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PROGRESS REPORT

JUNE - SEPTEMBER 30, 1987

TYRANITE PROPERTY

KNIGHT & TYRRELL TOWNSHIPS

ONTARIO

FOR

GUNNAR GOLD / MILL CITY INC.

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Norwin Resources Limited October 23, 1987

DM87-6-L-238

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1. INTRODUCTION

Tyranite Gold property is located in Knight and The Tyrrell townships in the District of Temiskaming approximately 12 miles northwest of Gowganda and 100 miles north of Sudbury, The property consists of the former Tyranite Gold Mine Ontario. which produced 223,810 tons of ore with a recovered grade of 0.147 oz of gold/ton between 1939 and 1942. The property has been held by Dalhousie Oil Company Ltd. for a number of years and it was recently optioned to Tyranex Gold Inc. In turn, Tyranex Gold Inc. has entered into an agreement with Gunnar Gold/Mill City Inc. whereby the latter two (2) companies can earn a 50% interest in the Tyranite property.

An exploration programme was started on the property in June of 1987 with the objective of outlining sufficient mineralization of an economic grade that would permit the property to again be placed in production. The following report outlines work completed on the Tyranite claim group to September 30, 1987.

2. PROPERTY LOCATION AND ACCESS

The property consists of 12 leased and 1 staked, contiguous claims as shown on the plans of Tyrrell and Knight townships issued by the Surveys and Mapping Branch of the Ontario Ministry of Natural Resources (Figure 2). The claims are as follows:

<u>Claim Number</u>	Number	of	<u>Claims</u>
Patented Claims			
GG 5800-05 inclusive		6	
GG 5815-17 inclusive		3	
GG 6649-51 inclusive		_3	
	Sub-Total	12	
Staked Claim			
L 511273		_1	
	Total	13	



The property is located on the common boundary between Knight and Tyrrell townships, District of Timiskaming, Ontario at 47° 40 N latitude, 81° 00 W longitude; approximately 12 miles northwest of the town of Gowganda, Ontario. Access to the property is via a gravel bush road for 1 1/2 miles north from highway 560. This bush road leaves highway 560 approximately 12 miles west of Gowganda.

3. EXPLORATION PROGRAMME: 1987

3.1 WORK DONE

The exploration programme commenced with line-cutting on the property with an east-west grid being established with lines at 200 foot spacing (24.25 line miles). The grid was subsequently surveyed with a magnetometer (22.12 miles), a VLF-EM survey (22.12 miles), and an IP survey on the eastern half of the property east of tie-line 26+00W. (Figure 2).

The claim boundary has been redefined and flagged for the total perimeter of the property.

The property has been geologically mapped.

Eight hundred and fifty-nine (859) B-Horizon soil samples were collected from the property and have been analyzed for gold, copper and arsenic.

A power stripping programme commenced on the Duggan Zone in late August and continued at various points on the property through September.

A programme of diamond drilling was initiated on the claim group in mid-August and to the end of September, 1987, twenty-two (22) drill holes for a total of 8,048 feet have been completed on the property. Table 1.

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<u>Table 1</u> <u>Diamond Drill Holes - Tyranite Property</u> <u>August - September 30, 1987</u>

HOLE	LE LOCATION		DIP	LENGTH (FT)
	LINE	STATION		
DUGGAN 70	NE			
2001-01	12N	AQW	-509W	200
2001-02	1 2 11	49 1	-50-W	300
2001-02	1.111	49W	-500W	300
2001-03	13N	49W	-50°W	300
2001-04	14N	49W	-50°W	354
2001-05	15N	49W	-50°W	300
2001-06	16N	49W	-50°W	300
2001-07	14+50N	49W	-50°W	300
2001-08	13+50N	49W	-50°W	303
2001-09	12+50N	49W	-50°W	300
2001-10	11+50N	49W	-50°W	300
2001-11	10+50N	49W	-50W	300
NORTH LEN	<u>15</u>			
2001-12	3N	2+75W	~50°E	500
2001-13	2N	2+75W	-50°E	500
2001-14	1N	2+75W	-50°E	500
2001-15	0+00	2+75W	-50°E	500
2001-16	15	2+75W	-50°E	591

QUARTZ SHEAR ZONE

2001-17	0+00	-50°E	350

SOUTH PO	DD LENS
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2001-18	14S	3+50W	-50°E	350
2001-19	15S	3+50W	-50°E	350
2001-20	16S	3+50W	-50°E	350
2001-21	175	3+50W	-50°E	350
2001-22	20S	3+50W	-50°E	350
			TOTAL	8,048 ft

All of the property has been geologically mapped along the lines at 200 foot spacing and the results are plotted in Plate 1. Additional geological mapping is continuing of the stripped areas and this data will be added to the geological map upon completion of all of the mapping.

The magnetometer survey was carried out along the eastwest lines using an EDA Omni magnetometer. Readings were taken at 50 foot intervals and at 25 foot intervals when required with corrections being applied from recorded base station readings. The results are shown in Plate 2.

The VLF-EM survey was carried out along east-west lines with using Annapolis, Maryland transmitter at 17.6 KHz. The receiver was a Geonix EM16 unit with in-phase and quadrature readings being taken at 100 foot intervals or 50 foot intervals where required. The results are presented in Plate 3.

An IP survey on the eastern part of the property east of Tie-line 26+00 W was carried out by Exsics Exploration Ltd. of Timmins. A copy of the Exsics IP report is appended to this report.

A geochemical B-Horizon soil sampling programme was carried out along the east-west lines with samples being taken at 100 foot intervals where soil conditions permitted. Samples were bagged and dried and analysed by Assayers Limited, Toronto for gold, copper and arsenic. The values obtained are presented in Plates 4, 5 and 6.

A power stripping programme began on the Duggan zone with a 690 backhoe. In addition, a smaller backhoe mounted on a Bombardier tractor was used to trench some of the smaller areas on a reconnaissance basis. The Duggan Zone, the mineralized northern end of the main Tyranite structure north of the shaft area, an area of high IP resistivity just north of the Tyranite shaft, the Quartz Shear zone, and areas south of the South Pod Lens were stripped. These areas are currently being geologically mapped.

An 11,000 foot diamond drilling programme commenced in mid-August with drilling starting on the Duggan Zone. Eleven (11) holes have been drilled at 50 foot centres along the strike of the Duggan Zone to intersect the mineralization at a depth of approxiately 150 feet below surface. Five (5) holes were drilled on the North Lens along the strike of the main Tyranite structure north of the Tyranite shaft. One (1) hole was drilled to initially intersect the Quartz Shear Zone approximately 400 feet northeast of the Tyranite shaft and five (5) holes have been drilled along the strike of the South Pod Lens approximately 1,000 feet south of the Tyranite shaft. Drilling is continuing with two (2) machines; one (1) on the Duggan Zone and one (1) in the area of the South Pod Lens. The machine currently drilling on the Duggan Zone will be moved to evaluate the IP anomalies.

3.2 EXPENDITURES TO DATE

The exploration expenditures on the Tyranite property to September 30, 1987 are \$367,258. These expenditures do not include work being rehabilitation and site done on shaft anticipation head-frame erection and preparation in of dewatering.

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4. <u>RESULTS</u>

4.1 GEOLOGY, GEOPHYSICS, GEOCHEMISTRY

The results of the geological mapping, the geophysical surveys and the geochemical soil sampling are presented in the accompanying maps, Plates 1 to 6 inclusive. The geophysical and geochemical results are summarized in Figure 2 and the reader is referred to Plates 1 to 6 for the detailed information. In addition, the reader is referred to the appended Exsics Exploration Ltd. IP report for the area east of tie-line 26+00 W.

4.2 DIAMOND DRILLING RESULTS

4.2.1 DUGGAN ZONE DRILLING

Eleven (11) holes have been completed on the Duggan Zone and these holes have identified two (2) mineralized gold-bearing lenses as summarized below. (Figure 3).

<u>A Lens</u>

The A Lens was intersected in Holes 2001-01, -09 and-10. It is a north-south striking and west-dipping zone (75°) with an estimated length of 150 feet, an average true width of 5 feet and an average grade of 0.144 oz of gold/ton at approximately 100 feet below surface. The length of this lens is closed-off by holes 2001-03 to the north and 2001-02 to the south.

<u>B Lens</u>

The B Lens was intersected in Holes 2001-01, -03, -08, -09 and -10. It is also a north-south striking lens lying approximately 35 feet west of the A Lens with a westerly dip (75°), an estimated strike length of 250 feet, an average true width of 20 feet and an average grade of 0.0956 oz of gold/ton at approximately 150 feet below surface. The zone appears to be



closed off to the north by Hole 2001-04 and to the south by Hole 2001-02. It is considered that the B Lens is the Duggan Zone as defined by earlier drilling. On this basis, the A Lens represents a parallel zone lying in the footwall of the main Duggan Zone.

Intersections in Holes 2001-04, -07 and 2001-06 indicate additional mineralization northwest of zones A and B but there is insufficent data to outline actual zones of mineralization at this time. Further work after freeze-up in this area will assist in further defining this situation.

Preliminary drill logs and cross sections showing all of the holes drilled in the Duggan Zone are appended to this report.

	<u>Duggan Z</u>	one Drill (Results - Tyranite	Property
		<u>August - 1</u>	<u>September 30, 1987</u>	
HOLE	<u>FROM (ft)</u>	<u>TO (ft)</u>	<u>CORE LENGTH (ft)</u>	<u>ASSAY (oz/t Au)</u>
2001-01	120	130	10	0.149
	including			
	122.5	127.5	5	0.243
	182	215	33	0.044
2001-02	no sig	nificant i	ntersections	
2001-03	150	159	9	0.053
	170	210	40	0.068
2001-04	287	306	19	0.05
2001-05	no res	ults availa	able as yet.	
2001-06	259	267	8	0.190
2001-07	155	159	4	0.297
2001-08	132.3	134	1.7	0.060
	147	195	48	0.087
	includ	ing		
	147	150.5	· 3.5	0.165
	165	168	3.0	0.157
	177	180	3.0	0.165

<u>Table 2</u>

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	189	192	3.0	0.146
	213	285	72	0.068
	includir	ng		
	213	216	3.0	0.177
	240	245	5.0	0.118
	270	275	5.0	0.156
2001-09	116	129	13	0.05
	180	256	76	0.097
	includir	ng		
	180	195	15	0.27
	200	206	6	0.117
	212	232.5	20.5	0.086
	244	256	12	0.101
2001-10	145.0	154.2	9.2	0.271
	229.5	240.0	10.5	3.000
	this ind	cludes 3.6 ft	at 8.62 oz/ton	
	when th	is assay is cu	ut to 1 oz/ton th	ne reuslts is
	229.5	240.0	10.5	0.392
2001-11	no sign	ificant inters	sections	

4.2.2 NORTH LENS DRILLING

Five (5) holes were drilled to intersect the North Lens and its northern extension north of the main Tyranite shaft. These holes were designed to intersect the structure at approximately 275 to 300 feet below surface. The location of the holes is shown in Figure 4 and preliminary drill logs and cross sections of the holes are appended to the report.

All holes have intersected sulphide mineralization, and alteration which is considered to be the main North Lens structure. Assay results at the time of writing are incomplete.

4.2.3 QUARTZ SHEAR ZONE DRILLING

One (1) hole was drilled on the Quartz Shear Zone following stripping of this structure. In outcrop, a shear zone



carrying a narrow quartz vein is exposed and a similar zone was intersected in drill hole 2001-17. No assay results have been received from this work as yet. The hole location is shown in Figure 4.

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4.2.4 SOUTH POD LENS DRILLING

Five (5) holes, #18 to 22 inclusive, have been completed as a preliminary programme on the South Pod Lens. The location of the holes was based on drill results obtained by Tyranite Gold Mines during the 1930's and early 1940's as well as the recently completed IP survey. The location of the holes are shown in Figure 5 and preliminary drill logs and drill sections are appended to the report. Sulphide mineralization with associated carbonatization and silicification have been intersected in all holes although the distribution of this material is spotty. In addition, a diabase dyke occupies a section of the main structure. The assay results are incomplete for these holes but all available assays are reported in the preliminary drill logs.

5. SURFACE EXPLORATION PROGRAMME - 4TH QUARTER, 1987

The diamond drilling progamme is continuing on the property with the following areas to be drilled.

- Follow-up drilling on the Duggan Zone after freeze-up so that access is available to MacIntyre Lake lying to the west or hanging wall of the mineralized zone. The Duggan Zone will also be tested both north and south along strike from its presently known location.
- 2. Follow-up drilling of results from the North Lens, South Pod Lens, and Quartz Shear Zone areas as assay results dictate.
- 3. Evaluation of presently known IP anomalies and in particular where associated with a geochemical response or additional



geological and/or geophysical information.

- 4. Completion of the IP survey on the western part of the property west of the tie-line 26+00 W. This will cover the area of the Duggan Zone and its extension to the north and south. This work will be completed following freeze-up so that the ice of McIntyre Lake can be utilized for survey purposes.
- 5. Geological mapping of the stripped areas is in progress and it is intended to complete this work before the area is covered by snow.

6. <u>SUMMARY AND CONCLUSIONS</u>

It is considered that the results of the geophysical and geochemical programmes in conjunction with the geological mapping have identified a number of potential targets. That will be evaluated by diamond drilling.

The drilling on the Duggan Zone to date has outlined two (2) parallel mineralized zones and other intersections are present within the immediate area and require further evaluation. It is considered that additional work is required to evaluate these intersections as well as the down-dip projection of the presently known A and B Lenses in the Duggan Zone. Following completion of the IP work in the Duggan Zone area, additional drilling will be considered to evaluate the Duggan Zone north and south of its presently known location.

Drilling on both the North Lens and the South Pod Lens have intersected sulphide mineralization in association with silicification and carbonatization. The assay results are incomplete on the drilling from both of these zones at present.

Additional drilling in the area of the Quartz Shear Zone will be considered following receipt of assay results.

In general, it is considered that the programme is progressing favourably and that the programme should be successfully completed by February 29, 1988 and within the estimated budget.

ASSOCIAT Respectively submitted, CEOLOR L. D. S. Winter L.D.S. Winter B.A.Sc., M.Sc., F.G.A.C. For Norwin Resources Ltd., ELLOW October 23, 1987

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GEOPHYSICAL REPORT

on the

TYRANITE PROPERTY

FOR

GUNNAR/MILL CITY GOLD INC.

Prepared by:

R.J. Meikle

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Map	#2	GRADIENT	IP	SURVEY	-	Chargeability Plo	t 1"=200'

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Appendix A TSQ-3 Scintrex Transmitter Appendix B IPR-8 Scintrex Receiver

INTRODUCTION

An Induced Polarization survey was carried out on the Tyranite Property for Gunner/Mill City Gold Inc. in October, 1987. The survey covered the western portion of the property not covered by the August, 1987 survey described in a report "Geophysiscal Report on the Tyranite Property for Tyranex Gold Inc. by R.J. Meikle, August 27, 1987". This report deals with the survey parameters and results and is intended to be added to the above mentioned previous report.

LOCATION AND ACCESS

The property is located approximately 28 km NE of the town of Shining Tree, Ontario. It consists of a group of patented claims straddling the boundary between Tyrrel Township and Knight Township in the Larder Lake Mining Division, Ontario.

Access to the property is via Highway 560 east from Shining Tree or west from Gowganda to Breeze Lake and north on a good road in to the former minesite (Fig. 1&2).

- 1 -





PERSONNEL

The following personnel were directly involved with the project:

Brian	Keen	• •	•	•	٠	•	•	•	.Timmins,	Ontario
Peter	Rasmu	Isse	n	•	•	•	•	•	Timmins,	Ontario
Gerry	Bouch	er	•	•	•	•	•	•	Timmins,	Ontario
Ed Bru	unet .	•	•	•	•	•	•	•	Timmins,	Ontario
Andre	Grava	l.	•	•	•	•		•	.Timmins,	Ontario
Ray Me	eikle		•		•	•		•	.Timmins,	Ontario

INDUCED POLARIZATION SURVEY

The IP method involves applying voltage across two electrodes in a pulsed manner i.e. 2 second on, 2 second off. A second "dipole" or electrode pair, measures the residual potential or voltage between them after the voltage is shut off or during the 2 second off cycle. The potential is recorded at different times after the shut off. If, for example, there is sulphide mineralization within the measuring dipoles, they will be polarized or charges set up in the sulphide particles. This polarization gives the zone a capacitor effect, thereby blocking the current delay giving a higher chargeability reading.

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• A typical signature for many gold showings would be a chargeability high, resistivity high and magnetic low. This would be characteristic of a mineralized, highly altered carbonitized and/or silicified zone. However, this is by no means the only geological setting for gold, therefore every IP profile should be looked at individually and correlated with all other geophysical-geological data.

Because of contact problems in the previous survey, a "gradient array" method was used. In this array, two electrodes (Cl and C2) are placed a fixed distance off each end of a survey line. A voltage is applied across these two electrodes and a continuous 2 second on, 2 second off pulse is maintained. A receiver dipole of 50 feet is moved along the Cl C2 line as well as parallel lines. Only the middle third section is surveyed to ensure that neither Cl or C2 influence the dipole. This array generates one chargeability reading and one apparent resistivity reading every 100 feet along the lines surveyed. A conductive sulphide zone would yield a high chargeability-low resistivity while a disseminated, silicified altered sulphide zone would have a high chargeability and a high resistivity.

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PARAMETERS

Method Time Domain
Electrode
"a" spacing
Pulse Duration 2 seconds on, 2 seconds off
Delay Time
Integration Time
Receiver
Transmitter Scintrex TSQ-3 2.5 kVA

SURVEY RESULTS

The IP survey delineated several NS striking zones. Generally, the anomalies appear to be narrow, chargeable, resistive zones. The gradient array method appears to have worked well on this property. The anomalies are described as follows:

Anomaly "A" This is an anomalous zone thought to be continuous from LO-L18N, open at both ends. The response on L18N is coincident with the "Dugan Zone" and because of extensive stripping, insufficient contact was obtained to get complete IP coverage over the zone. As well, there is a gap from L8-16N with no data because of McIntyre Lake. The zone is assumed to continue through. The anomaly is characterized by a high chargeability and high resistivity.

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Anomaly "B,C"

These two parallel anomalies lie just west of TL5340W. They are open to the south but do not appear to have any northward strike extent. They are characterized by a high chargeability but have a much lower apparent resistivity than the other anomalies.

- Anomaly "D" This is a NS zone which is assumed to be continuous but only has a chargeability response on L0/2875W, L4N/30W and L12N/3050W.
- <u>Anomaly "E"</u> This is a one line response on LO/3375W which is open to the south.
- <u>Anomaly "F"</u> This anomaly extends from L2N to L16N and is open at both ends. It is stronger on L8N/4025W, L12N/4075W and L14N/4075W.

Anomaly "G" This is a chargeability high on L12N/2250W. It does not extend to the north but is open to the south.

RECOMMENDATIONS

All of the above mentioned anomalies should be explained by trenching and/or diamond drilling. The order of priority would depend on geological information available.

The results suggest that the anomalies may be caused by disseminated sulphides which are very lensy and discontinuous in nature. In spotting trenches and drill holes, care should be exercised to establish the proper picket location. All locations given use the original baseline as 0+00. All picket readings are west and east of this baseline. The actual picket numbering in the field is apparently somewhat different in that they used a new 0+00 at TL26W and TL53+40W for some lines. However, if locations chained from the tielines are used as per maps there should be no confusion.

Respectfully Submitted,

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R.J. Meikle

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CERTIFICATION

I, Raymond Meikle of Timmins, Ontario hereby certify that:

- 1. I hold a three year Technologist Diploma from the Haileybury School of Mines, Haileybury, Ontario obtained in 1975.
- 2. I have been practising my profession since 1973 in Ontario, Quebec, NWT, Manitoba, New Brunswick, Nova Scotia for Teck Exploration Ltd., Metallgesllschaft Canada Ltd., Rayan Exploration., Sabina Industries Ltd., and most recently Exsics Exploration Ltd.
- 3. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience, and on the results of the field work conducted on the property during July, August, 1987 which was carried out under my overall supervision.
- 4. I hold no interest, directly or indirectly in this property other than professional fees, nor do I expect to receive any interest in the property or in Gunnar Gold/MillCity Inc. or any of it's subsidiary companies.

Dated this 18th day of January, 1988 at Timmins, Ontario

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R.J. Meikle

APPENDIX A

TSQ Serie Time and Frequency Domain Transmitter

The TSO Transmitters have multifrequency, square wave outputs suitable for induced polarization and resistivity measurements in either the time or frequency domain. Both the 750 Watt TSO-2E and the 3000 Watt TSO-3 transmitter consoles are powered by a separate motor generator.

These transmitters were designed primarily for use with the Scintrex IPR time domain and IPRF-2 frequency domain receivers although they are compatible with most receivers. The standard frequency domain frequencies are 0.1, 0.3, 1.0 and 3.0 Hz while the standard time domain pulse durations are 1, 2, 4 and 8 seconds. Other frequencies and timings are optional.

The TSQ transmitters feature output overload, underload, thermal, input voltage overload and other built-in safety protections. They have very favorable power/weight ratios, solid state circuitry and a high efficiency.

Current amplitude stabilization is an important feature of the TSQ Transmitters. The current can be held stable within $\pm 0.1\%$ for large external load variations or up to $\pm 10\%$ input voltage variation.

The TSO-2E Transmitter weighs only 11.5 kg but gives the following maximum outputs: 5A, 1000 V or 750 VA. The TSO-3, weighing 25.0 kg has maximum outputs of: 10A, 1500 V or 3000 VA. TSO Serie de Transmisores para Doi del Tiempo y Frecuencia

Los transmisores TSQ son de multifrecuencias y de onda cuadrada, útiles para medidas de polarización inducida y resistividad en el dominio del tiempo y de frecuencia. Tanto el TSQ-2E de 750 Watt, como el TSQ-3 de 3000 Watt son consolas de transmisión que requieren energía de un motor-generador separado.

Estos transmisores fueron diseñados, principalmente, para uso con los receptores Scintrex IPR en el dominio del tiempo e IPRF-2 en el dominio de frecuencia, pero sin embargo, son compatibles con muchos otros receptores. Las frecuencias standard son 0.1, 0.3, 1.0 y 3.0 Hz, en tanto que la duración de pulsos en el dominio del tiempo son normalmente de 1, 2, 4 y 8 segundos. Otros tiempos y frecuencias son opcionales.

Los transmisores TSO tienen protección incorporada contra sobrecargas, bajos voltajes, efectos térmicos y otros. Tienen relaciones de potencia/peso muy favorables, junto a una alta eficiencia y circuitos de estado sólido.

Una importante característica de los transmisores TSQ es la estabilización de amplitud de corriente. La corriente puede mantenerse estable en \pm 0.1% bajo grandes variaciones del cargado externo, y hasta \pm 10% para variaciones de voltaje de entrada del motor.

El transmisor TSO-2E pesa solo 11.5 kg y tiene salidas máximas de: 5A, 1000V ó 750 VA. El TSO-3, que pesa 25.0 kg, tiene salidas máximas de: 10A, 1500V ó 3000 VA.



TSO-3/3000W

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TSQ: Emetteurs en domaines de temps et de fréquence.

Les émetteurs TSQ fournissent des sorties à plusieurs fréquences d'ondes carrées convenant aux mesures de polarisation provoquée et de résistivité en domaine de temps ou de fréquence. Les deux émetteurs de 750 W, modèle TSQ-2E et de 3000 Watts, modèle TSQ-3 sont alimentés par un groupe électrogène séparé.

Ces émetteurs sont conçus principalement pour une utilisation avec les récepteurs Scintrex de type IPR pour le domaine de temps et IPRF-2 pour le domaine de fréquence, bien qu'ils soient compatibles avec la plupart des récepteurs. Les fréquences standard en domaine de fréquence sont de 0,1, 0,3, 1,0 et 3,0 Hz, cependant que les durées d'impulsion en domaine de temps sont de 1,2,4 et 8 secondes. D'autres fréquences et minutages sont facultatifs.

Les émetteurs TSQ-3 sont caractérisés par des circuits de protection de sortie: de surcharge, de charge trop faible, thermique, d'entrée de tension maximum et d'autres protections de sécurité incorporées. Ils ont un rapport puissance/poids très favorable, des circuits à semi-conducteurs et une haute efficacité.

La stabilisation d'amplitude de courant est une caractéristique importante des émetteurs de type TSQ. Le courant peut ête maintenu stable à moins de $\pm 0.1\%$ pour de grandes variations de charge externe ou pour jusqu'à $\pm 10\%$ de variation de tension d'entrée.

Le poids de l'émetteur TSO-2E est de 11,5 kg ... seulement et ll a les maximums de sortie suivants: 5 A, 1000 V ou 750 volt-ampères. Le TSO-3 qui pèse 25 kg a les maximums de sortie suivants: 10 A, 1500 V ou 3000 VA.





TSQ-2E/750 W

APPENDIX B

Induced Polarization - Receivers

IPR-8 Analog Time Domain Induced Polarization Receiver

. The IPR-8 is the least expensive time domain IP receiver available from Scintrex. It otters a good deal of information about curve shape and is sim-Die 10 operate.

Up to 20 standard selectable integration channels,

1, 3 or 6 channels simultaneously integrated.

Automatic memory register storage for up to 6 channels.

Reads directly in Vs/Vo, normalized for channel width and number of pulses selected.

Automatic programmer for averaging 2, 4 or 8 CYCIES,

Multiple channel readouts normalized for standard decay curve shape, providing immediate field indication of anomalous curve shape.

Synchronous gating to reduce mistriggering by noise.

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Automatic self-potential tracking.

Calibrated manual SP bucking for SP measurements,

Usable with any time domain transmitter.

High mout impedance.

Built-in external circuit tester.

Excellent power line noise rejection,

Latest CCS/MOS circuitry permits up to two months battery life using only 4 D cells.

Very light weight at 3.6 kg comolete with batteries.

IPR-8 Receptor de Polarización Inducida en el Dominio del Tiempo, Analógico

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E. St vice - white

El IPR-8 es el Receptor de Plique Scintrex brinda. de manera muy economica. Este ofrece una buena distribución de catos para información sobre la forma de la curva de decamiento y es muy simple de operar.

Hasta 20 canales de integración standard, selec-CIONADIES

Integracion simultánea de 1, 3 ó 6 canales,

Aimacenamiento automático en registros de memoria de hasta 6 canales.

Lectura directa de la razón Vs/Vp, normalizados por el ancho de canal y numero de pulsos, selec-CIONADOR.

Programación automatica para un promedio de 2, 4 u 8 cicios. - 14 L

Lecturas de canales multiples, normalizados según una forma standard de curva de decaimiento, proporcionando indicación inmediata de una forma de curva anomaia, en el campo.

Ajusto sincrónico que reduce falsa activación por fuido.

Ajuste automático de autopotencial. Secono a -.

Polarización Inducida - Receptores Récepteurs de polarisation provoquée

when a cost true of

Calibración manual de autopotencial, valederas en medicas de AP.

Uso con cualquier transmisor en el dominio de tiemon. .

Entrada de alta impedancia.

Circuito externo de comprobación, incorporado.

Excelente rechazo de ruido de líneas de alta tensión. . .

Circuitos CCS/MOS modernos permiten hasta 2 meses de servicio a las 4 baterias de tipo D stanriard.

Muy liviano; con baterias incluidas alcanza un peso de 3.6 kg. محاطا في من من من م

IPR-8 Program COME IN A ONE SECTION

IPR-8: Récepteur de polarisation provoquée et resistivité en domaine de temps à lecture analogique.

L'appareil IPR-8 est le recepteur de polarisation provoquee en domaine de temos le moins cher, disconicie chez Scintrex. Il offre beaucoup d'informations en rapport avec la forme de courbes et. est lacke a operer.

Il offre jusqu'à 20 bances normales d'intégration à Choise.

1,3 ou 6 bandes sont intégrées simultanément.

Un emmagasinage a registre de memoire pour jusqu'à 6 bandes.

It lit directement en Vs/Vp et est normalisé pour la largeur de bande et le nombre d'impulsions selectionnees:

Un programmeur automatique pour l'établissement de moyenne de 2,4 ou 8 cycles.

Des lectures à bandes multiples normalisées pour la forme de courbe transitoire normale et, fournissant une indication sur clace de la forme de courbe d'une anomalie.

Un déclenchement périodique synchronisé afin de réduire les faux déclenchements par du bruit.

Un regiage de polarisation spontanee automatique.

Une compensation manuelle de polarisation spontanee, calibree pour les mesures de polarisation scontanee.

Il est compatible avec n'importe lequel des émetteurs en comaine de temps.

Une impedance d'entrée élevée.

Un contrôleur de resistance du circuit externe est incorpora.

Un excellent rejet des bruits de secteur électrique.

Les circuits de type COS/MOS des plus modernes permettent aux 4 piles "O" de durer jusqu à deux mont

Un poids léger de 3.6 kg avec les piles.

IPR-8 Analog Time Domain Induced Polarization Receiver

Will Then Street

The IPR-8 is the least expensive time domain IP receiver available from Scintrex. It offers a good deal of information about curve shape and is simple to operate.

Up to 20 standard selectable integration channels.

1, 3 or 6 channels simultaneously integrated.

Automatic memory register storage for up to 6 channels.

Reads directly in Vs/Vp, normalized for channel width and number of pulses selected.

Automatic programmer for averaging 2, 4 or 8 cycles.

Multiple channel readouts normalized for standard decay curve shape, providing immediate field indication of anomalous curve shape.

Synchronous gating to reduce mistriggering by noise.

Automatic self-potential tracking.

Calibrated manual SP bucking for SP measurements.

Usable with any time domain transmitter.

High input impedance.

Built-in external circuit tester.

Excellent power line noise rejection.

Latest COS/MOS circuitry permits up to two months battery life using only 4 D cells.

Very light weight at 3.6 kg complete with batteries.

IPR-8 Receptor de Polarización Inducida en el Dominio del Tiempo, Analógico

El IPR-8 es el Receptor de PI que Scintrex brinda de manera muy económica. Este ofrece una buena distribución de datos para información sobre la forma de la curva de decaimiento y es muy simple de operar.

Hasta 20 canales de integración standard, seleccionables.

Integración simultánea de 1, 3 ó 6 canales.

Almacenamiento automático en registros de memoria de hasta 6 canales.

Lectura directa de la razón Vs/Vp, normalizados por el ancho de canal y número de pulsos, seleccionados.

Programación automática para un promedio de 2, , 4 u 8 ciclos.

Lecturas de canales múltiples, normalizados según una forma standard de curva de decaimiento, proporcionando indicación inmediata de una forma de curva anómala, en el campo.

Ajusto sincrónico que reduce falsa activación por ruido.

Ajuste automático de autopotencial.





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SUMMARY REPORT

7

ON THE

POWER STRIPPING PROGRAMME

TYRANITE PROJECT

KNIGHT & TYRRELL TOWNSHIPS

ONTARIO

FOR

GUNNAR GOLD/MILL CITY GOLD INC.

January, 1988

0M87-6-L-238

1. INTRODUCTION

The Tyranite property consists of 13 claims, straddling the Knight-Tyrrell township line in the district of Timiskaming. The claim group is about 20 kilometers west of Gowganda, Ontario, along highway 560.

During September and October 1987, an overburden stripping program was carried out to evaluate geochemical and geophysically anomalous zones. Geophysics and geochemical, soil sampling had been previously completed in June and July of 1987. Additional stripping was done over sections of the property which had been trench and diamond drilled as far back as the early 1940's.

The majority of the stripping was done by a John Deere 690backhoe under contract from Paiement Excavating of Earlton, by a bombardier-mounted backhoe under contract from Alquest Explorations of Timmins, and a JD-450 dozer from Clint Gunter Construction of Shining Tree. A total of 136,900 square feet of stripping was completed.

The area of the old mine site was stripped and cleared at this same time by equipment under lease from Diamonds International. This work consisted of clearing, levelling of old muck piles and the topography for temporary facilities and the preparation of water storage ponds relative to environmental requirements in preparation for a shaft dewatering programme for underground exploration.

2. WORK DONE AND RESULTS

The main stripping was done on the Duggan zone and the Decker zones, with areas of 79,000 square feet and 22,000 square feet respectively. Overburden in these zones averaged about 5 feet. Duggan stripping uncovered a large, intensely altered section of the Milly Creek pluton, consisting of strongly calcite altered monzonites to diorites. The zone was noted to pinch to the north and was cut off to the south by McIntyre Lake.
Strongly mineralized intrusive occurred throughout the stripped area. Detail mapping has since been completed on this zone. (See attached map).

The Decker zone stripping uncovered a major shear zone within diorites/monzonites with a 15-20 foot mafic dyke running roughly parallel to the stripped length. Both the monzonite and dyke exhibit strong calcite alteration with hematite and chlorite alteration. Chloritization is intense within the dyke. Finely disseminated pyrite occurs throughout the sheared monzonite and mafic dyke.

Smaller areas were stripped throughout the property on scales of 13,000 square feet or less, in an attempt to discover the causes of geochemical and geophysical anomalies. A small section was stripped on line 30+00S; 12+00W in order to check a geochemical gold high area, but overburden depths of greater than 25 feet prevented the backhoe from reaching bedrock.

A larger zone on L12+00S; 3+00W was stripped over an induced polarization anomaly. Overburden in this area was 5-10 feet in depth, with a strongly fractured ultramafic to mafic volcanic rock being exposed. Fractures generally contained thin stringers of brassy yellow pyrite. Four deep diamond drill holes were later drilled under this area with only one anomalous value obtained.

Two zones of stripping were completed on line LON, from 1+00E to 6+50E. The zone furthest to the east was to follow the extent of a quartz shear zone as noted in older reports. A small milky white quartz vein up to 8 inches in width was traced north and south until it pinched out. No schistosity or sulphide mineralization was noted.

The second zone along line 0+00 was stripped over a broad induced polarization, resistivity anomaly. The zone lay predominantly in a feldspar porphyry with occasional pyritic shears, silicification and local zones of graphite along shear planes. Diamond drilling under this zone produced very sporadic results with some anomalous values in the middle of a 500 foot drill hole.

Three small stripped sections are located between the Duggan zone and Spade Lake. Overburden in these areas is approximately 5 feet. Three high gold anomalies were obtained in these areas and are attributed to overburden effects as no major shearing or quartz veining was noted in bedrock. The bedrock was relatively fresh, monzonites to diorites.

Signed, January, 1988

David Pilkey B.Sc.

SOCIATIO Q.S. Winter L.D.S. Winter,



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PROGRESS REPORT

OCTOBER - NOVEMBER - DECEMBER 1987

TYRANITE PROPERTY

KNIGHT & TYRRELL TOWNSHIPS

ONTARIO

FOR

GUNNAR GOLD / MILL CITY GOLD INC.

Norwin Resources Limited January 25, 1988

0M87-6-L-238

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CERTIFICATE OF QUALIFICATION

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1. INTRODUCTION

The Tyranite Gold property is located in Knight and Tyrrell townships in the District of Temiskaming approximately 12 miles northwest of Gowganda and 100 miles north of Sudbury, Ontario. The property consists of the former Tyranite Gold Mine which produced 223,810 tons of ore with a recovered grade of 0.147 oz of gold/ton between 1939 and 1942. The property has been held by Dalhousie Oil Company Ltd. for a number of years and it was recently optioned to Tyranex Gold Inc. In turn, Tyranex Gold Inc. has entered into an agreement with Gunnar Gold/Mill City Gold Inc. whereby the latter two (2) companies can earn a 50% interest in the Tyranite property.

An exploration programme was started on the property in June of 1987 with the objective of outlining sufficient mineralization of an economic grade that would permit the property to again be placed in production. The following report outlines work completed on the Tyranite claim group between October 1 and December 31, 1987.

2. PROPERTY LOCATION AND ACCESS

The property consists of 12 leased and 1 staked, contiguous claims as shown on the plans of Tyrrell and Knight townships issued by the Surveys and Mapping Branch of the Ontario Ministry of Natural Resources. The claims are as follows:

<u>Claim Number</u>		Number of	Claims
Patented Claims			
GG 5800-05 inclusive		6	
GG 5815-17 inclusive		3	
GG 6649-51 inclusive		_3	
	Sub-Total	12	
Staked Claim			
L 511273		_1	
	Total	13	

The property is located on the common boundary between Knight and Tyrrell townships, District of Temiskaming, Ontario at 47° 40N latitude, 81° 00W longitude; approximately 12 miles northwest of the town of Gowganga, Ontario. Access to the property is via a gravel bush road for $1^{1}/2$ miles north from highway 560. This bush road leaves highway 560 approximately 12 miles west of Gowganda.

3. EXPLORATION PROGRAMME - OCTOBER - DECEMBER, 1987

3.1 WORK DONE

The exploration programme continued on the property with an IP survey on the western part of the grid being completed and diamond drilling.

The diamond drilling programme continued with the main targets being the South Pod Lens, the North Lens, the main structure north of the North Lens through to the north claim boundary and the Quartz Shear Zone area. In addition, a number of holes were drilled testing IP/geochemical targets in this same general area. From October 1 through to December 20, 1987, when the programme was shut-down for the Christmas vacation period, a total of 39 holes were drilled totalling 16,050 feet. The hole locations and results obtained are presented in Table 1 and the hole locations to date are shown in the map in the pocket at the back of the report.

3.2 RESULTS

3.2.1 IP SURVEY

The gradient IP survey carried out over the western part of the property has indicated a number of north-south trending features which are interpreted to be due to disseminated sulphides. Seven (7) zones (A to G) have been identified which are shown in the appended report of Exsics Exploration Ltd. dated January 18, 1988. Of particular interest is the north-south trending IP chargeability/resistivity anomaly associated with the Duggan Zone structure. This structure is currently being evaluated by additional diamond drilling. A second anomaly of interest is anomaly F which is a north-south trending chargeability zone approximately 900 feet east of the Duggan Zone structure. This zone will be evaluated during the course of the current programme.

3.2.2 DIAMOND DRILLING RESULTS

The drilling programme is ongoing so that the following comments represent comments to the end of December. In addition, assay results for a number of holes are still incomplete.

DUGGAN ZONE DRILLING

Seven (7) short 100 foot long diamond drill holes were drilled to sample the Duggan Zone approximately 25 to 50 feet below surface. These holes are shown in the attached plan view and the results are shown in Table 1. In general, the two (2) lenses previously identified in the Duggan Zone, the A lens and the B lens, were intersected, however, it would appear that the results in the previously drilled deeper holes are better than from the short holes close to surface.

NORTH LENS DRILLING

Twelve (12) holes have been drilled to intersect the North Lens and its northern extension north to the north claim boundary. These holes were designed to intersect the structure approximately 250 to 300 feet below surface. The location of the holes is shown in the attached plan view and the results to date are shown in Table 1. In general, the results have been quite encouraging with the main zone being intersected in all holes and with the assay results being variable and ranging between .05 oz of gold/ton to 0.296 oz/ton. The results to date suggest a mineralized north-south structure containing higher grade shoots or lenses, similar to the situation in the main mine area.

QUARTZ SHEAR ZONE DRILLING

Two (2) holes, 1316-68 and -69, were drilled on line 2N to further evaluate the Quartz Shear Zone area. Hole 68 intersected two (2) sections of approximately of 13 feet in length assaying in the order of .04 oz of gold/ton in a zone of strong alteration and pyrite mineralization. It is considered that this may be a parallel structure to the main north-south break and warrants further testing. Hole 1316-69 drilled further to the east intersected a 5 foot zone assaying .110 oz of gold/ton. This was at a depth of approximately 480 feet and may represent a deeper intersection on the Quartz Shear Zone structure. Further drilling will be carried out in this area.

SOUTH POD LENS

An additional eleven (11) holes were completed on the South Pod Lens. Generally, the results were not encouraging. Most values were in the .04 to .05 oz of golc/ton range. In this area two (2) large diabase dykes are present within the area of the main north-south structure. On the north end of the South Pod Lens and going north towards the main lens, four (4) drill holes testing IP anomalies have intersected mineralization. These are holes 1316-30A, -32 and -49 and -50. Holes 32 and 50 appear to have intersected the main structure where as the mineralization in hole 30A appears to be in a parallel structure. No results are available from hole 49 as yet. Further work is planned for this area.

IP/GEOCHEMICAL ANOMALIES

In general, the results from drilling the IP anomalies to date have not been encouraging. In all cases a structure has been intersected, however the mineralization in most cases has not been of economic significance. The main exception is in the area between the South Pod Lens and the Main Lens and somewhat to the west of the main structure where intersections have been obtained. See above under South Pod Lens.

4. SURFACE EXPLORATION PROGRAMME - 1ST QUARTER 1988

The diamond drilling programme is continuing on the property with the following areas to be drilled. 1) Follow-up drilling on the Duggan Zone has commenced from along the western side of McIntyre Lake to fully evaluate the Duggan Zone both down-dip and along strike north and south from the main mineralized area. During this work the IP anomaly will be fully evaluated. 2) Drilling is continuing on the North Lens and its extension to the north and drilling on the Quartz Shear Zone area will be carried out. 3) Evaluation of IP anomalies will be continued.

5. SHAFT REHABILITATION AND DE-WATERING PROGRAMME

During the forth quarter of 1987, upgrading of the original Tyranite Mine Site continued. The existing concrete foundations were upgraded and compressed air lines, water lines and service lines for a surface plant were put in place. A main building consisting of metal and structural steel was completed by McIntyre Contracting and Gunter Construction. Also the compressor and power plant were installed.

Construction and upgrading of the existing concrete piers and footings were completed by Pamo Construction in preparation for receiving the standard timber head-frame. Shaft de-watering was commenced with the water being maintained approximately 60 feet below the collar. Safety work was carried out securing known open holes from past mining.

A fuel storage area was completed and the plumbing and distribution lines were put in place. In addition, a water tank and the necessary plumbing was also installed.

Construction of a security building was completed and security on the property is now on a 24-hour-a-day, 7 days a week basis. A safety programme has been set up and is being carried out in accordance with Ministry of Labour requirements for the total property. Radio, telephone and other emergency measures are in place for communication with the property.

All of the necessary preparations have been completed and the permits are in place to carry out the scheduled exploration and development programme.

A small assay laboratory building has been completed and is currently being equipped for future use.

The main road from the Shining Tree/Gowganda highway to the property has been upgraded and widened through to the mine site. Also, a new access road between the Duggan Zone and the main mine site was completed.

A ramp has been collared (approximately 70 ft) to provide access to the Duggan Zone.

6. **EXPENDITURES**

The total expenditures on the Tyranite property to December 31, 1987 are \$2,210,695.

7. <u>SUMMARY AND CONCLUSIONS</u>

It is considered that the work to date is progressing favorably. Further work is required in the first quarter of 1988 to evaluate the Duggan Zone both down-dip and north and south of the main zone and to follow-up the IP survey. The drilling to date on the North Lens and its extension to the north and the Quartz Shear Zone are encouraging and a number of intersections in this area remain to be followed up.

The installations for the de-watering and shaft rehabilitation programme are in place and the work is progressing well although somewhat behind schedule. It is considered that it will be completed by February 29, 1988 and within the estimated budget. It is anticipated that the surface exploration drilling will also be completed by that date and within the proposed budget outline.

Respectfully submitted,



L.D.S. Winter B.A.Sc., M.Sc., F.G.A.C. Norwin Resources Ltd. January 25, 1988

TABLE 1

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TYRANITE PROPERTY

DIAMOND DRILLING RESULTS - OCTOBER - DECEMBER, 1987

HOLE	LOCA	TION	DIRECTION	DIP	LENGTH	ASSAY VALUES			
	LINE	STATION			(ft)	FROM (ft)	<u>TO (ft)</u>	INTERSECTION (ft)	(oz Au/t)
South Po	<u>d Lens</u>								
1316-23	20S	4+50W	E	-50°	500	No signifi	cant inter	sections.	
1316-24	205	4+50W	Ε	-70°	600	379	381	2	0.040
1316-25	175	4+50W	E	-50°	500	378.5	381	2.5	0.0532
1316-26	175	4+50W	E	-70°	600	No signifi	cant inter	sections.	
1316-27	16S	4+50W	E	-50°	500	188	190	2	0.0437
1316-28	16S	4+50W	E	-70°	600	117.5	119.5	2	0.0804
1316-29	15S	4+50W	E	-50°	500	No signifi	cant inter	sections.	
1316-30A	155	4+50W	E	-70°	225	171	174	3	1.653
1316-30B	15S	4+50W	E	-70°	600	No signifi	cant inters	sections.	
1316-31	14S	4+50W	E	-50°	500	67	70	3	0.072
						335.4	338	2.6	0.046
1316-32	14S	4+50₩	E	-70°	650	585	588	3	0.478
<u>Duggan Z</u>	<u>one</u> – Sh	ort holes	for sampling	purpose	es				
1316-33	11+50N	50+40W	E	-45°	100	23	28	5	0.185
1316-34	12N	50+40W	E	-45°	100	38.5	52	13.5	0.071
						38.5	43.5	5	. 0.104

	Table 1	continued							page 2
LE	LOCA	TION	DIRECTION	DIP	LENGTH		ASSAY	VALUES	
-	LINE	STATION			(ft)	FROM (ft)	<u>TO (ft)</u>	INTERSECTION (ft)	(oz Au/t)
1316-35	12+50N	50+40W	E	-45°	100	39.4	42.4	3	0.130
						48.4	60.4	12	0.135
						85.9	88.9	3	0.126
1316-36	13N	50+40W	E	-450	100	70	80	10	0.0562
1315-37	13+50N	50+40W	E	-45°	100	54.2	57.2	3	0.0584
						72.2	75.2	3	0.120
1316-38	14N	50+40W	E	-45°	100	80.3	92.3	12	0.148
1316-39	14+50N	50+40W	E	-450	100	28.9	31.9	3	0.0778
						67.7	70.7	3	0.0687
North Le	ens and E	<u>xtension t</u>	<u>o North</u>						
1316-40	1 3N	3+00W	E	-50°	400	166	171	5	0.0745
						188	194	6	0.182
						249	255	6	0.040
						320	322	2	0.110
						376	378	2	0.090
1316-41	15N	3+00w	E	-50°	400	No result:	s available	e as yet.	
1316-42	17N	3+00W	E	-50°	400	No result:	s available	e as yet.	
1316-57	4N	2+00W	Ξ Ε	50°	400	139	143	·	0.090
						193	198	5	0.133
						211	213	2	0.296
						221	237	16	0.091
						221	223.5	2.5	0.254
						234.5	237	2.5	0.100

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Tab	16	1	<u> </u>	nt.	i	ทนต	ed
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	LO	CATION	DIRECTION	DIP	LENGTH	ASSAY VALUES			
	LINE	STATION			<u>(ft)</u>	FROM (ft)	<u>TO (ft)</u>	INTERSECTION (ft)	(oz Au/t)
1316-60	2N	2+00W	Ε	-50°	300	No result	s availabl	e as yet.	
1316-61	2N	7+00W	E	-70°	1000	No signif	icant inte	rsections.	
1316-63	8N	2+00W	E	-60°	375	212	217.5	5.5	0.187
1316-64	10N	2+50W	E	-60°	400	162.5	163.5	1	0.17
						249	251	2	0.055
						262.5	268	5.5	0.141
						294	299	5	0.0945
						392	395	3	0.055
1316-65	11N	2+50W	E	-60°	400	54	55.5	1.5	0.184
						126	131.3	5.3	0.081
						191	193	2 -	0.123
						277	282	5	0.101
Geochem	ical an	d/or IP Ano	<u>malies</u>						
1316-47	125	8+00W	E	-50°	500	No result:	s available	e as yet.	
1316-48	8S	5+50W	E	-50°	500	Nosignif	icant inte	rsections.	
1316-49	125	3+50W	Ε	-50°	500	No results	s available	e as yet.	
1316-50	8S	3+50W	Е	-50°	500	398	401	· 3	0.124
1316-51	_10N	6+50W	E	-50°	400	No results	s-available	e as yet.	
1316-52	8N	6+00W	E	-50°	400	No signif	icant inte	rsections.	
1316-53	6N	5+00W	E	-50°	400	No signif	icant inte	rsections.	
1316-54	6N	11+50W	E	-50°	400	No signif	icant inte	rsections.	
1316-55	4N	11+00W	E	-50°	400	No signif	icant inte	rsections.	
1316-56	2N	10+00W	E	-50°	400	No signif	icant inter	rsections.	

Т	able 1 cc	ntinued							page 4
<u>PLE</u>	LOC	ATION	DIRECTION	DIP	LENGTH		ASSAY	VALUES	
-	LINE	STATION			(ft)	FROM (ft)	<u>TO (ft)</u>	INTERSECTION (ft)	<u>(oz Au/t)</u>
Quartz	<u>Shear Zo</u>	one Area							
1316-6	8 2N	1+00E	E	-50°	500	153.5	167	13.5	0.0435
						178.5	191.5	13.0	0.0393
1316-6	9 2N	3+35E	E	-50°	600	482.5	487.5	5	0.110

1. :-

GEOLOGICAL LEGEND

63.5256

2	MAFIC VOLCANICS		MINERALIZATION
2a	MASSIVE FLOWS	рy	PYRITE
3	INTERMEDIATE METAVOLCANICS	po	PYRRHOTITE
4	FELSIC METAVOLCANICS	mag	MAGNETITE
5	METASEDIMENTS	сср	CHALCOPYRITE
5c	SANDSTONE	sph	SPHALERITE
5đ	ARGILLITE, SILTSTONE	gal	GALENA
5e	CONGLOMERATE	asp	ARSENOPYRITE
5£	CHERT	hem	HEMATI TE
5g	GRAPHITIC		ALTERATION
5h	OXIDE FACIES	a	WEAK
6	ULTRAMAFIC INTRUSIVE	m	MODERATE
7	MAFIC INTRUSIVE	S	STRONG
7đ	DIABASE	Carb	CARBONATIZATION
8	FELSIC INTRUSIVE	Sil	SILICIFICATION
8b	FELDSPAR PORPHYRY	Ser	SERPENTINI ZATION
8đ	QUARTZ MONZONITE	Chlor	CHLORITIZATION
8e	GRANODIORITE	Epid	EPIDOTE
8g	DIORITE	Talc	TALC
	STRUCTURE		
VG	VISIBLE GOLD		

- QV QUARTZ VEINS
- CV CARBONATE VEINS
- EV EPIDOTE VEINING
- QCV QUARTZ-CARBONATE VEINING

OM87-6-L-238

- I, Lionel Donald Stewart Winter do hereby certify:
- 1. that I am a geologist and reside at 1849 Oriole Drive, Sudbury, Onatario, P3E 2W5,
- that I am a Fellow of the Geological Association of Canada,
- 3. that I graduated from the University of Toronto in Mining Engineering in 1957 with a Bachelor of Applied Science and from McGill University, Montreal in 1961 with a Master of Science (Applied) in Geology,
- that I have practiced my profession continuously for 26 years,
- 5. that my report on the Tyranite Gold Property is based on my personal knowledge of the geology of the area and on a review of published and unpublished information on the property and surrounding area, property visits, supervision of the exploration programme and an ongoing review of the current exploration work.

L.D.S. Winter B.A.Sc., M.Sc., F.G.A.C. January 25, 1988





41P11NE0011 63.5256 KNIGHT

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我不能不能了 當 一個的情報人及各部一個意思了

Part 2 of 3

DIAMOND DRILLING PROGRAM

SEPTEMBER - OCTOBER - NOVEMBER

TYRANITE PROPERTY

KNIGHT AND TYRRELL TOWNSHIP

ONTARIO

FOR

GUNNAR GOLD / MILL CITY GOLD INC.

Norwin Resources Ltd. April 27, 1988

0M87-6-L-238



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1. INTRODUCTION

The Tyranite claim group consists of 13 claims, which are situated in Knight and Tyrrell townships in the District of Temiskaming. The property lies 12 miles northwest of Gowganda and 100 miles north of Sudbury, Ontario. The property consists of the former Tyranite Gold Mines and Duggan properties. Tyranite Gold Mines produced 223,810 tons of ore grading 0.147 oz/ton between 1939 and 1942. Tyranex Gold Inc. entered into an option agreement with Dalhousie Oil Company Ltd. and in turn made an agreement with Gunnar Gold/Mill City Inc. which would eventually give them a 50% interest in the property.

A diamond drilling program was started in August of 1987, directed towards outlining new auriferous lens and pods as well as extending known gold bearing zones along strike and down-dip. The following report is a summary of the diamond drilling completed from mid-September to mid-November, 1987.

2. PROPERTY GEOLOGY

The Tyranite property is underlain by a sequences of rocks ranging in age form Early to Middle Precambrian. The rocks consist of mafic to ultramafic metavolcanic rock, felsic to mafic plutonic rock and clastic metasediments of the Gowganda Formation, which is part of the Cobalt Group of the Huronian Supergroup. In the vicinity of the Tyranite Mine, the contact between the plutonic rocks and the metavolcanics runs just north of the Tyrrell-Knight township line.

Early Precambrian rocks consist of ultramafic and mafic metavolcanics, exposed south of the township line in the eastern most claims. Pillowed structures and spinifex texture suggest a subaqueous, extrusive nature for the volcanic rock origins. Minor interbedded iron formation is noted in the vicinity of the main Tyranite shear zone.

Felsic to mafic plutonic rocks occur as part of the Milly Creek Pluton, and are comprised of massive to weakly

foliated monzonite, granodiorites and diorites.

Diabase dykes are found running in a northwesterly trend, and form a small part of a larger swarm within the area. Diabase dykes are most commonly found in the five (5) claims south of the township line. The dykes are moderate to strongly magnetic.

Middle Precambrian rocks consist of interbedded argillite, sandstones and conglomerates of the Gowganda Formation. Sedimentary rocks are exposed in the northeast corner of the property.

Pleistocene and Recent deposits of Cenozoic age cover most fo the property. The deposits occur as sands, gravels and alluvium of up to 20 feet in depth. Overburden is deepest in the southern claims.

3. DRILLING PROGRAM

3.1 WORK DONE

- a) Holes numbered 1316-18 to 1316-32 were drilled in the South Pod Lens, a total of 7,476 feet.
- b) Hole number 1316-50 was drilled in the South Pod Lens, a total of 500 feet.
- c) Holes 1316-47 to 1316-49 were drilled between the Tyranite shaft and South Pod, to test an induced polarization anomaly. The holes were drilled a total of 1,500 feet.
- d) Hole number 1316-16 was drilled on the North Lens, a total of 600 feet.
- e) Hole number 1316-17 was drilled in the Quartz Shear Zone, a total of 350 feet.
- f) Holes numbered 1316-33 to 1316-39 were drilled in the Duggan Zone a total of 700 feet.

3.2 RESULTS

3.2.1 SOUTH POD LENS

A total of 16 holes were drilled into the area of the South Pod Lens, in an attempt to delineate an anomalous gold bearing zone, which had been discovered by drilling in the late 1930's and early 1940's. The geology in the area consists of massive to weakly foliated mafic and ultramafic volcanic rocks. The rock exhibits weak to moderate spotty chloritization, carbonatization and silicification. Sulphide mineralization consists of finely disseminated pyrite, fine pyritic stringers, with massive, local pods of pyrrhotite and local disseminated chalcopyrite.

Gold values within the zone are low grade and occur over narrow intersection widths. Grades in the South Pod holes range from 0.03 - 0.07 oz/ton over 3.0 feet or less. Hole 1316-20 and 1316-21 are characterized by weak anomalous gold values along the hanging wall of a diabase dyke. The dyke may represent the position of the auriferous shear to the north, but has been filled by the dyke. Minor amounts of visible gold give higher values, as noted in holes 1316-30 and 1316-32. Values in these holes are 1.653 oz/ton over 3.0 feet and 0.478 oz/ton over 3.0 feet respectively. These two values cannot be correlated using geology or geophysical data, and probably represent local blebs or mineralized pods.

3.2.2 NORTH LENS

A single hole was drilled into the North Lens which lies slightly north of the main mine workings. The purpose of the hole was to test the northern extension of the main Tyranite shear, between pods which had been mined out in 1940. The hole also outlined anomalous gold values in the down-dip extension of the main shear, which is noted to dip at 70°W. The hole was continued beyond the shear in an attempt to determine the cause of a broad resistivity anomaly which had been outlined by an induced polarization survey.

The results outlined an anomalous gold bearing zone along strike of the main shear, with two significant intersections of 0.111 oz/ton and 0.556 oz/ton over 3.0 foot widths. The main zone is characterized by strong foliation controlled chlorite and calcite alteration, with blebby silicification and local zones of pyritization. The resistivity anomaly is characterized by strongly altered mafic volcanic rock and less altered feldspar dykes. Small graphitic shear occur throughout this area, with a single anomalous value of 0.049 oz/ton over 7.0 feet being noted in this region.

3.2.3 QUARTZ SHEAR ZONE

Hole 1316-17 was drilled to test the Quartz Shear zone, which had been described in literature from the 1940's. Stripping in the area uncovered a quartz vein which pinched and swelled to 1.0 feet in width, and running slightly west of north. The vein is contained in weakly foliated, weakly altered mafic volcanic rock. No significant gold intersections were obtained, although minor blebby pyrite was noted in the core.

3.2.4 DUGGAN ZONE

Holes 1316-33 to 1316-39 were drilled in an attempt to determine the grade of gold mineralization and the attitude of an intense alteration zone as outlined by trenching and diamond drilling in the late 1930's and early 1940's.

Diamond drilling outlined a very broad zone of strongly altered monzonites, characterized by strong silicification and carbonatization. Sulphide mineralization occurs as 5-20% finecoarse euhedral pyrite, and trace amounts of chalcopyrite. Visible gold is noted throughout the zone, mostly in guartzcalcite veinlets. All seven holes contained anomalous gold values, averaging 0.10 - 0.15 oz/ton over footages of up to 13.5 feet. A summary of all significant values is included at the end of this report.

3.2.5 SOUTH IP ANOMALIES

Four holes were drilled on an induced polarization anomaly linking the main Tyranite structure and the South Pod Lens mineralization. The holes outlined a sequence of moderately altered mafic and ultramafic rocks. The area is strongly fractured with many small, irregular pyrite stringers. The anomaly may also be the results of small pods of massive pyrrhotite with minor sphalerite and traces of chalcopyrite. Holes 1316-47 to 1316-49 show no significant gold mineralization. Hole 1316-50 contained a single anomalous sample of 0.124 oz/ton over a 3.0 foot intersection width. Hole 1316-50 is located closest to the South Pod mineralization, and may be the northern extension of the zone.

4. <u>SUMMARY</u>

Diamond drilling has continued since the completion of the holes covered in this report. Anomalous values in hole 1316-16 suggest the presence of an auriferous shear zone. Since drilling hole 1316-16, an additional 14 holes have been drilled, and have extended the main shear zone 2,400 feet to the north. One of these holes was drilled to depth, and at this location, the gold-bearing shear increased in width and grade.

South Pod Lens drilling was completed with the completion of holes 1316-18 and 1316-32. The drilling failed to outline a continuation of the main zone southward. Instead, the mineralized sections to the south seem to be very small, local features with weak gold mineralization. The presence of diabase dykes running roughly parallel to the main shear might suggest that one or more of these dykes may now fill the main structure giving rise to very erratic values with little correlation from one hole to the next.

Continuous drilling of the Duggan Zone has outlined a broad alteration zone, within the Milly Creek Pluton. Drilling has outlined a zone 800 feet in length, with erratic gold values. Correlation between holes can only be done on the basis of alteration, and not on the basis of gold content. Higher grade

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gold mineralization, within the Duggan Zone, occurs in small pods and lenses which cannot be traced along strike or along dip. Detailed drilling in the heaviest mineralization gives grades averaging 0.15 - 0.17 oz/ton.

The single hole in the Quartz Shear zone failed to produce any significant gold intersections. Two holes have since been drilled to the north with scattered values over reasonable widths, but again correlation between holes is impossible at this time.

Drilling on the induced polarization anomaly to the south uncovered narrow zones of massive sulphide mineralization but no significant gold values.

Respectfully submitted,

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D.M.E. Pilkey, B.Sc., April 27, 1988

CERTIFICATE OF QUALIFICATION

- I, David Marshall Evans Pilkey do hereby certify:
- that I am a geologist and reside at 904 Howey Drive, Sudbury, Ontario, P3B 1H4,
- that I graduated from Laurentian University in Geology in 1984 with a Bachelor of Applied Science,
- 3. that I have practised my profession continuously for three years, as a mine geologist and exploration geologist.
- 4. that my report on Diamond Drilling, September October and November, Tyranite property is based on my personal knowledge of the geology of the area and on-site supervision of the on-going drilling program.

David Pribu

D.M.E. Pilkey, B.Sc., April 27, 1988

<u>COMPLETED DRILL HOLES - TYRANITE PROPERTY</u>

Significant Intersections

Hole No.	Location	Elevation (ft)	Azimuth	Dip 	Length <u>(ft)</u>	From <u>(ft)</u>	To <u>(ft)</u>	Length _(ft)_	Assay <u>Au (oz/t)</u>
SOUTH POD	LENS								
1316-18	14+04S, 3+53W	10,037.24	090-	-50°E	350	No sign	nificant i	ntersecti	ons.
1316-19	15+03s, 3+35W	10,036.49	090-	-50°E	350	No sign	nificant i	ntersecti	ons.
1316-20	15+85S, 3+20W	10,035.74	0 90 °	-50°E	350	228.0	233.0	5.0	0.049
					(South Pod	Lens on har	nging wall	of diaba	se dyke).
1316-21	16+92S, 3+20W	10,031.34	090-	-50°E	350	259.0	262.4	3.4	0.0402
					(South Pod	Lens on har	nging wall	of diaba	se dyke).
1316-22	19+89S, 2+55W	10,032.73	090-	-50°E	350	No sign	nificant i	ntersecti	ons.
1316-23	20+06S, 3+79W	10,026.10	090-	-50°E	500	303.7	306.2	2.5	0.0367
1316-24	20+06S, 3+79W	10,026.10	090-	-70°E	600	379.0	381.0	2.0	0.040
1316-25	16+92S, 4+22W	10,023.70	090-	-50°E	500	378.5	381.0	2.5	0.0532
1316-26	16+92S, 4+22W	10,023.70	090-	-70°E	600	No sigr	nificant i	ntersecti	ons.
1316-27	16+16S, 4+03W	10,019.99	090⇔	-50°E	500	188.0	190.0	2.0	0.0437
1316-28	16+16S, 4+03W	10,019.99	090 -	-70°E	600	117.5	119.5	2.0	0.0804
1316-29	15+02S, 4+23W	10,022.50	090-	-50°E	500	161.5	164.0	2.5	0.036
						327.8	329.5	1.7	0.034
1316-30B	15+02S, 4+23₩	10,022.50	090-	-70-E	600	No sigr	nificant i	ntersectio	ons.
1316-30	15+02S, 4+23W	10,022.50	090=	-70°E	226.4	171.0	174.0	3.0	1.653
1316-31	14+22S, 4+53W	10,020.21	090-	-50°E	500	67.0	70.0	3.0	0.072
						335.4	338.0	2.6	0.046
1216-32	14+22S, 4+53W	10,020.21	090-	-70°E	650	585.0	588.0	3.0	0.478

page 2

Significant Intersections

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Hole No.	Location	Elevation (ft)	Azimuth	Dip	Length _(ft)_	From <u>(ft)</u>	To <u>(ft)</u>	Length (ft)	Assay <u>Au (oz/t)</u>
IP ANOMAL	<u>¥</u>								
1316-47	12+36S, 8+00W	10,025.75	090-	-50°E	500	No sign	nificant i	ntersecti	ons.
1316-48	8+58S, 6+46W	10,020.12	090-	-50°E	500	No sign	nificant i	ntersecti	ons.
1316-49	12+14S, 5+37W	10,037.08	090-	-50°E	500	No sign	nificant i	ntersecti	ons.
1316-50	8+185, 4+07W	10,001.98	090°	-50°E	500	398.0	401.0	3.0	0.124
NORTH LEN	<u>s</u>								
1316-16	0+69S, 2+25W	9,993.78	090 °	-60°E	600	136.0	139.0	3.0	0.111
						163.0	166.0	3.0	0.556
						305.0	312.0	7.0	0.049
QUARTZ SHI	BAR ZONE								
1316-17	0+04S, 5+85E	10,060.80	090-	-50°E	350	No sign	ificant in	ntersectio	ons.
DUGGAN ZO	NB								
1316-33	11+47N, 50+19W	9,908.13	090-	-45°E	100	23.0	28.0	5.0	0.185
1316-34	11+98N, 50+34W	9,910.35	090-	-45°E	100	38.5	52.0	13.5	0.071
						this i	ncludes		
•						38.5	43.5	5.0	0.104

page 3

Signif	icant	Inters	ections
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Hole No.	Location	Elevation (ft)	Azimuth	Dip 	Length (ft)	From <u>(ft)</u>	To <u>(ft)</u>	Length <u>(ft)</u>	Assay <u>Au oz/t)</u>
1316-35	12+47N, 50+42W	9,909.14	090-	-45°E	96.7	39.4	42.4	3.0	0.130
						48.4	60.4	12.0	0.135
						85.9	88.9	3.0	0.126
1316-36	12+97N, 50+68W	9,908.52	090-	-45°E	100	70.0	80.0	10.0	0.0562
1316-37	13+50N, 50+55W	9,907.62	090-	-45°E	102	54.2	57.2	3.0	0.0584
						72.2	75.2	3.0	0.120
1316-38	13+88N, 50+77W	9,907.32	090-	-45°E	97.7	80.3	92.3	12.0	0.148
1316-39	14+54N, 50+09	9,903.47	090-	-45°E	98.3	28.9	31.9	3.0	0.0778
	·					67.7	70.7	3.0	0.0687

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-16

Property: Tyranite	NTS:	Township: Knight			
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5804	Coordinates: L1+00S; 2+15W			
Azimuth: 090°	Dip: -60°E	Length: 600.0'			
Logged By: D. Pilkey	Casing: 0 - 26.0' (left in)	Elevation:			
Date Started: September 14, 1987	Date Completed: September 17, 1987	Date Logged: September 19, 1987			
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:			
Drill Company: Bill Link	Overburden: 0 - 26.0'	Checked: D. Pilkey Jan. 6, 1988			

			·	<u>Acid Dip Tests</u>			
1.	26.0'	-62°E	2. 300.	0' -62°E	3.	591.0'	-63°E
			<u> </u>				

Purpose To evaluate North Lens at approximately 300 ft. level.

1 × 1

Conclusions Significant Intersections: 136 to 139 - 3 ft. @ 0.111 oz gold/ton 163 to 166 - 3 ft. @ 0.556 oz gold/ton 305 to 312 - 7 ft. @ 0.049 oz gold/ton.

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

•••••••		November 2, 19	987				Hole	e No. 1316-16
From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) Oz/t
0	26.0	Casing						
26.0	49.0	Poikiloblastic Basalt	Rock consists of fine grain light grey to greenish grey mafic volcanics, containing 15-20% small, rounded chlorite grains, up to 2mm in diameter. Rock shows a weakly developed foliation.					
			2, 1987 Description astic Rock consists of fine grain light grey to greenish grey mafic volcanics, containing 15-20% small, rounded chlorite grains, up to 2mm in diameter. Rock shows a weakly developed foliation. Ground mass shows a moderate pervasive chloritization, with a weak - moderate fracture or shear controlled chlorite slip alteration. Zone also shows a weak fracture controlled calcite with veinlets ranging in size from %" - 1/8" in width. Hematization between footage 41.0 - 42.5' is noted, with the most intense alteration being confined to the chlorite grains. Moderate to strong epidotization is noted in a small section around 47.0', with a well developed chlorite and calcite veining also found in this zone. Trace pyrite is noted locally. Rock is no longer poikolitic, and remains fine grain, greenish grey in colour, with a weakly developed foliation. Rock contains 3 - 5%, small pinkish white calcite veinlets, locally. Veins range from hairline fracture fillings to %" fracture and shear controlled veinlets. Most veinlets run @ 60 - 70° T.C.A, with others being	53327	37.3	39.5	2.2	11
	Ground mass shows a moderate pervasive chloritization, with a weak - moderate fracture or shear controlled chlorite slip alteration. Zone also shows a weak fracture controlled calcite with veinlets ranging in size from $\frac{1}{2}$ " - 1/8" in width. Hematization between footage 41.0 - 42.5' is noted, with the most intense alteration being confined to the	53328	39.5	41.0	1.5	9		
		53329	41.0	43.5	2.5	6		
			Hematization between footage 41.0 - 42.5' is noted, with the most intense alteration being confined to the chlorite grains. Moderate to strong epidotization is noted in a small section around 47.0', with a well developed chlorite and calcite veining also found in this zone.					-
			Trace pyrite is noted locally.	53482	46.0	48.0	2.0	28
49.0	291.3	Basalt	Rock is no longer poikolitic, and remains fine grain, greenish grey in colour, with a weakly developed foliation.					
			Rock contains 3 - 5%, small pinkish white calcite	53330	53.0	56.0	3.0	8
			fillings to %" fracture and shear controlled veinlets.	53331	56.0	59.0	3.0	290
			very discontinuous in character.	53480	59.0	62.0	3.0	7
				53481	62.0	65.0	3.0	9

					Page ₂					
From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	A (ppb)	u oz/t	
		Basalt (Cont'd)	The rock also shows a weak pervasive calcite alteration. Chlorite alteration is strong with both pervasive and shear controlled chlorite slips	52222	70 5	7E É	2.0	22		
			being present.	55552	72.5	/5.5	5.0	23		
			Hematization occurs as small brebby features to hairline fracture fillings, ranging from weak to	53333	86.0	89.0	3.0	7		
	· ·		zones of strong locallized alteration. Sulphide mineralization is minor. with only local amounts	53334	89.0	92.0	3.0	7		
			of trace pyrite being found.	53335	92.0	95.0	3.0	7		
				53336	95.0	98.0	3.0	〈 5		
				53337	98.0	101.0	3.0	12		
			From 86.0' mark, hematization is becoming pervasive	53338	101.0	104.0	3.0	6		
	throughout core, with zones of strong to very stro hematization being noted.	throughout core, with zones of strong to very strong hematization being noted.	53339	104.0	107.0	3.0	23			
			·	53340	107.0	110.0	3.0	6	••	
				53341	110.0	113.0	3.0	8		
			Section 136.0 - 139.0, basalts show a moderate per-	53342	113.0	116.0	3.0	∢ 5		
			contain 2 - 3% finely disseminated, euhedral pyrite	53343	116.0	119.0	3.0	く 5		
			contacts and small chlorite slips. Zone shows strong	53344	130.0	133.0	3.0	34		
			alteration.	53345	133.0	136.0	3.0	5		
				53346	136.0	139.0	3.0	3835	0.111	
				53347	139.0	142.0	3.0	83		
			•	53348	142.0	145.0	3.0	15		
				53349	145.0	148.0	3.0	19		

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From (ft)	To (ft)	Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
- 1			53350	148.0	151.0	3.0	12
			53351	151.0	154.0	3.0	22
		Intense hematization is noted from 156.0', with	53352	154.0	157.0	3.0	21
		intense hematite, calcite veining locally found.	53353	157.0	160.0	3.0	7
	•		53354	160.0	163.0	3.0	27
			53355	163.0	166.0	3.0	19078 0.556
			53356	166.0	169.0	3.0	147
			53357	169.0	172.0	3.0	29
			53358	172.0	175.0	3.0	26
			53359	175.0	178.0	3.0	15
			53360	178.0	181.0	3.0	22
			53483	181.0	183.7	2.7	18
			53361	183.7	186.0	2.3	225
			- 53362	186.0	189.0	3.0	129
			53363	189.0	192.0	3.0	11
			53364	192.0	195.0	3.0	18
			53484	195.0	198.0	3.0	8
			53365	198.0	201.0	3.0	308
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								Page 4	
- 14	From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
			Basalt (Contid)	Pink calcite veinlets become more abundant from	53366	211.0	214.0	3.0	11
			(cont'd) footage 229.0, Wi veinlets of ½" -	veinlets of ½" - 1" in width found @ footages of	53367	214.0	217.0	3.0	7
				lets run from 30° - 70° T.C.A., and usually have	53368	217.0	220.0	3.0	21
				slips.	53369	220.0	223.0	3.0	〈 5
					53370	223.0	226.0	3.0	く 5
					53371	226.0	229.0	3.0	< 5
				Trace pyrite is found in wallrock of calcite veins.	53372	229.0	232.0	3.0	242
					53373	232.0	235.0	3.0	8
					53374	235.0	238.0	3.0	7
					53375	238.0	241.0	3.0	18
					53376	241.0	244.0	3.0	9
					53377	244.0	247.5	3.5	15
			·		53378	247.5	251.0	3.5	21
					53379	251.0	254.0	3.0	12
					53380	254.0	257.0	3.0	7
					53381	257.0	260.0	3.0	8
					53382	260.0	263.0	3.0	11
				· · ·	53383	263.0	266.0	3.0	16
				Small zone of intense calcite veining occurs @ 273.5'	53384	266.0	268.0	2.0 .	< 5
				mark, with ½" - 1/16 veins running @ 45° 1.C.A.	53385	268.0	271.0	3.0	< 5

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From (ft)	To (ft)	Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
		Basalt	53386	271.0	274.0	3.0	8
		(cont.d)	53387	274.0	276.0	2.0	5
•			53388	276.0	279.0	3.0	6
			53389	279.0	282.0	3.0	7
			53390	282.0	285.0	3.0	5
			53391	285.0	287.3	2.3	108
			53392	287.3	289.3	2.0	9
			53393	289.3	291.3	2.0	9
291.3	318.0	Calcite-chlorite pyrite zone Host rock consists of strongly foliated, altered mafic volcanic rocks. Rock is very fine grain, greyish green, green to black basalts. Alteration through zone is intense, with most being related to the main foliation direction @ 40 - 50° T.C.A. Chloritization of the basalts in intense, with both pervasive and foliation controlled chlorite present. Calcite is found as weak pervasive alteration, and as moderate, shear controlled calcite stringers	53394 53395 53396	291.3 293.8 296.5	293.8 296.5 299.0	2.5 2.7 2.5	346 1142 971
		Calcite also occurs as whitish to light pink blebs, which give the zone a brecciated appearance. Small sections of what appears to be green mica are locally noted in the zone. The zone also shows moderate, blebby to minor discontinuous quartz veining, with a weak pervasive silicifaction noted. Sulphide mineralization is strong, and occurs in the form of fine euhedral pyrite cubes and fine 2mm foliation controlled stringers. Pyrite forms 5-10% of zone.	,				

¥,						Page 6				
From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Ац (ррb)	oz/t	
			Section from 299.0 - 307.0, contains a highly silicous fine grain light groop volcanic rock	53397	299.0	301.0	2.0	554		
			Rock now shows a decrease in chlorite alteration,	53398	301.0	303.0	2.0	57		
			calcite. Sulphide mineralization now only from TR - 2% and occurs as finely disseminated	53399	303.0	305.0	2.0	42		
			cubic pyrite.	53400	305.0	307.0	2.0	2538	0.074	
			Section from 307.0 - shows the return of the	53401	307.0	309.5	2.5	1368	.0399	
		pervasive calcite and silicification. Pyritic	53402	309.5	312.0	2.5	1303	0.038		
		of zone, most of which lie along foliation planes.	53403	312.0	315.0	3.0	272			
			53404	315.0	318.0	3.0	467			
318.0	406.0	Basalts	Rock consists of fine grain, light - dark green altered mafic volcanic rock. Rock contains a well developed foliation.	53405	318.0	320.2	2.2	22		
				53406	320.2	322.2	2.0	9		
			Alteration consists of strong pervasive chloritization and calcite alteration, with moderate blebby and fracture controlled calcite veining.	53407	322.2	325.3	3.1	78		
			Smaller amounts of blebby quartz are noticeable with the calcite veining. The rock contains 1% fine disseminated pyrite blebs. Weak brecciation textures are noted along zones of intense veining.	•						
			A zone of intense chlorite and calcite alteration, along foliation directions is noted from 322.3 - 325.31 The zone has a foliation @ 50° T.C.A. and	53408	325.3	328.0	2.7	120		
			consists of thin chloritic slips, between subrounded	53409	328.0	331.0	3.0	247		
		requients of white calcite, and greenish black		53410	331.0	334.0	3.0	82		
				53411	334.0	337.0	3.0	11		
ł	35				Page 7					
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	From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t	
- 2					53412	337.0	340.0	3.0	9	
					53413	340.0	343.0	3.0	41	
				Many of the smaller quartz-calcite veinlets show	53414	343.0	346.0	3.0	9	
				tight folding, and intense fracturing with minor offsets.	53415	346.0	349.0	3.0	〈 5	
					53416	349.0	352.0	3.0	< 5	
					53417	352.0	355.0	3.0	5	
					53418	355.0	358.0	3.0	5	
					53419	358.0	361.0	3.0	9	
					53420	361.0	364.0	3.0	17	
					53421	364.0	367.0	3.0	19	
					53422	367.0	370.0	3.0	8	
					53423	370.0	373.0	3.0.	6	
					53424	373.0	376.0	3.0	< 5	
					5 <u>3425</u>	376.0	379.0	3.0	< 5	
					53426	379.0	382.0	3.0	<5	
					53427	397.0	400.0	3. 0·	6	
-	406.0	411.5	Feldspar porphyry	Rock consists of an altered, fine grain, grey to brown matrix, with 15% small subhedral plagioclase phenocrysts. Phenocrysts show weak hematization, and are roughly equigranular in size, showing a weak foliation direction of 45° T.C.A.						
				The zone shows good alteration in the form of two						

The zone shows good alteration in the form of two large zone, up to l' wide, of quartz veining. The first occurs @ 407.5', is a milky white quartz

		•					Page 8	
From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
			vein running @ 65-70° T.C.A. The vein shows moderate fracture controlled calcite alteration as well as thin zones of chlorite running parallel to subparallel with the vein. Trace amounts of fine pyrite are noted.	53428	406.0	409.0	3.0	51
			The second vein consists of a quartz rich breccia zone @ 411.0'. This zone extends over 1 foot, with fragments of altered porphyry, within milky white quartz material. The zone shows weak, spotty calcite alteration, with moderate fracture controlled chloritization.					
			Sulphide mineralization is present, in the form of 1% fine euhedral pyrite cubes. Cubes are much larger than 1 mm in size, as well as 1-3% blebby chalcopyrite and fine fracture fillings of chalcopyrite.	53429	409.0	411.5	2.5	38
411.5	469.5	Basalt (Ultramafic)	Same as interval 318.0 - 406.0. Rocks are very fine grain, grey - black in colour, show moderate to very strong chloritization, with zones of moderate pervasive calcite and calcite veining.	53430	411.5	414.0	2.5	11
			Local pods of chlorite, talc, possible serpentine suggest an ultramafic origin.					
			Sulphide mineralization occurs locally through zone, consisting of finely disseminated pyrite cubes. Small local zones of pyrite stringers and large %" chalocpyrite veins and blebs are present.					
			Chalocpyrite is most often found along noses of tightly folded quartz-calcite stringers.	53431	414.0	416.5	2.5	7
				53432	416.5	419.0	2.5	9
				53433	419.0	421.5	2.5	6
				53434	421.5	424.0	2.5	7

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From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t			
			Mafic – ultramafic zone contains 5 – 7% fine,	53435	424.0	426,5	2.5	7			
			through the zone.	53436	426.5	429.0	2.5	〈 5			
				53437	429.0	432.0	3.0	< 5			
-				53438	432.0 ·	435.0	3.0	7			
				53439	435.0	438.0	3.0	7			
				53440	438.0	441.0	3.0	7			
				53441	441.0	444.0	3.0	12			
				53442	444.0	447.0	3.0	〈 5			
				53443	447.0	450.0	3.0	51			
				53444	450.0	454.0	4.0 [:]	〈 5			
				53445	454.0	458.0	4.0	< 5			
				53446	458.0	462.0	4.0	10			
			Section from 466.0 show a strong increase in pyrite	53447	462.0	466.0	4.0	7			
		·	individual grains being noted. Locally sulphides	53448	466.0	468.0	2.0	153			
			approach 5-7%. Zone shows a weak pervasive silicification now, with 1% fine blebby quartz and thin quartz stringers.	53449	468.0	469.5	1.5	1463			
469.5	484.5	Silicified	Rock consists of fine - very fine grain weakly	53450	469.5	472.0	2.5	901			
		Porphyry	grey in colour, and only shows very faint, relict	53451	472.0	474.5	2.5	500			
			Phenocrysts blend into a fine grain matrix of mostly	53452	474.5	477.0	2.5	490			
			quartz, relaspar minor chronice.	53453	477.0	479.5	2.5	809			
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	From (ft)	To (ft)	7	Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t	
; - · ` _			Silicified	Alteration is strong with strong - very strong	53454	479.5	482.0	2.5	165	
			Por phyry :	and blebs are common, dorming 5% of zone with local accumulations to 10 - 15%. Calcite is weakly distributed through the zone, but is moderately found as stringers and fracture fillings within the quartz.	53455	482.0	484.5	2.5	361	
				Small hairline fractures of chlorite form 10% of zone, with large chlorite slips forming veinlets subparallel to calcite-quartz veins.						
·				The zone is marked by I-2% fine pyrite cubes and stringers randomly scattered through the wallrock, and in the veins. Pyrite abundances approach 5% locally. Blebby, sparatic chalcopyrite is noted, locally forms 1% of zone.						
	484.5	538.0	Basalts	Rock consists of strongly altered, fine grain, greyish	53456	484.5	487.0	2.5	43	
				moderate to weak foliation.	53457	487.0	489.5	2.5	18	
				Basalts show a range and wide degree of alterations.	53458	489.5	492.0	2.5	140	
				chloritization locally. As well as strong shear shear controlled chlorite slips Silicification is	53459	492.0	494.5	2.5	151	
				present as small bleb zones of quartz and discontinuous	53460	494.5	496.5	2.0	226	
					53461	496.5	498.5	2.0	117	
					53462	498.5	500.5	2.0	36	
					53463	500.5	501.5	1.0	51	
				The rock shows moderate pervasive calcite alteration	53464	501.5	503.0	1.5	114	
•				to 498.5 contains 75 - 80% calcite-quartz stringers and veinlets.	53465	503.0	506.0	3.0	92	

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From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
		Basalts (Contid)		53466	506.0	509.0	3.0'	12
				54367	509.0	512.0	3.0'	8
				53468	512.0	515.0	3.0'	10
			Zones which are black in colour contain from 10 -	53469	515.0	518.0	3.0'	28
	_		1. 526.5 - 528.5 5 2. 531.5 - 534.8 5 3. 535.2	53470	518.0	520.0	2.0'	78
				53471	520.0	523.0	3.0'	100
			Graphic zones all contain shear controlled pyrite	53472	523.0	526.3	3.3'	2276
			Sample from 525 9 529 0 contains both punite and	53473	526.3	528.5	2.2'	74
			calcite stringers, which show strong ptygmatic	53474	528.5	531.5	3.0'	24
			cype foroling.	53475	531.5	534.8	3.3'	54
				53476	534.8	535.8	1.0'	24
				53477	535.8	538.0	2.2'	30
538.0	591.0	Feldspar Porphyry	Rock is massive to weakly foliated, consisting of a fine grained, grayish white matrix of feldspar mafic minerals chlorite and possible minor quartz. Zone contains 15%, subhedral, white plagioclase phenocrysts.	-				
			Alteration is present in the form of moderate pervasive calcite and chlorite, with weak spotty hematite.					•
			Trace amounts to 1% are noted.	53478	538.0	541.0	3.0'	6
		-	Weak to moderate hematization is noted 575.5 - 576.5, with a small quartz-calcite vein @ 576.5 running @ 75° T.C.A.					
			No sulphide mineralization is found.	53479	474.5	577.5	3.0'	8

						Page 12	
From (ft)	To (ft)	Description	Sample No.	From (ft)	Tc (ft)	Width (ft)	Au (ppb) oz/t
. 12		Feldspar Porphyry (Cont'd) A large mafic volcanic fragment, with other smaller ones occurs @ 578.8 - 579.7. Fragments show moderate chlorite alteration with spotty calcite.					

No visible sulphides.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-17

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5801	Coordinates: LON; 2+75E
Azimuth: 090°	Dip: -50°E	Length: 350.0'
Logged By: D. Pilkey	Casing: 0 - 11.0' (left in)	Elevation:
Date Started: September 18, 1987	Date Completed: September 19, 1987	Date Logged: September 25, 1987
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:
Drill Company: Bill Link	Overburden: 0 - 11.0'	Checked: D. Pilkey Jan. 7, 1988

Acid	Dip	Tests
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1.0 -53°

2. 350.0' 52°

<u>Purpose</u> To test Quartz Shear Zone.

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<u>Conclusions</u> No significant intersections.



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DIAMOND DRILL LOG

Hole No: 1316-17

From To (ft) (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0 11.0	CASING						
11.0 209.5	BASALT	Rock consists of fine grain grey dark green, massive mafic volcanic rock. The zone shows weak foliation and fracture controlled calcite, with very weak pervasive chloritization. Trace amounts of fine stringer controlled pyrite with minor blebby pyrite are noticed. Locallized alteration zones are noted, usually con- sisting of thin calcite veinlets running parallel to core, up to 50° T.C.A. Minor chlorite slips are noted within these zones, with occasional epidote alteration. Local zone form less than 2% of core, with remaining basalts be relatively fresh. One larger pink calcite vein, with subparallel he- matite, chlorite and epidote occur @ 53.0'. The vein is 2" in width and runs @ 50° T.C.A. Trace sulphides are noted, in blebby chalcopyrite, pyrite galena? A small zone of intense hematization, with vuggy goethite? is noted @ 60.0'. Zone extends only 1". At 70.0', a zone of intense epidote alteration exists. The zone is 3" wide, runs @ 80° T.C.A. zone also contains minor chlorite. Moderate calcite veining from 111.0 - 113.0'. No sulphide noted. Veinlets 2 mm or less in size. A weak calcite veinlet zone occurs @ footage 146.8 - 147.2'. Calcite veinlets are 1/8" or less in width, running at 70° T.C.A. Zone contains 10% calcite veining, with minor hematization. Trace 1% chalcopyrite is noted, minor pyrite is present.	65335 65336 65337 65338 65340 65341 65342 65343 65344	51.0 53.5 59.5 69.0 111.0 146.0 166.0 169.0 172.0 175.0	53.5 56.0 60.5 71.0 113.0 148.0 169.0 172.0 175.0 177.0	2.5' 2.5' 1.0' 2.0' 2.0' 3.0' 3.0' 3.0' 2.0'	Nil 10 Nil Nil Nil Nil Nil 185

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rom (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Basalts become slightly coarser grained @ 158.0',	65345	177.0	179.0	2.0'	100
			with mafic minerals showing good lineations para-	65346	179.0	182.0	3.0'	Nil
			llel to foliation. Zone still shows only weak	65347	182.0	185.0	3.0'	Nil
			spotty alteration to calcite, chlorite and hema- tite.	65348	191.0	193.0	2.0'	Ni1

A section of strong epidote and calcite alteration is found from 175.0 - 176.0. The zone consists of 20% epidote and calcite with 10% quartz, 5% chlorite and 2-3% blebby pyrite, 1% chalcopyrite. A small, milky white quartz vein is noted from footage 178.2 - 178.9'. The vein runs @ 85° T.C.A., and contains 5% basalt fragments. The vein shows very weak, spotty calcite alteration, with no visable sulphide mineralization.

209.5 256.8 MONZONITE Rock is medium fine grain, moderately foliated, greyish white to red in colour. Rock consists of 15-20% mafic minerals. Hornblendes are elongate parallel to foliation, and show moderate chloritization. The zone also contains numerous small 1 mm, whitish green plagioclase grains, giving the rock a semi-porphyritic texture. The small phenocrysts are well rounded and form about 7% of the zone.

The matrix is fine grain, but seems to consist primarily of feldspar and mafic minerals, such as hornblende, biotite and chlorite.

Alteration of the monzonite porphyry, consists of weak pervasive to fracture controlled chlorite, but strong locallized hematite. Hematitic zones also contain numerous hairline to 2" epidote veinlets, most running form 45°-85° T.C.A. Trace pyrite is noted.

Contact down hole with basalts runs @ 45° T.C.A.

From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
256.8	350.0	BASALT	Same as interval 11.0 - 209.5. Basalts are fine grain, greyish green, massive weakly foliated, with minor alteration. Weak fracture controlled calcite and epidote form 3% of core. Weak very weak pervasive chloritiza- tion is present.	65349 65350 65351 65352 65353	223.0 226.0 229.0 238.0 246.0	226.0 229.0 232.0 241.0 248.0	3.0' 3.0' 3.0' 3.0' 2.0'	Nil Nil Nil Nil Nil

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-18

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5508	Coordinates: L14+00S; 3+50W
Azimuth: 090°	Dip: -50°E	Length: 350.0'
Logged By: D. Pilkey	Casing: 0 - 12.0'	Elevation:
Date Started: September 20, 1987	Date Completed: September 23, 1987	Date Logged: September 23, 1987
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:
Drill Company: Bill Link	Overburden: 0 - 12.0'	Checked: D. Pilkey Jan. 7, 1988

Acid Dip Tests

1. 12 -50°

2. 350.0' 51°E

Purpose To evaluate South Pod Lens.

<u>Conclusions</u> No significant intersections.



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DIAMOND DRILL LOG

Hole No: 1316-18

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	12.0	CASING						
12.0	19.0	BASALT	Rock is relatively massive to slightly foliated, fine grain mafic volcanic rock. Rock has dark green to black in colour, showing only weak alteration. Basalts exhibit very weak pervasive chloritization, but seems to have undergone strong pervasive silicification. No pervasive carbonate minerals are present. Weak fracture controlled calcite veinlets form 1% or less of zone, with local accumulations to 3%. The basalts also contain minor quartz veining with weak brecciation in these zones. Sulphide mineralization in the zone is common with percentages of sulphide minerals being variable from 1%-7%. Zone of quartz-calcite veining common- ly contain the most abundant sulphide amounts. Sulphides consists of pyrite, brassy yellow in colour, and forming fine blebs and thin random stringers along fractures. Section from 81.0 - 82.5' shows strong foliation controlled alteration of the basalts. Volcanics are now strongly carbonatized, with calcite vein- lets up to 1", running @ 35-40° T.C.A. Basalt fragments show moderate weak pervasive calcite alteration, with colours of light green. Small chlorite slips are noted parallel to the foliation. Fine euhedral grains of pyrite form 1-2% of the zone, lying as thin stringers parallel to foliation directions.	65354 65355 65356 65357 65358 65359 65360 65361 65362 65363 65364 65365 65366 65367 65368 65369 65370 65371 65372	12.0 14.5 17.0 20.0 23.0 26.0 29.0 31.0 33.0 34.5 40.0 48.5 50.0 53.0 69.5 79.0 81.0 82.5 84.5	14.5 17.0 20.0 23.0 26.0 29.0 31.0 33.0 34.5 36.5 41.5 50.0 53.0 55.0 70.5 81.0 82.5 84.5 86.5	2.5' 2.5' 3.0' 3.0' 3.0' 2.0' 1.5' 2.0' 1.5' 3.0' 2.0' 1.5' 2.0' 1.5' 2.0' 1.5' 2.0' 1.5' 2.0'	345 NIL NIL NIL NIL NIL NIL NIL NIL NIL NIL

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			·			page	2	
From (ft)	To (Ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Zone shows an increase in amount of calcite veins	65373	86.5	88.4	1.9'	NIL
			@ 89.0'. Veinlets in this section comprise 3-5%	65374	88.4	90.7	2.3'	585
			of zone and vary in width from hairline $to 1/2$ " in	65375	90.7	93.0	2.3'	NIL
			width.	65376	97.0	99.0	2.0'	NIL
			Section from 104.0 - 105.5 shows intense pervasive	65377	99.0	101.0	2.0'	NIL
			silicification with moderate pervasive carbona-	65378	101.0	104.0	3.0'	NIL
			tization. The zone contain about 3% fine blebby	65379	104.0	105.5	1.5'	405
			pyrite. Pyrite is noted as small blebs and irre-	65380	105.5	108.0	2.5'	NIL
			gular fracture fillings.	65381	108.0	109.0	1.0'	NIL
			Chloritization is evident, but extent of alteration	65382	109.0	111.0	2.0'	NIL
			is masked by amounts of silica. Foliation controls	65383	130.0	132.0	2.0'	10
			sulphides, silica and calcite veinlets and runs @	65384	132.0	135.0	3.0'	NIL
			35-45° T.C.A.	65385	135.0	138.0	3.0'	NIL
			Zone from 132.0 - 134.0' consists of silicified	65386	138.0	141.0	3.0'	NIL
			<pre>basalts and basaltic fragments in a lattice of fine dendritic to randomly oriented pyrite veinlets. Veinlets are very fine ad commonly are abundant enough to give the zone a massive texture. two small quartz calcite stringers are found near the end of the sample running @ 50° T.C.A. The first is 1.5" in width, but contains only trace amounts of pyrite. Small quartz-calcite veinlets of 1" or less become more common from 134.0 - 141.0'. Veinlets are all subparallel @ 55° T.C.A.</pre>	65387	141.0	144.0	3.0'	NIL
144.0	160.6	INTER- MEDIATE FELSIC VOLCANIC	Rock now is fine grain to aphanitic in grain size, with colour variations from grey, light green to yellow. Rock shows a moderately well developed foliation, running from 45 - 90° T.C.A. The zone exhibits strong alteration, with pervasive calcite and calcite veining being most common. Darker chloritic zones are noted, and also show moderate calcite alteration.					

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	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
by a	65388	144.0	146.0	2.0'	10
s and	65389	146.0	148.6	2.6'	NIL
very	65390	148.6	151.1	2.5'	300
to have	65391	151.1	153.6	2.5'	310
	65392	153.6	156.1	2.5'	60
ay give	65393	156.1	158.6	2.5'	80
ng small	65394	158.6	160.6	2.0'	355
•	65395	174.0	176.9	2.9'	30
h zone	65396	176.9	178.4	1.5'	NIL

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Zones of intense silicification are marked by a series of small ribbon like quartz veinlets and irregular lens. Quartz in these areas is very dark in colour. Section of the core seem to have undergone moderate spotty albitization?

Evidence of primary layer is found which may give the rock a tuffaceous origin. Offsets along small fractures are common.

Sulphide mineralization is variable through zone with locally accumulations to 3%. Sulphides consist of fine euhedral grains, forming small lens and stringers running subparallel to foliations. Pyrite is the only sulphide present.

160.6 224.7 BASALT

To

(Ft)

From (ft)

4.12

Rock is altered medium grained basalt-diorite. Most primary texture is gone with zone showing a weak foliation. Rock is light green to grey in colour. Rock consists of zones of strong pervasive chloritized and pervasive calcite alteration. Rock also contains numerous thin chloritic slips forming dendritic textures locally.

Thin calcite veinlets and zones of calcite veining are noted locally running @ 75° T.C.A. One small serpentinite? fracture filling is found @ 205.4'. Sulphide mineralization consists of very finely disseminated pyrite ranging from 1% to 2% locally. Occasionally sulphides may be blebby in nature. Some of the sulphide has a silvery colour (arsenopyrite?) but is too fine to determine. Trace amounts of chalcopyrite are noted.

Zone from 176.0 - 178.4 show strong calcite alteration with moderate to weak silicification and chloritization. Zone contains 2-3% blebby pyrite. Spotty hematization is noted.

¢						page	4	
From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	From footage 199.0', the zone becomes much finer grained showing fracture controlled chloritic alteration, with weak quartz-calcite veinings, and strong local pervasive calcite alteration. Spotty epidote is also noted. Sulphide minera- lization consists of finely disseminated pyrite and fine pyritic stringers. Sulphide mineraliza- tion is very fine grained, forming up to 3% of the rock. Zone contains a mud seam from 100.8 - 201.4'. Section from 213.9 - 224.7' shows an abrupt change in colour to light green. Zone is marked by a moderate strong pervasive calcite alteration, with weak fracture controlled chloritization. Rock also contains a weak fracture controlled calcite veining @ 70° T.C.A. Pyrite mineralization varies from trace 5% locally consisting of large 1-5 mm blebs and fine disse- minated grains and stringers.	65397 65398 65399 65400 65401 65402 65403 65404 65405 65406	196.8 201.4 203.9 206.4 208.9 211.4 213.9 216.4 218.7 221.4	199.8 203.9 206.4 208.9 211.4 213.9 216.4 218.7 221.4 224.7	3.0' 2.5' 2.5' 2.5' 2.5' 2.5' 2.3' 2.7' 3.3'	NIL 20 180 100 30 20 20 290 980 410
224.7	250.6	DIABASE	Rock consists of weakly altered, massive to slightly foliated diabase dyke. Diabase is fine to medium grained, consisting of large lath shaped horn- blende grains. Grains show no apparent preferred orientation. Alteration consists of moderate fracture controlled chloritization, with very weak spotty calcite and weak fracture controlled calcite veining. Section of the dyke contain 2-2% small 1 mm chloritic	65407 65408 65409 65410	228.0 264.0 267.0 270.0	231.0 267.0 270.0 273.0	3.0' 3.0' 3.0' 3.0'	NIL 200 30

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of the dyke contain 2-3% small 1 mm chloritic spots. Trace amounts of pyrite are noted as small random blebs. Diabase is moderately magnetic.

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
250.6	294.0	BASALTS	Rock consists of fine grain, light green to grey mafic volcanics. Rock is massive to weakly folia- ted with 2% fine calcite stringers and blebs. The basalts show weak pervasive chloritization and only very weak spotty calcite alteration. Spotty hematite and weak hematite veining is now noted. Strong foliation is noted in these areas.	65411 65412 65413 65414 65415 65416 65417 65418	273.0 276.0 279.0 282.0 285.0 288.0 291.0 300.0	276.0 279.0 282.0 285.0 288.0 291.0 294.0 302.0	3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 2.0'	30 NIL 20 130 425 NIL 10
294.0	348.0	DIABASE	As described in section 224.7 - 250.6, dyke now contains 3-4% fine blebby chlorite with weak frac- ture controlled calcite alteration and moderate fracture controlled chloritization. Zone contains trace amounts of fine blebby pyrite, with local accumulations to 2%. Section @ 318.2' contains a 1-2" quartz-epidote? veinlet running @ 60° T.C.A. Veinlet shows weak spotty fracture controlled calcite. No sulphide mineralization is noted. Zone is moderate strongly magnetic.	65419 65420	318.0 348.0	320.0	2.0'	10 310

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page 5

348.0 350.0 BASALT As described in interval 250.6 - 294.0'. Zone contain 1% locallized, blebby pyrite.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-19

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L15+00N; 3+50W
Azimuth: 090°	Dip: -50°E	Length: 350.0'
Logged By: R. deGagne	Casing: 0 - 7.0'	Elevation:
Date Started: September 23, 1987	Date Completed: September 26, 1987	Date Logged: September 27, 1987
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:
Drill Company: Bill Link	Overburden: 0 - 7.0'	Checked: D. Pilkey Jan. 6, 1988

Acid Dip Tests

1. 7.0' -52°E 2. 350.0' 55°E

To evaluate South Pod Lens. Purpose

<u>Conclusions</u> No significant intersections.



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NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-19

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	7.0	CASING						
7.0	13.3	ULTRAMAFIC VOLCANICS	Black, aphanitic, ultramafic volcanics (basalts); texture is almost vitreous; sequence is extremely hard and is very weakly carbonatized (5%); rock unit is profusely mineralized sulphides occur in veinlets and strings that transect core axis, and as condensed blebs (almost massive - up to $^3/4$ " in d.) along core and in fracture surfaces.	130151 130152 130153 130154 130155 130155 130156 130157 130158	7'0" 10'0" 13'4" 17'10" 24'2" 30'0" 38'11" 45'4"	10'0' 13'0" 16'4" 20'10" 25'2" 32'0" 40'11" 46'4"	3.0' 3.0' 3.0' 1.0' 2.0' 2.0' 1.0'	12 16 26 19 32 5 26 117
13.3	111.4	MAFIC VOLCANICS	Dark green-green black aphanitic mafic volcanics (andesite); texture varies from uniformly aphanitic to one that contains lenticular splotches of lighter coloured (grey-green) chloritized host rock; mafic sequence is transected by strings, veinlets of calcite and differentially eroded chlorite; sporadic intrusions of carbonatized quartz cut across core axis @ 135°; as a whole the sequence is moderately altered through chloritization and carbonatization; sulphide mineralization occurs as disseminated blebs non-uniformly through rock unit, (blebs range in size from specks to 2-5 mm in d. blebs) and less predominantly in veinlets and stringers of carbonatized chlorite. 32'4"; 1"-2" vein of purple grey-white carbonate interspersed with strings of chlorite and chloritized host rock @ 160° T.C.A. 34'0"; 1"-2" vein of grey-white siliceous carbonate @ 140° T.C.A.; contains intrusions of chloritized host rock.	130159 130160 130161	48'0" 52'1" 56'2"	50'0" 53'1" 58'2"	2.0' 1.0' 2.0'	51 12 15

From	То
(ft)	(ft

4.2

- (ft)

cont'd

VOLCANICS

- 34'8"; Network of grey-white carbonate tributaries, veinlets, and strings.
 - 35'2": 2"-3" d. patch siliceous (40%) grey-white carbonate; transected by chloritized host rock veinlet and strings.
 - 85'9" 87'7": Sequence of altered mafic volcanics: rock is moderately carbonatized, chloritized and weakly silicified giving the texture a somewhat "marbled" appearance; sulphides occur as disseminated blebs.
 - 90'9"; 1/2" vein of grey white silicified carbonate @ 60° T.C.A.
 - 91'2"; 1/4-1/2" veinlet of white silicified carbonate @ 45° T.C.A.
 - 99'0": 3" lenticular patch of purple grey-white siliceous (20%) carbonate; sulphide blebs (2-4mm) are located in host rock peripheral to lens.
 - 109'3" 110'2"; Felsic Volcanics Sequence: Olive green-green grey aphanitic felsic volcanics (rhyolite); sequence intruded by numerous chloritic strings, carbonatized veinlets: minor disseminated sulphides occurring as specks.

FELSIC 111.4 119.9

Olive green to grey-green aphanitic felsic volcanic sequence: surface of rock unit is lineated with threads of carbonatized host rock and chlorite that transect core axis: sulphide mineralization occurs as blebs concentrated in veinlets and strings cutting across core axis;

119'8": 1/2" vein of grey-white calcite @ 100° T.C.A.

page 2

Sample	From	То	Width	Au
No.	(ft)	(ft)	(ft)	(dqq)
130162	86'0"	76'6"	1.5'	48
130163	90'2"	91'2"	1.0'	10
130164	93'11"	95'11"	2.0'	15
130165	98'5"	101'5"	3.0'	19
130166	103'0"	106'0"	3.0'	16
130167	106'0"	107'0"	1.0'	7
130168	115'11"	116'11"	1.0'	14

page 3

From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
119.9	154.3	MAFIC VOLCANICS	Dark green-green black aphanitic mafic volcanics (andesite); sequence is moderately altered (chloritized, carbonatized) as evidenced by tran- secting threads, strings of carbonate, chlorite as well as veins of silicified calcite; sulphide mineralization occurs through mafic unit varying between disseminated blebs and freckles, condensed blebs present in veinlets and strings, and len- ticular pods $(1/4"-1/2")$ in d.) 124'8"; $1/2"-1"$ wide veins of white-white grey 124'9"; calcite; contains strings-threads, pods of	130169 130170 130171 130172 130173	129'1" 135'9" 142'2" 147'0" 161'10"	131'1" 138'9" 145'2" 150'0" 163'10"	2.0' 3.0' 3.0' 3.0' 2.0'	12 7 8 5 14

mafic host rock @ 110° T.C.A.

- 125'3"; 1/2" wide white-grey white calcite vein @ 90° T.C.A.
- 127'0" 127'8"; Zone of intense carbonatization; characterized by numerous tributaries and threads of white carbonate; frequency of calcite strings gives rock unit a "marbled" or swirled appearance.

FELSIC Grey aphanitic, highly siliceous felsic volcanic VOLCANICS Sequence (rhyolite); parts of sequence are subporphyritic with weakly developed phenocrysts of leukocratic minerals; carbonatized and chloritized alteration of felsic unit is weak-moderate consisting of fine threads of white-grey calcite and black chlorite; sulphide mineralization is sporadic at best, as evidenced by isolated dissemianted specks. 164'5"; 1/2" wide veinlet of fleshy-white calcite @ 60° T.C.A.

154.3 168.1

164'10"; 1/2"-3/4" vein of white calcite @ 110° T.C.A., contains brecciated inclusions of felsic host rock.

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From (ft)	To (ft)	Width (ft)	Au (ppb)
170'4"	173'4"	3.0'	90
175'0"	176'0"	1.0'	43
176'6"	177'6"	1.0'	549
183'0"	186'0"	3.0'	43
186'0"	188'3"	2.0'	62
191'5"	192'5"	1.0'	11
	From (ft) 170'4" 175'0" 176'6" 183'0" 186'0" 191'5"	FromTo (ft)170'4"173'4"175'0"176'0"176'6"177'6"183'0"186'0"186'0"188'3"191'5"192'5"	FromToWidth (ft)(ft)(ft)(ft)170'4"173'4"3.0'175'0"176'0"1.0'176'6"177'6"1.0'183'0"186'0"3.0'186'0"188'3"2.0'191'5"192'5"1.0'

- Dark green to green-black aphanitic mafic volcanic sequence (andesite); mafic unit is moderately carbonatized, chloritized with strings, threads of calcite and chlorite; sulphide mineralization is generally sporadic but when it occurs it does so as localized blebs (2mm in d.)
 - 169'11": 1" vein of grey-white to light orange calcite: contains brecciated inclusions of mafic host rock (up to 1/4" in d.).
 - 175'9"; 3" band of highly silicified dark grey mafic volcanics; profusely mineralized with pyrite (20-30%) occurring as condensed blebs.
 - 176'6": Light blue-grey blue staining found on fracture surfaces of mafic rock unit: mineral has a hardness of 1 and does not react to H C1. (Brucite?)

177'2": 1" vein of fleshy-white calcite @ 90° T.C.A.

- 185'10"; 1"-11/2" wide vein of green-grey to smokey grey silicified carbonate @ 120° T.C.A.: vein contains strings, threads of chlorite, threads and blebs of crimson coloured hematized calcite: vein is strongly mineralized along its contacts and to a lesser extent (5%) in its interior; sulphides occur as disseminated blebs.
- 176'6": 10" band of silicified, strongly mineralized mafic volcanics (sulphides occur as disseminated blebs).
- 193'4" 215'7"; Siliceous mafic volcanics: Grey-green to dark grey silicified mafic volcanics; texture is porphyritic in sections with phenocrsts of leukocratic minerals; black blebs or splotches freckle the mafic sequence: alteration occurs moderately in the form of carbonatized strings, veinlets and chloritic threads.

From То (Ft) (Ft)

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168'1" 232'1" MAFIC VOLCANICS

						page 5	5	
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
232.1	261.2	DIABASE	Green black to dark grey phaneritic intermediate coarse grained diabase; sequence is uni-granular is transected sporadically by carbonate veinlets and threads; black chloritic lenses and pods are also present intermittently; sulphide mineralization occurs in sparse disseminated blebs. 246'3"; 2" vein of grey-white (70%) and light red (hematized) calcite @ 110° T.C.A.	130180 130181 130182 130183 130184	222'10" 226'3" 266'0" 269'0" 279'5"	225'10" 228'3" 269'0" 271'0" 280'5"	3.0' 2.0' 3.0' 2.0' 1.0'	55 51 274 549 240
261.2	265.0	MAFIC VOLCANICS	Dark green-green grey aphanitic mafic volcanics (andesite) weakly carbonatized-chloritized; surface contains small black specks-splotches (possibly chlorite); sulphide mineralization occurs as inter- mittent speckled blebs.					
265.0	287.0	ALTERRED MAFIC VOLCANICS	Highly silicified-carbonatized, moderately chlo- ritized greyish green to light green-grey aphanitic mafic volcanics; weakly developed flow bands occur (greyish-white in colour) denoting intense carbona- tization of mafic unit; chlorite is present as strings and threads transecting core axis as well as in splotches or blebs; sulphides occur massively in 3-5' sequence of the mafics (60% by volume in a 3' section!) on a sporadic blebs and disseminated specks in the rest of the sequence.					
287.0	291.10	MAFIC VOLCANICS	<pre>Green black to dark grey aphanitic mafic volcanics (andesite); sequence is weakly alterred with respect chloritization, carbonatization; sulphides occur as sporadic spotty blebs or pods (3 mm in d.). 188'6"; 2" wide section consisting of lenticular phenocrysts of orthoclase and white calcite in the mafic volcanic matrix; orthoclase phenocrysts (up to 1/4" d.) are transected by chloritic threads; calcite appears as small white-grey phenocrysts (2 mm d.).</pre>					

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
291.10 349	.4 DIABASE	<pre>Dark green-grey medium grained diabase; texture is splotched or freckled with black blebs (1 mm d.) of a melanocratic mineral (chlorite) through- out sequence; intermittant sections of diabase is also porphyritically brecciated with phenocrysts of a leukocratic mineral (1 mm in d.); unit is also transected by olive green calcareous epidote veinlets and white quartz veinlets; sulphide mineralization is sparse and occurs as dissemi- nated specks but occurs as blebs (1-2mm) with transecting quartz veins. 313'3"; 1¹/2" wide white calcareous quartz vein @ 70° T.C.A. contains a 1-2 mm pyrite bleb. 321'1"; ¹/2" wide veinlet grey-green calcareous epidote @ 45° T.C.A. 323'4"; ¹/2" wide veinlet of olive green calcareous epidote @ 60° T.C.A. 337'4"; ¹/4" wide white quartz veinlet @ 110° T.C.A. 347'0"; ¹/4" wide veinlet of white calcite @ 150- 160° T.C.A.</pre>	130185 130186	312'9" 349'0"	313'9" 350'0"	1.0' 1.0'	14 132
349.4 350	.0 MAFIC VOLCANICS	Highly silicified, carbonatized-chloritized mafic volcanics; (andesite); mafic sequence is dark green to light green-grey in colour; texture has a "marbled" or swirled appearance due to intermingling of calcite, chlorite strings and silicified host rock; calcite occurs as white veinlets and lenticu- lar pods; sulphide mineralized is present as blebs (1-2 mm d.)					

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GUNNAR GULD / MILL GITT ING.

DIAMOND DRILL LOG

Hole No: 1316-20

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L16+00S; 3+50W
Azimuth: 090°	Dip: -50°E	Length: 350.0'
Logged By: D. Pilkey	Casing: 0 - 14.0'	Elevation:
Date Started: September 26, 1987	Date Completed: September 28, 1987	Date Logged: September 29, 1987
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:
Drill Company: Bill Link	Overburden: 0 - 14.0'	Checked: D. Pilkey Jan. 7, 1988

Acid Dip Tests

1. 14.0' -50°E

2. 350.0' -50°E

Purpose To evaluate South Pod Lens.

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<u>Conclusions</u> Significant Intersections:

228 to 233 - 5 ft. @ 0.049 oz gold/t. (South Pod Lens on hanging wall of diabase dyke).

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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L. 14

Hole No: 1316-20

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	14.0	CASING						
14.0	176.0	BASALTS	 Rock is massive to slightly foliated mafic volcanics. Rock is green dark green to black in colour. Alteration is weak with only very weak pervasive chloritization and weak fracture controlled calcite alteration. Fracturing in the basalts show small offsets with the calcite veining. Zone contains spotty fracture controlled pyrite mineralization. Pyrite is brassy yellow in colour and occurs as small fracture controlled veinlets 1/8" in width. Weak brecciation of the basalts is noted in some of the larger calcite veinlets. A zone from 67.5' - 67.9' shows intense pervasive calcite alteration. Sections contain 1-2% blebby stringers of pyrite. Basalts become much more pyritic from 109.0 foot mark, with the pyrite being found as fine, brassy stringers and fracture fillings. Veinlets are up to 1/8" in width. Zone also contains weak calcite veining with weak pervasive chloritization and very weak spotty calcite. Sections of the basalts have good tuffaceous textures. Section from 152.5' - 156.5' contains 3-5% fine pyrite stringers in a host of mafic volcanic rock. The volcanic rocks show moderate to weak fracture controlled calcite alteration, but exhibit intense zones of pervasive silicification giving the rock a blue grey cherty appearance. 	53680 53681 53682 53683 53684 53685 53686 53687 53688 53690 53690 53691 53692 53693 53693 53695 53695 53696 53697 53698 53699 53700 53701	14.0 16.0 25.0 27.5 39.0 79.5 82.0 83.5 96.0 98.0 100.0 102.0 109.5 112.0 115.0 118.0 121.0 124.0 127.0 130.0 133.0 136.0	16.0 18.0 27.5 30.0 42.0 82.0 83.5 84.5 98.0 100.0 102.0 104.0 112.0 115.0 118.0 121.0 124.0 127.0 130.0 133.0 136.0 139.0	$\begin{array}{c} 2.0\\ 2.5\\ 2.5\\ 3.0\\ 2.5\\ 1.5\\ 1.0\\ 2.0\\ 2.0\\ 2.0\\ 2.0\\ 2.5\\ 3.0\\ 3.0\\ 3.0\\ 3.0\\ 3.0\\ 3.0\\ 3.0\\ 3.0$	$\begin{cases} 5 \\ 5 \\ 9 \\ 6 \\ 10 \\ 406 \\ 790 \\ 11 \\ 174 \\ 145 \\ 16 \\ 13 \\ 919 \\ 46 \\ 5 \\ 5 \\ 95 \\ 6 \\ 5 \end{cases}$

					page 2			
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
176.0	185.2	FELDSPAR	Rock consists of strongly altered feldspar porphyry.	53702	139.0	142.0	3.0	11
		PORPHYRY	Porphyritic texture is poorly developed. Rock contains	53703	142.0	145.0	3.0	6
			2% subhedral altered, greenish white plagioclase pheno-	53704	145.0	148.0	3.0	28
			crysts. Moderate pervasive chloritization is noted,	53705	148.0	151.0	3.0	6
			with weak calcite veinlets, and very weak pervasive	53706	151.0	152.5	1.5	< 5
			calcite alteration.	53707	152.5	154.5	2.0	54
				53708	154.5	156.5	2.0	316
185.2	213.0	ALTERED	Rock consists of foliated, fine grained mafic volca-	53709	156.5	159.5	3.0	17
		BASALT	nics. Rocks are light grey to greenish grey in	53710	159.5	162.5	3.0	<5
		(PYRITIC	colour and show strong fracturing.	53711	162.5	165.5	3.0	5
		ZONE)	Alteration in the zone is quite variable, with sec-	53712	182.2	185.2	3.0	< 5
			tions showing typical strong pervasive chloritiza-	53713	185.2	188.5	3.3	55
			tion and weak fracture controlled calcite veining.	53714	188.5	191.0	2.5	17
			These sections contains trace 1% fine disseminated	53715	191.0	193.5	2.5	70
			pyrite as well as weak pervasive silicification.	53716	193.5	196.0	2.5	22
			Other sections show strong very strong pervasive	53717	196.0	198.5	2.5	902
			silicification, with hairline zones of chlorite	53718	198.5	201.0	2.5	14
			alteration. Siliceous zones show an abundance of	53719	201.0	203.5	2.5	340
			sulphide mineralization in the form of fine grain	53720	203.5	206.0	2.5	149
			pyritic stringers, pyritic blebs and individual	53721	206.0	208.5	2.5	120
			pyrite grains. Sulphide mineralization in these	53722	208.5	211.0	2.5	46
			zones may reach 10% but is on average 4-6%. Small calcite stringers are also common in these zones. The whole area shows very strong pervasive calcite alteration.	53723	211.0	213.0	2.0	32
213.0	235.4	BASALTS	Same as interval 14.0 - 176.0, zone shows moderate	53724	213.0	216.0	3.0	14
			pervasive chloritization, with moderate calcite	53725	216.0	219.0	3.0	23
			veining and pervasive calcite alteration. Trace	53726	219.0	222.0	3.0	52
			pyrite is noted locally with pyrite stringers up	53727	222.0	225.0	3.0	89
			to 2%.	53728	225.0	228.0	3.0	741
			Weak brecciation occurs along some of the large	53729	228.0	231.0	3.0	1949
			calcite veinlets. Zones of moderate pervasive				oz/t	0.0568
			silicification are found.	53730	231.0	233.0	2.0	1270
					-		oz/t	0.0370

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From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
235.4	265.8	DIABASE	Rock consists of fine to medium grain, grey massive weakly foliated diabase. Rock shows moderate alteration in the form of small greenish white quartz calcite stringers running with weak chlorite along fractured. Good diabasic texture is noted in relatively unaltered portions with moderate-strong local magnetism being noted.	53731 53732 53733 53734	233.0 246.8 274.5 321.3	235.4 248.5 276.8 323.0	2.4 1.7 2.3 1.7	540 31 75 13
265.8	279.7	BASALTS	Rock consists of fine grain grey greenish grey mafic volcanics. Basalts show weakly developed foliations from 40-60° T.C.A. Alteration consists of weak pervasive chlorite and calcite alteration with moderate strong local calcite veining.					·
279.7	337.0	DIABASE	Rock is same as in interval 235.4 - 265.8, rock consists primarily hornblende in short prismatic grains. Grains are 1-3 mm in size, rock has excellent diabasic texture. Mafic minerals to felsic minerals is 5-1. Section contain 10% small black chlorite blebs. Minor alkali feldspar is noted in a small section 304.0 - 304.5. Alteration consists of blebby chloritization with local zones of intense epidotization. Small epi- dote veinlets are also present running @ 65-80° T.C.A. Weak calcite alteration is noted. Sulphide mineralization consists of 1% fine disseminated pyrite. Zone is strongly magnetic.					
337.0	347.7	BASALT	Rock consists of fine grain, strongly foliated mafic volcanics. Rock has colour variations from white, to grey, black. Foliations run @ 55-60° T.C.A. Alteration of the basalts consists of strong folia- tion controlled chloritization, moderate pervasive blebby silicification. Weak moderate spotty calcite alteration.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Sulphide mineralization is found as fine pyrite stringers and blebs parallel to foliation. Pyrite comprises 1-3% of the zone.	53735 53736 53737	337.0 340.0 343.0	340.0 343.0 346.0	3.0 3.0 3.0	292 479 136
347.7	350.0	FELDSPAR PORPHYRY	Same as interval 176.0 – 185.2, phenocrysts are subhedral anhedral, white plagioclase grains for- ming 5-10% of zone. Zone contains 1% fine euhedral pyrite, with very weak calcite veining.	53738 53739	346.0 347.7	347.7 350.0	1.7 2.3	24 30

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GUNNAR GULD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-21

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L17+00N, 3+50W
Azimuth: 090°	Dip: -50°E	Length: 350.0'
Logged By: D. Pilkey	Casing: 0 - 9.0'	Elevation:
Date Started: September 29, 1987	Date Completed: October 1, 1987	Date Logged: October 2, 1987
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:
Drill Company: Bill Link	Overburden: 0 - 9.0'	Checked: D. Pilkey Jan. 7, 1988

Acid Dip Tests

1. @ 9.0' -50°E

2. 350.0' -52°É

Purpose To evaluate South Pod Lens.

<u>Conclusions</u> Significant Intersections:

259 to 262.4 - 3.4 ft. @ 0.0402 oz gold/t. (South Pod Lens on hanging wall of diabase dyke).

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-21

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	9.0	CASING						
9.0	189.3	BASALTS	 Rock consists of fine grain, massive to slightly foliated, dark green mafic volcanic. Alteration in the basalts is weak, with very spotty moderate calcite alteration. Alteration consists of weak pervasive chloritization with small zones of moderate fracture controlled chlorite slips. Small hairline calcite slips form 1% of zone showing no preferred orientation. Sections of more intense calcite veining show moderately well developed brecciation textures. Silicification is present as small 1/2" quartz-calcite veinlets and minor very weak pervasive silicification. Sulphide mineralization consists of blebby zones to irregular discontinuous veinlets of brassy coloured pyrite. Pyrite forms 1% of the zone on average. Section from 41.0 - 42.3 contains 10-15% fine disseminated to 1/4" thick massive pyrite fracture fillings. Rock shows spotty calcite and chlorite alteration along fractures. Section from 123.0 - 129.0 contains moderately altered massive basalts with 2-5% fine, fracture controlled pyrite stringers up to 1/a" in width. The zone also contains sections of massive pyrrhotite is brownish in colour and seems to be older than the pyrite as the pyrite veinlets cut through the pyrrhotite. 	130118 130119 130120	21.0 41.0 62.0	23.0 42.3 64.0	2.0 1.3 2.0	15 56 8

					page 2 ple From To Width (ft) (ft) (ft) (p 21 90.5 92.5 2.0 22 123.0 126.0 3.0 23 126.0 129.0 3.0			
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Small zones of more intense silicification are	130121	90.5	92.5	2.0	47
			noted as small random guartz stringers. Stringers	130122	123.0	126.0	3.0	18
			usually show increases in fine disseminated pyrite	130123	126.0	129.0	3.0	.0
			on either side of the veinlets. Sulphides reach	130124	129.0	132.0	3.0	15
			30% in these zones.	130125	132.0	135.0	3.0	
			Basalts from 129.0' become weakly porphyritic with	130126	151.0	154.0	3.0	q
-			the appearance of 1%-2% subrounded greenish white	130127	161.0	163 0	2.0	5
			plagioclase phenocrysts Phenocrysts are 2 mm or	130128	163 0	165 0	2.0	30
			loss in size	130129	165.0	166 0	1.0	30
			Calcite stringer alteration and local pervasive	130130	166 0	167 5	1.5	11
			silicification becoming prominent by footage 174 0'	130131	174 0	177 0	3.0	11
			Calcite stringers are 1/1" or less in width pinkish	120122	177 0	190.0	3.0	40
			white to grey white in colour running at or sub-	120122	190 0	102.0	2.0	1 0
			parallel to 45° - 50° T.C.A.	130133	180.0	163.0	3.0	9
189.3	218.3	SILICEOUS	Zone is hosted by fine grain, massive to moderately	130134	183.0	186.0	3.0	5
		BASALT	foliated mafic volcanics. Rocks are light green,	130135	186.0	189.3	3.3	8
		(PYRITIC	dark green to black in colour show variable degrees	130136	189.3	191.3	2.0	10
		ZONE)	of alteration.	130137	191.3	194.3	3.0	25
			Alteration consists mostly of weak - moderate	130138	194.3	196.3	2.0	50
			calcite stringers, with local zones of strong perva-	130139	196.3	198.3	2.0	24
			sive calcite alteration. Chloritization is strong	130140	198.3	201.3	3.0	18
			to very strong consisting primarily of fracture	130141	201.3	204.3	3.0	74
			controlled chlorite slips.	130142	204.3	207.3	3.0	17
			Silicification ranges from moderate - strong per-	130143	207.3	210.3	3.0	28
			vasive with minor zones of weak quartz-calcite	130144	210.3	213.3	3.0	33
			veining Strong silicified basalts are grey	130145	213 3	216 3	3 0	35
			greenish grey in colour and with strong fracturing and chlorite infillings take on a brecciated texture.	130146	216.3	218.3	2.0	24
			Sulphide mineralization, like alteration, is spotty and variable but consists of primarily pyrite and trace amounts of chalconvrite. Pyrite content					
			varies from $1\% - 20\%$ locally. Weakly altered basalts contain fine blebs and thin pyritic layerings. Small veinlets can be up to $1/4\%$ in width and take on a					
			massive appearance. Stringers commonly follow fractures	5.				
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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	In section characterized by moderate-strong per- vasive silicification and calcite alteration, sulphide mineralization takes on the form of small finely disseminated pyrite grains and agglomerations or clusters of these fine grains. Sulphide percentages in these location may reach 20-25% locally. Where silicification is fracture controlled, pyrite follows subparallel to foliation.	130147 130148 130149 130150	245.5 246.5 248.5 250.0	246.5 248.5 250.0 251.5	1.0 2.0 1.5 1.5	5 39 26 ∢ 5
218.3	246.5	DIABASE	Rock consists of medium grained, grey to greenish grey diabase. Rock shows well developed diabase tex- tures with weak spotty alteration. Rock contains 2% fine fracture filled calcite stringers, weak fracture controlled chlorite and minor spotty epidote. Rock is highly magnetic. Contact to altered basalts is very fine grain to cherty (possible chill margin over 5"). Small blebs of pyrite are noted locally.	130187 130188 130189 130190 130191	251.5 253.5 256.0 259.0 260.7	253.5 256.0 259.0 260.7 262.4	2.0 2.5 3.0 1.7 oz/t 1.7 oz/t	156 101 324 1432 .0418 1323 .0386
246.5	262.4	SILICEOUS BASALT (PYRITE ZONE)	Same as interval 189.3 - 218.3, zone contains on average 3-5% fine pyrite stringers running para- llel to foliation directions @ 40-60° T.C.A. Sec- tion of intense pyrite stringers almost have a massive appearance with sulphide abundance reaching 30-40%. Zone shows strong fracture controlled chloritization but only weak calcite veining. Silicification varies from weak to strong. A small finger of fine - medium grained diabase is located from 250.0 - 251.5'.					
262.4	316.0	DIABASE	Same as interval 218.3 - 246.5'; Dyke now has very well developed diabase texture with small fragments, '/4" or less in size. Fragments are well rounded and form 1% of diabase. Zone shows slightly more chloritic alteration but only minimal pyrite mine- ralization. Zone is strongly magnetic. Margins show sharp contacts and very fine grained.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
315.0	350.0	BASALTS	Same as interval 9.0 - 189.3', zone shows moderate pervasive fracture controlled chloritization with weak spotty calcite alteration. Basalts approach feldspar porphyry @ 326.0, porphyry contains 15% small (1mm) white plagioclase phenocrysts. Basalts seem to grade into porphyry then back to basalts. Pyrite mineralization forms 1%, to 3% local accu- mulations of fine grain brassy pyrite.	130192	336.5	338.5	2.0	72

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GUNNAR GOLD / MILL CITY INC. DIAMOND DRILL LOG

Hole No: 1316-22

Property: Tyranite	NTS:	Township: Knight
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L20+00S; 3+50W
Azimuth: 090°	Dip: -50°E	Length: 350.0'
Logged By: D. Pilkey & R. deGagne	Casing: 0 - 1.7'	Elevation:
Date Started: October 1, 1987	Date Completed: October 3, 1987	Date Logged: October 4, 1987
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: D. Pilkey Jan. 7, 1988

Acid Dip Tests

1. 1.7' -50°E

2. 350.0' -53°E

<u>Purpose</u> To evaluate South Pod Lens.

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<u>Conclusions</u> No significant Intersections.

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-22

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From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb
0	1.7	CASING						
1.7	15.1	DIABASE	<pre>Dark green to green black (meianocratic), inter- mediate grained, anhedral mafic intrusive (diabase); crystal form is anhedral subhedral; hydiomorphic tex- ture. Sequence is moderately silicified, and weakly to moderately carbonatized; above alteration is deno- ted by stringers and veinlets of carbonate and highly silicified patches transected by quartz veins; also evident is sporadic epidote enrichment of quartz and carbonate veinlets. 10'8"; 1/2"-1" vein purple-white. 10'8"; 3" section of grey silicified host rock (diabase) @ 110° T.C.A.; 2 white-grey 1/4" quartz veinlets transect sequence @ 110° T.C.A.</pre>	56582	15.3	16.8	1.5	49
15.1	16.8	ULTRAMAFIC VOLCANICS (BASALT)	Black aphanitic ultramafic volcanic (andesite- basalt) sequence; unit is relatively massive and is cut perpendicularly by carbonaceous threads and strings; sulphide mineralization exists as relatively profuse pyritic threads and blebs (2 mm in d.).					
16.8	34.5	DIABASE	Dark green to green-black, intermediate grained mafic intrusive (diabase); mafic sequence is highly silicified (quartz veinlets and strings; patches of silicified host rock) and weakly to moderately carbonatized (calcareous veinlets and strings), minor epidote enrichment of calcitic veinlets is also evident.					

From (ft)	To (ft)			Sample No.	From (ft)
		cont'd	28'2" - 29'7"; Green-grey highly silicified mafic intrusive sequence; quartz veinlets and strings transect unit, 1 ¹ /2-2" d. lens of white hyalinic quartz.	56583 56584 56585 56586 56587	57.2 63.0 83.6 85.6 97.9
34.5	133.5	MAFIC VOLCANICS (ANDESITE)	<pre>Dark green-green-black aphanitic mafic volcanics (andesite); texture appears sub-aplitic amorphous; sequence is moderately carbonatized (calcareous vein networks, strings and epidote enriched vein- lets transecting core axis) and weakly to modera- tely silicified (quartz threads and strings) differentially eroded cavities occur intermittently on core surface; sulphide mineralization is spora- dic, occurring as pyritic blebs (up to 5 mm in d.) and stringers. 107'5" - 111'6"; Mafic unit becomes high silicic; texture is porphyritic is phenocrysts of "quartz eyes" (quartz) (tholeiitic andesite?). 61.25'; Network of carbonaceous veinlets and tributaries; veinlets display epidote enrichment and hematitic staining. 63.4'; 3/4-1" vein of brown-white calcite @ 70° T.C.A. 73.1"; 1" vein purple-white aplitic-subhedral calcite with acicular inclusions of green- black host rock parallel to strike of vein; vein strikes at 45° T.C.A. 84.25'; 1/2"-3/4" white aplitic-anhedral band of calcite with pods of host rock @ 90° T.C.A. 100.1'; Miarolitic (1" in d.) containing subhedral 100.2'; - anhedral grey-white crystals of calcite. 100.4' - 104.6'; Grey-green highly silicified, moderately carbonatized mafic volcanics; texture appears "marbled" or "swirled" due to intermingling of siliceous rock and ma- fic host rock; sequence contains pyritic sulphide blebs (up to 2 mm).</pre>	56588 56590	100.4 102.1 107.9

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Width (ft)

1.5 1.0

2.0 2.0 2.5 1.7

2.5

1.0

Au (ppb)

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To (ft)

58.7 64.0 85.6 87.6 100.4 102.1 104.6 108.9

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Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
56591	121.0	123.5	2.5	13
56592	123.5	126.0	2.5	11
56593	126.0	128.5	2.5	46
56594	128.5	131.0	2.5	67
56595	131.0	133.5	2.5	7

- cont'd
- 102.25': Limonite (iron oxide) staining of fracture surfaces of host rock. 104.8': 0.7' section of limonized (iron oxidized)

host rock fragments.

- 107.5' 112.0'; Dark green grey porphyritic mafic volcanics (andesite) with quartz phenocrysts (quartz-eyes): sequence is weakly to moderately carbonatized with calcitic threads, strings and veinlets.
 - 108.4'; 1-2 mm bleb of chalcopyrite in an intruding grey-white carbonaceous veinlet.
- 113.2' 113.8'; Grey-green "marbled" or "swirled" highly silicified and moderately carbonatized mafic volcanic sequence; weak flow bands are evident where siliceous rock intermingles with mafic host rock.
- 121.0' 131.0': Andesites remain altered by chloritization and small calcite veining. Veinlets 1/4" or smaller in size. The zone is characterized by an increase in sulphide mineralization.

Sulphides consist of 1%-5% locally brassy yellow pyrite. Pyrite is found in small irregular stringer and blebs up to 1/2" in diameter. Sulphides also common as halos along calcite veinlets.

131.0' - 133.5'; Andesites no longer are pyritic but remain moderately altered with chlorite and now moderate to strong blebby calcite and fine calcite stringers.

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	From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	133.5	169.5	DIABASE	 Rock is fine-medium grained, weakly foliated showing zones of intense but spotty alteration. Unaltered diabase is comprised of plagioclase and hornblende. Diabasic texture is rather poorly developed. Mafic percentage is difficult to determine due to alteration or fine grain size, but is estimated to be 25-30%. Rock shows moderate magnetism in relatively unaltered zones. Alteration of the diabase is commonly marked by the development of a foliation, marked by a series of parallel chlorite slips and blebs. Small calcite veinlets and stringers are noted throughout the diabase, most running @ 75-80° T.C.A. / 141.0' - 145.0'; This zone is marked by the appearance of 3 small, milky white quartz veins and irregular blebs 1) The first is located @ 141.0 - 142.0', and is a series of small irregular veinlets. The quartz veins contain small whisps and blebs of epidote throughout section, as well as exhibiting a weak moderate spotty calcite alteration. Sulphide mineralization consists of blebby chalcopyrite, forming 1% of zone. Two small blebs of molybdenite are also noted. 2) The second is the same as 1, now extending over 5" @ 143.5'. Zone contains 1-2% bleb chalcopyrite. Blebs of intense chalcopyrite are also seen. 3) The last is mostly quartz with 5% epidote, trace chalcopyrite and occurs @ 144.6'. Other smaller zones of quartz-epidote and minor chlorite alteration are found throughout zone. Trace chalcopyrite and minor pyrite are noted through diabase. Contact run @ 60° T.C.A. 	56596 56598 56599 56600	140.0 142.5 145.5 148.5 164.5	142.5 145.5 148.5 150.5 166.0	2.5 3.0 3.0 2.0 1.5	<5 <5 <5 <5 <7
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From (ft)	To (Ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
169.5	186.5	BASALT	Mafic volcanic rocks are fine grain, grey to green-	53801	169.5	171.5	2.0	12
		ANDESITE	ish grey, weakly foliated.	53802	171.5	173.5	2.0	12
			Alteration is strong with strong pervasive chlo-	53803	173.5	176.0	2.5	34
		•	rite and weak calcite as well as 5% fine calcite	53804	176.0	178.5	2.5	<5
			stringers and irregular blebs.	53805	178.5	181.0	2.5	12
			Zone contains 1-2% fine blebby pyrite. Pyrite is	53806	181.0	183.5	2.5	< 5
			brassy yellow in colour. Rock shows no apparent	53807	183.5	186.5	3.0	138
			silicification.	53808	203.0	205.0	2.0	< 5
		•		53809	216.0	218.0	2.0	< 5
			<pre>local sections of moderate alteration. Diabase consists of mostly plagioclase. Grains appear subrounded whitish grey in colour. Rock also contain 30-40% hornblende. Hornblende grains are generally stubby, black in colour and exhibit some degree of chloritization. Small chloritic blebs give rock a poikiloblastic appearance. Blebs are commonly stretched in a weakly defined foliation plane. Small slippage zones of intense chloritiza- tion are also noted. Diabase commonly shows very weak, fracture controlled calcite veining and occassional spotty epidotization. Pyrite is common throughout diabase, and occurs as discrete blebs and grains scattered randomly through the rock. Trace amounts of chalcopyrite are also found. 203.4' - 204.5'; is a zone of intense alteration marked by a weakly foliated, strong intense epidotization section. Minor small quartz veinlets and spotty calcite are found. Trace amounts of pyrite are noted.</pre>					

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246.0' - 253.7'; is a zone of intense chloritization, with diabase becoming very fine grained. Zone may be a small section of basalt.

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From To (Ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
ے ۲	cont'd	Zone shows strong fracturing with blebby and fine fracture filled calcite stringers. Zone also shows moderate silicification as milky white quartz blebs. Weak calcite is also noted along with quartz. Blebs of brassy pyrite are noted throughout this zone with local accumulations to 3%.	53810 53811 53812 53813 53814 53815 53815	253.7 256.7 259.7 269.0 321.0 326.0 328.0	256.7 259.7 261.7 271.0 322.0 328.0 329.5	3.0 3.0 2.0 2.0 1.0 2.0	<5 <5 <5 <5 <5 <5
253.7	FELDSPAR PORPHYRY	Rock is medium grained, weakly foliated porphyry. Rock colour varies with degree of alteration from a grey groundmass to red. Feldspar phenocrysts range from white, green to rusty red. Phenocrysts are euhedral-subhedral, and from 25 - 40% of rock, usually 2 mm in size. Alteration of the feldpar seems to be primarily hematite staining. Groundmass seems to be made up of feldspar, mafic minerals (hornblende) and minor chlorite. Ground- mass is very fine grain and exhibits spotty weak calcite alteration, minor chlorite alteration. Small rounded, mafic volcanic fragments are fre- quent, with sizes up to 1.5". Fragments show strong pervasive chloritization. Small hairline fracture fillings of epidote are found throughout zone. Veinlets show random ori- entations. The zone shows an overall moderate hematization which affects the total mineralogy of the porphyry. Some sections show weak altera- tion. A large mafic fragment is found @ 307.7' - 308.8'. Fragment show moderate chloritization and weak calcite alteration. Trace amounts of pyrite are found. 328.8' - 329.2'; Zone of intense epidotization and moderate strong silicification.					

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-23

Property: Tyranite	NTS:	Township: Tyrrell				
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L20+00S, 4+50W				
Azimuth: 090°	Dip: -50 E	Length: 500'				
Logged By: D. Pilkey	Casing: 1'	Elevation:				
Date Started: October 1, 987	Date Completed: October 4, 1987	Date Logged: October 7, 1987				
Core Size: BQ	Core Location: Tyranite	Samples Shipped:				
Drill Company: Bill Link	Overburden:	Checked: J. McAuley Dec. 11/87				
	Acid Dip Tests	<u></u>				
1. Collar; -50° E	250.0' -51°E	2. 500.0' -53°E				
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<u>Purpose</u> To evaluate South Pod Lens.

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Conclusions	Significant Intersection:	303.7 - 306.2 - 2.5 ft. @ 0.0367 oz gold/ton.	
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NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

Hole No: 1316-23

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	1.0	CASING						
1.0	105.0	BASALT	Rock is fine grain, greenish black mafic volcanic. Rock shows weak foliations with variable degrees of silicification. Zones of intense silicification are characterized by light grey to bluish grey in colour, with small hairline fracture fillings of calcite. Two small milky white quartz veins are noted @ 43.0' and 45.0'. Veins also contain spotty chloritization along the contact. Basalts along calcite stringers produce light greenish colouring of basalts. Veinlets runs @ 45-60° T.C.A. 92.5 - 105.0' (Alteration Zone). Basalts now show intense alteration. Rocks are fine grain, to fragmental. Colours vary from light grey to white. The zone is characterized by very strong to moderate pervasive silicification, as well as weak moderate spotty calcite alteration. Small zones of calcite and quartz veinlets are noted, @ 50-70° T.C.A. Weak veinlets of epidote are found, with weak moderate chloritization. Chlorite occurs as fine chlorite slips and blebs or as a weak per- vasive alteration in less silicified basalts. Thin chlorite slips give rock a brecciated texture. Sulphide mineralization consists of trace amounts of pyrite to 1% fine disse- minated pyrite locally.	53740 53741 53742 53743	41.0 42.5 43.5 71.0	42.5 43.5 45.5 72.0	1.5 1.0 2.0 1.0	10 12 11 5

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
105.0 115.0	FELDSPAR PORPHYRY	Rock consists of a fine grain matrix of plagio- clase and chlorite with 10% rounded, white, pinkish feldspar phenocrysts. The rock is massive to slightly foliated, weakly altered. With 3% fine calcite stringers with small hairline chlorite fragments and thin chloritic slips. Spotty epidote is also noted, with very weak spotty calcite throughout zone. Veinlets run @ 50-75° T.C.A. Sulphide mineralization consists of trace amounts of fine disseminated pyrite with occasional chalco- pyrite blebs. Chalcopyrite usually occurs within larger calcite veinlets.	53744 53745 53746 53747 53748	92.7 96.0 99.0 102.0 105.0	96.0 99.0 102.0 105.0 107.0	3.3 3.0 3.0 3.0 2.0	6 6 28 7
115.0 214.0	BASALT	Rock is massive to slightly foliated, fine grained greyish green in colour. Grain size and alteration varies throughout the zone. From 115.0 - 125.0, basalts are medium grained with a very heterogeneous texture. Rock consists of a weakly altered matrix of greenish white feldspar with larger euhedral, black grains of hornblende up to 1/8" in length. Larger grains give rock a diabasic texture. Alteration is present in the form of weak, fracture controlled calcite stringers, 2 mm in width. Small rounded calcite blebs are also noted, but only form 1% of zone. Weak chloritization is present. Sulphide mineralization consists of bleb grains of pyrite, locally reaching 1% of zone. From 125.0 - 162.0, basalts show weak moderate localized zones of calcite veining. Veins run at random direction T.C.A., and commonly contain small blebs and thin slips of chlorite parallel to veinlet direction. A large milky white calcite veinlet running @ 45° T.C.A. Veinlet is 3-4" in width and contains moderate fracture controlled chlorite parallel to foliation.	53749 53750 53751 53752 53753	119.0 129.0 131.0 133.0 136.0	121.0 131.0 133.0 136.0 138.0	2.0 2.0 3.0 2.0	7 12 16 8 8

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	From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
: 			cont'd	Small euhedral pyrite grains appear from 147.0'	53754	138.0	141.0	3.0	8
				but do not exceed 1% of rock. Calcite alteration	53755	141.0	144.0	3.0	7
				is now moderate to strong, with moderate pervasive	53756	144.0	147.0	3.0	10
				chloritization present. Weak brecciation textures	53757	147.0	149.0	2.0	9
				are noted with small mafic volcanic fragments in a	53758	160.0	162.0	2.0	< 5
				black, fine grain chloritic matrix.	53759	162.0	164.0	2.0	< 5
				From 162.0 - 166.0, basalts show intense pervasive	53760	164.0	166.0	2.0	8
				silicification giving the rock a light greenish	53761	166.0	169.0	3.0	< 5
				grey colour. Fractures within these siliceous zones	53762	169.0	172.0	3.0	5
				contain thin infillings of chlorite. Combined the	53763	172.0	175.0	3.0	5
				zone shows a breccia texture with subrounded sili-	53764	191.0	194.0	3.0	< 5
				ceous fragments of basalt in the chlorite matrix.	53765	194.0	197.0	3.0	7
				Blebby pyrite and thin pyritic stringers are common forming 1–2% of zone. Minor blebby chalcopyrite is also seen.	53766	211.0	214.0	3.0	23
	214.0	220.3	FEL DSPAR	(Alteration) rock is moderately foliated, medium	53767	214.0	217 3	3 3	< 5
	214.0	220.0	PORPHYRY	grained, carbonatized porphyry. Rock is grey to green grey in colour. Porphyry contains 2% small phenocrysts of reddish white feldspar. Phenocrysts are anhedral and are all 2 mm in size. Ground mass is predominantly feldspar grains, with moderate blebby and slip controlled chlorite and weak spotty calcite alteration. Small hairline 1/8" calcite veinlets are noted forming 1% of zone. Phenocrysts show hematization and very weak calcite alteration. Trace pyrite is noted.	53768	217.3	220.3	3.0	<5
	220.3	269.0	BASALT	Rock is fine grain weakly foliated green mafic vol- canics. Rock shows weak spotty calcite alteration as well as moderate weak pervasive and fracture controlled chloritization. Silicification is spotty but varies from weak to intense. Zones of intense silicification are light green in colour, commonly along small fractures.					

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, From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Pyrite occurs as small blebs euhedral grains and patchy irregular fracture fillings up to 2% of zone. Section are moderately magnetic, possibly	53769 53770 53771	220.3 223.0 226.0	223.0 226.0 229.0	2.7 3.0 3.0	<5 <5 <5
			reflecting a weak pyrrhotite mineralization or	53772	229.0	232.0	3.0	<5
			fine magnetite?	53773	232.0	236.0	4.0	5
			Small epidote veinlets become common from 250 -	53774	236.0	239.0	3.0	11
			263. Veinlets are 2 mm in width with zones of	53775	239.0	242.0	3.0	9
			veinlets clustering up to 1". Sulphide minera-	53776	242.0	245.0	3.0	19
			lization in these areas may reach 3-5% locally.	53777	245.0	248.0	3.0	42
269.0	298.7	DIABASE	Rock is fine to medium grained with an aphanitic	53778	248.0	251.0	3.0	463
			chill margin 6-8" in width. Rock is moderately	53779	251.0	254.0	3.0	5
			altered grey to green in colour, with very weak	53780	254.0	257.0	3.0	ő
		'	foliation. Good diabasic texture and moderate	53781	257.0	259.0	2.0	<5
			magnetism is noted.	53782	259.0	261.0	2.0	<5
			The rock consists of greenish white plagioclase	53783	261.0	263.0	2.0	<5
			feldspar, with 50% small euhedral black hornblende	53784	263.0	265.0	2.0	<5
			grains. Grains show random orientation.	53785	265.0	268.0	3.0	5
			The diabase shows moderate spotty chloritization	53786	268.0	270.0	2.0	8
			with thin chlorite slips and small blebs giving	53787	270.0	273.0	3.0	< 5
			the rock a spotted appearance. Weak spotty calcite	53788	277.0	280.0	3.0	< 5
			and irregular calcite blebs. Blebs also show spo- tty hematization.	53789	288.0	290.0	2.0	<5
			<pre>@ 188.8', zone of strong epidote alteration, up to 3" in width.</pre>					
298.7	306.2	BASALT	A zone of basalt is noted in this section, which	53790	298.7	301.2	2.5	16
			may be a large fragment within the diabase. The	53791	301.2	303.7	2.5	468
			basalt is fine to aphanitic very dark green in colour. Alteration consists of strong chloritization moderate pervasive and fracture controlled calcite veinlets, with weak to strong local silicification. Sulphide minerals consist of brassy yellow pyrite blebs and irregular veinlets, or as small euhedral, dissemi- nated grains. Sulphide percentage varies from	53792	303.7	306.2	2.5	1257

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From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
306.2	366.2	DIABASE	Rock is now more massive, and only weakly foliated. Diabase exhibits very weak spotty calcite, chlorite and epidote alteration. Spotty hematization is found @ 338.0'. Sulphide mineralization consists of blebby pyrite, never exceeding 1% of zone.	53793 53794 53795	318.0 328.0 337.0	320.0 330.0 339.0	2.0 2.0 2.0	15 9 10
366.2	458.2	FELDSPAR PORPHYRY	Rock consists of massive, weakly altered porphyry. Rock contains a fine grain, greyish green matrix, supporting 10-35% subhedral, green to white plagio- clase phenocrysts. Phenocrysts are subangular, and are noted up to 1/4" in width. Matrix is very fine, but seems to be made of feldspar, mafic (hornblendes) and chlorite, with minor calcite and traces of pyrite. Minor quartz may be present. Alteration present is very weak hairline calcite veinlets with minor local hematization. Zones of finer grain porphyry contain more chlorite and may represent partial digesting of mafic volcanic fragments.	53796 53797 53798 53799 53800	377.0 388.0 398.0 412.5 415.5	379.0 390.0 400.0 415.5 418.5	2.0 2.0 3.0 3.0	< 5 < 5 < 5 < 5
366.2	458.2	FELDSPAR PORPHYRY	<pre>Grey-green to grey-brown medium to coarse grained phaneritic-porphyritic texture due to subhedral phenocrysts of plagioclase; sequence is weakly to moderately altered by white calcitic threads and strings and by carbonaceous epidote veinlets that transect core axis. 439.2' - 440.6'; Dark grey-green mafic volcanic sequence (andesite). 440.6' - 458.2'; Plagioclase phenocrysts become much smaller and more frequent in dioritic host rock.</pre>					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
458.2	480.2	PORPHYRITIC DIABASE GABBRO	Blackish-green medium grained phaneritic-porphy- ritic mafic intrusive (diabase); sequence contains leukocratic phenocrysts of alkali feldspar; rock unit is weakly carbonatized with strings and threads of white calcite.					
480.2	488.3	PORPHYRITIC DIORITE	Greyish-green medium grained phaneritic-porphyritic intermediate intrusive (diorite); porphyritic texture due to leucocratic plagioclase, phenocrysts; sequence is weakly carbonatized with calcitic strings, threads.					
488.3	489.75	MAFIC VOLCANICS (ANDESITE)	Dark grey-green mafic volcanics (andesite); weakly intruded by white calcitic threads.					
489.75	500.0	DIABASE	Blackish-green medium grained mafic intrusive (diabase); texture at sequence starts out por- phyritic for the first foot with phenocrysts of leukocratic and hematized alkali feldspar; por- phyritic texture in diabase wanes and eventually pinches out to fine to medium grained equigranular; diabase is weakly to moderately carbonatized by calcareous epidote and white calcite transections.					
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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-24

Property: Tyranite	NTS:	Township: Tyrrell			
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L20+00S, 4+50W			
Azimuth: 090	Dip: -70°E	Length: 600'			
Logged By: D. Pilkey	Casing: 3'	Elevation:			
Date Started: October 5, 1987	Date Completed: October 9, 1987	Date Logged: October 22, 1987			
Core Size: BQ	Core Location: Tyranite	Samples Shipped:			
Drill Company: Bill Link	Overburden: 2'	Checked: J. McAuley Dec. 11/87			

Acid Dip Tests

1. Collar; 66° E 200.0' - 66°E 400.0' - 69°E 600.0' - -69°E

Purpose To evaluate South Pod Lens

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Conclusions Significant Intersection: 379 to 381 - 2 ft @ 0.040 oz gold/ton

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-24

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb
0	3.0	CASING						
3.0	78.5	MAFIC VOLCANICS BASALT	 Dark blackish-green aphanitic mafic volcanic sequence (andesite); texture of sequence is spot- ted by faint podular blebs of black chlorite visible on core surface; freshly fractured sur- faces reveal anhedral - subhedral melanocratic crystals; at 46.7' texture of core surface is fre- quented by black truncated capillaries of acicular hornblende; mafic sequence is weakly moderately altered by grey-white carbonaceous strings (at times epidote enriched), threads veinlets and sections of greyish-pale green silicified andesite; also noted are grey-white brecciated phenocrysts of calcite. 4.6' - 5.25'; Brownish-grey silicified mafic sections, epidote observable along frac- tures and fracture surfaces. 24.7' - 25.5'; Brownish-grey band of silicified mafics. Sulphide mineralization; Sulphides are scarce, but occur as lenticular pyritic pods and disseminated blebs. 25.5' - 78.5'; Basalts are now fine grain, massive in character. Volcanics are dark green to black in colour. Alteration consists of moderate to weak pervasive chloritization with very weak spotty calcite and fine cal- cite veinlets. Minor hematite alteration is noted. 	56759 56760 56761 56762	16.25 18.25 71.0 76.0	18.25 20.25 73.0 78.5	2.0' 2.0' 2.5'	12 5 32 52

						page	2	
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Rock in sections is coarser grained with lath-shaped hornblende crystals giving the rock a diabasic texture. Pyrite mineralization is scarce, with the occa- sional brassy pyrite bleb noted.					
78.5	97.0	FELDSPAR PORPHYRY	 78.5' - 88.5'; Porphyry in this section only contains relic porphyritic textures. Rock is light green to grey green colour. Alteration of zone is intense with strong to very strong pervasive calcite. Calcite veinlets from hairline to 1/2" in width. Veinlets form 1-3% of rock. Chloritization seems to be confined to small hairline slips running at random orientations to the core axis. Silicification is noted as small irregular milky white veinlets which run from 60° to 90° T.C.A. Veinlets also show strong calcite alteration. Small blebs and rounded fragments of silicified porphyry are also noted. Well developed brecciation is noted along the large quartz-calcite veinlets, with angular fragments forming 20% of vein material. The last foot of the altered porphyry, from 87.5 - 88.5 show the appearance of numerous small epidote veinlets along fractures. 	56763 56764 56765 56766	78.5 81.0 83.5 86.0	81.0 83.5 86.0 38.5	2.5' 2.5' 2.5'	7 8 20 17
			88.5' - 97.0; Rock now is fine grain, weakly folia- ted. Rock contains 10% white to pinkish subhedral plagioclase phenocrysts. Plagio- clase phenocrysts are up to '/4" in width. Matrix has a moderate pervasive chloritiza- tion, with chlorite being aligned along foliation planes @ 45-50° T.C.A. Weak pervasive calcite alteration is noted, with hairline calcite veinlets forming 2% of rock. Veinlets commonly align themselves subparallel to foliation planes.	56767 56768 56769 56770	88.5 90.5 92.5 95.0	90.5 92.5 95.0 97.0	2.0' 2.0' 2.5' 2.0'	10 25 5 25

page 3

From To Sample From To Width Au (ft) (ft) (ft) No. (ft) (ft) (ppb) 97.0 330.6 MAFIC 97.0 - 98.0: Basalts are fine grain, strongly 56771 97.0 1.0' 98.0 6 foliated, ranging in colour from light green to VOLCANIC 56772 98.0 101.0 3.0' **<**5 (BASALTS) grey. the zone shows strong intense pervasive 56773 101.0 103.5 2.5' 6 calcite alteration, with fine wispy calcite vein-**〈** 5 56774 103.5 106.0 2.5' lets and large pinkish white calcite blebs common. 3.0' 56775 106.0 109.0 8 Small chlorite blebs give the rock a porphyro-< 5 56776 109.0 112.0 3.0' blastic texture. 56777 3.0' 6 112.0 115.0 98.0 - 150.0; Basalts have now got only weakly 56778 115.0 117.0 2.0' 5 developed foliation but remain fine grained. 56779 **<**5 117.0 119.0 2.0' Rocks are now moderately chloritized with 56780 148.0 150.0 2.0' 10 very weak fracture controlled calcite veinlets. Veinlets are 2 mm in width. Colour variations due to alterations commonly show very sharp contacts from light green to black. Rock contains from TR to 5% local accumulations of pyrite. Pyrite is brassy yellow to brown in colour occurring as fine fracture fillings and blebs 1/2" or less. Small amounts of guartz are noted as milky white blebs and small irregular quartz stringers. Weak porphyritic textures are noted in a zone from 121.0 - 126.0'. Zone contains 1% anhedral, greenish white plagioclase phenocrysts. 150.0' - 155.5': Basalts now show patchy sections of moderate to intense pervasive silicification. Rock now is moderately foliated. Silicification is marked by an abrupt colour change. Intense silicification has light grey to yellow colour, with basalts approaching dark green to black as silicification decreases.

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	151.0 - 154.5; has intense silicification with	56781	150.0	153.0	3.0'	7
			weak fracture controlled calcite veining	56782	153.0	155.5	2.5'	7
			with very weak fracture controlled chlo-	56783	155.5	157.5	2.0'	14
			rite. Trace pyrite is noted.	56784	157.5	159.5	2.0'	6
			155.5' – 162.5'; Basalts are now only weakly	56785	159.5	162.5	3.0'	8
			<pre>silicified being fine grain, dark green to grayish green in colour. Zone contains abundant small calcite veinlets. Veinlets are up to 1/2" in width and form 10-15% of zone. Section from 155.5 - 156.5 contains numerous foliation controlled pyrite layers. Pyrite is in fine disseminated grains and blebs, brassy yellow in colour. Small sec- tion contains 5-10% pyrite, but over entire zone only reaches 1% of rock. 162.5' - 183.0'; Basalts show more typical altera- tion characterized by an increased chlorite alteration. Rock remains fine grained green</pre>	56786	168.0	170.0	2.0'	8
			<pre>in colour. Small blebs and a weak spotty calcite alteration give the rock a sugary granular texture. Small calcite veinlets are '/4" in width and run @ 45°-75° T.C.A. Weak brecciation of the basalts is noted along larger calcite veinlets. A zone of strong foliation controlled cal- cite stringers and minor silicification is found 183.0 - 183.6. Rock is yellow green in colour and appears as a stockwork of fine calcite veinlets. Zone shows blebby silicification with 1% finely disseminated euhedral pyrite. Minor epidote is also pre- sent. Zone runs @ 45° T.C.A.</pre>	56707				2
			183.6' - 203.5'; Basalts are the same as in interval	56787	183.0	184.0	1.0'	9
			162.5 - 183.0. Zone shows moderate to weak	56/88	184.0	186.0	2.07	11
			calcite alteration. Pyrite now more abundant appears as fine pyritic stringers up to ¹ /4" in width and as euhedral, sparsely disseminated grains.	56790 56790	189.0 189.0	189.0 192.0	3.0'	11 12

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To ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	203.5' - 204.8'; Missing Core.	56791	204.8	207.0	2.2'	<5
		204.8' - 213.0'; Basalts again show moderate per-	56792	207.0	210.0	3.0'	9
		vasive silica alteration. Zone also con-	56793	210.0	213.0	3.0'	11
		tains 1% very finely disseminated pyrite.	56794	213.0	216.0	3.0'	< 5
		Large epidote veinlet is noted @ 209.3',	56795	229.5	232.0	2.5'	Č 5
		with concentrations of pyrite along its	56796	232.0	234.5	2.5'	< 5
		margins.	56797	234.5	237.0	2.5'	< 5
		216.5'; Basalts host a 1" calcite veinlet running	56798	237.0	239.5	2.5'	61
		@ 10° T.C.A. The veinlet is amber in co-	56799	239.5	242.0	2.5'	39
		lour with a light green core. The entire	56800	242.0	244.5	2.5'	13
		veinlet reacts strongly to HCl. Small,	56801	244.5	247.0	2.5'	21
		subangular black basalt fragments are pre-	56802	247.0	249.5	2.5'	18
		sent. Fragments show strong chloritization.	56803	249.5	251.5	2.0'	7
		247.0'; Basalts show good brecciation of mafic vol-	56804	261.0	262.0	1.0'	11
		canics by small calcite blebs and stringers.	56805	300.5	301.5	1.0'	13
		Breccia texture is poorly developed. Trace	56806	301.5	304.5	3.0'	8
		pyrite is noted.	56807	304.5	307.0	2.5'	8
		267.0' - 273.0'; Basalts show very spotty section					
		of strong magnetism.					
		275.0'; Small zone of basalt calcite brecciation.					
		Breccia fragments are up to 1.5" in length					
		and form 15-20% of vein material. Frag-					
		ments show weak calcite and moderate chlo-					
		rite alteration. Calcite vein material is					
		milky white in colour.					
		300.5' - 301.5'; Basalts are now well foliated @					
		60° T.C.A., with moderately well developed					
		brecciation. Fragments form 2% of zone,					
		which is cut by a series of small milky					
		white orange calcite stringers. Basalts					
		show good carbonate alteration and are fine					
		grained greenish grey in colour.					
		Zone also seems to exhibit moderate to					
		strong pervasive silicification. Trace					
		amounts of fine pyrite are present.					

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From (ft)	To (ft)				Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	307.0' 320.0 - 326.0 -	 310.0'; Basalts exhibit moderate strong foliation controlled calcite and chlorite alteration. Foliation runs @ 60° T.C.A. No pyrite mineralization is noted. 326.0; Section contains moderate to strong carbonatized fine grain grey basalts. Rock contains both moderate pervasive calcite and strong fracture controlled calcite veinlets. Chloritization is moderate to weak and occurs as small chlorite blebs and irregular slips. Basalts contain from 1-2% blebby pyrite and fine pyritic stringers. 330.6; Basalts show moderate pervasive controlled calcite veinlets. 	56808 56809 56810 56811 56812 56813 56814	307.0 308.0 317.0 320.0 323.0 326.0 328.3	308.0 310.0 320.0 323.0 326.0 328.3 330.6	1.0' 2.0' 3.0' 3.0' 2.3' 2.3'	8 11 6 7 15 12 8
330.6	367.0	FELDSPAR PORPHYRY (ALTERATION)	330.6'	 - 349.0'; Rock now is weak moderately foliated, fine grain to aphanitic porphyry. Porphyritic texture now only occurs as spotty relic zones. The remaining areas have no phenocrysts. Rock is buff coloured to brownish grey. Alteration consists of weak fracture and foliation controlled chlorite. Chlorite is best developed in sheared sections rich in pyrite. The whole zone has a moderate to strong pervasive calcite alteration with large blebs (up to 2") and small veinlets forming an additional 5-10%. Silicification is variable with spots of no silicification to zones of strong silicification to zone commonly show an abundance of blebby pyrite and fracture controlled pyrite veinlets. 	56815 56816 56817 56818 56819 56820 56821	330.6 333.0 336.0 339.0 341.0 344.0 347.0	333.0 336.0 339.0 341.0 344.0 347.0 349.0	2.4' 3.0' 3.0' 2.0' 3.0' 2.0'	12 16 9 11 6 12 < 5

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From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)	
		cont'd	Pyrite is brassy yellow in colour with blebs formed of small euhedral individual grains. Pyrite content may reach 10% locally but on average is 1%. Mineralized zones: 332.0 - 333.0' 338.3 - 341.0' 349.0' - 362.0'; Porphyry now exhibits a better developed porphyritic texture. Porphyry is still strongly altered with the rock containing 25%, fine hematized feldspar phenocrysts. Phenocrysts are all 5 mm in size. Matrix shows moderate pervasive he- matization. Intense calcite alteration is noted, with only weak calcite veining. Chlorite altera- tion is weak and confined to small fracture fillings running @ 70-90° T.C.A. Small section from 356.0 - 359.0 exhibits only spotty hematite alteration. A large pinkish white calcite veinlet running @ 65° T.C.A. Veinlet is 1-2" in width showing strong chloritization along vein contacts. No sulphide mineralization is noted. 362.0 - 367.0; Porphyry shows very weak relic tex- ture, remaining strongly carbonatized with abundant calcite throughout and weak cal- cite stringers.	56822 56823 56824 56825 56826	349.0 351.0 353.0 356.0 359.0 362.0 364.5	351.0 353.0 359.0 362.0 364.5 367.0	2.0' 2.0' 3.0' 3.0' 3.0'	\$ 	
367.0	381.0	BASALTS	Vein runs @ 50° T.C.A. and is 4" in width. Vein also contains 3% blebby pyrite. Basalts are fine grain strongly foliated grey to greenish grey mafic volcanics. The foliation runs @ 70° T.C.A.	56829 56830 56831	367.0 370.0 372.0	370.0 372.0 374.0	3.0' 2.0' 2.0'	८ 5 24 140	

				page 8						
From (Ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb		
		cont'd	Alteration consists of strong intense pervasive calcite with large irregular blebs and fine wisps of calcite forming up to 60% of zone. Some of the blebs show foliation planes of chlorite wrapping around them. Chlorite alteration is moderate to strong and con- sists mostly of foliation controlled chlorite slips, with some blebs. Veinlets and blebs can be up to 1/4" in width. Trace amounts of brown pyrite are noted, and occur							
		(MINERA- LIZED ZONE)	as small fracture controlled veinlets. 374.0 - 381.0; Zone is characterized by the abun- dance of foliation controlled pyrite veinlets. Host rock is still intensely carbonatized mafic volcanics. Pyrite is brownish yellow in colour. In areas the pyrite forms a net type texture in the basalts with sulphide mineralization approaching 10% in the zone. Blebby sections of brassy yellow pyrite are also noted.	56832 56833 56834	374.0 376.5 379.0	376.5 379.0 381.0	2.5' 2.5' 2.0'	62 59 1368		
381.0	524.5	DIABASE	Rock is medium to fine grain, greyish green diabase. Rock is weakly foliated to massive. 381.0 - 382.5; Rock is very fine grain to aphanitic (chill margin). Diabase texture is well developed with rock consisting of 35% lath shaped hornblende grains. Hornblendes show very weak altera- tion to chlorite. Remaining rock is interstitial plagioclase which shows no apparent alteration. Rock shows very weak spotty calcite and chlorite alteration and minor fracture controlled calcite and epidote. Trace amounts of pyrite are noted. Weak porphy- ritic texture is noted with anhedral plagioclase phenocrysts up to 1/4" noted. Phenocrysts are poorly defined. Rock shows strong magnetism.	56835 56836 56837 56838 56839 56840	381.0 384.0 390.0 417.0 420.0 422.0	334.0 387.0 393.0 420.0 422.0 425.0	3.0' 3.0' 3.0' 2.0' 3.0'	147 229 < 5 62 57 23		

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	417.0' - 425.5'; Diabase shows moderate pervasive calcite alteration and weak, very weak per- vasive chloritization. Diabase is now green-grey, very fine grain and is not magnetic in this section, no pyrite is noted.					
			497.0 - 524.5: diabase shows weak calcite altera-	56841	427.0	429.0	2.0'	8
			tion, with moderate pervasive chloritiza-	56842	437.0	439.0	2.0'	39
			tion. Small irregular calcite veinlets	56843	447.0	449.0	2.0'	<5
			form 2% of zone. Small fragments of chlo-	56844	457.0	459.0	2.0'	7
			rite are noted throughout zone. Diabase	56845	467.0	469.0	2.0'	6
			shows weak foliation with a fining of grain	56846	477.0	479.0	2.0	< 5
			size, no longer being diabasic in texture.	56847	487.0	489.0	2.0'	6
			Weak breccia along large calcite veinlets	56848	497.0	499.0	2.0'	20
			is noted. Trace amounts of blebby disse-	56849	499.0	502.0	3.0'	19
			minated pyrite are encountered.	56850	502.0	504.0	2.0'	18
			Weak hematite alteration is noted along	56851	505.0	507.0	2.0'	15
			calcite blebs and veins.	56852	515.0	517.0	2.0'	7
524.5	538.4	FELDSPAR	Feldspar porphyry consists of massive to very	56853	524.5	527.5	3.0'	8
		PORPHYRY	weakly foliated rock, containing 15% subhedral,	56854	527.5	530.5	3.0'	7
			greenish white plagioclase phenocrysts. Pheno-	56855	530.5	533.0	2.5'	11
			crysts are up to $1/4$ " in width, and are supported	56856	533.0	536.0	3.0'	17
			by a fine matrix of feldspar, matric minerals with chlorite alteration. Spotty calcite alteration is noted, but is very minor. 534.0 - 536.0; Porphyry shows strong alteration, with moderate fine fracture controlled calcite veinlets running @ 60-80° T.C.A. The porphyry shows a strong pervasive hematization of both phenocrysts and ma-	56857	536.0	538.4	2.4	25
			trix. Trace amounts of fine pyrite are found through porphyry. Contact (up hole) runs @ 80° T.C.A. Contact (down hole) runs @ 70° T.C.A.					

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	From (ft)	To (ft)				Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	538.4	558.0	DIABASE	Same as	s interval 497.0 - 524.5'.	56858	538.4	542.0	3.6'	20
	558.0	575.0	FELDSPAR PORPHYRY	Porphyr phenocr contro	y is massive with 5% anhedral plagioclase ysts. Rock only shows very weak fracture led calcite veinlets and minor chlorite.	56859	572.0	575.0	3.0'	9
	575.0	600.0	BASALTS? (TUFACEOUS- MINERA- LIZED) (GRAPHITIC)	575.0 - 576.0 - 585.0 -	 576.0; Rock is well foliated fine grained altered basalt? Rock is black to bluish grey in colour and exhibits moderate to strong pervasive silicification. Very weak spotty calcite alteration is found. Rock shows very strong lamination texture. Zones of graphite are noted between silicified volcanics and irregular layers of brassy pyrite. Zone contains 10-15% pyrite. 585.0; Rock has now been reduced entirely to graphite, with foliation controlled pyrite forming 3-5% of zone. Fractures often contain native sulphur and bluish (earthy) mineral (brucite)? 600.0; Rock now shows good strataform sulphide section and layers of cherty looking siliceous basalt? Bands run @ 70° T.C.A. Zones of strong hematite form checker board patterns with less hematized siliceous rock along fine fractures. Calcite rich layers are beige in colour. Sulphide mineralization veins from trace to 5% locally and consists of strataform layers up to 1" wide. 	56860 56861 56862 56863 56864 56865 56866 56867 56868	575.0 576.0 579.0 582.0 585.0 588.0 591.0 594.0 597.0	576.0 579.0 582.0 585.0 588.0 591.0 594.0 597.0 600.0	1.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0'	33 75 41 20 13 22 31 28 19

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E. O. H.

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-25

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L17+00S, 4+50W
Azimuth: 090°	Dip: -50°E	Length: 500'
Logged By: D. Pilkey	Casing: 10.7'	Elevation:
Date Started: October 20, 1987	Date Completed: October 24, 1987	Date Logged: October 29, 1987
Core Size: BQ	Core Location: Tyranite	Samples Shipped:
Drill Company: Bill Link	Overburden: 9'	Checked: J. McAuley Dec. 11/87
	Acid Dip Tests	
1. Collar -50°E	2. 250.0'52°E	3. 500.0'53°E

<u>Purpose</u> To evaluate South Pod Lens

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Conclusions Significant Intersection: 378.5 to 381.0 - 2.5 ft @ 0.0532 oz gold/ton.

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-25

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb
0	10.7	CASING						
10.7	227.0	MAFIC VOLCANIC (BASALT)	<pre>Dark black, aphanitic - glassy core is fragmented and pebbly. Pyrite is sporadic and occurs in blebs. Average grain size 2 mm. Hematite stains are noted throughout the core but are infrequent. Threads of calcite are also noted and do occur throughout the core. 26.8 - 36.0; (Calcite alteration zone). Light to dark black, aphanitic with pheno- crysts of calcite. Calcite is found in threads throughout the core while also occurring in small to large veinlets. Slight hematite staining is noticed. Alteration from 36' - 37.1' is silicified and contains local calcite threads and veinlets. No pyrite is noted. Dark black, aphanitic - glassy. Pyrite is again sporadic and occurs in infrequent blebs. Grain sizes range from 1 mm - 4 mm. Calcite is present and is found in threads and on threads is present and is found in threads</pre>	56669 56670 56671	33.0 36.0 46.0	36.0 39.0 49.0	3.0' 3.0' 3.0'	17 7 23
			 and also occurs in veinlets. 65.5' - 67.0'; Zone of basalts showing strong to intense calcite alteration. Two large calcite veinlets are noted, the first is located @ 65.5' and is 4" in width. The vein runs almost per- pendicular to core axis (T.C.A.). The second veinlet is 3" wide running @ 75° T.C.A. Calcite veinlet is white in colour. No visible sulphide mineralization is noted. Basalts remain well chloritized. 	56672 56673 56674 56675	64.0 67.0 70.0 73.0	67.0 70.0 73.0 76.0	3.0' 3.0' 3.0' 3.0'	17 8 5 5

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	70.0 - 88.0; (Calcite alteration zone).	56676	76.0	79.0	3.0'	<5
		Basalts again are strong to intensely carbona-	56677	79.0	82.0	3.0'	5
		tized with pervasive calcite alteration and	56678	82.0	85.0	3.0'	6
		minor calcite veinlets noted. Basalts are	56679	85.0	88.0	3.0'	<5
		now granular in appearance with colours	56680	123.5	125.0	1.5'	11
		changing from green to grey. Some minor hema-	56681	138.0	141.0	3.0'	10
		tite alteration is present along calcite vein-	56682	141.0	144.0	3.0'	11
		lets but no sulphide mineralization is noted.	56683	144.0	147.0	3.0'	7
	,	138.0 - 158.7; (Mineralization Zone).	56684	147.0	149.0	2.0'	64
		Sulphide Mineralization from 143.0' - 151.0'	56685	149.0	151.0	2.0'	8
		consists of irregular blebs and fine string-	56686	151.0	154.0	3.0'	9
		ers of brassy yellow pyrite. Basalts remain	56687	154.0	156.0	2.0'	51
		moderately altered with both chloritization	56688	156.0	158.7	2.7'	12
		and minor calcite alteration.	56689	158.7	161.7	3.0'	114
		151.0 - 158.7; sulphide mineralization consists of	56690	161.7	164.7	3.0'	7
		massive pyrrhotite and brassy yellow pyrite	56691	164.7	168.0	3.3'	8
		fracture fillings and blebs. Alteration is	56692	175.0	179.0	3.0'	7
		dominated by chloritization with the pre-	56693	179.0	182.0	3.0'	6
		sence of moderate, localized silicification.	56694	182.0	185.0	3.0'	10
		Small calcite veinlets are infrequently	56695	185.0	188.0	3.0'	7
		noted. Calcite veinlets are white to green	56696	188.0	191.0	3.0'	12
		in colour, and are commonly associated with	56697	191.0	194.0	3.0'	7
		fine pyrite mineralization.	56698	194.0	197.0	3.0'	8
		158.7' - 161.7'; Basalts now show intense, but local	56699	197.0	200.0	3.0'	7
		alteration. Rocks are fine grain in cha-	56700	200.0	203.0	3.0'	7
		racter ranging in colour from black to grey.	56701	203.0	206.0	3.0'	5
		Alteration in this zone is characterized by	56702	206.0	208.0	2.0'	7
		spotty zones of intense silicification.	56703	208.0	211.0	3.0'	8
		Silicified zones are commonly rounded in	56704	211.0	214.0	3.0'	<5
		character. Basalts have small sections	56705	214.0	216.0	2.0'	13
		which exhibit weak porphyritic textures with	56706	216.0	218.0	2.0'	9
		anhedral irregular greenish white plagioclase	56707	218.0	221.0	3.0'	10
		phenocrysts. Phenocrysts are up to $1/4$ " in	56708	221.0	224.0	3.0'	8
		diameter. Porphyritic zone extends from 159.0 - 206.0, with phenocrysts forming 1-2% of basalts.	56709	224.0	227.0	3.0'	<5

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	 Sample 214.0 - 216.0 contains an eight inch length of core cut by 5% fine brassy pyrite fracture fillings. Occasional blebs are noted; give the section a sulphide con- tent of 5-7%. 218.0 - 227.0; Basalts again show very spotty zones of intense silicification. Basalts exhibit strong fracture controlled calcite altera- tion. Chloritization is difficult to de- termine due to intensity of silicification. Sulphide mineralization consists of blebby pyrite and minor pyrite stringers. Sulphide mineralization does not exceed 1%. 	56710 56711 56712 56713 56714	227.0 229.0 232.0 235.0 238.0	229.0 232.0 235.0 238.0 241.0	2.0' 3.0' 3.0' 3.0' 3.0'	36 <5 8 <5 5
227.0	241.0	FELDSPAR PORPHYRY (ALTERED)	Porphyry becomes very siliceous and is now light green in colour. Rock is strongly fractured with numerous fracture controlled calcite veinlets. Veinlets are 1 mm in width, small chlorite slips are also noted in this section. Section still contains relict porphyry textures. Phenocrysts form 3-5%, white plagioclase grains. Sulphide mineralization consists mostly of finely disseminated pyrite with local concentrations of individual grains forming section of massive pyrite.					
241.0	246.0	BASALT	Same as interval 10.7 - 227.0'. Basalts show moderate pervasive chloritization and calcite alteration. 1-3% blebby pyrite and fine pyritic stringers are noted. Weak brecciation is found in some of the larger calcite veinlets. Zones of increased mineralization are noted from 247.0'. Mineralization is commonly confined to the borders of calcite veinlets. Veinlets form 3-5% of basalts. Sulphide mineralization is found as fine euhedral pyrite cubes. Sulphides form 20% of vein- let, but comprise about 1% of zone overall. Basalts are moderately chloritized, minor epidote alteration. Zone ends @ 272.0'.	56715 56716 56717 56718 56719 56720 56721 56722 56723 56723 56724 56725 56726 56726 56727	241.0 243.5 246.0 249.0 252.0 255.0 258.0 261.0 263.0 266.0 269.0 272.0 275.0	243.5 246.0 249.0 252.0 255.0 258.0 261.0 263.0 266.0 269.0 272.0 275.0 278.0	2.5' 2.5' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0	12 <5 16 28 <5 8 6 10 10 31 9 6

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To (ft)				Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)		
	cont'd	288.0 -	292.0; (Mineralized Zone).	56728	278.0	281.0	3.0'	< 5		
			Rock type consists of weakly chloritized	56729	288.0	290.0	2.0'	199		
			fine grain green to black basalts. This	56730	290.0	292.0	2.0'	57		
			zone is characterized by an abundance of	56731	292.0	296.0	4.0'	7		
			pyrite mineralization. The zone is modera-	56732	296.0	300.0	4.0'	9		
			tely carbonatized, but is intense in	56733	300.0	304.0	4.0'	7		
			mineralized zone. Weak silicification is	56734	304.0	306.0	2.0'	12		
			noted in the sulphide zone.	56735	306.0	309.0	3.0'	13		
			Pyrite mineralization is found as small	56736	309.0	312.0	3.0'	9		
			irregular layers and blebs and as local zones	56737	312.0	315.0	3.0'	<5		
			of almost massive pyrite. Pyrite is yellow	56738	315.0	318.0	3.0'	5		
			brassy to brownish in colour. Massive zone	56739	318.0	320.0	2.0'	<5		
			consists of collections of small euhedral	56740	320.0	322.0	2.0'	5		
			pyrite, cubes and pyrite blebs. Massive	56741	322.0	324.0	2.0'	50		
			sections for up to 1' of core length and	56742	324.0	326.0	2.0'	19		
			are 30-35% of zone. Mineralized zone also	56743	326.0	329.0	3.0'	14		
			contains trace - 1% blebby chalcopyrite.	56744	329.0	332.0	3.0'	< 5		
		292.0 -	322.0; Basalt now contains locally zones of	56745	332.0	335.0	3.0'	13		
			1-2% blebby and veinlet controlled pyrite.	56746	335.0	338.5	3.5'	30		
			Sulphide mineralization along calcite veins							
			may reach 5%. Veinlets show strong calcite							
			alteration, with pyritization extending up							
			to 1" on either side of the calcite veinlet.							
			Weak fracture controlled quartz veinlets are							
			also present in this section but are rare.							
	BASALT	322.0 -	338.5; Basalts are now spotty in appearance							
	ALTERATION		show moderate pervasive chloritization and							
	ZONE		calcite alteration. Zones of intense cal-							

cite alteration are noted, but are not common. Intense silicification is also noted @ 336.0 to 338.0. Calcite alteration is common in this zone. Pyrite mineralization occurs as small dendritic veinlets of brassy yellow pyrite. Pyrite also occurs as small blebs of fine euhedral clusters. Some of the pyrite shows weak foliations @ 30° T.C.A. Minor fracture controlled epidote is found. Rock becomes very fine grain to aphanitic from 328.0' -328.5'. Zone contains 2% blebby yellow pyrite.

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From (ft)

						page	5	
From (ft)	To (Ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
338.0	370.0	DIABASE	Rock is now medium grain, weakly foliated, grey to greenish grey in colour. Alteration consists of spotty chloritization with small zones of fracture controlled epidote alteration. Epidote stringers commonly show moderate calcite alteration. Diabase is made up of small, stubby hornblende grains arranged in a moderately well developed	56747 56748 56749	351.0 370.0 371.8	353.5 371.8 373.8	2.5' 1.8' 2.0'	<5 28 7

diabase texture. Calcite alteration in fine veinlets is noted, with spotty hematization. The rock also has sections of moderate magnetism. Minor amounts of blebby pyrite are noted locally in core.

- 370.0 371.8 ALTERED ZONE (BASALT) Rock in this zone is well foliated, fine grain, green to black diabase or basalt? Rock shows moderate foliation controlled chloritization, with weak spotty calcite alteration. Rock does seem to show a moderate pervasive silicification. Zones contain 1-2% blebby and fracture controlled pyrite. Pyrite is spotty with a brassy yellow colour.
- 371.8 373.8 DIABASE Same as interval 338.5 370.0, rock is fine grain, very weakly magnetic, with weak chloritization and minor calcite.

373.8 385.8 ALTERED ZONE (BASALT) Same as interval 370.8 - 371.8. Rock now shows moderate, foliation controlled chloritization. (BASALT) Chlorite surrounds large blebs and fragments of calcite and strongly carbonatized rock. Rock exhibits moderate, local silicification. Blebby pyrite and minor fracture controlled pyritic stringers are noted. Pyrite is brassy yellow in colour. Foliations run @ 35-50° T.C.A. Sulphide mineralization forms 1-2%, and locally 5% of zone. page 5

		-				page	6	
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	378.5 - 383.6; (Mineralization Zone). Zone from 378.5 to 383.6 is strongly car- bonatized with moderate foliation controlled chlorite. Calcite blebs are common. Sul- phide mineralization forms 3-6% and consists of fine pyritic stringers and small blebs. Pyrite is brassy yellow in colour.	56750 56751 56752 56753 56754	373.8 376.0 378.5 381.0 383.6	376.0 378.5 381.0 383.6 385.8	2.2' 2.5' 2.5' 2.6' 2.2'	266 586 1824 942 112
385.8	445.5	DIABASE	Rock is medium grained, moderate to weakly foliated diabase. Rock is light grey in colour and consists of hornblende grains and plagioclase grains. Hornblende is short and lath shaped, giving the rock a good diabasic texture. Alteration is mostly weak fracture controlled chlo- ritization with weak spotty calcite and minor fracture controlled pyrite. Diabase is moderate to strongly magnetic. Spotty chloritization is seen to give rock a porphyro- blastic texture. Diabase contains trace amounts of blebby pyrite. Minor epidote alteration is also noted.					
445.5	500.0	BASALT (ALTERATION ZONE)	Basalts are now very strongly altered, fine grain to aphanitic. Colours vary from light green to greenish grey. Basalts have a well developed foliation. Alteration consists of strong to intense pervasive chloritization. Calcite alteration is moderate on average, with moderate fracture controlled calcite veining as well as weak pervasive calcite alteration. A zone of strong pervasive silicification is noted from 446.5' - 450.0 giving the rock a beige colour and very aphanitic appearance. Fracture contains small chlorite slips which give the rock a strongly chloritized appearance.	56755 56756 56757	446.0 448.5 455.0	448.5 451.0 457.0	2.5' 2.5' 2.0'	201 194 19

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	From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
			cont'd	Pyrite is found locally to 2% as fine grained, blebby and small stringers. Basalts are very vuggy in character. A large white to pink calcite vein is noted @ 481.0'. The vein is about 8" in width, and shows brecciation of the host rock basalts. Fragments are up to 1/2" in length and show mode- rate chloritization. Small guartz-rich veinlets are found locally but	56758	480.0	482.0	2.0'	38

are only 1% or less.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-26

Property: Tyranite	NTS:	Township: Tyrrell				
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L17+00S; 4+50W				
Azimuth: 090°	Dip: -70°E	Length: 600.0'				
Logged By: D. Pilkey	Casing: 14'	Elevation:				
Date Started: October 10, 1987	Date Completed: October 15, 1987	Date Logged: October 18, 1987 Samples Shipped: Checked: D. Pilkey Jan. 6, 1988				
Core Size: BQ	Core Location: Tyranite					
Drill Company: Bill Link	Overburden: 12'					
······································	Acid Dip Tests					
1. Collar -70°E	200.0' -70°E 2.	400.0' -71°E 600.0' -71°E				

<u>Purpose</u> To evaluate South Pod Lens.

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<u>Conclusions</u> No significant intersections.

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NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

Hole No: 1316-26

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	14.0	CASING						
14.0	229.5	BASALT	 14.0' - 19.7' "ground core" Basalts are fine grained, weakly foliated and are generally gray to dark green in colour. Alteration is moderate throughout zone, with the basalts showing a weak pervasive chloritization. Calcite alteration is present but generally is spotty and weak. Local zones of moderate pervasive calcite are noted. Minor hairline calcite veinlets are noted but veinlets are <2 mm and form <1% rock. Weak to very weak epidote and chlorite slips are found, giving the basalts a brecciated texture. Rock generally has a massive very fine texture except between 22.0' - 31.0' where basalts take on a poorly developed, diabasic texture. Two zones of intense calcite alteration occur at footages 28.2' and 31.0'. The first is a calcite vein at 65 - 70° T.C.A. and 2" in width. The zone contains small chloritic blebs but no visible sulphide. 31.0 - 31.6' is a zone of intense calcite alteration zone runs at 65° T.C.A. 	53817 53818 53819 53820 53821 53822 53824	20.0 27.0 31.0 33.0 35.0 39.0 54.0	22.0 29.0 33.0 35.0 39.0 43.0 56.0	2.0 2.0 2.0 4.0 4.0 2.0	<pre> <!-- s </ s</td--></pre>

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To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	64.0' - 68.0'; Zone once again shows an increase in calcite alteration as fine random calcite veinlets. Zone contains a large white cal-	53825 53826 53827	61.0 64.0 66.0	64.0 66.0 68.0	3.0 2.0 2.0	16 22 31
		cite veinlet at 67.7' running at 80° T.C.A. Zone shows moderate chloritization with trace pyrite.	53828 53829 53830	126.0 129.0 132.0	129.0 132.0 135.0	3.0 3.0 3.0	<5 <5 <5
		Sulphide mineralization in the zone is very spotty, consisting of blebby fracture fillings of pyrite with small irregular veinlets also noted. Pyrite	53832 53833 53834	135.0 138.0 141.0 144.0	138.0 141.0 144.0 146.0	3.0 3.0 2.0	<5 5 <5
		abundance on average is 1% but locally may reach 2%. Trace amounts of chalcopyrite are also found.	53835 53836 53837	146.0 148.3 150.3	148.3 150.3 152.3	2.3 2.0 2.0	<pre><5 <5 <5 <5 <5 <5 </pre>
		129.0' - 150.3'; Basalts become slightly coarser grained developing a sugar (granular) texture.	53838	152.3	154.5	2.2.	<5
		Basalts show weak porphyritic texture in areas with large pinkish feldspar fragments - pheno- crysts. Phenocrysts are rounded in character, up to $\frac{1}{2}$ in diameter. Pink may be due to hematite alteration.					
		Rock shows weak spotty and veinlet controlled calcite with weak to very weak chloritization. Minor epidote is also present. Trace amounts of fine blebby pyrite are common.					

150.3' - 154.5'; Basalts are now fine grain to aphanatic in character. Rock is light green to gray with a weakly developed foliation. Alteration consists of strong pervasive calcite alteration. Fine chlorite slips give rock a brecciated appearance, with chloritization being weak throughout remainder of the zone. Rock seems to have a weak pervasive silicification.

From (ft)

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*	From (ft)	To (ft)		
			cont'd	Pyrite is found as fine disseminated grains, and as small fracture controlled blebs and stringers. Pyrite is brassy yellow in colour.
				176.0' - 223.5'; Basalts show weak alteration, but now contain 2-3%, rounded, light green plagioclase phenocrysts, in a black, weakly chloritized ground mass. Minor amounts of fracture controlled calcite veinlets are present. Pyrite mineralization is the same as throughout zone, with small blebs and thin veinlets. From 219.0' - 221.5' small calcite blebs are found; blebs are 2 in size but for 5% of rock. Blebs are all very

229.5 243.2 FELDSPAR PORPHYRY PORPHYRY PORPHYRY Reck consists of massive to weakly foliated feldspar porphyry. Porphyry contains 5% subhedral grayish green feldspar phenocrysts. Phenocrysts are up to '/s" in size in a very fine grain groundmass. Ground mass is made primarily of feldspar, with smaller amounts of chlorite, and/or chloritized hornblendes.

round in shape.

Weakly altered sections of the porphyry show very weak spotty chloritization and weak fracture controlled calcite veinlets. Porphyry contains 1 - 2% finely disseminated pyrite grains and blebs.

236.0' - 243.2'; Is a zone of strongly altered porphyry. Phenocrysts are now <1% in abundance with ground mass of chlorite, feldspar with possible silica. Groundmass now is aphanitic in character.

Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
53839 53840	154.4	157.0	2.5	<u>۲</u> 5
53841	160.0	163.0	3.0	۲J ۲5
53842 53843	163.0 166.0	166.0 168.0	3.0 2.0	<5 < 5
53844 53845	180.0	182.0	2.0	6
53846	216.0	218.0	2.0	10
53847 53848	219.0 223.5	221.5 226.0	2.5 2.5	{5 ∢5
53849	226.0	229.5	2.5	<5

To From Sample From To Width Au (ft) (ft) No. (ft) (ft) (ft) (ppb) 243.2 313.7 ULTRAMAFIC Dark green black to coal black aphanitic - hyalinic <5 53850 243.2 247.2 4.0 volcanic sequence (basalt); mafic unit is massive VOLCANICS 53851 247.2 249.7 2.5 <5 for the most part with no sign of crystals develop-(BASALT) 53852 249.7 252.2 2.5 10 ment. Deferentially eroded stringer and veinlet 53853 252.2 255.2 <5 2.0 networks occur throughout sequence (probably chloritic); 53854 255.2 258.2 3.0 <5 mafic unit as a whole is moderately altered with 2.5 <5 53855 258.2 260.7 white calcitic threads and blebs (1-5mm in diameter). 53856 260.7 262.7 2.0 <5 Siliceous alteration is not continuous but restricted <5 53857 262.7 265.2 2.5 to patches or bands and is accompanied by carbon-53858 265.2 268.2 3.0 <5 atized epidote and calcite. 53859 <5 268.2 271.2 3.0 53860 271.2 273.7 2.5 <5 Sulphide Mineralization: Basaltic sequence is 53861 278.6 280.6 2.0 <5 mineralized throughout with pyritic veinlets, < 5 53862 282.2 283.2 1.0 threads and blebs to disseminated specks. 2.5 <5 53863 300.3 302.8 5 53864 305.2 307.2 2.0 247.9' - 250.3'; Highly silicified section of mafic sequence characterized by bands of gray amorphous guartz and highly silicified host rock. Olive green epidote vein at 45° T.C.A. containing brecciated guartz fragments with minor calcite phenocrysts (<10%) transects siliceous band; carbonatized alteration occurs as a $\frac{1}{\sqrt{4}}$ veinlets of gray-white and purple calcite running along core axis to a white spherical lens of white quartz (approximately 1" in diameter) pyritic sulphide blebs (up to $\frac{1}{\sqrt{4}}$ " in diameter) occur in mafic hostrock. 294.7' - 1" - 2" diameter lenticular patch of cal-

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- careous epidote.
- 307.7'; Veinous network of gray-white calcite at approximately 130° T.C.A.

page	5

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		ULTRAMAFIC VOLCANICS (BASALTS)	308.0'; Lens (1" - 2" in diameter) of gray-white calcite with brecciated inclusions of black chlorite and green-black mafic host rock.	35865 35866	317.5 334.1	318.5 336.1	1.0 2.0	9 <5
			312.2'; Gray white calcite vein 0 - 1' wide at 45° T.C.A. with brecciated inclusion of host rock.					
			312.4'; 0.25 band of gray-white calcite interspersed in mafic host rock giving it a brecciated appearance.					
313.7 360.5	PORPHYRITIC DIORITE	Gray-green to dark gray medium - coarse grained phaneritic - porphyritic diorite; porphyritic texture due to leucocratic phenocrysts (probably plagioclase feldspar); sequence appears reddish in colour at times (perhaps due to hematite staining) Diorite is transected by veinlets of calcite and epidote.						
		Mineralization: Blebs of chalcopyrite (up to 3mm in diameter) appear in a veinlet of gray-white carbonate (5% by volume).						
			324.5; Well developed euhedral - subhedral crystals (miarolitic?) of clear white to smoky gray quartz, glossy transparent calcite in dioritic ground mass. Crystals appear on fracture surfaces of core.	2				
			342.5 - 344.1; Brownish gray sub-hyalinic felsic volcanic sequence (rhyolite). Unit is transected by gray-white carbonaceous strings and veinlets.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	344.1' - 345.35'; Black-gray, aphanitic mafic volcanic section (basalt). Sequence contains sulfide mineralization (py ~ 1-2%) in pyritic strings transecting across core axis.	53867 53868 53869 53870 53871	360.0 361.5 370.25 373.2 388 5	361.5 362.5 372.25 274.2 390.5	1.5 1.0 2.0 1.0	8 <5 5 17
360.5	364.0	ALTERED ULTRAMAFIC VOLCANICS (BASALT)	Highly silicified, carbonatized ultra mafic unit; textures vary depending on degree of alteration. Highly altered sections present a "marbled" or swirled appearance and are transected by carbonate strings and threads, less silicified - carbonatized sections are black aphanitic with an almost glassy appearance on freshly broken surfaces.	53872 53873	406.3 409.2	407.3	1.0	<5 <5
			Mineralization: Profuse pyritic mineralization (10-15% in a 1' section) occurs as networks of veinlets and stringers, and blebs (2-3mm in dia.) in the sparsely altered ultramafic sequence.					
364.0	370.7	PORPHYRITIC DIORITE	Dark gray - light black fine to medium grained phaneritic-porphyritic diorite; sequence contains leucocratic phenocrysts (up to 2mm in dia.), probably plagioclase feldspar. Crystals are euhedral to subhedral in shape. Porphyritic texture of diorite disappears at approximately 367.0'.					
370.7	422.1	MAFIC VOLCANICS (ANDESITE)	Dark green to greenish gray phaneritic mafic volcanic sequence (andesite). Mafic unit is weakly silicified, moderately carbonatized by calcitic veinlets, strings and threads tran- secting core axis. Epidote enrichment of car- bonaceous veinlets occurs sporadically throughout unit.					



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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Mineralization: Sulphides occur through sequence intermittently as condensed pyritic tributaries in carbonaceous veinlets. Otherwise sulphides occur only as disseminated specks or blebs if at all.	53874 53901 53902 53903 53904	431.0 436.1 441.0 453.2	432.0 438.1 443.0 455.2	1.0 2.0 2.0 2.0	18 10 17 27
422.1	431.4	DIABASE	Dark green-black fine to medium grained phaneritic mafic intrusive (diabase). Almost exclusively composed of melanocratic minerals. Crystals form - subhedral to anhedral; sequence invaded by numerous greenish-gray calcitic-epidote veinlets transecting across core axis at approximately 110-120°.	53905 53906 53907	463.9 469.0 471.8	465.9 471.0 473.8	2.0 2.0 2.0	49 55 24 17
431.4	462.8	ALTERED MAFIC VOLCANICS (ANDESITE)	Gray-green to light gray highly silicified - moderately carbonatized mafic volcanic sequence (andesite). Unit is aphanitic with anhedral crystals. Areas of extreme alteration are light gray in colour with sub-hyalinic anhedral crystals. There is also a "marbled" or "swirled" texture where the silicified - carbonatized rock integrates with the mafic host unit. In some sections silicified rock appears as brecciations (up to 5mm in diameter) in the mafic volcanic matrix. As a whole the unit is moderately carbonatized with white calcite veinlets and strings as well as purple-white calcareous lenticular pods.					
			Sulphide Mineralization: Consists of pyritic blebs ranging from disseminated specks to condensed blebs r_{2} " - r_{4} " in diameter, as well as pyritic strings, pyritic sulphides occur intermittently through sequence.					
462.8	465.4	ALTERED DIORITE	Dark grayish-green medium grained diorite. Subhedral to anhedral crystals. Sequence intruded by numerous calcitic strings, veinlets and black chloritic blebs.					

Sulphide Mineralization: Sequence contains lenticular pods of condensed pyritic blebs (largest pod is approximately $1^{2}/2^{2}$ long by $1^{2}/2^{2}$ wide).

From To - (ft) (ft)

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
465.4	522.2	MAFIC VOLCANICS (ANDESITES) ALTERED	<pre>Dark gray-greenish aphanitic variable textured mafic volcanic sequence (andesite). Texture of rock various with degree carbonatized, chloritic and siliceous alteration; 466' - 478.75'; Heavily carbonatized in calcitic strings, threads, blebs interspersed with host rock creating a "marbled" or "swirled" type of texture.</pre>	53908 53909 53910 53911 53912 53913	475.6 482.8 487.8 492.2 494.2 507.4	477.6 484.3 489.8 494.2 495.2 509.4	2.0 2.0 2.0 2.0 1.0 2.0	33 23 25 41 62 22
			 478.75' - 483.7'; Highly silicified mafic volcanics paler green in colour, texture varies between a uniform silicic, almost glassy texture to a brecciated texture of angular silicous fragmen in a mafic volcanic matrix. Lenticular blebs and freckles of black chlorite are also prominer. 483.7' - 510'; A more uniformly, almost massive mafic volcanic section, dark gray-green in colour, weakly to moderately altered. 	its it.	*,			
			Sulphide Mineralization: Sulphides occur intermittently through mafic sequence as condensed pyritic blebs and pyritic stringers.	•				
			510.0' - 522.2'; Profusely carbonatized mafic volcanics. Network of calcitic stringers, veinlets as well as calcitic phenocrysts.					
522.2	600.0	DIABASE	Dark blackish-green medium grained diabase, anhedral to subhedral crystals structure. Sequence is freckled or spotted with black chloritic blebs and olive-green epidote blebs; alteration is weak and consists of infrequent threads, strings of calcite and carbonaceous epidote.					
			563.8' - 566.0'; ¹ /4" veinlet of reddish-orange hematiz diabase @ 10° T.C.A. running along northern perimeter of veinlet is 2 ¹ /8" wide veinlet of of gray-white calcite.	eđ				

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DIAMOND DRILL LOG

Hole No: 1316-33

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

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
23.0	68.0	MONZONITE (ALTERATION	Rock is intensely altered medium grain, moderately foliated monzonites. Small fragments of chloritized,	56530	23.0	25.5	2.5' oz/t	6771 0,197
		ZONE) MINERA-	calcite rich basalt are still present, but now 1% or less of rock. One larger fragment @ 45.2' -	56531	25.5	28.0	2.5' oz/t	5915 0.173
		LIZATION ZONE	46.1', seems to have well developed spinifex tex- ture suggesting an ultramafic composition. Large	56532	28.0	30.5	2.5' oz/t	1229 0.0358
			dark green needles are noted, many show flexing	56533	30.5	33.0	2.5'	167
			and buckling.	56534	33.0	35.5	2.5'	466
			Monzonite varies from almost all plagioclase and	56535	35.5	38.0	2.5'	678
			altered hornblende to half plagioclase and alkali feldspar. Alkali feldspar percentage may be high	56536	38.0	40.5	2.5' oz/t	2599 0.0758
			due to hematite staining.	56537	40.5	43.0	2.5'	594
			Alteration consists of intense calcite throughout	56538	43.0	45.5	2.5'	265
			zone, with 5-7% calcite veinlets, up to 1.5" in	56539	45.5	48.0	2.5'	470
			width.	56540	48.0	50.5	2.5'	973
			Calcite veinlets run from 45° - 80° T.C.A., with	56541	50.5	53.0	2.5'	437
			uniform hematization found on either side of the	56542	53.0	55.5	2.5'	539
			veinlets. Some veinlets also have subparallel	56543	55.5	58.0	2.5'	253
			fragments of chlorite, but chloritization is mini-	56544	58.0	60.5	2.5'	837
-			mal throughout the monzonite. Epidotization is	56545	60.5	63.0	2.5'	388
			weak and spotty through monzonite.	56546	63.0	65.5	2.5'	255
			Sections of the monzonite show relict feldspar	56547	65.5	68.0	2.5'	158
			porphyry textures.	56548	68.0	70.5	2.5'	〈 5
			Sulphide mineralization consists of 7-10% fine	56549	70.5	73.0	2.5'	₹5
			euhedral, cubic pyrite. Small blebs of randomly oriented pyrite are also evident. Trace amounts of chalcopyrite are found.	56550	73.5	76.5	3.0'	∢ 5
68.0	76.5	BASALTS (ALTERATION ZONE)	Basalts are fine grain, black to dark green in colour, showing moderately developed foliation. Alteration consists of moderate strong calcite and strong pervasive chloritization. Calcite is also present as veinlets blebs and irregular pat- ches, forming 10-15% of rock. Veinlets have ran- dom orientation, commonly offset along fractures @ 75° T.C.A.					

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

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-34

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

Acid Dip Tests

1. None taken

2.

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

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

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-34

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	32.0	BASALT - MONZONITE BRECCIA (ALTERATION ZONE)	<pre>Rock consist primarily of fine grain, greenish grey basalt fragments, forming about 65% of the breccia from 0 - 31.0', then the rock tends to be more mon- zonitic, with basalt fragments being 10-15% of zone. 6.0' - 32.0'; (Mineralization). Fragments are subangular blocks, up to 1 foot in core length. Basalt fragments are usually very sugary in appearance, and exhibit a weak to spotty calcite alteration. Fine, hairline veinlets of white and pink calcite are also noted, but form 2% of rock chemistry. Zone also exhibits local areas of intense hematization. Hematite is rusty red in colour. Silicification occurs as small milky white veinlets and irregular blebs. Veinlets range in size from 1/s" - 1" in size. Veinlets also show weak calcite alteration. Matrix consists of small irregular altered monzonite fingers and blebs up to 32.0, the blebs are fairly massive and weakly altered. Monzonite contains weak chloritization, and spotty zones of calcite alteration and vein- ing which may be strong in some instances. Monzonites are comprised mostly of pinkish white plagioclase (possible weak hematization) with 10% hornblende and alkali feldspar. Amounts of k-spar are difficult to determine due to staining of monzonite.</pre>	56601 56602 56603 55604 56605 56606 56607 56608 56609 56610 56611	0 3.0 6.0 9.0 12.0 15.0 18.0 21.0 24.0 27.0 30.0	3.0 6.0 9.0 12.0 15.0 18.0 21.0 24.0 27.0 30.0 33.0	3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0'	9 <5 6 580 197 22 208 23 30 291 154

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From To (ft) (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) <i>ot</i> /-
32.0 72.0 MONZONITE MINERALI- ZATION 32.0 - 52.0 68.5 - 72.0	 Beyond 32.0', monzonite shows intense alteration, and shows very little evidence of primary structures. Monzonites are now fine grain, exhibiting strong intense pervasive calcite alteration. Calcite is also common as pinkish white fracture controlled veinlets. Small hematite zones along fractures are also noted. Chlorite is found as thin slips and irregular ribbons. Sulphide mineralization consists of trace 3%, fine disseminated pyrite. Pyrite is brassy yellow in colour. Local zones contain thin layers of the euhedral pyrite. Trace chalcopyrite is also noted. 19.5' - 21.0'; Thin milky white quartz vein runs @ 45-70° T.C.A. Attitude of veinlet is very irregular. Vein shows moderate hematite with 1-3% fine pyrite. 39.0' - 40.5'; Second quartz-calcite veinlet runs @ 5° T.C.A. Veinlet contains 1-2% pyrite. Some carbonatized basalt fragments remain. Basalts show intense calcite alteration. 52.0' - 68.5'; Monzonites are now very dark in colour, resembling basalts, except for relic monzonite textures still present. Rock is reddish grey in colour and exhibiting moderate foliation controlled chloritization. Calcite alteration is strong - intense, in the form of calcite veinlets, up to 1" in width, as well as pervasive calcite being noted. Sections of crimson, strongly hematized are also found throughout core. Trace amounts of fine, euhedral pyrite are noted, locally increasing to 1%. Zone may represent a section of abundant basaltic fragments in the monzonite unit. 	56612 56613 56615 56616 56617 56618	33.0 36.0 38.5 41.0 43.5 45.0 48.5	36.0 38.5 41.0 43.5 46.0 43.5 52.0	3.0' 2.5' 2.5' 2.5' 3.5'	237 394 4368 0.12 2828 0.0 1496 0.04 1682 0.0 1830 0.0

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	 68.5' - 72.0'; Monzonites are now becoming more basaltic fragment rich, with large fragments up to 1-2' in core length. Fragment show moderate chloritization with strong pervasive calcite alteration. Monzonites are still medium grained, varying in colour from grey to orange. Alteration consists of strong to moderate calcite alteration. Hematization is spotty ranging from very weak to strong. Strongest hematite alteration is located in zones of pyrite mineralization. Silicification is present in the form of small milky white quartz veinlets, up to 3" in width. Veinlets also show weak spotty calcite and mineralization. 69.0 - 72.0; Contains the greatest number of quartz veinlets. Veinlets form 25-30% of this section. Veinlets are barren, but smaller veinlets may contain 1-2% euhedral pyrite cubes. 	56619 56620 56621 56623 56623 56623 56625	52.0 54.0 55.0 58.0 60.0 63.0 66.0	54.0 56.0 58.0 60.0 63.0 66.0 69.0	2.0' 2.0' 2.0' 3.0' 3.0' 3.0'	10 28 110 14 12 88 243
72.0	100.0	BASALT (ALTERATION ZONE)	Basalts are fine grained, grey to black in colour, with a fairly massive to very weakly foliated appearance. Zone remain granitized, with numerous small monzonite fingers cutting the basalts. Alteration of the basalts consists of moderate per- vasive and foliation controlled chloritization. Calcite alteration is strong, both as pervasive carbonatization and fracture controlled calcite veinlets. Veinlets are random, up to 2" in width, and are white-pink in colour. Brecciation of the basalts is noted in local sections. Weak hemati- zation is found with the calcite veinlets.	56626 56627 56628 56630 56631 56632 56633 56633 56634 56635 56636	69.0 72.0 75.0 78.0 81.0 84.0 87.0 90.0 93.0 96.0 98.0	72.0 75.0 78.0 81.0 84.0 87.0 90.0 93.0 96.0 98.0 100.0	3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0' 3.0'	419 39 181 88 9 85 91 33 81 81 16

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•	F From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)				
2 *		cont'd	Local zones of silicification are present, with small 1-2" vuggy quartz veins. Quartz veins also show strong chlorite alteration at contact. Trace amounts of pyrite occur in the basalts as fine euhedral grains. Monzonite fingers show moderate calcite alteration and spotty hematite. Sulphides in monzonites are fine grain euhedral pyrite, forming up to 2% of rock type.									

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-35

Property: Tyranite (Duggan)	NTS:	Township: Knight		
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 6649	Coordinates: L12+50N; 50+50W		
Azimuth: 090°	Dip: -45°E	Length: 96.7'		
Logged By: R. deGagne	Casing: 0 - 2.0'	Elevation:		
Date Started: October 24, 1987	Date Completed: October 25, 1987	Date Logged: October 26, 1987		
Core Size: BQ	Core Location: Tyranite Mine Site	Samples Shipped:		
Drill Company: Bill Link	Overburden:	Checked: D. Pilkey Jan. 8, 1988		

Acid Dip Tests

1. None taken

2.

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

<u>Conclusions</u> Significant Intersections:

39.4 to 42.4 - 3 ft @ 0.130 oz gold/ton 48.4 to 60.4 - 12 ft @ 0.135 oz gold/ton 85.9 to 88.9 - 3 ft @ 0.126 oz gold/ton



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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-27

Property: Tyranite	NTS:	Township: Tyrrell				
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L16+00S, 4+50W				
Azimuth: 090°	Dip: -50°E	Length: 500.0' Elevation:				
Logged By: D. Pilkey	Casing: 0 - 10.0'					
Date Started: November 1, 1987	Date Completed: November 4, 1987	Date Logged: November 13, 1987				
Core Size: BQ	Core Location: Tyranite	Samples Shipped:				
Drill Company: Bill Link	Overburden: 8.0'	Checked: D. Prior Jan. 6, 1988				
	Acid Dip Tests					
1. Collar -50°E	250.0' -53°E	2. 500.0'52°E				

Purpose To evaluate South Pod Lens.

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Conclusions Significant Intersection: 188 - 190; 2 ft @ 0.0437 oz gold/ton.

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-27

From (ft)	To (ft)		Drill Hole Summary	Sample No.	From (ft)	To (ft)	Width Au (ft)ppboz/t
		Sample #'s	53948 - 53989				
0	10.0	CASING					
10.0	197.0	BASALT	-weak chloritization, and weak calcite veinlets; Trace – 1% pyrite.				
		(weakly mineral-	-109.0 - 112.0; intense calcite alteration, weak brecciation along calcite veinlets.				
		ized)	-118.0 - 145.0; strong pervasive calcite; trace 2% pyrite (small veinlets and blebs)				
			-140.0 - 141.0; intense silicification, strong calcite alteration.				
			-188.0 - 189.0; strong calcite alteration, 5% fine disseminated pyrite.				
197.0	214.0	FELDSPAR PORPHYRY	-strong pervasive calcite alteration, up to 2% pyrite along contact to basalts.				
214.0	265.5	BASALT	-235.0 - 241.0; moderate, pervasive calcite, chlorite and silicification; 1-2% pyrite.				
		(strong mineral- ized)	-260.0 - 265.5; intense calcite, weak chlorite; 7-10% fine disseminated pyrite locally noted.				
265.5	298.5	DIORITE MONZONITE	-weak veinlet controlled calcite and epidote, very weak chlorite				

From (ft) (To €t)		Drill Hole Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
298.5	321.5	BASALT	-moderate pervasive silicification trace - 2% fine pyrite veinlets and blebs. Minor quartz blebs.					
321.5	360.0	DIABASE	321.5 - 329.0; weak calcite veining and spotty hematization, weakly magnetic 1 - 2% blebby pyrite.					
360.0	370.0	BASALT	-moderate calcite veining, moderate foliation controlled chlorite; trace pyrite.					
370.0	428.0	DIABASE						
428.0	466.5	BASALT	-strong veinlet controlled and pervasive calcite, moderate chlorite alteration; trace pyrite.					
466.5	500.0	FELDSPAR PORPHYRY	<pre>-veinlet controlled epidote. 490.0 - 500.0; moderate localized, pervasive hematite, veinlet epidote. No visible sulphide.</pre>					

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DIAMOND DRILL LOG

	No	ovember 25, 1987					Hole N	No. 1316-27
From (ft)	Jo (đt)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
0	10.0	Casing						
10.0	197.0	Basalts	Rock is fine grained, massive, mafic volcanics. Colours consist of dark green, greenish-grey to black.					
			Alteration is weak, with very weak pervasive chloritiz- ation, and weak fracture-controlled calcite alteration. Localized zones of intense calcite alteration are noted in the form of calcite veinlets up to 2" in width. Moderate silicification.					
			37.0': Milky white calcite veinlet runs @ 60° T.C.A. Veinlet is 2-3" in width. Some sections of the basalts have a lime green colouring.	53948	37.0	39.0	2.0'	<5
			Two sections of strong foliation-controlled calcite veinlets is noted @ 59.0' and 64.0'. Veinlets run @ 35 - 45° T.C.A. ranging in width from ∠1/16" to ¼". Weak brecciation is noted with large angular basalt fragments common along veinlet contacts.	53949	42.0	45.0	3.0'	7
			Sulphide mineralization consists of small brassy pyrite	53950	59.0	61.0	2.0'	10
			pyrite. Pyrite is $\leq 1\%$ of zone.	53951	64.0	65.0	1.0'	< 5
			109.0' - 112.0': Rock consists of strongly carbonatized basalts. Carbonate occurs as subparallel greenish white calcite veinlets and fine calcite stringers. Stringers and veinlets exhibit weak brecciation of the mafic volcanics.	53952	97.0	99.0	2.0'	12

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From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
			Veinlets vary in size from $\leq 1/16"$ up to one foot. All veinlets run 0 about 80° T.C.A. Sulphide mineralization in this zone is less than 1% occurring as small blobs	53953	109.0	112.0	3.0'	23
			and veinlets aligned roughly subparallel to foliation direction.	53954	112.0	115.0	3.0'	143
			118.0' - 145.0': Pyrite mineralization becomes more	53955	125.0	128.0	3.0'	12
			abundant averaging 1% over the core length. Rock con- tains fine fracture fillings and small irregular blebs of brassy pyrite.	53956	137.0	140.0	3.0'	11
			140.0 - 141.0: Small zone of intense alteration, ex- hibited by light greenish grey basalts. Rock shows	53957	140.0	141.0	1.0'	10
		Weak fracture controlled chlorite alteration is noted. Fractures run @ 50° T.C.A. No sulphide mineralization noted.	53958	141.0	143.0	2.0'	5	
			Basalts become slightly porphyritic from 141.0 with 3-5%, subhedral plagioclase phenocrysts. Phenocrysts are up to 1/8" in diameter and white in colour.	53959	151.0	153.0	2.0'	10
			188.0 - 189.0" Rock is becoming strongly carbonatized with pervasive calcite alteration. Rock exhibits moderate pervasive silicification with weak fracture controlled chloritization.	53960	188.0	190.0	2.0'	1499 0.0437
			Zone contains 5% fine grain euhedral disseminated pyrite Pyrite is brassy yellow and is found in small bands run- ning from 80 - 85° T.C.A.	-				
197.0	214.0	Feldspar	Rock consists of weakly foliated, fine-medium grained	53961	197.0	199.5	2.5'	240
		Рогрпугу	Porphyry feldspar porphyry. Rock contains 2 - 3%, subhedral green- ish white plagioclase phenocrysts. Phenocrysts are all from !	53962	199.5	202.0	2.5'	57
			<1/16" - 1/8" in diameter. Matrix consists of fine grain plagioclase, chlorite with minor quartz. 5:	53963	202.0	205.0	3.0'	11
				53964	205.0	208.0	3.0'	9

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(FQM)	(ft)		Description	Sample No	From (ft)	(ft)	Width (ft)		Au (ppb) oz/t
			as fine disseminated grains of brassy yellow colouring, with larger yellow pyrite blebs. Sections over the 5.5' are only weakly mineralized, with pyrite forming 1-2%, while other areas average 7-10%.						
265.5	298.5	Monzonite - Diorite	Rock consists of weakly foliated medium grained in- trusive. Rock is grey to rusty brown in colour, and contains 3% anhedral, white plagioclase pheno- crysts. Phenocrysts are supported in a matrix of finer grained plagioclase, chloritic hornblende and smaller amounts of alkali feldspar.	53988	265.5	268.5	3.0'		Հ 5
			Larger hornblende grains are noted, as elongate prismatic grains of up to ½" in length. Large crystals are rare, but small hornblendes form 25% of rock. Composition varies from monzonite to alkali feldspar-poor diorite.						
			Some small chloritic basalt fragments are noted. Fragments are rounded, to subangular, usually 1/8" or smaller in size.						
			Alteration consists of veinlet controlled calcite and epidote. Both are poorly developed. Zones of weak chloritization are common along larger calcite veinlets.						
298.5	321.5	Basalt	Fine grained moderately silicified, mafic volcanics. Rock is fine grained, with weak fracture controlled	53974	317.0	319.5	2.5'		10
			itization is noted. Sparse blebby white quartz is noted, with fracture controlled pyrite found.	53975	319.5	321.5	2.0'		9
321.5	360.0	Diabase	Rock is medium grain, massive greenish grey diabase. Rock is weakly magnetic and very weakly altered. Good diabasic texture is noted in the least altered sections.						
			Diabase consists primarily of plagioclase with 10-15% small euhedral hornblende grains. Weak chlorite alteration occurs with the hornblende grains.						

							Pag	ge 3
From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
			Both contacts to basalts are fine grain aphanitic in character, showing moderate foliation @ 80° T.C.A.	53965	208.0	211.0	3.0'	9
			Alteration consists of strong pervasive calcite, with weak silicification. Rock is strongly fractured, with chlorite slips along the planes. Zones of weak hematization are common in these zones.	53966	211.0	214.0	3.0'	68
			Contacted alteration zones contain zones of pyrite mineralization. Pyrite occurs in local zones of up to 3-5%, and as fine euhedral disseminated cubes, most abundantly in siliceous zone.					
214.0	214.0 265.5 Ba	5.5 Basalts	Basalts are fine grained, slightly porphyritic and weakly foliated @ 75° T.C.A. Alteration consists of fine calcite veinlets with random orientation. Zone	53967	214.0	216.0	2.0'	9
			exhibits weak pervasive calcite and chlorite.	53968	223.0	225.0	2.0'	12
			Plagioclase phenocrysts are small subhedral grains forming 5% of zone. Sulphide mineralization remains as small blebs and irregular fracture fillings.	53969	225.0	227.0	2.0'	25
			235.0' - 241.0': Basalts exhibit moderate pervasive calcite, chlorite and silicification. Small irregular	53970	235.0	238.0	3.0'	126
			calcite veinlets of up to ½" cut the basalts, with sub- parallel chlorite slips.	53971	238.0	241.0	3.0'	12
			Small blebs and discontinuous pyrite stringers are noted throughout zone, forming 1% of the zone, with local concentrations to 2%.	53989	250.0	253.0	3.0'	< 5
			Basalts beyond this zone are no longer porphyritic, with 1% blebby to cubic pyrite noted.					
			260.0' - 265.5': Zone of strong sulphide mineralization.	53972	260.0	263.0	3.0'	17
			calcite alteration, with moderate to strong pervasive in areas of weak pyrite mineralization. Pyrite occurs	53973	263.0	265.5	2.5'	11

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From (ft)	.To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
		Diabase (Contid)	Contact from 321.5' - 329.0' is fine grain to aphanitic	53976	321.5	323.5	2.0'	21
			form of weak calcite veinlets. Chlorite is noted in small	53977	323.5	325.0	1.5'	41
			is spotty in character.	53978	325.0	327.0	2.0'	13
				53979	327.0	329.0	2.0'	< 5
360.0	370.0	Basalts	Rock shows moderate foliation-controlled calcite and chlorite alteration. Foliation runs @ 80° T.C.A.	53980	360.0	362.5	2.5'	18
			Trace amounts of fine discontinuous pyrite veinlets are noted.	53981	362.5	365.0	2.5'	9
			•	53982	365.0	367.5	2.5'	23
				53983	367.5	370.0	2.5'	48
370.0	428.0	Diabase	Same as interval 321.5 - 360.0; minor small, randomly oriented quartz-calcite veinlets are noted near the contacts.					
			Contacts run 0 35 - 40° and are marked by a very fine grain - aphanitic chill margin.					
428.0	466.5	56.5 Basalts	5.5 Basalts Basalts exhibit an intense pervasive and moderate veinlet controlled calcite alteration. Calcite alteration is variable, with most intense zones being					
			found to run @ 45 - 60° T.C.A. and are commonly folded	53984	439.0	442.0	3.0'	< 5
		and offset by smaller veinlets @ 90° T.C.A.	53985	447.0	450.0	3.0'	6	
			Strong local zones of chloritization are often noted running subparallel to calcite veinlets. Small zones of weak hematized basalt and calcite veining is found.					
			Trace amounts of fine pyrite are noted.	53986	464.0	466.5	2.5'	ζ 5

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From (ft)	.To (ft)		Description	Sample No.	From (ft)	.To (ft)	Width (ft)	Au (ppb) oz/t
466.5	500.0	Feldspar Porphyry	Rock is massive medium to fine grained, grey to reddish grey in colour, containing 25 - 30% subhedral plagioclase. Plagioclase phenocrysts are greenish white to rusty red in colour, up to ¼" in diameter.	53987	497.0	500.0	3.0'	< 5
			Matrix is very fine grain, grey to black in colour, with red appearances in more altered section.					
	•		490.0' - 500.0': Feldspar porphyry is moderately altered with numerous fine hairline epidote veinlets, and occasional veinlets up to 2" in width. Moderate pervasive hematization is present throughout matrix and in local zones along phenocryst boundaries.					
			Some large basalt fragments are noted, with strong reaction rims. No visible sulphide mineralization is noted.					

E.O.H.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-28

Property: Tyranite	NTS:	Township: Tyrrell			
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L16+00S, 4+50W			
Azimuth: 090°	Dip: -70°E	Length: 600.0'			
Logged By: D. Pilkey	Casing: 0 - 10.0'	Elevation:			
Date Started: November 4, 1987	Date Completed: November 7, 1987	Date Logged: November 8, 1987			
Core Size: BQ	Core Location: Tyranite	Samples Shipped:			
Drill Company: Bill Link	Overburden: 8.0'	Checked: J. McAuley Dec. 11/88			
	Acid Dip Tests				
1. Collar -70°E	200.0' -70°E 2.	400.0' -70°E 600.0' -71°E			

<u>Purpose</u> To evaluate South Pod Lens.

Conclusions Significant Intersection: 117.5 to 119.5; 2 ft @ 0.0804 oz gold/ton.



NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No. 1316-28

From To (ft) (ft)		Drill Hole Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) Oz/t
	SAMPLE #'s	65753 - 65800 ; 65531 - 65578					
0 10	CASING						
10 198.3	BASALTS	119.5 – 156; pyrite and pyrrhotite calcite alteration and silica					
198.3 211.5	FELDSPAR PORPHYRY	207.5 - 211.5; altered zone strong calcite, weak chlorite trace pyrite					
211.5/287.0	BASALTS	228.0 - 231.0; 5% pyrite, strong calcite altered					
		242.0 - 245.0; 3% pyrite, strong calcite altered					
287.0:324.0	DIORITE	<pre>310.0 - 312.0; 2% blebby pyrite, weak calcite moderate silicification</pre>					
		321.0 - 324.0; 3% pyrite					
324.0 452.4	BASALT	341.0 - 351.0; upto 5% pyrite, moderate-strong calcite and silica alteration					
		426.0 - 431.0; siliceous breccia					
		431.0 - 436.0; 4% blebby pyrite, moderate silica					
		436.0 - 446.0; intense calcite, chlorite alteration (ultramafic)					
452.4 569.0	DIABASE						
9.0 600.0	BASALT						

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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	Nov	ember 19, 1987				Hole No.1316-28						
From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t.				
0	10	Casing										
10	198.3	Mafic Volcanic (Andesite/	The first five feet of the sequence (10' - 15') is a dark blackish green in color changing to a lighter	65753	11.0	14.0	3.0'	9				
		Basalt)	Basalt) greyish green further on. The rock is an aphanatic volcanic but the first five feet is more uniform and unaltered.	35754	22.0	25.0	3.0'	7				
				65755	30.6	33.6	3.0'	15				
			From 15' on the rock is altered with veinlets of calcite uniformly throughout	65756	40.0	43.0	3.0'	38				
			Enidote enriched veins of calcite also occur but are	65757	43.0	45.0	3.0'	8				
			infrequent. Calcite is white, anhedral. Calcite	65758	50.5	53.5	3.0'	< 5				
			Due to the lighter color in the altered rock some possible silicification may occur. Hardness indicates this also but no visible segments were noted.	65759	63.0	66.0	3.0'	8				
			Phenocrysts of hematized plagioclase with a range in grain sizes from 1 mm to 4 mm occur throughout the core starting in the area of around 29'.	-								
			Noted are small black freckles of chlorite found throughout the core. The chlorite is also an alteration.									
			Small disseminated, yellowish pyrite blebs are noted but are uncommon in the core.									
			Gravish graan anhanitic volcanic	65760	66.0	68.0	2.0'	38				
					<i>co</i> o	70.0	0.01	22				
			Veinlets of calcite still prominent and uniform within the core.	65/61	68.0	70.0	2.0'	52				

		Pag					age 2			
From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t		
		Mafic Volcanic	Veins of epidote enriched calcite are uncommon	65762	77.0	80.0	3.0'	26		
			and holding no form of structure.	65763	89.0	92.0	3.0'	16		
			Veins of calcite also occur infrequently.	65764	94.0	96.0	2.0'	8		
			Very strong siliceous hematized zones occur from 67.21 to 67.81 and also from 68.31 to 70.01. The	65765	103.0	104.5	1.5'	13		
			zones are strongly altered by silica and contain bematite staining along with slight calcite enrich-	65766	104.5	106.0	1.5'	9		
			ment. The zones occur perpendicular to the core	65767	109.0	111.0	2.0'	5		
			Descenate of bonetized placialize shill seems	65768	114.0	116.0	2.0'	< 5		
			throughout the core, with ranging grain sizes from	65769	116.0	117.5	1.5'	7		
			Small black freckles of chlorite are noted through- out the core.	65770	117.5	119.5	2.0'	2755 0.08 04		
			There is a zone of strong chlorite alteration which occurs from 119' to 120.6'. The core is lighter in colour and is quite soft.							
			Pyrite occurs in the core but is uncommon and infrequent.	65771	119.5	121.0	1.5'	538		
			Veinlets of calcite occur throughout the core but are	65772	121.0	123.0	2.0'	36		
			The second	65773	123.0	125.5	2.5'	162		
			and do not occur as often as before.	65774	125.5	128.8	3.3'	30		
			Veins of calcite do occur but also not quite as	65775	128.8	131.0	2.2'	7		
			Calcite in all these forms is still white and anhedral.	65776	131.0	133.0	2.0'	10		

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From (ft)	To (£t)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
			A very strong carbonaceous alteration occurs from	65777	133.0	135.0	2.0'	12
			silica and chlorite alteration.	65778	135.0	138.0	3.0'	8
			Small black freckles of chlorite are noted throughout	65779	138.0	141.0	3.0'	9
			spots.	65780	141.0	144.0	3.0'	28
			Small light green to white fragments occur at around	65781	144.0	147.0	3.0'	10
		possibly siliceous fragments.	65782	147.0	150.0	3.0'	6	
		Spots of massive pyrrhotite occur through the core	65783	150.0	153.0	3.0'	8	
			10%. This was found between 119.5' - 155.0! Pyrite	65784	153.0	156.0	3.0'	35
			throughout the core from 119.5' to 176.0'	65785	156.0	159.0	3.0'	7
				65786	159.0	162.0	3.0'	12
				65787	162.0	165.0	3.0'	20
				65788	165.0	168.0	3.0'	5
				65789	168.0	171.0	3.0'	〈 5
				65790	171.0	173.0	2.0'	〈 5
				65791	173.0	175.5	2.5'	<5
10.0	198.3	Mafic Volcanics	Veinlets of calcite are now prominent and uniform	65792	177.0	180.0	3.0'	Հ 5
		(Andesi te/basai t/	Voins of opidate enriched calcite are uncommon but	65793	180.0	182.0	2.0'	6
			Veins of epidote enriched calcite are uncommon but do occur.	65794	182.0	184.0	2.0'	〈 5
			Veins of calcite also occur but are infrequent. Calcite is white and has no structure.	65795	184.0	186.0	2.0'	8

						Pag	e 4	
From (fţ) (To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t.
		Mafic Volcanics	Small light green to white fragments/blebs of possible	65796	191.0	194.0	3.0'	37
		(Cont'd)	are possible phenocrysts. Small black freckles of chlorite still occur throughout the core	65797	194.0	196.0	2.0'	25
			Pyrite is found in the core but is infrequent.	65798	196.0	198.3	2.3'	<5
198.3 2	07.5	Feldspar Porphyry	Dark Grey to light grey, aphanitic matrix, porphyritic phenocrysts of feldspar ranging from 1 mm to 4mm. Phenocrysts are white and rectangular to rounded.	65799	198.3	200.0	1.7'	6
			Calcite is present only in veinlets and occurs in- frequently.					
			Small freckles of chlorite are noted but are uncommon throughout the core.					
			Pyrite is seldom noted but does occur in some trace levels.					
207.5 2	11.5	1.5 Altered Porphyry	Lt greyish-green aphanitic, volcanic. Phenocrysts are hard, light green to white and are rectangular to rounded, possibly feldspar. Core is highly altered	55000				
			by calcite. The core is soft, fighter in color and fizzes in HCl acid. There is no structure to the	65800	205.5	208.5	3.0'	222
			calcite.	65531	208.5	211.5	3.0'	62
			Calcite enrichment occurs throughout the alteration.					
			Freckles and veinlets to veins of chlorite are quite common throughout the alteration. This is noted by the blackish green colour and softness.					
			Epidote enriched calcite is noted and occurs infrequently throughout the alteration.					
С. Х			Small disseminated blebs of pyrite are found throughout the alteration but some areas of concentrated pyrite are noted within the alteration.					

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						Page	e 5	
From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
211.5		Mafic Volcanic (Andesite/Basalt)	Light greenish black to greenish black, aphanitic volcanic.	65532	211.5	214.0	2.5'	6
			Veinlets of calcite occur within the core and are generally prominent throughout.					
			Epidote enriched veins and veinlets of calcite also	65533	214.0	216.0	2.0'	7
			Calcite veins occur but are not prominent within the core.	65534	221.0	223.0	2.0'	12
			Fragments/blebs of white to light green feldspar occur and are rounded and have a range in grain sizes from 1 mm to 4 mm. The fragments/blebs are hard	65535	225.0	228.0	3.0'	8
			phenocrysts.	65536	228.0	231.0	3.0'	21
			Veins and veinlets of silicified calcite also occur throughout the core. The veins are quite hard when scratched but fizz in HCl acid. Some of the silicified veins and veinlets are epidote enriched.					
			A small altered zone is noted at around 215' and is silicified and contains calcite. There is also epidote enrichment in some of the calcite.					
			Pyrite is not common within the core but does occur in concentrated areas sporadically.	~				
			Calcite occurs in blebs but is infrequent throughout	65537	233.0	236.0	3.0'	48
			the core. The blebs are soft, white and fizz in HCl Acid.	65538	242.0	245.0	3.0'	5
			Veins and veinlets of silicified calcite occur through- out the core. The veins and veinlets are hard when scratched and fizz in HCl acid. Some veins and veinlets are enriched by epidote. Chlorite is also					
			common.	65539	253.0	256.0	3.0'	24

			Page 6						
From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t	
		Mafic Volcanic (Cont'd)	A small siliceous altered zone occurs at around 250'. The zone has a cherty appearance and is very hard. Chlorite is very common in the area among the fractures of the silica. Some calcite is noted.	65540	256.0	259.0	3.0'	42	
			Fragment/blebs of white to light green feldspar occur throughout the core and are rounded. The possible phenocrysts are hard and have no structure. Grain sizes range from 1 mm - 5 mm.	65541	285.0	287.0	2.0'	901	
			Pyrrhotite is found sporadically in the core in concentrated areas.						
			Pyrite is common in blebs throughout the core and is also found in concentrated areas within the core. Concentrates of pyrite are up to 5% in localized areas.						
287.0	324.0	Diorite- Monzonite	Rock consists of medium, weakly foliated diorite, grading into monzonite. Rock is light grey to pink in colour and consists of 20 - 30% mafic minerals. Mafics consist of weakly chloritized bornblende grains	65542	310.0	312.0	2.0'	13	
			Grains are euhedral, up to 1/8" in length, most of which are stubby, dark green to black in colour. Smaller rounded, subhedral plagioclase phenocrysts are locally apparent.	65543	321.0	324.0	3.0'	7	
			Groundmass consists primarily of plagioclase with local accumulations of up to 15%, pink alkali feldspar.	~					
			Alteration consists of fine, hairline fracture fillings of calcite and epidote. Veinlets have random orientations and form 1% or less of zone. Trace amounts of fine euhedral, brassy pyrite are noted.						

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From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
			310.0-312.0: A small section from 310.0 - 312.0 exhibits moderate silicification, with blebby pyrite forming 1-2% of rock.					
			Small chlorite slips are also common; minor hematite is found @ 322.5'.					
324.0 452.4	452.4	Mafic Volcanic	Andesites are fine grained, weakly foliated, ranging	65544	324.0	326.0	2.0'	9
		(andesi te)	small, milky white calcite veinlets ranging from	65545	326.0	328.0	2.0'	5
		veinlets up to 6" in core length.	65546	328.0	331.0	3.0'	9	
			Breccia zone ₅ are weakly formed and occur in almost all of the larger calcite veinlets. Chloritization is weak occuring as irregular slips and fracture filling, all $\langle I/16''$ in width.	65547	331.0	334.0	3.0'	10
			Sparse pyrite mineralization is noted as small brassy	65548	334.0	336.0	2.0'	9
			planes. Pyrite content may reach 1 -2% locally.	65549	336.0	339.0	3.0'	9
			240.0 242.0 . Recalts show medawate to strong new	65550	339.0	341.0	2.0'	7
			vasive silicification. Basalts are light grey to greenish grey. Zone shows moderate pervasive calcite alteration. Strong fracturing contains small hairline chlorite slips and blebs.	65551	341.0	343.0	2.0	8
			Sulphide mineralization increases from 341.0 to 351.0'.	65552	343.0	346.0	3.0'	11
			Sulphides remain pyrite in fine disseminated grains	65553	346.0	349.0	3.0'	6
			5%.	65554	349.0	351.0	2.0'	28

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From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
		Mafic Volcanic (andesite)	367.0': Small zone of foliation controlled silicification, with weak - moderate calcite and minor epidote alteration. Zones of strong pervasive chlorite and calcite alteration are noted in the area.	65555	367.0	369.0	2.0'	43
			Small blebs of milky white quartz with fracture controlled pyrite form $\langle 1\% \rangle$ of basalts. Some of the blebs are up to ½" in width.	65556	383.0	385.0	2.0'	10
			399.0 - 452.4': Basalts now show intense alteration in a variety of types and degrees. The most notable is a moderate to strong calcite alteration. Calcite is present as fine pervasive grains and fine foliation controlled calcite veinlets and blebs. Blebs may	65557	399.0	402.0	3.0'	22
				65558	402.0	405.0	3.0'	23
				65559	405.0	408.0	3.0'	6
			reach 1 - 2" in width.	65560	408.0	411.0	3.0'	15
				65561	411.0	414.0	3.0'	13
			399.0 - 431.0': The basalts show strong to intense pervasive, silicification. Basalts are very fine grained to aphanitic, with light grey to greenish grey	65562	414.0	417.0	3.0'	18
				65563	417.0	420.0	3.0'	31
				65564	420.0	422.5	2.5'	46
			by strong calcite alteration along the fractures, turning the basalts to white grey. Small veinlets of quartz-calcite run 0 65° T.C.A.	65565	422.5	425.0	2.5'	34
			Strong chloritization also is noted along most of the fractures in the basalt.					
			426.0 - 431.0': This is a zone of strong brecciation	65566	425.0	428.0	3.0'	55
			consisting of 35- 50% subangular silicified basalt fragments, in a fine foliation controlled matrix of chlorite and calcite. Chlorite along foliations produce fine ribbon-like features.	65567	428.0	431.0	3.0'	17

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					Page 9					
From (ft) (To (ft [,])		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t		
			431.0 -436.0': Altered basalts now only show moderate pervasive silicification with strong foliation con- trolled chlorite and calcite alteration. Foliation runs 0 45 - 60° T.C.A. Zone contains from trace - 4%, fine oubedral purite grains running parallel to foliations in	65568	431.0	433.5	2.5'	98		
		small pyritic bands. Slight folding is noted in the zone.		433.5	436.0	2.5'	17			
			Basalts from 436.0 - 446.0 show intense chlorite and	65570	436.0	439.0	3.0'	8		
			carcitle arteration, and have an uttramaric appearance.	65571	439.0	442.0	3.0'	21		
				65572	442.0	444.0	2.0'	10		
				65573	444.0	446.0	2.0'	29		
				65574	446.0	449.0	3.0'	36		
				65575	449.0	452.4	3.4'	61		
457.4 56	69.0	Diabase	Rock consists of medium grained, greyish diabase. Contact runs @45° T.C.A., with a chill margin of l foot.							
			Rock consists mostly of large euhedral black horn- blendes grains with grains up to ¼" in size. Plagioclase forms interstitial grains between the larger hornblendes. Rock composition is diorite. Diabasic texture is well developed locally. Rock is strongly magnetic.	65576	479.0	481.0	2.0'	10		
			Alteration consists of weak, veinlet controlled epidote and calcite, which form $\langle 1\% \rangle$ of dyke. Vein-lets run @ 60-80° T.C.A.							
			Trace amounts of blebby pyrite are noted. Altered zones lack magnetism, and are fine grained.							

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÷	From (ft)	To (ft)		Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
	569.0	600.0	Mafic volcanic (basalt)	Rock is moderately foliated, altered, fine grain, dark green to black mafic volcanics. Foliation runs @ 70° T.C.A.					
				Alteration consists of strong pervasive chloritization and moderate pervasive calcite alteration. Minor small					66
				calcite veinlets are also noted. Moderate pervasive silicification occurs from 581.0 - 585.0, with up to	655//	581.0	583.0	2.0'	00
				3% fine, euhedral pyrite. Minor hematite is locally noted.	65578	583.0	585.0	2.0'	153

E.O.H.

Hole No: 1316-47

From To		DRILL HOLE SUMMARY
	SAMPLES #s	70401 - 70483
0 9.0	CASING	
9.0 197.5	BASALTS	Moderate pervasive silicification, fracture controlled calcite, variable amounts of pyrite and pyrrhotite over length.
	(MINERAL IZED	 36.0 - 38.0; weak calcite; 2 - 10% pyrite stringers. 40.0 - 41.5; strong calcite and silicification 2% chalcopyrite. 61.0 - 103.0; trace - 5% blebby pyrite, local massive pyrrhotite. 112.0 - 114.0; 3 - 5% pyrite; 1 - 2% pyrrhotite 117.0 - 197.5; weak calcite; weak pervasive silicification; 2 - 5% pyrite, trace 5% pyrrhotite; trace - 1% chalcopyrite (sulphides very spotty)
197.5 236.0	FELDSPAR PORPHYRY	<pre>199.5 - 229.0; moderate pervasive calcite, weak fracture controlled chlorite; trace pyrite 229.0 - 236.0; strong silicification, moderate calcite veinlets.</pre>
236.0 336.0	BASALT MINERAL- IZED	<pre>Weak moderate pervasive silicification weak calcite veinlets. Spotty zones of intense calcite and silica alteration; trace - 3% pyrite "some massive sulphide zones now appear with up to 10% pyrrhotite; 2 - 3% pyrite; trace chalcopyrite" 278.5 - 279.0; intense calcite veining; 3 - 5% pyrite</pre>

					page 2			
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		(MINERAL- IZED)	291.0 - 336.0; sulphides again spotty, trace 30% pyrrhotite; trace 5% pyrite; 1% local chalcopyrite.					
			<pre>324.0 - 336.0; moderate - intense silicification weak brecciation; weak - moderate calcite alteration. 1 - 2% pyrite.</pre>					
336.0	342.5	DIORITE	weak, spotty calcite; trace pyrite.					
342.5	363.0	BASALT	 342.5 - 350.0; intense pervasive calcite and silica alteration - trace pyrite 359.0 - 363.0; moderate spotty silicification, moderate pervasive calcite, spotty hematite 					
363.0	392.0	DIORITE	trace - 2% pyrite					
455.5	489.5	BASALT	<pre>455.5 - 460.0; silicified graphite zone; 1 - 2% pyrite tight kink folding 460.0 - 489.5; strong pervasive silicification weak spotty calcite - 2% pyrite locally</pre>					
489.5	494.5	DIORITE						
494.5	500.0	BASALT	Strong pervasive silicification					

E.O.H.



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page 3

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (£t)	Au (ppb)
392.0	419.0	BASALT	<pre>weak pervasive silicification, weak calcite veining trace - 2% pyrite 408.0 - 419.0; moderate pervasive calcite, weak silicification 419.0 - 423.0; strong pervasive silicification strongly graphitic, weak calcite 1 - 2% pyrite - tight kink folds.</pre>					
423.0	426.8	INTERMED- IATE VOLCANIC	May be intense alteration of basalt; moderate to strong silicification, moderate spotty calcite, weak fracture controlled chlorite - trace pyrite					
426.8	428.3	BASALT	strong pervasive silicification, very graphitic; 1 - 2% pyrite					
428.3	455.0	INTER- MEDIATE VOLCANIC	intense pervasive silicification, moderate spotty calcite, weak chloritization - trace pyrite "May be felsic volcanic or intense silica alter- ation?"					
NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-47

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	9.0	CASING						
9.0	197.5	BASALT	Rock consists of fine grain, weakly foliated mafic volcanics. Basalts are grey to greenish grey in colour. Alteration consists of moderate fracture controlled calcite veining running @ 60° T.C.A. Basalts also show weak spotty chloritization and weak - very	70401 70402 70403 70404 70405 70405 70406 70407	15.0 19.0 22.0 25.0 31.0 36.0	19.0 22.0 25.0 28.0 33.0 38.0	3.0 3.0 3.0 2.0 2.0 2.0	
			weak hematite alteration. Zones of local pervasive silicification are noted. Sulphide mineralization consists of blebby and weak	70408	40.0	41.5	1.5	
		MINERAL- IZED ZONE	<pre>foliation controlled pyrite stringers and veinlets. Sulphide content varies from trace - 2%, local accumulation may reach 10%. 36.0 - 38.0; Basalts are moderate to weakly car- bonatized, containing 2 - 10% foliation controlled pyrite mineralization. 40.0 - 41.5; Zone of strong alteration, exhibited by fine grain, tight grey basalts. Alter- ation consists of moderate pervasive sili- cification, and strong pervasive calcite. Zone is strongly fractured with chlorite along the fractures. Zone contains 2% chalcopyrite. Strong mineralized zones of up to 8" are noted from 46.0 - 61.0'. Zone contains 3% sulphide over width.</pre>					
			Sulphide occurs as random stringers from 5 - 30% T.C.A. Weak calcite alteration is noted.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
(ft)	(ft)	cont'd	<pre>Mineralization ranges from trace - 5% from 61.0 - 103.0, remaining as fine blebby pyrite and small fracture controlled pyrite stringer. Local zones of pyrhotite are noted. 103.0 - 112.0; Pyrite mineralization is very weak forming (1% of zone. Calcite and chlori- tization are no longer pervasive, but only as very weak calcite veinlets. 112.0 - 114.0; Zone of fine pyrite mineralization, with 3 - 5% fine stringers and blebs, 1 - 2% massive, blebby pyrhotite. 117.0 - 119.5; Basalts are cut by 2 zones of intense calcite alteration. Zone run @ 75° T.C.A. Sections are up to 2" in width. Zone also exhibits moderate pervasive silicification with weak fracture controlled chloritization. Strongest chloritization occurs in fractures with- in the siliceous zones. Pyrite is blebs and stringers. Sulphide zones reach 3 - 5% of zone. 119.5 - 197.5'; Basalts are weakly carbonatized with fine fracture controlled calcite veinlets. Minor fracture controlled chloritization, and weak pervasive sili- cification. Sulphide mineralization is spotty, consisting of blebs and fine stringers of pyrite, with local zones of pyrrhotite enrichment. Pyrite is gener- ally massive over small widths and often occurs with small blebs and sheet like zones of chalco- pyrite. Sulphide mineralization runs @ 1 - 2%</pre>	No. 70409 70410 70411 70412 70413 70414 70415 70415 70415 70415 70417 70418 70419	(ft) 46.0 49.0 51.0 53.5 56.0 71.0 84.0 101.0 112.0	(ft) 49.0 51.0 53.5 56.0 58.5 61.0 69.0 74.0 36.0 103.0 114.0	(ft) 3.0 2.5 2.5 2.5 3.0 3.0 2.0 2.0 2.0	(ppb)
_			pyrrhotite zones.					

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					page 3		
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
197.5 236.0 I	FELDSPAR PORPHYRY	Rock consists of fine grained matrix, of weakly foliated, grey - greenish grey to brown plagio- clase?, calcite and chlorite. Percentage is undetermined due to finesse of grain size.	70420 70421 70422 70423 70423 70424	117.0 123.5 134.0 146.0 148.0	119.5 131.0 135.0 148.0 150.5	2.5 2.5 1.0 2.0 2.5	
		Rock also contains 10 - 15%, subhedral, rounded greenish white plagioclase phenocrysts. Pheno- crysts are up to 1/10" in diameter.	70425 70426 70427 70428	150.5 152.5 158.0 161.0	152.5 155.0 161.0 164.0	2.0 2.5 3.0 3.0	
		Alteration consists of weak-moderate pervasive calcite, and very weak fracture controlled chloritization. Minor blebby and very finely disseminated pyrite is noted.	70429 70430 70431 70432 70433	164.0 167.0 170.0 173.0 192.0	167.0 170.0 173.0 176.0 195.0	3.0 3.0 3.0 3.0 3.0 3.0	
		199.5 - 229.0; Zone is characterized by an increase in alteration, and coincident decrease in plagioclase phenocrysts. Relic outlines of primary phenocrysts are still visible, with a colour change to lime green. Porphyries in this section are weakly foliated, marked by small chlorite slips. Rocks is now moderately to strongly carbonatized, with pervasive calcite alteration.	70434 70435 70436 70437 70438	195.0 201.0 229.0 232.0 234.0	197.5 203.0 232.0 234.0 236.0	2.5 2.0 3.0 2.0 2.0	
2	ALTERATION ZONE	Trace amounts of fine disseminated pyrite are noted. 229.0 - 236.0; "Porphyry" is now so strongly alt- ered that it no longer has any phenocrysts. Even relic textures are no longer apparent. Zone exhibits moderate fracture controlled calcite and weak to moderate pervasive silicification. Trace pyrite is noted.					
		"Rock may be altered basalt but is slightly more siliceous than surrounding basalt, and is light grey in colour."					

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From To (ft) (ft)			Sample No.	From (Et)	To (Et)
236.0 336.0	BASALT	Rock is fine grain, massive to weakly foliated	70439	236.0	239.0
		mafic volcanics. Basalts are dark green to	70440	239.0	242.0
		black in colour.	70441	246.0	249.0

Alteration consists of a weak - moderate pervasive silicification, over the entire zone. It also contains weak foliation controlled calcite veinlets, with foliation controlled chloritization.

Small sections of more intense alteration are noted. Zones are usually up to 3" in width consisting primarily of calcite alteration and weak spotty silicification.

Sulphide mineralization is variable, consisting primarily of small irregular pyrite blebs and small fracture controlled pyrite stringers. Pyrite is very sporadic, ranging from trace to 3%.

Zones of weakly massive sulphide mineralization are characterized by primarily pyrrhotite, with minor pyrite, and trace chalcopyrite. Massive zones are small, usually less than 6" in core length.

Pyrrhotite reaches 10%, with 1 - 2% pyrite trace chalcopyrite.

Basalts show section of porphyritic texture, with up to 10% subhedral brownish white plagioclase phenocrysts. Zones of porphyritic basalt are sparsely scattered through more homogeneous basalt.

Sample	From	То	Width	Au
No.	(Et)	(ft)	(ft)	(ppb)
70439	236.0	239.0	3.0	
70440	239.0	242.0	3.0	
70441	246.0	249.0	3.0	
70442	256.0	258.0	2.0	
70443	273.0	276.0	3.0	
70444	276.0	279.0	3.0	

From To (ft) (ft)			Sample No.	From (ft)	To (£t)	Width (ft)	Au (ppb)
	cont'd	 278.5 - 279.0; Basalts exhibit intense foliation controlled calcite and chlorite alteration. Veinlets run @ 80° T.C.A. and are '>." or smaller in width. Veinlets are bound by small chlorite slips. Stringers of brassy pyrite run subhedral to foliation forming 3 - 5% of small zone. From 291.0' the most predominant sulphide mineral is pyrrhotite, ranging from large blebs to massive zones of thin stringers. Pyrrhotite mineralization reaches 30% locally with pyrite stringers ranging from trace to 3%. Local concentrations of pyrite may reach 5%. Massive pyrrhotite sections commonly show a brecciated texture, comprised of round, small basalt fragments in a matrix of pyrrhotite. 317.0 - 318.0; Zone of massive sulphide consisting of equal amounts of pyrite and pyrrhotite. Sulphide content over 1.0' about 65 - 70%, 35% pyrite along foliation planes, 35% massive blebby pyrrhotite. 324.0 - 336.0; Zone consists of intense alteration of basalts. All primary structure and textures have been destroyed. Rock now exhibits weak brecciation. Alteration consists of moderate pervasive silicification. Basalts are now grey-white to brown, and very cherty in appearance. Siliceous zones show strong brittle deformation with small slips and patchy zones of chlorite. Chlorite also shows moderate silicification. 	70445 70446 70447 70448 70450 70451 70452 70453 70454 70455 70455 70456 70457	296.0 293.0 311.0 316.0 318.0 320.0 322.0 324.0 327.0 330.0 333.0 336.0 339.5	298.0 300.0 314.0 318.0 320.0 322.0 324.0 327.0 330.0 333.0 336.0 339.5 342.5	2.0 2.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.5 3.0	
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From (ft) (To ft)			Sample No.
		cont'd	Weak foliation and fracture controlled calcite alteration is noted, with weak local hematization. Minor epidote also occurs.	70458 70459 70460 70461
			Zone contains 1 - 2% blebby and very finely dis- seminated pyrite.	70461 70462 70463
336.0	342.5	DIORITE	Rock consists of medium grain, massive diorite. Diorite contains 10%, euhedral, prismatic amph- ibole grains. Grains are black-green in colour, showing no preferred orientation. Grains are up to ',s" in size, and are supported by smaller grained mafic and plagioclase. Plagioclase content is about 70%.	10404
			Alteration is weak with fracture controlled cal- cite and spotty chloritization being common. Weak pyrite mineralization reaches 1% locally, as blebby pyrite grains.	
342.5	363.0	BASALTS	342.5 - 350.0; Zone of intense alteration, ex- hibited by a weak-moderate pervasive car- bonatization. Calcite also occurs in fine foliation controlled veinlets. Zone also exhibits a moderate pervasive sili- cification. Weak fracture controlled chlorite is also noted generally as very fine slips. Rock in this section is very fine grained to aphanitic, yellowish green in colour.	
			<pre>Trace amounts of finely disseminated, euhedral pyrite is noted. 350.0 - 358.0; Basalts are now green-black, and exhibit weak alteration. Weak porphyritic texture is now apparent. Basalts contain</pre>	

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ample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0458	342.5	345.5	3.0	
0459	345.5	348.0	2.5	
0460	348.0	350.0	2.0	
0461	350.0	352.5	2.5	
0462	352.5	355.0	2.5	
0463	355.0	357.0	2.0	
0464	357.0	359.0	2.0	

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (£t)	Au (ppb)
	cont'd	3 - 5% blebby, and fine fracture controlled pyrite, and 1 - 2% blebby pyrrhotite.	70465 70466	359.0 361.0	361.0 363.0	2.0 2.0	
		359.0 - 363.0; Zone of strong pervasive calcite alteration. Rock in this section has sugary texture. Moderate spotty silici- fication and locally strong hematite alt- eration is noted.	70467 70463 70469 70470 70471 70472	396.0 405.0 408.0 411.0 414.0 415.5	399.0 408.0 411.0 414.0 416.5 419.0	3.0 3.0 3.0 3.0 2.5 2.5	
		and irregular blebs, randomly oriented through the core.					
		Small quartz blebs are frequently observed as small grey, oval shaped features, up to $\frac{1}{2}$ " in length. Sulphide mineralization is strong around these areas.					
363.0 392.0	DIORITE	Same as described in interval 336.0 - 342.5. Diorite show weak blebby and fine fracture con- trolled calcite, and locally contains 2% fine blebby pyrite. Fragments of basalt are found within the diorite. Fragments are rounded in character, moderately chloritized, and form 1% of diorite. Fragments up to 3" wide are noted.					
392.0 419.0	BASALTS	Rock is weakly foliated fine grain mafic volcanics. Basalts are greenish grey to black in colour. Locally these basalts show weak porphyry texture, with small, subhedral, white plagioclase pheno- crysts noted. Porphyritic sections are not common.					

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	Alteration consists of weak pervasive silicification, with moderate - weak calcite veining. Minor chlo- ritization is also noted. Basalts contain trace 2% blebby pyrite and fine pyritic stringers. Zone also contains trace amounts of pyrrhotite. 408.0 - 419.0; Basalts show moderate pervasive calcite alteration and weak to moderate, foliation controlled calcite veining, with subparallel chloritization. Weak pervasive silicification is also noted, with small sections of intense silicification marked by yellowish white cherty appearance to basalts.	70473 70474 70475 70475	419.0 421.0 423.0 425.0	421.0 423.0 425.0 426.8	2.0 2.0 2.0 1.8	
419.0 423.0	GRAPHITIC ZONE	Basalts are now primarily graphite, being black in colour. The zone is still strongly silicified and is cut by small white calcite veinlets at random orientation. Sulphide minerals consist of fract- ure controlled pyrite stringers, and small glob- ular (colloform) pyrite nodules. Sulphide miner- alization forms about 1% of zone.					
		Tight kink folding is strongly marked in the more graphitic sections of the zone.					
423.0 426.8	B INTER- MEDIATE VOLCANIC	Rock is massive to foliated, fine grain, cherty looking unit. Rock is yellow white to beige in colour, and may represent a strongly altered section of basalt. Zone is strongly fracture and contains variable amounts of silica. More siliceous zones are tan coloured.					
		Zone also contains weak-moderate fracture con- trolled calcite alteration. Carbonatization becomes pervasive in local areas. Weak fracture controlled chlorite is noted giving the rock a weak brecciation texture.					

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From (ft)	To (ft)			Sample Nc.	Fro (ft
		cont'd	Many elliptical black porphyroblasts are noted throughout zone, with more concentrated zone containing 15% porphyroblasts.	70477 70473 70479	425 435 446
			Porphyroblasts are up to $1/3$ " in length and appear to be a mixture of chlorite and calcite. Greenish reaction rims are noted around most of the porphyroblasts.		
			Trace amounts of fine grain, disseminated pyrite are noted.		
426.8	428.3	GRAPHITIC ZONE	Same as interval 419.0 - 423.0, zone is still very strong silicified, with 1 - 2% blebby pyrite.		
428.3	455.0	INTER- MEDIATE VOLCANIC	Rock is the same as in previous intermediate unit, being fine grain to aphanitic, yellowish green to tan in colour.		
		ALTERATION ZONE	Colour is a strong indicator of silicification, with tan zones being most siliceous. Zone exhibits very spotty, weak calcite alteration, with fracture controlled chlorite.		
			Chlorite-calcite porphyroblasts are now slightly larger and seem to be plagioclase at their cores. Many of the porphyroblasts are aligned along fractures @ 70° T.C.A.		
_			Rock has a layered appearance due to changing silica contents. Tight folding is common on a small scale. 436.0; The unit becomes more felsic than inter- mediate, but still retains the same texture. Small, thin layers of pyrite are sparsely scattered through the zone, with layers up to 1/4" thick noted.		

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mpleFromToWidthAuNo.(ft)(ft)(ft)(ppb)477425.8428.31.5473436.0438.02.0479446.0447.01.0480453.0455.02.0

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
455.0	460.0	GRAPHITE ZONE	Zone is well layered, strongly silicified graph- itic zone. Zone contains 1 - 2% layered pyrite.	70481 70482 70483	455.0 457.5 484 0	457.5 460.0 485.0	2.5	
			Layers show tight, kink type folding.	,0100	101.0	100.0	2.0	
460.0	489.5	BASALTS	Rock is now strongly altered, massive to weakly foliated mafic volcanics. Rock varies with degree of alteration, from relatively unaltered black basalt, to strongly silicified light grey, greenish grey.					
			Zone is characterized by strong pervasive silici- fication, with weak spotty calcite and very weak, fine calcite veinlets. Chloritization is present in small fracture controlled slips, and occasion- al chloritic blebs, but is not often noted.					
			Trace amounts of fine pyrite will local bleb zones of brassy pyrite are noted. Local accumulations may reach 2%.					
489.5	494.5	DIORITE	Same as interval 363.0 - 392.0.					
494.5	500.0	BASALT	Same as 460.0 - 489.5, basalts still exhibit very strong pervasive silicification, with trace - 1% fine disseminated pyrite.					

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-48

Property: Tyranite	NTS:	Township: Tyrrell		
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L 8+00N; 5+50W		
Azimuth: 090°	Dip: -50°E	Length: 500.0'		
Logged By: D. Prior	Casing: 0 - 10.0'	Elevation:		
Date Started: November 10, 1987	Date Completed: November 13, 1987	Date Logged: November 14, 1987		
Core Size: BQ	Core Location: Tyranite Mine	Samples Shipped:		
Drill Company: Bill Link	Overburden: 0 - 8.0'	Checked: D. Pilkey Jan. 6, 1988		

Acid Dip Tests

1. Collar -50°E 250.0' -50°E

2. 500.0' −53°E

<u>Purpose</u> To evaluate combined IP-geochemical anomaly.

<u>Conclusions</u> No significant intersections.



NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-48

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From (ft)	To (ft)		Drill Hole Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		SAMPLES #'s	65824 - 65830					
0	9.8	CASING						
9.8	45.5	ULTRA MAFIC	Black medium of coarse grained, densely packed chloritic olivine crystals. Highly fractured, fractures infilled with green serpentine, fibrous asbestos, minor calcite and trace of blue clay. Strongly magnetic, rare pyrite specks throughout.					
45.5	81	DIORITE DYKE	1 to 2 plagioclase and hornblende crystals, numerous aggregates of greenish white plag- ioclase crystals, very weakly magnetic in part. Trace disseminated pyrite.					
81	490	ULTRAMAFIC	as above					
		NOTE -	There is only 10 feet of core between core markers 275' and 295'. All markers from 295' to 500' have been changed to read 285' to 490'.					

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-48

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	9.8	CASING						
9.8	45.5	ULTRAMAFICS	Black, medium to coarse rounded grains. Massive moderately, soft ultramafic igneous rock. The densely packed 2 - 3mm rounded grains appear to relic olivines. The rock is moderately to strongly magnetic. Alteration: Moderate pervasive chlorite, 1mm calcite veinlets along fractures with chlorite and serpentine. Numerous irre- gular 1 to 2mm fibrous asbestos veinlets. From 35' to 38' there are several serpentine carbonate veinlets to 2cm. From 10' to 20' a white, to blue grey clay mineral occurs along fracture surfaces. Minor hematite staining along fractures at 15'. Mineralization: The rock is moderately to strongly magnetic, indicating the presance of magnetite. No sulphides were observed.	65824 65825 65826 65827 65828	35 55 59 64 80	38 57 62 66 82	3.0 2.0 3.0 2.0 2.0	21 15 102 7 5
45.5	81	DIORITE	Medium grey fine to medium grained, 1 to 2mm plag- ioclose and hornblende crystals, with a diabasic texture. There are numerous 1 to 2cm aggregates of plagioclose crystals with a greenish white colour. The rock is very weakly magnetic. The rock becomes cherty near the lower contact to upper contact is missing. Alteration: Weak pervasive chlorite, moderate to strong on fracture surfaces. A pale green carbonate is common on fracture surfaces. There are several 3 to 10mm quartz veinlets.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Mineralization: Rare to trace disseminated pyrite.	65829	175	178	3.0	10
81	165	ULTRAMAFIC	Description: Black, medium to coarse densely packed relic olivine crystals, rounded from 2 to 4mm long. The rock is moderately to strongly fractured and strongly magnetic. Alteration: Moderate pervasive chlorite, numerous hairline to 1cm wide fractures infilled with calcite and green serpentine, very abundant hairline to 2mm wide veinlets of fibrous asbestos; Minor 2 - 4% interstitial green serpentine. The individual relic olivine crystals appear highly fractured and the rock is moderately soft. Minor amount of white to blue grey clay mineral along fractures.	65830	254	256	2.0	21
			served. Magnetite is indicated.					
81	490		 165 - 215 Description: Black ultramafics as above, more altered with numerous fibrous asbes- tos veinlets up to 2cm wide. From 165' to 175' the relic olivine crystals are obscured. The rock is highly fractured with 1mg fibrous asbestos crystals parallel to the fractures. Mineralization: Magnetite, rare tiny specks of pyrite and 0.5% pyrite associated with asbestos fibres at 176'. 215' - 490'; Description: Black, medium to coarse grained, with tightly packed fractured relic olivine crystals, strongly magnetic and highly fractured in a lattice like irregular pattern. 					

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From (<u>ft</u>)	To (£t)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Alteration: Moderate pervasive chlorite. Very abundant hairline to 2mm fractures infilled with fibrous asbestos. Numerous wider fractures from 5 to 20mm are filled with light green serpentine. Calcite and a pale blue clay mineral are found along some fractures. 1 to 2cm wide veinlets of serpentine and fibrous asbestos are numerous from 360° and 390°. Mineralization: Magnetite is indicated, and rare					

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tiny pyrite specks are visible. NOTE: 10' depth discrepancy from 275' to end of hole. There is 10' of core between 275' core marker and 295' marker.

E.O.H.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-49

Property: Tyranite	NTS:	Township: Tyrrell				
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L12+00S; 5+00W				
Azimuth: 090°	Dip: -50°E	Length: 500.0'				
Logged By: D. Pilkey	Casing: 0 - 10.0'	Elevation:				
Date Started: November 15, 1987	Date Completed: November 17, 1987	Date Logged: November 19, 1987				
Core Size: BQ	Core Location: Tyranite	Samples Shipped:				
Drill Company: Bill Link	Overburden: 8.0'	Checked: D. Pilkey Jan. 6, 1988				
	Acid Dip Tests					
1. Collar -50°E	250.0' -50°E	500.0' -52°E				

<u>Purpose</u> To evaluate combined IP - geochemical anomaly.

Conclusions

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PRELIMINARY

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

Hole No: 1315-49

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From (ft)	To (ft)		DRILL HOLE SUMMARY
		Sample #s	38252 - 68283
0	10.0	CASING	
10.0	43.0	BASALT	Weak pervasive silicification, spotty calcite very weak chlorite and hematite; trace 2% pyrite and minor pyrrhotite.
			42.5 - 43.0 Intense calcite; 1% pyrite.
43.0	69.0	FELDSPAR PORPHYRY	Weak calcite alteration; trace chalcopyrite.
69.0	151.0	BASALT	69.0 - 92.0 Weak pervasive silicification, weak - moderate calcite alteration. 1% pyrite.
			92.0 - 151.0 Weak calcite - silicification; trace 5% pyrite; trace - 3% pyrrhotite.
			98.0 - 100.0 35% pyrrhotite; 2% pyrite.
151.0	162.0	FELDSPAR	Weak calcite and chlorite alteration. Trace pyrite.
162.0	189.0	DIABASE	Moderate - strong pervasive calcite, weak hematite.
189.0	247.0	BASALT	Moderate pervasive silicification, moderate calcite alteration; trace 3% pyrite; trace-10% pyrrhotite.

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NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-49

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
			195.5 - 198.0; Intense silicification, trace					
		WEAKLY MINERALIZED	210.5 - 247.0; Intense silicification; 1 - 2% pyrite; Weak chloritization.					
		MINERALIZED	215.0 - 247.0; Trace 5% pyrite; trace - locally massive pyrrhotite.					
			241.0 - Clace sphalelite.					
247.0	367.0	DIABASE	Weak calcite alteration.					
296.0	367.0	INTERMEDIATE VOLCANIC	<pre>:Intense silicification (primary?). Zones of graphite @ 296.0 - 297.0</pre>					
		WEAK MINERALIZATI	361.0 - 361.5; Intense pervasive silicification, ON 1% pyrite.					
367.0	414.0	DIORITE	Weak fracture controlled calcite, epidote mod- erate pervasive hematization; Trace blebby pyrite.					
414.0	465.0	BASALT	 414.0 - 422.0; Moderate pervasive silicification, spotty calcite and chlorite. Trace pyrite. 422.0 - 460.0; Moderate-strong pervasive weak calcite, trace pyrite. 460.0 - 465.0; Strong pervasive silicification weak calcite alteration. 					
4.0	500.0	DIABASE E.O.H.	Weak calcite and chloritization.					

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-49

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	10.0	CASING						
10.0	43.0	BASALT	Rock consists of fine grained, massive mafic volcanics. Rock is green in colour, grading to grey, which reflects spotty calcite and silica alteration. Alteration consists of weak pervasive silici- fication, and spotty calcite. Calcite occurs in small, irregular veinlets of random orient- ation, upto 1" in width. Chloritization occurs as small slips, usually parallel to foliation direction and calcite veinlet. Hematization occurs along fractures which contain thin pyrite stringers. Heavily hema- tized section are often juggy in character. Sulphide mineralization occurs as fine pyrite stringers and spotty pyrrhotite. Sulphide mineralization usually is <1%, but locally may reach 2%. 42.5 - 43.0; Rock shows intense pervasive calcite alteration. Rock is now aph- antic, light grey to brown in colour. Zone contains 1% fine pyrite.	58252 68253 63254	29.0 32.0 41.0	32.0 35.0 43.0	3.0 3.0 2.0	
43.0	69.0	FELDSPAR PORPHYRY	Rock consists of massive, medium-fine grain, greyish green porphyry. Rock contains 10% poorly developed white plagioclase phenocrysts. Phenocrysts are subhedral upto 1/4" in size. Matrix is fine grained, consisting of plagio- close, chlorite and calcite. Small calcite stringers run @ 60° T.C.A. and commonly contain small amounts of chalcopyrite. Veinlets are all very fine.					

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From (ft)	To (ft)			Sample No.	From (m)	To (ft)	Width (m)	Au (ppb)
43.0	69.0	FELDSPAR PORPHYRY	Rock consists of massive, medium-fine grain, greyish green porphyry. Rock contains 10% poorly developed white plagioclase phenocrysts. Pheno- crysts are subhedral, up to "/4" in size. Matrix is fine grained, consisting of plagioclase, chlorite and calcite. Small calcite stringers run @ 60° T.C.A. and commonly contain small amounts of chalcopyrite. Veinlets are all very fine.	68255 68256 68257 68258	72.0 79.0 82.0 85.0	75.0 82.0 85.0 87.0	3.0 3.0 3.0 2.0	
69.0	151.0	BASALT	 69.0 - 92.0; Basalts in this section show spotty zones of strong alteration locally scattered throughout the section. Zone is character- ized by carbonatization, giving the rock light green to green grey colour. Zone contains numerous, randomly oriented calcite veinlets from hairline fracture fillings, up to 2" in width. Weak pervasive silici- fication is noted. Small chloritic blebs are noted, giving the basalts a porphy- roblastic texture. Blebby pyrite is noted throughout core, locally forming small enrichment zones of enrichment up to 1%. 92.0 - 151.0; Basalts are now weakly carbonated and are typical massive, greenish coloured fine grained mafic volcanics. Minor cal- cite veining is noted, with weak brecciation. Sulphide mineralization consists of blebby pyrite and small zones of massive pyrite. Large pyrite up to 2" in width. Small pyrite stringers are also frequently noted. Pyrite mineralization reaches 5% locally. Pyrnotite is noted as massive zones and weakly foliated layers, ranging from trace to 3%. 					

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-	From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
			(MINERALIZED)	 98.0 - 100.0; Zone of massive sulphide mineralization consisting of 30 - 35% layered pyrrhotite. Layers of pyrrhotite run @ 15 - 20° T.C.A. 1 - 2% fracture controlled pyrite veinlets. 112.0; Large milky white calcite vein of 3" in width, runs @ 60° T.C.A. A second smaller veinlet is noted beside it. Small veinlet shows weak brecciation of the basalts. 133.0; Calcite veinlet runs @ 60° T.C.A., and 3" in width. Weak chloritization is noted along vein contacts. 	68259 68260 68261 68262 68263 68264 68265 68265 68266	93.0 95.0 98.0 105.0 114.0 118.0 137.0 142.5	95.0 98.0 100.0 106.0 116.0 121.0 140.0 145.0	2.0 3.0 2.0 1.0 2.0 3.0 3.0 2.5	
	151.0	162.0	FELDSPAR PORPHYRY	Rock consists of massive, weakly foliated feldspar porphyry. Porphyry contains 20% subhedral-euhedral plagioclase phenocrysts. Phenocrysts are white to pink in colour, and are up to '>" in length. Mat- rix is made up of plagioclase with possible chlorite and calcite. Small fracture controlled calcite stringers are noted throughout porphyry. Porphyry contain small rounded basalt fragment. Fragments are weakly chloritized and very weakly carbonatized. Fragments form <2% of porphyry. Trace amounts of blebby pyrite are scattered throughout the porphyry.					
	162.0	189.0	DIABASE	Rock is weakly foliated, medium grained, greyish green diabase. Rock shows moderate alteration. Strongly altered sections are fine grained, with coarser unaltered sections being comprised of plagioclase and amphibole. Amphiboles are small lath shaped crystals up to '/e" in length. Crystals are black-dark green, euhedral and form <5% of zone. Amphiboles are surrounded by greenish plagioclase.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (£t)	Width (ft)	Au (ppb)
189.0	247.0	BASALT	 Basalts are fine grain, black to dark green in colour. Basalts are massive, and now exhibit moderate pervasive silicification. Silicification locally is intense, giving the basalts a light grey, cherty appearance. Weak to moderate calcite veining is noted. Sulphide mineralization consists of fracture controlled pyrite stringers and blebs, with massive pyrrhotite sections becoming more abundant. Pyrite, on average, is found from trace 3%, with trace - 10% local pyrrhotite. 195.5 - 198.0; Zone of intense silicification, has turned the basalts to blush grey, cherty zones. Trace amounts of fine disseminated pyrite are noted. 210.5 - 211.5; Zone of intense silicification with 1 - 2% pyrite. Weak chloritization is noted around the pyrite zones. 215.0 - 247.0; Basalts are now moderate - strongly mineralized, predominantly by large zones of massive pyrrhotite. Pyrrhotite zones ranging in core length from 2" to 1.5". Pyrrhotite is commonly found in layers from 5 - 20% T.C.A., with other sections containing fragments of basalt in a pyrrhotite matrix. Pyrite is found as fine, random veinlets, irregular blebs, and finely disseminated pyrite cubes. Pyrite, locally, may exceed 5%, white pyrrhotite is noted up to 50-60%. Moderate pervasive silicification with weak calcite veining is noted. Chloritization occurs along chlorite slips and curvilinear veinlets. 	68267 68268 68269 68270 68271 68273 68273 68274	214.0 220.0 233.0 235.0 237.0 239.0 241.0 245.0	216.0 222.0 235.0 237.0 239.0 241.0 242.0 247.0	2.0 2.0 2.0 2.0 1.0 2.0	

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From (ft)	To (ft)		
247.0	296.0	DIABASE	Rock is the same as interval 162.0 - 189.0. Diabase is massive, medium grained, grey in colour.
			Rock contains 5% euhedral amphibole grains in a matrix of plagioclase, mafic mineral (chlorite). Rock is very weak carbonatized with fine cal- cite veinlets.
200 0	267 0		Zono is characterized by intense alteration

INTERMEDIATE Zone is characterized by intense alteration. 367.0 296.0 VOLCANICS The zone exhibits intense pervasive silicification. Rock is aphanitic in character, ranging in colour from tan to grey.

1% - 3% in these zones.

Sections of graphitic material are present, and also show intense pervasive silicification. Graphitic zones occur @ 296.0 - 297.0 307.5 - 308.5312.0 - 313.5 315.0 - 317.0 Graphitic zone commonly contain small pyritic stringers which run parallel to foliation @ 60 - 80° T.C.A. Pyrite content varies from

Alteration varies in type and degree, and changes abruptly over the section. Minor sections of weakly silicified volcanic (basalt) are fine grain, massive grey-black sections. These sections are scarce and occur as isolated pods within more altered sections.

Siliceous sections are cherty in appearance and vary in colour depending on chlorite and calcite amounts. Intense silicification gives the rock a tan to beige colour.

From (ft)	To (ft)	Width (ft)	Au (ppb
296.0	297.0	1.0	
315.0	316.5	1.5	
331.0	334.0	3.0	
334.0	337.0	3.0	
337.0	340.0	3.0	
	From (ft) 296.0 315.0 331.0 334.0 337.0	FromTo (ft)296.0297.0315.0316.5331.0334.0334.0337.0337.0340.0	FromToWidth (ft)296.0297.01.0315.0316.51.5321.0334.03.0334.0337.03.0337.0340.03.0

From (ft)	To (ft)			Sample No.	From (Et)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Calcite alteration is spotty, but locally may be very strong, turning the volcanics to light brownish green in colour.	68280 68281	360.0 405.0	362.0 409.0	2.0 3.0	
			Chlorite occurs along random fractures and in areas of calcite veining, but is generally weak in nature.					
			Minor layering is noted in the cherty zones with offsets along layers as frequently found. Trace disseminated pyrite is found in the zone.					
			Spotty calcite alteration in subrounded spots gives the rock a porphyroblastic texture with large reaction rims around the calcite grains. 361.0 - 361.5; Zone of intense silicification which have undergone brecciation: Zone consists of silicified fragments, in a chlorite, calcite matrix. Zone contains fine grain, disseminated pyrite. Sulphide mineralization forms 1%.					
367.0	414.0	DIORITE MONZONITE	Rock is medium grained, weakly foliated grey diorite- monzonite. Rock contains 20 - 25% lath shaped, euhedral amphibole grains. Amphibole are in a matrix of plagioclase. Small basalt fragments are noted with fragments up to 1" in length. Fragments are weakly chloritized scattered plagioclase phen- ocrysts, with fragments up to $\frac{1}{4}$ ".					
			Alteration consists of weak fracture controlled calcite and epidote veining. Some of the calcite veinlets are up to 1". Zones of moderate pervasive hematization are found with small zones of hema- tite staining along fractures. Trace amounts of blebby pyrite are noted.					

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page 7 From То Sample From To Width Au (ft) (ft) No. (£t) (ft) (ft) (dgg) 414.0 - 422.0; Basalts are fine grained mafic 414.0 465.0 BASALTS 68282 416.0 418.0 2.0 volcanics, which exhibit weak spotty 68283 463.0 465.0 2.0 calcite alteration, but show moderate locally intense pervasive silicification. Rock is light yellowish-green in colour. Fractures in the zone contain fine chloritic slips. Trace amounts of blebby-layered pyrite are noted, locally reaching 3%. 422.0 - 460.0; Basalt now show granular texture and are green to greyish green in colour. Basalts now show moderate to strong pervasive calcite alteration, but lack and strong silicification. Sections of the core have strong salt and pepper texture, with large, euhedral plagioclase phenocrysts up to 1/4" in length. Matrix is strongly chloritic and also exhibits strong pervasive calcite alteration. Trace amounts of fine pyrite are noted. 460.0 - 465.0; Rock now exhibits strong pervasive silicification. Rock is very fine grained, greyish white in colour. Chloritization is weak, and occurs as fine fracture fillings. Very weak fracture controlled calcite alteration is noted. Trace pyrite is noted. 465.0 500.0 DIABASE Rock is medium grained - fine grain, massive diabase. Rock is grey to greenish grey and is weakly magnetic. Hornblende grains and plagioclase grains are fine, so percentages of each are not easily determined. Hornblende grains show random orientations, and are euhedral and black in colour.

					page	2 8	
From To (ft) (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	Alteration is weak, consisting of weak fracture controlled calcite and epidote alteration. Epi- dote veins are up to 1" in width, white calcite veinlets are fine hairline veinlets.					
		Weak spotty to blebby chlorite alteration is noted. Trace pyrite is encountered.					

E.O.H.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-50

PRELIMINARY

Property: Tyranite	NTS:	Township: Tyrrell	
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L8+00S; 3+50W	
Azimuth: 090°	Dip: -50°E	Length: 500.0'	
Logged By: D. Pilkey	Casing: 0 - 3.0'	Elevation:	
Date Started: November 7, 1987	Date Completed: November 10, 1987	Date Logged: November 11, 1987	
Core Size: BQ	Core Location: Tyranite Mine	Samples Shippec:	
Drill Company: Bill Link	Overburgen:	Checked: D. Pilkey Jan. 6, 1988	
	Acid Dip Tests		
1. Collar -50°E	250.0' -50°E	2. 500.0' -53°E	

<u>Purpose</u> To evaluate combined IP-geochemical anomaly.

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Conclusions Significant Intersection: 398 to 401; 3 ft @ 0.124 oz gold/ton.

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

Hole No: 1316-50

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From (ft)	To (ft)		Drill Hole Summary
		Sample #'s	53990 - 54000 ; 56973 - 56990
0	3.0	CASING	
3.0	372.0	ULTRAMAFIC	Moderate to strong serpentine, talc and chlorite alteration. Small asbestos veinlets.
372.0	464.0	FELDSPAR PORPHYRY	 372.0 - 422.0 Alteration of calcite, chlorite pyrite up to 1 - 2%. 422.0 - 440.0 Unaltered porphyry. 440.0 - 464.0 Strong calcite, hematite alteration trace pyrite.
464.0	500.0	DIABASE	Unaltered.

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NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-50

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
From (ft) O	To (ft) 3.0	CASING	Description Rock consists of very fine grain, massive to weakly foliated ultramafic rock. Rock is very dark green to black in colour, with an extremely soft, greasy feel. Rock exhibits intense fracturing and moderate to very strong pervasive and fracture controlled alteration. Rock exhibits moderate pervasive chlorite alteration with spotty zones of talc alteration. Fracture controlled serpentine and talc are also noted. Serpentine veinlets are up to ½,4" in width and running 0 60° T.C.A. "Itramafics contain numerous, fine serpentine fracture fillings, randomly oriented throughout the rock. Many of the veinlets also are abundant in asbestos. Asbestos is fibrous (crystotile?). Rock is very strongly magnetic, with fine euhedral magnetite noted. Rock has a weakly developed, primary texture still noticeable in sections. Texture consists of small fractured olivine grains, now altered with serpent-	Sample No. 53990 80500 80501 80502 80503 80504 80505 80506 80507 53991 53992 53993 53994 53995 53996 53997 53998 53997 53998 53999 54000	From (ft) 22.0 25.0 28.0 30.0 32.0 35.0 35.0 41.0 43.0 45.0 85.0 152.0 193.0 255.0 272.0 353.0 361.0 363.0 365.0	To (ft) 25.0 28.0 30.0 32.0 35.0 38.0 41.0 43.0 41.0 43.0 45.0 48.0 88.0 155.0 195.0 258.0 275.0 355.0 363.0 365.0 367.5	Width (ft) 3.0 2.0 2.0 3.0 3.0 3.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 3.0 3.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 3.0 3.0 3.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	Au (ppb) 26 5 12 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
			<pre>rock. Many of the veinlets also are abundant in asbestos. Asbestos is fibrous (crystotile?). Rock is very strongly magnetic, with fine euhedral magnetite noted. Rock has a weakly developed, primary texture still noticeable in sections. Texture consists of small fractured olivine grains, now altered with serpent- ine and chlorite. 320.0 - 324.0; Ultramafic rocks become much more siliceous, with colours being light - greenish grey. Rock in this section pro- bably has an andesitic composition. Rock exhibits weak calcite veining, lacking talc and serpentine alteration. Minor foliation controlled chlorite is found. 353.0; A zone of moderate silicification is present. Rock consists of numerous, small grayish white silica blebs and nodules in a matrix of chlorite, talc and minor calcite.</pre>	53995 53996 53997 53998 53999 54000	255.0 272.0 353.0 361.0 363.0 365.0	258.0 275.0 355.0 363.0 365.0 367.5	3.0 3.0 2.0 2.0 2.5	5 5 5 5 5 8

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	 361.0 - 365.0; This section contains numerous random talc, possible chrome mica zones along fracture planes. Veins are all very fine hairline. Moderate veinlet controlled calcite is also present. 365.0 - 367.5; Zone now lacks green mica, but exhibits very strong fracture controlled calcite veining. Veinlets may reach 1/2". 	56973 56974 56975 56976 56977 56973 56979 56980 56981	395.0 398.0 401.0 404.0 407.0 410.0 413.0 416.0 419.0	398.0 401.0 404.0 407.0 410.0 413.0 416.0 419.0 422.0	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	550 4260 140 366 50 245 105 7 644
372.0	464.0	FELDSPAR PORPHYRY	 372.0 - 422.0; Porphyry is strongly altered, fine grained light grey in colour. Rock is weakly foliated and only has very poorly developed porphyritic texture. Alteration consist of weak calcite alteration, in form of fine calcite veinlets and weak-moderate pervasive calcite alteration. Chloritization varies from very weak to moderate and occurs as small chlorotic slips and small irregular blebs. Phenocrysts present are slightly elongate and small, with sizes up to 1/15". Phenocrysts are moderately chlorotic, dark green in colour. Trace amounts of fine pyrite are observed, usually marked by weak hematization. 422.0 - 440.0; Porphyry texture is now well developed. Rock contains 35% rounded, greenish white plagioclase phenocrysts. Matrix consists of fine grain chlorite, weak calcite with possible plagioclase. Alteration consists of weak pervasive chlorite and calcite, with moderate foliation controlled chlorite slips. Trace amounts of pyrite are noted, as fine disseminated euhedral grains. 					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	440.0 - 464.0; Altered porphyry as found in in- terval 372.0' - 422.0'. Porphyry now exhibits weak to strong local calcite veining, with veinlets to 1" noted. Strong hematite alteration is also scattered through zone.	56982 56983 56984 56985 56986 56987	437.0 440.0 443.0 446.0 449.0 452.0	440.0 443.0 446.0 449.0 452.0 455.0	3.0 3.0 3.0 3.0 3.0 3.0	48 15 34 15 22 91
464.0	500.0	DIABASE	Rock is massive to weakly foliated fine-medium grained. Rock is light-greenish grey, in col- our, and shows weak fracture controlled calcite veining. Primary mineralogy consists of eubedral black.	56989 56990	453.0 451.0	451.0 464.0	3.0 3.0	41 22 105
			hornblende grains in a fine dark grey matrix. Large hornblendes form 15 - 20% of rock. Matrix too fine and dark to determine composition. Alteration consists of fine, fracture controlled calcite veinlets. Veinlets are up to 1/4" in width. Minor spotty hematization is noted. Dia- base is non-magnetic with no visible sulphide mineralization.					

E.O.H.

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-29

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 5805	Coordinates: L15+00S; 4+50W
Azimuth: 090°	Dip: -50°E	Length: 500.0'
Logged By: D. Pilkey	Casing: 1.0'	Elevation:
Date Started: October 20, 1987	Date Completed: October 23, 1987	Date Logged: October 25, 1987
Core Size: BQ	Core Location: Tyranite	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: J. McAuley Dec. 11/87
	Acid Dip Tests	

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1. 250' - 52°

2. 500' - 53°

Purpose To evaluate South Pod Lens.

<u>Conclusions</u> Significant Intersection: 161.5 to 164.0; 2.5 ft. @ 0.036 oz gold/ton 327.8 to 329.5; 1.7 ft. @ 0.034 oz gold/ton

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

Hole No: 1316-29

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb
0	1.0	CASING						
1.0	10.0	DIABASE	Rock is fine to medium grained, weakly foliated and weak to moderately altered. Rock consists of 5% euhedral, black hornblende grains up to 3 mm in length. Plagioclase forms the interstitial mineral between the hornblendes as well as finer grain hornblende. Matrix is very fine grain, and may contain quartz? Trace amounts of very fine grain pyrite are noted. Alteration consists of very weak spotty calcite, with weak foliation and fracture controlled calcite veinlets, all 2 mm in width. Minor spotty chlorite is noted. Minor hematite along fractures is noted.	130194 130195 130196 130197 130198	10.0 13.0 16.0 19.0 22.0	13.0 16.0 19.0 22.0 25.0	3.0' 3.0' 3.0' 3.0' 3.0'	67 15 13 13 8
10.0	182.5	BASALT	Rock consists of weakly foliated to massive mafic volcanics. Rock is fine grain to aphanitic, dark green to black. Alteration consists of weak fracture controlled calcite veinlets and zones of strong pervasive calcite alteration. Strong calcite alteration is marked by a colour change from green to grey. Larger calcite veins show brecciation of volcanic rocks. Basalts show moderate pervasive and fracture controlled chloritization, with fracture controlled chloritization frequently noted.			-		

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cont'd Sulphide mineralization occurs as fine fracture 130199 25.0 28.0 3.0' fillings of brassy pyrite. Stringers are up to 130200 28.0 31.0 3.0' 1/8" in width, and locally may form 3% of zone, 130201 31.0 34.0 3.0'	Au ppb)
fillings of brassy pyrite. Stringers are up to 130200 28.0 31.0 3.0' ¹ /8" in width, and locally may form 3% of zone, 130201 31.0 34.0 3.0'	17
¹ /8" in width, and locally may form 3% of zone, 130201 31.0 34.0 3.0'	9
	27
but on average are less than 1% of basalts. 130202 41.0 44.0 3.0'	90
41.5'; Large milky white calcite vein running 130203 48.0 51.0 3.0'	00
@ 60° T.C.A. Veinlet is 2" in width, and 130204 51.0 53.0 2.0'	16
contains chloritized basalt fragments. 130205 72.0 75.0 3.0'	8
Fragments are up to $\frac{1}{2}$ long, but form 130206 97.5 101.0 3.5'	16
5% of vein. Hanging wall side of vein 130207 101.0 104.0 3.0'	12
contains 5% fine euhedral pyritic layers. 130208 104.0 107.0 3.0'	14
43.0: Basalts from 43.0 on show weak, hairline 130209 115.0 116.0 1.0'	48
calcite veining forming 2% of zone. Zone 130210 116.0 118.0 2.0'	33
commonly contains from trace - 2% local 130211 118.0 121.0 3.0'	76
pyritic stringers.	

115.0'; Section contains two subparallel calcite veins running @ 45° T.C.A. Veins are '/2" and 1" respectively. Basalt contacts show weak chloritization. Both veins contain 1%, small rounded basalt fragments. Fragments are all '/4" in length. One large bleb of chalcopyrite is noted in the larger vein.

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- 125.5'; Series of several small calcite veinlets running @ 45-60° T.C.A. Veinlets range in size from hairline veinlets to 1/2". Veinlets are milky white in colour, with slight greenish colour near contact with basalts. Trace amounts of fine disseminated and minor blebby pyrite occur in the veinlet.
- 146.0 157.0; Basalts show zones of blebby silicification and carbonatization, marked by a change in colour from dark green to light grey. Contacts between less altered basalt is quite sharp. Fine blebby and stringer pyrite is still noted, up to 2%.

					page 3				
From (ft)	To (ft)				Sample No.	From (ft)	To (ft)	Width (ft)	AU (ppb) Ozj
From (ft)	To (ft)	cont'd	157.0 ' 161.5 - 164.0 - 169.0 - 176.0 -	159.0; Basalts now show intense pervasive silicification. Rock has changed in colour from dark green to greyish green. Rock is now very fine grain to aphanitic (almost cherty in appearance). Rock also exhibits a weak fracture controlled calcite alteration with spotty zones of strong hematization. Minor fracture controlled chlorite is also present. Trace amounts of fine euhedral pyrite are noted. 164.0'; Basalts are now fine grain, light to dark green in colour, and are strongly foliated @ 75° T.C.A. The zone is characterized by a strong foliation controlled calcite veinlets. Zone also shows moderate chlorite alteration along slips parallel to foliation direction. Minor blebby silicification is noted. Pyrite is brassy yellow to brown in colour and occurs as fine foliation 1-2% fine calcite stringers running @ 70-80° T.C.A. Weak silicification is noted. 169.8; Same as interval 161.5 - 164.0. Foliated basalts contain 3-5% foliation controlled pyrite mineralization. 182.5; Basalts now show an increase in blebby and fine fracture controlled calcite veinlets. Pyrite is noted as irregular weinlets. Pyrite is noted as irregular	Sample No. 130212 130213 130214 130215 130216 130217 130218 130220 130220 130221 130222 130223 130224 130225 130226	From (ft) 121.0 124.0 126.0 134.0 149.0 154.5 157.0 159.0 161.5 164.0 166.5 169.0 170.0 178.0 180.0	To (ft) 124.0 126.0 129.0 136.0 151.0 157.0 159.0 161.5 164.0 166.5 169.0 170.0 172.0 180.0 182.5	Width (ft) 3.0' 2.0' 2.0' 2.5' 2.5' 2.5' 2.5' 2.5' 2.5' 2.0' 2.0' 2.0' 2.0' 2.5'	Au (ppb) 02/ 132 19 179 10 9 10 9 6 1229 0.03 19 27 157 8 5 22
				veinlets and blebs, ranging from trace to 2%. Last 3.0' show a strong pervasive cal- cite alteration with moderate fracture con- trolled chlorite slips.					

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						page	4	
From (ft)	To (Ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
182.5	197.0	FELDSPAR PORPHYRY	Rock consists of medium grained, weakly foliated feldspar porphyry. Alteration of zone is variable with strongest alteration zones lacking feldspar phenocrysts. Relatively unaltered zones contain 1-3%, subhedral, greenish white plagioclase phenocrysts. Pheno- crysts are up to 1/8" in width, and are found in a fine matrix of plagioclase, fine euhedral horn- blende grains. Alteration is characterized by weak chloritization and fine calcite stringers along fracture. Porphyry exhibits moderate to intense pervasive calcite alteration. Trace to 1% fine euhedral pyrite is noted. More intense calcite alteration and possible sili- cification produce a very fine matrix with no visi- ble plagioclase phenocryst. Minor epidote altera- tion along fractures is noted.	130227 130228 130229 130230 130231 130232	182.5 185.0 187.5 190.0 193.0 195.0	185.0 187.5 190.0 193.0 195.0 197.0	2.5' 2.5' 3.0' 2.0' 2.0'	22 68 5 7 7 <5
197.0	214.0	BASALTS (ALTERED)	Zone consists of fine grain, moderate to strongly foliated mafic volcanics. Rock is grey to green in colour. Alteration consists of moderate to strong pervasive calcite and moderate fracture controlled calcite veining. Chlorite is found as irregular blebs and foliation controlled chlorite slips. Silicification is very localized, with basalts being grey in strongly siliceous areas. Weak brecciation is found in zones of largest calcite veins. Some calcite veins reach 1" in width. Breccias contain 60% angular fragments. Trace amounts of fine pyrite are noted.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
214.0	239.0	DIABASE	Rock is fine grain, massive to weakly foliated @ 70° T.C.A. Composition is difficult to determine due to fine grain nature and alteration. Rock is moderately magnetic with magnetite crystals being the coarsest grain. Alteration is found as moderate pervasive calcite and weak calcite veinlets. Chloritization is present as fine slips running subparallel to cal- cite foliation directions. Intense calcite vein- ing occurs @ 227.0. Minor epidote along fractures is also found. Trace pyrite is scattered through zone.	130233 130234 130235 130236 130237 130238 130239 130240 130241 130242 130243	197.0 200.0 203.0 209.0 212.0 214.0 226.0 240.8 254.0 255.5 266.0	200.0 203.0 206.0 212.0 214.0 217.0 228.0 242.6 255.5 258.0 268.0	3.0' 3.0' 3.0' 2.0' 3.0' 2.0' 1.8' 1.5' 2.5' 2.0'	9 8 145 7 <5 <5 8 <5 8 5 8 5 5
239.0	248.0	BASALT?	Rock is fine grain, dark green, black to grey. Rock is weakly foliated. Alteration consists of moderate pervasive chloritization with weak to moderate per- vasive calcite. 240.8 - 241.5; Small calcite veinlet runs @ 10° T.C.A. and is accompanied by strong hema- tite alteration along contacts with basalt. Trace amounts of blebby pyrite are noted.					
248.0	276.0	DIORITE	Rock is medium grained moderately well foliated diorite. Rock is greenish grey to orange in colour. Composition of the diorite is about 20% euhedral hornblende grains, with 60-80% plagioclase. Some zones appear to have alkali feldspar, although zones of strong hematization may appear to contain alkali feldspar. Small rounded basalt fragments form 2% of rock. Alteration consists of weak pervasive and fracture controlled calcite veining. Minor chlorite is no- ted as alteration of hornblende, and as fine frac- ture controlled slips. Weak to strong hematite is noted.					

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Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
130244	276.0	279.0	3.0'	19
130245	279.0	282.0	3.0'	8
130246	282.0	285.0	3.0'	6
130247	285.0	288.0	3.0'	7
130248	288.0	291.0	3.0'	20
130249	291.0	294.0	3.0'	12
130250	294.0	297.0	3.0'	7
130251	297.0	300.0	3.0'	< 5
130252	300.0	303.0	3.0'	9
130253	303.0	305.0	2.0'	< 5
130254	305.0	307.0	2.0'	8
130255	307.0	309.0	2.0'	7
130256	309.0	311.0	2.0'	14

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A small zone of intense chloritization and strong calcite alteration occur from 254.0 - 255.5. All primary texture is gone. Zone may be a strongly altered basalt fragment.

276.0 338.9 BASALTS

cont'd

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Rock consists of weakly foliated greenish grey mafic volcanics. Rock has a very granular appearance and is characterized by intense pervasive calcite with weak fracture controlled calcite veinlets. Some veinlets contain finely disseminated pyrite along the contacts.

Fracture controlled chlorite alteration is noted as thin slips and occasional blebs.

Pyrite is found concentrated along fine calcite veinlets but does not exceed 2% locally. Zones are weakly magnetic.

Local zones of intense silicification are infrequently noted. Zones contain 1% fine fracture filled with pyrite.

311.0 - 338.9; (Mineralized Zone).

Rock consists of mineralized, fine grain mafic volcanics. Host rock is moderately foliated, and strongly altered basalt. Basalts are green to grey in colour. Foliations run @ 60° T.C.A. and control calcite veining, quartz veinlets and chlorite alteration.

Calcite alteration is the strongest being present as a strong pervasive carbonatization and as moderate fracture controlled calcite veinlets. Veinlets are milky in colour up to 2" in length. Small, irregular calcite blebs are also noted locally. Chloritization is present as fine fracture controlled chlorite slips and small chlorite blebs. It also appears as weak moderate pervasive chloritization in small local pods throughout zone.

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Weak veinlet controlled silicification with moderate pervasive silicification are noted throughout basalts. Small offsets are noted in the calcite vein- lets, commonly cutting the veinlets at right angles. The basalts are strongly mineralized by the presences of fine euhedral crystals of bras- sy brown to yellow pyrite. Small clusters of cubes are common through- out zone and are normally associated with calcite veinlet contacts. Pyrite accumula- tions through the zone may locally reach 50%, in fine foliation controlled layers. Pyrite also occurs as small dendritic frac- ture fillings of fine grains. Sulphide rich basalts always show intense calcite alteration which change the basalts from green to metallic grey. Sulphide (pyritic) zones in this way are highlighted from surrounding basalts.	130257 130258 130260 130261 130262 130263 130264 130265 130266 130266	311.0 314.0 317.0 320.0 323.0 326.0 327.8 329.5 332.0 335.0 337.0	314.0 317.0 320.0 323.0 326.0 327.8 329.5 332.0 335.0 337.0 338.9	3.0' 3.0' 3.0' 3.0' 1.8' 1.7' 2.5' 3.0' 2.0' 1.9'	305 258 111 136 857 951 1159 266 81 124 51
338.9	376.5	DIABASE	Diabase is fine grained, moderately altered, mas- sive in character. Rock is dark grey to black in colour. Rock appears to be rich in fine euhedral hornblende grains. Rock has well developed diabasic texture in sections, and is strongly magnetic. Altered sections of the diabase become finer grained, less diabasic and non-magnetic. Alteration consists of weak pervasive chloritization with small slips of fracture controlled, black chlorite noted. Blebs of chloritized hornblende give sections of rock a porphyroblastic texture. Very weak, spotty calcite is also apparent, with weak fracture controlled calcite forming up to 10% in local sections. Epidote alteration is also very weak and is always associated with calcite veins. Trace amounts of fine euhedral pyrite are noted.	130268 130269 130270 130271 130272	338.9 341.9 344.9 358.0 366.0	341.9 344.9 346.9 360.0 367.5	3.0' 3.0' 2.0' 2.0' 1.5'	10 <5 <5 8 <5

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From (ft)	To (ft)			Sample No.	From (ft	To (ft)	Width (ft)	Au (ppb)
		cont'd	367.0' Diabase contains moderate fracture con- trolled epidote veinlets, with weak calcite veinlets.					
376.5	383.0	BASALT? ALTERED ZONE	Rock is moderate to strongly foliated mafic vol- canics? Alteration is so strong that it may be a strongly altered section of diabase. Rock is fine grain, green to greyish black in colour. Alteration consists of moderate - strong localized fracture controlled calcite. Weak zones of strong spotty silicification give the rock a light grey to beige colour. Chloritization is found throughout zone, as weak pervasive alteration and zones of moderate foliation controlled chlorite and small chloritic blebs. 379.5; A small section of intense calcite veining and calcite blebs occurs. Chlorite is common as fine fracture controlled slips along veinlet contacts.	130273 130274 130275 130276	376.5 379.0 380.0 414.0	379.0 380.0 383.0 416.0	2.5' 1.0' 3.0' 2.0'	37 988 397 19
383.0	446.0	DIABASE	Same as interval 338.9 - 376.5, rock is medium grain, massive and strongly magnetic. Very weak, thin calcite stringer and spotty calcite is noted. Minor fracture controlled epidote altera- ion and trace amounts of blebby pyrite are found.					
446.0	500.0	FELDSPAR PORPHYRY	Rock consists of both massive, weakly altered porphyry and moderately foliated, strongly altered sections. Unaltered porphyry contains 10-20%, subhedral white plagioclase phenocrysts. Phenocrysts show spotty hematite alteration, and are supported by a very fine grain matrix of plagioclase and chloritized	130277 130278 130279 130280 130281 130282 130283	446.0 449.0 452.0 455.0 463.0 474.0 476.0	449.0 452.0 455.0 458.0 466.0 476.0 479.0	3.0' 3.0' 3.0' 3.0' 3.0' 2.0' 3.0'	32 14 5 7 19 18
			mafic minerals. Grain size is too fine to determine composition. Weak fracture controlled chlorite and very weak calcite is also noted. Trace amounts of pyrite are noted.	130284 130285 130286 130287	479.0 481.0 482.0 485.0	481.0 482.0 485.0 488.0	2.0' 1.0' 3.0' 3.0'	15 29 13 6

					page	9	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	 446.0 - 456.0; Porphyry now lacks plagioclase phenocrysts although relict porphyry texture is weakly visible. Small calcite veinlets along fracture planes are now visible, with veinlets noted to 1/4". Locally sections contain small potassic rich lens and discontinuous veinlets. These areas also show moderate to strong calcite alteration. Chlorite is found as fine fracture fillings and irregular blebs. Chloritization is moderately pervasive. @ 454.6; Zone of intense carbonatization, with white-pink and purple calcite veinlets form 35% of zone. Minor chlorite is also present. 481.0 - 497.0; Porphyry contains smaller plagioclase phenocrysts exhibiting a fine dark green matrix of chloritized mafic minerals? Weak fracture controlled calcite veinlets are also present. 497.0 - 500.0; Zone of moderately calcite altered and strong pervasive hematite alteration. 	130288 130289 130290 130291	488.0 491.0 494.0 497.0	491.0 494.0 497.0 500.0	3.0' 3.0' 3.0' 3.0'	8 9 <5 <5

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-30

Property: Tyranite	NTS:	Township: Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L15+00S, 4+50W
Azimuth: 090°	Dip: ~70E	Length: 226.4'
Logged By: D. Pilkey	Casing: 0 - 1.0'	Elevation:
Date Started: October 23, 1987	Date Completed: October 24, 1987	Date Logged: November 11, 1987
Core Size: BQ	Core Location: Tyranite	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: D. Pilkey Jan. 6, 1988

Acid Dip Tests

1. No tests taken.

Purpose To evaluate South Pod Lens.

Conclusions Hole lost @ 226.4'.

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Significant Intersection: 171 to 174; 3 ft. @ 1.653 oz gold/ton.

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-30

From (ft)	To (ft)		Drill Log Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		SAMPLE #'s	65579 - 65600 ; 65801 - 65823					
0	0.9	CASING						
0.9	11.5	DIABASE	-weak chlorite and calcite alteration					
11.5	183.7	BASALTS	-weak calcite and chlorite alteration, weak pervasive - spotty silicification; trace 20% pyrite					
		(mineral- ized)	12.7 - 56.7; trace - 20% blebby pyrite; mod- erate silicification					
			73.0 - 95.0; strong pervasive silicification; weak calcite and hematite					
			120.0; milky white quartz-calcite vein					÷
			126.0 - 127.0; small quartz-calcite vein					
		(weak mineral- ilized)	145.0 - 160.0; moderate calcite veining, strong silicification -trace - 5% pyrite					
183.7	206.0	FELDSPAR Porphyry	<pre>184.0 - 192.0; moderate pervasive calcite, intense pervasive silicification - no sulphides</pre>					
206.0	226.4	BASALT	-weak fracture controlled calcite. Trace 1% fine pyrite.					
			Hole Lost at 226.4					

NORWIN RESOURCES LIMITED

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DIAMOND DRILL LOG

Hole No: 1316-30

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	0.9	CASING (0/B)						
0.9	11.5	DIABASE	Mottled "charcoal" grey medium grained diabase; Unit is spotted or "freckled" with black chlorite podular blebs throughout; diabase is transected weakly by milky white calcite veinlets and stringers;	65579 65580 65581 65582 65583 65584	6.2 12.7 16.7 20.7 24.7 28.7	9.2 16.7 20.7 24.7 28.7 32.7	3.0 4.0 4.0 4.0 4.0	8 7 13 13 13 17 7
11.5	183.7	MAFIC VOLCANICS BASALT	Dark greyish-green aphanitic mafic volcanic sequence; sequence is relatively homogeneous throughout with respect to colour, grain size, and texture;	65585 65586 65587 65588	32.7 36.7 40.7 44.7	36.7 40.7 44.7 48.7	4.0 4.0 4.0 4.0	
			Alteration to unit with weak to moderate consisting of milk-white carbonaceous threads, strings and wedge-shaped blebs occurring reg- ularly; matrix appears to be only weakly cal- careous if at all; less frequent are pale green to cream coloured elliptical epidote-enriched calcitic veinlets that cut across core axis; Also discernable on core surface are relic chloritic threads that are now differently eroded fissures.	65589 65590	48.7 52.7	52.7 56.7	4.0 4.0	₹ 5 ₹ 5
		SULPHIDE ZONE (12.7-56.7)	SULPHIDES: sulphide mineralization in the form of pale-brassy yellow pyrite is common throughout unit but is more concentrated in certain sectors of the andesite; the pyrite is most prevalent as pods and lenses of localized anhedral-subhedral crystals and as interstitially filled pyritic strings; also evident are disseminated pyritic flecks and blebs.					

From (ft)	To (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	· · · · ·	73.0' - 95.0'; Basalts now show sections of intense silicification, giving the rock a light green colour. Silicification is present as small random, milky white quartz blebs and veinlets. Veinlets are randomly oriented, and reach 1/2" in width. Calcite is commonly associated with the quartz veins. Large quartz calcite veinlets show brecciation of the basalts. Fragments are subangular in appearance and form about 40 - 80% of vein. Weak hematization of veinlets is	65591 65592 65593 65594 65595 65596 65597 65598 65599 65600 65801 65801	68.0 70.0 73.0 76.0 79.0 82.0 85.0 85.0 85.0 91.0 93.0 120.0 122.0	70.0 73.0 76.0 79.0 82.0 85.0 85.0 91.0 93.0 95.0 122.0 125.0	2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 2.0 2.0 2.0 3.0	<pre></pre>
		120.0': Small milky white quartz-calcite veinlet runs at 60% T.C.A. Weak brecciation of basalts is noted in veinlet. No sulphide mineralization is noted. 126.0' - 127.0': Small calcite-quartz vein running at 10° T.C.A. Small basalts fragments are noted in the veinlet. Fragments are up to 1" in length. No mineralization is found.					
		Minor amounts of pyrite mineralization are found from 134.0 - 145.0. Pyrite occurs as small ran- domly fracture fillings of brassy yellow veinlets or discontinuous blebs. Sulphide mineralization doesn't exceed 1% locally. 145.0' - 160.0': Pyrite mineralization is much more abundant, reaching 5% locally. Pyrite continues to be found in fracture controlled veinlets and irregular blebs. All are con- tained in a weakly developed foliation					
		direction of $45 - 60_{\circ}$ T.C.A. A large veinlet, '/4" in width contains massive pyrite. Zone continues to show brecciation along fine calcite veinlets.					

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From (ft)	To (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au . (ppb)
		156.5' - 174.0': Basalts show strong pervasive	65804	127.0	130.0	3.0	14
		silicification, giving the basalts a light	65805	130.0	132.5	2.5	< 5
		greyish green colour. Blebs of moderate	65806	132.5	135.0	2.5	8
		chloritization are noted by a dark green	65807	140.0	143.0	3.0	< 5
		colouring, and lack silicification.	65808	143.0	145.0	2.0	7
		Chlorite also occurs as small foliation	65809	145.0	148.0	3.0	31
		controlled slips, giving the rock a band-	65810	148.0	151.0	3.0	25
		ed appearance.	65811	151.0	154.0	3.0	18
		Larger quartz-calcite veinlets running	65812	154.0	157.0	3.0	16
		at 70° - 75° T.C.A. are noted. Veinlets	65813	157.0	160.0	3.0	13
		are up to 1" in width and have a milky	65814	171.0	174.0	3.0	56673
		white colour. Intense pervasive silici-	65815	174.0	176.5	2.5	433
		fication occurs from $1/1.0' - 1/4.0'$.	65816	176.5	179.0	2.5	17
		Fractures in this zone contain small	6581/ 65810	1/9.0	181.5	2.5	1//
		chlorite slips. Siliceous basalts nave	65818	181.5	184.0	2.5	84
		cherty appearance. Small follation con-	62819	104.0	100 5	3.0	20
		trolled pyrite stringers are still ap-	62820	100 5	102.0	2.5	10
		parent.	65822	203.0	206.0	3.0	44
183.7	' - 206.0' FELDSPAR PORPHYRY	Rock consists of moderately altered, feldspar porphyry. Rock is weakly foliated, light green- ish grey in colour. Porphyry texture is not present in zone from 184.0' - 192.0' due to alteration. 184.0' - 192.0': Porphyry is now a groundmass of fine grained chlorite and calcite. Primary mineralogy is no longer pres- sent. Rock has a sugary texture due to calcite abundance. Small chlorite frac- ture fillings are frequently observed. Section from 187.0' - 189.0' exhibits intense pervasive silicification giving the rock a cherty appearance. Moderate pervasive calcite with weak fracture controlled calcite veining is common in this section.			·		

From (ft)	To (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
206.0'	- 226.4' MAFIC VOLCANICS	Rock consists of massive to very weakly foliated black mafic volcanics. Rock contains $3 - 5$ %, anhedral, greenish white plagioclase phenocrysts. Phenocrysts are up to $\frac{1}{2}$ " in length. Alteration is present as weak fracture controlled calcite veinlets at $45^{\circ} - 70^{\circ}$ T.C.A. Veinlets are up to $\frac{1}{24}$ " in width. Weak brecciation along vein- lets is noted. Sulphide mineralization occurs as small pyritic stringers up to 1% of zone (locally). Veinlets are subparallel to calcite veinlets.	65823	221.0	223.0	2.0	134
	HOLE LOST						

AT 226.4' RESTARTED AT H-1316-30B

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-30B

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Property: Tyranite	NTS:	Township: Tyrrell				
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L15+00S, 4+50W				
Azimuth: 090°	Dip: -70°	Length: 600.0'				
Logged By: D. Pilkey	Casing: 2'	Elevation:				
Date Started: October 24, 1987	Date Completed: October 27, 1987	Date Logged: October 28, 19				
Core Size: BQ	Core Location: Tyranite	Samples Shipped:				
Drill Company: Bill Link	Overburden:	Checked: J. McAuley Dec. 11/87				
	Acid Dip Tests					
1. ^c ollar -70°E	200.0' -70°E 400.0' -71°E	2. 600.0' -72°E				

Purpose To evaluate South Pod Lens.

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<u>Conclusions</u> No significant intersections.

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

Hole No: 1316-30B

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	13.4	DIABASE	Rock is fine to medium grained, weakly foliated to massive diabase. Rock shows weak alteration, all of which is fracture and foliation controlled. Diabase contains 5% euhedral black hornblende grain. Grains show no preferred orientation, and lack alteration. Hornblendes are supported by a fine matrix of mafic minerals including chlorite and plagioclase. This gives the rock a dioritic compo- sition. Weak diabasic texture is noted. Alteration consists of very weak calcite veining up to 1/8" in width. Some of the veinlets show weak spotty hematization but no visible sulphide minera- lization is found. Very weak chloritization is also noted as small blebs and spotty fracture controlled slips.	65421 65422	13.4 16.4	16.4 19.4	3.0 3.0	Nil Nil
13.4	181.0	BASALT	Rock is very fine grain, massive to very slightly foliated, mafic volcanics. Rock is black to dark green in colour. Alteration in the basalts consists of very weak cal- cite alteration, primarily as hairline veinlets. Vein- lets may be up to 1/s", and show random orientations. Very weak, local zones of pervasive chloritization are found, rocks in the area are generally green in colour. Strong pervasive silicification (possible baking of basalts) gives them a light grey to black colour. These zones have a very flinty character. Minor amounts of blebby white, free quartz are noted.					

page	2
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From	То
(ft)	(ft)

cont'd

Scattered zones of fracture controlled pyrite and blebby pyrite, chalcopyrite are noted. Pyrite is brassy, yellow, with stringers all 1/3" in width, blebs may reach 1/2" in diameter. Pyrite abundance varies from trace to 5% locally. Chalcopyrite occurs as sparse green yellow grains forming up to 1% locally.

- 25.0' 26.5'; Zone is typical fine grained, weakly chloritic and carbonatized basalts. Zone contains 5% fine blebby and thin fracture controlled pyrite. Sulphides form a spiderweb type pattern in this section.
- 59.0'; Small zone of brecciation, extends over 2", consisting of basalt fragments up to 1" in width. Fragments are subangular in appearance and exhibit moderate silicification. Fragments form 50% of vein and are supported by a milky white quartz vein. Vein contains weak-moderate fracture controlled calcite alteration.
- 72.8'; Small zone of concentrated sulphides. Sulphides consist of fine euhedral pyrite and chalcopyrite which fall along foliation planes @ 55° T.C.A. Zone contains 3% chalcopyrite and 2% pyrite over 3".
- 74.7' 79.0'; Zone is characterized by an intense brecciation of the basalts. Fragments and matrix show strong to intense alteration. The breccia is formed of 35% subangular to subrounded basalt fragments. Fragments are very fine grain, light grey in colour, and exhibit strong pervasive silicification. Fragments are supported by a matrix of chlorite and calcite. Chlorite rims are common around altered basalt fragments, with fragments reaching 2" in length. Strong pervasive calcite alteration of the matrix is present.

From (ft)	To (ft)	Width (ft)	Au (ppb)
25.0	26.5	1.5	Nil
45.0	48.0	3.0	Nil
51.0	54.0	3.0	Nil
72.0	74.7	2.7	75
	From (ft) 25.0 45.0 51.0 72.0	FromTo (ft)25.026.545.048.051.054.072.074.7	FromToWidth(ft)(ft)(ft)25.026.51.545.048.03.051.054.03.072.074.72.7

					page	3	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
(ft) (ft) cc	ont'd 1-3% b is note rity of siliced the mat with th 84.8' - 87.5'; calcite fine, f Basalts grey ir led ch 90.0' - 92.5'; moderat 125.0' - 150.0 increas of abur Veinlet orients common Minor of Calcite length 158.0' - 163.0 of inte zone be Rock ha the roc moderat 1-3% f is bras pyritic	lebby and finely disseminated pyrite ed in the breccia zones. The majo- f the pyrite occurs within the bus fragments with trace amounts in trix. Chalcopyrite is also noted he pyrite, forming 1% of zone. Zone contains moderate pervasively e altered basalts, as well as 10% fracture controlled calcite stringers. s are now fine grain, light green to n colour. Moderate foliation control- loritization is present. Same as zone above (84.8' - 87.5') tely carbonatized mafic volcanics. '; Basalts in this section show an se in calcite alteration in the form ndant milky white calcite veinlets. ts are up to 1/2" in width, have rando ation. Blebby pyrite sections are , with sulphides reaching 5% locally. chalcopyrite is also noted. e veins form 3-5% of core over this '; Zone exhibits spotty, local zones ense silicification. Basalts in this ecome very fine grained to aphanitic. as a cherty appearance. Fractures in ck contain strong chloritization and te calcite veining. ine pyrite stringers common. Pyrite ssy yellow in appearance. Small bebs are also abundant.	No. 65427 65428 65429 65430 65431 65432 65433 65434 65435 65436 65437	(ft) 74.7 76.8 84.0 87.0 90.0 92.5 124.5 127.0 130.0 132.5 135.0	(ft) 76.8 79.0 87.0 90.0 92.5 95.0 127.0 130.0 132.5 135.0 137.0	(ft) 2.1 2.2 3.0 3.0 2.5 2.5 2.5 2.5 2.5 2.0	(ppb) 20 Nil 30 185 20 Nil Nil Nil Nil Nil Nil
	Basalts	s are now grey to brown in colour.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	164.0' - 167.0': Zone of moderate pervasive silici-	65438	137.0	140.0	3.0	Nil
		00.10 4	fication giving basalts a light greenish	65439	140.0	143.0	3.0	10
			grev colour. Weak fracture controlled cal-	65440	143.0	146.0	3.0	Nil
			cite veining is noted. 1% blebby and	65441	146.0	149.0	3.0	Nil
			fracture controlled pyrite is evident.	65442	149.0	152.0	3.0	Nil
			A large 2" milky white, guartz-calcite	65443	152.0	155.0	3.0	Nil
			chlorite vein is noted @ 167.0'. Vein runs	65444	155.0	158.0	3.0	Nil
			@ 85° T.C.A.	65445	158.0	161.0	3.0	Nil
			171.0' - 174.0': Basalts remain fine grained, but	65446	161.0	164.0	3.0	Nil
			are now moderately foliated @ 75-80° T.C.A.	65447	164.0	167.0	3.0	Nil
			Zone shows weak brecciation of basalt frag-	65448	167.0	169.0	2.0	Nil
			ment in a series of small branching calcite	65449	169.0	171.0	2.0	Nil
			stringers, with larger stringers up to 2" in	65450	171.0	174.0	3.0	210
			width. Moderate chloritization is found	65451	174.0	177.0	3.0	30
			running parallel to foliation directions.	65452	177.0	179.0	2.0	Nil
				65453	179.0	181.0	2.0	Nil

181.0 208.0

FELDSPAR

PORPHYRY

Porphyry Alteration Zone.

181.0' - 191.0'; Rock in this section is fine grain to aphanitic in colour, generally exhibiting a very cherty appearance. Porphyry is greenish grey to light grey in colour. Very weak relict porphyry texture is present, with 1% rounded white plagioclase phenocrysts noted. Alteration consists of moderate to strong pervasive silicification, with weak fracture controlled chloritization. Carbonatization is weak to moderate and consists of fine fracture controlled calcite stringers, and minor blebby calcite grains. Intense silicification is marked by fracturing and chloritization along fractures giving the rock a poorly developed brecciation texture. Fine euhedral pyrite forms small blebs and irregular veinlets along fracture planes, with percentages not exceeding 1%.

					page	5	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	<pre>191.0' - 208.0'; Porphyry. This section contains relatively unaltered porphyry. Rocks are fine grain, with small greenish white plagioclase phenocrysts for- ming 1-2% of zone. Phenocrysts are subhedral in character, and are up to 1/4" in length. Phenocrysts are elongate, but show no pre- ferred orientation. Matrix consists of fine grain plagioclase with moderately chloritic hornblende. Exact composition is undetermined to fine grain nature of matrix. Alteration consists of weak pervasive chlo- ritization and weak fracture controlled calcite alteration. Calcite veinlets are mostly hairline, fracture fillings and larger veinlets up to 1/4" in width. Weak to very weak chlorite slips are also found. Sulphide mineralization consists of 1-2% local pyrite. Pyrite is found in brassy yellow blebs.</pre>	65454 65455 65456 65457 65458 65459 65460 65461 65462 65463	181.0 183.5 186.0 189.0 191.0 194.0 197.0 200.0 203.0 205.0	183.5 186.0 189.0 191.0 194.0 197.0 200.0 203.0 205.0 207.0	2.5 2.5 3.0 2.0 3.0 3.0 3.0 2.0 2.0	Ni1 40 Ni1 Ni1 Ni1 Ni1 Ni1 Ni1
207.0 264.0	BASALT	 Basalts are fine grained, weakly foliated to massive and range in colour from grey to dark green and black. Alteration consists of weak fracture controlled calcite veinlets and very weak spotty calcite. Basalts show weak pervasive chloritization and minor fracture controlled chlorite slips. 207.0'; Basalts also show spotty zones of intense epidotization along foliations @ 60° T.C.A. Minor amounts of brassy yellow, blebby pyrite are noted, with local accumulations reaching 1%. One small section @ 207.8' - 208.3' exhibits strong to intense pervasive silicification. Basalts are now light grey to greenish grey in colour. Trace amounts of fine euhedral pyrite are noted. 					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (dqq)
		cont'd	 220.5'; A small section of veinlet controlled epi- dote and quartz veining. Quartz veins contain weak fracture controlled calcite. 1% fine euhedral pyrite occurs throughout zone, which is 3" in width. 248.0'; Basalts contain a two inch, milky white quartz carbonate veinlet. Veinlet runs at 85° T.C.A. Weak fracture controlled calcite is also noted. 	65464 65465 65466 65467 65468 65469 65470 65471 65472 65473	207.0 218.0 255.0 257.0 260.0 262.0 265.2 269.3 277.1 285.7	210.0 220.0 257.0 260.0 262.0 264.0 268.2 272.3 280.1 288.7	3.0 2.0 3.0 2.0 3.0 3.0 3.0 3.0 3.0	Nil 20 Nil 250 100 Nil Nil 10 Nil
264.0	291.3	PORPHYRITIC DIORITE	Rock is medium grained, moderately foliated @ 60° T.C.A. Rock is grey, greenish grey to red in colour. Rock is composed of 15-20% hornblende, chlorite and magnetite crystals. Matrix is made of feldspar forming about 70% of rock. Most of the feldspar is plagioclase, ranging from 70% - 50%, the remaining 20% being alkali feldspar. Porphyritic texture in diorite attributed to white sub-rounded anhedral phenocrysts of plagioclase (up to 1-2 mm in diameter); sequence is rather homogeneous with only irregular intrusions of green thread-like carbonaceous epidote strings and grey white strings of carbonate. 270.3'; 4" section containing phenocrysts of hematitic plagioclase (up to 1/4" in dia.) in a porphyritic diorite matrix; phenocrysts are sub-rounded and anhedral in nature.		203.7	200.1	3.0	
291.3	353.2	MAFIC VOLCANICS (ANDESITE BASALT)	Dark greenish-black aphanitic mafic volcanic sequence (basalt); surface appears "glass-like" and amorphous; rock unit is moderately carbonatized with whitish fingers and trellis-veinlets and irregular, carbona- ceous epidote-enriched strings that transect core axis; also distinct as sectors of greyish to pale green silicified host rock;					

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page 6

					page	7	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	<pre>294.8' - 295.0'; Elliptical greyish-purple white</pre>	65474 65475 65476 65477 65478 65479 65480 65481 65482 65483 65484 65485 65486 65487 65488 65489	291.3 294.3 297.3 300.3 303.3 309.3 312.5 316.1 320.3 325.2 336.4 341.3 344.4 348.2 351.2	294.3 297.3 300.3 303.3 306.3 309.3 312.3 315.3 315.3 327.2 339.4 343.3 366.4 351.2 353.2	3.0 3.0 3.0 3.0 3.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0 3.0 2.0	Nil Nil 550 Nil 130 40 20 Nil 160 Nil Nil Nil Nil
353.2 364.2	FELDSPAR PORPHYRY	Greyish-green aphanitic mafic volcanic matrix with pale grey phenocrysts of plagioclase; sequence is moderately carbonatized with transecting calcareous grey-white threads, strings. 360.6' - 361.8'; Milky white vein of amorphous calcite (1" wide), runs concordant with core axis.					

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					page	8	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
364.2 455.4	MAFIC VOLCANICS (ANDESITE- BASALT) (SULPHIDE ZONE: 370.25 - 375.2')	 364.2' - 370.25'; Pale greenish-grey, highly sili- cified "chert-like" mafic volcanic sequence; thread-like black chloritic-carbonaceous capillaries are abundant and transect core axis; sulphides are scarce but isolated pyritic blebs and interstitial pyrite strings are noteworthy. 370.25' - 375.2'; Brownish-grey silicified section of mafics, texture is variegated; rock is moderately carbonatized and satu- rated with sulphides disseminated flecks and blebs are prominent throughout as are pyritic strings. 375.2'; Greenish-black aphanitic mafic volcanic se- quence (andesite-basalt); sequence is rather homogeneous with respect to texture, moderate carbonatized is evident as stringers, vein- lets, fingers of grey-white calcite at times enriched in epidote). Sulphide Mineralization: pyrite occurrence are periodic or spotty at best and are discernable as isolated blebs and pyritic stringers. 445.0' - 451.8'; Grey green highly silicified- 	65490 65491 65492 65493 65494 65495 65496 65497 655498 655499 655501 655502 655503 655504 655505 655506 655508 655507 655508 655511 655512 65513	357.8 362.5 367.2 370.3 373.3 381.9 385.4 389.7 395.0 398.3 405.0 407.5 415.5 422.1 426.7 431.2 435.6 443.0 446.1 455.4 460.6 455.0 475.0	360.8 365.5 369.7 373.3 376.3 387.4 392.7 397.0 400.3 407.0 410.5 418.5 425.1 429.7 434.2 438.6 445.0 445.1 453.5 457.4 462.6 467.0 477.0	3.0 3.0 2.5 3.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 3.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 3.0 2.0 2.0 3.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	Nil 30 10 225 130 Nil Nil Nil Nil Nil 30 10 20 30 435 Nil Nil Nil Nil Nil
455.4 498.9	DIABASE	variegated texture in mafic volcanic ground mass. Dark blackish-green medium to coarse grained diabase; sequence is homogeneous in respect to grain size and texture; apparent throughout sequence are small black chloritic blebs or freckles; melanocratic minerals make up over 70% of rock (most notable are augite) plagioclase feldspars (labradorite-andesine) and hornblende; diabase sequence is relatively alter- ation-free with rare occurrences of carbonatized patches of host rock;					

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Sample	From	То	Width	Au
No.	(ft)	(ft)	(ft)	(ppb)
65514	485.3	487.3	2.0	Nil
65515	488.6	490.6	2.0	Nil
65515	495.2	497.2	2.0	Nil
65517	503.2	505.2	2.0	Nil
65518	505.2	508.2	3.0	170
65519	510.9	513.9	3.0	630
65520	517.7	520.7	3.0	Nil
65521	526.3	529.8	3.0	Nil
65522	535.0	538.0	3.0	Nil
65523	545.3	548.3	3.0	Nil
65524	555.0	558.0	3.0	Nil
65525	565.0	568.0	3.0	Nil

cont'd Sulphide Mineralization: pyritic blebs are noted from 260.6' to 261.1' but are undetectable throughout remainder of sequence.

498.9 517.7 MAFIC VOLCANICS

То

(ft) (ft)

From

(ANDESITE-BASALT) Dark greyish-green mafic volcanics sequence; rock surface contains differentially eroded crevices and fissures (probably chloritic); unit is weakly carbonatized with irregular white calcitic, threads and is host to black freckles or blebs of chlorite; two distinct zones of silicic alteration are also evident;

Sulphides: pyritic mineralization is periodic at best and occurs as pale yellow anhedral blebs and pods and interstitial strings in remnant chlorite veinlets, pyritic blebs appear to be more partial to silicified zones.

- 503.1' 507.6'; Highly siliceous, weakly foliated (@ 105° T.C.A.) mafic volcanics; sequence has a variegated texture, is pale green in colour predominantly visible are: flow aligned truncated wedges of brick red hematite-stained siliceous host rock; white plagioclase phenocrysts. A weak flow alignment of pyritic blebs and strings is also discernable (45° T.C.A.).
- 521.1' 524.0'; Pale greenish-grey highly silicified section of mafic volcanic host rock;texture is variegated with a "swirled" or "marbled" appearance; sequence is weakly carbonatized by transecting white calcareous stringers.

517.7 574.2 DIABASE Blackish-green medium grained diabase; unit is cross-cut sporadically by olive-green-weakly carbonatized epidote veinlets, pyritic blebs are sparsely arranged across the first 2' at the diabase; beyond this, sulphides are no longer discernable.



					page	10	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	 532.2' - 532.9'; Section of olive-green epidote- enriched diabase also contains black chlo- ritic strings and is weakly carbonatized. 536.6' - 537.0'; Diabase displays a porphyritic texture characterized by white blebs of plagioclase. 	65526 65527	280.9 585.0	282.9 587.0	2.0 2.0	270 500
574.2 600.0	MAFIC VOLCANICS (ANDESITE- BASALT)	Dark green to greyish-green moderately altered mafic volcanics (andesite-basalt); sequence displays variable textures depending on degree and source of alteration: 574.2' - 583.3'; Dark greyish-green, predominantly homogeneous mafic segment; unit is weakly altered by sporadic white to paler green siliceous patches and greyish-white cal- citic strings; @ 582.2' a 1-2" section contains massive pyrite in veinlets and blebs (occurring as pale yellow anhedral condensed crystals). 583.3' - 585.0'; Highly brecciated portion of se- quence; brecciations consist of greyish- white to milky white subangular fragments of amorphous quartz, tributaries of green- ish black chlorite abound throughout section; unit is also weakly carbonatized. 585.0' - 587.5'; Texture of mafic volcanics is now variegated with weakly defined foliations- and flow alignments: pale green siliceous foliated patches of andesite strike core axis at 135° (siliceous foliation are bor- dered by black chloritic host rock and run parallel to strike; also discernable is a weak flow alignment of greyish-white calcitic wedges and blebs (60° T.C.A.); at 587.3, a large eliptical patch (1-2" wide) of white amorphous calcite is observed; black chloritic blebs and strings are also noted. Pyrite occurs as pale yellow anhe- dral blebs and disseminated flocks.					

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From (ft) (To ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)	
		cont'd	587.5' - 592.5'; Dark greyish-green, weakly sili-	65528	588.0	590.0	2.0	10	
			cified profusely carbonatized section of	65529	592.9	595.9	3.0	Nil	
			mafic volcanics; unit is highly chloritized (black chloritic blebs and strings) and is regularly transected by white carbona- ceous veinlets, strings and thread-like tributaries. Sulphides are observed as	65530	598.0	600.0	2.0	Nil	

disseminated flecks of pyrite that are

section (andesite-basalt); groundmass is moderately silicified, white rock surface is profusely covered with carbonaceous black freckles, dots, blebs, strings and truncated dashes of chlorite giving the texture a "graphic" or "hieroglyphic"

592.2' - 600.0'; Pale greyish-green mafic volcanic

appearance.

distributed sparsely throughout groundmass.

600.0 E. O. H.

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-31

Property: Tyranite	NTS:	Township:Tyrrell
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L14+00S; 4+50W
Azimuth: 090°	Dip: -50°E	Length: 500'
Logged By: D. Prior	Casing: 11.5	Elevation:
Date Started: November 2, 1987	Date Completed: November 5, 1987	Date Logged: Novembr 10, 1987
Core Size: BQ	Core Location: Tyranite	Samples Shipped:
Drill Company: Bill Link	Overburden: 10'	Checked: D. Pilkey Jan. 6, 1988
	Acid Dip Tests	
1. Collar -50°E	250.0' - 49°E	2. 500.0'51°E

<u>Purpose</u> To evaluate South Pod Lens.

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<u>Conclusions</u> Significant intersections: 67 to 70; 3 ft. @ 0.072 oz gold/ton 335.4 to 338; 2.6 ft @ 0.046 oz gold/ton.



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NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-31

From (ft)	To (ft)		Drill Log Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		SAMPLE #'s	56831 - 65916					
0	11.5	CASING						
11.5	44	BASALT/ ANDESITE	-very weak pervasive chlorite, quartz calcite veinlets					
		(MINERAL- IZED)	19 - 44 2 - 5% pyrite 23.5 - 25.5 5 - 10 pyrrhotite 3mm chalcopyrite bleb in quartz calcite					
44	55.2	DIORITE	-calcite veinlets, trace pyrite					
55.2	177	BASALT/ ANDESITE	Very weak to weak, pervasive chlorite, quartz calcite veinlets, silicified in part.					
			64' - 73' 2 - 4% pyrite 83' - 89' 2 - 3% pyrite 138' - 152' 1 - 2% pyrite 157' - 174' 2 - 4% pyrite 138', and 141.5' Trace chalcopyrite in quartz calcite					
177	203.3	SILICIFIED BASALT/ ANDESITE	Strongly silicified, brecciated from 184' to 191'					
203.3	215	FELDSPAR PORPHYRY	Weak pervasive calcite, trace pyrite					
215	240.4	ALTERED PORPHYRY	Weak pervasive carbonatization, rare pyrite					

From	То		Drill Log Summary
240.4	257	CARBONAT- IZED INTERMEDIATE VOLCANICS	Weak pervasive calcite, trace to 2% pyrite locally
257	282	ALTERED MAFIC VOLCANICS	Very weak pervasive chlorite, calcite veinlets Trace to 2% pyrite locally. Rare chalcopyrite in breccia at 268' and 270'.
282	339.5	BASALT/ ANDESITE	Weak pervasive chlorite, numerous calcite veinlets Trace to 5% pyrite locally
			326' - 339.5' 2 - 4% pyrite
339.5	386.5	DIABASE	Very weak pervasive chlorite, numerous calcite Veinlets, trace pyrite
386.5	393	HEMATITE ALTERED ZONE	Rare to trace pyrite
393	451	DIABASE	Trace to 1% pyrite; Rare chalcopyrite in quartz calcite at 449 and 450'
451	466	ALTERED MAFIC VOLCANICS	Weak to moderate chlorite, trace to 2% pyrite
466	500	ALTERED DIABASE	Weak to moderate chlorite, hematite staining from 480' - 500'. Trace pyrite to 2% in silicic zone at 467'.
		E.O.H.	

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-31

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
11.5	44.0	BASALT/ ANDESITE	Description: medium to dark grey aphanitic, massive, mafic volcanics. These grade into the underlying diorite. Alteration: Very weak pervasive chlorite, moderate to strong on fracture sur- faces. Quartz calcite veinlets from hairline to 2cm wide. There are three 30 cm silicified, partially brecciated section between 14' and 24'. Mineralization: Pyrite up to 5% locally as disseminated cubes, irregular blebs up to 3 cm long and in fracture controlled stringers from 0.5mm to 2mm wide. Pyrrhotite up to 10% locally is found in blebs and irregular masses from 23.5' to 25.5' and at 40'. A 3mm bleb of calcopyrite accurs in a 1 cm wide guartz calcite yein	65831 65832 65833 65834 65835 65836 65837 65839 65840 65841 65841	14 19 22 27 30 33 36 40 43 45 49	16 22 25 30 33 36 39 43 45 48 51	2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 2.0 3.0 2.0	106 25 387 20 26 50 13 18 < 5 9 < 5
44	55.2	DIORITE	of 44'. Description: Medium grey, fine to medium horn- blende crystals in a very fine siliceous matrix. Alteration: Calcite occurs in veinlets up to 5mm wide and in a small breccia zone at 46'. These are a few siliceous blebs in the breccia zone, and some quarts assoc- iated with a few of the calcite veinlets. Mineralization: Trace pyrite blebs up to 1% in the breccia at 46'.					

÷	From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb) 52/2
	55.2	177	BASALT/	55.2' - 63.8': Dark grey aphanitic massive	65843	54.5	57.5	3.0	10
			ANDESITE	mafic volcanics.	65844	60.8	63.8	3.0	14
				Alteration: Very weak pervasive chlorite, mod-	65845	63.8	67	3.2	11
				erate to strong in fracture surfaces.	65846	67	70	3.0	2472 0.072
				Numerous narrow 1 - 3mm calcite vein-	65847	70	73	3.0	318
				lets, some with guartz at various angles.	65848	79	82	3.0	27
				3 - 5% guartz and calcite in a small	65849	83	86	3.0	20
				brecciated section at 63'.	65850	86	89	3.0	18
				Mineralization: Pyrite to 3% locally occurs as	65851	95	97	2.0	13
				disseminated cubes, blebs to 1 cm in	65852	97	99	2.0	23
				diameter, and in fracture controlled	65853	102	105	3.0	7
				seams to 3mm wide.	65854	110	112	2.0	10
				13.8' - 119'; Description: Dark grey aphanitic,	65855	112	114	2.0	13
				massive mafic volcanics. These are short	65856	127	130	3.0	227
				10 cm breccia zones at 71', 81', 111',	65857	130	133	3.0	11
				and 112'.	65858	138	141	3.0	12
				Alteration: Very weak to weak pervasive chlorite	65859	141	143	2.0	14
				moderate to strong in fracture surfaces.	65860	144	147	3.0	10
				These are numerous fracture controlled	65861	147	149	2.0	5
				quartz calcite veinlets from hairline to	65862	150	152	2.0	9
				$\overline{2}$ cm wide at various angles. The breccia	65863	157	160	3.0	8
				zones are infilled with guartz and cal-	65864	165	168	3.0	10
				cite. The section from 105' to 119' is	65865	168	171	3.0	60
				partially silicified.	65866	171	173.5	2.5	7
				63.8' - 119'; Mineralization: Pyrite concentration					
				reaches 10% at 71' in a breccia zone; in					
				the remainder pyrite varies from trace					
				to 3% locally and occurs disseminated cubes,					
				blebs, and seams.					
				119' - 175'; Description: Dark grey, aphanitic					
				mafic volcanics. The rock is brecciated					

from 129' to 130.5'.

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page 2

Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
65867	175	178	3.0	5
65868	178	181	3.0	79
65869	181	184	3.0	18
65870	184	187	3.0	853
65871	188	191	3.0	143
65872	198	201	3.0	20
65873	201	204	3.0	231

cont'd

То

(ft)

203.3

From (ft)

> Alteration: Very weak pervasive chlorite, moderate on fracture surfaces. Quartz calcite veinlets from 1 to 20mm wide are common at various angles. The breccia zone at 129 -130.5 is strongly silicified and carbonatized. Several short sections have numerous fractures at approximately 45° T.C.A. These are infilled with silica and some calcite. These guartz calcite veinlets at 137' are stained rusty red - probably due to hematite. From 165 to 177 the rock is weakly to moderately silicified. Mineralization: Pyrite to 10% locally occurs as disseminated cubes, blebs, and short seams. The greatest pyrite concentration is at 169.5'. Trace chalcopyrite in guartz calcite veinlets occurs at 138', 141.15'. SILICIFIED Description: Light to medium grey, aphanitic, chert like hardness, massive, moderately BASALT/ fractured brecciated from 184' to 191', ANDESITE with other short breccia sections. Alteration: Very weak pervasive chlorite in part with weak to moderate fracture controlled chlorite. This zone is highly silicified, resembling chert in part. The rock is weakly pervasively carbonatized with numerous calcite veinlets to 3mm in width. A 3 cm white quartz at 203' marks the contact with the underlying feldspar porphyry. There is a trace of epidote associated with guartz and calcite at 202'. Mineralization: Pyrite to 5% locally occurs as finely disseminated cubes, fracture controlled seams up to 4mm wide and as blebs or large anhedral masses up to 1cm x 3cm. Trace chalcopyrite at 179'.

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
203.3	215	FELDSPAR PORPHYRY	Description: Light to medium grey abundant rounded greenish white up to 4mm long in a very fine grained felsic matrix. Alteration: Weak spotty chlorite in fracture surfaces. Weak pervasive calcite, numerous calcite veinlets up to 1cm wide. Trace soft blue grey clay mineral in fracture surfaces. Mineralization: A very small trace of disseminated pyrite.	65874 65875 65876 65877 65878 65879 65880 65881 65881 65882 65883	215 218 240 243 250 254 262 267 270 273	218 220 243 246 252 257 263.9 270 273 275	3.0 2.0 3.0 2.0 3.0 1.9 3.0 3.0 3.0	93 15 81 33 14 159 24 31 11
215	240.4	ALTERED PORPHYRY	<pre>Description: Light to medium yellowish grey, pre- dominantly very fine to fine grain with very little or no porphyritic texture. It has an almost diabasic texture in part with white feldspar laths to 3mm in an aphanitic matrix. Alteration: Weak pervasive carbonatization. There are several narrow calcite veinlets with one 5cm wide reddish white vein. There are a few quartz calcite vein to 1cm wide. Trace pale blue grey clay on fracture surfaces. Mineralization: Very small trace of pyrite.</pre>	65884	276	279	3.0	30
240.4	257	CARBONATIZED INTERMEDIATE VOLCANICS	Description: Light grey green, reddish in part mottled and banded. The rock is aphanitic and moderately hard. Alteration: Weak chlorite in fracture surfaces. Abundant hairline to 1cm calcite veinlet, and weak pervasive calcite. Mineralization: Pyrite cubes are concentrated in several short (5 - 10cm) sections as closely packed cubes, short seams and blebs.				·	
257	282	ALTERED MAFIC/ VOLCANICS	257 - 281.4 Description: Medium to dark green aphanitic mafic volcanics. 10 cm breccia zone at 268'.					

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				page 5				
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	<pre>Alteration: Very weak, pervasive chlorite, mod- erate to strong on fracture surfaces. Spotty chlorite from 268' to 273'. Numerous calcite veinlets to 1 cm in width, and cal- cite infills around breccia fragments at 268'. There are some fragmented siliceous veins at 275'. Mineralization: Trace to 2% pyrite locally in blebs, seams and disseminated cubes. Rare chal- copyrite with calcite in breccia zone at 268' and 270'.</pre>					
282	339.5	BASALT/ ANDESITE	<pre>Description: Dark grey with occasional pale green rounded feldspar crystals up to 5mm in aphanitic to fine grained mafic volcanics. Brecciated from 335' to 339'. Alteration: Weak pervasive chlorite moderate on fracture surfaces. Numerous calcite veinlets at 50 - 90° T.C.A. Most veinlets are 1 to 4mm wide, one vein is 6cm wide. There is rusty hematite staining along a calcite veinlet at 295.5'. There are irregular 1 - 10mm wide quartz veinlets at 318' running parallel T.C.A. and at 308'. Trace epidote occurs in some calcite veinlets. From 335' to 339' the rock is strongly silicified, carbon- atized in part and brecciated. Mineralization: Trace to 5% pyrite locally as disseminated cubes to 3mm per side, blebs up to 1 cm and stringers up to 5mm wide.</pre>					
339.5	386.5	DIABASE	Description: Medium grey, fine to medium grained with well formed crystal of plagioclase and hornblende to 3mm, almost diabasic texture in port. Towards the upper and lower contacts the rock becomes progressively					

					page	e 6		
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)	02/2
	cont'd	finer grained until it appears cherty. It	65885	293	296	3.0	19	
		is weakly to moderately fractured and has	65886	299	302	3.0	13	
		a 5 cm breccia zone at 362'. The rock is	65887	306	309	3.0	38	
		weakly magnetic.	65888	310	312	2.0	14	
		Alteration: Very weak pervasive chlorite, moderate	65889	314	316.7	2.7	16	
		to string in fracture surfaces. Calcite	65890	317	320	3.0	9	
		veinlets are numerous from 1 - 15mm wide.	65891	320	323	3.0	20	
		Trace epidote is associated with some of	65892	323	326	3.0	72	
		the calcite veinlets. A guartz calcite	65893	326	329	3.0	61	
		veinlet runs parallel T.C.A. from 361' to	65894	329	332	3.0	103	
		365'. It pinches and swells from $1 - 10$ mm	65895	332	335.4	3.4	45	
		and is partially hematite stained.	65896	335.4	338	2.6	1584 (5.046
		Mineralization: Most of the diorite has rare to	65897	338	340	2.0	348	
		trace pyrite, toward the contacts pyrite	65898	340	343	3.0	23	
		increases to 1% in cubes, small blebs and	65899	351	354	3.0	15	
		short seams.	65900	356	358	2.0	8	
			65901	361	363	2.0	12	
386.5 793	HEMATITE	Reddish grey to pale yellowish grey, fine grained	65902	367	369	2.0	16	
	ALTERED	rounded plagioclase crystals in an aphanitic ground	65903	384	387	3.0	196	
	ZONE	mass. Moderately fractured.	65904	389	392	3.0	98	
		Alteration: Most of the interval has a rusty red						
		stained appearance. There are 3 calcite						
		veins from 1 to 3cm wide and several smaller						
		quartz calcite veinlets. There are several						
		epidote veinlets from 2 to 20mm wide. These						
		contain 1mg (1 - 1.5cm) radiating euhedral						
		crystals. At 390' there is a 5cm strongly						
		chloritic fragment (?) with 3 - 4mm altered						
		rounded feldspar crystals.						
		Mineralization: Rare to trace finely disseminated						
		pyrite with occasional small blebs.						

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
93	451	DIABASE	393' - 429.5' Description: Medium grey, very fine to medium grained with a 10cm aphanite chert line section of the contact. The texture is diabasic with crystals of horn- blende and plagioclase up to 2mm long. The lower contact is at 60° T.C.A. Alteration: Moderate to string chlorite in fracture surfaces. There are several 1 - 5mm of epidote some with hematite staining. A narrow 1 - 3mm discontinuous quartz veinlet runs parallel T.C.A. from 403' to 406'. A fractured discontinuous quartz calcite veinlet occurs at 450'. A locm section lying at 45° T.C.A. at 431' has string epidote alteration. Mineralization: Trace to 1% disseminated pyrite. Rare chalcopyrite specks in a quartz calcite veinlet at 449' to 450'.	65905 65906 65907 65908 65909	392 402 420 431 448.3	394 405 423 433 451	2.0 3.0 3.0 2.0 2.7	18 99 7 6 15
451	466	ALTERED MAFIC VOLCANICS	Mottled light to medium greenish grey altered mafic volcanics. The original texture is obscured. The rock is moderately to highly fractured and brec- ciated in part. Alteration: Weak to moderate light to dark green spotty chlorite, moderate to strong on fracture surfaces. Moderate pervasive carbonatization. Abundant hairline to 5mm calcite and quartz calcite veinlets. Part of this section is moderately sili- cified and brecciated. Mineralization: Trace to 2% pyrite locally as finely disseminated cubes.					

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb
466	500	DIABASE	Medium grey to reddish grey, fine to medium grain, weakly fractured. The hornblende crystals reach 3 - 4mm in length. The plagioclase crystals are rounded and indistinct. From 479' to 500' (end of hole) the plagioclase has a pink hematite stain. The rock is weakly to very weakly magnetic. Alteration: Moderate to weak pervasive chlorite decreasing with depth, moderate to strong fracture controlled chlorite. Weak to mod- erate pervasive carbonatization from 466' to 485'. Hairline to 3mm calcite veinlets are common throughout the intervals. There are several 5 to 10mm calcite veinlets at 478'. 467' to 469' is strongly silicified. Epidote is associated with the calcite veinlets from 490' to 500'. Hematite stain- ing from 480' to 500' gives the rock a red- dish colour. Mineralization: Rare to trace disseminated pyrite, up to 2% in the silicified section at 452' to 469'.	65910 65911 65912 65913 65914 65915 65916 65838	451 454 457 460 463 467 477 490	454 457 460 463 466 470 480 493	3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	758 259 90 109 12 19 6 13

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-32

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Property: Tyranite	NTS:	Township: Tyrrell				
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG5805	Coordinates: L14+00S, 4+50W				
Azimuth: 090°	Dip: -70°E	Length: 650'				
Logged By: D. Prior	Casing: 8.5'	Elevation:				
Date Started: October 28, 1987	Date Completed: November 2, 1987	Date Logged: November 3, 1987				
Core Size: BQ	Core Location: Tyranite	Samples Shipped:				
Drill Company: Bill Link	Overburden: 7'	Checked: J. McAuley Dec. 11/87				
1. Collar -70°E 250	Acid Dip Tests .0' -70°E	2. 450.0 -70°E 650.0 -70°E				

<u>Purpose</u> To evaluate South Pod Lens.

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<u>Conclusions</u> Significant Intersection: 585 to 588; 3 ft. @ 0.478 oz gold/ton

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-32

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From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
8.5	193	BASALT/ ANDESITE	 Rock is dark grey to black, micro granular to very fine-grained, occasional dark feldspar crystal, massive mafic volcanics. 47.8' - 60'; Rock is medium grey fine to medium grained, with dark striated plagioclase and abundant hornblende. Alteration consists of weak calcite alteration primarily as veinlets to 5 mm wide, accounting for 1-2% of rock or veinlets are generally 45° to core angle. The rock has been weakly pervasively chloritized. Mineralization consists primarily of stringers, blebs and veinlets of pyrite, frequently associated with calcite veinlets. Pyrite varies from euhedral crystals up to 2 mm across to anhedral masses and accounts for 1-5% of rock. Below 22' small pyrhotite masses and trace chalcopyrite occur as noted in the following sample descriptions. 22.3' - 28'; Strong blebby continuous pyrrhotite mineralization, from 5-15%, with trace to 1% chalcopyrite 3 to 4" sections of core at 30', 31' and 40' contain pyrrhotite concentrations to 15% of rock. 27.5' - 31.5'; Dark fine grained mafic volcanics with several calcite veinlets and blebs. Pyrrhotite is found from 27.5' - 28' at 28.5' - 30' and at 31', concentrated locally from 10 to 15%. The interval has 2-3% pyrite in veinlets 45 to 50° to core angle, 3-5% calcite veinlets 45 to 50° to core angle, 3-5% pyrite stringers, anhedral to subhedral cubes. 	65601 65603 65604 65605 65606 65607 65608 65609 65610	11.0 15.0 19.5 22.5 25.0 27.5 31.5 35.0 38.0 41.0	15.0 19.5 22.5 25.0 27.5 31.5 35.0 38.0 41.0 44.0	4.0 4.5 3.0 2.5 2.5 4.0 3.5 3.0 3.0 3.0 3.0	Ni1 Ni1 130 30 Ni1 10 Ni1 20 Ni1
					page	2		
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From To (ft) (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (dqq)	
	cont'd	35' - 38'; Dark fine grained mafic volcanics,	65611	61.0	65.0	4.0	Nil	
		2-3% calcite veinlets 3-4% pyrite	65612	66.0	69.5	3.5	10	
		stringers and blebs.	65613	80.0	83.0	3.0	Nil	
		38' - 41'; Dark fine grained mafic volcanics, 1-2%	65614	83.0	86.0	3.0	Nil	
		calcite veinlets, 5-6% pyrite, blebs and	65615	86.0	89.0	3.0	Nil	
		veinlets, pyrrhotite concentrations at	65616	89.0	91.0	2.0	10	
		38.8' and 39.8'.	65617	91.0	93.0	2.0	30	
		41' - 44'; Dark fine grained mafic volcanics 2-3%	65618	93.0	96.0	3.0	Nil	
	•	calcite veinlets, 1-3% pyrite, disseminated	65619	96.0	99.0	3.0	10	
		blebs and stringers.	65620	99.0	101.0	2.0	Nil	
		61' - 65'; Dark fine grained mafic volcanics, 2-3%	65621	101.0	104.0	3.0	Nil	
		calcite veinlets 30-45° to core angle,	65622	104.0	107.0	3.0	Nil	
		spotty pyrite with accumulations to 5-10%.	65623	107.0	110.0	3.0	Nil	
		65' - 69.5'; As above, 1% calcite, 2-5% disseminated	65624	110.0	113.0	3.0	690	
		blebby and stringer pyrite, locally to 10%.	65625	113.0	116.0	3.0	650	
		69.5' - 80'; Dark fine grained mafic volcanics, 2-5% pyrite, 1-2% calcite veinlets.	65626	116.0	119.0	3.0	410	
		80' - 105'; Dark grey mafic volcanics, chlorite						
		along fracture surfaces, trace to 1% cal-						
		cite, 3-5% pyrite as disseminated cubes,						
		blebs and 1-2 mm stringers, up to 10%						
		locally, pyrrhotite occurs in blebby						
		concentrations to 10% at 81' - 83.5',						
		85' - 86', 89' - 93' (not continuous).						

- 105' 110'; Dark grey mafic volcanics with 3 calcite veins from 0.5 to 1 cm wide at various angles. 3-5% pyrite, disseminated blebs and erratic stringers.
- 110' 119'; Medium grey green mafic volcanics fractured and brecciated, very calcareous calcite is pervasive and veinlets and irregular masses around brecciated volcanics. Most veinlets are 30-45° to core angle. Pyrite occurs as irregular concentrations of tightly packed subhedral to euhedral cubes and blebs in the brecciated zones, locally concentrated to 10% in those zones.

							page	3	
From (ft)	To (ft)				Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	119' -	150'; Dark greyish green mafic volcanics	65627	119.0	122.0	3.0	895
				aphanitic, massive, weak pervasive chlo-	65628	122.0	126.0	4.0	Nil
				rite, 2-3% calcite in veinlets from 0.1 to	65629	138.0	141.0	3.0	10
				5 mm, with one 2 cm wide calcite vein.	65630	141.0	144.0	3.0	Ni1
				Veinlets are generally 30-45° T.C.A., up	65631	144.0	147.0	3.0	Nil
				to 5% pyrite locally, as subhedral to	65632	147.0	150.0	3.0	Nil
				euhedral cubes from 0.1 to 5 mm per side	65633	150.0	154.0	4.0	Nil
				and occurring in stringers and blebs.	65634	154.0	157.0	3.0	Niī
				Finely disseminated and blebby pyrrhotite	65635	157.0	160.0	3.0	Nil
				is found continuously from 144.8' to 147.2'	65636	160.0	163.0	3.0	Nil
				up to 10% and from 148.4' to 148.6'. There	65637	163.0	166.0	3.0	Nil
				is moderate chlorite in fracture surfaces.	65638	166.0	169.0	3.0	Nil
			144' -	147'; 5-10% pyrrhotite, 2-4% pyrite seams	65639	169.0	172.0	3.0	30
			147' -	150'; 1-2% pyrrhotite, 1-3% pyrite seams and cubes.					
		(possible	150' -	172'; Silicified zone. Rock is light to					
		felsic unit)		medium grey green, cherty in appearance, with short sections of dark grey unsilicified mafic volcanics. The cherty area are					
				banded. Hairline fractures are					
				abundant and rock is brecciated at 171'. 1-2% calcite occurring in 1 to 4 mm veinlets					
				at angles of 45 to 60° T.C.A.					
				Trace to 1% pyrite occurs as disseminated cubes from 0.1 mm to 3 mm and occasionally					
				as small blebs.					
				Trace to 0.5% chalcopyrite occurs locally					
				from 156' to 164' in small blebs associated					
				with quartz calcite veinlets.					
			172' -	193'; Highly silicified cherty zone. (possible					
				felsic unit). Light to medium grey green,					
				mottled, banded and highly fractured in part,					
				2-3% calcite in hairline fracture and perva-					
				sive in lighter greenish sections. Trace					
				to 2% pyrite occurs on finely disseminated					
				cubes and as short stringers from 191' to 193'.					

						page	4	
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
193.0	198.0	FELDSPAR PORPHYRY	Rock is medium grey massive, siliceous with abundant unaligned white feldspar crystals to 1/8" long. Alteration: Moderate to strong pervasive silicifi- cation, 2-3% pervasive calcite and minor hairline veinlets; moderate chlorite along fracture surfaces. Mineralization: Trace to 1% disseminated pyrite cubes.	65640 65641	180.0 191.0	183.0 193.0	3.0 2.0	60 N†1
198.0	226.0	ALTERED PORPHYRY	198' - 226'; Rock is medium grey with light grey green cherty sections. It is porphyritic with white rounded feldspar crystals grading to narrow elongate greenish white indistinct feldspar remnant crystals (below 219'). Alteration: The rock is strongly pervasively sili- cified with sections of chert like material with little evidence of porphyry. Carbonatization is variable from 2-5%. It is pervasive and also occurs in hairline to 3 mm veinlets at 60-90° T.C.A. There is one 3 cm wide calcite vein at 90° T.C.A. From 221' - 225', the rock is highly fractured and brecciated. 203' - 204' is also brecciated. Frac- ture controlled chlorite is found in less siliceous sections. Serpentine? is found with chlorite along a fracture at 215.5'. Mineralization: Pyrite up to 3 or 4% locally occurs as disseminated cubes, in stringers to 3 mm wide and occasionally as blebs. Cubes of pyrite are gene- rally less than 1 mm but some are 3-5 mm in size.	70151 70152 70163 70164 70165	172.0 175.0 178.0 183.0 186.0	175.0 178.0 180.0 186.0 189.0	3.0 3.0 3.0 3.0 3.0	11 11 17 10 6
226.0	230.0	SILICIFIED MAFIC INTERMEDIATE VOLCANICS	Medium grey, very fine grained, massive, horn- blende ?.					
240.0	243.0		Alteration: Moderate chlorite in fracture surfaces 1-2% pervasive calcite, calcite veinlets common from hairline to 3 mm at 45-60° T.C.A. Moderate to strongly silicified. No visible sulphides.					

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- ·	From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	230.0	240.0	PORPHYRITIC	The rock is medium grey, fine to coarse grained,	65642	198.0	201.0	3.0	10
	-		DIORITE	white feldspar and hornblende porphyritic crystals	65643	203.0	206.0	3.0	50
				to 2 mm are abundant, weakly to moderately magnetic	65644	214.0	217.0	3.0	10
				in part.	65645	217.0	220.0	3.0	Nil
				Alteration: 3-5% pervasive carbonatization, numerous	65646	220.0	223.0	3.0	70
				calcite veinlets from 1-5 mm wide at 45-60° T.C.A.	65647	223.0	226.0	3.0	275
				Moderate fracture controlled chlorite, silicified in part.	65648	248.0	250.5	2.5	Nil
				Mineralization: trace disseminated pyrite as cubes					
				NOTE: The silicified volcanics are similar in colour					
				and hardness to the porphyritic diorite.					
	250.0	284.0	BASALT	250.5' - 263.0': Medium green very fine grained to	65649	250.5	253.0	2.5	Nil
	200.0	20410	ANDESTTE	anhanitic massive weakly to moderately pervasively	65650	253.0	256.0	3.0	10
				chloritized moderate to strong fracture controlled	65651	256 0	259 0	3 0	Nil
				chlorite	65652	263 0	266 0	3.0	Nil
				1-2% calcite voinlete bairline to 5 mm generally	65652	266 0	269 0	2.0	120
				AE-EOR T C A Strongly cilicified and moderately	65654	250.0	203.0	3.0	130
				frontured costions up to 6" long from 259' to 261'	65655	209.0	272.0	3.0	20
				Mineralizations Durphotite up to 1% locally	00000	272.0	274.0	2.0	20
				Mineralization: Pyrrhotite up to 1% locally	05050	274.0	270.0	2.0	
				occurs in pleps in sections from 1 to 6 in length	00007	275.0	279.0	3.0	NTI
				at 252.57 2537, 253.57, 2547, 2557, 2577 and 2607.	65658	2/9.0	281.5	2.5	NTI
				to 3 mm wide, disseminated cubes are abundant.	65659	281.5	284.0	2.5	10
				263' - 281.5'; Mafic volcanics as above brecciated and fractured from 265.5 to 267.5'. 274 to					
				276.5'.					
				Alteration: The zone is weakly pervasively					
				chloritic with moderate fracture controlled					
				chlorite. The precisted areas are strongly					
				cilicified A 6" section at 278' is					
				strengly cilicoup other areas are weakly					
				scrongly striceous, other areas are weakly					
				STITCTTED. There are several calcile verns					
				Trom 1 to 5 cm wide trom 50~80° I.C.A.					
				Smaller calcite veinlets are common. Epidote					
				calcite hairline veinlets occur at 271.5'.					

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	263' - 284'; Mineralization: Pyrite to 5 or 6% locally as disseminated cubes, small (0.5 to 1 cm) blebs and stringers to 4 mm wide. Chalcopyrite blebs to 1% are found in 2 calcite veins at 275' and 278.5'.	65660 65661 65662 65663 65664	284.0 287.0 290.0 293.0 297.0 300.3	287.0 290.0 293.0 297.0 300.3 303.0	3.0 3.0 3.0 4.0 3.3 2.7	30 295 70 170 200
284.0 325.5	BASALT/ ANDESITE BRECCIATED AND CAR- BONATIZED	284' - 325.5'; Medium green grey, aphanitic mafic volcanics with several breccia zones. Alteration: chlorite is weakly pervasive and moderate on fracture surfaces and breccia zones. The brecciated areas are composed primarily of angular siliceous fragments up to 3 cm long. Calcite has filled in the breccia zones and many of the fragments are carbonatized as in the wall- rock near the breccia and near (0.5 - 1cm) cal- careous fractures and veinlets most of which tie at 50-80° T.C.A. Brecciated sections are located at 285', 288.5', 293.5', 298', 299', 302' to 305' and 322'. A chloritic bed within a breccia at 304' lies at 30° T.C.A. Mineralization: 1-2% disseminated pyrite cubes up to 10% locally as subhedral cubes in stringers and as individual cubes up to 1 cm per side. Brecciated areas are most concentrated in pyrite.	65666 65667 65668 65669 65670 65671 65672 65673	303.0 306.0 309.0 312.0 315.0 317.0 319.7 323.0	306.0 309.0 312.0 315.0 317.0 319.7 323.0 326.0	3.0 3.0 3.0 2.0 2.7 3.3 3.0	270 40 Nil 40 10 320 885 90
325.5 386.0	BASALT/ ANDESITE	325.5' - 339.0'; Rock is medium to dark grey, apha- nitic, massive, mafic volcanics. Alteration: 2-3% calcite in fracture controlled veinlets from hairline to 5 mm wide at various angles from 45 to 80° T.C.A. Weak to moderate chlorite on fracture surfaces. Trace epidote is associated with a few calcareous veinlets. There are numerous (1%) pale green, patches to 0.5 cm of chlorite? throughout the zone. Mineralization: Trace to 2% pyrite locally as dissemination cubes, small blebs and short stringers to 2 mm wide.					

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	339.0' - 354.7'; (Sharp lower contact at 90° T.C.A.)	65674	329.0	332.0	3.0	Nil
		Medium grey green fine grained massive mafic	65675	336.0	338.7	2.7	Nil
		volcanics with plagioclase and hornblende	65675	340.0	343.0	3.0	10
		crystals to 1 mm long. Larger feldspar	65677	343.0	346.0	3.0	Ni1
		crystals to 3 mm with rounded edges are	65578	351.0	353.0	2.0	Nil
		common.	65679	353.0	355.0	2.0	10
		Alteration: Weak to moderate pervasive	65680	357.2	360.0	2.8	Nil
		chlorite, moderate on fracture surfaces,	65681	360.0	363.0	3.0	Nil
		1-2% calcite veinlets predominantly hairline	65682	363.0	365.0	2.0	Nil
		to a maximum width of 5 mm angles are highly	65683	366.0	369.0	3.0	Nil
		variable. There is a brecciated carbonatized	65684	369.0	372.0	3.0	Ni1
		silicified zone from 351.8' to 353' with a	65685	372.0	375.0	3.0	Nil
		5 cm wide quartz calcite vein that surrounds	65686	376.0	379.0	3.0	20
		siliceous fragments to 2 cm in diameter.	65687	379.0	382.0	3.0	Ni1
		Vein lies at 45° T.C.A.	65688	382.0	385.0	3.0	Ni1
		<pre>Mineralization: 1-2% pyrite reaching 4-5% locally in the form of disseminated cubes up to 4 mm per side with small blebs and short seams of subhedral pyrite cubes. There is a 5 mm bleb of chalcopyrite in the 5 cm quartz calcite vein. 354.7' - 386'; Grey green, aphanitic, massive mafic volcanics. Alteration: weak pervasive chlorite, moderate in fracture surfaces. 1-2% calcite in vein- lets hairline to 5 mm commonly at 50-80° T.C.A. Quartz blebs to 1 cm occur at 373.2' and there is a 1 cm wide quartz vein at 60° T.C.A. at 377' in a short brecciated section. Another brecciated area is located at 379'. Both sections have up to 10% calcite with a 1-3 cm wide calcite vein/bleb at 377'. Mineralization: Pyrite to 5% locally occurs primarily as seams to 3 mm wide and as blebs.</pre>					

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From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
386.0 393.	5 DIORITE	The rock is medium grey, fine grained with crystals	65689	389.0	392.0	3.0	Nil
		of plagioclase and hornblende up to 3 mm long.	65690	395.0	398.0	3.0	Nil
		Alteration: Trace to 1% calcite occurs in hairline	65691	398.0	401.0	3.0	Nil
		to 3 mm veinlets often associated with trace epi-	65692	401.0	404.0	3.0	Nil
		dote and stained reddish (from hematite?) in part.	65693	404.0	407.0	3.0	Nil
		Weak fracture controlled chlorite.	65694	407.0	410.0	3.0	19
		Mineralization: Trace to 1% pyrite occurs locally	65695	410.0	413.3	3.3	11
		as disseminated cubes to 1 mm per side.	65696	413.3	416.0	2.7	24
			65697	416.0	419.0	3.0 •	33
393.5 461.	0 BASALT	393.5' - 451': Medium grey aphanitic mafic volcanics.	65698	419.0	422.0	3.0	143
	ANDESITE	A highly fractured partially brecciated	65699	422.0	425.0	3.0	52
		zone extends from 414' to 435'. From 435	65700	425.0	428.0	3.0	71
		to 451', hairline fractures are very abundant.	65701	428.0	430.0	2.0	40
		Alteration: Weak pervasive chloritization with	65702	430.0	432.0	2.0	15
		moderate to strong chlorite on fractures	65703	432.0	435.0	3.0	13
		surfaces. The fractured zone is highly	65704	435.0	438.0	3.0	11
		carbonaceous with up to 10% calcite. Else-	65705	438.0	441.0	3.0	16
		where calcite veinlets are abundant from	65706	441.0	444.0	3.0	174
		hairline to 2 cm generally 30-60° T.C.A.	65707	444.0	447.5	3.5	217
		Two 1-3 cm pink calcite blebs occur in the	65708	447.5	451.0	3.5	225
		fractured zone. Silicification is moderate	65709	452.0	454.0	2.0	108
		to strong in the fractured brecciated zone.	65710	454.0	457.0	3.0	103
		Elsewhere the rock is weakly to moderately	65711	457.0	460.0	3.0	63
		silicified with several small fractured					
		brecciated sections.					
		NOTE: A 1 cm offset is visible at 429.3' at 45°					
		Mineralization: Pyrite to 7 or 8% locally					
		occurs as disseminated cubes, blebs and seams					
		from hairline to 5 mm wide of subhedral					
		crystals. The pyritic seams are fracture					
		controlled. Most pyrite blebs (up to 1cm)					
		are found in brecciated sections. Hematite					
		seams at 396'.					
		451' - 461': Medium greenish grey aphanitic mafic					
		volcanics moderately to highly fractured.					
		brecciated in part.					

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From To (ft) (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
cont'd	Alteration: Weak pervasive chlorite, moderate to strong on fracture surfaces. 1-2% calcite veinlets up to 2 cm wide. Weakly silicified throughout width a 15" section at 453' which is brecciated and strongly silicified. Mineralization: Trace to 1% disseminated pyrit is found throughout the interval. Chalco- pyrite blebs (0.5 cm) occur up to 1% locally from 452.5 to 454' associated with quartz calcite veins surrounding brecciated wallrock.	.e				
461.0 498.0 DIORITE	461' - 498'; Medium grey, very fine to medium grained diorite with crystals of plagioclase and hornblende to 3 mm. From 461 to 471', there is a gradual increase in grain size; 471'- 474' crystals are medium grained, from 474' to 498', the size gradually drops down to very fine grained and grades into mafic vol- canics. The rocks weakly to moderately magnetic. Alteration: Very weak pervasive chlorite alteration, moderate to strong fracture con- trolled chlorite, calcite veinlets from 1-5 mm are common with two 1-4 cm quartz calcite veins. Veins are usually 30-50° T.C.A. There are a few 1-3 mm white discontinuous quartz veins and blebs with calcite. Epidote occurs as a pale yellow green fibrous mineral in some of the calcite veinlets. Mineralization: Trace disseminated pyrite cubes occur throughout the interval. Several specks and blebs to 0.5 cm of chalcopyrite are visible in a quartz calcite vein appro- ximately 4 cm wide at 45° T.C.A. at 466'. A 1 cm wide quartz calcite vein occurs at 478'.	65712 65713 65714 65715 65716 65717 65718	463.0 465.0 467.0 474.0 477.0 479.0 489.0	465.0 467.0 468.8 477.0 479.0 482.0 492.0	2.0 2.0 1.8 3.0 2.0 3.0 3.0	20 11 14 26 16 12 17

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From To Sample From To Width Au (ft) (ft) (ft) (ft) (ft) No. (ppb) cont'd 498' - 508': Similar to the overlying diorite, but 65719 498.0 501.0 3.0 11 grain size is very fine and appears similar 65720 501.0 504.0 3.0 123 to volcanics. 65721 504.0 506.2 2.2 21 Alteration: Moderate chlorite on fracture 65722 506.2 509.0 2.8 < 5 surfaces. Trace 1% calcite veinlets from

> hairline to 5 mm wide. Epidote is often associated with the calcite. Veinlets, some of which have a reddish stain. The interval from 502' to 504' is strongly silicified and moderately fractured at 45° T.C.A. Mineralization: Trace disseminated pyrite cubes are found throughout the interval.

massive diorite with crystals up to 2 mm

calcite veinlet at 508'.

508' - 565': Medium grey fine to medium grained

plagioclase and 10% hornblende.

Specks of chalcopyrite to 1 mm are associated with quartz calcite epidote veins at 505'. Possible chalcopyrite at 502.5' and 507.2'. Chalcopyrite specks in a 5 mm quartz epidote

long with some plagioclase crystals 4 mm long. Minor (less than 2%) pink minerals possibly orthoclase and 3 rusty red veinlets. The rock is weakly to moderately magnetic. The zone is very felsic with approximately 90% page 10

461.0 565.0

508' - 565'; Alteration: Moderate chlorite in fracture surfaces. Trace to 1% calcite in narrow veinlets to 3 mm with quartz. Trace to 1% epidote and silica occur in veinlets with the calcite. There is a 1 cm wide quartz veinlet at 527', at 30° T.C.A. There are three 0.5 cm rusty red veinlets at 30-45° T.C.A. They are probably the result of hematite staining along hairline fractures. There appears to be trace interstitial sericite throughout the zone.

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	Mineralization: Trace disseminated pyrite	65723	512.0	515.0	3.0	7
			occurs throughout the interval. Chalco-	65724	523.0	526.0	3.0	10
			pyrite in trace amounts is found in a quartz	65725	526.0	529.0	3.0	8
			calcite veinlet at 527'. A few other specks	65726	532.0	535.0	3.0	9
			of chalcopyrite are found in other narrow	65727	535.0	538.0	3.0	<5
			quartz calcite veinlets.	65728	539.0	542.0	3.0	7
				65729	551.0	554.0	3.0	7
565.0	606.8	CARBON-	565' - 615.3'; Medium grey, mottled white and dark	65730	555.0	558.0	3.0	14
		ATIZED/	grey, aphanitic to very fine grain mafic	65731	564.0	567.0	3.0	76
		SILICIFIED	volcanics. Most of the interval has been	65732	567.0	570.0	3.0	178
		MAFIC	carbonatized and silicified extensively which	65733	570.0	573.0	3.0	789
		VOLCANICS	obscures the original composition. From	65734	576.0	579.0	3.0	69
			572' to 578', the rock is medium greenish	65735	579.0	582.0	3.0	133
			grey aphanitic mafic volcanics.	65736	582.0	585.0	3.0	280
			565' - 607'; Alteration: 565' - 572': This section -	65737	585.0	588.0	3.0	16442
			is capped with a 1" cherty vein? at 45° T.C.A.	65738	588.0	591.0	3.0	222
			The remainder is whitish grey fractured	65739	591.0	594.0	3.0	259
			brecciated siliceous material in a chloritic	65740	594.0	596.1	2.1	145
			carbonaceous matrix. 1-2 mm calcite veinlets	65741	596.1	599.0	2.9	28
			lie at 40-50° T.C.A.	65742	599.0	602.0	3.0	27
			572' - 577.8'; Weak pervasive chlorite, moderate to	65743	602.0	605.0	3.0	147
			strong on fracture surfaces. A few calcite	65744	605.0	608.0	3.0	86
			veinlets at 45° T.C.A.	65745	608.0	611.0	3.0	8
			577.8' - 593'; A zone of fractured and partially brecciated quartz veinlets to 2 cm at 30-45° T.C.A. These are surrounded by a strongly chloritic carbonaceous matrix.	65746	611.0	614.0	3.0	12
			593' - 606.8'; A strong chloritic carbonaceous zone that is highly fractured brecciated in part, with a few 2-6" silicified sections.					
			572' - 572'; Trace disseminated pyrite. 572' - 577.8'; Trace disseminated pyrite to 1%					
			577.8' - 593'; Trace to 3% pyrite as finely disse- minated cubes with one solid mass approximately					
			593' - 606.8'; Trace disseminated pyrite.					

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From To (ft) (ft))		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
606.8 608	B.O QUARTZ EYE FELSIC VOLCANICS	Light greenish grey aphanitic, felsic volcanic lying at 45-50° T.C.A. Abundant (3-5%) quartz eyes from 0.1 to 3 mm in diameter, smokey white in colour. Numerous hairline to 5 mm calcite veinlets. Trace 1% finely disseminated pyrite cube.					
608.0 615	5.3 ANDESINE BASALT	Medium greenish grey very fine grained mafic vol- canics becoming fine grained in part. Alteration: weak pervasive chlorite, moderate to strong on fracture surfaces. Moderate pervasive calcite. Numerous calcite veinlets from 1-10 mm wide at 45-60° T.C.A. Moderately silicified from 610.5' to 613'. Mineralization: a small trace of disseminated pyrite is visible.					
615.3 619	9.5 FELDSPAR PORPHYRY	Rock is light to medium grey with white plagioclase phenocrysts from 2 to 4 mm in length in an aphanitic siliceous matrix. Upper and lower contacts are sharp, however, contact at 45° T.C.A. Alteration: There are several 2-5 mm quartz calcite veinlets at various angles. Some veinlets are stained rose/purple, weak chlorite on fracture surfaces. Mineralization: Trace to 1% finely disseminated pyrite.					
619.5 623	3.2 DIORITE	The rock is medium grey, grain size grades from medium to coarse rounded grey white, feldspar is a fine matrix to a fairly uniform fine to very fine grained texture at 523'. Alteration: Very weak pervasive chlorite, moderate on fracture surfaces. 4-5% pervasive carbonatization There are 3 quartz calcite veinlets approximately 1 cm wide, stained pink in part.					

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					page	13	
From To (ft) (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
	cont'd	Mineralization: Trace pyrite occurs as finely disseminated cubes and occurs mostly as small blebs to 5 mm. A few specks of chalcopyrite occurs with one of the quartz calcite veinlets.	65747 65748 65749 65750	617.0 620.0 629.0 637.0	620.0 623.0 632.0 640.0	3.0 3.0 3.0 3.0	9 12 11 18
623.2 630.7	FELDSPAR PORPHYRY	This porphyry is very similar to the porphyry from 515.3 - 519.5'. The contacts are sharp. It has a small trace of finely disseminated pyrite.	65751 65752	643.0 546.0	646.0 649.0	3.0 3.0	40 10
		Medium grey very fine to fine grained diorite with sharp contacts. Moderate chlorite on fracture surfaces, weakly pervasively carbonatized with a few 3-8 mm wide quartz calcite veinlets. There is a small trace of disseminated pyrite.			·		
		Porphyry as above with trace disseminated pyrite increasing to 1% near the lower contact.					
638.4 640.2	BASALT/ ANDESITE	Medium grey aphanitic massive mafic volcanics, however contact at 45-50° T.C.A. Weak pervasive chlorite, moderate in fracture surfaces. 2-3% calcite in hairline to 2 mm veinlets. Short (2-4") silicified section. Trace pyrite in 1-2 mm blebs.					
640.2 649.7	FELDSPAR PORPHYRY (RED IN PART)	Light grey to reddish grey, plagioclase crystals from 2-5 mm, stained pink in part, in an aphanitic matrix. Alteration: Moderate hematite staining in part. Very weak pervasive carbonatization. Numerous 1-5 mm quartz calcite veinlets. Mineralization: Trace disseminated pyrite and two 1 mm wide pyrite seams at 645'.					

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-33

Property: Tyranite (Duggan)	NTS:	Township: Knight
Partner: Tyranex/Gunnar Gold/Mill City	Claim #: GG 6649	Coordinates: L11+50N; 50+50W
Azimuth: 090°	Dip: -45°E	Length: 100.0'
Logged By: D. Pilkey	Casing: 0 - 2.0'	Elevation:
Date Started: October 22, 1987	Date Completed: October 23, 1987	Date Logged: October 24, 1987
Core Size: BQ	Core Location: Tyranite Mine Site	Samples Shipped:
Drill Company: Bill Link	Overburden:	Checked: D. Pilkey Jan. 8, 1988

Acid Dip Tests

1. None taken

2.

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

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

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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Hole No: 1316-35

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	1.75	CASING						
1.75	26.8	MONZONITE GRANO- DIORITE MINERA- LIZED ZONE (12.9' - 14.75')	<pre>Mottled grey-pink-black to grey-white-black coarse grained monzonite; base colour of rock (pink or grey-white) is dependent on respective amounts of orthoclase and plagioclase as well as the degree of hematitic staining of leukocratic minerals; rock appears "gneissoid" in that it displays a sub-linear flow alignment of melanocratic minerals (probably hornblende). Alteration occurs as carbonatized, epidote enriched silicified bands and black chloritized patches of host rock. 12.9' - 14.75'; Sequence of moderate-heavy altera- tion in monzonite host rock; characterized by veinlets and bands of grey-white, fleshy pink and white calcite which are intruded by black chloritic strings, threads and lenticular blebs, as well as reddish-orange hematized and green epidote-enriched mon- zonite. Sulphide mineralization: Altered sequence profusely mineralized with pale yellow con- densed blebs and euhedral crystals of pyrite. 19.2'; Matrix of monzonite rock unit darkens with black patches and with band foliations as it becomes increasingly chloritized. 22.25' - 23.6'; Blackish green mafic volcanic sec- tion (andesite) intruding monzonite @ 100° T.C.A.; section is weakly-moderately altered with grey-white calcite strings, threads and lenticular blebs as well as hematized - gossanized patches.</pre>	56637 56639 56640 56641 56642 56643 56643 56645	2.0 3.9 6.9 9.9 12.9 14.9 17.9 20.9 23.9	3.9 6.9 9.9 12.9 14.9 17.9 20.9 23.9 27.4	1.9 3.0 3.0 2.0 3.0 3.0 3.0 3.5	313 27 5 9 1123 116 101 43 10

· From To							page	2	
Froi (ft	n To) (ft)				Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
		cont'd	23.8' -	24.1'; Greenish-black medium grained mafic intrusive (diabase) @ 120° T.C.A.; diabase intruded intermittently by calcitic veinlets (grey-reddish-white in colour @ 70° T.C.A.)					
26.	3 96.7	ALTERATION ZONE (ALTERED MONZONITE GRANO- DIORITE * ZONE OF EX- TENSIVE SULPHIDE MINERA- LIZATION 26.8 - 57.4	Extreme rock un and tex 26.8' - granodi grained hematit ment of clase, greenis black o calcite and cal entire 36.7' -	 profuse alteration of monzonite sequence; ht displays a "montage" of various colours tures. 36.7'; Remnant structures of monzonite/ orite unit still evident as a medium-coarse if elsic intrusive with severe reddish-orange tic staining and olive green epidote enrich- leukocratic minerals (plagioclase, ortho- guartz); also abundant through sequence are sh-black chloritic patches of host rock, shloritic strings and threads, fleshy-white evenlets and pods, grey carbonaceous patches careous enrichment of rock through the sequence. 40.0'; Altered rock now displays rare rem- nant structures of monzonite sequence, base colour of rock is grey black indicating pro- minent chloritic alteration grading into a texture dominated by white siliceous vein- lets, sineous linear aligned siliceous threads; and ashen-grey coloured threads, tributaries of flow-aligned siliceous threads; also transecting sequence are grey- white calcareous veinlets, strings. Profuse alteration shown with little evidence of monzonite host rock; sequence is grey- green to olive green, fine to medium grained, denoting extreme chlorite alteration and epidote enrichment, remnant leukocratic minerals from host monzonite unit occur as redish-orange hematized veinlets and pat- ches; textures throughout sequence vary from calcite and silicic veins or bands intruding the epidote enriched hematized monzonite to 	56646 56647 56648	27.4 30.4 33.4	30.4 33.4 36.4	3.0 3.0 3.0	209 76 11

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page 3

From	То
(ft)	(ft)

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

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

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

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

Sample	From	То	Width	Au	
No.	(ft)	(ft)	(ft)	(ppb)	07/
56649	36.4	39.4	3.0	1066	0.03
56650	39.4	42.4	3.0	4462	0.13
56651	42.4	45.4	3.0	371	
56652	45.4	48.4	3.0	224	
56653	48.4	51.4	3.0	3036	0.081
56654	51.4	54.4	3.0	6065	0.17
56655	54.4	57.4	3.0	4292	0.12
56656	57.4	60.4	3.0	5119	0.14
56657	60.4	63.4	3.0	< 5	
56658	63.4	67.9	4.5	1387	0.04

		page 4				
From To (ft) (ft)		Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
cont'd	moderately silicified with transecting white	56659	67.9	70.9	3.0	74
	and cream coloured quartz veinlets; epi-	56660	70.9	73.9	3.0	1690 D.D
	dote-enrichment of host rock also occurs	56661	73.9	76.9	3.0	<5
	intermittently; fuchsite (mariposite)	56662	76.9	79.9	3.0	15
	appears as apple-green staining in monzo-	56663	79.9	82.9	3.0	11
	nite matrix peripheral to quartz veinlets	56664	82.9	85.9	3.0	521
	and less conspicuously in sporadic blebs	56665	85.9	88.9	3.0	4317 0.13
	throughout sequence.	56666	88.9	91.9	3.0	2483 0.07
	Sulphide mineralization: disseminated pyri-	56667	91.9	94.9	3.0	1536 0.04
	tic blebs occur only sporadically through	56668	94.9	96.7	2.2	43
	sequence as pale vellow subhedral crystals.			••••		
SULPHIDE	82.9' - 100.0': Monzonite becomes extremely altered					
MINERALI	- with little evidence of relic structures:	•				
ZATION:	sequence is grevish olive green predominantly					
82 9 - 1	00.0 with minor sections greenish-grev: unit is					
02.0	profusely carbonatized with grey-white len-					
	ses grev-white and amber-white veinlets -					
	strings - tributaries Monzonite is mode-					
	rately cilicified with white quartz vein-					
	late and strings Also observed were black					
	chloritic strings. Also observed were black					
	fuchaita (marinaaita) blaba with range of					
-	fuchsite (mariposite) blebs with zones of					
	hast mark					
	nost rock.					
	90.1 - 90.75 ; Dark offve-pea green coloured aftered					
	monzonite; (Tuchsite-chiorite-epidote en-					
	riched); transected by white quartz vein-					
	lets, strings, blebs; heavily mineralized					
	with disseminated pyrite blebs.					
	91.97 - 93.07; Zone of pale greenish grey precchated					
	carbonatized monzonite; radiating black					
	chloritic strings and fuchsite are also					
	prominent.					
	99.1' - 100.0'; Crimson red hematized stained					
	altered monzonite.					
	Sulphide mineralization; Moderately mine-					
	ralized with disseminated flecks, condensed					
	blebs and stringers of pyrite.					
96.7 E O. H.						

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DIAMOND DRILL LOG GUNNAR GOLD / MILL CITY INC.

92-9121 :ON 910H

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stsəī qiû bick								
Checked: D. Pilkey Jan. 8, 1988	:uəpındıəvO	Drill Company: Bill Link						
:beqqid2 seiqms2	Core Location:	Core Size: BQ						
Date Logged: October 27, 1987	Date Completed: October 26, 1987	Date Started: October 25, 1987						
:noijeva[3	0.2 :Paired	Logged By: D. Pilkey						
'0.001 :AJBNAJ	∃°84- :qi0	°000 :dJumizA						
Coordinates: L13+00N; 503+50W	6468 29 :# mis[)	Partner: Tyranex/Gunnar Gold/Mill City						
Juginy :qinanwoT	SIN	Property: Tyranite (Duggan)						

Purpose Shallow sample hole to test Duggan Zone.

1. None taken

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a.

70 to 80 - 10 ft. @ 0.0562 oz gold/t. conclusions <u>snoisuland</u>

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

November 5, 1987

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Hole No. 1316-36

From (ft)	To (ft)	Contine	Description	Sample No	From (ft)	To (ft)	Width (ft)	Au (ppb) oz/t
0	1.0	Lasing		20803	1.0	4.0	3.0	Z 5
1.0	100.0	Monzonite	1.0' - 38.8' Rock consists of medium grained, massive to weakly foliated monzonite. Composition of monzonite	56870	4.0	7.0	3.0	< 5
			is 35%, black euhedral hornblende grains. Hornblende grains show very weak chlorite alteration. The	56871	7.0	10.0	3.0	171
			remainder of the rock consists primarily of subhedral white plagioclase grains and pinkish white to orange	56872	10.0	13.0	3.0	753
			alkali feldspar. Alkali feldspar forms from 5% - 15% of monzonite with 40 - 45% plagioclase.	56873	13.0	16.0	3.0	221
			Monzonites contain 🗲 2% basalt fragments, which range	56874	16.0	19.0	3.0	131
			from $41/8$ " - 2" in length. Basalt fragments are round to subrounded in character. Fragments show strong	56875	19.0	22.0	3.0	< 5
			pervasive chloritization and strong - intense per- vasive carbonatization.	56876	22.0	25.0	3.0	924
			Monzonites show very weak spotty calcite alteration and	56877	25.0	28.0	3.0	34
			minor fracture controlled chlorite alteration. Small calcite veinlets up to ¼" in width are noted. Calcite	56878	28.0	31.0	3.0	9
			is white in colour and commonly show weak fracture cont- rolled chloritization. Finely disseminated pyrite occurs	56879	31.0	34.0	3.0	9
			on either side of the vein with strong pervasive hematite giving the veinlets strong alteration halos. Sulphide	56880	34.0	36.0	2.0	∠5
		giving the veinlets strong alteration halos. Sulphide abundances along the veinlets reach 1-2%, and <pre> </pre> </td <td>56881</td> <td>36.0</td> <td>38.8</td> <td>2.8</td> <td>62</td>	56881	36.0	38.8	2.8	62	
			38.8' – 42.6' (Alteration and mineralized zone) Monzonites are now showing a gradational change from	56882	38.8	40.7	1.9	295
			weakly altered to strongly altered. Primary monzonite textures are still clearly visible. Rock now contains moderate pervasive calcite alteration, with weak fracture controlled calcite veining.	56883	40.7	42.6	1.9	40

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From (ft)	To (ft)		Description	Sample No.	From (ft)	T.o (ft)	Width (ft)	Au (ppb) oz/t	
		Monzonite (Cont'd)	Zones of intense pervasive hematite alteration are much more abundant with pyrite forming 1-2% over entire length.						
			42.6 - 100.0: Monzonites now show strong to intense alteration. The rock is fine grained, moderately foliated, and vary in colour from red, pink to light green, reflecting different phases of alteration.	56884	42.6	45.0	2.4	7	
			The entire zone exhibits a strong to intense pervasive	56885	45.0	47.5	2.5	17	
			calcite alteration. No evidence of primary texture and mineralogy are present. The zone contains	56886	47.5	50.0	2.5	93	
			strongly hematized section and on average all of the zone contains weak-moderate hematite alteration	56887	50.0	52.5	2.5	96	
			Chloritization is present as yony fine chlorite slips	56888	52.5	55.0	2.5	456	
			with zones of chloritization being less hematitic in	56889	55.0	57.5	2.5	452	
			character. 568	56890	57.0	60.0	2.5	740	
			Silicification varies from moderate quartz veining to strong zones of pervasive silicification. Quartz is generally milky white to glassy and contains minor amounts of pyrite and moderate calcite alteration.						
			Hematization zones are controlled by the presence of sulphide mineralization, with the most intense hematite in areas of pyrite mineralization.	-					
				Sulphides occur as euhedral, brassy yellow grains and cubes, blebby pyrite and chalcopyrite and fine foliation controlled pyrite veinlets. Chalcopyrite blebs are very scarce and commonly are associated with larger calcite veinlets, but are always ∠ 1%. Foliations run @65° - 80° T.C.A.					
							-		

 Description 53.0' - 53.8': Zone is characterized by intense pervasive and fracture controlled calcite alteration with strong pervasive silicification. Rock has a weatranslucent grey appearance. Minor foliation control chlorite is noted as small black elongate lenses. Zone contains 2%, large pyrite cubes and tetrahedron: Grains approach %" in width. Zone also contains mino foliation controlled chalcopyrite smears along plane: 0 60° T.C.A. 55.5' A small, strongly silicified zone of 3" width is noted. The zone contains 5% large white calcite blebs. Calcite commonly is rimmed by chlorite and occassional pyrite. Pyrite is euhedral and brassy yellow, forming 3 - 4% of zone. 75.0' - 77.0': A zone of intense carbonatized monzonite. Rock is fine grained, light greenish grey in colour. Zone contains 2%, irregular, milky white calcite stringers. Veinlets are %" or less in width and run @ 70° T.C.A. Veinlets commonly are offset by a fracture system @ 30 - 40° T.C.A. Strong pervasive calcite alteration is also present. 				Page 3		
Description	Sample No.	From (ft)	To (ft)	Width (ft)	A (ppb)	u oz/t
53.0' - 53.8': Zone is characterized by intense pervasive and fracture controlled calcite alteration, with strong pervasive silicification. Rock has a weak translucent grey appearance. Minor foliation controlled chlorite is noted as small black elongate lenses. Zone contains 2%, large pyrite cubes and tetrahedrons. Grains approach ¼" in width. Zone also contains minor foliation controlled chalcopyrite smears along planes @ 60° T.C.A.						
55.5' A small, strongly silicified zone of 3" width	56891	60.0	62.5	2.5	535	
blebs. Calcite commonly is rimmed by chlorite and	56892	62.5	65.0	2.5	175	
yellow, forming 3 - 4% of zone.	56893	65.0	67.5	2.5	292	
<pre>is noted. The zone contains 5% large white calcite blebs. Calcite commonly is rimmed by chlorite and occassional pyrite. Pyrite is euhedral and brassy yellow, forming 3 - 4% of zone.</pre> 75.0' - 77.0': A zone of intense carbonatized monzonite. Rock is fine grained, light greenish grey in colour.	56894	67.5	70.0	2.5	558	
75.0' - 77.0': A zone of intense carbonatized	56895	70.0	72.5	2.5	2386	0.070
grey in colour.	56896	72.5	75.0	2.5	1875	0.0546
Zone contains 2%, irregular, milky white calcite	56897	75.0	77.5	2.5	1488	0.0434
run @ 70° T.C.A. Veinlets commonly are offset	56898	77.5	80.0	2.5	1951	0.0569
<pre>monzonite. Rock is fine grained, light greenish grey in colour. Zone contains 2%, irregular, milky white calcite stringers. Veinlets are %" or less in width and run @ 70° T.C.A. Veinlets commonly are offset by a fracture system @ 30 - 40° T.C.A. Strong pervasive calcite alteration is also present.</pre>	56899	80.0	82.5	2.5	864	
Silicification is also abundant occuring as moderate to strong pervasive alteration. Minor	56900	82.5	85.0	2.5	704	
blebby chlorite alteration is also present. Spotty hematite alteration is associated with disseminated	56901	85.0	87.5	2.5	706	
pyrite mineralization. Pyrite cubes and fine stringers form 2% of zone.	56902	87.5	90.0	2.5	627	
	56903	90.0	92.5	2.5	1086	

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From To (ft) (ft)

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

E.O.H.

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-37

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

Acid Dip Tests

1. None done

2.

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

<u>Conclusions</u> Significant Intersections:

2.

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

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-37

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

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

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2 - · · Hole No: 1316-37

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

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

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page 3

Width (ft)

3.0 3.0 3.0

3.0

3.0 3.0 3.0

To (ft)

45.2 48.2 51.2

54.2 57.2 60.2 63.2

OZI TN

0.0534

Au (ppb)

458 351 1012

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

From . (ft)

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From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au ozi (ppb) TN
		cont'd	less variegated and more homogenous as	56928	63.2	66.2	3 0	419
			structural features reappear: colour of	56929	66.2	69.2	3.0	560
			monzonite is nale brick red indicating pro-	56930	69.2	72.2	3.0	314
			minent hematitic staining: Periodic patches	56931	72.2	75.2	3.0	4122 0.120
		ZONE OF	of pale green epidote - enriched host rock	56932	75.2	78.2	3.0	1522 0.0444
		SULPHIDE	are also distinguishable: Sequence is mod-	56933	78.2	81.2	3.0	1159 0.0238
		MINERALIZATION	erately carbonatized (with sporadic grev	56934	81.2	84.2	3.0	1985
		(43.3' - 90.2')	white calcite strings): tributaries of black	56935	84.2	87.2	3.0	421
		(1010)011)	chloritic strings abound as do veinlets and	56936	87.2	90.2	3.0	706
			lenses of white amorphous quartz.	56937	90.2	93.2	3.0	1553 0.0453
			SULPHIDES: Pyrite mineralization occurs	56938	93.2	96.2	3.0	636
			regularly throughout unit as: disseminated	56939	96.2	102.0	3.0	580
			flecks in host rock; condensed podular blebs		•••-			
			prominent in guartz lenses and interstitially					
			as a replacement for differentially eroded					
			chlorite in stringers.					
		71.5'	- 73.3': Grey, highly silified section of					
			monzonite host rock.					
		73.3'	- 102.0': Pale brick-red monzonite grades					
			into a dark olive green colour, remnent					
			monzonite features are difficult to detect;					
			section profusely carbonatized with fleshy					
			pink veinlets, pods, wedges - grey-white					
			strings and pervasive white flecks satur-					
			ated in host rock. Streams of black chlorite					
			are also prominent as are black chlorite					
			podular blebs; Pyrite mineralization is					
			evident through sequence as disseminated					
			flecks and isolated interstitial pyritic					
			strings and blebs is but less frequent					
			relative to prior sequences.					
		100.7'	- 102.0': Monzonite returns as brick red					
			brecciated subrounded "islands" cut by					
			black chloritic tributaries.					

E.O.H.

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page 4

GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-38

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

Acid Dip Tests

1. None taken

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

<u>Conclusions</u> Significant Intersections:

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

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

Hole No: 1316-38

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

NORWIN RESOURCES LIMITED DIAMOND DRILL LOG

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Hole No: 1316-38

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

From	То
(ft)	(ft)

con't

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

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

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

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

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

page 2

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

77.3

page 3

From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)	02/t
		cont'd	Remnant monzonite structures are discernable as irregular patches of dark-green medium grained rock that appears to have been chloritized and epidote-enriched; alteration of monzonite is characterized by a moderate variegation of mon- zonite texture creating a "marbled" effect, sequence is moderately - heavily carbonatized with white cross-cutting calcitic veinlets, stringers - pods wedges of white calcite as well as white calcitic blebs in monzonite matrix; silicification is ap- parent as intruding white amorphous quartz vein- lets, wedges. And pale greenish-grey sections of silicified host rock; black chloritic freckles or blebs mottle the surface throughout as do tributaries of calcareous chloritic strings. 88.2' - 93.7': Sequence becomes highly hematized as noted by brick-red colouration of host rock. SULPHIDE MINERALIZATION: Occurs as disseminated pyrite flecks and condensed lenticular	53940 53941 53942 53943 53944 53945 53946 53946 53947	77.3 80.3 83.3 86.3 99.3 92.3 93.7 95.7	80.3 83.3 86.3 92.3 93.7 95.7 97.7	3.0 3.0 3.0 3.0 1.4 2.0 2.0	1065 2754 3884 10673 2999 1402 1468 *553	0.080 0.113 0.311 0.0875 0.0409 0.0423 0.0453
93.7	97.7	MONZONITE/ GRANODIORITE	<pre>interstitial pyritic stringers. Dark green - olive green epidote-enriched, chlor- itized and highly carbonatized medium grained mon- zonite; alteration is evident in sequence however remnant characteristics predominate; thin belts and lenses of calcareous hematized monzonite are observable as are grey-white calcitic threads. 94.8' - 95.6': Brecciated fragments of dark blackish-green cub-rounded highly chlor- itized, carbonatized monzonite (up to 1" in diameter) get in a ground-mass of carbonaceous medium-grained green host rock. SULPHIDE MINERALIZATION: Sulphides are disting- uishable as irregular disseminated flecks.</pre>						

E.O.H.

91

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GUNNAR GOLD / MILL CITY INC.

DIAMOND DRILL LOG

Hole No: 1316-39

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

Acid Dip Tests

1. None taken

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

<u>Conclusions</u> Significant Intersections:

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

NORWIN RESOURCES LIMITED

DIAMOND DRILL LOG

2

Hole No: 1315-39

From (ft)	To (ft)	Drill Log Summary	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)
0	4.4	CASING (O/B)					
4.4	64.7	MONZONITE/ GRANODIORITE -mottled black, grey-white; medium - coarse -weakly to moderately carbonatized -irregular hematite - stained brick-red bandings SULPHIDE ZONE: 44.1' - 46.8' 47.3' - 51.2' 57.7' - 59.8'					
64.7	98.3	ALTERED MONZONITE/ GRANODIORITEmonzonite structural features -grades into 2 extensively carbonatized-epidote enriched SULPHIDE ZONE: 64.7' - 81.9' 92.1' - 98.3'					
	98.3	E.O.H.					

DIAMOND DRILL LOG

-

Hole No: 1316-39

From (ft)	To (ft)		Description	Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)(°1/r)
0	4.4	CASING						
4.4		MONZONITE GRANO- DIORITE (SULPHIDE ZONES:)	Mottled black, grey, white medium to coarse grained monzonite; prominent leucocratic minerals include anhedral - subhedral crystals of plagioclase, alkali feldspar and minor quartz and dark ferro-magnetite minerals dis- play a weak "gheissic" flow alignment. Sequence is subject to sporadic intrusions by bands of brick-red hematized monzonite (1" to 4" wide). These bands are permeated with sulphides (disseminated flecks and pyritic blebs; monzonite unit is moderately to extremely carbonatized with numerous transecting greyish-white and flesh coloured veinlets, wedges and less frequently miarolitic cavities of subhedral calcite crystals along fractures; black splotches of chlorite and threads of black carbonaceous chlorite. 43.9' - 59.8'; Increased frequency of brick- red hematite stained sections of monzonite.	56940 56941 56942 56943 56944 56945 56946 56947 56949 56949 56950 56951 56952 56951 56954 56955 56957 56958	4.4 7.9 10.9 13.9 16.9 22.9 25.9 25.9 28.9 31.9 34.9 37.9 40.9 40.9 43.9 40.9 45.9 55.9 58.9	7.9 10.9 13.9 16.9 22.9 25.9 28.9 31.9 34.9 37.9 40.9 43.9 46.9 49.9 52.9 55.9 58.9 61.9	3.5 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	99 47 36 38 71 531 147 12 2669 c.c775 24 22 114 64 820 228 134 196 224

SULPHIDE MINERALIZATION: Pyritic disseminated flecks and blebs exclusive to hematized monzonite segments.
						page	2			
From (ft)	To (ft)			Sample No.	From (ft)	To (ft)	Width (ft)	Au (ppb)(04/t)		
64.7	98.3	ALTERED MONZONITE/ GRANODIORITE 64.7' -	- 81.9': Polychromatic (brick-red, green, olive, white, grey moderately variegated, altered monzonite; grain size ranges from medium to coarse relic monzonite features that have been extensively hematized, chloritized, and epidote-enriched to amorphous- subhedral crystals of intruding cal- cite veinlets, wedges, and patches; also present are cross-cutting threads of black chlorite and podular blebs of the same; sequence extremely carbon-	56959 56960 65961 65962 55963 56964 56965	61.9 64.7 67.7 70.7 73.7 76.7 79.7	64.7 67.7 70.7 73.7 76.7 79.7 81.1	2.8 3.0 3.0 3.0 3.0 3.0 3.0 1.4	233 917 2356 C.G6\$7 1459 1286 794 925		
		SULPHIDE ZONE (64.7 - 81.9) 81.1' -	<pre>ized, even through remnant monzonite matrix. SULPHIDE MINERALIZATION: Sulphides present as diffuse pyrite blebs flecks and subdral to euhedral crystals. - 92.0': Olive green epidote enriched altered monzonite in phenocrysts of greenish-yellow carbonate. Sequence is profusely carbonatized grey white veinlets of calcite cross-cutting core axis as well as numerous grey-white calcitic strings, wedges and tributaries of calcareous black chlorite are also abundant.</pre>							

page 3

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

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

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

E. O. H.





ABSO

0M87-6-L-238



ABSO

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210

green chloritic highly allered diabase, highly chloritic & schistose, contains frequent differentially eroded cavites.

- L 14 N

____ L I2 N

LEGEND

2	Diabase Dyke (Early)
5	Monzonite / Granodiorite
≻≺	Blasted trench
~~~	Zone of shearing
	.Picket line
	Strike & Dip
<del>• + `</del>	Vertical schistosity
	Thin gtz. veins
	Geological contact
	Exposed outcropping
<u>t</u>	Extent of stripped area
<b>E</b>	Water filled depression

SCALE 0 20 40 FEET

63.5256



NO			BY	DATE	
	GUNNAF	R GOLD / MILLO TYRANITE PR	CITY GOLD INC	•	
TITLE	NORTH	ZONE - GEOLOG	Y		
DRW: F	R. de GAGNE	DATE 18 10 1987	DRAWING NO:		
CHECK.	D:	DATE: 17 12 1987			
APPR'D	· · · · · · · · · · · · · · · · · · ·	SCALE:  " = 20'	SHT, NO:		

0M87-6-L-238



D.	D.H. No. 1 2 3 4 5 9	Width (ft) 10,9 30,8 9,5 30,6 27,8	Pennyweight 2.20 7.80 4.75 1.10 8.84	Assay (oz/T) 0.11 0.39 0.238 0.055 0.442 NIL NIL	D.D.H. No.  20  2   22  23  24  25	Width (ft) 3.0 2.8 2.8 2.8	Pennyweight 2.00 1.20 1.20 TR. TR. 6.80	Assay (oz/T) 0.10 0.06 0.06 TR. TR. 0.34	D.D.H. No. 229 230 231 232 233 233 234	Width (ft) 12.0 6.0 3.0 1.6 1.0	Penny 7. 0. 0. 0. 0. 0.
	8 9 10	5.0 5.8	2,13 2,77	0,107 0,138	126	4,3 8,i 5,7	3.05 2.75 3.75	0,153 0,138 0,188	235 236 237	0.5 2.8 4.0	0. 0. 5.9
	11 12 13	13,9	3.00 TR.	0.150 TR.	127 128 129	16,1 6,6 12,0	4,75 1,20 2,65	0.238 0.06 0.133	238 239 240	2.5 6.0	2.4
	14 15 16	2,8 8,5 4,6	1.40 3.85 3.10	0.070 0.192 0.155	130 <b>13</b> 1 132	14.7 3.0	1,20 2,80 TR	0.06 0.14 TR	241 242 243	3.0 9.8	2.0 3.0
	17 20 21	12.0 9.1 20.4	1.25 1.30 1.95	0.012 0.065 0.0975	133 134 135	6.0 2.7 2.2	4,00 0,80	0.20 0.04 0.06	244 246 248	15.8 8.0 44.6	8.0 3.4 0.1
	22 23	3.7 4.0 4.4 7.5	2.70 3.80 2.50	0.135 0.19 0.125	137 138	16.7 1.6	0.85	0.043 0.08	250 251 252	15.0 5.5	0. 0.
		4.0 4.3	2,75 1,80	0.138 0.090 NIL	139 140 141	2.0 3.5	2.40 2.00	0.12	256 258 264		TF
	25 2 <b>6</b> <b>2</b> 7	27.7 1.5 1.6	1,15 4,15 4,96	0.075 0.208 0.248	142 143 144	35.2 12.6	3.40 4.65 3.55	0.233 0.178	265 274 275	3.2	2.0
		3.3 2.3	3.81 4,15	0.191 0.208	145	28,8 4,0 9,2	5.60 5.50 3.55	0.280 0.275 0.178	276 277 278	2.0	TF 2.4
	29 30 31 32	3.2 6.4 6.4	5,20 3,46 6,98	0.26 0.173 0.349	149 150 151	12.0	3.50 TR TR,	0.175 TR. TR. TR.	279 280 281	3.5 5.4	2.8 7.2 TR
	32 33 34 35	0.8 11.0 6.8	2.80 1.75	0.08 0.14 0.087 NIL	152 153 154	2.7 6.0	2.00 TR. 3.00	0.10 TR. 0.15	282 284 285	9.0 2.0	3.2 14.
	37 38 39	11.0 5.4	1.70 2.80 TR.	0.085 0.14 TR.	155 156 157		TR. TR. TR.	TR. TR. TR.	286 288 289	6.0	Ο,
	40 41 42	7.8	TR. 3.20	TR. NIL 0,16	158 159 160	6.0 3.0	2.20 TR. 2.40	0,11 TR. 0,12	290 291 292	20	Т <del>Г</del> 2.(
	44 45 46	1.6 1.8 4.0	6.00 3.20 3.58	0.30 0.16 0.179	161 162 163		TR. TR. TR.	TR. TR. TR.	293 294 295	9.5	2.
	47 48 49	3,7 0,8 6,5	2.00 2.40 3.80	0.10 0.12 0.19	164 165 166		TR. TR. TR.	TR, TR. TR.	296 298	6.0 8.0	2. 3,
	50 51 52	3.6	TR. TR.	TR, TR, NIL 0.0345	167 168 169	12.0	TR. 3.30 TR	TR. 0.165 TR	300 301	1.8	1,2 1,2 T F
	55 55 56	2.1 10.3	1.20 2.26 3.65	0.0345 0.06 0.113 0.183	172 173 174	21.0	TR. TR. 275	TR. ,TR. ,0138	303 304	15.0 8.5	3. 0.
	57 58 59	8.5 5.6 11.3	2.26 2.60 3.60	0.113 0.13 0.18	175 176 177	7.6 51	TR. 3.40 5.57	TR. 0.17 0.278	306 307	9.0 3.5 4.0	2. 3. 2.
	60 61 62	2.0	4.00 TR.	NÍL 0.20 TR.	178 179 180	3.5	2.00 TR. TR	O.IO TR. TR	309 310	5.0	0
	63 64 65	4.0 13.5	TR. 2.00 5,15	TR. 0,10 0,258	181 182 183	6.5 5.0 2.0	3.45 0.40 3.15	0.172 0.02	312 317	13.8	6.
	66 67 68		TR.	NIL NIL TR.	185 184 185	11.0 16.1	0.80 3.50	0.04 0.175	318 319	13.5 15.7 6.6	4. 3. 5.
	69 70 71 70	0.6 3.0 6.9	5.60 2.80 5.50	0.28 0,14 0.275	186 187 188	4.5 27.0	8.20 TR.	0.09 0.410 TR.	320 323	9.7 4.6 12,1	4. 3. 4.
	73 74 25	8.5 8.5	4,30 1,46 4,62	0.215 0.073 0.231 NII	189 190	7.0 1.9 5.3	2.24 1.20 2.75	0.112 0.06 0.138	324 325	13.8 15.5 3.6	0. 9. 0.
	76 77 78	6,3 1,2 1,9	<b>3.20</b> 5,20 6,00	0.16 0.26 0.30	191 192 193	10.30 3.0 4.5	0.53 4.14 2.30	0.026 0.209 0.115	326	l.1 1.7	3.1 2.
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	82 83 84	2.8 17.9	2.40 2.32	0.12 NIL 0.116	197 198 199	5.7 3.0 7.8	4.80 2.80 0.70	0.24 0.14 0.035			
	85 86 87 88	2.8 ? 9.4	1.00 ? 1.73	0.08 ? 0.0865	200 202 203	2.0 8.5	TR. 0.80 2.18	TR. 0.04 0.109			
	89 90	9,2 18,9 5.4	5.50 1.85 210	0.275	204 205 206	6.0 3.0 6.0	1.40 1.20 1.00	0.07 0.06 0.05			
	92 93 94	12.7 15.3 5.2	1.70 4.80 1.6	0.085 0.24 0.08	207 208 209	6.0 23.5 3.0	4.00 0.80 2.40	0,20 0,04 0,12			
	95 98 105		TR. TR. 2.24	TR. TR. CII2	210 211 212	10.0 6.9 15.5	2.88 2.10 3.70	0.144 0.105 0.185			
	106 107	4.8 17.2 5.9	3.50 4.10 2.78	0.175 0.205 0.139	213 214 215	0.5 10,5	1.60 0.80	0.08 0.04 NIL			
	108 109	? 10,2 6,5	? 2.85 1.64	? 0.142 0.082	216 217 218	18,0 3.0	0.93 2.00	0.046 NIL			
	110 113 114	15.0 10.3	1.90 3.85 TR.	0,095 0,193 TR.	219 220	2.5 4.3	1.60 0.40	0.08 0.02			
	5   6   7   8   9	3,8 5.6 5.4 8,6	4.80 4.00 TR. 1.62 2,13	0.24 0.20 TR. 0.081 0.115	221 222 223 226 228	1.8 2.4 8.5	1.60 4.00 0.60	NIL 0.08 0.20 0.03			

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### 41P11NE0011 63.5256 KNIGHT

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Jana 🖷 i 6 17 604 618 ------276 275 **•** 22 9,600'___ ٦ | ₽₹ 🖨 31 9,200 ____ . 90  $(\mathbf{O})$ **e** 256 8,800' ____ <mark>●</mark> 317 **a** 325 <mark>●</mark> 324 63.5256 L. D. S. Winter GUNNAR GOLD INC./MILL CITY GOLD INC. TYRANITE PROPERTY NORTH-SOUTH LONGITUDINAL SECTION MAIN SHEAR ZONE LOOKING EAST PART A 8,000' KNIGHT & TYRRELL TWP. ONTARIO BY: NORWIN RESOURCES LTD. DRAFTED : E.P. / O2 / 88. SCALE : I" = 100'

OM87-6-L-238





- GID AREA= 500 sq. ft.













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![](_page_301_Figure_1.jpeg)

1316-08

<u>W84</u>

![](_page_301_Figure_7.jpeg)

![](_page_302_Picture_0.jpeg)

M94

<u>W84</u>

![](_page_302_Figure_10.jpeg)

![](_page_302_Picture_11.jpeg)

41P11NE0011 63.5256 KNIGHT

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![](_page_303_Figure_1.jpeg)

![](_page_303_Picture_2.jpeg)

![](_page_304_Picture_0.jpeg)

![](_page_305_Picture_0.jpeg)

![](_page_306_Picture_0.jpeg)

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63.5256
GUNNAR GOLD INC. / MILL CITY GOLD INC.
TYRANITE PROPERTY
SOUTH POD LENS MAIN NORTH-SOUTH STRUCTURE
D.D.H SECTION 8+00 S
TYRRELL TOWNSHIP ONTARIO
BY: NORWIN RESOURCES LTD.
SCALE·I"=40' DATE DRAFTED:
 1487-6-1-238

9500'

9600'

9700'

9800'

9900'

10000'

![](_page_307_Picture_0.jpeg)

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la (sSerp,dCarb)

![](_page_307_Picture_2.jpeg)

10000'

9900'

9800

9700'

9600'

9500'

63.5256

GUNNAR GOLD INC. / MILL CITY GOLD INC. TYRANITE PROPERTY
SOUTH POD LENS
MAIN NORTH-SOUTH STRUCTURE
DDH SECTION 9+00 S
(LOOKING NORTH)
BY: NORWIN RESOURCES LID.
SCALE: 1" = 40'
DATE DRAFTED:

![](_page_308_Figure_0.jpeg)

0M87-6-L-238

SCALE: |" = 40' DATE DRAFTED:

TYRRELL TOWNSHIP BY: NORWIN RESOURCES LTD . ONTARIO

MAIN NORTH-SOUTH STRUCTURE D.D.H SECTION 12+00 S

TYRANITE PROPERTY SOUTH POD LENS

GUNNAR GOLD INC. / MILL CITY GOLD INC.

![](_page_308_Picture_7.jpeg)

9900'

9800'

9700'

9600'

9500'

10 0 00'

![](_page_309_Picture_0.jpeg)

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63.5256

![](_page_309_Picture_6.jpeg)

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![](_page_310_Figure_2.jpeg)

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	TYRRELL TOWNSHIP ONTARIO
	SCALE: I" = 40' DATE DRAFTED:
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![](_page_311_Picture_0.jpeg)

	GUNNAR GOLD INC. / MILL CITY GOLD INC.
	TYRANITE PROPERTY
	SOUTH POD LENS MAIN NORTH-SOUTH STRUCTURE
	D.D.H SECTION 16+00 S
	TYRRELL TOWNSHIP ONTARIO
	BY: NORWIN RESOURCES LTD .
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![](_page_312_Picture_20.jpeg)

![](_page_312_Picture_24.jpeg)

![](_page_313_Picture_0.jpeg)

41P11NE0011 63.5256 KNIGHT

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![](_page_313_Figure_3.jpeg)

![](_page_313_Picture_8.jpeg)

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63.5256

![](_page_314_Figure_0.jpeg)

![](_page_315_Figure_0.jpeg)

![](_page_315_Figure_5.jpeg)

![](_page_315_Figure_6.jpeg)

### GUNNAR GOLD / MILL CITY GOLD INC. TYRANITE PROPERTY KNIGHT and TYRRELL Twps.

GRADIENT I.P. SURVEY CHARGEABILITY PLOT

CEE 1

Scale ("= 200" July 1987

Prepared by Norwin Resources Ltd

OM87-6-L-238

LEGEND HETINIB: TIME DOMAIN ELECTRONE ARRAY: GRADIENT PULSE DURATION: 2 sec on 2 sec off DELAY THE: 900 ms RILEGRATATION TIME: 450 ms RECEIVER: Scintrex IPR-8 TRANSHITTER: Scintrex TSQ-3 2K/A UMIS: chargeability-milliseconds cesistivity - ohm/meters 9-909 - r_t ELECTRODE ARRAY 4.400 g -- --3187917 Post 1794- 1/3 of 1₁ - 5₁ 1-1441 - ------1-H -T

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![](_page_316_Figure_0.jpeg)

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KNIGHT and TYRRELL Twps. GRADIENT I.P. SURVEY RESISTIVITY PLOT

TYRANITE PROPERTY

Scale: 1"=200" July 1987

Prepared by Norwin Resources 1.13

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![](_page_317_Figure_1.jpeg)

# JOINT VENTURE 63.5256

TYRANITE PROPERTY KNIGHT and TYRRELL Twps.

Scale:  $1^{\circ} = 200^{\circ}$ 

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