



### Hot Maden, Turkey Initial Mineral Resource Estimate

**Indicated Category (100%) – 2.033 M Oz AuEq\*\***  
4.71 Mt @ 10 g/t Au & 2.2% Cu for AuEq grade\* of 13.4 g/t

**Inferred Category (100%) – 0.968 M Oz AuEq\*\***  
3.65 Mt @ 5.5 g/t Au & 1.8% Cu for AuEq grade\* of 8.2 g/t

**Total Hot Maden Mineral Resource (100% all categories)**  
3.0 M Oz AuEq\*\* for AuEq grade\* of 11.2 g/t

\*\*& \*– for Gold Equivalent (AuEq) grade and ounces definitions  
please refer to our website: [www.marianaresources.com](http://www.marianaresources.com)

# Hot Maden - Turkey

AIM: MARL



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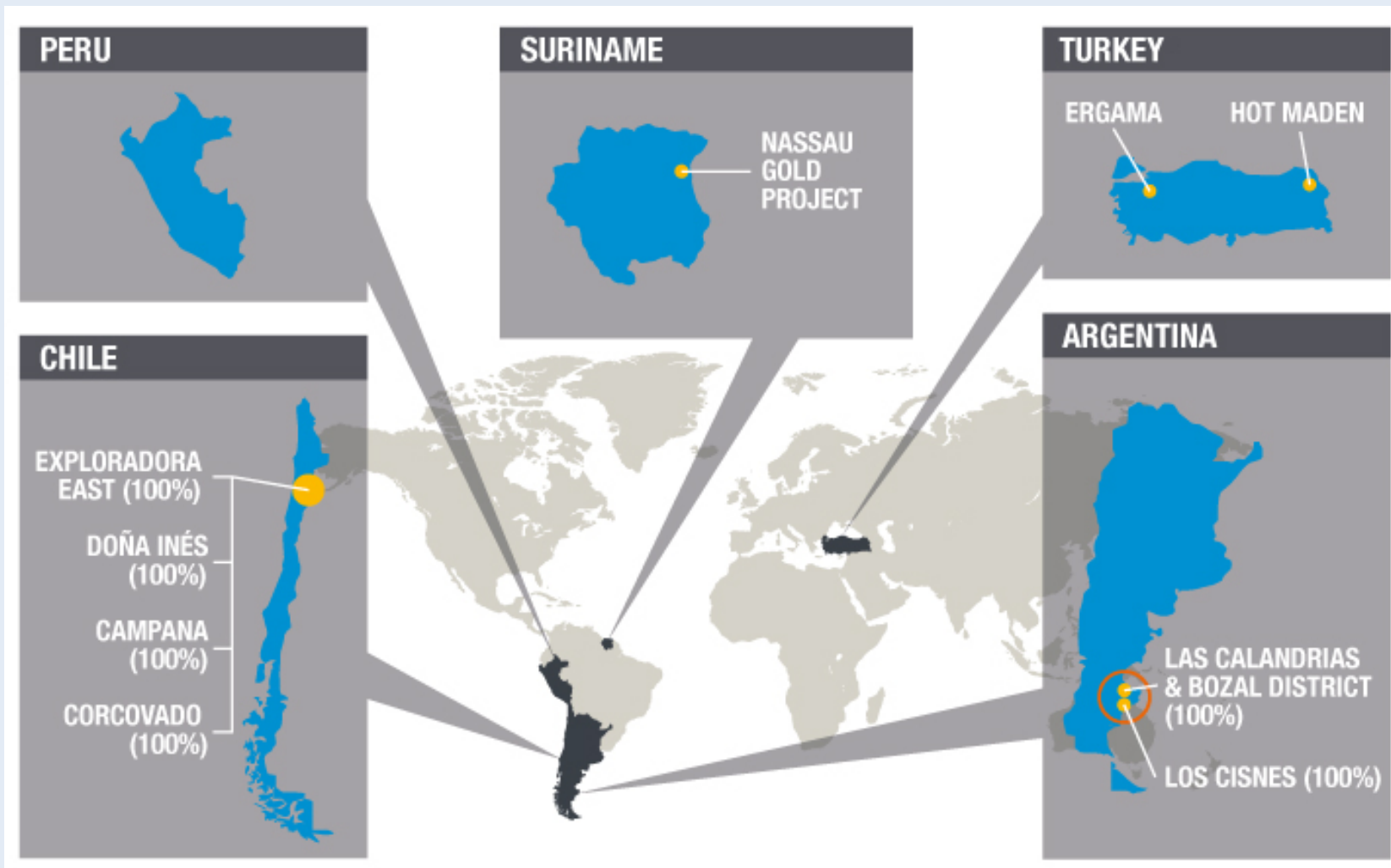
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## Mariana's Project Portfolio

Mariana is an exploration and development company with a diversified, highly prospective portfolio of gold, silver & copper projects in South America and Turkey.





## Mariana Project Portfolio Strategy

Mariana's Strategy is to generate a geographically diverse, precious and base metals exploration portfolio and optimise potential investment returns by moving projects efficiently along the "development curve" towards feasibility.







## AIM : MARL – Management and Key Data

### Capital structure (7 September 2015)

<b>AIM</b>	MARL
<b>Share price (7 September 2015)</b>	2.35p
<b>Market capitalisation</b>	£18.1M/ US\$28.2M
<b>Shares issued</b>	769.9M
<b>Options issued</b>	40.8M
<b>Warrants issued</b>	20.8M
<b>12 month high/low</b>	3.45p / 1.10p
<b>Cash position (31 August 2015)</b>	£0.74M/ \$1.1M
<b>Nominated Adviser</b>	RFC Ambrian Ltd
<b>Broker</b>	Brandon Hill Capital Hybridan LLP



### Top shareholders (7 September 2015)

<b>Exploration Capital Partners 2014 Limited Partnership (Sprott Group)</b>	<b>6.49%</b>
<b>AngloGold Ashanti Holdings plc</b>	<b>6.36%</b>
<b>Australian Investors P/L</b>	<b>2.45%</b>
<b>Directors &amp; Management</b>	<b>2.15%</b>

Mining company investors on the register include:  
AngloGold, Teck Resources, IAMGOLD, Hochschild

### The Board & Management\*

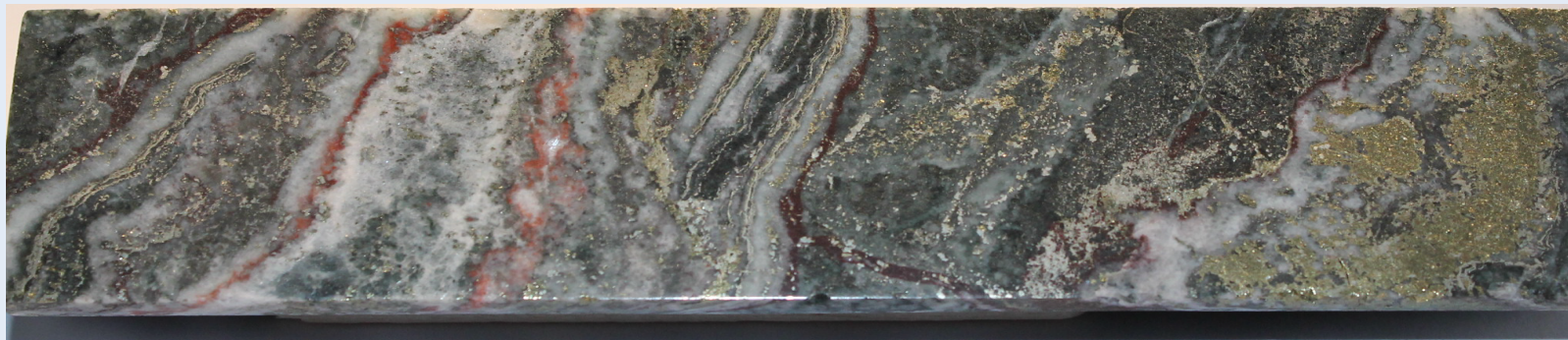
<b>John Horsburgh (Non Executive)</b>	<b>Chairman</b>
<b>Glen Parsons (Executive)</b>	<b>CEO*</b>
<b>Eric Roth (Executive)</b>	<b>COO*</b>
<b>John Goodwin (Non Executive)</b>	<b>Independent</b>
<b>Sharon Cooper</b>	<b>CFO*</b>

*“Significant Management and Discovery  
to Mine Building Experience”*

## Hot Maden

# A Significant New High Grade Gold-Copper Discovery

### Discovery to Resource Estimation in Six Months

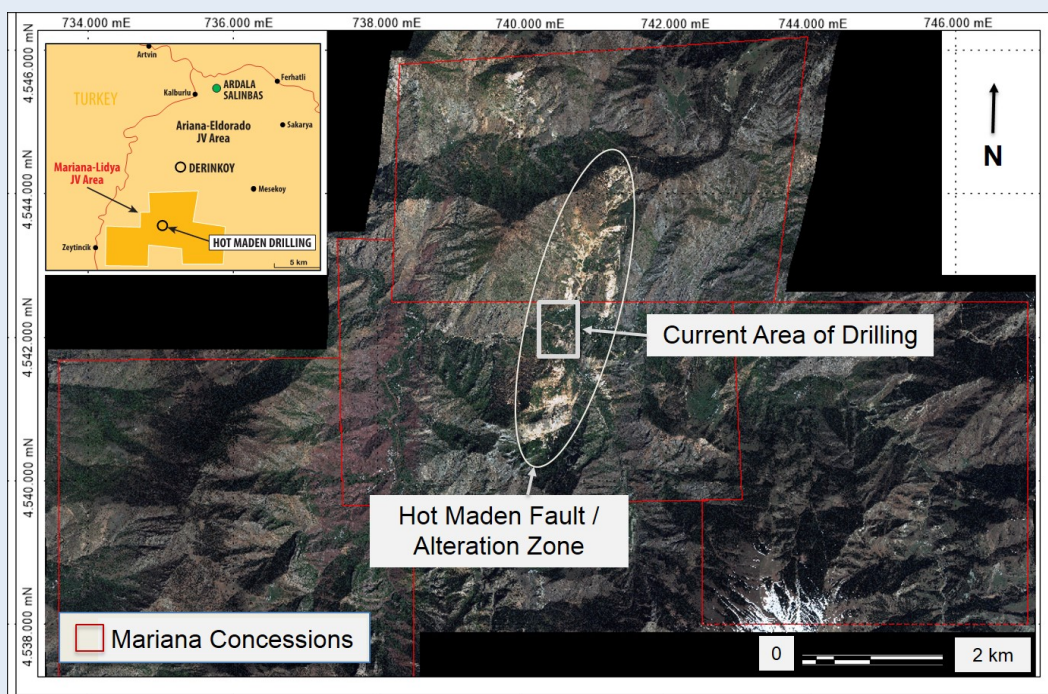






## Turkey – Hot Maden Project

- 7,394 Ha. claim block
- JV partner Lidya earning in to 70%
- Phase I drill program: 7 holes / 1,647 m (HTD-01 to HTD-07) completed in January, 2015
- Discovery hole HTD-04: 103m @ 9.0 g/t Au + 2.2 % Cu from 25m downhole
- Phase II drill program: 15 holes (HTD-08 to HTD-22) for approx. 5,400 m completed to September 1, 2015
- Drilling confirms continuity of high grade Au-Cu mineralisation both along strike and up/down dip
- Initial Mineral Resource Estimate prepared by RungePincockMinarco and reported on August 18, 2015





## Turkey, Hot Maden: Total Mineral Resource Estimate (August 18, 2015)

### Total Indicated Mineral Resources (Mariana 30%/Lidya 70%)

Domain	Tonnes t	Gold g/t	Copper %	AuEq* g/t	Gold Ounces	Copper Tonnes	AuEq* Ounces
Main Zone LG	481,000	0.9	1.0	2.4	14,000	5,000	37,000
Main Zone HG	3,199,000	5.2	1.8	8.0	537,000	56,000	822,000
Main Zone UHG	1,031,000	29.2	4.0	35.4	967,000	41,000	1,174,000
<b>Total</b>	<b>4,710,000</b>	<b>10.0</b>	<b>2.2</b>	<b>13.4</b>	<b>1,518,000</b>	<b>102,000</b>	<b>2,033,000</b>

### Inferred Mineral Resources (Mariana 30%/Lidya 70%)

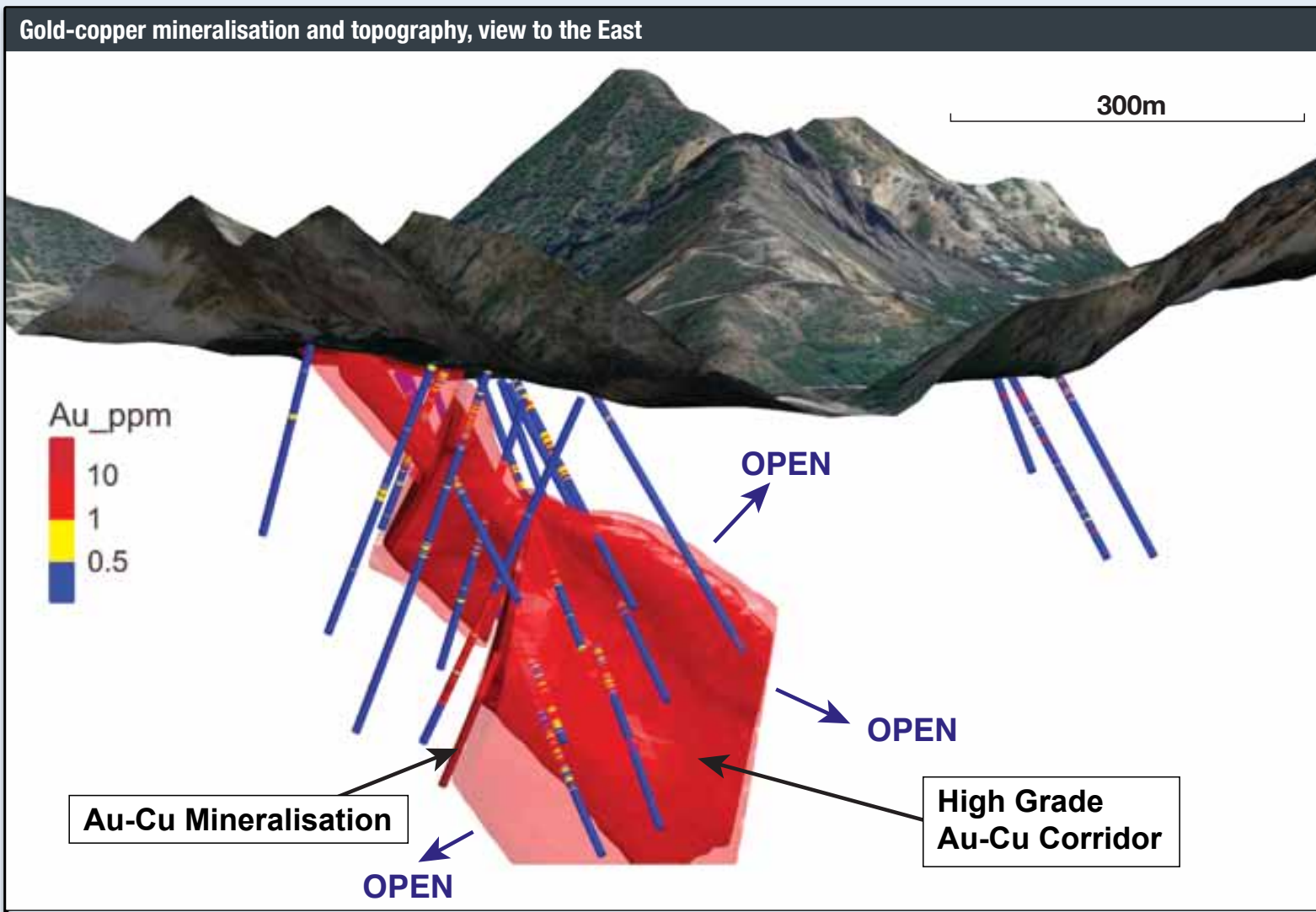
Domain	Tonnes t	Gold g/t	Copper %	AuEq* g/t	Gold Ounces	Copper Tonnes	AuEq* Ounces
Main Zone LG	819,000	0.8	1.0	2.4	21,000	8,000	62,000
Main Zone HG	2,291,000	3.1	2.0	6.2	228,000	45,000	455,000
Main Zone UHG	326,000	36.2	3.3	41.4	379,000	11,000	434,000
Peripheral Lodes	218,000	1.8	0.4	2.4	13,000	1,000	17,000
<b>Total</b>	<b>3,654,000</b>	<b>5.5</b>	<b>1.8</b>	<b>8.2</b>	<b>640,000</b>	<b>65,000</b>	<b>968,000</b>

Indicated and Inferred resources shown above utilise a 2.0 g/t gold equivalent\* cut-off





## Turkey, Hot Maden – Preliminary 3D Modeling of Resource Estimate Area

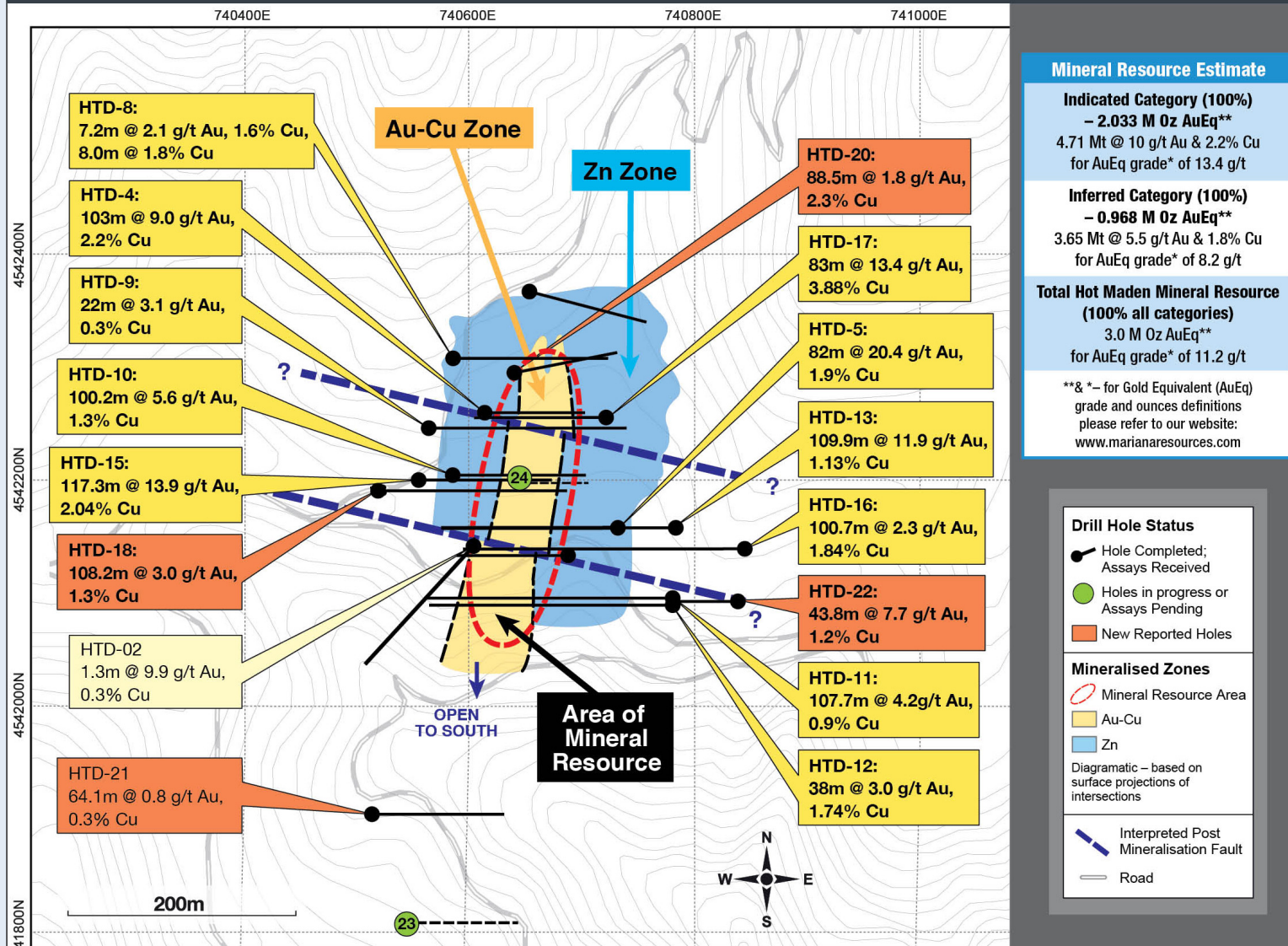


3D View of Au-Cu mineralisation including high grade Au Core



# Turkey, Hot Maden – Resource Area Drilling to September 1, 2015

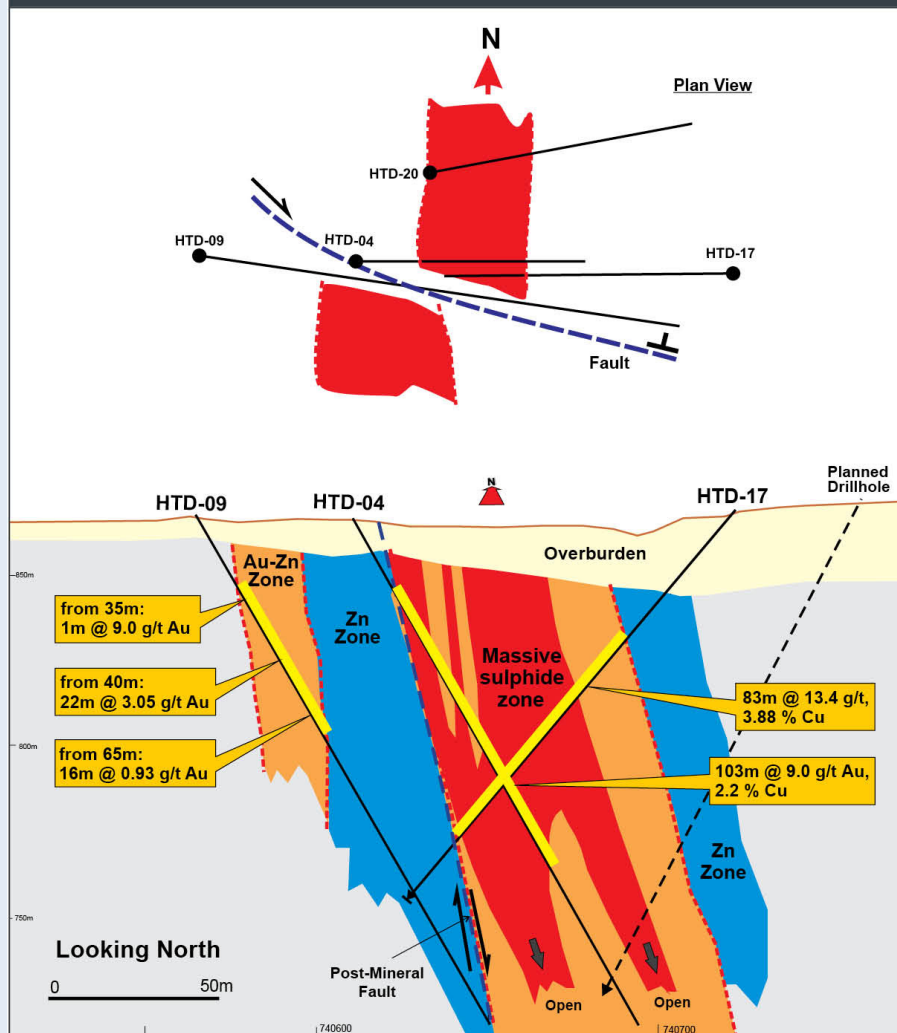
## Hot Maden – Mineral Resource Area / Target Areas / Drill Results Summary



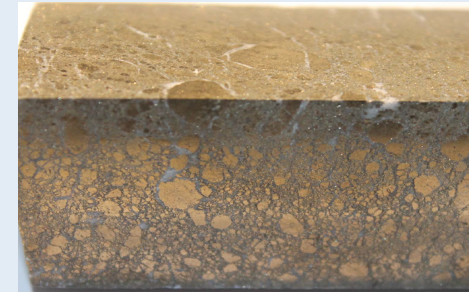


## Turkey, Hot Maden – Cross Sections (from North to South)

### Hot Maden – Cross Section 4,542,250N



Breccia (HTD-04, 64.6m)



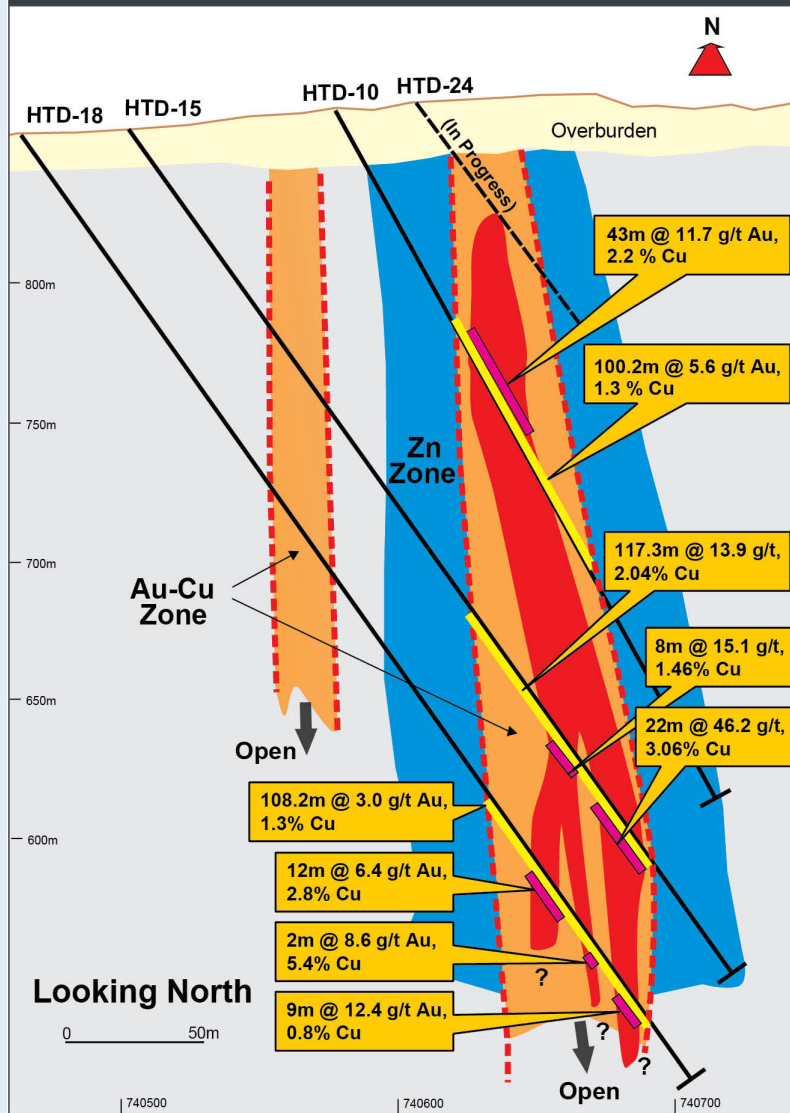
Massive sulphide (HTD-04, 104.7m+ HTD-17)



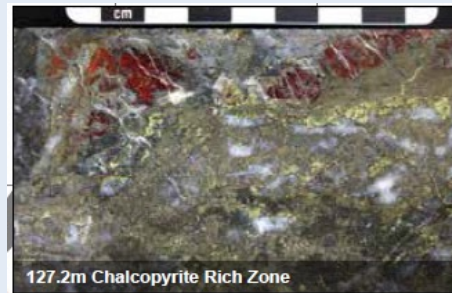


## Turkey, Hot Maden – Cross Sections (from North to South)

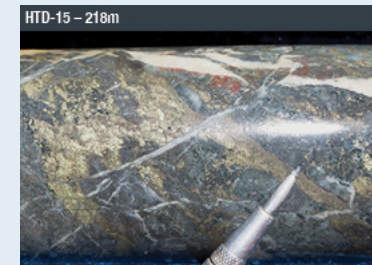
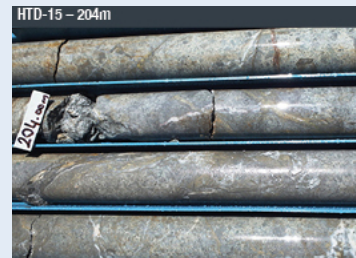
Hot Maden – Cross Section 4,542,200N



**HTD-10: 100m @ 5.6 g/t Au + 1.3% Cu from 81.8m (incl. 43 m @ 11.7 g/t Au + 2.2% Cu from 98.7m)**



**HTD-15: 117.3m @ 13.9 g/t Au + 2.04% Cu from 216.0m (including 22m @ 46.2 g/t Au + 3.06% Cu from (306.0m – 328.0m))**



**HTD-18: 108.2m @ 3.0 g/t Au + 1.3% Cu from 292.0m downhole (Including 12m @ 6.4 g/t Au + 2.8% Cu (330.0m – 342.0m) and 9m @ 12.4 g/t Au + 0.8% Cu (384.0m – 393.0m))**

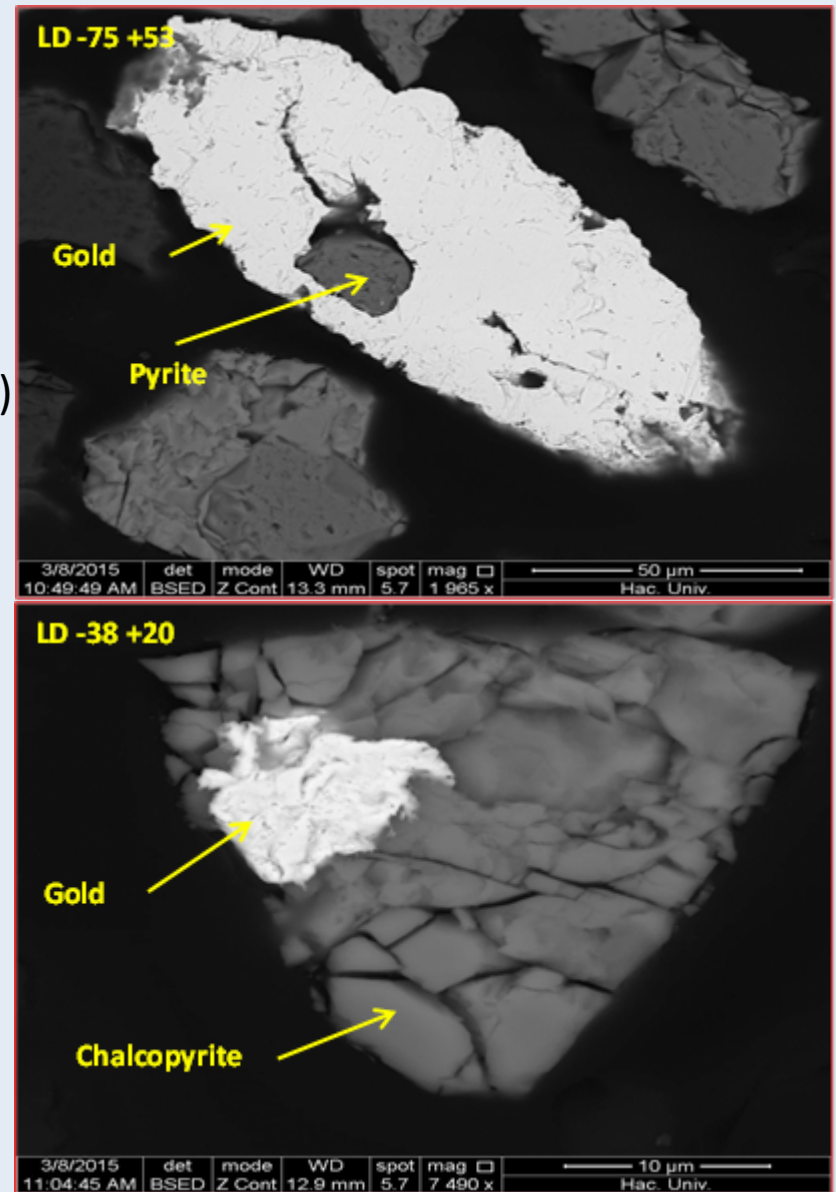




## Turkey, Hot Maden – Preliminary Metallurgy Au and Cu

Preliminary testwork completed to date:

- Quick leach on key core intervals from Phase I drilling (SGS's BLE653 method: AAS after cyanide leach, 30g sample).
  - Results positive, only Au recovery (no Cu)
- Mineralisation characterisation (Petrography/SEM)
  - Main sulphides: chalcopyrite, pyrite / marcasite, sphalerite, galena, tr. bornite
  - No arsenic-bearing mineral phases e.g. enargite
  - Gold is mostly free or associated with pyrite, fine grained (20 to 75 microns)
- Rougher concentrate prepared for one composite sample from HTD-01, -04, and -05.
  - High Cu recovery (93%)
  - “Clean” concentrate (no As or other deleterious elements)

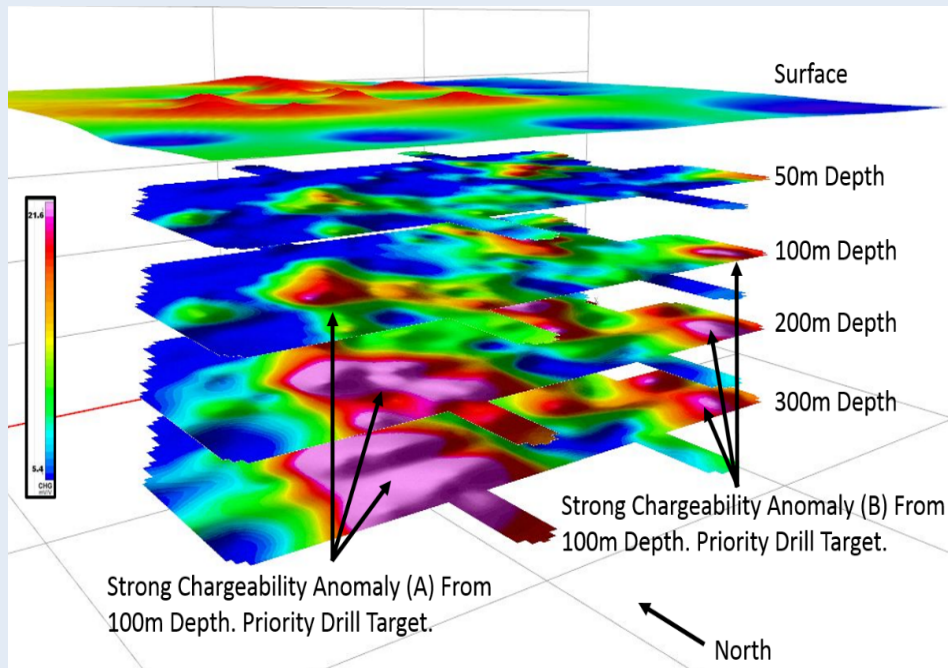




## Turkey, Ergama – Gold, Copper

### 100% Mariana Resources

- Located 180 km SW of Istanbul and 20 km W of Balıkesir, between the prolific Biga Peninsula and the Kisladağ gold mine (Eldorado Gold)
- 2,168 Ha tenement package. Drill targets defined through geochemistry and geophysics.
- Epithermal Au system with underlying porphyry Au-Cu target. Drilling expected 2015 / 2016.
- Teck terminated back-in right on April 14 2015 after having invested just \$US60K in exploration in two years (budget cutbacks)







## Additional Portfolio Assets

Argentina

Suriname

Chile

Peru

# Argentina – Gold-Silver

## Mariana has three projects located in the mining friendly province of Santa Cruz

### ■ Los Cisnes (100%)

- New large domefield discovery with the potential for bulk tonnage and high grade Au mineralisation
- Bonanza results returned from sampling at El Brio

El Brio is a 700m long vein / breccia zone up to 3m in width. 9 surface samples returned between 31 g/t silver and 3,849 g/t silver

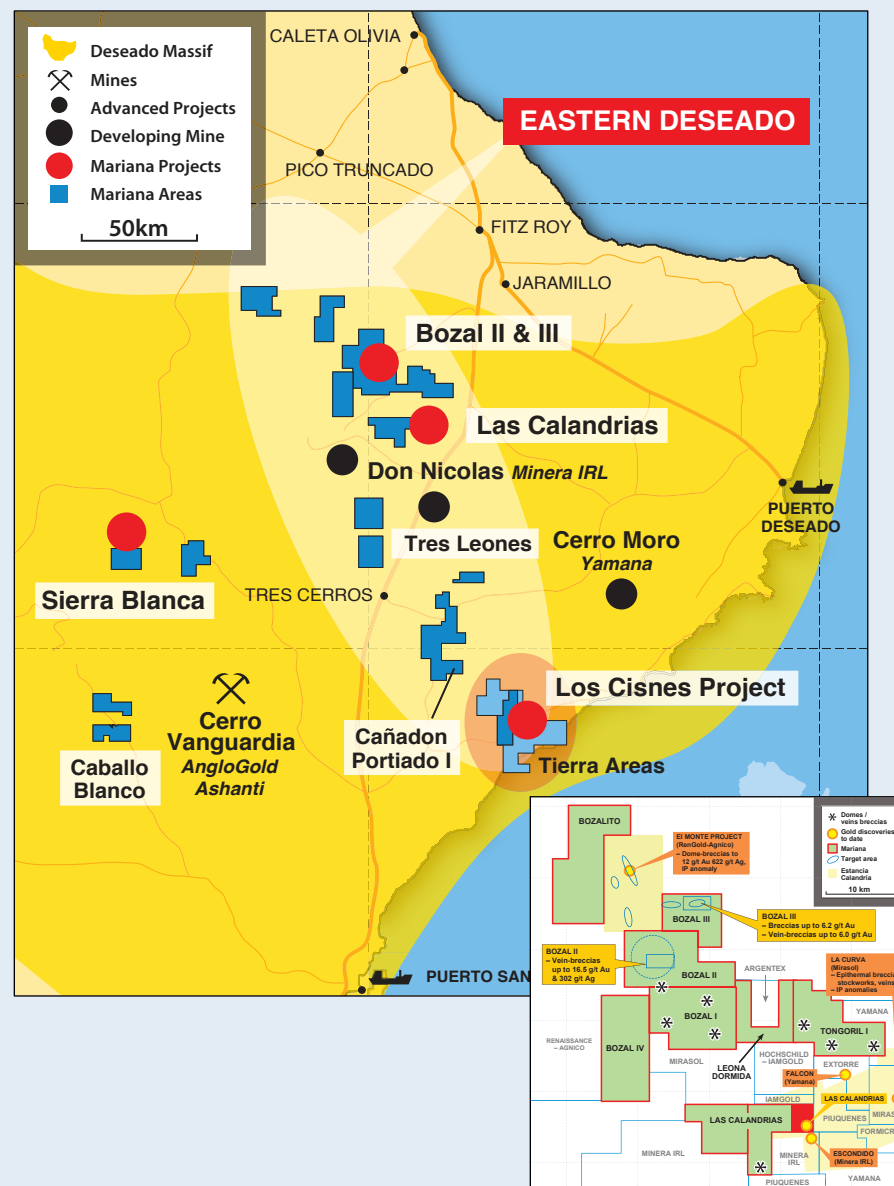
El Solar target covers 5km<sup>2</sup>, with 300m by 600m Calandrias-style rhyolite breccias. Float samples returned 0.5-3.4 g/t gold

### ■ Las Calandrias & Bozal (100%)

- Dome-related epithermal system discovered in 2009
- 519,000 oz AuEq initial resource (492,000 oz indicated)
- Bulk tonnage open pit potential & high grade
- Consolidation Bozal II & III District play
- Resource upgrade focus to bolster project economics

### ■ Sierra Blanca (100%)

- Internal resource achieved with expansion potential

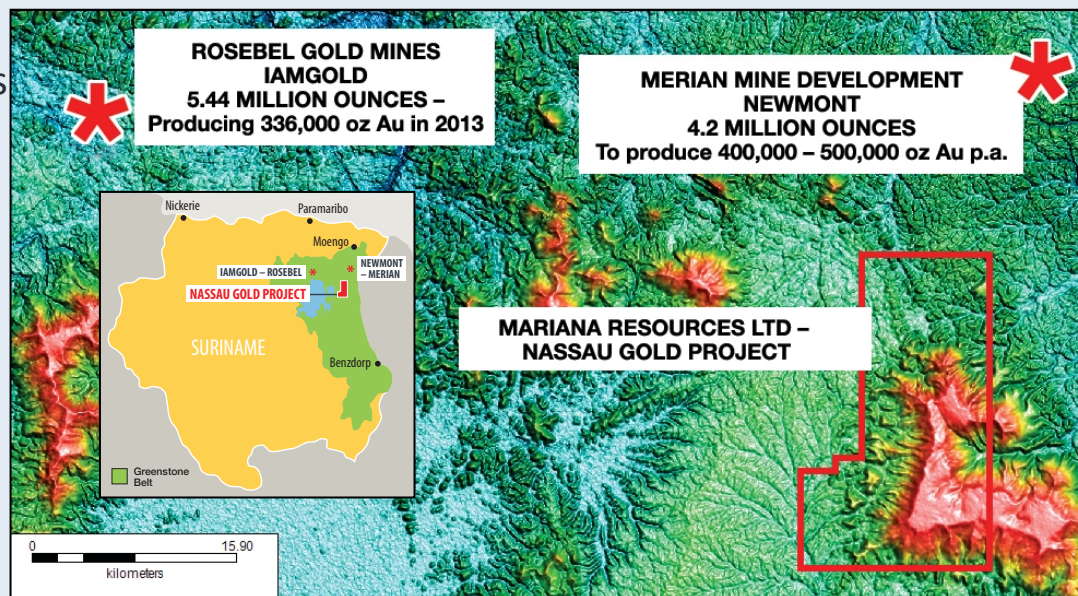






## Suriname – Nassau Gold Project

- Located 120km from Suriname's capital Paramaribo, and 20km SW of Newmont's \$US 1B / 4.2Moz Au Merian mine development
- Mariana is operator and expenditure requirements will be \$5.3M over 30 months for a controlling 40.01% interest
- Nassau Gold has the potential for high grade Au veins & laterite hosted bulk tonnage Au deposits
- Expected similar geology to Merian & Rosebel mining districts



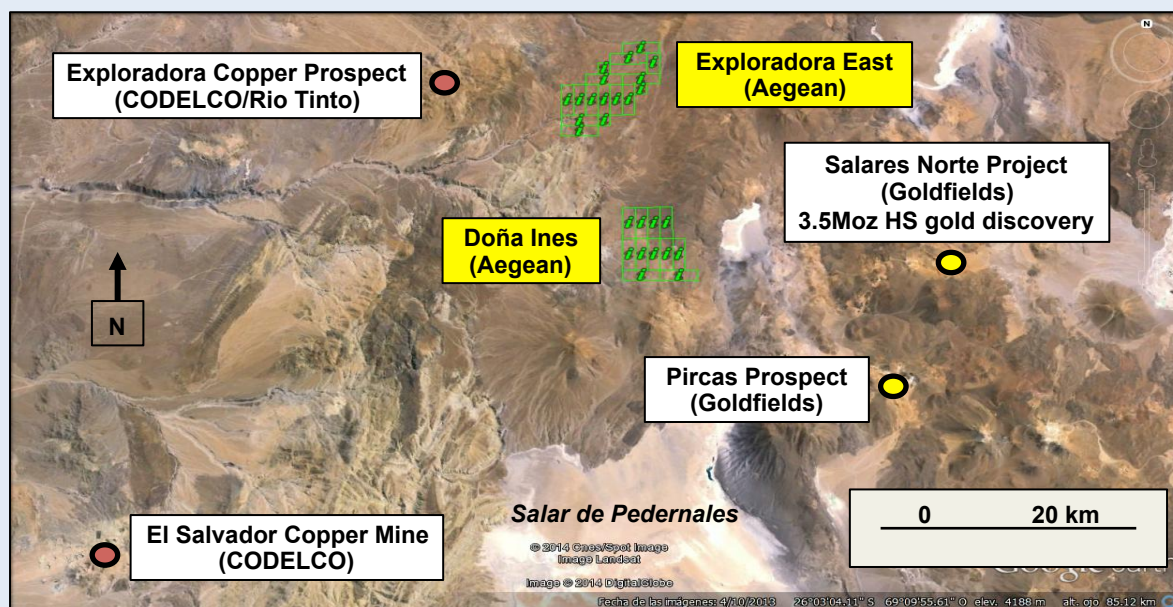
### Current Activities

- Focus on generation of quality drill targets using multi-disciplinary techniques
- Interpretation of data from airborne geophysical survey complete
- Evaluation of historical Alcoa, Newmont, & Suriname government data
- Continued geological mapping, laterite (duricrust) and plant sampling
- Drill targets to be tested on a priority basis





## Chile – Doña Inés and Exploradora East (Funded exploration)



### **Asset Chile earning in to 50% interest by staged funding of \$1.65M**

- High sulfidation epithermal gold-silver target at Doña Inés and copper, molybdenum and gold porphyry target at Exploradora East
- Doña Inés lies in an underexplored epithermal gold-silver belt that extends North from the Maricunga belt to the Peruvian border
- Recent discoveries in this belt include Gold Fields' Salares Norte project (May 2014 Inferred Resource of 23.3 Mt @ 4.2 g/t Au & 44 g/t Ag, for 3.1 Moz Au & 34 Moz Ag) & Pircas prospect (oxidized high sulfidation epithermal system)
- Target area – central gold MMI geochem anomaly within a zone of argillic alteration

### **Objective and Work Program**

- Ground geophysics (IP, MT) during Q4, 2015 to confirm epithermal Au-Ag system, subsequent drill testing

**Advancing a strong, diversified, highly prospective portfolio for Value**

## **OUTLOOK – H2, 2015**

**Hot Maden Discovery – Phase II drill program ongoing**

**NI 43-101 Technical Report Q3/Q4, 2015**

**Detailed Metallurgical Studies Q4**

Ongoing target generation at Nassau Gold Project (Suriname) for drilling on priority Au targets Q4

Las Calandrias & Bozal – strategic bulk tonnage resource & untested upside in high grade Au/Ag veins

Doña Inés – Geophysics and drill testing Q4

Spread of country risk & continuing to position Mariana's portfolio for value growth

New Opportunities







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