

APO0001741

Approval to undertake assessable prospecting operations

Lady Ilse North AC drilling

29 May 2024

Application summary

Detail	Application
Reference	APO0001741
Date of approval	29 May 2024
Title	EL 8357 (1992)
Contact	[REDACTED]
Project name	Lady Ilse North AC drilling
Project location	'Lyndhurst' Saxa Road, 15km north of Wellington
Activity type	Non-complying exploration activity

Important note

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Project

Project details

Application APO0001741 relates to the proposed Lady Ilse North AC drilling at 'Lyndhurst' Saxa Road, 15km north of Wellington.

The application proposes the following characteristics.

Detail	Proposal
Activity description	Pre-drilling: All exploration activities are completed in consultation with the landholder. Pre-drilling exploration activities include: finalising hole sites, establishing local drilling water sources and laying polypipe if required, assessing access routes, contractor site visits and completing any repair or modification work required to existing infrastructure. Drilling Activities: Drilling planned as aircore holes. Up to 220 AC sites proposed will be required approximately 10m x 10m each in size on gently sloping to flat cleared farmland. Disturbance area will be 1m by 1m. The following equipment may be required at each site: <ul style="list-style-type: none"> Drill rig (mounted on small truck), support truck light support vehicles, site trailers, and possibly laydown area for samples. Multiple light vehicles will be parked on site, but vehicle movements will be limited. All equipment could be operating at any one time. Post-drilling: After drilling a site inspection will be completed to ensure all rubbish or equipment has been removed. Above ground sumps may remain on-site for 1-2 weeks until disposal arranged. At the completion of drilling and assay results returned (approx 8 weeks), the site and tracks will be rehabilitated by ripping, collar plugged and cut and all rubbish and drill cuttings will be removed.
Earthworks or vegetation clearing	No
Access to exploration activities	Access around the property will be via established farm tracks or short access across paddocks, if required. No earthmoving equipment is required for site preparation as the land is all cleared gently undulating farmland with some low hills.

Detail	Proposal
Ancillary activities	No ancillary activities are planned, however, conditions may change and temporary camp accommodation may be required. Any temporary camps established will only be done in consultation with landholders and referring to any LGA requirements. Working during daylight hours only/ 7 days per week.
Anticipated start date	28 April 2024
Expected duration (weeks)	21 days
Expected rehabilitation completion date	28 April 2026
Proposed hours of operation	Other 6am-6pm, 7 days per week
On-site employee or contractor numbers	10

Exempted areas

The Lady Ilse North AC drilling has not proposed prospecting in an exempted area.

State conservation areas

The Lady Ilse North AC drilling has not proposed prospecting in a State Conservation Area.

Site description and existing environment

The project comprises the following existing land uses:

The land is used for cropping and grazing. Magmatic work closely with the Landholder to minimise the impact of exploration activities on farm activities. When and where required, Magmatic work around the Landholders farm schedule to minimise disruption to farming activities.

The project is located near the following sensitive receptors:

The nearest holes are around 500m from houses and holes will be moved as required to minimise noise. Magmatic will work closely with any affected residents to work to daytime only if required. Modern rig engine is well insulated, and noise is minimal. No night-shift is required.

The project is located with the following soil types and properties:

The soil type is Ferrosol. Soil compacts when driven, or worked on. Magmatic work with the Landholder before, during and after drilling activities to ensure compaction is minimised, and soil conditioning, including ripping is completed as soon as practical after drilling activities are completed (if required). All previous experience with working with landholders and ripping or conditioning soil has been successful. Sites are monitored for erosional impacts. Ground is gently undulating to gently sloping and no erosion has been observed by previous Magmatic activity.

The project has the following existing surface water sources in the area that are likely to be affected by the activity:

The nearest watercourses are the ephemeral Bodangora Creek The proposed exploration activities will have minimal impact on this creek.

The project has the following existing groundwater sources that occur in the area that are likely to be affected by the activity:

There are local farm wells and dams for stock water that are used by the local landholders. Water is of stock quality. Drilling water (~0.005 Mltr per day) is either purchased from a local supplier, or by

agreement with the landholder. Total water use per year is estimated at up to 0.10 Mltr. Exploration use of groundwater is considered incidental and groundwater sources are unlikely to be affected by the activity. Magmatic's drilling contractors will use standard drilling techniques and biodegradable drilling additives to minimise use of water. Magmatic use local contractors to dispose of drilling water at a local licenced facility if required during drilling. Magmatic have a procedure SWMS 732 AC Drilling Operations Groundwater Vulnerability designed to assist with Groundwater management. That document has been submitted to Resources Regulator with this document (732 SWMS - Drill RigOperations_GroundwaterVulnerability.pdf)

The project is in an area with the following topography, vegetation cover type, density and condition:

The area has been cleared for crops and grazing. Vegetation covers varies seasonally from barren exposed soil with no vegetation cover (drought), to lush crops (winter with good rains), to pasture. There are sparse trees. The proposed exploration activities will have only a minimal short-term impact on ground cover. Vegetation has recovered well in areas where Magmatic have worked previously in this region, and we have worked with landholders previously to ensure good rehabilitation practises and outcomes.

The project will impact the following matters of national environmental significance:

The MNES report identified listed Threatened Species and Communities. Modeling Resources (operating as Magmatic Resources) has developed a site-specific induction document to ensure all employees and contractors working on-site are aware of the listed Threatened Species and Communities.

The project is in an area with the following threatened species, ecological communities (or habitats):

The MNES report provided the following records:

- Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions- endangered likely to occur.
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland- critically- endangered likely to occur.
- And for birds:
 - o Regent Honeyeater- Critically Endangered- likely to occur;
 - o South-eastern Hooded Robin, Hooded Robin (south-eastern)- Endangered- likely to occur;
 - o Australian Painted Snipe- Endangered- likely to occur.

We have designed an Induction Addendum to address MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE and ENDANGERED SPECIES Text extract from that document is as follows: The birds and trees shown below are MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE and ENDANGERED SPECIES and are protected by law. If there are sightings of these bird species, work should cease and sighting reported to the supervising geologist. Work can only re-commence once species have dispersed. Additionally, the drilling program has been designed to avoid any stands of trees. The grassy woodland ecosystem's for both Western Grey Box tall grassy woodland & White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native grassland are endangered and are not to be interfered with. To manage these endangered species a specific induction addendum has been prepared listing what will be the response for a sighting of bird species (cease work until species has dispersed), and for the endangered grassland areas - no work is proposed for these areas and they are not to be interfered with. The induction addendum is attached (700 SWMS_MAG_LIAC_Addendum.pdf)

The project is in an area with the following historic cultural or natural heritage items:

Nil

The project is in an area with the following critical habitat/area of outstanding biodiversity value:

Nil

The project is located in an area with the following location, type and distance to the nearest Aboriginal heritage sites:

The area is heavily disturbed farmland and no Aboriginal heritage sites are within 1000m of the proposed exploration activities. Going more than 1000m put us into neighbouring properties where access is currently not been sought. An AHIMS search has been completed 20/5/2021 and results are attached.

Exploration activities

The following exploration activities have been approved.

Drill holes

Id/ Regulator no.	Type	Surface disturbance (m ²)	Veg. Clearing (m ²)	Excavation s (m ³)	Produced water (ml)	Depth (m)	Block number	Unit letters
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Other exploration activities

Id/ Regulator no.	Type	Surface disturbance (m ²)	Veg. Clearing (m ²)	Excavations (m ³)	Produced water (ml)	Block number	Unit letters
Lady Ilse North AC Drilling EA0005120	Air core drilling	75				CAN420	h
Lady Ilse North AC Drilling EA0005119	Air core drilling	135				CAN420	g
Lady Ilse North AC Drilling EA0005121	Air core drilling	10				CAN420	n

Impact management

The project includes the following measures to manage surface water impacts:

The nearest watercourses are the ephemeral Bodangora Creek. The proposed exploration activities will have minimal impact on this creek.

The project includes the following measures to manage groundwater impacts:

There are local farm wells and dams for stock water that are used by the local landholders. Water is of stock quality. Drilling water (~0.005 Mltr per day) is either purchased from a local supplier, or by agreement with the landholder. Total water use per year is estimated at up to 0.10 Mltr. Exploration use of groundwater is considered incidental and groundwater sources are unlikely to be affected by the activity. Magmatic's drilling contractors will use standard drilling techniques and biodegradable drilling additives to minimise use of water. Magmatic use local contractors to dispose of drilling water at a local licenced facility if required during drilling.

The project includes the following measures to manage waste and excess materials:

All exploration-related waste will be collected and disposed of at a licenced waste facility. Contractors are required to manage their drilling-related waste. AC drill cutting are collected in plastic bags. This would be about 5-10kg per metre. This material is disposed of at a licenced waste facility.

The project includes the following measures regarding the handling, use, storage and transportation of any chemicals and hydrocarbons:

Drilling chemicals will be handled and used as per the manufactures instructions. All drilling chemicals will be stored in bunded areas. Empty containers will be disposed of at licenced waste facilities. Bulk hydrocarbons will be transported in suitable containers.

The project includes the following measures of how noise impacts will be managed to minimise impacts on nearby sensitive receptors:

Noise will consist of motors from the drilling rig. AC drilling will only be active on day shift. Landholders will be advised and consulted with over noise emissions and a number to call if excessive. Noise emissions will be regularly monitored and discussed with local farm residents as required. These holes will be drilled on day shift only.

The project includes the following measures to manage air quality impacts:

Dust from AC drilling is captured in cyclones and dust suppression systems. Dust from tracks and access ways will be minimised by limiting vehicle speed.

Sensitivity of the land to be disturbed

Question	Yes/no
Conservation areas	
Land reserved under the <i>National Parks and Wildlife Act 1974</i> ?	No
Land acquired by the Minister under Part 11 of the <i>National Parks and Wildlife Act 1974</i> ?	No
Land subject to a 'conservation agreement' under the <i>National Parks and Wildlife Act 1974</i> and/or the <i>Biodiversity Conservation Act 2016</i> ?	No
Land declared as an aquatic reserve under the <i>Marine Estate Management Act 2014</i> ?	No
Land declared as a marine park under the <i>Marine Estate Management Act 2014</i> ?	No
Land within State Forests set aside under the <i>Forestry Act 2012</i> for conservation values, including Flora Reserves or Special Management (and other) Zones?	No
Land reserved or dedicated under the <i>Crown Lands Act 1989/Crown Lands Management Act 2016</i> (as applicable) for the preservation of flora, fauna, geological formations or other environmental protection purposes?	No
Land identified as wilderness or declared a wilderness area under the <i>Wilderness Act 1987</i> ?	No
Land subject to a Biobanking agreement (established under the now repealed <i>Threatened Species Conservation Act 1995</i>) or a Biodiversity Stewardship agreement established under the <i>Biodiversity Conservation Act 2016</i> ?	No
Land subject to a Wildlife Refuge agreement under the <i>Biodiversity Conservation Act 2016</i> ?	No
Land subject to existing conservation agreements on private land under repealed legislation that continue to have effect (e.g., trust agreements under <i>Native Conservation Trust Act 2001</i> , Property vegetation plans under <i>Native Vegetation Act 2003</i> , Registered property agreements under <i>Native Vegetation Conservation Act 1997</i>)?	No
Drinking water catchment protection areas	
Land declared to be a 'controlled area' or a 'special area' under the <i>Water NSW Act 2014</i> ?	No
Land declared to be a 'special area' under the <i>Water Management Act 2000</i> or <i>Hunter Water Act 1991</i> ?	No
Sensitive areas	
Land declared as area of outstanding biodiversity value under the <i>Biodiversity Conservation Act 2016</i> or critical habitat under Part 7A of the <i>Fisheries Management Act 1994</i> ?	No
Wetlands of international significance listed under the Ramsar Wetlands Convention?	No
Land designated as a nationally important wetland in the Directory of Important Wetlands?	No

Question	Yes/no
Coastal wetlands mapped under <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> ?	No
Littoral rainforests mapped under <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> ?	No
Coastal zone as defined in the <i>Coastal Management Act 2016</i> ?	No
Land identified in an environmental planning instrument as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management?	No
Waterfront land defined under the <i>Water Management Act 2000</i> ?	No
Land with a slope greater than 18 degrees measured from the horizontal?	No
Land with potential for soil and water contamination	
Land mapped as Actual Acid Sulfate Soils (AASS) or Potential Acid Sulfate Soils (PASS) on the Acid Sulfate Soils Risk Maps for NSW?	No
Aboriginal protection areas	
Land identified in an environmental planning instrument (such as a State Environmental Planning Policy or Local Environment Plan) as being of Aboriginal cultural significance?	No
Land declared as an Aboriginal place under the <i>National Parks and Wildlife Act 1974</i> ?	No
Historic or natural heritage protection areas	
Land listed on the World Heritage List, National Heritage List or Commonwealth Heritage List?	No
Land, places, buildings or structures listed on the NSW State Heritage Register?	No
Land identified in an environmental planning instrument (such as a State Environmental Planning Policy or Local Environment Plan) as being of heritage significance or a heritage conservation area?	No
Critical industry clusters	
Land identified as Critical Industry Cluster under <i>State Environmental Planning Policy (Resources and Energy) 2021</i> ?	No
Community land	
Public land classified as community land under the <i>Local Government Act 1993</i> ?	No
Other areas	
Land identified on the authority (e.g., exploration licence or assessment lease) as environmentally sensitive land?	Yes
Ecology	
Will the activity have a significant effect on threatened species or their habitats?	No
Will the activity have a significant effect on threatened ecological communities or their habitats?	No
Will vegetation be removed as part of access track upgrade works in waterfront land?	No
Aboriginal and European heritage	
Will the activity harm Aboriginal objects as defined under the <i>National Parks and Wildlife Act 1974</i> ?	No
Will the activity damage any listed heritage items?	No

Attachment 1 – Statement of commitments

Item	Commitment
Activity type	<p>Exploration activity comprising:</p> <ul style="list-style-type: none"> • 0 diamond drill holes • 0 reverse circulation drill holes • 0 other drill holes • 0 cubic metres of bulk sampling • 0 square metres of new access tracks • 0 lines of seismic testing • 220 square metres of air core drilling • 0 square metres of other drilling
Activity location	'Lyndhurst' Saxa Road, 15km north of Wellington, within EL 8357 (1992).
Activity scope (including any ancillary activities)	<p>Pre-drilling: All exploration activities are completed in consultation with the landholder. Pre-drilling exploration activities include: finalising hole sites, establishing local drilling water sources and laying polypipe if required, assessing access routes, contractor site visits and completing any repair or modification work required to existing infrastructure. Drilling Activities: Drilling planned as aircore holes. Up to 220 AC sites proposed will be required approximately 10m x 10m each in size on gently sloping to flat cleared farmland. Disturbance area will be 1m by 1m. The following equipment may be required at each site:</p> <ul style="list-style-type: none"> • Drill rig (mounted on small truck), support truck light support vehicles, site trailers, and possibly laydown area for samples. <p>Multiple light vehicles will be parked on site, but vehicle movements will be limited. All equipment could be operating at any one time. Post-drilling: After drilling a site inspection will be completed to ensure all rubbish or equipment has been removed. Above ground sumps may remain on-site for 1-2 weeks until disposal arranged. At the completion of drilling and assay results returned (approx 8 weeks), the site and tracks will be rehabilitated by ripping, collar plugged and cut and all rubbish and drill cuttings will be removed.</p> <p>No ancillary activities are planned, however, conditions may change and temporary camp accommodation may be required. Any temporary camps established will only be done in consultation with landholders and referring to any LGA requirements. Working during daylight hours only/ 7 days per week.</p>
Hours of operation	Other 6am-6pm, 7 days per week
Expected duration (weeks)	21 days
Anticipated start date	28 April 2024
Expected rehabilitation completion date	Estimated 28 April 2026
Maximum area of disturbance	220 square metres
Agricultural impact	The activity will be undertaken in accordance with APO0001741_EL8357_AIS.pdf (3160864 bytes)
Air quality	Dust from AC drilling is captured in cyclones and dust suppression systems. Dust from tracks and access ways will be minimised by limiting vehicle speed.
Protection of water sources	<p>The nearest watercourses are the ephemeral Bodangora Creek The proposed exploration activities will have minimal impact on this creek.</p> <p>There are local farm wells and dams for stock water that are used by the local landholders. Water is of stock quality. Drilling water (~0.005 Mltr per day) is</p>

Item	Commitment
	either purchased from a local supplier, or by agreement with the landholder. Total water use per year is estimated at up to 0.10 Mltr. Exploration use of groundwater is considered incidental and groundwater sources are unlikely to be affected by the activity. Magmatic's drilling contractors will use standard drilling techniques and biodegradable drilling additives to minimise use of water. Magmatic use local contractors to dispose of drilling water at a local licenced facility if required during drilling.
Soil and land stability	minimising vegetation clearing and surface disturbance. preventing any land degradation or pollution/contamination of land or water. all sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with relevant codes/standards/guidelines (details need to be provided). existing access tracks to be used/upgraded.
Noise and vibration	Noise will consist of motors from the drilling rig. AC drilling will only be active on day shift. Landholders will be advised and consulted with over noise emissions and a number to call if excessive. Noise emissions will be regularly monitored and discussed with local farm residents as required. These holes will be drilled on day shift only.
Coastal processes and hazards	Avoid the coastal environment
Hazardous substances or chemicals	Drilling chemicals will be handled and used as per the manufactures instructions. All drilling chemicals will be stored in bunded areas. Empty containers will be disposed of at licenced waste facilities. Bulk hydrocarbons will be transported in suitable containers.
Wastes and emissions	All exploration-related waste will be collected and disposed of at a licenced waste facility. Contractors are required to manage their drilling-related waste. AC drill cutting are collected in plastic bags. This would be about 5-10kg per metre. This material is disposed of at a licenced waste facility.
Vegetation	Don't clear anything.
Threatened fauna and flora species	We will keep an eye out for animals. There are no threatened plants as this is cropping country.
Areas of outstanding biodiversity value/critical habitat	
Endangered ecological community or critically endangered ecological community	Nil
Habitat of a threatened species or ecological community	Nil
Key threatening processes	Farmland. No trees to be cleared.
Barriers to movement of fauna	Farmland. If required, animals will move around us or move in the evening/nighttime. Farmland, so fenced paddocks.
Ecological and biosecurity impacts	Bushfire risk assessed in conjunction with weather conditions and discussion with Landholder. All vehicles washed down and inspected prior to arrival at site
Community resources	Minimal number of people on site - only as required.
Natural resources	Short duration program, work with farmer, avoid trees
Social impacts	Short duration program. Work with landholder and neighbours as applicable.
Economic impacts	Positive impact on local community

Item	Commitment
Heritage impacts	No heritage sites
Aesthetic impacts	Dayshift only
Aboriginal cultural heritage	As part of the site induction all contractors and staff are instructed to be aware of any artifacts and to report them directly to the site manager.
Land use impacts	Work with Landholder to minimise impacts.
Transportation impacts	Minimise trips where practical
Matters of national environmental significance	Do not damage trees in the area. Stay away from the wooded areas where practical.
Cumulative impacts	No cumulative environmental effects
Rehabilitation commitments	The activity will be undertaken in accordance with the rehabilitation objectives and targets provided for this project.
Risk assessments	The titleholder must monitor the risks associated with activities and, if the risk associated with an activity changes, implement revised environmental management controls.
Incident management	The NSW Resources Regulator will be notified of all incidents in accordance with the requirements of EL 8357 (1992).
Reporting	Reporting to the NSW Resources Regulator and Mining, Exploration and Geoscience – Department of Regional NSW will be in accordance with the legislation and conditions of EL 8357 (1992).
Codes of Practice	Lady Ilse North AC drilling will be operated in accordance with: <ul style="list-style-type: none"> • Exploration Code of Practice: Environmental Management • Exploration Code of Practice: Rehabilitation
Other (as applicable)	1. No additional terms specified.

Attachment 2 – Definitions

To search for NSW legislation, visit www.legislation.nsw.gov.au. Commonwealth legislation can be found at www.legislation.gov.au.

Word	Definition
Aboriginal object	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
Aboriginal place	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
Acid Sulfate Soils	Sediments and soils containing iron sulfides which, when exposed to oxygen, generate sulfuric acid. Acid sulfate soils include actual acid sulfate soils (AASS) or potential acid sulfate soils (PASS).
Activity	Any activity carried out in connection with exploration, including: <ul style="list-style-type: none"> the use of land means of accessing land the carrying out of a work.
Activity approval	An approval to carry out assessable prospecting operations granted under the <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – as relevant.
Actual Acid Sulfate Soils (AASS)	Sediments and soils containing highly acidic soil horizons or layers resulting from the aeration of sediments and soils that are rich in iron sulfides, primarily sulphide.
Applicant	In relation to an exploration activity, the person proposing to carry out the exploration activity.
Aquatic reserve	Has the same meaning as it has in the <i>Marine Estate Management Act 2014</i> .
Areas of Outstanding Biodiversity Value (AOBVs)	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> . Note: Areas of declared critical habitat under the now repealed <i>Threatened Species Conservation Act 1995</i> have become Areas of Outstanding Biodiversity Value (AOBVs) under the <i>Biodiversity Conservation Act 2016</i> .
Assessable prospecting operation	Any prospecting operation that is not exempt development within the meaning of <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Clearing of vegetation	Any one or more of the following: <ul style="list-style-type: none"> cutting down, felling, thinning, lopping, logging or removing vegetation, or killing, destroying, poisoning, ringbarking, uprooting or burning vegetation.
Complying exploration activities (CEA)	Exploration activities that are considered unlikely to significantly affect the environment as set out in <i>Exploration guideline: Application and assessment process for exploration activities</i> .
Critical habitat	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> . Areas of declared critical habitat under the now repealed <i>Threatened Species Conservation Act 1995</i> have become Areas of Outstanding Biodiversity Value (AOBVs) under the <i>Biodiversity Conservation Act 2016</i> .
Drill hole	A hole made by drilling or boring, but excludes: <ul style="list-style-type: none"> sampling and coring using handheld equipment, petroleum wells.
Drilling	The perforation of the earth's surface crust by mechanical means to form a hole, whether the hole caused by the perforation is vertical, inclined or horizontal, and includes all operations for preventing collapse of the sides of

Word	Definition
	such hole or for preventing it from being filled with extraneous materials including water
Environment	Has the same meaning as it has in the <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – as relevant.
Environmentally sensitive area of State significance	Has the same meaning as it has in <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Excavation	The removal of the surface layer to a depth greater than 500 mm from the natural surface level.
Exempt development	Has the same meaning as it has in <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Exploration	Has the same meaning as it has in <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Fauna	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
Groundwater	Water that occurs beneath the ground surface in the saturated zone.
Habitat	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> or the <i>Fisheries Management Act 1994</i> (as relevant).
Harm	<p>In relation to matters of national environmental significance, has the same meaning as 'significant impact' as provided by the 'Significant Impact Guidelines' used to determine whether assessment and approval is required under the <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>.</p> <p>In relation to the environment, has the same meaning as it has in the <i>Protection of the Environment Operations Act 1997</i>.</p> <p>In relation to threatened species or ecological communities, has the same meaning as:</p> <ul style="list-style-type: none"> • 'harm an animal' in the <i>National Parks and Wildlife Act 1974</i> • 'pick a native plant' in the <i>National Parks and Wildlife Act 1974</i> • 'harm' in the <i>Fisheries Management Act 1994</i>. <p>In relation to an aquifer or waterfront land, has the same meaning as it has in the <i>Water Management Act 2000</i>.</p> <p>In relation to Aboriginal places or Aboriginal objects has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i>.</p> <p>In relation to items of heritage significance, has the same meaning as it has in the <i>Heritage Act 1977</i>.</p> <p>In relation to protected marine vegetation, has the same meaning as it has in the <i>Fisheries Management Act 1994</i>.</p>
Items of heritage significance	<p>Means:</p> <ul style="list-style-type: none"> • any heritage items listed in one or more of the following: <ul style="list-style-type: none"> — the Commonwealth Heritage List — the World Heritage List — the National Heritage List — the State Heritage Register — an Environmental Planning Instrument • any relic (being any deposit, object or material evidence which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and which is 50 or more years old), or

Word	Definition
	<ul style="list-style-type: none"> • within State Conservation Areas: <ul style="list-style-type: none"> — items that are listed on the DECC Historic Heritage Information Management System, or — any deposit, object or material evidence relating to the settlement or occupation of New South Wales or a part of New South Wales (not being Aboriginal settlement or occupation) if the deposit, object or material evidence is more than 25 years old at the date of the interference or removal.
Land	<p>Includes:</p> <ul style="list-style-type: none"> • the sea or an arm of the sea • a bay, inlet, lagoon, lake or body of water, whether inland or not and whether tidal or non-tidal • a river, stream or watercourse, whether tidal or non-tidal, and • a building erected on the land
Marine vegetation	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> .
Matters of national environmental significance	'Matters of national environmental significance' protected under the <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i> .
Minister	The Minister administering the <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – as relevant.
Native vegetation	Has the same meaning as it has in the <i>Local Land Services Act 2013</i> .
Potential acid sulphate soils (PASS)	Sediments and soils that contain iron sulfides or sulfidic material which have not been exposed to air and oxidised
Produced water	Any form of groundwater that is actively extracted from a borehole or excavation, excluding incidental groundwater mixed with drilling fluids.
Rehabilitation	Has the same meaning as it has in the <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – as relevant.
Seismic survey	The use of shock waves (generated in the ground using either small explosive charges detonated below the surface, hand-held mechanical hammers or vehicle-mounted hammers) and an array of geophones, which are connected to measuring instruments, to differentiate the geophysical properties of the subsurface of the earth.
Sensitive receiver	<p>Includes:</p> <ul style="list-style-type: none"> • dwellings • libraries • educational and research institutions (including schools, colleges and universities) • childcare centres • kindergartens • hospitals, surgeries and other medical institutions • places of worship • milking sheds and holding yards associated with dairies • animal boarding or training establishments • aquaculture

Word	Definition
	<ul style="list-style-type: none"> intensive livestock agriculture
Site	The land on which an activity is located.
State Conservation Area	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
Surface disturbance	Means: <ul style="list-style-type: none"> disturbance or exposure of the soil or surface rock layer, or degradation or deterioration in any manner of the physical surface of land.
Terms	In relation to activity approvals, the terms imposed by the decision-maker on the grant of an activity approval.
Threatened species or ecological communities	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> or <i>Fisheries Management Act 1994</i> (as relevant).
Title	An authority under the <i>Mining Act 1992</i> / a title under the <i>Petroleum (Onshore) Act 1991</i> – as relevant.
Titleholder	A person or company to whom a title has been issued.
Track	All unsealed routes that will be traversed multiple times, but does not include single pass (ingress and egress) routes or seismic shot and receiver lines.
Waste	Has the same meaning as it has in the <i>Protection of the Environment Operations Act 1997</i> .
Water source	Has the same meaning as it has in the <i>Water Management Act 2000</i> .
Water land	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> .
Waterfront land	Has the same meaning as it has in the <i>Water Management Act 2000</i> .
Wetlands	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> .
Wilderness	Lands identified as wilderness under the <i>Wilderness Act 1987</i> .
Wilderness area	Lands (including subterranean lands) declared to be a wilderness area under the <i>Wilderness Act 1987</i> or the <i>National Parks and Wildlife Act 1974</i> .

Attachment 3 – Review of environmental factors

Air impacts

Provide a brief description of likely impacts to air quality, including the distance to, and impacts on, nearby sensitive receivers.

600m from sensitive receivers.

Impacts of dust and noise are minimised by, for example, distance from work activities, working during daylight hours and reducing speed on tracks, as well as good communications as applicable.

What is the activity's likely impact due to generation of greenhouse gases emissions or release of chemicals which affect the ozone layer or produce photo-chemical smog?

Negligible

What is the likely level of any impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

activities must comply with title conditions and relevant codes of practice. (details need to be provided).

impacts of any drilling limited to the immediate vicinity of drilling.

all disturbed areas to be rehabilitated as soon as reasonably practicable following surface disturbance.

Water impacts

Provide a brief description of the likely impacts to water quality and/quantity.

water used for exploration not available for ecological, stock, domestic or irrigation purposes.

surface runoff can be sediment laden.

generally minimal surface water use (must be licensed or use of farm dams through landholder agreements).

no use of groundwater but potential loss through produced water in drilling / deep excavation operations.

interception, cross contamination and/or depressurisation of groundwater systems in drilling operations.

Groundwater depressurisation effects on surface water.

mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers.

What is the activity's impact due to the storage of water?

Nil/Not applicable

What is the activity's impact to natural water bodies, wetlands or runoff patterns?

Nil/Not applicable

What is the activity's impact due to aquifer interference, including changes to inter-aquifer connectivity?

Nil/Not applicable

What is the activity's impact due to changes to flooding or tidal regimes?

Nil/Not applicable

What are the impacts from any hydraulic fracturing (well stimulation), including through gas and fluid migration?

Nil/Not applicable

What is the activity's impact due to changes in surface or groundwater quality and quantity?

Nil/Not applicable

What is the likely level of any water impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

No water used during drilling.

All holes shallow (<40m)

Soil and stability impacts

Provide a brief description of the likely impacts to soil quality or land stability.

soil compaction from construction/operations.
activities on erosion prone areas and/or steeper slopes.

What is the activity's impact on the degradation of soil quality including contamination, salinisation or acidification?

Nil/Not applicable

What is the activity's impact on land with high agricultural capability?

Nil/Not applicable

What is the activity's impact due to loss of soil from wind or water erosion?

Nil/Not applicable

What is the activity's impact due to the loss of structural integrity of the soil?

Nil/Not applicable

What is the activity's impact due to increased land instability with high risks from landslides or subsidence?

Nil/Not applicable

What is the activity's impact due to any induced seismicity or ground movements associated with fracture stimulation or injection or extraction of groundwater?

Nil/Not applicable

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

minimising vegetation clearing and surface disturbance.
preventing any land degradation or pollution/contamination of land or water.
all sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with relevant codes/standards/guidelines (details need to be provided).
existing access tracks to be used/upgraded.

Noise and vibration impacts

Provide a brief description of the likely noise and/or vibration impacts.

noise from vehicles, drilling rigs, plant and machinery impacting on nearby sensitive receivers, such as residences, educational establishments, medical facilities, places of worship, animal boarding/training establishments, intensive livestock agriculture, etc.

What is the likely level of any impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

implementing all practicable measures to ensure noise levels meet acceptable criteria for sensitive receivers (details to be provided).

Coastal locations and processes

Provide a brief description of likely impacts on coastal environments, coastal processes and coastal hazards.

Nil - It's on a farm 100's km from coast

What is the likely level of any impacts?

Nil/Not applicable

Coastal locations and processes

Outline any proposed management controls and/or mitigation measures.

Avoid the coastal environment

Hazardous substances and chemicals

Provide a brief description of likely impacts associated with the use, generation, storage or transport of hazardous substances or chemicals.

mobilisation of pollutants (such as hydrocarbons) in soils or waters.
inappropriate disposal of drilling wastes/overflow from drilling sumps.

What is the likely level of the impact associated with the use, generation, storage or transport of hazardous substances or chemicals?

Negligible

Outline any proposed management controls and/or mitigation measures.

Transport and storage as per manufacturers recommendation and best practise

Wastes and emissions

Provide a brief description of likely impacts to the environment from the generation or disposal of gaseous, liquid or solid wastes or emissions.

mobilisation of pollutants (such as hydrocarbons) in soils, air or waters.
inappropriate disposal of drilling wastes / overflow from drilling sumps.

Provide a brief description of likely impacts on areas sensitive to this type of impact.

Nil

What is the likely level of the impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

Use of hydrocarbon spill kit, Suitable transport and storage of chemicals and fuel

Vegetation

Provide a brief description of any vegetation clearing or modification and the likely impacts to the environment.

No clearing required

What is the likely level of the impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Don't clear anything.

Threatened species

Provide a brief description of any likely impacts to threatened fauna and flora species.

Exploration activities are on cleared farm paddocks. There are no threatened flora or fauna species.

What is the likely level of the impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Threatened species

We will keep an eye out for animals. There are no threatened plants as this is cropping country.

Area of outstanding biodiversity value (AOBV) / Critical habitat

Provide a brief description of any likely impacts to AOBV/critical habitat.

Nil

What is the likely level of the impacts?

Outline any proposed management controls and/or mitigation measures.

Endangered ecological community or critically endangered ecological community

Is the activity likely to have an adverse effect on an endangered ecological community or critically endangered ecological community? Select as relevant:

N/A

Provide a brief description of any impacts.

Nil

What is the likely level of the impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Nil

Habitat of a threatened species or ecological community

Is the activity likely to have an adverse effect on the habitat of a threatened species or ecological community (including protected aquatic species)? Select as relevant:

N/A

Describe the impacts.

Nil

What is the likely level of the impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Nil

Key threatening process

Provide a brief description of whether the activity will constitute, or form part of, a key threatening process - or is likely to increase the impact of a key threatening process.

Nil

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Farmland. No trees to be cleared.

Barriers to movement of fauna

Provide a brief description regarding the potential of the activity to endanger, displace or disturb fauna or create a barrier to their movement.

Nil

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Farmland. If required, animals will move around us or move in the evening/ nighttime.
Farmland, so fenced paddocks.

Ecological and biosecurity impacts

Is the activity likely to have any adverse ecological or biosecurity impacts? Select as relevant:

The activity is likely to create a biosecurity risk or introduce modified organisms into an area. The activity is likely to cause a bushfire risk.

Provide a brief description of any impacts.

Bushfire risk assessed in conjunction with weather conditions and discussion with Landholder.
All vehicles washed down and inspected prior to arrival at site.

What is the likely level of any impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

Bushfire risk assessed in conjunction with weather conditions and discussion with Landholder.
All vehicles washed down and inspected prior to arrival at site

Community resources

Describe whether the activity is likely to degrade or significantly increase the demand for services and infrastructure resources.

No

Describe whether the activity is likely to result in any diversion of resources to the detriment of other communities or natural systems.

No

What is the likely level of the impact?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Minimal number of people on site - only as required.

Natural resources

Describe any likely impacts that would disrupt, deplete or destroy natural resources.

Short duration program

Describe whether the activity is likely to disrupt existing activities which rely upon natural resources, including forestry, farming or extractive industries (or will reduce options for future activities).

Work with farmer to minimise impact on farming activities

Natural resources

Describe whether the activity is likely to result in the degradation of any area reserved for conservation purposes.

Nil

What is the likely level of the impact?

Negligible

Outline any proposed management controls and/or mitigation measures.

Short duration program, work with farmer, avoid trees

Social impacts

Describe whether the activity is likely to result in a change to the demographic structure of the community, including changes to the workforce or industry structure of the area/region.

Nil

Describe whether the activity is likely to have an environmental impact that may cause substantial change or disruption to the community, including loss of facilities, reduced links to other communities or loss of community identity.

Nil

Describe whether the activity is likely to result in some individuals or communities being significantly disadvantaged, including a change in the level of demand for community resources (e.g. community facilities / services, and labour force).

Nil

Describe whether the activity likely to result in any impacts on the health, safety, privacy or welfare of individuals or communities because of factors such as pollution, odour, noise, vibration, lighting, visual impacts, etc.

Nil

Describe if the activity is likely to have any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.

Nil

What is the likely level of any social impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

Short duration program. Work with landholder and neighbours as applicable.

Economic impacts

Provide a brief description of any likely economic impacts.

Positive - minor demand for accomodation and meals

What is the likely level of any impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

Positive impact on local community

Heritage impacts

Describe whether the activity is likely to cause impacts on localities, places, landscapes, buildings or archaeological relics of heritage significance.

Nil

What is the likely level of the impact?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

No heritage sites

Aesthetic impacts

Describe whether the activity is likely to cause impacts on the visual or scenic landscape, including any lighting, venting or flaring of gas.

No impact

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Dayshift only

Cultural impacts

Describe the likely impacts associated with any disturbance of the ground surface or any culturally modified trees.

Ground is worked farmland and no culturally modified trees

Describe whether the activity will affect known Aboriginal objects or Aboriginal places.

No - Search completed and no sites identified.

Describe whether the activity is located in areas where landscape features indicate the presence of Aboriginal objects.

Not applicable

Describe whether the activity will affect areas where native title exists or land subject to native title claims, indigenous land use agreements or joint management agreements.

No - Freehold

What is the likely level of any cultural impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

As part of the site induction all contractors and staff are instructed to be aware of any artifacts and to report them directly to the site manager.

Land use impacts

Provide a brief description of any impacts on land use including any major changes to land use and/or curtailment of other beneficial land uses.

Brief use of land for exploration purposes

What is the likely level of any impacts?

Land use impacts

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Work with Landholder to minimise impacts.

Transportation impacts**Provide a brief description of any significant impacts on transportation.**

Minimal additional traffic - upto 10 additional vehicle movements

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Minimise trips where practical

Consistency with applicable local strategic planning statements, regional strategic plans or district strategic plans**Provide a brief description of any relevant local strategic planning statements, regional strategic plans or district strategic plans and whether the proposed activity is consistent with these.**

the areas with remnant vegetation are part of Local Terrestrial biodiversity

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

No drilling planned in these areas.

Matters of national environmental significance**Is the activity likely to impact on any of the following matters of national environmental significance under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*? Select as relevant:**

N/A

Provide further details relating to any impacts on matters of national environmental significance.

Nil

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Do not damage trees in the area. Stay away from the wooded areas where practical.

Cumulative impacts**Is the activity likely to result in cumulative environmental effects with other existing or likely future activities?**

No

Cumulative impacts
Describe the impact.
Nil
What is the likely level of any impacts?
Nil/Not applicable
Outline any proposed management controls and/or mitigation measures.
No cumulative environmental effects

Environmental assessment conclusions
Having regard to the potential significance of the individual impacts of the proposed activity (as well as the aggregation of all the impacts of the activity) determine whether (select as relevant):
the activity is not likely to significantly affect the environment, including threatened species or ecological communities (or their habitats), or declared areas of outstanding biodiversity value/critical habitat.
Provide any further details as relevant.
Nil

Attachment 4 – List of supporting documents

- 700 SWMS_MAG_LIAC_Addendum.pdf
- 732 SWMS - Drill RigOperations_GroundwaterVulnerability.pdf
- AHIMS_Search4_24.pdf
- APO0001741_EL8357_04_Photos_rehabCosts.pdf
- APO0001741_EL8357_AIS.pdf
- APO0001741_EL8357_SitePlan_Layout_ROCC_IndAdd.zip
- APO0001741_Submission Report_17 May 2024 10:01am.pdf
- APO0001741_Submission Report_1 Apr 2024 2:21pm.pdf
- APO0001741_Submission Report_29 Apr 2024 11:02am.pdf
- Atlas_BionetSearch.zip
- HeritageList.zip
- image001.png
- image006.png
- Protected Matters - MNES layers - April 1st 2024.zip
- Protected Matters - MNES layers - April 1st 2024.zip
- RE: APO0001741 | APO0001741 - Lady Ilse North AC drilling - Modeling Resources Pty Ltd.eml
- RE: Due date 7/5/24- More info required please. APO0001741 - Lady Ilse North AC drilling - Model.eml

FORM: APO_NC_Apvl v3.3