

CLOSED REPORT: CONFIDENTIAL

EL24693 Field River Annual Report for period 12-Dec-2006 to 11-Dec-2007

Date:	7 th Jan 2008					
Author:	C. W. Magee, W. R. Taylor and B. Townrow					
Keywords:	Northern Territory, Base Metals, Uranium, BMR Core, VTEM, XRF,					
	Conductivity					
Map Sheets:	Hay River (SF53-16)					
Copy To:	opy To: 1. Mines and Energy, Darwin, Northern Territory					
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Digital Data Files:

Data Description	Digital Data File Name
Niton portable XRF	EL24693_2007_A_02_DrillCollars.txt
spectrometer results	EL24693_2007_A_03_DownholeGeochem.txt

SUMMARY

This report details exploration work carried out by Uramet Minerals Ltd within its Field River tenement (EL24693) in the Northern Territory for the 2007 field season. The tenement was transferred from Elkedra Diamonds NL during the 2007 season.

Archived BMR core from holes Hay River 10, Hay River 11, Hay River 11A, and Hay River 11B were examined at Geoscience Australia, Canberra. Core samples were analyzed with a Niton portable XRF spectrometer and selected conductivity measurements were undertaken. A helicopter-based electromagnetic (EM) survey took place in October 2007 with final data products to be supplied in early 2008.

1 TENEMENT STATUS

The tenure details for EL24693 Field River are listed in Table 1.

Table 1. Tenement Summary				
Tenement No	Tenement Name	Date Granted	No of Blocks	
EL24693	Field River	12/12/2005	488	

Table 1: Tenement Summary

2 LOCATION AND ACCESS

The EL is located approximately 400 km east-northeast of Alice Springs in the Northern Territory. The EL falls within the Hay River 1:250,000 sheet (SF53-16).

Physiography of the area consists of low hills and ridges interspersed with alluvial plains and sand plains. Two river systems: Marqua Creek – Grave Hole Creek – Field River and Large Creek transect the tenement. Dunes systems of the Simpson Desert encroach from the south. The vegetation ranges from sparse savanna woodland and annual grasslands to perennial spinifex dominated grassland. The vegetation is consistent with a continental desert regime.

Access is via the Plenty Highway and Marqua Station road. The tenement is accessible by a number of station tracks.

3 GEOLOGICAL SETTING

3.1 Regional Geology

The project area is part of the southern Georgina Basin, comprising Neoproterozoic to Cambro-Ordovician platform cover of sedimentary rocks (dominantly sandstone, shale, limestone, dolostone) overlying the Precambrian basement of the North Australian Craton. This Precambrian basement is exposed along major fault systems on the southern margin of the basin.

The Northern Territory Geological Survey (NTGS) has recognized the mineral potential of the southern Georgina Basin and recently prepared a comprehensive review of both government and private exploration undertaken, and has now developed from various authoritative sources applicable ore genesis models (Dunster et al., 2007).

Since the 1960's, the basin has been considered prospective mainly for Mississippi Valley Type (MVT) lead-zinc mineralization. More recently, however, the potential for other commodities in a variety of geological settings has been envisaged, and the basin is now regarded as having potential for the following styles of mineralization:

- Mississippi Valley Type Pb-Zn (MVT);
- Carbonate-Hosted Pb-Zn (Irish Type);
- Stratiform Shale-Hosted Base Metals;
- Sediment Hosted Copper;
- Sandstone Hosted Lead, and
- IOCG (Iron Oxide, Cu-Au, e.g. Olympic Dam).

The area is also envisaged as having potential for phosphate hosted in Cambrian phosphorite, calcrete associated uranium, and to a much lesser extent, sediment hosted gold, as well as quartz vein hosted gold.



Figure 1. Location plan for EL24693.

3.2 Tenement Geology

The Field River project area is located in the structurally complex southeastern portion of the Georgina Basin which is comprised of basement granitoids, Neoproterozoic tillites and arkosic sedimentary rocks together with some Cambrian and Cambro-Ordovician limestone, dolostone, and clastic sedimentary rock units (Figs 2, 3). These units have been disrupted by multiple folding and faulting events. Faulting in the project area generally trends northwest and individual faults have been locally offset by later northeast trending faults.

The regionally significant Toomba Fault Zone lies within the northeastern corner of the EL and segregates a structurally complex zone dominated by arkosic sediments to the south from limestone, dolostone and sandstone of the Toko Syncline to the north (Fig. 2). The Toomba Fault Zone is a reverse fault which dips ~45° towards the southwest and lies in close proximity to a number of parallel folds. The Toomba Fault Zone is associated with numerous low angle splays which bisect both the footwall carbonates and hanging wall arkoses.

The Yardida Tillite (Figs 2, 3), which comprises diamictite, siltstone, sandstone, and arkose is exposed within the Field River Anticline. The Field River Anticline extends to the south subparallel with the Toomba Fault Zone. South of the Field River Anticline, within the curvilinear Desert Syncline, there is a repetition of the Cambrian stratigraphy found further north at Boat Hill. Sandstones of the latest Neoproterozoic Grant Bluff Formation and the early Cambrian Red Heart Dolostone are present within the core of the Desert Syncline. Desert Syncline is bound to the north and south by two significant curvilinear fault zones: the Adam Fault Zone in the north and the Gnallen-a-gea Fault Zone in the south (Fig. 3). Basement granitoids of the Mt Dobbie complex are exposed in the southwest part of the EL.

Younger rock units that typically form hill capping plateaus and mesas include the Tertiary Austral Downs limestone, a partly silicified lacustrine limestone underlain by a lateritic palaesol, and Cretaceous clastic sedimentary rocks.



Figure 2. Simplified regional geological map for EL24693 and adjacent tenements.

4 EXPLORATION COMPLETED DURING REPORTING PERIOD

Exploration activities undertaken during the reporting period included:

- 1) Examination and XRF analysis of archived core
 - 2) Aerial EM survey

4.1 Examination and XRF analysis of archived core

Archived drill core for BMR holes Hay River 10 and Hay River 11, 11A, and 11B (housed at Geoscience Australia, Canberra) were analysed using a Niton XRF spectrometer. The measurements can be considered as spot assays taken from selected areas of core about 1 cm³ in volume. A total of 94 measurements were completed on the four drill cores in July and August of 2007.

All recorded measurements are supplied as digital data accompanying this report. The Limits of Detection (LOD) have been obtained from literature supplied with the XRF Spectrometer by Niton Mining Technologies and are based on a 60 second test time. Not all elements have had the LOD documented. The Niton XRF LOD's are dependent on the following factors: testing time, rock matrix composition, chosen level of statistical confidence and excitation source. To obtain a measure of the statistical accuracy of the XRF spectrometer, an error measurement is calculated for each element for each analysis and this information is included in the digital data. Drill hole locations are shown in Figure 3.

The composite stratigraphic column for hole 11 from Dunster et al. (2007) is shown in Figure 4, along with the geochemical results from the XRF analyses for U, Pb, Zn, Cu, and S. The composite section was prepared on the assumption that the Hay River 11A section directly underlies the lowest stratigraphic unit observed in Hay River 11 which is 73 m deep (Shergold and Walter, 1979; page 16). Note that there is an assumed fault offset between holes Hay River 11 and 11A. The analyses allow geochemical anomalies to be correlated with specific stratigraphic elements, as is shown in Figure 5. Anomalous values of particular interest are given in Table 2.

Hole	Depth	Lithology	Unit	A	nomaly	U ppm	Zn ppm	Cu ppm	Mo ppm
10	76.3	Black Shale	Yackah Beds	Zn	0.52%	BLD	5,260	BLD	BLD
11A	30.6	Black Shale	Arthur Creek	Cu	234 ppm	42	BLD	234	38
11A	45.0	Black Shale	Thorntonia Lst	Zn	0.63 %	BLD	6,262	BLD	59
11A	45.4	Black Shale	Thorntonia Lst	Zn	0.58 %	BLD	5,823	BLD	64
11A	45.4	Phosphorite	Thorntonia Lst	U	313 ppm	313	1,650	BLD	BLD
11A	51.3	Phosphorite	Red Heart Dolostone	Zn U	0.52%; 115 ppm	115	5,184	BLD	BLD
11	65.3	Black Shale	Thorntonia Lst	Мо	149 ppm	BLD	1,472	114	149
11	66.6	Black Shale	Thorntonia Lst	Мо	108 ppm	BLD	95	120	108

 Table 2 – Anomalous XRF Results – Desert Syncline BMR Core

Notes (1) the Zn value for Hole 10 is the average of 2 samples

(2) BLD = below the limit of detection

(3) the accuracy of the anomalous results is within the following ranges (relative percent).

U 15 to 30%

Zn 4 to 8%

Cu 33 to 35%

Mo 9 to 12 %



Figure 3. Geological map of the EL area (Hay River - Mt Whelan Special Sheet) showing site locations of archived drill core and VTEM survey. Put = Yardida Tillite, Pun = Gnallen-A-Gea Arkose, Pus = Black Stump Arkose, Pua = Grant Bluff Sandstone, Puy = Yackah Beds, Cld = Red Heart Dolostone, JK = Cretaceous beds, Ta = Austral Downs Limestone. Hay River BMR drill hole locations shown; Hay River 11A and 11B are 50m from Hay River 11. EM response for channel 18 (0.48 ms) is shown in surveyed areas.



Figure 4. Composite stratigraphic column and XRF results (units of parts per million) for BMR core Hay River 11, 11A, and 11B. Several horizons of U, Pb, Zn, and S enrichment were found.



Figure 5. BMR Hay River 11A core. The white band at marker 45.4m (metre 118.4 of the composite section) is phosphorite containing 313 ppm uranium. The dark band immediately above (to the left) contains 0.52% zinc.

4.2 Conductivity Measurements on Hay River 10 and 11 core samples.

A Fugro GCM-2 conductivity meter with core measurement accessories and resistivity (galvanic) sensor (Fig. 6) was used to measure the conductivity of core samples from holes Hay River 10 and 11. The purpose of this exercise was to determine whether any of the pyritic black shale units show measurable conductivity and so be identifiable on the aerial EM survey discussed below. Results of measurements including check samples are given below.



Figure 6. Core conductivity measurement with the GCM-2 sensor

4.2.1 BQ core (36.5mm) Sensor

Graphite Rod Check Plate	61,500 S/m 28,500 S/m	(preferred value 35,000)
Re-measure after 2 hours Graphite Rod	61,500 S/m	

4.2.2 HQ Core (63.5 mm) Sensor

Check Plate	33,000 S/m	(preferred value 30,000)	
Limestone Hay River 11A @ 52.0m	0 S/m (wet and dry)		
Black Dolomitic Shale Hay River 11A @ 62.0m	0 S/m (dry)		
Black Dolomitic Shale (more organic Hay River 11A @ 65.2m	c rich) 0 S/m (dry)		
Weathered Shale Hay River 11A @ 31.7m	0 S/m (dry)		
Massive Pyrite Check Specimen	150 S/m		
Check Plate Re-measure	32,000 S/m	(preferred value 35,000)	
Bottle 10% HCl	108 S/m		
Core with Zinc Sulphide Band Hay River 10 @ 73.6m	0 S/m		
Pyritiferous Shale Hay River 11B @ 64.0m	0 S/m		
Check Plate Re-measure	32,000 S/m	(preferred value 35,000)	
Check Plate Re-measure	34,000 S/m	(preferred value 35,000)	
Massive Pyrite Check Specimen	130 S/m		

4.2.3 Electrical Resistance Measurements (Galvanic Sensor or Ohm Meter)

Needle probes 1-2 cm apart unless otherwise stated. Resistivity values would be about 100 times smaller in units of Ω .m

Graphite Rod	~14 Ω
Air	Ω 3
Sulphide Bands Hay River 10 @ 73.6m	~100,000 Ω

Massive Pyrite Specimen 2-5cm apart ~200 - 800 Ω

In conclusion, at the hand specimen scale none of the pyrite-bearing, dolomitic black shales from holes Hay River 10 and 11 showed any significant conductivity using the core sensor coils or any of the other conductivity sensors. No difference was found between wet and dry samples. On a scale of 1-2 centimeters pyrite bands in some of the core showed an electrical resistance of ~100,000 Ω .

4.3 Helicopter-borne Electromagnetic Survey

A helicopter-borne EM (VTEM = versatile time domain electromagnetic) survey amounting to 589 line-kilometres was flown by Geotech Airborne Ltd (www.geotechairborne.com.au) in October 2007. Coverage included the Desert Syncline and Neoproterozoic Yackah beds under cover to the south. This data is currently being processed and final data products have yet to be supplied. However, preliminary data for channel 18 (0.48 ms) is shown in Figure 3, where it is overlain on the Mt Whelan - Hay River 1:250,000 geological map. This data suggests apparent stratigraphic controls on conductivity. Processing and analysis of the data to identify specific conductivity targets will be undertaken in early 2008.

5 SUMMARY

Detailed observation and XRF analyses of archived drill core was undertaken to determine the stratigraphic control on mineralization. Preliminary VTEM results suggest that stratigraphy is an important control on conductivity but this contrasts with very low conductivity measurements obtained on a variety of core samples from holes Hay River 11 and 10. The VTEM data has yet to be fully processed.

6 **REFERENCES**

Dunster JN, Kruse PD, Duffett ML & Ambrose GJ (2007) Geology and resource potential of the southern Georgina Basin. DIP 007, Northern Territory Geological Survey.

Shergold JH & Walter JR (1979) Stratigraphic drilling in the Georgina Basin, 1977 and 1978. BMR Record 1979/36.