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DEFIANCE MINING NL
A.C.N. 009161522

INTERIM REPORT FOR THE PERIOD

2 OCTOBER 1999 TO 31 APRIL 2000

FOR ML 43M/89 - MATHINNA

MINERAL RESOURCES		
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Interim Report for the period 2 October 1999 to 31 April 2000 - ML 43M/1989
Defiance Mining NL*
Jackson, D.G. 43M/1989

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1. Summary

Defiance Mining NL are exploring ML 43M/89 and a number of other tenements at Mathinna in Joint Venture with Connemarra Gold Mines Pty Ltd, a wholly owned subsidiary of the Mining Contractor, Barmenco Pty Ltd.

The targets are high-grade gold bearing reefs containing more than 50,000 ozs and similar in style to the Main and Loanes Reefs at the New Golden Gate Mine.

Since the Joint Venture was signed in September 1998, Defiance has mainly concentrated its field program within 43M/89.

Work completed in ML 43M/89 during 1998/1999 included:

- Drilling of 45 RC percussion holes (4246.5m) in the vicinity of the New Golden Gate Mine,
- Entering historical geochemical data from Resolute Samantha Limited into a digital data base and processing the data in a GIS package, at a variety of scales, as both images and dot plans.
- Obtaining regional airborne geophysical data from Mineral Resources Tasmania and having it processed into images by Southern Geoscience Consultants.
- Evaluation of all the available historical data within the tenement and selection of a number of targets for further work.
- Purchasing geological and topographical data in digital form to enhance map production.
- Obtaining detailed survey control in the vicinity of main drilling program.

In the current reporting period the following work was completed:

- Drilling of a further 23 RC percussion holes (2018m) and the deepening of two existing holes (74m) in the vicinity of the New Golden Gate mine.
- Drilling diamond core tails on 12 RC percussion holes (886.4m), including deepening 8 holes from the previous years drilling.
- Calculation of an ore resource for the new reefs discovered adjacent to the historical workings of the New Golden Gate mine.

2. Introduction

ML 43M/89 "Mathinna", of 27ha, is centred approximately one km to the south-south-east of the township of Mathinna which is approximately 65 km east of Launceston. The licence, now approximately 9 ½ years old, is due for renewal on 1 October 2000.

The tenement is held in the name of Connemarra Gold Mines Pty Ltd. Defiance Mining NL has signed a joint venture with Connemarra, whereby it can earn a 50% equity in this and other associated tenements, by spending \$1 million on exploration for high-grade gold reefs. Resolute Samantha Ltd and Alex White have previously held the ground.

The licence is mostly State Forest, however approximately 5ha in the north-eastern corner of the tenement falls within the Mathinna town boundary. Access is generally excellent with a sealed road to Launceston.

3. Conclusions and Recommendations

- Drilling to date has outlined an indicated and inferred resource of 60,000 tonnes at 13.4g/t gold in the Dylan's and Sophie's Reefs and deeper portion of the Upper Western Reef at the New Golden Gate prospect. This resource is calculated at a cutoff of 3g/t gold and would most probably be mined by underground mining methods. In the Central Reef area an indicated and inferred resource of 150,000 tonnes at 2.5g/t gold has been calculated for the Central Reef and the shallow portion of the Upper Western Reef. This resource is mostly less than 75m depth, is calculated at a cutoff of 0.5g/t gold and would most probably be mined by open pit methods. The total resource identified to date contains approximately 38,000ozs.
- RC percussion and diamond core drilling has extended the Sophie's Reef structure an additional 80m to the north, however, it appears to be weakening at its northern end. At its southern end it appears to be the continuation of the previously mined Main Reef.
- Several good intersections were reported from drilling of Sophie's Reef on section 5406805N including 3m from 109m at 6.8g/t gold in MT078 and 2m from 74m at 13.2g/t gold in MT080. Further drilling should be directed at depth under these intersections.
- Diamond core holes testing the depth extent of previously reported good intersections in both Dylan's and Sophie's Reefs on sections 5406725N and 5406745N indicated the reefs had been displaced by a flat lying, late stage fault at about 100m below the surface. The sense of movement on the shallow northeasterly dipping fault is not known. Further drilling should be completed to identify the faulted continuation of these reefs.

- An intersection of 2m from 220m at 24.8g/t gold in MT075 indicated that the Upper Western Reef had significant potential, however, additional drilling along strike was disappointing.
- A three hole fence of RC holes to the south of the old mine workings failed to intersect any zones of interest.

4. Geology

ML 43M/89 lies near the southern end of the 90-km long, north-north-west trending, line of gold deposits that extend from Mangana in the south to Lyndhurst on the north coast.

The gold deposits occur as auriferous quartz reefs, hosted in the Mathinna Beds, a folded sequence of Silurian-Ordovician age sediments. The Mathinna beds are intruded by younger, Devonian-Carboniferous age granites and are in part overlain by Permo-Triassic glacial marine sediments, Jurassic dolerites and Tertiary basalts.

The gold bearing veins are structurally controlled and occur in a range of orientations and forms within zones of shearing and tectonic deformation. Typical vein features are:

Width	0.1-1.0m	up to 10m
Length	10-100m	up to 350m
Depth	<100m	up to 580m
Grade	15-30g/t	cut off 10g/t
Strike	variable	NW to NE dominant
Dip	typically steep	70-80°
Mineralogy	quartz, arsenopyrite, pyrite	minor galena, chalcopyrite, sphalerite

This overall geological setting is very similar to the high grade, quartz vein style mineralisation in the slate belts of central and eastern Victoria which have historical production of approximately 80Mozs.

5. Summary of Previous Exploration

The first gold discovery in Tasmania was made at Mangana in 1852. As exploration extended to the north, further discoveries were made in the Lyndhurst-Mangana belt (including a number in Mathinna ML 43M/89) and at Lisle, Lefroy and Beaconsfield.

In this first phase of mining, production peaked sometime prior to 1884. In the Lyndhurst-Mangana zone, activity was concentrated on the southern section between Mangana and Alberton within a 70km by 5km belt of deformed sediments.

In about 1887, after the first phase of mining had largely been completed, a Mr A Loane discovered a reef (Loane's Reef) in the abandoned adit of the Golden Gate mine. Sinking of a shaft to evaluate this reef discovered an additional reef (Main

Reef). These two reefs were subsequently mined down to about 280m depth and probably each produced somewhere between 50,000 and 100,000 ozs.

Further exploration at depth below, and adjacent to, these reefs discovered a further two reefs (East and West Reefs) which were mined from 250-470m depth. The New Golden Gate Shaft was subsequently extended to 549m.

The bulk of the 265,000 ozs of gold from the New Golden Gate mine was produced in the years 1888 to 1904. Intermittent production occurred through to 1929 when the workings were finally abandoned. New Golden Gate production represents approximately 16% of Tasmania's historical production.

Early mills were generally simple stamp and gravity mills, which recovered most of the coarse free gold, but gold associated with sulphides was lost. The New Golden Gate mill experimented with cyanide extraction of their sulphides with limited success.

An important feature of the area is that many of the quartz veins never outcropped and were only discovered during underground development aimed at other veins.

Modern day exploration activity has seen a number of companies hold tenure over the New Golden Gate mine and other mines in the Mathinna-Tower Hill-Mangana area, however, very few have carried out drilling programs in the area of the old mines.

Of the two more comprehensive programs, prior to the recent Defiance program, Epoch Minerals had a best intersection of 8m at 10.7g/t gold in the Central Reef at the New Golden Gate mine and Resolute Samantha Limited had best intersections of 7m at 2.4g/t gold in Mathinna township and 6m at 1.9g/t gold at the old Jubilee workings in the current Tower Hill EL 3/97. For both companies the target was shallow, large tonnage, open pit gold resources and because these did not look achievable, the programs were not continued.

A large number of old workings remain untested by drilling.

A more detailed summary of historical exploration is available in MacDonald (1996)

6. Summary of Work Completed

6.1 Drilling

RC percussion and NQ diamond core drilling was completed in two programs in late September to mid November 1999 and in early February to mid March 2000. In total 23 additional RC holes (MT074-096) were drilled for 2018m and two existing RC holes (MT047 & 069) were deepened for an additional 74m of drilling. NQ diamond core tails were completed on 12 holes for 886.4m. Eight of the RC holes deepened by diamond drilling were from the previous years drilling program.

The drill programs tested the down plunge extent of mineralisation previously intersected in both Dylan's and Sophie's Reefs, the northern extension of Sophie's Reef, the lateral extent of the Upper Western Reef and the potential for further reefs south of the old mine workings.

Combination RC and diamond holes targeted at the down plunge extension of Dylan's and Sophie's Reefs on sections 5406725N and 5406745N consistently hit a shallow, north east dipping, late stage, brittle fault at about 100m below the surface. Quartz veining intersected below the fault could indicate that the movement on the fault is not significant and that a program of three or four RC/diamond holes could be successful in locating the faulted extension of the two reefs. Deeper drilling in this area highlighted the potential of the Upper Western Reef with an intersection of 2m from 220.0m at 24.8g/t gold in MT075.

RC holes were drilled on a further four, 20m spaced sections (5406805N to 5406865N) to the north of the previously known limit of Sophie's Reef. Quartz-sulphide+/-gold reef was intersected on all sections, however it was not strongly developed on the northernmost section. Better intersections on section 5406805N included 3m from 109m at 6.8g/t gold in MT078 and 2m from 74m at 13.2g/t gold in MT080. Further drilling should be directed at depth under these intersections.

Following the success of deeper drilling on the Upper Western Reef in MT075 a series of shallower holes were drilled at this target between this intersection and a previous intersection of this reef in MT056. This drilling intersected the reef in some of the holes targeted at it but no significant intersections were reported.

A three hole fence drilled approximately 50m south of the old mine workings indicated that none of the historically mined reefs continued to the south at shallow depth. One hole (MT085) drilled at the eastern extension of the highest grade shoot at Central Reef, intersected the reef structure but assay results were disappointing.

Holes from both programs were drilled angled at between 50 and 70 degrees to the west on AMG grid east-west sections. RC samples were collected in a large plastic bag from the drill cyclone at 1m intervals. Following lithological logging, samples of barren material with no quartz or sulphides present, were collected at 2m or 4m (rarely 1m or 3m) intervals using a 50mm poly spear. In zones of moderate interest based on the lithological logging, poly speared samples were collected every metre. In samples containing significant amounts of quartz and/or sulphides, samples were collected every metre using a riffle splitter.

NQ diamond core was lithologically logged and sample intervals were selected on the basis of vein quartz, sulphide and visible gold content. In zones not containing significant quantities of quartz or sulphide, samples were not collected. Samples were collected to geological boundaries and generally ranged in length from 0.5m to 2m. An on site core saw was used to collect the half core samples.

During the diamond drilling core orientations were attempted either approximately every 30m or when significant quartz reef intersections were expected during the diamond drilling process. Structural information collected indicate the host

sedimentary sequence is folded about a north south axis and has a strong north-south, sub-vertical axial plane cleavage. Small fold axes visible in the core generally plunge at about 20° to the north. Quartz veins display a wide range of orientations, however it is obvious that many are sub-parallel to the dominant cleavage, including many of the obviously gold-mineralised veins. One exception to this is the 5cm, folded vein that appears to contain much of the gold in the MT075 intersection at 220.3m. This vein is plunges at 54° to 144°, which is similar to the plunge on the shoots recorded by the early miners in the Loanes and Main Reefs. Stereographic plots of all the structural data are attached as Appendix 5.

Both RC and core samples were sent to Analabs in Burnie where they were analysed for (detection limits in brackets) the following:

- Au (10ppb) by fire assay.
- As (1ppm) by a triple acid digest with an AAS vapour hydride finish.

Where poly speared RC samples reported anomalous gold the samples were re-sampled at one metre spacing using a riffle splitter.

A full listing of assay data is attached (Appendix 3 as is a summary of all plus 1g/t intersections (Appendix 4).

Down hole surveys using a number of Eastman single shot cameras, were conducted on most holes. These data are located on the lithological log sheets. It was found that each Eastman camera had a different but consistent difference with a hand held compass based on shots taken with the cameras at the collar of holes. This is most likely due to the alkaline camera batteries being magnetic enough to effect the compass in the camera. Therefore to convert magnetic Eastman compass bearings to AMG grid bearings, 15 degrees were added to allow for the magnetic declination and a separate adjustment for each individual camera had to be made to allow for the magnetic camera batteries. A full listing of all down hole surveys is attached (Appendix 6).

Locations of all the drill holes can be found in Appendix 6 and on plan No TAS 058. Cross sections of all the drill holes are attached. Full lithological logs are located in Appendix 1 (RC holes) and Appendix 2 (diamond holes).

At the completion of drilling the holes were plugged with a concrete plug. Following receipt of the assay results the following methodology was followed with respect to disposal of the samples:

- For holes drilled on the old tailings dump the samples were tipped out on site and raked over with a heavy duty garden rake. Examination of last years drill holes indicated they had mostly been covered with a layer of wind blown tailings and were virtually indistinguishable from their surroundings.
- For holes in other areas the samples were collected and dumped down old mine workings.

In both of the above scenarios the polythene sample bags were disposed of at a recognised council refuse disposal site.

6.2 Ore Resource Calculations

Ore resource calculations were made for the Central Reef and shallow portion of the Upper Western Reef at a 0.5g/t gold cutoff and for Dylan's and Sophie's Reefs and the deeper portion of the Upper Western Reef at a 3g/t gold cutoff. It is anticipated that the former would be mined as an open pit and the latter as an underground operation. The resources are outlined in Table 1.

Reef	Grade Cutoff	Status	Tonnes	Grade	Ounces
Central	0.5g/t Au	Indicated	140,000	2.5	11,400
		Inferred	13,000	2.5	1,000
		Total	153,000	2.5	12,400
Dylan/Sophie	3g/t Au	Indicated	44,000	13.1	18,600
		Inferred	15,000	14.3	6,900
		Total	59,000	13.4	25,500

Table 1. New Golden Gate Ore Resource Statement.

Resources were calculated by the polygonal method with a sphere of influence of half way between sections (typically 20m) and 10m past the end sections. Ore blocks were drawn around each intersection and allocated the grade of that intersection. No cuts were made high grade intercepts. Where multiple assays were available for a sample interval the results were averaged. A minimum value for a drill hole intersection of 6 metre grams was applied to the underground resource and 1 metre gram to the open pit resource. An assumed bulk density of 2.7t/m³ was used for the calculation.

6.3 Gridding and Surveying

East Coast Surveying from St Helens continued to provide detailed survey control and drill hole pick up for the exploration program. The detailed hole coordinates are located on the drill logs and in Appendix 7. Coordinates for all holes drilled in the last 18 months are attached for completeness.

7. Proposed Future Program

Targets remaining to be tested in the Mathinna ML include:

- The down plunge extent of the mineralisation intersected in Sophie's Reef on drill section 5406895N.
- The faulted continuation of the Dylan's and Sophie's Reef mineralisation on drill sections 5405725N and 5406745N.
- A soil geochemical anomaly approximately 250m south of the New Golden Gate shaft centred at 5406350N, 574474E in the Resolute soil geochemical data set.

These targets are likely to be tested in the second half of 2000 or in early 2001 and will involve both diamond and RC drilling.

8. References

Colville, R. 1998. Connemarra Gold Mines Pty Ltd, Mathinna Gold Project, Annual Report on Exploration Licence 3/97 for the Twelve months ending 19 September 1998.

Jackson, DG, 1999. Defiance Mining NL, Annual Report for 1999 ML 43M/89 "Mathinna"

MacDonald, G. 1996. Resolute Samantha Limited, Annual Report 1995 EL 17/91 "Mathinna".

9. Expenditure Statement – ML 43M/89

For the period 1 October 1999 to 30 April 2000

Item	\$
MRT/ Legal/NNTT Costs	20.00
Freight	300.00
Surveying	1647.14
Computing & CAD Services	764.00
Assaying	26319.35
Drilling	153713.25
Salaries & Wages	47041.01
Vehicles	11986.60
Travel & Accommodation	35795.52
Field Communications	49.00
Consumables	20786.80
Overheads at 10%	33158.07
Total	331580.74