



U R A N I U M
E Q U I T I E S

2016

EL10176, EL23700 & EL24371

**MINING MANAGEMENT PLAN
WEST ARNHEM JOINT VENTURE**

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Sustainable Development Policy

Uranium Equities Limited (ASX:UEQ) is a publicly listed Australian company developing opportunities for uranium by-product recovery and actively exploring for uranium resources with near term production potential.

Uranium Equities Limited (UEL) aims to become a significant uranium company and understands that this can only be achieved by creating sustainable value for all stakeholders. We are committed to ensuring the highest standards are met and will manage the social, health, safety, environmental and economic issues associated with all activities relating to our business.

Specifically, we strive towards and are implementing systems to:

- Promote the company philosophy that the health, safety and welfare of all employees are paramount to the long term performance and growth of this company;
- Identify, assess and mitigate the hazards and risks identified with our activities, in accordance with UEL's risk management strategy;
- Respect the traditions, customs, culture, dignity and rights of Indigenous communities;
- Consult with Indigenous communities regarding UEL activities that could affect the cultural, social and economic well-being of these communities;
- Maintain ethical business practices that meet all legal standards as a minimum and have best practice as our target;
- Provide a workplace where everyone is treated fairly and is free from workplace harassment;
- Preserve the future land use of all our sites through biodiversity management and the rehabilitation of all land disturbed in its exploration and development activities in consultation with, government agencies, Indigenous communities, land holders and pastoral lease owners;
- Manage and minimise all waste streams through responsible design and by encouraging re-use and recycling;
- Develop partnerships that enhance the social and economic development of local communities;
- Operate in a transparent manner and develop open relationships with all stakeholders; and
- Regularly review all management systems and performance.



Tim Goyder
Executive Chairman
July 2016

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1 OPERATOR DETAILS

1.1 Introduction

This Mining Management Plan (MMP) has been prepared by Uranium Equities Limited for activities conducted at its West Arnhem Joint Venture (WAJV) Project which comprises EL10176, EL23700 and EL24371. The nominated operator of the project is Uranium Equities Limited (UEL).

Since 2008 UEL has been actively exploring in West Arnhem Land on the Nabarlek Mineral Lease and in Joint Venture with Cameco Australia Pty Ltd who held the previous MMP Authorisation 0309-01 over these exploration licences. The terms of the Cameco WAJV have now changed and UEL has become the operator and manager of the Joint Venture.

1.2 Key Contacts

Field personnel are employed at the beginning of each dry season. Accordingly, as these positions have not currently been filled, the name of the senior site geologist is not known at this stage.

1.3 Organisational Chart

The organisational chart for UEL is shown in Figure 1.

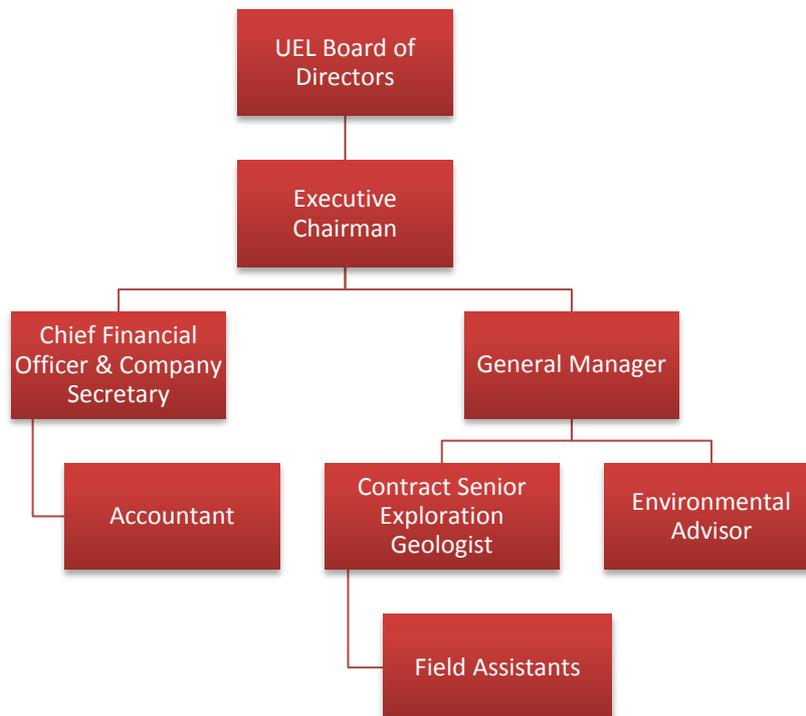


Figure 1: Uranium Equities Limited Organisational Chart June 2016

1.4 Workforce

The workforce will consist of a maximum of eight people. Dry season exploration personnel will consist of UEL staff and contract exploration personnel, including the Senior Exploration Geologist, four geophysics contractors and up to one earthmoving contractor.

In addition to the on-site people listed above there will be other personnel that will visit the camp periodically such as UEL Perth-based geology and environmental staff.

During the wet season the workforce at Nabarlek Camp will be smaller with a maximum of four people. Personnel will include two UEL field assistants with the remainder being contract tree planters, weed sprayers and a supervisor.

UEL has a policy of endeavouring to employ local Traditional Owners where possible and anticipates that at least one of the field assistants will be a Traditional Owner. UEL has consistently employed at least one Traditional Owner during wet and dry season operations since taking over management of the site. The small size and infrequent nature of the Company's operations does not allow for a firm employment target for Traditional Owners to be set, although it is expected that in 2016 up to 2 Traditional Owners will be utilised to assist with a radon cup survey.

2 PROJECT DETAILS

2.1 Project Name and Location

The WAJV Project is located in the western portion of the Arnhem Land Aboriginal reserve, 28km east of the Gunbalanya (Oenpelli) aboriginal community and approximately 300km east of Darwin in the Northern Territory. The exploration licences immediately surround the Nabarlek Mineral Lease (see Figure 2).

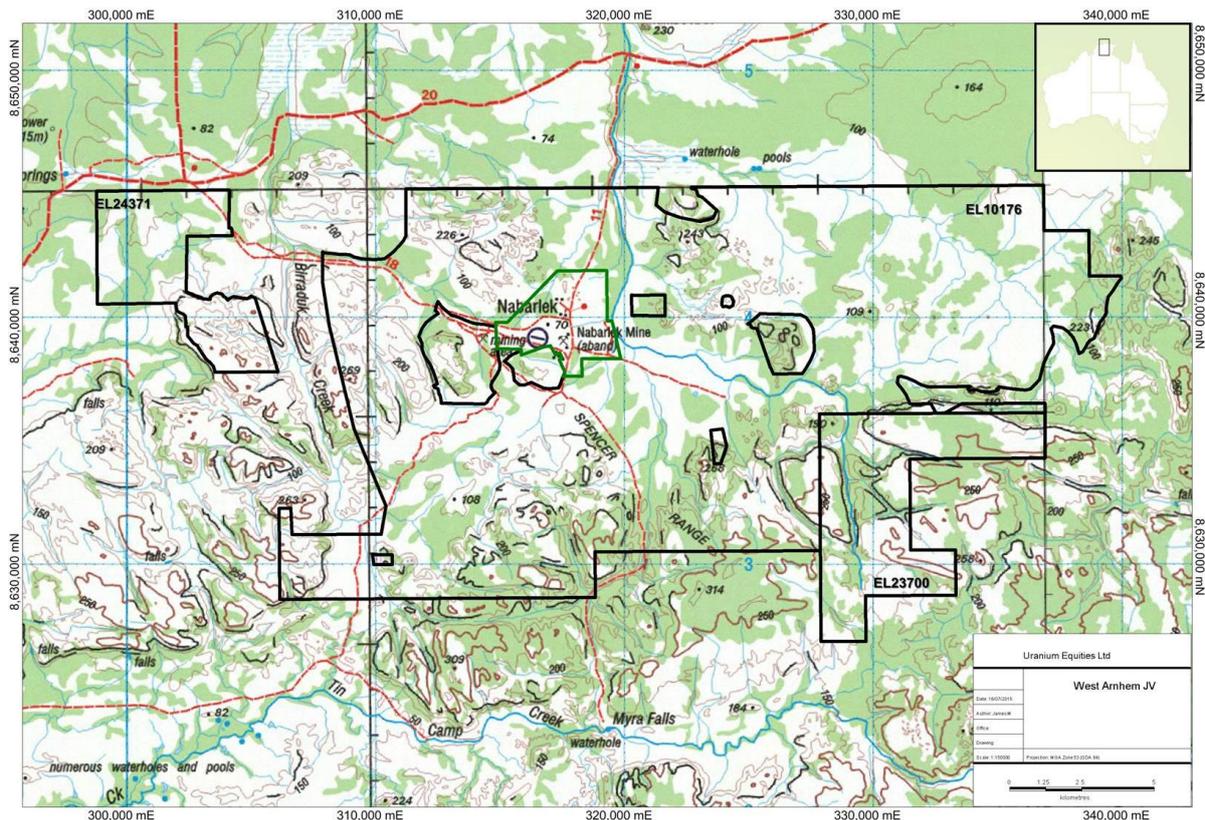


Figure 2: Location of West Arnhem JV Project (ELs 10176, 23700 & 24371)

2.2 Access

Access to the WAJV Project area from Darwin is via the Arnhem Highway to Jabiru, northeast to Oenpelli then east via the unsealed and seasonal Oenpelli – Maningrida road from Cahill’s Crossing at the East Alligator River to the ‘Three Ways’ intersection to the Coburg Peninsula. From there, access is via the old Nabarlek Mine access road onto the Mineral Lease. Access within the surrounding tenements is good. In general, most of the country is flat lying and can be readily accessed by four-wheel drive during the dry season. Exceptions are the heavily dissected sandstone escarpments that are best traversed by foot and accessed by helicopter.

Access to site is also possible using a light plane direct from Darwin or Jabiru, to land on the all-weather sealed airstrip at the Nabarlek Mineral Lease. If this transport option is to be utilised then the airstrip will be maintained according to CASA requirements for the class of aircraft being used.

2.2.1 Site Infrastructure

The 2016 season work program will be operated out of the Nabarlek ML Camp which accommodates both wet and dry season operations. It is located adjacent to the Nabarlek airstrip for both convenience and safety considerations.

During 2013 all hired camp infrastructure items were demobilised to reduce the ongoing holding costs of maintaining the Nabarlek Camp. The two accommodation blocks, kitchen, ablutions/laundry block and self-bunded fuel storage tank were demobilised. The large camp generator was replaced by a more appropriate smaller unit. The transportable office block remains, as does the storage containers and dangerous goods container which are located adjacent to the camp office.

Due to the short dry season exploration program, the camp generator and light vehicles will be serviced by drummed fuel stored in the self-bunded dangerous goods container. A hydrocarbon spill kit will be located adjacent to this area. Drilling companies will source fuel from Darwin or Jabiru utilising a truck mounted fuel tank.

A temporary ablutions block will be hired and reconnected to the established septic system (tank and soakage trench) which was installed by licenced plumbers when the original ablution block was established in 2008.

There is an existing water bore in the camp environs that has suitable water quality, water depth, and location and provides sufficient volumes of water. Samples collected from the bore in previous years have indicated that the water was potable and suitable for human consumption. The camp bore was tested during August 2016 for potability and microbiology. Laboratory results show no breeches of safe drinking water standards.

The small volumes of water required for drilling and camp operations are not of a level that requires further licensing. Measurement of the standing water level (SWL) in the camp bore commenced in the 2012 dry season. The measurements, although irregular, do indicate that there were no draw-down effects on groundwater levels from on-site activities. Measurement of the standing water level in the camp bore will continue to be undertaken during the 2016 dry season with the recommencement of the exploration program.

2.3 Tenement Details

UEL has been active in the Nabarlek Region since 2007 when the West Arnhem Joint Venture Agreement (WAVJ) was signed with Cameco Australia Pty Ltd.

To participate in the Joint Venture, UEL agreed to sole-fund exploration expenditure for a number of years (through wholly-owned subsidiary GE Resources Pty Ltd) to earn a 40% stake in three granted exploration licences (EL10176, EL23700 and EL24371).

Late in 2012, UEL finalised an agreement to acquire Cameco Australia Pty Ltd.'s remaining 60% interest in the tenements that previously comprised the WAVJ including an application for an exploration licence, ELA24878 (Table 1).

Table 1: West Arnhem JV Tenement Status

Tenement	Holder	Status	Area (km ²)
EL10176	Cameco Australia / GE Resources Pty Ltd	Granted	354.8
EL23700	Cameco Australia / GE Resources Pty Ltd	Granted	43.6
EL24371	Cameco Australia / GE Resources Pty Ltd	Granted	28.9
ELA24878	Cameco Australia / GE Resources Pty Ltd	Application	49.6
Total			476.9

2.4 Historical Exploration

The area covered by the WAJV licences was held by Queensland Mines Pty Ltd (QMPL) between 1969 – 1998 as EL2508. During this period due to political issues and uranium prices, exploration was only active for a small part of this time.

Exploration work by QMPL consisted of airborne radiometric and magnetic surveys, regional stream sediment geochemistry, regional geochemical soil sampling, regolith geochemistry, ground total count radiometric surveys, reconnaissance exploration and geological mapping.

From 1998 – 2003 a Joint Venture agreement between AFMEX, Cameco Australia and SAE Australia explored the region after acquiring the exploration licence from QMPL. Exploration Retention Licences (ERL) were lodged over those portions of EL2508 that were considered the most prospective and the remainder was allowed to expire. On 20 May 1999, the joint venture partnership was granted ERL's 150 – 152.

Exploration during this period consisted predominantly of drilling programs testing a number of targets before the licences were relinquished in 2003.

In 2004, Cameco Australia lodged an application for EL10176, covering the former EL2508 and ERL's 150 – 152.

2.5 Recent Exploration Work

Exploration work conducted by Cameco in the Nabarlek Region since 2004 has had a strong geophysical emphasis, consisting of numerous airborne geophysical surveys, minor ground-based geophysical surveys and drilling programs.

Cameco's work focused on following up previously identified anomalies from past explorers and attempted to generate new prospects from the geophysical datasets. Most of this recent work focused on the traditional unconformity model with very little work done on targeting deeper structurally controlled basement-hosted or dolerite-hosted mineralisation.

UEL has operated in the region with a different exploration emphasis with an exploration model based on the strong structural control on mineralisation. UEL's exploration program consisting of structural targeting, geochemical sampling using aircore and follow-up reverse circulation drilling has discovered new areas of significant upside potential on both the Mineral Lease and the surrounding WAJV licences.

Exploration conducted during the 2014 to 2015 field season is summarised below.

Mining Interests (i.e. titles)	EL10176	EL23700	EL24371
Number of holes drilled	23	Nil	Nil
Maximum depth of holes	216m	Nil	Nil
Number of drill pads cleared (Length: x Width: m)	23 (20m x 20m)	Nil	Nil
Number of sumps cleared (Length: x Width: x Depth: m)	40 (within area of drill pads cleared)	Nil	Nil
Length of line / track cleared (Kilometres: x Width: m)	~3km x 5m	Nil	Nil
Number of costeans excavated (Length: x Width: x Depth: m)	0	Nil	Nil
Total bulk sample pits excavated (Length: x Width: x Depth: m)	0	Nil	Nil
Camp area/s cleared	0 (existing camp at historic Nabarlek mine site)	Nil	Nil
Total area disturbed (hectares)	0.92 (Drill pads) 1.20 (tracks)	Nil	Nil
Drill holes capped / plugged	23	Nil	Nil
Total area rehabilitated (hectares)	2.12	Nil	Nil

Exploration conducted during the 2015 to 2016 field season is summarised below.

Mining Interests (i.e. titles)	EL10176	EL23700	EL24371
Number of holes drilled	6	Nil	Nil
Maximum depth of holes	250m	Nil	Nil
Number of drill pads cleared (Length: x Width: m)	5 (20m x 20m) (Note: 2 holes were drilled from the same pad)	Nil	Nil
Number of sumps cleared (Length: x Width: x Depth: m)	0	Nil	Nil
Length of line / track cleared (Kilometres: x Width: m)	0.5km x 5m	Nil	Nil
Number of costeans excavated (Length: x Width: x Depth: m)	0	Nil	Nil
Total bulk sample pits excavated (Length: x Width: x Depth: m)	0	Nil	Nil
Camp area/s cleared	0 (existing camp at historic Nabarlek mine site)	Nil	Nil
Total area disturbed (hectares)	0.2 (Drill pads) 0.25 (tracks)	Nil	Nil
Drill holes capped / plugged	6	Nil	Nil
Total area rehabilitated (hectares)	0.45	Nil	Nil

2.6 Proposed Exploration Activities for 2016

The exploration program for 2016 will comprise ground-gravity surveying, a radon survey, geological reconnaissance and regolith mapping. No drilling is planned for the 2016 field season. The aim of the 2016 exploration program is to acquire detailed survey data across areas of the WAJV tenements that have been targeted based on geophysical and near-surface geochemical anomalism. Areas that have not been robustly tested will also be surveyed by regolith mapping and/or contingency ground-gravity extensions. This survey data will be used to delineate subsurface structures to assess their exploration potential for future drilling programs. Access to survey areas is already well developed (Figure 3). Additional track maintenance is not required as no large drilling rigs will be present on site and all exploration activities are to be carried out on foot using 4WDs to commute between Nabarlek camp and the given locality.

2.6.1 Ground Gravity Surveying

Four areas are planned to be surveyed using ground-gravity geophysics with two contingency areas that may also be surveyed depending on the results of the primary areas (Figure 3). The survey will be carried out by two field crews each consisting of two field technicians. Ground-gravity surveying is a low impact exploration technique and will be carried out on foot. Field crew(s) will be accommodated at the established Nabarlek campsite while surveying the GC11 and SLMB areas; a fly campsite will be set-up adjacent to a main access track to facilitate surveying of the eastern QFZ areas. A 20m x 20m area will be cleared for the fly camp which will be located approximately 328845mE, 8636880mN (UTM) (Figure 3).

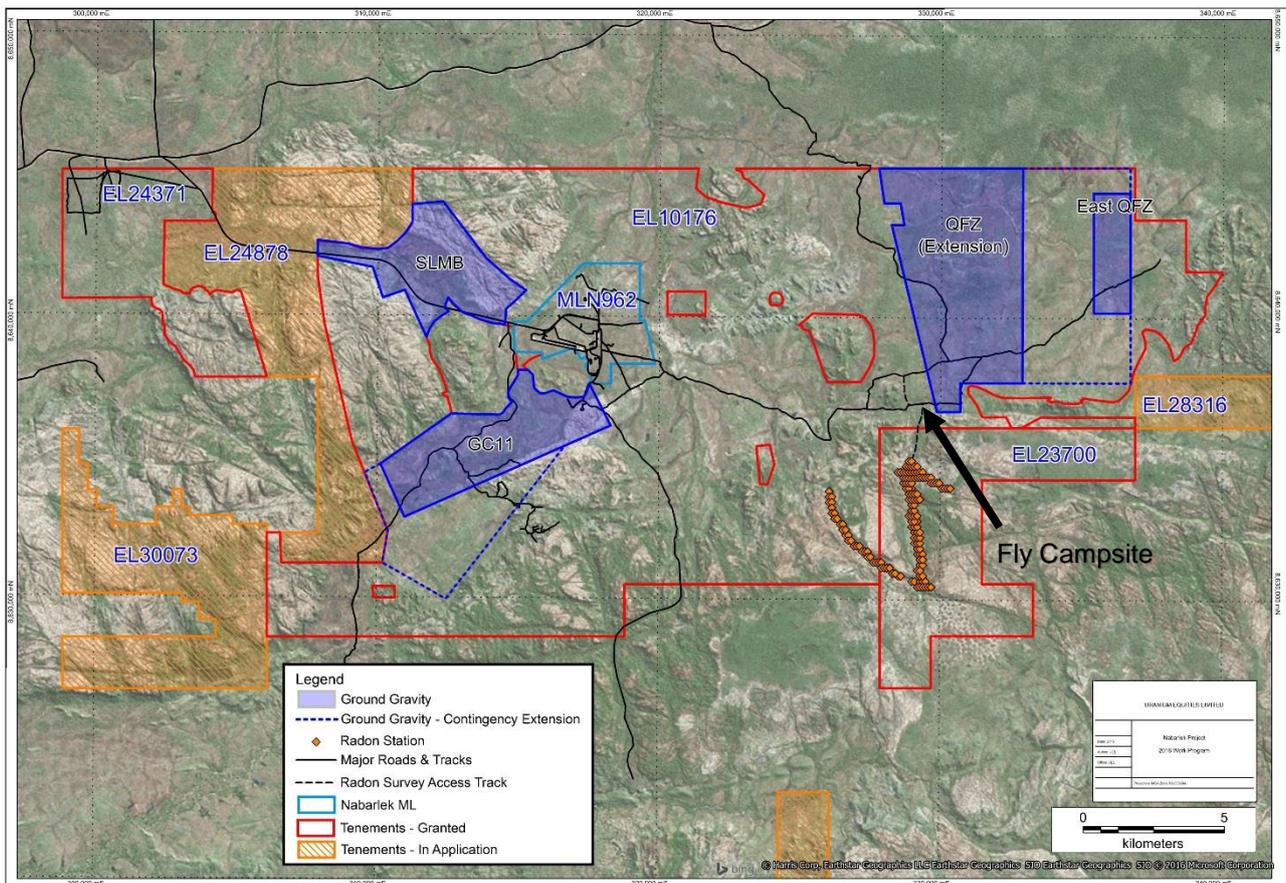


Figure 3: Location of 2016 Exploration Activities and Major Access Tracks

2.6.2 Regolith Mapping

Regolith mapping will be conducted over a region east of the Quarry Fault Zone which is largely untested to assess the exploration potential of the area. This is a low impact exploration technique that will be carried out on foot.

2.6.3 Radon Surveying

A primary radon survey will consist of 140 stations situated within a localised valley extending across part of EL10176 and EL23700, as well as (Figure 4). The survey involves burying small radon detection cups 1cm below the surface which are retrieved after 2 weeks for analysis. This is a low impact survey technique which involves only very minor and temporary ground disturbance. The survey area will be accessed from the eastern limb as indicated in Figure 3. No additional tracks are required to access the area.

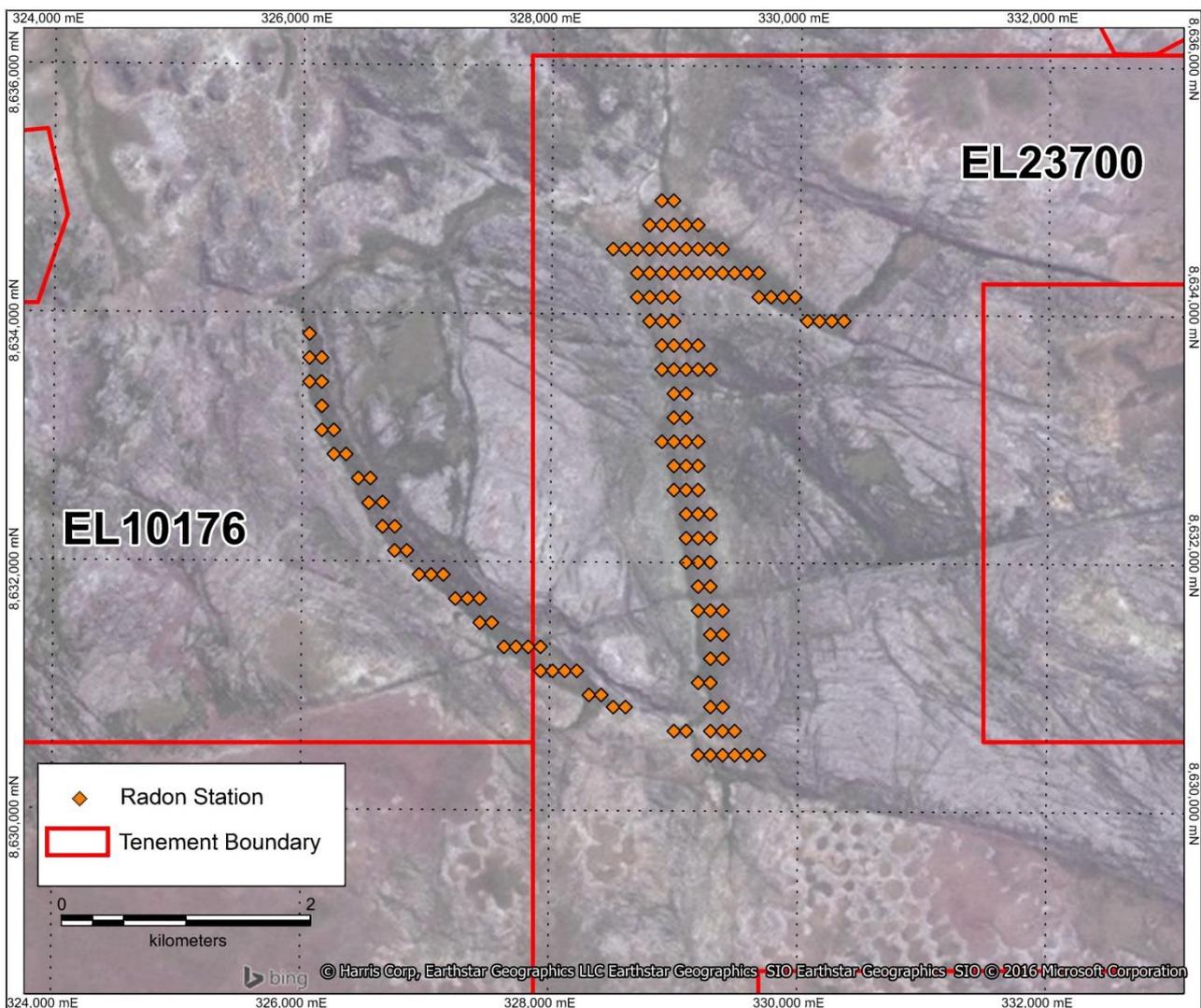


Figure 4: Location of Radon Measurement Stations

2.6.4 Access Tracks

If required, a loader will be utilised to refurbish existing access tracks following the 2016-2017 wet season. The earth-moving contractor is anticipated to be Wildman River Stock Contractors Pty Ltd.

The access tracks will only be refurbished to the same width as the existing tracks (no greater than 3 metres) and will allow safe passage of 4WD vehicles.

2.7 Exploration Schedule

The exploration program is expected to commence in August, subject to contractor and equipment availability. Table 2 details the proposed exploration schedule for 2016.

Table 2: Exploration Schedule for 2016

Activity	Duration	Timing	Quantity	Location
Mobilisation	1 week	August	Using the existing camp at Nabarlek	Nabarlek ML
Geological Mapping & Reconnaissance	2-3 weeks	September	38km ² area	East EL 23700
Ground-Gravity Surveying	6 Weeks	August-September	7,100 stations (10,900 including both contingency zones)	SLMB, GC11, QFZ, QFZ (East)
Radon Surveying	2 weeks	August	140 stations	Southwest EL 10176 & EL 23700
Rehabilitation	1 week	November	Temporary Tracks	EL 10176

3 CURRENT PROJECT SITE CONDITIONS

3.1 Climate

The WAJV project is located in the tropical region of the Northern Territory. This tropical environment is characterised by two distinctive seasons, the 'wet' and the 'dry'. From October/November through to March/April, high rainfall and humidity brought on by monsoonal weather patterns are distinctive of the wet season. The majority of the annual rainfall experienced in the region falls within these months (Figure 5). Cyclones and ex-cyclones can also be experienced within this time frame bringing high winds and increased rainfall.

The average and actual rainfall at Jabiru Airport (Bureau of Meteorology Station Number: 014198), is shown in Figure 5. This recording station has been used as it is the closest recording station to the Nabarlek Mine with a full set of records. Nabarlek does not have its own weather station.

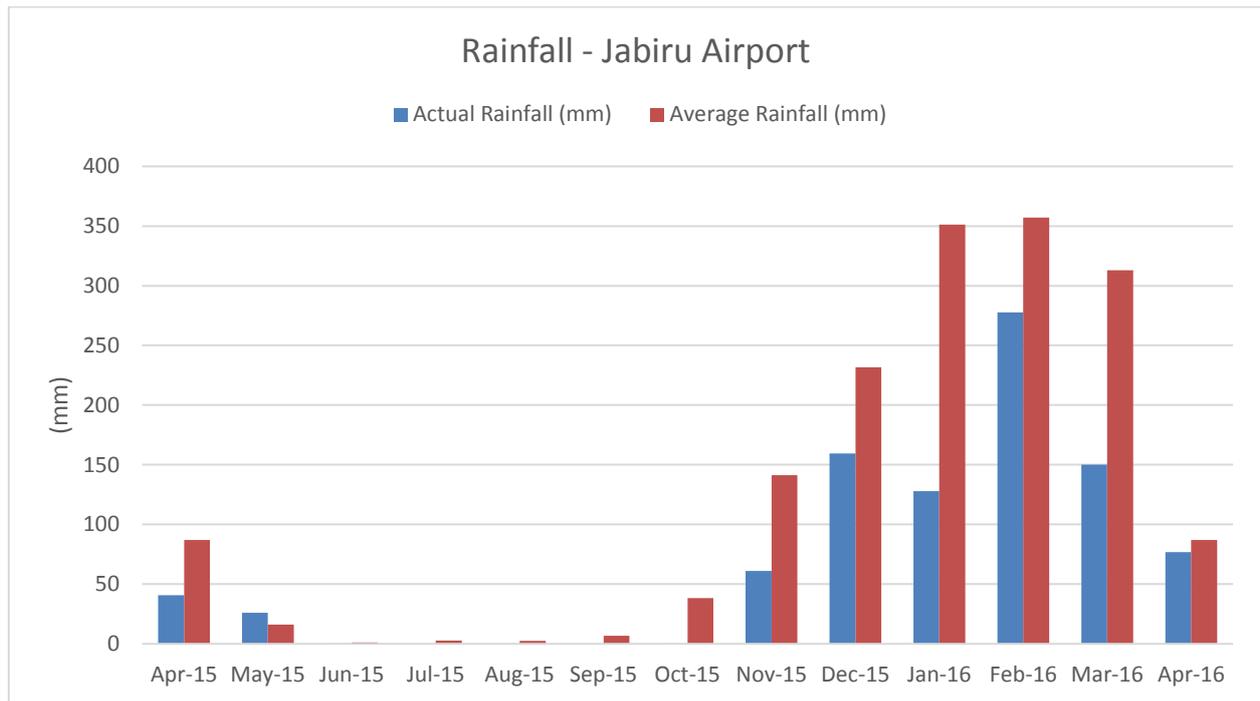


Figure 5: Average and Actual Monthly Rainfall (mm) during 2015/2016

3.2 Land Area Type / Geology

The WAJV tenements are located within a small embayment in the northern edge of the Arnhem Land Plateau and comprises a gently sloping terrain of red-yellow coloured lateritic soils and sands, residual gravel pavements of vein quartz and calcrete concretions. Vegetation consists of tall open eucalypt forest and woodland plains with ground cover consisting of annual grasses. There is good vehicular access throughout the region due to the pre-existing mine infrastructure.

Rocky outcrop is poor within the area and most of what is known of the geology has been derived from previous drill programs and mapping in the old open pit area. The oldest rocks are a sequence of Early-Proterozoic metamorphosed sediments (semi-pelites) and amphibolites termed the Myra Falls Metamorphic; this unit hosts the Nabarlek Deposit.

The Myra Falls Metamorphics are faulted against the Nabarlek Granite which has been intersected in two holes beneath the Nabarlek Deposit. This granite also outcrops a few kilometres to the northeast of the Mineral Lease on EL10176.

Middle Proterozoic shallow dipping Kombolgie Sandstone unconformably overlies the sequences described above and outcrops to the immediate north, west and south of the old mine site. Drilling has shown that up to 150m of sandstone can occur beneath the ground surface in areas covered by lateritic soils and sands.

Two major structural zones traverse across the Project area that potentially control mineralisation in the region. The Nabarlek Shear Zone controls the mineralisation at Nabarlek and the Quarry Fault Zone located 10km the east, form sub-parallel NNW–SSE trending structures through the Project.

3.3 Hydrology

The major watercourses in the project area are the Cooper Creek and the Birraduk Creek which both flow to the northwest. There are two smaller creeks, Kadjirikarmada and Buffalo, which run into Cooper Creek. In addition there are several smaller drainages.

Stream flows are variable throughout the region, reaching peak discharge levels during the wet season months of February and March. Many of these drainages have pools until late in the field season. The first wet season floods flush the creek and billabong systems of stagnant and naturally eutrophic waters that build up during the dry season.

The only known users of the surface water resources that originate or pass through the WAJV Project area are the local Aboriginal people. Their usage is entirely related to cultural and recreational activities such as swimming and fishing in flowing creeks/rivers in the region. There is no evidence that flowing water is likely to be contaminated.

3.4 Flora and Fauna

The flora and fauna within the area has been assessed in a number of ways. A number of internet databases have been set up to assist in the identification of possible threatened or endangered species within any given area. These databases include the Environmental Protection and Biodiversity Conservation (EPBC), Protected Matters Search Tool and the Northern Territory Natural Resource Management (NT NRM) Infonet.

Each of these tools have been utilised to assess the presence of potentially endangered species. The EPBC search tool identified seven threatened species that may occur within the area. These are:

- Red Goshawk – *Erythrotriorchis radiatus*;
- Gouldian Finch – *Erythrura gouldiae*;
- Partridge Pigeon (eastern) – *Geophaps smithii smithii*;
- Brush-tailed Rabbit-rat – *Conilurus penicillatus*;
- Northern Quoll – *Dasyurus hallucatus*;
- Arnhem Rock-rat – *Zyzomys maini*; and
- Freshwater Sawfish – *Pristis microdon*.

The NT NRM Infonet database also identified threatened species that possibly inhabit the area. These include:

- Freshwater Sawfish – *Pristis microdon*;
- Arnhemland Egernia – *Egernia obiti*;
- Mertens' Water Monitor – *Varanus mertensi*;
- Yellow-spotted Monitor – *Varanus panoptes*;
- Emu – *Dromaius novaehollandiae*;
- Partridge Pigeon (eastern) – *Geophaps smithii smithii*;
- Red Goshawk – *Erythrotriorchis radiatus*;
- Australian Bustard – *Ardeotis australis*;
- Masked Owl – *Tyto novaehollandiae*;
- White-throated Grasswren – *Amytornis woodwardi*;

- Yellow Chat – *Epthianura crocea tunneyi*;
- Crested Shrike-tit – *Falcunculus frontatus whitei*;
- Gouldian Finch – *Erythrura gouldiae*;
- Northern Quoll – *Dasyurus hallucatus*;
- Northern Brush-tailed Phascogale – *Phascogale pirata*;
- Arnhem Leaf-nosed Bat – *Hipposideros inornata*; and
- Arnhem Rock-rat – *Zyzomys maini*.

The main vegetation is eucalypt woodland forest dominated by *Eucalyptus tetradonta*, *Eucalyptus Miniata*, *Corymbia bleeseri*, *Erythrophleum chlorostachys* and *Livistona humilis*, and other species common to these woodlands (Brock, 1997 and Clark et al., 1987). Lower areas tend to be dominated by *Melaleuca spp.* including *Melaleuca viridiflora* and *Melaleuca leucadendra*.

The Northern Territory Natural Resource Management (NT NRM) Infonet have been utilised to assess the presence of pest and potential pest animals that may occur within the area, including:

- Cane Toad – *Chaunus marinus*;
- Asian House Gecko – *Hemidactylus frenatus*;
- King Quail – *Excalfactoria chinensis*;
- Eurasian Tree Sparrow – *Passer montanus*;
- House Mouse – *Mus musculus*;
- Black Rat – *Rattus rattus*;
- Dingo / Wild Dog – *Canis lupus*;
- Cat – *Felis catus*;
- Horse – *Equus caballus*;
- Pig – *Sus scrofa*;
- Swamp Buffalo – *Bubalus bubalis*;
- Cattle – *Bos indicus* / *Bos Taurus*; and
- Goat – *Capra hircus*.

Database searches through the Department of Natural Resources, Environment and the Arts (NRETA) and the Protected Matters Search Engine (Australian Department of the Environment and Water Resources) have been used to provide a full species list of flora and fauna and identify rare and endangered species in the area.

3.5 Current Land Use

Current use of the land surrounding the site includes hunting, gathering and cultural use by the Traditional Owners. Access by non-traditional owners is limited almost exclusively to government officers and company employees and is controlled by a permit system.

3.6 Historical and Aboriginal Heritage Sites

Current NT legislation requires that all sacred, cultural and heritage sites are initially documented by the Traditional Owners and NLC anthropologists and archaeologists prior to exploration commencing.

An updated report from the AAPA was obtained for this project in July 2016. There are recorded sacred sites within the Nabarlek region, however these sites do not fall within the licence boundaries of this project. The Gabo Djang or Green Ant site are located immediately to the south-west of the Nabarlek Mining Lease (MLN692). This information has been utilised to set up “No-Go Areas” within the UEL mapping GIS database (see Figure 3).

UEL avoids all heritage sites with the plotting of proposed drillholes on a plan with the “No-Go Areas”. If a proposed drillhole is in close proximity to one of these “No-Go Areas”, then the drillhole location is moved away from the No-Go Area. This procedure is also applied when planning geochemical and ground-based geophysical surveys.

All proposed exploration activities are presented to Traditional Owners at a Work Program Clearance meeting held early in the year between UEL, Traditional Owners and representatives of the NLC, prior to exploration works commencing for that year. At these meetings permission is sought for UEL to proceed with the proposed exploration program for that year with the Traditional Owners approval of the drillhole/survey locations.

4 ENVIRONMENTAL MANAGEMENT SYSTEM

UEL understands that responsible environmental management is essential to sustainable business success and is committed to environmental best practice. This commitment is documented in the company's *Sustainable Development Policy* given at the start of this document. Careful environmental planning and implementation of appropriate management measures will help minimise the potential environmental impacts and will enhance successful rehabilitation of disturbed areas.

UEL's Environmental Management System (EMS) for all exploration activities are provided in this section. This EMS has been structured to comply with the requirements of the international EMS standard ISO 14001.

4.1 Environmental Policy and Responsibilities

UEL's commitment to the environment is defined in its *Environment Policy*, which is shown below.

Environment Policy

Uranium Equities Limited (UEL) is an Australian, publicly listed company actively exploring for uranium resources and focusing on the development of uranium assets with near term production potential.

UEL understands that responsible environmental management is essential to sustainable business success and is committed to a high standard of environmental management throughout its operations.

To achieve this UEL will:

- Comply with all environmental laws and regulations as a minimum, with best practice environmental management our target;
- Ensure appropriate training for all employees and contractors to enable them to fulfil their environmental responsibilities;
- Communicate with relevant government agencies and communities on environmental issues and develop open relationships;
- Establish programs to control and manage environmental risks;
- Implement strategies to minimize and manage hazards; and
- Establish measurable environmental objectives to monitor and continuously improve our environmental performance.



Tim Goyder
Executive Chairman

July 2016

Rev 4

4.1.1 Responsibilities

To ensure the company's commitment to the environment is fully implemented, UEL has allocated responsibilities to key staff members. These responsibilities are detailed below.

The **Geology Manager - Exploration** has the overall responsibility to protect the environment. Specifically this includes:

- Provide the necessary support to enable their staff to implement all aspects of the company's Safety and Environmental Policies and will allocate funds, materials and equipment where appropriate to address requirements;
- Allocate the necessary resources such that company operations and procedures are in compliance with relevant legislation, codes and Australian Standards;
- Ensure that safety and environment are prime considerations in all forward-planning in respect to the overall development of the project, and the procurement of machinery, plant or equipment and the administration of work schedules; and
- Liaise with Government Agencies on safety and environmental issues.

The **Senior Site Geologist** has the responsibility to act on behalf of the *Geology Manager - Exploration* to ensure all ESH responsibilities are achieved. This includes implementation of relevant environmental policies and procedures. More specifically to ensure that:

- The Nabarlek field induction is undertaken by every new employee and contractor to site so that their environmental obligations are known;
- Employees & contractors have adequate knowledge and skills to carry out their safety and environmental responsibilities;
- Incident reports are filed within 24 hours, and that action taken regarding the incident is communicated;
- Considering and providing feedback on any matters which may affect the environment;
- Regular toolbox safety and environmental meetings are held with workers under their responsibility;
- Toolbox meetings include an environmental component of any pre-start daily planning activity and maintain records of these meetings; and
- Sound safety and environmental attitudes and practices are promoted on site.

The **Environmental Advisor** is responsible for ensuring that:

- Environmental procedures are developed and implemented on site;
- Regular audits and inspections of worksites are conducted;
- Positive environmental attitudes and practices are promoted on site;
- All environmental related documents and records are managed and subject to document control;
- Environment and safety are prime considerations in all forward-planning in respect to the overall development of the project, and the procurement of machinery, plant or equipment; and
- Liaison with Government Agencies on environmental issues.

Employees and contractors are responsible for:

- Protecting the environment;
- Reporting incidents to their supervisor as soon as possible;
- Assisting in the identification of environmental hazards, the assessment of risks and the implementation of control measures;
- Considering and providing feedback on any matters which may affect the environment; and
- Complying with all relevant policies and procedures.

4.2 Statutory Requirements

The following dot points list all relevant legislation, codes and other statutory obligations related to the Project area. In certain circumstances, specifics of how it relates to the operation are also provided. UEL will comply with all permits and conditions pertaining to the Project area.

- *Aboriginal Land Rights (NT) Act (Commonwealth);*
Permission to explore over Aboriginal Freehold land is gained via Exploration Agreements with the relevant Traditional owners under *ALRA*. The Joint Venture partners have an exploration agreement with the Northern Land Council (NLC). The project area lies within the Arnhem Land Aboriginal Reserve. All personnel entering the project area will be required to obtain the appropriate Northern Land Council (NLC) permit.
- *Mining Management Act (NT) and Regulations;*
Operational aspects of the WAJV Project will be regulated under the *MMA* through the annual submission of an MMP, and via the conditions of Authorisation. This MMP is being prepared and submitted as required under this Act. In addition this Act requires the calculation of financial security based on the actual cost of rehabilitation;
- *Mineral Titles Act (NT) and Regulations;*
Exploration operations will be conducted on the lease subject to the conditions of the *Mineral Titles Act*.
- *Environmental Protection (Alligator Rivers Region) Act 1978;*
- *Radiation Safety and Control Act (NT) and Regulations;*
Mining operations are specifically excluded from the *RSCA*, however UEL endeavours to comply with the requirements of the Act wherever possible in the interests of good practice.
- *Radioactive Ores and Concentrates (Packaging and Transport) Act (NT);*
Under the *ROCA*, radioactive material may require a licence from NT Worksafe for transport off the Project area. Licences for sample transport will be sought as required.
- *Atomic Energy Act (Commonwealth);*
- *Bushfires Act (NT);*
- *Environmental Assessment Act (NT);*
- *Environmental Offences and Penalties Act (NT);*
- *Environment Protection and Biodiversity Conservation Act (Commonwealth);*
- *Heritage Conservation Act (NT);*
- *Native Title Act (NT);*
- *Northern Territory Aboriginal Sacred Sites Act (NT);*
- *Public Health Act (Commonwealth);*

- *Soil Conservation and Land Utilisation Act (Commonwealth);*
 - *Territory Parks and Wildlife Conservation Act (NT) and By-Laws;*
 - *Waste Management and Pollution Control Act (NT);*
 - *Water Act (NT);*
 - *Weeds Management Act (NT);*
 - *Workplace Health and Safety Act (NT);*
 - *Code of Practice for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing. (ARPANSA, Commonwealth);*
 - *Code of Practice on the Safe Transport of Radioactive Materials (ARPANSA, Commonwealth);*
- UEL have prepared a Radiation and Radioactive Waste Management Plan for all their exploration activities. This plan and its associated procedures ensure compliance with both these codes of practice.

4.3 Non-Statutory Requirements

UEL have entered into agreements with Traditional Owners of the land encompassing the WAJV Project. All persons working in Aboriginal Freehold land will obtain a permit from the NLC prior to entry.

4.4 Identified Stakeholders and Consultation

Current identified stakeholders include:

- Traditional Owners;
- Northern Land Council;
- Department of Mines and Energy (DME);
- NT WorkSafe;
- Department of Sustainability, Environment, Water, Population and Communities – Supervising Scientist Division (SSD);
- DEMED Association
- Department of Land Resources Management (Bushfires NT and Weed Management Branch)
- Bushfires Council
 - Northern Land Council (NLC)- Caring for Country regional ranger groups
 - Warddeken Land Management
- Cameco Australia Pty Ltd; and
- Uranium Equities Limited.

The primary stakeholders for the Nabarlek region are the Aboriginal Traditional Owners (TOs). UEL undertakes exploration in accordance with an Exploration Agreement negotiated with these TOs.

Prior to undertaking exploration works each year, Work Area Clearance meetings are held with TOs and representatives of the NLC. At these meetings TOs are presented with the proposed exploration program and their permission is sought for UEL to proceed. The meeting provides a forum for TOs to ask questions and voice any concerns.

A component of the work area clearance process is for archaeological and heritage clearances to be conducted prior to commencement of works and any identified No-Go zones or heritage zones removed from the program.

A meeting to discuss the work program for the Nabarlek Project was held on the 22nd of August 2016 with no issues raised by the NLC or TOs and permission was given for UEL to proceed with the 2016 field program. This permission includes approval for the temporary campsite location to be used by the ground gravity crew while surveying the western survey areas.

UEL participates in a number of forums to ensure consultation with stakeholders, which include:

- Mine Site Technical Committee (MTC) meetings;
- Alligator Rivers Region Advisory Committee (ARRAC); and
- Alligator Rivers Region Technical Committee (ARRTC).

Participation in ARRAC also ensures that other stakeholders are regularly updated on activities being conducted at Nabarlek. These stakeholders include:

- NT Environment Protection Authority (NT EPA);
- Department of Lands Resource Management (DLRM);
- West Arnhem Shire Council;
- NT Environment Centre;
- Australian Government - Department of Resources, Energy and Tourism;
- Australian Radiation Protection and Nuclear Safety Agency;
- Parks Australia North;
- Gundjeihmi Aboriginal Corporation;
- NT Department of Health (DoH);
- Other mining companies in the area; and
- Miscellaneous other members of the public with interest.

4.5 Induction & Training

Each staff member and contractor will be trained with the *West Arnhem Exploration Induction* before they are allowed to commence work on site. As standards and practices change, staff will be made aware and trained in new practices.

The *West Arnhem Exploration Induction* outlines environmental & cultural issues relevant to exploration activities and items of particular importance covered by the induction include:

- Cultural awareness;
- Weed Management;
- Vegetation and Land Clearance;
- Waste Management;
- Hydrocarbon/Hazardous Materials and Radiation Management; and
- Fire Management

Records will be kept of all staff and contractors that undertake the induction. It is expected that any person entering site to work will undertake this induction.

4.6 Environmental Aspects & Impacts

The key environmental aspects considered to be important in the assessment of environmental impacts for the WAJV exploration activities are outlined in Table 3. Environmental impacts were identified from the results of environmental audits, workplace inspections, risk assessment and from a working knowledge of day-to-day operational activities.

The risk rating was assigned by conducting a small group session and assessing the magnitude or severity of environmental impacts using the UEL Risk Matrix (Table 3a) for each environmental aspect and assigning a score. Mitigating factors were taken into consideration to assign a Mitigated Risk Rating.

Table 3: WAJV Environmental Aspects and Impacts Register for Exploration Activities

Environmental Aspect	Environmental Impact	Risk Rating	Management Measures (Refer to listed section below)	Mitigated Risk Rating
Clearing of drill pads, drill sumps and access tracks	Damage to or loss of native vegetation	6	4.6.1	9
	Disturbance of threatened/listed species	13	4.6.2	17
	Loss of faunal habitat	13	4.6.2	17
	Loss or damage to aboriginal heritage sites	8	4.6.4	12
	Dust emissions disturbing vegetation and/or fauna	10	4.6.5	15
	Change in shape, location and profiles of water courses	9	4.6.8	13
	Erosion and increased turbidity in local drainage lines	14	4.6.8	18
Construction of drill sumps	Damage to or loss of native vegetation	13	4.6.1	21
	Disturbance of threatened/listed species	13	4.6.2	21
	Loss of faunal habitat	13	4.6.2	21
	Loss/damage to aboriginal sites	12	4.6.4	16
Access to drill targets by drill rigs and associated equipment/vehicles	Damage to or loss of native vegetation	10	4.6.1	14
	Disturbance or loss of fauna from contact with vehicles	14	4.6.2	18
	Spread of weeds	5	4.6.3	13
	Damage to aboriginal heritage sites (e.g. significant aboriginal paintings) from vehicular dust emissions	2	4.6.4	11
	Dust emissions disturbing vegetation and/or fauna	10	4.6.5	15
Drill rigs operating in the field (cont/)	Disturbance to fauna including becoming trapped in unplugged drillholes or sumps	9	4.6.2	18
	Dust emissions disturbing vegetation &/or fauna &/or surface water	9	4.6.5	18
	Noise emissions disturbing fauna	14	4.6.5	19

	Draw down of groundwater	21	4.6.7	21
	Groundwater coming to surface	10	4.6.7	15
	Cross contamination of groundwater aquifers	18	4.6.7	21

cont/...

Table 3(cont.): WAJV Environmental Aspects and Impacts Register for Exploration Activities

Environmental Aspect	Environmental Impact	Risk Rating	Management Measures (Refer to listed section below)	Mitigated Risk Rating
Drill rigs operating in the field (cont)	Contamination of surface water or groundwater from hydrocarbon or hazardous material spillages	12	4.6.7, 4.6.8, 4.6.9.5	21
	Spread of domestic or industrial waste	14	4.6.9.1, 4.6.9.2, 4.6.9.3	22
	Contamination of soil from hydrocarbon or hazardous material spillages	5	4.6.9.2, 4.6.9.5	14
	Contamination of surface water or groundwater from spillages of liquids containing radioactive materials intersected during drilling	14	4.6.9.3	22
	Contamination of soil from radioactive dust and/or spilt radioactive drill cuttings	14	4.6.9.3	22
Fuel storage	Hydrocarbon spill or leak resulting in contamination of soil	8	4.6.9.5	18
	Hydrocarbon spill or leak resulting in contamination of surface water or groundwater	12	4.6.7, 4.6.9.5	21
	Fire as a result of incorrect usage, storage and transport	8	4.6.9.5	12
Hazardous Waste Management	Hydrocarbon spill or leak resulting in contamination of soil, surface water or groundwater	8	4.6.7, 4.6.9.5	17
Domestic Waste	Spread of domestic and or industrial waste	14	4.6.9.1, 4.6.9.2	22
	Domestic waste attracting fauna and feral animals	10	4.6.9.1	19

Table 3a: UEL Risk Matrix Used to Determine the Risk Rating and Mitigated Risk Rating in Table 3

		Consequence				
		Catastrophic	Major	Serious	Medium	Minor
Safety		Permanent damage or fatality	Long Term Injury with severe irreversible damage	Lost Time Injury	Medical treatment	First Aid
Environment		Permanent damage and ecosystem never recovers	Impairment of ecosystem function & leaving major residual damage that requires long term recovery (many years)	Serious Harm and requiring long term recovery from impact (typically years)	Material Harm and recovery from impact typically a month	Minor effects and reversible (typically within a week)
Cultural Heritage		Irreparable damage to site or item of high cultural significance	Irreparable damage to site or item of moderate cultural significance	Repairable damage to site or item of moderate cultural significance	Irreparable damage to site or item of low cultural significance	Repairable damage to site or item of low cultural significance
Property Damage		>\$10M	\$1M – 10M	\$100k – 1M	<\$100k	Minor
Likelihood	Hazard occurring:					
Almost Certain	Weekly	1	3	6	10	15
Likely	1 mth – 1 yr	2	5	9	14	19
Moderate	1-10 yrs	4	8	13	18	22
Unlikely	10-100 yrs	7	12	17	21	24
Rare	100-1,000 yrs	11	16	20	23	25

Critical Risk = 1-3, High Risk = 4-10, Moderate Risk = 11-15, Low Risk = 16 – 25

The environmental aspects and impacts detailed in Table 5 require appropriate management to ensure that the impact on the environment as a result of exploration activities on the WAJV tenements are minimised. The following section provides details of those management principles.

4.6.1 Vegetation Management

The principle objective for managing the disturbance to vegetation is to minimise the area of disturbance, avoid known priority flora locations and to ensure effective progressive rehabilitation. Management practices to be employed include:

- Minimising the area cleared for each access track to only that required for safe access;
- Use old and existing tracks where possible, and minimise the number of new tracks constructed;
- Avoid clearing established trees and dense stands of vegetation when constructing access tracks;
- Limiting the size of the drill pad to only that required for the safe and efficient operation of the drill rig;
- Use of blade up clearing of drill pads, where it is possible to obtain an even and safe surface without clearing and soil stripping;
- Windrow the cleared vegetation and topsoil to be used later in rehabilitation; and
- Rehabilitate the disturbed area as soon as practicable.

Topsoil management is critical to rehabilitation success. Management practices include:

- Removing and/or stripping any topsoil or vegetative material during the clearing process;
- Stockpiling topsoil material separately to any other soils. Stockpiles will be located away from work areas so that they are not mistakenly driven over.

- Topsoil stockpiles will be laid out in strips no more than 1 metre in height as close as possible to where they are to be used in future rehabilitation work.
- Using the stockpiled topsoil during rehabilitation works.

4.6.2 Fauna Management

The objective of fauna management is to minimise disturbance to native fauna from exploration activities. Fauna management will include:

- Minimising disturbance to vegetation and potential fauna habitats;
- Employing management measures to minimise impact on watercourses;
- Educating people on the importance of not killing or disturbing wildlife;
- Limiting vehicle speeds to reduce the potential for road kills;
- Construction of drill sumps with an egress of 45 degrees to allow fauna to ascend out of the sump;
- Capping of open drill holes;
- Managing refuse to prevent attraction to feral animals; and
- Culling feral animals in consultation with traditional owners. If culling of feral animals has been required, UEL has contacted the appropriate Aboriginal Ranger Group to conduct any culling activities.

4.6.3 Weed Management

Active management is required to prevent the potential spread of weeds during exploration programs. Weed management for exploration activities during the field seasons includes:

- Training of key personnel in weed awareness and control procedures;
- The requirement for wash down of heavy equipment and inspection for weed seed prior to mobilisation to site;
- Pre-planning of drill track and pad installation to avoid known weed infestation areas;
- The usage of a weed wash down station established at the edge of the airstrip apron to help reduce the spread of weeds off site as a result of vehicle traffic. All weed seed is captured in a bund and periodically treated with chemicals and/or fire;
- The requirement for all heavy vehicles to be washed down at the weed wash down station and inspected for weed seed prior to de-mobilising from site. A clearance certificate system is operated to ensure compliance with this requirement;
- The requirement for the wash down of all light vehicles each time before leaving site to travel to Jabiru, Oenpelli or Darwin. A log book is located at the weed wash down station for compliance with this requirement; and
- Chemical spraying of roads around lease and areas used during exploration activities.

4.6.4 Cultural and Heritage Management

The objective of cultural and heritage management measures is to minimise the impacts to identified cultural and heritage sites. During the planning of exploration programs, the location of drillholes and work areas is reviewed in relation to these “No-Go” zones. In addition, Work Area Clearance

meetings are held at the beginning of each year with TOs and representatives of the NLC to get approval for the proposed drilling program scheduled for the dry season.

Additional management techniques to minimise disturbance to cultural and heritage sites include:

- Making staff and contractors aware during the WAJV field induction that archaeological sites are protected under the *Heritage Conservation Act (NT)* and that any damage or destruction to sites may result in prosecution by the Northern Territory government;
- Educating staff and contractors on the existence of the archaeological sites and the corresponding “No-Go” zones during the WAJV field induction;
- Reporting any unauthorised entry into these “No-Go” zones to the Senior Site Geologist or Environmental Advisor;
- Ceasing work in the area if unauthorised entry occurs into a “No-Go” zones;
- Stopping work if a previously unidentified heritage site is found or suspected during the course of exploration work;
- Using the “No-Go” zones on the company’s GIS mapping system to ensure that proposed access tracks do not go through these zones; and
- Driving slowly past sandstone escarpments greater than 5 metres in height to minimise damage to aboriginal heritage sites with significant aboriginal paintings.

4.6.5 Noise and Air Quality Management

All drilling contractors and UEL staff in close proximity to the drilling rig will wear the appropriate hearing protection and dust safety equipment.

Noise generated from drill rigs and associated vehicles may result in negligible impacts to fauna in the immediate drill area. As there are no residences or townships close to the proposed exploration operations, no noise impacts will be experienced by members of the public. As a result there is no specific management for noise proposed for the current exploration program.

The objective for dust control and management is to ensure that dust generated from exploration activities does not cause contamination of water and soil or impact on vegetation or fauna. Management measures to ensure environmental dust emissions are minimised include:

- Dust extraction equipment to suppress dust from drill rigs;
- Limiting vehicle speeds whilst driving on site; and
- Minimisation of vegetation clearing.

4.6.6 Fire Management

Uncontrolled wildfires are an annual feature of the region, particularly from mid to late dry season. The Naborlek region has been subject to wildfires in the past with adverse effect on the native vegetation and fauna, particularly in areas of high weed infestation.

To minimise the opportunity for a fire to be accidentally lit as a result of exploration activities controlled ‘cool burns’ are undertaken in the late wet to early dry season. These are conducted in consultation with Traditional Owners and Bushfires NT.

Temporary campsites will check for, and observe any, fire bans before lighting campfires. Campfire size must be kept small and manageable with a minimum of 1m radial clearing around the fire. No

campfires are to be left unattended. Fire extinguishers must be readily available and located proximal to portable generators and inside all vehicles at the campsite.

Fire management measures include:

- Provision of firefighting equipment at the camp and in vehicles, including water trailers, vehicle mounted fire fighting units, fire extinguishers and fire fighting nap-sacks;
- Restrictions on where hot-work can be conducted;
- Training of employees in fire prevention and basic fire fighting;
- Fire breaks maintained around the perimeter of the site;
- Induction for all personnel in the use of the water trailer; and
- Provision of vehicle mounted fire fighting units for use during loader operations.

4.6.7 Ground Water Management

The objective for ground water management is to minimise both contamination and drawdown. UEL believes that it is unlikely that significant aquifers will be intersected as any future drill targets will be at shallow depths.

Any groundwater that comes to the surface as a result of exploration drilling will be contained in sumps and left to evaporate. The sumps used to contain groundwater are not lined. The sumps may contain groundwater and any mud or rock material that is brought to the surface during drilling operations. After allowing the contained materials to dry, the sediment is buried during sump rehabilitation by backfilling with stockpiled material during the drill site rehabilitation.

Pollution caused by spillages of hydrocarbons or from radioactive material has the potential to impact groundwater. Measures that will be implemented to ensure that spillages of hydrocarbons and other hazardous materials are minimised include:

- Ensuring that there is constant supervision of fuelling of the rig at all times;
- Provision of a spill kit at the drilling rig; and
- Ensuring that any spills are cleaned up and the contaminated area is rehabilitated.

4.6.8 Surface Water Management

The main objective for surface water management is to ensure that exploration activities do not lead to contaminants entering water courses and being carried off site.

Surface water management measures include:

- Ensuring all pumps and fuel/hydrocarbon containers are placed on self-bunding pallets during all drilling operations;
- Excavating two sumps for each drillhole to contain any drilling fluids and/or groundwater. If fluids cannot be contained within these sumps then drilling will be discontinued until further provision for the drilling fluids can be made;
- Ensuring spillages are cleaned up and rehabilitated;
- Reducing dust emissions from drilling rigs and vehicles; and
- Best practice drill rig pad management, including topsoil and vegetation management and construction of small bunds to divert surface runoff around disturbed areas and access tracks.

The other objective of surface water management is to minimise erosion of surface water bodies. Management techniques include:

- The minimisation of vehicle crossings over drainage lines where existing crossings do not already exist; and
- Rehabilitation of access tracks crossing drainage lines after significant/erosive flood flow.

4.6.9 Waste Management

There is a range of waste generated from exploration activities. Each waste stream has specific management techniques which are described below.

4.6.9.1 Domestic Waste

Domestic waste is produced at both the Nabarlek camp and the exploration sites within the WAJV area.

The types of camp wastes produced include:

- Organic debris (i.e. food scraps); and
- General refuse including scrap metal, cardboard and plastics.

The objective of waste management in the camp is to minimise the amount of waste that needs to be disposed of in land fill. UEL have implemented a domestic waste segregation system where all waste that can be recycled is transported back to Darwin at the end of the field season and all domestic refuse is burned in a pit on site. Domestic waste generated from temporary campsites will also comply with this management plan.

Recyclable wastes include:

- Plastics;
- Cans;
- Glass; and
- Scrap Metals.

Non-recyclable wastes such as aerosols and batteries are placed in separate containers at the camp and are also taken back to Darwin at the end of the field season. An inventory system has not been implemented.

Domestic refuse such as food scraps, organic debris and burnable rubbish (paper and cardboard) is transported to the domestic refuse pit which is located at a distance from the camp to minimise the number of feral animals attracted to either location. Each time that domestic refuse is deposited in the pit it is burned. The pit has been fenced to prevent access by larger feral animals and sloped to allow egress of any trapped native animals.

4.6.9.2 Exploration Waste

The types of exploration wastes produced include:

- Inert waste such as rubble from excavations;
- Hazardous wastes such as waste oils;
- General refuse including scrap metal, cardboard and plastics; and
- Sludges, sediments and drill cuttings brought to the surface during drilling, some of which may contain small quantities of naturally occurring radioactive material. At this stage of the drilling, it is not known whether the drill cuttings/sediments/sludges contain any radioactivity and therefore this exploration waste cannot be distinguished from the radioactive waste.

The objective of waste management at the exploration sites is to minimise the potential for soil and water contamination from the various waste streams. Management includes:

- Any sludges, sediments and drill cuttings brought to the surface during drilling are contained within the drill sump, allowed to dry and buried in the sump upon completion;
- All hydrocarbons and hazardous materials are stored and handled to ensure that spillages are minimised and if they do occur are cleaned up and the area rehabilitated; and
- All domestic and hard wastes are returned each night to the camp for appropriate segregation and management.

No operational waste is generated through ground gravity surveying as this technique is carried out on foot with battery-powered instruments. Any personal waste (e.g. food scraps, disposable batteries) from the crew will be kept and disposed of appropriately as per the procedure listed in section 4.6.9.1.

4.6.9.3 Radioactive Waste

Uranium exploration activities can generate very low quantities of radioactive waste with drilling being the only activity that generates any radioactive waste materials. Possible radioactive drilling waste streams include:

Solid Waste

- Drill cuttings from mineralised zones;
- Miscellaneous waste material that has contacted mineralised material (e.g. gloves, rags, etc.); and
- Radioactive contaminated drilling equipment.

Liquid Wastes

- Spillages of groundwater containing radioactive materials intersected during drilling; and
- Spillages of water used for drilling that intersect mineralised zones.

Airborne Wastes

- Airborne dusts generated during percussion drilling.

UEL has a Radiation and Radioactive Waste Management Plan (RRWMP) for the company's exploration activities. The objective of this plan is to minimise these various radioactive waste streams from entering the environment and causing contamination.

Management measures detailed in the RRWMP include:

- Dust suppression on drilling rigs to minimise the spread of dust from mineralised zones;
- Containing all water from drilling in the sump;
- Spillages of liquids containing radioactive materials will be minimised as much as practicable utilising the following practices:
 - Earthen bunds will be placed around work areas that may contain liquid radioactive material;
 - Use of properly maintained equipment;
 - Education and training of workers in the importance of minimising spillages and prompt reporting of incidents; and
 - Core sample handling areas will be earthen bunded to catch all liquids and sludge's produced.
- At the completion of drilling each hole will be plugged and rehabilitated and the following radioactive waste management will occur:

- Any possible surface contamination including spilt drill cuttings or drill samples will be returned to the drill hole or sump;
 - Any water from drillholes contained in the sump will be allowed to dry before being buried beneath clean soil;
 - Any radiological material intersected in drill cuttings or drill samples will be returned to the drill hole or where this is not possible, placed in the drill sump and buried with at least one metre of compacted soil cover, in accordance with uranium exploration industry best practice standards (Australian Uranium Association, 2009, Best Practice Guidelines for Uranium Exploration); and
 - No anomalous radioactive contamination will be left at drill sites; each will be checked after rehabilitation with a scintillometer.
- At the completion of drilling activities at a particular site all drill rigs and equipment will be thoroughly cleaned;
 - Before leaving site all drill rigs and equipment will be checked for radioactive contamination. Any contaminated equipment found will be cleaned and re-checked prior to being released from the site; and
 - Retaining mineralised samples in a locked and secure container with appropriate signage.

4.6.9.4 Hydrocarbon Waste

It is expected that small quantities of hydrocarbons, including diesel, oils and lubricants will be used during drilling and other exploration activities and these will be stored in the securely fenced bunded compound of the Mineral Lease (MLN962).

Management measures to ensure that spillages of hydrocarbons and other hazardous materials are minimised during storage and transportation include:

- The storage of hazardous materials and hydrocarbons in a securely fenced bunded area or in self-bunded tanks/containers;
- Transportation in accordance with applicable regulations and codes (if required);
- Fire fighting equipment in the near vicinity of the storage area;
- Cleaning up of any spills and the remediation of contaminated areas; and
- Disposal of unused hazardous waste substances in a manner that minimises any potential impacts, including disposal to registered disposal sites where required.

Management measures to ensure that spillages of hydrocarbons and other hazardous materials are minimised during drilling include:

- Ensuring all pumps and fuel/hydrocarbon containers are placed on self bunding pallets during all drilling operations;
- Ensuring that there is constant supervision of fuelling of the rig at all times;
- Provision of a spill kit at the drilling rig;
- Ensuring that any spills are cleaned up and the contaminated area is rehabilitated;
- The construction of sumps at drill sites to contain any hydrocarbon contaminated water from drilling; and
- Placing plastic sheeting under drill rigs while operational to capture any hydrocarbon spills.

Management measures to ensure that spillages of hydrocarbons and other hazardous materials are minimised at temporary campsite include:

- Storing all hydrocarbons within a plastic bunded spill enclosure;
- Provision of a spill kit at the campsite;
- Firefighting equipment in the vicinity of the storage area; and
- Refuelling using nozzle attachments on jerry cans.

4.7 Emergency Procedures & Incident Reporting

UEL requires that all environmental incidents, near misses and hazards are reported to a supervisor immediately. Specific environmental incidents that require reporting include:

- Hydrocarbon spillage;
- Animal injuries or deaths;
- Wildfire;
- Cyclone or intense rain event;
- Unplanned vegetation disturbances;
- Breaches of the environmental policies or procedures; or
- Other unforeseen events.

All incidents will be recorded on an Environmental Incident Register. Any incident rating “Class 2” or above will be reported to the Chief Executive Officer of the Department of Resources in accordance with the procedures set out in the Draft Guideline of Environmental Incident Reporting under Section 29 of the Mining Management Act.

Emergency procedures have been developed to ensure appropriate management of potential incidents. Generic environmental incident management includes:

- Supervisor to immediately inspect the area and implement temporary control;
- Immediate internal notification to management and subsequently to regulatory authorities as required;
- Use a risk based approach to determine severity and root cause of incident;
- Identify corrective actions to be undertaken to mitigate any adverse consequences;
- Follow up to ensure corrective actions are implemented;
- Identify changes to work practices to ensure the incident does not reoccur; and
- In the case of a reportable incident, provide relevant authorities with a final report stating any long term initiatives proposed to manage residual impacts.

4.8 Environmental Audits and Inspections

UEL has implemented an internal auditing and inspection program for its exploration activities to ensure compliance with management systems and to facilitate continuous improvement. Inspections are conducted periodically throughout the field season.

4.8.1 Documentation

All UEL documents are subject to document control to prevent unauthorised alteration and to ensure that all employees have access to and can easily identify the most up to date versions and enable effective management of reviews. A document register ensures the effective management of documents.

All environmental related documents and records are managed by the Environmental Advisor. These include, but are not limited to, management plans and procedures, environmental policies, procedures and forms, monitoring records and data, incident reports and investigations, inspections and audits.

4.9 Environmental Performance Reporting

UEL will track safety and environmental performance through key performance indicators (see section 6) and report these in subsequent Mining Management Plans.

Photo monitoring will be undertaken in conjunction with exploration activities to track potential impacts to vegetation and measure rehabilitation success (see section 5.1.1 for more detail).

5 EXPLORATION REHABILITATION

5.1 Exploration Rehabilitation Methods

The objective of exploration rehabilitation is to reinstate the site to as near as original condition as possible and to leave it in a state where revegetation can occur after the completion of exploration activities. Rehabilitation activities for exploration work programs are summarised in Table 4 and detailed in the *Post-Drilling Procedure*.

Topsoil management is critical to rehabilitation success. Proposed measures applicable to preservation of topsoil include:

- Any topsoil or vegetative material removed during the clearing process will be stockpiled for use during rehabilitation;
- Topsoil material will be stripped and stockpiled separately to any other soils; and
- Topsoil stockpiles will be laid out in strips no more than 1 metre in height as close as possible to where they are to be used in future rehabilitation work. Stockpiles will be located away from work areas so that they are not mistakenly driven over.

At the completion of exploration rehabilitation, the land will be left to naturally regenerate. If monitoring (see Section 5.1.1) shows natural revegetation to be ineffective then seeding with provenance species and/or weed control measures will be undertaken.

Existing tracks are closed off for the wet season, prior to UEL leaving site. PVC piping and associated earthworks over creek crossings are removed and erosion control measures, such as spur drains or contour banks, are placed at suitable regular intervals. Natural drainage lines are checked to ensure that they are not blocked and any obstructions are removed. Any windrows that have developed along the tracks are flattened to prevent preferential flow paths.

All rehabilitation works will be recorded on the WAJV Drillhole Rehabilitation Register which will be implemented by UEL as drilling works are initiated.

5.1.1 Photo Monitoring

Photo monitoring of all drillhole sites before and after drilling is undertaken to allow comparison of the rehabilitated site to the original undisturbed site. A *Drillhole Photo Monitoring Procedure* has been developed to ensure consistency for all drill site photo monitoring, with a photo-monitoring station established for each drillhole enabling replication at defined time intervals after rehabilitation (immediately after, 12 months and 24 months). Information associated with each photo (photo-monitoring station coordinates, azimuth of photo, date and photo ID) is recorded on a *Pre-Drilling Data Form* and *Post-Drilling Data Form*.

5.2 Current Rehabilitation Status

Under the former JV arrangements with Cameco as operator, all disturbed areas resulting from exploration work programs were rehabilitated at the completion of each field season by Cameco.

Table 4: Rehabilitation Activities for Exploration Work Programs

Disturbance	Rehabilitation Activities	Schedule (Timing)	Closure Objectives	Monitoring
Drill holes	N/A	N/A	<p>All drillholes plugged and safe prior to the end of the field season.</p> <p>Ensure revegetation is progressing and weeds have not established at the 12 month inspection.</p>	<p>Photographs taken before drilling, post-rehabilitation and at the 12 month inspection.</p> <p>Enter rehabilitation data onto <i>Nabarlek Drillhole Rehabilitation Register</i>.</p> <p>Follow up any sites which require further work.</p>
Drill sumps	N/A	N/A	<p>All sumps backfilled prior to the end of the field season.</p> <p>Ensure revegetation is progressing and weeds have not established at the 12 month inspection.</p>	<p>Photographs taken before drilling, post-rehabilitation and at the 12 month inspection.</p> <p>Enter rehabilitation data onto <i>Nabarlek Drillhole Rehabilitation Register</i>.</p> <p>Follow up any sites which require further work.</p>
Drill pads	N/A	N/A	<p>All drill pads clean and recontoured.</p> <p>Ensure revegetation is progressing and weeds have not established at the 12 month inspection.</p> <p>Ensure there is no radiological contamination of the surface soils by comparing the final radiation reading with the initial radiation reading at each work site.</p>	<p>Photographs taken before drilling, post-rehabilitation and at the 12 month inspection.</p> <p>Enter rehabilitation data onto <i>Nabarlek Drillhole Rehabilitation Register</i>.</p> <p>Follow up any sites which require further work.</p>
Access tracks	<p>Any compacted areas to be ripped.</p> <p>Any windrows to be flattened to prevent preferential flow paths developing and leading to erosion.</p> <p>PVC piping and associated earthworks over creek crossings removed and erosion control measures (eg spur drains or contour banks) placed at suitable regular intervals.</p> <p>Check that any natural drainage lines are not blocked and any obstructions from creek crossings are removed.</p> <p>Stockpiled topsoil respread over the track.</p> <p>Any cleared vegetation to be respread.</p>	At the completion of the field season.	<p>All new tracks rehabilitated prior to the end of the field season.</p> <p>All existing tracks closed off for the wet season.</p> <p>Ensure revegetation is progressing and weeds have not established at the 12 month inspection.</p>	Follow up any sites which require further work.

6 PERFORMANCE OBJECTIVES

UEL, through its *Sustainable Development Policy and Environment Policy*, is committed to achieving best practice in environmental and safety management. To track its performance in these areas UEL has developed a number of performance indicators with associated targets that will be used in 2016 (Table 5). The objectives have been selected to ensure continual improvement in environmental management of exploration activities and safety performance.

Table 5: Environmental and Safety Performance Indicators for 2016

Performance Indicator	Current Measure	Target
SAFETY		
Number to Lost Time Injuries per year	0	0
Number of Medical Treated Injuries per year	0	0
Number of First Aid Treatments per year	0	0
Number of incidents per month	0	0
Percentage of drill rigs inspected	100	100
ENVIRONMENTAL		
Number of reportable environmental incidents	0	0
Number of environmental incidents per month	0	0
Number of native fauna deaths from operations	0	0
Number of un-authorized environmental disturbances	0	0

UEL has developed performance objectives for both its exploration activities and the rehabilitation of legacy uranium mining areas. The objectives have been selected to ensure continual improvement in its environmental management of exploration activities. Specific objectives are given in Table 6.

Table 6: UEL 2016 Performance Objectives

No	Overall Objective	Target for 2016	When
1	No reportable environmental incidents	Zero	Oct 2017
2	Update and submit MMP	Annually	July 2016
3	Rehabilitate exploration disturbance areas	Continue photo monitoring of 2014 & 2015 rehabilitated drillholes and rehabilitate any new disturbances	Photo monitoring & rehab of new disturbance Oct 2016

7 REFERENCES

Brock, J., 1997, *Native Plants of Northern Australia*, Reed.

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