

# New Priority Target at Las Calandrias Gold-Silver Project, Santa Cruz, Argentina

Mariana Exploration Update

Discovering Gold, Silver  
& Copper in South America



Nido Norte Drilling

## BREAKING NEWS...

SCOUT DRILLING AT MARIANA'S FLAGSHIP LAS CALANDRIAS GOLD-SILVER PROJECT IN THE SANTA CRUZ REGION OF SOUTHERN ARGENTINA HAS OUTLINED A 1.8KM TRENDING PRIME TARGET FOR DEEPER DRILLING AT THE NIDO NORTE TARGET 1.25KM NW OF THE CALANDRIA NORTE HIGH GRADE VEIN-BRECCIA AND 2.0KM NNW OF THE CALANDRIA SUR DISSEMINATED GOLD-SILVER DISCOVERIES.

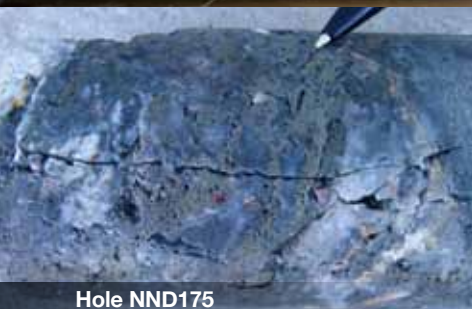
The Q4 2010/Q1 2011 drilling campaign at Las Calandrias project included:

- ◆ Infill drilling of Calandria Sur disseminated gold-silver deposit
- ◆ Follow up drilling of the Calandria Norte high grade vein discovery
- ◆ Scout drilling of the Nido Norte trend
- ◆ Scout drilling of El Nido targets.

Santa Cruz is a world class precious metal region and Mariana is well placed with the emerging Las Calandrias project, the Sierra Blanca silver-gold discovery and extensive 100% owned 160K Ha land package.



Hole NND162



Hole NND175

## Nido Norte

### NEW VEIN-BRECCIA TARGET

Results from 12 exploratory drill holes along the 1.8km long Despreciada structure highlight the Nido Norte Prospect as a prime target for follow up drilling. Nine high level epithermal vein-breccia intersections occur along a 750m sector of the 1.8km Depreciada structure and include a broad shallow intersection of 26.3m @ 1.0 g/t Au from 55m (NND162). Other intersections include: Hole NND154 – 2.0m @ 3.9 g/t Au and 6 g/t Ag from 33m and Hole NCD178 – 2.2m @ 1.4 g/t Au and 59 g/t Ag from 106m. Mineralisation is centred on the large 2km x 0.6km Nido Norte rhyolite dome complex – follow up drilling is now testing this 1.8km zone for high grade gold-silver at depth.

## Calandria Norte

### HIGH GRADE GOLD ZONE EXTENDS OVER 400M STRIKE

Follow up drilling indicates bonanza intersections over a 150m strike within the 400m long vein system including 0.6m @ 123.0 g/t Au 93 g/t Ag (CND122) and 2.40m @ 43.0 g/t Au 218 g/t Ag (CND125). The vein-breccias occur within stockwork sulphide veining. Intersections at the SW and NE strike extremities of 0.8m @ 90.2 g/t Au and 198 g/t Ag (CND132) and 13.5m @ 3.0 g/t Au from 159m (CND137) indicate potential for extensions in each direction.

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Hole NND178



Hole NND178



Estancia Campsite

## Mariana Team

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**Glen Parsons**  
Executive Director Finance  
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**John Sutcliffe**  
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**Ray Angus**  
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**Randy Turner**  
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**Geoff Fulcher**  
Corporate Administration

**Dr Gustavo Rodriguez**  
General Manager – Argentina

**Walter Espinosa**  
General Manager – Cliffs JV Chile

**Luis Ignacio Silva**  
General Manager – Mariana Chile

The preliminary resource estimation could include Calandria Norte, subject to current evaluation. Further follow up drilling planned for La Calandria and La Morena veins.

## Calandria Sur

### POSITIVE INFILL DRILLING RESULTS

The final 28 holes of the 2010 campaign indicate a robust bulk tonnage style gold silver deposit. Best intersections were 104m @ 1.3 g/t Au and 19 g/t Ag (CSD106) and 102.5m @ 1.0 g/t Au and 18 g/t Ag (CSD100). Gold mineralisation (+10g-m) increased to 600 x 250-300m (open NW and NE) with a coincident 450 x 200m area of +500g-m Ag. A preliminary resource estimate and initial metallurgical test results are due Q2 2011. Exploratory drilling is underway in the vicinity of the Calandria Sur dome.

## Other El Nido Targets

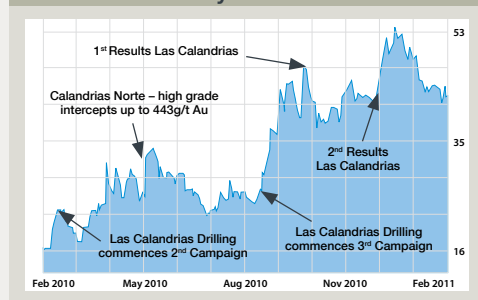
The 2010 ground magnetic survey provides a new focus for a number of untested structures across the domefield, prospective for Nido Norte style mineralisation. Results are awaited for a total of 21 holes testing IP targets in other El Nido domes at Nido Sur and Gamekeeper.

## Sierra Blanca Silver-Gold Discovery

### MARIANA 70%, OPTION OVER OTHER 30%

A 3,000m minimum diamond drilling is to start mid March 2011 to test for extensions of epithermal silver-gold mineralisation at Veta Chala and other targets.

### Share Price History



## Mariana (30%) exploring for IOCG deposits in JV with Cliffs Natural Resources (70%),

Five holes at the Buenaventura IOCG project in Northern Chile intersected anomalous gold-copper mineralisation with a best intersection 18m @ 0.7% copper. Prospective altered rocks intersected beneath the extensive gravel cover prompted partial leach geochemistry and an airborne ZTEM survey – results awaited.

## Tolita Project (Mariana earning 100%)

An option over the Tolita copper-gold prospect, 30km SW of the Barrick Cerro Casale mine in the Maricunga Belt gives access to a 1,700 Ha area with intrusive-related AuCu mineralisation in alteration zones with sheeted qtz/py/cpy veinlets. Previous intersections included 150m @ 0.3 g/t Au. IP and RC drilling are planned.

## Corporate

A dual TSX listing is anticipated end Q1 2011.

### Significant Shareholders (at 31 Jan 2011)

	% Held
JP Morgan Asset Management	8.2%
Hochschild Mining Holdings Limited	6.9%
Craton Capital	6.1%
Australian Investors P/L	4.2%
Directors	7.7%

### Corporate Update (at 31 Jan 2011)

Shares	181.5 million
Options	14.8 million
Share price	43p
Market cap	£78 million
12 months high	55.9 (on 5 Jan 2011)
12 months low	15.0 (on 24 Feb 2010)
Cash position	\$14.5 million
Broker	finncap
Nominated Adviser	RFC Corporate Finance Ltd

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Investor Visit – February 2011



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