

# TECHNICAL REPORT ON LAS BURRAS

## COPPER-GOLD PORPHYRY PROSPECT

## SALTA, ARGENTINA

24º 24.5' S; 67º 52.4' W

Prepared for Cascadero Copper Corporation, Vancouver, Canada and Salta Exploraciones, S.A., Salta, Argentina

Prepared by

Kenneth M. Dawson, Ph.D., P.Geo. Terra Geological Consultants, North Vancouver, B.C. Canada

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#### 3.0 SUMMARY

The Las Burras copper-gold porphyry prospect (the "Property") is located in Salta Province in northwestern Argentina, adjacent to the eastern margin of the Puna, approximately 100 kms west of the city of Salta. The Las Burras showing was discovered by personnel of Mansfield Minera S.A., ("Minera") a wholly owned subsidiary of Mansfield Minerals Inc. (MDR-TSXV) ("Mansfield") in February 1997 and the title to the property was granted to Minera in 1998. The Property is located in close proximity to a national highway, a 500 Kv power line and a natural gas pipeline. A narrow-gauge railway that connects Salta City to Socompa and then Antofagasta Chile crosses the southern part of the property.

Initial examination by Minera determined that a zone of dense quartz stockworks and pervasive sericite alteration was present over an area of 600 metres to 800 metres east west by 1,200 metres north south. In October 1998, Mansfield reached an agreement with Teck Corporation ("Teck") who subscribed to a C\$1,000,000 private placement of which C\$400,000 was allocated for exploration on the Las Burras area. The program consisted of prospecting, sampling, Induced Polarization (IP) geophysics and 832 metres of trenching in six trenches. During this program Teck held a right of first offer that enabled it to acquire a 55% interest in the Property by making cash payments of C\$1,100,000 to Mansfield and spending C\$4,000,000 on exploration over four years. Subject to the completion of the terms of the first offer, Teck held second right to acquire an additional 10% interest by financing the Property through feasibility. In May 1999, Mansfield reported that the IP geophysics produced a significant geophysical response and that favourable geology was present in the trenches. Assay results from the trenches were not announced.

The Las Burras Property is recognized as porphyry copper-gold showing hosted in Miocene granitic rocks that intruded Cambrian granitic rocks and hornfelsed sediments of the Late Proterozoic Puncoviscana Group. Mineralization at the Las Burras Property occurs as intense quartz-sericite-pyrite stockwork. A leached-cap assemblage of jarosite, goethite and live-hematite with local relicts of secondary copper, as chrysocolla and turquoise is exposed on the surface. Swarms of ENE and WNW trending gold-bearing quartz-sericite-tourmaline-sulphide veins are present peripheral to the porphyry style mineralization and alteration. In 1999, Mansfield reported the results of 180 rock grab samples of which 73 were greater than 100 ppb gold, including 34 greater than 500 ppb gold with 16 greater than 1,000 ppb gold. By the end of 2000, approximately \$418,000 was spent on the Las Burras area. Mansfield's evaluation of the exploration potential of Las Burras concluded that a core drilling program consisting of two 300-metre drill holes was warranted.

The Mansfield 2002 Annual Information Form disclosed that Teck did not exercise its right to acquire an interest in Las Burras and on January 17th 2001, Minera abandoned Las Burras.

On February 3<sup>rd</sup> 2005 the Cateo (claim) was applied for by Silvia Rene Rodriguez, legal counsel to Salta Exploraciones SA ("SESA"), within exploration permit 17,693. On September 29<sup>th</sup> 2005, the Salta Provincial Mining Judge registered the concession for exploitation in favour of Silvia Rene Rodriguez. An assignment and transfer of the mining property from Silvia Rene Rodriguez to SESA was registered and on June 26<sup>th</sup> 2006 the Mining Judge informed that the new titleholder of the concession as SESA. SESA was at this time, a wholly owned subsidiary of Argentine Frontier Resources Inc, ("AFRI") a private company located in North Vancouver, British Columbia.

In 2005, SESA began a program of prospecting and sampling, which programs generated specimen samples and numerous assays. Between 2005 and 2007, SESA also prepared detailed internal reports that confirmed the previous work by Minera and recommended further exploration programs, such as ground geophysics and core drilling.

In 2008, AFRI transferred its 100% interest in SESA to SESA Holdings LLC (Nevada) (SHL) and in December 2008 Cascadero Copper Corporation (Cascadero) acquired a 50% interest in SHL from AFRI.

Exploration work by SESA includes collection of 136 prospector rock grab samples from outcrops in the area. The highlights of these geochemical programs are:

- 16 samples assayed >1,000 ppb (1-g/t) gold with the highest sample at 28,000 ppb (28 g/t)
- 22 samples assayed >30 ppm (30 g/t) silver and 6 assayed >100 ppm (>100 g/t) or >3 ounces of silver per tonne
- 16 samples assayed >10,000 ppm lead (1%)
- 5 samples assayed >10,000 ppm (1%) zinc
- Highest copper value was 6,828 ppm (0.68%) copper
- 8 samples assayed >300 ppm (0.03%) molybdenum
- The mean value for all gold assays is 724 ppb (0.724 g/t) gold
- 45 samples assayed between trace and <50 ppb gold

In June 2010, SESA contracted Argali Geofisica of Antofagasta Chile to carry out a program of Induced Polarization, Resistivity and Magnetic surveys (IP/Res/Mag) over the central area of Las Burras. A summary of the Argali Geofisica report states:

"The IP data from Las Burras outline strong chargeability anomalies up to 45 mV/V over a zone measuring approximately 2 kms by 1.2 kms. The chargeability anomaly is coincident with a strong conductive anomaly. The central conductive zone is ringed by a high-resistivity halo that is usually low-chargeability. Several zones of-weak-to-moderate chargeability occur in a resistive zone north of the central conductive-chargeable anomaly. The magnetic data outline a strong magnetic-low in the central portion of the grid, coincident with the strong conductive, chargeable anomaly. Magnetic-lows are also observed on the eastern portion of the grid; however, these anomalies are not coincident with conductive, chargeable zones. The central magnetic-low is ringed by a broad magnetic-high halo indicating higher magnetic susceptibilities. Numerous strong, narrow magnetic anomalies are present throughout the grid. These anomalies are usually associated with surface occurrences of black mafic rocks with high-magnetic susceptibility."

The compilation and interpretation of the geophysical survey, alteration identification, geological mapping, geochemistry conducted by SESA are the subject of this report. This report recommends further exploration at Las Burras including a Mobile Metal Ion (MMI) geochemical sampling program, 3,100 metres of excavator trenching and 2,800 metres of reconnaissance style drilling consisting of eight (8) 350 metre HQ core holes.

#### 4.0 INTRODUCTION

Las Burras porphyry showing is a new prospect, discovered in February 1997 with a limited exploration history. The southwest area of the claim is underlain by an 800 metre by 1,200 metre quartz-sericite-pyrite altered intrusion that trends eastward and has locally well developed leach-cap weathering assemblages of jarosite, goethite and local live-hematite. Local stockworks and stringers contain limonite and occasional chrysocolla and turquoise. The alteration and mineral assemblages are interpreted as favourable for the presence of supergene copper at depth (Richards, 2006). Minera reported argillic altered and weathered intrusive rock flanking the central valley in trenches completed in 1998. Parallel sets of easterly striking veins of quartz, hematite, sericite, pyrite, chalcopyrite and tourmaline with anomalous gold are present in outcrop peripheral to the central valley. Gold values to 5 g/t were noted by Minera. Geochemical sampling reveals distinct metal zoning patterns with respect to copper, molybdenum, gold, silver, tungsten, arsenic, zinc and lead that produces a central copper-molybdenum-gold-silver zone haloed by gold-silver-tungsten-arsenic-lead-zinc, indicative of porphyry-style mineral zoning, with copper depletion due to (supergene) acid leaching.

A geophysical survey over a 20km<sup>2</sup> area centered on the valley included 12 lines each 4,000 metres long (48-line kms), of IP/Resistivity survey with pole-dipole array at d=100m, and a magnetic survey over the same area at line spacing at 50 metres (408-line kms). A strong chargeability-high is coincident with a magnetic-low and resistivity-low, and is flanked by resistivity-highs. The geophysical response is interpreted to be similar to that of a classical Andean porphyry copper deposit.