1. SUMMARY

- Exploration carried out on ERL 115 has involved the collection of 777 laterite samples for surface geochemistry; the drilling of 928 RAB holes for 27,879 m; the drilling of 552 RC holes for 29,387 m; and 4 diamond holes for 199 m.

- Exploration carried out on MLS 153 has involved the drilling of 2,059 RAB holes for 73,523 m; the drilling of 1017 RC holes for 72,615 m; and 36 diamond holes for 2,545 m.

- This exploration effort has been successful in discovering and delineating significant ore reserves at Tanami. At least a further 3 years mine life at current production levels has been established.

- The most significant exploration success at Tanami has been the discovery of the Hurricane-Repulse deposit which has ore reserves totalling 4.021 million tonnes at 2.24 g/t to 100 m depth.

- For the period under review in this report, the Tanami treatment plant has processed 1.362 million tonnes of ore at 2.34 g/t for gold production of 2,773.894 kg (89,193 ounces).

- Total expenditure on ERL 115 and MLS 153 has been $1.688 million and $3.541 million respectively.

2. INTRODUCTION

Exploration Retention Licence (ERL) 115 was granted on 8 February, 1990 to Zapopan N.L. (50%), Kumagai Gumi Co Ltd (30%) and Kintaro Metals Pty Ltd (20%), the companies forming the Tanami Joint Venture (TJV). The ERL was automatically cancelled on the grant of Mineral Lease S153 on 05 October, 1990.

ERL 115/MLS 153 surround MLS 119 - MLS 133 which formed the original leases for the Tanami Mine (Figure 1).

This report details activities carried out on the ERL and during the first year of MLS 153.

On 19 September, 1991 Zapopan N.L. acquired a 100% interest in the Tanami Mine leases.

3. LOCATION AND ACCESS

The Tanami Gold Mine is located within the Tanami 1:250,000 geological sheet (SE 52-15, international map series). It is situated on the Alice Springs to Halls Creek Road, some 600 km north west of Alice Springs and 400 km south east of Halls Creek. The mine lies 850 km south of Darwin and is reached via the Katherine-Wave Hill Road, thence dirt roads to Lajamanu and Tanami.

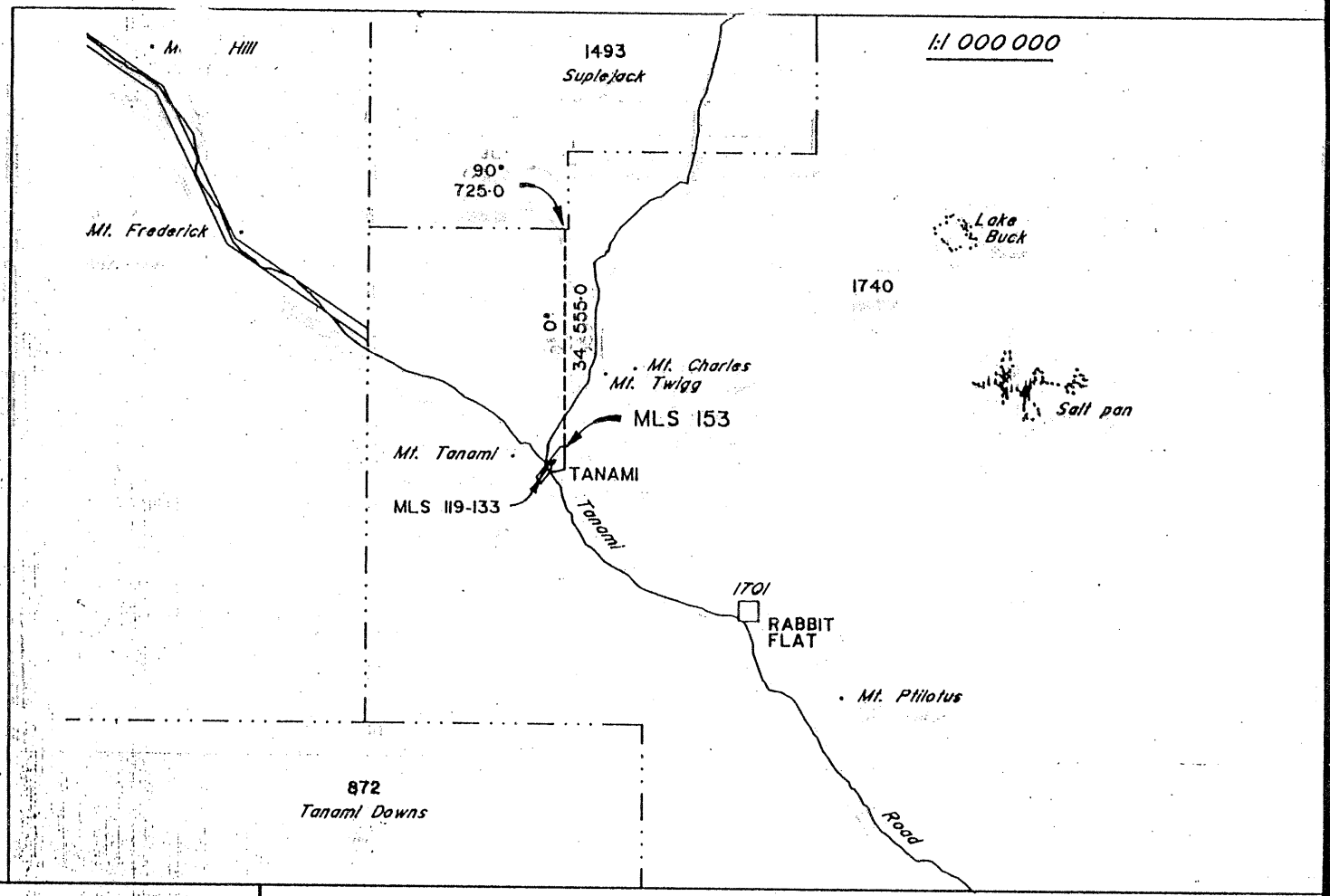
4. PREVIOUS MINING AND EXPLORATION

Gold mineralisation was first discovered at Tanami in 1900. Small scale mining followed intermittently until the 1940s during which time about 4,500 ounces of gold was produced.

The area was explored by Acmex Holdings in 1969 - 1970 and again in 1980 - 1981 by CRA Exploration. Harlock Pty Ltd began exploration and evaluation of the Tanami Leases in mid 1985, completing over 6,000 m of costeaning, 770 m of diamond drilling and 7,988 m of percussion drilling. Subsequent to this programme a further 73 percussion holes totalling 3,912 m were undertaken in mid 1987 to allow detailed mine planning and scheduling.

In August, 1987 a 350,000 t.p.a. CIL treatment plant was commissioned at Tanami. This operation was based on Mineral Leases S119 - 133.

Further exploration drilling involving 228 percussion holes for 10,620 m was carried out in December, 1987/January, 1988 to delineate more reserves.



N

TRUE MID Bearings

AZIMUTH

Assumed from .....

Observed at RM3

LEGEND

Concrete Post

Concrete Block

Peg or Wooden Post

Reference Mark

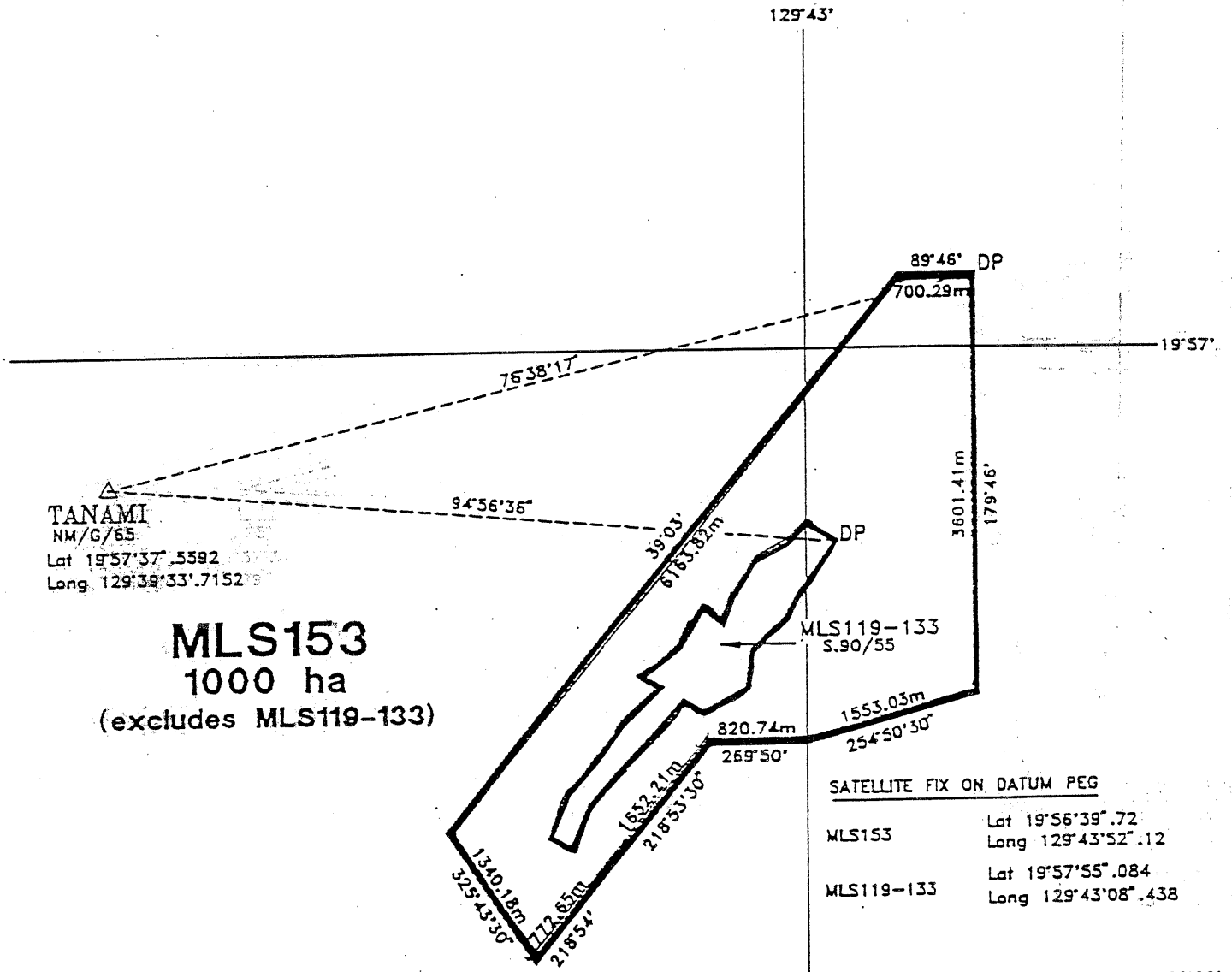
Lockspit

Fence Post

MINERAL LEASE S153

Tanami Locality

TENEMENT LOCATION PLAN SCALE 1:1,000,000



TENEMENT SURVEY DATA MLS 153

In April, 1988 control of the Tanami Mine was taken over by Zapopan N.L. as manager and operator of the Tanami Joint Venture (TJV). The TJV immediately undertook a 156 percussion hole, 8,906 m drilling programme with the aim of completely evaluating open pit reserves within the Tanami Leases.

In mid 1988 the TJV decided to upgrade the Tanami plant to 1 million tonnes per annum with commissioning occurring during February, 1989.

In summary then, prior to the exploration activities detailed in this report, the following work had been undertaken at Tanami:

- 6,000 m of costeaning;
- 770 m of diamond drilling; and
- 31,426 m of percussion drilling.

5. GEOLOGY AND MINERALISATION

5.1 REGIONAL GEOLOGY

The Tanami Gold Mine is located within the Granites - Tanami Block, a Precambrian tectonic unit which straddles the Western Australian - Northern Territory border. The Granites - Tanami Block is correlated with lithologically similar rocks of the Halls Creek Province to the north west and with rocks of the Arunta Complex to the south east. It is made up of Early Proterozoic metasediments, metavolcanics, unmetamorphosed sedimentary and volcanic rocks, and Early Proterozoic - Carpentarian granites. The oldest rocks exposed in the block are tightly folded low - moderate grade metasediments of the Tanami Complex, which has been sub-divided into five units (Killi Killi Beds, Mount Charles Beds, Nanny Goat Creek Beds, Nongra Beds and Helena Creek Beds) which may be lateral equivalents. This complex is unconformably overlain by three younger Early Proterozoic units. The Mount Charles Beds are purported to host all known gold mineralisation within the Granites - Tanami Block.

5.2 LOCAL GEOLOGY AND MINERALISATION

The stratigraphy at the Tanami Mine consists of an interbedded sequence of pillow basalt, mudstone, greywacke, tuffs, volcaniclastic sediments and rare chert. These rocks are sandwiched between two granites, one 15 km to the north west associated with the Coomarie Dome and the other 8 - 10 km south east. Bedding orientations strike between 015° - 055° (mostly 035°) and dip 40° - 60° to the west. No deformation foliation or evidence of significant metamorphism is apparent. Ductile deformation is restricted to warps or open folds.

Gold mineralisation is fracture controlled, related to intense faulting which has produced brittle deformation only. Major zones of gold mineralisation occur in all rock types at Tanami indicating that lithology is not a primary control on mineralisation. However, some rock units are more receptive than others. For example ore zones tend to be significantly stronger and wider in certain sediment units compared with basalt. Substantial mineralisation has been located on basalt-sediment contacts. Numerous mineralised trends exist at Tanami with the most significant being 0° - 10°, 30° - 35° and 65° - 70°. The majority of ore zones dip east between 30° - 70° (most commonly 60° - 65° E), although significant mineralisation has been encountered dipping west along bedding plane structures or stratabound within sediment units.

Gold mineralisation occurs within irregular bodies of quartz-carbonate-limonite veins and associated with creamy sericite alteration (bleaching) within the oxide zone. In the primary zone gold occurs in bleached and silicified zones with sulphides, predominantly pyrite with rare chalcopyrite. The bleaching and limonite alteration produces visually distinctive ore zones particularly within sediments, but less so within basalt. Mineralised structures range in dimension from 1 m - 40 m in width, 50 m - 1,000 m in length, and have been intersected by drilling at 200 m vertical depth. Best widths and grades of gold mineralisation are found at the intersection of two or more mineralised structures.

Significant gold mineralisation occurs in the lateritic profile overlying primary gold deposits in places forming laterally extensive horizontal - subhorizontal ore zones. In particular, substantial ore has been mined from pallid zones including a number of high grade pods. Below this zone gold may be depleted. However, further down in the weathering profile gold is apparently enriched in a number of horizontal - subhorizontal layers evidenced by dramatic increases in mined tonnes and grade for certain mining flitches.

6. EXPLORATION ACTIVITIES

This section describes exploration carried out on ERL 115 and MLS 153 since 8th February, 1990.

6.1 LATERITE GEOCHEMISTRY

Laterite geochemistry was used as a first pass exploration technique to explore ERL 115. Lateritic material was collected on a 100 m by 100 m staggered grid pattern with about 500 g of + 1 mm - 6 mm material sourced from up to 4 sites within 10 m of a grid peg. Alluvium covered areas and infrastructure sites (plant, camp, pits, etc) were not sampled.

A total of 777 lateritic samples were collected from within ERL 115 wherever suitable sample medium existed. These samples were assayed for gold and arsenic at AAL, Pine Creek. A number of significant gold anomalies were generated by this work. In particular, an anomaly 1,000 m long and 500 m wide was discovered, bounded by grid coordinates 6400 m - 7400 m N and 4500 m - 5000 m E. This area is now known as the Hurricane-Repulse line of mineralisation. Plans showing geochemical results from this work are appended to this report.

6.2 RAB DRILLING

Extensive RAB (Rotary Air Blast) drilling was carried out on ERL 115 to define gold anomalies and targets sufficiently well enough to allow follow-up RC (Reverse Circulation) drilling to be conducted. Within ERL 115, 928 RAB holes (TX 001 - TX 928) for 27,879 m were completed. RAB drilling continued after the granting of MLS 153, with 2,059 holes (TX 929 - TX 2987) completed for 73,523 m. Blanket type grid drilling on a nominal 200 m x 50 m pattern was decided upon since the geochemical anomalies produced by laterite sampling were poorly defined particularly where only scattered lag was present.

RAB drilling was undertaken by Rockdril Contractors Pty Ltd using mainly an Edson machine although some work was carried out using Rockdril's "Timberjack" RAB rig. Holes were drilled grid west (305° azimuth) at 60° dip and generally to a downhole depth of 36 m. Spacing of drillholes has been variable but predominantly based on a 200 m x 50 m grid pattern initially, with closer spaced lines and holes added once anomalous zones were discovered. For infrastructure sterilisation purposes (waste dumps, camp site, tailings dam), a 100 m x 50 m pattern was used.

RAB samples were collected via a cyclone and composited over 3 m. About 1 - 2 kg of material per sample was submitted to the Tanami Laboratory for gold assay only (fire assay - detection limit 0.01 ppm). All holes were geologically logged on a 3 m composite basis.

The RAB drilling at Tanami has been successful in outlining a large number of mineralised structures which have been, and continue to be, the focus of follow-up detailed exploration drilling. Appended plans show the location of all RAB holes drilled to date, whilst cross-sections for these holes are also appended.

6.3 RC DRILLING

A very large amount of RC drilling has been carried out at Tanami by the TJV. During the life of ERL 115, 552 holes (TRC 001 - TRC 552) were completed for 29,387 m. During the period after the grant of MLS 153, some 1,017 holes have been completed for 72,615 m (TRC 553 - TRC 1569).

RC drilling has been carried out by Rockdril Contractors Pty Ltd using the following equipment:

- Rotamac, track mounted, 1200 cfm, 350 psi;
- Schramm, 900 cfm, 350 psi;
- Versatile, 750 cfm, 350 psi.

The vast majority of holes were drilled grid west (305°) at a 60° dip. Hole spacing has consistently been 20 m between lines or sections, and 10 m - 20 m between holes along sections. All hole collars were accurately surveyed into mine grid and downhole surveying for dip and azimuth has been undertaken for deeper RC holes.

Samples have been collected at 1 m intervals via a rig mounted cyclone and placed into plastic bags. All holes were initially sampled on a 3 m composite basis, using a PVC spear to obtain a 2 kg sample. Most assaying has been conducted on site by the TJV Laboratory, with only a minor amount of assaying done by outside laboratories during busy mine periods or for laboratory checking purposes. RC samples were assayed for gold only by fire assay with a 0.01 ppm detection limit. Once results were received for the 3 m composites, mineralised zones for each RC hole were re-sampled at 1 m intervals using a riffle splitter. 2 kg samples were assayed on site for gold only.

All RC drillholes have been geologically logged on a 1 m interval noting lithology, colour, weathering, alteration, quartz veining, iron oxides and sulphides.

RC drilling at Tanami has formed the basis for ore reserve estimation at the project. The drilling results have been shown to be reliable when compared with factual data obtained through mining.

Appended plans show the location of all RC drillholes completed at Tanami during the reporting period. Cross-sections for these holes have also been appended.

6.4 DIAMOND DRILLING

Diamond drilling has formed a relatively minor component of the exploration programmes to date at Tanami. During the life of ERL 115, 4 holes (TDD 1 - 4) for 199 m of core were completed. Since the granting of MLS 153, some 36 holes (TDD 5 - 40) for 2,545 m of core have been completed. These figures do not include pre-collar metreage which has been included in the RC figures.

Diamond drilling has served the following purposes at the project:

- to obtain detailed structural information, especially within ore zones;
- to test for depth extensions to ore zones;
- to check the accuracy of RC drill results;
- to provide mineralised samples for metallurgical testwork;
- to provide geotechnical data for pit slope stability studies.

Diamond drilling has been carried out by Rockdril Contractors Pty Ltd using their Versatile drill rig. Hole size has been HQ. Mineralised sections of core were cut in half and 1 m intervals assayed for gold by fire assay on site. Detailed geological and geotechnical core logging has taken place.

6.5 EXPLORATION ACTIVITY SUMMARY - ERL 115 AND MLS 153

		RAB Drilling		RC Drilling		Diamond Drilling	
Tenement	Laterite Samples	Holes	Metres	Holes	Metres	Holes	Metres
ERL 115	777	928	27,879	552	29,387	4	199
MLS 153	-	2,059	73,523	1,017	72,615	36	2,545
Total	**777**	**2,987**	**101,402**	**1,569**	**102,002**	**40**	**2,744**

7. RESULTS

Exploration carried out at Tanami since February, 1990 has been very successful in discovering new mineable reserves within ERL 115/MLS 153. A number of small to moderate sized gold ore bodies have been delineated which are currently being mined, and which will provide mill feed to the Tanami plant for some years to come.

In addition, a large number of prospects have been discovered predominantly by RAB drilling, which are yet to be fully evaluated by detailed RC drilling. The appended "Surface Features" plan shows the existing pits at Tanami and also the large number of prospects generated by recent exploration.

7.1 LIST OF PITS

The following is a list of pits which have been mined or are currently producing ore at Tanami, and were discovered during the exploration programmes described in this report:

- Dinky;
- Hurricane-Repulse;
- Dingo;
- Bumper;
- Bouncer;
- Southern (northern extension).

7.2 ORE RESERVE ESTIMATE

The Hurricane-Repulse line of mineralisation is by far the largest mineralised structure discovered to date at Tanami. An independent evaluation of Resources and Reserves at Hurricane-Repulse has been conducted by Snowden Associates Pty Ltd (Perth, WA) using a geostatistical approach. Snowden's estimate for Hurricane-Repulse, based on all available data up to 30th June, 1991 was:

Measured, Indicated, Inferred Resource: 4.021 m t @ 2.24 g/t

N.B. 0.65 g/t cut off;
16.0 g/t top cut.

8. PRODUCTION STATISTICS

8.1 OCTOBER, 1990 - NOVEMBER, 1991 MINING PRODUCTION

PERIOD		TOTAL BCM MINED	HIGH GRADE TONNES	GRADE g/t	LOW GRADE TONNES	GRADE g/t
	4	518,816	97,622	2.32		
	5	452,200	131,787	2.41		
	6	468,652	92,517	2.76		
	7	273,425	56,002	2.71		
	8	559,175	143,922	2.45		
	9	200,400	79,325	2.41		
	10	268,049	100,671	1.99		
	11	267,275	95,485	2.08	7,043	0.59
	12	220,254	86,588	1.95	4,761	0.62
	13	305,396	129,053	2.13	3,851	0.54
	1	312,175	50,796	2.04	48,324	0.63
	2	422,733	69,591	1.78	76,558	0.58
	3	504,990	101,337	2.39	43,454	0.66
	4	588,423	101,220	2.38	24,503	0.59
to 14/11/91	5	573,227	110,398	2.06	39,295	0.56
TOTALS		**5,935,190**	**1,446,314**	**2.26**	**247,789**	**0.60**

8.2 OCTOBER, 1990 - NOVEMBER, 1991 TREATMENT STATISTICS

PERIOD	THROUGHPUT TONNES	HEAD GRADE g/t	Au PRODUCED GRAMS	RECOVERY %
4	98,064	2.24	198,358	90.4
5	99,122	2.75	236,011	86.6
6	95,942	3.03	244,477	84.1
7	61,054	2.68	138,375	84.7
8	104,452	2.45	213,111	83.2
9	63,459	2.63	142,569	85.3
10	86,388	2.28	175,255	89.0
11	93,426	2.30	190,874	88.7
12	103,438	1.99	176,010	85.6
13	98,547	2.20	191,851	88.3
1	74,602	1.91	122,849	86.0
2	84,834	1.93	145,719	88.8
3	93,128	2.40	193,247	86.5
4	101,430	2.30	205,587	88.2
5	104,149	2.18	199,601	88.1
TOTALS	**1,362,035**	**2.34**	**2,773,894**	**87.0**

9. EXPENDITURE STATEMENTS

9.1 EXPENDITURE STATEMENT ERL 115 - FEBRUARY, 1990 - OCTOBER, 1990

CODES	DESCRIPTION	AMOUNT
050	Motor Vehicle Expenses	26,584.26
090	Travel & Accommodation	14,656.57
310	Advertising & Dealings	66.00
345	Legal Fees/Stamp Duty	72,828.71
540	Recruitment & Removal	9,961.49
550	Salaries	199,338.31
553	Site Accommodation & Messing	35,253.43
620	Fuel	37,301.37
715	Consumables	82,697.36
030	Computer Support	1,028.69
805	Aerial Photography	8,680.00
920	Tenement Transfer	18,234.09
810	Assaying	132,208.43
820	Consultants' Fees	151,104.32
830	Drafting/Printing	1,486.07
831	Drilling - RC Percussion	573,421.73
832	Drilling - Diamond	20,055.27
833	Drilling - Other	249,108.95
845	Equipment Hire - Heavy Machinery	1,133.60
846	Equipment Hire - Helicopter/Aircraft	34,977.72
850	Freight	970.03
885	Surveying/Gridding	12,105.00
891	Tenements - Rents	5,000.00
TOTAL		**$1,668,201.40**

9.2 EXPENDITURE STATEMENT MLS 153 - OCTOBER, 1990 - OCTOBER, 1991

CODES	DESCRIPTION	AMOUNT
050	Motor Vehicle Expenses	1,227.34
090	Travel & Accommodation	3,561.86
310	Advertising & Dealings	110.00
345	Legal Fees/Stamp Duty	44,077.20
540	Recruitment & Removal	12,723.97
550	Salaries	354,975.85
553	Site Accommodation & Messing	102,039.04
620	Fuel	151,780.94
715	Consumables	124,140.75
030	Computer Support	8,209.20
805	Aerial Photography	13,724.90
810	Assaying	495,554.62
820	Consultants' Fees	54,057.81
830	Drafting/Printing	2,813.35
831	Drilling - RC Percussion	927,389.27
832	Drilling - Diamond	249,490.91
833	Drilling - Other	889,839.32
846	Equipment Hire - Helicopter/Aircraft	62,641.47
847	Equipment Hire - Vehicles	26,824.62
850	Freight	948.66
891	Tenements - Rents	15,005.00
TOTAL		**$3,541,136.10**