

# Building a Copper, Zinc and Gold Mining Company

**Tim Sugden, Managing Director**

**29 September 2011**



## Corporate Information

**\$7m**

Cash at Bank

**9%**

Shares Controlled  
by Directors

**\$87m**

Market Capital

**70%**

Shares Controlled  
by Top Twenty

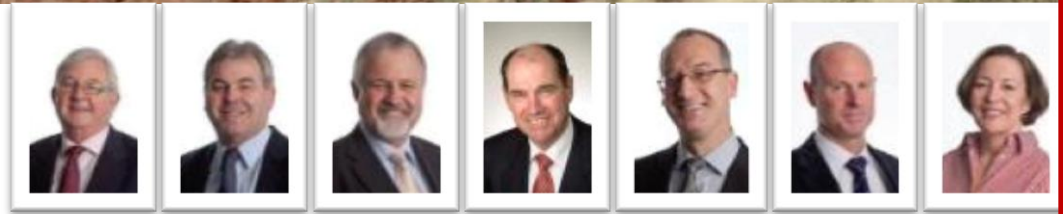
**\$80m**

Enterprise Value

**7 –  
16¢**

12 Month Price  
Range

# Board & Management



## **Mr Tony Kiernan, LLB - Non-Executive Chairman**

Mr Kiernan is a solicitor with 35 years experience in management and operation of listed public companies. He is also Chairman of BC Iron and Uranium Equities, and a Director of Liontown Resources and Chalice Gold Mines.

## **Dr Allan Trench, BSc, PhD, MSc, MBA - Non-Executive Director**

Dr Trench is a geologist/geophysicist with 20 years experience in the resources sector, and has extensive business consulting experience. He is Chairman of Navigator Resources and Acadian Mining, and Director of Pioneer Resources and Hot Chili.

## **Mr Michael Mulroney, BSc, MBA - Non-Executive Director**

Mr Mulroney is a geologist with over 30 years experience in the natural resources and finance sectors, and has extensive M&A and finance exposure. He is an Executive Director of Argonaut Capital and Managing Director of AFM Perseus Fund.

## **Mr John Nitschke, BE(Min), MSc - Non-Executive Director**

Mr Nitschke is a mining engineer with over 35 years experience in the mining industry with substantial experience in large resource companies. He is Chairman of TSX-V listed Continental Nickel and a Director of IMX Resources and Toro Energy.

## **Dr Tim Sugden, BSc, PhD - Managing Director**

Dr Sugden has 23 years experience in resources industry including operations General Manager for Normandy and Newmont. He was co-founder and Director of Agincourt Resources and Nova Energy, and is Chairman of Newland Resources.

## **Mr Anthony Reilly, BEc - Executive Director**

Mr Reilly has extensive international experience in financial markets, risk management and corporate finance. He was a senior Manager for Westpac in UK and was a founding Director of CMG Mineração.

## **Ms Liza Carpena, MBA, ACIS - Company Secretary**

Ms Carpena has over 15 years experience in corporate administration, HR, IT and community relations with Normandy, Newmont, Agincourt and Oxiana. She has held extensive operational management roles in Australia and Indonesia.

## **Mr Ian Suckling, BASc(Min) - Chief Operating Officer**

Mr Suckling has been appointed as Chief Operating Officer and is due to commence on 10 October 2011.



# Corporate Strategy

- Developing Cu-Zn (VMS<sup>1</sup>) deposits in the Pilbara



- Exploring for large gold deposits in Brazil



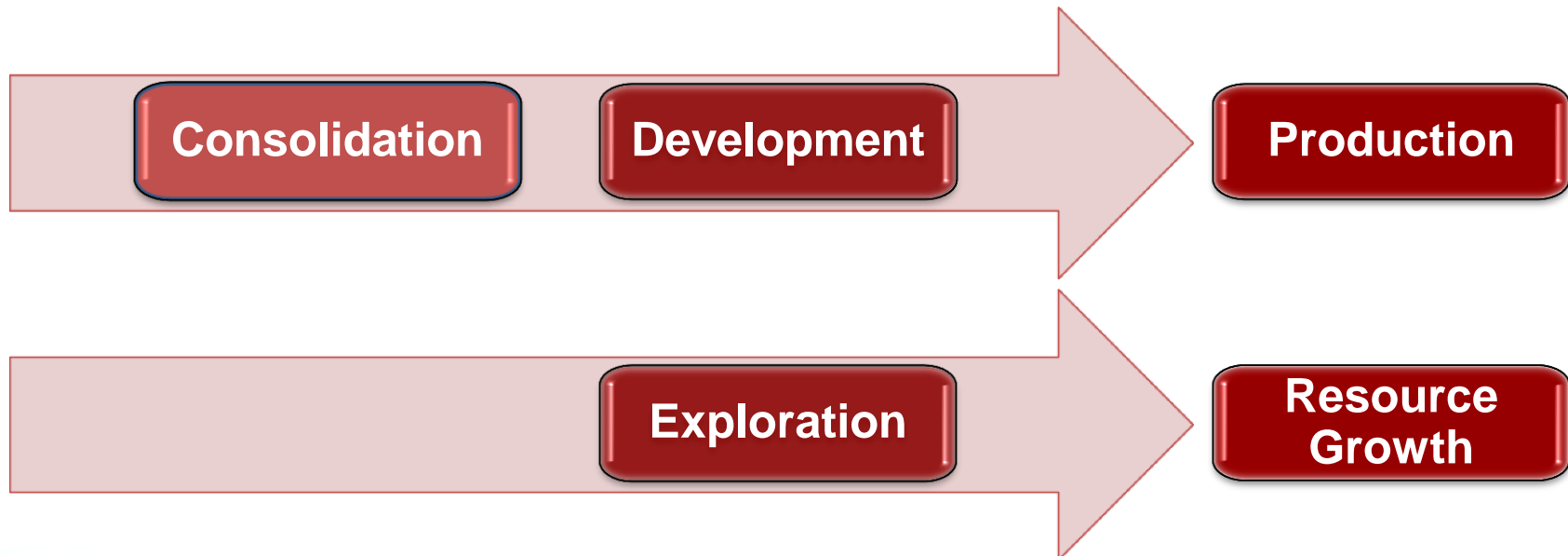
<sup>1</sup> Volcanogenic Massive Sulphide

# Strategy in Australia

## ► Focus on the Pilbara Region

- Best known for iron ore, manganese, gas
- Numerous undeveloped copper-zinc deposits

## ► Build a significant copper zinc producer through:



# A Major New Base Metals Producer

- ▶ Ownership of Largest VMS Deposits in the Pilbara
- ▶ Significant Resource Base (~ 550,000t CuEQ<sup>1</sup>)
- ▶ Established Reserves (~10 million t @ 2.8% Cu EQ)
- ▶ Copper-Zinc Production Focus
- ▶ Ongoing Exploration Potential
- ▶ Excellent Infrastructure
- ▶ Close to Ports

***Major Fast-Track Development Opportunity***

<sup>1</sup>. Mons Cupri/Whim Creek/Liberty-Indee:  $\text{CuEQ} = \text{Cu} + (\text{Zn} \times 0.1947) + (\text{Ag} \times 0.01104) + (\text{Au} \times 0.483)$   
Salt Creek:  $\text{CuEQ} = \text{Cu} + (\text{Zn} \times 0.28) + (\text{Pb} \times 0.26) + (\text{Ag} \times 0.008) + (\text{Au} \times 0.513)$   
Sulphur Springs:  $\text{CuEQ} = \text{Cu} + (\text{Zn} \times 0.2017) + (\text{Ag} \times 0.01076)$



## Early Days

- ▶ 2007 – Discovery hole at Liberty-Indee JV
- ▶ 2009 – Exploration success at Evelyn Prospect
  - 20m @ 3.43% Cu, 6.47% Zn, 1.73g/t Au
- ▶ Current Resource 657,000 tonnes @ 3.3% CuEQ
- ▶ Open at Depth



# Local Synergies Recognised

- ◆ 2009 – Acquisition of Whim Creek Copper Project
  - SX-EW Oxide operations winding down
  - Substantial sulphide resource: 11m tonnes @ 1.45% CuEQ
  - Significant infrastructure in place
    - Crusher
    - Power
    - Water
    - Roads
    - Accommodation village
    - Hotel
- ◆ Path to fast track development





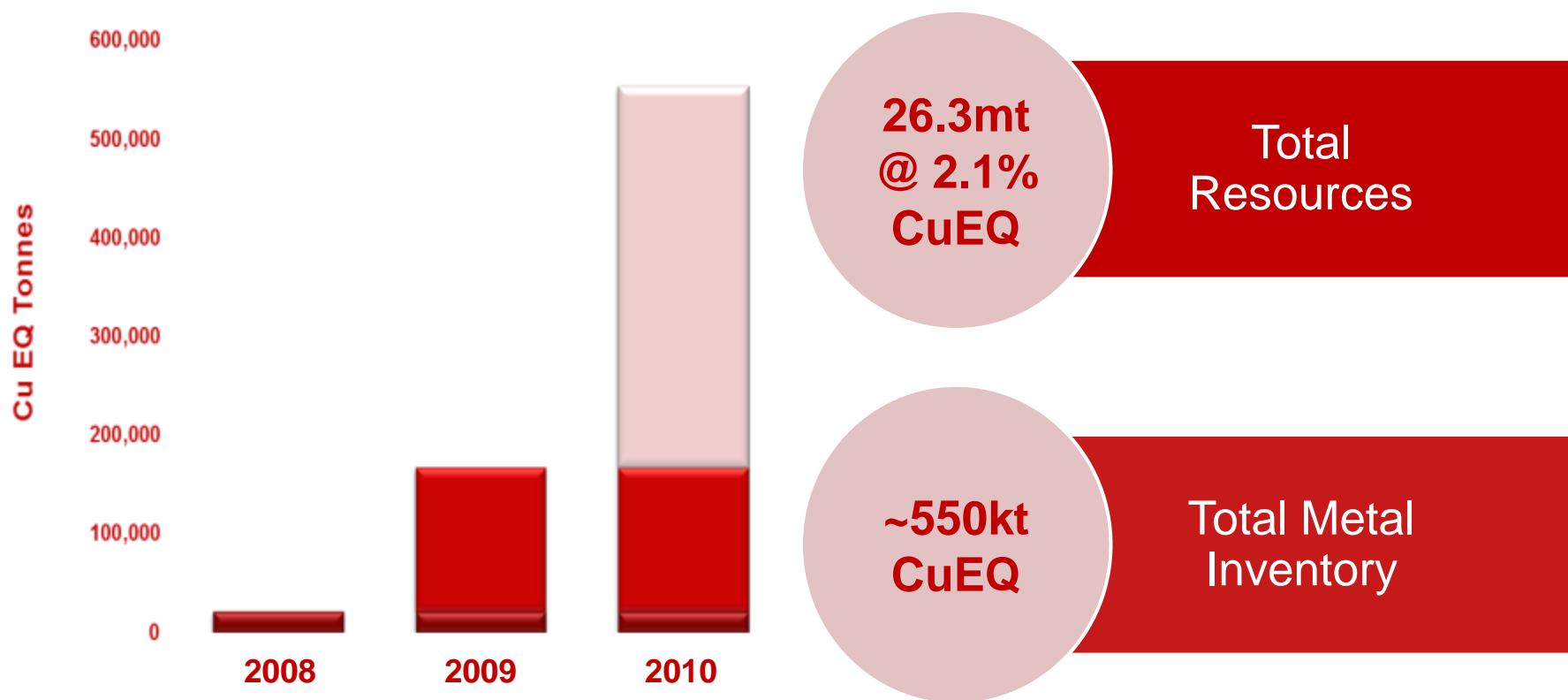
# Building Regional Scale

## ◆ 2011 – Sulphur Springs

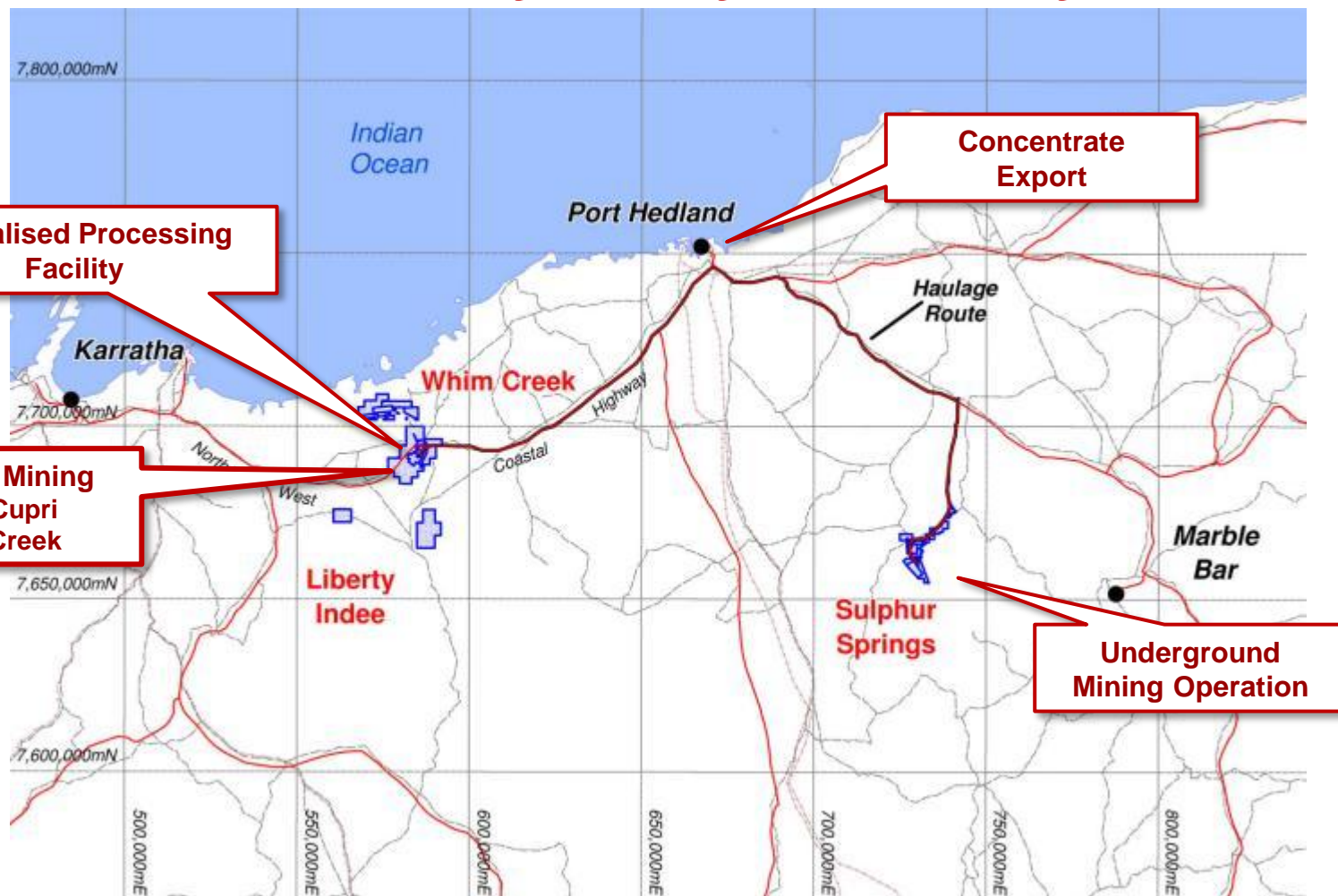
- Completed acquisition in February 2011 from CBH Toho
- Acquired large resource: base - 19.2m tonnes @ 2.2% CuEQ
- Recognised underground development potential with access to central processing facility
- Significant exploration upside in poorly explored area



# Resources Growth through Consolidation



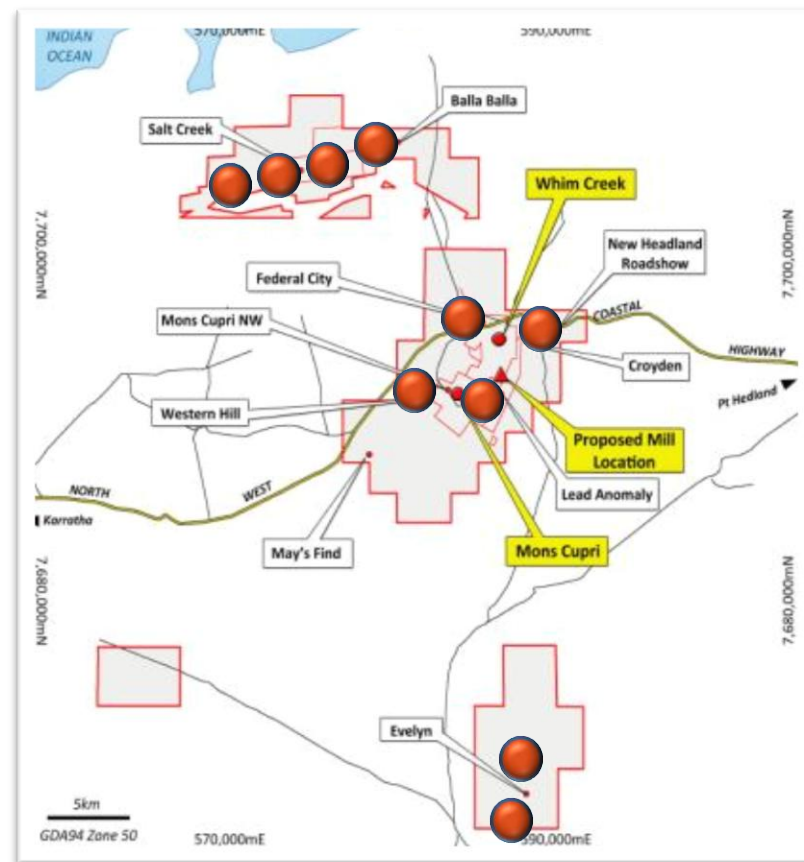
# Bankable Feasibility Study Underway





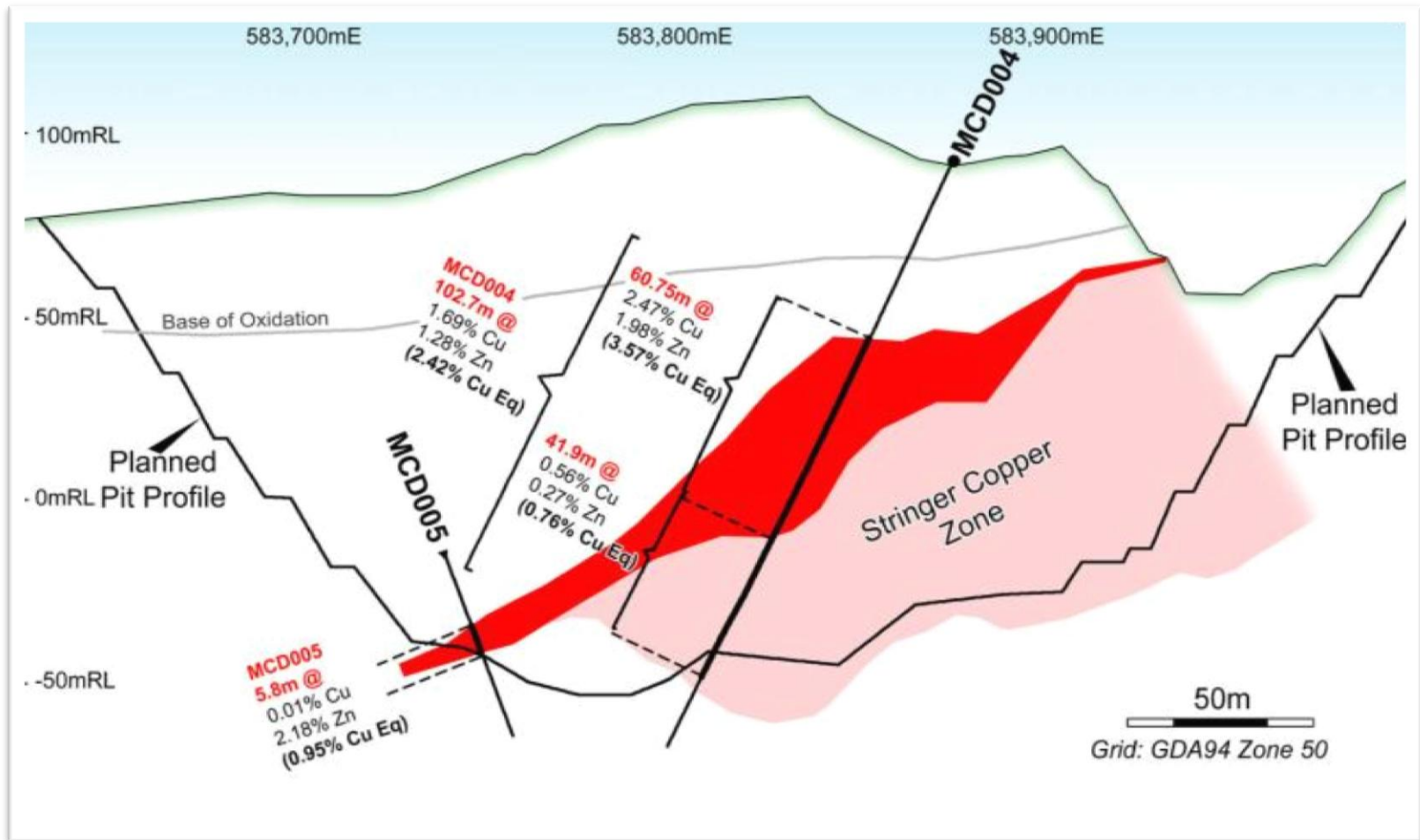
# Whim Creek Project

- ▶ **Major underexplored VMS field**
  - First discovered in early 1900s, oxide copper produced sporadic until 1950s
- ▶ **Straits Resources commenced SX-EW copper production in 2004**
  - Accessed only oxide caps of Whim Creek and Mons Cupri deposits
  - Very limited appraisal of deeper sulphide potential by Straits
  - Completed acquisition of Salt Creek area in 2008, field consolidated for the first time in its history
- ▶ **New VMS field emerges at Liberty-Indee in late 2007**
- ▶ **No systematic exploration**

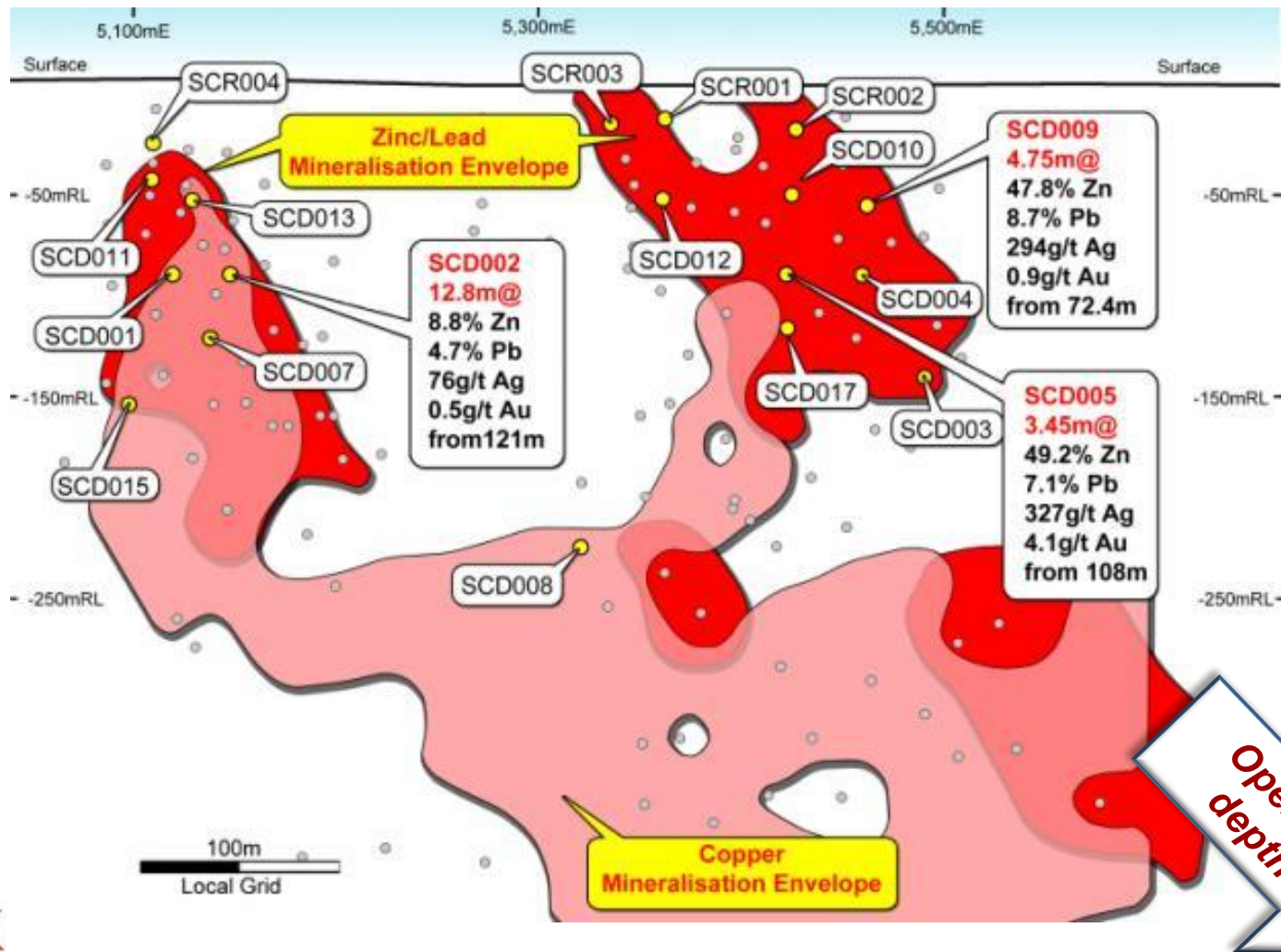
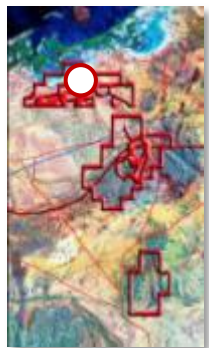


 **Exploration target**

# Mons Cupri Deposit



# Salt Creek – A High Grade VMS System

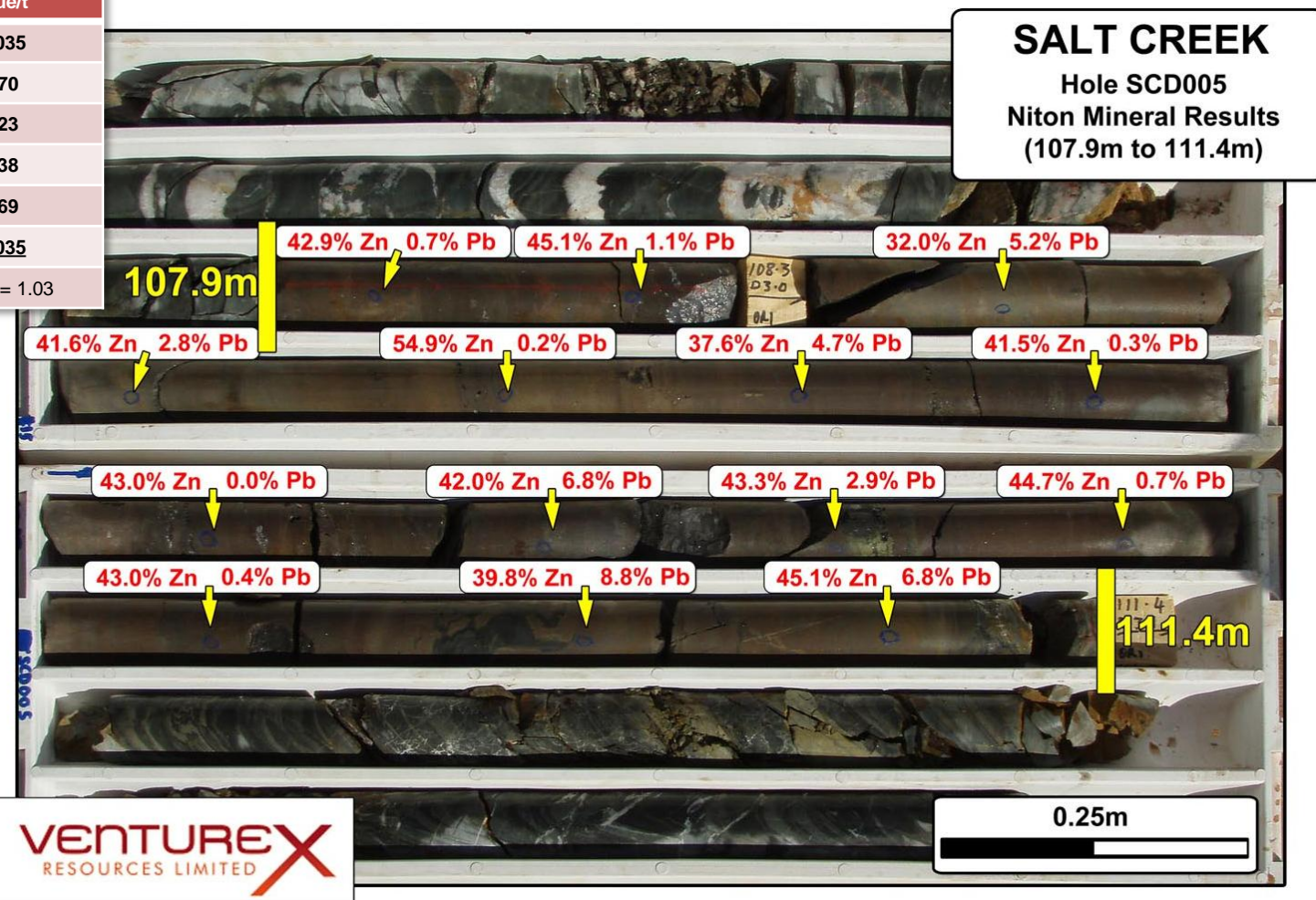




# Salt Creek – Direct Shipping Ore Potential

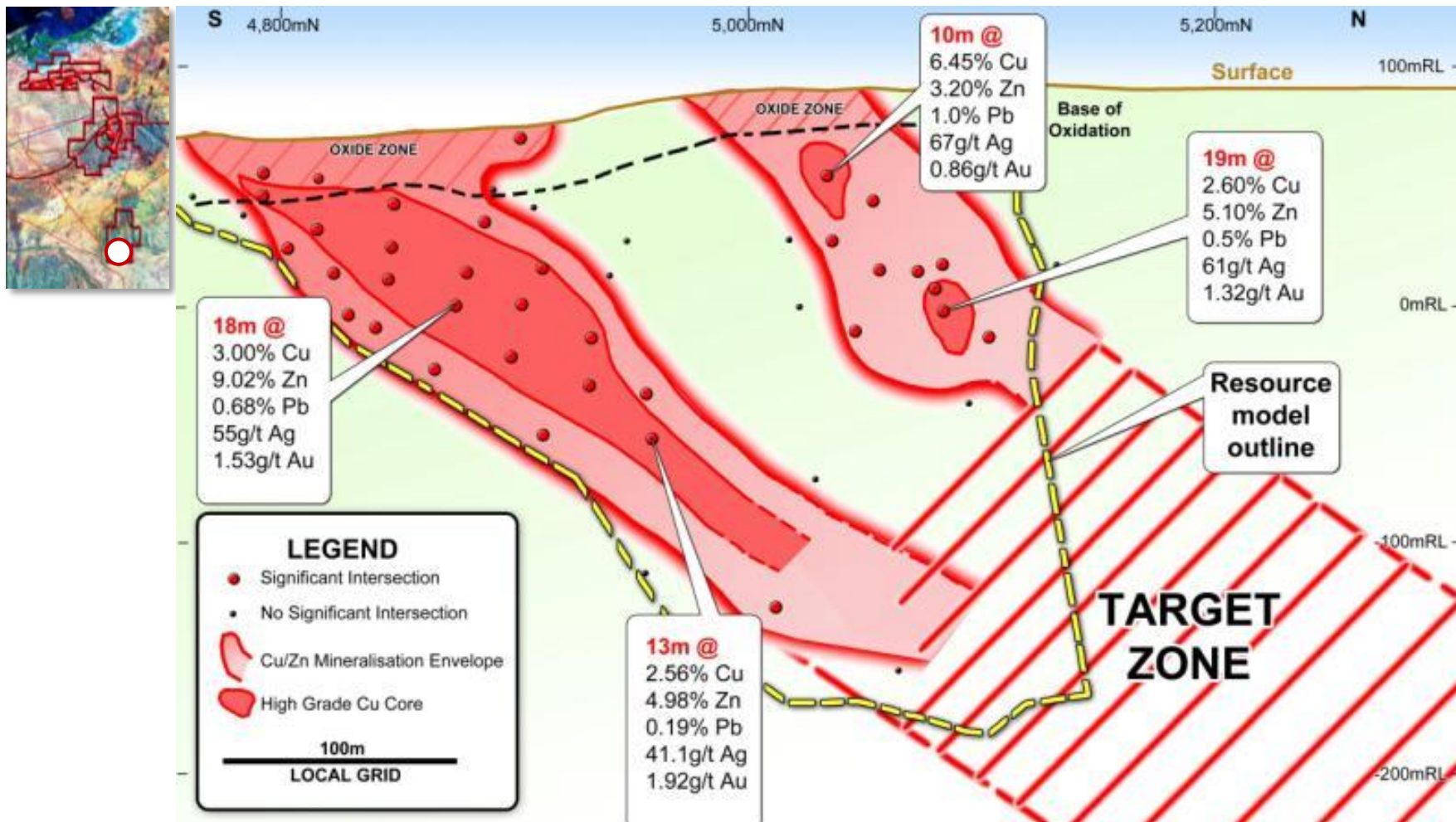
Metal	Assay	Value/t
Zinc	49.2 %	\$1,035
Lead	7.1 %	\$170
Silver	327 g/t	\$423
Gold	4.1 g/t	\$238
Indium	223 g/t	\$169
<b>Total</b>		<b>\$2,035</b>

Based on metal prices on 12/9/11; \$A/\$US = 1.03



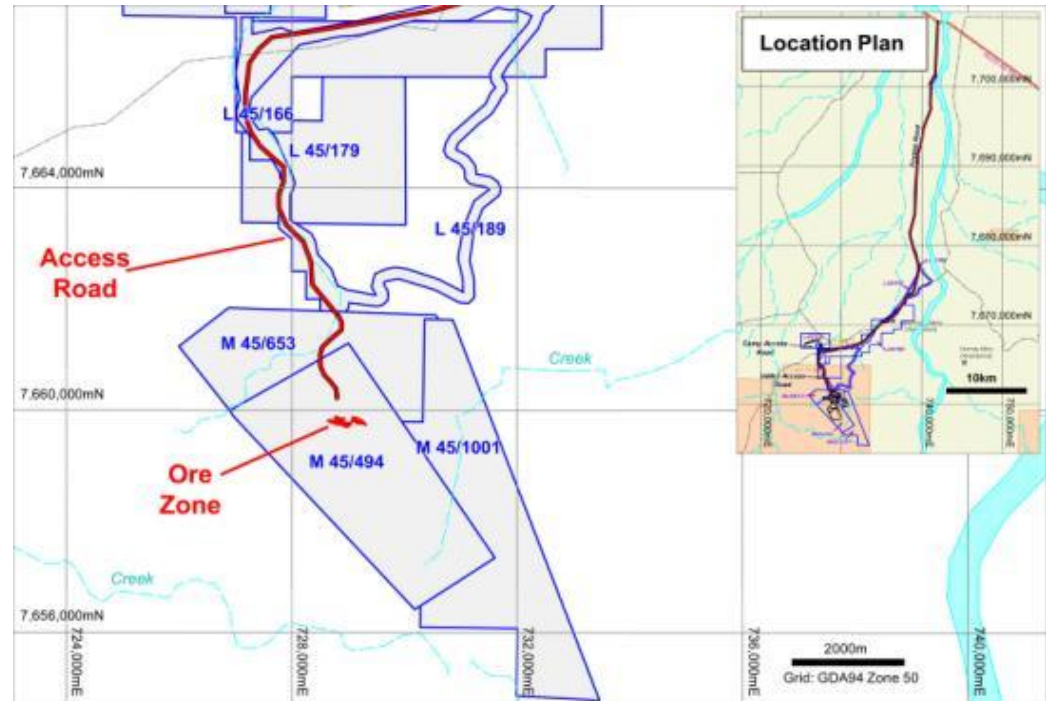


# Liberty-Indee Evelyn Discovery



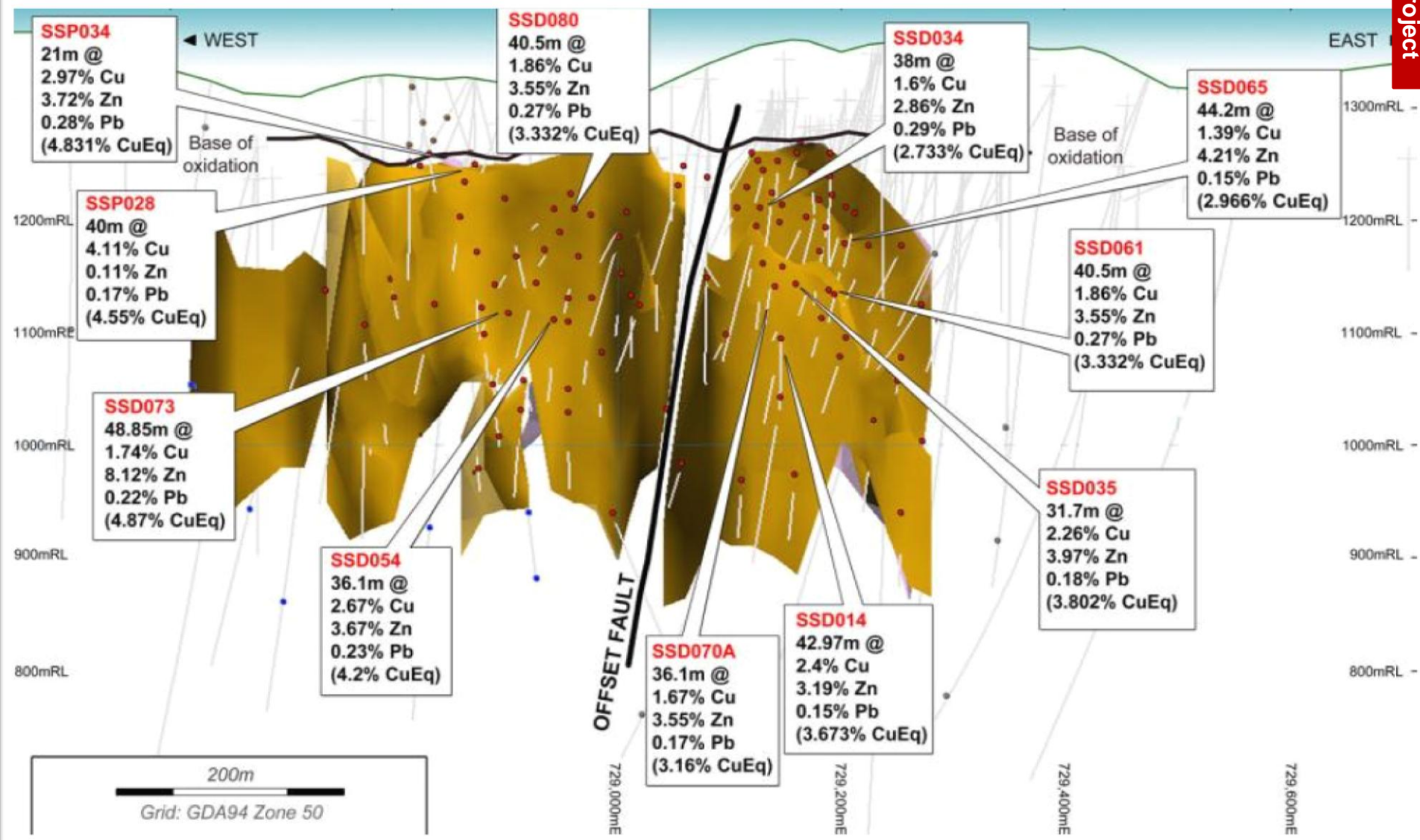
# Sulphur Springs Project

- ▶ Largest known VMS deposit in the Pilbara
  - JORC Mineral Resource of 19.3Mt @ 1.2% Cu and 3.2% Zn
- ▶ Located 160km SE of Port Hedland
- ▶ 3 granted Mining Leases
  - Plus granted tenements on planned infrastructure corridors
- ▶ Extensive database of all previous information
- ▶ Native title and royalty agreements assigned





# Sulphur Springs Cu-Zn Deposit



# Pilbara Resources & Reserves as at 1 September 2011

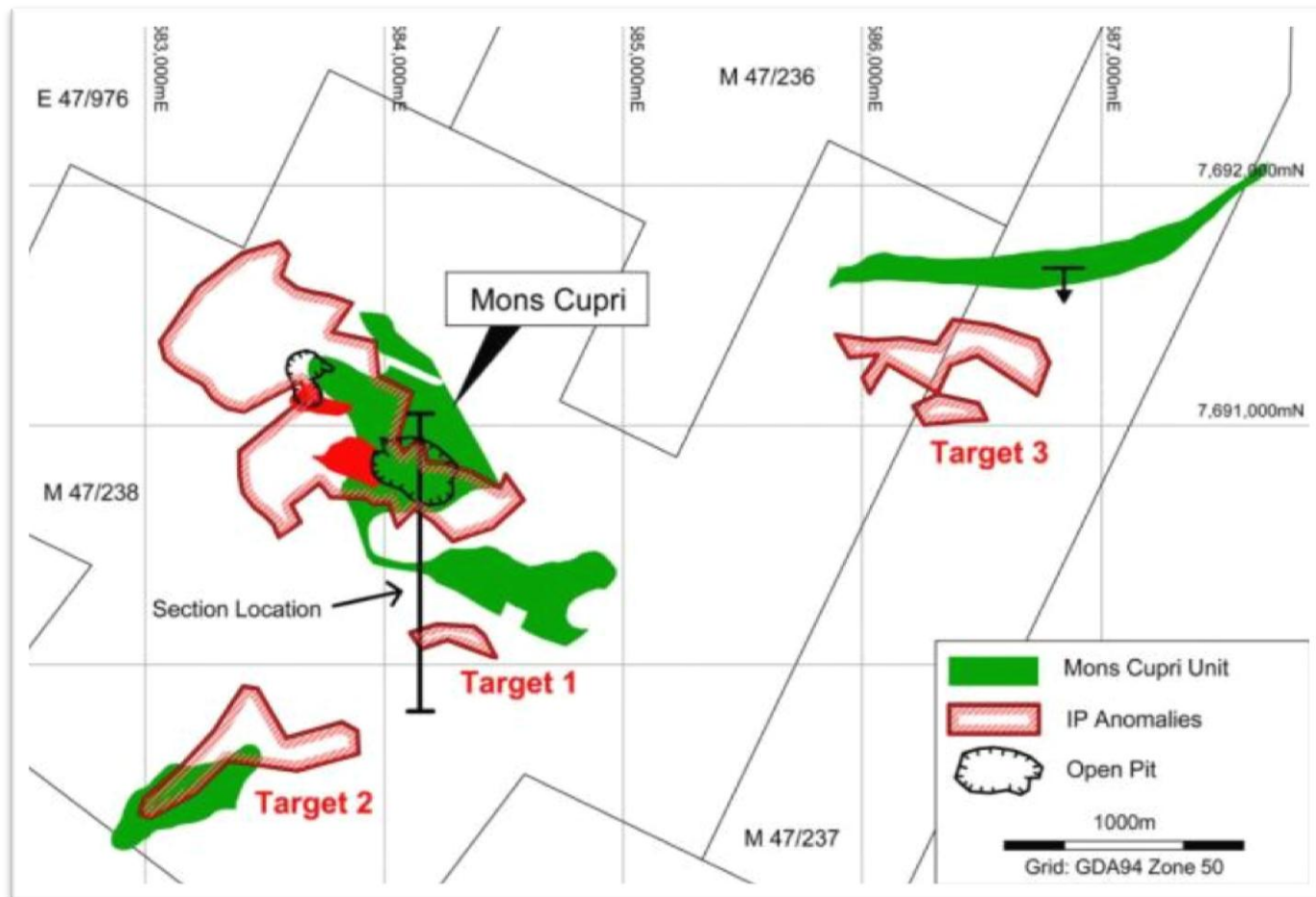
MINERAL RESOURCES									ORE RESERVES								
Location		JORC Classification	Tonnes x 1,000	Cu wt%	Zn wt%	Pb wt%	Ag g/t	Au g/t	CuEQ wt %	JORC Classification	Tonnes x 1,000	Cu wt%	Zn wt%	Pb wt%	Ag g/t	Au g/t	CuEQ wt %
Whim Creek		Indicated	967	1.4	1.2	0.2	8.8	0.1	1.8	Probable	687	1.7	1.1	0.2	8.9	0.1	2.1
		Inferred	4	0.5	2.3	0.6	13.9	0.1	1.1								
		Sub-total	972	1.4	1.2	0.2	8.8	0.1	1.8	Sub-total	687	1.7	1.1	0.2	8.9	0.1	2.1
Mons Cupri		Measured	1,273	1.5	1.7	0.8	41.1	0.3	2.4								
		Indicated	3,286	0.7	1.1	0.4	17.7	0.1	1.2	Probable	2,815	1.1	1.8	0.8	32.1	0.2	1.9
		Inferred	48	0.7	0.6	0.1	9.0	0.0	0.9								
		Sub-total	4,607	0.9	1.3	0.5	24.1	0.1	1.5	Sub-total	2,815	1.1	1.8	0.8	32.1	0.2	1.9
Salt Creek	Zn	Indicated	475	0.2	14.1	4.4	107.1	0.5	6.4	Probable	361	0.2	12.8	4.2	109.2	0.5	6.0
		Indicated	423	3.7	0.9	0.1	2.7	0.1	4.0	Probable	236	4.1	1.3	0.2	3.2	0.1	4.6
	Cu	Inferred	105	3.5	0.1	0.0	1.5	0.0	3.6								
		Zn/Cu	Sub-total	1,003	2.0	7.0	2.1	52.0	0.3	5.1	Sub-total	597	1.8	6.6	2.1	53.1	0.3
Liberty-Indee		Indicated	453	2.2	4.5	0.4	42.0	0.9	4.0	Probable	361	2.2	4.5	0.4	40.7	0.9	4.0
		Inferred	204	1.0	1.8	0.2	22.4	0.4	1.8								
		Sub-total	657	1.8	3.7	0.3	35.9	0.8	3.3	Sub-total	361	2.2	4.5	0.4	40.7	0.9	4.0
Sulphur Springs		Measured	4,260	1.7	3.4	0.2	18.2	0.0	2.5								
		Indicated	9,621	1.3	3.8	0.2	18.2	0.0	2.2	Probable	5,663	1.9	4.3	0.0	18.0	0.0	3.0
		Inferred	5,154	0.7	2.0	0.2	13.9	0.0	1.3								
		Sub-total	19,035	1.2	3.2	0.2	17.0	0.0	2.0		5,663	1.9	4.3	0.0	18.0	0.0	3.0
All Locations		Measured	5,533	1.6	3.0	0.3	23.4	0.1	2.5								
		Indicated	15,226	1.2	3.3	0.4	20.6	0.1	2.2	Probable	10,123	1.7	3.6	0.4	25.0	0.1	2.8
		Inferred	5,515	0.8	1.9	0.2	13.9	0.0	1.3								
		Total Sulphide Resources	26,274	1.2	3.0	0.3	19.8	0.1	2.1	Total Sulphide Reserves	10,123	1.7	3.6	0.4	25.0	0.1	2.8

Mons Cupri / Whim Creek / Liberty-Indee:  $\text{CuEQ} = \text{Cu} + (\text{Zn} \times 0.1947) + (\text{Ag} \times 0.01104) + (\text{Au} \times 0.483)$

Salt Creek:  $\text{CuEQ} = \text{Cu} + (\text{Zn} \times 0.28) + (\text{Pb} \times 0.26) + (\text{Ag} \times 0.008) + (\text{Au} \times 0.513)$

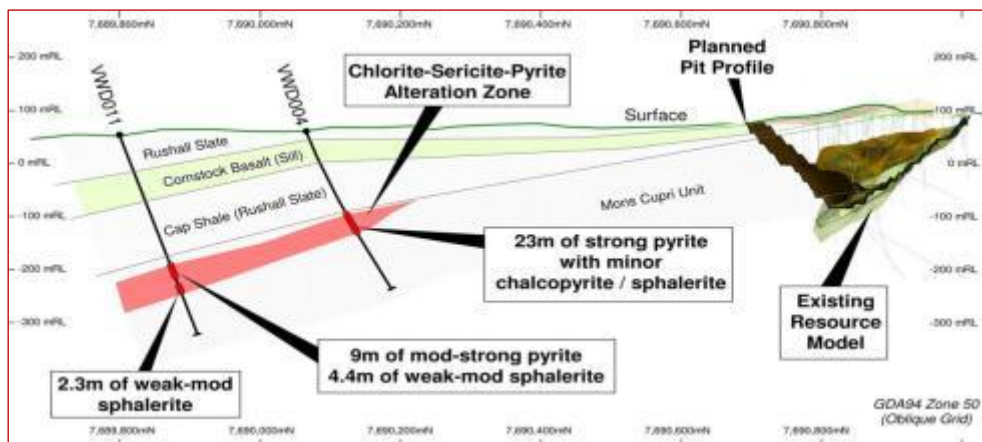
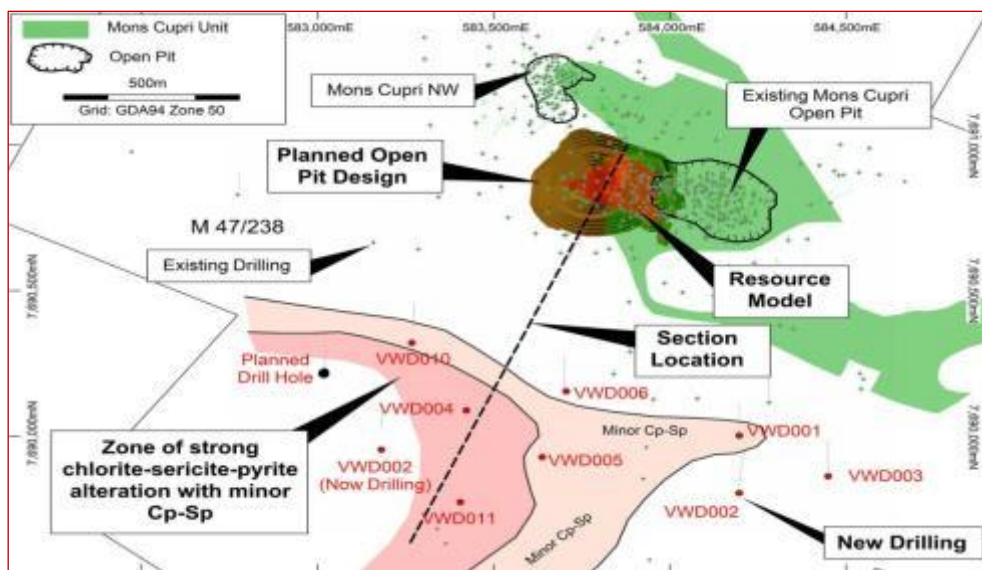
Sulphur Springs:  $\text{CuEQ} = \text{Cu} + (\text{Zn} \times 0.2017) + (\text{Ag} \times 0.01076)$

# Mons Cupri South West – New Target

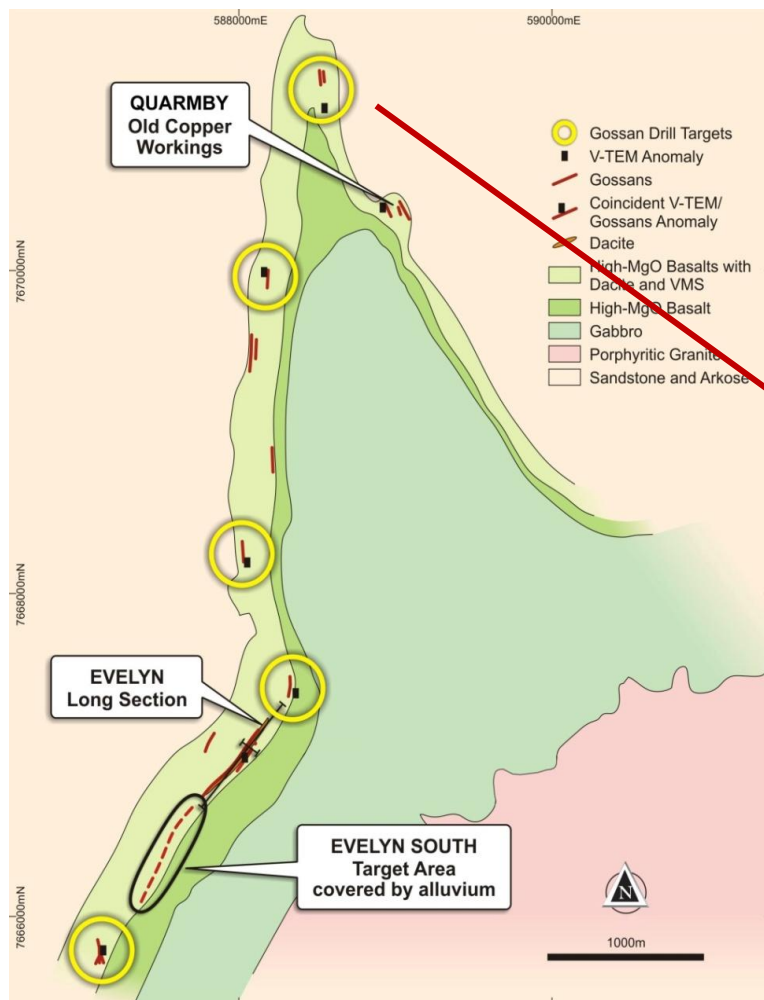




# Mons Cupri South West – First Results



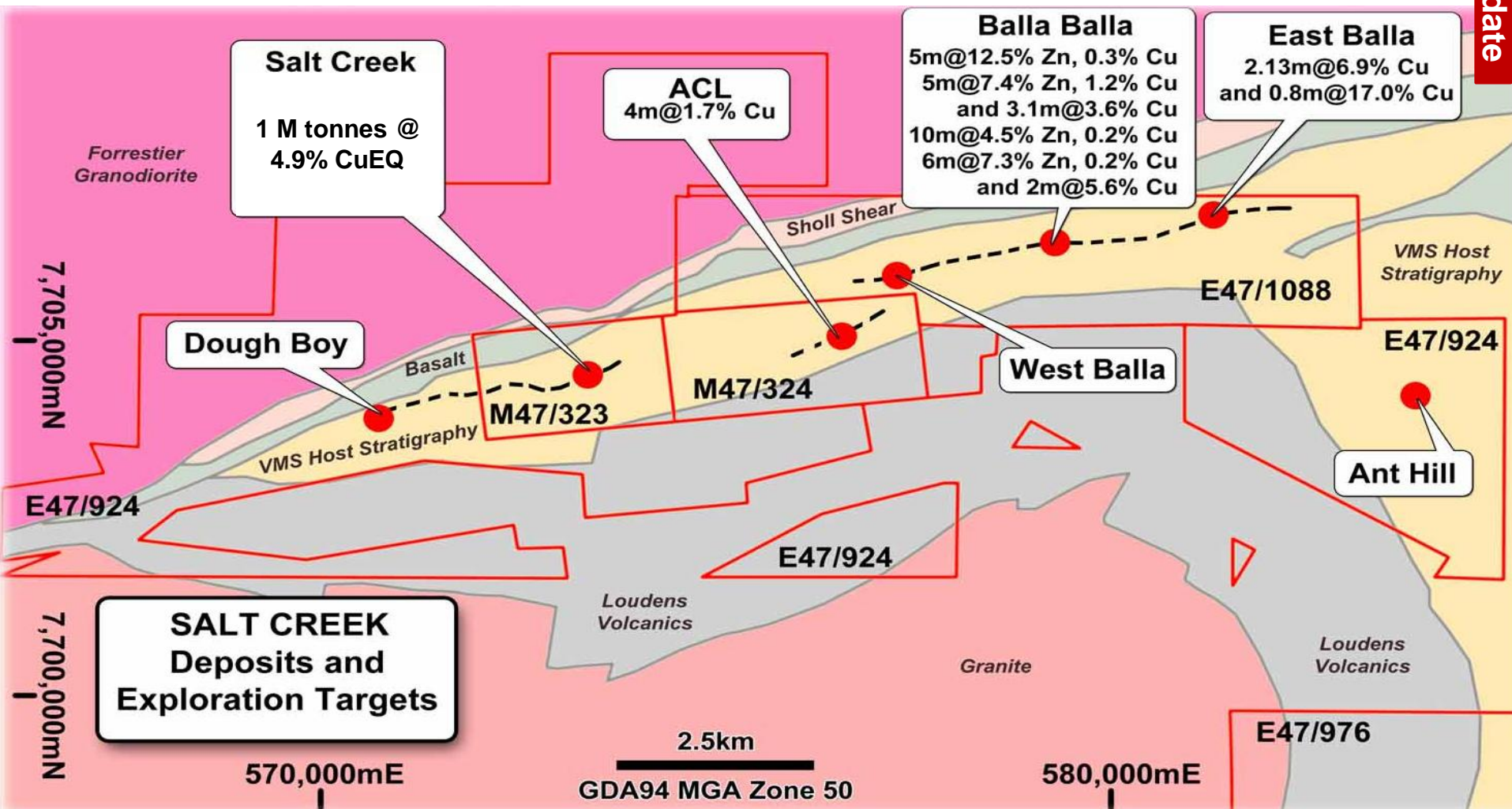
# Liberty-Indee



- ▶ Whim Creek equivalent
- ▶ 12kms of prospective horizon
- ▶ Numerous VTEM targets

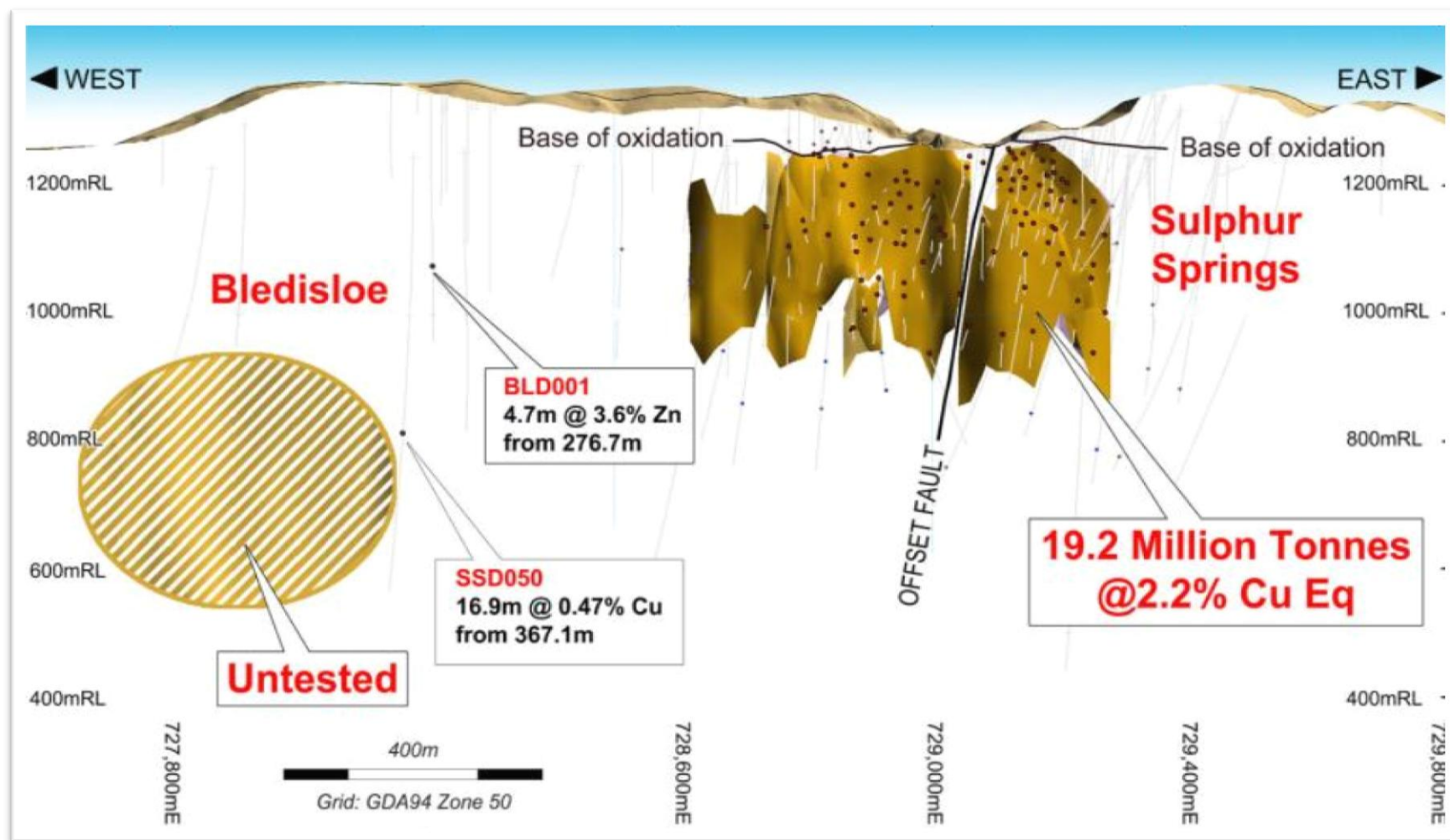


# Salt Creek Exploration Targets





# Sulphur Springs Exploration Targets



# Definitive Feasibility Study

- ◆ Commenced March 2011
- ◆ Scheduled DFS delivery – First Quarter 2012
  - Cost - \$3.5 million
- ◆ COO Appointed to Manage DFS & Development – Ian Suckling (ex-Newmont)
  - Project management – RMD STEM
  - Engineering/Metallurgy – GR Engineering/AMMTEC
  - Mining/Geotechnical – Mining One Pty Ltd
  - Hydrology/Groundwater – RPS Aquaterra/URS
  - Environment – Outback Ecology
  - Tailings – Doug Cooper
- ◆ Status - \$0.92 million spent, critical path is Mons Cupri metallurgy and permitting

# Key Project Parameters

**1.3 -  
1.5 mt**

Annual Throughput  
(8-9 year initial life)

**\$100**

Targeted Margin  
Per Tonne

**2.5 -  
2.7%**

Average CuEQ Mill  
Grade

**\$135-  
150m**

Capital Cost  
Estimate

**30-  
32kt**

Targeted CuEQ  
Annual Production

**\$235m<sup>1</sup>  
\$299m<sup>2</sup>**

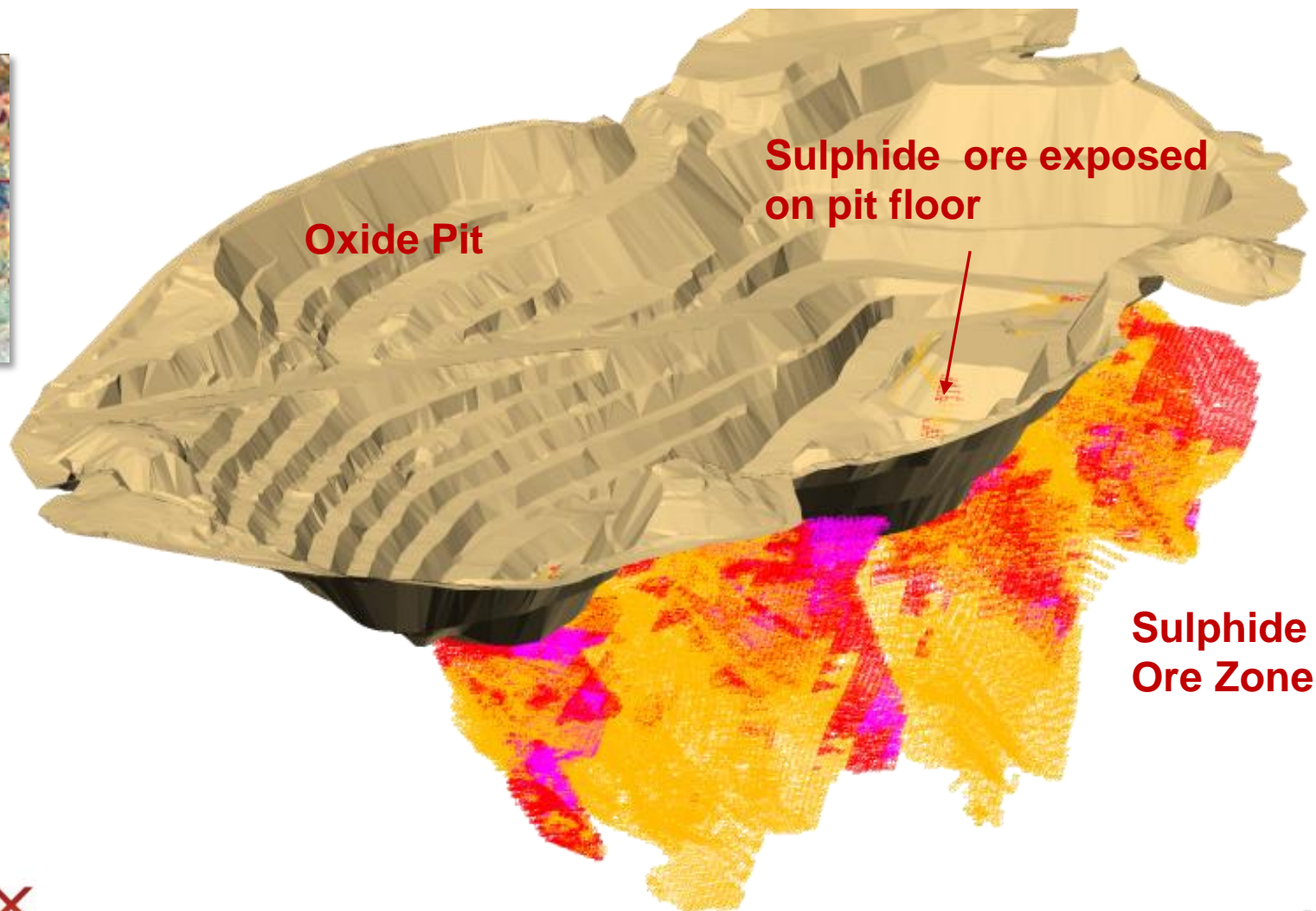
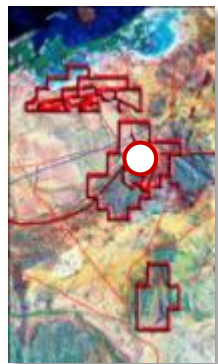
Project Net  
Present Value

<sup>1</sup> State One: 24/1/11 NPV 10%

<sup>2</sup> Argonaut: 21/1/11 NPV 11%

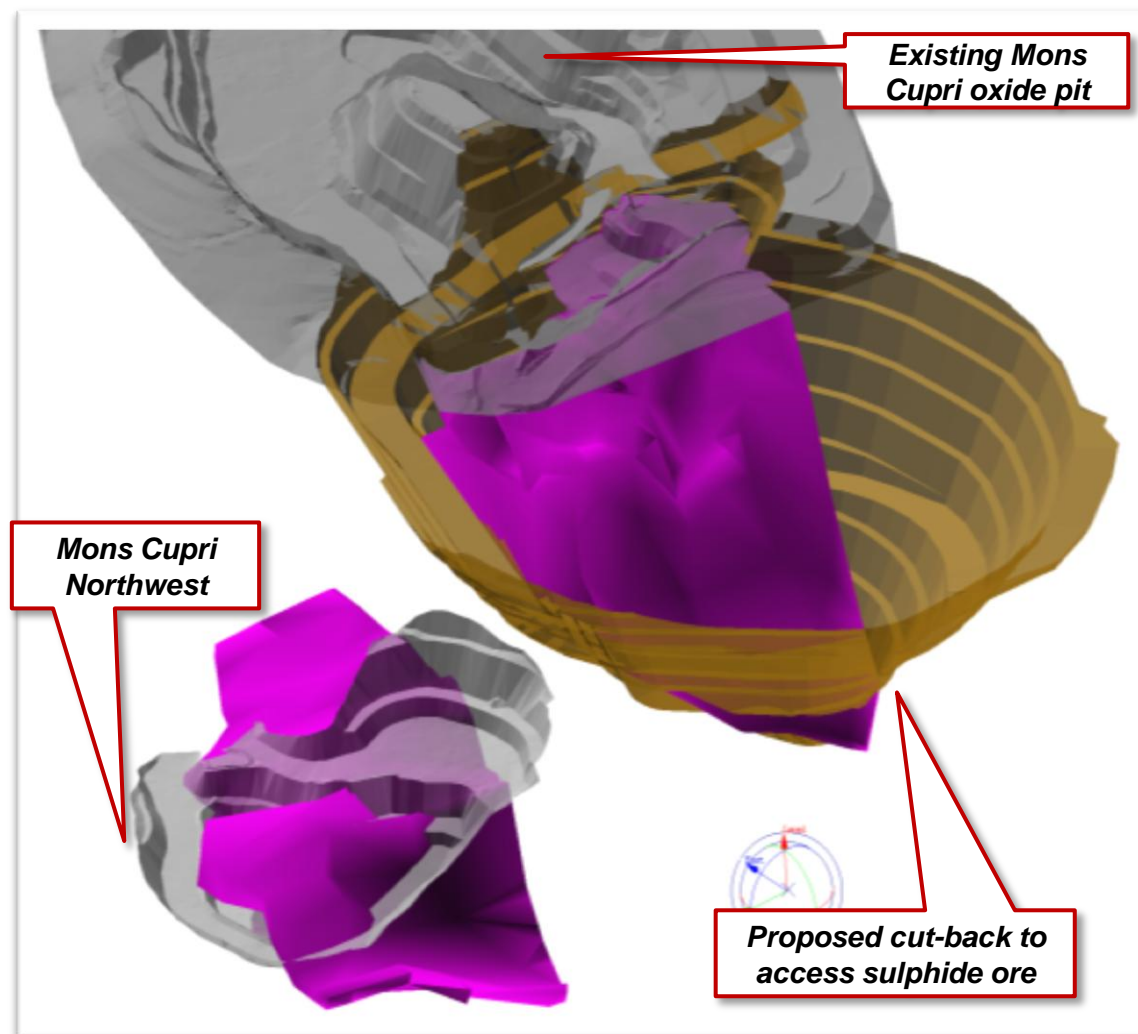


# Whim Creek Pit – Pre-Stripped



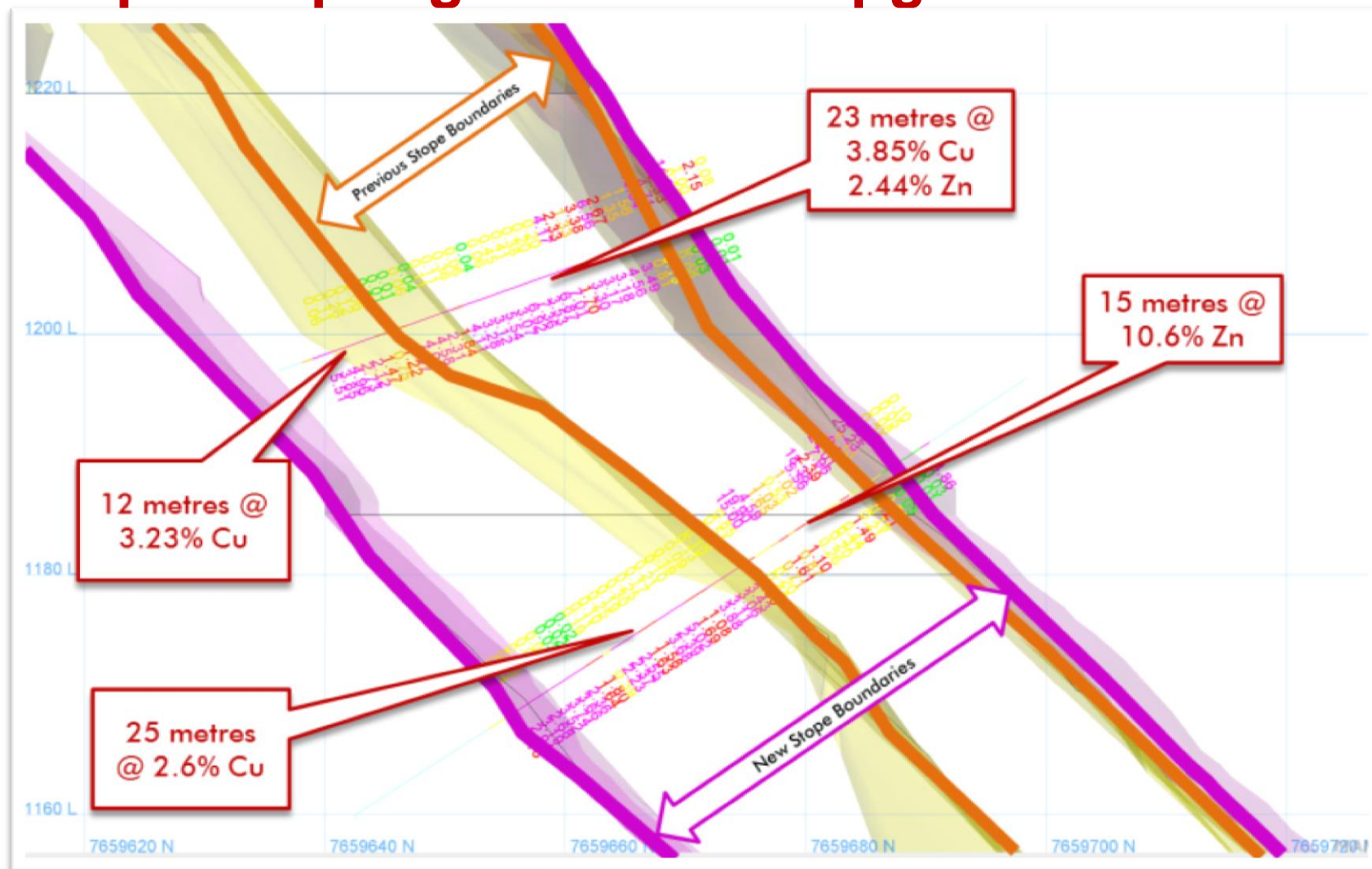
# Mons Cupri Plan

- ▶ Massive sulphide ore present just below base of existing oxide pit
- ▶ Simple cut back, conventional open pit operation
- ▶ Low strip ratio
- ▶ Extensions at Mons Cupri North West





# Sulphur Springs Reserves Upgraded



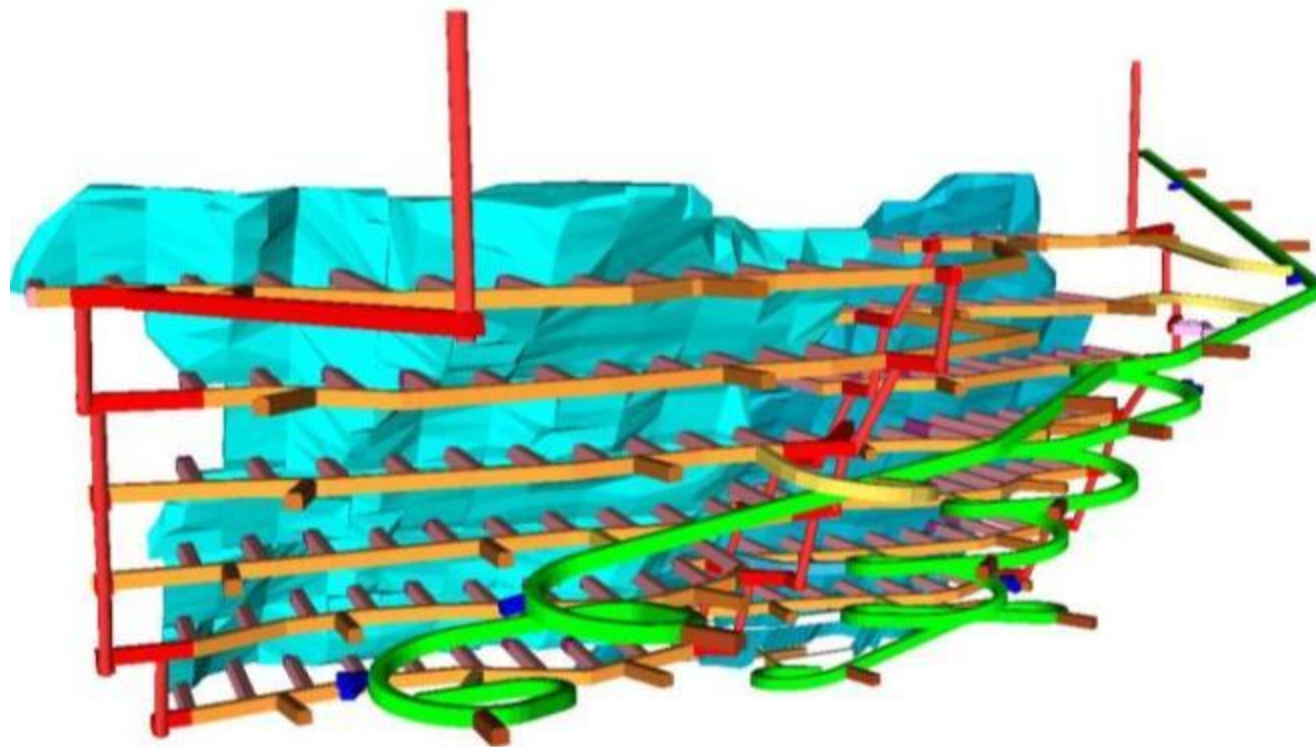
Section 728.935mE



# Sulphur Springs Underground Design

**SULPHUR SPRINGS PROBABLE RESERVE**

Domain	Tonnes	Cu %	Zn %	Pb %	Ag g/t	Cu EQ %
Copper	4,255,000	2.1	3.7	0.2	17	3.1
Zinc	1,408,000	1.1	6.0	0.3	23	2.6
Total	5,663,000	1.9	4.3	0.2	18	3.0

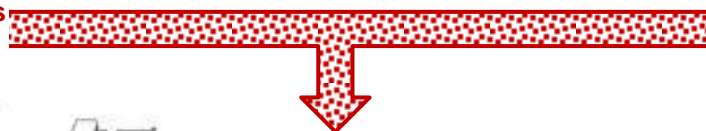


Operating costs are expected to be within the lower quartile given the following:

- high reserve ore tonnes per vertical metre (average 27,000 and up to 35,000 TVM),
- highly productive transverse mining method,
- competent ground conditions as a result of both the localised geology as well as the relatively low depth of mining,
- low haulage costs given the midpoint underground access design as well as the relatively shallow mining depth, and
- use of backfill material from both underground development as well as existing material on Venturex leases.

# Planned Mill Throughput

Mons Cupri/Whim Creek Open Pits  
~600,000 – 700,000tpa  
@ 2.1% CuEQ

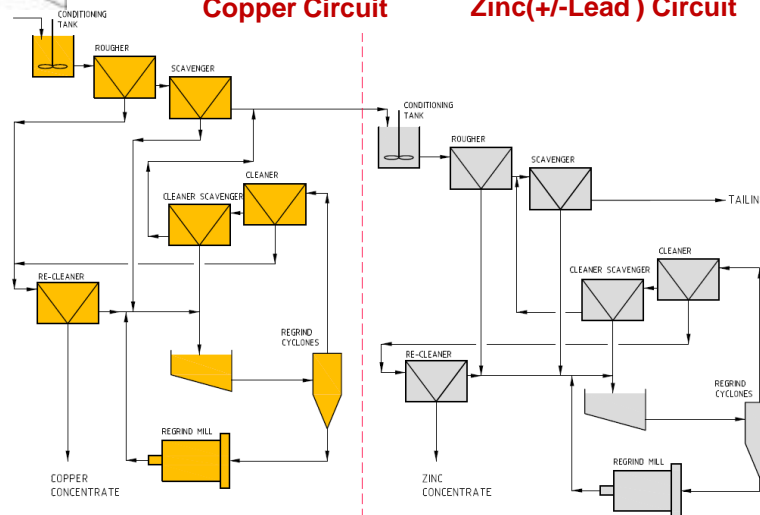


Sulphur Springs Underground  
~700,000 – 800,000tpa  
@ 3.0% CuEQ

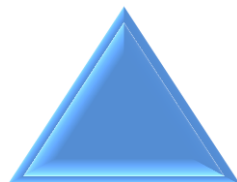


**Copper Circuit**

**Zinc(+/-Lead) Circuit**



~ 20,000t  
Cu



~40,000t  
Zn



~3,600t  
Pb



750,000oz  
Ag



1,500oz  
Au

**Target Annual Average  
Production Rates**

# Metallurgy

## ♦ Sulphur Springs Test Work Completed

SULPHUR SPRINGS LOCKED CYCLE FLOTATION RESULTS									
PRODUCTS RECOVERED	MASS	COPPER		ZINC		SILVER		LEAD	
	%	Grade %	% dist	Grade %	% dist	Grade ppm	% dist	Grade %	% dist
Copper ReCl Concentrate 1-3	6.3	<b>26.38</b>	<b>95.1</b>	1.28	2.0	74	25.3	1.09	39.2
Zinc ReCl Concentrate 1-3	6.3	0.52	1.9	<b>58.94</b>	<b>90.3</b>	56	19.1	0.22	7.7
Zinc Rougher Tails	87.4	0.06	3.0	0.36	7.7	12	55.6	0.11	53.1
Calculated Head	100.0	1.75	100.0	4.11	100.0	18	100.0	0.18	100.0
Assay Head		1.82		4.00		18		0.17	

- ♦ Whim Creek produces simple clean copper concentrate
- ♦ Final Mons Cupri locked cycle test work underway
- ♦ Evelyn deposit - sighter tests indicate effective separation of copper and zinc



# Future Upside Options

## ◆ Addition of lead recovery circuit

- Economics of additional capital, awaiting final lead and silver recoveries analysis
- Lead concentrate export protocols, containerised transport

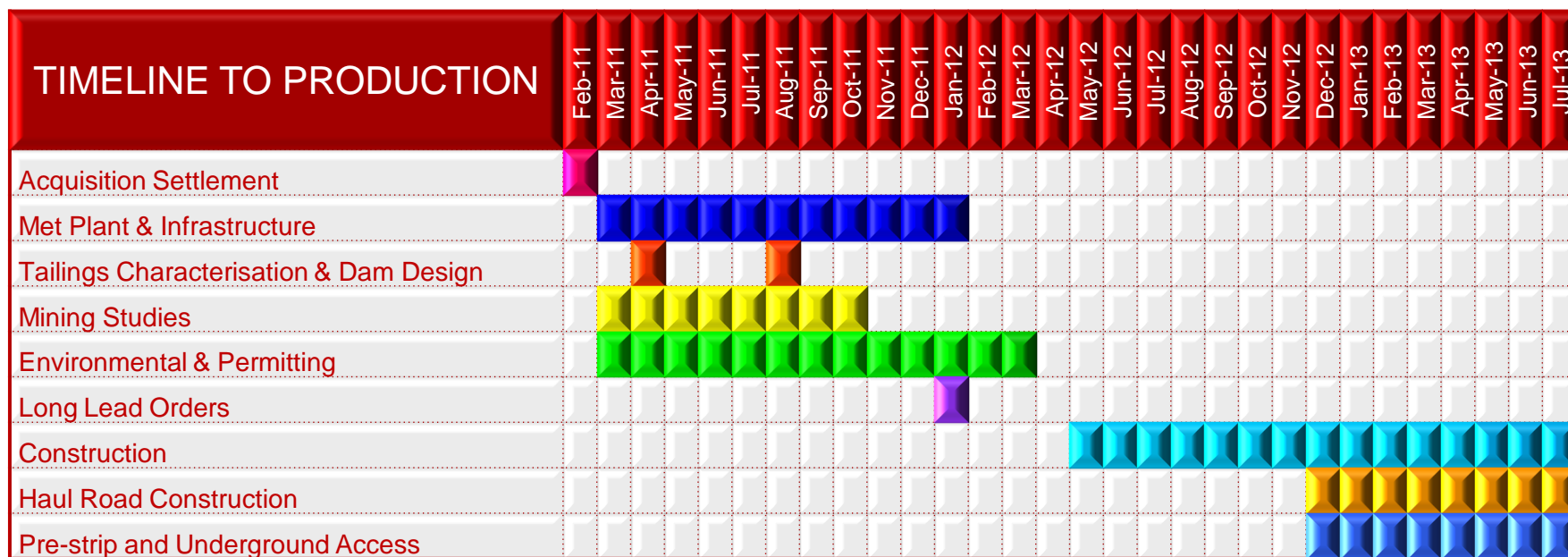
## ◆ Addition of pyrite recovery circuit

- Circa \$50m additional capex
- Target 700,000 tpa pyrite concentrate
- Indicative pricing US\$85/t FOB Port Hedland, Chinese offtake
- Reduces PAF issues in tailings disposal

## ◆ Shared Infrastructure

- Use of third party haul road to reduce distance
- Shared camps and facilities at Sulphur Springs
- Local access to waste material for backfill

# Targeting Mid-2014 as First Full Production Year



Note: Subject to Board approval, financing and permitting

## Gold Exploration - Brazil

- ▶ CMG Mineração Ltda is an incorporated and registered Brazilian exploration company, 100% owned by CMG Gold Ltd, a wholly owned subsidiary of Venturex
- ▶ Focused on discovery of large gold deposits
- ▶ Established exploration team in Cuiabá
- ▶ Evaluating projects in Mato Grosso and Tapajós gold district, Pará

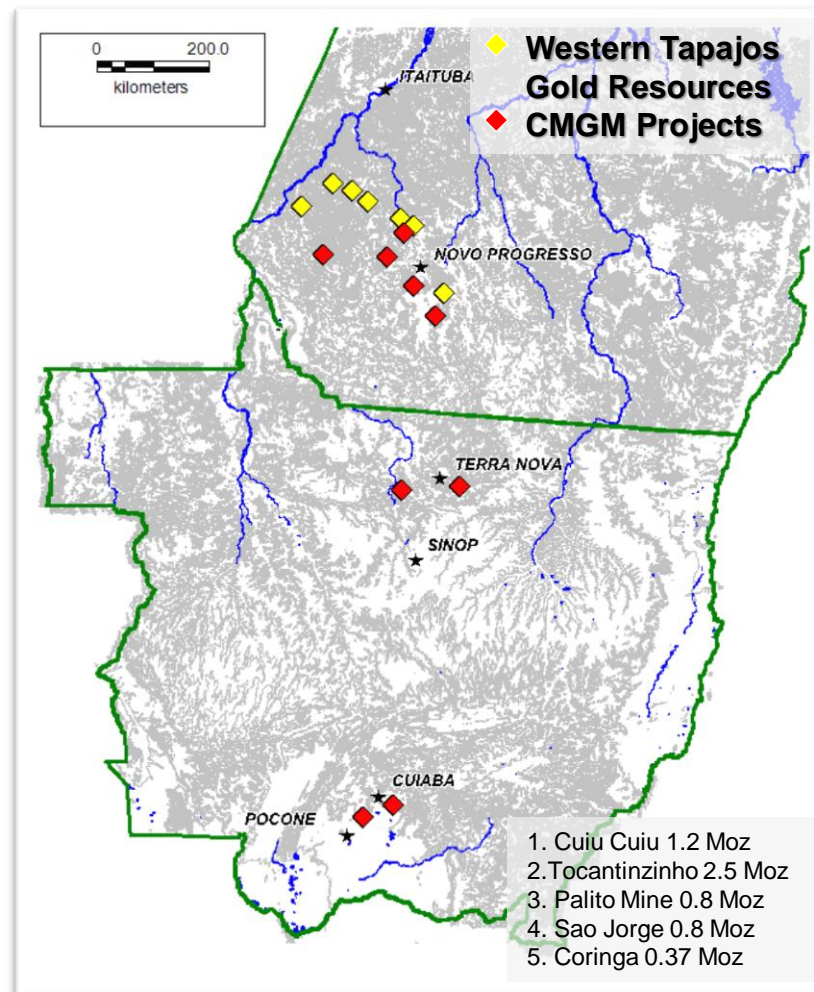




# Overview

- ▶ Nine project project areas in Mato Grosso and Pará states
- ▶ 100% project ownership
- ▶ Land package of 118,000 Ha
- ▶ Pipe line of grass roots and advanced exploration projects
- ▶ Drill ready targets identified on existing project areas
- ▶ Low entry cost ensuring investment is principally in the ground

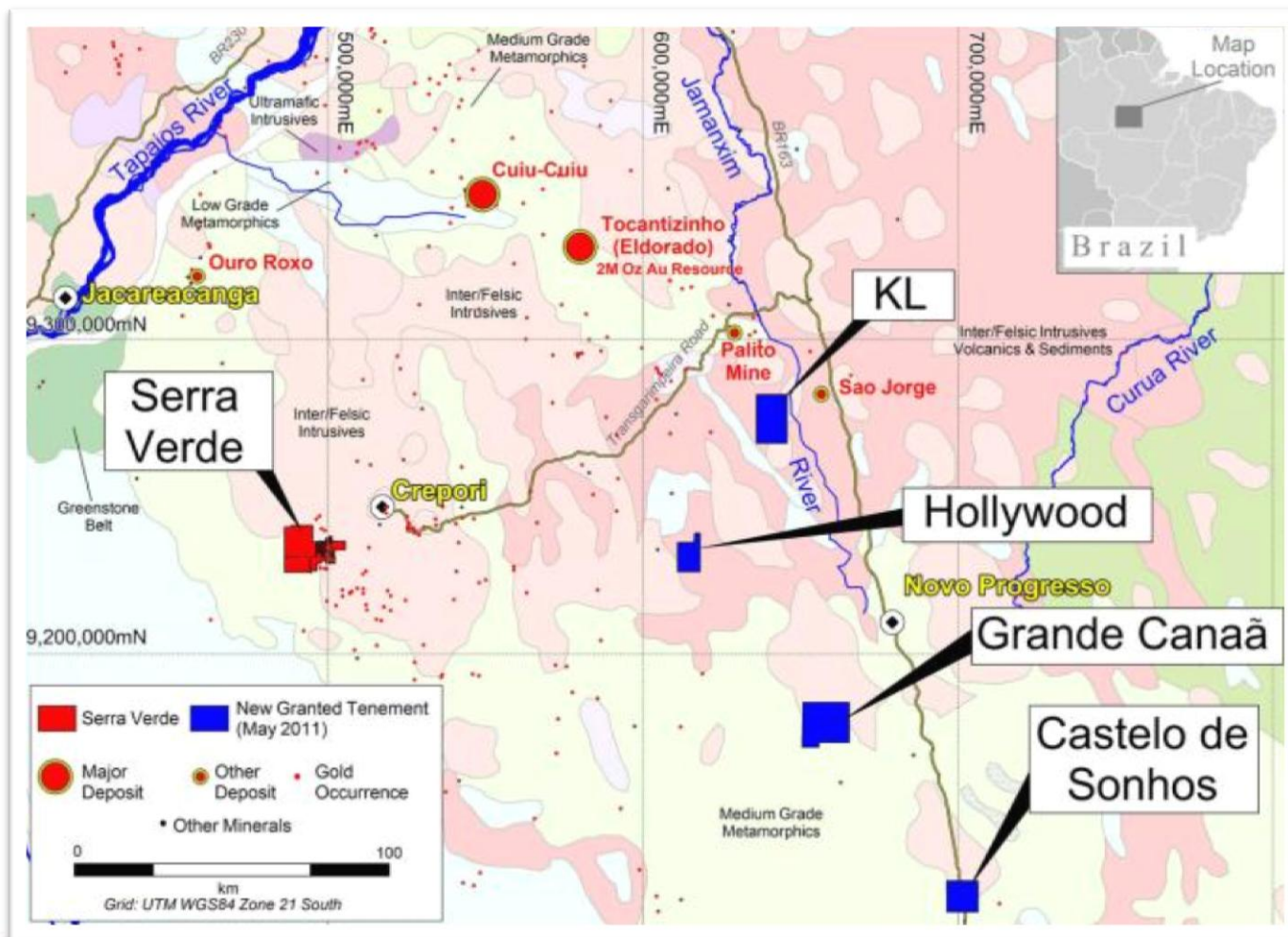
# Location of Brazilian Projects





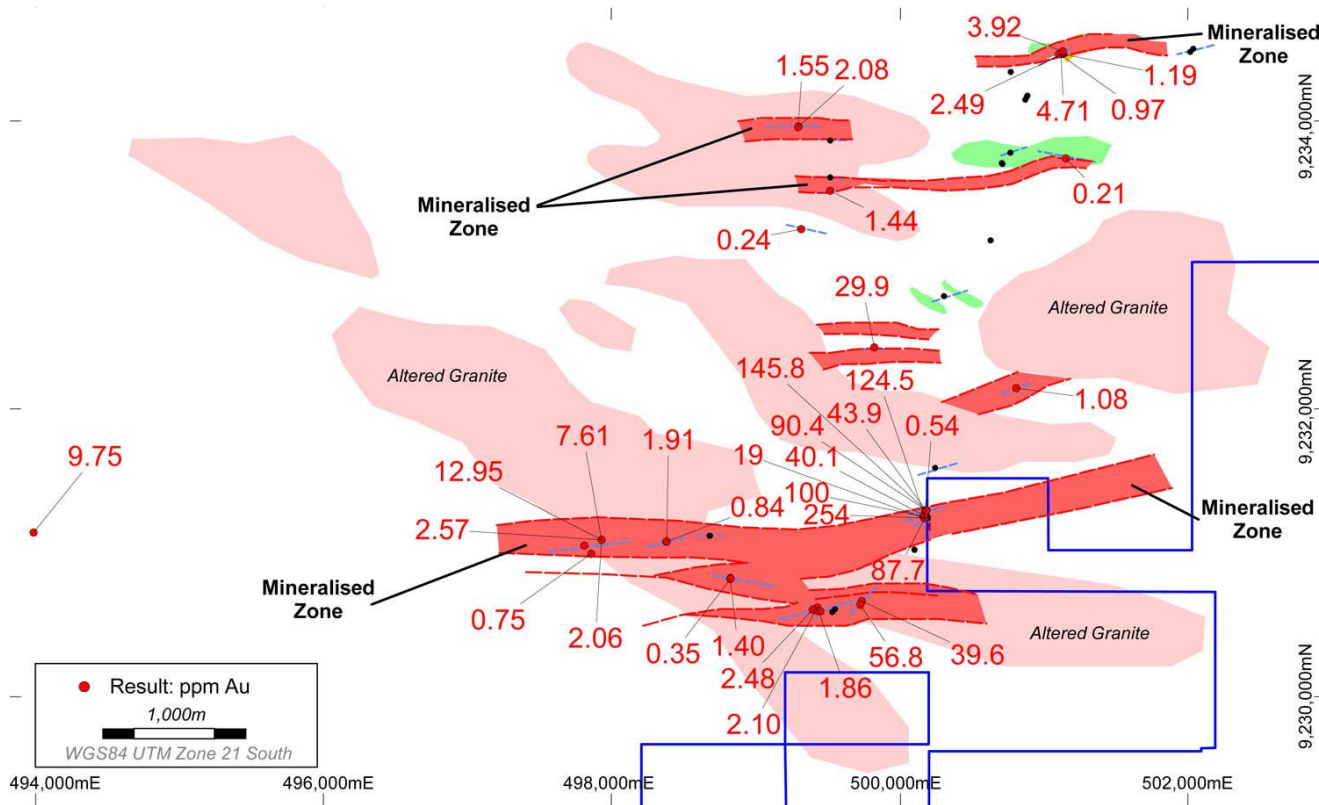
# Large Land Holding in the Tapajós

Largest alluvial gold province in Brazil, estimated to have produced 20-30 Moz 1978-1995





# Serra Verde Gold Project



**Fofoca Velha, brecciated altered granite**



**High Grade Fofoca Velha Vein +100g/t**



**Spider veined granite**



**Intensely sericitised, silicified Granite and vein material Doca Prospect Shaft**



# Serra Verde Gold Project

Doca Vein - Shaft



Doca Vein - High Grade Ore



Serra Verde - Trado Drilling

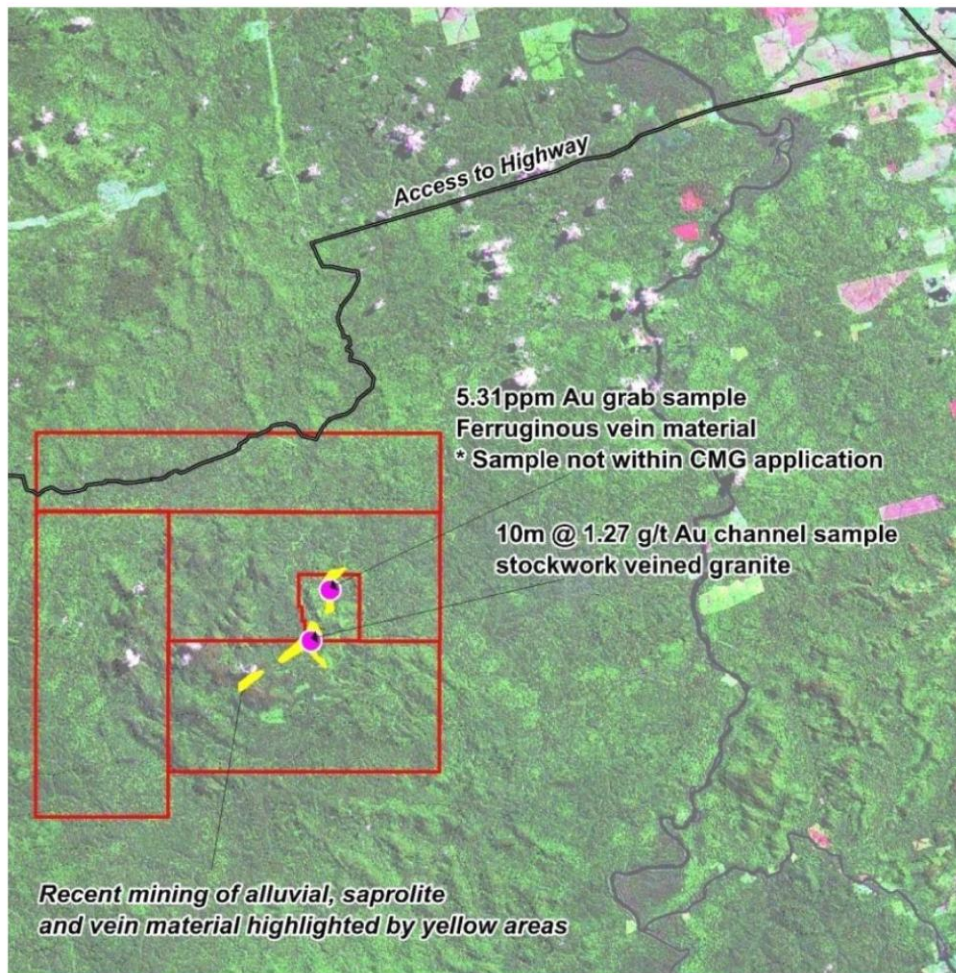


Serra Verde - Trado Samples





# Grande Canaã Gold Project



- ♦ 4 Exploration Licences
- ♦ Local mining activities have exposed stockwork veined, sulphidised granite.





# KL & Hollywood Projects

- ◆ 4 Exploration Licences.
- ◆ Recent garimpero activities have exposed mineralised veins within altered granites and schists.
- ◆ Hollywood was a significant alluvial mine in the 1980s, further sources of the alluvial gold are being evaluated.
- ◆ KL is a recent shaft with dump material assaying +2g/t Au. close proximity to the Palito Mine and São Jorge deposit.
- ◆ Both projects provide potential for significant “New Discoveries”.





# Competency Statements

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves (excepting Sulphur Springs) in the Pilbara VMS Cu-Zn Project is based on information compiled or reviewed by Dr Tim Sugden BSc, PhD, and Mr Steven Wood who are Members of the Australasian Institute of Mining and Metallurgy. Dr Sugden and Mr Wood are full time employees of Venturex Resources Limited and have sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaking to qualify as Competent Persons as defined in the 2004 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Dr Sugden and Mr Wood consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Ore Reserves at Sulphur Springs is based on information compiled or reviewed by Mr David Clark who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Clark is a full time employee of Minero Consulting and has sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Clark consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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## Tim Sugden

Managing Director

T: +61 8 6389 7400

E: [tim.sugden@venturexresources.com](mailto:tim.sugden@venturexresources.com)

## Liza Carpene

Company Secretary

T: +61 8 6389 7400

E: [liza.carpene@venturexresources.com](mailto:liza.carpene@venturexresources.com)

## Registered Office

Suite 3, Level 1, 127 Cambridge Street  
West Leederville WA 6007, Australia

## Postal Address

PO Box 1444

West Leederville WA 6901, Australia

## Website

[www.venturexresources.com](http://www.venturexresources.com)

## ASX Code

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