PEAK

Peak Helium

EMP PKH2-3

NT Exploration Permit (EP) 134

Appendices

11 - 14







Peak Helium Pty Ltd **EMP PKH2-3** NT Exploration Permit (EP) 134

Appendix 11 Stakeholder Engagement Log

Rev	Description	Date	Initiated	Reviewed	Approved
0	Issued for Submission	18/07/2022	Jon Bennett	Katie Robertson Vicky Cartwright	Jon Bennett
1	Issued for re- submission	19/08/2022	Jon Bennett	Katie Robertson Vicky Cartwright	Jon Bennett
2	lssued for re- submission	16/01/2023	Katie Robertson	Trent Smith Nick Fraser Vicky Cartwright	Jon Bennett
3	Issued for re- submission	01/02/2023	-	-	Trent Smith

Prepared For

Peak Helium Pty Ltd

Prepared By

inGauge Energy Australia

Level 3, 16 McDougall St. Milton QLD 4064

E: admin@ingauge.com.au

ABN: 51 164 429 190



11 Stakeholder Engagement Log

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11.1 Overview

This appendix contains a log of communications with Stakeholders, in relation to EMP PHK02-2, to the date of submission.

11.2 Other Titles

An assessment of the Project Area has not identified any overlapping exploration licences, as shown in **Figure 11.2—1**. However, as shown in the figure, there are mineral exploration licence applications overlapping the Project Area. Peak Helium does not consider applicants as stakeholders under the Regulations. Nonetheless, Core Uranium (the applicant) has been contacted as per **Section 11.4.20**.



Figure 11.2—1 Project Area Titles



11.3 Engagement Log

Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
Reference Line A	NA	NA	 Program scope discussion. <u>Written information</u>: Work methods for 2d Seismic acquisition. Scope footprint map. Scope footprint map with property overlay. Scope footprint map with EP overlay. Scope footprint map with SOCS overlay. (Refer to Sections 11.4.11 through 11.4.15 inclusive and 11.4.18 for information provided). 	 <u>No written response</u>. Concerns were raised regarding working within the Karinga Creek Paleodrainage System due to the cultural significance of the system. Requests for local indigenous interest holders to be considered for employment and business opportunities. 	 All works will avoid disturbance within the Karinga Creek Paleodrainage System. Peak Helium will liaise with Indigenous interest holders regarding employment and business opportunities as the project progresses. 	NA
Reference Line B	NA	NA	 Program scope discussion. Written information: Work methods for drilling including well pad construction, horizontal well drilling methods, drilling chemicals, aquifer protection, water usage, well casing and cementing, drilling residue storage and disposal. Extended production testing. Scope footprint map. Scope footprint map with EP overlay. Scope footprint map with SOCS overlay. (Refer to Sections 11.4.11 through 11.4.15, inclusive and 11.4.19 for the information provided). 	 <u>No written response.</u> Concerns we raised regarding hydraulic fracturing. Concerns were raised regarding aquifer protection. Concerns were raised regarding working within the Karinga Creek Paleodrainage System due to the cultural significance of the system. Requests for local indigenous interest holders to be considered for employment and business opportunities 	 No hydraulic fracturing will be used on this project. If in the future hydraulic fracturing is required, consultation will be undertaken. Well drilling and aquifer isolation practices were discussed. All works will avoid disturbance within the Karinga Creek Paleodrainage System. Peak Helium will liaise with indigenous interest holders regarding employment and business opportunities as the project progresses. 	NA
Do a Pastoral Lessee	Alice Springs NT 0872	13/05/2021	 <u>Phone conversation</u>: Introductions and discussions on Peak Helium's purchase of EP134 and proposed 2021 seismic work program. 	• No objections or concerns were raised.	• Agreed to follow up with written correspondence.	 No change needed.

Table 11—1 Key Relevant Stakeholder Communications Log

Stakeholder Engagement Log



Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
Pastoral Lessee ●	Alice Springs NT 0872		 <u>Phone conversation</u>: Introductions and discussions on Peak Helium's purchase of EP134, and the proposed 2022 seismic work program. 	• No objections or concerns raised.	• Agreed to follow up with written correspondence.	• No change needed.
Pastoral Lessee	Alice Springs NT 0872	13/05/2021	 Email: Introductions and discussions on Peak Helium's purchase of EP134, and the proposed 2022 seismic work program. Attachments: 2D Seismic Work Methodology A map of the whole property showing the proposed 2D seismic lines, campsite/laydown, and associated buffers. A map focusing on the proposed 2D seismic lines, campsite/laydown, and associated buffers. (Refer to Sections 11.4.1 through 11.4.3 inclusive, and section 11.4.12). 	• No objections or concerns raised.	Agreed to follow up with written correspondence.	• No change needed.



Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
Pastoral Lessee	Alice Springs NT 0872	13/05/2021	Email: • Introductions and discussions on Peak Helium's purchase of EP134, and the proposed 2022 seismic work program. <u>Attachments</u> :	• No objections or concerns raised.	• Agreed to follow up with written correspondence.	• No change needed.
			 2D Seismic Work Methodology A map of the whole property showing the proposed 2D seismic lines, campsite/laydown and associated buffers. A map focusing on the proposed 2D seismic lines, campsite/laydown and associated buffers. 			
			(refer to Sections 11.4.4 through 11.4.6 , and Section 11.4.12)			
Pastoral Lessee ●	Alice Springs NT 0872	31/05/2021	 Phone conversation: Discussions on Peak Helium's proposed 2022 seismic work program and required site visits for Ecological and Archaeological Assessments. 	• No objections or concerns raised.		• No change needed.
Pastoral Lessee	Alice Springs NT 0872	31/05/2021	 <u>Phone conversation</u>: Discussions on Peak Helium's proposed 2022 seismic work program and required site visits for Ecological and Archaeological Assessments. 	 No objections or concerns raised. 		• No change needed.
Pastoral Lessee •	Alice Springs NT 0872	31/05/2021	 <u>Email</u>: Request for face-to-face meeting at Pastoral Lessee's property regarding Peak Helium's proposed 2022 seismic work program (Refer to Section 11.4.7 for the information provided) 	• No objections or concerns raised.		• No change needed



Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
Pastoral Lessee •	Alice Springs NT 0872	31/05/2021	 <u>Email</u>: Request for face-to-face meeting at Pastoral Lessee's property regarding Peak Helium's proposed 2022 seismic work program. (Refer Section 11.4.8 for the information provided). 	• No objections or concerns raised.		• No change needed
Pastoral Lessee	Alice Springs NT 0872	06/06/2021	 <u>Email</u>: Request for site visits for Ecological and Archaeological Assessments. (Refer Section 11.4.9 for the information provided). 	 No objections or concerns raised. 		• No change needed
Pastoral Lessee •	Alice Springs NT 0872	06/06/2021	 <u>Email:</u> Request for site visits for Ecological and Archaeological Assessments. (Refer Section 11.4.10 for the information provided). 	• No objections or concerns raised.		• No change needed
Pastoral Lessee ● a	Alice Springs NT 0872	07/06/2021	 Face-to-face meeting: Discussions on Peak Helium's proposed 2022 seismic work program and ongoing work programs that would be contingent on the seismic program outcomes, along with the upcoming site visits for Ecological and Archaeological Assessments. 	 No concerns on the 2022 seismic program. Concerns were raised regarding possible impacts of future development on the running of the property. 	• Peak Helium reiterated that we would work with the Pastoral Lessee to minimise the impacts of Peak Helium's operations and that, where practicable, work programs would fit in with property operations.	• No change needed
Pastoral Lessee •	Alice Springs NT 0872	07/06/2021	 Face-to-face meeting: Discussions on Peak Helium's proposed 2022 seismic work program and ongoing work programs that would be contingent on the seismic program outcomes, along with the upcoming site visits for Ecological and Archaeological Assessments. 	 No concerns on the 2022 seismic program. Concerns raised regarding previous experience with Petroleum activities. Concerns raised regarding possible impacts of future development on the running of the property. 	• Peak Helium reiterated that we would work with the Pastoral Lessee to minimise the impacts of Peak Helium's operations and that, where practicable, work programs would fit in with property operations.	• No change needed
Pastoral Lessee •	Alice Springs NT 0872	05/08/2021	Email: • Requestion confirmation of details for "Negotiation notice".	No concerns.Confirmed details.		 No change needed.
Pastoral Lessee •	Alice Springs NT 0872	05/08/2021	Email: • Requestion confirmation of details for 'Negotiation Notice'.	No concernsConfirmed details		• No change needed.



Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
		2705/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		22/07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		22/07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.



Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A	• As per reference line A.	• No change needed.
		07/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
Traditional Owners On Country Meeting		10/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
Traditional Owners On Country Meeting	Outstations	10/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	• No change needed.
Traditional Owners On Country Meeting	Finke	10/2021	• As per reference line A.	• As per reference line A.	• As per reference line A.	No change needed
Pastoral Lessee		22/02/2022	Face-to-face:	No concerns.		• No change needed.
•	Alice Springs NT 0872		 Meeting regarding the drilling program and proposed locations. 	Confirmed details.		
Pastoral Lessee ●	Alice Springs NT 0872	22/03/2022	 Face-to-face: Meeting regarding the drilling program and proposed locations. 	No concerns.Confirmed details.		• No change needed.
Pastoral Lessee •	Alice Springs NT 0872	24/03/2022	 Face-to-face: Meeting regarding the drilling program and proposed locations. 	No concerns.Confirmed details.		• No change needed.
Pastoral Lessee •	Alice Springs NT 0872	27/06/2022	Email: • Requestion confirmation of details for "Negotiation notice".	 No concerns. Confirmed details. 		• No change needed.



Stakeholder	Contact Details	Date	Information provided	Written Response Received	Peak Helium Response	Change to EMP
Pastoral Lessee		27/07/2022	Face-to-face:	No concerns.		No change needed.
•	Alice Springs NT 0872		 Meeting regarding the drilling program and proposed locations. As per reference line B. 	Confirmed details.		
Pastoral Lessee		27/07/2022	Face-to-face:	No concerns.		No change needed.
•	Alice Springs NT 0872		Meeting regarding the drilling program and proposed locations. As per reference line B	Confirmed details.		
Traditional Owners On Country Meeting		23/09/2022	• As per reference line B	• As per reference line B	• As per reference line B	• No change needed.
• Mineral exploration licensee		28/11/22	<u>Email</u> : • Request for acknowledgement of Peak Helium's activities 25/11/2022	Email: • Acknowledgement and approval of Peak Helium's proposed activities.		• No change needed.



11.4 Correspondence

From:

11.4.1 2021 Seismic Program -

Email – 21.05.13

To:	
Cc:	
Subject:	Peak Helium - 2021 Seismic program
Date:	Thursday, 13 May 2021 2:00:01 PM
Attachments:	image001.png
	Peak Helium - 2021 Seismic Program - Idracowra - Zoomed.pdf
	Peak Helium - 2021 Seismic Program - Idracowra - Whole of Property.pdf
	Peak Helium - 2021 2D Seismic - Work Methodology.pdf

Hi

Thanks for your time on the phone, this morning Kimberley.

As discussed, Peak Helium is acquiring EP134 from Tristar and intends to carry out a 2D seismic program for Helium exploration in the North West section of EP134.

This 2D seismic program will consist of the following on your Idracowra:

- ~140km of Seismic line
 - Cleared for 5m access as required
 - Within a 500m buffer to allow fine-tuning of the alignment on-site to reduce the impact of the works
 - Where seismic lines cross fencelines without a gate nearby, we will install a temporary access point, to be removed on the completion of works

Please find attached;

- 2D Seismic Work Methodology
- A map of the whole of Idracowra showing the proposed 2D seismic lines, campsite/laydown and associated buffers.
- A map focusing on the proposed 2D seismic lines, campsite/laydown and associated buffers.

Would you be available tomorrow to discuss the proposed works in more detail?



11.4.2 2022 Seismic Program - Idracowra - Whole of Property





11.4.3 2022 Seismic Program - Idracowra – Zoomed





11.4.4 2022 Seismic program -

```
Email – 21.05.13
```

From:	
To:	
Cc:	
Subject:	Peak Helium - 2021 Seismic program
Date:	Thursday, 13 May 2021 12:37:14 PM
Attachments:	image001.png
	Peak Helium - 2021 2D Seismic - Work Methodology.pdf
	Peak Helium - 2021 Seismic Program - Horsehoe Bend - Zoomed.pdf
	Peak Helium - 2021 Seismic Program - Horsehoe Bend - Whole of Property.pdf

Hi

Thanks for your time on the phone.

As discussed, Peak Helium is acquiring EP134 from Tristar and intends to carry out a 2D seismic program for Helium exploration in the North West section of EP134.

This 2D seismic program will consist of the following on your Property Horseshoe Bend:

- ~32km of Seismic line
 - Cleared for 5m access as required
 - Within a 500m buffer to allow fine-tuning of the alignment on-site to reduce the impact of the works
 - Where seismic lines cross fencelines without a gate nearby, we will install a temporary access point, to be removed on the completion of works
- 1 of 100m x 100m camp/laydown area

Please find attached;

- 2D Seismic Work Methodology
- A map of the whole of Horseshoe Bend showing the proposed 2D seismic lines, campsite/laydown and associated buffers.
- A map focusing on the proposed 2D seismic lines, campsite/laydown and associated buffers.

Would you be available tomorrow to discuss the proposed works in more detail?



11.4.5 2022 Seismic Program - Horseshoe Bend - Whole of Property





11.4.6 2022 Seismic Program - Horseshoe Bend – Zoomed





11.4.7 2022 Seismic program -

Email – 21.05.31

 From:

 To:

 Cc:

 Subject:
 Peak Helium - EP134 - 2021 Seismic Program

 Date:
 Monday, 31 May 2021 1:42:27 PM

 Attachments:
 image001.png

Hi

Thanks for your time on the phone this morning,

As discussed, Art and I would like to catch up on Monday the 7th of June 2021 to run through the 2021 seismic work program and Peak Helium's plans for EP134.

It looks like the best way to the homestead is to turn left down the Finke road at Kulgera for ~3km, then turn left for ~40km to the homestead. Is that right?

I will get into Darwin on Sunday, is there anything that you want to be picked up in town and brought out?

If it's ok, we'll get there at 7:00 a.m., so we don't interfere with your day too much.

Thanks Jon

Jon Bennett







11.4.8 2022 Seismic program -

email – 21.05.31

From:	
To:	
Cc	
Subject:	Peak Helium - EP134 - 2021 Seismic Program
Date:	Monday, 31 May 2021 2:17:59 PM
Attachments:	im age001.png

Hi

Thanks for your time on the phone this morning,

As discussed, Art and I would like to catch up on Monday the 7th of June 2021 to run through the 2021 seismic work program and Peak Helium's plans for EP134.

Just confirming, the best way to the New Crown homestead is to head south from Finke for ~33km (sweeping East), past the tee intersection for ~1km, then turn left for ~1km to the homestead. Is that right?

I will get into Alice on Sunday, is there anything that you want to be picked up in town and brought out?

If it's ok, we'll get there at 11:00 a.m.







11.4.9 2022 Seismic program -

- 21.06.06

134 - 2021 Seismic Program - Archaeological and environmental survey
20216:07:46 AM

Hi

As discussed, Peak Helium need to carry out an Archaeological and environmental survey on the proposed 2021 seismic program area.

This will be carried out by helicopter on the 11th and 12th of June 2021 using a helicopter. Most of the survey works will be carried out by air, landing only where a more detailed survey is required.

Art and I will be in Alice Springs today and catching up with you at the homestead tomorrow, as planned.







11.4.10 2022 Seismic Program -

Email – 21.06.06

From:	
To:	
Cc	
Subject:	Peak Helium - EP134 - 2021 Seismic Program - Archaeological and environmental survey
Date:	Sunday, 6 June 2021 6:28:58 AM
Attachments:	im age00 1.png
ні	and a vis

As discussed, Peak Helium need to carry out an Archaeological and environmental survey on the proposed 2021 seismic program area.

This will be carried out by helicopter on the 11th and 12th of June 2021 using a helicopter. Most of the survey works will be carried out by air, landing only where a more detailed survey is required.

Art and I will be in Alice Springs today and catching up with you at the homestead tomorrow, as planned.







11.4.11 Work Methods for 2D Seismic Acquisition





1 Description

1.1 General Overview of the Seismic Method

The seismic reflection method has a long history in the Australian petroleum industry, where it is generally used to delineate geological structures.

The method uses sound waves (seismic) to image the subsurface. These are usually generated using mechanical equipment (source) at the surface. The sound waves generated by this technique travel through the subsurface and are reflected from various geologic boundaries. Upon their return to the surface, these are recorded by receivers (Geophones) (Figure 1).



Figure 1. Seismic field operations

Seismic surveying consists of three main areas. These are:

- Survey design.
- Infield activities.
- Processing and Interpretation of the data.

The greatest interaction with the environment occurs during the infield phase. This involves line preparation, coordinate surveying, seismic acquisition, and environmental rehabilitation.



1.2 Equipment

The seismic source will most likely comprise 1-3 37 tonne "Vibroseis" seismic vibrators (Figure 1). The Vibroseis technique uses an oscillating machine to create vibrations that pass into the subsurface. Vibroseis buggies have a vibrator pad that vibrates through a range of frequencies when the pad is lowered to the ground. Typically, 1 to 2 buggies work together lowering their vibrator pads at regular points along the line so that the vibration is localised.



Figure 1. The Inova AHV-IV "Renegade" seismic vibrator

A spread of small recording devices (geophones) is laid out along the 2D lines to record the sound energy generated by the source. Each geophone is separated by a distance which varies based on the objectives of the survey. Typical increments may range from 5 - 20m and the length of the live spread actively recording the sound energy along the line, maybe in the order of 5-10Km.

Depending on the requirements of the survey, there is the option of one of two types of seismic system, either a cabled system or a nodal system (Figure 2). Each has its advantages.



Figure 2 Nodal (left) and cabled (right) recording systems.



That said the majority of surveys typically record seismic data using the nodal option.

When working in remote locations, away from towns, It is often necessary for the acquisition crew to set up a field camp. This is typically set up at a central location enabling access to all of the survey. Approximately 13 vehicles operate on the seismic lines at any time, comprising the three vibrators, a service truck, a recording truck and up to eight tray-back four-wheel-drive vehicles. However, this is subject to change based on the size of the survey and the recording parameters used. Some aspects of the proposed seismic acquisition are still to be finalised; hence the exact numbers in this document are preliminary.

1.2.1 Construction of Access Tracks

To effectively and efficiently record seismic data, good access along a seismic line is required. Typically companies attempt to avoid constructing access tracks, preferring to follow existing tracks and fence lines. Nevertheless, in areas where access provided by the existing tracks is inadequate for the seismic survey, lines need to be cleared using earthmoving equipment (e.g. slasher, bulldozer, grader) before the seismic acquisition. This is always subject to the approved EMP and requires consultation with the land-holders and agreement on maintenance measures required. It will also require a clear understanding of access requirements on each property. For instance, gates will be installed where access is required through existing fence lines. Crossing of waterways and drainage lines will be minimised wherever possible and efforts made to find the most suitable crossing point.

Where any bulldozing is required, it will be preceded by environmental and archaeological surveys along the centre line of the proposed tracks. Wherever possible, the new tracks will be located to avoid vegetated areas, to ensure rootstock remains intact. Some clearing may be required in areas of thick vegetation where it is not possible or gain access without vegetation removal. Old-growth vegetation (mature trees) will be avoided, especially trees with nesting hollows. All vehicle access will be restricted to the identified access tracks. To provide flexibility for avoidance of environmentally and culturally significant sites and mature trees, environmental and archaeological surveys should allow for a deviation away from the centre line track. Typically, such clearance will allow for line preparation to deviate +- 20-50m away from the centre line.

1.2.2 Preparation of Seismic Lines

Seismic line clearing allows access for the Vibroseis vehicles and other support vehicles. This activity can be the greatest source of environmental impact because of associated loss of vegetation, loss of habitatsand the possibility of soil destabilisation, creation of erosion fronts and the furnishing of potential weed establishment areas.

Historically, seismic lines were required to be relatively straight, cut with bulldozer blades, and travelled at speeds of up to 60 km/hr. This approach is associated with a range of environmental impacts, including loss of visual amenity and creation of access routes for unauthorised persons. More recently, the preparation of seismic lines has been refined so that they are difficult to see from existing roads and tracks and are implemented in a manner that reduces the risk of erosion and increases the rate of vegetation recovery. The clearing of vegetation for seismic lines will only occur if necessary because of these possible effects.

Seismic lines are approximately 5m wide, enough to allow safe passage of vehicles. The creation of windrows along the sides of the seismic lines are avoided, and instead, minimal vegetation will be removed to allow for natural regeneration from seed and rootstock. Wherever possible, the seismic lines will weave around large shrubs and treesand avoid crossing drainage lines or creek channels. Where it is necessary to have crossings, detours will be made to find the least sensitive crossing point. Where the seismic line crosses an existing road or track it will deviate for a short distance on either side of the track to reduce the line of sight.



A Surveyor will follow behind the line preparation crew marking recording the desired seismic receiver location. They also record access routes, create mud maps and mark hazards. These allow for safer operations and reduced environmental impact.

1.2.3 Field Camp

Ideally, accommodating the crew using local service providers is preferred, however, the availability of such accommodation may be limited, and in this instance, a field camp will be required. The field camp will be configured to satisfy regional council guidelines. It will require the use of a lay-down area situated close to the seismic lines and road access. Whilst the exact configuration of any camp depends on the crew number; thecamp generally comprises sleeper caravans, kitchen and dining facilities, ablutions, site office, waste treatment and storage, potable water tanks, diesel storage and a diesel generator.

2 Environmental impact

Velseis aims to conduct our field activities with a minimum of disturbance to the natural environment. We have an active program of development of seismic procedures and equipment that reduces our field operations' environmental impact.

To ensure the safety of staff and protection of the environment, Velseis has an extensive number of task procedures and task risk assessments. These include those on Vibroseis operations and maintenance, emergency spillresponse, and line preparation. These can be viewed as required.

Some important areas of possible environmental impact are related to the seismic source.

2.1 Source footprint

The Vibroseis source is designed to have the least amount of impact on the environment possible. The acquisition of each source point involves a pad being lowered to the ground and vibrating. This produces a small impression in the ground having an area of approximately 2.5 square metres. These have minimal depth (<5cm) and are usually not visible within a week.

2.2 Source Noise

The noise level generated by the Vibroseis truck is comparable with the noise emitted by a large truck engine (peaking at ~80dB(A)). The noise is not expected to cause disturbance as these vehicles are not stationary but are continually in a go-stop-go mode of movement (only staying at one source point for approximately 20 seconds), and the vehicles would not be close to any sensitive receptors.

The National Standard for Occupational Noise (NOHSC: 1007(2000)) indicates that unprotected continuous noise should be less than 85dB(A) and peak noise should be less than 140 dB(A). The operation range of the Vibrator is well within both of these.

To further protect other workers and the public, we also enforce a 30m exclusion zone from the source for nonoperators. This significantly reduces the noise levels at this distance.

2.3 Source Vibration

Ground vibration is inherent in the seismic technique. These are generally very small for the Vibroseis technique and decay rapidly with distance from the source. To limit the possible impact of seismic, a minimal operating distance of 20m is implemented for any sensitive infrastructure.



2.4 Access

To reduce the impact to the survey area, access is restricted to existing tracks, seismic lines and pre-approved routes. In order to move from one area to another, existing gates are used. In some circumstance, the client may negotiate with the landholder to install extra gates and/or access lines.

Seismic lines often cross fences. This has no impact on the fence as receiver lines can be connected through the fence, and source acquisition can be diverted around the fence using existing gates and access corridors.

In areas where there are complexities or restrictions on access, such as creeks, dams, dense bush, or environmental/culturally sensitive sites, there are a number of options for both source and receiver lines. If light vehicles cannot access the area, receivers can be hand-carried or the seismic line may be diverted around these. If Vibroseis buggies are unable to access the area, the source points may be skipped. Whilst this may impact subsurface coverage, this can be mitigated by carefully considering the survey design.

2.5 Hazard Avoidance

During the planning phase of a seismic survey, it is not uncommon for environmental and cultural heritage assessments to identify areas that are considered no-go for large items of equipment. Typically, a buffer is placed around such sites within which line preparation machinery or the Vibroseis buggy is unable to proceed.

Each line preparation machine and Vibroseis buggy has mounted within it a GPS tablet. This tablet is used to identify the seismic line location and also has the exclusion zones and associated buffers overlaid. This provides operators with both visual and audible queues, mitigating the risk of entering these zones of exclusion.

2.6 Monitoring

Our aim is to have no Environmental Incidents on a project. However, if an incident occurs, every effort must be made to contain and repair any damage. Crew members are to notify the Crew Supervisor immediately of any incident or near-miss. The Crew Supervisor is to notify the Peak Helium Representative and QHSE Coordinator of any incident as soon as practical, and not more than two hours after the incident or near-miss.

Velseis aims to reduce the companies Environmental Impact on the Project Area by recording the following -

- Water Use
- Fuel Use
- Waste to Recycling
- General Waste
- Chemical Disposal
- Tyres Used
- Weed waste material / Number of Weed Hygiene Inspections
- Waste Oil
- Waste Oil Filters



11.4.12 2022 Seismic Program Map





11.4.13 2022 Seismic Program Map – Properties Overlay





11.4.14 2022 Seismic Program Map - Exploration Permits Overlay





11.4.15 2022 Seismic Program Map - Sites of Conservation Significance Overlay







11.4.16 2023 Drilling Program Map – Proposed Drilling Idracowa Access Area



11.4.17 2023 Drilling Program -

Email 27.06.2022

jon.bennett@ingauge.com.au

From:	
Sent:	
To:	
Cc	
Subject:	Peak Helium - Idracowra - 2022-25 drilling program -Negotiation notice
Attachments:	Peak Helium - Idracowra - LACA map.pdf; Negotiation notice_Idracowra 2022 06 27.pdf

Hi

Thanks, for your time on the phone on Friday; sorry to intrude on your holiday.

As discussed, we've been able to refine the proposed wellpad locations based on the seismic interpretation.

Please find attached a negotiation notice in accordance with regulation 15 of the Petroleum Regulations 2020 and the associated maps.

The mapping includes a much bigger area than the preferred location for Ramsay 1 that we discussed; it gives you/us the ability to agree on drilling locations based on the results of the seismic and locations that do not impact on your operations.

We will be out later in the month for On Country Meetings and would like to catch up if there is a time that suits you; we look forward to working with you on future works.

In the meantime, we will send through a draft LACA based on the agreement we have in place, with mark-ups of any changes for your review and discussion.

Thanks Jon

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in

Well Engineering & Project Management Reliable | Experienced | Engaged



11.4.18 2022 Seismic Program – On Country Meeting Pack 2021





Sept 2021



PEAK

Background - Who is Peak Helium?

- Australian Company
- A leading Helium explorer in Australia
- Holds the EP134 Permit
- Art Molone is the Co-Founder & Managing Director.

Art is a Senior Energy and Resource Executive with a background in engineering compliance and asset management in the global resource sector including exploration, operations, advisory, venture capital and private equity for ASX, AIM and TSX listed junior and mid-tier resource companies and private entities.



Sept 2021

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HELIUM

Background – What Helium used for?

• Helium has unique properties

- The second lightest gas
- Non-reactive, non-flammable, non-poisonous
- Boils at -268°C. No other element can remain a liquid at this temp
- The only element that is non-renewable (it cannot be synthesized)
- Non-polluting only element that escapes the atmosphere to outerspace
- Helium is:
 - Essential in medical imaging (MRIs)
 - Used in micro-electrics, supercomputers and numerous Defense technologies
 - Essential for cleaning the fuel tanks in space shuttles
 - Used in weather balloons, research balloons and party balloons!





Sept 2021

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HELIUM EP 134 Location & Area of Interest



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Sept 2021

Ref: Appendix 11 - Stakeholder Engagement Log



PEAK HELIUM

EP 134 Location & Area of Interest

- Peak Helium's area of interest surrounds the Eastern end of Karinga Creek paleodrainage system
- Seismic Lines have cut short of the Karinga Creek system
- Existing access tracks and fencelines will be used to cross the Karinga Creek System
- Future wellpads will be along the seismic lines
- Pink area is a Site of Conservation Significance (SOC)







HELIUM EP134 Planned works

- 2021 Seismic surveys to determine the location of possible drilling locations
- 2022 Drilling of an exploration well and production test
 Dependent on seismic results
- Future Production and road transport to Darwin
 Dependent on drilling and production test results

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Sept 2021

Ref: Appendix 11 - Stakeholder Engagement Log



HELIUM EP134 Planned Works – Why?

Production Potential:

 To give Peak Helium a better understanding of the production potential of Helium in the area of interest in EP134 to sell to the market.

Future local opportunities:

• If the area of interest does prove to be economic and production to market is achieved, there could be an opportunity for ongoing local business engagement and employment.

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Ref: Appendix 11 - Stakeholder Engagement Log

og.39 | app. 11



HELIUM 2021 Seismic Program

How it works:

- A vibration is put into the ground with Vibroseis buggies
- The vibration travels through the ground, reflecting off of different formations
- Geophones pick up the reflected vibrations and the information is stored
- A map of the subsurface formations is built from the stored information



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Sept 2021



HELIUM

2021 Seismic Program – Line clearing

- Cleared with bulldozer and grader
- Works monitored by Traditional Owners
- Work around trees where possible
- Leave roots in soil where possible





Cultural Monitors for clearing operations

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HELIUM 2021 Seismic Program – Geophone Install







Ref: Appendix 11 - Stakeholder Engagement Log

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HELIUM 2021 Seismic Program – Survey Acquisition



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Ref: Appendix 11 - Stakeholder Engagement Log

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HELIUM Seismic Program Rehabilitation example



X Example

Left

Seismic lines several days after rehabilitation December 2019

Right

Seismic lines July 2020 during the post wet season weed survey

The survey found;

-40% of seismic lines are now hard to find as grass coverage has returned to the same/better as in paddock.
-40% of seismic lines have same grass coverage as the paddock with exception of a cattle trail

-20% of seismic lines have grass coverage striking and being used by grazier or is slow growing spinifex similar to the surrounding paddock





PEAK HELIUM

Wellpad Construction

• Clearing and leveling of the site for safe works





HELIUM EP134 – Drilling

- Only water based drilling fluids are used
- Each section is drilled, cased and cemented before the next section is drilled
- Aquifer is isolated behind casing and cement before drilling into any hydrocarbon zones
- Drilling fluid and cuttings are stored in lined ponds







PEAK HELIUM

Wellpad Construction - Multiwell Pad

- Multiple wells drilled on the same pad
- Horizontal drilling is used to reach different sub-surface targets from the same wellpad
- Reduces the number of wellpads and access tracks required
- Allows one set of tanks and ponds to be reused for several wells







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EP134 Lease Layout Wellpad, on Natrual Contour Level Area, Flat and compacted El Hardstand, flat and compacted Sump and Pits, As per profile \$3 Fence, Stock proof Sump and Pit material Stockpile + Wellhead

Note: Wellpaid, timber removed, stump holes backfilled, Wellpaid, timber removed, stump holes backfilled, and the standard of the standard standard standard and the standard standard standard standard Stang, and Cartamen pid detail and standard standard stang, and Cartamen pid detail and standard standard Stang, and Cartamen pid standard Sta

Sept 2021



PEAK HELIUM

Drilling - Horizontal Wells

Horizontal wells:

- Allows drilling into a larger area of the formation from one well
- Reduces the number of wells required

Method:

- Drill a vertical well first to check formation depths (Vertical portion of well may only occur on first well of each pad, dependent on well objectives)
- Plug back the bottom of the vertical well
- Drill the horizontal well

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Drilling - under a Site of Conservation Significance

- Karinga Site Of Conservation Significance within EP134
- No direct impacts

PEAK HELIUM

• Drilling will possibly extend underneath the Karinga System

(at least 1,00m below the surface)







Sept 2021



PEAK Planned works – Production Test

- Test each well for up to 90 days to get an understanding of the potential to produce gas at commercially viable rates
- Wells will most likely be dry, with no water or condensate









HELIUM EP134 – Moving Forward Together

THANK YOU

Peak Helium Pty Ltd



Sept 2021

Ref: Appendix 11 - Stakeholder Engagement Log

pg.51 | app. 11



11.4.19 2023 Drilling Program – On Country Meeting Pack 2022





Sept 2022

Ref: Appendix 11 - Stakeholder Engagement Log



PEAK

HELIU/

Background - Who is Peak Helium?

- Australian Company
- A leading Helium explorer in Australia
- Holds the EP134 Permit
- Art Molone is the Co -Founder & Managing Director.

Art is a Senior Energy and Resource Executive with a background in engineering compliance and asset management in the global resource sector including exploration, operations, advisory, venture capital and private equity for ASX, AIM and TSX listed junior and mid-tier resource companies and private entities.



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HELIUM

Background – What Helium used for?

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 - The second lightest gas
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 - Boils at -268°C. No other element can remain a liquid at this temp
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- Helium is:
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 - Used in weather balloons, research balloons and party balloons!











HELIUM EP 134 Location & Area of Interest





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Ref: Appendix 11 - Stakeholder Engagement Log



PEAK HELIUM

EP 134 Location & Area of Interest

- Peak Helium'sarea of interest surrounds the Eastern end of Karinga Creek paleodrainagesystem
- Seismic Lines have cut short of the Karinga Creek system
- Existing access tracks and fencelines will be used to cross the Karinga Creek System
- Future wellpads will be along the seismic lines
- Pink area is a Site of Conservation Significance (SOC)









HELIUM EP134 Planned works

• 2022 - Drilling of an exploration well and production test

Appraisal Helium and other gas may be trucked from site

• Future – Drilling and production testing of more wells

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Ref: Appendix 11 - Stakeholder Engagement Log

pg.57 | app. 11



HELIUM EP134 Planned Works – Why?

Production Potential:

 To give Peak Helium a better understanding of the production potential of Helium in the area of interest in EP134 to sell to the market.

Future local opportunities :

• If the area of interest does prove to be economic and production to market is achieved, there could be an opportunity for ongoing local business engagement and employment.

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Ref: Appendix 11 - Stakeholder Engagement Log



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2021 Seismic Program

- 2022 Ramsay Seismic results were promising
- This information has identified 3 possible drilling locations in the area of interest in EP13f4



Sept 2022



HELIUM Planned drilling locations

- Likely drilling locations selected based on the 2D seismic acquisition program
- Yellow dots most likely locations
- Could move alongthe lines





HELIUM

Wellpad Construction

- Clearing and leveling of the site for safe works ٠
- Installation of lined pits of the storage of ٠ drilling fluids
- Fencing to keep stock out ٠
- Cultural Monitors for first disturbance ٠





with stock proof fencing with entrance, entrance points to be rined or se access roads; to be as straight as practica and taper from 12m at entrance back to Gr 7 500-

Sept 2022



HELIUM EP134 – Drilling

- Only water based drilling fluids are used
- Each section is drilled, cased and cemented before the next section is drilled
- Aquifer is isolated behind casing and cement before drilling into any hydrocarbonzones
- Drilling fluid and cuttings are stored in lined ponds







PEAK HELIUM

EP134 – Drilling

Conductor

Surface Casing

- Each section is drilled, cased and cemented before the next section is drilled
- The surface section will be drilled and casing will be run into the drilled hole
- Cement is pumped down the centre of the casing and up the annular gap between the casing and hole wall



At commencement of drilling the production hole section

- The blow out preventer equipment is installed
- The surface casing shoe is drilled out
- A leak of test is undertaken to show casing and cement integrity





HELIUM

Wellpad Construction - Multiwell Pad

- Multiple wells drilled on the same pad
- Horizontal drilling is used to reach different sub-surface targets from the same wellpad
- Reduces the number of wellpads and access tracks required
- Allows one set of tanks and ponds to be reused for several wells







PEAK HELIUM

watered and roled on natural grade. Hardstam, course lo Sm below natural wateries and baddiliek with approved compacted and baddiliek with approved compacted and Stamp auroConcount instants 4. 500mm high compacted bund around sump and pits. 5. Lesse fenced and is body a strafting with gates at entrance, entrance points to be rifned on site. 6. Lesse accesser adds, bo be a strafting the practical and taper from 12 and entrance back to 6m wide. 7. 500mm high compacted bund around sump and pits.

Sept 2022



PEAK HELIUM

Drilling - Horizontal Wells

Horizontal wells:

- Allows drilling into a larger area of the formation from one well
- Reduces the number of wells required

Method:

- Drill a vertical well first to check formation depths (Vertical portion of well may only occur on first well of each pad, dependent on well objectives)
- Plug back the bottom of the vertical well
- Drill the horizontal well





HELIUM

Drilling - under a Site of Conservation Significance

- Karinga Site Of Conservation Significance within EP134
- No direct impacts
- Drilling will possibly extend underneath the Karinga System

(at least 1,00m below the surface)







Sept 2022



PEAK Planned works – Production Test

- Test each well for up to 365 days to get an understanding of the potential to produce gas at commercially viable rates
- Wells will most likely be dry, with no water or condensate
- Helium and other gasses may be trucked from site during the production testing









HELIUM EP134 – Moving Forward Together

THANK YOU

Peak Helium Pty Ltd



Sept 2022

Ref: Appendix 11 - Stakeholder Engagement Log

pg.68 | app. 11

11.4.20 2023 Drilling Program -

Email

ACN 652 691 579 Suite 2, Level 6 Blue Tower 12 Creek Street, Brisbane Q 4000 PO Box 87, Morningside Q 4170

28 November 2022

To: Peak Helium Pty Ltd

Re: Acknowledgement of Peak Helium Pty Ltd ABN 654263804 (Peak Helium) Proposed PKH2-1: EP134 Work Program Environment Management Plan and Activities.

With this letter, we the directors ofty Ltd ACN 652 691 579 hereby acknowledge PeakHelium's proposed Environment Management Plan submitted to the Northern Territory (NT)Minister for Environment (DEPWS) and approve of these proposed activities to be completed.

Yours Sincerely

Krystal

12 Appendix 12 – Rehabilitation Management Plan




Peak Helium EMP PKH2-3

NT Exploration Permit (EP) 134

Appendix 12

Rehabilitation Management Plan

Rev	Description	Date	Initiated	Reviewed	Approved
o	Issued for Submission	18/07/2022	Trent Smith	Katie Robertson Vicky Cartwright	Jon Bennett
1	Issued for Re- Submission	19/08/2022	Trent Smith	Nick Fraser	Jon Bennett
2	Issued for Re- Submission	16/01/2023	Katie Robertson Nick Fraser	Nick Fraser Vicky Cartwright Trent Smith	Trent Smith
3	Issued for Re- Submission	01/02/2023	Nick Fraser	Trent Smith	Trent Smith

Prepared For

Prepared By

Peak Helium Pty Ltd

inGauge Energy Australia Level 3, 16 McDougall St. Milton QLD 4064 E: admin@ingauge.com.au

ABN: 51 164 429 190



12 Rehabilitation Management Plan

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Rehabilitation Management Plan



12.1 Purpose

This Rehabilitation Management Plan aims to outline the progressive rehabilitation of sites no longer required for ongoing or future petroleum activities as per the requirements set out in the *Code of Practice: Onshore Petroleum Activities in the Northern Territory* (*the Code*) [DEPWS et al., 2019].

12.2 Scope

The Rehabilitation Management Plan applies to the land disturbance associated with access tracks, well pads, campsite/s and gravel/borrow pits required for the regulated activities associated with PHK02-2. This plan covers the rehabilitation strategy for final land use, objectives, activities, monitoring, and maintenance of disturbed land.

12.3 Environmental Description and Risks

The Project Area has a high concentration of drainage lines and rocky rises in the northeast regions. The middle section is mostly dune systems, which transition into plains, swales, and depressions as the predominant land formations in the southwestern stretches.

The Environmental Assessment EP134 Drilling Program 2022 (Appendix 1.02) has a complete description of associated loamy depressions, clay pans, seasonal swamps, open plains, sandplains, dunes, swales, low rocky rises, and rocky hills, breakaways and mesas, and drainage lines [ECOZ, 2022]. The report includes a map of important landforms and drainages near the access tracks and well pads, which inform the site-specific environmental risks and controls to achieve rehabilitation objectives.



Site-Specific Environmental Risks	Proposed Controls			
Loss of Topsoil	• Removed topsoil to be located away from drainage lines to reduce the chance of erosion.			
Presence of Weeds of Concern (E.g., Buffelgrass)	 Identify weeds during pre-construction surveys and use pre-existing access tracks to reduce disturbance of existing weeds. 			
Cattle Grazing (Post reinstatement of topsoil and disbursement of seed)	 Fence well pad locations until vegetation is established. 			
Compaction (From vehicle and machinery movements on access tracks and well pads)	 Preferential use of pre-existing tracks to access well pads and campsites. Topsoil removed from the well pad and stockpiled for progressive rehabilitation. Areas of compaction alleviated by mechanical means (ripping or scarifying) to assist in vegetation regrowth. 			
Erosion Risk (Construction through drainage lines/crossings)	 Minimise crossing by use of existing access tracks and placement of well pads. Site-specific Erosion and Sediment Control Plans in line with Appendix o5 (Erosion and Sediment Control Plan. 			
Erosion Risk (Access tracks of well pads within flow paths)	 Placement of well pads on level ground where practicable. Whoa boy construction on access tracks along or adjacent to flow paths, regular inspection, and maintenance of ESC measures. Installation of temporary ESC measure post- rehabilitation. 			

Table 12.3—1 Environmental Risks and Proposed Controls

12.4 Strategy for Final Land Use

All significantly disturbed land that is not required for ongoing or future petroleum activities will be rehabilitated to its pre-disturbed condition consistent with surrounding land uses and ecological values as compared to analogue sites.

To ensure rehabilitation is carried out to pre-disturbed conditions, analogue sites will be chosen to reflect the landforms being disturbed by the construction of access tracks, well pads, campsite/s, and gravel/borrow pits. Analogue sites will be surveyed, assessed, and photographed before construction activities.



12.5 Rehabilitation Success Criteria

The rehabilitation approach will be a combination of assisted regeneration in areas that have been cleared and compacted and natural regeneration.

Rehabilitation site success is identified through information obtained in the pre-disturbance land condition assessment and adjacent vegetation communities. To aid in the evaluation, analogue sites (selected pre-works) are surveyed to determine levels of species composition and richness.

Re-establish a landform post-petroleum activity that is:

- Stable and self-sustaining e.g., no visible erosion that require maintenance.
- Safe for the land users and wildlife.
- Returned to an agreed and close to the pre-disturbance level that requires little or no ongoing management e.g., no weed control measured required.
- Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commiserate with the surrounding land use.

Progressive rehabilitation success will be measured in line with **Table 12.5—1** as compared to the analogue site.

Objectives	Measurement Criteria
 Stable and self-sustaining landform winno erosion requiring on-going maintenance. 	 Negligible erosion present on access tracks and well pads or sensitive areas, e.g., waterwayss. (Qualitative – photo evidence of scarring, rill/sheet erosion).
• Safe for land users and wildlife.	All waste and spill material removed from site.No subsidence associated with re-instated pits.
 Returned to an agreed and close to the pre-disturbance level that requires littl or no ongoing management. 	 Dominant species, community structure present in rehabilitated areas similar to presence in the analogue site. Ground and perennial cover is equivalent to 70% of the analogue site.
 Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commiserate with the surrounding land use. 	 Natural ecosystem/s such as landforms, habitat structures, groundcover, shrubs, and trees in the rehabilitated areas are sufficiently equivalent to the chosen analogue site/s.
 No weed infestations in the rehabilitated area requiring management. 	 No established weeds identified during monitoring events.

Table 12.5—1 Rehabilitation Success Measures



The success of the rehabilitation will be measured according to the following rehabilitation endpoints in comparison to surrounding land use:

• Greater than, or equal to, 70% ground and canopy cover.

Rehabilitation success measures are in alignment with *the EcOz Rehabilitation Plan EP134 Seismic Survey 2022* [EcOZ, 2022].

12.6 Rehabilitation Activities

12.6.1 Planning and Design

To minimise the disturbance of the activities:

- Access to the well pads will primarily be along pre-existing access tracks. Any clearing required for HV equipment and LVs will be limited to 6m.
- Gravel/fill requirements will be limited by using existing access tracks and locating well pads and infrastructure on level locations where practicable.
- Well pads will be located to limit vegetation clearing, cut and fill and will be out of the 1/100 flood zones to limit run-on and run-off issued during wet seasons.
- Well pad, access track, gravel/borrow pits and campsites-specific ESC plans are developed see **Appendix o5** (Erosion and Sediment Control Plan).
- Source water will be from on-site water bores for construction and drilling make-up water.
- Site selection criteria are outlined in further detail in **Section 3.5** (Site Selection) of the **EMP**.

Refer to **Table 12.6—1** for an overview of potentially disturbed areas and their site characteristics.



Approx. Infrastructure Disturbance Area (ha)		Vegetation	Soil Type	
Well pads	21.04	 Spinifex Mulga (mainly) over short grass & some Spinifex 	 Red Sands Sandy & Earth Soils Broken Stony Plains 	
Campsite/s	3.00	• Spinifex	Red Sands	
 Access tracks New access tracks Widened existing pastoral tracks 	8.44	 Spinifex Mulga (mainly) over short grass & some Spinifex 	 Red Sands Broken Stony Plains Sandy & Earth Soils 	
Gravel/Borrow Pits	4.60	Spinifex	Red Sands	

Table 12.6—1 Estimated Disturbed Areas

12.6.2 Stabilisation and Maintenance

To facilitate rehabilitation success:

- Where clearing is required, topsoil will be stockpiled away from natural or constructed drainage lines no more than 1.5m to ensure that topsoil and the existing seed bank are maintained for rehabilitation.
- Where vegetation is cleared, it will be stockpiled and stored separately to topsoil stockpiles or mulched and used as in ESC measures.
- To maintain a stable landform, Erosion and Sediment Control (ESC) measures will be installed as per the ESC Plan (**Appendix o5**).
- Spills will be addressed as per **Appendix o7** (Spill Management Plan).
- Residual drilling waste will be sampled and tested in accordance with *the Code* (cl C.4.1.2) to determine appropriateness for management on site.
- Inspections and maintenance of ESC measures will occur prior to and post the wet season.



12.6.3 Progressive Rehabilitation

Twelve months after the cessation of the petroleum activity, defined as when the petroleum-related infrastructure is no longer required for future ongoing petroleum activities, progressive rehabilitation of all related infrastructure will commence. Progressive rehabilitation (PR) under this EMP will include:

- Removal of all infrastructure from the activity location, including decommissioning of the wells as per *the Code*.
- Compacted areas on the well pad, and along the access track, e.g., at creek crossings, to be alleviated of competition by mechanical intervention (ripping or scarifying) to assist in vegetation re-growth.
- Establishing natural contours of the landform, replacing topsoil, installing temporary ESC measures, and seeding with annuals and perennials resilient to fire.
- Prevent vehicles and livestock from entering rehabilitated areas.
 - Although grazing impacts rehabilitation, linear infrastructure will not be fenced.
- Scheduling monitoring and collecting data to the assessed site against success criteria.
- Rehabilitation site success is identified in comparison to reference sites with the same PR disturbed land types (e.g., vegetation and soil units). The final criteria should achieve a rehabilitated landform consistent with adjacent landforms.



12.7 Monitoring and Maintenance Program

Peak Helium will inspect and maintain areas being progressively rehabilitated in line with:

- Table 12.7—1 Inspection, Maintenance, and Reporting.
- This is also reflected in the **Table 8.5 2 Monitoring Plan** of the Peak Helium PKH02-2 EP 134 **EMP**.

All rehabilitation monitoring activities are scheduled around the defined wet season; re-entry to the leases will be subject to weather/road conditions.

Following the *Environmental Closeout Procedures for Petroleum Activities*, a suitably qualified third party will conduct the final rehabilitation assessment and endorsement [DITT, 2016].



Table 12.7—1 Ins	pection,	Maintenance,	and Reporting

Rehabilitation Phases	Rehabilitation Surveys	Methods	Measurable Attributes	Corrective Actions	Maintenance	Reporting
Planning and Design: 6-12 Months Prior to Construction	 Identify and establish analogue sites. Survey vegetation and soil on well pads and campsite/s pre- disturbance. GPS water way and dune crossings for monitoring reports. 	 Ground truth geospatial data. Survey, assess and document. 	 Ground cover (%). Canopy cover (%). Erosion (qualitative – photo evidence of scarring, rill/sheet erosion). 	N/A	N/A	• Overview reports for analogue sites, well pads, campsite/s, and access track water way crossings.
Stabilisation and Maintenance: Ongoing	• Inspect, monitor, and test.	 Weekly visual inspection of ESC measures and weed growth on well pads, campsite/s, and access tracks. Test drilling waste as per Code. 	 No visible erosion Weed growth under control. Drilling pit ready for closure. 	 Erosion and Sediment measures remediation. Weed management. Initiate removal of fluids/cuttings from pits. 	 Remove the sediment from fences/traps, and recontour banks. Repair and reinstate ESC measures. Remove weeds. 	 Weekly inspection reports during construction and drilling operations. Incident reports during drilling operations, e.g., spills. Drilling waste management report.



Rehabilitation Phases	Rehabilitation Surveys	Methods	Measurable Attributes	Corrective Actions	Maintenance	Reporting
Progressive Rehabilitation: Ongoing Annual Post Local West Season Inspections Until Success Criteria are Met	• Annually end of the defined wet season.	 Inspect ESC measures and weed growth. Inspect for subsidence of closed drilling waste pits. Inspect re-growth in comparison to analogue sites. 	 No visible scaring, drill/sheet erosion. Weed growth under control. 	 Erosion and Sediment remediation. Weed management. 	 Remove the sediment from fences/traps and re-contour banks. Repair and reinstate ESC measures. Remove weeds. 	 Annual inspection report. Drilling waste management report as per WMP.
Yearly Inspections up to and Including Cessation of Petroleum Activities	• Final inspection by suitably qualified person (SQP) and landowner.	• Inspect ESC measures and weed growth.	 Ground cover (%). Canopy cover (%). Erosion (qualitative – photo evidence of scarring, rill/sheet erosion). 	 Additional seeding. Livestock management. Weed management. 	 Repair and reinstate temporary ESC measures. Remove weeds. 	• Annual inspection report.
Upon Completion of Rehabilitation	 Final inspection by SQP and landowner. 	 Site inspection by a 3rd party SQP sign-off. 	 Ground cover (%). Canopy cover (%). 	 Dependent upon a third- party report or landowner feedback. 	• Dependent upon 3rd party report or landowner feedback.	 Hand-over report with the landowner. Signed off final Environmental Report.



12.8 Rehabilitation 'Plan on a Page'

The Interest Holder will engage a suitably qualified person to create a rehabilitation 'plan on a page' prior to site rehabilitation to aid in the compliant completion of site works. The 'plan on a page' will incorporate information from this Appendix and data collected from site monitoring activities. A plan on a page is provided for use below.

			REHABI	LITATION	I PLAN 2023-20	26, [Ramsay AA]	
EP #: 134		Contact Details				MAPS	
Well pad #: RAMSAY		Title of Responsible OPerson:		Construction	Project Manager	and the second sec	
Total Area of Approved Surface 10 ha		Name:	Name: Jon				
Total Area Cover (Ramsay AA Wor	ed by This RP king Corridor):	1636 ha	Phone Number:				
Locati	on of Well pad on EP	134	Email:				
Property Land Uses:	Cattle Grazing, Gas	Exploration		Rehabili	tation Manager	nent Zones	Community 1: Sandplain – red sand and sandy
	 Stable and self-s (e.g., no visible 	sustaining erosion that	Infrastructure	Size (ha)	Vegetation Community	Soil Type/ Slope	red earth soils, open or patchy Mulga ove Kerosene Grass, Oat Grasses and forbs, spinifex.
	 that required maintenance). Safe for the land users and wildlife. Returned to an agreed and close to the pre-disturbance level that requires little or no ongoing management (e.g., no weed control measured required). Re-instated to reflect the natural ecosystem/s or establish an alternative outcome commiserate with the surrounding land use. 		Campsite	1	Community 1	Red Sands less than 1% slope	
			Well pad	7	Community 1	Red Sands less than 1% slope	
Rehabilitation Objectives:			Borrow Pit	1	Community 2	Red Sands Less than 2% slope	
			Access Track	0.51	Community 1 and 2	Red Sands less than 2% slope	Community as: Loamy Depressions - Short-liver
R	ehabilitation Risks		Pre-Disturbance Land Condition Summary				forbs and tussock grasses.
 Loss of topsoil due to poor placement and/size of stockpiles. Presence of weed of concerns (e.g., Buffel Grass) being disturbed and spread. Cattle grazing impact on vegetation regrowth. Compaction from heavy vehicles/rigs on access tracks and well pads. Erosion on access tracks through crossings or sensitive areas. 			Ramsay AA is system and the gently undulatin The vegetation selected for inf vegetation char is located near existing and re requirement for oaks were ident near the grou significance or s area. There is corridor; howey potential stream	predomin Tanami I ng plains, s types va trastructur acteristic o the railw purposed cleared a ified durir nd depen ites of bot potentiall rer, infrast n.	ately located in pioregion. The a some dunes, wit ry between con e comprise pre of community 2 ay and will be seismic tracks rea. No threaten g the ecological dant ecosysten anical significant y a low-order ructure is not e	In the Simpson desert land rea can be characterised as h red earths to clayey sands. munity 1 and 2, but areas dominately the low-density with minimal slope. The area accessed predominately via , significantly reducing the ned species, weeds or desert assessment. The area is not ns, sites of conservational ce, present within the project stream within the working xpected to encroach on this	Community 2b: Loamy depressions - Shrubs are typically absent or present as isolated individuals short-lived forbs and tussock grasses.

Rehabilitation Management Zones & Objectives



PEAK HELIUM

Infrastructure: All infrastructure that is not to be used as part of the final land use is removed to ensure the site is safe and free of hazardous materials.

Soils: There is no residual soil contamination onsite that is incompatible with the final land use of that poses a threat of environmental harm.

Ecosystem Rehabilitation:

- The vegetation composition (e.g., type, density, and maturity) of the rehabilitation • is recognisable as the target vegetation. community and indistinguishable from the surroundings.
- The vegetation structure of the • rehabilitation is recognisable as or is

Bioregions Finke MacDonnell Ranges Great Sandy Desert Simpson Strzelecki Dunefields Tanami Figure 12.8—2 Project Area Bioregions

Rehabiliation plan prepared by suitably qualified person – Name(s) and Contact Details:	Trent
#3 – Camp Site 100 x 100 (1.0 ha) Co-ord: 133.511492,-25.3674 #3 – Gravel Pit 100 x 115 (1.15 ha) Co-ord: 133.56263,-25.37872	the final land use. <u>Access Tracks:</u> Visually, track contours and colour blends with the surrounding area and previous surface disturbance are indistinguishable.
#2 – Well pad 275m x 255m (7.0 ha) Co-ord: 133.5140,-25.3654	Pastoral Revegetation: Revegetation is sustainable for the long term and only requires maintenance that is consistent with
#1 – New access track 0.9km (0.51 ha) or Contingency Access track 4.5km (0.45 ha) Co-ord: 133.5073,-25.364304	trending towards the target plant community.

Figure 12.8—3 Rehabilitation 1-Pager Example

Ref: Appendix 12 - Rehabilitation Management Plan



12.9 References

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13 Appendix 13 – Traffic Impact Assessment





EP 134 ACCESS REVIEW HORSESHOE BEND, GHAN NORTHERN TERRITORY

TRAFFIC IMPACT ASSESSMENT





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CIRQA Pty Ltd

ABN 12 681 029 983 PO Box 144, Glenside SA 5065 150 Halifax Street, Adelaide SA 5000 (08) 7078 1801 www.cirqa.com.au



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APPENDIX A: CONCEPT ACCESS PLAN PREPARED BY CIRQA



1. EXECUTIVE SUMMARY

CIRQA has been engaged to undertake a review of the traffic aspects associated with a proposed drilling program by inGauge Energy in Ghan, Northern Territory. Specifically, CIRQA has been requested to prepare a Traffic Impact Assessment (TIA) of the proposed access arrangements via Horseshoe Bend for the exploration program.

This report summarises the traffic review undertaken of the access arrangements. The review has been prepared in accordance with the Austroads' "Guide to Traffic Management – Part 12: Integrated Transport Assessments for Developments" (including general adoption of its recommended report structure).

The subject exploration program comprises civil construction, drilling and testing in relation to the drilling of three wells on NT Portions 2958 and 659. Vehicle access to the well sites and campsites will be provided via two access points on Horseshoe Bend.

Assessment of the turning warrants against the requirements of the Austroads' Guide indicates that formalised separate turn lanes are not warranted. Furthermore, the Austroads' Guide also indicates that appropriate sight distance can be established at each of the access points.

Assessment of the additional traffic associated with the exploration program indicates that up to 21 daily vehicle movements could be generated by inGauge Energy's proposed operations. These movements will be distributed to Horseshoe Bend via the two access roads. Such movements will readily be accommodated at the access points and on the adjacent road network.



2. PROPOSED DEVELOPMENT

2.1 BACKGROUND DEVELOPMENT

Access to the well sites will be provided via existing private unsealed roadways. Each of the existing roadways currently intersect with Horseshoe Bend, providing connectivity to the broader road network.

2.2 DESCRIPTION OF ON-SITE DEVELOPMENT

2.2.1 LAND USE AND INTENSITY

The land use comprises three new well pads, each with associated campsites, within the study area.

The intensity of traffic movements associated with the proposal will be low and it is anticipated that the highest level of traffic generation will occur during the drilling phase (as detailed below).

2.2.2 LOCATION

The well sites will be located within 82 km of the Ghan township, spread across two land parcels:

- NT Portion 2958 ('Idracowra' under Private Ownership); and
- NT Portion 659 ('Horseshoe Bend' under Private Ownership).

The well pads and campsites (which will be located within well pad corridors and within 1 km of each well pad) will be accessed via a number of existing private roadways within the aforementioned land parcels. Specifically, the following private access roadways will be utilised:

- Access Road 1 (immediately east of the Alice Springs-Tarcoola Railway Level Crossing at Horseshoe Bend, approximately 50 km east of the Stuart Highway)
- intersecting on the southern side of Horseshoe Bend, providing access to Wellpads 1 and 2; and
- Access Road 2 (approximately 101 km east of the Stuart Highway)
- intersecting on the northern side of Horseshoe Bend, providing access to Wellpad 3.

2.2.3 ZONING

The subject wells (and associated campsites) are not located within a Zone defined by the Northern Territory Planning Scheme (NTPS).



2.2.4 PHASING AND TIMING

The subject exploration program is anticipated to be undertaken over a two-year period. An indicative project schedule has been prepared by inGauge Energy, outlining the various activities throughout the program as well as their expected commencement and duration. Table 1 illustrates the indicative project schedule.

Phase	Activity	Estimated Commencement	Estimated Duration
1	Water boring	Q3 2022	3 weeks
2	Civil Construction	Q3 2022	5 weeks
3	Drilling	Q3 2022	10 weeks
4	Completions	Q4 2022	3 weeks
5	Extended production testing	Q4 2022	14 weeks
6	Water boring	Q1 2023	5 weeks
7	Civil Construction	Q1 2023	9 weeks
8	Drilling	Q2 2023	17 weeks
9	Completions	Q3 2023	4 weeks
10	Extended production testing	Q3 2023	15 weeks
11	Drilling	Q1 2024	6 weeks
12	Completions	Q2 2024	2 weeks
13	Extended production testing	Q2 2024	13 weeks

Table 1 – Indicative project schedule provided by inGauge Energy

The exploration program is expected to commence in the third quarter of 2022 (upon receipt of relevant planning approvals and other relevant considerations).



3. EXISTING AREA CONDITIONS

3.1 STUDY AREA

3.1.1 AREA OF INFLUENCE

The study area is located east of the township of Ghan, between the Stuart Highway and the Ghan Heritage Road. The access roadways traverse the following land parcels:

- NT Portion 2958 ('Idracowra' under Private Ownership); and
- NT Portion 659 ('Horseshoe Bend' under Private Ownership).

Figure 1 illustrates the subject parcels of land with regard to the adjacent road network.



Figure 1 – The subject parcels of land (Source: Northern Territory Government, 2021)

3.1.2 AREA OF SIGNIFICANT TRANSPORTATION IMPACT

The adjacent road network will readily accommodate the increased traffic generation associated with the subject site. The primary impact will generally be limited to the intersection of the Stuart Highway and Horseshoe Bend, and



access points on Horseshoe Bend. Further discussion of traffic volumes and their associated impacts are provided below.

3.2 STUDY AREA LAND USE

3.2.1 EXISTING LAND USES

The subject parcels of land are currently used as pastoral properties. The parcels of land bounding the subject parcels (NT Portions 657, 810, 855, 1102, 259, 2869, 3351 and 1991) are also primarily pastoral properties and are as follows:

North

- NT Portion 657 ('Henbury' Private ownership);
- NT Portion 810 ('Maryvale' Private ownership);
- NT Portion 855 ('Horseshoe Bend' Private ownership);
- East
- NT Portion 1102 ('New Crown' Private ownership);
- South
- NT Portion 259 ('Lilla Creek' Private ownership);
- NT Portion 2869 ('Umbeara' Private ownership);
- West
- NT Portion 3351 ('Erldunda Private ownership); and
- NT Portion 1991 ('Palmer Valley' Private ownership).

3.2.2 EXISTING ZONE

The subject wells are not located within a Zone defined by the NTPS.

3.2.3 ANTICIPATED FUTURE DEVELOPMENT

Within the study area, no other development is anticipated in the near future. It is understood that other drilling programs are in the process of being undertaken within the broader area. However, the likelihood of peak traffic movements associated with the various projects aligning is considered low.

3.3 SITE ACCESSIBILITY

3.3.1 AREA ROADWAY SYSTEM

Within the study area, the only public roads are the Stuart Highway and Horseshoe Bend.

The Stuart Highway is a major rural highway under the care and control of the Northern Territory Government, providing connectivity between Darwin and a



number of townships within the NT, including Alice Springs. South of the NT, the Stuart Highway connects to Adelaide. In the vicinity of the study area, the Stuart Highway is a 9.0 m wide sealed roadway comprising 3.8 m lanes with adjacent 0.7 m sealed shoulders in each direction (further unsealed shoulders are provided in addition). The Sturt Highway (adjacent Horseshoe Bend) is subject to a 130 km/h speed limit.

Traffic data has been obtained from the Northern Territory Government for the closest primary (permanent) counter station on the Stuart Highway (RAVDP003, located 200 m north of Kulgera) for a 10-year period (from 2011 to 2020 inclusive). Table 2 illustrates the Annual Average Daily Traffic (AADT) volumes recorded at the above counter station on the Stuart Highway.

Year	RKVDP003
2011	303
2012	315
2013	304
2014	313
2015	342
2016	344
2017	363
2018	333
2019	334
2020	182

Table 2 – AADT traffic data from the RAVDP003 counter station on the Stuart Highway

As illustrated in Table 2, traffic volumes on the Stuart Highway (a major rural highway) are typically in the order of 330 vpd (noting that COVID-19 would likely have impacted upon recorded traffic volumes in 2020).

Horseshoe Bend roadway is a rural access road and is under the care and control of the Northern Territory Government. It is consistent with the 'Pastoral 3' Road Class as outlined in the Department of Infrastructure, Planning and Logistics' (DIPL's) "*Performance and Design Standards for Northern Territory Government Roads*". It comprises an unsealed surface along its length, with a typical carriageway width in the order of 11.0 m. Horseshoe Bend is subject to a default 100 km/h rural speed limit.

Traffic data for Horseshoe Bend is not publicly available from the Northern Territory Government. Due to its remote location and low function (i.e. does not



provide connectivity between townships and/or key destinations), it is not expected that daily traffic volumes would be notable.

Given that Horseshoe Bend provides access only to rural properties (of which there are very few), it is estimated that traffic volumes would be less than 50 vehicles per day (vpd).

3.3.2 TRANSIT SERVICE

No public transport services are provided within the vicinity of the study area.

3.3.3 PEDESTRIANS AND CYCLISTS

Given the site's remote nature, pedestrian and cyclist movements along the Stuart Highway and Horseshoe Bend would be extremely unlikely and are not expected to occur.



4. PROJECT TRAFFIC

4.1 PROPOSED SITE ACCESS

As noted in Section 2.2.2, access to the well sites will be provided via existing private roadways within the subject land parcels. The private roadways intersect with Horseshoe Bend at standard T-intersections, creating two access points (both of which are existing).





Figure 2 – The location of each wellpad and various access roadways in relation to Horseshoe Bend and the Stuart Highway (Source – Google Earth)

4.2 TRAFFIC GENERATION

Forecast (development-related) vehicle movements have been provided by inGauge Energy for each item of the exploration program schedule. It should be noted that volumes have only been provided for the exploration program and not the operation of the well (albeit it is expected that volumes associated with their operation will be lower than those of the exploration program). The information provided by inGauge Energy is illustrated in Table 3.



Activity	Light Vehicle Movements (per week	Truck Movements (per week)	Approximate Duration
Water boring	180	24	8 weeks
Civil Construction	540	16	14 weeks
Drilling	976	670	33 weeks
Completions	204	146	9 weeks
Extended production testing	1,440	48	44 weeks
Total	3,340	904	100 weeks

Table 3 – Forecast vehicle movements associated with inGauge Energy's p	roposed
exploration program	

On the basis of the information provided by inGauge Energy (in both Table 1 and Table 3), the peak weekly traffic generation associated with the exploration program will occur when Phases 7 and 8 overlap (by one week at the end of construction and beginning of drilling phase). During this week, in the order of 70 vehicles (25 trucks and 45 light vehicles) are anticipated to access a given well site. This equates to an average of up to 8 truck and 13 light vehicle movements per day during this week.

Given the peak weekly traffic generation will only occur during the overlap of Phases 7 and 8, this assessment has therefore excluded detailed traffic impacts at other times (the average number of traffic movements for the duration of the project will be less than 9 truck movements and 33 light vehicle movements per week). This is considered to be a conservative approach as the assessment outlined below represents the worst-case scenario with regard to traffic volumes using the broader road network.

4.3 TRAFFIC DISTRIBUTION AND MODAL SPLIT

A high-level traffic distribution has been provided by inGauge Energy with regard to the subject exploration program. Based upon the above worst-case forecast, the following vehicle movements are forecast to occur on any given day within the last week of Phase 7 and initial week of Phase 8 overlap period:

- 8 truck movements will occur between a well site's access and Stuart Highway; and
- 13 light vehicle movements will occur between a well site's access and Stuart Highway.



All truck movements are assumed to be 53.5 m Road Trains (A-Triples).

4.4 TRIP ASSIGNMENT

As mentioned above, the largest traffic impact to Horseshoe Bend will occur at the end of Phase 7 and the beginning of Phase 8. During this week, the following (new) daily traffic volumes are forecast on Horseshoe Bend:

- 8 truck movements will occur between a well site's access and Stuart Highway; and
- 13 light vehicle movements will occur between a well site's access and Stuart Highway.

It should be reiterated that the above traffic volumes are considered to represent the maximum daily traffic volumes anticipated throughout the exploration program. This is due to higher vehicle movements anticipated during the overlap of the end of the civil construction phase and the beginning of the drilling phase (Phase 8) than what would occur during other phases (including any additional overlap).

4.5 FUTURE TRAFFIC

It is not considered necessary to analyse 'future traffic' volumes along Horseshoe Bend as part of this assessment. This is due to the following:

- the traffic volumes identified in Section 4.4 are considered to represent the 'worst-case' scenario for the duration of the project;
- existing traffic volumes along Horseshoe Bend would be very low;
- traffic volumes recorded at the primary counter station on the Stuart Highway) are low and have changed negligibly over the last available 10year period; and
- no significant traffic generating development is expected to occur within the vicinity of the site during the construction phase of the exploration program.

4.6 TOTAL TRAFFIC

Based upon the anticipated existing traffic volume on Horseshoe Bend (as identified in Section 3.3.2), taking into consideration traffic volumes associated with the subject exploration program of EP 134, Horseshoe Bend is forecast to have a total daily traffic volume in the order of 71 vpd.

With regard to the various access points located along Horseshoe Bend, total daily traffic volumes have been distributed between the various turning



movements. Figure 3 – Forecast daily turning movements at a given access (indicative) at the end of Phase 7 and beginning of Phase Figure 3 illustrates the daily turning movements forecast at Access Road 1 at the end of Phase 7 and beginning of Phase 8 (i.e. during the week overlap period).



Figure 3 – Forecast daily turning movements at a given access (indicative) at the end of Phase 7 and beginning of Phase 8.



Figure 4 illustrates the daily turning movements forecast at the intersection of Stuart Highway and Horseshoe Bend at the end of Phase 7 and beginning of Phase 8 (i.e. during the week overlap period).



Figure 4 – Forecast daily turning movements at the intersection of Stuart Highway and Horseshoe Bend at the end of Phase 7 and beginning of Phase 8.



5. TRANSPORTATION AND ANALYSIS

5.1 CAPACITY AND LEVEL OF SERVICE

Given the low number of daily traffic movements forecast to occur at the end of Phase 7 and beginning of Phase 8 (during the overlap period), the proposed access points and the Stuart Highway/Horseshoe Bend intersection will operate satisfactorily as standard T-intersections.

However, in order to determine if an intersection treatment is warranted, an assessment has been undertaken against the requirements of the relevant Austroads' Guidelines (Figure 3.25 (a) of the "Guide to Traffic Management – Part 6: Intersections, Interchanges and Crossings Management").

Based upon the forecast peak hour traffic volumes (10% of the volumes identified in Figure 3), the Austroads' Guide identifies that only Basic Left-turn (BAL) and Basic Right-turn (BAR) treatments are required (i.e. no separated turn lanes are warranted) at both access road intersections.

It should be noted that the additional traffic volumes forecast to utilise the Horseshoe Bend and Stuart Highway intersection do not trigger a higher-order treatment above that currently required (by existing traffic volumes). As such, it is not considered that an intersection upgrade is warranted as a result of the subject exploration program.

5.2 TRANSPORTATION SAFETY

5.2.1 ROAD GEOMETRY

As identified in Section 3.3.1, Horseshoe Bend generally comprises an unsealed 11.0 m wide carriageway. The Austroads' "Guide to Road Design – Part 3: Geometric Design" identifies that for roads with an AADT of less than 150 vpd (the lowest order roadway identified by Austroads), a minimum carriageway of 8.7 m should be provided in order to accommodate two-way traffic movements.

As identified in Section 4.6, Horseshoe Bend is forecast to continue to have daily traffic volumes below 150 vpd. The existing geometry of Horseshoe Bend is therefore considered appropriate based on the recommendations of the Austroads' Guide.

In addition, it is noted that the moving of large rig equipment may require light vehicle escorts to travel in front of and behind oversize vehicles. Given that such vehicles will be travelling in a group (of at least three vehicles) and that oncoming vehicles will have adequate warning to oversize vehicles (via the use of signage and flashing lights), the existing road geometry is considered appropriate.



5.2.2 ACCESS LOCATION

Access Road 1 is currently located in close proximity to (approximately 10 m from) the Alice Springs–Tarcoola Railway Level Crossing on Horseshoe Bend. It is recommended that the intersection of Access Road 1 and Horseshoe Bend is relocated approximately 80 m south-east to increase its proximity to the adjacent railway level crossing, thereby increasing safety associated with both the access' proposed use, and retention of the safe operation of the railway level crossing. This will also reduce the likelihood of trucks queuing across the railway line prior to entering Access Road 1 (despite this being considered an unlikely scenario).

With regard to Access Road 2, its existing location is considered appropriate to retain the safe operation of Horseshoe Bend as well as vehicle movements associated with the subject exploration program.

5.2.3 SIGHT DISTANCE

A sight distance assessment has been undertaken at both access locations along Horseshoe Bend. The sight distance assessment was undertaken on-site by inGauge Energy and is understood to have been undertaken based upon the requirements of Austroads' "Guide to Road Design – Part 3: Geometric Design" and "Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections" for both light vehicles and type two road trains. This is due to the differing speed environments in which the respective vehicles are permitted to travel.

Specifically, light vehicles are permitted to travel at the default speed limit of 100 km/h and, as such, a design speed of 110 km/h has been adopted. However, with regard to road trains, such vehicles are restricted (by law and typically by a governing device installed within the vehicle) to a maximum of 90 km/h. As such, a design speed of 100 km/h has been adopted for such vehicles.

Due to the rural and remote nature of Horseshoe Bend an increased driver reaction time of 2.5 seconds (applicable to roads with large distances between towns and isolated features) has been adopted in the assessments.

A standard deceleration coefficient of 0.36 has been adopted for the assessment with the exception of the consideration of sight distance provisions for type two road trains (such as triple road trains), for which a deceleration coefficient of 0.26 has been adopted.

On the basis of the above, there would be a sight distance requirement of 301 m for light vehicles (based upon a design speed of 110 km/h) and 305 m for type two road trains (based upon a design speed of 100 km/h).



Due to the site's rural location, an on-site review of available sight distances has not been able to be confirmed. However, a review of available imagery indicates a relatively flat topography, with sparse (and small) vegetation. Based upon these factors, it is anticipated that good intervisibility would be able to be achieved at both the Access Road 1 and Access Road 2 intersections with Horseshoe Bend (between a vehicle exiting from either of the Access Roads and a vehicle travelling along Horseshoe Bend), in line with the requirements of the Austroads Guidelines.

It should also be noted that (particularly in relation to Access Road 1), Horseshoe Bend comprises a meandering alignment (due to the nearby railway crossing). Such an alignment would assist in reducing vehicle speeds, well below those identified as 'design speeds' above.

5.2.4 INTERSECTION SPACING

DIPL's "Performance and Design Standards for Northern Territory Government *Roads*" does not identify minimum access spacings for 'Pastoral 3' roads such as Horseshoe Bend.

5.2.5 OVERSIZE OR OVERMASS VEHICLES

Should inGauge Energy intend to operate oversize and/or overmass vehicles along Horseshoe Bend, inGauge Energy will be required to apply for an 'oversize or overmass permit' from the Northern Territory Government.

A permit will likely require pilot/escort vehicles in front of and behind an oversize vehicle to forewarn vehicles approaching in the opposite direction. Such requirements are common and considered to be acceptable with regard to the moving of oversize loads.



6. IMPROVEMENT ANALYSIS

6.1 IMPROVEMENTS TO ACCOMMODATE EXISTING TRAFFIC

Given the very low number of movements anticipated to currently occur on Horseshoe Bend, it is not considered that upgrades are warranted to accommodate existing volumes.

6.2 IMPROVEMENTS TO ACCOMMODATE BACKGROUND TRAFFIC

For the reasoning identified in Section 4.5, traffic volumes are not expected to significantly increase within the next 10-year period. As such, no improvements (apart from general road maintenance) are considered to be warranted in order to accommodate 'background traffic'.

6.3 IMPROVEMENTS TO ACCOMMODATE TOTAL TRAFFIC

The existing access intersection on Horseshoe Bend will be upgraded with BAL and BAR treatments (if not already compliant) to appropriately accommodate movements associated with the largest vehicles anticipated to access the site (53.5 m Road Trains).

A concept drawing has been prepared by CIRQA (attached in Appendix A). The drawings also include a plan illustrating associated signage provisions at the proposed access points (to adequately warn drivers associated with the site and through-bound movements on Horseshoe Bend).

It should be noted that drawings meet (and generally exceed) the layouts shown on the Northern Territory Government's *"Guide to Rural Intersections Treatments Sheet 1 – Types 1 & 2"* (drawing no. C(S)1842-0).

6.4 EVALUATION

On the basis of the above, it is considered that the additional vehicle movements generated by the proposed exploration program will be adequately accommodated with the following treatments:

- construction of the proposed access points in line with the concept drawing attached in Appendix A, in order to ensure that the largest vehicle anticipated to require access (53.5 m Road Trains) can be accommodated;
- appropriate work zone traffic management signage in accordance with the Australian Standards' "Manual of uniform traffic control devices-Traffic control for works on roads" (AS 1742:3–2019) at each of the three access points; and



 should construction be required during the 'wet season', additional work zone traffic management provisions should be implemented (for instance, reduction in the posted speed limit in the vicinity of the access points). Additional maintenance on the condition of the access points may also be required.


7. FINDINGS AND RECOMMENDATIONS

7.1 SITE ACCESSIBILITY

Vehicle access to the various well sites will be provided via standard T-intersections on the Horseshoe Bend. The access points will accommodate turn paths of heavy vehicles such as 53.5 m Road Trains. The access points will comply with the requirements of the Austroads' Guidelines in regard to turning warrants and sight distances.

7.2 TRANSPORTATION IMPACTS

The additional number of movements associated with the exploration program is forecast to be very low. Based upon expected existing traffic volumes (derived based on location and nearby traffic data) and operational information provided by InGauge Energy, daily traffic volumes along Horseshoe Bend are forecast to be less than 75 vpd throughout the duration of the exploration program. Accordingly, volumes are expected to remain well below the 150 vpd 'limit' associated with low-volume rural roads as identified in the relevant Austroads' Guide. As such, the traffic volumes associated with the proposed exploration program will be readily accommodated.

Furthermore, the proposed access arrangements will be adequate to accommodate the forecast movements to/from the subject well pad sites.

7.3 ROADWAY IMPROVEMENTS

7.3.1 STUART HIGHWAY/HORSESHOE BEND INTERSECTION

It is understood that the intersection of the Stuart Highway and Horseshoe Bend is currently used by Road Trains up to 53.5 m in length. Furthermore, the additional traffic volumes generated by the proposal will not require a higher-order treatment above that currently required at the intersection. As such, no additional upgrade is considered to be warranted.

On-going inspections and maintenance should however be undertaken to ensure that the integrity of intersection is of an appropriate standard.

7.3.2 HORSESHOE BEND

On-going inspections and maintenance should be undertaken to ensure that the integrity of roadway is of an appropriate standard in the vicinity of the various access points.

7.3.3 WELL SITE ACCESS POINTS

Refer to Section 6.3 and Appendix A.



7.4 REPORTING

This report has been prepared in accordance with Austroads' "Guide to Traffic Management – Part 12: Integrated Transport Assessments for Developments". Specifically, this report has been prepared based upon the reporting structure outlined in Appendix C of the Austroads' Guide.



APPENDIX A CONCEPT ACCESS PLAN PREPARED BY CIRQA



NOTES:

CONCEPT ONLY - SUBJECT TO DETAILED DESIGN AND NTG APPROVALS

SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH THE RELEVANT REQUIREMENTS OF AS1742



ABN: 12 681 029 983 | PO Box 144, Glenside SA 5065 | E: info@cirqa.com.au

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EP 134 EXPLORATION PROGRAM

14 Appendix 14 – Emergency Response Plan





Peak Helium Pty Ltd EMP PKH2-3 Exploration Permit (EP) 134 Appendix 14 Emergency Response Plan

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Prepared For

Peak Helium Pty Ltd

Prepared By

inGauge Energy Australia

Level 3, 16 McDougall St. Milton QLD 4064

E: admin@ingauge.com.au

ABN: 51 164 429 190



14 Emergency Response Plan

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14.1 Introduction

This Emergency Response/Contingency Plan (ERP) describes processes to be followed by Peak Helium Pty Ltd (Peak Helium) in the event of an emergency in Exploration Permit 134 (EP 134).

This ERP is designed to guide the response team on site-level emergencies and return the site to normal operations.

This ERP will be used in conjunction with relevant:

- Spill Management Plan/s.
- Waste Water Management Plan/s.
- Bushfire Management Plan/s.

In these cases where drilling and construction contractors have their own scope-specific ERP, the one page of Emergency Response Numbers (**Section 14.20.2**) will be used to bridge between the two plans.

14.2 Scope

This plan applies to all employees, contractors, and visitors involved with the EP 134 project operations, including:

- Well pad and access track construction.
- Drilling and completions activities.
- Extended production testing.
- Transport to and from site.



14.3 Background

The EP 134 project includes ongoing helium exploration in the northwestern section of EP134. The Project Area is in the Northern Territory, approximately 170km south of Alice Springs and approximately 45 km to the east of the Stuart Highway.

The works include well drilling, well completion, Extended Production Testing (EPT), rehabilitation, and other associated activities such as civil construction works, water bore drilling and temporary camp installation.

The location of the area that this ERP applies to is shown in **Figure 14.5—1** below.

All activities involved with the project operations are outside of the *NT Fire and Rescue Services* (NTFRS) Emergency Response Area. Prior to mobilisation, the NTFRS can be contacted for advice on current capabilities in preparation for adequate contingency measures.

14.4 Emergency Response Priorities

All actual or potential emergencies will be assessed under the following activation trigger principles:

- **People**: Serious injuries/loss of life or emotional harm.
- **Environment**: Serious impact on the biological, physical environment or ecosystem functions.
- **Asset**: significant damage or threat to property/assets.
- **Reputation**: serious impact on community, cultural heritage sites, or both.
- **Liability**: serious regulatory breach.
- **Continuity**: loss or extended disruption to critical services & ability to continue operations.

Refer to **Figure 14.6—1** and **Figure 14.6—2** for incident assessment and activation flowchart.

14.5 Immediate Action Triggers

When a site-level emergency is declared, follow the Activation Immediate Actions flow chart available in **Figure 14.6—2** and escalate it where appropriate. Refer to **Section** Error! Reference source not found. for specific response scenarios and **Table 14.8—1** for the contingency action checklist to be implemented.





Figure 14.5—1 Proposed Regulated Activities, Road, and Access Tracks

Emergency Response Plan



14.6 Definition of Site Emergency

An emergency could be defined as an accident or a deliberately caused situation that poses an immediate risk within a specific site. In many cases, the situation could be dangerous, requiring urgent/immediate intervention to prevent the situation from escalating or worsening. Incidents could have an impact on the following:

- People:
 - Death, injury, or near-miss.
- Environment:
 - Uncontrolled release of a substance to air, land, or water.
- Asset:
 - Loss or damage to physical assets.
- Reputation:
 - Loss or damage to business.
 - Loss of control of any health, safety, environmental or community-related incident.
- Liability:
 - The potential for any of the above.





Figure 14.6—1 Identify, Assess, Response Flowchart

Activation Flow-Actions

People: Serious temporary injury/illness or worse to any person	
Environment: Moderate effects on biological physical environment and serious short-term effect to eco- system functions	
Asset: Serious damage or loss to production, property and/or infrastructure	
Reputation: Serious impact to community or cultural heritage	
Liability: Serious breach of law or regulations	

Isolate and Evacuate	\bowtie
Muster: Account for all personnel (Upwind) whilst assessing the situation.	
Isolate: Either through Emergency Shutdown Devices (ESD's) or remotely.	
Evacuate: If required, evacuate to designated evacuation points either upwind or at a safe distance determined by event type.	
Control: Establish control points to coordinate response and restrict access	
Muster Points: Nominate predetermined Emergency Services Muster Points	

Communicate and Escalate	\bowtie	
Confirm: Confirm details of the emergency (e.g. injury) and response required		
Activate: Activate ETL, ET, contact Emergency Services, communicate with other Stakeholders		
Escalate: Consider likely impacts		
Impacts : What is realistically happening and who is impacted, how bad it could get?		
ETL: Communicate with ET on situation, response and triggers for further activation		

Figure 14.6—2 Activation Actions

resources

the incident responders

	Respond
	Appoint IC
	Continually assess the si
•	Designate communication
	Activate appropriate res
	Establish exclusion zone

Emergency Response Plan





Emergency Response Plan



14.7 Roles & Responsibilities

Table 14.7—1 Persons and Responsibilities

Person(s)	Responsibilities		
 First Responder Located at the scene, this could 	• On identification of an emergency, immediately report to the Site Supervisor indicating the location, type of emergency, need for assistance, and intentions to assist.		
be on-site personnel or a	• Check the area and assess any person for injuries, provide First Aid to injured persons within training and ability levels.		
contractor	• Move injured (only if they are in immediate and/or at risk of further danger) to avoid additional injuries/risk to persons.		
	• Note the impacts of the emergency and any potential requirements for evacuations.		
First AidersLocated at the	• Provide first aid treatment or assessment, working within their skill level.		
site	• Determine the need for medical assistance and provide information to medical personnel or emergency services as required.		
	• Ensure that First Aid kits are maintained and complete and items are in-date.		
	 Ensure that all treatments provided, regardless of the type or complexities, are recorded. 		
Incident Commander (IC)	 Act as the site Incident Commander (IC) and manage the first response at the site level. 		
 Located at the incident scene Manage first 	• Maintain familiarisation with ERP and Contractor ERPs (if applicable), key emergency respondents, and respective notification and callout requirements.		
response at the site level	• Ensure all initial Emergency Response Resources (ERR) are available and in working order.		
	• Ensure the Emergency Team Leader (ETL) is notified ASAP in the event of an alert or emergency event.		
	• Escalate to the Project Manager and Emergency Services if required.		
	• Monitor the safe suspension of operations and associated activities.		
	• Ensure that emergency action plans are discussed regularly at Pre- Start / Toolbox meetings so that all persons under their control know the project emergency procedures.		
	 Maintain a log of incident events, actions, messages, and decisions made in the chronological summary and provided to ETL. 		
	• Ensure the safety of other team members and establish exclusion zones around the incident scene if appropriate.		
Emergency Team Leader (ETL)	Responsible for the overall management of emergencies on Peak Helium controlled worksites.		
• Located at either the <u>Site</u>	Nominate IC for the incident.		



• <i>Alert</i> emergency contact(s); <i>Confirm</i> details; <i>Activate</i> resources (as required).
 Ensure adequate personnel and resources are available to support, manage and close out any site emergency. Conduct emergency response drills. Arrange additional support staff for the Emergency Team (ET) communications/administrative activities as required. Filter incident events information to ET. Utilise Emergency Response Incident Log Sheets. Ensure early notification and Site reports are sent to ET as appropriate.
 During project planning, ensure this ERP is provided to Contractors. Provide support to the ETL. Act as journey contact for field teams. Pass information to Peak Helium relevant personnel to communicate to impacted/relevant stakeholders. Support field team with emergency service direction/calls as requested.
 Provide support to the ETL and Site Supervisor regarding operations, planning, logistics etc. Provide tactical response to site incidents. Provide direction and backup support to Stakeholders. Provide expertise and technical advice in support of the Emergency response effort. Open, clear, and prepare the Emergency Control Room (ECR) for immediate use.
 The ET has a reporting responsibility to the CMT for all low-level incidents or greater, as per the Peak Helium Incident Report and Investigation Procedure. The CMT will assume an operational support overview of incidents and provide operational management support to site ET during incidents that present an actual or potential threat to Peak Helium operations. The CMT will request emergency response drills as appropriate and ensure appropriate authority and equipment to hold the emergency response drills. Maintain a log with all the information regarding the incident. Avaid placing themselves are others in densure.



Person(s)	Responsibilities
	 Maintain familiarisation with Peak Helium site ERP, relevant Contractor ERPs, and respective emergency notification requirements.
	• Be familiar with the site Muster Points and evacuation procedures.
	• Be alert for and report hazardous situations that could escalate into an emergency.
	 Immediately report any actual or potential emergencies.
	 Report any further emergency arising from an existing incident to the nominated Peak Helium Site Supervisor/ETL or designated IC.
	• Must not communicate with the media under any circumstances.



14.8 Contingency Action Checklist

Peak Helium's emergency preparedness and response capabilities are supported by the below contingency action checklist. In the event of an incident (e.g., the spill of produced water, waste, chemical, formation fluid, etc.) the below actions will aid in minimising surface impacts to soil, surface water and groundwater.

Table 14.8—1 describes contingency actions to be taken in the event of an emergency.

Category	Response	
	Remove yourself and others from danger.	
	 Raise the alarm – Notify the Site Supervisor through the available channels of communication (e.g., radio). Report location, type, and extent of the incident. 	
	Stop all work and makes sure the area is safe.	
	Activate emergency shutdown devices/isolate equipment as necessary if safe to do so.	
	Provide First Aid to any injured persons (DRSABCD).	
Basic	Account for people.	
Emergency	Reach Emergency Team Leader.	
Response	Call emergency services if required.	
	Follow the directions of emergency services or response personnel and assist as required if you feel safe and capable to do so.	
	Follow the Response Procedure and Gather information (Table 14.10 — 1).	
	Notify appropriate Peak Helium contacts.	
	 Determine the recovery strategy and resources required: Check for equipment integrity. Ensure all protection systems are restored. Replenish, replace, or return emergency equipment. 	
	Initiate Emergency Response Plan.	
	If you see SMOKE, FLAMES or hear a FIRE ALARM, alert others in your vicinity immediately.	
	Remove anyone in danger if safe to do so.	
Fire (Building Evacuation)	Activate the Fire Alarm.	
	If you can see a fire, attempt to extinguish it if safe to do so. If the fire is small enough, use a nearby fire extinguisher to control and extinguish the fire. Do not fight the fire if the following conditions exist:	
	You have not been trained or instructed in using a fire extinguisher.You don't know what's burning.	
	• The fire is spreading rapidly and might block your means of escape.	

Table 14.8—1 Contingency Actions



Category	Response	
	 You don't have the proper equipment. You might inhale toxic smoke. Your instincts tell you not to do so. If the first attempt to put out the fire fails, evacuate the building immediately. 	
	Close any doors if safe to do so.	
	Call ooo and contact the Fire Brigade.	
	Ensure all personnel leave the building.	
	All persons leaving the building should follow the Green Exit Signs to leave through the nearest emergency exit.	
	All persons should leave the property via the identified entrance to ensure clear access for emergency service and proceed to Emergency Evacuation Point.	
	Do not return to the building until advised by emergency personnel.	
Fire (Building Evacuation)	Do not leave the Emergency Evacuation Point at any time without advising and gaining the approval of the Building Warden or Managing Director.	
	Follow Peak Helium's Incident Notification and Investigation Procedure.	
	Initiate Emergency Response Plan.	
Injury (Medical	If injuries require more than First Aid but are not critical or life- threatening, and the person can be transferred by vehicle, take the injured person/s to the closest medical facility or site paramedic if available.	
Emergency)	If injuries are critical or life-threatening, call ooo and then the site paramedic if available.	
	Continue First Aid until assistance arrives.	
	Follow Peak Helium's Incident Notification and Investigation Procedure.	
	Initiate Emergency Response Plan.	
Criminal Activity	Always avoid physical confrontation.	
(CIVII Disturbance)	Contact your supervisor and police if necessary.	
	Move to the muster location or safe location.	
	Initiate Emergency Response Plan.	
Snakebite	 Life-threatening effects from snakebite aren't usually seen for a few hours but can appear in minutes. Here's what to look for: Fang marks. Headache, difficulty breathing. Nausea and vomiting. Stomach pain. Swollen glands in the armpits & groin. Weakness, collapse. 	
	Check the immediate area for danger to yourself or the injured person.	



Category	Response	
	Calm the person and keep them still.	
	Call for assistance.	
	If a person is unconscious, check breathing, pulse, and apply CPR.	
	Do not wash or suck the bite, or use a tourniquet.	
	If bitten on a limb, apply a pressure bandage or cloth approximately 10- 15cm wide upwards from the fingers or toes, firm but not too tight.	
	Keep the limb still by using a splint.	
	If able to do so, mark the area of the bandage where you think the bite occurred – this will assist medical staff.	
	Leave the splint or bandage on until reaching the hospital.	
	Follow Peak Helium's Incident Reporting and Investigation Procedure.	
	Raise the alarm (report location, type, and extent of incident).	
	Request assistance of Emergency Services as required.	
	Switch off the vehicle ignition.	
	Assess vehicle and site damage; take relevant actions to secure the accident scene.	
Vehicle Accident	If the vehicle is in contact with power lines, stay clear and advise occupants to stay in the vehicle.	
	Do not try to remove casualties from the vehicle until sure other dangers are not present.	
	When possible, remove trapped/injured personnel, provide medical aid (as qualified).	
	Initiate Emergency Response Plan.	
	Initiate Medical Emergency Response if required.	
	Account for all personnel.	
	Contact Supervisor.	
Duchfire	Obtain information about the fire, such as location and size of the fire.	
Bushine	Initiate contact with emergency services.	
	Consider escape routes and alternate routes.	
	Consider task timings and pack up timings.	
	Consider checking of fire breaks if safe to do so.	
	Follow Peak Helium's Incident Notification and Investigation Procedure.	
	Notify ET and advise situation and request assistance if needed.	
Environmental Incidents (Hazardous Spill – Chemicals, Wastewater, Fuel)	Consider ESD – depending on location, proximity, or safety need.	
	Ensure all personnel are safe and clear of the area. Stay clear of vapour, fumes, smoke, and spills.	
	All necessary action should be undertaken to minimise the size and any adverse effects of the release. Different PPE (e.g., face shields, goggles, heavy gloves, gumboots) may be required to perform the task safely.	



Category	Response	
	If adequate resources are not available to contain the release, and if it threatens public health, property, or the environment, the state fire brigades should be contacted for emergency assistance - phone ooo .	
	Always pay attention to fire and health hazards. Remove all sources of ignition to reduce the potential fire hazard.	
	Establish the source of the spill/leak, and determine the extent of pollution.	
	Stop further leakage (e.g., stop pumping, or in the case of a pipeline leak, give warnings to stop the flow), close valves, attempt to stop leaks, move the object on its side.	
	Activate containment operations immediately to isolate the spill or leak area for at least 100m (330 ft) in all directions to prevent the spread of spilled product (if the situation requires – e.g., block drains, dam ditches, boom watercourses, close water intakes).	
	Divert or stop traffic (do not start vehicles if a low flash-point product has been split).	
	 Clean up: Retrieve as much as possible with sorbents. Permeable ground - break up remaining patch/es with a rake to aerate the soil. Remove contaminated subsoil to reduce transfer to groundwater. 	
	 Points to Remember: Activate containment operations immediately. Do not allow vehicles to run over any spill saturated areas. Do not flush the spill down clean drains on areas or other inlets. Do not use mechanical excavators on areas with free oil on the surface. Contain and recover at the source. Never attempt to perform a rescue without support or adequate forethought. 	
	After being notified of a missing or overdue person, Journey Management Plan timeframes will be utilised to escalate the tracing and notification processes. Refer to Section 14.12 .	
	Obtain information on the time and location of the last sighting.	
Missing/ Overdue Personnel	Attempt to establish communication with the missing person via mobile phone and SMS contact and, if possible, UHF, VHF, satellite phone.	
	Advise Supervisor.	
	If possible, contact the destination point, e.g., hotel/motel/camp, to determine if the person has arrived.	
	If possible and safe to do so (e.g., depending on weather conditions), despatch other nearby employees to look for the missing person.	
	After some time without contact (as determined collaboratively by the Supervisor, Manager, and Senior Management), notify the police of the missing person.	



Category	Response	
	Initiate Emergency Response Plan.	
	Initiate Medical Emergency Response if required.	
	Initiate inGauge's Well Control Procedure if required.	
Subsurface	Account for all personnel.	
Incident	Contact Supervisor.	
Control)	Contact emergency services if required.	
	Consider escape routes and alternate routes.	
	Consider task timings and pack up timings.	
	Follow Peak Helium's Incident Notification and Investigation Procedure.	
	Initiate Emergency Response Plan.	
	Initiate Medical Emergency Response if required.	
	Account for all personnel.	
	Contact Supervisor.	
	Contact emergency services if required.	
Weather- Related	Take shelter if possible.	
(Flood, Cyclone)	Monitor weather alerts and radio stations.	
	Consider escape routes and alternate routes.	
	Consider task timings and pack up timings.	
	Never cross a flooded creek, road, or causeway – always assess the risk before crossing.	
	Follow Peak Helium's Incident Notification and Investigation Procedure.	
	Ensure vehicles can safely navigate to and from areas of concern – provide alternate routes if possible.	
Transport of Chemicals and Wastewater (Spills/Release, Road Haulage – Wet Weather)	Complete <i>Job Hazard Analysis</i> prior to extracting bogged vehicle. <u>Note</u> : removal of additives, chemicals, fluids may need to be assessed prior to extraction efforts.	
	Ensure all personnel are safe and clear of the area > stay clear of vapour, fumes, smoke, and spills. Use safety-related equipment as required to safely extract personnel if in immediate danger.	
	Always pay attention to fire and health hazards. Extricate personnel and team to a safe distance and clear of potentially hazardous fumes (upwind).	
	All necessary action should be taken to minimise the size and any adverse effects of the release.	
	Activate containment operations immediately to prevent the spill from reaching a surface watercourse or groundwater.	
	Attempt to Identify the spill - refer to the HAZCHEM code, Truck Placarding, Driver or SDS for methods of control/management.	



Category	Response	
	If adequate resources are not available to contain the release, and if it threatens public health, property or the environment, the state fire brigades should be contacted for emergency assistance - phone ooo .	
	Divert or stop traffic (do not start vehicles if a low flash-point product has been split) if tanker truck or chemical event is involved in a fire, ISOLATE for 800m in all directions.	
	If fluid forms, attempt to prevent the spread of spilled product from the vehicle itself (shut valves – internal/external) if safe to do so, using hazard-specific PPE.	
	Remove all sources of ignition to reduce any potential of fire.	
	Notify ET and advise situation and request assistance if needed.	
	 Clean up: Retrieve as much as possible with sorbents. Permeable ground - break up remaining patch/s with a rake to aerate the soil. Remove contaminated subsoil to reduce transfer to groundwater. 	
	 Points to remember: Activate containment operations immediately. Do not allow vehicles to run over any spill-saturated areas. Do not flush the spill down clean drains in areas or other inlets. Do not use mechanical excavators on areas with free oil on the surface. Contain and recover at the source. Never attempt to perform a rescue without support or adequate forethought. 	



14.9 Respond Communication

The following flowchart (**Figure 14.9—1**) presents the communication between the first responders (internal or external personnel) and the organisation management team, including external support agencies' contact.



Figure 14.9—1 Communication Flow

14.9.1 Stakeholder Communication

The Project Manager may be required to communicate/liaise with relevant stakeholders that could be impacted by the incident/emergency. Potential stakeholders include regulatory authorities (local councils, landowners, emergency services, etc.).

Initial information should include the state/type of the emergency, possible cause, effects/consequences, likely duration, and potential impacts.



14.9.2 Media Enquiries

All personnel have been instructed to direct all media enquiries to the Project Manager, redirecting the calls to the questions to the Peak Helium representative as required.

It is important to remember that there is no such thing as "off the record". Even if you are speaking informally, you could be quoted anytime.

14.9.1 Regulatory Notification

A regulatory notifiable incident is an incident or non-compliance with a Mandatory External Obligation or Voluntary External Obligation that requires notification or reporting to a Regulator as prescribed by applicable laws and regulations.

The Project Manager must be consulted to determine contractual obligations for incident notification and reporting. Refer to **Appendix 01** (of this document) for the *Incident Notification Guideline*.

14.10 Incident Notification

Table 14.10—1 below provides some examples of the information required to be gathered during an incident. Refer to **Appendix 01** (of this document) for the *Incident Notification Guideline*.

Element	Information examples	
Initial Contact	Name of the caller and receiver.	
	Personnel involved in the incident.	
Incident	Coordinates or landmarks.	
Location	Clear directions as to how to get to the incident site.	
	• Injury.	
	• Explosion.	
Incident Type	Vehicle accident.	
and Description	• Fire.	
	Well-incident related.	
	Missing personnel.	
Description of	Time incident occurred.	
the Incident	Cause of incident if known.	
	Any actions taken on-site, and emergency services required.	
	• Area.	
	• Height.	
Incident Size or	Volume.	
Injury Severity	Description of injury.	
	Number of people involved.	
	Preliminary assessment of medical assistance required.	
Current Status	 Has the incident, or the potential of the incident to cause more damage or injury stopped. 	
	Level of emergency response required.	
	• First Aid applied to date and degree/level of controls in place.	
	Environmental situation (wind, rain, etc.).	

Table 14.10—1 Incident Notification Examples



14.11 Emergency Response Equipment and Personnel

Table 14.11—1 presents the different emergency equipment available on-site at any one time to provide, where possible, the initial response required to avoid any incident from escalating.

Equipment	Location
First Aid	First Aid kits will be located at the site office, with additional First Aid Kits available in the Peak Helium Site Supervisor's vehicle.
Fire Equipment	Fire extinguishers will be located within all operating plants. Further fire equipment will be available in Peak Helium Site Supervisor's vehicle, including extinguishers and blankets, as well as at site offices where established.
Defibrillator	A defibrillator unit is to be located at any drilling rig site and any permanent facility.
Oil Spill Kits	Oil Spill Kits will be located at the rig site for rig operations and at any permanent facility.
Ambulance	An ambulance will be located at the rig site for all drilling operations scheduled to last more than 30 days. The ambulance will be on-site from the date rig operations commence until rig release.
Paramedic	First Aid trained personnel will be on-site for all operations.
LifeFlight	Available on-call. 1 hour to Idracowra Station Airstrip.

Table 14.11—1 Emergency Response Equipment

All campsites and wellsites with personnel carrying out project activities will maintain communications with each other and with the ambulance (if applicable). The ambulance (if applicable) will attend any emergencies at campsites or wellsites.

There will be a camp location within 1km of each wellsite.



14.12 Journey Management

All contractors engaged in carrying out work at Peak Helium's well sites will follow a Journey Management Process (JMP). At a minimum, the JMP will cover the following:

- All personnel trained in the JM system being utilised.
- Safety equipment will be available in each vehicle (e.g., satellite phone, first aid kit, fire extinguisher).
- All travelling personnel or groups shall have a Journey Coordinator (JC) to assist with journey management. The Journey Coordinator and the travelling person must be aware of who has been allocated to the JC role and the responsibilities of each party.
- The JC should advise the Site Supervisor (SS) of the impending journey, confirm their status as JC, and keep the SS updated on the journey details. The SS may be used as the JC, but it must be clear that the SS has this responsibility.

When a journey is undertaken, the JC should maintain close communication with the travelling person/group and ensure all information about the journey has been gathered and tracked for the whole journey. Information should include the following:

- Full name(s) of person(s) travelling.
- Frequency and method of check-in during the journey.
- Contact details for all members of the travelling group and the JC.
- Next of kin of people travelling.
- Date of the trip.
- Estimated Time of Departure (ETD).
- Estimated Time of Arrival (ETA).
- Route to be followed.
- Description of vehicle, e.g., registration number and vehicle type.

Any changes to the above should be expressed to the JC before departure.



Establish communication protocols between the JC and the travelling person/group.

When ETA has not been fulfilled, the following actions will be taken by JC & SS:

Communication 1 Hour Overdue

- Call and keep monitoring all communication channels.
- Communicate with next of kin to check if the person(s) has communicated.
- Supervisor to alert IC & ET of the situation as required.
- Confirm the last known location of the vehicle's tracker unit.
- Initiate a search party if the situation demands.

Communication 2 Hours Overdue

- Request the ERP be activated if not already underway.
- If not already activated, ensure rescue party is underway by road if suitable.
- Prepare for air search (if necessary) on the latest coordinates and planned route.
- Inform authorities and other parties in the area.
- Alert the most suitable medical person(s) of the situation.

Action 4 Hours Overdue

- Authorities take control of the incident.
- Keep monitoring the progress of the search parties by road.
- Relevant supervisor to keep PM and ET informed.



14.13 External Support (Road & Air)

External support can be sourced during an emergency by either road (e.g., ambulance), or air (e.g., CareFlight).

14.13.1 Road

- Ambulance services can be dispatched from:
 - Alice Springs and be on-site in approximately 3.5 hours.
- Emergency Services will be intercepted by a Peak Helium employee at a designated location along the Stuart Highway and directed to the site.
- On-site first aiders will provide an initial response until further assistance arrives on-site.
- On-site ambulance will be used for emergency transport to the nearest and fit for purpose clinic/hospital (e.g., Alice Springs).
- Constant communication will be maintained with external support to avoid service delays or to obtain assistance for an adequate on-site response.

14.13.2 Lifeflight

- LifeFlight services will be contacted when the severity of the incident/injury cannot be mitigated or responded to by Road Assistance.
- Landing of aircraft can be conducted at Idracowra Station Airstrip or alternates, as selected by Lifeflight.
- Ensure constant communication is held with aircraft personnel and IC.
- Do not approach aircraft until the pilot has given you the approval to do so.
- Remove any loose clothing (e.g., hats) when approaching aircraft.



14.14 Recovery Actions

Table 14.14—1 provides post-emergency actions required to be followed to return to pre-incident state operations.

Action	Description	
	• Discuss strengths and weaknesses.	
Review	 Necessary improvements for this plan and related procedures. 	
	Identify actions to be undertaken.	
Investigate	 Secure incident site and do not disturb area until the investigation has been completed. 	
Investigate	 Collect any evidence that may assist in the investigation (e.g., testimonies, records of actions taken, photographs, etc.). 	
	• Verify infrastructure integrity as well as security equipment restoration.	
	Replenish, replace, or return emergency equipment.	
Recover	• Ensure personnel impacted by the incident receive the required counselling or information to continue with safe operations.	
	• Revised ERP and implement changes or training as required.	
	Assess for potential decontamination needs.	
Clean-up	Repair or replace damaged equipment and test for safe functionality.	
	Attend to commissioning and site reinstatement.	

Table 14.14—1 Recovery Actions



14.14.1 Emergency Conclusion

After the emergency has ended, several key issues must be considered when standing down personnel. These issues relate to ongoing emergency control, investigation processes, and recovery actions, including appropriate resources for key responsibilities. Final information releases must be considered for affected parties and key stakeholder groups, including the following:

- External contractors and services.
- Government authorities.
- Shareholders.
- Media.
- Employees/employee relatives.

An emergency would be over when:

- Where involved, the Emergency Services have formerly declared the emergency is over and returned control of the affected site to Peak Helium.
- The Emergency Team declares the emergency has been terminated, and the site facilities have been returned to a safe condition.
- All people have been accounted for.
- Injured persons have been stabilised and/or evacuated.
- Effective environmental controls are in place.

14.14.2 Debriefing

A debriefing is to be conducted by the Project Lead to discuss problems and necessary improvements for incorporation into the emergency preparedness and procedures. This discussion should include the following:

- Recognition of success and what was accomplished exceedingly well.
- Equipment or procedure deficiencies.
- Unsafe practices/near-miss incidents.
- The cause of any injuries sustained.
- Unforeseen problems and relevant resolution steps.
- Communication/supervision problems.
- Environmental considerations.
- External problems, e.g., media, landowners, local authority, producers, or customers.

The minutes from the debriefing meeting, when available, will be sent to all attendees.



14.15 Training

Personnel who receive the necessary training are more able to perform more effectively when responding to an emergency. The training will give the employee a greater understanding of their responsibilities and build their confidence to react accurately during an emergency to minimise or reduce the likelihood of an incident escalating.

All personnel will be trained against this plan. Training will be provided in the form of the following:

- Practical drills.
- Simulated exercises.
- Competency-based training.
- Toolbox meetings.
- Resource and equipment checks.
- Desktop exercises.



14.16 Review and Update

The ERP will be reviewed and updated as necessary in response to one or more of the following:

- Annually.
- When major changes have occurred, which may affect the Emergency Response coordination or capabilities.
- Following routine testing of the plan.
- After an actual emergency.
- Before installing and commissioning new plant and equipment.

During the review, the following aspects are also to be considered:

- Lessons learned from an emergency.
- Lessons learned from exercises.
- Changes in legal requirements.
- Improvements to effectiveness in terms of response strategy, management, and communication.
- Developments in the latest techniques and technology in handling an emergency.
- Changes to or movement of people within our organisation.
- Changes to contact numbers of internal and external organisations.
- Revisions to existing, or availability of, emergency management tools and equipment and resource suppliers and contractors.



14.17 Rapid Response Site Demobilisation and Stabilisation

The following strategy is to be implemented to minimise risks to the environment in the event that flooding inundates access and/or a well pad.

Peak Helium's well pad placement and designs include a range of risk mitigation measures to ensure that flooding and inundation of critical infrastructure will not occur, including:

- Well pads will be located above the modelled 1 in 100-year flood level.
- Pits will be constructed with 500mm bund to prevent water entry from localised overland flow.
- Produced water storage and treatment tanks will be constructed with a 500mm bund to prevent the escape of water from a catastrophic failure and to prevent water from overland flow getting to the base of the tank, thereby protecting the tank's mechanical integrity.

Peak Helium's operational practices pre-emptively minimise the risks to the environment caused by overtopping of a tank or pond in the event that flooding inundates access and/or a well pad. A storm event likely to cause flooding inundation to the access tracks and/or well pad will be a significant rainfall event. Upon receiving a forecast of a significant rainfall event, Peak Helium will transfer fluid from open-topped tanks to closed-top tanks in line with the practices outlined in the Waste Water Management Plan (**Appendix o6**). This will ensure that any open-topped treatment tanks will have freeboard to accommodate a 1 in 1,000-year rainfall event, plus the forecast significant rainfall event.

As the 1 in 1,000-year rainfall event is calculated over a three-month period, there is a large window of opportunity to mobilise to the wellpad and carry out any transfer of fluids required before overtopping can occur.

Peak Helium will have a 600 litre per minute wastewater transfer pump located with contractors in EP 134 when fluid is stored on site; these contractors can be on site within 6 hours of a direction by Peak Helium to transfer fluids.

If access to the well pad by road is not possible, Peak Helium will mobilise a helicopter to the site to facilitate the movement of personnel and pumping equipment as required. This can happen within 24 hours of a request by Peak Helium.

As there is a large window of opportunity to mobilise to the well pad to start the transfer of fluids to prevent overtopping, Peak Helium considers these response times ALARP. Shorter response times put undue pressure on personnel to react quickly, which can lead to an increased risk.

In the event that a flood event occurs, which inundates the wellpad and/or access, then the following will occur:

- The freeboard of tanks and ponds on-site will be remotely monitored.
- Weather events and forecasts will be remotely monitored.
- Should the freeboard of some tanks or ponds on-site approach the seasonal limits under the Wastewater Management Plan, and there is sufficient freeboard capacity in other tanks or



ponds on-site, Peak Helium will mobilise personnel to the site when safe to transfer fluids to maintain freeboard levels.

- Peak Helium will pump from clean water ponds on-site (turkey's nest) to grade if required to allow the transfer of waste drilling fluids to those ponds to assist in maintaining freeboard.
- Should the freeboard of some tanks or ponds on-site approach the seasonal limits under the Wastewater Management Plan, and there is insufficient freeboard capacity in other tanks or ponds on-site, Peak Helium will utilise the 1 in 1,000-year freeboard capacity to prevent overtopping of fluids to grade until truck access can be gained to the site to allow off-site disposal of fluids to regain the seasonal freeboards limits under the Wastewater Management Plan.

The Project Manager will be responsible for this plan's implementation.

Peak Helium commits to commence site preparation and wet season planning by 31 July each year following EMP approval.


14.18 Emergency Contact Details

See Appendix 02 for the Site Emergency Response Display Sheet

<u>Peak Helium</u>

Name	Position	Contact Number
Art	Managing Director	

InGauge Energy

Position	Name	Contact No.	E-mail
Project Manager	Jordan		
Drilling and Completions Engineer	Jordan		
Civils and Approvals Coordinator	Jon		
Site Supervisor InGauge OCR	Scott		

Government and Stakeholders

Name	Location	Contact Number	
Department of Industry, Tourism and Trade (DITT)	Darwin	Ph: 08 8999 6567 - 08 8999 6350 A.H: 0439 744 119 - 0430 739 507 Emergency: 1300 935 250	
Environment, Parks, and Water Security (DEPWS)	Darwin	Ph: 08 8973 8871 or 08 8973 8872 or 08 8973 8870	
NT Work Safe	Darwin	1800 019 115	
MacDonnel Regional Council	Alice Springs	08 8958 9600	



<u>Other</u>

Entity	Name	Location	Contact Number
	Alice Springs Hospital	Alice Springs	(08) 8591 7777
Medical Services	St Johns Alice Springs Ambulance Alice Spring		(08) 8959 6600
Aeromedical			(08) 8928 9777
Services	CareFlight	NT, WA & SA	24hr Emergency 1300 655 855
Polico	Emergency		000 24h Assistance 131444
Tonce	Alice Springs Police	Alice Springs	(08) 8951 8823
Fire Services	NT Fire & Rescue Service	NT	(08) 8922 1555
Fire Services	Alice Springs Fire Station	Alice Springs	(08) 8951 6688
Service Station	Erldunda Roadhouse	Stuart Hwy	(08) 8956 0984



14.19 References

DEPWS. (1998). Waste Management and Pollution Control Act 1998. Parks and Water Security Department of Environment: Department of Environment, Parks and Water Security. Retrieved from https://legislation.nt.gov.au/en/Legislation/WASTE-MANAGEMENT-AND-POLLUTION-CONTROL-ACT-1998

NT Government. (2016). *Petroleum (Environment) Regulations 2016*. Northern Territory Government: Northern Territory Government. Retrieved from https://legislation.nt.gov.au/en/Legislation/PETROLEUM-ENVIRONMENT-REGULATIONS-2016



14.20 Appendices

14.20.1 Incident Notification Guideline

Appendix 1 Incident Notification Guideline

Regulation	Incident Description	Communication by	Contact Details	Timeframe
Work Health and Safety (National Uniform Legislation) Act 2016 and Regulations 2017	PCBU must notify the regulator as soon as they become aware of a death, serious injury or illness or dangerous incident that arises out of the business or undertaking's conduct.	Telephone	1800 019 115 Worksafe ntworksafe@nt.gov.au	Immediately after becoming aware
	A dangerous incident includes:			
	• Uncontrolled escape, spillage, or leakage of a substance, gas, or pressurised substance.			
	Uncontrolled implosion, explosion, or fire.			
	Electric shock.			
	Fall or release from height of plant, substance, or thing.			
	 Collapse, overturning, failure, or malfunction of damage to any plant/equipment/structure/excavation. 			
	 In-rush of water, mud or gas in an underground excavation tunnel or interruption of ventilation in said tunnel. 			
	A serious injury or illness means that results in:			
	Work-related injury.			
	Immediate hospital treatment as an in-patient.			
	 Immediate treatment for serious injuries (e.g.,, amputation, scalping, a spinal injury, loss of a bodily function or a serious laceration, burn, head injury or eye injury). 			
	• Medical treatment within 48 hours of exposure to a substance.			
Schedule of Onshore Petroleum Exploration and Production Requirements	An incident involving death or serious injury (reports shall be in addition to and not take precedence over reports required by NT WorkSafe).	Telephone and in writing	1300 935 250 or o8 8999 6350 DITT petroleum.operations@nt.gov.au	Immediately after becoming aware
2017	A serious injury is one that requires immediate attention by a medical practitioner.		penere en genere	
Schedule of Onshore Petroleum Exploration and Production	An incident involving serious damage (other than Environmental Harm), including loss, destruction, or damage to property exceeding \$50k or when any person dies or suffers serious injury.	Telephone and in writing	1300 935 250 or 08 8999 6350 DITT petroleum.operations@nt.gov.au	Immediately after becoming aware
Requirements 2017	An incident involving, or could potentially involve, the injury to a person or serious damage to property that is professionally considered to have been caused by an			



Regulation	Incident Description	Communication by	Contact Details	Timeframe
	event that is not in the normal or ordinary course of an operation (Potentially Hazardous event).			
	An incident where damage to property occurs that is not serious damage to property, but which results in a significant loss of structural integrity or load- bearing capacity in the property damaged or results in some other significant unsafe condition.			
	An incident that is considered to be an emergency.	Telephone		Immediately (after ooo)
Petroleum (Environment) Regulations 2016	An incident arising from a regulated activity that has caused, or has the potential to cause, material environmental harm or serious environmental harm as defined under cl. 117AAB(1) the Petroleum Act.	Telephone and in writing	1800 413 567 DEPWS	As soon as practicable but no later than two hours after the first occurrence of the incident or after the time Peak Helium becomes aware of the incident
Petroleum Act 2018 and Associated Regulations 2016	Applicable to ON TENURE SPILLS (note Off tenure spills under Waste Management and Pollution Control Act 1998 [DEPWS, 1998]):Reportable Incident: An incident arising from a regulated activity that has caused	Telephone and in writing	1300 935 250 or 08 8999 6350 DITT Petroleum.Operations@nt.gov.au	As soon as practicable (not later than two hours after the incident)
	or has the potential to cause material environmental harm or serious environmental harm.			<24 hours after oral notice (written notification)
	Material environmental harm means harm that:			Three days after the
	a) Is not trivial or negligible in nature			incident (initial report)
	b) Consists of an environmental nuisance of a high impact or on a wide scale			a a davra intervisia franciska
	 c) Results, or is likely to result, in not more than \$50k or the prescribed amount (whichever is greater) being spent in taking appropriate action to prevent or minimise the environmental harm or rehabilitate the environment; or 			date of the initial report (interim reports)
	 d) Results in actual or potential loss or damage to the value of not more than \$50k or the prescribed amount (whichever is greater). 			30 days after clean up or rehabilitation (final)
	Serious environmental harm means environmental harm that is more serious than material environmental harm and includes environmental harm that:			
	a) Is irreversible or otherwise of a high impact or on a wide scale.			
	b) Damages an aspect of the environment that is of a high conservation value, high cultural value or high community value or is of special significance.			
	c) Results, or is likely to result in more than \$50k or the prescribed amount (whichever is greater) being spent in taking appropriate action to prevent or minimise the environmental harm or rehabilitate the environment; or:			
	d) Results in actual or potential loss or damage to the value of more than \$50k or the prescribed amount (whichever is greater).			



Regulation	Incident Description	Communication by	Contact Details	Timeframe
Petroleum Act 2018 and Associated Regulations	Recordable Incident : An incident that has resulted in an environmental impact or environmental risk not specified in the current plant for the activity; or has resulted in the contravention of an environmental performance standard specified in the current plan for the activity; or is inconsistent with an environmental outcome specified in the current plan for the activity; and it is not a reportable incident.	In writing	1300 935 250 or 08 8999 6350 DITT Petroleum.Operations@nt.gov.au	15 days after each 90-day period after the day on which the environmental management plan is approved
Environmental Protection Biodiversity Conservation Act	Incidents considered having an impact on Matters of National Environmental Significance.	In writing	Compliance@environment.gov.au & DAWE	Within 5 business days of becoming aware
Energy Pipelines Act 2015 and Associated Regulations	 A reportable incident that involves: Death or serious injury (or the potential to cause). Significant damage to a pipeline (or potential to cause). Immediate investigation. A significant pipeline accident event that: Is connected with work carried out on or in relation to a pipeline. Causes, or has the potential to cause human death. 	Telephone and in writing	1300 935 250 or 08 8999 6350 DITT Petroleum.Operations@nt.gov.au	As soon as practicable
Waste Management and Pollution Control Act 1998 and Associated Regulations	 Duty to notify of incidents causing or threatening to cause pollution. Applicable to off tenure related spills (note ON tenure spills under Petroleum (Environment) Regulations [NT GOVERNMENT, 2016]): Where: a) an incident occurs in the conduct of activity; and the incident causes (or is threatening or may threaten to cause) pollution resulting in material environmental harm or serious environmental harm, the person conducting the activity must notify the NT EPA in accordance with subsection 3 as soon as practicable after (and in any case within 24 hours after) first becoming aware of the incident or the time he or she ought reasonably to be expected to have become aware of the incident." An incident that causes, or is threatening or may threaten to cause, pollution resulting in material environmental harm or serious environmental harm. Refer to the definition of material and <i>serious environmental harm</i> provided in the <i>Petroleum Act</i> section above. Pollution means: a) A contaminant or waste that is emitted, discharged, deposited, disturbed, or that escapes. 	Telephone	NT EPA Pollution Hotline, 24h: 1800 064 567 pollution@nt.gov.au & DEPWS	As soon as practicable after (and in any case within 24 hours) first becoming aware of the incident or the time they ought to reasonably be expected to become aware of the incident.



Regulation	Incident Description	Communication by	Contact Details	Timeframe
	b) A contaminant, effect, or phenomenon, that is present in the environment as a consequence of an emission, discharge, deposition, escape or disturbance of a contaminant or waste.			
	Note : does not apply to incidents confined within petroleum activities land (including air and water above or below) – see the EMP for the area of petroleum activities land.			
Environmental Protection	Alteration of action in such a manner that the environmental significance of the	In writing	08 8924 4218	As soon as practicable
Act and Associated Regulations	proposed action may be changed.		NT EPA	
Pushfire Management Ast	Unable to control a fire on the land	All reasonable stops		Following the fact
2016 and Associated		All reasonable steps	DEPWS	Following the fact
Regulations			Note, also required to notify landholder	
Heritage Act 2016 and	Discovery of archaeological places and objects.	In writing	08 8999 5039	As soon as practicable
Associated Regulations			DTC - Heritage Branch	(within 7 days of discovery)
			heritage@nt.gov.au	
			& DEPWS	
Weeds Management Act	First becoming aware of a declared weed that has not previously been, or known	Not specified	o8 8999 4567	14 days of becoming aware
2013	to have been, present on the land.		DEPWS – Weed Management Branch	
			weedinfo@nt.gov.au	
Transport of Dangerous Goods by Road and Rail (National Uniform Legislation)	If a driver of a road vehicle transporting dangerous goods and the vehicle is involved in an incident resulting in a dangerous situation, they must notify the prime contractor for the goods, the Competent Authority, and the police or fire service, of the incident.	Not specified	The prime contractor for the goods, the Competent Authority, and the police or fire service	As soon as practicable after the incident



14.20.2 Emergency Response Numbers Template

Appendix 2 Emergency Response Numbers Template

EME	UHF CHANNEL				
		Emerg Interse	ency Response Meeting Point (North) ection on Stuart Highway		
PEAK WELLPAD: RAMSAY AA HELIUM PROJECT NAME: EP 134 ER	P	Emerg	ency Response Meeting Point (South)		
		Idraco	wra Station Airstrip		
Wellpad Latitude:	ТВА	AME L	anding Location Known as:	TBD	
Wellpad Longitude:	ТВА	Altern	ative Landing Location:	TBD	
MEDICAL EMERGENCY PRIORITY CONTACT NUM	BERS				
Aero Medical Services (AME): Care Flight	24h: 1300 655 855	08 892	8 9789 (NT)		
Emergency Services:	000	24h: 13	31444		
INGAUGE CONTACT DETAILS					
inGauge Project Manager:					
Drilling Engineer:					
Civils & Approvals:					
OTHER CONTACTS				DIRECTIONS	
Police – Emergency	000 (24hr Assistance 131 444)			RAMSAY AA WELL	.PAD
Alice Springs Police (Alice Springs)	(08) 8951 8823	1			
Alice Springs Fire Station (Alice Springs)	(08) 8951 6688	2			
Erldunda Roadhouse (Sturt Hwy)	(08) 8956 0984	3			
Alice Springs Hospital (Alice Springs)	08) 8591 7777	4			
St Johns Alice Springs Ambulance (Alice Springs)	(08) 8959 6600	5			
When making an emergency call, please provide the following information:					
\rightarrow Location of pick-up (GPS coordinates, description	of terrain)	7			
 → Contact person's name; Landline/Mobile/Sat; Pho → Medevac request caller details: 	ne/Radio	8			
\rightarrow Patient name		9			
DOB etc if known Stay online until instructed otherwise.					

Emergency Response Plan

SPACE FOR MAP



14.20.3 Site ERP Display Sheet

Appendix 3 Site ERP Display Sheet

Project Name: P	eak Helium EMP PKHo2 I	EP 134							
Coordinates:									
Idracowra Sta	Idracowra Station Airstrip):								
Emergency R	esponse Meeting Point (North):							
Intersection o	on Stuart Highway								
Emorgoney D	Meating Doint (C							
Emergency R	esponse meeting Fonit (500tn):							
Wellpad; TBA	ι.								
Latitude:	TBA"S L	ongitude: TBA"E							
Emergency Contac	ts								
Entity		Location	Number						
General			000						
	Police - Emergency	-	24h Assistance 131444						
	Alice Springs Police	Alice Springs	(08) 8951 8823						
	Alice Springs Fire Station	Alice Springs	(08) 8951 6688						
	Erldunda Roadhouse	Stuart Hwy	(08) 8956 0984						
Medical	Alice Springs Hospital	Alice Springs	(08) 8591 7777						
Services	St Johns Alice Springs Ambulance	Alice Springs	(08) 8959 6600						
Aeromedical			(08) 8928 9777						
Services	Care Flight	NT	24hr Emergency						
			1300 655 855						
InGauge Energy		-							
Position		Name	Number						
Project Manager									
Drilling and Comple	etions Engineer								
Civils and Approval	S								