Northern Territories Resources Pty Limited
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GROUP TECHNICAL REPORT

GROUP REPORT 436

3 DECEMBER 2016 – 2 DECEMBER 2017

Titleholder	Northern Territories Resources Pty Limited
Project Operator	Northern Territories Resources Pty Limited
Titles/Tenements	ELs 23436, 23437, 23578, 23579, 24464, 24472 & 24770
Tenement Manager/Agent	AMETS Pty Ltd
Mine/Project Name	Litchfield Project
Personal author(s)	John Breedlove
Company reference number	N/A
Target Commodity or Commodities	Cu, Pb, Co, Ni, Ag, Zn, Pt, U
Date of report	30January 2017
Datum/Zone	GDA94/Zone 52
250 000 K Mapsheet	Darwin SD5204 Pine Creek SD5208
100 000 K Mapsheet	Batchelor 5171 Bynoe 5072 Reynolds River 5071
Contact details	John Breedlove – Doe Run Australia NL jbreedlove@doerun.com

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1. Abstract

The Litchfield Project comprises of Exploration Licences 23436, 23437, 23578, 23579, 24464, 24472 and 24770 (the licences). These licences are located approximately 50 to 80km South of Darwin and have a combined area of 91.63 square km.

The licences sits within the highly prospective and resource rich Rum Jungle Mineral Field within the Pine Creek Orogen. The area is known to host various commodities, which includes copper, lead, nickel, zinc, cobalt and uranium.

During the reporting period, Northern Territories Resources Pty Limited (NTR) conducted desktop studies of all Group 436 tenements. Studies included a review of all existing geophysical, geochemical, and geological data within the tenements. A major focus was the review of 2010-2015 geophysical data collected by Compass Resources. NTR and Doe Run Australia (DRA) are currently considering reprocessing the geophysical data. Several quality drill targets have been identified in the data. Compilation of the majority of historic data into a single, useable, GIS database has also been accomplished.

2. Copyright

3. Location and Access

The Litchfield Project licences are located approximately 50 to 80 kilometres south of Darwin and nearby the original mine sites of the Whites and Intermediate (Rum Jungle) Deposits.

Access to the northern licences is from Darwin is via sealed roads to Batchelor and thence via the Batchelor, Rum Jungle and White Roads. The southern licences can be accessed via the Miles and Milton Roads from the Batchelor Road.

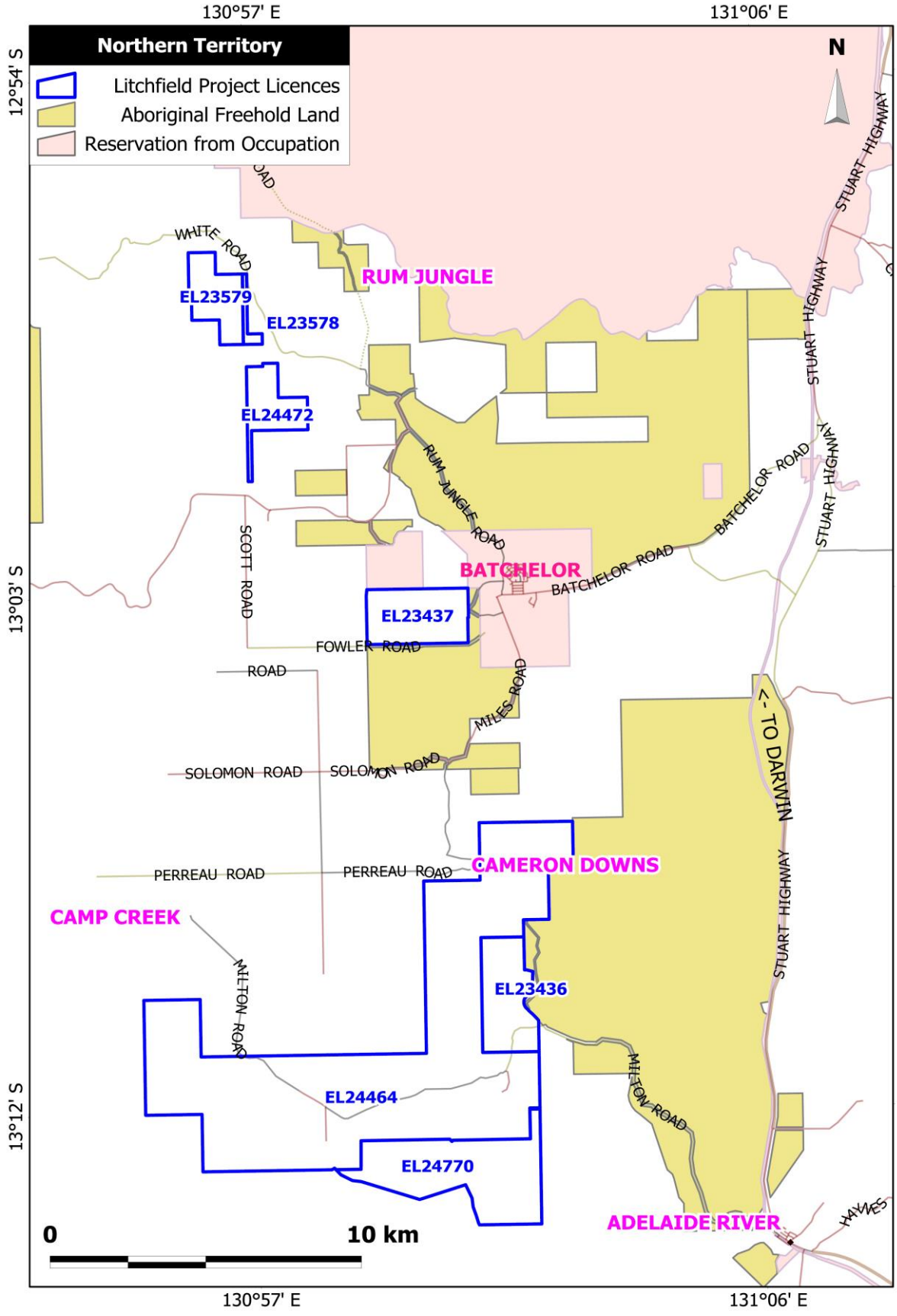

Figure 1- Location Map

4. Tenure and Land Use

The licences cover numerous Freehold portions of land. The below table shows the details of each licence.

Licence	Titleholder	Area (km2)	Cadastre
EL23436	Northern Territories Resources Pty Limited (100%)	5.82	Hundred of Waterhouse (810) - Parcel 108
			Hundred of Waterhouse (810) - Parcel 78
			Hundred of Waterhouse (810) - Parcel 1270
			Hundred of Waterhouse (810) - Parcel 1375
			Hundred of Waterhouse (810) - Parcel 89
			Hundred of Waterhouse (810) - Parcel 87
			Hundred of Waterhouse (810) - Parcel 1374
			Hundred of Waterhouse (810) - Parcel 77
EL23437	Northern Territories Resources Pty Limited (100%)	5.75	Hundred of Goyder (315) – Parcel 2894
			Hundred of Goyder (315) – Parcel 2830
EL23578	Northern Territories Resources Pty Limited (100%)	0.47	Hundred of Goyder (315) – Parcel 2881
EL23579	Northern Territories Resources Pty Limited (100%)	3.68	NT Portion 3283, Crown Lease Perpetual
EL24464	Northern Territories Resources Pty Limited (100%)	60.19	Hundred of Waterhouse (810) - Parcel 98
			NT Portion (000) - Parcel 4036
			Hundred of Waterhouse (810) - Parcel 128
			Hundred of Waterhouse (810) - Parcel 6
			Hundred of Waterhouse (810) - Parcel 1384
			Hundred of Waterhouse (810) - Parcel 1454
			Hundred of Waterhouse (810) - Parcel 1
			Hundred of Waterhouse (810) - Parcel 2

			Hundred of Waterhouse (810) - Parcel 97
			Hundred of Waterhouse (810) - Parcel 5
			Hundred of Waterhouse (810) - Parcel 2
			Hundred of Waterhouse (810) - Parcel 1455
			Hundred of Waterhouse (810) - Parcel 1
			Hundred of Waterhouse (810) - Parcel 1468
			Hundred of Waterhouse (810) - Parcel 1375
			Hundred of Waterhouse (810) - Parcel 7
			Hundred of Waterhouse (810) - Parcel 1432
			Hundred of Waterhouse (810) - Parcel 11
			Hundred of Waterhouse (810) - Parcel 2
			Hundred of Waterhouse (810) - Parcel 1433
			Hundred of Waterhouse (810) - Parcel 1470
			Hundred of Waterhouse (810) - Parcel 1469
			Hundred of Waterhouse (810) - Parcel 12
			Hundred of Waterhouse (810) - Parcel 1467
			Hundred of Waterhouse (810) - Parcel 4
			Hundred of Waterhouse (810) - Parcel 108
			Hundred of Waterhouse (810) - Parcel 1435
			Hundred of Waterhouse (810) - Parcel 5
			Hundred of Waterhouse (810) - Parcel 1451
			Hundred of Waterhouse (810) - Parcel 3
			Hundred of Waterhouse (810) - Parcel 1450
			Hundred of Waterhouse (810) - Parcel 1465
			Hundred of Waterhouse (810) - Parcel 1452

			Hundred of Waterhouse (810) - Parcel 7
			Hundred of Waterhouse (810) - Parcel 4
			Hundred of Waterhouse (810) - Parcel 94
			Hundred of Waterhouse (810) - Parcel 96
			Hundred of Waterhouse (810) - Parcel 8
			Hundred of Waterhouse (810) - Parcel 4
			Hundred of Waterhouse (810) - Parcel 121
			Hundred of Waterhouse (810) - Parcel 1390
			Hundred of Waterhouse (810) - Parcel 1434
			Hundred of Waterhouse (810) - Parcel 89
			Hundred of Waterhouse (810) - Parcel 1456
			Hundred of Waterhouse (810) - Parcel 1464
			Hundred of Waterhouse (810) - Parcel 70
			Hundred of Waterhouse (810) - Parcel 6
			Hundred of Waterhouse (810) - Parcel 1453
			Hundred of Waterhouse (810) - Parcel 1270
			Hundred of Waterhouse (810) - Parcel 1466
			Hundred of Waterhouse (810) - Parcel 1377
			Hundred of Waterhouse (810) - Parcel 1463
			Hundred of Waterhouse (810) - Parcel 1389
			Hundred of Waterhouse (810) - Parcel 1267
			Hundred of Waterhouse (810) - Parcel 1268
			Hundred of Waterhouse (810) - Parcel 111
			Hundred of Waterhouse (810) - Parcel 1187
			Hundred of Waterhouse (810) - Parcel 3

			Hundred of Waterhouse (810) - Parcel 1471
			Hundred of Waterhouse (810) - Parcel 1
			Hundred of Waterhouse (810) - Parcel 3
			Hundred of Waterhouse (810) - Parcel 78
			Hundred of Waterhouse (810) - Parcel 71
			Hundred of Waterhouse (810) - Parcel 1376
			Hundred of Waterhouse (810) - Parcel 9
			Hundred of Waterhouse (810) - Parcel 1427
			Hundred of Waterhouse (810) - Parcel 4
			Hundred of Waterhouse (810) - Parcel 10
			Hundred of Waterhouse (810) - Parcel 127
			Hundred of Waterhouse (810) - Parcel 1457
			Hundred of Waterhouse (810) - Parcel 107
			Hundred of Waterhouse (810) - Parcel 120
EL24472	Northern Territories Resources Pty Limited (100%)	3.32	Hundred of Goyder (315) - Parcel 991
			Hundred of Goyder (315) - Parcel 999
			Hundred of Goyder (315) - Parcel 2918
			Hundred of Goyder (315) - Parcel 996
			Hundred of Goyder (315) - Parcel 998
			Hundred of Goyder (315) - Parcel 992
			Hundred of Goyder (315) - Parcel 993
			Hundred of Goyder (315) - Parcel 995
24770	Northern Territories Resources Pty Limited (100%)	12.4	Hundred of Waterhouse (810) - Parcel 128
			Hundred of Waterhouse (810) - Parcel 94, Crown Lease Perpetual

5. Topography & Hydrology

The topography within the area is dominantly low, with limited outcrops. Roads intersect the licences and small creeks and river branches also flow through the licence and flow into the Finnis River.

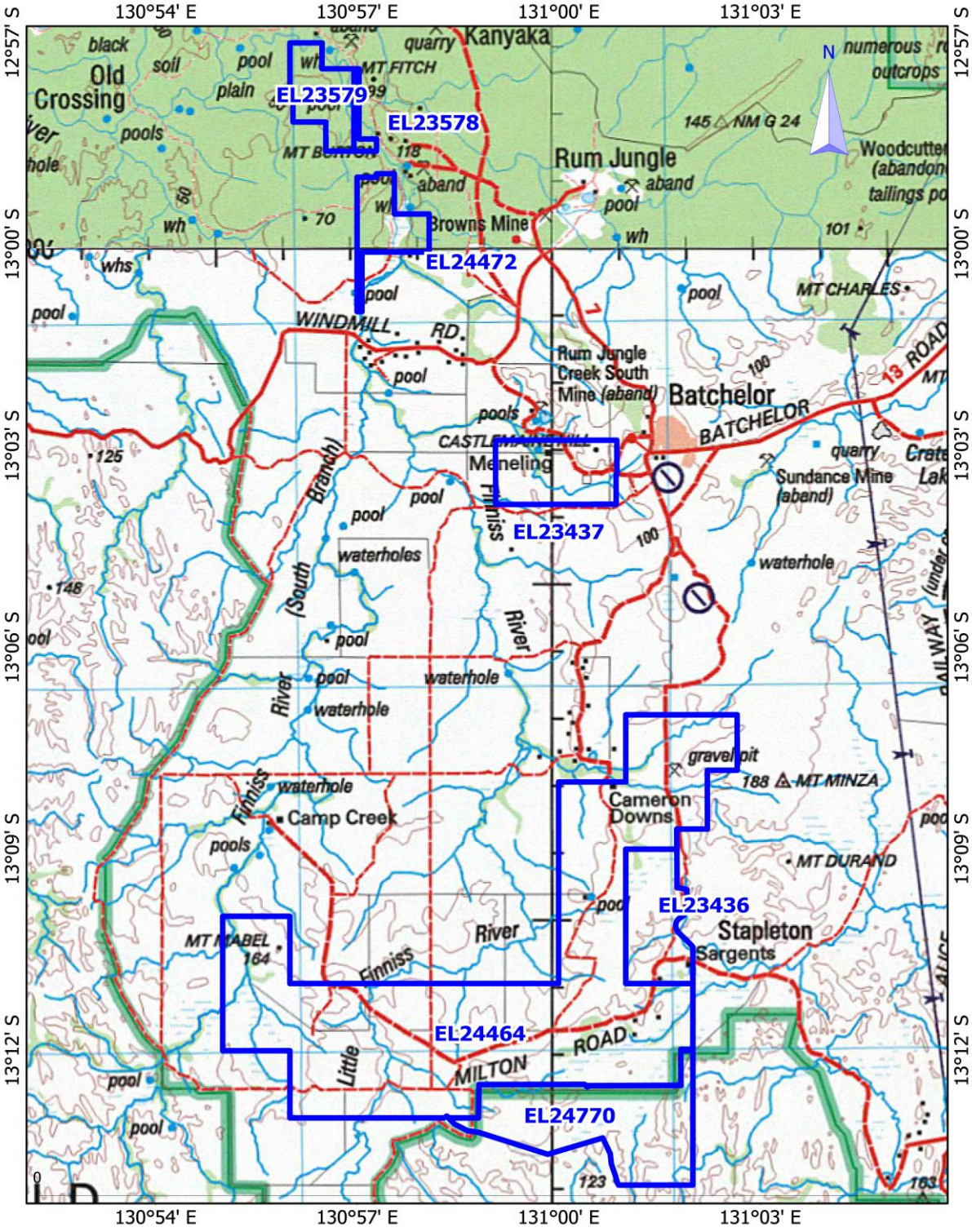

Figure 2 - Topography Map

6. Geology

The project area is situated within the Rum Jungle Mineral Field of the Palaeoproterozoic Pine Creek Orogen. The Pine Creek Orogen largely consists of variably deformed and metamorphosed Palaeoproterozoic metasedimentary and intrusive rocks forming part of the North Australian Craton.

The Pine Creek Orogen is well known for exploration and Northern Territories Resources believe that there is a potential for this region to host significant Copper, Lead, Cobalt, Nickel, Zinc and silver deposits.

As shown in Figure 3 and 4, numerous known significant faults intersect the licences with a majority of the faults in the northern licences trending in a north east direction. The major north-north east trending Giants Reef Fault is located to the west of the project area.

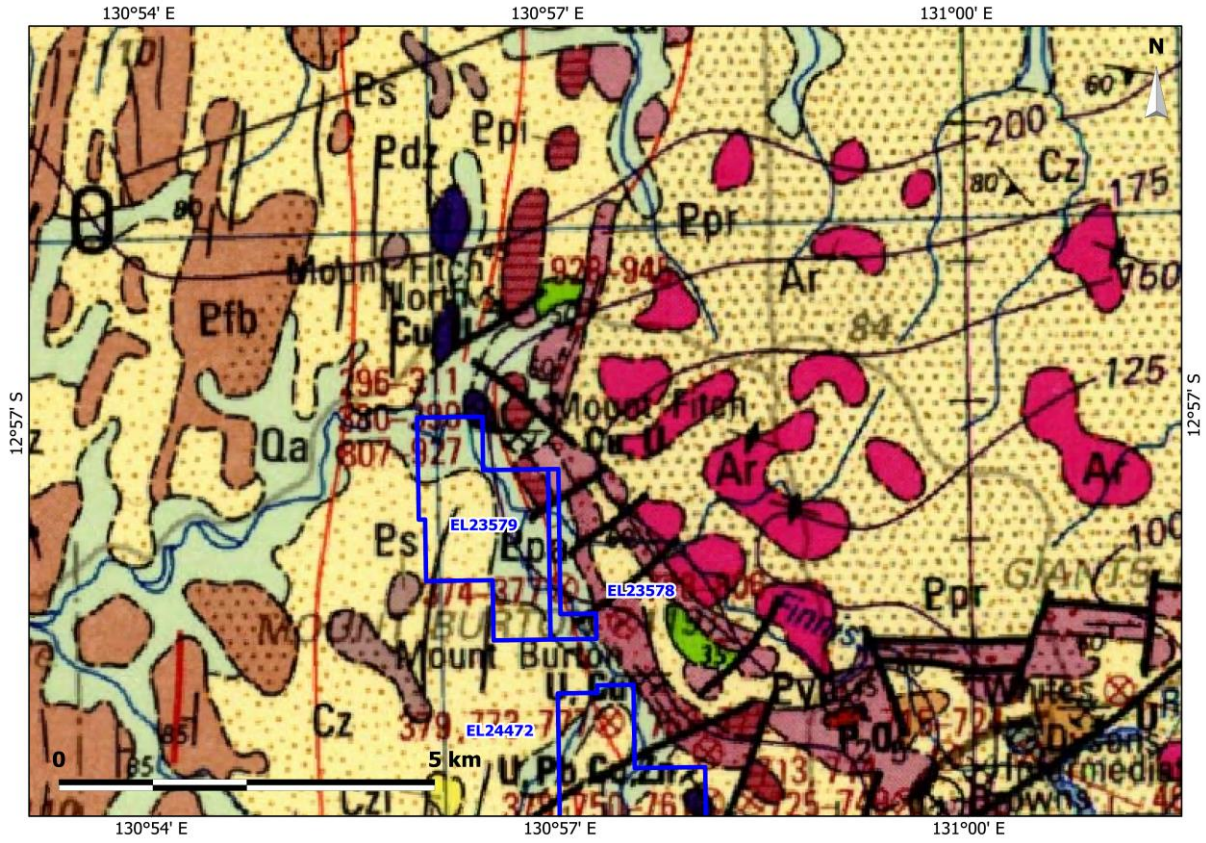

Figure 3- Geology Map- Northern Portion
Legend in Appendix 1

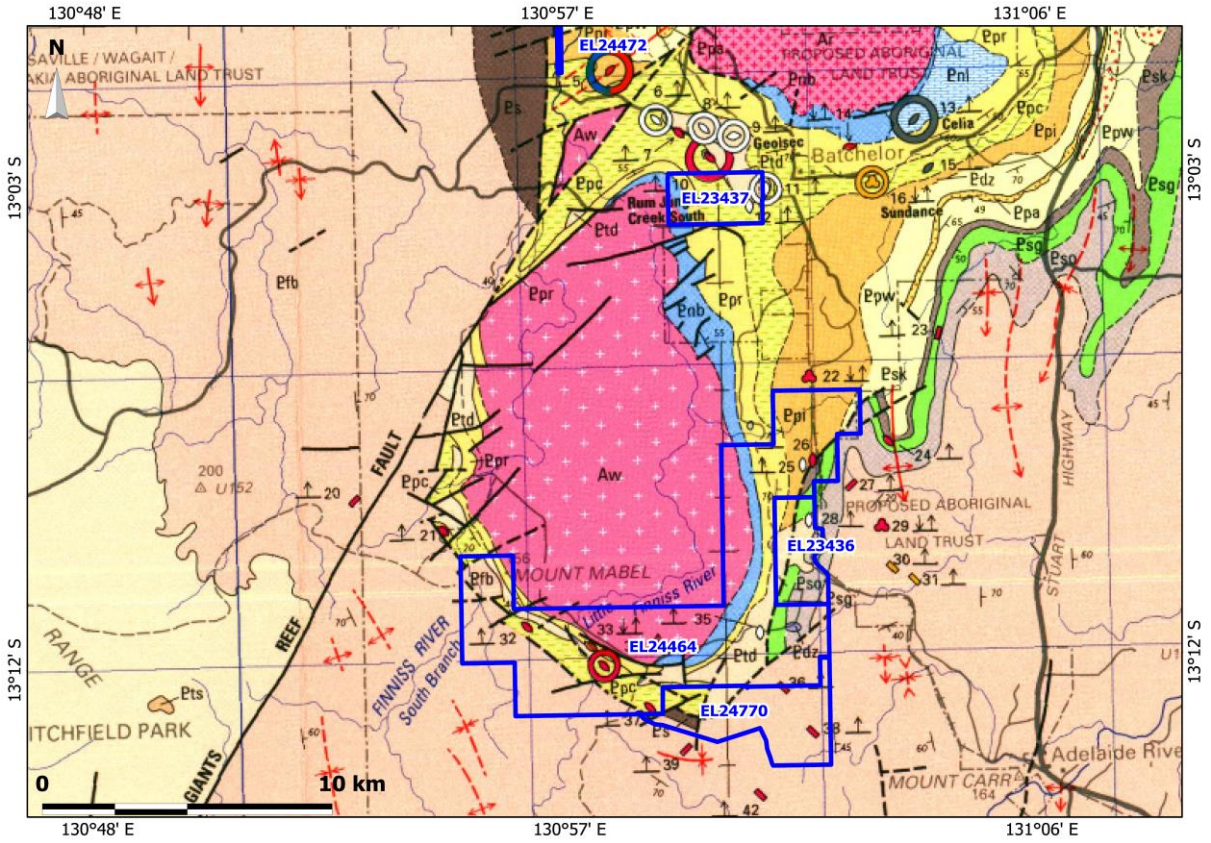

Figure 4- Geology Map- Southern Portion
Legend in Appendix 2

7. Exploration Rationale

The licences sit within the highly prospective and resource rich Pine Creek Orogen. The area is known to host various commodities, which includes copper, lead, nickel, zinc, cobalt and uranium.

Northern Territories Resources believe that an economic Pb-Zn-Cu-Ni-Co deposit and/ or a U-Pt deposit will be found within the project area.

8. Previous Exploration

EL23436

During the period 1950-1974, most of the exploration in this area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. The Waterhouse No. 2 copper-uranium prospect, located at that time is just north of the northern boundary of the current tenement.

Aztec Mining last held the area in the period 1992-1998 and gives a good summary of previous exploration in its early Annual Reports. Aztec located both the Sargents and Sargents North gold-platinum-palladium prospects, following the completion of a large geochemical survey that covered the current EL and surrounding areas. Work by Aztec included stream sediment sampling, soil and rock chip sampling, costeaning and various drill programmes. They also completed a large aeromagnetic survey of the region.

Since 2004 Compass Resources has completed five drill holes at the Sargents / Sargents North prospects to try and determine the nature of this unusual type of mineralisation. In 2006 the area was also covered by new digital photography at 1:6000 scale.

In 2009-10 a comprehensive database of all historical drilling was compiled for the Rum Jungle Mineral Field and numerous historical maps were geo-referenced into ARCveiw.

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete re-think of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

(a) Lower Proterozoic stratiform base metal event (Browns, Area 55, possibly Mt Fitch sulphides)

(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The Mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration. Alteration includes silicification, haematite dusting, specular haematite, apatite, chlorite, disseminated pyrite and formation of magnesite. In EL 23436 these breccia zones coalesce to create a two kilometre wide corridor of brecciation and alteration.

Sills and non-concordant bodies of Zamu dolerite intrude along the thrust sheets and these are also variably altered and provide some age constraints on the structural and mineralising events.

In 2010-11 the tenement was flown with helicopter borne detailed aeromagnetics and EM (part of a survey covering all Compass tenements in the Batchelor district). Flight lines within EL 23436 were E-W at 150m spacing with a nominal terrain clearance of 35m. N-S tie-lines were flown at 1km intervals. Approximately 40 line kilometres of survey were completed within EL 23436.

In late December 2012 the tenement was flown with a detailed FALCON gravity survey and an associated LIDAR survey. The survey data was received by the Compass consultant geophysicist in March 2013 with the total survey supplied to the department in October 2013.

Geophysical modelling was undertaken to generate drill ready targets and to plan for infill IP surveys to compliment and fill gaps in existing datasets.

In 2015, an infill ground IP survey was completed.

(from the former Compass Annual Reports prepared by Rosewall)

EL23437

During the early 1950s, a major portion of the exploration in this area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. They also evaluated iron rich breccia (HQB) areas at “Castlemaine” for their phosphorous content. Following the discovery of the Rum Jungle Creek uranium deposit only 1km to the north of the current EL, Territory Enterprises Pty Ltd (TEP) was responsible for most of the exploration from that time on. TEP drilled a large number of diamond drill holes, mostly as fences of vertical holes. Several of these holes record copper and lead anomalism within the current EL and require serious follow up. In the period 1979 to 1984, Uranerz undertook a large exploration programme in the Batchelor area, including EL 1618 over the western portion of the present tenement.

Portions of the grid used by Uranerz still exits in some areas. Aircore drilling of 44 holes by Uranerz has helped define the sedimentary sequence from the basal conglomerates through to the Whites Formation. A portion of this sequence has been logged as amphibolite where dolomite was expected.

The first years work involved the acquiring of and familiarisation with the existing recorded exploration results. The locations and depths of the previous diamond and aircore drilling programmes within the tenement were compiled into an Excel format for use in future data compilations.

Field visits were made to the area, to locate access tracks, old costeans and some old drill locations. They confirmed that the HQB in this area is of the same nature to that located in the Whites to Dysons part of the Embayment.

During the second year, compilation of available exploration data into GIS format commenced. One reverse circulation drill hole (05C01) was completed to a depth of 108 metres. This hole was in Whites Formation black shales, having failed to reach the target contact Coomalie Dolomite. Despite not reaching the target contact the results from the 2005 RC drill hole were sufficiently encouraging to plan additional drilling. During 2007, a single 301 metre diamond drill hole was completed and again was drilled entirely within the Whites Formation without reaching the target contact. The contact position must be displaced by significant folding or faulting and this will require further drilling to resolve. In 2007 the tenement was also covered by new aerial photography.

In 2008-10 a comprehensive database of all historical drilling was compiled for the Rum Jungle Mineral Field and numerous historical maps were geo-referenced into ARCveiw. Currently, over 5000+ drill holes for 350 000+m has been entered into a validated database (DataShed). Field work comprised reconnaissance mapping to better understand the structural controls on mineralisation.

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete re-think of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

(a) Lower Proterozoic stratiform base metal event (Browns, Area 55, possibly Mt Fitch sulphides)

(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The Mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration. Alteration includes silicification, haematite dusting, specular haematite, apatite, chlorite, disseminated pyrite and formation of magnesite. In EL 23437 these breccia zones are best expressed as the large ridges of HQB.

Sills and non-concordant bodies of Zamu dolerite intrude along the thrust sheets and these are also variably altered and provide some age constraints on the structural and mineralising events.

The recognition of a major NNW trending structural corridor approximately 2km wide consisting of HQB (hematite quartz breccia) and strongly deformed country rocks significantly increased the prospectivity of the tenement.

In 2010/11 the tenement was flown with helicopter borne detailed aeromagnetics and EM (part of a survey covering all Compass tenements in the Batchelor district). Flight lines within EL 23437 were E-W at 150m spacing with a nominal terrain clearance of 35m. N-S tie-lines were flown at 1km intervals. Approximately 40 line kilometres of survey were completed within EL 23437.

In late December 2012 the tenement was flown with a detailed FALCON gravity survey and an associated LIDAR survey. The survey data was received by the Compass consultant geophysicist in March 2013 with the total survey supplied to the department in October 2013.

Geophysical modelling was undertaken to generate drill ready targets and to plan for infill IP surveys to compliment and fill gaps in existing datasets.

In 2015, an infill ground IP survey was completed.

(from the former Compass Annual Reports prepared by Rosewall)

EL23578

During the early 1950s, a major portion of the exploration in this area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. Territory Enterprises Pty Ltd (TEP) was also responsible for much of the exploration work that was completed in the area. In the period 1979 to 1984, Uranerz undertook a large exploration programme in the Batchelor area, including EL1562 which covered the present tenement.

Portions of the grid used by Uranerz still exist in some areas. Aircore drilling of 1 hole by Uranerz in the present tenement is the only drill data so far located.

Starting in 1986, the Central Electricity Generating Board Exploration (Australia) Pty Limited (CEGBEA) commenced exploration of EL4879 which covered this area. In the first year they completed an interpretation of the 1982 aeromagnetic and radiometric survey flown by Austirex Pty Ltd for the Northern Territory Geological survey over the area. They do not appear to have undertaken any field work within the area of the current tenement.

The first years work involved the acquiring of and familiarisation with the existing recorded exploration results. Because the area is small and located on the Finniss River this data is sparse. The locations, depths and assays from the previous air core drilling completed within the tenement and to the immediate south of the tenement were identified.

There has been significant work done with regard to historical data compilation in recent years and this has allowed for development of a GIS, though this work is ongoing. Further drill evaluation of the Mt Fitch South base metal prospect indicates it has potential to extend into this tenement at depth, however several of the recent drill holes failed to penetrate to target depth due to poor ground conditions requiring redrilling.

In 2007 the area was also covered by new digital aerial photography.

During the reporting period ending 29 December 2009, the compilation of historical data continued with the focus of building an entirely comprehensive GIS allowing for the assessment of future drilling targets. This data compilation also provided essential information for the continuing development of a regional geological model to be used in combination with the GIS for further future drill hole evaluation. This is part of the holistic regional approach being applied by JV partners to exploration within the Rum Jungle area

Evaluation of previous drilling continued with the utilisation of the developing GIS and regional geological models, though it was clear as has been identified prior, that a significant number of recent drill holes failed to reach target depth and require redrilling before any future targets may be deemed feasible.

The tenement was partially covered by a surface geological mapping campaign and this has been integrated into the GIS.

In September 2009, the whole area was also covered by new high density digital aerial photography.

During 2010 the development of both the regional 3D geological model as well as the GIS was continued during the year as more historical data was compiled and validated.

This area was covered by a broader geophysical survey in late 2010. This consisted of airborne electromagnetic/magnetic surveying along with some more localised helicopter assisted ground gravity surveying. This data was currently being processed at time of reporting and was slightly behind schedule at the moment due to erroneous altimeter data that was received. This was to be rectified soon and the corrected data to be included in the next annual report.

Thorough 3D geophysical modelling was carried out during 2011 generating a number of first, second and third order basement targets. Gravity station data was merged with existing regional data to infill and give better resolution to regional gravity anomalies.

Database and GIS work continued incorporating the newly acquired datasets.

Corrected data for the gravity and electromagnetic surveying was submitted to the department.

An airborne gravity survey (FALCON) was underway at the end of December 2012 and was not completed in time for the report. Along with the gravity data the survey will also acquire highly accurate elevation data (LIDAR) at the same time. This will be reported on in next years' report.

The data for the airborne FALCON gravity survey carried out during the writing of last years' report was received and passed on to the department. The data has been modelled and processed and is being incorporated into a large regional data modelling package. The modelling will incorporate all of the previous EM, IP, MAG and gravity data into one complete package.

A total of 1.1 line km were flown on this tenement for the FALCON gravity survey.

A total of approximately 50m of IP ground survey was acquired on this tenement. These datasets have been submitted to the department.

The data for the airborne FALCON gravity survey carried out during the writing of last years' report was received and passed on to the department. The data has been modelled and processed and is being incorporated into a large regional data modelling package at the time of writing this report. The modelling will incorporate all of the previous EM, IP, MAG and gravity data into one complete package.

Geophysical modelling was undertaken to generate drill ready targets and to plan for infill IP surveys to compliment and fill gaps in existing datasets.

During 2015, an infill ground IP survey was completed.

(from the former Compass Annual Reports prepared by Rosewall)

EL23579

During the early 1950s, a major portion of the exploration in this Rum Jungle area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. Following the discovery of the Rum Jungle Creek uranium deposit, Territory Enterprises Pty Ltd (TEP) was responsible for much of the exploration from that time on. TEP drilled a large number of auger holes, mostly as fences across the underlying sediments in areas of no outcrop. In the period 1979 to 1984, Uranerz undertook a large exploration programme in the Batchelor area, including EL1562 over most of the tenement.

Portions of the grid used by Uranerz still exits in some areas. Aircore drilling of 51 holes by Uranerz in the tenement has helped define the sedimentary sequence as being of a shaley nature.

Starting in 1986, the Central Electricity Generating Board Exploration (Australia) Pty Limited (CEGBEA) commenced exploration of EL4879 which covered this area. In the first year they completed an interpretation of the 1982 aeromagnetic and radiometric survey flown by Austirex Pty Ltd for the Northern Territory Geological survey over the area. They do not appear to have undertaken any field work within the area of the current tenement.

During the first three years, work involved the acquiring of and familiarisation with the existing recorded exploration results. The locations and depths of the previous diamond and air core drilling within the tenement have been compiled as part of a review of the uranium and base metal potential for the whole Batchelor district.

There has been significant work done with regards to the compilation of available exploration data. This data has been used in the development of the GIS system which will be used for the planning of future exploration campaigns.

Further drill evaluation of the Mt Fitch South base metal prospect (on the northern boundary of the tenement) indicates it has potential to extend into this tenement at depth, however several of the recent drill holes failed to penetrate to target depth due to poor ground conditions requiring redrilling.

In 2007 the tenement was covered by new digital aerial photography.

During the reporting period ending 29 December 2009, the compilation of historical data continued with the focus of building an entirely comprehensive GIS allowing for the assessment of future drilling targets. This data compilation also provided essential information for the continuing development of a regional geological model to be used in combination with the GIS for further future drill hole evaluation. This is part of the holistic regional approach being applied by JV partners to exploration within the Rum Jungle area

Evaluation of previous drilling continued with the utilisation of the developing GIS and regional geological models, though it was clear as has been identified prior, that a significant number of recent drill holes failed to reach target depth and require redrilling before any future targets may be deemed feasible.

The tenement was partially covered by a surface geological mapping campaign and this has been integrated into the GIS.

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An airborne gravity survey (FALCON) was underway at the end of December 2012 and was not completed in time for the report. Along with the gravity data the survey will also acquire highly accurate elevation data (LIDAR) at the same time. This will be reported on in next years' report.

The data for the airborne FALCON gravity survey carried out during the writing of last years' report was received and passed on to the department. The data has been modelled and processed and is being incorporated into a large regional data modelling package. The modelling will incorporate all of the previous EM, IP, MAG and gravity data into one complete package.

A total of 20.2 line km were flown on this tenement for the FALCON gravity survey.

Geophysical modelling was undertaken to generate drill ready targets and to plan for infill IP surveys to compliment and fill gaps in existing datasets.

In 2015, an infill ground IP survey was completed.

(from the former Compass Annual Reports prepared by Rosewall)

EL24464

During the period 1950-1974, most of the regional exploration in this area wasconducted by the BMR as part of a regional programme aimed at locating uranium deposits. United Uranium, CRA Exploration and the BMR explored the Waterhouse No. 2 copper-uranium prospect. The BMR explored for phosphate in the 1960s.
The most extensive exploration was undertaken by Uranerz in the late 1970s and early 1980s. This involved extensive drilling programmes and ground geophysical surveys. Marathon, CRA and others also explored the area during this time.

Aztec Mining last held the area in the period 1992-1998 and gives a good summary of previous exploration in its early Annual Reports. Work by Aztec included stream sediment sampling, soil and rock chip sampling, costeaning and various drill programmes. The also completed a large aeromagnetic survey of the region and re-assayed some existing drill core.
Compass Resources drilled two RC holes into the Kylie prospect in 2006 and in 2007 completed a further 740m in 10 RC holes at the SE Kylie prospect. The majority of holes intersected weakly anomalous uranium mineralisation associated with disseminated pyrite close to the shale –dolomite boundary without encountering potentially economic intersections.
In 2008-09 a major push was undertaken to collate all historical exploration data for the Rum Jungle Mineral Field into a true GIS system. Exploration drilling data was collated and entered into the Datashed database and evaluated using ARC GIS and Micromine. In addition 260 historical maps were geo-referenced in ARC. The database contains a total of 224 drill holes within the Mt Mabel tenement. All available assay data associated with the historical drilling was entered into the database. Detailed aeromagnetic and radiometric surveys flown in the 1990s were merged with the regional geophysical data sets and reprocessed.

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete re-think of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

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(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration.

Alteration includes silicification, haematite dusting, specular haematite, apatite, chlorite and disseminated pyrite.

Within the Mt Mabel tenement these thrust surfaces start to merge generating zone of semi continuous brecciation and variable alteration up to 2.5km across.

Recent published mapping has mis-identified this brecciation/alteration as Geolsec Formation and/or the Depot Creek Sandstone of the Tolmer Group. The structural event has effectively destroyed the Proterozoic stratigraphy within the Mt Mabel tenement (see Figure 3).

Extensive sills and non-concordant bodies of Zamu dolerite intrude along the thrust sheets and these are also variably altered and provide some age constraints on the structural and mineralising events.

The extent of brecciation was confirmed through field checking and reviewing historical drill logs. The entire tenement (along with all other Compass tenements at Batchelor) was flown with helicopter borne aeromagnetics and EM in late 2010.

Fugro flew the tenement with a Falcon gravity survey in late December 2012 (as part of a survey covering all tenements at Batchelor). The survey consisted of NS lines at 200m spacing with a nominal terrain clearance of 20m (see Figure 2 for flight lines). An aeromagnetic survey was completed at the same time as was a

LIDAR survey to provide the detailed topographic data for processing the gravity data.

The Falcon gravity survey data was received by the Compass consultant geophysist in March 2013 and a final report in May. All data from the survey was provided to the Mines Department in October.

In 2015, a consultant geophysicist processed the data and based on the EM, magnetic and gravity surveys has selected targets for further exploration. Ground IP traverses were selected as the most appropriate exploration tool to further refine exploration targets.

(from the former Compass Annual Reports prepared by Johansen)

EL24472

During the early 1950s, a major portion of the exploration in this Rum Jungle area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. Following the discovery of uranium deposit, Territory Enterprises Pty Ltd (TEP) was responsible for much of the exploration from that time on. TEP drilled a large number of auger holes and diamond drill holes, many as fences across the underlying sediments in areas of no outcrop. In the period 1979 to 1984, Uranerz undertook a large exploration programme in the Batchelor area, including the current tenement.

Portions of the grid used by Uranerz still exits in some areas. Aircore drilling of 51 holes by Uranerz in the tenement has helped define the sedimentary sequence as being of a shaly nature.

Starting in 1986, the Central Electricity Generating Board Exploration (Australia) Pty Limited (CEGBEA) commenced exploration of EL4879 which covered this area. In the first year they completed an interpretation of the 1982 aeromagnetic and radiometric survey flown by Austirex Pty Ltd for the Northern Territory Geological survey over the area. They do not appear to have undertaken any field work within the area of the current tenement.

During the first year of Exploration Licence 24472, work involved the acquiring of and familiarisation with the existing recorded exploration results. The locations and depths of the previous diamond and aircore drilling within the tenement have been compiled.

Compilation of available exploration data into GIS format has been progressing, the aim being to then undertake a more holistic regional exploration approach, rather than a series of individual programmes on each tenement.

During the second year of Exploration Licence 24472, work carried out by Compass Resources comprised the further analysis of regional data and the ground checking of the former drill sites and visiting and then reconnaissance mapping outcrops on the lease.

During the third year of Exploration Licence 24472, work carried out by Compass Resources comprised an extensive review of the geology on various levels, though focussing on a broader

scale, in keeping with a more holistic regional exploration approach. This process was ongoing and involved the continuance of historical data compilation as well as the re-interpretation of previous exploration works. Mapping undertaken previously on the licence was used in combination with other historical data sources to develop the regional geology model. This work was being undertaken with the goal of producing a comprehensive broad scale GIS to assist in the assessment of future exploration targets. This GIS would contribute to the development of the 3D geological model which would allow the investigation of relationships between geology and mineralisation with reference to the controls inflicted on known mineralised envelopes.

A regional surface geology mapping project started in mid 2008, with the goal of producing a scaled geology map over the entire Rum Jungle area, covered part of EL 24472. This project remained ongoing with seasonal vegetation coverage affecting the feasibility of mapping at various times of the year.

Compass Resources Limited was placed in voluntary administration in January 2009 and then placed under a deed of company arrangement from 1 May 2009 for a period of 12 months. Under the terms of the JV agreement between Compass Resources Limited and HNC, a wholly owned subsidiary of HNC named HNC (Australia) Resources Pty Ltd (HAR) took over management of this tenement (and others) on and from 1 May 2009.

EL 24472 is strategically located adjacent to current operations (Browns Oxide) and a number of ongoing feasibility studies at Area 55, Mt Fitch Cu and Browns Sulphide. HAR is currently reviewing all polymetallic potential of the district and EL 24472 forms part of the exploration program for future mine development.

Up until 30 April 2009, work carried out by Compass Resources comprised the continuation of field mapping and the update of the GIS database. Since 1 May 2009, HAR has been reviewing the work carried out by Compass on this EL (and others) so that work programs can be put in place during the 2010 field season.

Geophysical surveys were partially completed during the 2009/2010 year. A group of 9 infill gravity stations on approximate 500m grid spacing were carried out and we were awaiting the receipt of the data and processing at time of writing the 2010 report.

A heliborne electromagnetic survey along with complimentary magnetics was also in process at the end of the 2010 reporting period. The line spacing of these surveys is between 100 and 150m in varying north south and east west orientations. A total of 33.8 line kilometres was flown.

During the year 6 reporting period most of the airborne electromagnetic data had to be reprocessed and remodelled due to erroneous data acquisition. This problem was eventually corrected during 2011 and a proposed anomaly target dataset was generated. Processing and integration of the gravity data was also completed and a series of merged 3D models were created for electromagnetic, magnetic and gravity data. Drill targets were ranked on strength of anomaly and incorporated into the regional program plan. Additional mapping and GIS integration of the newly acquired data was also completed.

During the 2011-2012 reporting period, reconnaissance for a potential ground IP survey was carried out along with one line km of IP acquisition. A FALCON airborne gravity survey was to have been underway in October but was delayed until December. At the time of writing the report the survey was underway. Some lower priority drill targets were modelled and will be further investigated once the gravity survey data becomes integrated.

During 2012-13 this tenement was subjected to a regional airborne FALCON gravity survey. This survey included not only gravity but also acquired magnetics and LIDAR high resolution elevation data.

The line spacing was approximately 200m and has been modelled with other geophysical data. The entire survey has been individually split out into individual tenement data and has been submitted to the department. Approximately 18.5 line km of data acquisition fell on this tenement.

Approximately 4 line km of ground IP data was also acquired on EL24472 during the reporting period over 3 separate lines. This has also been submitted to the department and is currently being integrated with all recently acquired geophysical data.

The data for the airborne FALCON gravity survey carried out during the writing of last years' report was received and passed on to the department. The data has been modelled and processed and is being incorporated into a large regional data modelling package at the time of writing this report. The modelling will incorporate all of the previous EM, IP, MAG and gravity data into one complete package.

During 2015, Compass completed an IP survey and incorporated all of the geophysical survey data into a broad regional data set to model suitable targets for exploration drilling.

(from the former Compass Annual Reports prepared by Rosewall)

EL24770

During the period 1950-1974, most of the regional exploration in this area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits.

The most recent uranium exploration in this region was undertaken by Uranerz in the late 1970s and early 1980s. This involved extensive drilling programmes and ground geophysical surveys in the north of the EL. 4 of those holes were drilled as part of the South East Kylie prospect; 82SEK16, 17, 19, and 21. 4 more holes were drilled at the Burnetts prospect in the tenement, 82CB01-4. These Burnett holes were collared with an RC rig then finished with diamond, totalling 465.3m and intersecting uranium mineralisation in two holes (82CB01 and 82CB02). Marathon also explored the area in the late 1970s.

Aztec Mining last held a northern portion of the area in the period 1992-1998. Work by Aztec included stream sediment sampling, soil and rock chip sampling and a drill program in 1995 that consisted of 4 RC holes totalling 157m (HTRC01 - HTRC04). They also completed a large detailed aeromagnetic survey of the general region to the north that covered only 20% of the northern portion of EL 24770.

In the last couple of years Compass Resources compiled all historical exploration data for the Rum Jungle Mineral Field into a true GIS system. Exploration drilling data was collated and entered into the Datashed database and evaluated using ARC GIS and Micromine. In addition all historical maps relevant to EL 24770 were geo-referenced in ARC.

The database contains a total of 31 historical drill holes within the Litchfield tenement. The extensive shallow RAB drilling programs undertaken in the 1990s by Aztec/Nicron/Normandy covering the northern part of the tenement were not entered due to time constraints though geo-referenced maps of this data were registered.

Detailed aeromagnetic and radiometric surveys flown in the 1990s were merged with the regional geophysical data sets and reprocessed.

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete re-think of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

(a) Lower Proterozoic stratiform base metal event (Browns, Area 55, possibly Mt Fitch sulphides)

(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration. Alteration includes silicification, haematite dusting, specular haematite, apatite, chlorite and disseminated pyrite.

Within the Litchfield tenement these thrust surfaces start to merge generating zones of semi continuous brecciation and variable alteration up to 2.5km across that trend to the NE and NW. Recent published mapping has mis-identified this brecciation/alteration as Geolsec Formation and/or the Depot Creek Sandstone of the Tolmer Group. The structural event has effectively destroyed the Proterozoic stratigraphy within the northern part of EL 24770 (see Figure 3).

Extensive sills and non-concordant bodies of Zamu dolerite intrude along the thrust sheets and these are also variably altered and provide some age constraints on the structural and mineralising events.

The extent of brecciation has been confirmed through field checking and reviewing historical drill logs.

Given the improved understanding of the prospectivity of EL 24770 it was decided to fly the northern half of the tenement (along with all other Compass tenements at Batchelor) with helicopter borne aeromagnetics and EM. The survey was completed by GPX Surveys in late 2010 with flight lines at 150m spacing, orientated north-south and with a terrain clearance of 30m. East-west tie lines were spaced at kilometre intervals. This generated approximately 90 line kilometres of data within EL 24770.

Fugro flew the tenement with a Falcon gravity survey (as part of a survey covering all tenements at Batchelor). The survey consisted of N-S lines at 200m spacing with a nominal terrain clearance of 20m (see Figure 2 for flight lines). An aeromagnetic survey was completed at the same time as was a LIDAR survey to provide the detailed topographic data for processing the gravity data. Survey data was provided to the department in late 2013.

A consultant geophysicist processed the data and based on the EM, magnetic and gravity surveys has selected targets for further exploration.

During 2015, a consultant geophysicist processed the data and based on the EM, magnetic and gravity surveys has selected targets for further exploration. Ground IP traverses were selected as the most appropriate exploration tool to further refine exploration targets.

(from the former Compass Annual Reports prepared by Johansen)

9. Exploration During Reporting Period

During the reporting term, Northern Territories Resources conducted limited exploration over each licence within the project. This included revision of historical drilling lithologies into a computer friendly format and ground surveys. A total of 7 IP traverses were conducted on EL24464 and other IP traverses extended onto EL23578 and EL23579 in late 2015. All data from the IP surveys has already been supplied to the Department.

10. Conclusions and Recommendations

During the next reporting period (3 December 2017 to 2 December 2018), Northern Territories Resources intends to continue the review all exploration data. Field work will consist of outcrop investigation of areas with geophysical anomalies and ground checking potential drill locations. Future exploration priorities will be dependent on this review with a goal of drill targeting anomalies in 2019.

11. References

Johansen, G. EL24464 Mt Mabel, Annual Report 11 April 2014 to 10 April 2015. Compass Resources NL. 2015

Johansen, G. EL24470 Litchfield, Annual Report 4 April 2014 to 3 April, 2015. Compass Resources Ltd. 2015

Rosewall, D. EL23436 Sargents, Annual Report 30 December 2014 to 29 December 2015. Compass Resources Limited. 2016

Rosewall, D. EL23437 Castlelmaine, Annual Report 30th December 2014 to 29th December 2015. Compass Resources Limited. 2016

Rosewall, D. EL23578 South Mount Fitch, Annual Report 30th December 2014 to 29th December 2015. HNC Australia Resources Pty Limited. 2016

Rosewall, D. EL23579 West Mount Fitch, Annual Report 30th December 2014 to 29th December 2015. HNC Australia Resources Pty Limited. 2016

Rosewall, D. EL24472 West Finnis, Annual Report 10th November 2014 to 9th November 2015. HNC Australia Resources Pty Limited. 2016