



FIRST QUANTUM
MINERALS LTD.



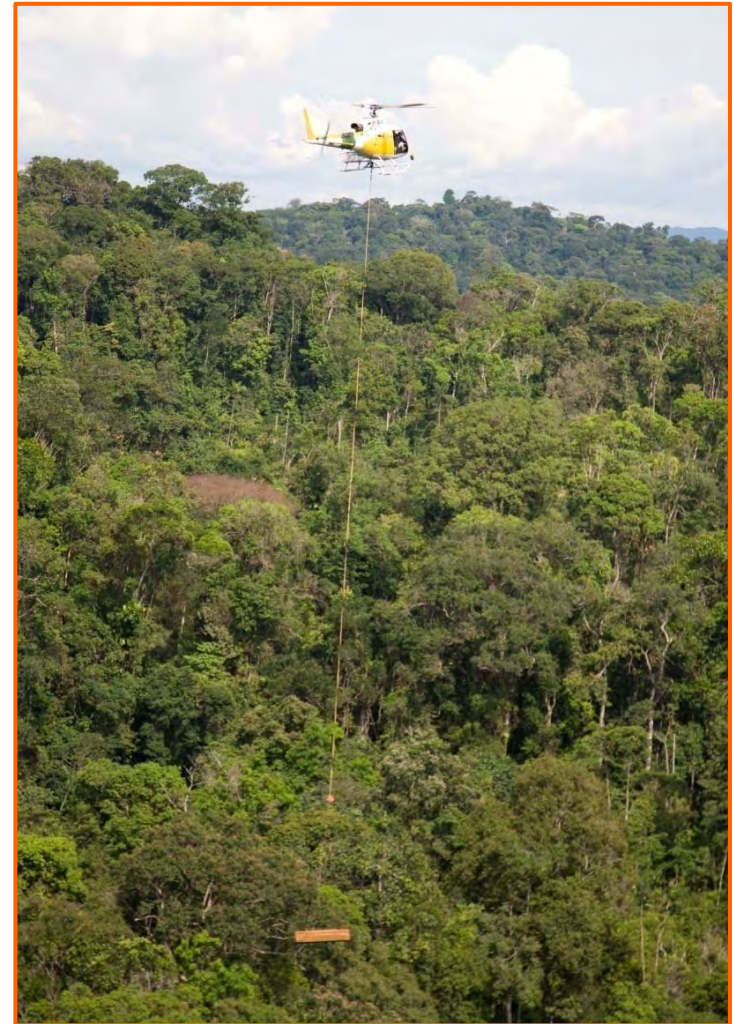
The Balboa Discovery, Cobre Panama

PDAC - Toronto 5 March 2014

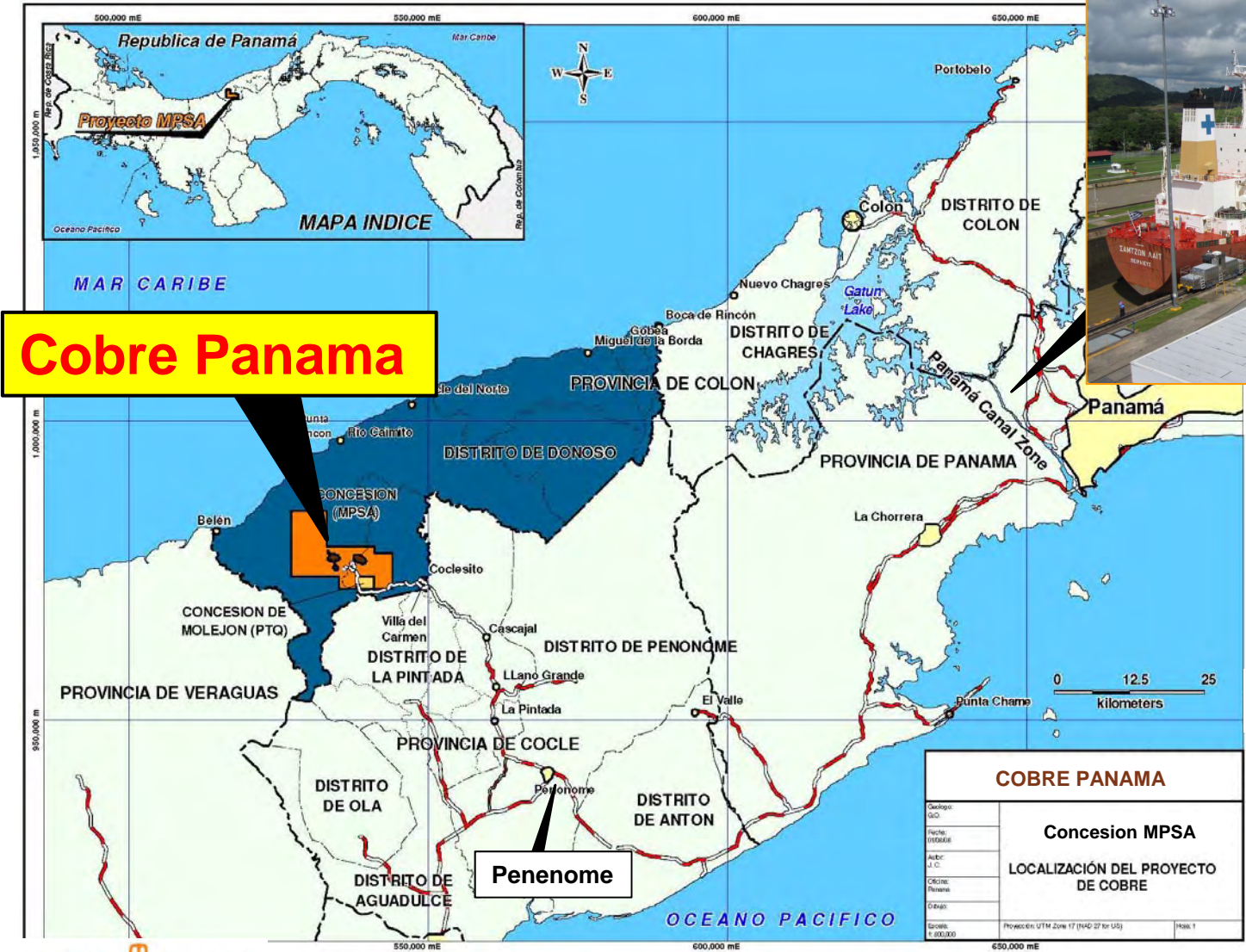
Colin Burge

Outline

- Location and Geology
- Project Description
- Exploration History
- Balboa Discovery
- Deposit Description
- Conclusions
- Aspects of the Discovery



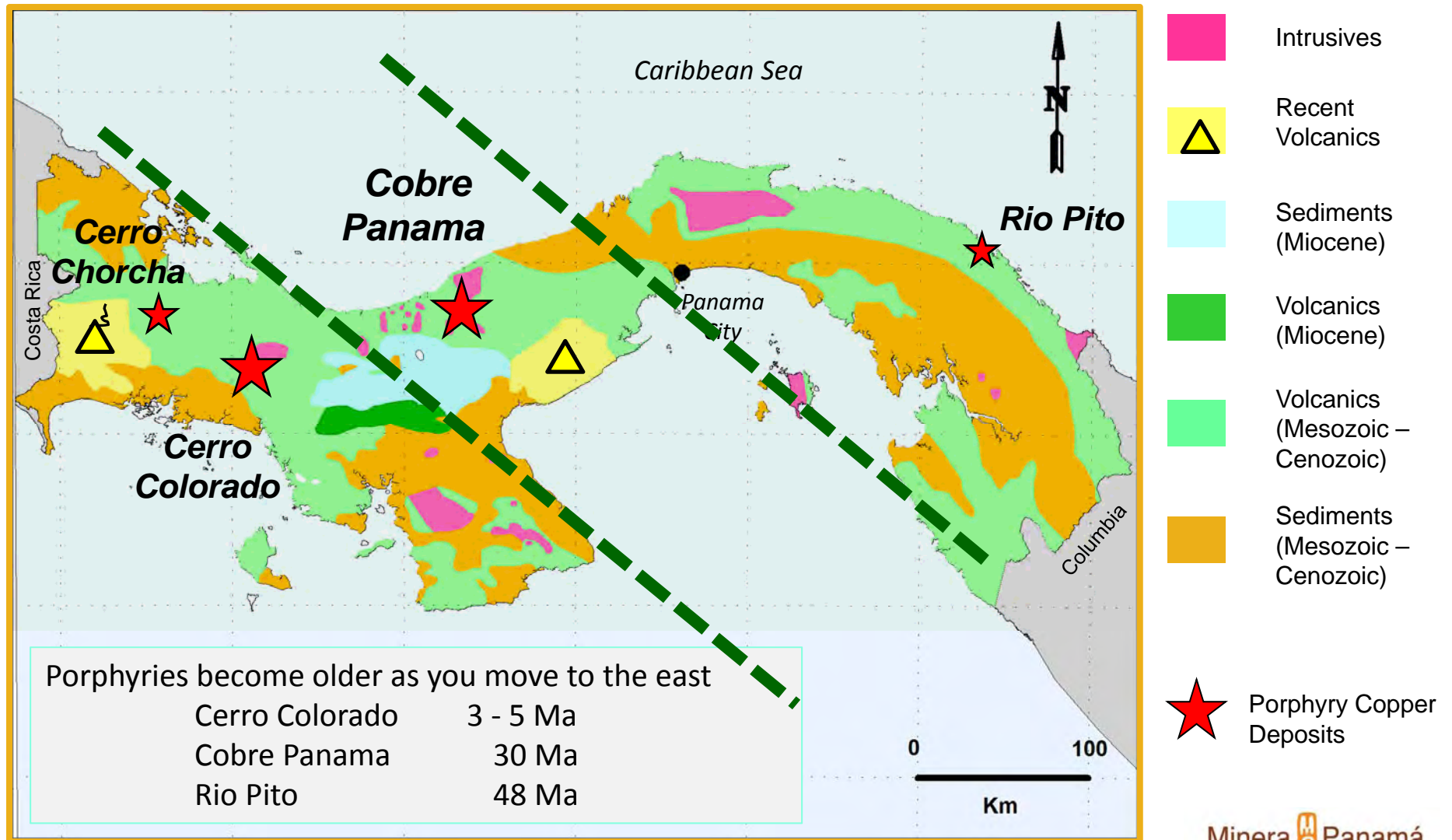
Location



Access:
4hrs by road
from Panama City

COBRE PANAMA	
Drawing: G.O.: Fecha: Unidad: Autor: U.C.: Cliente: Revision: D.Dato: Escala: 1:250,000	Concesion MPSA LOCALIZACIÓN DEL PROYECTO DE COBRE
Proyección: UTM, Zona 17 (NAD 83 for US) H.Sab. 1	

Geology - Panama



Project Description

2.1Bt @ 0.41% Copper *

MINE:

5 large open pits

Strip ratio average 0.7:1

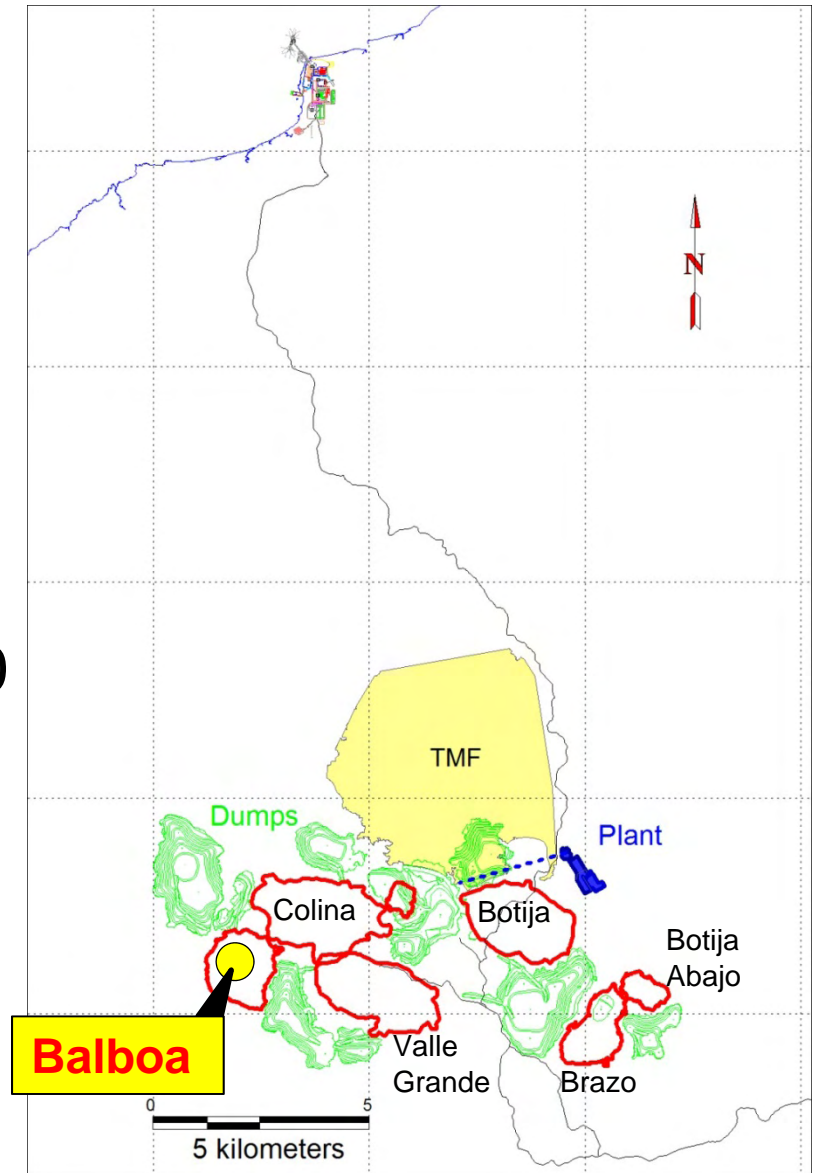
MILL:

70Mtpa increasing to 100Mtpa Yr10

Conventional flotation

PORT Facility and

300MW Coal-fired power plant



* NI 43-101 Proven and Probable Reserve, May 2010

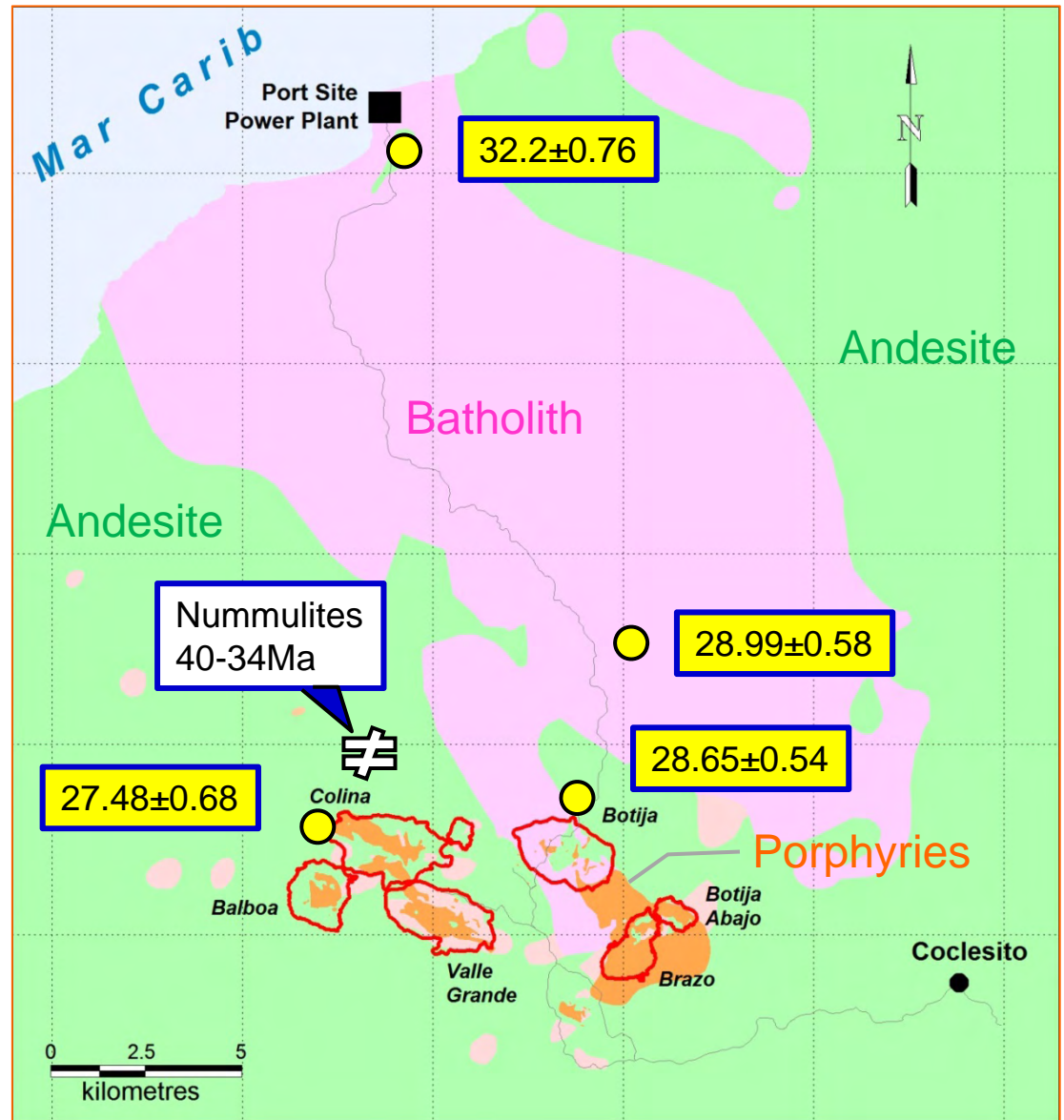
Regional Geology

Large Oligocene batholith
Andesite volcanics

Porphyries on margin
are associated with ore

Batholith younging south
Fossil dates 40-34Ma

Shallow marine setting



*U-Pb dates courtesy Codes/Amira
Fossil study – Smithsonian Tropical Institute.*

Factors affecting Exploration

- Thick jungle cover
- Saprolite clays average 20 meters
- Climate 4 meter rainfall/yr
- Poor access
- Steep incised terrain

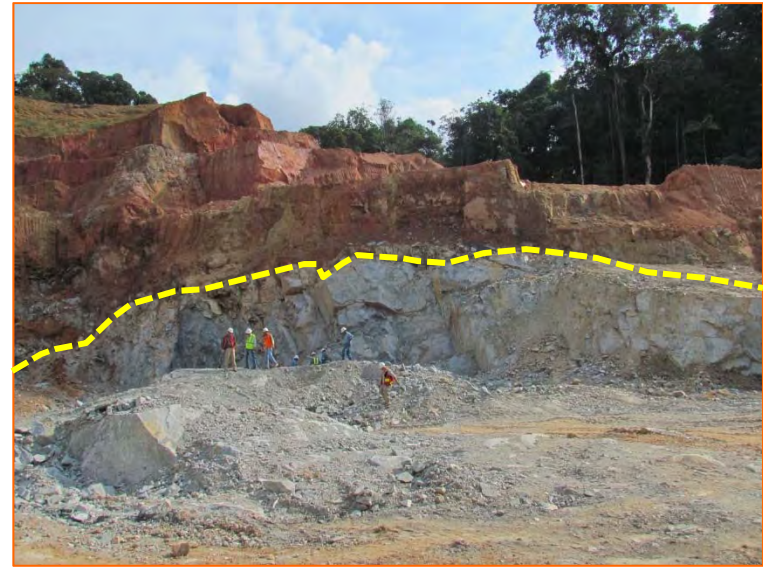
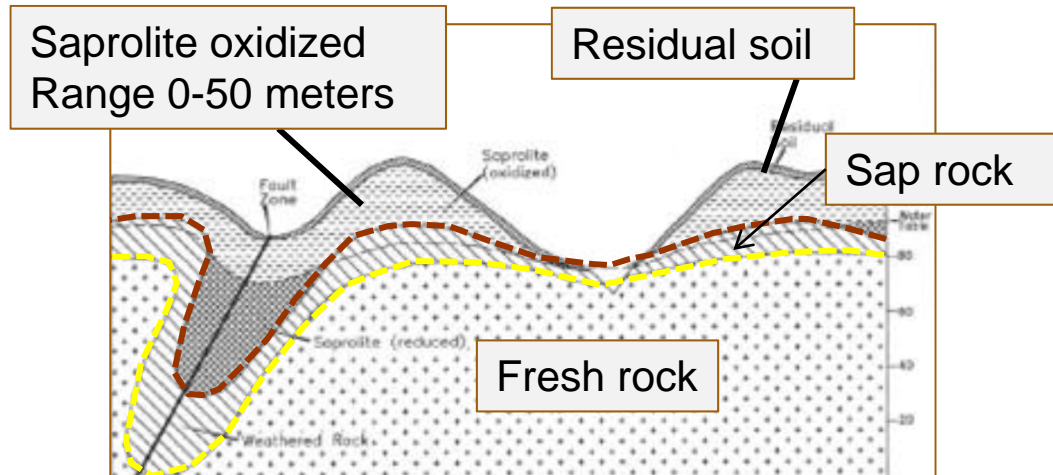


photo courtesy Henry Awmack

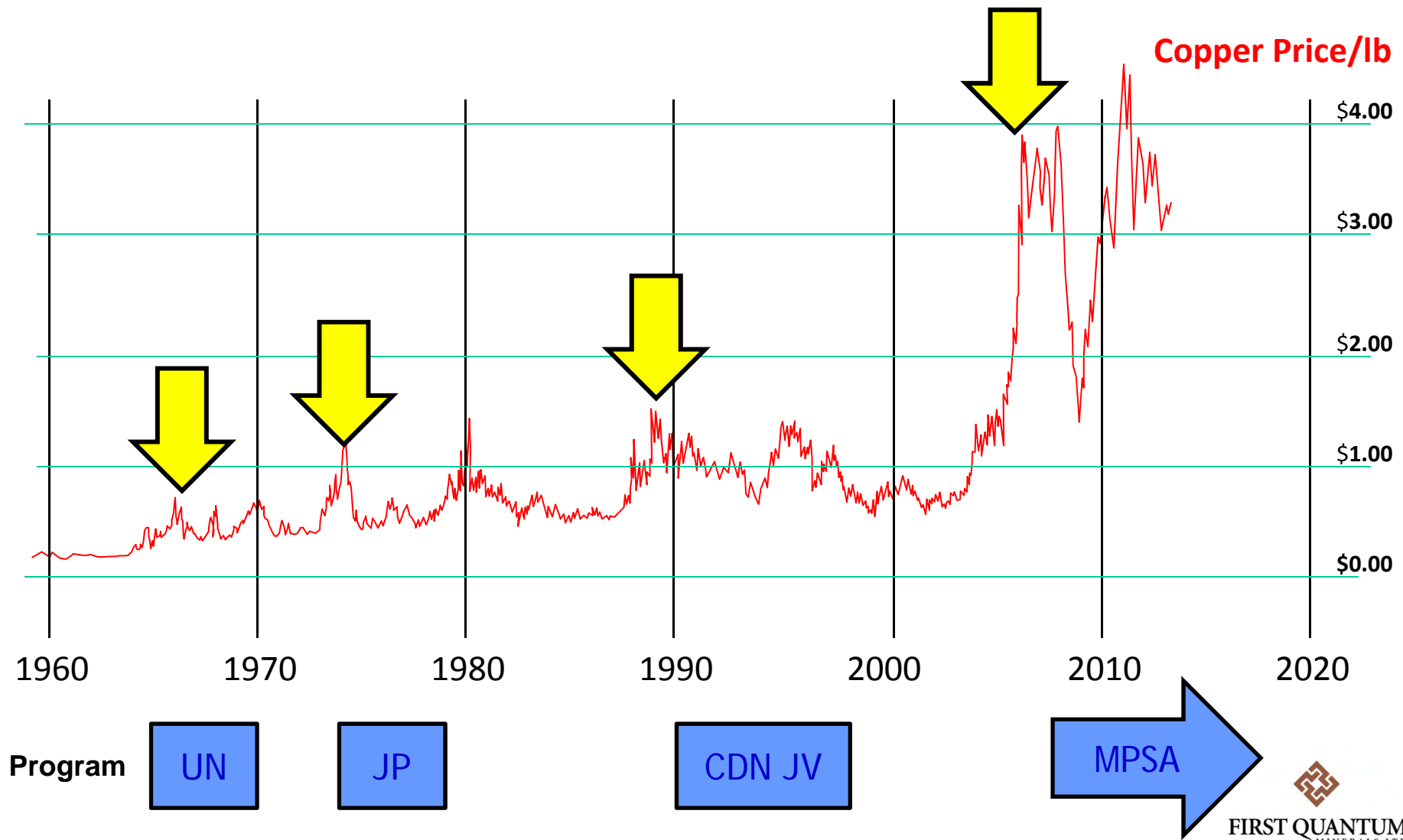


Exploration History - Cristobal Colon 1503

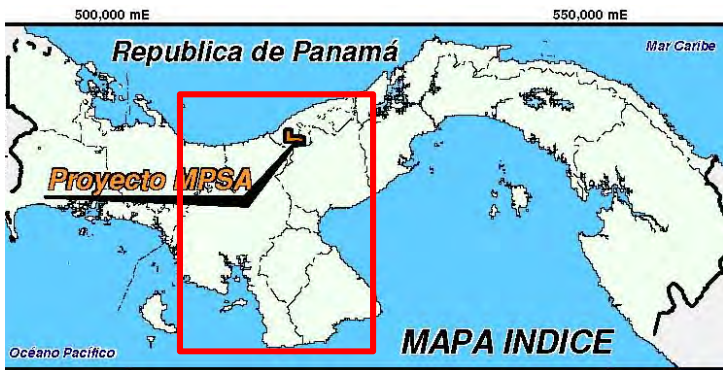


Reports of gold and
a strait to another ocean
Columbus lands at Rio Belen

Four phases of Exploration activity



UN Program 1966-1968



AZUERO PENINSULA SURVEY

Evaluated 17,000 km²
Stream sediment discovery
26,000 samples collected in survey

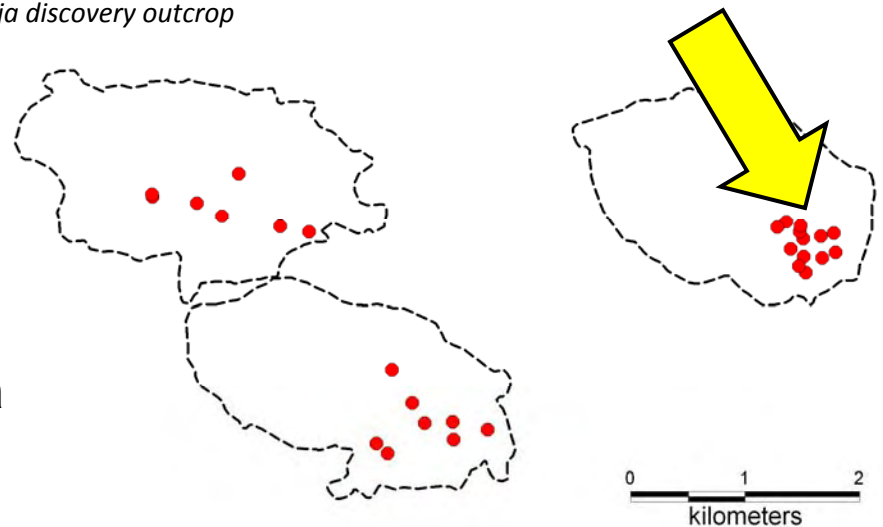
Drilling leads to discovery of Botija East and significant mineralization at Colina and Vega



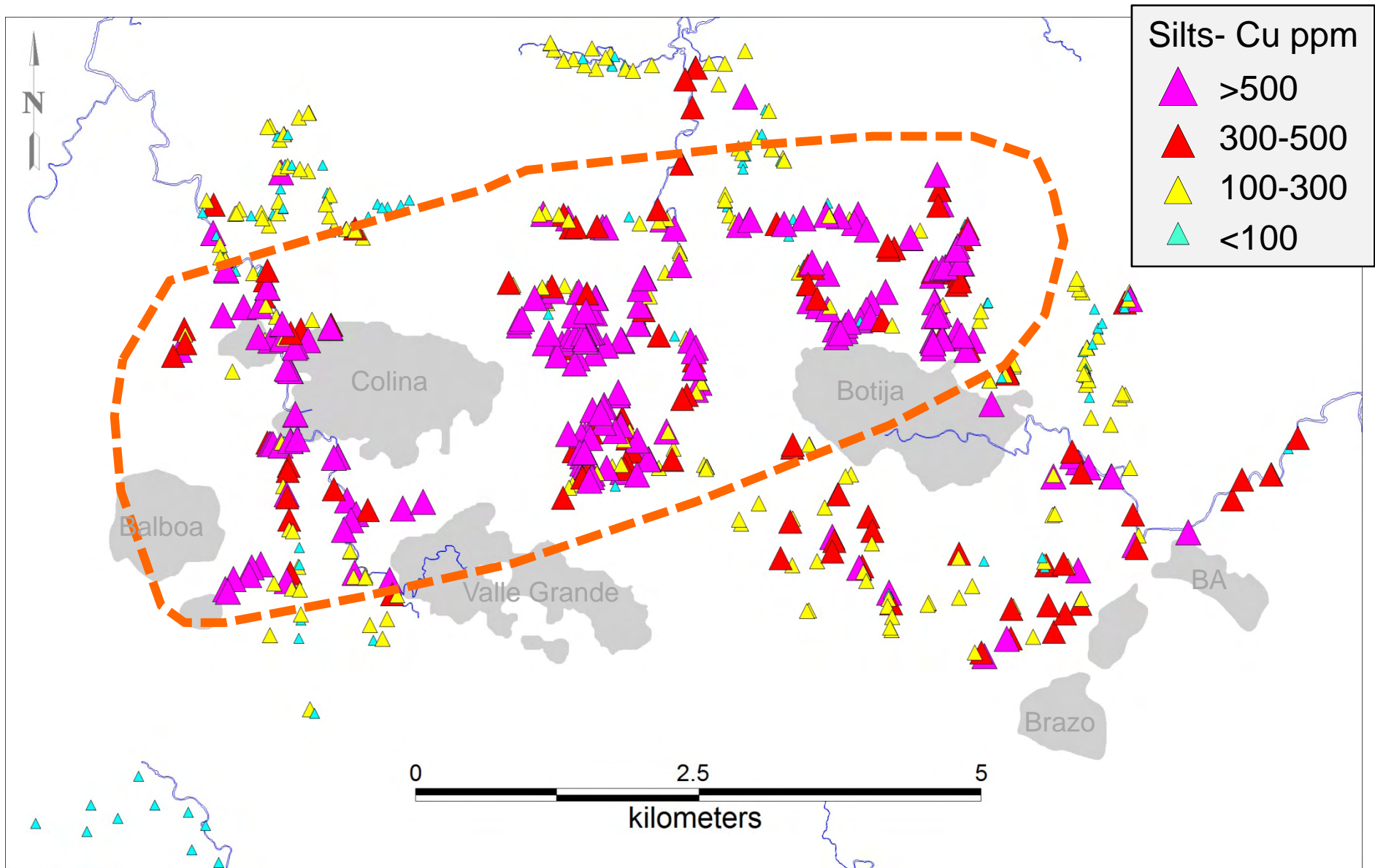
Jussi Huhta Finnish geologist and UN Project Manager at Botija discovery outcrop



Bell 47 slinging supplies at Botija



Stream Sed anomalies led to discovery



Adrian/Inmet/Teck 1990-1997

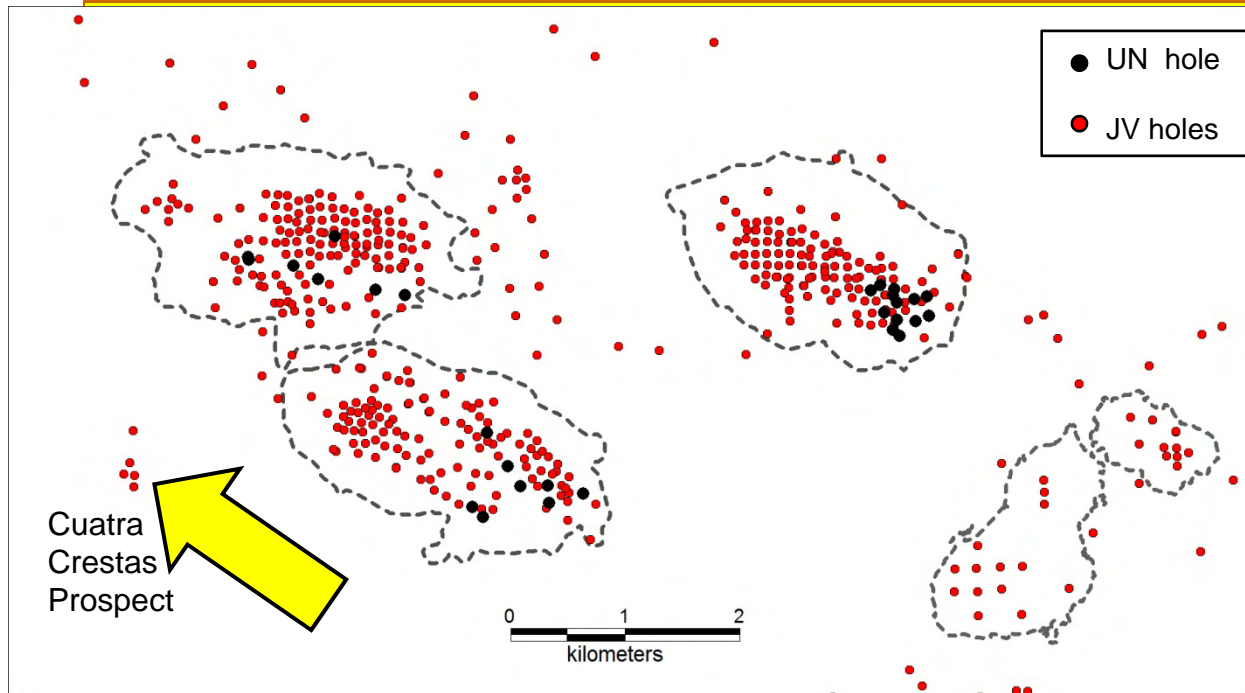


photo courtesy Stew Harris

Colina Camp construction

Soil sampling and Magnetics

Drilling 563 holes - 111,000m

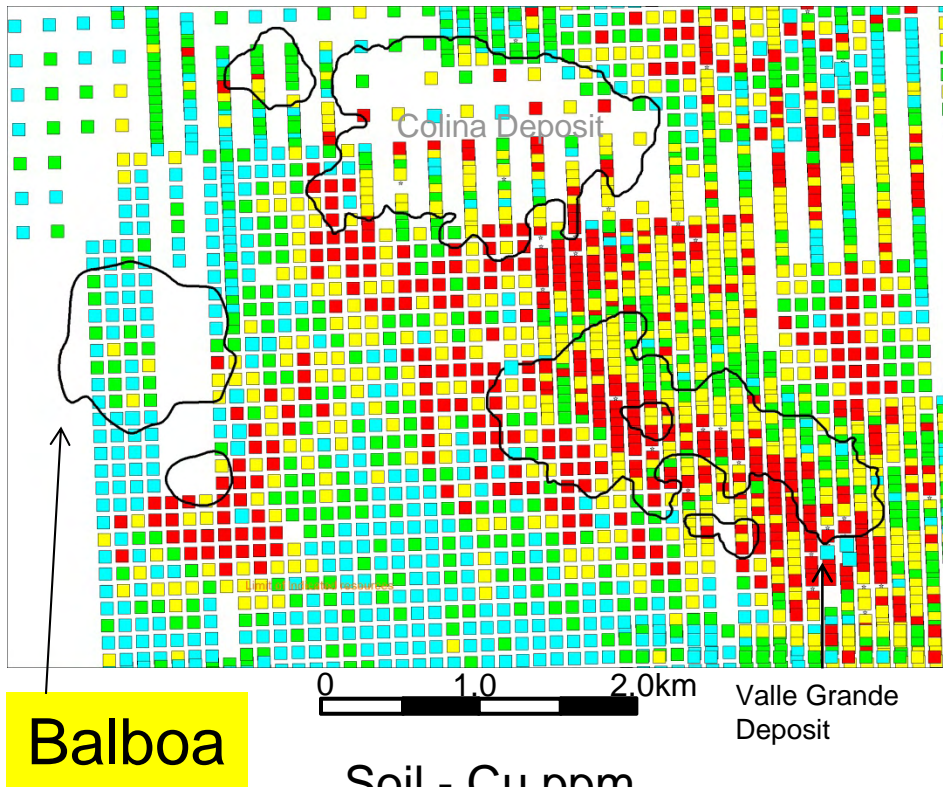
discovery of Botija west starter pit and Valle Grande

identify significant mineral at Brazo - Botija Abajo

A few holes in Cuatra Crestas prospect

Soil Anomalies

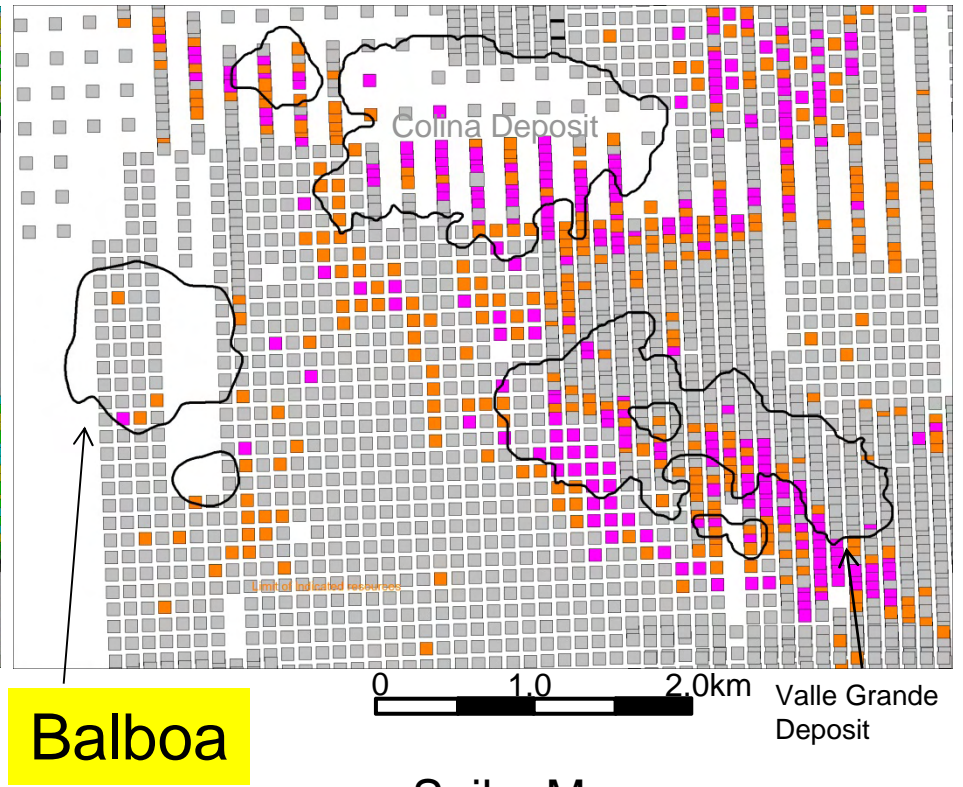
Copper



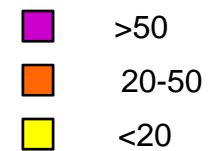
Soil - Cu ppm



Molybdenum



Soil - Mo ppm



MPSA FEED Study 2007-2010

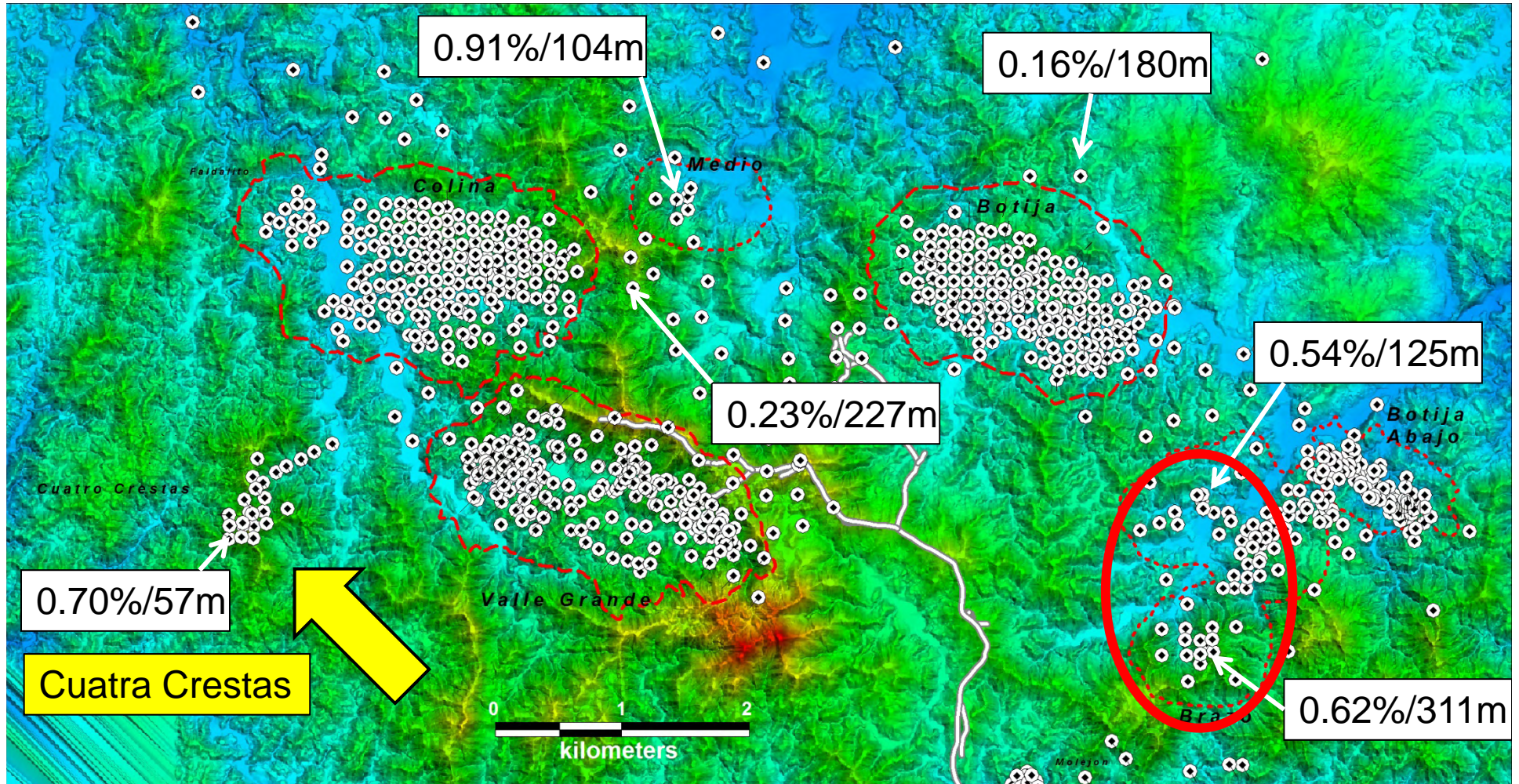
- 390 holes 92,000 meters HQ drilling
- Botija, Colina, Valle Grande drilled to reserve status
- extensive Metallurgy and Comminution testing
- Brazo and Botija Abajo established as resources



Balboa Discovery

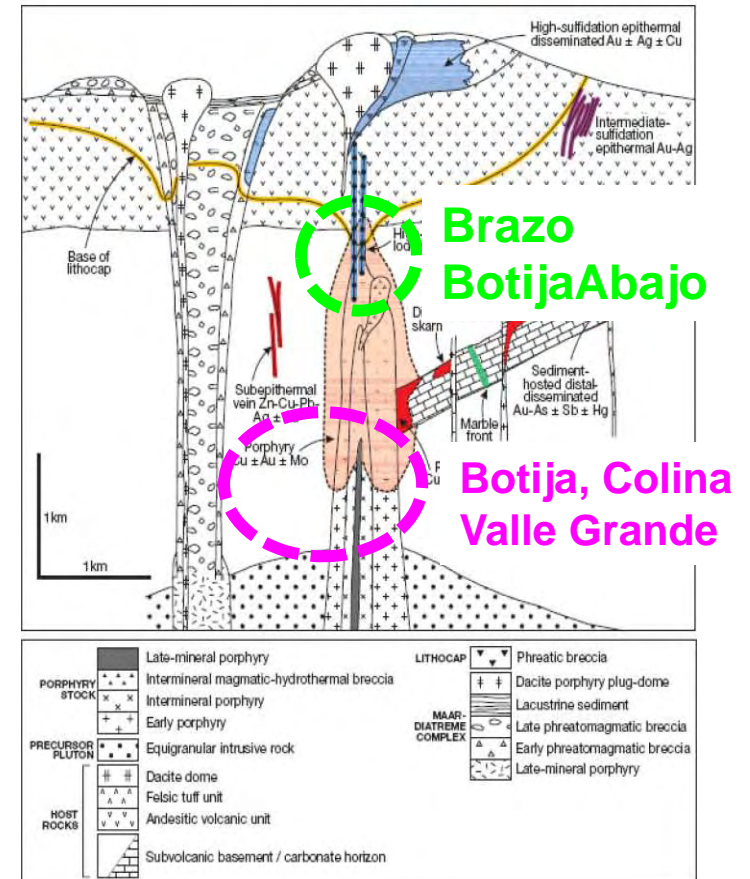


Exploration Targets 2010



MPSA Exploration Program

- Objective: to locate higher than average Cobre Panama grades
- Exploration drilling began in Brazo area with widely spaced deep holes looking for enrichment blanket
- Decision taken to fly EM in order to cover difficult terrain rapidly



Sillitoe, R.H. 2010, Porphyry Copper Systems, Economic Geology V105

ZTEM Survey

- Geotech Ltd mobed to site late August 2010
- Concession covered on 300m line spacings with Magnetics and ZTEM
- ZTEM is a passive EM technique utilizes Earth's natural Electric field as a transmitter (generated by distant lightning strikes)
- Frequencies are read in the audio range from 28 to 2800 Hz

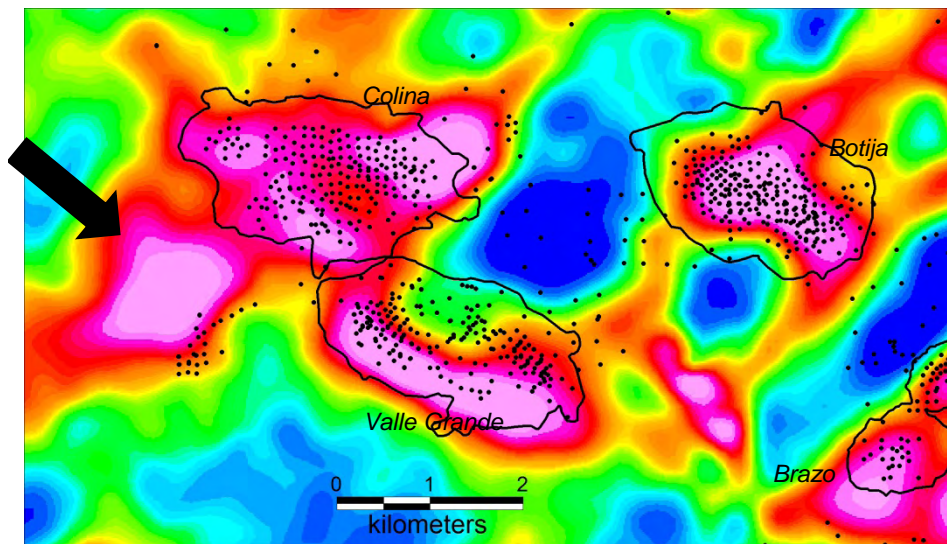


ZTEM Results

System appears to be mapping near surface sulphides

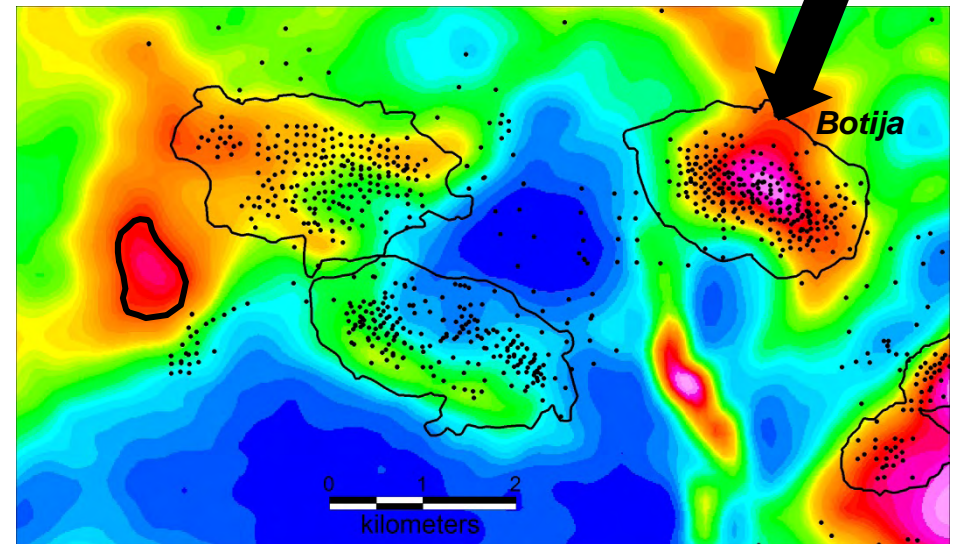
Large untested anomaly northwest of Cuatra Crestas prospect

Deep response also present at known deep sulphides at Botija



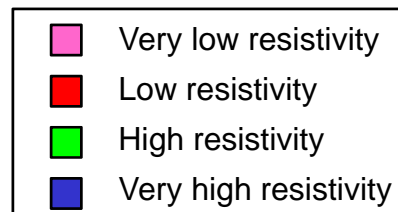
360Hz Total Phase Rotated In-phase

SHALLOW



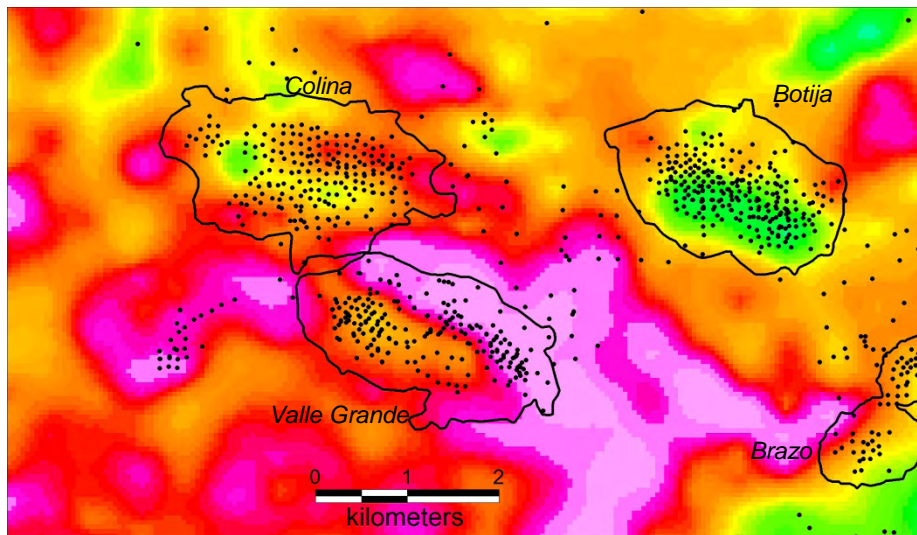
45Hz Total Phase Rotated In-phase

DEEP

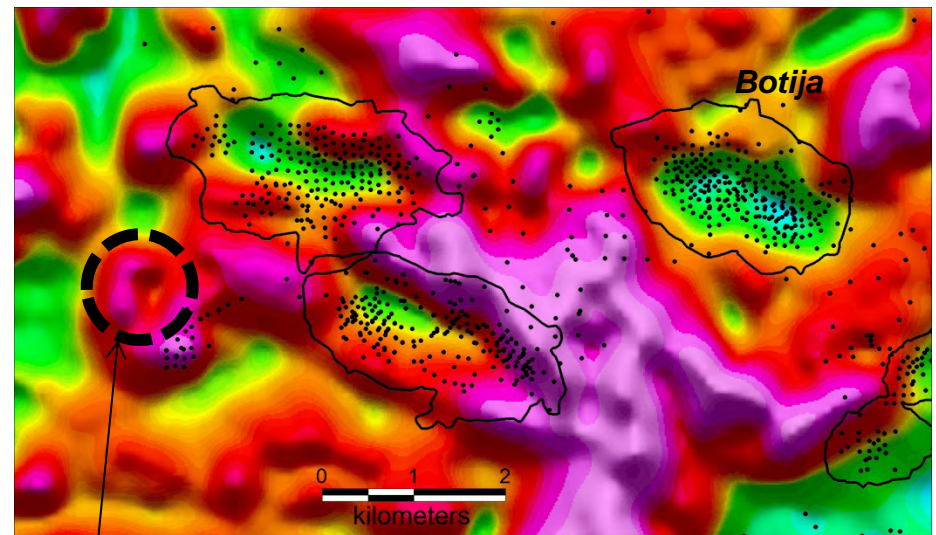


Reduced to Pole Magnetics

1995 and 2010 surveys show similar patterns - Andesite highs
Known deposits represented by demagnetized areas - phyllic?
Balboa is a positive magnetic anomaly



1995



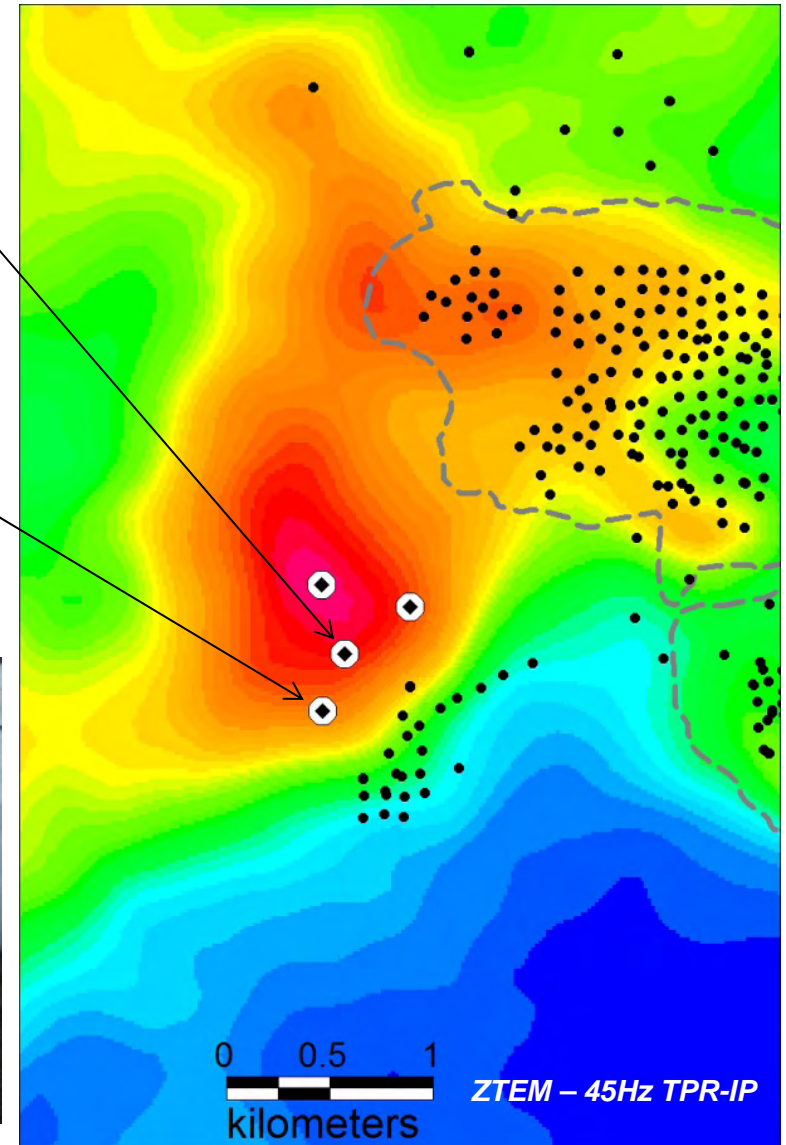
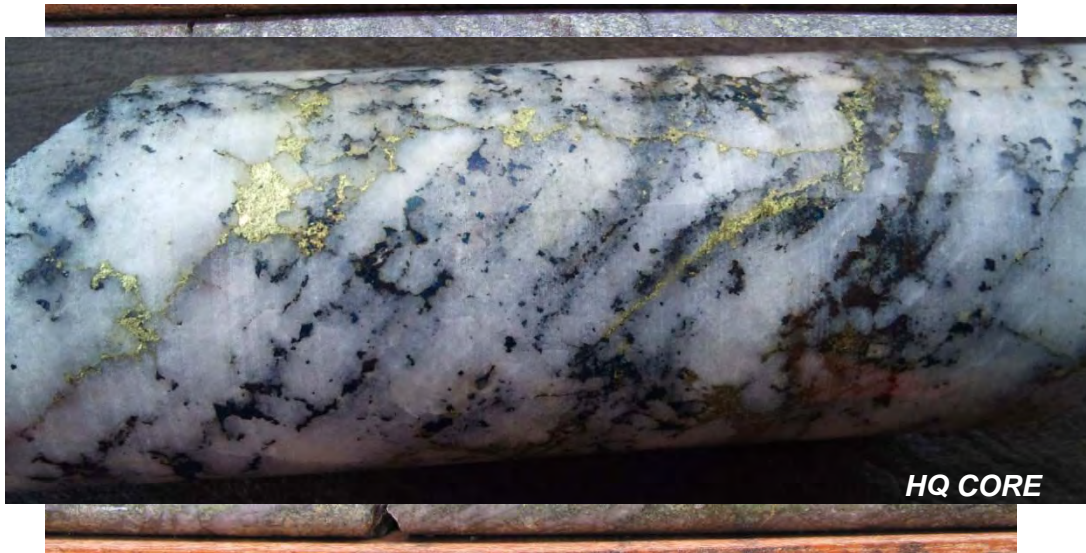
Balboa

2010

4 holes on 400m step-outs were proposed

Hole #2 hit **0.60% Cu, 0.21 g/t Au / 240m**
Including **0.92% Cu, 0.42 g/t Au / 114m**

Hole #1 intersected **0.28% Cu / 209m**
and 60m below **2.9% Cu/ 2.0g/t Au / 6.4m**
In sheeted quartz-chalcopyrite-bornite veins

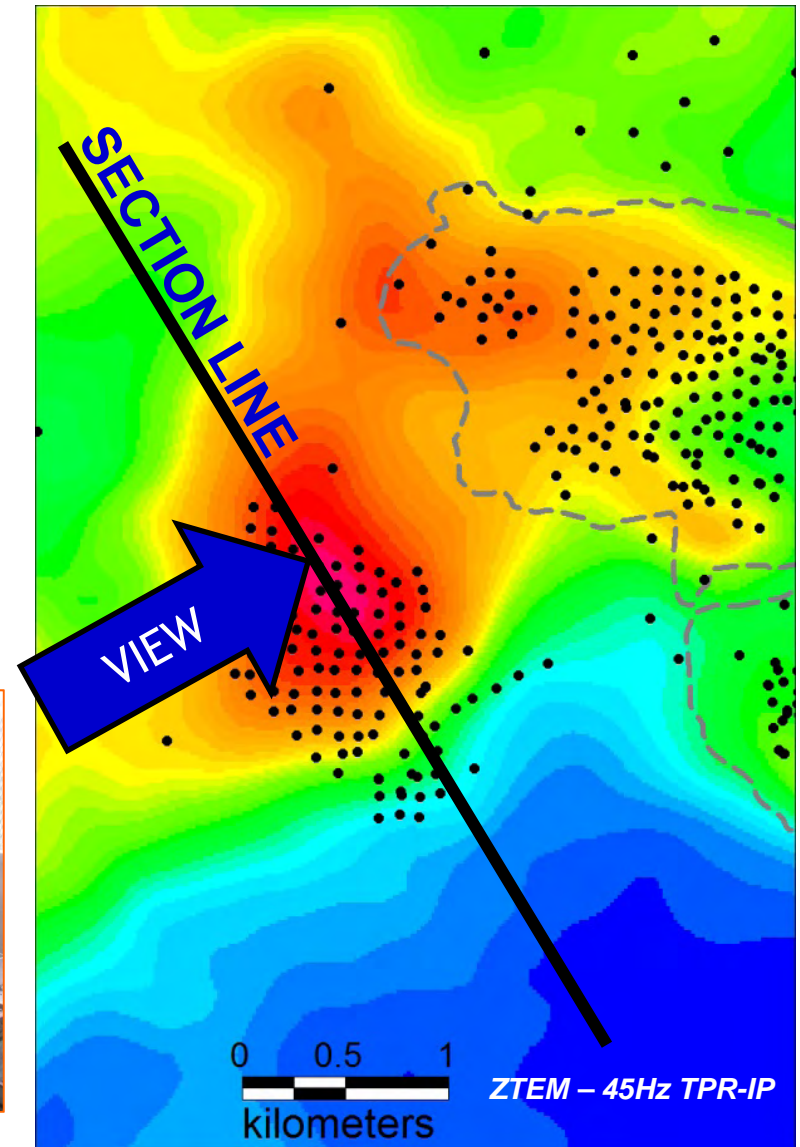
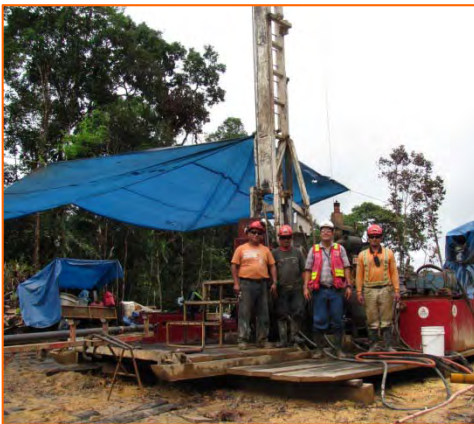


Resource drilling

By December 2010 it was evident a significant discovery had been made...

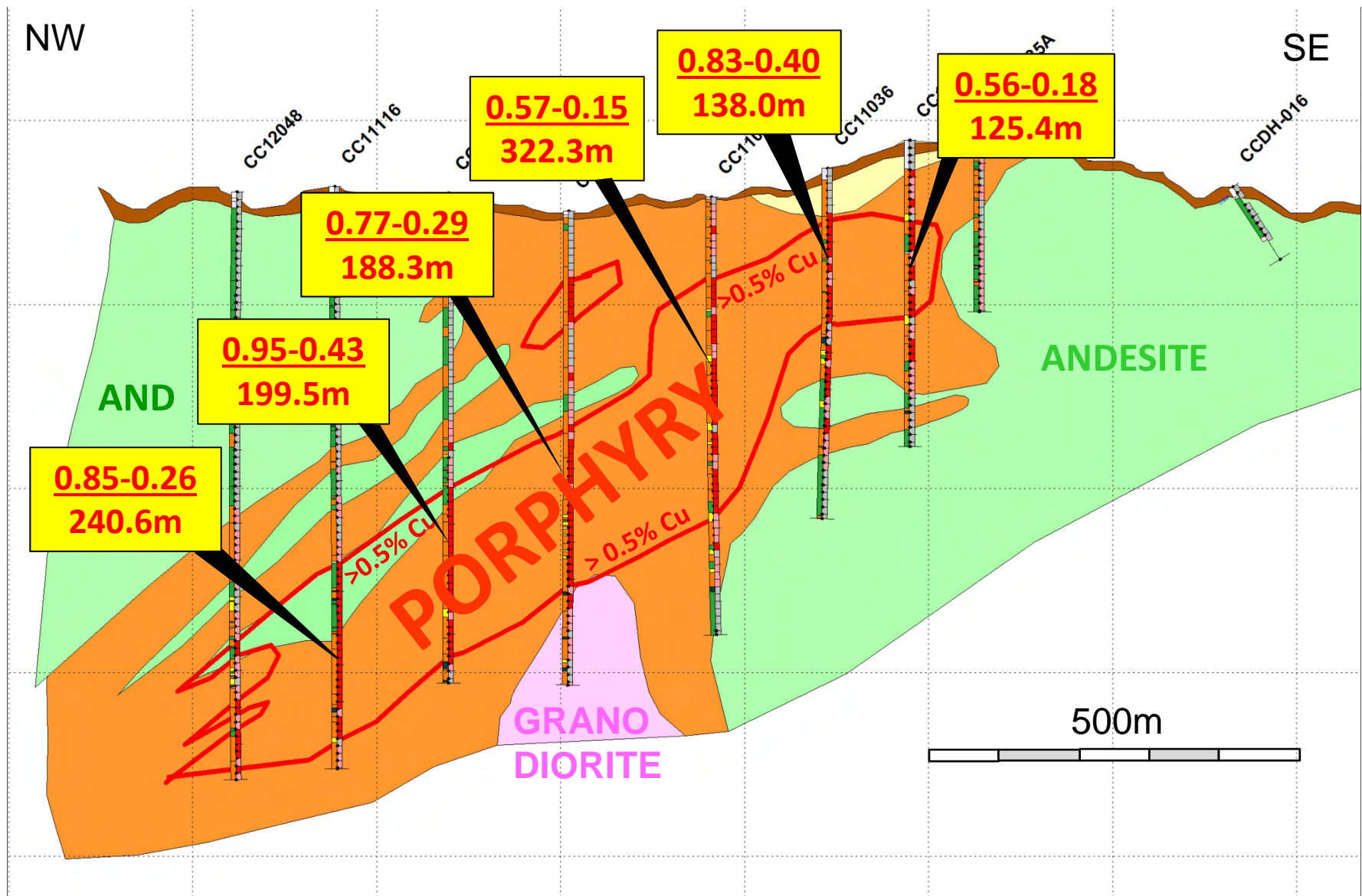
NOW THE WORK BEGINS

Over the next 18 months 94 holes were drilled on 100 meter centers to depths of up to 700m



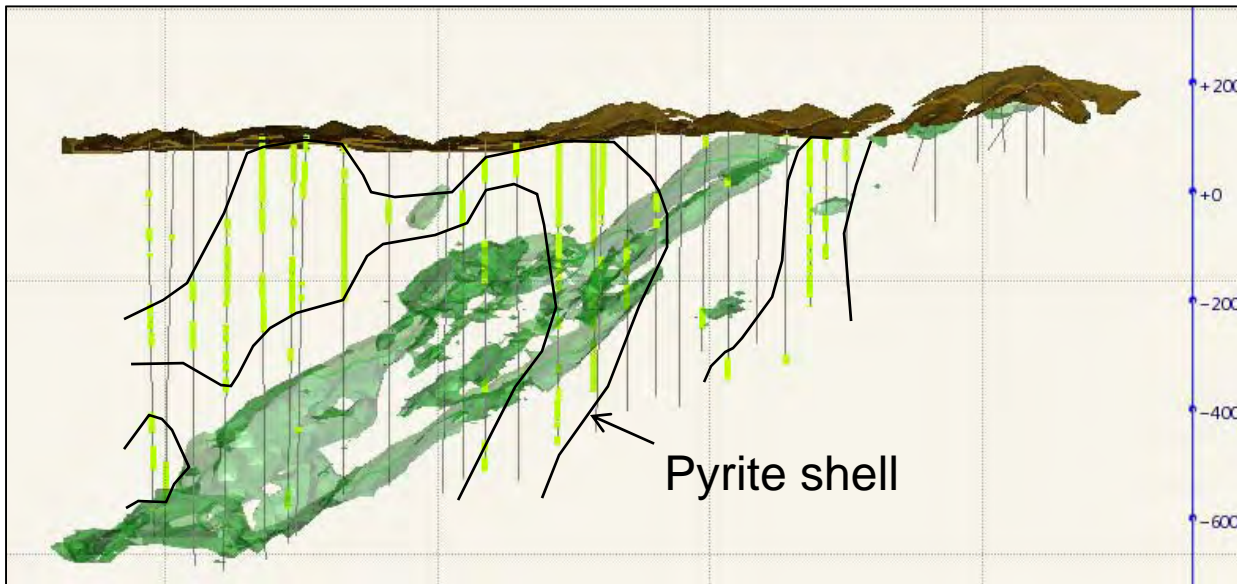
Section Viewing NE

Geology

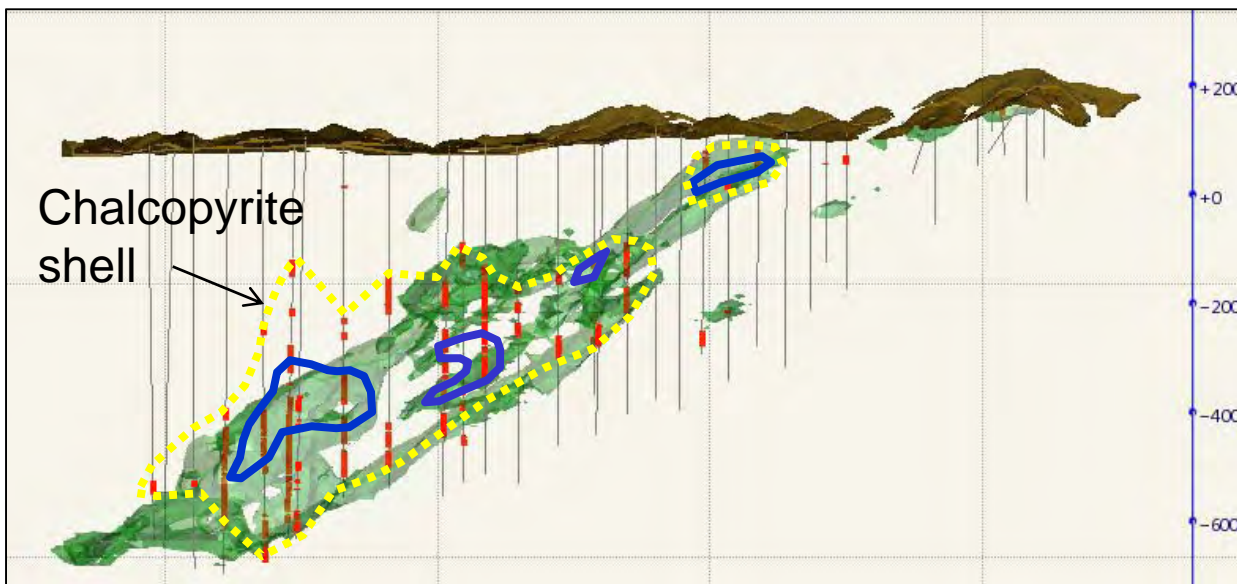


Section Viewing ENE

Sulphide minerals



- Saprolite
- Pyrite > 2%
- Grade Shell
Cu > 0.4%

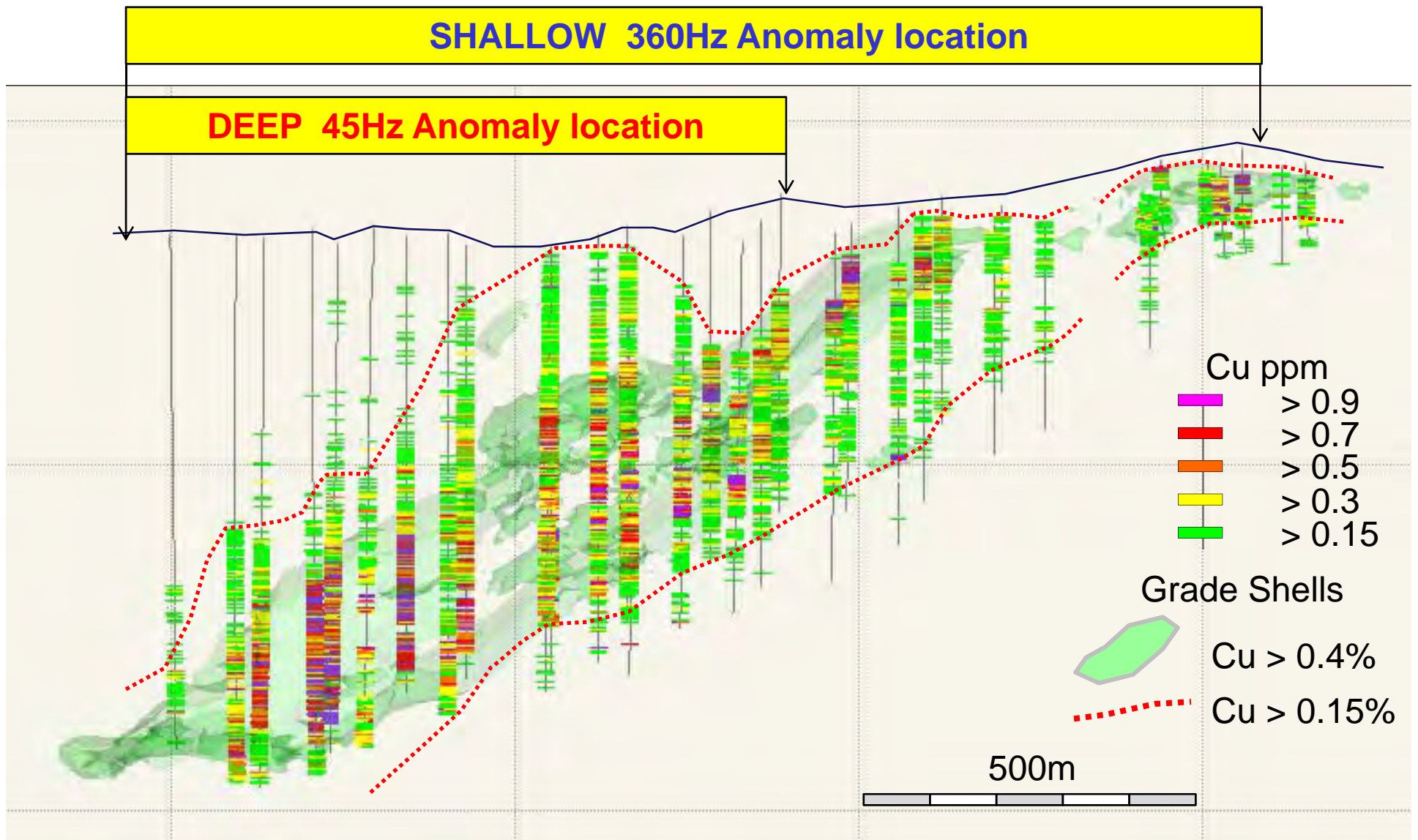


- Chalcopyrite > 1%
- Bornite > 0.2%
- Grade Shell
Cu > 0.4%

NW

SE

SECTION Viewing NE ZTEM anomalies

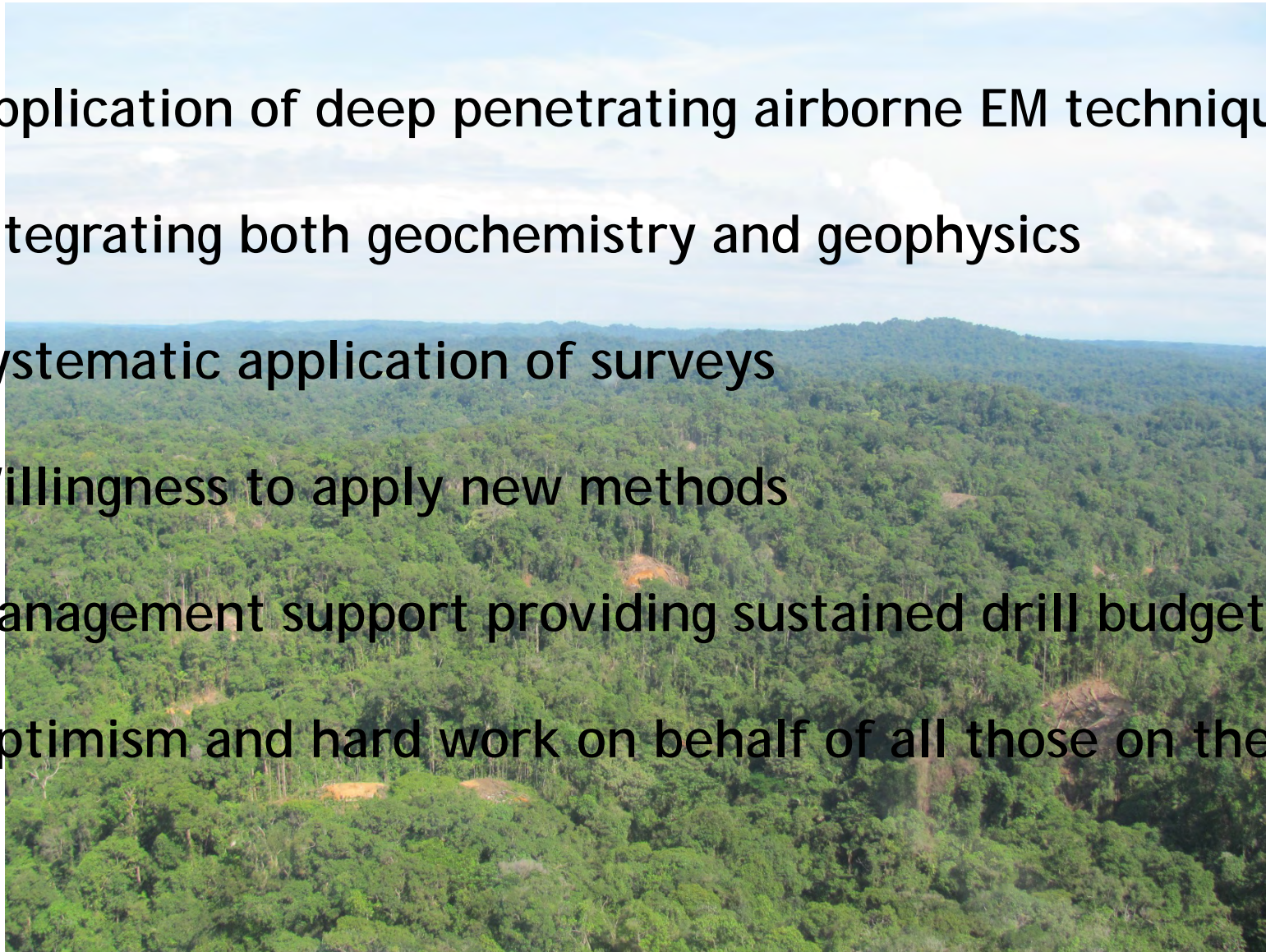


Conclusions

- A significant porphyry copper deposit was discovered beneath cover at Cobre Panama after many exploration and drilling campaigns
- ZTEM appears to map sulphide deposits in the tropical environment at Cobre Panama
- Conventional soil sampling failed to clearly identify Balboa
- Magnetics provided an unexpected signature

Important aspects of this discovery are:

- Application of deep penetrating airborne EM technique
- integrating both geochemistry and geophysics
- Systematic application of surveys
- Willingness to apply new methods
- Management support providing sustained drill budgets
- Optimism and hard work on behalf of all those on the team



Discovery Team

Canada



Colin Burge Frank Balint Gary Wells
Inmet Exploration - Los Tres Amigos

Contractors : Geotech Limited, Toronto
Jean Legault, Harish Kumar
Paolo Beradelli

Consultants Mike Zang

Panama



MPSA Site Geology - El Equipo Puede Hacer

Martin Clark Aurelio Fernandez
Jacinto Cabrera Efrain Pascual
Claudio Gonzalez Mario Arancibia

Contractors - Cabo Drilling Panama
Herb Butler and Pat Klezli
Heliflight Panama

Consultants - Dr. David Love
ProAv Aviation, John Issenman