17th ANNUAL REPORT ON the EVALUATION OF COXCO LEASE AN366 – "EMU FAULT ZONE"

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INTRODUCTION

The Coxco Prospect, Authorisation Number 366 (AN366) is located approximately 10 kilometres southeast of the HYC deposit. It is a sub-economic carbonate hosted, Zn-low Pb deposit within highly prospective Proterozoic McArthur Group stratigraphy directly adjacent to a major regional structure, the north-south trending Emu Fault zone. Mineralisation exhibits both stratabound and structurally complex, fracture controlled characteristics within both sedimentary breccias and massive dolomite tectonic breccias respectively. A highly irregular, cavitated, karstic weathering profile, within which conventional drilling techniques have failed to adequately recover oxide sample material, further complicate a deposit which has confounded multiple campaigns of evaluation spanning over 90 years.

PREVIOUS WORK

Logan (1997) exhaustively detailed the MIM exploration activity at Coxco up to 1996, including several non-JORC compliant resource estimates by MIMEX geologists based on the various drilling campaigns. These vary from 7mt @ 2.55% Zn, 0.5% Pb (Walker, 1975, in Logan), 8mt @ 4.2% Zn, 1.0% Pb (Rothery, 1996, in Logan), to 10mt @ 3.5% Zn (Crabb, 1996, in Logan).

In 1999, MIM agreed to a joint venture with North Ltd Mining Ltd (North Ltd), who embarked on a methodical and detailed re-evaluation of the prospect comprising structural geological mapping, re-logging MIMEX diamond drill holes, geophysical reprocessing and re-interpretation, and both RC and fully oriented diamond drilling (2 RC and 3 DDH in 2000; 43 RC and 7 DDH in 2001; see Pevely, 2005 for details; Hinman, 2000, 2001). Considerable difficulty in the rationalisation of "twinned" RC, diamond, recent and past drilling results was discussed in detail and is summarised in Pevely (2005). Much of the disparity in results is now considered to result from the high nugget effect in the primary breccia style of mineralisation present at Coxco and demands closer spaced drilling and careful, large field duplicate assay and analysis.

In summary, North Ltd successfully defined the orientation, areal extent, and to a lesser degree, the density, of the faults and associated breccia zones that control and host the mineralisation at Coxco. However, they were unsuccessful in upgrading the tenor of the resource simply because the concentration of individual mineralised intersections is insufficient to coalesce them into large tonnage, mineable zones at current drill densities. They concluded that a significant oxide resource is present but which would require carefully considered drilling techniques to increase recovery and confidence in resource results. In addition, North Ltd concluded that the potential for stratiform (ie. HYC style) mineralisation as equivalent Barney Creek stratigraphy plunges north in the direction of basinal deepening is possible but would appear to be limited.

In 2004-2005, McArthur River Mining (Pevely, 2005) undertook a comprehensive review of the Coxco dataset in order to evaluate the open cut potential of the deposit for possible production of a low lead sintered concentrate which would result from the beneficiation of the Coxco ores. This zinc oxide sinter would be used in the proposed hydro-metallurgical Albion Process for the production of zinc metal on site, facilitating the neutralisation of leachate at the end of the Albion leach process to precipitate iron from solution.

The MRM review involved importing all drill data, geological sections and plans and aerial photography into VULCAN 3D mining software to derive a robust 3D model of the geology and mineralisation, prior to resource block modelling of the interpreted mineralisation envelope.

In addition, a consultant was engaged to undertake a geostatistical study of the Coxco data in order to obtain some idea of the range of continuity of the zinc mineralisation for block modelling parameters and further drillhole spacing and orientation. This was the first time that the Coxco data has undergone a rigorous statistical evaluation and been modelled in a 3-dimensional manner to create a resource estimation that appraised all previous drilling including all of the North Ltd drilling data from 1999-2000.

A statistical and variography study of all the assays within the drillhole database was undertaken by Eggins (2004) to establish the ranges of continuity of the zinc mineralisation. The detailed conclusions and recommendations of Eggins can be found in Pevely (2005) but in summary were:

- Zn grades are approximately log normally distributed
- Indicator variography is suggested
- Total area of drilling showed approx 360° maximum continuity
- Cook's oxide area of high density drilling showed 300-320° maximum continuity
- Total area: mean variograms: 100m 360°, 50-75m 090°, 50-75m vertically
- Cook's oxide area: mean variograms: 60m 300°, 30m 030°, 27m vertically
- Total area, higher grade threshold mean variograms: 30-50m in all directions
- No coherent trends detected
- 40mN x 40mE drill spacing suggested for grades <1.5%Zn to establish 'Indicated Resources' if geology does not contradict
- At least 20mN x 20mE drill spacing required for grades >1.5%Zn to establish continuity and 'Indicated Resources' if geology does not contradict
- A review of drilling methods, sampling protocol and analytical methods was suggested

Details of the resource modelling, its inherent assumptions and problems therein are presented by Pevely (2005). In summary, a +1%Zn volume was defined for block modelling and arbitrarily split (in the absence of more accurate detail) between oxide and sulphide at 25m below surface topography. Non-ideal, ordinary kriging was applied and a constant SG of 2.8t/m3 used.

The results were reported as oxide- and primary- material types for the +1%Zn volume and were reported to fall into the Indicated Resource category (Pevely, 2005).

Table 1. – Oxide Resource Results by Zn cut-off – Coxco Deposit

Cut-off (Zn%)	Tonnes	Zn (%)	Pb (%)	Ag g/t	Volume
0.0 – 0.5	259,000	0.2	0.1	0	93,500
0.5 – 1.0	115,000	0.7	0.5	1	41,500
1.0 – 2.5	234,096	1.7	0.8	1	85,500
>2.5	424,000	6.7	2.1	2	153,000
Total	**1,032,000**	**3.3**	**1.1**	**1**	**373,000**

Table 2. – Primary Resource Results by Zn cut-off – Coxco Deposit

Cut-off (Zn%)	Tonnes	Zn (%)	Pb (%)	Ag g/t	Volume
0.0 – 0.5	2,200,000	0.2	0	1	785,000
0.5 – 1.0	800,000	0.7	0.1	2	288,600
1.0 – 2.5	1,230,000	1.6	0.3	2	444,000
>2.5	707,000	4.5	1.3	4	255,000
Total	**4,910,000**	**1.25**	**0.3**	**2**	**1,778,000**

The main limitations highlighted for this resource calculation were:

- Simplification of ore zone geometry using +1% Zn polygons to outline a continuous ‘minable’ zone.
- Section spacing outside of Cook’s oxide area to maintain continuity is 60m, which falls outside of the ranges of continuity suggested by the variography.
- Sensitivity of grade to search ellipse size.
- Simplification of the sub-surface topography of the oxide ‘blanket’.
- No recovery factors included in this highly cavitated, weathered oxide zone, where losses of high-grade mineralisation through karstification may be significant.

Pevely (2005) concluded that previous and current resource calculations at Coxco show the deposit to be clearly too low grade to excite interest at current metal prices. The complex juxtaposition of several styles of primary and secondary mineralisation, each with their own inherent complexity adjacent to the major transpressive Emu fault, remains a significant hurdle at Coxco. He concluded that remaining interest must focus on defining the extent of known mineralisation with future drill design accommodating known control orientations of brecciation and veining. Revision of variography and resource estimation should be undertaken as further drilling in fills the current grid and geological understanding of the breccias and their spatial control improves.

WORK COMPLETED IN 2008-2009

In the reporting year 2008-2009, work focussed on refining the geological block geometries utilising detailed drill section information gathered during the North Ltd drilling (1999-2001). This work was designed to aid additional drill targeting for a 2009-2010 diamond drilling program. In addition, North Ltd detailed surface mapping (Selley, 1999) was registered to provide some surface constraint to fault,

stratigraphic, base of oxidation and base of Cambrian Bukalara Sandstone 3D geometries. In detail:

- Nine sections were structurally re-interpreted
- These nine sections were digitised and registered within the VULCAN Coxco model
- Selley's (1999) interpretive map was draped on topography within the VULCAN Coxco model
- Important surfaces were re-interpreted and triangulated using the new section and surface constraints. These included: 3 strands of the Emu Fault Zone, the Coxco Fault, a NW-SE Fault that cuts the Emu Fault Zone just south of Cook's', the base of Barney Creek-Lynott Formations (top of 'Coxco Dolomite' Member), the base of oxidation and the base of the Cambrian Bukalara Sandstone.

Detailed review of all the historic drilling results in the context of the new sub-surface geometries highlighted sections for infill and/or extension-to-depth drilling. The following Table presents potential drill targets and the two highlighted targets on sections 2950N and 2775N chosen for 2009-2010 drilling.

Table 3. Potential Coxco diamond drilling targets

Rank	Section	Target Position	Target RL	DDH meters
3	3100N	closer to Emu Fault	9900RL	
3	3050N	between Emu Fault and Coxco Fault	9900RL	
3	3000N	below DDH D92 intercept	9850RL	
3	**2950N**	**between Emu Fault and Coxco Fault**	**9900RL**	**~300**
2	2900N	between Emu Fault and Coxco Fault	9850RL	
1	2875N	above Coxco Fault intercept with Emu Fault	9850RL	
2	2800N	infill between 2 DDH's on section	9975RL	
3	**2775N**	**between Emu Fault and proj Coxco Fault**	**9975RL**	**~150**
2	2700N	at projected Coxco Fault	9975RL	

The 2950N and 2775N sections with the proposed diamond drill holes from the VULCAN model are presented below.

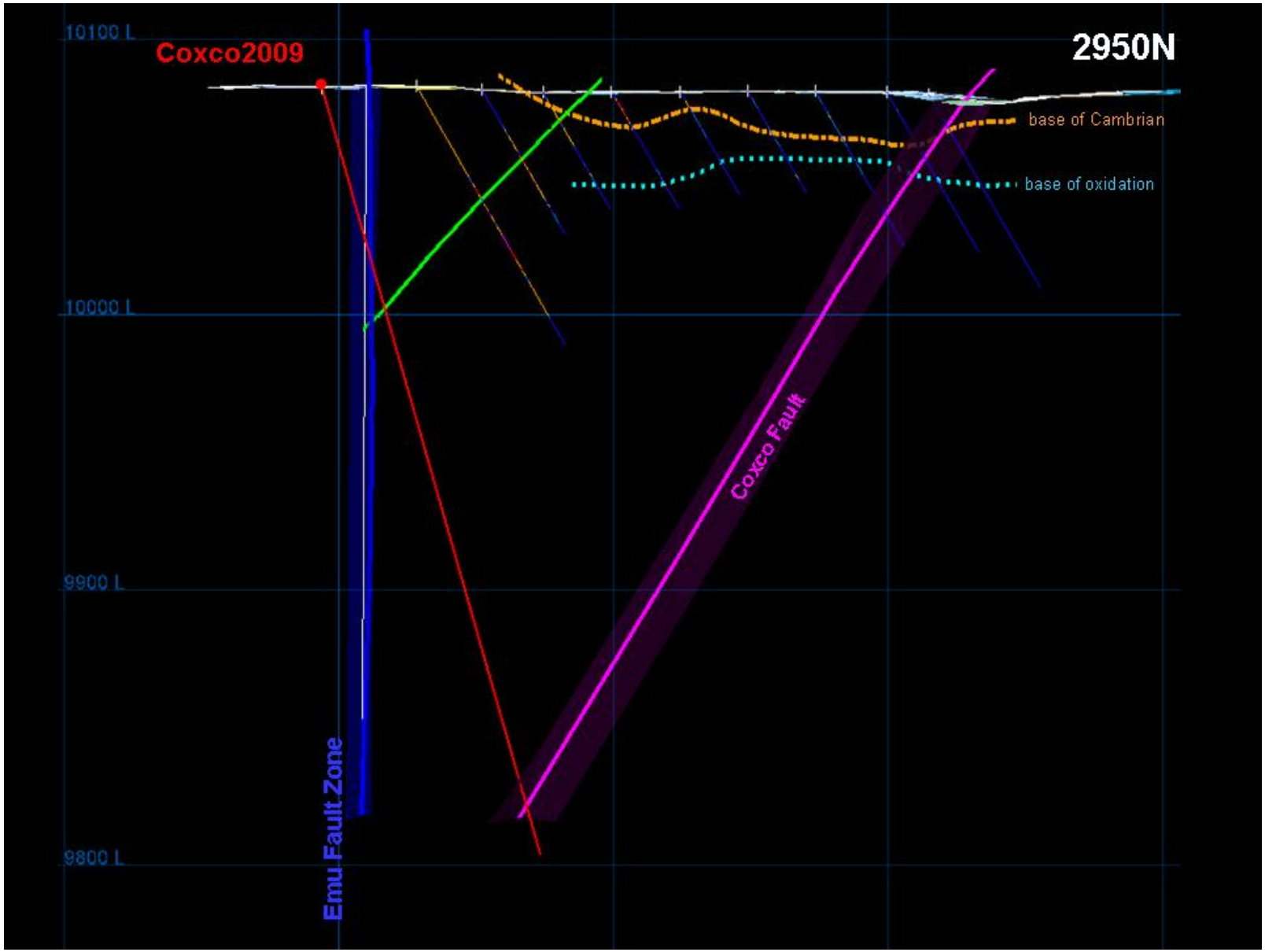

Figure 1. Section 2950N with proposed DDH

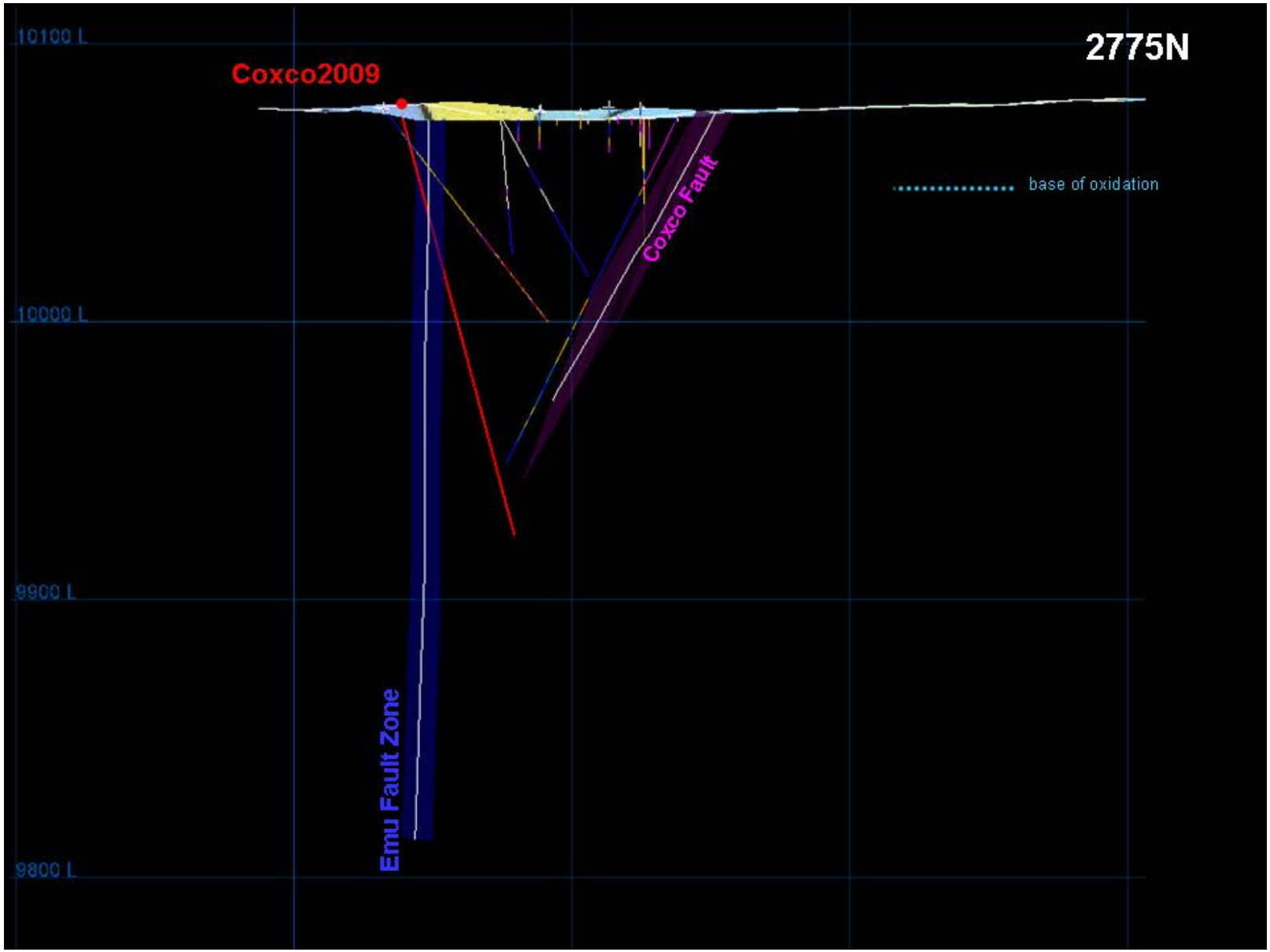

Figure 2. Section 2775N with proposed DDH

EXPENDITURE FOR 2008 –2009

Activities for this year were restricted to refining of the 3D geological geometries, refinement of the resource modelling parameters and selection of potential drill targets.

Table 4. – Estimated Expenditure 2008-2009

Activity	No. Days	Estimated Cost ($)
Geological Interpretation	2	2000
Digitising & VULCAN upload	2	1500
Consultants Report	2	2000
Printing	1	400
Report Writing	4	4000
Total	11	**9,900**

PROPOSED EXPENDITURE FOR 2009-2010

Diamond drilling of 2 proposed holes with all accompanying expenses plus consultant's logging and reporting time should total around $130,000

Table 5. – Estimated expenditure for 2009-2010

Activity	Estimated Cost ($)
Diamond Drilling	100,000
Assaying 250 samples	7,000
Consultants	21,000
Total	**128,000**

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