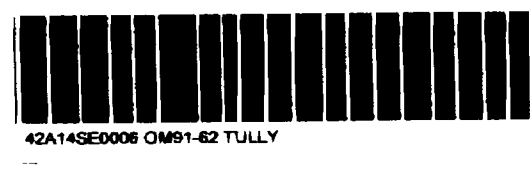




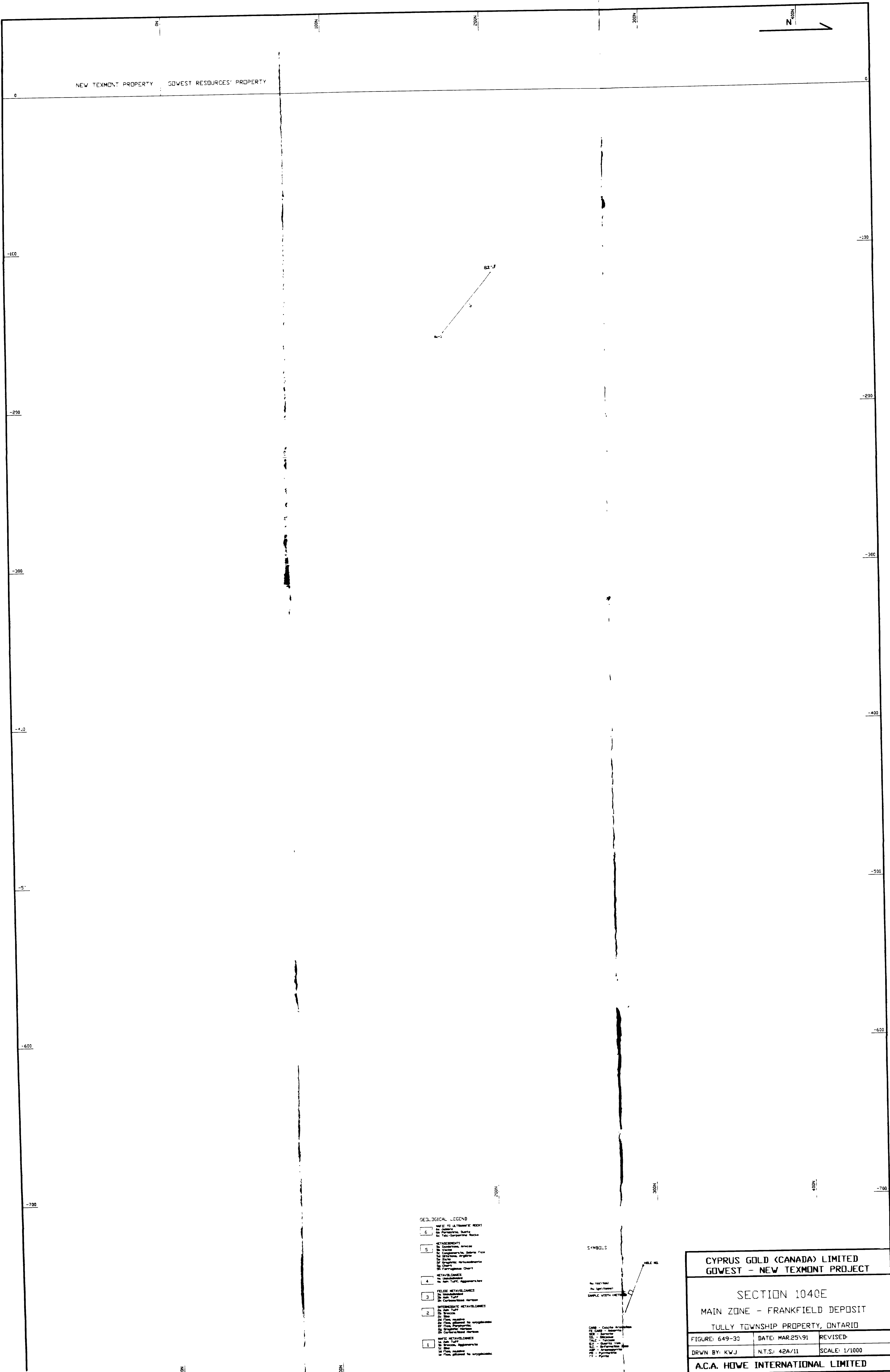
- GEOLOGICAL LEGEND**
- 6 MAFIC TO ULTRAMAFIC ROCKS
    - 6a Basalt
    - 6b Peridotite, Basalt
    - 6c Talc-Serpentine Rocks
  - 5 METASOMATITE
    - 5a Serpentine, Anorthite
    - 5b Amphibole, Anorthite, Biotite, Plagioclase
    - 5c Amphibole, Anorthite, Biotite, Plagioclase, Magnetite
    - 5d Amphibole, Anorthite, Biotite, Plagioclase, Magnetite, Pyrite
    - 5e Amphibole, Anorthite, Biotite, Plagioclase, Magnetite, Pyrite, Pyrrhotite
    - 5f Amphibole, Anorthite, Biotite, Plagioclase, Magnetite, Pyrite, Pyrrhotite, Sphalerite
  - 4 METAVOLCANICS
    - 4a Andesite
    - 4b And. Tuff, Agglomerate
  - 3 FELSIC METAVOLCANICS
    - 3a Andesite
    - 3b And. Tuff
    - 3c Andesite, Magnetite
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a And. Tuff
    - 2b And. Tuff
    - 2c And. Tuff, Magnetite
    - 2d And. Tuff, Magnetite, Pyrite
    - 2e And. Tuff, Magnetite, Pyrite, Pyrrhotite
    - 2f And. Tuff, Magnetite, Pyrite, Pyrrhotite, Sphalerite
  - 1 MAFIC METAVOLCANICS
    - 1a And. Tuff
    - 1b And. Tuff, Agglomerate
    - 1c And. Tuff, Agglomerate, Magnetite
    - 1d And. Tuff, Agglomerate, Magnetite, Pyrite
    - 1e And. Tuff, Agglomerate, Magnetite, Pyrite, Pyrrhotite
    - 1f And. Tuff, Agglomerate, Magnetite, Pyrite, Pyrrhotite, Sphalerite



CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1000E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-28	DATE: MAR.25\91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		







NEW TEXMONT PROPERTY    GOWEST RESOURCES PROPERTY

N

-100

-100

-200

-200

-300

-300

-400

-400

-500

-500

-600

-600

-700

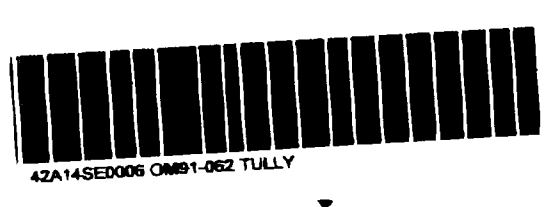
-700

- GEOLOGICAL LEGEND**
- 6 METAC. TO ULTRAMAFIC ROCK
    - 60 Basalt
    - 61 Amphibolite, heavy
    - 62 Talc-Serpentine Rocks
  - 5 METASANDSTONE
    - 50 Sandstone, Arkose
    - 51 Sandstone, Sil. Siderite Free
    - 52 Sandstone, Argillite
    - 53 Sandstone, micaceous
    - 54 Claystone
    - 55 Ferruginous Chert
  - 4 METAVOLCANICS
    - 40 Basalt
    - 41 Ash, Tuff, Agglomerate
  - 3 FELSIC METAVOLCANICS
    - 30 Ash, Tuff
    - 31 Andesite
    - 32 Diorite
    - 33 Gabbro
    - 34 Diorite to amphibolite
    - 35 Diorite, Porphyritic
    - 36 Amphibolite, hornblende
    - 37 Amphibolite, hornblende
  - 2 INTERMEDIATE METAVOLCANICS
    - 20 Ash, Tuff
    - 21 Basalt
    - 22 Diorite
    - 23 Diorite to amphibolite
    - 24 Diorite, Porphyritic
    - 25 Amphibolite, hornblende
    - 26 Amphibolite, hornblende
  - 1 BASIC METAVOLCANICS
    - 10 Ash, Tuff
    - 11 Basalt
    - 12 Diorite
    - 13 Diorite to amphibolite

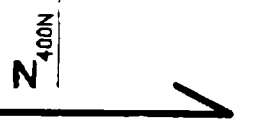
**SYMBOLS**

- No. (left hand)
  - No. (right hand)
  - SAMPLE WITH NET
- CMB - Collector's name  
 FC - Core - Sample  
 SS - Section  
 ST - Structure  
 T - Trench  
 T - Trench  
 T - Trench  
 T - Trench  
 T - Trench  
 T - Trench

<b>CYPRUS GOLD (CANADA) LIMITED</b> <b>GOWEST - NEW TEXMONT PROJECT</b>		
<b>SECTION 1040E</b> <b>MAIN ZONE - FRANKFIELD DEPOSIT</b> <b>TULLY TOWNSHIP PROPERTY, ONTARIO</b>		
FIGURE: 649-33	DATE: MAR.25.91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
<b>A.C.A. HOWE INTERNATIONAL LIMITED</b>		



NEW TEXMONT PROPERTY      GOWEST RESOURCES' PROPERTY



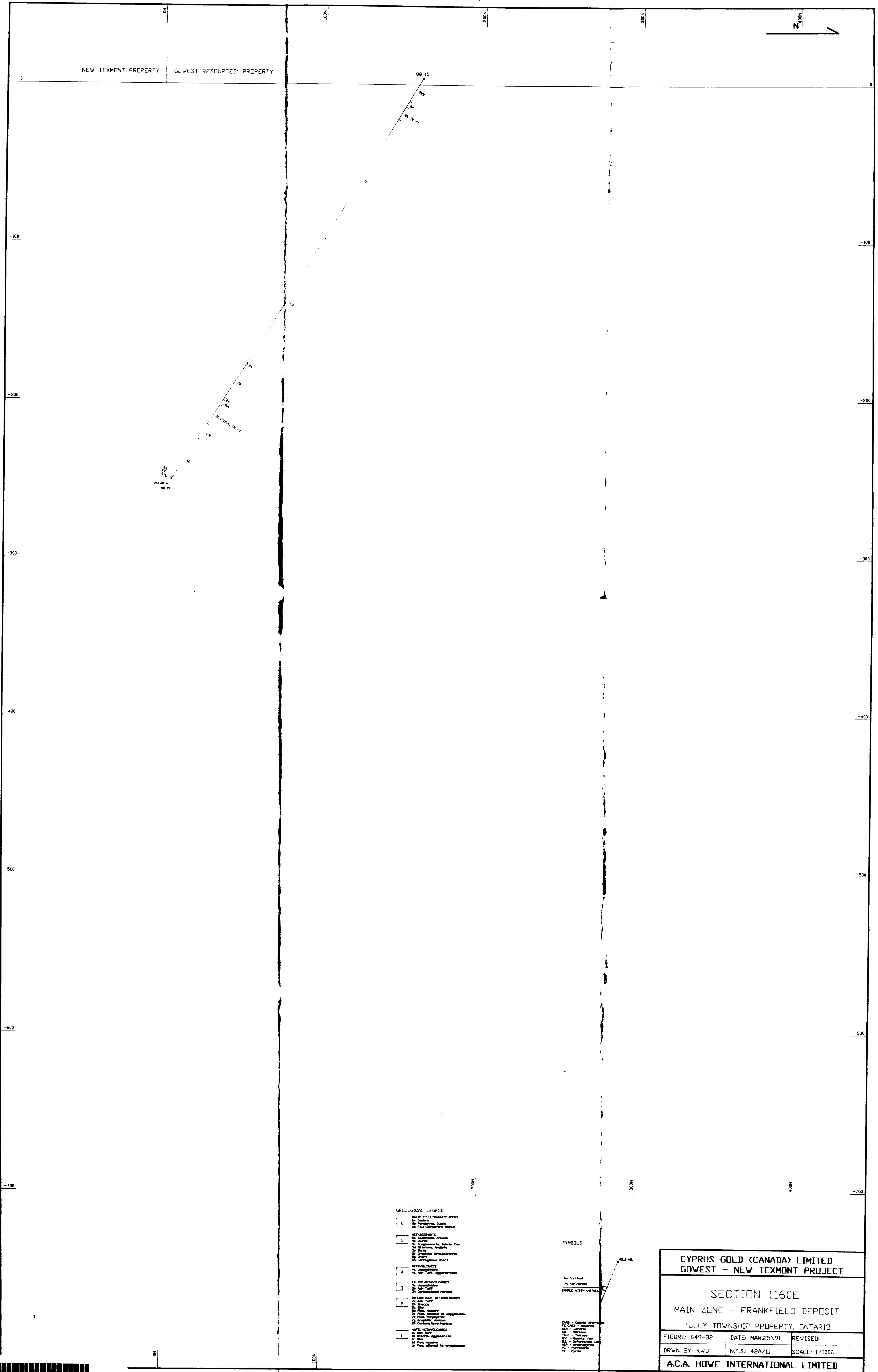
82-3  
2336 A  
82-3

- GEOLOGICAL LEGEND**
- 6 MISC. TO U. TRANSIC ROCKS
    - 6a Sandstone
    - 6b Sandstone, Quartz
    - 6c Calc-Sandstone Rock
  - 5 METASANDSTONE
    - 5a Sandstone, Quartz
    - 5b Conglomerate, Sandstone, Flint
    - 5c Sandstone, Quartz
    - 5d Sandstone, Quartz, Sandstone
    - 5e Sandstone
    - 5f Conglomerate
  - 4 METAVOLCANICS
    - 4a Andesite
    - 4b Ash-Tuff, Agglomerate
  - 3 FELSIC METAVOLCANICS
    - 3a Granite
    - 3b Ash-Tuff
    - 3c Conglomerate
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a Andesite
    - 2b Basalt
    - 2c Basalt
    - 2d Basalt
    - 2e Basalt
    - 2f Basalt
    - 2g Basalt
    - 2h Basalt
    - 2i Basalt
    - 2j Basalt
    - 2k Basalt
    - 2l Basalt
    - 2m Basalt
    - 2n Basalt
    - 2o Basalt
    - 2p Basalt
    - 2q Basalt
    - 2r Basalt
    - 2s Basalt
    - 2t Basalt
    - 2u Basalt
    - 2v Basalt
    - 2w Basalt
    - 2x Basalt
    - 2y Basalt
    - 2z Basalt
  - 1 BASIC METAVOLCANICS
    - 1a Basalt, Andesite
    - 1b Basalt, Andesite
    - 1c Basalt, Andesite
    - 1d Basalt, Andesite
    - 1e Basalt, Andesite
    - 1f Basalt, Andesite
    - 1g Basalt, Andesite
    - 1h Basalt, Andesite
    - 1i Basalt, Andesite
    - 1j Basalt, Andesite
    - 1k Basalt, Andesite
    - 1l Basalt, Andesite
    - 1m Basalt, Andesite
    - 1n Basalt, Andesite
    - 1o Basalt, Andesite
    - 1p Basalt, Andesite
    - 1q Basalt, Andesite
    - 1r Basalt, Andesite
    - 1s Basalt, Andesite
    - 1t Basalt, Andesite
    - 1u Basalt, Andesite
    - 1v Basalt, Andesite
    - 1w Basalt, Andesite
    - 1x Basalt, Andesite
    - 1y Basalt, Andesite
    - 1z Basalt, Andesite

SYMBOLS

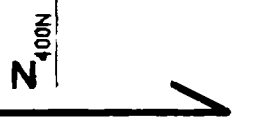
- CS - Contour
- AS - Asphalt
- SW - Sample
- MS - Meters
- CS - Contour
- AS - Asphalt
- SW - Sample
- MS - Meters
- CS - Contour
- AS - Asphalt
- SW - Sample
- MS - Meters

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1060E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-31	DATE: MAR.25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



NEW TEXMONT PROPERTY    GOWEST RESOURCES' PROPERTY

89-15



0  
-100  
-200  
-300  
-400  
-500  
-600  
-700

0  
-100  
-200  
-300  
-400  
-500  
-600  
-700

- GEOLOGICAL LEGEND**
- 6. METAMORPHIC ROCKS
    - 6a. Quartzite
    - 6b. Amphibolite, Quartz
    - 6c. Calc-Serpentine Rocks
  - 5. METASEDIMENTARY ROCKS
    - 5a. Sandstone
    - 5b. Conglomerate, Shale, Clay
    - 5c. Siltstone
    - 5d. Shale
    - 5e. Siltstone, argillite
    - 5f. Shale
    - 5g. Shale
    - 5h. Shale
    - 5i. Shale
    - 5j. Shale
  - 4. METAVOLCANICS
    - 4a. Basalt
    - 4b. Andesite
    - 4c. Diorite
    - 4d. Gabbro
    - 4e. Granite
    - 4f. Quartzite
    - 4g. Amphibolite
    - 4h. Gabbro
    - 4i. Granite
    - 4j. Quartzite
    - 4k. Amphibolite
    - 4l. Gabbro
    - 4m. Granite
    - 4n. Quartzite
    - 4o. Amphibolite
  - 3. FELSIC METAVOLCANICS
    - 3a. Granite
    - 3b. Quartzite
    - 3c. Amphibolite
    - 3d. Gabbro
    - 3e. Granite
    - 3f. Quartzite
    - 3g. Amphibolite
    - 3h. Gabbro
    - 3i. Granite
    - 3j. Quartzite
    - 3k. Amphibolite
    - 3l. Gabbro
    - 3m. Granite
    - 3n. Quartzite
    - 3o. Amphibolite
  - 2. INTERMEDIATE METAVOLCANICS
    - 2a. Andesite
    - 2b. Diorite
    - 2c. Gabbro
    - 2d. Andesite
    - 2e. Diorite
    - 2f. Gabbro
    - 2g. Andesite
    - 2h. Diorite
    - 2i. Gabbro
    - 2j. Andesite
    - 2k. Diorite
    - 2l. Gabbro
    - 2m. Andesite
    - 2n. Diorite
    - 2o. Gabbro
  - 1. BASIC METAVOLCANICS
    - 1a. Basalt
    - 1b. Andesite
    - 1c. Gabbro
    - 1d. Basalt
    - 1e. Andesite
    - 1f. Gabbro
    - 1g. Basalt
    - 1h. Andesite
    - 1i. Gabbro
    - 1j. Basalt
    - 1k. Andesite
    - 1l. Gabbro
    - 1m. Basalt
    - 1n. Andesite
    - 1o. Gabbro

- SYMBOLS**
- As - Gabbro
  - Au - Granite
  - S - Shale
  - Q - Quartzite
  - Am - Amphibolite
  - Di - Diorite
  - And - Andesite
  - Bas - Basalt
  - Gr - Granite
  - Qtz - Quartzite
  - Amf - Amphibolite
  - Andr - Andesite
  - Basr - Basalt
  - Gr - Granite
  - Qtz - Quartzite
  - Amf - Amphibolite
  - Andr - Andesite
  - Basr - Basalt

CYPRUS GOLD (CANADA) LIMITED  
 GOWEST - NEW TEXMONT PROJECT

SECTION 1160E  
 MAIN ZONE - FRANKFIELD DEPOSIT  
 TULLY TOWNSHIP PROPERTY, ONTARIO

FIGURE: 649-32	DATE: MAR.25.91	REVISED:
DRWN BY: XWJ	N.T.S.: 42A/11	SCALE: 1/1000

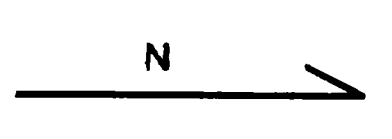
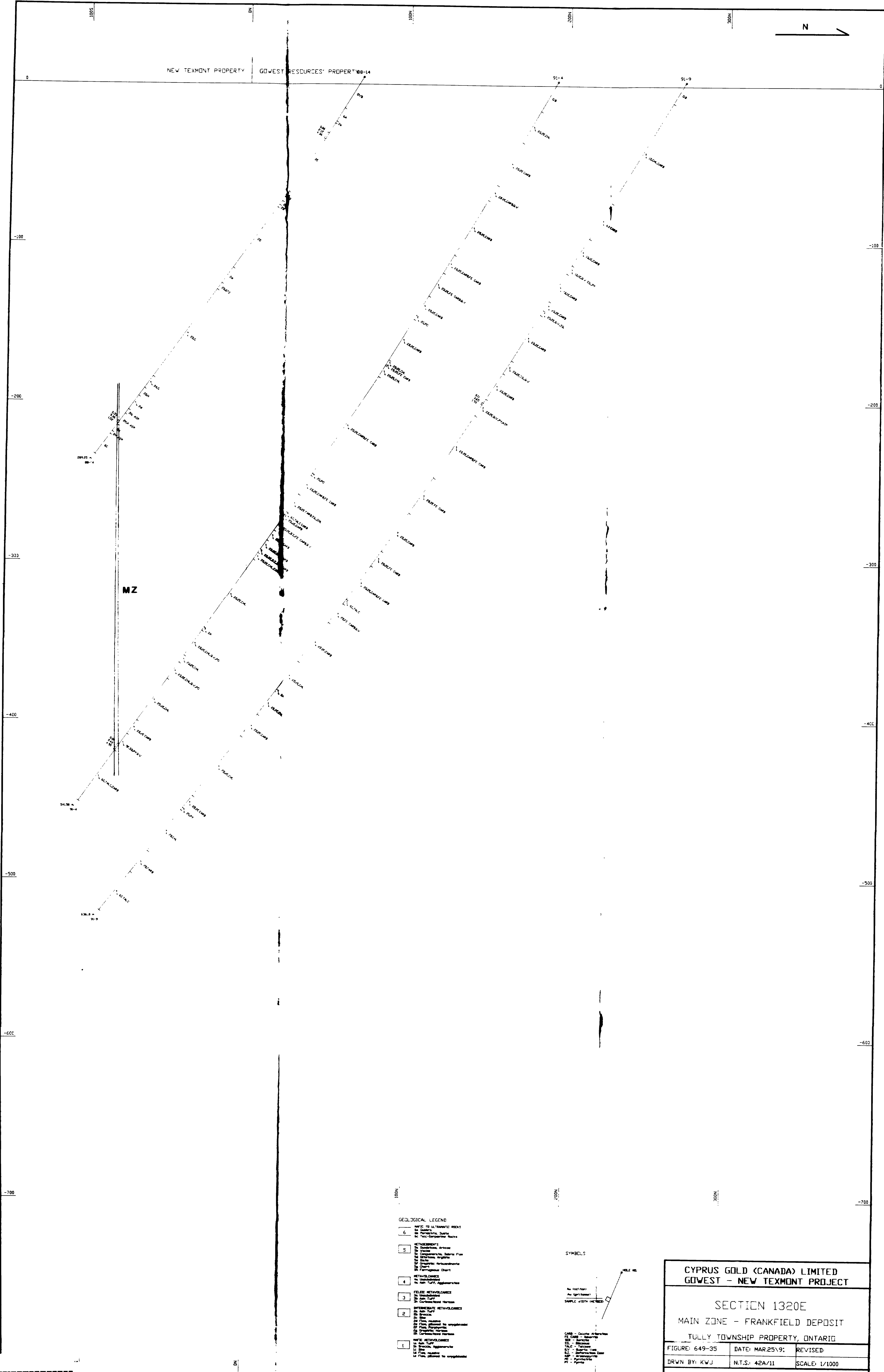
A.C.A. HOWE INTERNATIONAL LIMITED









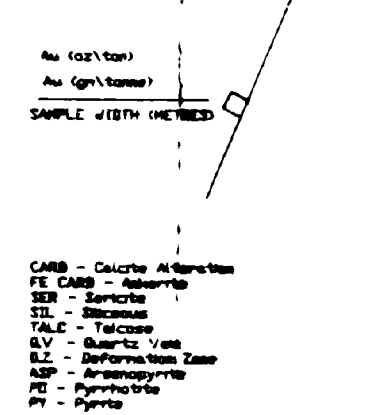


NEW TEXMONT PROPERTY GOWEST RESOURCES' PROPERTY '88-14

MZ

- GEOLOGICAL LEGEND**
- 6 METAFELS TO ULTRAMAFIC ROCKS
    - 6a Gabbro
    - 6b Peridotite Suite
    - 6c Olivine-Orthopyroxene Suite
  - 5 METASOMATITES
    - 5a Amphibolite
    - 5b Amphibolite with Garnet
    - 5c Amphibolite with Garnet and Pyroxene
    - 5d Amphibolite with Garnet and Pyroxene and Magnetite
    - 5e Amphibolite with Garnet and Pyroxene and Magnetite and Ilmenite
    - 5f Amphibolite with Garnet and Pyroxene and Magnetite and Ilmenite and Titanite
    - 5g Amphibolite with Garnet and Pyroxene and Magnetite and Ilmenite and Titanite and Zircon
    - 5h Amphibolite with Garnet and Pyroxene and Magnetite and Ilmenite and Titanite and Zircon and Apatite
  - 4 METAVOLCANICS
    - 4a Basalt
    - 4b Basaltic Andesite
    - 4c Andesite
    - 4d Andesite with Magnetite
    - 4e Andesite with Magnetite and Ilmenite
    - 4f Andesite with Magnetite and Ilmenite and Titanite
    - 4g Andesite with Magnetite and Ilmenite and Titanite and Zircon
    - 4h Andesite with Magnetite and Ilmenite and Titanite and Zircon and Apatite
  - 3 FELSIC METAVOLCANICS
    - 3a Granite
    - 3b Granite with Magnetite
    - 3c Granite with Magnetite and Ilmenite
    - 3d Granite with Magnetite and Ilmenite and Titanite
    - 3e Granite with Magnetite and Ilmenite and Titanite and Zircon
    - 3f Granite with Magnetite and Ilmenite and Titanite and Zircon and Apatite
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a Basalt
    - 2b Basaltic Andesite
    - 2c Andesite
    - 2d Andesite with Magnetite
    - 2e Andesite with Magnetite and Ilmenite
    - 2f Andesite with Magnetite and Ilmenite and Titanite
    - 2g Andesite with Magnetite and Ilmenite and Titanite and Zircon
    - 2h Andesite with Magnetite and Ilmenite and Titanite and Zircon and Apatite
  - 1 METAVOLCANICS
    - 1a Basalt
    - 1b Basaltic Andesite
    - 1c Andesite
    - 1d Andesite with Magnetite
    - 1e Andesite with Magnetite and Ilmenite
    - 1f Andesite with Magnetite and Ilmenite and Titanite
    - 1g Andesite with Magnetite and Ilmenite and Titanite and Zircon
    - 1h Andesite with Magnetite and Ilmenite and Titanite and Zircon and Apatite

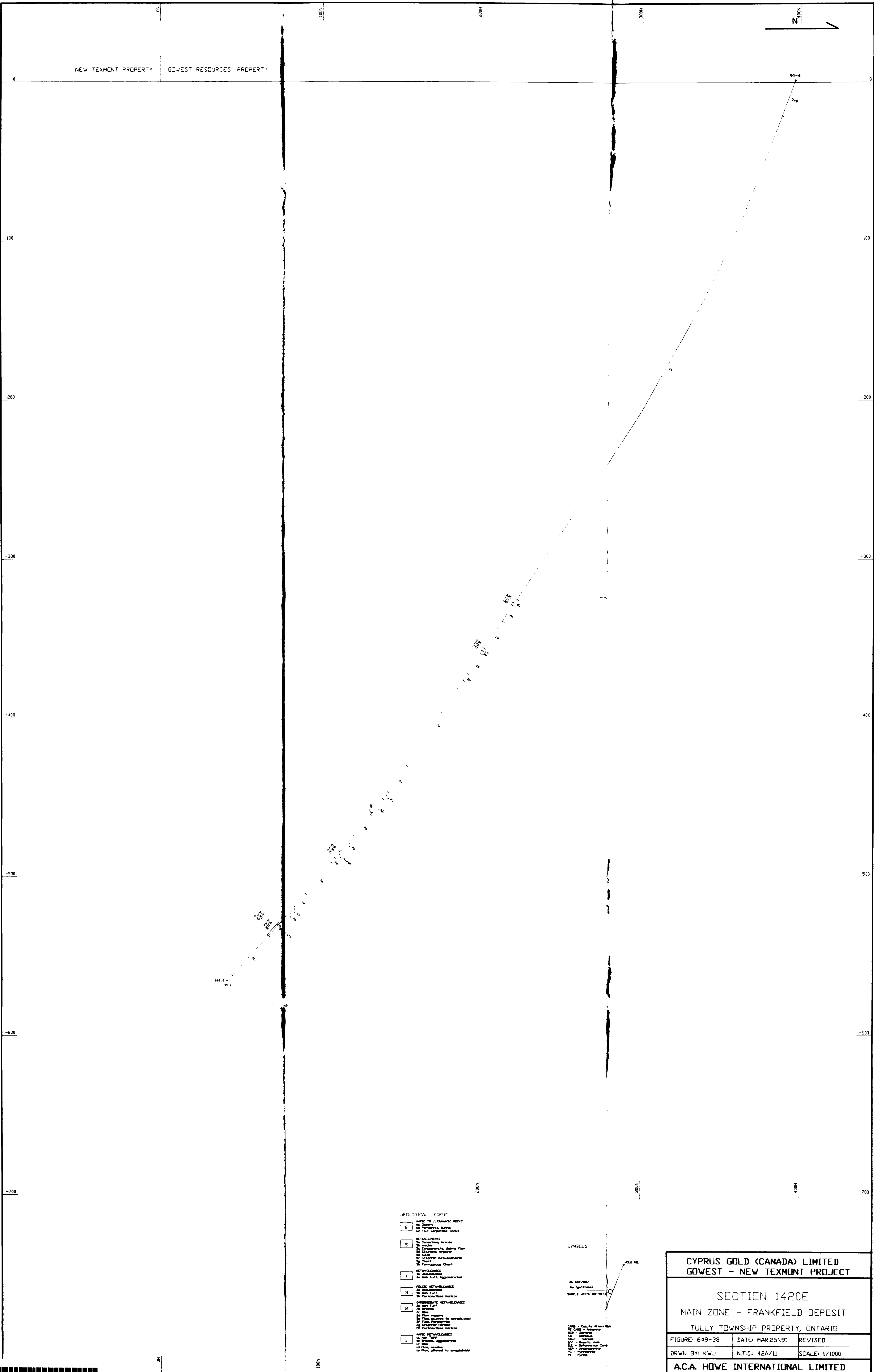
**SYMBOLS**



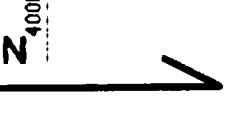
CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1320E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-35	DATE: MAR 25/9	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		







NEW TEXMONT PROPERTY    GOWEST RESOURCES' PROPERTY



- GEOLOGICAL LEGEND
- 6 AEGIC TO ULTRAMAFIC ROCKS
    - 6a Gabbro
    - 6b Peridotite Dunita
    - 6c Calc-Silicate Rocks
  - 5 METASOMATITES
    - 5a Serpentine Anhydrite
    - 5b Anhydrite
    - 5c Amphibole, Silica Fluv
    - 5d Epidote, Amphibole
    - 5e Chlorite, Amphibole
    - 5f Amphibole, Chlorite
    - 5g Ferruginous Quartz
  - 4 METAVOLCANICS
    - 4a Basalt
    - 4b Basaltic Andesite
  - 3 FELSIC METAVOLCANICS
    - 3a Rhyolite
    - 3b Andesite
    - 3c Diabase
    - 3d Gabbro
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a Basalt
    - 2b Basaltic Andesite
    - 2c Andesite
    - 2d Diabase
    - 2e Gabbro
    - 2f Basaltic Andesite
    - 2g Andesite
    - 2h Diabase
    - 2i Gabbro
  - 1 AEGIC METAVOLCANICS
    - 1a Basalt
    - 1b Basaltic Andesite
    - 1c Andesite
    - 1d Diabase
    - 1e Gabbro
    - 1f Basaltic Andesite
    - 1g Andesite
    - 1h Diabase
    - 1i Gabbro

- SYMBOLS
- As Footwall
  - As Spill/trace
  - Sample with ore/minerals

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1420E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-38	DATE: MAR.25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



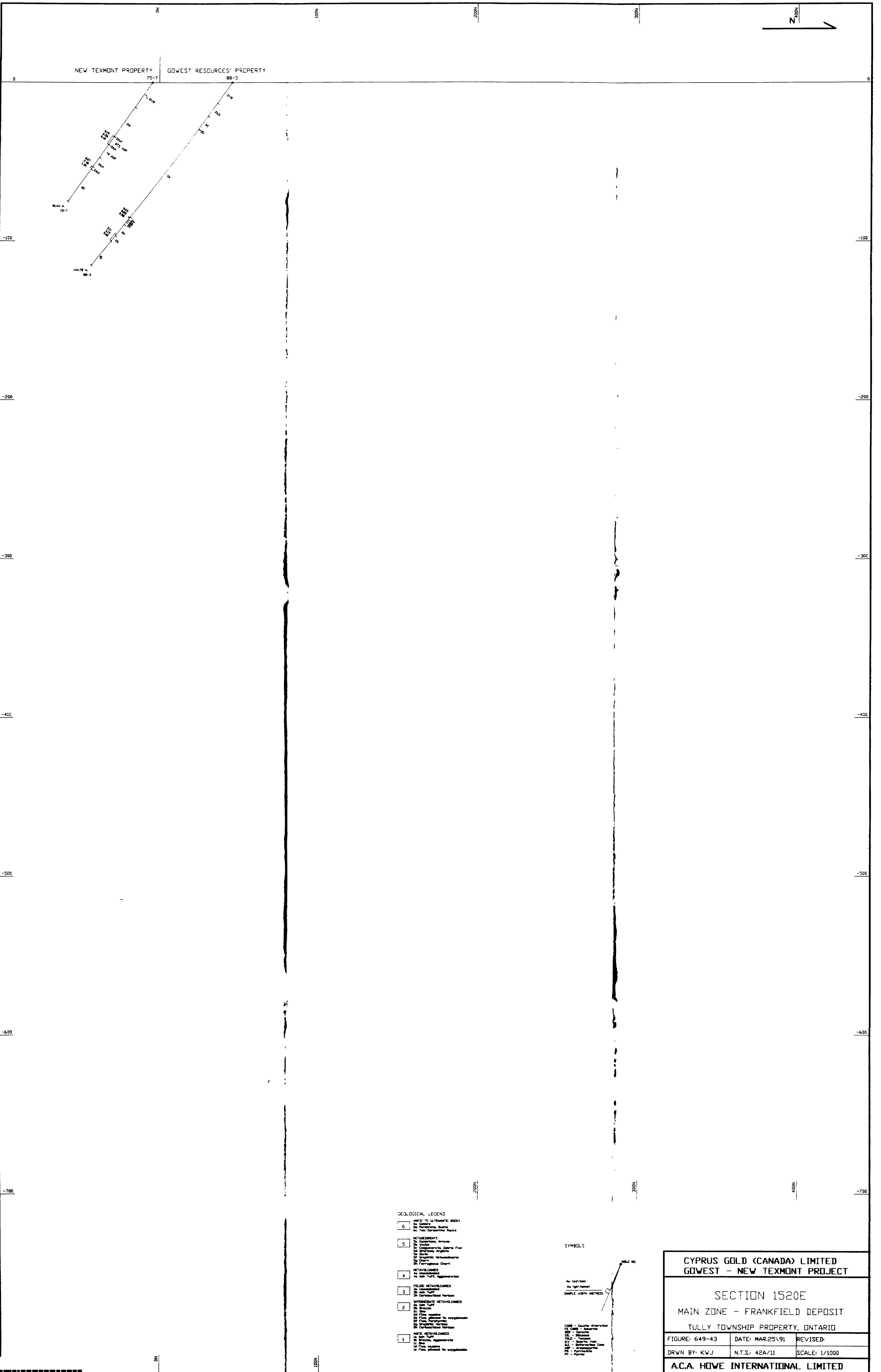












- GEOLOGICAL LEGEND**
- 6 **ULTRAMAFIC ROCKS**
    - 6.1 Gabbro
    - 6.2 Pyroxenite, Basalt
    - 6.3 Calc-Carbonate Rocks
  - 5 **METASEDIMENT**
    - 5.1 Amphibolite, Gneiss
    - 5.2 Quartzite, Marble, Slate
    - 5.3 Chlorite Schist, Amphibolite
    - 5.4 Quartzite, Amphibolite
    - 5.5 Amphibolite, Gneiss
    - 5.6 Amphibolite, Gneiss
  - 4 **METAVOLCANIC**
    - 4.1 Basalt, Andesite
    - 4.2 Basalt, Andesite
    - 4.3 Basalt, Andesite
    - 4.4 Basalt, Andesite
  - 3 **TYPICAL METAVOLCANIC**
    - 3.1 Basalt, Andesite
    - 3.2 Basalt, Andesite
    - 3.3 Basalt, Andesite
  - 2 **INTERMEDIATE METAVOLCANIC**
    - 2.1 Basalt, Andesite
    - 2.2 Basalt, Andesite
    - 2.3 Basalt, Andesite
  - 1 **ULTRAMAFIC METAVOLCANIC**
    - 1.1 Basalt, Andesite
    - 1.2 Basalt, Andesite
    - 1.3 Basalt, Andesite

**SYMBOLS**

As - Outcrop  
 As - Spill  
 S - Sample

COMP - Cyprus International  
 DATE - 4/25/91  
 DRAWN BY - KWJ  
 N.T.S. - 42A/11  
 SCALE - 1/1000

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1520E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-43	DATE: MAR.25.91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



NEW TEXMONT PROPERTY

GOWEST RESOURCES' PROPERTY

N  
1:000

9085

-100

-100

-200

-200

-300

-300

-400

-400

-500

-500

-600

-600

-700

-700

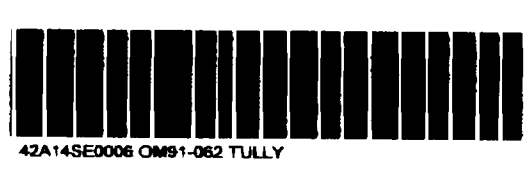
GEOLOGICAL LEGEND

- 6 MAFIC TO ULTRAMAFIC ROCKS
  - 60 Gabbro
  - 61 Peridotite, Quartz
  - 62 Calc-Silicate Rocks
- 5 METASOMATITES
  - 51 Serpentine, Arsenic
  - 52 Serpentine, Magnetite
  - 53 Serpentine, Magnetite, Pyrite
  - 54 Serpentine, Magnetite, Pyrite, Sphalerite
  - 55 Serpentine, Magnetite, Pyrite, Sphalerite, Chlorite
  - 56 Serpentine, Magnetite, Pyrite, Sphalerite, Chlorite, Pyrrhotite
- 4 METAVOLCANICS
  - 40 Basalt, Andesite
  - 41 Basalt, Andesite, Pyrite
- 3 FELSIC METAVOLCANICS
  - 30 Andesite
  - 31 Andesite, Pyrite
  - 32 Andesite, Pyrite, Magnetite
- 2 INTERMEDIATE METAVOLCANICS
  - 20 Basalt, Andesite
  - 21 Basalt, Andesite, Pyrite
  - 22 Basalt, Andesite, Pyrite, Magnetite
  - 23 Basalt, Andesite, Pyrite, Magnetite, Pyrrhotite
- 1 MAFIC METAVOLCANICS
  - 10 Basalt, Andesite
  - 11 Basalt, Andesite, Pyrite
  - 12 Basalt, Andesite, Pyrite, Magnetite
  - 13 Basalt, Andesite, Pyrite, Magnetite, Pyrrhotite

SYMBOLS

- Core (100%)
- Core (50%)
- Core (25%)
- Core (10%)
- Core (5%)
- Core (2%)
- Core (1%)
- Core (0.5%)
- Core (0.2%)
- Core (0.1%)
- Core (0.05%)
- Core (0.02%)
- Core (0.01%)
- Core (0.005%)
- Core (0.002%)
- Core (0.001%)
- Core (0.0005%)
- Core (0.0002%)
- Core (0.0001%)
- Core (0.00005%)
- Core (0.00002%)
- Core (0.00001%)

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1540E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-44	DATE: MAR.25.91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		





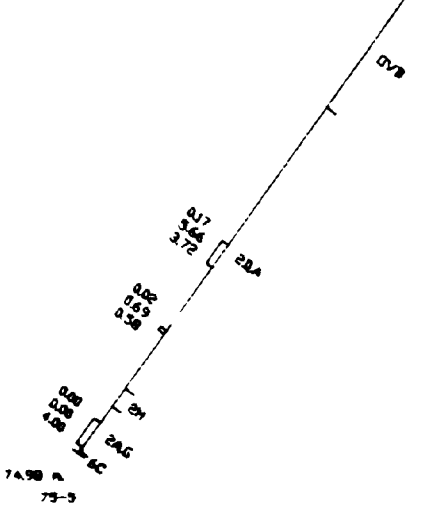




NEW TEXMONT PROPERTY

GOWEST RESOURCES' PROPERTY

1:000N



-100

-100

-200

-200

-300

-300

-400

-400

-500

-500

-600

-600

-700

-700

- GEOLOGICAL LEGEND**
- 6 AMPIC TO ULTRAMAFIC ROCKS
    - 6a Gabbro
    - 6b Pyroxenite, Quartz
    - 6c Calc-Silicate Rock
  - 5 METASOMATISM
    - 5a Chlorite, Anhydrite
    - 5b Chlorite, Anhydrite, Siderite, Fluorite
    - 5c Chlorite, Anhydrite, Siderite, Fluorite, Pyrite
    - 5d Chlorite, Anhydrite, Siderite, Fluorite, Pyrite, Magnetite
    - 5e Chlorite, Anhydrite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite
    - 5f Chlorite, Anhydrite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite
    - 5g Chlorite, Anhydrite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena
    - 5h Chlorite, Anhydrite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite
    - 5i Chlorite, Anhydrite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite, Magnetite
  - 4 METAVOLCANICS
    - 4a Basaltic Andesite
    - 4b Basaltic Andesite, Siderite
    - 4c Basaltic Andesite, Siderite, Fluorite
    - 4d Basaltic Andesite, Siderite, Fluorite, Pyrite
    - 4e Basaltic Andesite, Siderite, Fluorite, Pyrite, Magnetite
    - 4f Basaltic Andesite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite
    - 4g Basaltic Andesite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite
    - 4h Basaltic Andesite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena
    - 4i Basaltic Andesite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite
    - 4j Basaltic Andesite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite, Magnetite
  - 3 FELSIC METAVOLCANICS
    - 3a Granite
    - 3b Granite, Siderite
    - 3c Granite, Siderite, Fluorite
    - 3d Granite, Siderite, Fluorite, Pyrite
    - 3e Granite, Siderite, Fluorite, Pyrite, Magnetite
    - 3f Granite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite
    - 3g Granite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite
    - 3h Granite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena
    - 3i Granite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite
    - 3j Granite, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite, Magnetite
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a Basalt
    - 2b Basalt, Siderite
    - 2c Basalt, Siderite, Fluorite
    - 2d Basalt, Siderite, Fluorite, Pyrite
    - 2e Basalt, Siderite, Fluorite, Pyrite, Magnetite
    - 2f Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite
    - 2g Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite
    - 2h Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena
    - 2i Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite
    - 2j Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite, Magnetite
  - 1 AMPIC METAVOLCANICS
    - 1a Basalt
    - 1b Basalt, Siderite
    - 1c Basalt, Siderite, Fluorite
    - 1d Basalt, Siderite, Fluorite, Pyrite
    - 1e Basalt, Siderite, Fluorite, Pyrite, Magnetite
    - 1f Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite
    - 1g Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite
    - 1h Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena
    - 1i Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite
    - 1j Basalt, Siderite, Fluorite, Pyrite, Magnetite, Pyrrhotite, Sphalerite, Galena, Pyrite, Magnetite

SYMBOLS

As - FeS<sub>2</sub>

Py - Pyrite

Fl - Fluorite

M - Magnetite

P - Pyrrhotite

S - Sphalerite

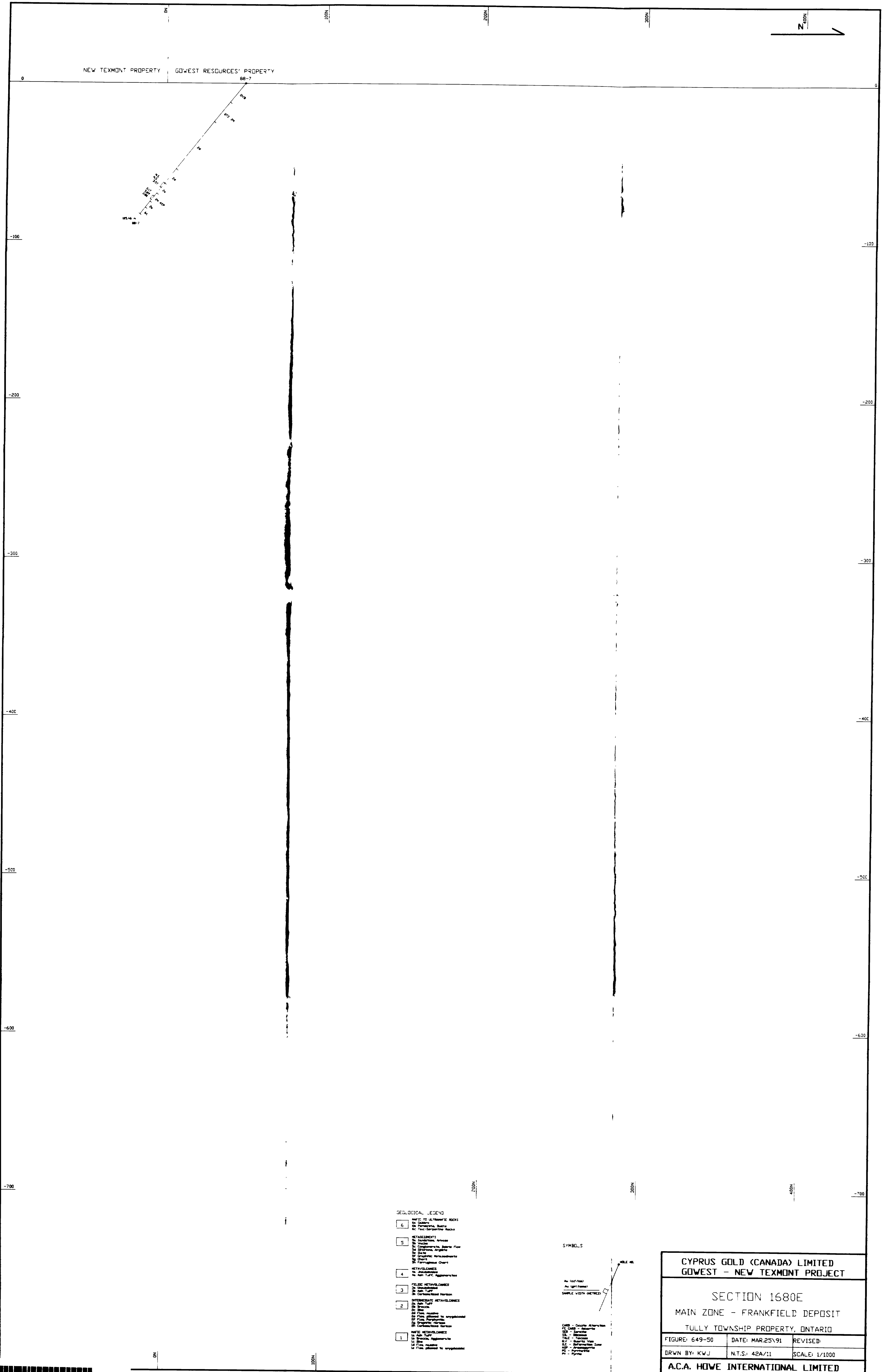
G - Galena

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1620E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-48	DATE: MAR.25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		





NEW TEXMONT PROPERTY      GOWEST RESOURCES' PROPERTY



- GEOLOGICAL LEGEND**
- 6** MAFIC TO ULTRAMAFIC ROCKS
    - 6a Basalt
    - 6b Amphibole Basalt
    - 6c Talc-Serpentine Rocks
  - 5** METASOMATITES
    - 5a Chlorite, Arsenic
    - 5b Amphibole, Serpentine, Fluorite
    - 5c Serpentine, Amphibole
    - 5d Amphibole, Serpentine
    - 5e Pyrite
    - 5f Pyrite, Magnetite
    - 5g Pyrite, Magnetite, Pyrrhotite
  - 4** METAVOLCANICS
    - 4a Andesite
    - 4b And. Tuff, Agglomerate
  - 3** FELSIC METAVOLCANICS
    - 3a Granite
    - 3b And. Tuff
    - 3c Intrusional Horizon
  - 2** INTERMEDIATE METAVOLCANICS
    - 2a And. Tuff
    - 2b Basalt
    - 2c Basalt
    - 2d Basalt, Magnetite, Pyrrhotite
    - 2e Basalt, Magnetite
    - 2f Diagenetic Horizon
  - 1** MAFIC METAVOLCANICS
    - 1a Basalt, Agglomerate
    - 1b Basalt
    - 1c Basalt
    - 1d Basalt, Magnetite, Pyrrhotite

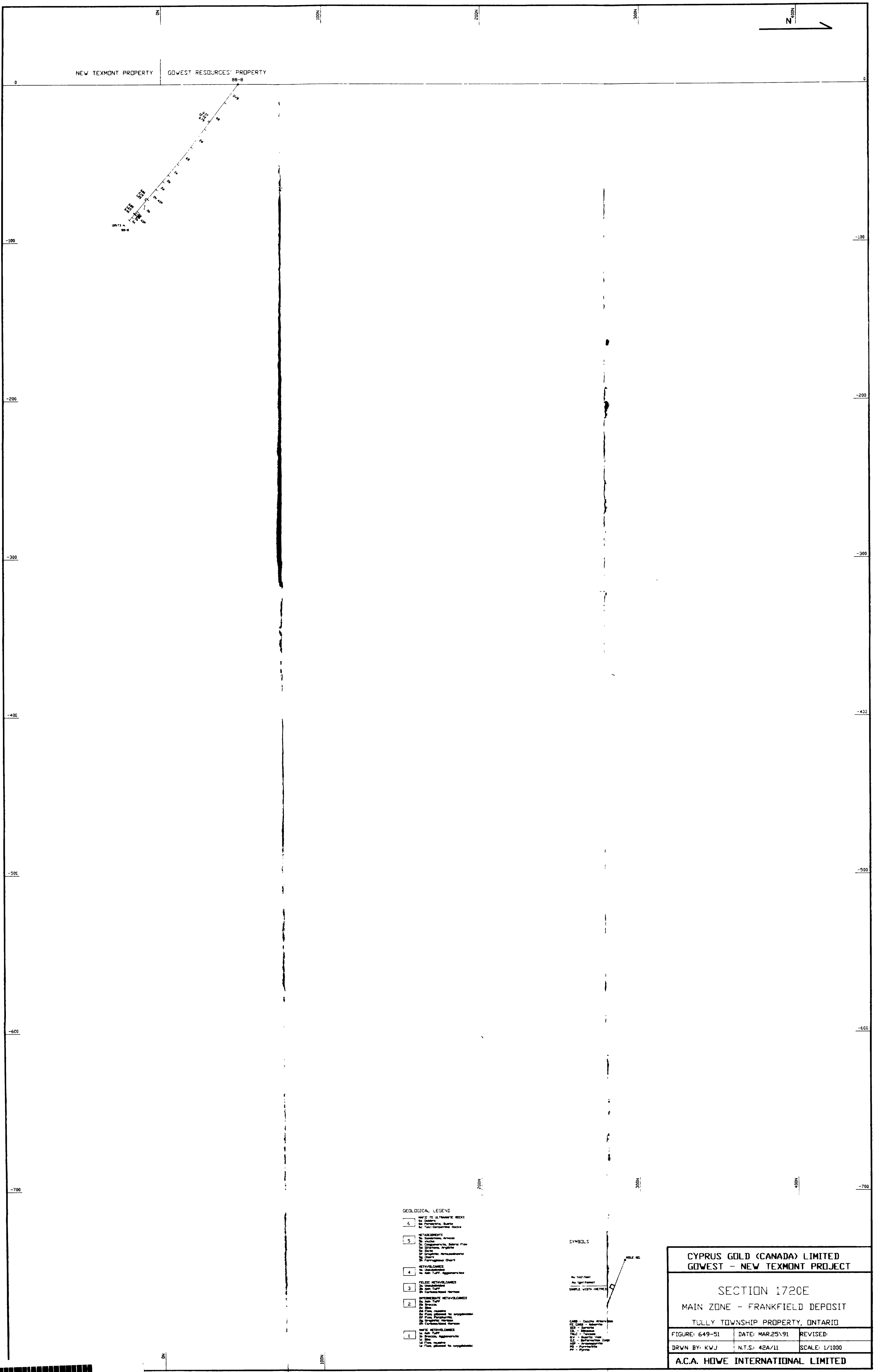
**SYMBOLS**

- As (outcrop)
- As (sp. trace)
- SAMPLE WITH DETACHED

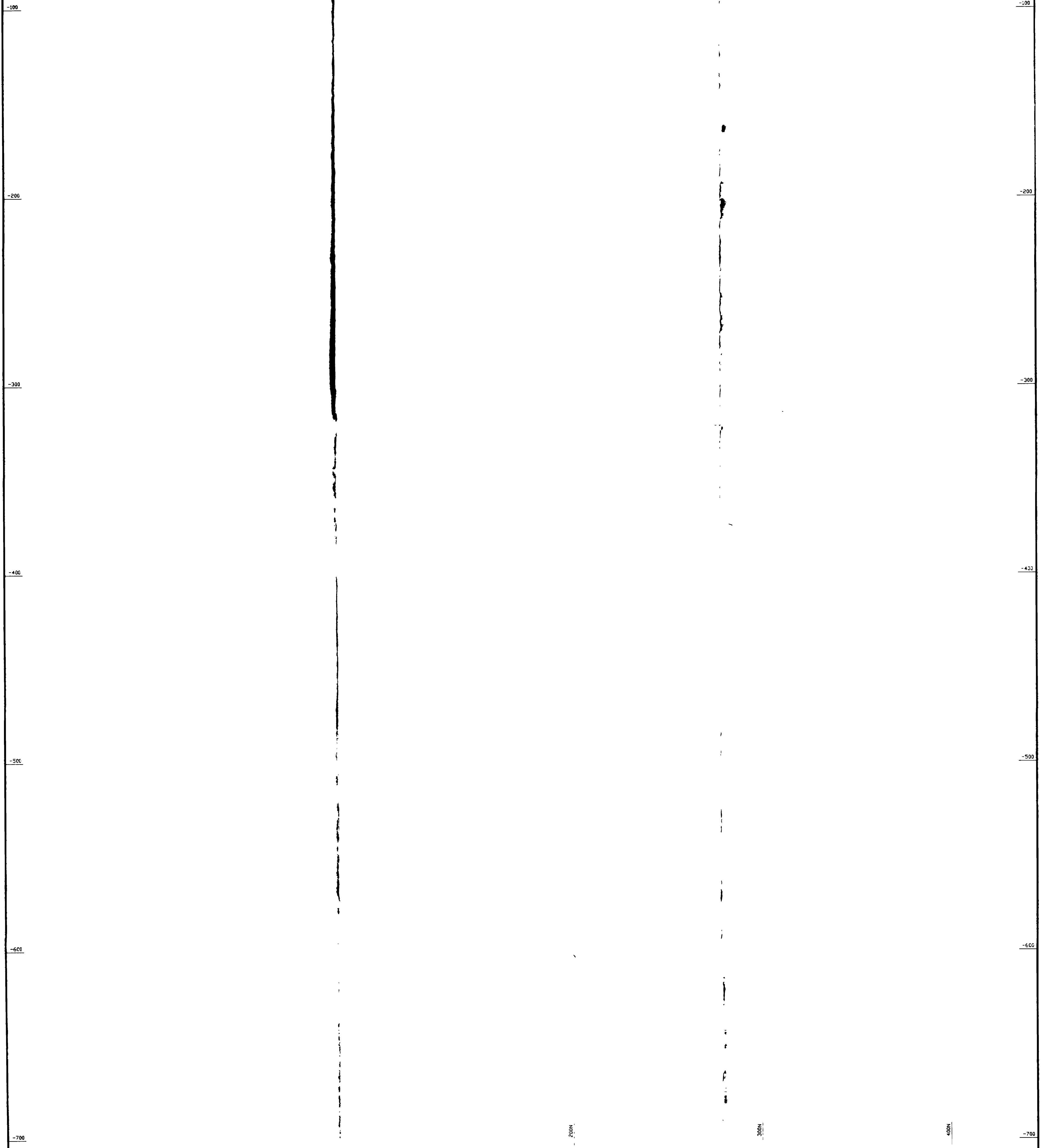
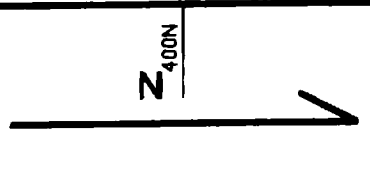
CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1680E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-50	DATE: MAR.25\91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		







NEW TEXMONT PROPERTY      GOWEST RESOURCES' PROPERTY

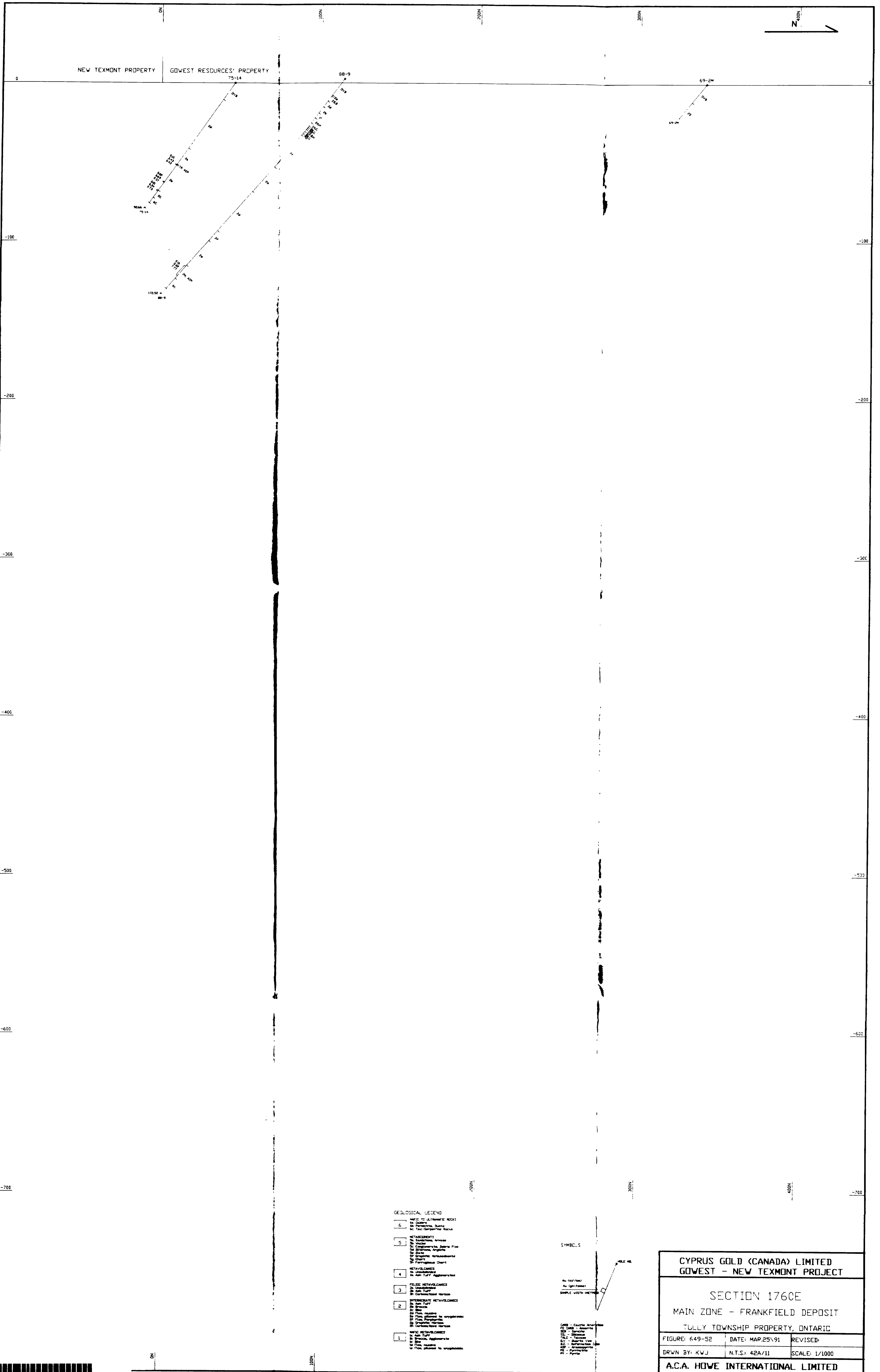


- GEOLOGICAL LEGEND**
- 6 METACALCAREOUS SHALES
  - 5 METASANDSTONES
  - 4 METAVOLCANICS
  - 3 FELSIC METAVOLCANICS
  - 2 INTERMEDIATE METAVOLCANICS
  - 1 BASIC METAVOLCANICS

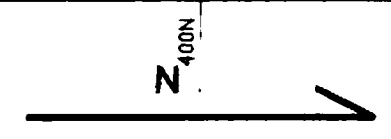
- SYMBOLS**
- ▲ Core
  - Sample
  - Sample
  - ◇ Sample
  - △ Sample
  - ▽ Sample
  - ◇ Sample
  - △ Sample
  - ▽ Sample
  - ◇ Sample
  - △ Sample
  - ▽ Sample

<b>CYPRUS GOLD (CANADA) LIMITED</b> <b>GOWEST - NEW TEXMONT PROJECT</b>		
<b>SECTION 1720E</b> <b>MAIN ZONE - FRANKFIELD DEPOSIT</b> <b>TULLY TOWNSHIP PROPERTY, ONTARIO</b>		
FIGURE: 649-51	DATE: MAR.25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
<b>A.C.A. HOWE INTERNATIONAL LIMITED</b>		





NEW TEXMONT PROPERTY      GOWEST RESOURCES PROPERTY



0  
-100  
-200  
-300  
-400  
-500  
-600  
-700

0  
-100  
-200  
-300  
-400  
-500  
-600  
-700

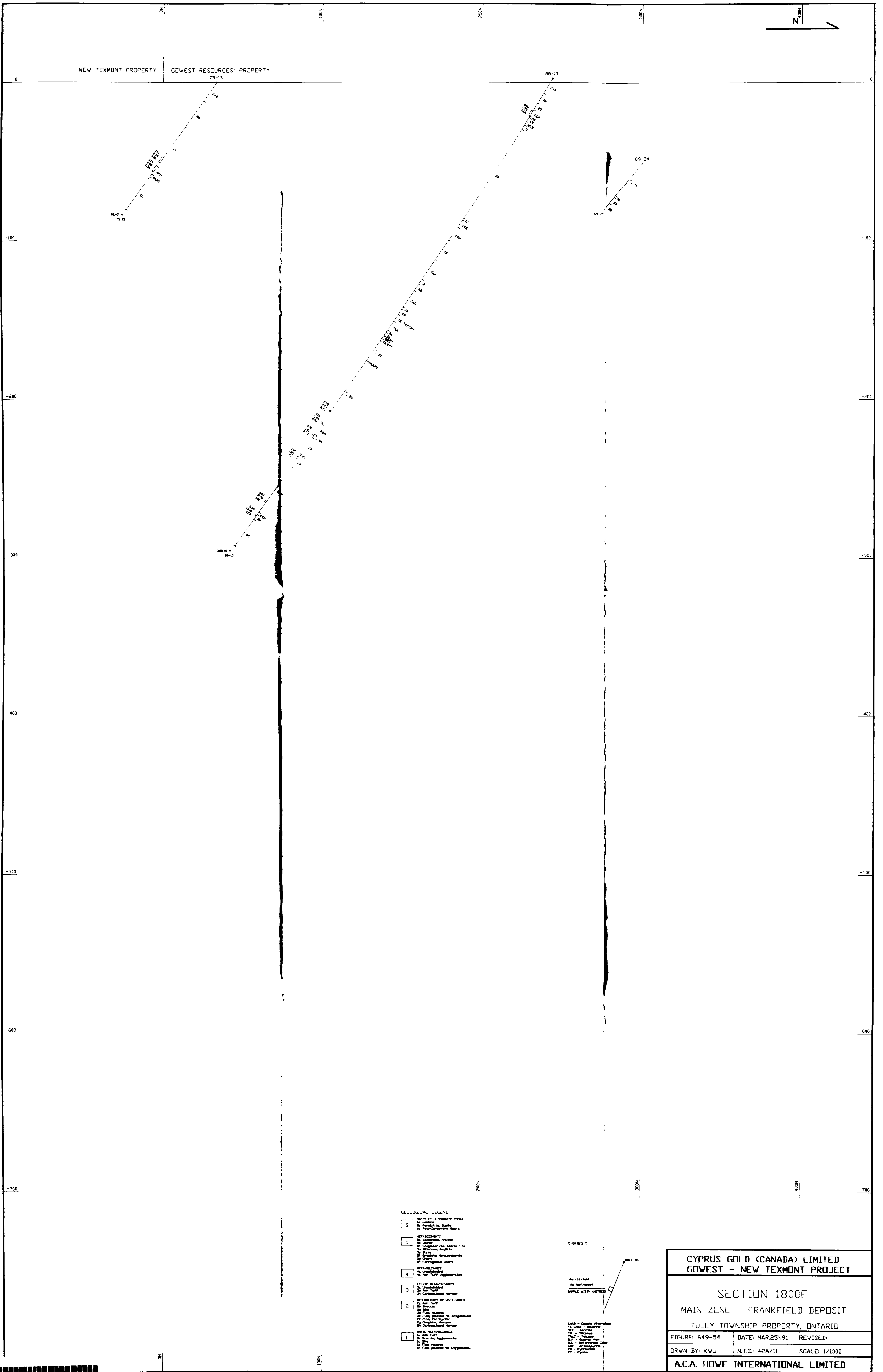
- GEOLOGICAL LEGEND**
- 6 METACRYSTALLINE GRANITE
  - 5 METASANDSTONE
  - 4 METAVOLCANICS
  - 3 FELSIC METAVOLCANICS
  - 2 INTERMEDIATE METAVOLCANICS
  - 1 BASIC METAVOLCANICS

- SYMBOLS**
- ▲ Core Area
  - Core Area
  - Core Area
  - △ Core Area
  - ▽ Core Area
  - ◇ Core Area
  - Core Area
  - Core Area
  - △ Core Area
  - ▽ Core Area
  - ◇ Core Area

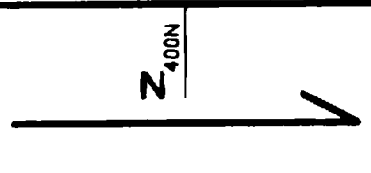
CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1760E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-52	DATE: MAR. 25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		







NEW TEXMONT PROPERTY    GOWEST RESOURCES PROPERTY



- GEOLOGICAL LEGEND**
- 6 **PAVIC PD LITHANIC ROCKS**
    - 6a Basalt
    - 6b Peridotite, Basalt
    - 6c Thin-Sheeted Basalt
  - 5 **METASOMATITIS**
    - 5a Carbonaceous, Arsenic
    - 5b Mica
    - 5c Chlorite, Illite, Sericite, Fluorite
    - 5d Chlorite, Illite, Sericite
    - 5e Chlorite, Illite, Sericite, Fluorite
    - 5f Ferruginous Chert
  - 4 **METAVOLCANICS**
    - 4a Andesite
    - 4b Basalt
    - 4c Thin-Tuff, Agglomerate
  - 3 **PLATEAU METAVOLCANICS**
    - 3a Basalt
    - 3b Carbonaceous Basalt
  - 2 **INTERMEDIATE METAVOLCANICS**
    - 2a Basalt
    - 2b Basalt
    - 2c Basalt
    - 2d Basalt
    - 2e Basalt
    - 2f Basalt
    - 2g Basalt
    - 2h Basalt
    - 2i Basalt
    - 2j Basalt
    - 2k Basalt
    - 2l Basalt
    - 2m Basalt
    - 2n Basalt
    - 2o Basalt
    - 2p Basalt
    - 2q Basalt
    - 2r Basalt
    - 2s Basalt
    - 2t Basalt
    - 2u Basalt
    - 2v Basalt
    - 2w Basalt
    - 2x Basalt
    - 2y Basalt
    - 2z Basalt
  - 1 **PAVIC METAVOLCANICS**
    - 1a Basalt
    - 1b Basalt
    - 1c Basalt
    - 1d Basalt
    - 1e Basalt
    - 1f Basalt
    - 1g Basalt
    - 1h Basalt
    - 1i Basalt
    - 1j Basalt
    - 1k Basalt
    - 1l Basalt
    - 1m Basalt
    - 1n Basalt
    - 1o Basalt
    - 1p Basalt
    - 1q Basalt
    - 1r Basalt
    - 1s Basalt
    - 1t Basalt
    - 1u Basalt
    - 1v Basalt
    - 1w Basalt
    - 1x Basalt
    - 1y Basalt
    - 1z Basalt

- SYMBOLS**
- As (2x100)
  - As (1x100)
  - SAMPLE WITH QUANTITY

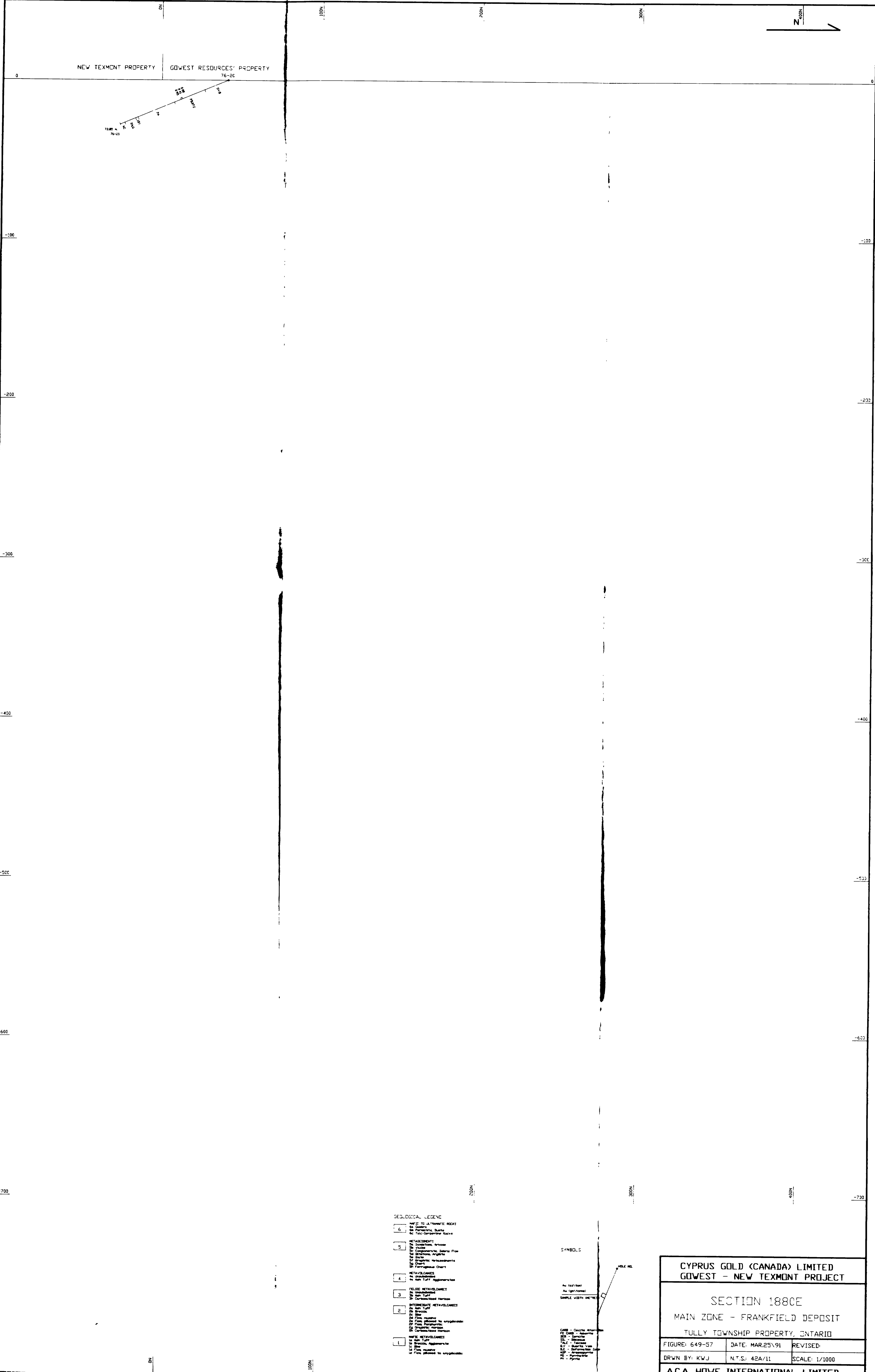
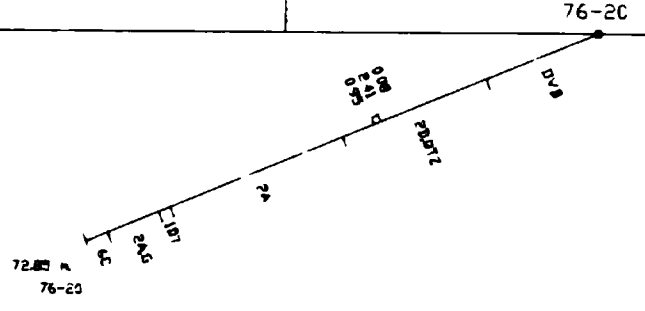
<b>CYPRUS GOLD (CANADA) LIMITED</b>		
<b>GOWEST - NEW TEXMONT PROJECT</b>		
SECTION 1800E		
MAIN ZONE - FRANKFIELD DEPOSIT		
TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-54	DATE: MAR.25.91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
<b>A.C.A. HOWE INTERNATIONAL LIMITED</b>		







NEW TEXMONT PROPERTY      GOWEST RESOURCES' PROPERTY



- GEOLOGICAL LEGEND**
- 6 **UNIT 18 - LAKEWATER REEF**
    - 6a Gabbro
    - 6b Peridotite, Basalt
    - 6c Talc-Serpentine Rocks
  - 5 **METASOMATITES**
    - 5a Amphibole schists
    - 5b Amphibole
    - 5c Amphibole, Garnet, Plagioclase
    - 5d Amphibole, Garnet
    - 5e Amphibole, Garnet, Pyroxene
    - 5f Amphibole, Garnet, Pyroxene, Plagioclase
    - 5g Amphibole, Garnet, Pyroxene, Plagioclase, Quartz
    - 5h Amphibole, Garnet, Pyroxene, Plagioclase, Quartz, Zircon
  - 4 **METAVOLCANICS**
    - 4a Amphibolites
    - 4b Amph. Tuff / Agglomerates
  - 3 **FELSIC METAVOLCANICS**
    - 3a Amphibolites
    - 3b Amph. Tuff
    - 3c Carbonaceous Horizon
  - 2 **INTERMEDIATE METAVOLCANICS**
    - 2a Amph. Tuff
    - 2b Amph. Tuff
    - 2c Amph. Tuff
    - 2d Amph. Tuff
    - 2e Amph. Tuff
    - 2f Amph. Tuff
    - 2g Amph. Tuff
    - 2h Amph. Tuff
    - 2i Amph. Tuff
    - 2j Amph. Tuff
    - 2k Amph. Tuff
    - 2l Amph. Tuff
    - 2m Amph. Tuff
    - 2n Amph. Tuff
    - 2o Amph. Tuff
    - 2p Amph. Tuff
    - 2q Amph. Tuff
    - 2r Amph. Tuff
    - 2s Amph. Tuff
    - 2t Amph. Tuff
    - 2u Amph. Tuff
    - 2v Amph. Tuff
    - 2w Amph. Tuff
    - 2x Amph. Tuff
    - 2y Amph. Tuff
    - 2z Amph. Tuff
  - 1 **MAFIC METAVOLCANICS**
    - 1a Amph. Tuff
    - 1b Amph. Tuff
    - 1c Amph. Tuff
    - 1d Amph. Tuff
    - 1e Amph. Tuff
    - 1f Amph. Tuff
    - 1g Amph. Tuff
    - 1h Amph. Tuff
    - 1i Amph. Tuff
    - 1j Amph. Tuff
    - 1k Amph. Tuff
    - 1l Amph. Tuff
    - 1m Amph. Tuff
    - 1n Amph. Tuff
    - 1o Amph. Tuff
    - 1p Amph. Tuff
    - 1q Amph. Tuff
    - 1r Amph. Tuff
    - 1s Amph. Tuff
    - 1t Amph. Tuff
    - 1u Amph. Tuff
    - 1v Amph. Tuff
    - 1w Amph. Tuff
    - 1x Amph. Tuff
    - 1y Amph. Tuff
    - 1z Amph. Tuff

- SYMBOLS**
- As (vertical)
  - As (horizontal)
  - SAMPLE WITH DICTIONARY

<b>CYPRUS GOLD (CANADA) LIMITED</b>		
<b>GOWEST - NEW TEXMONT PROJECT</b>		
SECTION 1880E		
MAIN ZONE - FRANKFIELD DEPOSIT		
TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-57	DATE: MAR.25.91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
<b>A.C.A. HOWE INTERNATIONAL LIMITED</b>		



NEW TEXMONT PROPERTY

GOWEST RESOURCES' PROPERTY

2  
100M

-100

-100

-200

-200

-300

-300

-400

-400

-500

-500

-600

-600

-700

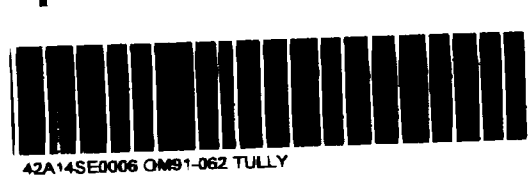
-700

69-14  
100M  
100M

- GEOLOGICAL LEGEND**
- 6 UNCLASSIFIED ULTRAMAFIC ROCKS
    - 6A Olivine
    - 6B Pyroxene, Biotite
    - 6C Talc-Serpentine Rocks
  - 5 METASILTSTONE
    - 5A Sandstone, Arkose
    - 5B Siltstone
    - 5C Shale, Silty
    - 5D Shale, Argillite
    - 5E Organic Metasediments
    - 5F Chert
    - 5G Pyroclastic Chert
  - 4 METAVOLCANICS
    - 4A Andesite
    - 4B Ash-Tuff, Agglomerates
  - 3 FELSIC METAVOLCANICS
    - 3A Granite
    - 3B Ash-Tuff
    - 3C Carbonate Hosted Horizon
  - 2 INTERMEDIATE METAVOLCANICS
    - 2A Basalt
    - 2B Basalt
    - 2C Basalt
    - 2D Basalt, altered to argillite
    - 2E Diagenetic
    - 2F Chert-hosted Horizon
  - 1 MAFIC METAVOLCANICS
    - 1A Basalt
    - 1B Basalt, Agglomerate
    - 1C Basalt
    - 1D Basalt
    - 1E Basalt, altered to argillite

- SYMBOLS**
- As - Ash-Tuff
  - Ag - Agglomerate
  - St - Sandstone
  - Ss - Siltstone
  - Sh - Shale
  - Sl - Silty
  - Ar - Arkose
  - Ch - Chert
  - Py - Pyroclastic
  - Gr - Granite

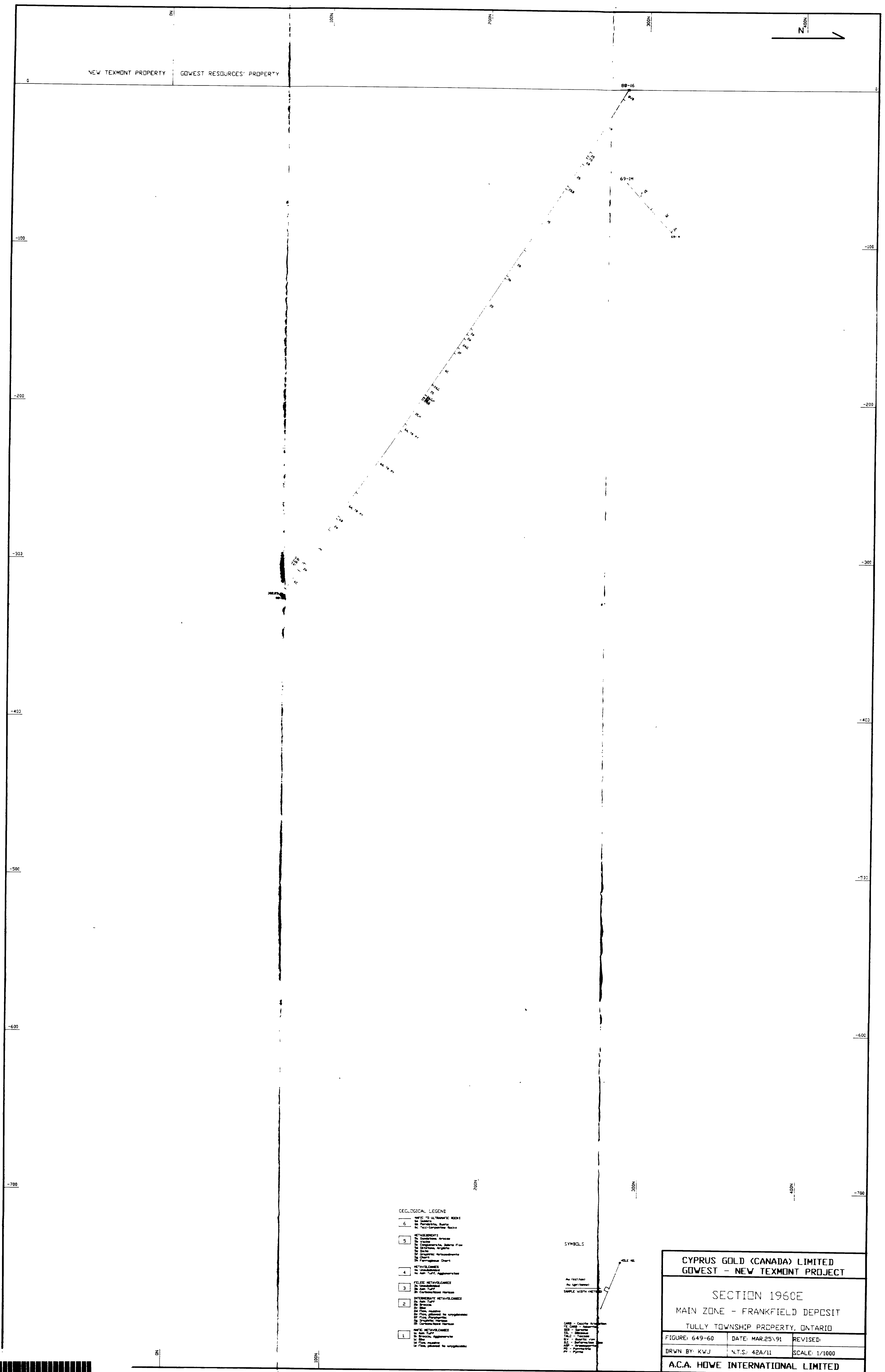
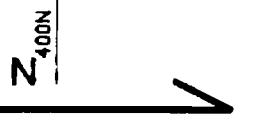
CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1920E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-5B	DATE: MAR.25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		







NEW TEXMONT PROPERTY    GOWEST RESOURCES' PROPERTY



- GEOLOGICAL LEGEND**
- 6 METE. TO AL. TYPIC ROCKS
    - 6a. Quartzite, Quartz
    - 6b. Calc-Silicate Rock
  - 5 METASANDSTONES
    - 5a. Sandstone, Arkose
    - 5b. Conglomerate, Siliceous Flint
    - 5c. Shale, Argillite
    - 5d. Shale, Micaceous
    - 5e. Shale, Carbonaceous
    - 5f. Shale, Ferruginous
  - 4 METAVOLCANICS
    - 4a. Volcanics
    - 4b. Ash Tuff, Agglomerates
  - 3 FELIC METAVOLCANICS
    - 3a. Andesite
    - 3b. Ash Tuff
    - 3c. Diabase, Gabbro
  - 2 INTERMEDIATE METAVOLCANICS
    - 2a. And. Tuff
    - 2b. Basalt
    - 2c. Basalt, andesite
    - 2d. Basalt, andesite, rhyolite
    - 2e. Basalt, andesite, rhyolite, dacite
    - 2f. Basalt, andesite, rhyolite, dacite, gabbro
  - 1 MAFIC METAVOLCANICS
    - 1a. Basalt, Agglomerate
    - 1b. Basalt, Agglomerate, rhyolite
    - 1c. Basalt, Agglomerate, rhyolite, dacite
    - 1d. Basalt, Agglomerate, rhyolite, dacite, gabbro

**SYMBOLS**

- Air (contour)
- Air (lightness)
- SAMPLE WIDTH (MET)
- Core - Coarse Aggregate
- Core - Medium Aggregate
- Core - Fine Aggregate
- Core - Sand
- Core - Silt
- Core - Clay
- Core - Organic
- Core - Bituminous
- Core - Asphalt
- Core - Concrete
- Core - Brick
- Core - Stone
- Core - Mortar
- Core - Plaster
- Core - Limestone
- Core - Granite
- Core - Marble
- Core - Slate
- Core - Shale
- Core - Sandstone
- Core - Conglomerate
- Core - Gneiss
- Core - Schist
- Core - Quartzite
- Core - Amphibolite
- Core - Serpentine
- Core - Soapstone
- Core - Talc
- Core - Asbestos
- Core - Vermiculite
- Core - Chlorite
- Core - Illite
- Core - Montmorillonite
- Core - Kaolinite
- Core - Pyrophyllite
- Core - Sphalerite
- Core - Galena
- Core - Lead
- Core - Zinc
- Core - Copper
- Core - Nickel
- Core - Cobalt
- Core - Manganese
- Core - Iron
- Core - Titanium
- Core - Vanadium
- Core - Chromium
- Core - Molybdenum
- Core - Selenium
- Core - Tellurium
- Core - Bismuth
- Core - Antimony
- Core - Arsenic
- Core - Mercury
- Core - Silver
- Core - Gold
- Core - Platinum
- Core - Palladium
- Core - Rhodium
- Core - Iridium
- Core - Osmium
- Core - Rhenium
- Core - Ruthenium
- Core - Niobium
- Core - Tantalum
- Core - Vanadium
- Core - Zirconium
- Core - Hafnium
- Core - Yttrium
- Core - Scandium
- Core - Lanthanum
- Core - Cerium
- Core - Praseodymium
- Core - Neodymium
- Core - Promethium
- Core - Samarium
- Core - Europium
- Core - Gadolinium
- Core - Terbium
- Core - Dysprosium
- Core - Holmium
- Core - Erbium
- Core - Thulium
- Core - Ytterbium
- Core - Lutetium
- Core - Barium
- Core - Strontium
- Core - Calcium
- Core - Magnesium
- Core - Beryllium
- Core - Aluminum
- Core - Silicon
- Core - Germanium
- Core - Tin
- Core - Lead
- Core - Bismuth
- Core - Antimony
- Core - Arsenic
- Core - Selenium
- Core - Tellurium
- Core - Polonium
- Core - Astatine
- Core - Francium
- Core - Radium
- Core - Actinium
- Core - Thorium
- Core - Protactinium
- Core - Uranium
- Core - Neptunium
- Core - Plutonium
- Core - Americium
- Core - Curium
- Core - Berkelium
- Core - Californium
- Core - Einsteinium
- Core - Fermium
- Core - Mendelevium
- Core - Nobelium
- Core - Lawrencium
- Core - Rutherfordium
- Core - Dubnium
- Core - Seaborgium
- Core - Bohrium
- Core - Hassium
- Core - Meitnerium
- Core - Darmstadtium
- Core - Roentgenium
- Core - Copernicium
- Core - Nihonium
- Core - Flerovium
- Core - Tennessine
- Core - Oganesson

CYPRUS GOLD (CANADA) LIMITED GOWEST - NEW TEXMONT PROJECT		
SECTION 1960E MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-60	DATE: MAR.25/91	REVISED:
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		



NEW TEXMONT PROPERTY

GOWEST RESOURCES' PROPERTY

400N

69-1M

-100

-100

-200

-200

-300

-300

-400

-400

-500

-500

-600

-600

-700

-700

GEOLOGICAL LEGEND

- 6 AMPG TO ULTRAMAFIC ROCKS
  - 61 Basalt
  - 62 Basaltic Suite
  - 63 Basaltic Breccia
- 5 METASEDIMENT
  - 51 Sedimentary Breccia
  - 52 Sandstone, Dolomite, Fluvial
  - 53 Sandstone, Argillite
  - 54 Argillite Metasediments
  - 55 Shale
  - 56 Ferruginous Chert
- 4 METAVOLCANICS
  - 41 Andesite
  - 42 Basalt
  - 43 Basaltic Tuff
- 3 FELSIC METAVOLCANICS
  - 31 Andesite
  - 32 Diabase
  - 33 Diorite
  - 34 Diorite, Amphibolite, Amphibolite
  - 35 Diorite, Amphibolite
  - 36 Amphibolite
  - 37 Amphibolite
- 2 INTERMEDIATE METAVOLCANICS
  - 21 Basalt
  - 22 Basalt
  - 23 Basalt
  - 24 Basalt, altered to amphibolite
  - 25 Basalt, altered to amphibolite
  - 26 Basalt, altered to amphibolite
  - 27 Basalt, altered to amphibolite
  - 28 Basalt, altered to amphibolite
- 1 AMPG METAVOLCANICS
  - 11 Basalt, Amphibolite
  - 12 Basalt
  - 13 Basalt
  - 14 Basalt, altered to amphibolite

SYMBOLS

As (grey)

As (light grey)

SAMPLE WITH NETS

69-1M - Sample Location

CYPRUS GOLD (CANADA) LIMITED  
GOWEST - NEW TEXMONT PROJECT

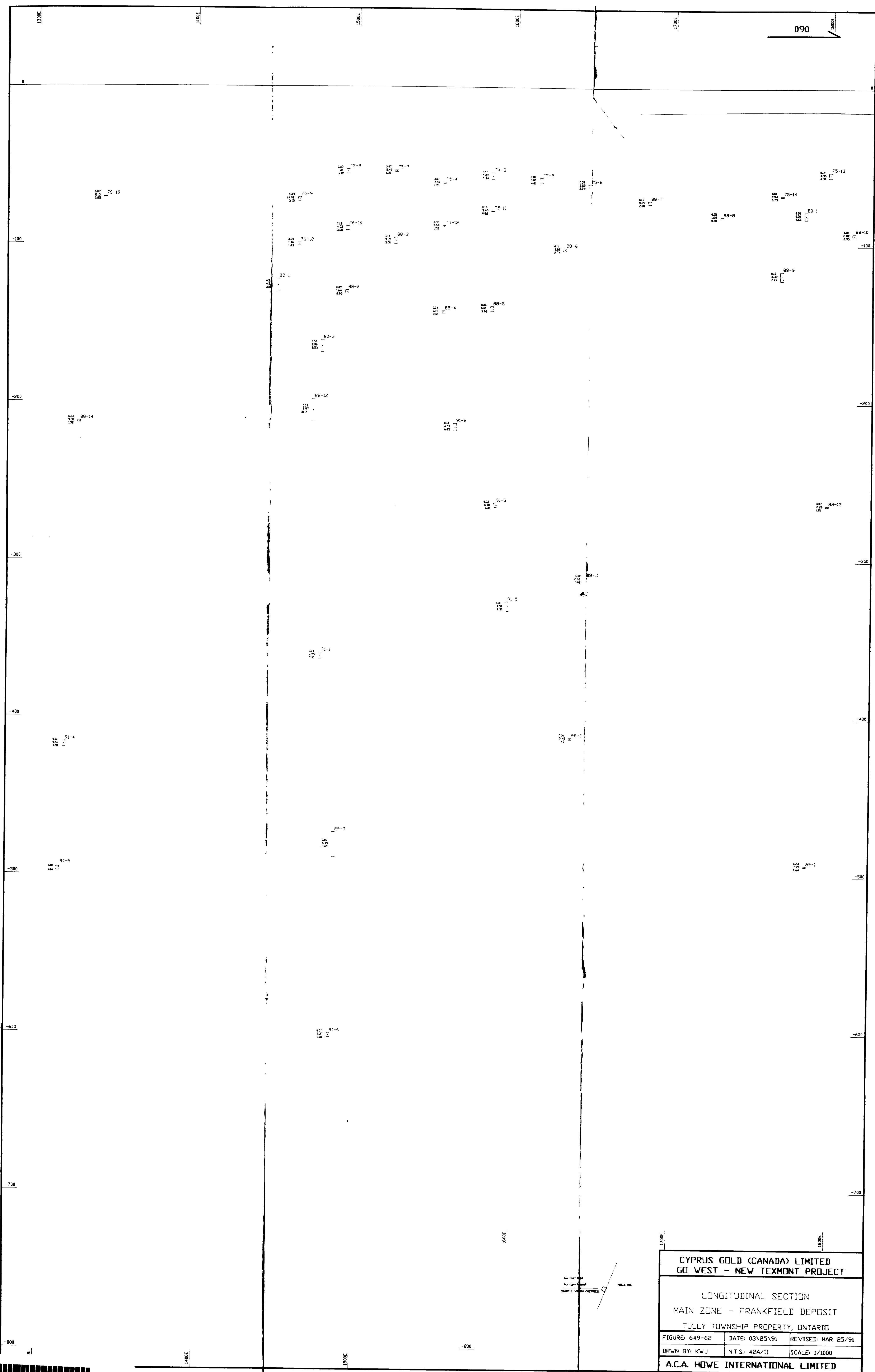
SECTION 1980E  
MAIN ZONE - FRANKFIELD DEPOSIT  
TULLY TOWNSHIP PROPERTY, ONTARIO

FIGURE 649-61 DATE: MAR.25/91 REVISED

DRWN BY: KWJ N.T.S.: 42A/11 SCALE: 1/1000

A.C.A. HOWE INTERNATIONAL LIMITED

090



CYPRUS GOLD (CANADA) LIMITED GO WEST - NEW TEXMONT PROJECT		
LONGITUDINAL SECTION MAIN ZONE - FRANKFIELD DEPOSIT TULLY TOWNSHIP PROPERTY, ONTARIO		
FIGURE: 649-62	DATE: 03/25/91	REVISED: MAR 25/91
DRWN BY: KWJ	N.T.S.: 42A/11	SCALE: 1/1000
A.C.A. HOWE INTERNATIONAL LIMITED		

