

Annual Technical Report

EL 28167 Mollie Bluff.

Reporting Period: 18 February 2012 to 17 February 2013

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SUMMARY

Exploration Licence (EL) 28167, Mollie Bluff was granted To Intercept Minerals Ltd (Intercept) on 18th February 2011, and covers 31 blocks. It is located SE of several other Intercept Minerals tenements, referred to as the Mt Skinner Project, which are aligned along the regional NW-SE strike direction.

Mt Skinner Project area comprises Exploration Licences (ELs) 26025, 26543, 26719, 26748 & 27516. These tenements are located approximately 200km north of Alice Springs, and lie to the east of the Stuart Highway. EL 28167 lies east of the Alice Springs – Darwin railway line.

This report details work undertaken during the reporting period 18 February 2012 to 17 February 2013. EL28167 has been a granted tenement for 2 years. The focus of exploration is uranium mineralisation which is indicated in the adjacent Mt Skinner tenements to the NW.

Work by Intercept in the Mt Skinner Project tenement group resulted in the discovery of two small granitoid outcrops which carried elevated uranium values up to 540ppm. The Mt Skinner exploration work involved research and examination of reports of previous exploration in the district, along with reconnaissance exploration, sampling and mapping. This outcrop was located in an area where a weak radiometric anomaly was detected in a previously flown airborne survey. Subsequent petrological and assay work confirmed that this was an alaskite containing variable, low to moderate levels of uranium in restricted surface exposures. The peak assay value returned was 540ppm Uranium. This Mollie Bluff tenement EL28167 was subsequently acquired along regional strike to the SE to cover features observed in the public domain radiometric data.

Work conducted on the EL28167 and the Mt Skinner Group of tenements during the reporting period involved a thorough review of all exploration activities since project inception, and the resultant data from all that work, a field visit to the region of the strongest radiometric responses, plus statutory reporting.

The uranium bearing alaskite remains as the outstanding conceptual target in this tenement area. This is interpreted to potentially be reflected by the elevated radiometric responses within the tenement. However, an extensive veneer of transported sand cover presents the greatest difficulty to a systematic exploration program at present. The recent review and field inspection identified this as the most important factor to be overcome going forward.

RAB drilling traverses to blade refusal are proposed to test the better defined elevated radiometric responses in the coming year. This work is expected to locate the source of the radiometric anomalies, to provide host rock information and to provide data on the uranium distribution within the weathering profile to aid ongoing exploration testing.

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1 INTRODUCTION

This report covers the second year of grant of tenement EL 28167. The tenement covers the south-easterly extension of potential host rock units, interpreted from geophysical data from the Intercept Mt Skinner Project, a combined reporting project area of 5 current exploration Licences. The Mt Skinner Project is targeting uranium mineralisation hosted by acid igneous intrusive rocks – specifically alkali feldspar granites, - alaskites.

In the period covered by this report, this tenement was integrated with adjacent Intercept tenements of the Mt Skinner Project for the purposes of conducting and rationalising an exploration approach to the one conceptual target model developed by the Company for potential uranium mineralisation within the area.

Intercept's Mt Skinner Project area comprises a total of five Exploration Licences, ELs 26025, 26543, 26719, 26748 & 27516. These adjoin this Mollie Bluff tenement in a line of tenements extending to the north-west. Intercept is focussed on the potential for alaskite hosted uranium mineralisation along the Mt Skinner Project tenements.

The alaskite occurrence identified so far is represented by two very small outcrops located within one of the nearby Mt Skinner tenements. Most of the area lies beneath shallow transported sand cover. Therefore the amount of information about the mineralisation is also very limited. It is noted that there are elevated REE (rare earth element) values associated with the higher uranium values.

Deposits which may have genetic affinities with the Mt Skinner Project uranium mineralisation have been researched, and these include uranium mineralisation associated with the alaskite bodies at Rossing and the nearby Etango deposits in Namibia, and the Crocker Well deposits in the Olary district of the Curnamona province of South Australia. There is however, a lot of variation within this group of igneous rock hosted uranium deposits.

This report covers the work carried out by Intercept on the Mt Skinner Project Tenements between 18 February 2012 and 17 February 2013.



Figure 1: Mollie Bluff, EL 28167 plan of location and access

2 LOCATION AND ACCESS

The Mollie Bluff EL28167 area is located approximately 200km north of Alice Springs (Figure 1), with access to the area via the sealed Stuart Highway, thence either the Plenty Highway to Sandover Highway, or the Ti-Tree turn-off to Mt Skinner Station and into the project area by station tracks of varying quality.

3 TENURE

EL 28167 is held by Intercept Minerals Ltd. The tenement was granted on 18th February 2011, and covers an area of 99 km² held in 31 blocks. The expiry date is 17th February 2017.

4 GEOLOGY

4.1 Regional Geology

The Project area lies at the boundary between Proterozoic-aged basement of the Arunta domain and the younger southern Georgina Basin. The Georgina Basin is a 330,000 km² erosional remnant of a larger intracratonic basin known as the Centralian Superbasin which covered a large area of central and northern Australia during Neoproterozoic times. Sedimentary units within the Georgina Basin range in age from the Neoproterozoic to the late Palaeozoic. In excess of 1.5km of Neoproterozoic sedimentary rocks are preserved in downfaulted blocks and half-grabens on the southern margin of the Georgina Basin in the NT. Depocentres and synclines contain up to 2.2km of Cambrian to Devonian section.

The Arunta basement is dominated by folded and faulted Palaeoproterozoic-age felsic gneiss and metasedimentary rocks (biotite schist, quartzite and calcsilicate), with lesser metaigneous rocks (amphibolite), which are intruded by a variety of syn- to post tectonic granitoids.

In early Palaeozoic times the area was a stable platform on which carbonate, clastic and evaporitic units were deposited. The intracontinental, compressional Alice Springs Orogeny (370-310 Ma) affected the Georgina Basin and other central Australian Basin but resulted in little metamorphism (Dunster et al. 2007).



Figure 2 Major sedimentary basins and basement blocks surrounding the tenement area



Figure 3 Simplified geological map showing the area of EL28167 and the Mt Skinner Project Tenements.

4.2 Tenement Geology

The geology of the project area (Figure 3) is dominated by Neoproterozoic and Cambrian clastic sedimentary rocks of the Central Mount Stuart and Octy Formations, and Paleoproterozoic Barrow Creek Granite Complex, with localised occurrences of early to mid Proterozoic Bullion Schist, and Ledan Schist. The latter three units are part of the Arunta Domain, and generally outcrop poorly in comparison with the Central Mt Stuart Formation.

Strike directions mainly trend NW-SE, sub-parallel to regional faults and shears such as the northwest trending Stirling Fault Zone. A secondary set of faults cross-cut the stratigraphy with a northeast strike.

5 PREVIOUS EXPLORATION WORK

The rationale for the acquisition of the Mollie bluff tenement was based on knowledge about the potential for uranium mineralisation to be present within adjacent tenements held by Intercept in the Mt Skinner Project group of tenements. Aeromagnetic, radiometric and gravity geophysical data support the potential for the extension of favourable host rocks and possible uranium mineralisation further to the south-east into the Mollie Bluff tenement.

A generalised overview of the Mt Skinner Project concept follows and the subsequent exploration approach which was developed in the last year to continue exploration.

5.1 Exploration Conducted by Intercept Minerals Ltd in Previous years.

Intercept have been active explorers in this region since September/October 2007, targeting both base metals and uranium minerals. This included an aircore drilling program comprising 4,359m in 243 holes within the calcretised Wilora Paleochannel which encountered a broad zone (approx. 15km long and up to 3km wide) of anomalous but sub-economic uranium.

Drilling and other geophysical surveys were conducted various areas at a variety of targets in the Mt Skinner area, seeking base metals and uranium mineralisation.

A helicopter-borne EM (VTEM = versatile time domain electromagnetic) survey amounting to 361 line-kilometres over the tenement was flown by Geotech Airborne Ltd (www.geotechairborne.com.au) in October 2007.

In 2008, in conjunction with a regional helicopter assisted ground gravity survey conducted by Geoscience Australia (GA) and the Northern Territory Geological Service (NTGS), Intercept co-funded three extra 500m spaced infill surveys, with an additional two surveys being commissioned independently by Intercept.

Exploration in 2009 consisted of geophysical interpretation of regional and infill gravity surveys and interpretation and modelling of regional airborne magnetic. Along with water bore sampling and analysis, field reconnaissance and rock chip sampling, soil and auger sampling and shallow trenching.

Field reconnaissance was undertaken in several campaigns with a particular focus on the minor outcrops within the MT Skinner Uranium Project tenements.

The maximum uranium value (Laboratory) was 540 ppm resulted from assaying rock chip samples which were collected from nearby MT Skinner EL's. All samples were analysed in the field by Niton portable XRF, with 14 of these samples also being sent to UltraTrace Laboratories in Perth for analysis.

XRF analysis has confirmed the granite host to be an alaskite which is a type of alkali feldspar granite containing less than 10% mafic minerals. Alaskites are the host rock at the Rössing uranium mine in Namibia, one of the largest open pit uranium mines in the world, where the alaskite intrusions host large tonnages of uranium mineralisation. Uraniferous alaskites do not appear to have been previously reported within the Arunta Province of the NT.



Figure 4 Ternary diagram, A = alkali feldspar, Q = quartz, P = plagioclase; with the Uramet rock chip samples plotted (red squares) showing they fall within the field of alkali feldspar granites (alaskite)

5.2 Early follow-up - Auger Drilling.

A program of shallow (60cm) auger drilling was conducted most within the vicinity of an outcropping alaskite, on nearby tenements, although some samples were collected over other nearby magnetic anomalies.

Anomalous uranium values up to 83 ppm U were obtained from the auger drilling.

This is considered to be quite a positive result, despite samples collected from some areas being of dubious merit due to the presence of transported sand cover over the weathered soil profile, and the likelihood that the cover was not penetrated fully in the shallow drilling. This shallow sampling may not have provided a true reflection of the potential for uranium mineralisation to be present at depth. The very shallow nature of the sampling suggests that the assay grades may be poorly reflective of the actual grades which could be expected at deeper levels. Depletion and leaching may result in diminished grades near surface.



Figure 5 Landsat image of Mollie Bluff EL28167 and the Mt Skinner Project area

5.3 Geomorphology

The Landsat image of Figure 5 highlights the variable geomorphology of the area. The topography is generally dominated by the hills of the outcropping Central Mount Stuart and Octy Formations represented as dark blue in the Landsat image.

Sand-plains show as light green, light brown, to light purple in the image. Granitoids are a cream colour evident in EL26478 and adjacent areas

The vegetation ranges from savanna woodland near the creeks, to gidgee and acacia scrub to annual grasslands. The vegetation is consistent with a semi-arid regime.



Figure 6 Aeromagnetic Image over EL28167 and adjacent Mt Skinner Project areas.



Figure 7 Radiometric Image of U channel over the same tenement areas



Figure 8 Gravity Image over the same tenement areas.

6 EXPLORATION CONDUCTED DURING 2012

Intercept Minerals lost the services and hands-on knowledge of the Company's existing field geological personnel early in 2012 through resignation. Replacement personnel were eventually engaged and all the past work, programs and results have been reviewed and reassessed.

This review showed that the results from a nearby, previous auger drilling campaign in sand covered areas is quite unreliable. Many of the shallow auger holes probably did not reach recognisable bedrock. Deeper drilling programs are required.

There is no reliable data on the potential for the leaching of uranium in and near the residual surface. The distribution of (elevated) uranium values within the weathered profile in this region is unknown. It is quite possible that the surface expression of underlying uranium mineralisation may be quite low, or even non-existent at the surface.

A number of suitable locations for RAB drilling traverses were identified based mainly on the available regional airborne radiometric data and positions of the known uranium bearing alaskite outcrops relative to aeromagnetic data and trends. This RAB program would be modified and developed, depending on results gained during the progress of the program. Any program would need to account for these issues. Initially reconnaissance field work was required to visit and examine all the possible sites. This was needed to determine whether

the sites were suitable from a regional and local access perspective, and then they required sacred site registry checks.

One field trip was initiated. An attempt to visit, locate and check the ground suitability these locations was made late in the year. Access proved to be impossible after storms resulted in boggy conditions and made unsealed roads and tracks impassable. This preparatory field appraisal will be conducted in the coming field season, prior to initiating the RAB drilling program and all its pre-requisites.

6.1 Exploration Program Planning.

The most substantial difficulty confronting exploration of this area is the lack of exposure and the presence of a layer of transported sand cover over a majority proportion of all the tenement areas. This is well demonstrated in figure 5, the Landsat image of the tenement areas. All the light green, light brown and light purple on the image represent areas of transported cover. This effectively excludes the direct use of surface or airborne radiometric surveys. Exploration is forced into drilling programs. Initially, a program of vertical RAB drilling is considered to offer the best practical approach to regional drilling and possible uranium bearing alaskite distribution.

Figure 6 portrays the airborne magnetic data over the whole area including that of the outcrop of the alaskite, which shows magnetic layering/banding trending NW-SE at both locations. This will be used initially as a possible guide to test for continuity of host rocks and anomalous uranium along these trends.

There has been difficulty reconciling the uranium values recovered using the portable Niton XRF unit with laboratory assays received from assaying similar sample materials. A number of the higher value samples, identified using a portable Niton XRF unit, were sent to the laboratory, but did not produce comparable elevated uranium values. This issue remains unresolved.

There is some uncertainty whether uranium assay values at the residual surface may be depleted, relative to positions at greater depth. It is proposed to complete several RAB drill holes to get vertical assay profiles at and near the anomalous alaskites to determine the distribution of assay grades down the weathered profile.

As reflected above, there is an increase in REE values associated with the higher uranium (laboratory) assays. Further assays will continue to test this possible relationship.

7 CONCLUSIONS

The potential for significant uranium mineralisation associated with alaskite bodies in EL28167 and the whole Mt Skinner Project area remains untested and a program of vertical RAB drilling is proposed to investigate the main radiometric anomalous features and to see if these are also related to alaskite intrusives. Success with this work will lead to examining the extent of the alaskite occurrences and to quantify the uranium content while doing this drilling program. A RAB drilling program will be conducted within EL28167 this year.

REFERENCES

Dunster JN, Kruse PD, Duffett ML and Ambrose GJ. 2007. Geology and resource potential of the southern Georgina Basin, Northern Territory, NTGS.