

IP data analysis identifies potential extensions to Ooloo Silver-Lead Mine at the Marree Project

HIGHLIGHTS

- **3D analysis of reprocessed 1970's 2D Induced Polarisation (IP) survey has identified a 1.5km long by 500m wide resistive zone to the southwest of the historical Ooloo Silver-Lead Mine at the Marree Base Metals Project, South Australia.**
- **The new resistive zone has a similar geophysical response to that seen at the nearby Ooloo Mine.**
- **The reprocessed IP data shows that Ooloo as well as the region to the southwest does not have any IP response.**
- **High grade lead and silver assays have been returned from sampling historical workings on the northern edge of the new resistive zone, with similar geochemical composition to that seen at the Ooloo Mine.**
- **Heritage Agreements with the Traditional Owners have been agreed allowing access to Ooloo Mine region for all exploration including drilling.**
- **Priority work includes geochemical confirmation of resistivity response with potential follow up drilling program.**

Australian resources company, Cauldron Energy Limited (**ASX: CXU**) ("Cauldron" or "the Company") wishes to update the market on the progress of base metals exploration at the Marree Project in South Australia.

Analysis of historically captured Induced Polarisation ("IP") data has identified a large resistive zone to the southwest of the historical Ooloo Silver-Lead Mine which is estimated to be 1.5km long by 500m wide. (Figure 1) This analysis provides Cauldron with new potential drill targets, undercover and close to known mineralisation.

It is important to note that these anomalies appear to define potential zones of alteration typically relating to mineralisation and not the direct detection of sulphide mineralisation.

Field mapping has shown that along some of the major faults throughout the Marree Project area there is silicification of the siltstone host rock where breccia zones are common. Siderite alteration zones have also been identified locally in the vicinity of some faults which are likely to have been derived as a carbonate replacement. There is often visible sulphide mineralisation associated with some of the siderite alteration.

ABN 22 102 912 783

32 Harrogate Street,
West Leederville WA 6007

PO Box 1385, West
Leederville WA 6901

ASX code: CXU

159,622,605 shares
4,300,000 unlisted
options

Board of Directors

Tony Sage
Executive Chairman

Brett Smith
Executive Director

Qiu Derong
Non-executive Director

Claire Tolcon
Company Secretary

In April 2013, the Cauldron exploration team completed follow-up geological and structural mapping to further assess target areas already identified and assess new exploration targets.

Further mapping of the Ooloo region was completed as part of this program. More historical workings were identified about 1km southwest of the Ooloo Mine workings where visible galena was identified. Sample MR13RC089 collected in old workings returned an assay of 7.92% lead and 51ppm silver (see Table 1). The location of this sample is near a localised high in the resistive zone about 1km from the Ooloo workings (see Figure 3). This provides some evidence to suggest a possible association between the lead/silver mineralisation and the resistive response revealed by the IP data.

Sample Number	Easting	Northing	Au	Ag	Cu	Pb	Zn	Comments
			ppm	ppm	%	%	%	
MR13RC087	329375	6703062	0.17	3.3	0.47	0.54	2.38	Historical pit sample
MR13RC089	328311	6702639	0.07	51	0.03	7.92	0.58	Historical pit sample
MR12RC252	329492	6703076	1.47	160	0.31	>20	22.6	Previously reported rock chip
MR12RC258	329535	6702820	0.26	3.9	1.19	1.37	7.26	Previously reported rock chip
MR12RC263	329517	6703072	1.72	142	0.46	6.37	13.6	Previously reported rock chip

Table 1. Significant rock-chip assay results from Ooloo Mine region. Both new and previously reported samples are shown. All sample locations are shown in Figures 1, 3 and 4. Co-ordinate datum GDA94 (MGA54)

Cauldron head of operations, Simon Youds, said he was encouraged by the results from the historical IP survey data analysis.

“Analysis of the IP data has proven to be very positive as it shows this new resistive zone has a very similar geophysical response to the nearby Ooloo Mine,” he said.

“Much of the project area is covered by recent sediments and the Company believes there is good potential for the discovery of base metal deposits under cover.”

Priority work to be completed in the Ooloo region will include a geochemical program targeting geological contacts and carbonate alteration zones as well as additional geological and structural mapping to identify alteration zones and likely structures.

This work may potentially lead to the identification of new drill targets and a drill program to be conducted over the Ooloo Mine region.

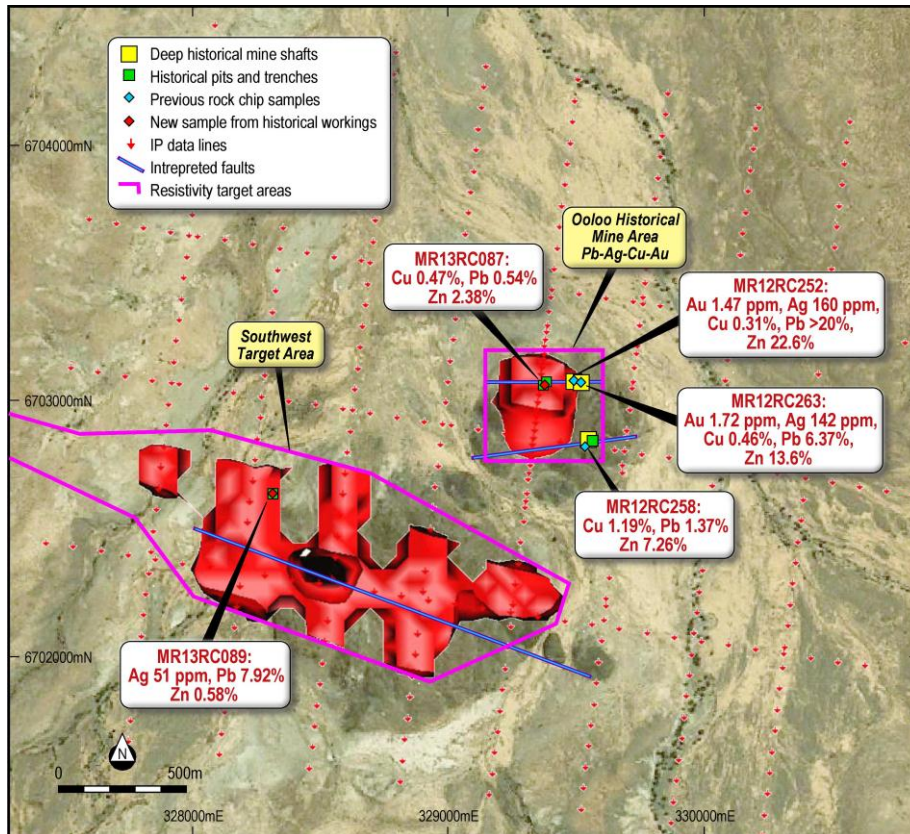


Figure 1. Plan view of the 3D resistivity model, edited to show the isosurface at 100 Ohm m. Similarities with the southwest target area and the Ooloo historical workings are evident.

Geological Overview

Mineralisation is located in Proterozoic aged Adelaidean sediments within the Curnamona Province (see Figure 2). Within the Marree Project, previous geological interpretation had these units covered by more recent sediments that are more favourable for sandstone hosted uranium mineralisation (e.g. Beverley and Beverley Four-Mile Uranium Deposits).

The Company has determined outcropping Proterozoic units, favourable for base metal mineralisation, are much more extensive than previously believed.

Within the Marree Project, there are several silver-lead-zinc-copper prospects that were identified and mined from the 1860's to the late 1930's. Some of these prospects indicate multiple lodes over several hundred metres strike. They appear as small scale operations with exceptional metal tenor.

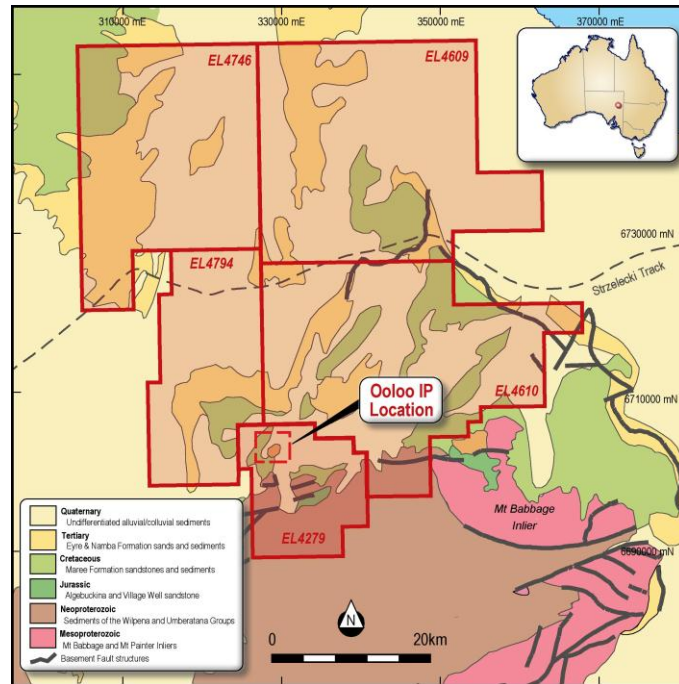


Figure 2. Regional Location & Geology for Ooloo Project Area showing the location of the Ooloo IP region

Geological Models for Mineralisation

The most likely geological models for base metal mineralisation in the Marree Project area based on all data accumulated to date include structurally related breccia style mineralisation as well as carbonate alteration and replacement mineralisation models.

The structurally related breccia style mineralisation model is that hydrothermal fluids from granitic sources are injected into late cross cutting structures. Field observations have identified fault related silicified zones where the siltstone country rock is silica flooded. Subsequent folding of the rocks has created highly cleaved siltstone along the axial plane of the fold but the silica flooded siltstone is not prone to folding and is more likely to fracture rather than fold. Mineralised breccia zones within the silicified siltstone unit have been identified.

The carbonate alteration and replacement model is closely related to the structural model and can be associated together as seen at Ooloo historical mine. Carbonate alteration in the form of siderite which is an iron carbonate is created by the chemical alteration of the primary rocks by hydrothermal fluids. This is often associated with fault structures.

Carbonate replacement is more specifically associated with ore minerals replacing a sedimentary carbonate unit. This model has yet to be proven in the Marree Project area, however field observations confirm that carbonate units are in close proximity to hydrothermal fluids where this type of mineralisation could occur.

Geophysical Surveys

Cauldron engaged Kim Frankcombe to complete a reprocessing of the gravity data acquired in late 2012. The aim of this work is to use the knowledge gained from the IP reprocessing and evaluate whether any gravity response can be identified in particularly the Ooloo region. This work is expected to be complete by early June 2013.

Once the reprocessing of the gravity data has been completed a geophysical assessment will be conducted on what additional surveys could be completed on the Marree Project area. With the success of the resistivity data identifying what appear to be alteration zones in the Ooloo region an electromagnetic (“EM”) survey will be considered including possible ground based EM or Airborne EM surveys as a tool for use in the other project areas in the region.

Historical Ooloo Mine

Two major structures were mined, known as the north lode and the south lode. On the surface today there are numerous deep shafts and prospecting pits with a reported series of tunnels over 500 feet long on both lodes.

The mineralisation reported is high grade massive sulphide with lead and silver being the two main commodities sought. Some of the historical reports state grades of lead over 70% and silver grades up to 70 ounces per ton. Copper and gold were also mined but in lesser quantities. High grade zinc is also known from the Ooloo historical records but was not economic at the time.

The total production values of what was mined at Ooloo over the 16 year period is unknown with numerous conflicting historical reports but no officially recorded total production output. The only known facts were that the ore mined was of very high grade.

Both the north lode and south lode are reportedly fault related carbonate altered zones with common breccia zones. The width of the south lode is reported to be up to 23 feet wide and the north lode reported to be up to 12 feet wide according to published records from the Geological Survey of SA. The mine was reported as closed due to inability to fund pumping equipment and remains open at depth

Historical IP data analysis

During April 2013 Cauldron engaged Kim Frankcombe from ExploreGeo to reprocess previously captured 2D IP over the historical Ooloo Silver-Lead Mine region. The IP survey was originally completed by McPhar Geophysics in 1970 for Mid East Minerals NL.

The IP geophysical technique measures both the chargeability and resistivity electrical response of the ground being surveyed. A new 3D model that shows both the chargeable response and resistivity responses independently from each other has been created.

The reprocessed data has shown that the Ooloo Silver-Lead Mine area has a high resistivity response (Figures 1 & 3) and low chargeable (IP) response (Figure 4). This is believed to be a result of alteration around the east-west trending faults on both the North Lode and South Lode of the deposit. This alteration includes silica flooding, carbonate replacement (such as siderite) or a combination of both. Surface outcrop has identified both siderite veins and silicified siltstone around both fault zones at Ooloo.

Historical reports from Ooloo Mine state the mineralisation is associated with massive sulphides located in narrow veins up to a few metres wide. It is significant that despite the quantity of sulphide associated with the mineralisation, there is no chargeable response observed at Ooloo.

One possible explanation for this is that disseminated iron sulphides have been locally converted to non chargeable, siderite as part of the mineralising process.

The resistivity data has identified a large resistive zone to the southwest of Ooloo which has an estimated size of 1.5km long by 500m wide. The appearance of the resistive zone is very similar to that seen at Ooloo Mine. There is also no chargeable response in this area as seen at Ooloo Mine.

From both field mapping and aerial photography interpretation a large east to west trending fault has been identified that is located near the centre of the resistive zone. The Ooloo North and South lodes have faults also trending east to west.

The resistive body does not show evidence of mineralisation but does show that there is a likely alteration zone from silica flooding or carbonate replacement along a major east to west trending fault. The impact of the alteration zone appears to have reduced the porosity of the host siltstone unit considerably where the unaltered surrounding siltstone has pore spaces filled with brackish to salty water.

The conclusion to the reprocessing of the historical 2D data, therefore, is that the IP technique has not been an effective exploration tool for the sulphide bodies defined in this area. However, resistivity data collected as part of the IP survey has shown to be potentially effective in defining alteration associated with known areas of mineralisation.

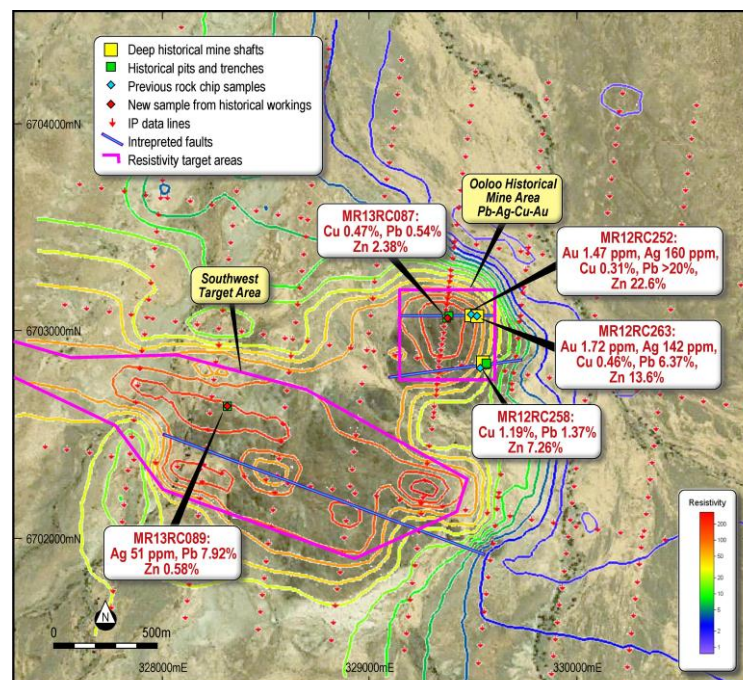


Figure 3. View of the 3D resistivity model from above showing a contour slice taken at 40m (approximately 70m below ground depth). High resistivity responses can be seen at both the Ooloo historical workings and the southwest target area.

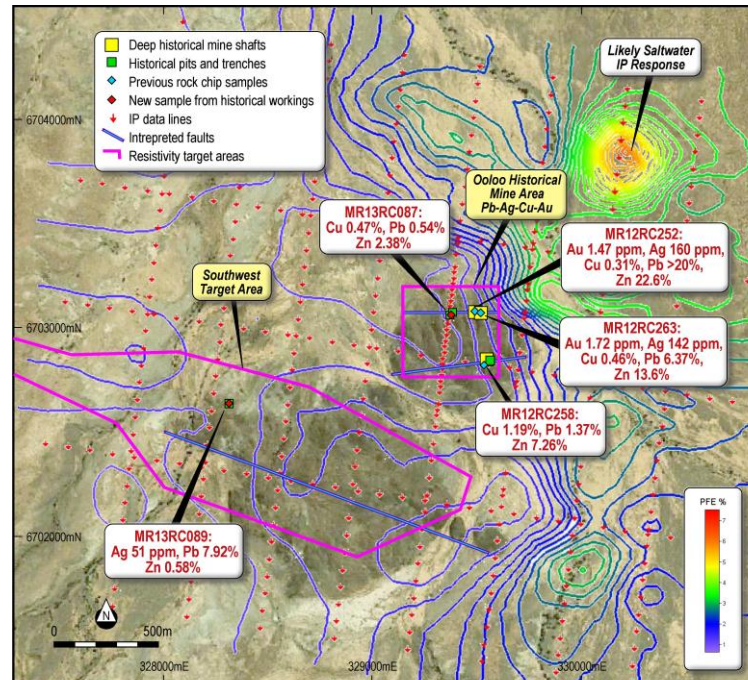


Figure 4. View of the 3D IP model showing a contour slice taken at RL 40m (approximately 70m below ground depth). Both the Ooloo historical workings and the southwest target area have no Chargeable IP Responses.

Disclosure Statements

Analytical Method

Laboratory: - Australia Laboratory Services Pty Ltd (ALS)

Techniques used:

ME – MS61 Four Acid “Near Total” Digestion for 48 elements (Inductively Coupled Plasma with both Atomic Emission Spectrometry and Mass Spectrometry finish)

Au – AA23 Ore Grade Fire Assay Fusion (Atomic Absorption Spectroscopy)

ME – OG62 Four Acid “Near Total” Digestion for Ore Grade Elements (Inductively Coupled Plasma with Atomic Emission Spectroscopy finish)

Competent Person Statement

The information in this Announcement that relates to Cauldron Energy Limited’s Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Brett Smith, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Smith is an employee of Cauldron Energy Limited. Mr Smith has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration, and he is undertaking 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 Smith consents to the inclusion in

the Announcement of the matters based on his information, in the form and context in which it appears.

End.

For further information, visit www.cauldronenergy.com.au or contact:

Simon Youds
Cauldron Energy Limited
Ph: (08) 9380 9555

David Tasker/ Colin Jacoby
Professional Public Relations
Ph: (08) 9388 0944