



HADDINGTON RESOURCES LIMITED

ACN 093 391 774 ABN 39 093 391 774

MT. SHOBRIDGE PROJECT, NT

EL 24528

ANNUAL REPORT

FOR THE PERIOD

24th November 2005 TO 23rd November 2006

Tenement	:	EL24528	
Owner	:	Australian Tantalum Pty Ltd	
Operator	:	Haddington Resources Ltd	
Prepared by	:	N de Kever	
Date	:	January 2007	
Report Number	:	SHOO/EL24528-1/2006	
Project Number	:	SH001	
Distribution	:	Haddington Resources Ltd	(1)
		Department of Primary Industry, Fisheries and Mines (DPIFM)	(1)

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FILES ATTACHED ON CD

EL24528_2006_A_01_ReportBody.pdf
EL24528_2006_A_02_Radiometrics_U Eshadel_MGA52.TAB
EL24528_2006_A_03_Radiometrics_U_Eshadel_MGA52.tif
EL24528_2006_A_04_SurfaceLocation.txt
EL24528_2006_A_05_SurfaceGeochem.txt

1. SUMMARY

Exploration conducted on EL24528 during the reporting period included reprocessing of the Rum Jungle Geophysical Survey by Southern Geoscience Consultants, and field checking of a uranium radiometric target using a spectrometer and rock chip samples.

2. INTRODUCTION

This report covers exploration work carried out by Australian Tantalum Pty Ltd, a wholly owned subsidiary of Haddington Resources Limited (HDN) during the reporting period (24th November 2005 to 23rd November 2006).

The tenement is part of a project which also includes EL22186, EL23105, EL25181, ERL88, MCN60, MLN296, and MLN544 (Figure1).

3. LOCATION AND ACCESS

The Shoobridge Project is located approximately 160km south southeast of Darwin; approximately 19km west northwest of Hayes Creek. Access is via the Old Stuart Highway and Douglas Station tracks (in the wet season (November to April), access roads into EL23105 become impassable).

The Licence lies on the Pine Creek 1:250,000 (SD52), and Tipperary (5170-1) 1:100,000 scale topographical and geology sheets.

4. TENEMENT STATUS

EL24528 was granted to Australian Tantalum Ltd 24th November 2005 for a period of six (6) years.

Tenement	Holder	Grant Date	Expiry	Area Km ²	Rent\$	Commitment \$
EL24528	ATL	24.11.2005	23.11.2010	10.02	\$33	\$10,000

Table 1. EL24528 – Tenement Details.

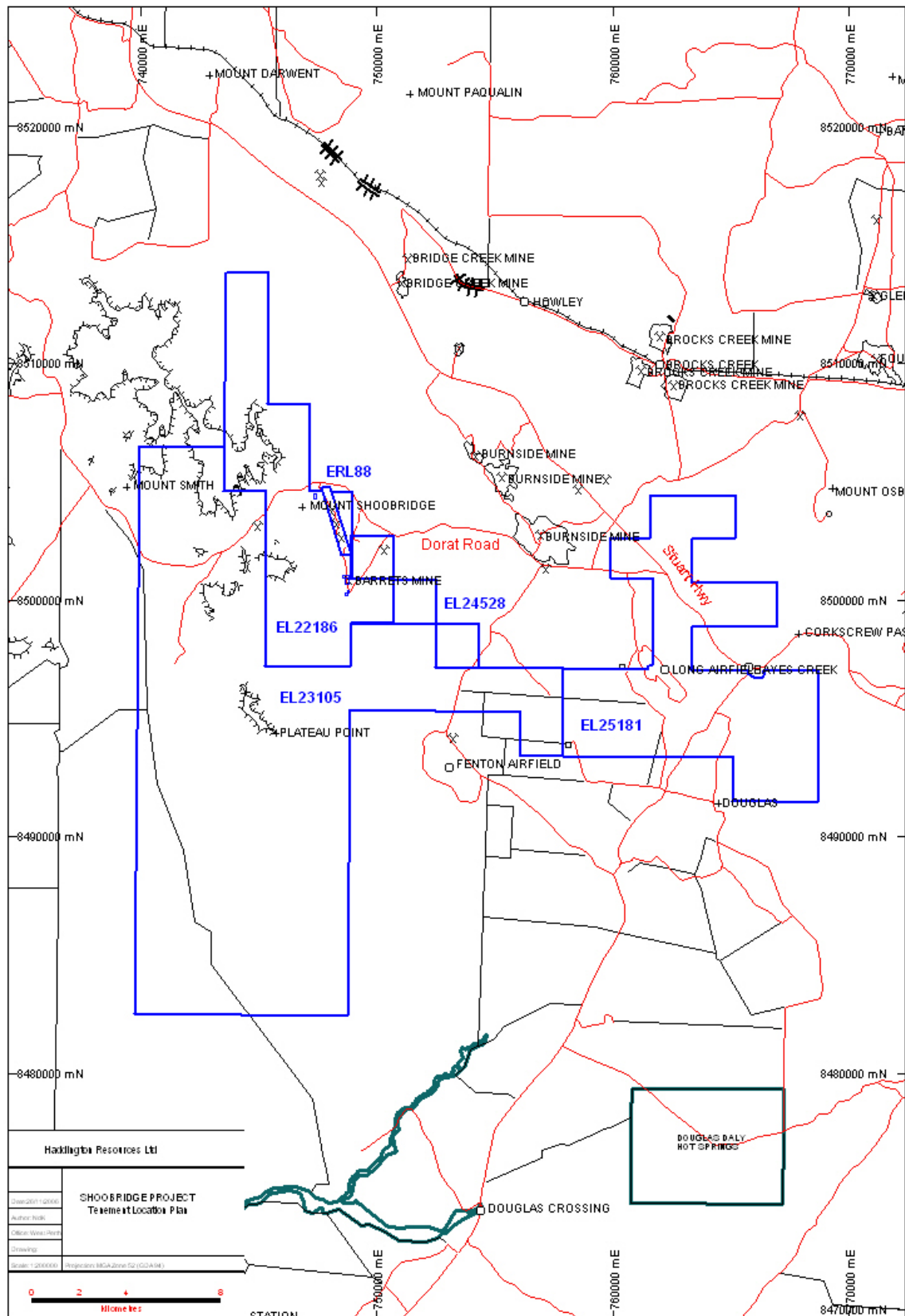


Figure 1. Shoobridge Project - Tenement Location Plan

5. LOCAL GEOLOGY

The project area consists primarily of the Lower Proterozoic Burrell Creek Formation (feldspathic metagreywackes, minor lenses of volcanolithic pebble conglomerate, laminated phyllite, slate and mudstone), and the underlying Mt Bonnie Formation of the South Alligator Group (interbedded carbonaceous slate, phyllite, mudstone and siltstone; feldspathic meta-greywacke and ferruginous phyllite (metasiltstone) with chert bands, lenses and nodules).

The Wildman Siltstone crops out within the western outcrop area of the Fenton Granite (EL23105), and in the core of the Howley Anticline (EL25181 and EL23105). Within the Fenton Granite, the formation is incorporated as rafts associated with the Plateau Point fault assemblage. A number of prospects (including Gold Ridge open pit), are located within these rafts, and are prospective for polymetallic vein style mineralisation.

The Middle Proterozoic Shoobridge Granite lies completely within EL22186, and intrudes the sediments of the Burrell Creek Formation. Numerous prospects proximal to the Shoobridge Granite display potential for polymetallic Cu, Pb, Zn and Ag vein mineralisation (these include the Full Hand, Jacksons, Pyromorphite and Phillip Greets prospects).

The Shoobridge Granite is also considered to be the parent granite to the pegmatites of the Shoobridge pegmatite field (Frater, 2005), which includes the Barretts, Plateau Point, Chinese, Halls, Halls Creek (unnamed?), and Old Company (Mount Shoobridge) Pegmatites.

Two parallel, north-south trending faults (the Plateau Point and Shoobridge Faults) cross cut the Project area. These regional faults may have provided the structural control for pegmatite intrusion (Barrett's, Hall's and Chinese all occur immediately west of the Shoobridge Fault, whilst the Carruthers pegmatite is located immediately west of the Plateau Point Fault).

According to Frater (2005), Barretts pegmatite is irregular in outline, intertonguing with, and containing blocks of country rock. Fifteen percent of the pegmatite body is considered to include xenoliths of country rock (high grade pockets of ore are commonly on the contact of country rock). The pegmatite dips to the northeast at an average of 30°, with most shafts, costeans and pits less than 7 m deep. The only recorded production from Barretts is 117 t of tin concentrate that was won prior to 1910.

The Chinese pegmatite is located approximately 1 km north of Barretts. Workings consist of collapsed pits and costeans. One 45m long, deep costean has exposed a 7m wide pegmatite, with sharp contacts that are conformable to bedding. Mineralisation appears to have been concentrated on the wall and border zone of the pegmatite, as shafts have been sunk on this zone. Average Ta values from 4 grab samples taken by Frater (2005), returned 116ppm Ta, and 2,355ppm Sn.

The Halls pegmatite lies on the same line of pegmatites as Chinese and Barretts, and is located approximately 200m north of the Chinese workings. Blanchard (1937) reported that Halls was a 2m wide greisen lode, worked for its high grade, however no details of production are available. Today, the prospect consists of four collapsed pits, 4-5m wide and approximately 4m deep, on a line trending 020o over a strike distance of 30m. Average results of two grab samples taken from the prospect by Frater (2005) returned 124ppm Ta and 203ppm Sn.

South of Plateau Point, the Plateau Point Fault assemblage consists of a north-northwest-trending bifurcating and en echelon series of major faults, each up to 8km in length, tributary to a principal fault which parallels the Mount Shooobridge fault. These faults displace early Proterozoic metasediments and Fenton Granite. The Wildman Siltstone is displaced against the Koolpin Formation, the fault zone being characterised by sheared phyllites, abundant quartz blows and numerous contorted pegmatites.

Within the Fenton Granite, the principal fault extends some 10 km south of Plateau Point and is recognised by a prominent narrow quartz or quartz-hematite-capped ridge.

The Plateau Point Pegmatites are confined to the older rocks of the Mount Partridge Group, and intrude the Wildman Siltstone, immediately southeast of Plateau Point. The pegmatites can be traced 3.3 km south-southwest from the scree slopes of Plateau Point, to the edge of the Fenton Granite, and occur within or close to the margin of the Plateau Point Fault.

The pegmatites consist of coarse grained K-spar, microcline, perthite, plagioclase, quartz and muscovite, with accessory garnet and tourmaline. Interlayered meta-sediment and pegmatite, pegmatite widths are between 1m and 10m and overall the mixed unit attains widths of up to 230m.

In the northern section of EL23105, the K-Mesa prospect consists of a flat-lying a Cretaceous mesa, approximately 2km in length and 1km in width, displaying stratabound, supergene iron enrichment. Rock chip samples have assayed up to 57.6% Fe; average P content was ~0.5%.

A resource is estimated by Perrino (1967) based on 10 measured sections around the mesa and 26 assays. It assumes the massive limonite bed is continuous throughout the mesa, however this needs to be tested by drilling.

The McLeans Prospect (abandoned mine) is located on a north-easterly trending ridge which continues northeast from the centre of K-Mesa. Mn-rich talus boulders around the Cretaceous mesa were hand-picked and sent to Rum Jungle for use as an oxidiser to process the uranium ore mined during the 1950's and 1960's.

6. PREVIOUS EXPLORATION

Tin was first discovered at Shoobridge by *George Barrett* in 1882. Since that time mining has primarily been confined to shallow alluvial and small lode underground mining at the Old Company Mine.

United Uranium Pty Ltd carried out an exploration program in search of tin, lead and copper over the property in the 1960's.

From 1983 to 1986, *Talmina Trading* carried out stream and soil sampling. Cassiterite, tantalite and tapiolite were identified, including the identification of tantalite in streams south of recognised pegmatite loads.

Barretts has been explored by various parties, and Blanchard (1937) estimated that it contained a total of 237,000 tonnes of mineralised pegmatite to a depth of 30m. Total recorded production from Barretts (1968) consisted of 117 tonnes of tin concentrate.

In 2001 Julia Corporation drilled 40 RC holes on 14 traverses at Barretts. The best intercept was 11m @ 270g/t Ta₂O₅ from 20m in BARC04. Julia announced a preliminary resource of approximately 280,000 tonnes to a depth of 60m at a grade of 125g/t Ta₂O₅ and 380g/t SnO₂.

7. CURRENT EXPLORATION – HADDINGTON RESOURCES LTD

The Rum Jungle Radiometric Survey, available from the Department of Primary Industry, Fisheries and Mines (DPIFM) website was downloaded and reprocessed by Bill Peters of Southern Geoscience Consultants in Perth (.tif and .tab files attached on CD).

Geophysical profiles of the raw data were obtained, and these were used to identify the exact location of numerous uranium radiometric targets. In total, 73 point uranium radiometric targets were identified within the Shoobridge Project area; one of these (Target 61) was located within EL24528, and was tested using a spectrometer and rock chip sampling.

In September 2006, 10 days were spent at the Mt Shoobridge Project. A portable gamma ray spectrometer (GR-256) was rented from Fugro Instrument in Sydney. Total Count, U, Th, and K readings were taken on targets identified from the reprocessed geophysics. Specifications are outlined in Appendix 1.

Rock chips were sent to Kalgoorlie Assay Laboratories in Kalgoorlie and assayed for As, Au, Co, Cr, Cu, Mn, Ni, P, S, V, Zn Al₂O₃, Fe₂O₃, MgO, Na₂O, SiO₂, and TiO₂. The table attached as Appendix 2 outlines elemental analysis technique and detection limits.

Results from Target 61 were disappointing. Ground reconnaissance revealed that the radiometric anomaly was due to a silicified, cherty sedimentary unit (with minor quartz veinlets and secondary botryoidal iron) exposed on the side of a south-facing slope.

Two rock chip samples were taken from the small outcrop, and the Total Count, K, U, and Th levels were also taken using the spectrometer. Spectrometer readings and rock chip results (Table 2) were not comparable; U levels from rock chip analysis were of a much lower tenor.

Additional spectrometer readings were also taken in order to obtain the maximum U reading. Best result was 58ppm U (Figure 3) from GR256-96 and GR256-107. The GR256-96 reading was taken from outcropping sediments.

Sample ID	Sample TYPE	Total Count GSR- 256	K (ppm) GSR- 256	U (ppm) GSR- 256	Th (ppm) GSR- 256	U (ppm)
59060009	Spec Reading/Rock Chip	556	49	39	3	1.16
59060010	Spec Reading/Rock Chip	541	45	27	7	1.26
GR256-93	Spec Reading	837	90	50	11	
GR256-94	Spec Reading	899	74	55	4	
GR256-95	Spec Reading	841	86	38	5	
GR256-96	Spec Reading	899	97	58	8	
GR256-97	Spec Reading	777	75	47	2	
GR256-98	Spec Reading	876	83	44	7	
GR256-99	Spec Reading	933	82	48	8	
GR256-100	Spec Reading	907	78	49	5	
GR256-101	Spec Reading	836	85	38	4	
GR256-102	Spec Reading	906	79	51	8	
GR256-103	Spec Reading	914	75	46	2	
GR256-104	Spec Reading	825	84	55	6	
GR256-105	Spec Reading	853	92	48	10	
GR256-106	Spec Reading	790	85	46	5	
GR256-107	Spec Reading	995	82	58	1	
GR256-108	Spec Reading	870	80	54	3	
GR256-109	Spec Reading	892	76	45	5	

Table 2. EL24528 Spectrometer Readings and Rock Chip Results

8. CONCLUSIONS / RECOMMENDATIONS

One uranium radiometric target was generated by the reprocessing of the Rum Jungle Geophysics, and was tested by gamma ray spectrometer and rock chip sampling.

Results were disappointing, with U levels obtained from rock chip analysis revealing very low levels of U (up to 1.26ppm) when compared with those given by the spectrometer (27ppm U for the same sample). This discrepancy may be a function of the calibration of the spectrometer.

Future exploration will involve ground reconnaissance for Sn-Ta bearing pegmatites, and a first pass surface sampling program for polymetallic vein-style mineralisation (Ag, Cu, Pb and Zn) over the Phillip Greets and Pyromorphite prospects. .

9. PROPOSED WORK

The budget for next year is based on an extensive rock chip, soil and mapping program over prospects such as Phillip Greets and Pyromorphite.

2007 BUDGET

Field Staff	\$2,000
Geological Contractors	\$3,000
Exploration Supplies	\$100
Assays	\$2,000
Tenement Administration	\$500
Fuel	\$500
Maps and Plans	\$50
Travel	\$1,500
Accommodation	\$1,000
Survey and Drafting	\$50
Vehicle, Equipment, etc	\$1,000
Geophysical Equipment Hire	\$1,000
TOTAL	\$12,700

10. REFERENCES

Blanchard, R., 1937, Report on Mount Shoobridge tin. Anglo-Queensland Mining. Northern Territory. Northern Territory *Geological Survey, Open File Company Report* CR1937-0003.

Frater, K.M., 2005, Tin-tantalum pegmatite mineralisation in the Northern Territory. *Northern Territory Geological Survey*, Report 16.

Perrino, F.A., 1967, Preliminary Report – Iron Investigations, Shoobridge N.T., *United Uranium N.L.*

Young, J.A., 2005, Annual report for 2005. EL23105, Mt Shoobridge NT, *Haddington Resources Ltd.*

APPENDIX 1

GR-256 Gamma Ray Spectrometer Specifications

**Portable Gamma Ray
Spectrometer
Model No: GR-256
with Model GPS-21 Detector**

**Energy Windows - Regions of Interest (ROI)
Set as follows:**

ROI # 1	Total Count	Lower Channel	
		Upper Channel	70
		Upper Channel	255
	K	Lower Channel	110
		Upper Channel	124
	U	Lower Channel	131
		Upper Channel	149
	Th	Lower Channel	193
		Upper Channel	219

Calibration Constants:

C1	1070
C2	39
C3	21
C4	13
C5	491
C6	431
C7	-390
C8	-21
C9	56
C10	4759
C11	-3256
C12	-185
C13	-375
C14	12499

**Period of measurement: 20
seconds**

APPENDIX 2. LABORATORY AND ANALYSIS DETAILS

Tenement	No. of Samples	Sample Type	Element (Analysis Technique)	Det Lmt	Unit	Lab	Location
EL24528	2 (59060009-010)	Rock Chips	Au (AQREGMED)	0.01	ppm	KalAssay	Kalgoorlie
			As (ICPMS)	1	ppm		
			Co (ICPMS)	1	ppm		
			Cr (ICPMS)	1	ppm		
			Cu (ICPMS)	1	ppm		
			Mn (ICPMS)	1	ppm		
			Ni (ICPMS)	1	ppm		
			P (ICPMS)	1	ppm		
			S (ICPMS)	1	ppm		
			U (ICPMS)	0.01	ppm		
			V (ICPMS)	0.01	ppm		
			Zn (ICPMS)	1	ppm		
			Al ₂ O ₃ (XRF)	0	%		
			Fe ₂ O ₃ (XRF)	0	%		
			MgO (XRF)	0	%		
			Na ₂ O (XRF)	0	%		
			SiO ₂ (XRF)	0	%		
			TiO ₂ (XRF)	0.01	%		

APPENDIX 3

EXPENDITURE STATEMENT 2006

Field Staff	\$ 7457.76
Tenement Administration	\$ 283.34
Travel & Accommodation	\$ 2892.29
TOTAL	\$ 10633.39

