Tuesday 2 April 2024

Assessable Prospecting Operation Application Decision Briefing and Review of Environmental Factors

Canonba | APO0001726

Decision Maker	Stephen Clipperton
Prepared by	Mark Buchan
Title	EL 9020 (1992)
Authorised Representative	[redacted]
Project name	Canonba
Activity type	Non-Complying Exploration Activity

Issue

[redacted] has sought an activity approval in respect of Canonba, within EL 9020 (1992), at 40km NNE from Nyngan.

Pursuant to section 2.8 of *State Environmental Planning Policy (Resources and Energy) 2021*, development for the purposes of exploration (i.e. prospecting) may be carried out without development consent.

An authority issued under the *Mining Act 1992* is subject to a condition that the authority holder must not carry out an assessable prospecting operation on land over which the authority is granted unless an activity approval has been obtained for the carrying out of the assessable prospecting operation.

As assessable prospecting operations require approval by the Minister under the *Mining Act 1992*, a duty is imposed on determining authorities under Part 5 of the *Environmental Planning and Assessment Act 1979* to:

- examine and take into account to the fullest extent possible all matters affecting or likely to affect the environmental by reason of the proposed activity; and
- if the activity is likely to significantly affect the environment, examine and consider an environmental impact statement in respect of the activity.

The Minister is the determining authority for all exploration activities subject to environmental assessment under Part 5 of the *Environmental Planning and Assessment Act 1979*.

The Decision Maker, under delegation from the Minister, is required to determine whether:

- the proposed activity is not likely to have a significant impact on the environment and is not likely to significantly affect threatened species, populations or ecological communities (or their habitats) or impact biodiversity values and can be approved,
- the proposed activity is likely to have a significant impact on the environment and therefore an Environmental Impact Statement (EIS) is required,

- the proposed activity will be carried out in a declared area of outstanding biodiversity value and is likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a Species Impact Statement (SIS) and/or Biodiversity Development and Assessment Report (BDAR) is required, or
- there is insufficient information to make a decision.

Background

This exploration activity is being sought under EL 9020 (Granted 23/12/2020 - Expires 23/12/2029) to undertake assessable prospecting operations.

Proposed exploration activity

The proposed exploration activity (including details of the site, the existing environment, impact thresholds and impact management) are described in *APPLICATION TO UNDERTAKE ASSESSABLE PROSPECTING OPERATIONS Canonba* report and the information provided in support of the application.

The objective of the proposed exploration activity is to carry out works on, or to remove samples from, land for the purpose of testing the resource quality and/or quantity of the land. This is consistent with the objects of the *Mining Act 1992*, including to facilitate the discovery and development of resources in NSW.

No alternatives options to the proposed activity were considered.

Security

The application triggered a review of the assessed deposit to secure funding for the fulfilment of obligations if Canonba is approved.

Refer to RCE Record RCE0001885

Assessment of Impacts (Non-complying exploration activity)

An assessment of the significance of environmental impacts associated with the proposed activity was undertaken in accordance with the Department of Planning and Environment's "*Guidelines for Division 5.1 assessments*". The results of this assessment are documented in the attached Review of Environmental Factors document.

The assessment has determined that 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.

Additional terms (if approved)

No additional terms are required.

Summary

Based on the information provided in the *APPLICATION TO UNDERTAKE ASSESSABLE PROSPECTING OPERATIONS Canonba* report, and the Review of Environmental Factors document, the proposed activity has been assessed as is not likely to have a significant impact on the environment and therefore an EIS is not required.

The application has been assessed and the recommendation is to Approve the activity.

Certification

I, Mark Buchan, certify that I have reviewed and endorsed the contents of the attached Review of Environmental Factors document and, to the best of my knowledge, it is in accordance with the *Environmental Planning and Assessment Act 1979,* the Environmental Planning and Assessment Regulation 2021 and the Guidelines approved under clause 170 of the EP&A Regulation, and the information it contains is neither false nor misleading.

Recommendation

The Decision Maker, under delegation from the Minister:

- Assesses the environmental impact of Canonba and determines that the activity is is not likely to have a significant impact on the environment and therefore an EIS is not required under Part 5 of the *Environmental Planning and Assessment Act 1979*.
- Approve the activity pursuant to the *Mining Act 1992*.

Review of Environmental Factors document

Criteria	Air Impacts: Air quality impacts (including impacts on nearby sensitive receptors).		
Potential impacts	Air impacts from the proposed program are negligible. The nearest sensitive receptor located 1km away from proposed drilling is the Little Moon Homestead. As mud rotary and diamond drilling does not produce significant dust the impact to the receptor is predicted to be negligible. All vehicles will be in good working order and not releasing excess exhaust fumes. No new tracks are being created.		
Proposed management controls	Drilling will not occur within 400m of sensitive receptors. Vehicles will travel slowly along all farm tracks to minimise travelling dust. Vehicles will be well maintained to minimise excessive exhaust fumes. Landholder consultation will occur throughout the whole program to ensure best and appropriate practices are being maintained.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		
Criteria	Air Impacts: Greenhouse or ozone impacts.		
Potential impacts	Air impacts from the proposed program are negligible. The nearest sensitive receptor located 1km away from proposed drilling is the Little Moon Homestead. As mud rotary and diamond drilling does not produce significant dust the impact to the receptor is predicted to be negligible. All vehicles will be in good working order and not releasing excess exhaust fumes. No new tracks are being created.		
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Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Air Impacts: Additional impacts on areas with degraded air quality.		
Potential impacts	Air impacts from the proposed program are negligible. The nearest sensitive receptor located 1km away from proposed drilling is the Little Moon Homestead. As mud rotary and diamond drilling does not produce significant dust the impact to the receptor is predicted to be negligible. All vehicles will be in good working order and not releasing excess exhaust fumes. No new tracks are being created.		
Proposed management controls	Drilling will not occur within 400m of sensitive receptors. Vehicles will travel slowly along all farm tracks to minimise travelling dust. Vehicles will be well maintained to minimise excessive exhaust fumes. Landholder consultation will occur throughout the whole program to ensure best and appropriate practices are being maintained.		
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How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from the use of surface or groundwater.		

Potential impacts	If groundwater is encountered during drilling it will be managed and contained by the drilling methods to ensure that water is contained in the same strata and not cross to different water bearing strata. The Company have drilled many holes in this area and have not encountered any difficulties with water. The program is not expected to have an impact on surface water. There are several named watercourses running through this tenement, Marra Creek, Crooked Creek, Ferns Creek, Bugwah Cowal and Bread and Cheese Creek. (Milmiland Creek in the north is within the wetlands area that is excluded from this APO request). Drillholes will not be located within 200m or a named watercourse. There are several drainages within the proposed drilling area. Proposed collars will be moved so that they are not within 40m of any existing drainages. Specific access to sites will be undertaken in close consultation with the landholder who knows the ground conditions the best. There are wetlands to the northeast of this proposed drilling area, and as such additional consideration is taken for works in this area. In times of high rainfall and high water in the nearby watercourses, these areas can be inundated / flooded. Should there be elevated water levels this drilling will not be undertaken until water subsides and ground conditions are favourable for vehicular access without detrimentally damaging the ground.		
Proposed management controls	Drilling will not be undertaken during extreme weather events. Should there be elevated water levels this drilling will not be undertaken until water subsides. Groundwater is not expected to cause concern as drilling methods ensure that water is contained in the same strata and does not cross to different water bearing strata.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from storage of water		
Potential impacts	If groundwater is encountered during drilling it will be managed and contained by the drilling methods to ensure that water is contained in the same strata and not cross to different water bearing strata. The Company have drilled many holes in this area and have not encountered any difficulties with water. The program is not expected to have an impact on surface water. There are several named watercourses running through this tenement, Marra Creek, Crooked Creek, Ferns Creek, Bugwah Cowal and Bread and Cheese Creek. (Milmiland Creek in the north is within the wetlands area that is excluded from this APO request). Drillholes will not be located within 200m or a named watercourse. There are several drainages within the proposed drilling area. Proposed collars will be moved so that they are not within 40m of any existing drainages. Specific access to sites will be undertaken in close consultation with the landholder who knows the ground conditions the best. There are wetlands to the northeast of this proposed drilling area, and as such additional consideration is taken for works in this area. In times of high rainfall and high water in the nearby watercourses, these areas can be inundated / flooded. Should there be elevated water levels this drilling will not be undertaken until water subsides and ground conditions are favourable for vehicular access without detrimentally damaging the ground.		
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Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from changes to natural water bodies, wetlands or runoff patterns.		
Potential impacts	If groundwater is encountered during drilling it will be managed and contained by the drilling methods to ensure that water is contained in the same strata and not cross to different water bearing strata. The Company have drilled many holes in this area and have not encountered any difficulties with water. The program is not expected to have an impact on surface water. There are several named watercourses running through this tenement, Marra Creek, Crooked Creek, Ferns Creek, Bugwah Cowal and Bread and Cheese Creek. (Milmiland Creek in the north is within the wetlands area that is excluded from this APO request). Drillholes will not be located within 200m or a named watercourse. There are several drainages within the proposed drilling area. Proposed collars will be moved so that they are not within 40m of any existing drainages. Specific access to sites will be undertaken in close consultation with the landholder who knows the ground conditions the best. There are wetlands to the northeast of this proposed drilling area, and as such additional consideration is taken for works in this area. In times of high rainfall and high water in the nearby watercourses, these areas can be inundated / flooded. Should there be elevated water levels this drilling will not be undertaken until water subsides and ground conditions are favourable for vehicular access without detrimentally damaging the ground.		
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How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from aquifer interference, including changes to inter-aquifer connectivity.		
Potential impacts	If groundwater is encountered during drilling it will be managed and contained by the drilling methods to ensure that water is contained in the same strata and not cross to different water bearing strata. The Company have drilled many holes in this area and have not encountered any difficulties with water. The program is not expected to have an impact on surface water. There are several named watercourses running through this tenement, Marra Creek, Crooked Creek, Ferns Creek, Bugwah Cowal and Bread and Cheese Creek. (Milmiland Creek in the north is within the wetlands area that is excluded from this APO request). Drillholes will not be located within 200m or a named watercourse. There are several drainages within the proposed drilling area. Proposed collars will be moved so that they are not within 40m of any existing drainages. Specific access to sites will be undertaken in close consultation with the landholder who knows the ground conditions the best. There are wetlands to the northeast of this proposed drilling area, and as such additional consideration is taken for works in this area. In times of high rainfall and high water in the nearby watercourses, these areas can be inundated / flooded. Should there be elevated water levels this drilling will not be undertaken until water subsides and ground conditions are favourable for vehicular access without detrimentally damaging the ground.		
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What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain

Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from changes to flooding or tidal regimes.		
Potential impacts	If groundwater is encountered during drilling it will be managed and contained by the drilling methods to ensure that water is contained in the same strata and not cross to different water bearing strata. The Company have drilled many holes in this area and have not encountered any difficulties with water. The program is not expected to have an impact on surface water. There are several named watercourses running through this tenement, Marra Creek, Crooked Creek, Ferns Creek, Bugwah Cowal and Bread and Cheese Creek. (Milmiland Creek in the north is within the wetlands area that is excluded from this APO request). Drillholes will not be located within 200m or a named watercourse. There are several drainages within the proposed drilling area. Proposed collars will be moved so that they are not within 40m of any existing drainages. Specific access to sites will be undertaken in close consultation with the landholder who knows the ground conditions the best. There are wetlands to the northeast of this proposed drilling area, and as such additional consideration is taken for works in this area. In times of high rainfall and high water in the nearby watercourses, these areas can be inundated / flooded. Should there be elevated water levels this drilling will not be undertaken until water subsides and ground conditions are favourable for vehicular access without detrimentally damaging the ground.		
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Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from changes in surface or groundwater quality and quantity.		
Potential impacts	If groundwater is encountered during drilling it will be managed and contained by the drilling methods to ensure that water is contained in the same strata and not cross to different water bearing strata. The Company have drilled many holes in this area and have not encountered any difficulties with water. The program is not expected to have an impact on surface water. There are several named watercourses running through this tenement, Marra Creek, Crooked Creek, Ferns Creek, Bugwah Cowal and Bread and Cheese Creek. (Milmiland Creek in the north is within the wetlands area that is excluded from this APO request). Drillholes will not be located within 200m or a named watercourse. There are several drainages within the proposed drilling area. Proposed collars will be moved so that they are not within 40m of any existing drainages. Specific access to sites will be undertaken in close consultation with the landholder who knows the ground conditions the best. There are wetlands to the northeast of this proposed drilling area, and as such additional consideration is taken for works in this area. In times of high rainfall and high water in the nearby watercourses, these areas can be inundated / flooded. Should there be elevated water levels this drilling will not be undertaken until water subsides and ground conditions are favourable for vehicular access without detrimentally damaging the ground.		
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Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Degradation of soil quality (including contamination, salinisation or acidification).		
Potential impacts	There are no acid sulfate soils within this area. The proposed drilling area is covered by predominantly soil types 4, 5 and 7 from the Land and Soil Capability Classification, which is moderate to severe limitations. In addition, part of the area is covered by soil type 3 – moderate limitations. One area of soil class 3 is also recorded as Strategic Agricultural Land (Map2B), and additional precautionary processes are placed on works as follows; • Due to the sensitivity of the soil, access will be restricted to only vital personnel and vehicle movement will be restricted where possible. Should compaction occur of the temporary access routes, this will likely be scarified after use by the landholder. Close consultation with the landholder will be maintained throughout this program. • Proposed exploration activities will not impact agricultural resources or activities. There will be no drilling or site preparation within 40m of a riparian zone that could disturb the banks of creeks. • Any waste products (rubbish) will be removed from site and disposed of at the nearest appropriately licenced waste facility. • Rehabilitation will be completed within 6 months, usually sooner. • Rehabilitation outcomes will achieve: o No residual soil or visual contamination; o Runoff water quality is similar to pre-disturbance runoff water quality; and o Revegetation is similar to pre-disturbance vegetation. Wind erosion will be assessed in consultation with the landholder prior to site access and mitigation measures considered. Salinity of groundwater will be considered, however with the proposed drilling methods groundwater will remain in the ground and any drilling waters will be contained in above ground sumps and not affect the surrounding surface.		
Proposed management controls	There will be no vegetation clearing for this drill program. Minor clearing of grass may be required to make sites safe, should this be necessary care will be taken to ensure to leave root stock to enable existing vegetation regrowth. Minimal surface disturbance to ensure minimal impact to the soil. Utilising existing tracks where possible, should soil compaction require scarification then the landholder will manage and ensure all ground is returned to existing state.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Impacts on land with high agricultural capability.		

<table>
<tr><td>Potential impacts</td><td colspan="3">There are no acid sulfate soils within this area.
The proposed drilling area is covered by predominantly soil types 4, 5 and 7 from the Land and Soil Capability Classification, which is moderate to severe limitations. In addition, part of the area is covered by soil type 3 – moderate limitations. One area of soil class 3 is also recorded as Strategic Agricultural Land (Map2B), and additional precautionary processes are placed on works as follows;
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• Any waste products (rubbish) will be removed from site and disposed of at the nearest appropriately licenced waste facility.
• Rehabilitation will be completed within 6 months, usually sooner.
• Rehabilitation outcomes will achieve:
o No residual soil or visual contamination;
o Runoff water quality is similar to pre-disturbance runoff water quality; and
o Revegetation is similar to pre-disturbance vegetation.

Wind erosion will be assessed in consultation with the landholder prior to site access and mitigation measures considered. Salinity of groundwater will be considered, however with the proposed drilling methods groundwater will remain in the ground and any drilling waters will be contained in above ground sumps and not affect the surrounding surface.</td></tr>
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<tr><td>Application ranking</td><td colspan="3">Negligible</td></tr>
<tr><td>What is the confidence in predicting impacts?</td><td>High</td><td>Are further studies required on impacts or mitigation?</td><td>No</td></tr>
<tr><td>How resilient is the environment to cope with impacts?</td><td>High Resilience</td><td>What is the level of public concern?</td><td>Uncertain</td></tr>
<tr><td>Can the impacts be reversed?</td><td>Yes</td><td>Ranking of potential significance</td><td>Low</td></tr>
<tr><td>Can the impacts be mitigated?</td><td>Fully</td><td colspan="2">Justification for ranking</td></tr>
<tr><td>Do the operations comply with standards, plans, policies?</td><td>Yes</td><td colspan="2"></td></tr>
<tr><td>Criteria</td><td colspan="3">Soil & Stability Impacts: Loss of soil from wind or water erosion.</td></tr>
<tr><td>Potential impacts</td><td colspan="3">There are no acid sulfate soils within this area.
The proposed drilling area is covered by predominantly soil types 4, 5 and 7 from the Land and Soil Capability Classification, which is moderate to severe limitations. In addition, part of the area is covered by soil type 3 – moderate limitations. One area of soil class 3 is also recorded as Strategic Agricultural Land (Map2B), and additional precautionary processes are placed on works as follows;
• Due to the sensitivity of the soil, access will be restricted to only vital personnel and vehicle movement will be restricted where possible. Should compaction occur of the temporary access routes, this will likely be scarified after use by the landholder. Close consultation with the landholder will be maintained throughout this program.
• Proposed exploration activities will not impact agricultural resources or activities. There will be no drilling or site preparation within 40m of a riparian zone that could disturb the banks of creeks.
• Any waste products (rubbish) will be removed from site and disposed of at the nearest appropriately licenced waste facility.
• Rehabilitation will be completed within 6 months, usually sooner.
• Rehabilitation outcomes will achieve:
o No residual soil or visual contamination;
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Wind erosion will be assessed in consultation with the landholder prior to site access and mitigation measures considered. Salinity of groundwater will be considered, however with the proposed drilling methods groundwater will remain in the ground and any drilling waters will be contained in above ground sumps and not affect the surrounding surface.</td></tr>
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Proposed management controls	There will be no vegetation clearing for this drill program. Minor clearing of grass may be required to make sites safe, should this be necessary care will be taken to ensure to leave root stock to enable existing vegetation regrowth. Minimal surface disturbance to ensure minimal impact to the soil. Utilising existing tracks where possible, should soil compaction require scarification then the landholder will manage and ensure all ground is returned to existing state.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Loss of structural integrity of the soil.		
Potential impacts	There are no acid sulfate soils within this area. The proposed drilling area is covered by predominantly soil types 4, 5 and 7 from the Land and Soil Capability Classification, which is moderate to severe limitations. In addition, part of the area is covered by soil type 3 – moderate limitations. One area of soil class 3 is also recorded as Strategic Agricultural Land (Map2B), and additional precautionary processes are placed on works as follows; • Due to the sensitivity of the soil, access will be restricted to only vital personnel and vehicle movement will be restricted where possible. Should compaction occur of the temporary access routes, this will likely be scarified after use by the landholder. Close consultation with the landholder will be maintained throughout this program. • Proposed exploration activities will not impact agricultural resources or activities. There will be no drilling or site preparation within 40m of a riparian zone that could disturb the banks of creeks. • Any waste products (rubbish) will be removed from site and disposed of at the nearest appropriately licenced waste facility. • Rehabilitation will be completed within 6 months, usually sooner. • Rehabilitation outcomes will achieve: o No residual soil or visual contamination; o Runoff water quality is similar to pre-disturbance runoff water quality; and o Revegetation is similar to pre-disturbance vegetation. Wind erosion will be assessed in consultation with the landholder prior to site access and mitigation measures considered. Salinity of groundwater will be considered, however with the proposed drilling methods groundwater will remain in the ground and any drilling waters will be contained in above ground sumps and not affect the surrounding surface.		
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How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Increased land instability with high risks from land slides or subsidence.		

Potential impacts	There are no acid sulfate soils within this area. The proposed drilling area is covered by predominantly soil types 4, 5 and 7 from the Land and Soil Capability Classification, which is moderate to severe limitations. In addition, part of the area is covered by soil type 3 – moderate limitations. One area of soil class 3 is also recorded as Strategic Agricultural Land (Map2B), and additional precautionary processes are placed on works as follows; • Due to the sensitivity of the soil, access will be restricted to only vital personnel and vehicle movement will be restricted where possible. Should compaction occur of the temporary access routes, this will likely be scarified after use by the landholder. Close consultation with the landholder will be maintained throughout this program. • Proposed exploration activities will not impact agricultural resources or activities. There will be no drilling or site preparation within 40m of a riparian zone that could disturb the banks of creeks. • Any waste products (rubbish) will be removed from site and disposed of at the nearest appropriately licenced waste facility. • Rehabilitation will be completed within 6 months, usually sooner. • Rehabilitation outcomes will achieve: o No residual soil or visual contamination; o Runoff water quality is similar to pre-disturbance runoff water quality; and o Revegetation is similar to pre-disturbance vegetation. Wind erosion will be assessed in consultation with the landholder prior to site access and mitigation measures considered. Salinity of groundwater will be considered, however with the proposed drilling methods groundwater will remain in the ground and any drilling waters will be contained in above ground sumps and not affect the surrounding surface.		
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Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Noise & Vibration Impacts: Results in increased noise or vibration.		
Potential impacts	Little Moon Homestead is located 1km away from proposed collar Canonba_04. Drilling will be undertaken in daylight hours only and the mud rotary and diamond drilling method selected has relatively low noise outputs compared to other drilling methods.		
Proposed management controls	Drilling will not occur within 400m of sensitive receptors. Drilling works will be undertaken in daylight hours only.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Noise & Vibration Impacts: Affects sensitive receptors.		

Potential impacts	Little Moon Homestead is located 1km away from proposed collar Canonba_04. Drilling will be undertaken in daylight hours only and the mud rotary and diamond drilling method selected has relatively low noise outputs compared to other drilling methods.		
Proposed management controls	Drilling will not occur within 400m of sensitive receptors. Drilling works will be undertaken in daylight hours only.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Coastal Location & Processes: Affects coastal processes and coastal hazards, including those under projected climate change conditions.		
Potential impacts	n/a		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	N/A
Can the impacts be reversed?	N/A	**Ranking of potential significance**	
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Hazardous substances or chemicals: Impacts associated with the use, generation, storage or transport of hazardous substances or chemicals.		
Potential impacts	Diesel fuel is the only anticipated hydrocarbon to be used on site. It will be transported to site in a dedicated diesel tank mounted on an auxiliary drill vehicle. A spill kit will always be on site and minor spills will be cleaned up and waste material removed from site and disposed of at the nearest appropriately licensed waste facility.		
Proposed management controls	Maintain regular checks of all fuel and lubricants, provide bunded areas where required. A spill kit will be at the site at all times.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts to the environment resulting from the generation or disposal of wastes.		
Potential impacts	There should be minimal impact to the environment from the proposed short drilling program. Fuels maintained in appropriately bunded storage tanks. There will be no disposal of drilling waste at site – all waste removed from site and disposed of at appropriately licenced waste facility.		

Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts on drinking water catchments, wetlands, natural water bodies, riparian zones or flood prone areas.		
Potential impacts	There will be no impact to the nearby Wetlands during this proposed short drilling program. Drilling to be conducted in the dry conditions.		
Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts on groundwater recharge areas or areas with high water table.		
Potential impacts	There will be no impact to the nearby Wetlands during this proposed short drilling program. Drilling to be conducted in the dry conditions.		
Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes and Emissions: Impacts on coastlines or dunes, alpine areas, karst features or other unique landforms.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		

What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Wastes & Emissions: Impacts on erosion prone areas, areas with slopes of greater than 18 degrees.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Wastes & Emissions: Impacts on subsidence or slip areas.		
Potential impacts	There will be no impact to the nearby Wetlands during this proposed short drilling program. Drilling to be conducted in the dry conditions.		
Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts on areas with acid sulphate, sodic or highly permeable soils.		
Potential impacts	NA		
Proposed management controls	NA		
Duration	7-10		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain

Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts on areas with salinity or potential salinity problems.		
Potential impacts	There will be no impact to the nearby Wetlands during this proposed short drilling program. Drilling to be conducted in the dry conditions.		
Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts on areas with degraded or contaminated land.		
Potential impacts	There will be no impact to the nearby Wetlands during this proposed short drilling program. Drilling to be conducted in the dry conditions.		
Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Wastes & Emissions: Impacts on areas with degraded or contaminated water (ground or surface).		
Potential impacts	There will be no impact to the nearby Wetlands during this proposed short drilling program. Drilling to be conducted in the dry conditions.		
Proposed management controls	Clean up any minor spills immediately and dispose of any contaminated materials to an appropriately managed licenced facility.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Vegetation: Any clearing or modification of vegetation (including impacts on wildlife corridors, remnant vegetation & habitat for species of conservation significance).		
Potential impacts	The area is predominantly open grazing land with sparse vegetation. Any areas of vegetation will be avoided and do not need to be disturbed for this drilling program.		
Proposed management controls	Any areas of vegetation will be avoided.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Threatened Fauna Species: Any adverse effect on the life cycle of any threatened species such that a viable local population of the species is likely to be placed at risk of extinction.		
Potential impacts	There are many flora and fauna records that come up on the BioNet search, however only the Red Darling Pea is recorded as vulnerable. The sighting and record is from 1999. This area is within a paddock and very unlikely that any works will be undertaken past or near this location, however staff will be made aware of this vulnerable flora. The southwestern corner of the proposed drilling area is within the Bogan LGA and is considered to be of moderate or high terrestrial biodiversity. The more sensitive nature of this area will be addressed as discussed above in the soil section. Close consultation with the landholders will continue regularly prior to proposed drilling to ensure that access conditions are favourable.		
Proposed management controls	Drilling during dry conditions only, the sites will not be accessed during times of flood. Close consultation with the landholders will continue regularly prior to proposed drilling to ensure that access conditions are favourable.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Threatened Flora Species: Any adverse effect on the life cycle of any threatened species such that a viable local population of the species is likely to be placed at risk of extinction.		
Potential impacts	There are many flora and fauna records that come up on the BioNet search, however only the Red Darling Pea is recorded as vulnerable. The sighting and record is from 1999. This area is within a paddock and very unlikely that any works will be undertaken past or near this location, however staff will be made aware of this vulnerable flora. The southwestern corner of the proposed drilling area is within the Bogan LGA and is considered to be of moderate or high terrestrial biodiversity. The more sensitive nature of this area will be addressed as discussed above in the soil section. Close consultation with the landholders will continue regularly prior to proposed drilling to ensure that access conditions are favourable.		
Proposed management controls	Drilling during dry conditions only, the sites will not be accessed during times of flood. Close consultation with the landholders will continue regularly prior to proposed drilling to ensure that access conditions are favourable.		
Duration	7-10		
Application ranking	Positive		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Areas of outstanding biodiversity value/Critical habitat: This includes: a. declared areas of outstanding biodiversity value under the Biodiversity Conservation Act 2016 b. areas declared critical habitat under the Fisheries Management Act 1994.		
Potential impacts	There are no areas of critical habitat/area of outstanding biodiversity within the approval area.		
Proposed management controls	Extreme care will be taken on this site to avoid uncontrolled fires. Weather conditions and bush fire alert levels will be monitored. Local emergency services contact details will be readily available for the duration of the activity. All equipment will be maintained to high standards and processes will be in place to minimise risk. All vehicles are appropriately prepared and equipped to minimise fire risk.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Endangered ecological community or critically endangered ecological community: Whether the activity: is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.		
Potential impacts	There will be no impact to any of the four potentially occurring endangered communities listed as likely to occur within the proposed drilling area on the MNES search; Coolibah – Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions, Grey Box Grassy Woodlands and Derived Native Grasslands of southeastern Australia, Poplar Box Grassy Woodland on Alluvial Plains and Weeping Myall Woodlands.		
Proposed management controls	All proposed drilling is within open paddocks. Drillholes can be moved to avoid any and all vegetation.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Habitat of a threatened species or ecological community		
Potential impacts	There will be no impact to any threatened species or ecological community as all drilling will be progressed in open grazing paddocks.		
Proposed management controls	All proposed drilling is within open paddocks. Drillholes can be moved to avoid any and all vegetation.		

Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Habitat of protected aquatic species or those with conservation status.		
Potential impacts	There will be no impact to any threatened species or ecological community as all drilling will be progressed in open grazing paddocks.		
Proposed management controls	All proposed drilling is within open paddocks. Drillholes can be moved to avoid any and all vegetation.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Key Threatening Processes: As outlined in Schedule 4 of Biodiversity Conservation Act 2016. Includes: a. alteration, removal, clearly or degradation of habitat and native vegetation b. loss of hollow bearing trees c. removal of dead wood and dead trees d. invasion and establishment of exotic species.		
Potential impacts	The small drilling program does not require vegetation clearance. Minor areas of disturbance will be rehabilitated within a couple of months and so minimal impact is envisaged.		
Proposed management controls	Drill site locations are determined based on area of least impact to the environment. Rehabilitation will be undertaken as soon as is reasonably practicable but within the timeframe of this drilling approval application.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Barriers to movement of fauna: Any potential to endanger, displace or disturb fauna (including fauna of conservation significance) or create a barrier to their movement.		
Potential impacts	The small drilling program does not require vegetation clearance. Minor areas of disturbance will be rehabilitated within a couple of months and so minimal impact is envisaged.		
Proposed management controls	Drill site locations are determined based on area of least impact to the environment. Rehabilitation will be undertaken as soon as is reasonably practicable but within the timeframe of this drilling approval application.		
Duration	7-10		
Application ranking	Negligible		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Ecological & Biosecurity Impacts: Any threat to the biological diversity or ecological integrity of an ecological community.		
Potential impacts	No impact envisaged		
Proposed management controls	Extreme care will be taken on this site to avoid uncontrolled fires. Weather conditions and bush fire alert levels will be monitored. Local emergency services contact details will be readily available for the duration of the activity. All equipment will be maintained to high standards and processes will be in place to minimise risk. All vehicles are appropriately prepared and equipped to minimise fire risk.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Ecological & Biosecurity Impacts: Creates a biosecurity risk or introduces genetically modified organisms into an area. Includes impacts from the introduction of: a. mobilisation of pollutants b. animal pests, c. plant pests and diseases, d. animal diseases, e. noxious weeds, or f. genetically modified organisms.		
Potential impacts	No impact envisaged		
Proposed management controls	Extreme care will be taken on this site to avoid uncontrolled fires. Weather conditions and bush fire alert levels will be monitored. Local emergency services contact details will be readily available for the duration of the activity. All equipment will be maintained to high standards and processes will be in place to minimise risk. All vehicles are appropriately prepared and equipped to minimise fire risk.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Ecological & Biosecurity Impacts: Likely to cause a significant bushfire risk.		
Potential impacts	No impact envisaged		
Proposed management controls	Extreme care will be taken on this site to avoid uncontrolled fires. Weather conditions and bush fire alert levels will be monitored. Local emergency services contact details will be readily available for the duration of the activity. All equipment will be maintained to high standards and processes will be in place to minimise risk. All vehicles are appropriately prepared and equipped to minimise fire risk.		
Duration	7-10		
Application ranking	Negligible		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Community Resources: Any degradation of infrastructure or significant increase in the demand for services and infrastructure resources.		
Potential impacts	There will be no impact to the demand or use of local services and resources for this drill program		
Proposed management controls	NA		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Community Resources: Any diversion of resources to the detriment of other communities or natural systems.		
Potential impacts	No diversion of resources required		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Natural Resources: Any disruption, depletion or destruction of natural resources.		
Potential impacts	The proposed drilling program is not anticipated to disrupt, deplete, or destroy any natural resources		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low

Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Natural Resources: Any disruption of existing activities which rely on natural resources, including forestry, farming or extractive industries (or reduction of options for future activities).		
Potential impacts	The proposed program will be undertaken at a time appropriate to landholders and so will not disrupt any existing activities. The drill holes are to be collared in paddocks which are used for grazing purposes		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Natural Resources: Any use which results in the degradation of any area reserved for conservation purposes.		
Potential impacts	The Wetlands in the north east corner of EL9020 are identified in the Warren Local Environmental Plan 2012. The low impact nature of the drilling and small footprint will not result in the degradation of the Wetlands. Mineral exploration drilling is not declared as designated development in the Warren LEP. This area of wetland is excluded from this drilling approval.		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Sensitive Land Impacts: Impacts on National parks and other areas reserved or dedicated or acquired under the National Parks and Wildlife Act 1974.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Sensitive Land Impacts: Land subject to a 'conservation agreement' under the National Parks and Wildlife Act 1974 and/or the Biodiversity Conservation Act 2016. This includes: a. Biobanking agreement (established under the now repealed Threatened Species Conservation Act 1995) or a Biodiversity Stewardship agreement established under the Biodiversity Conservation Act 2016. b. Wildlife Refuge agreement established under the Biodiversity Conservation Act 2016. c. Existing conservation agreements that continue to have effect even where legislation has been repealed: Trust agreements under the now repealed Nature Conservation Trust Act 2001 Property vegetation plans made under the now-repealed Native Vegetation Act 2003 Registered property agreements under the repealed Native Vegetation Conservation Act 1997		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on aquatic reserves or marine parks declared under the Marine Estate Management Act 2014. Impacts on Coastal Zone as defined in the Coastal Management Act 2016.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Fishing grounds and commercial fish breeding or nursery areas.		
Potential impacts	The Wetlands in the north east corner of EL9020 are identified in the Warren Local Environmental Plan 2012. The low impact nature of the drilling and small footprint will not result in the degradation of the Wetlands. Mineral exploration drilling is not declared as designated development in the Warren LEP. This area of wetland is excluded from this drilling approval.		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Sensitive Land Impacts: Impacts on other sensitive lands including: a. Land within a state forest set aside under the Forestry Act 2012 for conservation values. This includes flora reserves and special management (and other) zones. b. Drinking water catchment protection areas - land declared to be a 'controlled area' or a 'special area' under the Water NSW Act 2014, or a 'special area' under the Water Management Act 2000 or Hunter Water Act 1991. c. Waterfront land as defined under the Water Management Act 2000.		
Potential impacts	The Wetlands in the north east corner of EL9020 are identified in the Warren Local Environmental Plan 2012. The low impact nature of the drilling and small footprint will not result in the degradation of the Wetlands. Mineral exploration drilling is not declared as designated development in the Warren LEP. This area of wetland is excluded from this drilling approval.		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Sensitive Land Impacts: Impacts on land reserved or dedicated within the meaning of the Crown Lands Act 1989/Crown Lands Management Act 2016 for preservation of the environment or other environmental protection purposes.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on land identified as wilderness or declared a wilderness area under the Wilderness Act 1987.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Sensitive Lands: Impacts on wetlands of international significance designated under the Ramsar Convention on Wetlands and those designated as a nationally important wetland in the Directory of Important Wetlands of Australia.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on land identified in an environmental planning instrument as being of biodiversity / conservation significance or zoned for environmental conservation, protection and/or management. Includes Coastal Wetlands and Littoral rainforests under State Environmental Planning Policy (Resilience and Hazards) 2021.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on Aboriginal heritage protection areas: a. Aboriginal places and objects under the National Parks and Wildlife Act 1974 b. Areas of Aboriginal cultural significance identified in an environmental planning instrument.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on heritage protection areas (historic or natural): a. Nationally and internationally recognised heritage sites or areas (World Heritage List, National Heritage List of Commonwealth Heritage List) b. Items listed on State Heritage c. Heritage items and conservation areas identified in an environmental planning instrument		
Potential impacts	N/A		

Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on community land classified under the Local Government Act 1993 (for which a plan of management has been prepared).		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	
Can the impacts be reversed?	N/A	**Ranking of potential significance**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on bushfire prone areas.		
Potential impacts	The Wetlands in the north east corner of EL9020 are identified in the Warren Local Environmental Plan 2012. The low impact nature of the drilling and small footprint will not result in the degradation of the Wetlands. Mineral exploration drilling is not declared as designated development in the Warren LEP. This area of wetland is excluded from this drilling approval.		
Proposed management controls	Work will be undertaken in dry conditions and not during extreme weather events.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: Any impacts which result in a change in the demographic structure of the community, including changes to workforce or industry structure of the area/region. Including change in demand for community resources (eg community facilities, community services and labour force).		
Potential impacts	The proposed program is small and will not affect the demographics of the local communities		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: Any environmental impact that may cause substantial change or disruption to the community (including loss of facilities or loss of community identity).		
Potential impacts	There will be no impact or change to the community following the proposed drilling program		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: Any impacts which result in some individuals or communities being significantly disadvantaged (e.g. change to community facilities, services or labour force).		
Potential impacts	The small program will not disadvantage the community or individuals in the area		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: Any impacts on the health, safety, privacy or welfare of individuals or communities caused by factors such as pollution, odour, noise, vibration, lighting, visual impacts, etc).		
Potential impacts	The impacts are minimal and not within proximity to sensitive receptors or communities		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: 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?		
Potential impacts	There will be no detrimental effect on the aesthetics, or any other special value		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: Impacts on communities with strong sense of identity.		
Potential impacts	There will be no impact or change to the community following the proposed drilling program		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Social Impacts: Impacts on disadvantaged communities.		
Potential impacts	There will be no impact or change to the community following the proposed drilling program		
Proposed management controls	Community consultation has been initiated with affected landholders and the community. A regular flow of information will be provided, and any concerns will be addressed immediately. No issues have been raised to date.		
Duration	7-10		
Application ranking	Negligible		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Economic Impacts: Any impacts which may affect economic activity (positive or negative), including a decrease to net economic welfare.		
Potential impacts	n/a		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Economic Impacts: Any impacts that result in a decrease in the economic stability of the community.		
Potential impacts	n/a		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Economic Impacts: Any impacts which result in a change to the public sector revenue or expenditure base.		
Potential impacts	n/a		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low

Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Heritage Impacts: Any impacts on a locality, place, landscape, building or archaeological relic of heritage significance.		
Potential impacts	There are no listed heritage items, places, or areas in this proposed drilling area		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Aesthetic Impacts: Any impacts on the visual or scenic landscape, including lighting, venting or flaring of gas.		
Potential impacts	The proposed drilling will be of short duration, is 1km away from the nearest residence, and no night works so no lights.		
Proposed management controls	No drilling within 400m of homestead.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Aesthetic Impacts: Areas or items of high aesthetic or scenic value.		
Potential impacts	The proposed drilling will be of short duration, is 1km away from the nearest residence, and no night works so no lights.		
Proposed management controls	No drilling within 400m of homestead.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Any disturbance of the ground surface or any culturally modified trees (e.g. a scar tree).		
Potential impacts	The proposed drilling program is not anticipated to disturb or destroy any Aboriginal heritage		

Proposed management controls	Should any Aboriginal sites be discovered staff will inform management teams who will record the information on the AHIMS Mobile APP (which is Heritage NSW preferred method of recording). This site would then be avoided by placing a 30m buffer around it. Any concerns regarding new sites and working in the area will be raised directly with Heritage NSW on 02 9873 8500. No drillholes will be advanced within 200m of any named watercourses.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Any impacts on known Aboriginal objects or Aboriginal places.		
Potential impacts	There are no listed Aboriginal Sites noted within the proposed drilling area on the attached AHIMS search.		
Proposed management controls	Should any Aboriginal sites be discovered staff will inform management teams who will record the information on the AHIMS Mobile APP (which is Heritage NSW preferred method of recording). This site would then be avoided by placing a 30m buffer around it. Any concerns regarding new sites and working in the area will be raised directly with Heritage NSW on 02 9873 8500. No drillholes will be advanced within 200m of any named watercourses.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Affects areas where the landscape features indicate the likely presence of Aboriginal objects.		
Potential impacts	There are several named watercourses through this tenement, however no drilling will be conducted within 200m of any of these. There are no other landscape features as listed above.		
Proposed management controls	Should any Aboriginal sites be discovered staff will inform management teams who will record the information on the AHIMS Mobile APP (which is Heritage NSW preferred method of recording). This site would then be avoided by placing a 30m buffer around it. Any concerns regarding new sites and working in the area will be raised directly with Heritage NSW on 02 9873 8500. No drillholes will be advanced within 200m of any named watercourses.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Cultural Impacts: Affects areas subject to native title claims, indigenous land use agreements or joint management arrangements.		
Potential impacts	The proposed drilling area is not within an area where native title may exist. All drilling is proposed on Freehold land and not within parcels of Crown Land.		
Proposed management controls	Should any Aboriginal sites be discovered staff will inform management teams who will record the information on the AHIMS Mobile APP (which is Heritage NSW preferred method of recording). This site would then be avoided by placing a 30m buffer around it. Any concerns regarding new sites and working in the area will be raised directly with Heritage NSW on 02 9873 8500. No drillholes will be advanced within 200m of any named watercourses.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Impacts on Aboriginal communities or areas subject to land rights claims.		
Potential impacts	There are no listed Aboriginal Sites noted within the proposed drilling area on the attached AHIMS search.		
Proposed management controls	Should any Aboriginal sites be discovered staff will inform management teams who will record the information on the AHIMS Mobile APP (which is Heritage NSW preferred method of recording). This site would then be avoided by placing a 30m buffer around it. Any concerns regarding new sites and working in the area will be raised directly with Heritage NSW on 02 9873 8500. No drillholes will be advanced within 200m of any named watercourses.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Impacts on areas or items of high anthropological, archaeological, architectural, cultural, heritage, historical, recreational or scientific value.		
Potential impacts	The proposed drilling program is not anticipated to disturb or destroy any Aboriginal heritage		
Proposed management controls	Should any Aboriginal sites be discovered staff will inform management teams who will record the information on the AHIMS Mobile APP (which is Heritage NSW preferred method of recording). This site would then be avoided by placing a 30m buffer around it. Any concerns regarding new sites and working in the area will be raised directly with Heritage NSW on 02 9873 8500. No drillholes will be advanced within 200m of any named watercourses.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low

Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Land Use Impacts: Any major changes in land use, including curtailment of other beneficial land uses.		
Potential impacts	n/a		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Transportation Impacts: Substantial impacts on existing transportation systems (road, rail, pedestrian) which alter present patterns of circulation or movement.		
Potential impacts	There will be no significant impact on transportation from a small temporary drilling program		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Transportation Impacts: Impacts associated with direct or indirect additional traffic.		
Potential impacts	There will be no significant impact on transportation from a small temporary drilling program		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Consistency with applicable local strategic planning statements, regional strategic plans or district strategic plans.		
Potential impacts	The Macquarie Marshes Wetlands are identified in the Warren Local Environmental Plan 2012. Mineral exploration drilling is not declared as designated development in the Warren LEP. The low impact nature of the drilling and small footprint will not result in the degradation of the Wetlands, sites are within agricultural land. All works will only be conducted in dry weather conditions. The wetland in the north eastern corner of EL9020 is excluded from the drilling approval.		

Proposed management controls	Works occur only during dry season. Limit vehicle movement and stick to tracks where possible. Drive slowly on tracks. Undertake rehabilitation as soon as practicable, most likely as soon as drill rig has moved from site, but otherwise within 6 months of end of drilling. Strong knowledge of the area and good relationships with landholders will ensure rehabilitation methods are undertaken efficiently and effectively. Ensure all staff and contractors maintain high standards of work and care for the environment. All rubbish and equipment removed from site as soon as practicable.		
Duration	7-10		
Application ranking	Negligible		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Matters of National Environmental Significance: Impacts on MNES under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999:		
Potential impacts	On the MNES search there are 27 listed Threatened species, 4 listed Threatened Ecological Communities and 7 Listed Migratory Species. Of the 27 threatened species the Curlew Sandpiper, Plains Wanderer and Swift Parrot are considered to be critically endangered (the link in the MNES states that all three species are endangered and not critical for NSW). The Curlew is migratory and if sighted will be reported to the Department for Environment. This species is not known to breed in Australia, therefore will not be at its most vulnerable if it is sighted. The four listed threatened ecological communities are recoded to be endangered with communities likely within the area. Proposed works can be moved to ensure no vegetation is damaged. The 7 listed migratory species has the Curlew Sandpiper listed as critically endangered – however the link to this species differs stating for NSW this is endangered. The Macquarie Marshes is located within 10km of the northeastern most corner of the proposed drilling area. When the marshes occasionally flood the proposed drilling area and access to it could be affected. Site access will not be undertaken in times of flood. All works will be undertaken in close consultation with the landholder to ensure minimal impact to the ground.		
Proposed management controls	Agricultural properties that have already been cleared were selected for this drilling program to significantly reduce the risk of impacting threatened ecological communities, threatened species, and threatened migratory species. Vegetation is not to be cleared as part of the program therefore not damaging threatened ecological communities and the habitats of threatened species and threatened migratory species. Crews are instructed to not interact with wildlife or vegetation during the drilling activities.		
Duration	7-10		
Application ranking	Positive		
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cumulative Impacts: Cumulative environmental effects with other existing or likely future activities.		
Potential impacts	n/a		
Proposed management controls	n/a		
Duration	7-10		
Application ranking	Positive		

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Uncertain
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

FORM: Brief NonCEA (v3.4)