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Miners Rights Number: 556400

EL24249 "Gaylad Creek"
Annual Technical Report
to the
Northern Territory Department of Primary Industry, Fisheries and Mines
for the period
7th December 2007 to 8th December 2008

by

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MAP REFERENCE

Alice Springs 250K SF5314
Illogwa Creek 250K SF5315
Hale River 250K SC5303

Table of Contents

Summary

The Gaylad Creek Project consists of one granted exploration licence (EL24249) covering 388km^2 located 140 kilometres east-southeast of Alice Springs. This project is considered a grass roots exploration project and is 100% owned by Atom Energy Ltd. In April 2007 Atom Energy acquired the tenement by purchase from Imperial Granite and Minerals Pty Ltd and Mr. Robert Bruce Cleaver.

The project is covered by the Alice Springs SF5314, Illogwa Creek SF5315 and Hale River SC5303 1:250,000 map sheets.
The project lies on the Loves Creek and Ringwood pastoral leases; perpetual pastoral leases 995 and 320 respectively.

Atom Energy has identified two sharply defined, reversely magnetised anomalies which warrant immediate evaluation. Atom Energy intends to assess the potential for uranium and base metal mineralisation at these prospects.

Introduction

The Gaylad Creek Project consists of one granted exploration licence (EL24249) covering 388km2. The project is located 140 kilometres east-southeast of Alice Springs. It is a grass roots exploration property with potential to host uranium, nickel sulphide and copper-lead-zinc mineralisation.

1.0 Project Description.

The Gaylad Creek Project, comprising EL 24249, covers part of the Casey Inlier, which is located within the Amadeus Basin near its eastern boundary. The Casey Inlier is interpreted to be part of the Aileron Province of the Arunta Orogenic Domain.

Atom Energy Ltd considers this environment to be prospective for the discovery of uranium mineralisation.

Two small, sharply defined, negative magnetic anomalies have been located within EL 24249 (the Daffyd and Myfanwy prospects). The anomalies are considered to represent a vertical, strongly magnetic source.

Atom Energy Ltd will give priority to determining the source of the magnetic anomalies, and will also assess the potential for uranium mineralisation.

2.0 Location and Access.

The project area is located approximately 140 kilometres east southeast of Alice Springs.

Access to the project from Alice Springs is via station roads and tracks.

The project area is covered by the Hale River, Illogwa Creek and Alice Springs 1:250,000 geological map series.
(See Figure 1.)

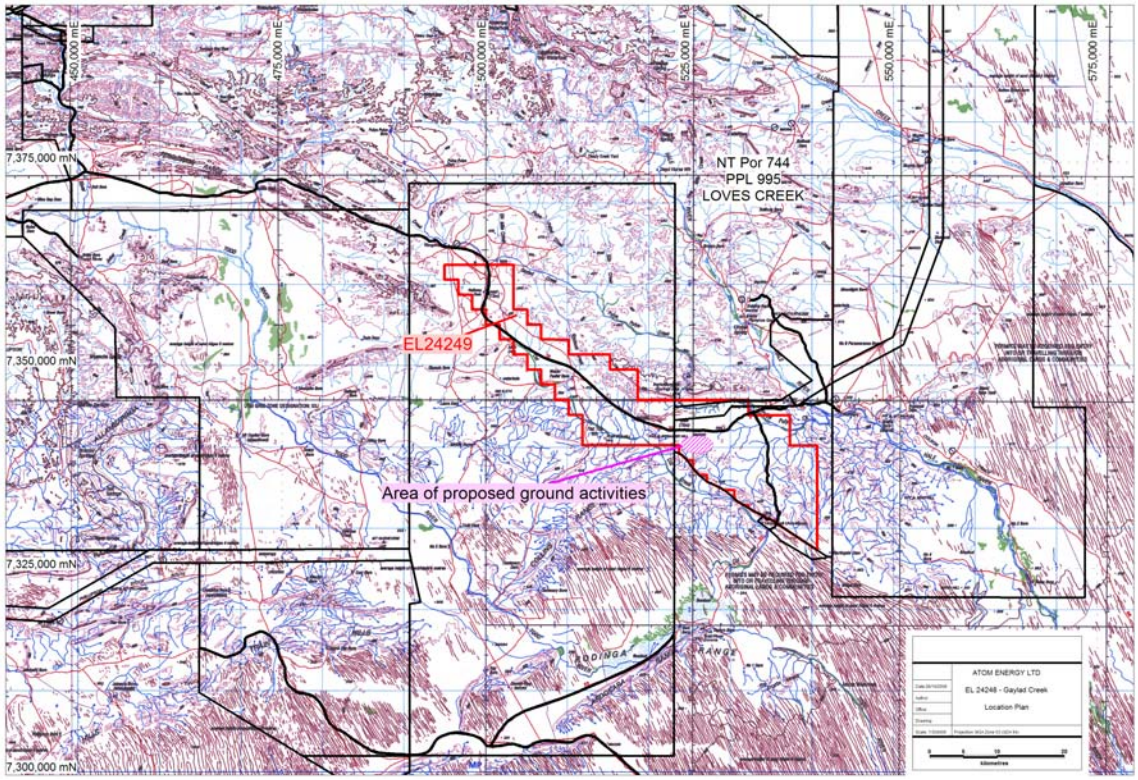

Figure 1. EL24249 - Gaylad Creek location and access

3.0 Tenement Status.

EL 24249 was granted on 9th December 2004 for a period of 6 years to Imperial Granite and Minerals and Mr. Robert Bruce Cleaver. In April 2007 Atom Energy acquired the tenements by purchase from the original holders.

4.0 Regional Geology

In a regional context the project area is influenced by crystalline basement rocks of the Arunta Block and sedimentary rocks of the Amadeus Basin.

The Arunta Block is divided into three lithological associations, termed divisions, on the basis of broad lithological correlations. Division 1 is presumed to be the oldest and Division 3 the youngest, but there is only localised evidence for the order of superposition.

Division 1 rocks consist mainly of interlayered basic and acid granulites, and less commonly of metamorphosed calcareous and pelitic rocks. Metamorphosed basic and intermediate rocks are inferred to be lower in the sequence, and quartzo-feldspathic gneisses and calcareous rocks are more dominant in the upper part. Divisions 1 and 2 are everywhere in discordant contact, due either to a fault or regional unconformity.

Division 2 comprises metapelitic rocks, and also includes a sequence of quartzo-feldspathic well-layered gneisses. The quartzo-feldspathic gneisses have been metamorphosed to amphibolite grade, rather than the granulite grade of the Division 1 rocks.

Division 3 rocks comprise quartzite and metapelite, with some igneous rocks. The metamorphic grade is lower amphibolite facies.

Granites, granitic gneisses and basic igneous rocks intrude the rocks of Divisions 1 to 3.

The Amadeus Basin is an intracratonic structural sedimentary basin. Sedimentation commenced in the late Proterozoic and continued until the late Palaeozoic. The maximum preserved thickness of sediments is estimated to be approximately 9 kilometres.

The sedimentary sequence comprises sandstone, shale and carbonate deposited in a predominately shallow-marine environment. Subordinate depositional environments include fluvial, glacial, barred basin, supratidal, shallow restricted carbonate shelves and open shallow to deep marine.

The oldest preserved sediments in the basin are Late Proterozoic. The basal sandstone is the Heavitree Quartzite, which unconformably overlies rocks of the Arunta Block. The Heavitree Quartzite is conformably overlain by the Bitter Springs Formation, comprised mainly of shale, siltstone, carbonate rock and minor volcanics. The Areyonga Formation, which includes tillites, disconformably overlies the Bitter Springs Formation, and is conformably overlain by the Aralka Formation, a thick sequence of shale and shallow-marine carbonate.

The Olympic Formation, comprising sandstone, dolomite, shale and upper Proterozoic tillite, disconformably overlies the Aralka Formation. The Olympic Formation is conformably overlain by siltstone, shale and sandstone of the Pertatataka Formation, which in turn is conformably overlain by carbonate rocks of the Julie Formation.

The Julie Formation is overlain by the Pertaoorrda Group, which ranges in age from the late Proterozoic to late Cambrian and is comprised of carbonate rocks, shale, sandstone, siltstone and evaporites.

The Late Cambrian to early Ordovician sandstone of the Larapinta Group overlies the Pertaoorrda Group which in turn is overlain by the Devonian Mereenie Sandstone.

The youngest sediments of the Amadeus Basin are the Late Devonian conglomerate and pebbly sandstone of the Pertnjara Group.

4.1 Local Geology

The south eastern half of the project area is mostly underlain by rocks of the Casey Inlier, which is part of the Arunta Block crystalline basement complex. The Casey Inlier is composed of metamorphic gneiss, schistose gneiss, migmatite, schist and quartzite. Recent (2004) preliminary mapping in the eastern section of the inlier have shown it to be composed of metapelite and psammite, with small discontinuous quartzite-magnetite horizons, graphitic schist, calcsilicate, marble, massive to layered mafic amphibolite, metapyroxenite, biotite granite and quartzo-feldspathic migmatite.

Mafic units contain anomalous Ni (1300 to 1600 ppm) and Cr (1150 to 1900 ppm).

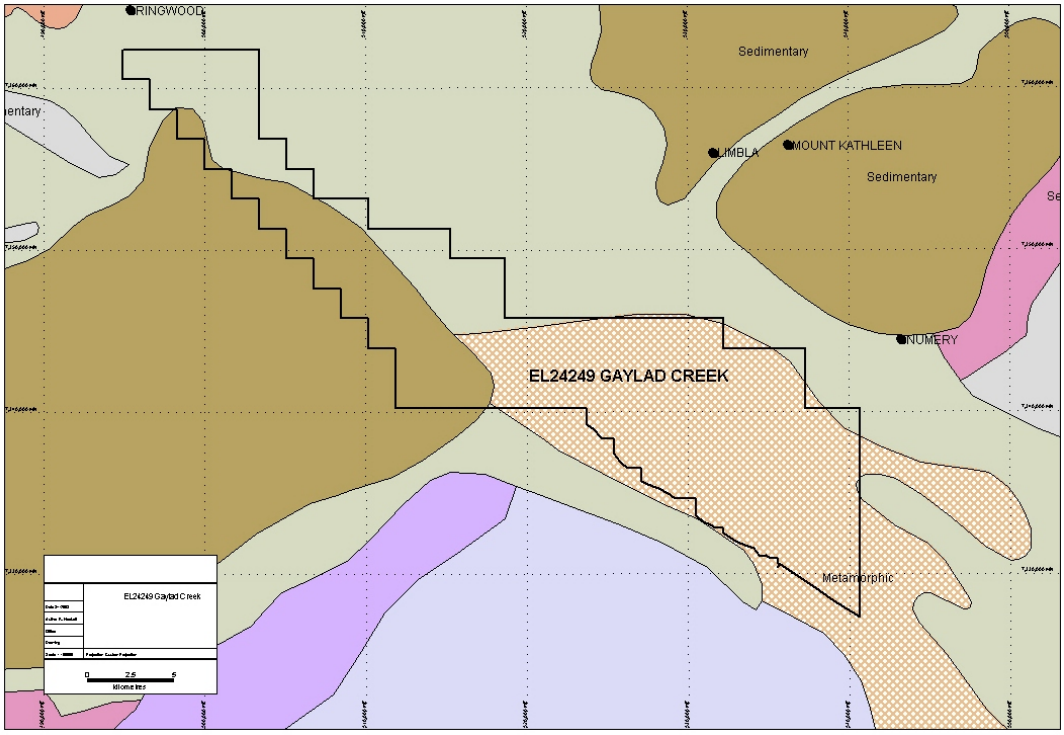

Figure 1: Gaylad Creek Tenement and Geology

The surface expression of rocks of the Casey Inlier is largely obscured by Quaternary alluvium, aeolian sand, conglomerate and gravel.

The north western half of the project area is underlain by Proterozoic sediments of the Amadeus Basin. The oldest rocks of the Amadeus Basin represented within the project area are those of the Heavitree Quartzite, a sequence of sandstone, conglomerate and quartzite unconformably overlying the crystalline basement rocks of the Casey Inlier.

Conformably overlying the Heavitree Quartzite is the Bitter Springs Formation, represented by the 3 upper subunits of the Gillen Member and overlain by the Loves Creek Member. Collectively, the 3 subunits of the Gillen Member are composed of limestone, dolomite, sandstone and siltstone, with rare gypsum beds. The Loves Creek Member is composed of thick basal stromatolitic limestone and dolomite, and dolomite and limestone intercalated with siltstone at the top.

Above the Bitter Springs Formation is the Areyonga Formation, comprising siltstone, feldspathic sandstone, conglomerate and dolomite, which in turn is conformably overlain by the Aralka Formation, composed of laminated siltstone and shale with beds of limestone.
The youngest sediments of the Amadeus Basin which outcrop within the project area are those of the Olympic Formation, which unconformably overlie the Aralka Formation. The Olympic Formation is composed of diamictite overlain by green shale with scattered boulders.

The Amadeus Basin sediments in the project area have been subjected to greenschist facies metamorphism.

Quaternary and Tertiary (?) alluvial and colluvial deposits obscure extensive areas of Amadeus Basin sediments, particularly within current drainage systems.

5.0 Exploration Activities.

5.1 Water Bore Sampling

After analysis of available data for borehole locations using governmental websites and historical geological maps, a site visit of the tenement was conducted in order to conduct a first round of sampling to check for Uranium anomalies within the groundwater. A total of 7 bores were sampled. Locations are presented in Table 1.

The preferred sampling technique was to collect water directly from the borehole whilst the pumps were running. On occasions pumps had to be started in order to gain fresh water samples, however; when unable to start motors or no motor was present a sample was taken from the tanks nearby or directly from the borehole using dipping techniques.
Samples were placed in a cool box and sent to the laboratory for analysis via overnight first class delivery. Sample assays include K, U, Na, Mg, Fe, Cu, Pb, Zn, Au, Ag, CO_3, PO4, S and Cl.

Assay data for Water Bore samples is presented in Table 1.

Date	Sample Name	Sample Number	Eastings	Souting	Easting	Northing	HCO3	Cl	PO4_P	DF	Ag_F	Au_F	Ca_F	Cu_F
5/15/2008	Waldo	GCWB00001	E135° 06.316'	S23° 58.450'	510310.318	7349608.139	294	732	0.015	10	<0.5	<0.1	170	3.2
5/15/2008	Waldo 2	GCWB00002	E135° 06.316'	S23° 58.450'	510310.318	7349608.139	294	740	0.015	10	<0.5	<0.1	170	3.31
5/15/2008	phillipson 6	GCWB00003	E135° 07.422'	S24° 03.063'	512001.265	7340392.539	477	1890	0.025	10	<0.5	<0.1	131	73.7
5/15/2008	phillipson 6-1	GCWB00004	E135° 07.422'	S24° 03.063'	512001.265	7340392.539	460	1880	0.015	10	<0.5	<0.1	120	74.4
5/15/2008	Road G	GCWB00005	E135° 11.437'	S24° 01.629'	518784.570	7344058.392	261	929	0.01	10	<0.5	<0.1	342	4.13
5/15/2008	Casey Bore	GCWB00006	E135° 19.251'	S24° 00.639'	532343.279	7345879.261	249	390	0.015	10	<0.5	<0.1	147	5.32
5/15/2008	Settlement bore	GCWB00007	E135° 19.982'	S24° 07.858'	532334.789	7332955.598	239	371	0.02	10	<0.5	<0.1	92.9	7.46

Table 1. Water Bore sample results and location

5.2 HyVista data.

HyVista Corporation was contracted by Atom Energy to acquire and process HyMap airborne hyperspectral scanner imagery from the Palmer River tenement. The data acquisition occurred between 18th March – 9th April, 2008.

HyVista Corporation produced a report describing the processing that has been applied to the Palmer River HyMap data to produce a number of image products including standard colour composites, a SWIR decorrelation colour composite, minimum noise fraction (MNF) colour composite and unmixed end member mineral maps. To produce these products the data has had a series of processes applied to it that converts the raw data into reflectance imagery which is then geometrically corrected and radiometrically leveled so that seamless mosaic images can be produced.

Three "Classes" of imagery have been produced.
Standard colour composites and MNF images can be used for photo-interpretation to delineate geological units and structural features. They do not provide information on the mineralogy of geological formations i.e. the same colour may map different rock types in the images.
The decorrelation stretch colour composite is derived from selected SWIR bands and produces an image that maps the overall distribution of AL-OH, Fe-OH, Mg-OH (and carbonate if present) bearing minerals within the area but not specific mineral species. Similarly, the Index Images which use band ratio techniques to depict a specific absorption band; also do not map individual mineral species but may indicate the presence of a mineral "class" such as those minerals typical of advanced argillic alteration (i.e. pyrophyllite, alunite and / or dickite).
Specific species mineralogical information is extracted by applying end-member unmixing processing to the reflectance image mosaic. This requires several procedures that are carried out separately on the Short wave Infrared bands (SWIR: 2.00 microns to 2.43 microns) and the Visible Near InfraRed bands (VNIR: 0.488 microns to 1.12 microns). Processing of the SWIR bands maps the distribution of clay minerals, mica's and carbonates and the VNIR bands the iron oxides.

Hyperspectral remote sensing is essentially a mineral mapping technology. Its fundamental principles are based on spectroscopy, so an understanding of the spectral signatures of surface materials is required for its application.
Briefly, each pixel of a hyperspectral image contains a spectrum which forms the basis for determining the materials present in a scene. Surface mineralogy and other components are mapped using algorithms which either de-convolve a scene into component end member signatures (unsupervised un-mixing) or specifically target spectral signatures of known material (supervised match filtering). A combination of these approaches has been applied in the project.

The final delivery of the output image products and intermediate products to the NTGS is on an external USB2 disk drive.

5.3 Preliminary Field Work.

Mike Green of Remote Area Geoscience (contracted to Atom Energy Ltd) undertook a preliminary field exploration program and made the following comments;

"The area comprises two main geological entities: the Casey Inlier and Amadeus Basin. No mineral deposits are known in the Casey Inlier, but recent mapping by the Northern Territory Geological Survey rediscovered the Arthur Pope's Cu prospect in quartz-chert-carbonate veins (elevated Cu-Au-REE-U) immediately east of the tenement boundary. Such veins were not recognised within EL 24249, but there are numerous quartz-chert veins in the tenement that require further investigation. There are also retrograde shear zones crossing the tenement that are prospective for Au (similar to Winnecke goldfields northeast of Alice Springs). The most prospective targets, however, are the large mafic-ultramafic bodies in the tenement that are prospective for magmatic Ni-Cu, Pt-Pd, Cr, Fe-V and Au. In general, however, much of the Casey Inlier within EL 24249 comprises granite or similar.

The Amadeus Basin is prospective for many sediment-related deposits, but has failed to produce any major discoveries despite widespread minor mineral occurrences. The two most likely styles of mineralisation within EL 24249 are unconformity-related U and Zambian-style Cu-Co. One mineral occurrence is recorded within EL 24249 (Waldo Pedlar Cu), but this has yet to be located. It is likely that this has been incorrectly located in the public-domain data, but should still be within the tenement. Further searching should locate this mineralisation".

Strongly reversed magnetic anomalies (refer to Figure 2) identified from the NTGS regional airborne magnetic data show very close parallels to the magnetic signatures of the mafic -ultramafic bodies identified on the Mithril tenements.
The Irindina Province is known to contain Cu-Au prospects and the widespread occurrence of mafic rocks in the province has largely untested Ni, Cu, Cr and PGE potential *(NTGS East Arunta Project publication).*

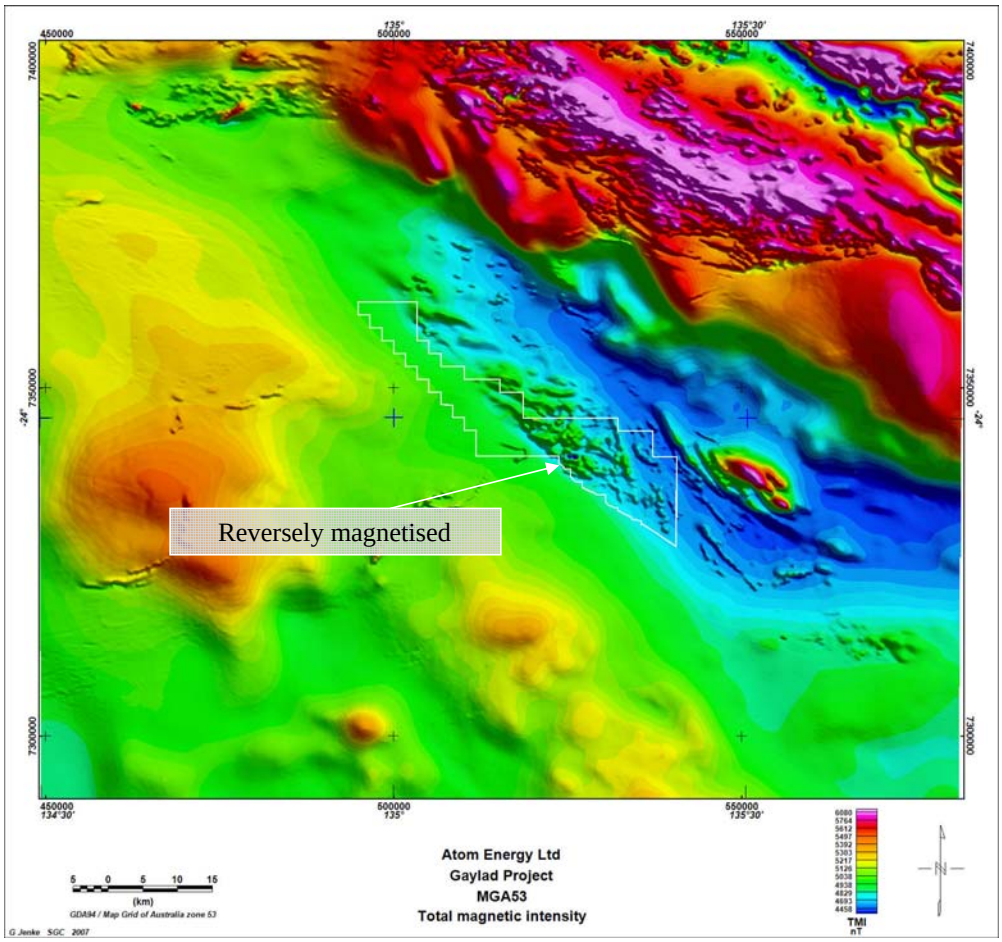

Figure 2. Strongly reversely magnetised bodies.

Atom Energy Ltd is in an ideal position now to further explore and test the mineralisation potential on EL 24249 and to apply for future funding under the NT Government collaborative *"Bringing forward Discovery"* initiative.

If the geophysical survey results prove to be favorable, a drilling proposal would be put forward to gain an understanding of the sub-surface geological structure, mineralisation, depth and dimensions of the feature.

In accordance with the exploration strategy for the Gaylad Creek project area it is proposed that two geophysical surveys be undertaken covering the reversely magnetised bodies.

6.0 Proposed Exploration and Budget

Ground Electro-Magnetic Survey (EM)

The two geophysical surveys would ideally be used to complement each other.

The ground magnetic survey will give a very good regional picture of the sub-surface extents of a body.

Because of the mechanisms that lead to the reverse magnetism, a ground magnetic survey might be limited in the ability to determine specific diagnostic features.

An EM survey in a negatively polarised body will enable a greater determination of;
depth of overburden
The structural setting of a body such as dip, strike, depth etc.
Layering if present in the body (due to variations in conductivity of layers).
The thickness/orientation of the body i.e. if it is a tabular feature. This is useful when drilling. e.g. it will enable a determination to be made as to how much pre-collaring to be done.
The conductivity of the body; this may lead to estimations of the type of sulphide and the content.

Details of the Proposed Ground EM survey is as follows:

Area = 2 x 1 km
Line spacing = 400m (6 lines required). Will reduce line spacing if required
Line length = 1.5 km
Loop size = 100m
Station spacing = 50m
Estimated time (20 stations/day) = 10 days
EM = $3000/day
Cost = $30,000 + expenses

Figure 3. is a map showing the regional magnetics with the geophysical program overlain.
Note how the regional magnetics has not picked up some outcropping mafic bodies. The EM survey is planned based on the extent of the outcrop, so even around the reversely-polarised bodies. Mapping could define a larger mafic-ultramafic body from outcrop than using the current regional magnetics. This highlights the need to do ground magnetics prior to the EM.
Field geological mapping by Mike Green be will undertaken in whilst the geophysical program is being conducted. This will enable

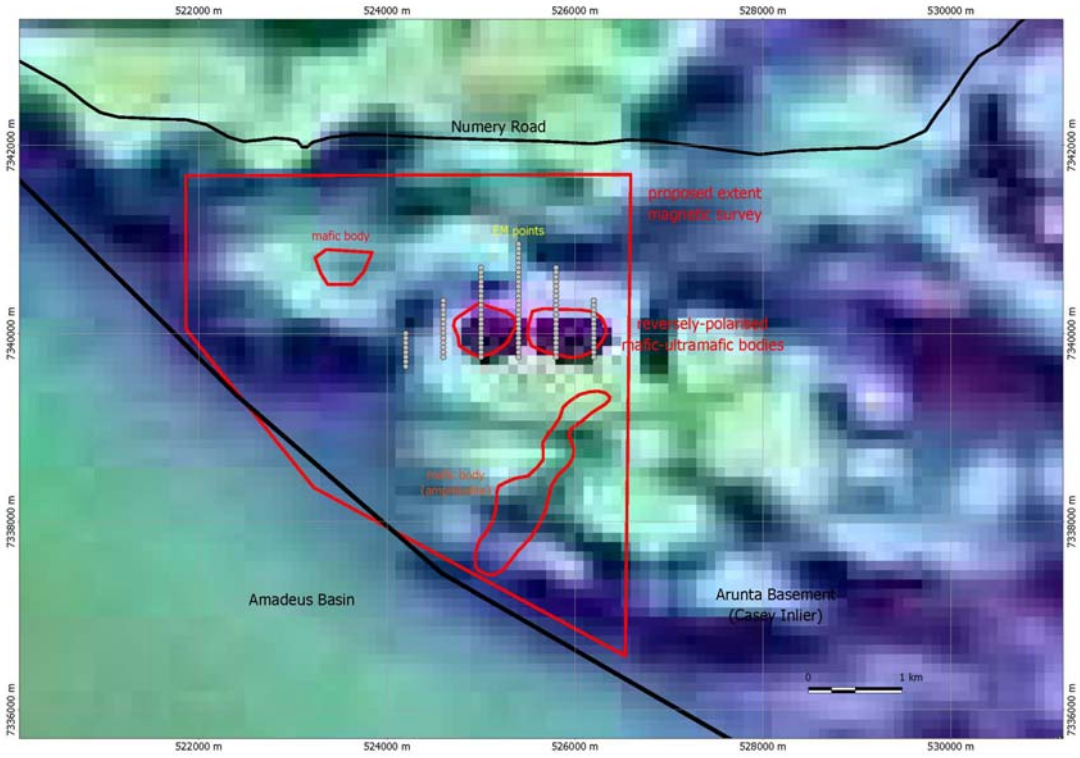

Figure 3. Map of proposed geophysical program.

TOTAL (Estimated) COST SUMMARY

EM Survey Cost = $30,000.00 + expenses?(est.= $1,000.00)
Ground Mag. Cost = $9,600.00 + expenses?(est. = $1,000.00)
Mike Green (16 days @ $680.00/day) = $10,880.00 + expenses?(est. = $800.00)
Mob/demobilisation = $3,000.00 (each way)
Food (16 days @ $55/person) = $4,400.00
Accom. (fuel + genset costs @ $125.00/day) = $2,000.00
Geophysicist @ $800/day = $4,000.00 (5 days total).
TOTAL = $69,680.00

The Gaylad Creek Project is considered by Atom Energy Ltd to be an under-explored area with good potential to host base metal and uranium mineralisation.

Future exploration will include:
RAB drilling,
reconnaissance geological mapping,
geophysical surveying,
trenching, and
stream sediment sampling.

7.0 Conclusion / Recommendations

An extensive field based exploration program will be undertaken with emphasis being on the application of geophysical surveys to target potential bodies suitable for drilling. Once field mapping has been undertaken it is anticipated that a re-interpretation of the Hyperspectral imagery will be conducted with the intent that ground mapping of mineralisation and rock types will supply signatures that can be related back to the digital data. Future investigative sites should be identified based on the new interpretations.

An extensive ground based geophysical program will be conducted over the two reversely magnetised bodies with the intent that drill targets will be defined.

8.0 Exploration Expenditure

EL24249	
Airborne Hyperspectral imagery	$31,723.00
Analytical Costs	$3,500.00
Field Costs	$5,000.00
Consultant Geologist	$15,000.00
Maps & Drafting	$1,000.00
Travel & Vehicle Costs	$3,080.00
Employee Costs x 2	$6,940.00
Administrative Costs	$1,305.00
TOTAL COSTS	**$67,548.00**

9.0 Proposed Exploration Work

Work during the next reporting period will involve:

- The continual review of previous exploration undertaken on and in the region of EL24249.
- Ground based electromagnetic and magnetic surveys.
- Further manipulation of the HyMap survey data to compliment ground mapping results.
- Regional and local rock chip sampling and geological mapping.

Costing associated with the proposed expenditure is included in the accompanying Northern Territory Exploration Expenditure form.

NORTHERN TERRITORY EXPLORATION EXPENDITURE FOR MINERAL TENEMENT

Section 1. Tenement type, number and operation name: (One licence only per form even if combined reporting has been approved)	
Type	*EL*
Number	*24249*
Operation Name (optional)	*Gaylad Creek*

Section 2. Period covered by this return:			
Twelve-month period:		**If Final Report:**	
From	*09/12/2006*	From	
To	*08/12/2007*	To	
Covenant for the reporting period:		$235,000.00	

Section 3. Give title of accompanying technical report:	
Title of Technical Report	*Exploration Licence 24249 Gaylad Creek Annual Report Year ending 08 December 2008*
Author	*Rudy Lennartz*

Section 4. Locality of operation:	
Geological Province	Amadeus Basin
Geographic Location	Alice Springs SF5314, Illogwa Creek SF5315 and Hale River SC5303 1:250,000 map sheets.

Section 5. Work program for the next twelve months:			
Activities proposed (please mark with an "X"):		[ ]	Drilling and/or costeaning
[ ]	Literature review	[ ]	Airborne geophysics
[X]	Geological mapping	[X]	Ground geophysics
[X]	Rock/soil/stream sediment sampling	[ ]	Other:
Estimated Cost:		$80,000.00	

Section 6. Summary of operations and expenditure:		
Please include salaries, wages, consultants fees, field expenses, fuel and transport, administration and overheads under the appropriate headings below. Mark the work done for the appropriate subsections with an "X" or similar, except where indicated. Complete the right-hand columns to indicate the data supplied with the Technical Report.		
Do not include the following as expenditure (if relevant, these may be discussed in		
• Insurance	• Transfer costs	• Land Access Compensation
• Company Prospectus	• Title Search	• Meetings with Land Councils
• Rent & Department Fees	• Legal costs	• Payments to Traditional Owners
• Bond	• Advertising	• Fines

Exploration Work type	Work Done (mark with an "X" or provide details)		Expenditure	Data and Format Supplied in the Technical Report	
				Digital	Hard copy
Office Studies					
Literature search	**X**		**1,305.00**		
Database compilation					
Computer modelling					
Reprocessing of data					
General research					
Report preparation	**X**		**1,000.00**		
Other (specify)					
	Subtotal		**$2,305.00**		
Airborne Exploration Surveys (state line kms)					
Aeromagnetics		kms			
Radiometrics		kms			
Electromagnetics		kms			
Gravity		kms			
Digital terrain modelling		kms			
Other - HyMap Hyperspectral		kms	**$31,723.00**	**X**	
	Subtotal		**$31,723.00**		
Remote Sensing					
Aerial photography					
LANDSAT					
SPOT					
MSS					
Other (specify)					
	Subtotal		$		
Ground Exploration Surveys					
Geological Mapping					
Regional	**X**		**$10,020.00**		
Reconnaissance					
Prospect					
Underground					
Costean					
Ground Geophysics					
Radiometrics					
Magnetics					
Gravity					

Exploration Work type	**Work Done** (mark with an "X" or provide details)	**Expenditure**		**Data and Format Supplied in the Technical Report**	
				Digital	Hard copy
Digital terrain modelling					
Electromagnetics					
SP/AP/EP					
IP					
AMT/CSAMT					
Resistivity					
Complex resistivity					
Seismic reflection					
Seismic refraction					
Well logging					
Geophysical interpretation					
Petrophysics					
Other (specify)					

Geochemical Surveying and Geochronology ***(state number of samples)***									
Drill (cuttings, core, etc.)									
Stream sediment									
Soil									
Rock chip									
Laterite									
Water		**X**				**$23,500.00**		**X**	
Biogeochemistry									
Isotope									
Whole rock									
Mineral analysis									
Laboratory analysis (type)									
Petrology									
Other (specify)									
	Ground Exploration Subtotal					$23,500.00			
Drilling (state number of holes & metres)									
Diamond		holes		metres					
Reverse circulation (RC)		holes		metres					
Rotary air blast (RAB)		holes		metres					
Air-core		holes		metres					
Auger		holes		metres					
Other (specify)		holes		metres					
	Subtotal					$			
Other Operations									
Costeaning/Trenching									
Bulk sampling									
Mill process testing									
Ore reserve estimation									
Underground development (describe)									
Mineral processing									
Other (specify)									
	Subtotal					$			
Access and Rehabilitation									
Track maintenance									
Rehabilitation									
Monitoring									
Other (specify)									
	Subtotal					$			
	TOTAL EXPENDITURE					**$67,548.00**			

Section 7. Comments on your exploration activities:

I certify that the information contained herein, is a true statement of the operations carried out and the monies expended on the above mentioned tenement during the period specified as required under the *Northern Territory Mining Act* and the Regulations thereunder.

[ ] I have attached the Technical Report

1. Name:	Rudy Lennartz	2. Name:
Position:	Exploration Manager	Position:
Signature:		Signature:
Date:	14th January 2008	Date: