2018

ANNUAL REPORT
ELs 30394

PERIOD: 12/5/2017 TO 07/04/2018

McKINLAY RIVER REGION, NORTHERN TERRITORY

CR & E Pty Ltd
PO Box 286
Parap
NT 0820

1:100 000 Mapsheets: 5270 Pine Creek
1:250 000 Mapsheet: SD5208 Pine Creek
Commodity: Au

May 2018

Abstract:

EL 30394 covers 10 graticular blocks of South Alligator and Finniss River Group rocks and is located in the McKinlay River area to the east of Spring Hill in the Northern Territory, see figure 2.

The licence area is considered to be prospective for precious metals.

Previous conducted work consists of field trips which 12 rock samples were collected and which were analysed for Au at NAL in Pine Creek.

Anomalous gold (1.2-1.6ppm) has been identified in the samples.

Recent works include field trips, helicopter reconnaissance with further rock chip samples taken.

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Complete Tenement Management Pty Ltd

Copyright Statement:

CONTENTS

LIST OF FIGURES

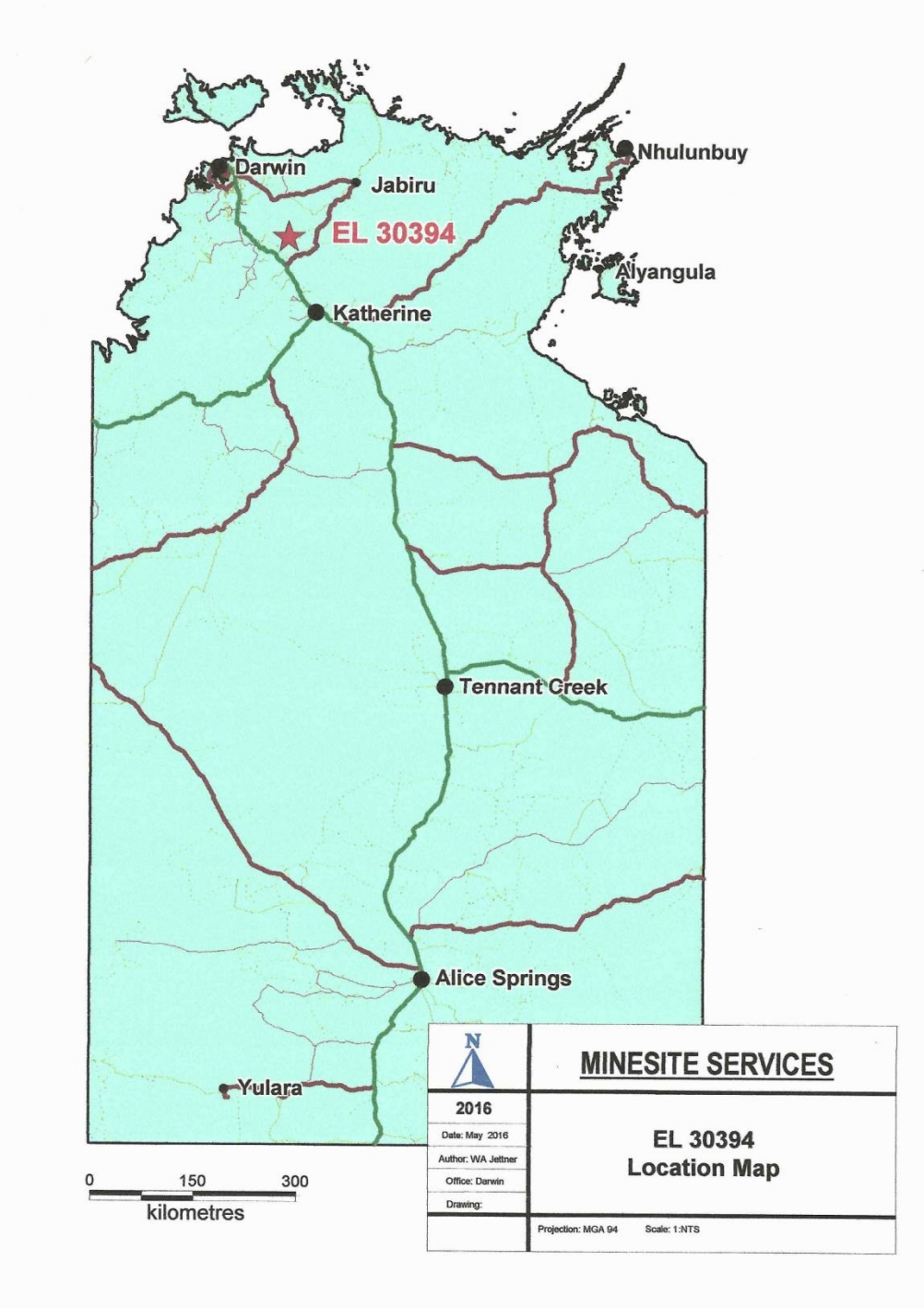
LIST OF TABLES

APPENDICES

(Digital Format)

1. LOCATION

EL 30394 is located some 170km to the southeast of Darwin in the Northern Territory.
EL 30394 has an regular shape having a north-south length of 9.3km with an east-west width of 3.6km and lies between 13° 30'S to 13° 35'S and 131° 47'E to 131° 49'E.
EL 31022 also has a fairly regular shape having a north-south length of 5km and an east-west length of 5km. and it lies between 13° 25' to 13° 28' and 131° 50' to 131° 53'
The licences are located on the Ban Ban Springs pastoral lease to the north of Pine Creek.



2. TITLE HISTORY

Mineral Tenure

EL 30394 was granted on 8/04/2015 and this report is on the third licence year which covers activities in the period 12/05/2017 to 07/04/2018. The licence has an area of 10 graticular blocks (32 km^2).

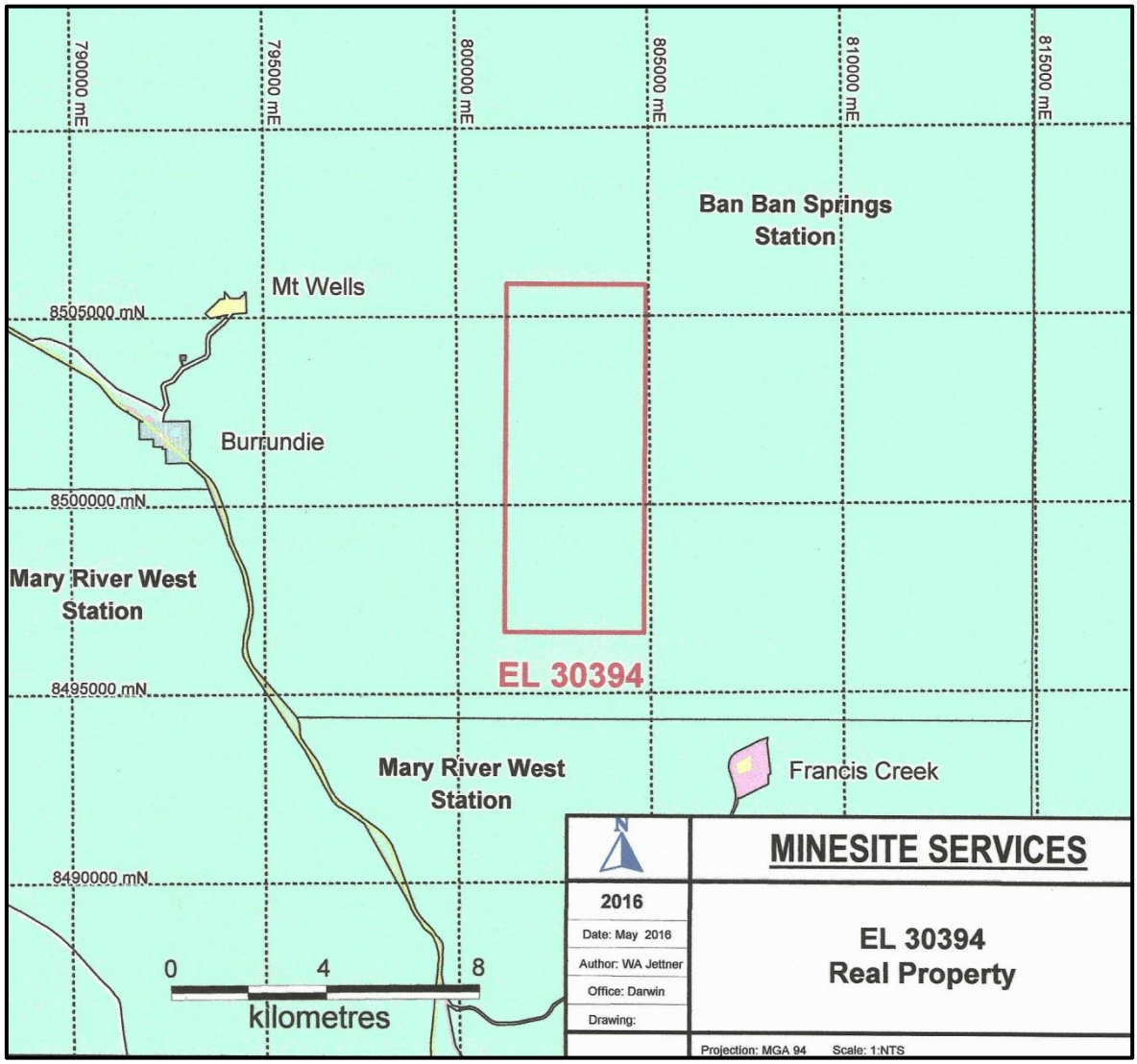
EL 30394 was reported last year under Group Reporting (446) which included two Exploration Licences. GR446 was approved on 24/3/2017, in April 2018 the Group Reporting ceased due to a change of ownership of the latter Licence.

The regional area has a mineral exploration history going back to the 1870s when the Northern Territory goldfields were first found. Historical Mines in the immediate area include, Spring Hill, Union Reefs, McKinlay Silver Mine, Flora Belle Mine, Union Extended Mine, and many other minor workings.

Real Property

EL 30394 is located on the following real property parcel:

NT PPL 1111 (NTP 695) “Ban Ban Springs Station” which is owned by Inyathi Reserve Pty Ltd, PMB 296, Winnellie NT 0821.



3. PHYSIOGRAPHY

i. Geomorphology

The geomorphology of the licence area consists of north-south aligned low hills that are desiccated by drainage systems heading north onto the Adelaide River Floodplain. The Pine Creek Shear to the west of the EL consists of a topographical low reflecting the fracturing of

the rocks whereas the topographic highs are usually those areas where the rocks have been stiffened by silicification.

ii. Biogeography

In the licence area three vegetation types occur in the licence area, they are: low open woodlands consisting of Coolibah low-open woodland with an open-grassland understorey in the main drainage systems, a mixed species low-open woodland consisting of Ironwood and Whitewood low open woodland with open grassland understorey, and thirdly a tall open scrubland containing a Eucalypt tall open scrubland with a spear grass grassland understorey.

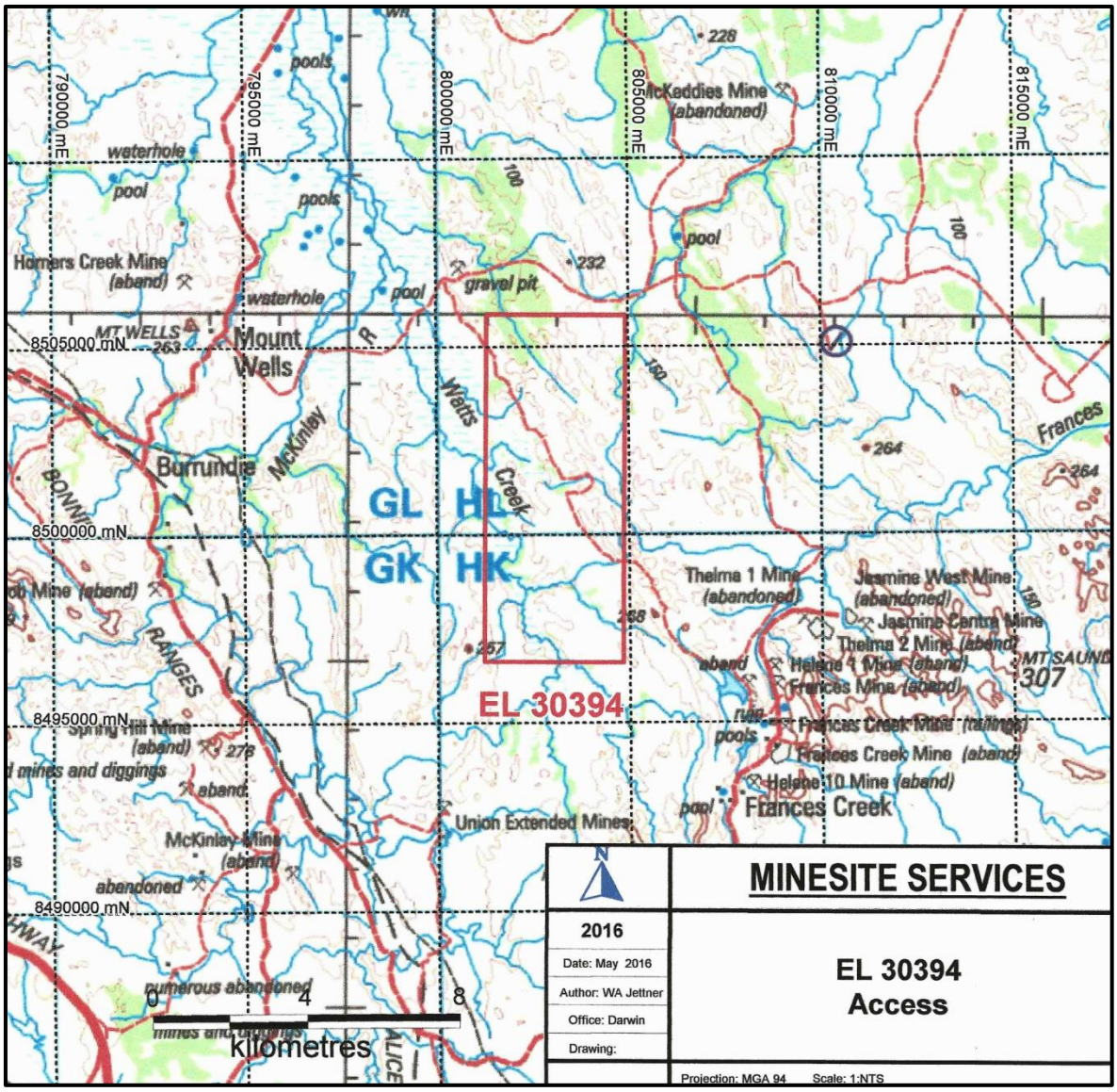
iii. Hydrology

Seasonal rains fall during the wet season, (depending on the year), and quickly runoff. The regional area is held under real property tenure as cattle stations whose main pursuit is open range cattle grazing. The area that the licence occurs in is not used by Ban Ban Springs Station for any purpose. Elsewhere cattle are supplied by natural accumulations of water in creeks and billabongs that are replenished during the wet season.

The groundwater of the area consists of locally fractured rocks based around shear zones. Bores drilled in this area generally give good flows. Flow rates are greater than 0.5 l/s.

4. ACCESS

Access to the exploration licence from Darwin is southwards along the Stuart Highway for 225km to the intersection of the Spring Hill Rd then 18 km along this road to the general licence area. The Mt Wells Road traverses to the west of the licence from the northwest to the southeast and offers excellent access throughout. Access is considered to be good to excellent throughout the licence.



5. GEOLOGICAL SETTING

i. Regional Geology

Within the Pine Creek Orogen the metamorphosed and deformed Palaeoproterozoic sequence is exposed over an area of ~66,000km^2. From west to east it can be divided

into 5 sub-regions; Litchfield Province, Rum Jungle Region, Central Region, South Alligator Valley Region and the Alligator Rivers Region. EL 30394 occurs in the Central Region and this sub-region is described herein.

The age of the Pine Creek Orogen sequence is constrained between 2470 and 1870Ma and unconformably overlies the late Archean basement which is represented in the Central Region by the concealed Woolner Granite well to the north of the licence area. The Orogen comprises an alternating sequence of psammitic and pelitic rocks with minor carbonate and volcanic rock. Dolerite sills were intruded prior to deformation and metamorphism. Regional metamorphic grades in the Central Region are of sub-greenschist to greenschist facies.

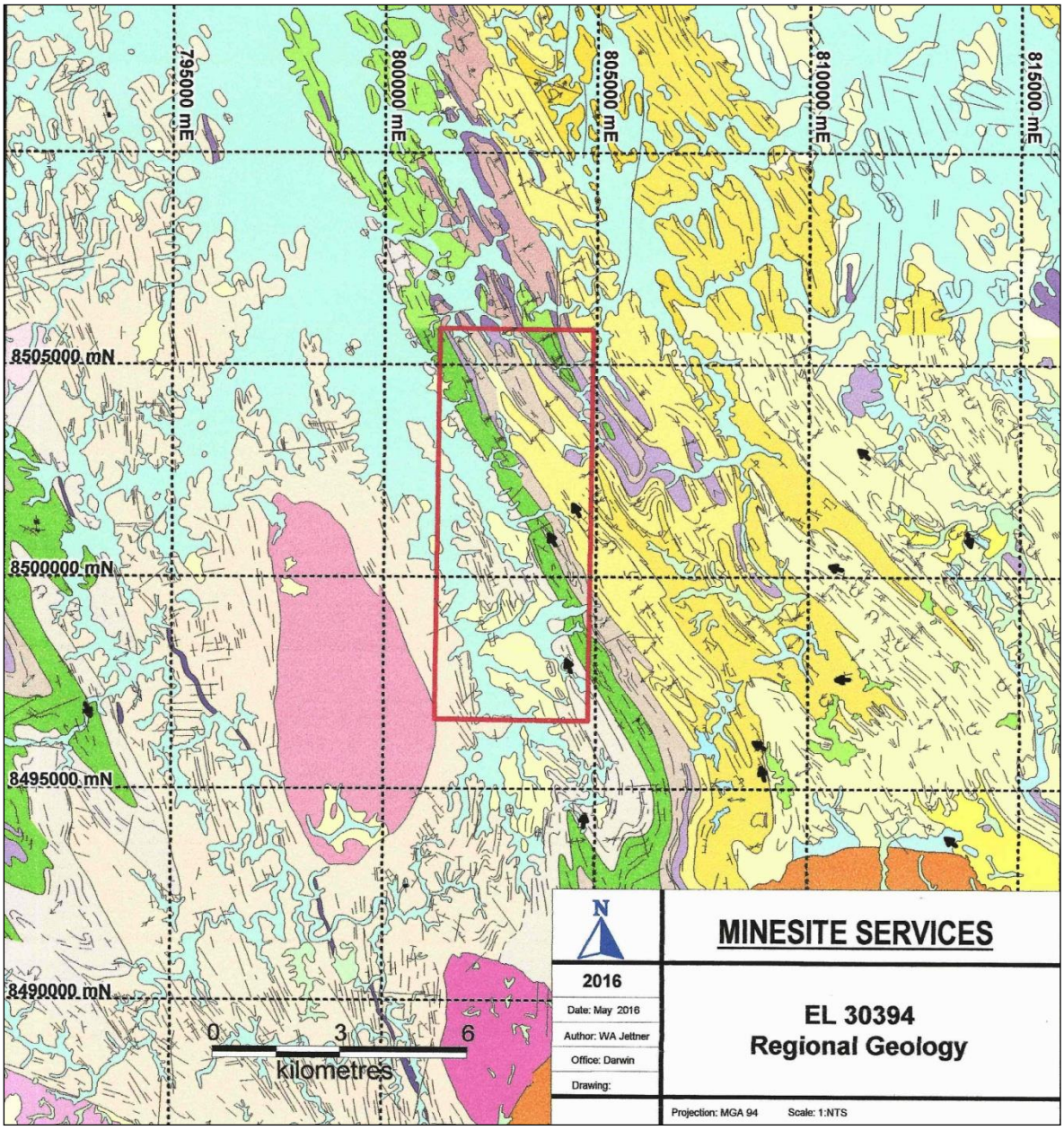
This period of deformation and metamorphism is recognised throughout the North Australian Craton and is known as the Barramundi Orogeny (wanky name) which is constrained at 1880 - 1850Ma.

The tectonic evolution of the Pine Creek Orogen is described in Needham et al (1988), and is summarised below.

An extensional event at about 2000Ma resulted in the formation of a basin in which about 10km of clastic, organic and chemical sediments were deposited. Initial depositional environments ranged from neritic to intertidal to fluviatile followed by flysh-like sedimentation towards the end.

During the early depositional phase (Namoona and Mt Partridge Groups) Archean palaeo highs formed islands and were probably a major sediment source. Sedimentation at this stage, which has been considered as a rift phase, includes fluvial to shallow marine conglomerate and arkose succeeded by supratidal to intertidal carbonate facies. The overlying sag phase sediments are represented by the South Alligator Group which was deposited under shallow marine, low energy conditions and includes pyritic carbonaceous shale, chert, carbonate, banded iron formation, tuff and siltstone. This is succeeded by the Finniss River Group represented by a monotonous sequence of siltstone and greywacke deposited in high energy, deeper marine environments. Sedimentation and lithification were followed by the intrusion of dolerite sills (Zamu Dolerite and equivalents).

A period of granite intrusion and contact metamorphism dated at 1835-1800Ma accompanied and followed regional metamorphism and deformation. Based on age and composition Stuart-Smith (1993) recognised three broad groups of granites in the central region; an older group dominated by mafic granite phases, followed by concentrically zoned granite and leucogranite, and finally by a younger felsic granite phase.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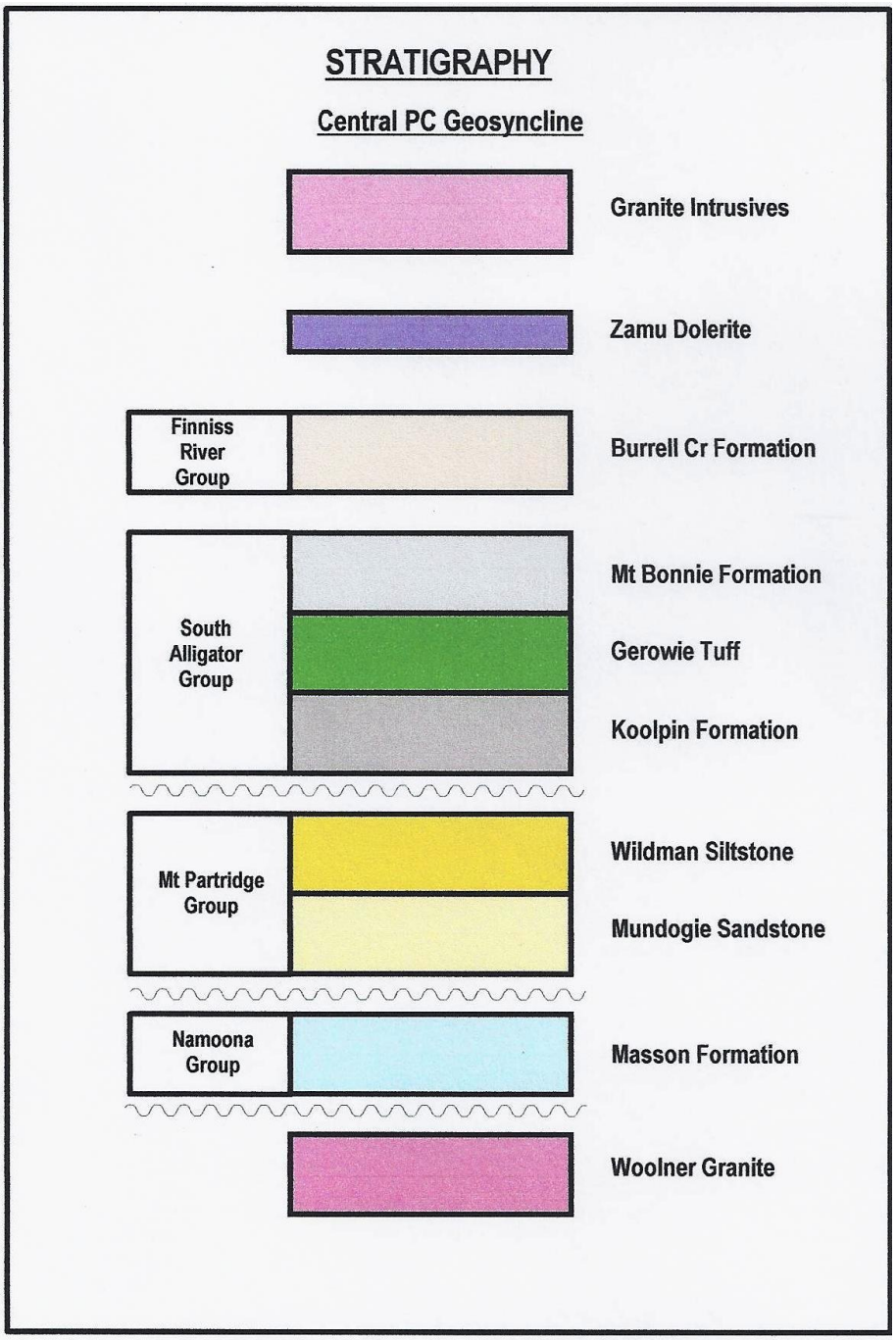
Date: May 2016
Author: WA Jettner
Office: Darwin
Drawing:
EL 30394
Regional Geology
Projection: MGA 94
Scale: 1:NTS


STRATIGRAPHY
Central PC Geosyncline
Granite Intrusives
Zamu Dolerite
Finniss River Group
Burrell Cr Formation
South Alligator Group
Mt Bonnie Formation
Gerowie Tuff
Koolpin Formation
Mt Partridge Group
Wildman Siltstone
Mundogie Sandstone
Namoona Group
Masson Formation
Woolner Granite

ii. Licence Geology

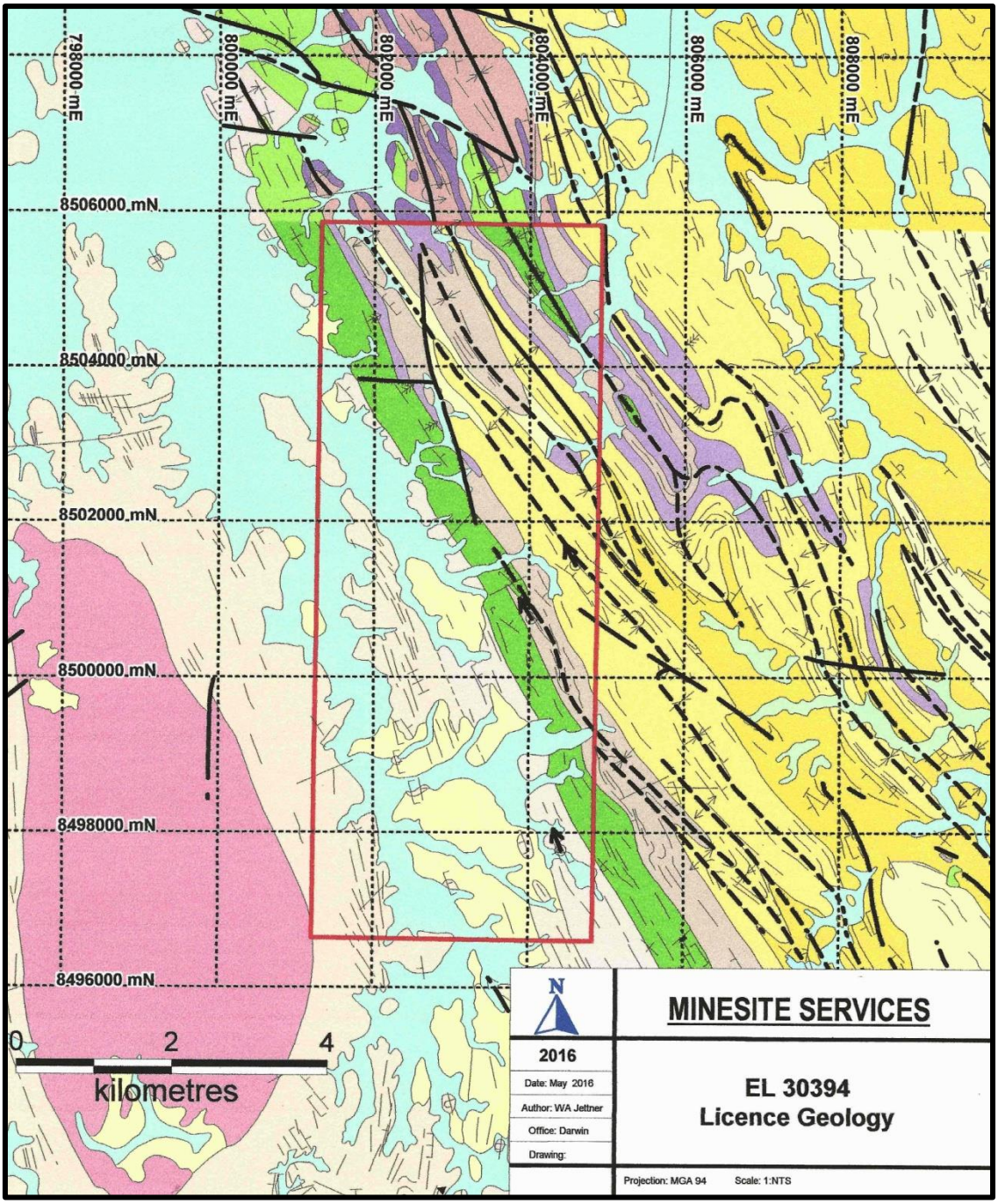
The local geology of EL 30394 is that covered by the stratigraphic column above. The area may be considered to the favourable for the location of gold deposits due to the structure (a number of northwest trending F3 anticlines that have been refolded by later northeast trending F4 events). The base of the major regional anticline also has a granite located within its perimeter and the licence area is located within 5km of this granite.
When the majority of the exploration was undertaken in the licence area (late 1980s to early 1990s) the main exploration model was large-scale Koolpin Formation based deposits similar to the Cosmo Howley model. Work done in the area by the author since this time has shown the presence of small vein-type gold deposits located within structural flexures of the Lower Wildman Siltstone and these represent a valid exploration target in this area.

The rocks of the licence area are as follows:

Summary of the Early Proterozoic stratigraphy of the central Pine Creek Geosyncline

Unit	Lithology	Thickness (m)	Depositional Environment
Finniss River Group			
Burrell Creek Formation **Pfb**	Slate, phyllite, siltstone, greywacke, rare altered to intermediate volcanics, banded chlorite-magnetite ironstone	1500+	Deep water, high energy
South Alligator Group			
Mt Bonnie Formation **Pso**	Slate, mudstone, phyllite and siltstone, feldspathic greywacke, banded iron formation, tuffaceous chert, tuff, rare dolomite	500 - 700	Transition between low energy shallow water reduced environment and deeper water high energy environment
Gerowie Tuff **Psg**	Siliceous siltstone and phyllite, glassy black crystal tuff, vitric tuff and tuffaceous chert	300 - 400	Low energy reduced

Koolpin Formation **Psk**	Ferruginous carbonaceous siltstone and phyllite with chert bands, lenses and nodules, massive hematitic and goethitic ironstone, minor silicified dolomite and marl dolomitic marble, Para-amphibolite, rare sandy siltstone and limonitic quartz sandstone	130 - 350	Low energy, reduced, fresh to brackish shallow water
Mount Partridge Group			
Wildman Siltstone **Ppw**	Laminated red and white banded pyritic silty carbonaceous phyllite, carbonaceous phyllite with sandy laminae, siltstone, minor thinly bedded fine to coarse grained feldspathic sandstone and quartzite, massive hematitic ironstone lenses, rare dolarenite	900	Shallow water transitional with fluviatile
Mundogie Sandstone **Ppm**	Coarse grained feldspathic quartz sandstone, minor quartz and chert pebble conglomerate, siltstone, sandy siltstone, quartzite	1200	Fluviatile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Scale: 1:NTS

6. EXPLORATION AND MINING HISTORY

Exploration

Exploration activities have been conducted on and around the licence area for a number of years by a large number of exploration companies, a list of the exploration licences and reports is tabulated below:

Table 1.Historical Exploration Licences and Open File Reports

Licence No	Licence Holder	Tenure Period From	Tenure Period To	Open File Company Reports
EL 6635	Magnum Gold	31/10/1989	12/12/1990	CR1991-0221
				CR1992-0139
EL 7316	Northern Gold	11/3/1991	24/1/1992	CR1992-0271
EL 7655	Renison Goldfields	28/2/1992	5/4/1993	CR1993-0332
EL 8056	Territory Goldfields	15/9/1993	12/6/1997	CR1995-0754
				CR1995-0802
				CR1996-0790
				CR1996-0941
				CR1997-0513
EL 8170	Territory Goldfields	16/7/1993	29/5/1998	CR1994-0850
				CR1995-0754
				CR1995-0802
				CR1996-0790
				CR1996-0941
				CR1997-0513
EL 8228	Territory Goldfields	31/12/1993	29/5/1998	CR1995-0102
				CR1996-0084
				CR1996-0955
				CR1998-0105
				CR1998-0424
				CR1998-0590
EL 9466	Acacia Resources	28/6/1996	8/7/1998	CR1998-0524
				CR1998-0643

Exploration is still ongoing at Spring Hill, Mt Porter and on this licence (EL 30394).

Mining

Mining activities have been conducted in and around the licence area for well over 100 years, with the earliest recorded operations within the general area being in 1886 at the Spring Hill locality and the last recorded operations in 1993 at the Union Reefs. Whilst none of the mines listed below actually plot within EL30394 they all occur within the general area. In the last 25 years active mining operations have occurred at Union Reefs and Union Extended Mines. Mining is currently being contemplated at Spring Hill and Mt Porter.

Table 2.Historical Mines and Prospects

Mine/Prospect Name	Modat Site Id	Mineral Field	Commodity	Orebody Type
McKinlay	2407	Cullen	Ag	vein
Spring Hill	750	Cullen	Au	Vein
Union Extended	751	Cullen	Au	Vein
Union Reefs	2404	Cullen	Au	Vein
Flora Belle	2395	Cullen	Pb	vein
Elizabeth	763	Cullen	Au	Vein
Snaddens Creek	760	Cullen	Sn	Vein
Unnamed 05593	5593	Cullen	au	Vein
Unnamed 0764	00764	Cullen	Au	Placer
Unnamed 0757	00757	Cullen	Sn	Vein
Unnamed 05592	05592	Cullen	Au	Vein
Union Reefs Pb	1324	Cullen	Pb	Vein

7. EXPLORATION RATIONALE

Exploration on EL 30394 has been driven by historical reports, which have indicated that there is potential for the discovery of gold mineralisation within the licence area.
The exploration model being used in this exploration program is the standard Pine Creek exploration model consisting of stream sediment surveys followed by soil and rock chip surveys concentrating on the north-westerly trending anticlines hosting the South Alligator Group sediments in domal flexures. EL 30394 encompasses 2 regional anticlines, a smaller one in the western portion of the licence, (the Mt Porter Anticline) and a major regional one in the north-eastern portion of the licence.

8. EXPLORATION INDEX MAP

There has as yet been no exploration index map constructed for EL 30394

9. GEOLOGICAL ACTIVITIES

EL 30394

Office Studies.

During the year a literature survey was continued on EL 30394 which consisted of examining previous explorer's data as submitted to the DPIR as well as current thinking on mineralising systems in the area.

Field Studies Yr1

Field work on the licence during the year consisted of a number of geological reconnaissance trips. During these trips a total of 13 rock samples were collected for analysis for Gold. These samples were submitted to NAL in Pine Creek for gold determination by Fire Assay. Sample No 295128 (Site No 26) returned an anomalous gold value of 6.45ppm Au and this represents an excellent result for rock sampling in the first licence year.

Field Studies Yr2

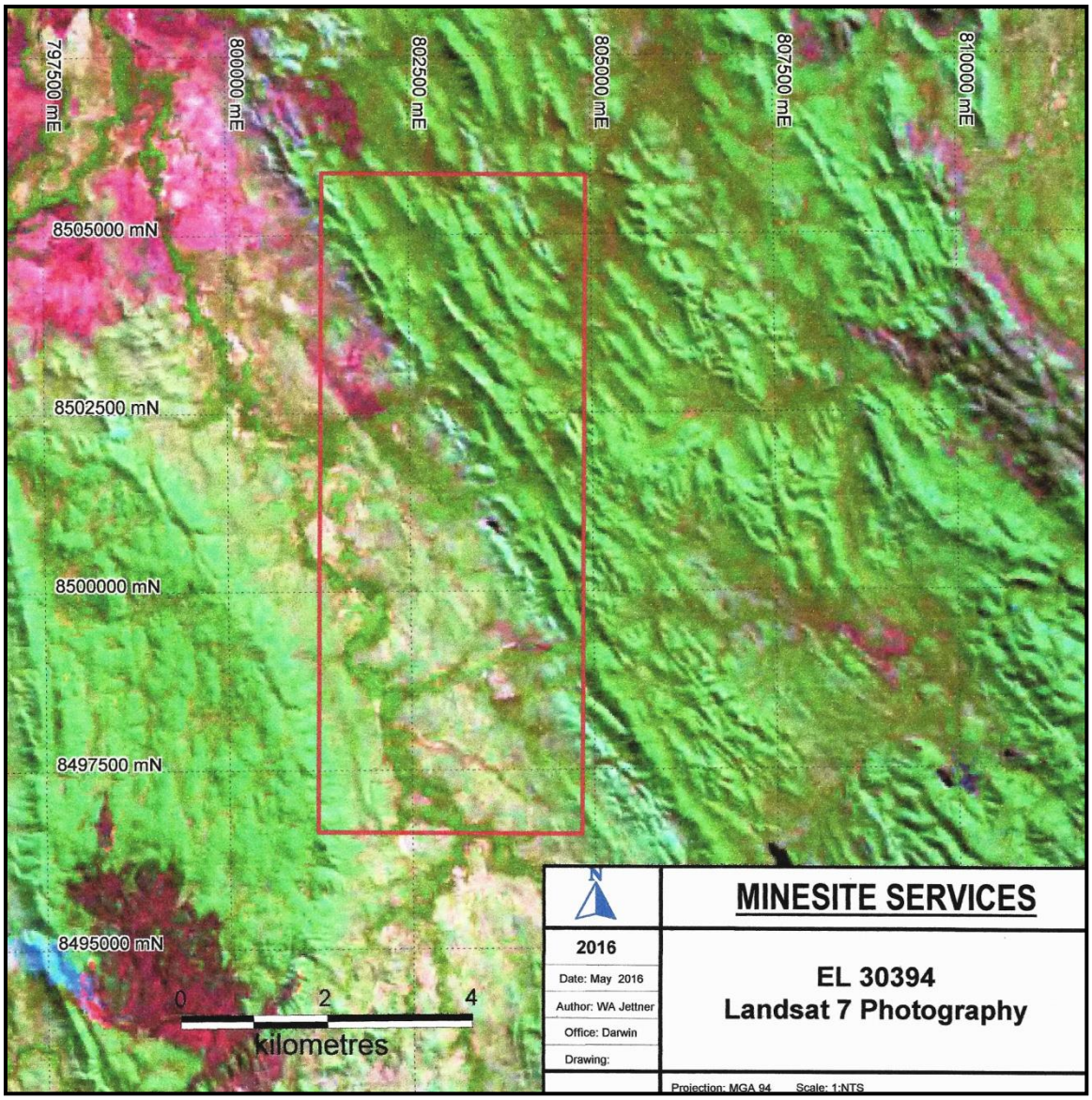
Field exploration during the year consisted of 3 field trips, usually of 3 to 4 people in 2 vehicles. Activities undertaken were surface prospecting activities and general geological reconnaissance. There were 2 surface geochemical samples (rock chips) taken and submitted to NAL in Pine creek for analysis.

Field Studies Yr3

Exploration during the 2017-2018 field season consisted of 2 field trips, one with helicopter reconnaissance. Six rock chip samples were taken and assayed at NAL in Pine Creek for gold with positive results

10. REMOTE SENSING

There were no remote sensing surveys done during the year.
Included below is an image taken from the DME Geoscience Data Package (DIP 008), LANDSAT 7.
The tile is: Landsat 7 Run W2, Path 105, Row 69, Acquisition date 1999.



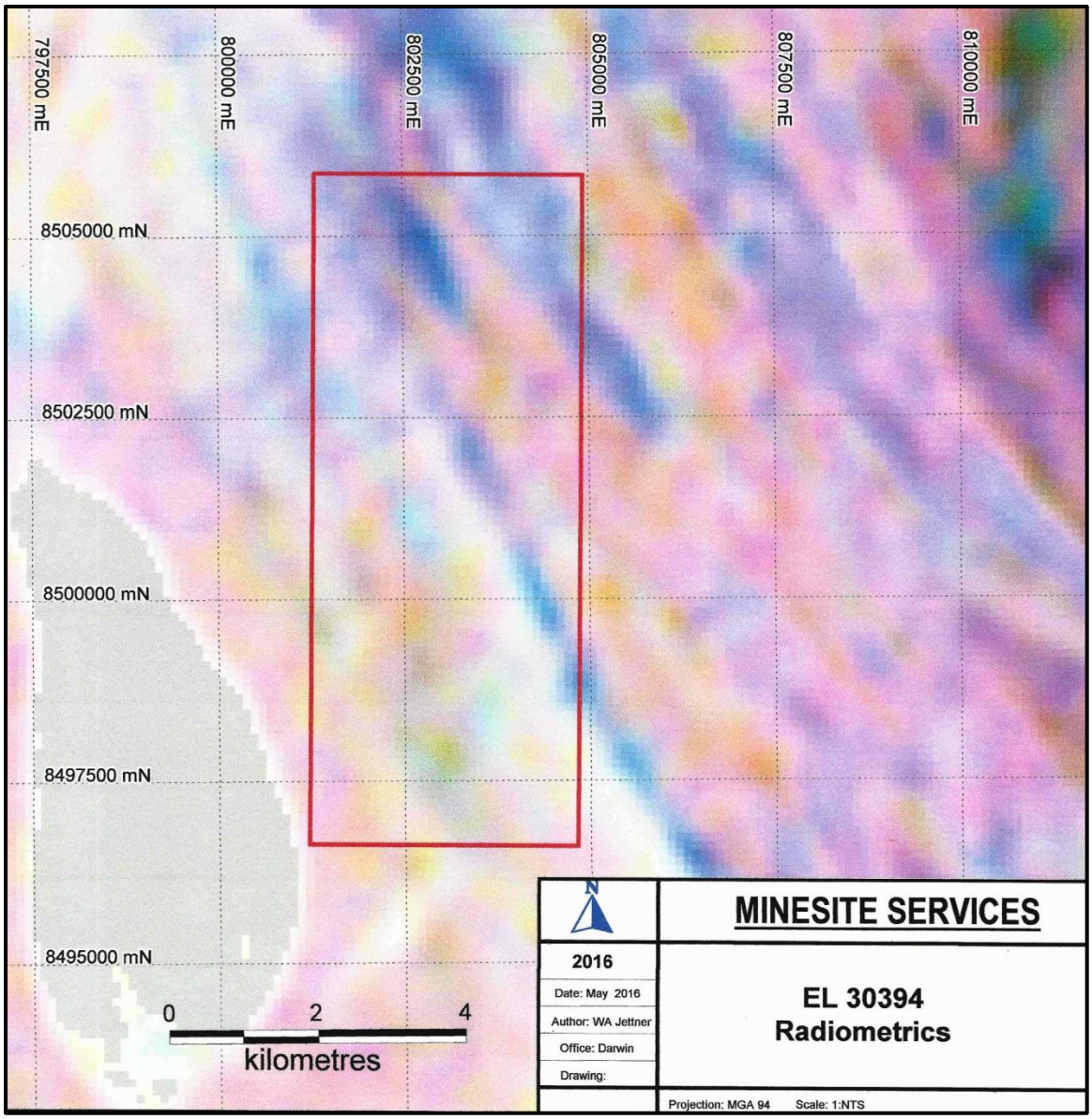
After DME Geoscience Data Package (DIP 008)

11. GEOPHYSICAL ACTIVITIES

Radiometrics

There have been no radiometric surveys conducted during the year.

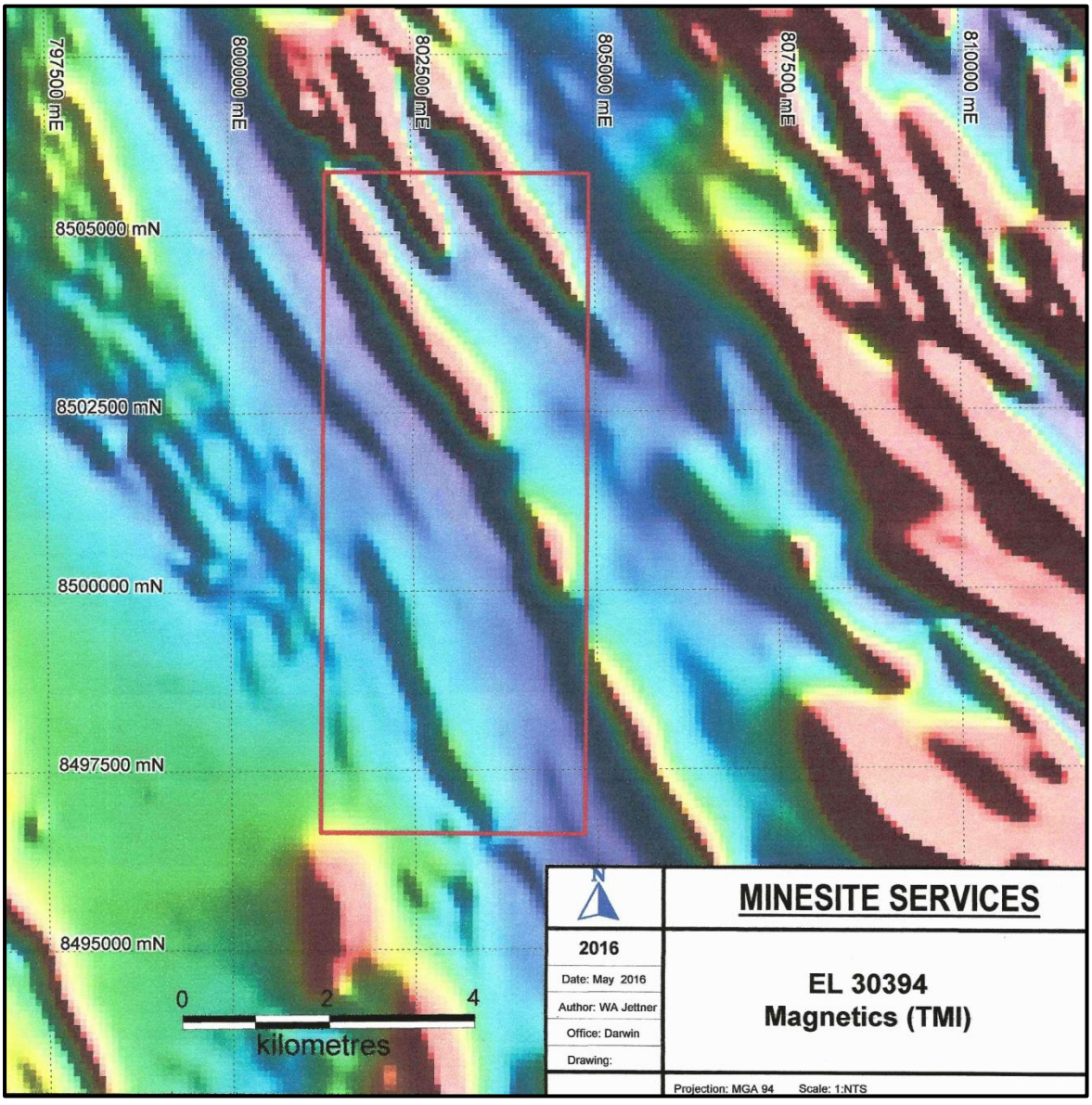
As can be seen from the following image obtained from the DME Geoscience Data Package (DIP 008), the radiometrics are relatively unobtrusive except where the McKinlay Granite occurs to the west. The Zamu Dolerite sills also show up clearly.



After DME Geoscience Data Package (DIP 008)

Magnetics

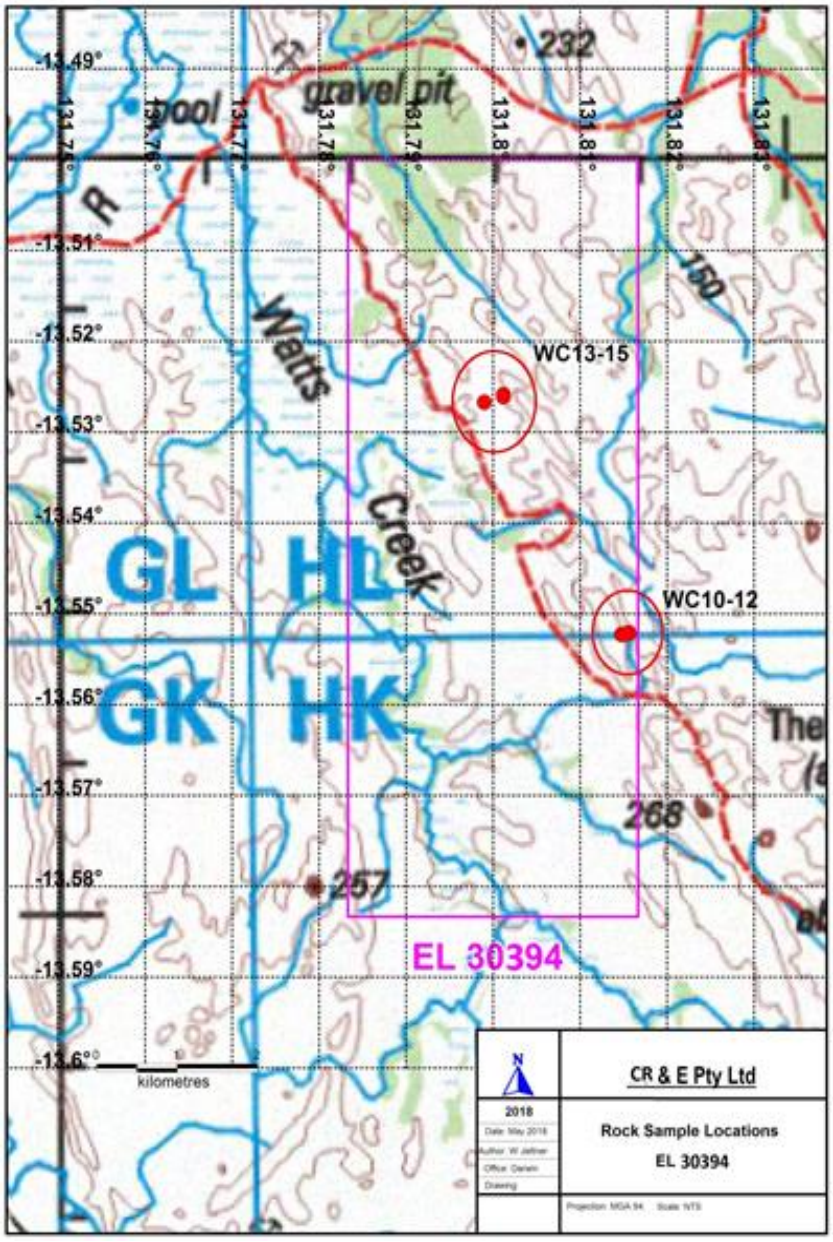
As can be seen from the image below (taken from the DME Geoscience Data Package (DIP 008) the area encompassed by EL 30394 is located to the west of the long thin sinuous magnetic highs that represent sills of Zamu Dolerite. The area to the west of EL 30394 is the Pine Creek shear and the sinuous intermediate high located here has been attributed to a magnetite bearing sedimentary unit.



After DME Geoscience Data Package (DIP 008)

12. SURFACE GEOCHEMISTRY

There were 6 surface geochemical samples taken late in the year. Helicopter reconnaissance was also conducted late in the year.
The sampling conducted confirmed the presence of rocks containing anomalous gold values within EL 30394.



Results of this sampling are attached to this report as Appendix 1.

13. DRILLING

There was no drilling undertaken during the year.

There are no drill holes recorded on the DME drill database for the licence area. There are also no drill holes recorded in the DME Core library database.

14. GEOTECHNICAL STUDIES

There were no geotechnical studies undertaken during the year.

15. RESOURCES AND RESERVE ESTIMATION

There were no resource or reserve estimations done during the year.

16. CONCLUSIONS AND RECOMMENDATIONS

From the field exploration conducted during this reporting year and results received from sampling, the intent is to commence a costeaning program with works to commence later in the year.

17. REFERENCES

OPEN FILE COMPANY REPORTS

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