CAMFIELD AMETHYST EXPLORATION – YEAR 1

Annual Report

EXPLORATION LICENCE 10416

For the period: 13 June 2006 to 12 June 2007

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FIGURE 1 Tenement Location – EL10416 Camfield Station.
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INTRODUCTION

This report documents the initial exploration programme completed on Exploration Licence 10416 during the period 13 June 2006 to 12 June 2007. The tenement was applied for in September 1999 and due to legislation changes and other delays was only approved and cleared for exploration in June 2006.

1.1 Location and Access

The Exploration Licence is located almost wholly on Camfield Station, approximately 380 km south west of Katherine. Part of the western edge of the tenement is located on Victoria River Downs Station. The tenement is accessed along the Buntine Highway, which diagonally bisects the tenement.

1.2 Tenure

Exploration Licence 10416 was granted on 13 June 2006 for a period of 6 years. The tenement covers an area of approximately 246 sq.km (75 blocks). The tenement is held by Barry Kayes and operated by Aradon Pty Ltd, of which Barry Kayes is a Director.

1.0 GEOLOGY

2.1 Regional Setting

The tenement lies within the Wave Hill 1:250 000 Map Sheet in the Victoria River District. The area of the tenement lies on the Victoria River Plateau and Benches and is overlain by the Lower Cambrian aged Antrim Plateau Volcanics, which consist of a series of basalt lava flows with thin interbeds of sandstone, chert, silicified carbonate rocks, limestone and pyroclastic rocks.

2.2 Local Geology

There has been limited detailed mapping undertaken in the tenement area. The topography is mostly undulating plains with rounded hills and mesas. The Antrim Plateau Volcanics are dominant across the tenement and consist of massive and amygdaloidal basalts. The amygdales are frequently filled with Quartz, Amethyst and to a lesser extent Agate, all of which can be in geode form. In many areas, the geodes and nodules have been weathered from the basalt and can be found lying exposed on the surface. Less common is the evidence of vents or veins of Quartz and Amethyst which were the main focus of our exploration.

In the north eastern parts of the tenement, outcroppings of Red Chert are prominent and will be examined in future exploration programs.
2.0 PREVIOUS MINING AND EXPLORATION

Amethyst and Quartz was mined previously within the tenement from Mineral Claims 4490 and 4491, by Kajar Pty Ltd.

The main focus was on MC4490, where Amethyst of good colour and quality was extracted. The material was best suited for lapidary purposes, but was found in large, solid pieces suitable for fashioning into ornaments and beads. Good tonnages were found, but the extraction became difficult as the vein dipped deeper under a small hill (personal communication with previous tenement holder).

The area on and around former MC4490 was part of our initial exploration, but will be focused on in greater detail in coming programmes.

Kajar Pty Ltd and others have performed other exploration in the general area previously, but little is known of the results. Further research of old Exploration Reports and personal contact with previous tenement holders will be undertaken to expand our knowledge of the area, and help target our exploration more effectively.

It is interesting to note that in the years since my initial prospecting immediately prior to applying for the tenement in 1999, numerous pits and costeans have been machine dug by unknown parties, within or near our tenement boundaries.

3.0 EXPLORATION

Work undertaken on EL10416 during the current reporting period was aimed at acquainting ourselves with the terrain, geology and logistics of the area. As this was our first attempt at exploration in the area for Amethyst, we had a steep learning curve to teach ourselves the methods necessary to find potential new areas, and then evaluate them by way of surface sampling and costeanning.

4.1 A.A.P.A. CLEARANCE

Some months prior to our on ground exploration programme commencing, 4 areas of interest totalling approximately 20 sq.km were delineated by co-ordinates and submitted to the Aboriginal Areas Protection Authority for clearance to perform exploration related activities.

The 4 areas were subsequently inspected on ground by the Authority and a Clearance Certificate issued clearing us for exploration in those areas. (see Figure 3)

4.2 GENERAL PROSPECTING

General prospecting on the tenement was initially undertaken by 2 people over a 5 day period. A further 4 people were involved at a later date to follow up initial finds. The general prospecting involved traversing on foot, large parts of the tenement to evaluate locations first identified in 1999, prior to applying for the tenement.
Evaluation included inspection and collection of surface samples and investigation of possible sources of Quartz or Amethyst not already exposed. Small pits were dug by hand to follow potential veins, vents or geodes.

This method proved effective in identifying many new areas of interest, which were marked by GPS for follow up work in future programmes.

4.3 COSTEANING

After identifying the most prospective sites, it was decided to concentrate our costeaning on locations within Area 4 of our Clearance Certificate. This included the area of former MC4490, which along with several other surface indicators and geological features running in a line roughly east/west, was deemed to be the most logical place to begin. The areas close proximity to our camp at Wyalong Yards and its relative ease of access were also an advantage.

A total of 7 costeans and a number of small pits were dug during the course of this exploration programme. The machine used for the costeaning operation was an 11 tonne Caterpillar 311 excavator. This machine was particularly useful as it had a hydraulic blade that was useful for rehabilitation and track building operations.

Costean 1 was chosen due to the type and volume of surface material. This included what looked like an Epidote rich tuff rock similar to samples seen from MC4490 associated with the Amethyst. A 19 metre long by 3 metre deep and 600 mm wide costean was dug in an east west direction, which looked to cut across a possible vein or contact zone. After about 5 metres, a stringer vein of Amethyst was intersected. The costean was continued with some smaller veins and the tuff like rock being intersected in close proximity. The costean was lengthened to its final dimensions but no new veins were exposed.

It was then decided to dig a wider costean at 90 degrees to the original, following the veins of Amethyst and the Epidote rich rock. After several hours of slow digging, the vein petered out on the surface and the costean was filled in and smoothed off.

Small quantities of good coloured Amethyst specimens were recovered for evaluation. The area may be looked at further in future programmes.

Costeans 3, 4 and 5 were excavated at various levels on the northern side of a small, highly weathered basalt hill. The hill was surrounded by multiple areas of crystal plates exposed on the surface at the base of the hill. It was thought that the hill remained due to the fact it may contain the remains of a quartz reef or vent. It was anticipated that by costeaning across the hill, a vein or source of quartz/amethyst may be intersected. This assumption proved incorrect, with the only indicators exposed being a small area of nodules and geodes at one end of the highest costean.

Several more costeans were excavated a short distance from the base of the hill, Costean 2 on the eastern side and Costean 6 on the western side. Good surface indicators again influenced the location of the costeans. Amethyst veins were located in both costeans and followed until they petered out or the quality deteriorated. The
amount recovered was small, with the material from Costean 2 being pale in colour, while the material from Costean 6 was of a more attractive medium colour.

As with Costean 1, all the costeans in this area were backfilled and smoothed off at completion of the exploration work in this area. Future work at these sites is unlikely at this time.

Focus now shifted to the area on former MC4490. The area had been very well rehabilitated and it was difficult to envisage where previous work had been undertaken. After some reconnaissance and discussion, an area was chosen to dig a deep costean to test the depth of the old workings. As the excavator was only small in size, we could only dig to a depth of around 4.5 metres. At this depth we were still digging old dirt and it was decided that it was not practical to continue in this location with a small machine. Some smaller pits were dug in numerous locations nearby, but with no results.

Further work will be undertaken in this location in future programmes following the study of old exploration reports and communication with the previous tenement holder in Queensland. More appropriate machinery will also be required.

The last day of costeaning involved digging several small pits to evaluate locations identified by earlier prospecting. Amethyst was found in 1 location and followed for a short distance before it petered out. The material was horizontal lying, of good medium colour, but very fractured. It opened up into a small vugh briefly, and then pinched out. Further investigation could be considered in the general vicinity in future programmes.

4.4 FUTURE EXPLORATION

Future Exploration Programmes will be more focused on known areas such as MC4490. Areas prospected in the Renny Bore area will also be targeted for costeaning in subsequent programmes. General prospecting will be continued to include areas not previously looked at. A systematic approach will be taken to ensure the best coverage of the tenement and to increase our prospects of finding a commercially viable deposit(s) of Amethyst. Some effort will be centred on the Chert outcrops in the East of the tenement which could have potential as an ornamental lapidary stone.

4.0 SUMMARY

Exploration performed during the reporting period highlighted some areas that need attention.

More local knowledge would be useful to identify prospective sites. The study of previous Exploration Reports in the area could help target our exploration more effectively, as would communication with previous tenement holders in the area. Local pastoralists, stockmen, grader drivers and aboriginals may also be a useful source of information.
The methodology used to find prospective deposits needs some modification. General prospecting could be improved by the use of motorbikes or quad bikes to more quickly and easily traverse the rough ground frequently encountered.

Communications in the area was quite difficult, with no mobile phone signal and the nearest telephone services some distance away at Camfield Station (20 km), Kalkaringi (60 km) or Top Springs (110 km). Internet could only be accessed at Camfield on a slow dial up connection.

The Globalstar satellite phones hired for this operation proved almost useless, as they were nearly always unable to obtain or hold a signal strong enough to allow a normal phone call. This will be overcome by the use of more suitable phones for this area. New portable satellite technology is also available to allow affordable data communication for internet and/or voice access.

Radio reception was also very poor, which made weather and news services difficult to obtain. The use of a portable satellite dish for television and a more appropriate radio should address these problems.

These communication problems can be a safety issue if not addressed.

Logistics associated with the delivery of machinery and transportation of samples was difficult to organise and very expensive. The lack of general transport servicing the region leads to few choices, poor service and high costs. Earthmoving machinery was also difficult to hire due to high demand from the mining industry and civil works projects during the dry winter months.

The combination of the above problems means an increase in costs associated with exploration programmes in this area. For small non-corporate operators like us, this can make life difficult.

The initial exploration programme was considered successful in regard of what was learnt rather than what was found. Future programmes will be much easier to organise and prospective areas will be located more easily.

We look forward to future programmes with anticipation.
Figure 2 - Location of Costeans