

**MAY DRILLING PTY LTD
ACN 123 393 135**

**Exploration Operations
Amended Mining Management Plan**

**SURVEY CREEK PROJECT
Authorisation – 0652-01**

2016 to 2017

February 2017

Document Distribution List
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The MMP must be endorsed by a senior representative of the company who has the appropriate level of delegation.

	Author	Reviewed by	Approved by
Date	15 February 2017		
Name	Holly Edgar	Seamus May	Seamus May
Signature			

I , Seamus May, Director declare that to the best of my knowledge the information contained in this mining management plan is true and correct and commit to undertake the works detailed in this plan in accordance with all the relevant Local, Northern Territory and Commonwealth Government legislation.

SIGNATURE:

DATE:.....

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Amendments

Section	Amendment
General	<p>Updated template used.</p> <p>Bulk sampling is not proposed for 2016- 2017.</p> <p>The AAPA certificate provided is current.</p>
General	<p>May is aware that a copy of the MMP with the commercial in confidence information removed is required to be published. A public report copy will be supplied to DPIR to publish once instructed in the security request.</p>
3.0 Project Details	<p>Summary of title details given, as requested in 2.0 of 2015 MMP comments.</p>
3.1 Previous Activities and Current Status	<p>Information requested in section 2.2 of the 2015 MMP comments provided in this section.</p>
3.1 Previous Activities and Current Status	<p>Update to section.</p> <p>May will complete the rehabilitation of the 2014 costeans by November 2017.</p> <p>All other historical works that have not been fully rehabilitated, will also be completed by November 2017.</p>
3.2 Proposed Activities	<p>Updates to section.</p> <p>Access route to drilling sites is attached at Appendix 10. Map shows access to sites from the existing roads on site. Please note that these will not need to be cleared. Only sparse and small vegetation is found in these areas. The long access route to the drill site on EL28462, is a road that was previously constructed by the station owner.</p> <p>The dams are not a proposed activity for 2017. The coordinates of existing dams were requested in the 2015 Field Inspection Report. May did not construct these dams. These dams can be seen on 1985 aerial imagery of the area, when May was not a titleholder of the area.</p> <p>May did not conduct bulk sampling in 2016 and is not proposing any in 2017. May is not involved with the existing dams on site, therefore cannot provide the requested information on them.</p>
4.0 Current Project Site Conditions	<p>Update to section.</p>
5.2 Statutory and non- statutory requirements	<p>Information requested in section 4.2 of the 2015 MMP comments provided in this section.</p>
2015 Site Visit- Recommendations & Considerations	<p>Additional clearing required for drilling provided in document.</p>

May Drilling will re-spread topsoil when drilling is completed.

Radiation reading will be taken before and after rehabilitation of drill pads.

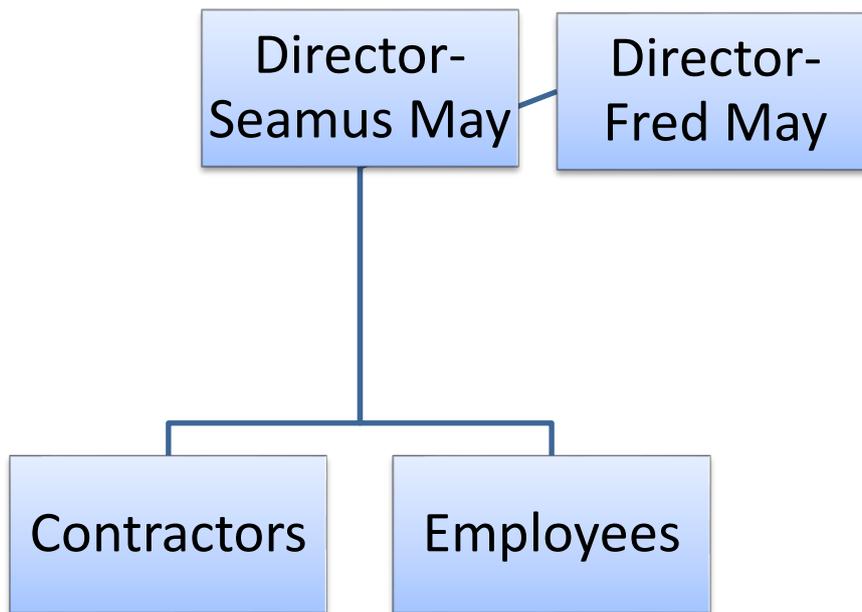
May Drilling will plug and bury drill holes at completion of activities, as per DPIR guidelines.

Details of the above are provided within this document.

1 Operator Details

Operator Name:	MAY DRILLING PTY LTD
ACN	123 393 135
Key Contact Person/s:	SEAMUS MAY
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1.1 Organisational Structure



1.2 Workforce

The workforce will generally consist of one of the Directors and 3 to 5 employees of May Drilling Pty Ltd, as well as anywhere from 1 to 5 contractors depending on the activities and the scope of the activities.

The scope of the initial activities proposed will most likely result in 3 to 4 persons on site. An increase in the level of activity on the project area may lead to a corresponding increase in employee and contractor numbers to the level mentioned above.

2 Identified Stakeholders and Consultation

The identified stakeholders for the Survey Creek Project are:

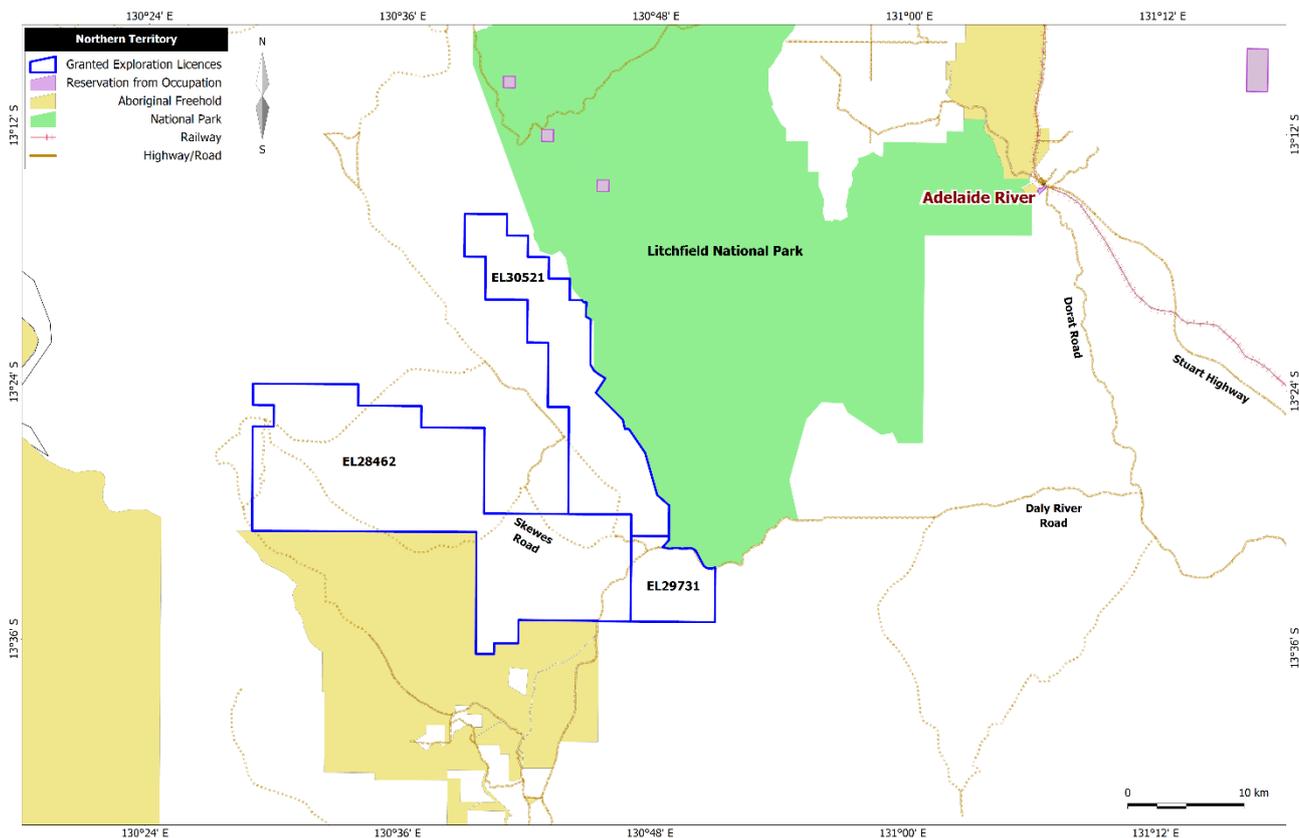
- The landholders – Tovehead Pty. Limited and Branir Pty Ltd and A.A. Company Pty Ltd;
- The Native Title Claimants – Fish River Native Title Claimants;
- The Department of Primary Industry and Resources
- The Department of Business – NT WorkSafe;
- Power and Water Corporation;
- Bushfires NT – Department of Land Resource Management.
- Australian Mining & Exploration Title Services
- Northern Land Council

3 Project Details

Project Name:	Survey Creek Project
Authorisation Number	0652-01
Location:	The project area is located approximately 17 km north west from Daly River township in the Daly River locality.
Site Access:	Access to the site is via the Daly River Road then along tracks established by BHP during its drilling campaign in 1984.
Title holder/s:	May Drilling Pty Ltd is the 100% holder of the subject titles – title and titleholder details can be found at Appendix 1 of the MMP. Native Title details are attached at Appendix 6.

Licence	Application Date	Granted Date	Area (Blocks)	Area (sq kms)
EL 28462	22/11/2010	15/07/2011	112	398.88
EL29731	18/10/2012	16/05/2013	16	46.79
EL30521	29/08/2014	28/05/2015	49	148.68

Location map:



Location of Survey Creek Project in Relation to Darwin – EL28462, EL29731 and EL30521

3.1 Previous Activities and Current Status

Historical Mining/Exploration

The Department of Mines and Energy Strike database indicates that at least one diamond drill hole, the results of which were logged in 1976 is present on the area. Reports on the database indicate that whole rock sampling was also carried out on the Project area.

It is believed that further exploration of the area occurred in 1984 however, records of company responsible for the exploration and the activities carried during the exploration are vague.

Since the grant of EL24864 to May Drilling Pty Ltd on 15 July 2011, the company has conducted drilling campaigns. The intention was for 3 holes to be drilled however, only 1 diamond drill hole was drilled at coordinates 692548E/8500492N. In 2012-2013, the drill hole was cased to 21 metres with PVC piping. The access track leading from the Daly River Road to the drill site is a pre-existing track. The area disturbed during drilling has been cleaned –up and left to rehabilitate naturally.

May Drilling has conducted costeaning on EL29731 from 2014 to 2015. This has not been fully rehabilitated.

Exploration Licence 30521 was granted on 28 May 2015 and has been added to this MMP.

May Drilling did not calibrate the Geiger counter in 2015 to 2016 and no radiation readings were detected.

May Drilling have drilled 3 x diamond drill holes.

During 2015 to 2016, May Drilling drilled 5 RC holes and conducted Ground EM, Ground Magnetics and Ground Gravity Surveys, all of which have produced drill targets.

Please note: The survey line/road was constructed by Quanees in 1972. May cleaned this road up to make it usable, but kept the entrance uncleared for 500m to prevent access. Tipperary Station later widened it to approximately 7km long and 4m wide for taking in double deck cattle trucks. May utilises this track, but is not responsible for it, as it is now open to the public.

Work completed 2015- 2016

Mining Interests (i.e. titles)	EL28462	EL29731	EL30521
Number of holes drilled	5	Nil	Nil
Maximum depth of hole	42m	Nil	Nil
Number of drill pads cleared (Length: x Width: m)	1 at 30m X 20m	Nil	Nil
Number of sumps cleared (Length: x Width: x Depth: m)	Nil	Nil	Nil
Length of line / track cleared (Kilometres: x Width: m)	Nil	Nil	Nil
Number of costeans excavated (Length: x Width: x Depth: m)	Nil	Nil	Nil
Total bulk sample pits excavated (Length: x Width: x Depth: m)	Nil	Nil	Nil
Camp area/s cleared	Nil	Nil	Nil
Total area disturbed (hectares)	Nil	Nil	Nil
Drill holes capped / plugged	5	Nil	Nil
Total area rehabilitated (hectares)	Nil	Nil	Nil

No sample bags will be left on site.

Seamus May will utilise the rehabilitation register for all future drilling and exploration works. Photographic evidence of rehabilitation progress will also be recorded.

3.2 Proposed Activities

Mining Interests (i.e. titles)	EL28462	EL29731	EL30521
What time of the year will exploration occur?	Wet and dry season – depending on access	Wet and dry season – depending on access	Wet and dry season – depending on access
How long is exploration expected to occur?	Completion within 2 weeks	Completion within 2 weeks	Completion within 2 weeks
Type of drilling (i.e. RAB, RC, Diamond, aircore)	RC & Diamond	RC	RC
Target commodity	Base metals & gold. Pegmatite- Tantalum	Base metals and gold. Pegmatite- Tantalum	Base metals and gold. Pegmatite- Tantalum
Is drilling likely to encounter radioactive material?	It is unlikely however, if uranium is encountered it will be reported to DPIR	It is unlikely however, if uranium is encountered it will be reported to DPIR	It is unlikely however, if uranium is encountered it will be reported to DPIR
Number of proposed drill holes	3 RC & 3 Diamond	1 RC	3 RC
Maximum depth of holes	100m	100m	100m
Number of drill pads (Length: 20 x Width: 10 m)	6- 0.12Ha	1- 0.02 Ha	2- 0.06Ha
Is drilling likely to encounter groundwater? (Y, N, unsure)	Unsure	Unsure	Unsure
Number of sumps (Length: 4 x Width: 1 x Depth: 1 m)	2- 0.0008Ha	Nil	Nil
Length of line / track clearing (Kilometres: 3 x Width: 4m)	Nil, as only sparse small vegetation is present	Nil, as only sparse small vegetation is present	Nil, as only sparse small vegetation is present
Number of costeans (Length: 20 x Width: 0.5 x Depth: 1m)	Nil	Rehab of 2014 costean	Nil
Total bulk sample (tonnes)	Nil		

(Length: x Width: x Depth: m)			
Will topsoil be removed for rehabilitation purposes?	Yes	Yes	Yes
Previous disturbance yet to be rehabilitated on title (ha) if known	4 sites -Just need to be plugged. Bags now removed from all sites.	Nil	Nil
Camp (Length: x Width: m)	Nil	Nil	Nil
Total area disturbed (hectares)	0.1208 Ha	0.02 Ha	0.06 Ha
	TOTAL- 0.2008 Ha		
Other:	Nil	Nil	Nil

Proposed drilling site coordinates and shape files are located in Appendix 9.

Seamus now has a scintillometer and a RS125 super spectrometer. These will be used in all future programs. The spectrometer was last calibrated in 2014.

Drill cutting will be disposed of in a hole located near the drill site. The drill cuttings will be capped off with topsoil.

4 Current Project Site Conditions

Site Conditions	Description
Geology	<p>The bioregion consists of three broad geological provinces, Pine Creek Geosyncline, Bonaparte Basin and Money Shoal Basin. The oldest province is the Pine Creek Geosyncline consisting of Palaeoproterozoic-Mesoproterozoic (1,000 – 2,500 million year old) sediments, gneisses and intrusives. The western most province is the Bonaparte Basin. This basin consists of Cambrian to Ordovician (434-545 million year old) sediments and volcanics overlain by Late Devonian to Triassic (141-369 million year old) and Cretaceous (65- 141 million year old) sediments.</p> <p>The soils range from sandy red and yellow earths or podsoils with some siliceous sands and heavy alluvial soils and clays associated with the floodplains.</p>
Hydrology	<p>There are numerous ephemeral waterways on the title area, the major one being Elliot Creek. A water body known as Moon billabong is located in near the south western boundary of the Exploration Licence. There are numerous areas within the boundary of the title that are subject to inundation.</p> <p>No known bores are located on the title area.</p>

	<p>During drilling operations sumps will be constructed to contain any groundwater that might be brought to the surface. Any groundwater that comes to the surface as a result of 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.</p>
<p>Flora</p>	<p>Eucalypt forests co dominated by darwin stringybark (<i>E. Tetrodonta</i>) and darwin woolly butt (<i>Eucalyptus miniata</i>), in association with ironwood (<i>Erythrophleum chlorostachys</i>) occur extensively away from the coast. In most places tall grasses such as speargrass (<i>Sorghum spp</i>) dominate the ground flora, with a mid-layer of shrubs including <i>Acacia</i>, fan palm (<i>Livistona humilis</i>), zamia palm (<i>Cycas armstrongii</i>) and screw palm (<i>Pandanus spiralis</i>).</p> <p>Bloodwoods (<i>Corymbialeeseri</i>, <i>C. dichromophloia</i> and <i>C. latifol</i>) and northern box (<i>E. tectifca</i>) woodlands also occur widely, mostly on lateritic rises and/or heavier soils.</p>
<p>Fauna</p>	<p>The brush-tailed rabbit-rat (<i>Conilurus penicillatus</i>) has declined and there is evidence of a decline in the brush-tailed phascogale (<i>Phascogale tapoatafa</i>), golden-backed tree-rat (<i>Mesembriomys macrurus</i>), northern quoll (<i>Dasyurus hallucatus</i>), pale field-rat (<i>Rattus tunneyi</i>), and golden bandicoot (<i>Isodon auratus</i>).</p> <p>The region has amongst the highest recorded diversity of birds in the Northern Territory, due to the diversity of habitats from mangroves, rainforest patches to rocky areas. The mud flats and swamps are important habitat for migratory waders and waterfowl. The bioregion includes most of the major waterfowl rookeries in northern Australia.</p> <p>There is a high diversity of frog species reflecting the importance of the wetland habitats in the region. Saltwater crocodiles (<i>Crocodylus porosus</i>) occur along the coasts and of the major rivers.</p>
<p>Invasive Pest Species</p>	<p>There have been extensive plantings of introduced pasture grasses in many parts of the region. Although they are regarded as useful pasture species, they have become environmental weeds due to their rapid spread, either deliberate or accidental into areas not used for grazing. Tall introduced grasses such as mission grass (<i>Pennisetum polystachion</i>) and gamba grass (<i>Andropogon gayanus</i>) are having an impact on the upland savanna woodlands. More severe fires as a result of the higher fuel loads associated with these species, disadvantages both native understorey species and native animals associated with the native plants. Para grass (<i>Urochloa mutica</i>) has long been used in wetland areas. Recent introductions of the ponded-pasture species olive hymenachne (<i>Hymenachne amplexicaulis</i>) is a major cause for concern in terms of environmental impacts. Couch (<i>Cynodon dactylon</i>) is found in a wide variety of habitat and soil types particularly in wetter areas.</p> <p>A number of feral animals are widespread including cats (<i>Felis catus</i>), asian water buffalo (<i>Bubalus bubalis</i>) and pigs (<i>Sus scrofa</i>). Cane toads (<i>Bufo marinus</i>) are also a potentially serious threat to this bioregion. Pigs are particularly damaging in this bioregion mainly in the wetland areas.</p> <p>The big-headed ant (<i>Pheidole megacephala</i>) is in an early stage of incursion in this bioregion mainly centred on Darwin. This ant is a major threat to native invertebrate assemblages and to agricultural production.</p> <p>No major exotic fish incursions occur in this bioregion. However localised incursions of several freshwater aquarium fish have occurred. This includes mosquito fish (<i>Gambusia holbrooki</i>) in Railway Dam in Darwin, and platys</p>

	<p>(<i>Xiphophorous maculatus</i>), mollies (<i>Poecilia latipinna</i>) and swordtails (<i>Xiphophorous helleri</i>) in Gunn Point Creek.</p>
Land Use	<p>EL28462 is located within NT Portion 2681 - PPL 1006 in the Daly River locality.</p> <p>EL29731 is located within NT Portion 2682 – PPL 1004 in the Daly River Locality.</p> <p>EL30521 is located within NT Portion 3220 and 2681- PPL 1006 in the Daly River locality.</p> <p>Landholder reports for EL28462, EL29731 and EL30521 are attached at Appendix 2 of the MMP.</p>
Historical, Aboriginal, Heritage Sites	<p>There are nil determined Native Title Claims within the area. NNTT Reports are found in Appendix 6.</p> <p>The operator has received abstracts from the AAPA register of sacred sites that shows an area along the eastern boundary of EL28462 is affected by a registered sacred site that continues into the north-western portion of EL29731. The reports are attached at Appendix 3 of the MMP.</p> <p>There is a known Heritage area within EL28462. Noltenius’ Billabong and Grave is situated within the licence. Exploration will not occur near this site.</p> <p>A copy of the Heritage Register Reports for NT Portion 2681, NT Portion 2862 and NT Portion 3220 can be found at Appendix 4. Nil Heritage areas have been identified in these NT Portions.</p>

May Drilling will not be engaging an Environmental Consultant to undertake a likelihood analysis on this Project.

May Drilling has completed an online NRM flora and fauna report of the area and a 10km radius and endangered and vulnerable species may not be present within the area and May Drilling’s footprint within the project area will be minimal.

May Drilling will minimise land impact by the following methods:

- Vehicles will be washed down when entering and exiting the site;
- Commit to using the blade up technique, where possible or practical;
- Use naturally cleared sites as a preference before clearing additional areas;
- Pad sizes are always kept to a minimum;
- Do not clear habitat trees or vegetation over 4 inches high; and
- Rehabilitate areas as soon as works are completed.

5 Environmental Management System

May Drilling Pty Ltd is a small company that ensures responsible environmental management through a series of sensible precautions and procedures in which unnecessary damage to the environment is minimized by careful, selective mining techniques and, where possible, early remedial works to allow the short growing season of the region to have optimum benefit.

Seamus May will be the person responsible for the overall environmental management and rehabilitation of the site. He has reviewed this document and he undertakes to honour the commitments made within the document.

5.1 Environmental Policy and Responsibilities

A copy of the May Drilling Pty Ltd Environmental Safety and Health Policy is attached to Appendix 5 of the MMP.

The company's objective is to operate in a responsible manner to minimise the impact on the environment. The company believes that caring for the environment and protecting our heritage is an integral part of their business. May Drilling Pty Ltd will ensure that responsible environmental performance will be given equal importance along with the financial and production aspects of their business.

May Drilling Pty Ltd will:

- Integrate the principals of sustainable development into their business approach.
- Comply with all environmental legislative requirements.
- Work closely with the community and governing bodies to ensure that the best approach to environmental care.
- Encourage employees to value the heritage in the environment in which we work.
- Effectively manage the use of natural resources.
- Reduce waste, recycle and accept responsibility for the correct disposal of consumables.
- Maintain an open consultation process with all stakeholders.
- Manage and minimize - workplace exposure to hazards and ecosystem disturbance.
- Adhere to Departmental recommendations for the rehabilitation of disturbed areas as sustainable ecosystems and community assets.
- Fulfill employee and contractor educational and training requirements to equip them with the knowledge that will ensure responsible environmental performance on the project areas.

5.2 Statutory and Non-Statutory Requirements

The legislation listed below may affect the project:

Mineral Titles Act 2010;

Mineral Titles Regulations 2010;

Mining Management Act;

Mining Management Regulations;

Work Health and Safety (National Uniform Legislation) Act 2011;

Work Health and Safety (National Uniform Legislation) Regulations;

Bushfires Act;

Bushfires Regulations;

Weeds Management Act 2001;

Water Act;

Native Title Act 1993;

Northern Territory Aboriginal Sacred Sites Act;

Northern Territory Aboriginal Sacred Sites Regulations;

The Environmental Protection and Biodiversity Conservation Act 1999;

Heritage Act;

Soil Conservation and Land Utilisation Act;

Territory Parks and Wildlife Conservation Act;

To date there are no no-statutory agreements in place between the titleholder and landholders or any other parties, should this change details will be included in the updated MMP.

5.3 Induction and Training

The responsible person will be either Seamus May or Fred May. Employees and contractors are required to complete an induction prior to commencing work on a site. The induction covers:

- Environmental responsibilities of the company;
- Environmental responsibilities of the individual;
- Water contamination;
- Environmental awareness;
- Responsible operating practices;
- Management of hydrocarbon spills;
- Waste management;
- Protection and avoidance of heritage and cultural sites;
- Reporting procedure.

The names of employees and contractors that have participated in and completed the induction process are recorded. Records are stored at the company's offices.

Training topics covered both in the induction and as additional training include:

- Identification and management of threatened flora and fauna species;
- Incident reporting;
- Site inspections;
- Weed identification;
- Management of feral animal species;
- Emergency response training;
- Other issues raised during toolbox meetings such as fire extinguisher raining and modifying procedures may be the subject of further training.

5.4 Identification of Environmental Aspects and Impacts

Aspect	Impact(s)	Risk Rating	Preventative Control Measures (to prevent/minimise impact)	Mitigating Control Measures (to monitor and remediate impact)
Clearing of drill pads and tracks	Loss of native flora and fauna	3	Inspect all areas before works and clearing commences.	Revegetate areas with native seeds.
	Erosion & Sediment Control	5	Vegetation will be replanted in areas where possible. Topsoil will be re-spread as soon as possible after cessation of drill site.	Previous drill areas will be monitored for erosion before and after the wet season and after any significant rainfall event. If erosion has or is likely to take place, sediment traps will be installed.
	Introduction of weeds	5	Inspect vehicles prior to entry and exit from project area. Establish shake down areas at the exit from the project area to assist in removing weeds and seeds from plant and equipment. Shake down areas will be the exit entry point, as minimal vehicle traffic will be utilised on the project. Weeds will be removed from vehicles and collected in a container to be later sprayed or burnt. Seamus May will be responsible for the weed management on site. Incidences of new weed species on site will be reported to DLR and DPIR.	Continuous monitoring and controlling of weed growth throughout the year, every month. Establish a spraying campaign to control weed infestation after the wet season or hand pull weeds from small areas where infestation has taken hold. Follow up to occur 3 months after a spray.
	Fire destroying flora and fauna	5	Observe fire restrictions. Maintain fire breaks around drill equipment.	Inspect firebreaks and fire extinguishers during daily pre-start procedures.

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Aspect	Impact(s)	Risk Rating	Preventative Control Measures (to prevent/minimise impact)	Mitigating Control Measures (to monitor and remediate impact)
			Extinguishers mandatory on all vehicles and equipment. Mobile firefighting equipment on site during drill campaigns.	
	Destruction of Cultural & Heritage Sites	6	The operator has received an abstract from the AAPA, confirming that there are restricted work areas and registered sacred sites within the project area. All on site personnel will be advised of sacred site details before any work commences. Pegs and flagging tape will be used to mark off the sacred site area if work is required to be completed close to the sacred site boundary. If any potential archaeological material is discovered in the works areas, work will cease in that location and the occurrence will be reported to the AAPA.	Monitoring of pegs, markers and flagging tape at the start of each shift to ensure that they are in place and visible.
Drilling	Hydrocarbon spills/drilling fluids/drill water – contamination of soil, surface and ground water	5	Diesel fuel will be brought on site in 200 litre drums, stored on the service truck and transferred via a hand-pump. Spill kit will be on hand at transfer point. Only sufficient fuel for the day's activities will be brought on to the work site. Disturbance to flora and fauna will be minimal due to sensitive clearing of drill pads. Noise and dust emissions will be managed with mandatory noise and dust reduction equipment on plant and machinery. PPE will be issued to personnel to minimize exposure to dust and noise. Work areas may be watered to reduce dust. Diesel fuel will be brought on site in 200 litre drums that will be stored on banded pallets in the service truck and transferred via a hand-pump. Spill kit will be on hand at transfer point.	In the event of a spill on site, the contaminated soil will be removed and taken to a hazardous waste disposal facility. Eg Tox Free.

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Aspect	Impact(s)	Risk Rating	Preventative Control Measures (to prevent/minimise impact)	Mitigating Control Measures (to monitor and remediate impact)
	Dust and noise emission – pollution and disturbance to fauna	2	A water cart may be used if required. Negligible amounts of air pollution will be produced during drilling.	Dust will be visually monitored at all site inspections. A water cart will be implemented if dust is regularly produced from the site.
	Fauna entrapment and death down drill holes	3	All holes will be capped with temporary caps immediately after drilling completion of the hole. After drilling has ceased and if no further down-hole activity is proposed, the holes will be permanently plugged, at a minimum depth of 400mm.	At the start and end of each wet season, rehabilitated drill sites will be inspected to ensure that the site is safe and stable and that there have not been any hole failures.
	Contamination of surface water & ground water	3	Silt traps will be implemented if required. If erosion is evident or envisaged, measures will be put in place to prevent erosion, ie compaction and revegetation	Water courses will be visually monitored to ensure there is not an excess of silt within the water courses. Areas will also be monitored for erosion.
Use of vehicles/ machinery on site	Hydrocarbons and hazardous materials	5	Diesel fuel will be brought to site in a specially designed tank on the service truck. Transfer will be via hydraulic pump. Spill kits will be on hand in all vehicles. Oils and lubricants will be stored in an appropriate bunded container, and will be removed at the end of each shift.	In the event of a spill on site, the contaminated soil will be removed and taken to a hazardous waste disposal facility. Eg Tox Free.
	Wastes	3	Ensure that all domestic waste continues to be disposed of at a licenced rubbish dump. Remove potential food source for animal pest species.	Maintain process of disposal of domestic waste at a licenced rubbish dump.

The above impacts have been assessed with the below Risk Rating Matrix.

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KEY		CONSEQUENCE (C)		
<i>Critical Risk</i>				
<i>High Risk</i>				
<i>Moderate Risk</i>				
<i>Low Risk</i>				
		Low	Medium	High
		□ Little to no impact	Medium term -ve impact	Irreversible or long term -ve impact
LIKELIHOOD (L)	High >75% Chance event will occur in life of plan	4	7	9
	Medium 25% <-75% Chance event will occur in life of plan	2	5	8
	Low <25% Chance event will occur in life of plan	1	3	6

5.5 Environmental Audits, Inspections and Monitoring

The responsible person (Seamus May) will conduct a walk-through inspection of the work site prior to daily works during the operational period. Every inspection will monitor the below:

- Surface water;
- Groundwater;
- Invasive species;
- Flora and fauna;
- Hydrocarbons and hazardous materials areas and containers;
- Waste;
- Noise and air quality;
- Cultural and heritage sites; and
- Any areas of erosion.

Any adverse findings will be recorded in a site diary and acted upon as appropriate. For minor incidents that are readily controlled, appropriate actions will be undertaken to mitigate any adverse findings or conditions, and to prevent the recurrence of such incidents. In the case of a finding being made that is of concern from an environmental perspective, work may be halted until appropriate action has been taken to remedy the situation. If a serious incident is evident, the appropriate emergency response will be initiated.

A visual inspection of the site will be conducted prior to the initial commencement of work and following that, monitoring will be at the start of each shift (daily) during periods of operations and once a month when operations are not being conducted on site.

	Description of monitoring technique and frequency of the monitoring program	Audit and inspection technique and frequency where appropriate
Surface water	Daily visual inspections during operational periods.	Daily walk through inspections of operational work site. Scheduled inspections before and after wet season of non-operational site or after large rainfall event. *Note details in site diary.
Groundwater	Inspection of spill trays are in place underneath machinery to catch any fuel/ oil spills at the start of each shift. At the start of each shift, ensure that a spill kit of absorbent	Monitoring any leaks while machinery is operating and while plant and machinery are being refueled. *Note spills and action taken in site diary.

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	material (kitty litter) is at hand to soak up any fuel or oil spill.	
Invasive species	<p>All employees are to inspect their vehicles when entering and leaving a site to ensure that weeds are not transported on or off site.</p> <p>Inspect site for evidence of feral animal infestation – could be carcasses, scats or tracks in the case of large animals.</p>	<p>Daily walk through inspections of operational work site. Scheduled inspections before and after wet season of non-operational site event or after large rainfall event.</p> <p>*Note details in site diary.</p>
Flora and fauna	<p>Visual inspection - consult threatened species list prior to clearing an area to determine if threatened species are on site.</p>	<p>Prior to commencing clearing and daily walk through inspections of operational work site. Scheduled inspections before and after wet season of non-operational site event or after large rainfall event.</p> <p>*Note details in site diary.</p>
Hydrocarbons and hazardous materials	<p>Inspection of spill trays are in place underneath machinery to catch any fuel/ oil spills at the start of each shift.</p> <p>At the start of each shift, ensure that a spill kit of absorbent material (kitty litter) is at hand to soak up any fuel or oil spill.</p>	<p>While machinery is operating and while plant and machinery are being refueled.</p> <p>*Note spills and action taken in site diary.</p>
Waste	<p>Inspect areas to ensure that all waste articles have been removed from the site as intended.</p>	<p>Daily walk through inspections of work area. Scheduled monthly inspection of non-operational site.</p> <p>*Note details in site diary.</p>
Noise and air quality	<p>At the start of each shift, inspect all plant and machinery are equipped with mandatory noise suppression equipment.</p>	<p>Visually monitoring for dust during working periods. Monitoring noise during shifts.</p> <p>*Note details in site diary.</p>
Cultural and heritage sites (if applicable)	<p>At the start of each shift, inspect any marked off areas have flagging tape in place.</p>	<p>Daily monitoring if working near identified site.</p> <p>*Note details in site diary.</p>

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Erosion and sediment control.	Daily visual inspections during operational periods.	Daily walk through inspections of operational work site. Scheduled inspections before and after wet season of non-operational site or after large rainfall event. *Note details in site diary.
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5.6 Environmental Performance

5.6.1 Objectives and Targets

The results of inspections/ audits conducted on the project area will constitute a monitoring program. During operational periods, Seamus May will conduct inspections during the pre-start of each shift. Monitoring will also occur at the start and end of the wet season and after any significant rainfall events.

Inspections/ audits will focus on:

- Management of any water that is encountered during the drilling process – water will be diverted to the drill sumps;
- Water monitoring - surface water flowing on the drill pad will be diverted into the drill sumps or into silt traps to shed its load of silt before escaping on to the surrounding land;
- Noise mitigation will be effected by ensuring that mandatory noise limiting devices fitted to plant and machinery are functioning correctly and that all personnel are equipped with PPE ear muffs or ear plugs);
- Dust will be controlled by wetting down work areas and tracks, and by issuing PPE (dust masks) personnel;
- Weeds will controlled on site by spraying, hand pulling, inspecting vehicles and plant entering and leaving the site and by establishing a shake-down area near the exit from the site;
- Waste oils, oil and air filters, grease cartridges and rags and domestic waste from the camp site will be removed from the project area and disposed of at an approved facility;
- Documented inspection and audit reports are intended to be included in the updated MMP to display the progress made towards achieving environmental targets. Details of inspections recorded in the site diary will be included in the MMP renewal;
- Drill holes will be capped as per the Advisory Note AA7-029. Drill pads and sumps will be rehabilitated as per that Advisory Note.; As mentioned in section 4.8, upon completion rehabilitation activities will be documented and photographed for lodgement with DPIR.

5.6.2 Performance Reporting

The records in the site diary of inspections/ audits conducted on areas of sites will constitute a monitoring program.

Inspections/ audits will focus on:

- Management of any water that is encountered during the extractive process – the effectiveness of any silt traps and incidences of erosion will be monitored and recorded in the site diary;
- Noise mitigation – the effectiveness of mandatory noise limiting devices fitted to plant and machinery will be monitored and recorded in the site diary;

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- Dust control – will be monitored and control measures recorded in the site diary;
- Weed monitoring and control – results of hand pulling or spraying of weeds and weed monitoring will be recorded in the site diary;
- Waste management – details of the disposal of general waste and waste resulting from the basic servicing of plant and equipment will be recorded in the site diary;
- Details of the activities listed above are intended to be included in the updated MMP to display the progress made towards achieving environmental targets and the process of continual improvement.
- All rehabilitation activities will be documented and photographed for lodgement with DPIR.

Disturbance	Monitoring and Inspection Findings (Include progress, targets, closure objectives, issues or problems identified)
Surface water	Water diversion mounds constructed on the hill on EL28462 to prevent erosion occurring.
Groundwater	Nil
Invasive species	Buffalo have been spotted within the project area.
Flora and fauna	Mimosa (<i>Mimosa pigra</i>) has been identified on the project site in the past. Seamus May notifies the traditional rangers to spray. Occurs start of wet. Gamba grass has also been identified on site, however it is used by the pastoralist.
Hydrocarbons and hazardous materials	Nil
Waste	Nil
Noise and air quality	Nil
Cultural and heritage sites (if applicable)	Seamus May is aware of the Cultural and heritage sites, however nil works are conducted in the area.
Erosion and sediment control	Erosion hazards have been identified on the access routes on EL28462. Water diversion mounds have been constructed on the hills of these access routes to prevent water scouring away at the access routes.

5.7 Emergency Procedures and Incident Reporting

The responsible person will be either Seamus May or Fred May. An environmental emergency on the project area will most likely arise from a hydraulic oil or fuel spill. The small quantities of fuel that will be kept on the work site and the oil in the storage tanks of plant and machinery poses a risk to the environment. The emergency procedure that the operator has in place to manage such a threat is as follows:

- Alert co-workers and report the incident/or accident to the immediate supervisor;
- Trap any liquid if possible by bunding the area to prevent it from reaching any waterways;

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- Without placing the safety of the individual at risk, identify the source of the leak if possible and determine if it can safely be stopped;
- The site manager/ supervisor must then report the incident/ accident to DME as soon as practicable after the occurrence in accordance with section 29 of the *Mining Management Act*. A copy of the Reporting Guideline is attached at Appendix 10;
- Manage any threat of fire by having different types of fire extinguishers that can deal with oil based fires and grass fires;
- Any contaminated soil and material such as rags and blankets must be disposed of at an approved facility;
- Ensure that the details and the occurrence of the incident/ accident have been noted and the record stored at the operator's office.
- Any incidents that are rated as 'Class 2' and above incidents will be reported to the Chief Executive Officer of the Department of Mines and Energy in accordance with the procedures set out in the Draft Guideline, which is attached in Appendix 10.

6 Exploration Rehabilitation

Disturbance	Rehabilitation Activities	Schedule (Timing)	Closure Objectives / Targets	Monitoring Techniques & How Rehabilitation success is measured
Drill holes	Drill collars will be temporarily capped immediately after drilling, then collars will be cut-off or removed and holes plugged, at a minimum depth of 400mm, within 6 months of completion of drilling of the hole.	Holes will be permanently or temporarily capped immediately following cessation of the drilling program. Within 6 months of completion of drilling, collars will be cut-off or removed and holes plugged, at a minimum depth of 400mm.	All holes will be plugged/capped as per DME Advisory Note AA7-029.	Rehabilitated drill sites will be inspected at end of the wet season or within 6 months to ensure that the site is safe and stable and that there have not been any hole failures. Remediation of any failures will be undertaken immediately. Before, immediately after, and subsequent year photos to be taken.
Drill pads	Any topsoil that was removed will be re-	The pad may not be rehabilitated immediately after drilling ceases if	Drill sites to be returned to original contour and to blend with	Rehabilitated drill pads will be inspected at end of the wet season or within 6 months to

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	<p>spread over the pad.</p> <p>Any shrubs or trees that were removed will be placed over the area to provide habitat for small fauna.</p>	<p>more down-hole is scheduled.</p> <p>If no further work is proposed or within 6 months, the pad will contour and to blend with surrounding environment.</p>	<p>surrounding environment.</p> <p>Drill pads will be left in a safe and stable condition as soon as possible after the end of drilling program.</p>	<p>ensure that the site is safe and stable and that regrowth on the area is satisfactory.</p>
Sumps	<p>Sumps will not be backfilled until all water has been pumped out or evaporated.</p> <p>Polyurethane liners will be removed if applicable for disposal at an approved facility.</p> <p>Topsoil will be re-spread on the top</p>	<p>If no further work is proposed the sump will be rehabilitated after drilling ceases or within 6 months.</p>	<p>The sump will be rehabilitated after drilling ceases or within 6 months.</p> <p>Sumps will be left in a safe stable condition as soon as possible after the end of drilling program.</p>	<p>Rehabilitated sumps will be inspected at end of the wet season or within 6 months to ensure that the site is safe and stable and that regrowth on the area is satisfactory.</p>
Tracks / Gridlines	<p>Existing tracks to be cleaned up if required using blade-up technique. If compaction occurs they will be ripped prior to closure of the site as per DME Advisory Note AA7-005, unless required to remain in place by the pastoralist. The pastoralist is still considering this.</p> <p>Natural drainage lines will not be blocked.</p>	<p>Tracks/ Gridlines will be rehabilitated as per Advisory Note AA7-005 upon closure of the Authorisation unless required to remain in place by the pastoralist.</p>	<p>May Drilling will promote rapid revegetation and prevent initiation of erosion by using the blade up technique.</p> <p>Tracks will be rehabilitated as per Advisory Note AA7-005 unless required to remain in place by the pastoralist.</p>	<p>Rehabilitated tracks will be inspected at end of the wet season or within 6 months to ensure that they remain safe and stable and that regrowth on the area is satisfactory</p>
Sample bags	<p>Sample bags to be removed and drill cuttings to be backfilled in the</p>	<p>All sample bags will be removed from site within 6 months of completion of the drill hole or field</p>	<p>All sample bags, waste materials and contaminants must be removed from site and disposed of in an</p>	<p>Drill areas will be checked for sample bags at the end of each drill programme.</p>

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	<p>drillhole, or buried in the sump.</p> <p>Inert material may be respread over the drill site.</p> <p>Acidic drill cuttings to be backfilled in the drillhole or buried in the sump beneath a minimum of 1 m clean fill.</p>	<p>season drill programme.</p>	<p>appropriate manner, following the completion of the drilling program, as per Advisory Note AA7-029.</p>	
<p>Camp- not required at this stage. Information provided for later programmes</p>	<p>Mobile camps only – caravans and tents to be established on open areas, no clearing proposed. Domestic rubbish will be removed and disposed of at an approved facility. Long drop toilet.</p>	<p>Only 2 camps are anticipated. Camp sites to be vacated will be cleaned-up before vacating the area. Long drop toilets will be filled in.</p>	<p>The camps will be located on naturally occurring open areas or previously cleared areas. The sites will be left in “as found” condition.</p>	<p>Camp sites will be inspected at end of the wet season or within 6 months to ensure that they remain safe and stable and that regrowth on the area is satisfactory.</p>

6.1 Exploration Rehabilitation Register

May Drilling will begin using the Rehabilitation Register in Attachment A this field season.

Before and after photographs will be taken and provided in future MMPs.

