MT. SHOOBRIDGE PROJECT, NT

MCN 60

FINAL AND ANNUAL REPORT

FOR THE PERIOD

27 August 2015 to 21 October 2016

Tenement : MCN 60
Owner : Altura Exploration Pty Ltd
Operator : Altura Exploration Pty Ltd
Prepared by : B G Bourke
Date : November 2016
Distribution : Altura Mining Ltd
(1) Department of Primary Industry and Resources, NT
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1. SUMMARY

No exploration studies were undertaken within MCN 60 during the reporting period 27 August 2015 to the 21 October 2016. In 2015 two legacy shafts located within MCN60 were fenced and made safe following a directive by the Department of Primary Industry and Resources.

In August 2016 Altura gave notice to the DME that it was surrendering EL29549 and that Altura would not be undertaking any further work on the project.

2. INTRODUCTION

MCN60 is located in the surrendered Mt Shoobridge Project EL29549 (August 2016) owned by Altura Exploration Ltd. The Shoobridge project comprised the EL29549 and two other small tenements, MLN 296 and MLN 544.

The initial exploration targets within the Shoobridge area were the pegmatites with their associated tantalum, tin and lithium prospectivity. In the following years exploration was extended to other minerals including base metals, uranium and gold.

3. LOCATION AND ACCESS

The Shoobridge Project is located approximately 160km south southeast of Darwin and approximately 19km west-northwest of Hayes Creek. Access is via the Old Stuart Highway (Dorat Rd) and Douglas Station tracks. In the wet season (November to April) access roads into the area become impassable.

MCN60 is located within the Pine Creek 1:250,000 (SD52), and Tipperary (S170-1) 1:100,000 scale topographical and geology sheets.

4. TENEMENT STATUS

The original MCN60 covered 32.4Ha and was granted on 25th October 1982 for a period of ten (10) years. The MCN was renewed for a further eight (8) years on 29th March 1993, and a further seven (7) years on 18th September 2000. In 2003, the MCN was reduced to two (2) hectares. A renewal application was again made in August 2015 however the grant decision has not yet been received from Department of Mines and Energy.

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Holder</th>
<th>Grant Date</th>
<th>Expiry</th>
<th>Area Km²</th>
<th>Rent $</th>
<th>Commitment $</th>
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<td>ATL</td>
<td>25.10.1982</td>
<td>27.08.2007</td>
<td>26.08.2007</td>
<td>26.08.2015</td>
<td>0.02</td>
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</tbody>
</table>

Table 1: MCN60 – Tenement Details.
5. LOCAL GEOLOGY

The Shoobridge project area consists primarily of the Lower Proterozoic Burrell Creek Formation (feldspathic metagreywackes, minor lenses of volcanilithic pebble conglomerate, laminated phyllite, slate and mudstone), and the underlying Mt Bonnie Formation of the South Alligator Group (interbedded carbonaceous slate, phyllite, mudstone and siltstone; feldspathic meta-greywacke and ferruginous phyllite (metasiltstone) with chert bands, lenses and nodules).

The Wildman Siltstone crops out within the western outcrop area of the Fenton Granite and in the core of the Howley Anticline. Within the Fenton Granite, the formation is incorporated as rafts associated with the Plateau Point fault assemblage. A number of prospects, including the Gold Ridge open pit, are located within these rafts, and are prospective for polymetallic vein style mineralisation.

The Middle Proterozoic Shoobridge Granite lies completely within EL29549, and intrudes the sediments of the Burrell Creek Formation. Numerous prospects proximal to the Shoobridge Granite display potential for polymetallic Cu, Pb, Zn and Ag vein mineralisation. These include the Full Hand, Jacksons, Pyromorphite and Phillip Greets prospects.

The Shoobridge Granite is also considered to be the parent granite to the pegmatites of the Shoobridge pegmatite field (Frater, 2005), which includes the Barrett’s, Plateau Point, Chinese, Halls, Halls Creek and Old Company (Mount Shoobridge) pegmatites.

Two parallel, north-south trending faults, the Plateau Point and Shoobridge Faults, cross cut the Project area. These regional faults may have provided the structural control for pegmatite intrusion. Barrett’s, Hall’s and Chinese all occur immediately west of the Shoobridge Fault, whilst the Carruthers’ pegmatite is located immediately west of the Plateau Point Fault.

According to Frater (2005), Barrett’s pegmatite is irregular in outline, intertonguing with, and containing blocks of country rock. Fifteen percent of the pegmatite body is considered to include xenoliths of country rock where the high grade pockets of ore are commonly on the contact of country rock. The pegmatite dips to the northeast at an average of 30°, with most shafts, costeans and pits less than 7 m deep. The only recorded production from Barrett’s is 117 t of tin concentrate that was won prior to 1910.

The Chinese pegmatite is located approximately 1 km north of Barrett’s. Workings consist of collapsed pits and costeans. One 45m long, deep costean has exposed a 7m wide pegmatite, with sharp contacts that are conformable to bedding. Mineralisation appears to have been concentrated on the wall and border zone of the pegmatite, as shafts have been sunk on this zone. Average Ta values from 4 grab samples taken by Frater (2005), returned 116ppm Ta, and 2,355ppm Sn.
The Halls pegmatite lies on the same line of pegmatites as Chinese and Barrett’s, and is located approximately 200m north of the Chinese workings. Blanchard (1937) reported that Halls was a 2m wide greisen lode, worked for its high grade, however no details of production are available. Today, the prospect consists of four collapsed pits, 4-5m wide and approximately 4m deep, on a line trending 020° over a strike distance of 30m. Average results of two grab samples taken from the prospect by Frater (2005) returned 124ppm Ta and 203ppm Sn.

South of Plateau Point, the Plateau Point Fault assemblage consists of a north-northwest-trending bifurcating and en echelon series of major faults, each up to 8km in length, tributary to a principal fault which parallels the Mount Shoobridge fault. These faults displace early Proterozoic metasediments and Fenton Granite. The Wildman Siltstone is displaced against the Koolpin Formation, the fault zone being characterised by sheared phyllites, abundant quartz blows and numerous contorted pegmatites.

Within the Fenton Granite, the principal fault extends some 10 km south of Plateau Point and is recognised by a prominent narrow quartz or quartz-hematite-capped ridge.

The Plateau Point Pegmatites are confined to the older rocks of the Mount Partridge Group, and intrude the Wildman Siltstone, immediately southeast of Plateau Point. The pegmatites can be traced 3.3 km south-southwest from the scree slopes of Plateau Point, to the edge of the Fenton Granite, and occur within or close to the margin of the Plateau Point Fault.

The pegmatites consist of coarse grained K-spar, microcline, perthite, plagioclase, quartz and muscovite, with accessory garnet and tourmaline. Interlayered meta-sediment and pegmatite widths are between 1m and 10m and overall the mixed unit attains widths of up to 230m.

The K-Mesa prospect consists of a flat-lying a Cretaceous mesa, approximately 2km in length and 1km in width, displaying stratabound, supergene iron enrichment. Rock chip samples have assayed up to 57.6% Fe; average P content was ~0.5%.

The McLean’s Prospect, which is an abandoned mine, is located on a north-easterly trending ridge which continues northeast from the centre of K-Mesa. Mn-rich talus boulders around the Cretaceous mesa were hand-picked and sent to Rum Jungle for use as an oxidiser to process the uranium ore mined during the 1950’s and 1960’s.
6. Exploration

6.1. Previous Exploration - Jackson’s Prospect – MCN60

The old workings at Jackson comprised two shafts, one which has collapsed and is under-layered from about 4.6m depth. The second shaft is about 5.1m deep. The legacy workings mainly were on narrow seams of high grade galena and cerussite occurring in quartz mica schist at the contact with feldspar porphyry. An average grade of 3% Pb has been estimated from a zone 100m long and 17m wide. Recorded production is 2 tonnes of silver-lead ore.

Prior exploration studies within the Jackson’s prospect area extend back to 1958 and have intermittently been carried out since. All of these studies have been reported on in pervious annual reports on MCN60. These have included the following:

- Detailed geological mapping
- Rock chip sampling of the dumps and the costeans
- Reverse circulation drilling

The results of all these studies confirmed the presence of mineralisation however the physical dimensions of the mineralisation were not considered to be of any economic significance.

6.2 Current Exploration

In the current reporting period no studies specific to MCN60 were undertaken. Following a directive of the DME in 2015 Altura has fenced off the two legacy shafts located with MCN60.

7.0 Conclusions and Recommendations

Prior exploration studies both by historical explorers and Altura Exploration Pty Ltd have confirmed that there is base metal mineralisation at the Jacksons prospect within MCN60 however the dimensions of the mineralisation and the grade are not of economic significance. No further work is planned for this particular prospect area.

In August 2016 Altura surrendered the main Shoobridge tenement – E29549 – and effectively withdrew from the project.

8 REFERENCES

Adamson, S., 2007, EL25181 Annual report for 2007, Mt Shoobridge NT, Haddington Resources Ltd.


De Kever, N., 2008, EL25181 Annual report for 2008, Mt Shoobridge NT, Haddington Resources Ltd.