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EL 3754

SCRUBBY HILL

ANNUAL AND FINAL REPORTS TO LICENCE SURRENDER FOR THE PERIOD 19/4/2007 TO 18/4/2010

Submitted by Meridian Minerals Ltd 2010

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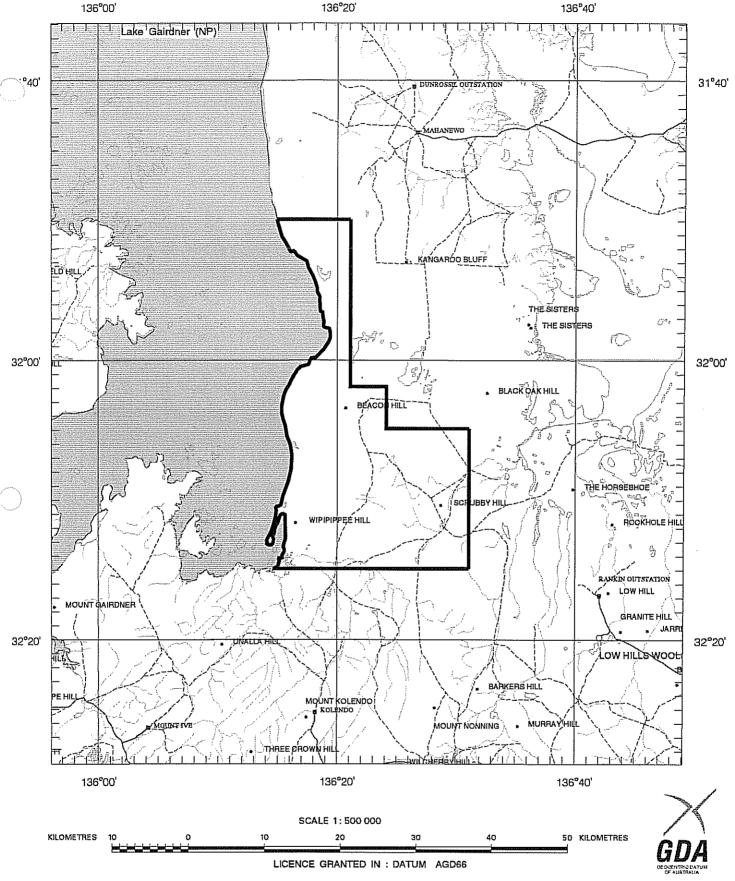
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SCHEDULE A



APPLICANT: TECK COMINCO AUSTRALIA PTY LTD

FILE REF: 290/06 TYPE: MINERAL ONLY AREA: 650 km² (approx.)

1:250000 MAPSHEETS: GAIRDNER YARDEA PORT AUGUSTA

LOCALITY: SCRUBBY HILL AREA - Approximately 110 km north of Kimba

DATE GRANTED: 19-Apr-2007 DATE EXPIRED: 18-Apr-2008 EL NO: 3754



EXPLORATION LICENCE EL 3754- "SCRUBBY HILL" GAWLER PROJECT SOUTH AUSTRALIA

ANNUAL TECHNICAL REPORT FOR THE PERIOD ENDING 18 APRIL 2008

Data presented in WGS 84 Datum

Prepared by: Jeremy Read

July/Cearl

Submitted by: Jeremy Read Managing Director Meridian Minerals Limited

DISTRIBUTION:

PIRSA (digital and hard copy) Meridian Minerals Limited (digital) Teck Cominco Australia Pty Ltd (digital) This report summarises work completed on Meridian Minerals Limited Scrubby Hill Exploration Licence (EL3754) for the year ending 18th of April 2008, this being the tenements first year.

EL3754 is located 130 km north west of Port Augusta on the eastern margin of Lake Gairdner.

EL3754 is a part of Meridian's Gawler project which comprises two exploration licences (EL3754 and EL3755) and five exploration licence applications (ELA's 2006/306-310) covering a total area of 6,340 km². The project area covers rocks of the Hiltaba Suite – Gawler Range Volcanic's which are known to host significant zones of iron-oxide copper gold (IOCG) mineralisation. Meridian's project area is interpreted to lie within a similar structural setting to other known IOCG deposits within the Gawler Craton.

Work completed over the tenement during the reporting period included the following:

- Review of previous work completed within the tenement area
- Generation of a number of "Olympic Dam Style" Iron-Oxide-Copper-Gold ("IOCG") target areas
- Independent geological consultant's assessment of the palaeochannel uranium potential of the EL area
- Conclusion of a deal with Meridian Minerals Limited to vend EL3754 into Meridian Minerals Limited with Meridian to take over the management of the tenement and running of the exploration program.

During the next twelve month period Meridian will refine the IOCG target areas and define specific targets for drill testing.

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1. INTRODUCTION

This report summarises work completed on Meridian Minerals "Scrubby Hill" Exploration Licence (EL3754) for the year ending 18th of April 2008.

The tenement, granted on the 19th of April 2007, covers an area of 650km² and is located approximately 130 km north-west of Port Augusta on the eastern margin of Lake Gairdner. EL3754 forms a part of Meridian's Gawler Project which comprises two separate granted exploration licences (EL3754 and EL3755), and five exploration licence applications (ELA's 2006/306-310) covering a total area of 6,340 km² (Figure One).

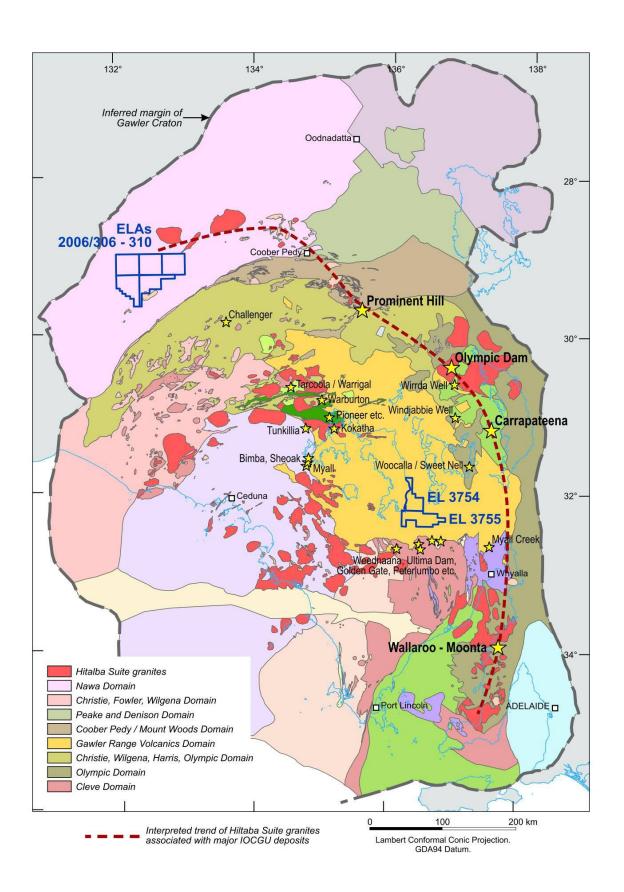
The project area covers rocks of the Hiltaba Suite – Gawler Range Volcanics which form part of the Archaean to Mesoproterozoic Gawler Craton in central South Australia. Within the Gawler Craton, rocks of the Hiltaba Suite are known to host significant zones of IOCG mineralisation. Meridian's project area is interpreted to lie within a similar structural setting to other known IOCG deposits within the Gawler Craton.

The tenements within Meridian's Gawler IOCG project areas have been the subject of cursory exploration work to date which has provided limited encouragement, in part due to the presence of widespread cover rocks over much of the area. However, the tenements are located within a terrane of proven mineral potential and promising structural controls which warrant further systematic exploration.

Meridian's planned exploration program, following on from the assessment and targeting work completed by Teck Cominco Australia, comprises ground magnetic geophysical surveying designed to delineate potentially mineralised structural zones which will be targeted during subsequent drilling programs.

The Scrubby Hill exploration licence area can be accessed via the Stuart Highway which connects Port Augusta and Coober Pedy and thereafter by unsealed roads and tracks.

Figure 1: Gawler Project Tenements and Applications



2. TENEMENT DETAILS

EL3754 forms a part of Meridian's Gawler IOCG Project which comprises two separate granted exploration licences (EL3754 and EL3755) and five exploration licence applications (ELA's 2006/306-310) covering a total area of 6,340 km².

Table 1: Tenement Details

Location	Tenement	Project	Tenement Name	Holder	Date Granted	Area (km²)	Minimum Annual Expenditure Commitment (A\$)
SA	EL3754	Gawler	Scrubby Hill	Teck Cominco Aust.	19/4/2007	650	95,000

3. REGIONAL GEOLOGY

Meridian's Gawler project tenements are located within the Hiltaba Suite – Gawler Range Volcanics of the Archaean to Mesoproterozoic Gawler Craton in the central part of South Australia (Figure 1).

The Gawler Craton consists of crystalline basement rocks that have not been substantially deformed since approximately 1,450 Ma. Much of the craton is covered by thin platformal sediments and regoliths of Neoproterozoic to Cainozoic age. The boundaries of the craton are defined to the northeast, northwest and west by faulted margins and thick Neoproterozoic and Phanerozoic sedimentary basins. To the east and southeast the Torrens Hinge Zone defines the margin, adjacent to the western limit of the Adelaide Fold Belt. The southern boundary is coincident with the edge of the continental shelf.

The Gawler Craton has been subject to three major deformation periods during the Sleafordian Orogeny (late Archaean to early Proterozoic – 2400 Ma), Kimban Orogeny (Palaeoproterozoic – 1850 to 1700 Ma) and Kararan Orogeny (Mesoproterozoic – 1670 to 1540 Ma).

Thick sheets of Mesoproterozoic, felsic Gawler Range Volcanics (1590 Ma) occur over much of the Gawler Craton. The Gawler Range Volcanics may be broadly divided into two groups, an upper and lower unit. The lower unit comprises dacite-rhyodacite-rhyolite, ignimbrites and flows with thick, interlayered sequences of basaltic lavas. The overlying upper unit contains thick, sub-horizontal, porphyritic dacite sheets which are predominantly ignimbritic in origin.

Associated with the Gawler Range Volcanics are widespread co-magmatic granite intrusions of the Hiltaba Suite (1600 – 1585 Ma). The Hiltaba Suite is dominated by felsic granite plutons which are characteristically pink due to the presence of a fine hematite dusting of the majority of feldspar crystals. Outcrop is most abundant in the central Gawler

Craton particularly on the western and south-western margins of the Gawler Range Volcanics.

Overlying much of the Gawler Craton are extensive and flat-flying Neoproterozoic and Cambrian sedimentary units which have previously restricted regional exploration in the region.

The temporal and spatial association between granitoid bodies of the Hiltaba Suite and IOCG deposits (such as Olympic Dam and Moonta–Wallaroo) has been recognised in the Gawler Craton for some time. In addition, the Hiltaba Suite granites are also associated with vein gold (± tin, ± silver) deposits (i.e. Earea Dam, Tarcoola and Glenloth and the recent discoveries along the Yarlbrinda Shear Zone).

4. PROSPECT GEOLOGY

Meridian's EL3754 and EL3755 tenements at Lake Gardiner East cover an area where the Gawler Range Volcanics are locally intruded by granites of the Hiltaba Suite. The principal rock unit in the area is the Yardea Dacite which is the upper member of the Gawler Range Volcanics. The Yardea Dacite is a widespread felsic volcanic which originated from a high-temperature felsic magma.

A number of base metal, gold and silver occurrences are reported along the margins of the Gawler Range Volcanics.

5. EXPLORATION POTENTIAL & EXPLORATION MODELS

Based on the lack of previous exploration and the limited knowledge of the local geology, Meridian's Gawler Project is a conceptual exploration project. However, the tenements are located within a terrane of proven mineral potential and with prospective structural controls which warrant further systematic exploration.

Meridian considers its Gawler project tenements are located in a geological setting that is prospective for iron oxide copper-gold±uranium (IOCG) mineralisation. Within the Gawler Craton, IOCG deposits are closely associated with the Hiltaba Suite of intrusive rocks. The Hiltaba Suite was intruded during a major tectonothermal event approximately 1,595 Ma which broadly affected the entire Gawler Craton.

Whilst the majority of known IOCG deposits occur in a wide variety of geological settings and display a range of deposit morphologies they share similar underlying mineralogical processes. Typically IOCG deposits have some or all of the following characteristics:

- an association with major fault or shear zones
- quartzo-feldspathic host rocks that include felsic to intermediate volcanic units, granitoids, sandstone and quartzite
- regional scale and intense calc-silicate alteration
- intense iron oxide and potassic alteration proximal to mineralisation

- deposits exhibit a close spatial and temporal association with fractionated multistage "late" I-type to oxidised A-type granitoids, commonly associated with the roof zones of intrusions
- oxidising mineralising fluids comprising hypersaline brine and carbonic components; and
- ubiquitous iron oxide minerals such as haematite and magnetite which contribute to pronounced magnetic and gravity geophysical anomalies.

The IOCG deposits in the Gawler Craton are characterised by hydrothermal breccias and associated copper-gold mineralisation within a haematite matrix. The mineralisation is formed through repetitive hydrothermal fracturing, brecciation, milling and often explosive venting within a volcanic / magmatic setting. The metals are interpreted to be derived from within the mantle and focused by deep-seated regional structures.

Well known examples of IOCG deposits include the Olympic Dam deposit in South Australia, the Ernest Henry deposit in Queensland and the Mantos Blancos deposit in Chile.

In addition to its prospectivity for IOCG mineralisation, Meridian's Gawler tenements (in particular the Tallaringa exploration applications) have potential to host sandstone-hosted (roll-front) uranium deposits. These deposits occur in medium to coarse-grained sandstone sequences deposited in continental fluvial or marginal marine sedimentary environments. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sandstone.

Uranium is mobile under oxidising conditions and precipitated under reducing conditions which may be caused by a variety of reducing agents within the sandstone including: carbonaceous material (detrital plant debris, amorphous humate, marine algae), sulphides (pyrite, H₂S), hydrocarbons (petroleum), or interbedded basic volcanics with abundant ferro-magnesian minerals (e.g. chlorite).

The three main types of sandstone deposits are:

- roll-front deposits arcuate bodies of mineralisation that crosscut sandstone bedding
- tabular deposits irregular, elongate lenticular bodies parallel to the depositional trend, deposits commonly occur in palaeochannels incised into underlying basement rocks
- tectonic/lithologic deposits occur in sandstones adjacent to a permeable fault zone.

Sandstone deposits constitute about 18% of the world's known uranium resources. Deposits of this type are commonly low to medium grade $(0.05 - 0.4\% \ U_3O_8)$ and individual deposits are small to medium in size (ranging up to a maximum of approximately 50,000 t U_3O_8). The main uranium minerals are uraninite and coffinite.

6. PREVIOUS WORK

Little exploration has previously been reported within the area of EL3755. The surrounding area to Meridian's tenements in the Lake Gairdner East area has previously been explored by several companies targeting precious and base metal mineralisation in addition to diamonds. Much of this previous work was limited to surface geochemical sampling. Significant results from the surrounding area include the discovery of one microdiamond and other diamond indicators (including garnet and ilmenite) and minor geochemical anomalies and altered zones. Despite promising structural targets, these geochemical surveys had limited success in identifying or generating further targets.

Nineteen drill holes have previously been completed within the area of EL3754 and EL3755. None of the these holes penetrated through thick sequences of Gawler Range Volcanics and in to the underlying older Archaean to Early Proterozoic basement.

7. EXPLORATION WORK COMPLETED DURING THE PERIOD

Prior to applying for EL3754 and EL3755 in the Lake Gairdner East area Teck Cominco Australia Pty Ltd had identified that the area potentially contained previously untested intrusions of Hiltaba Suite Volcanic's and hence had the potential to host Olympic Dam style IOCG mineralisation. Following this initial targeting work EL3754 and EL3755 were applied for.

Following the granting of EL3754 and EL3755 both tenements, in November 2007, were vended in to Meridian Minerals as a part of a planned IPO. Due to market conditions the planned Meridian IPO was delayed in to 2008, as the initial plan was to complete the Meridian IPO by end of 2006. In June 2008, following the end of the reporting period, ASX listed Bellevue Resources Limited announced it had entered into an agreement to acquire Meridian Minerals Limited with the management team of Meridian to take over the running of the combined companies. This transaction has delayed the commencement of work on EL3754 but in the next reporting period it is planned to further define and test any geophysical targets potentially caused by IOCG mineralisation.

During the reporting period an assessment of the uranium potential of EL3754 was completed (Appendix One) as a part of the overall assessment of the potential of all of Teck Cominco's Gawler Project tenements. This assessment determined that the drainage off the Gawler Range Volcanics, through the EL3754 and EL3755, into Lake Gairdner appears to follow numerous small shallow drainage channels. Thus, there is unlikely to be any channels that might contain the reduced sediments necessary to form a sedimentary type of uranium deposit. No further work on determining the uranium potential of EL3754 will be conducted and all future work will focus on assessing the IOCG potential.

8. EXPENDITURE DURING THE PERIOD

During the reporting period until 18th April 2008 total expenditure on the project was \$14,540. A breakdown of the expenditure is given in Table 2.

Table 2: Expenditure During the Period Until 18th April 2008

Cost Type	Expenditure During the Period to 18 th April 2008
Geochemistry	\$0
Geophysical Surveys	\$0
Drilling	\$0
Earthwork	\$0
Land Costs	\$0
Contractors	\$0
Consultants	\$2,500
Conferences/Seminars	\$0
Research	\$0
Donations & Memberships	\$0
Travel & Vehicles	\$0
Computing Costs	\$0
Depreciation	\$0
Equipment	\$0
Freight/Shipping	\$0
Supplies	\$0
Miscellaneous	\$0
Office & Storage Rental	\$0
Utilities	\$0
Employee Costs	\$3,400
Insurance	\$0
Legal	\$3,700
Taxes & Fees	\$0
Tenement Costs	\$3,500
Administration (15%)	\$1,440
TOTAL	\$14,540

9. CONCLUSIONS AND RECOMMENDATIONS

An assessment of the uranium potential of EL3754 was not encouraging and no further work is recommended on testing the uranium potential of the exploration licence. It is recommended that all future work on EL3754 focus on assessing the Olympic Dam style IOCG potential of the licence.

10. REFERENCES

Fairclough, M., 2005, "Geological and metallogenic setting of the Carrapateena FeO-Cu-Au prospect", MESA Journal 38. Journal of Primary Industries and Resources South Australia.

http://www.pir.sa.gov.au/ data/assets/pdf_file/0014/11084/mj38_carrapateena.pdf

Appendix One

A Review of the Uranium Potential of Teck Cominco Australia Pty Ltd's Tallaringa and Lake Gairdner East Tenements in South Australia

January 2008

Ву

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1. Summary

A review, in June 2007, of the uranium potential of Teck Cominco's existing applications and tenements indicated that the Tallaringa and Lake Gairdner East ELAs had a moderate potential for basement hosted uranium associated with IOCG, unconformity or sediment hosted deposits. This report outlines the results of a more detailed assessment of the uranium potential within these two groups of ELAs.

Tallaringa ELAs

The Tallaringa ELAs lie on the north western margin of the Gawler Craton. They overlie an Archaean to Early Proterozoic basement that is unconformably overlain by Neoproterozoic sediments of the Officer Basin. The basement rocks have been intruded by probable Mesoproterozoic Hiltaba Suite granitoids. The regional magnetic data show NE/SW linear trends indicating probable metasediments, faults and shears in the basement rocks.

There are few exploration drill holes into these basement rocks within the ELAs. Unmineralized iron oxide bodies have been drilled along the probable extensions of this belt to the NE. <u>Thus there is still some potential for isolated magnetic bodies in the basement to be related to IOCGU mineralization</u>. Detailed gravity may be necessary to prioritize these magnetic targets.

There is little potential for uranium mineralization near the basement unconformity. The time break at the unconformity appears to be longer than the main potential mineralizing period between approximately 1750Ma and 1350Ma. The Neoproterozoic Officer Basin sediments appear to have been laid down after approximately 1400Ma. The few holes drilled to basement through the Neoproterozoic sediments show no anomalous uranium.

The potential for palaeochannel sediment hosted uranium deposits has been tested by earlier explorers. They found little evidence for any uranium in the channels.

Lake Gairdner East ELAs

The Lake Gairdner East ELAs lie over a thick sequence of Gawler Range Volcanics (GRV) in the centre of the Stuart Shelf. None of the previous nineteen exploration drill holes have drilled though the GRV to older Archaean to Early Proterozoic basement. There has been no previous deep drilling close to the ELAs.

The regional gravity data shows a possible basement (beneath the Gawler Range Volcanics) intrusive complex on ELA 290. More detailed gravity data is required to assist an interpretation.

There are no significant palaeochannels draining into Lake Gairdner to the west.

2. Introduction

In early May 2007, Lisa Vella, Senior Geophysicist Teck Cominco Australia Pty Ltd, asked me to review the uranium potential of Teck Cominco's Australian tenements.

The 24 tenements reviewed lie in WA, SA, NSW and Queensland:

WA - Gnaweeda

Avon

Kalgoorlie East (3)

Paterson (2)

SA - Junction Dam

Lake Gairdner East (2)

Tallaringa (5) Carrapateena (4)

NSW - Mundi Plains

Qld - Bluebush/Lawn Hill (4)

These tenements were being explored for a variety of commodities including base metals and gold. They were generally in areas where the prospective targets lie in Achaean or Proterozoic age rocks beneath more recent covering sediments. Uranium is not currently being explored for as a single commodity.

As a result of the review the tenements were divided into three groups relative to their apparent uranium potential.

High Potential

Junction Dam and Mundi Plains for palaeochannel uranium mineralization similar to

the Honeymoon or Beverley uranium deposits in the

Curnamona.

Moderate Potential

Paterson Applications for possible unconformity related uranium

mineralization at the basement contact and for possible sediment hosts younger deposits in the

drainage

Tallaringa possible Athabasca similarities for unconformity

related uranium mineralization near the

basement/sediment contact

Carrapateena & Lake Gairdner possible Olympic Dam style uranium mineralization

Low Potential

Gnaweeda Avon Kalgoorlie East

Bluebush/Lawn Hill

As a result of the review it was decided to look at each of the tenements in more detail to decide whether exploration for uranium should be pursued. The first two groups of tenements to be reviewed are the Tallaringa and Lake Gairdner ELAs.

A variety of sources have been consulted in preparing this report. The major ones are detailed in the References. Most of the drill hole, geological and geophysical data has been obtained from the department of Primary Industry and Resources SA. More recent aeromagnetic and gravity data was provided by Teck Cominco.

Tallaringa (ELAs 2006/306-10)

The Tallaringa ELAs lie over the NW edge of the Gawler craton (Fig. 1).

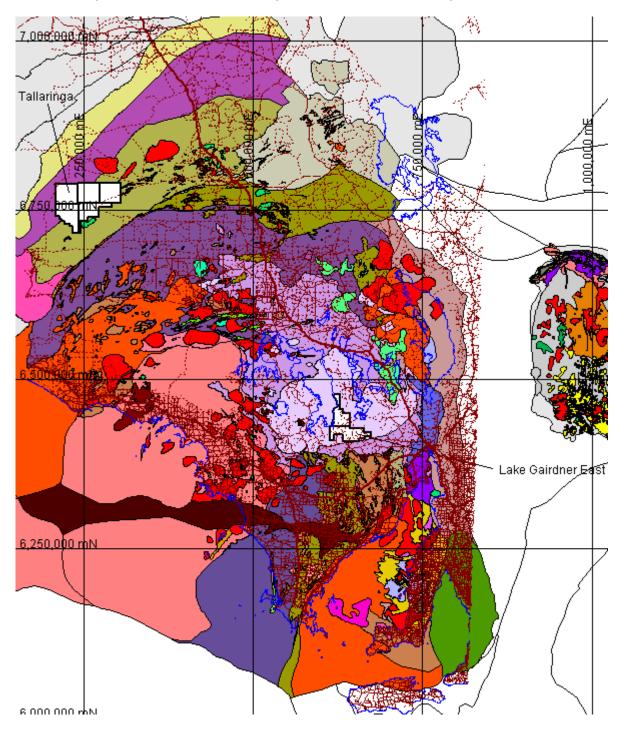


Figure 1 Location of Tallaringa and Lake Gairdner East ELAs on the Archaean geology of SA

These ELAs lie in a NE/SW trending structural corridor of deformed Archaean metasediments and crystalline rocks at the edge of the Precambrian Gawler Craton. Within the ELAs the Archaean basement is variably covered by Neoproterozoic Adelaidean metasediments (Fig. 2) of the Officer Basin to the north. These cover sediments vary from a few meters to over 600m in the NW corner of the ELAs (Fig. 4). The underlying Archaean basement, in the centre and SE of the ELAS, is made up of predominantly metasedimentary units characterized by strong linear trends in the magnetics (Fig. 4). In the NW corner the basement rocks are interpreted from the magnetics and the few drill holes as deeper crystalline granites and gneisses. These may well include uranium enriched granites and volcanics of the Hiltaba suite. These rocks may contain potential IOCGU targets. They are also potential source rocks from which uranium may have been remobilized into suitable trap sites.

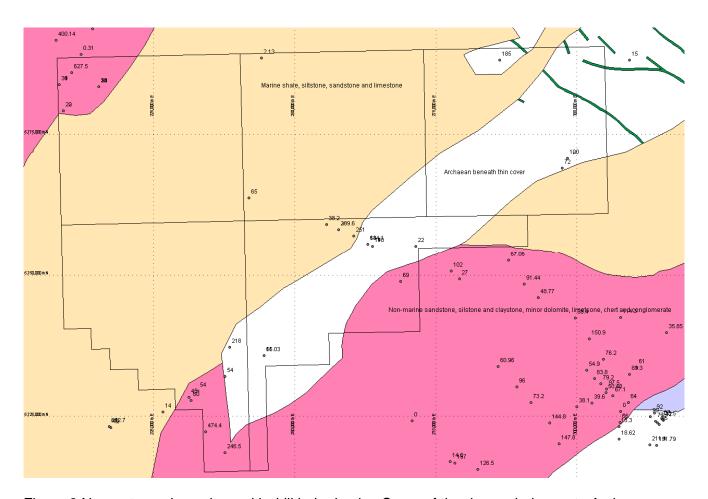


Figure 2 Neoproterozoic geology with drill hole depths. Some of the deeper holes go to Archaean basement.

The overlying Neoproterozoic rocks are undifferentiated metasediments most likely derived from the weathering of the basement rocks further to the east and south east. As such they may be expected to have been slightly enriched in uranium. However there is no direct evidence to support this.

The structural trends and uranium enriched intrusives in the Archaean basement are similar to those in the eastern Athabasca basin in Canada (Fig. 5). In Canada many of the structural trends are associated with graphitic metapelites. These structures have been active over a long period of time - extending into the lower and middle Proterozoic. They appear to have acted as favourable

deposition sites for circulating, uranium enriched, basinal fluids. Hydrothermal fluids from within a warm (200-250°C) basement may also have contributed to the formation of deposits within or above these structures (Fig. 6). All of the major uraninite deposits are closely associated with these structures.

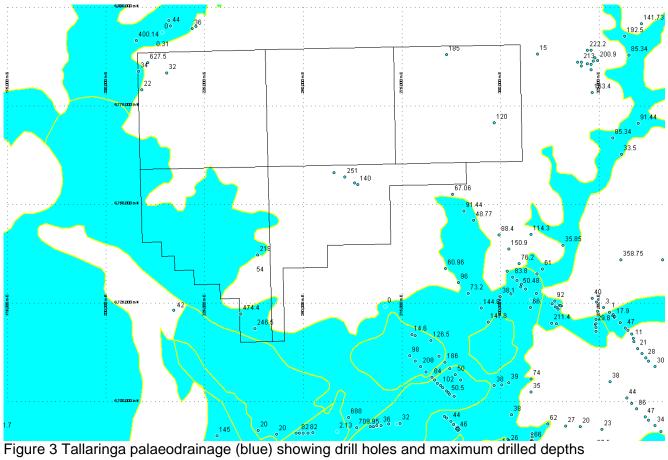
There is no direct evidence for similar graphitic units in the Archaean metasediments at Tallaringa. To the SE towards the Mulgathing intrusive complex there is also no evidence for similar graphitic structures in the crystalline and metasedimentary basement rocks.

The uranium mineralisation in the Athabasca Basin is now thought to have originated from circulating, saline, slightly uranium enriched, diagenetic fluids coming into contact with a disrupted basement surface that may have contributed fluids and reducing agents along major fractures.

At Tallaringa, the overlying Adelaidean sediments are predominantly a mixture of marine and non marine sandstones, siltstones, shales and limestones. Their age range is approximately 1400 – 600Ma. The main mineralizing events in the Stuart Shelf, Alligator Rivers and the Athabasca are between approximately 1750 – 1350Ma. Thus there has been a long time period between the eroding Archaean basement and the deposition of these sediments. It is probable that those mineralizing events that might have occurred, at sufficient depth, beneath a forming sedimentary basin, had finished before the Officer Basin was formed in the Tallaringa area. This long gap has resulted in any mineralizing basement events being eroded away.

There may have been circulating uranium enriched fluids in the Officer Basin. However these fluids would need to come into contact with suitable reactivated basement structures that were also contributing hydrothermal fluids ±reducing agents. The Officer Basin was forming after the most active structural events on this margin of the Gawler Craton. Thus it is unlikely that the Officer Basin fluids have contributed to the formation of uranium deposits near the basement unconformity.

Some of the near surface palaeodrainage crosses part of the ELAs (Fig. 3). This drainage is part of a much larger drainage system. The palaeochannels to the south and east have been extensively tested during the last major uranium exploration period ending in the early 1980s. Many of the drill holes over the drainage, in figure 3, are from this period.



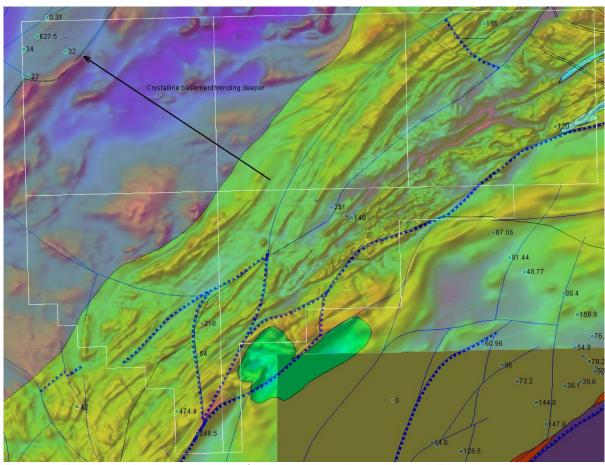


Figure 4 Tallaringa Archaean regions/domains superimposed on RTP magnetics and drill hole depths.

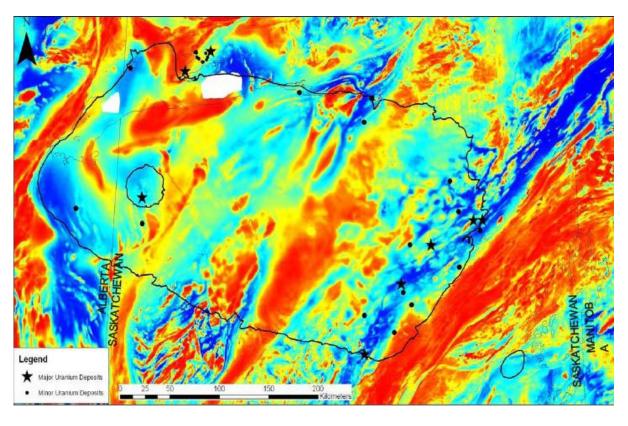


Figure 5 Athabasca RTP magnetic map showing structural corridor and major uranium deposits near the eastern margin of the Athabasca Basin

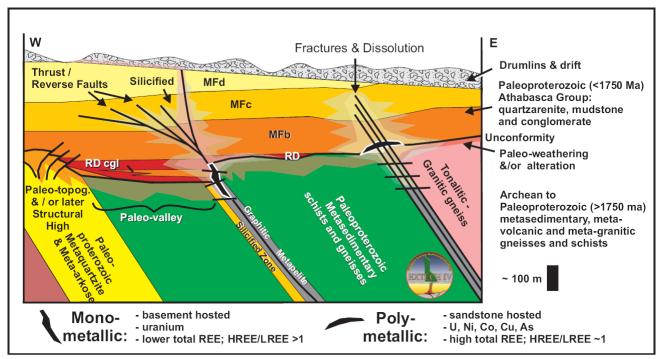


FIG. 7. Generalized geological elements of mono- and poly-metallic unconformity-associated U deposits in the eastern part of the Paleoproterozoic Athabasca Basin. After Hoeve and Quirt (1984), Hoeve and Sibbald (1978), McGill et al. (1993), Ruzicka (1996a), Sibbald et al. (1976), Thomas et al. (2000) and Tourigny et al. (2005). This is an empirical geological framework model illustrating two end-member styles of ore, between which a complete spectrum of styles are known, even within single deposits and deposit groups.

Figure 6 Deposit styles in the Athabasca, Canada

3. Lake Gairdner East (ELAs 2006/290 -1)

These tenements lie over a thick sequence of Gawler Range Volcanics.

The regional magnetic data appears to show minor magnetic variations within the GRV plus the western most of the larger dykes in a NW trending dyke swarm (Fig. 1). Most the features in the magnetics appear to be of shallow origin.

The regional bouguer gravity data shows a broad high near the edge of Lake Gairdner in ELA 290. This may represent a basement intrusive/extrusive complex containing some mafic intrusives and extrusives to account for the gravity high. More detailed gravity data would be needed to assist a more detailed interpretation. There are also some slightly higher bouguer gravity values associated with some of the dykes. These may represent a thickening of the dykes at depth. Again, more detailed gravity would be necessary to assist interpretation.

Thus there may be the same potential for basement hosted deposits. However the probable several hundred metres plus depth to basement probably means that any uranium deposit has to be large and high grade and/or multi-commodity to be economic.

The drainage off the GRV, through the ELAs, into Lake Gairdner appears to follow numerous small shallow drainage channels. Thus there is unlikely to any channels that might contain the reduced sediments necessary to form a sedimentary type of uranium deposit.

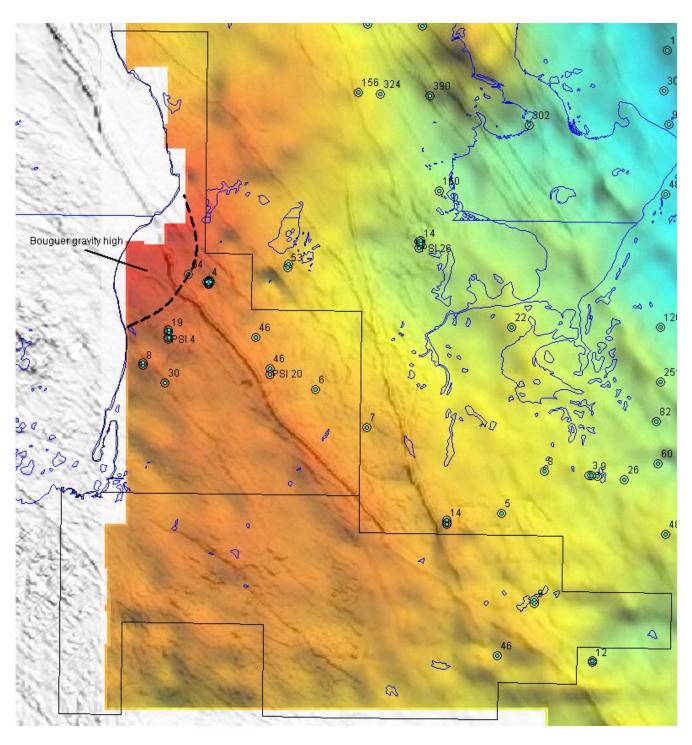


Figure 7 Lake Gairdner East grayscale RTP magnetics, coloured bouguer gravity and drill hole depths. Possible deep intrusive complex outlined from the gravity.

Potential for Uranium Mineralisation

Tallaringa (ELAs 2006/306-10)

- The crystalline basement geology underlying the NW corner of the Tallaringa ELAs has potential for IOCGU deposits
- There appears to be little potential for unconformity style mineralisation due to the apparent lack of suitable long lived, ±graphitic, structures, the long period of erosion through the main mineralizing periods between approximately 1750MA and 1350Ma and the relative lack of structural movement during and after the formation of the overlying Officer Basin sediments.
- The surficial palaeochannel uranium potential appears to have been reasonably tested

Lake Gardner East (ELAs 2006/290-1)

- There is potential for an IOCGU style of deposit associated with a possible basement intrusive complex
- There is no surficial palaeochannel uranium potential

References

C.W. Jefferson, D.J. Thomas, S.S. Gandhi, P. Ramaekers, G. Delaney, D. Brisbin, C. Cutt, P. Portella and R.A. Olson., 2005, Unconformity Associated Uranium Deposits, Draft paper prepared for inclusion in "Mineral Resources of Canada: A Synthesis of Major Deposit-types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods", published jointly by the Geological Survey of Canada (GSC) and the Mineral Deposits Division (MDD) of the Geological Association of Canada.

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Primary Industry and Resources of South Australia, online and purchased databases covering South Australia geology, geophysics and metallogeny.



EXPLORATION LICENCE EL 3754- "SCRUBBY HILL" GAWLER PROJECT SOUTH AUSTRALIA

ANNUAL TECHNICAL REPORT FOR THE PERIOD ENDING 18 APRIL 2009

> Data presented in WGS 84 Datum

> > Prepared by: Quinton Hills

Submitted by: Quinton Hills Exploration Manager Meridian Minerals Limited

DISTRIBUTION:

PIRSA (digital and hard copy) Meridian Minerals Limited (digital) Teck Cominco Australia Pty Ltd (digital)

SUMMARY

This report summarises work completed on Meridian Minerals Limited Scrubby Hill Exploration Licence (EL3754) for the year ending 18th of April 2009.

EL3754 is located 130 km north west of Port Augusta on the eastern margin of Lake Gairdner.

EL3754 is a part of Meridian's Gawler project which comprises two exploration licences (EL3754 and EL3755) and five exploration licence applications (ELA's 2006/306-310) covering a total area of 6,340 km². The project area covers rocks of the Hiltaba Suite – Gawler Range Volcanic's which are known to host significant zones of iron-oxide copper gold (IOCG) mineralisation. Meridian's project area is interpreted to lie within a similar structural setting to other known IOCG deposits within the Gawler Craton.

No work was completed over the tenement during the reporting period.

During the next twelve month period Meridian will refine the IOCG target areas and define specific targets for drill testing.

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1. INTRODUCTION

This report summarises work completed on Meridian Minerals "Scrubby Hill" Exploration Licence (EL3754) for the year ending 18th of April 2009.

The tenement, granted on the 19th of April 2007, covers an area of 650km² and is located approximately 130 km north-west of Port Augusta on the eastern margin of Lake Gairdner. EL3754 forms a part of Meridian's Gawler Project which comprises two separate granted exploration licences (EL3754 and EL3755), and five exploration licence applications (ELA's 2006/306-310) covering a total area of 6,340 km² (Figure One).

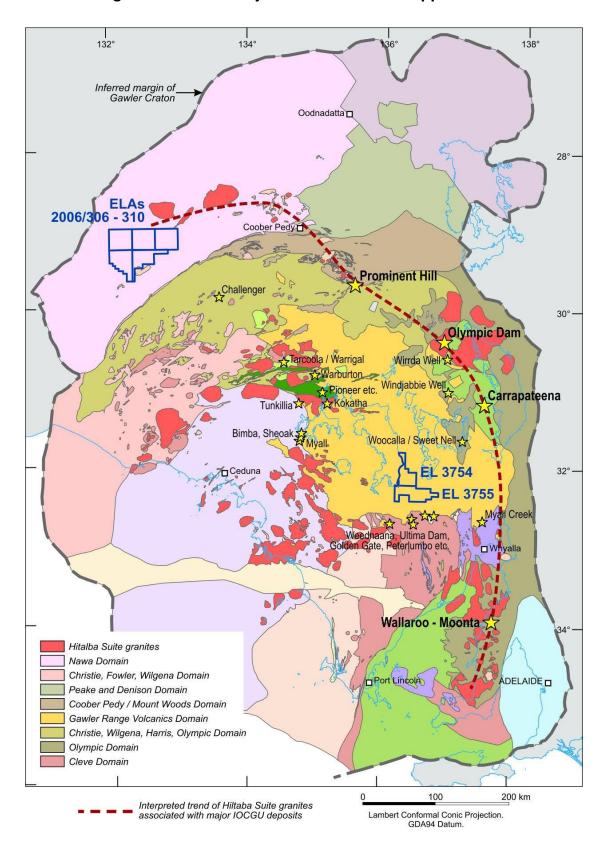
The project area covers rocks of the Hiltaba Suite – Gawler Range Volcanics which form part of the Archaean to Mesoproterozoic Gawler Craton in central South Australia. Within the Gawler Craton, rocks of the Hiltaba Suite are known to host significant zones of IOCG mineralisation. Meridian's project area is interpreted to lie within a similar structural setting to other known IOCG deposits within the Gawler Craton.

The tenements within Meridian's Gawler IOCG project areas have been the subject of cursory exploration work to date which has provided limited encouragement, in part due to the presence of widespread cover rocks over much of the area. However, the tenements are located within a terrane of proven mineral potential and promising structural controls which warrant further systematic exploration.

Meridian's planned exploration program, following on from the assessment and targeting work completed by Teck Cominco Australia, comprises ground magnetic geophysical surveying designed to delineate potentially mineralised structural zones which will be targeted during subsequent drilling programs.

The Scrubby Hill exploration licence area can be accessed via the Stuart Highway which connects Port Augusta and Coober Pedy and thereafter by unsealed roads and tracks.

Figure 1: Gawler Project Tenements and Applications



2. TENEMENT DETAILS

EL3754 forms a part of Meridian's Gawler IOCG Project which comprises two separate granted exploration licences (EL3754 and EL3755) and five exploration licence applications (ELA's 2006/306-310) covering a total area of 6,340 km².

Table 1: Tenement Details

Location	Tenement	Project	Tenement Name	Holder	Date Granted	Area (km²)	Minimum Annual Expenditure Commitment (A\$)
SA	EL3754	Gawler	Scrubby Hill	Teck Cominco Aust.	19/4/2007	650	95,000

3. REGIONAL GEOLOGY

Meridian's Gawler project tenements are located within the Hiltaba Suite – Gawler Range Volcanics of the Archaean to Mesoproterozoic Gawler Craton in the central part of South Australia (Figure 1).

The Gawler Craton consists of crystalline basement rocks that have not been substantially deformed since approximately 1,450 Ma. Much of the craton is covered by thin platformal sediments and regoliths of Neoproterozoic to Cainozoic age. The boundaries of the craton are defined to the northeast, northwest and west by faulted margins and thick Neoproterozoic and Phanerozoic sedimentary basins. To the east and southeast the Torrens Hinge Zone defines the margin, adjacent to the western limit of the Adelaide Fold Belt. The southern boundary is coincident with the edge of the continental shelf.

The Gawler Craton has been subject to three major deformation periods during the Sleafordian Orogeny (late Archaean to early Proterozoic – 2400 Ma), Kimban Orogeny (Palaeoproterozoic – 1850 to 1700 Ma) and Kararan Orogeny (Mesoproterozoic – 1670 to 1540 Ma).

Thick sheets of Mesoproterozoic, felsic Gawler Range Volcanics (1590 Ma) occur over much of the Gawler Craton. The Gawler Range Volcanics may be broadly divided into two groups, an upper and lower unit. The lower unit comprises dacite-rhyodacite-rhyolite, ignimbrites and flows with thick, interlayered sequences of basaltic lavas. The overlying upper unit contains thick, sub-horizontal, porphyritic dacite sheets which are predominantly ignimbritic in origin.

Associated with the Gawler Range Volcanics are widespread co-magmatic granite intrusions of the Hiltaba Suite ($1600-1585\,\mathrm{Ma}$). The Hiltaba Suite is dominated by felsic granite plutons which are characteristically pink due to the presence of a fine hematite dusting of the majority of feldspar crystals. Outcrop is most abundant in the central

Gawler Craton particularly on the western and south-western margins of the Gawler Range Volcanics.

Overlying much of the Gawler Craton are extensive and flat-flying Neoproterozoic and Cambrian sedimentary units which have previously restricted regional exploration in the region.

The temporal and spatial association between granitoid bodies of the Hiltaba Suite and IOCG deposits (such as Olympic Dam and Moonta–Wallaroo) has been recognised in the Gawler Craton for some time. In addition, the Hiltaba Suite granites are also associated with vein gold (± tin, ± silver) deposits (i.e. Earea Dam, Tarcoola and Glenloth and the recent discoveries along the Yarlbrinda Shear Zone).

4. PROSPECT GEOLOGY

Meridian's EL3754 and EL3755 tenements at Lake Gardiner East cover an area where the Gawler Range Volcanics are locally intruded by granites of the Hiltaba Suite. The principal rock unit in the area is the Yardea Dacite which is the upper member of the Gawler Range Volcanics. The Yardea Dacite is a widespread felsic volcanic which originated from a high-temperature felsic magma.

A number of base metal, gold and silver occurrences are reported along the margins of the Gawler Range Volcanics.

5. EXPLORATION POTENTIAL & EXPLORATION MODELS

Based on the lack of previous exploration and the limited knowledge of the local geology, Meridian's Gawler Project is a conceptual exploration project. However, the tenements are located within a terrane of proven mineral potential and with prospective structural controls which warrant further systematic exploration.

Meridian considers its Gawler project tenements are located in a geological setting that is prospective for iron oxide copper-gold±uranium (IOCG) mineralisation. Within the Gawler Craton, IOCG deposits are closely associated with the Hiltaba Suite of intrusive rocks. The Hiltaba Suite was intruded during a major tectonothermal event approximately 1,595 Ma which broadly affected the entire Gawler Craton.

Whilst the majority of known IOCG deposits occur in a wide variety of geological settings and display a range of deposit morphologies they share similar underlying mineralogical processes. Typically IOCG deposits have some or all of the following characteristics:

- an association with major fault or shear zones
- quartzo-feldspathic host rocks that include felsic to intermediate volcanic units, granitoids, sandstone and quartzite
- regional scale and intense calc-silicate alteration
- intense iron oxide and potassic alteration proximal to mineralisation

- deposits exhibit a close spatial and temporal association with fractionated multistage "late" I-type to oxidised A-type granitoids, commonly associated with the roof zones of intrusions
- oxidising mineralising fluids comprising hypersaline brine and carbonic components; and
- ubiquitous iron oxide minerals such as haematite and magnetite which contribute to pronounced magnetic and gravity geophysical anomalies.

The IOCG deposits in the Gawler Craton are characterised by hydrothermal breccias and associated copper-gold mineralisation within a haematite matrix. The mineralisation is formed through repetitive hydrothermal fracturing, brecciation, milling and often explosive venting within a volcanic / magmatic setting. The metals are interpreted to be derived from within the mantle and focused by deep-seated regional structures.

Well known examples of IOCG deposits include the Olympic Dam deposit in South Australia, the Ernest Henry deposit in Queensland and the Mantos Blancos deposit in Chile.

In addition to its prospectivity for IOCG mineralisation, Meridian's Gawler tenements (in particular the Tallaringa exploration applications) have potential to host sandstone-hosted (roll-front) uranium deposits. These deposits occur in medium to coarse-grained sandstone sequences deposited in continental fluvial or marginal marine sedimentary environments. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sandstone.

Uranium is mobile under oxidising conditions and precipitated under reducing conditions which may be caused by a variety of reducing agents within the sandstone including: carbonaceous material (detrital plant debris, amorphous humate, marine algae), sulphides (pyrite, H₂S), hydrocarbons (petroleum), or interbedded basic volcanics with abundant ferro-magnesian minerals (e.g. chlorite).

The three main types of sandstone deposits are:

- roll-front deposits arcuate bodies of mineralisation that crosscut sandstone bedding
- tabular deposits irregular, elongate lenticular bodies parallel to the depositional trend, deposits commonly occur in palaeochannels incised into underlying basement rocks
- tectonic/lithologic deposits occur in sandstones adjacent to a permeable fault zone.

Sandstone deposits constitute about 18% of the world's known uranium resources. Deposits of this type are commonly low to medium grade $(0.05 - 0.4\% \ U_3O_8)$ and individual deposits are small to medium in size (ranging up to a maximum of approximately $50,000 \ t \ U_3O_8$). The main uranium minerals are uraninite and coffinite.

6. PREVIOUS WORK

Little exploration has previously been reported within the area of EL3755. The surrounding area to Meridian's tenements in the Lake Gairdner East area has previously been explored by several companies targeting precious and base metal mineralisation in addition to diamonds. Much of this previous work was limited to surface geochemical sampling. Significant results from the surrounding area include the discovery of one microdiamond and other diamond indicators (including garnet and ilmenite) and minor geochemical anomalies and altered zones. Despite promising structural targets, these geochemical surveys had limited success in identifying or generating further targets.

Nineteen drill holes have previously been completed within the area of EL3754 and EL3755. None of the these holes penetrated through thick sequences of Gawler Range Volcanics and in to the underlying older Archaean to Early Proterozoic basement.

Prior to applying for EL3754 and EL3755 in the Lake Gairdner East area Teck Cominco Australia Pty Ltd had identified that the area potentially contained previously untested intrusions of Hiltaba Suite Volcanic's and hence had the potential to host Olympic Dam style IOCG mineralisation. Following this initial targeting work EL3754 and EL3755 were applied for.

7. EXPLORATION WORK COMPLETED DURING THE PERIOD

No exploration work has been completed on these tenements this year due to the current economic environment.

8. EXPENDITURE DURING THE PERIOD

During the reporting period until 18th April 2009 total expenditure on the project was \$6,640.02. A breakdown of the expenditure is given in Table 2.

Table 2: Expenditure During the Period Until 18th April 2009

Cost Type	Expenditure During the Period to 18 th April 2008	
Land Costs	\$362.54	
Salaries	\$5673.84	
Administration (15%)	\$603.64	
TOTAL	\$6,640.02	

9. CONCLUSIONS AND RECOMMENDATIONS

During the next twelve month period Meridian will refine the IOCG target areas and define specific targets for drill testing.



EXPLORATION LICENCE EL 3754- "SCRUBBY HILL" GAWLER PROJECT SOUTH AUSTRALIA

FINAL TECHNICAL REPORT FOR THE PERIOD ENDING 18 APRIL 2010

Data presented in WGS 84 Datum

Prepared by: Quinton Hills

Submitted by: Quinton Hills Exploration Manager Meridian Minerals Limited

DISTRIBUTION:

PIRSA (digital and hard copy) Meridian Minerals Limited (digital)

SUMMARY

This report summarises the work completed by Meridian Minerals Limited on the 'Scrubby Hill' Exploration Licence (EL3754), from the beginning of tenure on the 19th April 2007 to relinquishment on year ending 18th of April 2010.

EL3754 is located 130 km north west of Port Augusta on the eastern margin of Lake Gairdner.

EL3754 was part of Meridian's Gawler project which comprised of two exploration licences (EL3754 and EL3755). The project area covers rocks of the Hiltaba Suite – Gawler Range Volcanic's which are known to host significant zones of iron-oxide copper gold (IOCG) mineralisation. Meridian's project area is interpreted to lie within a similar structural setting to other known IOCG deposits within the Gawler Craton.

No exploration or ground-disturbing activities were conducted over the tenement during the reporting period.

Meridian Minerals Limited has decided to fully relinquish the Exploration Licence for 'Scrubby Hill' (EL3754) as of the 18th of April 2010.

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1. INTRODUCTION

This report summarises the work completed by Meridian Minerals Limited on the "Scrubby Hill" Exploration Licence (EL3754), from the beginning of tenure on the 19th April 2007 to the year ending 18th of April 2010.

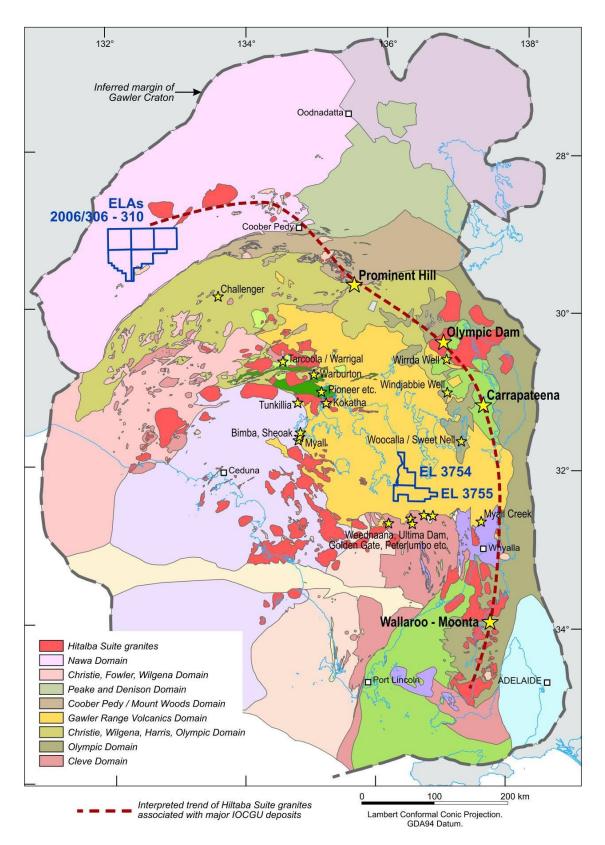
The tenement, granted on the 19th of April 2007, covers an area of 650km² and is located approximately 130 km north-west of Port Augusta on the eastern margin of Lake Gairdner. EL3754 did form part of Meridian's Gawler Project which comprises two separate granted exploration licences (Figure One).

The project area covers rocks of the Hiltaba Suite – Gawler Range Volcanics which form part of the Archaean to Mesoproterozoic Gawler Craton in central South Australia. Within the Gawler Craton, rocks of the Hiltaba Suite are known to host significant zones of IOCG mineralisation. Meridian's project area is interpreted to lie within a similar structural setting to other known IOCG deposits within the Gawler Craton.

The EL3754 and EL3755 tenements within the Gawler IOCG project areas have been the subject of cursory exploration work to date which has provided limited encouragement, in part due to the presence of widespread cover rocks over much of the area. However, the tenements are located within a terrane of proven mineral potential and promising structural controls which warrant further systematic exploration.

The Scrubby Hill exploration licence area can be accessed via the Stuart Highway which connects Port Augusta and Coober Pedy and thereafter by unsealed roads and tracks.

Figure 1: Gawler Project Tenements and Applications



2. TENEMENT DETAILS

EL3754 did form a part of Meridian's Gawler IOCG Project which comprises two separate granted exploration licences (EL3754 and EL3755), covering a total area of 1,601 km².

Table 1: Tenement Details

L	ocation.	Tenement	Project	Tenement Name	Holder	Date Granted	Area (km²)	Minimum Annual Expenditure Commitment (A\$)
	SA	EL3754	Gawler	Scrubby Hill	Meridian Minerals LTD	19/4/2007	650	95,000

3. REGIONAL GEOLOGY

EL3574 tenement is located within the Hiltaba Suite – Gawler Range Volcanics of the Archaean to Mesoproterozoic Gawler Craton in the central part of South Australia (Figure 1).

The Gawler Craton consists of crystalline basement rocks that have not been substantially deformed since approximately 1,450 Ma. Much of the craton is covered by thin platformal sediments and regoliths of Neoproterozoic to Cainozoic age. The boundaries of the craton are defined to the northeast, northwest and west by faulted margins and thick Neoproterozoic and Phanerozoic sedimentary basins. To the east and southeast the Torrens Hinge Zone defines the margin, adjacent to the western limit of the Adelaide Fold Belt. The southern boundary is coincident with the edge of the continental shelf.

The Gawler Craton has been subject to three major deformation periods during the Sleafordian Orogeny (late Archaean to early Proterozoic – 2400 Ma), Kimban Orogeny (Palaeoproterozoic – 1850 to 1700 Ma) and Kararan Orogeny (Mesoproterozoic – 1670 to 1540 Ma).

Thick sheets of Mesoproterozoic, felsic Gawler Range Volcanics (1590 Ma) occur over much of the Gawler Craton. The Gawler Range Volcanics may be broadly divided into two groups, an upper and lower unit. The lower unit comprises dacite-rhyodacite-rhyolite, ignimbrites and flows with thick, interlayered sequences of basaltic lavas. The overlying upper unit contains thick, sub-horizontal, porphyritic dacite sheets which are predominantly ignimbritic in origin.

Associated with the Gawler Range Volcanics are widespread co-magmatic granite intrusions of the Hiltaba Suite (1600 – 1585 Ma). The Hiltaba Suite is dominated by felsic granite plutons which are characteristically pink due to the presence of a fine hematite dusting of the majority of feldspar crystals. Outcrop is most abundant in the central Gawler

Craton particularly on the western and south-western margins of the Gawler Range Volcanics.

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EL3754 and EL3755 tenements at Lake Gardiner East cover an area where the Gawler Range Volcanics are locally intruded by granites of the Hiltaba Suite. The principal rock unit in the area is the Yardea Dacite which is the upper member of the Gawler Range Volcanics. The Yardea Dacite is a widespread felsic volcanic which originated from a high-temperature felsic magma.

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Based on the lack of previous exploration and the limited knowledge of the local geology, Meridian's Gawler Project was a conceptual exploration project. However, the tenements are located within a terrane of proven mineral potential and with prospective structural controls which warrant further systematic exploration.

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- regional scale and intense calc-silicate alteration

- intense iron oxide and potassic alteration proximal to mineralisation
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- ubiquitous iron oxide minerals such as haematite and magnetite which contribute to pronounced magnetic and gravity geophysical anomalies.

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Well known examples of IOCG deposits include the Olympic Dam deposit in South Australia, the Ernest Henry deposit in Queensland and the Mantos Blancos deposit in Chile.

In addition to its prospectivity for IOCG mineralisation, the Gawler tenements have potential to host sandstone-hosted (roll-front) uranium deposits. These deposits occur in medium to coarse-grained sandstone sequences deposited in continental fluvial or marginal marine sedimentary environments. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sandstone.

Uranium is mobile under oxidising conditions and precipitated under reducing conditions which may be caused by a variety of reducing agents within the sandstone including: carbonaceous material (detrital plant debris, amorphous humate, marine algae), sulphides (pyrite, H₂S), hydrocarbons (petroleum), or interbedded basic volcanics with abundant ferro-magnesian minerals (e.g. chlorite).

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Sandstone deposits constitute about 18% of the world's known uranium resources. Deposits of this type are commonly low to medium grade $(0.05 - 0.4\% \ U_3O_8)$ and individual deposits are small to medium in size (ranging up to a maximum of approximately 50,000 t U_3O_8). The main uranium minerals are uraninite and coffinite.

6. PREVIOUS WORK

Little exploration has previously been reported within the area of EL3755. The surrounding area to the EL3754 and EL3755 tenements in the Lake Gairdner East area has previously been explored by several companies targeting precious and base metal mineralisation in addition to diamonds. Much of this previous work was limited to surface geochemical sampling. Significant results from the surrounding area include the discovery of one microdiamond and other diamond indicators (including garnet and ilmenite) and minor geochemical anomalies and altered zones. Despite promising structural targets, these geochemical surveys had limited success in identifying or generating further targets.

Previous to Meridian's tenure, nineteen drill holes have previously been completed within the area of EL3754 and EL3755. None of these holes penetrated through thick sequences of Gawler Range Volcanics and in to the underlying older Archaean to Early Proterozoic basement.

Prior to applying for EL3754 and EL3755 in the Lake Gairdner East area Teck Cominco Australia Pty Ltd had identified that the area potentially contained previously untested intrusions of Hiltaba Suite Volcanic's and hence had the potential to host Olympic Dam style IOCG mineralisation. Following this initial targeting work EL3754 and EL3755 were applied for.

7. EXPLORATION WORK COMPLETED DURING THE PERIOD

No exploration or ground-disturbing work has been conducted by Meridian Minerals Limited on this tenement during the life of the tenement from 19th of April 2007 to 18th of April 2010.

8. TOTAL EXPENDITURE AND ANNUAL PERIOD EXPENSES

During the reporting period from 19th April 2007 until 18th April 2010 total expenditure on the project was \$25,247.71. A breakdown of the total expenditure during the life of the licence under Meridian control is given on Table 5. A breakdown of the separate annual expenditure is given in Table 2, 3 and 4.

Table 2: Expenditure during the period: 19th April 2007 to 18th April 2008

Cost Type	Expenditure during the period from 19 th April 2007 to 18 th April 2008
Consultants	\$2,500
Employee Costs	\$3,400
Legal	\$3,700
Tenement Costs	\$3,500
Administration (15%)	\$1,440
TOTAL	\$14,540

Table 3: Expenditure during the period: 19th April 2008 to 18th April 2009

Cost Type	Expenditure during the period from 18 th April 2008 to 18 th April 2009
Land Costs	\$362.54
Salaries	\$5673.84
Administration (15%)	\$603.64
TOTAL	\$6,640.02

Table 4: Expenditure during the period: 19th April 2009 to 18th April 2010

Cost Type	Expenditure during the period from 19 th April 2009 to 18 th April 2010
Land Costs	\$3654.74
Salaries	\$317.32
Contractors	\$95.63
TOTAL	\$4,067.69

Table 5: Total expenditure during the period: 19th April 2007 to 18th April 2010

Cost Type	Total expenditure during the period from 19 th April 2007 to 18 th April 2010
Land Costs	\$4,017.28
Salaries	\$9,391.16
Consultants	\$2,500
Contractors	\$95.63
Legal	\$3,700
Administration (15%)	\$2,043.64
TOTAL	\$25,247.71