ANTHONY WRIGHT

ABN – N/A

January 2015

Annual Technical Report

FOR

Little Mary Au / Cu Target

EL28015

Copies to: **Anthony Wright**
DME (Mineral Titles Division)

Authorised:……anthony Wright……..

Anthony Wright (Managing Director)

Compiled by *KSI Land and Water Planning* on behalf of *Anthony Wright*

This page deliberately left blank

TABLE OF CONTENTS

TABLE OF FIGURES

DISCLAIMER

Certain information contained in this report is based on sources believed to be reliable. KSI Land and Water Planning is not in a position to, and has not, verified the accuracy or completeness of such information. Accordingly, KSI Land and Water Planning take no responsibility for, and assume no liability in respect of any information provided to it by others, for the purpose of preparing this report, or the consequences of the use of such information.

This document has been prepared only for the persons to whom it has been addressed and the report and any information or conclusion in it, is not intended to be, and should not be, relied upon or used by any other person. KSI Land and Water Planning accept no liability where any person other than to whom it has been addressed so uses or relies upon the document.

AMENDMENTS

Section	Amendment

1.0 OPERATOR DETAILS

Titleholder	WRIGHT Anthony
Operator Name:	Anthony Wright
Key Contact Person/s:	Anthony Wright / KSI Land and Water Planning
Postal Address:	PO Box 40706, Casuarina NT, 0811
Street Address:	N/A
Phone:	0475407827 (Anthony Wright) / 08 8991 8341 (KSI Land and Water Planning)
Fax:	N/A
Email:	Anthony.g.wright@outlook.com / ian@landwaterplanning.com.au
Titles / Tenements	EL28015
Report Title	Annual Technical Report for EL28015 - 2/12/2013 to 1/12/2014
Author	KSI Land and Water Planning on behalf of Anthony Wright
Target Commodity	Au, Cu, Sn
Date of Report	19/01/2015
Reporting Period	1/2/2014 to 31/1/2015
250 000 K mapsheet	Mt Evelyn
100 000k mapsheet	Ranford Hill
Datum	GDA94

1.1 Abstract

Exploration Licence 28015 is located approximately 50km NE of Pine Creek and approximately 200 SE of Darwin. EL28015 was granted on 2 December 2010 to Mr Anthony Wright for a period of six (6) years.

This tenement, along with ELs 27137 and 27820 form the target area for this project. During the year, an in-depth review of exploration data gathered so far was undertaken. Based on previous exploration programs, a number of gold occurrences have been noted in and around the project area. A technical review of the exploration data suggests that EL28015 has potential for gold and iron mineralization, with will be tested by further exploration programs.

1.2 Copyright

1.3 ORGANISATIONAL STRUCTURE / CHART

Anthony Wright is the lease holder and operator for this initial exploration stage. Anthony is hoping to engage a geotechnical company to determine the most prospective drill site locations. Anthony also hopes to work with James Cook University to help determine the geology of the area and identify suitable drill sites and drill angles. (See letter of support at Attachment C)

Anthony will then be working with a drilling company to undertake the site development, clearing and establishment of a work camp. The drilling company will then be drilling exploratory drill holes. No formal organisational structure is therefore available at this preliminary stage.

1.4 WORKFORCE

The workforce is yet to be established, however at this stage the workforce will consist of the drilling company, once it has been retained and Anthony Wright, the operator.

2.0 PROJECT DETAILS

Project Name:	Little Mary Au/Cu Target
Location:	Pine Creek
Site Access:	This site is accessed via an existing track leading off the Kakadu Highway approximately 50km North East from Pine Creek
Mining Interest/s:	EL28015
Title holder/s:	Anthony Wright

2.1 PROJECT NAME AND LOCATION

The Little Mary Au/Cu Target project is made up from three separate exploration Leases; EL27137, EL27820 and EL28015 are located on NT Portion 1631, “Mary River East” which is a Perpetual Pastoral Lease. See Figure 1 below for the general location and figure 2 for the layout of the three leases, access track location and proposed camp.

Figure 1 - Project Location Map

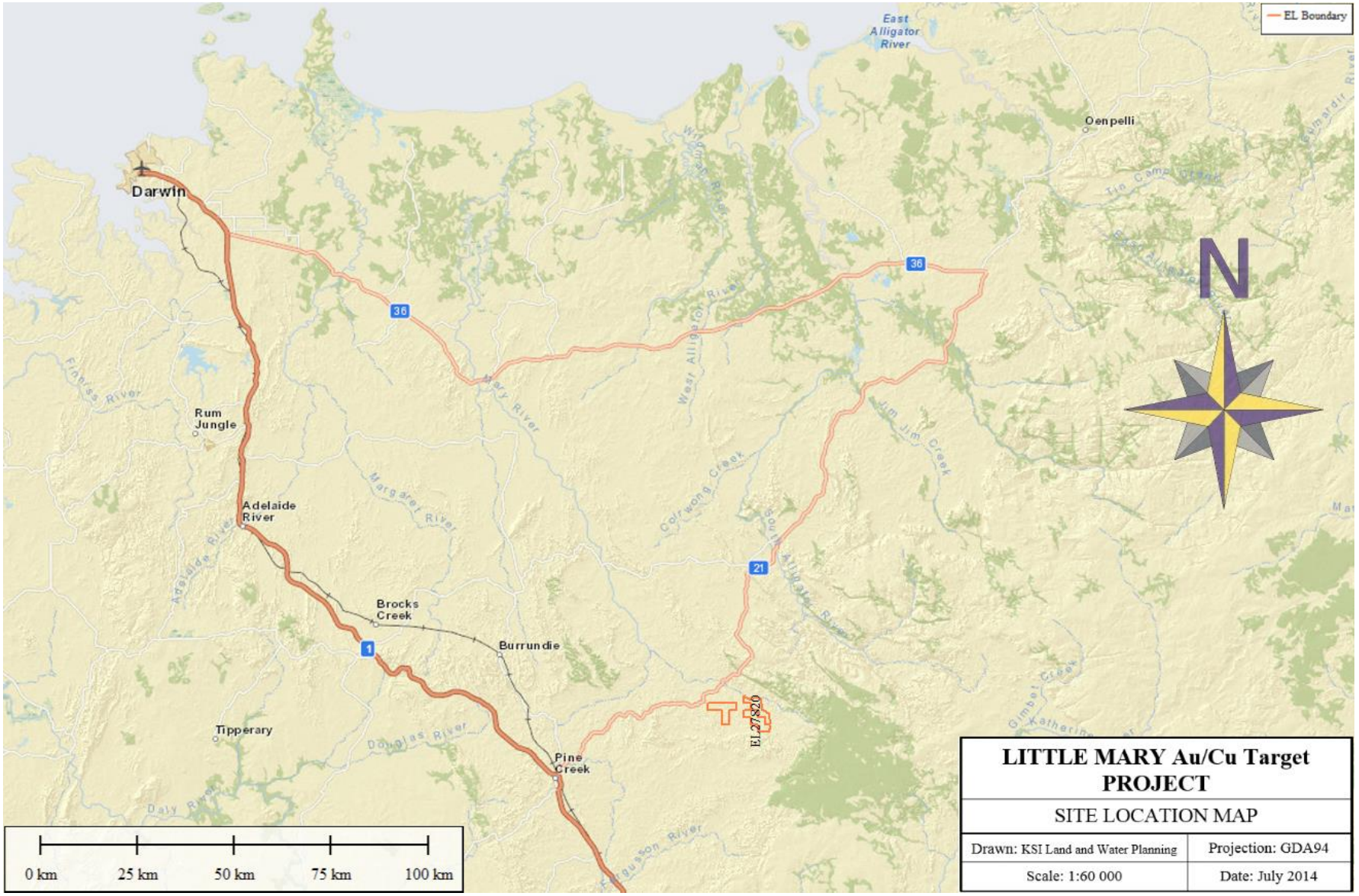
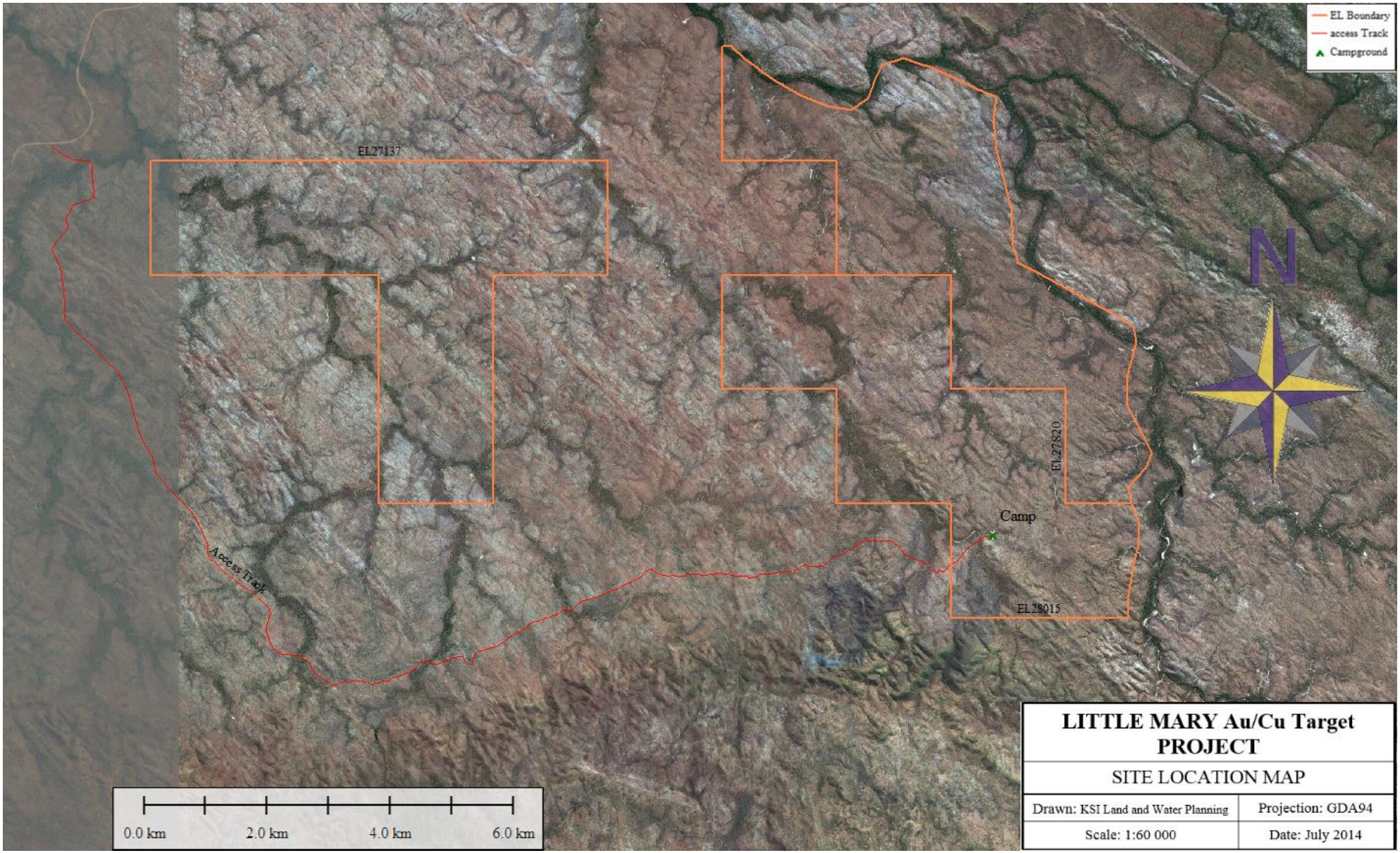


Figure 2 - Site Location Map



2.2 HISTORY OF DEVELOPMENT AND CURRENT STATUS

Historical Mining/Exploration

This is a “greenfields” site with no previous recent mining disturbance.

Mining Interests (i.e. titles)	EL28015
Number of holes drilled	Nil
Maximum depth of holes	N/A
Number of drill pads cleared (Length: x Width: m)	Nil
Number of sumps cleared (Length: x Width: x Depth: m)	Nil
Length of line / track cleared (Kilometres: x Width: m)	N/A
Number of costeans excavated (Length: x Width: x Depth: m)	Nil
Total bulk sample pits excavated (Length: x Width: x Depth: m)	Nil
Camp area/s cleared	Nil
Total area disturbed (hectares)	Nil
Drill holes capped / plugged	Nil
Total area rehabilitated (hectares)	Nil

2.3 PROPOSED ACTIVITIES

Mining Interests (i.e. titles)	EL28015
What time of the year will exploration occur?	May - Dec
How long is exploration expected to occur?	3yrs
Type of drilling (i.e. RAB, RC, Diamond, aircore)	RC / Diamond
Target commodity	Cu/Au/Sn
Is drilling likely to encounter radioactive material?	No
Number of proposed drill holes	Unknown
Maximum depth of holes	120m

Number of drill pads (Length: x Width: m)	N/A
Is drilling likely to encounter groundwater? (Y, N, unsure)	No
Number of sumps (Length: x Width: x Depth: m)	N/A
Length of line / track clearing (Kilometres: x Width: m)	23 x 3
Number of costeans (Length: x Width: x Depth: m)	Nil
Total bulk sample (tonnes) (Length: x Width: x Depth: m)	N/A
Will topsoil be removed for rehabilitation purposes?	No
Previous disturbance yet to be rehabilitated on title (ha) if known	Nil
Camp (Length: x Width: m)	10 x 5
Total area disturbed (hectares)	7
Other:	

3.0 CURRENT PROJECT SITE CONDITIONS

3.1 CURRENT CONDITIONS

Site Conditions	Description
Geology	The geology map at figure 3 Below shows the 1:1M lithostratigraphy mapping. This mapping shows all 3 exploration leases as being underlain with the following geology: **NorthAUS GA 1:1M Geological Unit - Lithostratigraphy** **STRATNO** 27066 **Plot Symbol** Ly **Map Symbol** Lyso **Unit Name** Mount Bonnie Formation **Rank** Formation **Description** Interbedded carbonaceous sericitic and commonly pyritic or chloritic slate, phyllite, mudstone and siltstone; fine to coarse feldspathic metagreywacke; ferruginous phyllite (metasiltstone) with chert bands, lenses and nodules **Preferred Age** Paleoproterozoic **Minimum Age** Orosirian **Maximum Age** Orosirian

	Genetic Category metasedimentary clastic **Composition Category** silicate **Lithology** slate The 500k Pine Creek Origin Lithlinterp mapping shows some Mt Bonnie formation intruding into the more prominent Burrell Creek formation, see map at figure 4 below. These formations are described as: *Burrell Creek:* *LithDescn1=Brown to grey-green, thickly bedded to massive, fine to coarse feldspathic metagreywacke with graded bedding in places and minor lenses of volcanilithic pebble conglomerate; brown to grey, laminated phyllite, slate and mudstone;* *LithDescn2=minor quartz-mica schist; porphyroblastic quartz-mica hornfels near granite.* *Mt Bonnie:* *LithDescn1=Interbedded carbonaceous sericitic and commonly pyritic or chloritic slate, phyllite, mudstone and siltstone; fine to coarse feldspathic metagreywacke; ferruginous phyllite (metasiltstone) with chert bands, lenses and nodules;* *LithDescn2=dark grey crystal tuff and vitric tuff, pale green-grey siliceous argillite; minor banded iron formation, dololutite lenses and biotite-quartz schist.*
Hydrology	Surface Water: These leases are located in the headwaters of the Mary River Catchment with the eastern boundary located adjacent to the Mary River and Little Mary River. The intended drilling operations will be in the vicinity of a minor ephemeral tributary but would NOT be expected to have any impact on the surface water resources. The access track crosses several drainage lines and erosion control may be required during track upgrades which may be required to facilitate drilling rig access. Groundwater: The majority of the exploration lease area is underlain with the Burrell Creek Formation, a fractured rock aquifer with yields of between 0.5 and 5 litres per second. Some narrow bands of Mt Bonnie Formation occur in the west and eastern sides of the lease area. The Mt Bonnie formation is described as a fractured rock aquifer with yields of 0.5 to 5 litres per second and consists of Siltstone, chert, shale and tuff. A map of the location of these formations can be seen at Figure 4 below. There are no registered water bores within any of the lease areas.
Flora	The general vegetation cover across the project area is dominated by Eucalyptus woodland with Sorghum and Heteropogon grasses. Dominant vegetation communities for the Northern Territory have been described and mapped by Wilson et al. (1990). The vegetation type for the project area is classed as vegetation type 21, which is described as *Eucalyptus tintinans* with *Corymbia dichromophloia* and *E. miniata*, over a tall Sorghum grassland understorey (Wilson et al. 1990). *Eucalyptus tetrodonta* is also a common tree in several habitats

	across the region. E. miniata and E. tetrodonta commonly occur in the open tropical woodlands of the Northern Territory (Brock 1988). Numerous ephemeral watercourses with frequent waterholes are present throughout the landscape, which support a range of water loving species such as *Pandanus spiralis*, *Melaleuca sp*., *Lophostemon grandiflorus* and aquatic species. No plant species have been listed as Endangered in the Infonet Report downloaded for the lease area. Potential weeds they may be found in the general area include: Gambia Pea; Phassa Plaum; Hyptis; Bellyache Bush; Red Natal Grass; Water Lettuce: Bitter Broom; Spiny-head Sida; Spiny Sida; Cayenne Snakeweed; Carrinnean Stylo and Townsville Lucerne.
Fauna	This project is located within the Pine Creek Bio Region where the "Special Values" have been described as follows: *The bioregion includes relatively large populations of some threatened species, most notably the gouldian finch, and one of the largest known colonies of ghost bat. However its biodiversity is not especially distinctive, and it lacks the outstanding natural features which distinguish Darwin Coastal bioregion to the north (extensive floodplain environments) and Arnhem Plateau to the immediate east (massive sandstone escarpments and gorges).* The Infonet report listed for the lease area lists the following species as endangered: Arnhemland Egernia *Bellatorias obiri;* Masked Owl *Tyto novaehollandiae;* Gouldian Finch *Erythrura gouldiae;* Northern Quoll *Dasyurus hallucatus;* Fawn Antichinus *Antichinus bellus;* Northern Brush-tailed Phascogale *Phascogale pirate;* Golden-backed Tree-rat *Mesembriomys macrurus.*
Land Use	The lease area is located on NT Portion 1631, "Mary River East" which is a Perpetual Pastoral lease used for grazing cattle.
Historical, Aboriginal, Heritage Sites	Information obtained from the Heritage division of the Department of Lands, Planning and Environment was that the lease areas - "*do not contain any declared heritage places (on the NT Heritage Register), nor any previously recorded Aboriginal archaeological sites*". An application to the Aboriginal Areas Protection Authority seeking an abstract from records was sent on 16 July 2014, the response, in part, was as follows: "*I advise that the Aboriginal Areas Protection Authority has no record of sacred sites listed within the area".* (See Attachment B)

Figure 3 - 1:1M Geology Map

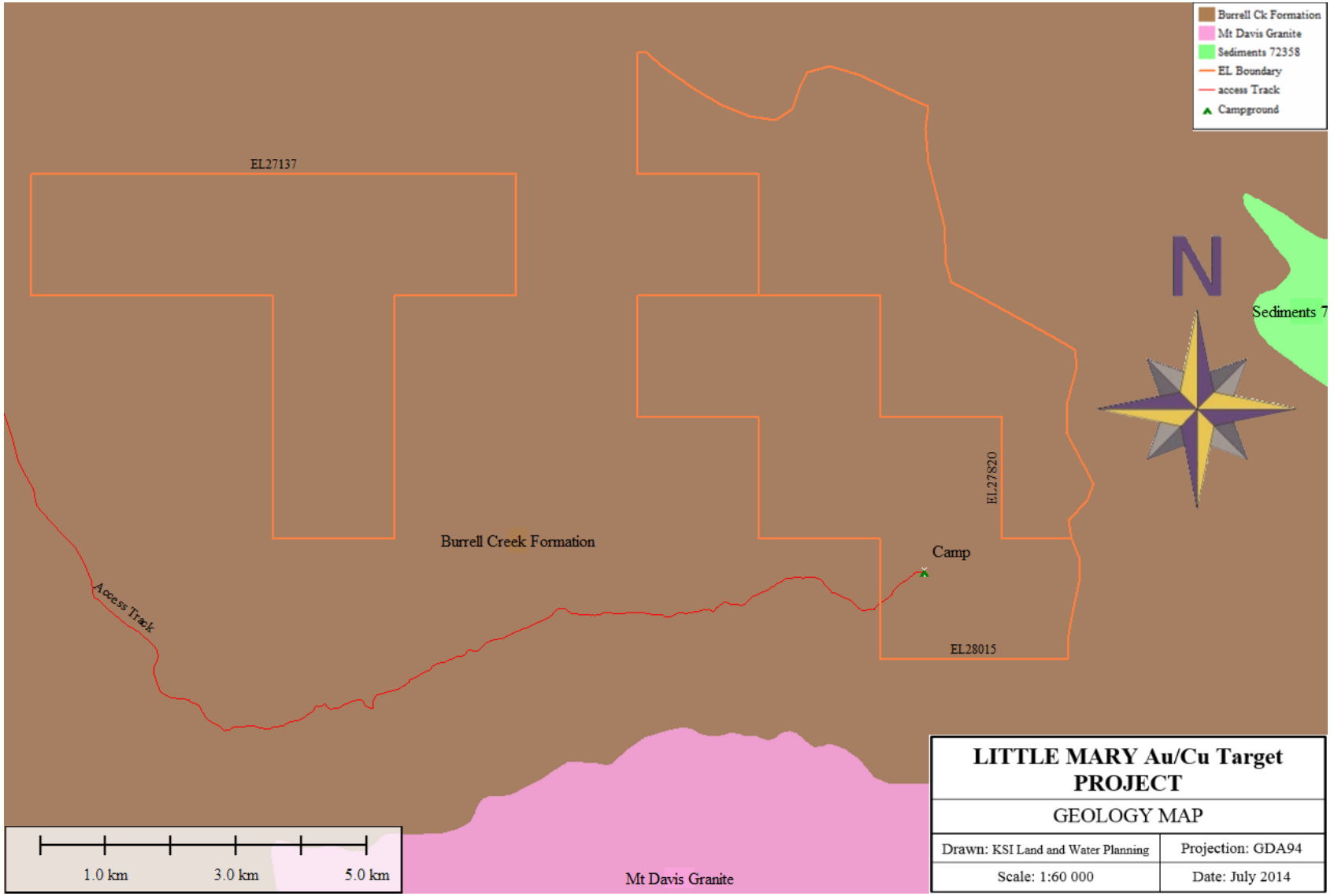
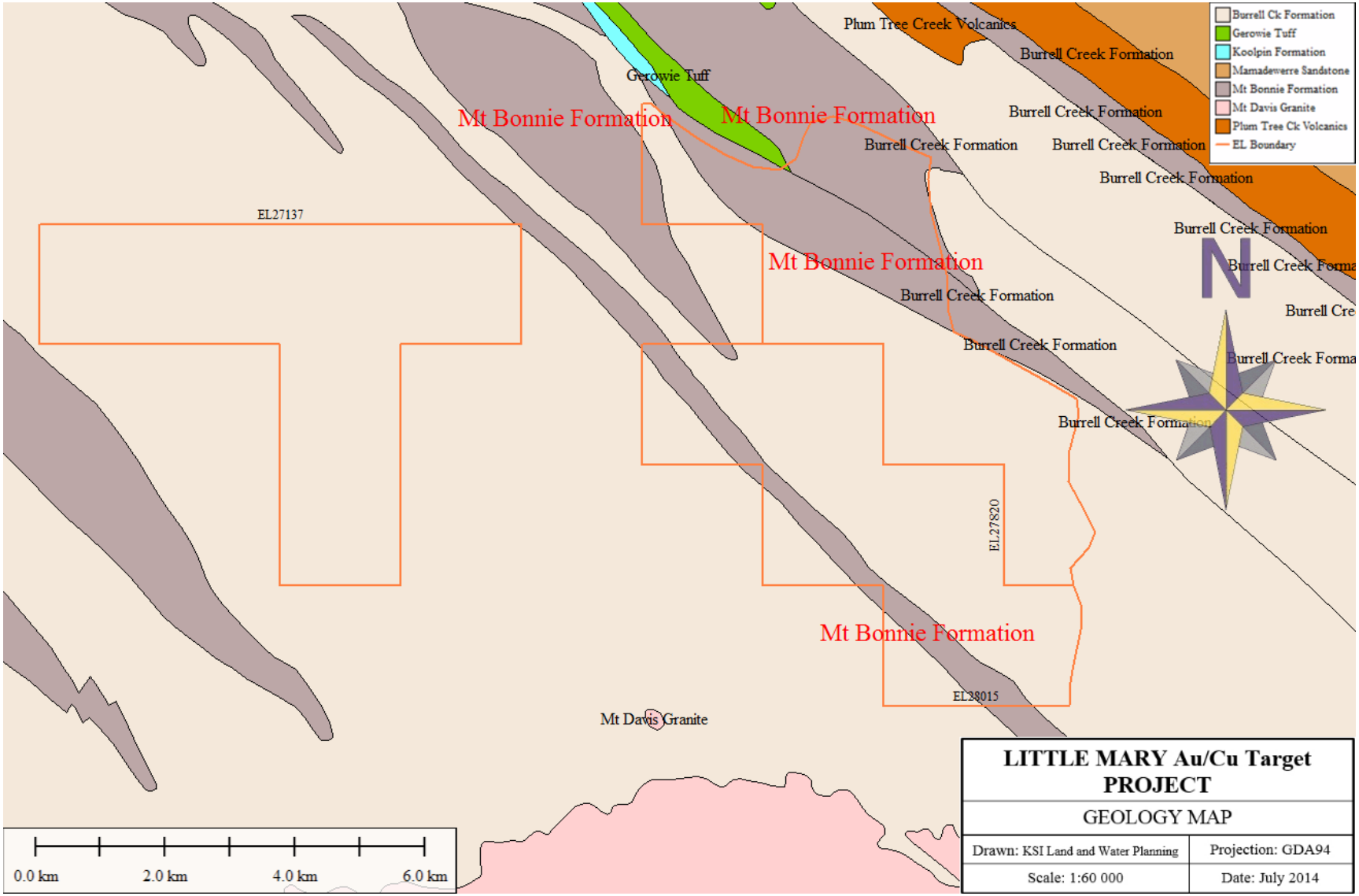


Figure 4 - 500k Lithinterp Map



4.0 ENVIRONMENTAL MANAGEMENT SYSTEM / PLAN

At this early stage of exploration this Mining Management Plan is the primary environmental management document to be used to control environmental issues and record existing conditions and any disturbance that occurs during the exploration activities.

If mining proceeds, specific Environmental Management Systems and Plans will be developed and implemented.

4.1 ENVIRONMENTAL POLICY AND RESPONSIBILITIES

As above, specific written environment policies have not yet been developed due to the very preliminary nature of the proposed operations. The operator and lease holder, Anthony Wright, is the person responsible for ensuring that environmental impacts are minimised and mitigated as far as practicable.

4.2 STATUTORY REQUIREMENTS

Mining operation has obligations to meet the requirements of several Northern Territory laws, principally:

- *Mining Management Act*
- *Section 35 of the Mining Management Act* "Application for an Authorisation" (Appendix 1)
- *Section 10(4) of the Mining Management Act* "Nomination of an Operator of a Mining Site" (Appendix 2)
- *Mineral Titles Act*

There are also have certain obligations under the:

- *Bushfires Act*
- *Crown Lands Act*
- *Environmental Assessment Act*
- *Heritage Act*
- *Lands Planning and Mining Tribunal Act*
- *Northern Territory Aboriginal Sacred Sites Act*
- *Public and Environmental Health Act*
- *Soil Conservation and Land Utilisation Act*
- *Territory Parks and Wildlife Conservation Act*
- *Waste Management and Pollution Control Act*
- *Water Act*
- *Work Health Administration Act 2011*
- *Work Health And Safety (National Uniform Legislation) Act*
- *Workers Rehabilitation and Compensation Act*
- *All other Acts that could be affected by the activities under this 'Authorisation'*

4.3 NON-STATUTORY REQUIREMENTS

The operator, Anthony Wright has consulted with the owners of the Pastoral lease where these exploration leases are located. There are no other non-statutory requirements at this stage.

4.4 IDENTIFIED STAKEHOLDERS AND CONSULTATION

DME:	Mining Management Act/Mining Act regulator
DME / Titles:	Exploration Lease Permits
DME / Compliance:	Mining Management Act/Minerals Titles Act regulator
Department of Lands & Planning:	Land Tenure, Heritage, EPA
Department of Land Resource Management:	Pastoral Lands administration
Department of Construction and Infrastructure:	Responsible for the Kakadu Highway
NT WORKSAFE:	Mining Safety regulator
Mary River East Station owner/manager	Land owner NTP1631

Consultation with each of these entities is undertaken on a “as needs” basis.

4.5 INDUCTION AND TRAINING

At this stage there is no requirement for induction and training as the only personnel on-site will be the operator, the drill team, who have their own internal processes, and potentially geological students from JCU who will operate under JCU specific induction and training requirements.

4.6 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

Identification of Environmental Aspects

Environmental Aspects are the activities that have a potential to cause environmental impacts and over which the operator has influence (this may include activities of subcontractors and suppliers) has.

The operator shall identify and conduct an assessment of any activity which may cause an impact (either positive or negative) to the environment. This will include aspects from prospecting to drilling operations. When identifying aspects, consideration has been given to potential emergency situations, normal and abnormal operating conditions.

Identifying Impacts

Environmental Impacts are the consequences arising from environmental aspects. It is possible that from one aspect there may be a number of impacts on the environment. Impacts to all segments of the environment should be considered including positive impacts. The risk assessment matrix below is used to assist with this process.

Aspect	Impact	Risk Rating
Prospecting activities	Introduction of weeds Erosion	High likelyhood, medium impact = 7 High risk
Emissions	Degradation of air or water quality	Low likelyhood, medium impact = 3 Moderate risk
Soil Erosion	Erosion of soil due to disturbance	High likelyhood, low impact = 4 Moderate risk
Weeds	Loss of native habitat Spread of weeds to other areas	High likelyhood, medium impact = 7 High Risk

Fire	Negative impact on biodiversity. Negative impact on regeneration of native vegetation in rehabilitation areas. Potential risk to neighboring land holders.	High likelyhood, medium impact = 7 High Risk

Key		**CONSEQUENCE**		
Critical Risk		**Low** Little or no impact	**Medium** Medium term impact	**High** Irreversible or long term impacts
High Risk				
Moderate Risk				
Low Risk				
LIKELYHOOD	**High** >75% Chance event will occur during life of plan	**4**	**7**	**9**
	Medium 25%<>75% chance event will occur during life of plan	**2**	**5**	**8**
	Low <25% Chance event will occur during life of plan	**1**	**3**	**6**

Figure 5 - Track overgrown after each wet

4.7 EMERGENCY PROCEDURES AND INCIDENT REPORTING

All incidents, near misses and new hazards identified will be immediately reported to the operator.

In the case of a fuel/oil spill, the source of the spill will be contained first and foremost; contaminated material will be removed from site, stored in an approved container, and then disposed at an authorised site. If the spill is of a serious nature the appropriate authorities will be advised.

In the event of a hydraulic line rupture, the driver will immediately switch off the engine, which will cease any further leakage, if leakage occurred to the ground; contaminated material will be removed from site, stored in an approved container, and then disposed at an authorised site.

In accordance with section 29 of the Mining Management Act, and the draft guideline, the operator will inform the Department of any occurrence of a serious accident or critical incident. As soon as practicable after the operator becomes aware of the occurrence of a serious accident or critical incident on the site, the operator will notify the Chief Executive Officer of the occurrence.

4.8 ENVIRONMENTAL AUDITS AND INSPECTIONS

Environmental monitoring (audits and inspections) is carried out on an ongoing basis by the operator. These inspections are undertaken on a regular basis for the purpose of monitoring for weeds, erosion and rare and endangered fauna and flora. Any issues associated with environmental impacts are recorded and reported to the operator first and foremost. If any issues are identified, appropriate action is undertaken to address issues and mitigate risk of recurrence. Environmental incidents are also reported to the department as per S29 of the *Mining Management Act.* Recording of audits and inspections is undertaken only when reportable incidents are identified. There have been no incidents in the past 12 months.

Assistance will be given to DME staff when formal audits and inspections are carried out. Notification of these visits would be appreciated to ensure someone is available on site and can discuss any issues identified which have not already been identified by the operator.

4.9 ENVIRONMENTAL PERFORMANCE REPORTING

As per other aspects of these preliminary mining activities, environmental performance reporting is restricted to the development of annual reports in the form of the Mining Management Plan and the site technical report.

5.0 EXPLORATION REHABILITATION

Disturbance	Rehabilitation Activities	Schedule (Timing)	Closure Objectives / Targets	Monitoring Techniques
Drill holes	Cap	Upon completion of drilling activities at each site. The drilling program has not yet been developed, therefore specific dates are not available.	If unsuccessful, drill holes will be backfilled and the site restored to the point where it blends in with the natural environment. If drilling is successful drill holes will be capped.	Sites will be inspected to ensure the effectiveness of rehabilitation following the proceeding wet season.
Drill pads	Rip and topsoil spread	As above.	Once the site is no longer active it will be restored to the point where it blends in with the natural environment.	As above.
Sumps	Backfill	As above.	As above.	As above.
Costeans	Backfill	Not applicable.	Not applicable.	Not applicable.
Bulk sample pits	Backfill unless further mining intended, in which case the pit is “made safe”.	Not applicable.	Not applicable.	Not applicable.
Tracks / Gridlines	Rip and topsoil spread	Where no longer required, tracks will be rehabilitated immediately following mining activities.	Once the site is no longer active it will be restored to the point where it blends in with the natural environment.	Sites will be inspected to ensure the effectiveness of rehabilitation following the proceeding wet season.
Sample bags	Remove	All sample bags will be removed prior to leaving the site after each dry season.	The target would be to ensure that no sample bags are left behind on site.	Monitoring of sites would be conducted at the commencement of each work period.
Camp	Remove all infrastructure, rip and topsoil spread	Immediately following abandonment of the camp area.	Once the site is no longer active it will be restored to the point where it blends in with the natural environment.	As above.

5.1 COSTING OF CLOSURE ACTIVITIES

There is currently no disturbance on any of the three leases, apart from an existing access track which is a “bush” track which grows over every wet season. Consequently there are currently no rehabilitation costs associated with any of the three leases.

6.0 PERFORMANCE OBJECTIVES

Project	Objective	Outcome	Timeframe	Responsibility
Sedimentation	Minimise potential for sedimentation to adjacent natural waterways	Maintenance of aquatic and riparian health of natural waterways as compared with the pre-disturbance state.	Ongoing	All staff working on-site and Environment officer.
Erosion Control	Minimise erosion due to disturbances	Reduced sedimentation of natural waterways as far as practicable in such a dynamic environment.	Ongoing	All staff working on-site and Environment officer.
	Minimise erosion of tracks and roads	Reduced sedimentation of natural waterways. Reduced impact on vehicles.	Ongoing	All staff working on-site and Environment officer.
Dust Control	Minimise dust emanating from the workings	Generation of dust through extractive activities minimised resulting in improved Occupational health safety and Environment.	Ongoing	All staff working on-site and Environment officer.
Weed Control	Minimise spread of weeds on and offsite	Reduction in overall weed infestation in the landscape.	Ongoing	Environment Officer

ATTACHMENT A – GLOSSARY OF TERMS

TERM	MEANING
Audit	Means any systematic investigation or appraisal of procedures or operations for the purpose of determining conformity with prescribed procedures.
Blend in	Extraction of any material in relative large volumes from the natural environment inevitably means some level of disturbance which cannot be completely rehabilitated to a point where the environment can return to its "pre-disturbance" state, except perhaps over many years. The term "blend in" has been used in the sense of amalgamating the disturbance with the natural environment in such a way that that limits the potentially negative impacts, physically and visually, on the natural environment. The intention of this action is to allow the disturbed areas to rehabilitate naturally to a point where there is little or no impact on the end land use. To achieve this aim, once all mining has been completed the landscape is contoured and endemic native vegetation regrowth promoted.
CEO	Means the Chief Executive Officer, within the meaning of the *Public Sector Employment and Management Act*, of the Agency administering this Act.
Contractor	Means a person who under a contract performs work or supplies a service in connection with an exploration activity on a site.
Critical Incidents	Means an event on a mining site that has the potential to cause a significant adverse effect on the environment.
Emergency Response	A plan for the minimisation of environmental harm in the event of an emergency.
Employee	Means a person employed by a company.
Environment	Means land, air, water, organisms and ecosystems on a site and includes: • the well-being of humans; • structures made or modified by humans; • the amenity values of the site; and • economic, cultural and social conditions
Environmental Aspects	The elements of an organisations activities or products or services that can interact with the environment.
Environmental Impacts	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Hazardous Material	A substance having properties capable of having adverse effects on the environment.
Issues	An important topic of discussion or point in question i.e. management of risk.
MMA	*Mining Management Act.*
MSDS	Material Safety Data Sheet. It is provided by manufacturer or supplier of hazardous materials, and describes the properties and nature of the material.
Operator	Means the operator for a mining site referred to in *Mining Management Act section 10.*
Plant	Includes machinery, pressure vessels, equipment, appliances, implements, scaffolding and tools, any component of the plant and anything fitted or connected to the plant.
Serious Accidents	Means an event on a site that causes material environmental harm.

ATTACHMENT B – LETTER OF SUPPORT FROM JCU

Tom Blenkinsop

Head of Geology Discipline
School of Earth and Environmental Science
Telephone (07) 4781 4318
International +61 7 4781 4318
Email Thomas.Blenkinsop@jcu.edu.au

JAMES COOK UNIVERSITY
AUSTRALIA

Townsville Campus
Townsville Qld 4811 Australia
Telephone (07) 4781 4111
International +61 7 4781 4111
www.jcu.edu.au

Friday, January 25, 2013

To whom it may concern

This letter confirms that Mr. Anthony Wright has had a cooperative relationship with staff of the Discipline of Geology, School of Earth and Environmental science. Mr Wright initiated an honours project on mineral exploration in the Northern Territories, which was successfully carried out by Mr David Webb in 2012.

T. G. Blenkinsop.

Prof. T. G. Blenkinsop

Head of Discipline,
Earth and Environmental Science
James Cook University