Daylight Jack Minerals

EL 25520 Annual Report 2011

By Rhys Knightley, B.App. Sc and

Cecilia Martin, B. App. Sc

Kirkimbie Diamond Project

Contents

1. INTRODUCTION

Daylight Jack Minerals Pty. Ltd has three EL's at Kirkimbie in the Limbunya area in the north western part of the Northern Territory (Figure 1). These tenements were applied for due to their prospectivity for diamonds and base metals. The report examines the base metal potential of EL 25520.

Exploration license (EL) 25520 covers an area of approximately 1600km$_2$ in the rugged and remote northwestern part of the Northern Territory. The area is accessed via the Buntine Highway in the south from across the border with Western Australia or from Katherine in the east.

The region is described as sparsely vegetated, consisting mostly of occasional small trees along with more numerous bushes and grasses. Other than the hills and ragged ranges much of the terrain consists of broad, flat plains. The license is predominantly comprised of Proterozoic to Mesozoic rock types blanketed by recent alluvium

In mid 2011 exploration for diamonds and base metals was undertaken, this mainly involved reconnaissance sampling of stream, soil and rock. This report details the findings of this activity and examines base metal potential of EL 25520.

Since granting of the Exploration License, a review of previous exploration activities in the area was conducted. A consultant geophysicist, Grant Boxer reviewed the geophysical data. This data as well as geological data and stream-sediment sampling data have been processed and assessed.

The tenement has been covered by heavy mineral stream and loam sampling. A review was undertaken of the past diamond exploration which indicated that although there were recoveries of microdiamonds in the southern two EL's (25084 and 25085), no source could be identified. No kimberlitic indicator minerals for example chrome diopside and pyrope garnet have been recovered from the tenements in previous sampling.

Data from the recent airborne magnetic surveys flown by the Northern Territory Geological Survey (NTGS) over the tenement was processed for targets that may represent kimberlite or lamproite. Fifteen targets (Figure 2) were selected for ground inspection, with ground magnetic surveys recommended for those targets that are unexplained after surface inspection. These targets were recently investigated and systematically sampled.

Selected soil and rock chip samples were collected during a number of recent visits to the tenements in 2011. These samples have been assayed and the results and interpretation are contain herein.

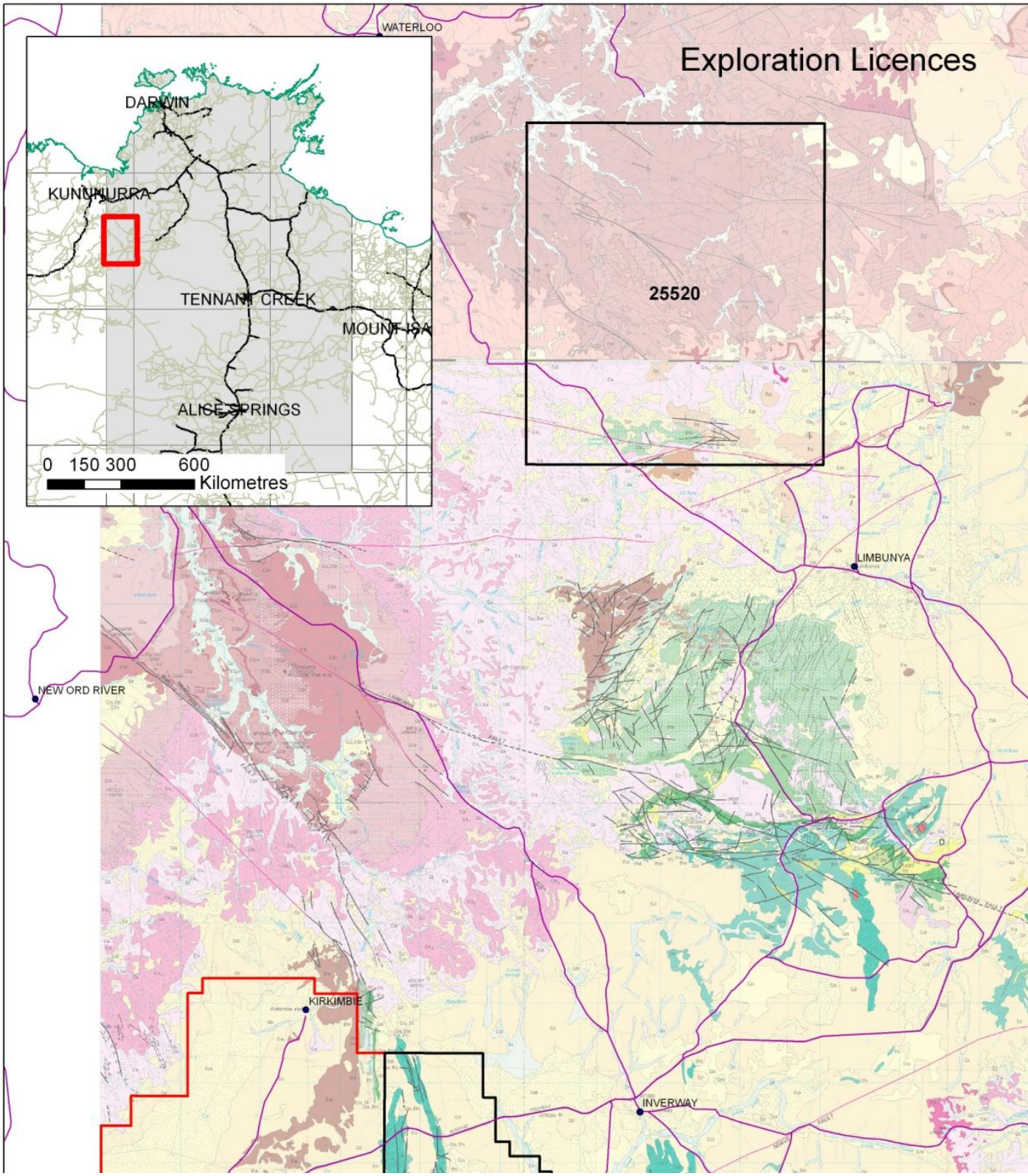

Figure 1. Location of EL 25520.

2. REGIONAL GEOLOGY

The Kirkimbie Project lies in the Palaeoproterozoic to Mesoproterozoic aged Limbunya Basin and the southern part of the Neoproterozoic aged Victoria Basin. Extensive areas are covered by Lower Cambrian "Antrim Plateau Volcanics" flood basalts of the Kalkarindji Continental Flood Basalt (Figure 3). Figure 3 was compiled by the database of the Northern Territory Geological Survey Diamond Mineral Database (the NTGS DIM).

EL 25520 comprises mainly the Neoproterozoic Victoria Basin sediments of the Jasper Gorge Siltstone and the Angalarri Siltstone in the north with Lower Cambrian Antrim Plateau Volcanics in the south. An inlier of Limbunya Group sediments is exposed in the far south of the tenement.

The geologically ancient shield areas in this region are prime targets for diamond exploration. A shield area, or craton, is a portion of the continental crust that has been geologically stable (i.e., not involved in mountain building, faulting, deformation, etc.) for billions of years.

3. PREVIOUS EXPLORATION

3.1. DIM Database Information

Work completed includes three main periods of diamond exploration:- in the early 1980's the early 1990's, and more recently, in the early 2000's. Exploration has followed the conventional sampling programs of regional stream-sediment sampling for indicator heavy mineral content, followed with aeromagnetic follow-up. The result of this work of samples collected, and microdiamonds found are shown in figure 5. This figure was compiled by Grant Boxer, a geophysicist commissioned by Daylight Jack Minerals to review the geophysical data. It is noted that large areas in the northern parts of the exploration licenses area have not been sampled due to the poor access.

A total of 210 samples were collected on EL 25520, all were gravel samples mostly 150 kg. Two samples, BD5836 and BD7462, contained one possible kimberlitic chromite each (Figure 5).

3.2. Open File Reports (Post DIM version DIP 006)

In the NT open file records, no significant diamond exploration has been recorded over these tenement areas within the last 10 years. Exploration companies, AusQuest and Gravity Diamonds have reported on the area but no sampling has been carried out. AusQuest was exploring mainly for base-metals, whereas Gravity Diamonds were exploring for diamonds but undertook no field work.

3.3. Geophysics

The Limbunya mapsheet was flown in 1995 by the NTGS at a line spacing of 500 m and the Birrindudu and Waterloo sheets were flown in 1997 and 2001 respectively at 400 m line spacing on north-south lines. Two company surveys, the Inverway and Napier surveys were flown by BHP in 1984. The area is covered by regional 10 km spaced gravity data. Shaded total magnetic intensity images (TMI) of the tenement area are shown in figure 4.

Stockdale Prospecting reviewed the NTGS aeromagnetic data and although they selected targets, none appear to have been followed-up in the field.

3.4. Review of the aeromagnetic data

The located magnetic data for the Birrindudu, Inverway, Limbunya, Napier, and Waterloo geophysical surveys were imported into a geophysical program, filtered using a first vertical derivative and stacked profiles were produced. These profiles were then imported into MapInfo and used to identify discrete magnetic targets that may represent kimberlite pipes. The selected

targets were then checked using Google Earth and obvious cultural features (e.g. bores) were removed from the target list.

A total of 44 magnetic targets were selected for ground checking, although some of the targets in the northern EL 25520 are probably caused by outliers of Antrim Plateau Volcanics (Figure 6). Figure 7 shows the first vertical derivative stacked profiles for the targets selected, including the AusQuest targets and BHP's drill hole locations.

This report describes recent exploration activity.

4. METHODS

4.1. Field methods

Due to the nature and difficulty of the terrain we utilised a helicopter to visit selected targets. We took rock chip samples and recorded location of sampling using a GPS. Descriptions of the rocks were noted and photos of outcrops were taken. Unlike previous exploration carried out on the tenement, this time a lot more targets were visited and sampled.

5. ANALYSIS OF SAMPLES

A total of eleven rock chip samples were collected from the field. The samples were sent to ALS Chemex for assay using ME-ICP61.

EL 25520	**ID**	**Description**
	LIM001	Fine grained sandstone, ripple marks, parallel bedding .5 - 2 cm thick,
	LIM002	laminae 1 - 2 mm, manganese on surface, biotite, dark blue coating of ?
	LIM003	Basalt
	LIM004	Basalt
	LIM005	Quartzite
	LIM006	Basalt
	LIM007	Fine grained sandstone
	LIM008	Sandstone
	LIM009	Basalt
	LIM010	Fine grained sandstone, bedded
	LIM011	Conglomerate: groundmass-70%, qtz grains <.5-1 mm, 30% clasts, clasts

6. INTERPRETATIONS AND RECOMMENDATIONS

The tenement has been relatively well covered by traditional heavy mineral stream sampling for kimberlitic indicator minerals and diamond. Microdiamonds were routinely recovered in the southern tenement group but no source could be determined. No kimberlitic indicator minerals were recovered that would indicate the presence of kimberlite or lamproite.

It is important to keep in mind that what we are dealing with is undercover mineralization. True bulls eye targets and diffuse magnetic anomalies could be either deeply buried targets or a result of surface weathering of iron/manganese rich rocks. They will need to be carefully considered in the field, based on careful field observation and sampling.

Extensive coverage of areas circled on the map below has failed to reveal any sites of potential mineralization.

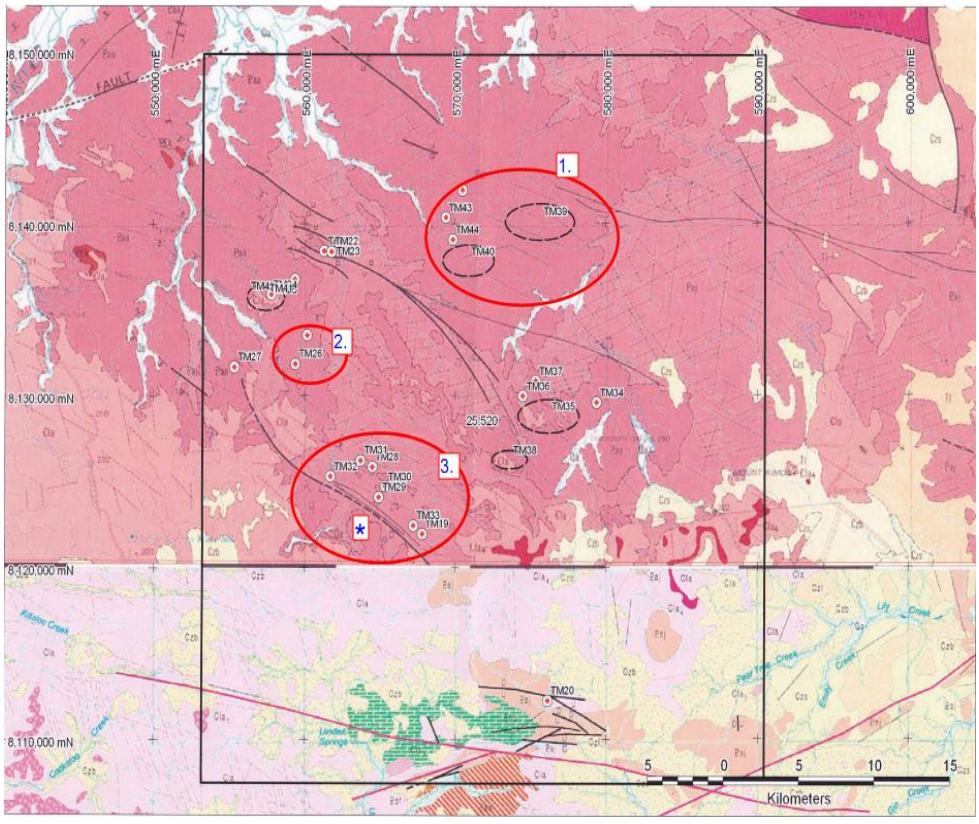

Figure 2 Circled in red are areas extensively explored in 2011.

REFERENCES

Blake D H. 1975. Birrindudu, Sheet SE52-11, 1:250,000 Geological Series, Bureau of Mineral Resources, Canberra.

Boxer, G 2008, Diamond exploration potential of the Kirkimbie Project – Exploration Licences 25084, 25085 & 25520, Northern Territory, Unpublished report.

Cutovinos A, Kruse P D, Abbott S T, Beler P R and Dunster J N. 2002. Limbunya 1:250,000 scale geological map, SE 52-07 (Second Edition). Northern Territory Geoogical Survey, Darwin.

Cutovinos A, Beler P R, Krise P D, Abbott S T, Dunster J N and Brescianini R F. 2002.Limunya, Northern Territory (Second Edition), 1:250,000 scale geological map series explanatory notes, SE 52-07. Northern Territory Geological Survey, Darwin.

Gole M and Ashley J. 2003. Combined Annual Report for ELs 22642-22644 and 22749-22751, For the period up to 31/12/2002. AusQuest Report, January 2003, NTGS IRMS Rpt No CR2003_0019.

Lee D C, Boyd S R, Griffin B J, Griffin W L and Radcliffe T. 1994. Coanjula Diamonds, Northern Territory, Australia. In: Diamonds: Characterisation, Genesis and Exploration, vol. 2, Proceedings of the 5th International Kimberlite Conference. CPRM-Special Publication 1/B Jan/94, Brasilia, pp. 51-68.

Northern Territory Geological Survey. 2005. Diamond Indicator Mineral Database (DIM) and Diamond Mineral Chemistry Database (DMC). Northern Territory Geological Survey, Digital Information Package DIP 006, April 2005.

Sweet I P and Burroughs P R. 1972. Waterloo, Sheet SE 52-03, 1:250,000 Geological Series, Bureau Mineral Resources, Canberra.

Appendices

EL25520 Sample I.D. and Location		
Sample I.D.	Northing	Easting
LIM001	-17 08 820	129 51 473
LIM002	-17 41 581	129 17 551
LIM003	-17 38 465	129 13 673
LIM004	-17 42 637	129 73 882
LIM005	-17 43 665	129 33 423
LIM006	-17 22 993	129 24 429
LIM007	-17 27 439	129 53 395
LIM008	-17 64 834	129 58 375
LIM009	-17 33 957	129 45 845
LIM010	-17 48 284	129 82 583
LIM011	-17 83 487	129 73 728

	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
SAMPLE	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K	La
DESCRIPTION	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	ppm
LIM001	<5	850	0.9	<2	0.23	<0.5	18	27	4	3.54	10	3.75	100
LIM002	<5	780	0.9	3	0.14	<0.5	5	14	7	2.9	10	2.9	20
LIM003	<5	470	<0.5	3	0.16	<0.5	11	13	16	2.76	<10	1.47	10
LIM004	<5	570	1	<2	0.27	<0.5	23	23	6	8.48	10	3.88	10
LIM005	<5	310	1.3	<2	6.91	<0.5	40	43	92	6.45	20	1.1	20
	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	S	Sb	Sc	Sr	Th
	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
LIM001	0.24	884	<1	0.49	9	13	350	10	0.02	<5	9	49	20
LIM002	0.23	1890	<1	0.08	8	5	290	14	0.01	<5	5	115	<20
LIM003	0.67	1900	<1	0.11	<5	14	240	5	<0.01	5	6	29	<20
LIM004	1.16	1100	<1	0.41	6	22	80	8	0.02	<5	9	37	<20
LIM005	2.63	1670	<1	1.78	<5	41	650	5	0.02	<5	36	177	<20
	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61							
	Ti	Tl	U	V	W	Zn							
	%	ppm	ppm	ppm	ppm	ppm							
LIM001	0.23	<10	<10	56	10	5							
LIM002	0.14	<10	<10	23	<10	10							
LIM003	0.07	<10	<10	28	<10	6							
LIM004	0.16	<10	<10	72	<10	21							
LIM005	0.73	<10	<10	307	<10	58							

	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LIM006	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	10
LIM007	0	0.99	0	100	1.3	2	0.14	0	3	23	16	2.22	0
LIM008	0	1.56	9	230	0.5	4	0.15	0	8	20	15	4.89	0
LIM009	0	7.34	0	510	1.2	5	3.56	0	34	39	20	7.45	10
LIM010	0	6.98	5	440	0.7	2	0.06	0	4	41	11	3.32	10
LIM011	0	5.21	6	460	1.2	2	3.29	0	31	34	7	7.38	0
	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
	K	La	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	S	Sb	Sc
	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm
LIM006	0.01	10	0.01	5	1	0.01	5	1	10	2	0.01	5	1
LIM007	0.39	0	0.1	578	1	0.03	0	7	90	2	0.03	0	4
LIM008	0.95	10	0.61	134	1	0.05	0	9	40	6	0.03	0	8
LIM009	2.17	30	2.57	1280	1	2.34	0	20	710	36	0.01	0	31
LIM010	3.76	30	0.05	55	0	0.47	5	4	410	15	0.03	0	7
LIM011	3.32	10	2.92	3010	1	0.04	0	28	540	3	<0.01	7	24
	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61					
	Sr	Th	Ti	Tl	U	V	W	Zn					
	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm					
LIM006	1	20	0.01	10	10	1	10	2					
LIM007	10	0	0.04	0	10	32	0	3					
LIM008	17	0	0.13	0	0	125	0	8					
LIM009	161	0	0.64	0	10	242	0	91					
LIM010	46	20	0.21	0	10	56	0	10					
LIM011	42	0	0.47	0	10	213	0	24					