

Modification Notice - Regulation 22

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Geospatial Files Included?	All figures in EMP have been updated to show updated alignment options, copy of the figures are provided in Appendix B . Copies of geospatial files have been included in the data pack.						
Does the proposed change result in a new, or increased, potential or actual environmental impact or risk?	If an INCREASE in an existing potential or actual environmental impact or risk is it provided for in the approved EMP?	Does the proposed change require additional mitigation measures to be included?	Has additional stakeholder engagement been conducted?	Does it require additional environmental performance standards and measurement criteria?	Does it affect compliance with Sacred Site Authority Certificates?	Does it affect current rehabilitation, weed, fire, wastewater, erosion and sediment control, spill or emergency response plans?	Will the environmental outcome continue to be achieved and will the impacts and risks be managed to ALARP and acceptable?
The proposed change does not result in a new, or increased, potential or actual environmental impact or risk. Refer Appendix A .	The environmental impact or risks are provided for in the approved EMP.	No additional mitigations are required to those already described in SWP2-03. Mitigations for the new track will be as detailed in Section 7.0 of the EMP. Although a new track is proposed instead of using the Pastoral Access Track the activity has not changed.	Ongoing consultation with Tanumbirini Station owner has raised the need for modification. The Pastoralist identified that current access via existing tracks has the potential to interfere with water infrastructure and welfare of cattle. Moreover, Sweetpea has been asked by the Pastoralist not to use either of the proposed access points considered under the EMP; this modification is therefore on balance the least	No, this modification does not change the SWP2-03 environmental performance standards and measurement criteria.	The proposed locations are already covered by the existing AAPA certificate – C2020/072.	No, the additional locations do not materially change the current subplans of the EMP. The proposed Carpentaria Highway intersection and access tracks to Lease Pad 1 will replace the original planned track detailed in SWP2-3 EMP.	Yes, the environmental outcome will continue to be achieved and impacts and risk ALARP. Refer Appendix A .

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			impactful means to provide the required access to EP136 and Lease Pad 1, although Sweetpea does not necessarily accept that access via the proposed access tracks would have caused the disruption that is contended by the Pastoralist.																																																																												
Current EMP Text				Amended EMP Text																																																																											
Executive Summary pg. iv & Section 1.4 Project Location and Footprint pg. 5-7 The geographical coordinates and disturbance area associated with this EMP are provided in Table 1 and presented in Figure 2. The geographical coordinates present the area of disturbance for the seven exploration lease pads, and the options for the main field camp (on or off EP136), the eastern access track (EAT) or the western access track (WAT) and up to 10 gravel pits. The access track options presented in this EMP are clearly shown in Figure 3 (EAT) and Figure 4 (WAT). Table 1Geographical coordinates of the Civil Construction Program <table><tr><th>Infrastructure</th><th>Name</th><th>Location Lat/Long</th><th>Length (km)</th><th>Footprint Area (Ha)</th><th>Total Area of Vegetation Clearing (Ha)</th></tr><tr><td colspan="6">Lease Pads</td></tr><tr><td>Lease Pad 1</td><td>LP1</td><td>-16.517663°, 134.515147°</td><td>-</td><td>11.0</td><td>10.65*</td></tr><tr><td>Lease Pad 2</td><td>LP2</td><td>-16.517668°, 134.558468°</td><td></td><td>11.0</td><td>11.0</td></tr><tr><td>Lease Pad 3</td><td>LP3alt</td><td>-16.558253°, 134.556614°</td><td>-</td><td>11.0</td><td>10.65*</td></tr><tr><td>Lease Pad 4</td><td>LP4</td><td>-16.600557°, 134.515315°</td><td></td><td>11.0</td><td>11.0</td></tr><tr><td>Lease Pad 5</td><td>LP5new</td><td>-16.600649°, 134.556760°</td><td>-</td><td>11.0</td><td>11.0</td></tr></table>				Infrastructure	Name	Location Lat/Long	Length (km)	Footprint Area (Ha)	Total Area of Vegetation Clearing (Ha)	Lease Pads						Lease Pad 1	LP1	-16.517663°, 134.515147°	-	11.0	10.65*	Lease Pad 2	LP2	-16.517668°, 134.558468°		11.0	11.0	Lease Pad 3	LP3alt	-16.558253°, 134.556614°	-	11.0	10.65*	Lease Pad 4	LP4	-16.600557°, 134.515315°		11.0	11.0	Lease Pad 5	LP5new	-16.600649°, 134.556760°	-	11.0	11.0	Executive Summary pg. iv & Section 1.3 Project Location and Footprint pg. 5-7 The geographical coordinates and disturbance area associated with this EMP are provided in Table 1 and presented in Figure 2. The geographical coordinates present the area of disturbance for the seven exploration lease pads, and the options for the main field camp (on or off EP136), the eastern access track (EAT) or the western access track (WAT) and up to 10 gravel pits. The access track options presented in this EMP are clearly shown in Figure 3 (EAT) and Figure 4 (WAT). Table 1Geographical coordinates of the Civil Construction Program <table><tr><th>Infrastructure</th><th>Name</th><th>Location Lat/Long</th><th>Length (km)</th><th>Footprint Area (Ha)</th><th>Total Area of Vegetation Clearing (Ha)</th></tr><tr><td colspan="6">Lease Pads</td></tr><tr><td>Lease Pad 1</td><td>LP1</td><td>-16.517663°, 134.515147°</td><td>-</td><td>11.0</td><td>10.65*</td></tr><tr><td>Lease Pad 2</td><td>LP2</td><td>-16.517668°, 134.558468°</td><td></td><td>11.0</td><td>11.0</td></tr><tr><td>Lease Pad 3</td><td>LP3alt</td><td>-16.558253°, 134.556614°</td><td>-</td><td>11.0</td><td>10.65*</td></tr></table>				Infrastructure	Name	Location Lat/Long	Length (km)	Footprint Area (Ha)	Total Area of Vegetation Clearing (Ha)	Lease Pads						Lease Pad 1	LP1	-16.517663°, 134.515147°	-	11.0	10.65*	Lease Pad 2	LP2	-16.517668°, 134.558468°		11.0	11.0	Lease Pad 3	LP3alt	-16.558253°, 134.556614°	-	11.0	10.65*
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Lease Pad 6	LP6	-16.600930°, 134.606624°	-	11.0	11.0
Lease Pad 7	LP7	-16.639982°, 134.606535°	-	11.0	11.0
Main Camp Options	Highway Camp	-16.480922°, 134.565871°	-	1.3	0.0*
	LP1 Camp	-16.519364°, 134.510563°			1.3
Lease Pad Disturbance Total			-	78.30	77.60
Lease Pad Access Track Option 1 – Eastern Access, Plus access to Pad 1					
Access into EP136 from Carpentaria Highway	Eastern Access Track (EAT) (existing pastoral track, maintain 18 m class 5 pastoral 2 (type c)), with exception of 0.61 km at RWA2 which is for transit only. Length from Carpentaria Highway to Pad 7 turn-in.		17.65	30.65	0
Access to Lease Pad (LP) LP1	Ingress from the western Carpentaria Highway intersection to LP1 (existing pastoral track and repurposed seismic line 9, with only extra clearing up to 18 m class 5 pastoral 2 (type c))		5.52	9.94	2.43*
Access to LP2	Track off EAT to LP2 (repurposed seismic line 9, with only extra clearing for 18 m class 5 pastoral 2 (type c))		2.18	3.92	2.83*
Access to LP3	Track off EAT to LP3 (repurposed seismic line 8, with only extra clearing 18 m class 5 pastoral 2 (type c))		2.28	4.10	2.28*
Access Tracks to remaining LPs	LP4, LP5, LP6 and LP7 Access Tracks (repurposed seismic line 6 and 7, with only extra clearing for 18 m class 5 pastoral 2 (type c))		11.94	21.49	15.52*
LP Access Track Option 1 Disturbance Total			39.56	70.10	23.06
Access Track Option 2 – Western Access Track					

Lease Pad 4	LP4	-16.600557°, 134.515315°		11.0	11.0
Lease Pad 5	LP5new	-16.600649°, 134.556760°	-	11.0	11.0
Lease Pad 6	LP6	-16.600930°, 134.606624°	-	11.0	11.0
Lease Pad 7	LP7	-16.639982°, 134.606535°	-	11.0	11.0
Main Camp Options	Highway Camp	-16.480922°, 134.565871°	-	1.3	0.0*
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Access to Lease Pad (LP) LP1	Ingress from the western Carpentaria Highway intersection to LP1 (existing pastoral track and repurposed seismic line 9, with only extra clearing up to 18 m class 5 pastoral 2 (type c))		5.52	9.94	2.43*
Access to Lease Pad 1 - Option 1 (Preferred)	Ingress from the Carpentaria Highway via a new access track (3.32 km), to repurposed seismic line 9 to lease LP1 (0.89 km) (new access track with clearing up to 18 m class 5 pastoral 2 (type c) and repurposed seismic line 9, with only extra clearing up to 18 m class 5 pastoral 2 (type c))		4.21	7.58	6.87
Access to Lease Pad 1 - Option 2	Ingress from the Carpentaria Highway via repurposed seismic line 10 direct to LP1 (repurposed seismic line 10, with		3.95	3.95	7.11

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Access to Lease Pad (LP) LP1	Ingress from the western Carpentaria Highway intersection to LP1 (existing pastoral track and repurposed seismic line 9, with only extra clearing up to 18 m class 5 pastoral 2 (type c))	5.52	9.94	2.48*	
Access to LP2	Track from LP1 to LP2 (repurposed seismic line 9, with only extra clearing for 18 m class 5 pastoral 2 (type c))	4.38	7.88	5.69*	
North-South Access to LP3, LP4	Western Access Track (WAT) (existing Pastoral Track and repurpose of seismic line 10 between LP1 and LP4. 18 m class 5 pastoral 2 (type c))	9.18	16.52	11.93*	
Access to LP3	Track off WAT to LP3 (repurposed seismic line 8, from intersection of WAT to LP3 to 18 m class 5 pastoral 2 (type c))	4.43	7.97	5.76*	
Access Tracks to remaining LPs	LP4, LP5, LP6 and LP7 Access Tracks (repurposed seismic line 6 and 7, with only extra clearing for 18 m class 5 pastoral 2 (type c))	11.94	21.49	15.52*	
LP Access Track Option 2 Disturbance Total		35.45	63.80	41.38	
Gravel Pit Options (Final Gravel Pit Footprint Centre Points)					
Gravel Pit 1	GP1	-16.515163°, 134.508993°	-	2.0	2.0
Gravel Pit 2	GP2	-16.572622°, 134.559877°	-	2.0	2.0
Gravel Pit 3	GP3	-16.586119°, 134.559696°	-	2.0	2.0
Gravel Pit 4	GP4	-16.586022°, 134.563468°	-	2.0	2.0
Gravel Pit 5	GP5	-16.593853°, 134.560048°	-	2.0	2.0
Gravel Pit 6	GP6	-16.597240°, 134.516823°		2.0	2.0
Gravel Pit 7	GP7	-16.598583°, 134.539951°	-	2.0	2.0
Gravel Pit 8	GP8	-16.598259°, 134.556367°	-	2.0	2.0

	only extra clearing up to 18 m class 5 pastoral 2 (type c))			
Access to LP2	Track off EAT to LP2 (repurposed seismic line 9, with only extra clearing for 18 m class 5 pastoral 2 (type c))	2.18	3.92	2.83*
Access to LP3	Track off EAT to LP3 (repurposed seismic line 8, with only extra clearing 18 m class 5 pastoral 2 (type c))	2.28	4.10	2.28*
Access Tracks to remaining LPs	LP4, LP5, LP6 and LP7 Access Tracks (repurposed seismic line 6 and 7, with only extra clearing for 18 m class 5 pastoral 2 (type c))	11.94	21.49	15.52*
LP Access Track Option 1 Disturbance Total		38.00 to 38.26	64.11 to 67.74	22.39 to 22.63
Access Track Option 2 – Western Access Track				
Access to Lease Pad (LP) LP1	Ingress from the western Carpentaria Highway intersection to LP1 (existing pastoral track and repurposed seismic line 9, with only extra clearing up to 18 m class 5 pastoral 2 (type c))	5.52	9.94	2.48*
Option 1 (Preferred) - Access to Lease Pad 1	Ingress from the Carpentaria Highway via a new access track, to repurposed seismic line 9 connecting lease LP1, gravel pit and camp (new access track with clearing up to 18 m class 5 pastoral 2 (type c) and repurposed seismic line 9, with only extra clearing up to 18 m class 5 pastoral 2 (type c))	4.21	7.58	6.87
Option 2 - Access to Lease Pad 1	Ingress from the Carpentaria Highway via repurposed seismic line 10 direct to LP1 (repurposed seismic line 10, with	3.95	3.95	7.11

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Gravel Pit 10	GP10	-16.628015°, 134.605151°	-	2.0	2.0
Gravel Pit 11	GP11	-16.635584°, 134.608731°	-	2.0	2.0
Gravel Pit 12	GP12	-16.644924°, 134.600328°	-	2.0	2.0
10 x Gravel Pit Disturbance Total			-	20.0	20.0
Gravel Pit Access					
Gravel Pit (GP) Access Track (8 m wide)	GP Access Track		7.80	6.24	6.24
Access Track Disturbance Total			7.80	6.24	6.24
Total Footprint Option 1 EAT			47.36	174.60	126.90
Total Footprint Option 2 WAT			43.25	168.34	145.22

disturbance areas of Lease Pad 1, Lease Pad 3, Main Camp and Lease Pad Access Tracks have previously been approved under the Seismic EMP to 8 m. The disturbance area covered by the Seismic EMP will be **absorbed into the overall Civil Construction and Water Bore EMP, but the total vegetation clearing only accounts for new clearing under this EMP.*

	only extra clearing up to 18 m class 5 pastoral 2 (type c))				
Access to LP2	Track from LP1 to LP2 (repurposed seismic line 9, with only extra clearing for 18 m class 5 pastoral 2 (type c))		4.38	7.88	5.69*
North-South Access to LP3, LP4	Western Access Track (WAT) (existing Pastoral Track and repurpose of seismic line 10 between LP1 and LP4. 18 m class 5 pastoral 2 (type c))		9.18	16.52	11.93*
Access to LP3	Track off WAT to LP3 (repurposed seismic line 8, from intersection of WAT to LP3 to 18 m class 5 pastoral 2 (type c))		4.43	7.97	5.76*
Access Tracks to remaining LPs	LP4, LP5, LP6 and LP7 Access Tracks (repurposed seismic line 6 and 7, with only extra clearing for 18 m class 5 pastoral 2 (type c))		11.94	21.49	15.52*
LP Access Track Option 2 Disturbance Total			33.88 to 34.14	57.81 to 61.44	45.77 to 46.01
Gravel Pit Options (Final Gravel Pit Footprint Centre Points)					
Gravel Pit 1	GP1	-16.515163°, 134.508993°	-	2.0	2.0
Gravel Pit 2	GP2	-16.572622°, 134.559877°	-	2.0	2.0
Gravel Pit 3	GP3	-16.586119°, 134.559696°	-	2.0	2.0
Gravel Pit 4	GP4	-16.586022°, 134.563468°	-	2.0	2.0
Gravel Pit 5	GP5	-16.593853°, 134.560048°	-	2.0	2.0
Gravel Pit 6	GP6	-16.597240°, 134.516823°		2.0	2.0
Gravel Pit 7	GP7	-16.598583°, 134.539951°	-	2.0	2.0
Gravel Pit 8	GP8	-16.598259°, 134.556367°	-	2.0	2.0
Gravel Pit 10	GP10	-16.628015°, 134.605151°	-	2.0	2.0

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	Gravel Pit 11	GP11	-16.635584°, 134.608731°	-	2.0	2.0
	Gravel Pit 12	GP12	-16.644924°, 134.600328°	-	2.0	2.0
	10 x Gravel Pit Disturbance Total			-	20.0	20.0
	Gravel Pit Access					
	Gravel Pit (GP) Access Track (8 m wide)	GP Access Track		7.80	6.24	6.24
	Access Track Disturbance Total			7.80	6.24	6.24
	Total Footprint Option 1 EAT	Option 1 - New Track		46.06	172.28	126.23
		Option 2 - Seismic Line 10		45.80	168.65	126.47
	Total Footprint Option 2 WAT	Option 1 - New Track		41.94	165.98	149.61
		Option 2 - Seismic Line 10		41.68	162.35	149.85

disturbance areas of Lease Pad 1, Lease Pad 3, Main Camp and Lease Pad Access Tracks have previously been approved under the Seismic EMP to 8 m. The disturbance area covered by the Seismic EMP will be **absorbed into the overall Civil Construction and Water Bore EMP, but the total vegetation clearing only accounts for new clearing under this EMP.*

The preferred access under the EMP modification is for new track off the Carpentaria Highway to access Lease Pad 1. Overall, this option results in a shorter distance to travel to Lease Pad 1 then original EMP planned where using existing Pastoral Tracks, however; it does require an additional 4.39 ha of vegetation disturbance, although the environmental outcome will continue to be achieved and impacts and risk ALARP.

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Figure 3 & 4 pg vi and Figure 8 & 9 pg 25

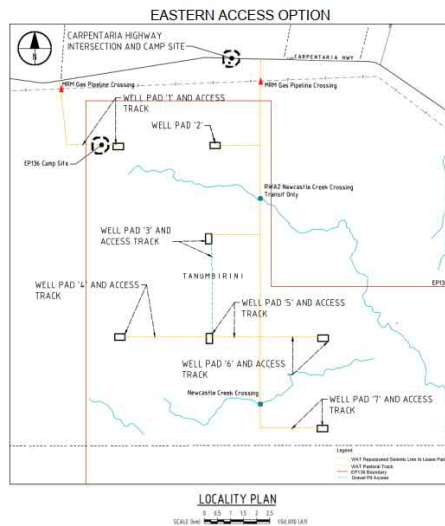


Figure 3 Eastern Access Track, showing existing and repurposed seismic lines

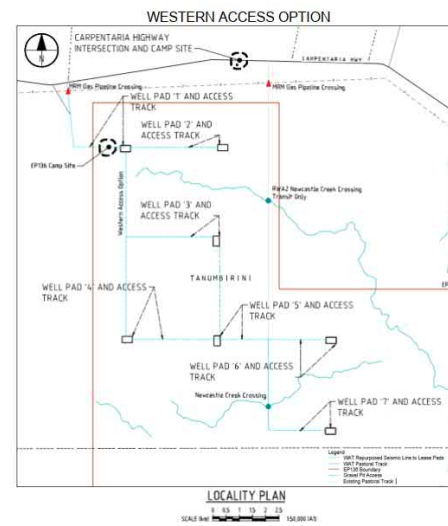


Figure 4 Western Access Track, showing existing and repurposed seismic lines

Figure 3 & 4 pg vi and Figure 8 & 9 pg 25 replace with following:

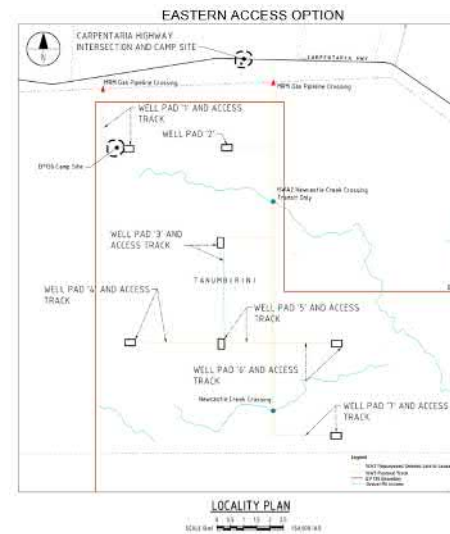


Figure 3 Eastern Access Track, showing existing and repurposed seismic lines

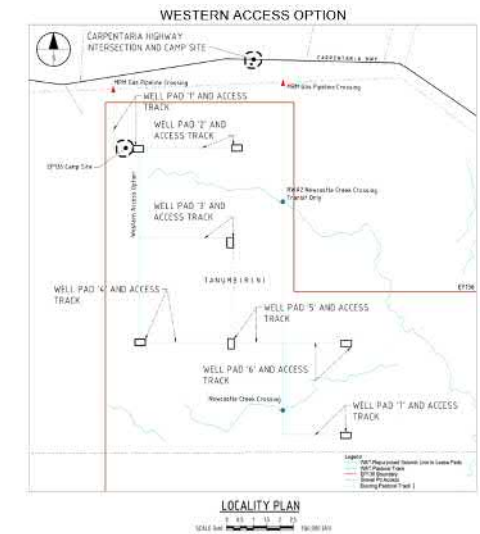


Figure 4 Western Access Track, showing existing and repurposed seismic lines

pg. vii

The civil works program aims to use a combination of two existing pastoral lease tracks that come off the Carpentaria Highway and cleared seismic lines to minimise disturbance areas and avoid the need for additional vehicle crossings within the AAPA certificate C2020/072 restricted work area 2 (RWA2) on Newcastle Creek, which is considered a sensitive area.

Required sections of seismic lines will be formed as class 5 pastoral 2 (type c) unsealed track in accordance with NTG standard drawing CS3003 Typical cross sections for urban and rural environments (2017) and will be implemented in accordance with the Erosion and Sediment Control Plan (Appendix K).

pg. vii

The civil works program originally intended to use either one of the two existing pastoral lease tracks from the Carpentaria Highway. Following consultation with the Station owner, Sweetpea propose, under R22 Modification, the following options to access Lease Pad 1:

Option 1 (preferred) – new standalone track from Carpentaria Highway to Lease Pad 1, connecting gravel pit and Lease Pad 1 camp.

Or

Option 2 – repurpose seismic line 10 to Lease Pad 1, camp and gravel pits.

Overall, the aim of the access tracks were to minimise disturbance areas and avoid the need for additional vehicle crossings within the AAPA certificate C2020/072 restricted work area 2 (RWA2) on Newcastle Creek, which is considered a sensitive area. Both revised option still meet this goal. The new access options into EP136 do not interact with Newcastle Creek.

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	The new track and required sections of seismic lines will be formed as class 5 pastoral 2 (type c) unsealed track in accordance with NTG standard drawing CS3003 Typical cross sections for urban and rural environments (2017) and will be implemented in accordance with the Erosion and Sediment Control Plan (Appendix K).
ES pg. vii and Section 3.2.2 Access Tracks pg. 24 Civil Construction Activity Description The work activities required for the construction of each of the exploration lease pads and access tracks include: • The installation of exploration lease pad, inclusive of the well pad (280 m x 260 m) and tank pad (230 m x 160 m), including the provision of fire breaks and turning areas for plant and vehicles. The exploration lease pads also include two groundwater monitoring bore pads (50 m x 50 m), as well as the ancillary infrastructure required to conduct activities. • The installation of access tracks to the exploration lease pad locations. Access tracks are to be situated along existing cleared tracks and the redundant seismic lines where suitable. Two primary access options proposed under this EMP are summarised as follows: - Option 1 Eastern Access Track (EAT) – 39.5 km length x 18 m wide, including 17.6 km of existing pastoral track and 21.9 km of repurposed 2D seismic lines. - Option 2 Western Access Track (WAT) – 35.2 km length x 18 m wide, including 3.1 km of existing pastoral track and 32.1 km of repurposed 2D seismic lines. The primary proposed access track (Figure 2 “Western Access Track”) will use a standalone track that joins the Carpentaria Highway in the north to the Tanumbirini Station property boundary in the south via an upgraded seismic line. Access to exploration lease pads will branch-off this track. Access tracks will be constructed as a 6 m gravelled useable running surface with additional approximate 2 m minimum shoulders cleared on either side. Mitre drains and flow control banks (whoa boys) will be installed, where required, to minimise erosion along access tracks table drains. Access track disturbance is estimated to average 18 m in width. The existing pastoral lease track (Figure 2 “Eastern Access”) may be used during civils and water bore drilling, however, no disturbance is anticipated, and no works will occur in RWA2 of Newcastle Creek.	ES pg. vii and Section 3.2.2 Access Tracks pg. 24 Civil Construction Activity Description The work activities required for the construction of each of the exploration lease pads and access tracks include: • The installation of exploration lease pad, inclusive of the well pad (280 m x 260 m) and tank pad (230 m x 160 m), including the provision of fire breaks and turning areas for plant and vehicles. The exploration lease pads also include two groundwater monitoring bore pads (50 m x 50 m), as well as the ancillary infrastructure required to conduct activities. • The installation of access tracks to the exploration lease pad locations. Access tracks are to avoid sensitive areas and use the redundant seismic lines where suitable. Two primary access options are proposed under this EMP, however access to Lease Pad 1 considered under R22 modification is one of the two new Carpentaria Highway Intersections and track options with aim to avoid pastoral activities. Primary access options under the EMP are summarised as follows: - Option 1 Eastern Access Track (EAT) – between 38 to 38.26 km length x 18 m wide, including 17.6 km of existing pastoral track, 4.21 km of new track and 20.35 km of repurposed 2D seismic lines. - Option 2 Western Access Track (WAT) – between 33.88 to 34.14 km length x 18 m wide, including 4.21 km of new tracks and 33.8 km of repurposed 2D seismic lines. The primary proposed access track (Figure 2 “Western Access Track”) will use a standalone track that joins the Carpentaria Highway in the north to the upgraded seismic line 9. Access to the rest of the exploration lease pads will branch-off this track. Access tracks will be constructed as a 6 m gravelled useable running surface with additional approximate 2 m minimum shoulders cleared on either side. Mitre drains and flow control banks (whoa boys) will be installed, where required, to minimise erosion along access tracks table drains. Access track disturbance is estimated to average 18 m in width. The existing pastoral lease track (Figure 2 “Eastern Access”) may be used during civils and

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Rock protection may be required to be installed at any floodway's intersected by access tracks to manage and minimise erosion (no works to be carried out within RWA2 as defined by AAPA Authority Certificate C2020/072, which allows for transit only). Crossings will be bed level crossings, constructed flush with the existing invert level of the specific watercourse. Crossings may incorporate a stable rock base, stabilised approaches (rock base, ramps, artificial matting or similar) and flow diversion berms (to shed road runoff), designed to be stable in large rainfall events.	water bore drilling, however, no disturbance is anticipated, and no works will occur in RWA2 of Newcastle Creek. Rock protection may be required to be installed at any floodway's intersected by access tracks to manage and minimise erosion (no works to be carried out within RWA2 as defined by AAPA Authority Certificate C2020/072, which allows for transit only). Crossings will be bed level crossings, constructed flush with the existing invert level of the specific watercourse. Crossings may incorporate a stable rock base, stabilised approaches (rock base, ramps, artificial matting or similar) and flow diversion berms (to shed road runoff), designed to be stable in large rainfall events.
Pg. ix and pg. xx Proposed Schedule Civil construction activities, including water bore drilling activities are planned to commence in March 2022 and continue over a four-year period to 2025 (refer Section 3.1 for detailed schedule). It is noted that the schedule may be varied based on the interpretation of results from the seismic survey that will determine the preferred sequence of drilling on each lease pad. This EMP activities indicative schedule is summarised below, however, the schedule could be impacted by factors such as Covid19, equipment availability, exploration activity results, and/or land access negotiations and timing of commencement of regulated activities. Note that up to 12 monitoring bores and associated water bore pads are covered by the existing approved Seismic EMP so are not included in the below schedule. • 2022 Mar/Apr - December: - Establish an access junction at Carpentaria Highway and construct the access for entry to the Permit tracks. - Establish gravel pits to provide material for improving the stability of the access tracks and constructing well site pad areas. - Construct access track to Lease Pad 1, Lease Pad 3 and Lease Pad 4 to enable to the construction of well and water tank pads, and the main camp pad at primary option Lease Pad 1 Camp or re-occupy the Highway Camp (Figure 2). - Construct well and water tank pad at Lease Pad 1, Lease Pad 3 and Lease Pad 4. - Install water monitoring bores as required (prior to stimulation operations). - Construct, upgrade and maintain other access tracks as per Figure 2 to Lease Pad 2, which may include an access junction at the Carpentaria Highway and the EAT (which is an existing pastoral access track). - Construct well and water tank pad at Lease Pad 2. • 2023 Mar/Apr - December:	Pg. ix and pg. xx Proposed Schedule Civil construction activities, including water bore drilling activities are planned to commence in May 2022 and continue over a four-year period to 2025 (refer Section 3.1 for detailed schedule). It is noted that the schedule may be varied based on the interpretation of results from the seismic survey that will determine the preferred sequence of drilling on each lease pad. This EMP activities indicative schedule is summarised below, however, the schedule could be impacted by factors such as Covid19, equipment availability, exploration activity results, and/or land access negotiations and timing of commencement of regulated activities. Note that up to 12 monitoring bores and associated water bore pads are covered by the existing approved Seismic EMP so are not included in the below schedule. • 2022 May/June - December: - Establish an access junction at Carpentaria Highway and construct the access for entry to the Permit tracks. - Establish gravel pits to provide material for improving the stability of the access tracks and constructing well site pad areas. - Construct access track to Lease Pad 1, Lease Pad 3 and Lease Pad 4 to enable to the construction of well and water tank pads, and the main camp pad at primary option Lease Pad 1 Camp or re-occupy the Highway Camp (Figure 2). - Construct well and water tank pad at Lease Pad 1, Lease Pad 3 and Lease Pad 4. - Install water monitoring bores as required (prior to stimulation operations). - Construct, upgrade and maintain other access tracks as per Figure 2 to Lease Pad 2, which may include an access junction at the Carpentaria Highway and the EAT (which is an existing pastoral access track). - Construct well and water tank pad at Lease Pad 2. • 2023 Mar/Apr - December:

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- Establish gravel pits to provide material for improving the stability of the access tracks. - Construct access tracks to Lease Pad 5 and Lease Pad 6 respectively to enable the construction of well and water tank pads. - Construct well and water tank pad each at Lease Pad 5 and Lease Pad 6. - Install water monitoring bores as required (prior to stimulation operations). • 2024 Mar/Apr - December: - Construct access track to Lease Pad 7. - Install water monitoring bores as required. - Construct well and water tank pad at Lease Pad 7. - Install water impact monitoring bores as required (prior to stimulation operations). • 2025 April - December: - Install water monitoring bores as required at Lease Pad 7 (prior to stimulation operations). Past experience in the permit area indicates that extended rainfall events (i.e. monsoonal rains), that have the potential to limit access, usually don't start until mid-December. However, Sweetpea will implement their wet weather contingency plan as detailed in Section 7.2 should activities continue past 1 October each year.	- Establish gravel pits to provide material for improving the stability of the access tracks. - Construct access tracks to Lease Pad 5 and Lease Pad 6 respectively to enable the construction of well and water tank pads. - Construct well and water tank pad each at Lease Pad 5 and Lease Pad 6. - Install water monitoring bores as required (prior to stimulation operations). • 2024 Mar/Apr - December: - Construct access track to Lease Pad 7. - Install water monitoring bores as required. - Construct well and water tank pad at Lease Pad 7. - Install water impact monitoring bores as required (prior to stimulation operations). • 2025 April - December: - Install water monitoring bores as required at Lease Pad 7 (prior to stimulation operations). Past experience in the permit area indicates that extended rainfall events (i.e. monsoonal rains), that have the potential to limit access, usually don't start until mid-December. However, Sweetpea will implement their wet weather contingency plan as detailed in Section 7.2 should activities continue past 1 October each year.
Pg. xv Current and Future Stakeholder Engagement Sweetpea is continuing the process of negotiating or resolving the Pastoral Land Access and Compensation Agreement (LACA) with the relevant pastoral station in accordance with sections 65, 81 and 82 of the Petroleum Act 1984. Sweetpea expects that a LACA may ultimately be determined through the Northern Territory Civil and Administrative Tribunal (NTCAT), as per the Act; however, Sweetpea always remain open to determining a LACA through negotiations. Sweetpea have considered the possible consequences of carrying out the planned exploration on the pastoral operations and have indicated a range of measures that will be implemented to minimise impacts. Sweetpea will continue to engage with Stakeholders, in particular pastoral leaseholders and Traditional Owners in the lead up to the civil construction program and future exploration planning. It is anticipated that open lines of communications with Pastoralists will be maintained during the program.	Pg. xv Current and Future Stakeholder Engagement Community and stakeholder engagement is a fundamental obligation of Sweetpea in relation to the proposed work programs within EP136. Sweetpea's stakeholder and community engagement for the exploration program commenced in mid-July 2019 with the pastoral leaseholders on whose land the activities occur (and their delegates) and the NLC, who represent the Traditional Owners and Aboriginal People on whom the activities may impact. This engagement has continued over the course of the development of multiple EMPs, including arrangements with the station managers for the safe conduct of baseline investigations during November 2019, May 2019 and again in November 2020. Sweetpea has endeavoured to clearly communicate to all interested parties via telephone calls, emails and face-to-face meetings wherever possible. The COVID-19 Pandemic did have some impact on the stakeholder engagement process which resulted in delays to additional AAPA on-country consultation and surveys, as well as the work program meetings with Traditional Owners facilitated by the NLC in accordance with the Exploration Agreement for EP136. Sweetpea's engagement with the pastoral leaseholder at Tanumbirini Station ultimately resulted in unsuccessful attempts to negotiate a Land Access Agreement (LAA) and the parties entered into Alternative Dispute Resolution and then Northern Territory Civil and

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				Administrative Tribunal (NTCAT) proceedings in accordance with relevant sections of the Petroleum Act 1984 and the Petroleum Regulations 2020. Sweetpea is preparing for EMP and other approvals under the assumption that any Approved Access Agreement (AAA) determined by NTCAT will allow exploration activities to proceed. Sweetpea will continue to seek two-way engagement with Rallen Australia, or nominated representatives, to help planning that will minimise disturbance related with Sweetpea's proposed activities. It is anticipated that now AAA have been achieved, consultation with Rallen Australia will be more productive where the conditions of the AAA have been clearly articulated to both Sweetpea and Rallen Australia. Sweetpea is committed to attempting to keep open lines of communications with the Tanumbirini leaseholder throughout the program, however, actual communications frequency and method will be primarily a function of the landholder's preferences and directions.			
GHG Emissions Pg. 37 Table 12 Estimated Greenhouse Gas Emissions for Civil and Water Bore Program				GHG Emissions Pg. 37 Table 12 Estimated Greenhouse Gas Emissions for Civil and Water Bore Program			
Source of GHG Emissions	Assumption	Fuel Consumption (kL)	GHG Emissions (tCO ₂ -e)	Source of GHG Emissions	Assumption	Fuel Consumption (kL)	GHG Emissions (tCO ₂ -e)
Civil Construction Activities	Civil construction, including vegetation clearing is carried out by a dozer and grader equipped with 175-kW engine. Fuel consumption averages 80L/hr (¾ load average) over a 12-hour day. Civil construction for each lease pad, including development of camp, gravel pits and access tracks will be carried out over maximum of 420 days (10 weeks or 60 days per lease pad).	960	1,097.2 [^]	Civil Construction Activities	Civil construction, including vegetation clearing is carried out by a dozer and grader equipped with 175-kW engine. Fuel consumption averages 80L/hr (¾ load average) over a 12-hour day. Civil construction for each lease pad, including development of camp, gravel pits and access tracks will be carried out over maximum of 420 days (10 weeks or 60 days per lease pad).	960	1,097.2 [^]
Water bore drilling	Water bore drilling using a 550-kW engine. Fuel consumption averages 200 L/hr over a 10-hr day over 15 days per bore. As such, 2 bores equate to maximum 30 days.	60	163.0 [^]	Water bore drilling	Water bore drilling using a 550-kW engine. Fuel consumption averages 200 L/hr over a 10-hr day over 15 days per bore. As such, 2 bores equate to maximum 30 days.	60	163.0 [^]
Camp Operations (est. 180 days per year for Year 1)	Camp operations using 200 kVA at ¼ load average. Fuel consumption averages 15 L/hr. Generator running 24 hours per day. Camp	302.4	2,468.8 [^]	Camp Operations (est. 180 days per year for Year 1)	Camp operations using 200 kVA at ¼ load average. Fuel consumption averages 15 L/hr. Generator running 24 hours per day.	302.4	2,468.8 [^]

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and 4 and 240 days/year for Year 2 and 3)	operations carried out over a maximum of 840 days (assumed maximum per year of 240 days).			1 and 4 and 240 days/year for Year 2 and 3)	Camp operations carried out over a maximum of 840 days (assumed maximum per year of 240 days).		
Vegetation Clearing - Lease Pads	Calculated based on 77 ha of shrubs and trees to be cleared for lease pad construction, inclusive of water bore pads.	-	5,875.1*	Vegetation Clearing - Lease Pads	Calculated based on 77 ha of shrubs and trees to be cleared for lease pad construction, inclusive of water bore pads.	-	5,875.1*
Vegetation Clearing – Highway Camp Option	No clearing estimate required as vegetation cleared under Seismic EMP.	-	0*	Vegetation Clearing – Highway Camp Option	No clearing estimate required as vegetation cleared under Seismic EMP.	-	0*
Vegetation Clearing – LP1 Camp Option	Calculated based on 1.3 ha of shrubs and trees to be cleared for LP1 Camp option.	-	100.1	Vegetation Clearing – LP1 Camp Option	Calculated based on 1.3 ha of shrubs and trees to be cleared for LP1 Camp option.	-	100.1
Vegetation Clearing – Eastern Access Track Option	Calculated based on 29.3 ha of shrubs and trees to be cleared for lease pad construction.	-	2,256.1*	Vegetation Clearing – Eastern Access Track Option	Calculated based on 22.39 to 22.63 ha of shrubs and trees to be cleared for lease pad construction.	-	1,724.0 to 1,724.5*
Vegetation Clearing – Western Access Track Option	Calculated based on 47.6 ha of shrubs and trees to be cleared for lease pad construction.	-	3,665.2	Vegetation Clearing – Western Access Track Option	Calculated based on 45.77 to 46.01 ha of shrubs and trees to be cleared for lease pad construction.	-	3,524.3 to 3,542.8
Vegetation Clearing – Gravel Pits	Calculated based on 27.3 ha of shrubs and trees to be cleared for gravel pit establishment.	-	1,540.0*	Vegetation Clearing – Gravel Pits	Calculated based on 27.3 ha of shrubs and trees to be cleared for gravel pit establishment.	-	1,540.0*
Total Civil Construction and Water Bore Program GHG Emissions Range		1,322.4	13,400.2 to 14,909.4	Total Civil Construction and Water Bore Program GHG Emissions Range		1,322.4	12,968.2 to 14,787.0
Estimated Total GHG Emissions per Lease Pad		188.9	1,914.3 to 2,129.9	Estimated Total GHG Emissions per Lease Pad		188.9	1,852.6 to 2,112.4

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If an INCREASE in an existing potential or actual environmental impact or risk is it provided for in the approved EMP?

The construction of a new access track or repurposing of Seismic Line 10 to access Lease Pad 1 does increase the existing potential or actual environmental impact or risk that is already provided for in the approved EMP. The preferred access under the EMP r22 modification is for new track off the Carpentaria Highway to access Lease Pad 1. Overall, this option results in a shorter travel distance for exploration personnel to access Lease Pad 1 than original EMP where it was planned to use existing Pastoral Tracks, however; it does require an additional 4.39 ha of vegetation disturbance, with between 2.02 ha to 2.55 ha of trees and shrubs to be disturbed (refer Table 1 below). Based on the assessment, it is considered the overall environmental outcome will continue to be achieved and impacts and risks ALARP. It is noted that Sweetpea will avoid sensitive habitats (i.e. Riparian vegetation, Bullwaddy) as per measures detailed in EMP.

Table 1 below presents the area of vegetation disturbance based on the proposed alignment for the two access options using the Iso Cluster unsupervised classification on 2019 high resolution imagery of the permit area and 18 m wide corridor for the access track.

Table 1 Vegetation Classification Disturbance

Class	Option 1 - New Track (ha)	Option 2 – Repurpose Seismic Line 10 (ha)
Tree	0.93	0.99
Shrub	1.10	1.56
Grassland	1.63	1.92
Dry Grassland	2.07	1.50
BareEarth	0.25	0.35
Total Vegetation Clearance Required (ha)	2.02	2.55

Does the proposed change require additional mitigation measures to be included?

No additional mitigations required than those described in SWP2-03 for construction of access tracks. The access track will be constructed in accordance with the EMP subplans, including:

- land management (includes soil, erosion and sediment control measures)
- weeds
- bushfire
- waste
- spill prevention

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- noise, vibration and lighting emissions
- air quality and emissions
- vegetation, flora and fauna habitat
- feral animals and other pest species
- social environment and access
- cultural heritage and Sacred Sites.

Has additional stakeholder engagement been conducted?

The main driver for submission of r22 Modification is based on further stakeholder engagement with the Pastoralist following the finalisation of the Access Agreement. Sweetpea and the Pastoralist met on country on 11 May 2022. The additional consultation with the Tanumbirini Station owner indicated the proposed access track described in the EMP was not preferred due to the location of water troughs, tanks and a cattle camp. As such Sweetpea have identified an alternative dedicated access options into EP136 from the Carpentaria Highway.

Updated Stakeholder Log is provided in **Appendix C**.

Does it require additional environmental performance standards and measurement criteria?

The change of location for access track will not alter the existing environmental performance standards or measurement criteria of the C&WB EMP. Appendix L Traffic Impact Statement (TIS) has been updated for consideration of the new intersections by Department of Planning and Infrastructure (DIPL). Early consultation with DIPL Transport and Civil Services has indicated no major constraints for placing intersection at either the new track option or Seismic Line 10 option. A copy of the TIS is provided in **Appendix D**.

Does it affect compliance with Sacred Site Authority Certificates?

No, the proposed options for access tracks (new track or repurpose Seismic Line 10) does not impact upon compliance with the Authority Certificate (C2020/072) issued to Sweetpea. The location of the access tracks are not within close proximity to Sacred Sites and the conditions specified in Restricted Work Area 1 can be met.

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Does it affect current rehabilitation, weed, fire, wastewater, erosion and sediment control, spill or emergency response plans?

Other than additional locations that will require rehabilitation at completion of exploration activities, there is no specific modifications required in relation to rehabilitation, weed, fire, wastewater, erosion and sediment control, spill or emergency response plans.

Will the environmental outcome continue to be achieved and will the impacts and risks be managed to ALARP and acceptable?

Yes, the environmental outcome will continue to be achieved and impacts and risk ALARP.

APPENDIX A Supporting Information

Does the proposed change result in a new, or increased, potential or actual environmental impact or risk?

No. The proposed change does not result in a new, or increased, potential or actual environmental impact or risk, other than additional clearing area (approximately 4.39 ha) which is considered minor disturbance from a landscape perspective. The existing environmental data has been reviewed and confirmed that the proposed locations will not have a significant impact on heritage and environmental values. All existing measures detailed in the Environmental Risk Assessment and Section 7 of the EMP will minimise impacts to the environment.

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment							Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment							ALARP Discussion (Hierarchy of Controls)						
				Environment and Community			Law, Regs and Civil Action			Risk		Environment and Community			Law, Regs and Civil Action			Risk							
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level								
LAND																									
1	Civil Construction – access tracks, water bore, lease pad and camp	Management of Land - Soil and Erosion	Soil erosion and sedimentation resulting from ground disturbance activities. Description - Erosion susceptibility varies throughout the Sweetpea project area, dependent upon the soil types, slope and extent of ground disturbance. Apart from the erosive impact of climatic conditions, soil erosion is influenced mainly by the inherent properties of the soils and the processes which occurred during the formation of the landscapes. - Post construction, the ground surface to be stabilised before the onset of the wet season (October to April), and only where an alternative route is unavoidable.	2	3	M	2	3	M	M	- Use existing road and tracks where practicable and ensure suit intended purpose and volume of traffic required for the civil construction activities. - Newcastle Creek intersection with Eastern Access Track will be 'Transit' only in accordance with RWA2 conditions of AAPA certificate. - Civil construction activities where possible to be conducted during the dry season or under wet weather contingency planning if occur in wet season (refer Section 8.5). - Site environmental inductions for all site personnel and contractors in relation to land management tasks. - Undertake selective clearing (only clearing areas that are necessary for civil construction and safe operation of lease area. Refer Section 4.1.1 ESCP Treatment Options for specific situations in Appendix K. - Lease pad access will be formed as a class 5 pastoral 2 (type c) and gravel pit access will be formed as a class 5 pastoral 1 (type c) unsealed track in accordance with NTG standard drawing CS3003 Typical of cross sections for urban and rural environments (2017) and will be implemented in accordance with ESCP (Appendix K). - Ground surface to be stabilised before the onset of the monsoon (November to March). Noting that controls to be established during October. - Gravel pits are to be progressively cleared and rehabilitated over the course of the program. Once extent of gravel has been won from site, the area will have topsoil returned and surface reprofiled to allow area to be restored and/or rehabilitated in accordance with Appendix F Rehabilitation Plan. - Previously removed vegetation and topsoil will be uniformly re-spread over disturbed area to assist with	2	2	L	-	-	-	L	<table><tr><td>Elim</td><td> - Avoid clearing vegetation where possible by using existing pastoral tracks and disturbance areas (camp location and previously installed seismic lines). - No clearing of riparian vegetation along waterways. - No works within intersection of Newcastle Creek and Eastern Access Track at RWA2. Transit only. - Lease pad locations away from low drainage areas where vertosols of moderate erosion potential occur. </td></tr><tr><td>Sub</td><td> - If the 7-day forecast indicate rainfall is likely to result in an event that has potential to limit access to the work area, the civil construction contractor will stabilise the current work areas and go into standby mode until such time they can assess the track condition after an event to recommence activities. </td></tr><tr><td>Eng</td><td> - ESCP typical treatments for each lease pads and access track. - Progressive rehabilitation as activities completed on any part of the site, and </td></tr></table>	Elim	- Avoid clearing vegetation where possible by using existing pastoral tracks and disturbance areas (camp location and previously installed seismic lines). - No clearing of riparian vegetation along waterways. - No works within intersection of Newcastle Creek and Eastern Access Track at RWA2. Transit only. - Lease pad locations away from low drainage areas where vertosols of moderate erosion potential occur.	Sub	If the 7-day forecast indicate rainfall is likely to result in an event that has potential to limit access to the work area, the civil construction contractor will stabilise the current work areas and go into standby mode until such time they can assess the track condition after an event to recommence activities.	Eng	- ESCP typical treatments for each lease pads and access track. - Progressive rehabilitation as activities completed on any part of the site, and
Elim	- Avoid clearing vegetation where possible by using existing pastoral tracks and disturbance areas (camp location and previously installed seismic lines). - No clearing of riparian vegetation along waterways. - No works within intersection of Newcastle Creek and Eastern Access Track at RWA2. Transit only. - Lease pad locations away from low drainage areas where vertosols of moderate erosion potential occur.																								
Sub	If the 7-day forecast indicate rainfall is likely to result in an event that has potential to limit access to the work area, the civil construction contractor will stabilise the current work areas and go into standby mode until such time they can assess the track condition after an event to recommence activities.																								
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											rehabilitation process through agencies of increased infiltration and return of seed-bearing topsoil. If required, additional native seed mix from the area could be respread to speed up rehabilitation process. This will be confirmed during rehabilitation monitoring activities. - Windrows to be removed as soon as practicable and all debris will be moved away from the fence line at least 5 m. - At completion of exploration activities, all disturbed areas will be reinstated to a stable landform, which supports a resilient self-sustaining vegetation community that can withstand impacts including fire and cattle grazing and is safe to humans and wildlife.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

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				Environment and Community			Law, Regs and Civil Action			Risk		Environment and Community			Law, Regs and Civil Action			Risk	
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level		
											Monitor road conditions to ensure deterioration with possible increase in dust creation, does not occur and undertake road rehabilitation If required.								
3	Civil Construction, including water bore drilling operations	Management of Land - Soil and Erosion	Loss of topsoil and land suitability/capability Description Loss of topsoil could impact on successful outcomes of rehabilitation.	2	3	M	-	-	-	M	- Allow enough area at the lease pads and gravel pits to stockpile material from the construction of lease pads, access tracks, camp and gravel pits for use in rehabilitation and/or stabilisation at completion of activities (i.e. topsoil, scrub and vegetation). - Topsoil and vegetation to be placed in designated areas. - Stockpiles are to be removed at completion of activity as part of the Rehabilitation Plan (Appendix F). - Stockpiles of erodible material that have the potential to cause environmental harm if displaced, must be: (i) Appropriately protected from wind, rain, concentrated surface flow and excessive up-slope stormwater surface flows. (ii) Located at least 2m away from any hazardous area (chemical storage) or retained vegetation. (iii) Located at least 200 m away from stream banks or bodies of water. (iv) Located up-slope of an appropriate sediment control system. (v) Provided with an appropriate protective, impervious cover (synthetic or vegetative) if the materials are likely to be stockpiled for more than 28 days. (vi) Provided with an appropriate protective, impervious cover (synthetic or vegetative) if the materials are likely to be stockpiled for more than 10 days during those months that have an erosion risk rating higher than medium. - A suitable flow diversion system must be established immediately up-slope of a stockpile of erodible material that has the potential to cause environmental harm if displaced if the up-slope catchment area draining to the stockpile exceeds 1,500 m². - Avoid creating windrows. Do not create windrows across creeks, use rollers when putting in tracks in preference to dozers, or walk the dozer with the blade raised off the ground.	2	2	L	-	-	-	L	Hierarchy of controls as per Risk Reference 1. Access tracks have been selected where possible to cover areas already disturbed by seismic line preparation or existing pastoral access tracks to minimise disturbance from the project. On a landscape scale, the clearing of the proposed 7 lease pads (~78 ha) is relatively insignificant. Effective storage and management of topsoil stockpiles and subsequent successful rehabilitation will decrease the likelihood and extent of environmental impacts, making the risk profile for this impact low.
4	Civil Construction – access tracks, water bore,	Management of Land - Soil and Erosion	Soil compaction as a result of civil construction of access tracks and lease pad. Description	2	3	M	-	-	-	M	Sufficient tracks and turning points will be created within the camp area and lease pads to minimise soil compaction due to vehicle movement.	2	1	L	-	-	-	L	Hierarchy of controls as per Risk Reference 1.

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment						Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment						ALARP Discussion (Hierarchy of Controls)		
				Environment and Community			Law, Regs and Civil Action				Risk	Environment and Community			Law, Regs and Civil Action			Risk	
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood			Risk Level
	lease pad and camp		Vehicle movement across the site has potential to cause soil compaction which will require remediation.								- Vehicle movement will be restricted to the designated tracks and lease pads. No off-track driving. - Environmental inductions on site for site personnel and contractors will include the issue of soil compaction, erosion and sedimentation, and protective measures to control erosion and sediment discharge into waterways and drainage systems. - After completion of a specific phase of activity, the camp site establishment will be inspected for early signs of compaction, erosion and soil degradation (generation of bulldust). - All compacted areas will be ripped and scarified to promote regeneration of vegetation at completion of activities.								The civil construction program for each lease pad is planned to occur over a period of approximately 4 to 6 weeks and within the designated areas indicated by this EMP. The impacts from soil compaction are therefore likely to be minor and short-term. Implementing the Rehabilitation Plan (Appendix F) and the Erosion and Sediment Control Plan (Appendix K) will minimise impact from compaction.
5	Rehabilitation	Visual Amenity	Scars on the landscape created by the construction of lease pads, access tracks and gravel pits Description - At completion of civil construction of lease pads, further environmental damage is to be avoided - Once gravel is won from the identified gravel pits these will be progressively rehabilitated to reinstate to a stable landform, which supports a resilient self-sustaining vegetation community that can withstand impacts including fire and cattle grazing and is safe to humans and wildlife.	2	3	M	3	4	M	M	- The exploration lease areas, including camp, access tracks and gravel pits will be rehabilitated once exploration activities have been completed. - Where possible, progressive rehabilitation of disturbed areas will occur as soon as practicable following completion of activities in accordance with Section 9.0 and Appendix F. - All compacted areas will be ripped and scarified to promote regeneration of vegetation. - All disturbed areas will be allowed to naturally regenerate or be revegetated on completion of use. - At completion of activities, establish vegetation to the standard of that registered in the pre-assessment, or better. - All disturbed areas identified as very low, low, medium or high erosion risk must be suitably stabilised prior to anticipated rainfall, from the day that soil disturbances on the area have been finalised as per the requirements of IECA Table 4.4.7 (Appendix K). - Stabilise disturbed areas quickly to reduce the potential for erosion. - Previously removed vegetation and topsoil will be uniformly re-spread over disturbed area to assist with rehabilitation process through agencies of increased infiltration and return of seed-bearing topsoil. If required, additional native seed mix from the area could be respread to speed up rehabilitation process. This will be confirmed during rehabilitation monitoring activities.	1	2	L	1	2	L	L	Hierarchy of controls as per Risk Reference 1. Effective rehabilitation of the project area, as outlined in the EMP, will reduce the extent of environmental impacts as well as the likelihood of significant environmental impacts. This in turn will reduce the likelihood of negative perceptions from stakeholders and the likelihood of legal or regulatory punishment Security bond will not be released until such time as regulator is satisfied that the project area is rehabilitated to the agreed state.

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				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood			Risk Level				
											- Windrows to be removed as soon as practicable and all debris will be moved away from the fence line at least 5 m. - The type of ground cover applied to completed earthworks is compatible with the anticipated long-term land use, environmental risk, and site rehabilitation measures. - Implement the rehabilitation monitoring program as detailed in Appendix F.												
6	All Activities	Wet Weather	Timing of Civil Construction Activities - loss of soil and land stability, damage to existing road and track infrastructure and damage to waters ways from onset of wet season. Description - There is potential for rainfall events that prevent works from occurring safely resulting in rutting out of tracks and bogging of vehicles. - Ground conditions deteriorate quickly following rainfall event making access difficult.	2	4	M	2	4	M	M	- Wet weather contingencies have been identified in the ESCP (Appendix K) and Section 7.2.3 Land Management Tasks in Civil and Water Bore EMP. - Ground conditions following rainfall events can make access impossible. The primary mitigation will be to monitor 7-day forecasts leading up to mobilising and daily during the program. - Where rainfall forecast indicates a rainfall event that has potential to limit access, the subcontractor will stabilise the current work areas and go into standby mode until such time work can recommence. - If the conditions do not allow the activity to resume in the current schedule, the decision will be made to either curtail the program or resume when ground conditions allow. - Emergency response - a post-rainfall/flood damage reconnaissance and assessment will be undertaken as soon as area becomes accessible. Any damage observed would be repaired as soon as practicable after the event.	2	1	L	2	1	L	L	Hierarchy of controls as per Risk Reference 1. Monitoring of BOM 7-day forecast will allow measures to be in place prior to a rainfall event. In event of rainfall works will cease, area stabilised. It is noted that <i>Section 4.3.2.4 Timing and staging of works</i> in the Land Clearing Guideline identifies vegetation clearing in the NT usually occurs either start of the wet season after the first intense storms have ceased and before the monsoon arrives; or at the end of the wet season, after the monsoon has passed. Our program has considered this and believe the controls implemented will minimise risk to loss of soil and stability.				
LAND – WATERWAYS																							
7	Civil Construction – access tracks, water bore, lease pad and camp	Management of Water - Surface Water	Damage to creek bed at crossing points. Earthmoving equipment altering natural drainage lines. Description - Creeks and drainage lines (also referred to as intermittent streams) will only be crossed whilst using the existing pastoral track to gain access for the lease pad, and gravel pit areas. - No additional tracks that are constructed for the civil	2	2	L	-	-	-	L	- Avoid creation of new creek crossings for the delivery of the civil construction and water bore activities (refer Figure 15). - Crossings will not be altered but will be maintained to minimise impacts from the vehicle movements. - Minimise disturbance in the riparian buffers in accordance with the stream order of the encountered drainage line in accordance with the buffers (LCG, 2019). - The activities to be completed in a manner that does not cause a: - material change to the shape of a waterway, - material change to the volume, speed or direction of flow or likely flow of water in or into a waterway, or - alteration to the stability of the bed or banks of a waterway, including by removal of vegetation.	1	1	L	-	-	-	L	Hierarchy of controls as per Risk Reference 1. <table><tr><td>Elim</td><td> - The proposed construction activities are not located near large waterways; therefore, catchment flooding is unlikely to occur in the project area. - No works within intersection of Newcastle Creek and Eastern Access Track at RWA2. Transit only. </td></tr><tr><td>Eng</td><td> - Consideration was given to the placement of the access tracks to the lease pads and </td></tr></table>	Elim	- The proposed construction activities are not located near large waterways; therefore, catchment flooding is unlikely to occur in the project area. - No works within intersection of Newcastle Creek and Eastern Access Track at RWA2. Transit only.	Eng	Consideration was given to the placement of the access tracks to the lease pads and
Elim	- The proposed construction activities are not located near large waterways; therefore, catchment flooding is unlikely to occur in the project area. - No works within intersection of Newcastle Creek and Eastern Access Track at RWA2. Transit only.																						
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			works will require crossing of waterways.								Ongoing monitoring of the creek and drainage crossing condition prior to, during and at completion of rehabilitation will be required, including photo monitoring.													gravel pits that avoided creating new crossings on Newcastle Creek. - ESCP typical treatments for lease pad and access tracks. - No construction works are to be undertaken to disturb either the creek bank or bed, apart from the required ongoing maintenance of the crossing in condition that allows safe access. - Stabilisation of disturbed areas prior to commencement of wet season. Adm - Photo points and rehabilitation monitoring will be used to monitoring crossings during the program.
8	Civil Construction – access tracks, water bore, lease pad and camp	Management of Water - Surface Water	Access tracks, gravel pits and lease pad construction may alter natural surface water flow, creating ponding and or erosion. Description Sheet flow is likely to occur across the sites during monsoon rain events which could increase flow around installed infrastructure (i.e. erosion beside access track and lease pad if Erosion and Sediment Control Plan not effectively implemented)	2	3	M	1	3	L	M	- The actual location of each lease pad and access track alignment may vary within ~100 m to accommodate localised on-ground factors when the pads or tracks are being constructed. - Access to the lease pads and gravel pits require sections of the seismic lines on Tanumbirini Station to be retained and formed as a class 5 pastoral 2 (type c) unsealed track (lease pads) and class 5 pastoral 1 (type c) unsealed track (gravel pits) in accordance with NTG standard drawing CS3003 Typical of cross sections for urban and rural environments (2017) and will be implemented under the ESCP (Appendix K). - Lease pads and access track will be constructed in accordance with best practice erosion control measures. - At completion of the lease pad, gravel pits and access tracks use, the disturbed areas are to be restored and/or rehabilitated to original pre-disturbed condition consistent with surrounding land use.	2	2	L	1	2	L	L	Hierarchy of controls as per Risk Reference 1. Eng - ESCP typical treatments for lease pads, gravel pits and access tracks. - Stabilisation of disturbed areas prior to commencement of wet season. - Progressive rehabilitation of disturbed areas as activities are completed.					

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LAND – POLLUTION																				
9	Civil Construction – access tracks, water bore, lease pad and camp	Management of Land - Soil and Erosion	Soil contamination as a result of exploration activities. Description General camp and civil construction activities have potential to contaminate surrounding soils if storage and handling of hazardous materials and waste are not managed appropriately.	2	3	M	1	3	M	M	- Ensure the Spill Management Plan (Section 7.6) summarises spill response actions and follow-up actions. - Plan logistics to minimise the quantity of fuel stored on site. - Plan for designated waste storage and handling areas located away from creeks or flammable vegetation. - Hydraulic fluid and fuel drums are to be stored within portable bunding (portable storage bunds create permanent or temporary relocatable watertight bunds that we can manufacture to size required and meet Australian Standards) (refer Section 3.3.3). - Plan for removal and disposal of hazardous wastes to be in accordance with NT hazardous waste disposal requirements. - Include provisions for fuel management, spill response equipment and waste disposal in contracts. - Ensure procurement and transport of spill response equipment is provided for. - Ensure tankers have all safety and response equipment in place. - Ensure the availability of spill clean-up equipment for operations. - All loading, unloading, transfer and refuelling operations are to be undertaken in designated areas, with portable bunding and away from any sensitive receptors. - Ensure internal tracks used for transporting fuel are adequate and safe. All transport of fuel to be carried out during daylight hours. - Ensure that personnel are familiar with this spill prevention and response plan and site environmental inductions cover transport, storage, refuelling, response and clean-up activities. - Regular assessment of unsealed road undertaken to ensure the quality of the road is suitable for transport during wet season. - Any fuel storage tanks used during activities will be double-skinned and meet standards of AS 1940:2004.	2	1	L	1	2	L	L	Eng - Hydraulic fluid and fuel facilities/tanks are to be stored within portable bunding or in double-skinned fuel tanks, and placed away from any drainage lines or sensitive receptors (refer Section 3.3.5). - All loading, unloading, transfer and refuelling operations are to be undertaken in designated areas, with portable bunding and away from any sensitive receptors. - Spill response kits appropriate for types of spill at each facility and within each construction re-fuelling vehicle (PPE). Adm - Minimise the quantity of fuel and hydraulic oils stored on site to what is necessary to conduct activities. - SDS available for each chemical/fuel onsite and in vehicles (as required). - Personnel familiar with this spill prevention and response plan and site environmental inductions cover transport, storage, refuelling, response and clean-up activities. - Assess road and weather conditions prior to mobilising. - Spill Management Plan in event of spill event (refer Section 7.6.4 and Appendix M). - Monitoring and Auditing (refer Section 8.5 and	

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											vehicles where hydrocarbons and chemicals are stored and / or used. The SMP outlines various spill clean-up and disposal methods and equipment to be used for different types of spills.									
WATER – GROUNDWATER USE																				
12	Civil Construction, Water Bore Drilling and Camp Operation.	Groundwater	Contamination or pollution of groundwater through waste impact (e.g. ablution facility operations, refuelling, chemical storage etc.) Description - Spills or leaks from activities impacting on the potable and stock water supply. - Groundwater is the primary water source for the Barkly Region.	2	1	L	3	1	L	L	A Spill Management Plan (SMP) (Section 7.6) has been developed for the project that outlines procedures for spill prevention, spill response and spill clean-up. The SMP includes the following spill mitigation methods.	2	1	L	2	1	L	L	As per Risk Reference 9 and Hierarchy of controls as per Risk Reference 10.	
13	Civil Construction, Access, Water Bore Drilling and Camp Operation	Groundwater	Extraction of groundwater for the use during camp operations and civil construction activities impacting on groundwater supply for exploration operations and the wider area. Description - Pastoral groundwater bores suffer reduced groundwater yields. - Groundwater is the primary water source for the Barkly Region. - Groundwater extraction may impact on potential Groundwater Dependent Ecosystem (GDE) particularly in relation to stygofauna communities.	2	1	L	3	1	L	L	- Water extraction will be metered to ensure target use is not exceeded. - Recycle of the treated effluent for dust suppression may be considered and will be based on water quality.	2	1	L	1	1	L	L	Groundwater supply bores will be required to conduct civil construction activities. The cumulative impact of groundwater extraction for all Sweetpea’s proposed regulated activities assumes a maximum usage of 299 ML per annum in 2022. This groundwater extraction requirements associated with the regulated activities under this Civil and Water Bore EMP is estimated at 329.6 ML over the 4-year program (Section 6.2.1). Water is proposed to be extracted under a water extraction licence. Any water extraction license granted will have a limit to the amount of water extracted. Provided Sweetpea adheres to the terms of the granted water extraction license, environmental impacts to groundwater will be unlikely to occur and minor in consequence. In relation to impacts on GDE and Stygofauna, the known factors affecting the distribution of stygofauna include: - Stygofauna predominantly found in aquifers with large pore spaces. - Abundance and diversity of stygofauna decreases with depth below ground, with fauna rarely found more than 100 m below ground level (Hose, GC et al 2015).	

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16	Civil Construction-access track, water bores, lease pads and camp construction	Noise, Vibrations and Lighting	Impacts to stock Description Interference with pastoral activities if noise, vibration and lighting affects behaviour of stock.	1	1	L	-	-	-	L		1	1	L	-	-	-	L	Hierarchy of controls as per Risk Reference 14.		
WASTE MANAGEMENT																					
17	Civil Construction-access track, water bores, lease pads and camp construction	Waste	Contamination of soil or water through generation of or use of hazardous materials, domestic chemicals (detergents), industrial wastes and sewage. Description: - release of detergents into natural systems which may negatively affect some fauna - pollution of water through release of pollutants into nearby creeks - contamination of soil through inappropriate waste management.	2	2	L	1	2	L	L	- Controls detailed in Section 7.5 of the EMP for waste management include the following information: - A characterisation of the anticipated waste streams - The proposed method and location of water and waste storage, transportation, treatment, disposal and re-use - Strategies to minimise or reduce the volume of waste that will be disposed of off-site - Waste disposal records (tracking and disposal certificates) to be kept. - The controls detailed in the Spill Management Plan will prevent spills of hazardous materials and respond to and clean up any spills that do occur (refer to Risk reference 9 and 10). - All Sweetpea staff and contractors are to be informed about the WMP and SMP as part of their site induction. - All detergents to be used for camp operation must be biodegradable.	2	1	L	1	1	L	L	Hierarchy of controls as per Risk Reference 9. The WMP (Section 7.5) and SPRP (Section 7.6) are effectively implemented to ensure contamination impact from hazardous wastes are minor. The short timeframe for civil construction also makes the risk profile for contamination from hazardous substances low. Sweetpea require civil construction contractors to adhere to the DoH and WorkSafe requirements for all operations.		
18	Camp Operations	Waste	Encouragement of pest species to waste receptacles on the camp site. Description Incorrectly managing waste on site could potentially attract pest species.	1	3	M	1	2	L	M	All waste contaminants will be covered or contained within dedicated waste disposal bins to prevent tampering or be opened by fauna. This minimises the likelihood of feral animal and pest species coming onto site.	1	1	L	1	1	L	L	Hierarchy of controls as per Risk Reference 9. If wastes are stored and disposed of in an appropriate manner as planned the likelihood of pest species being attracted to camp is highly unlikely. If pest species are attracted to camp by wastes the impacts will be minor and short-term.		
AIR QUALITY																					
19	Civil Construction-access track, water bores, lease pads and camp construction	Air Quality and Emissions	Potential for an increase in dust during site preparation (clearing of access tracks, lease pads, gravel pits and camp area) and resulting from vehicular traffic Description	1	5	M	1	1	L	M	- Ensure dust minimisation and suppression requirements are communicated to personnel including contractors. - Ensure site environmental inductions for all site personnel and contractors include protective measures to minimise dust evolution.	1	3	L	1	1	L	L	<table><tr><td>Eng</td><td> - Implement dust control measures including use of water cart. - Retain vegetation as much as possible and stabilise disturbance before onset of wet season. </td></tr></table>	Eng	- Implement dust control measures including use of water cart. - Retain vegetation as much as possible and stabilise disturbance before onset of wet season.
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			The road network within the permit area is almost entirely unsealed and dust is generated as a result of vehicle movements upon these roads during the dry season. Dust generation also occurs on other areas of the permits where vehicles are used off the existing road system, such as on internal tracks, firebreaks and fence lines.							- All vehicles and equipment used on site will be well maintained to minimise emissions. - If dust levels are high, particularly in the vicinity of public areas (e.g. Carpentaria Highway), use a water truck to manage dust emissions. - Minimise vehicle movements to those necessary in the camp area. - Implement controls as detailed in the Land Management Plan (refer Section 7.2) - Rehabilitate the ground surface as soon as practicable following disturbance. - Uniformly re-spread previously removed vegetation and topsoil over disturbed area to assist with rehabilitation process through agencies of increased infiltration and return of seed-bearing topsoil.							<table><tr><td></td><td> - Stay within activity boundaries and to designated speed limits. </td></tr><tr><td>Adm</td><td> - Site environmental inductions, including protective measures to minimise dust evolution. - Monitoring and Auditing (refer Section 8.5 and Section 8.6). </td></tr></table> Impacts from the generation of dust on access roads will be limited to the vegetation in the immediate vicinity of roads and will be limited to the duration of exploration activities. If a water truck is used on site, then the likelihood of impacts from dust emissions are reduced from highly likely to possible. Impacts will remain minor and short-term.		Stay within activity boundaries and to designated speed limits.	Adm	- Site environmental inductions, including protective measures to minimise dust evolution. - Monitoring and Auditing (refer Section 8.5 and Section 8.6).
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20	Civil Construction-access track, water bores, lease pads and camp construction	Air Quality and Emissions	Potential for an increase in exhaust emissions from contractors' vehicles and generators resulting in localised effect on air quality and global contribution to greenhouse gases. Description Vehicle exhaust emissions are a current occurrence in the region, from users of the national highways and pastoral machinery. Portable diesel or petrol fuel generators may be used during the exploration phase and a larger diesel generator may be the only source of power and lighting for camp facilities.	1	1	L	1	1	L	L		1	1	L	1	1	L	L	Hierarchy of controls as per Risk Reference 19. Impacts from vehicle emissions will be minor and short-term.		
21	Civil Construction-access track, water bores, lease pads and	Air Quality and Emissions	Potential for dust generated to impact on health and functioning of the surrounding vegetation. Description Excessive dust deposited onto plant foliage can	1	5	M	1	1	L	M		1	3	L	1	1	L	L	Hierarchy of controls as per Risk Reference 19. The use of a water truck during exploration activities will reduce the likelihood of vegetation being impacted by dust. Effective		

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	camp construction		reduce the photosynthetic performance (photosynthesis, stomata conductance, transpiration etc.), thus reducing overall health and plant growth (Hirano 1995) although the type and severity of impacts is largely unknown. On the drill site, the extended dry season could result in high levels of dust generation by vehicular movement unless dust suppression methods are undertaken.																mitigation will ensure that dust impact to vegetation will be minor and short-term.						
FLORA, FAUNA, VEGETATION AND HABITAT																									
22	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Vegetation and Flora	Disturbance to native vegetation and flora and potential to change of vegetation structure Description - Direct impact to vegetation and flora species will occur during clearing for the lease pad, access tracks, gravel pits and camp site. - Slow growth of some vegetation, such as Lancewood/Bullwaddy.	2	5	M	1	1	L	M	- Minimise vegetation clearance by using existing access tracks and disturbed areas as much as possible. - Where practicable, align lease pads and access tracks to avoid mature trees and Lancewood / Bullwaddy areas which require longer to regenerate follow rehabilitation. Noted some areas unable to avoid. - Ensure site environmental inductions for all site personnel and contractors include the management of onsite vegetation and flora, including site personnel to stay within designated access roads and work areas. - Minimise disturbance in the riparian buffers in accordance with the stream order of the encountered drainage line in accordance with Appendix K ESCP. - Clearing to be conducted in accordance with the vegetation clearing protocol including utilising trained fauna spotter/catchers. - Strip and stockpile topsoil and surface material at camp area, lease pad, access tracks and gravel pits for use in regeneration or revegetation if possible. - Minimise vehicle movements during dawn and dusk to minimise risk of fauna strikes. - Restrict vehicle movement to designated disturbance areas only as detailed in Table 3.	2	3	L	1	1	L	L	<table><tr><td>Eliminate</td><td> - Minimise vegetation clearance by using existing access tracks and disturbed areas as much as possible. </td></tr><tr><td>Eng</td><td> - Align lease pads and access tracks to avoid mature trees and Lancewood / Bullwaddy areas which require longer to regenerate follow rehabilitation. - Strip and stockpile topsoil and surface material at camp area for use in regeneration or revegetation if possible. - Ongoing maintenance of access tacks and lease pads. </td></tr><tr><td>Adm</td><td> - Implement Rehabilitation Plan (Appendix F). - Site environmental inductions for all site personnel and contractors include the management of onsite vegetation and flora, including site personnel to stay within designated </td></tr></table>	Eliminate	Minimise vegetation clearance by using existing access tracks and disturbed areas as much as possible.	Eng	- Align lease pads and access tracks to avoid mature trees and Lancewood / Bullwaddy areas which require longer to regenerate follow rehabilitation. - Strip and stockpile topsoil and surface material at camp area for use in regeneration or revegetation if possible. - Ongoing maintenance of access tacks and lease pads.	Adm	- Implement Rehabilitation Plan (Appendix F). - Site environmental inductions for all site personnel and contractors include the management of onsite vegetation and flora, including site personnel to stay within designated
Eliminate	Minimise vegetation clearance by using existing access tracks and disturbed areas as much as possible.																								
Eng	- Align lease pads and access tracks to avoid mature trees and Lancewood / Bullwaddy areas which require longer to regenerate follow rehabilitation. - Strip and stockpile topsoil and surface material at camp area for use in regeneration or revegetation if possible. - Ongoing maintenance of access tacks and lease pads.																								
Adm	- Implement Rehabilitation Plan (Appendix F). - Site environmental inductions for all site personnel and contractors include the management of onsite vegetation and flora, including site personnel to stay within designated																								

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment						Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment						ALARP Discussion (Hierarchy of Controls)			
				Environment and Community			Law, Regs and Civil Action				Risk	Environment and Community			Law, Regs and Civil Action				Risk	
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood				Risk Level
											- Vehicle speed restrictions apply when travelling in permit (60 km/hr on unsealed roads in proximity (<200 m) to sensitive receptors) or drive to condition. - Retain topsoil, scrub and vegetation cleared to facilitate rehabilitation. - Rehabilitate the ground surface to near-natural condition. - Uniformly re-spread previously removed vegetation and topsoil over disturbed area to assist with rehabilitation process through agencies of increased infiltration and return of seed-bearing topsoil. - Refer to Section 9.0 and Appendix F.									- access roads and work areas. - Speed restrictions (60 km/hr on access tracks) - Monitoring and Auditing (refer Section 8.5 and Section 8.6).
23	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Vegetation and Flora	Impact to listed threatened flora habitat	2	1	L	1	1	L	L		2	1	L	1	1	L	L	Hierarchy of controls as per Risk Reference 22. A desktop review of the project area revealed that threatened Commonwealth or NT listed flora species are unlikely be significantly impacted by activities.	
24	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Fauna	Injury or death of native fauna and cattle Description - Impacts to fauna within the vicinity of exploration activities, through the physical presence of machinery and people, are likely to occur. - Injury or death to native fauna and livestock.	2	5	M	1	1	L	M	- Site inductions will ensure that all personnel are aware of their obligations and know the correct procedures for fauna encounters. - Access tracks will avoid sensitive areas of fauna habitat wherever possible, such as Lancewood-Bullwaddy communities. - Common terrain or vegetation types will be favoured for access tracks because they will generally have lower habitat significance. - Vehicle movement will be restricted to existing access tracks within permit to 60 km /hr. - Driving on site will be restricted to daytime hours only. - Land clearing for lease pads and gravel pits to be conducted in accordance with the vegetation clearing protocol including utilising trained fauna spotter/catchers (areas of clearing vegetation greater than 1 ha in one location).	2	3	L	1	1	L	L	Hierarchy of controls as per Risk Reference 22. Civil construction activities may cause some disturbance but is unlikely to cause fauna mortality and impacts will be minor and short-term. The risk profile to native fauna is therefore low. It is anticipated that spotter/catchers will only be required in areas of clearing vegetation greater than 1 ha in one location (i.e. Lease Pads or Gravel Pits). It is unlikely that spotter/catchers for linear clearing activities (i.e. access tracks) will be required due to the methods employed that avoid wherever possible the removal of larger trees (including Corymbia and Eucalypt species) with a trunk diameter greater than 25 cm at 1.3 m.	
25	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Fauna	Loss of habitat Description - Disturbance to and loss of habitat, particularly through civil construction and water bore drilling pad establishment. - Bushfire	2	5	M	1	1	L	M		2	3	L	1	1	L	L	Hierarchy of controls as per Risk Reference 22 and 35 (Bushfire). The extent of native vegetation clearing for the project will be minor at a landscape scale. Provided sensitive habitats are avoided the consequence of clearing native vegetation will be minor.	

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment							Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment							ALARP Discussion (Hierarchy of Controls)								
				Environment and Community			Law, Regs and Civil Action			Risk		Environment and Community			Law, Regs and Civil Action			Risk									
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level										
26	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Fauna	Loss or endangerment of Threatened fauna species Description Civil construction activities may impact the habitat of listed Threatened fauna species.	2	4	M	1	1	L	M		2	3	L	1	1	L	L	Hierarchy of controls as per Risk Reference 22. A desktop assessment of the project area revealed that five threatened fauna species may occur. The project area is highly unlikely to hold a Nationally significant population of any of these species, therefore the consequence of impacts to native fauna is reduced. If mitigation measures are effectively implemented the risk profile will remain low.								
27	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Fauna	Fauna injury or mortality - Vehicle Strike Description Fauna injury or mortality from road collisions is a high-risk factor for fauna. The risk is more pronounced at night-time when nocturnal wildlife often gathers on roads.	2	4	M	1	1	L	M	- Vehicle movement will be restricted to existing access tracks. - Speed limit of 60 km /hr whilst on permit area. - Driving on site will be restricted to daytime hours only, wherever possible. - Ensure site environmental inductions for all site personnel and contractors include the management of onsite vegetation and flora, including site personnel to stay within designated access roads and work areas.	2	3	L	1	1	L	L	Hierarchy of controls as per Risk Reference 20. Fauna mortality due to vehicle collision is a common occurrence on Australian roads and it is hard to avoid, especially when driving at night. Of the five threatened species identified as potentially occurring within the project area only the Plains Death Adder (<i>Acanthopsis hawkei</i>) would possibly be struck by a vehicle at night. The implementation of suitable speed limits (maximum 60 km/hr on permit area) and restricting night-time driving will reduce the likelihood of impacts occurring.								
WEEDS																											
28	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Introduction and Spread of Weeds	Transport of weeds Description Transport of weeds or other exotic species and plant diseases between regions through Transport operations that may compromise ecological integrity and impact pastoral and cultural activities in the area.	3	4	M	1	4	M	M	- A Weed Management Plan (WMP) (Appendix H) has been developed for the project that includes the following information: - Baseline weed assessments prior to regulated activities being undertaken - Ongoing weed monitoring - Weed prevention methods - Weed treatment - Provision of a dedicated weed officer. - Source machinery locally if available. - Ensure contractual requirements specify vehicle hygiene requirements, specifically that all equipment is cleaned and to have valid weed hygiene declaration prior to accessing pastoral properties. - Allow enough time and budget for weed survey, monitoring and control activities during and post exploration.	2	1	L	1	1	L	L	<table><tr><td>Eli</td><td> - Corrective action initiated immediately where weed outbreaks are reported. </td></tr><tr><td>Sub</td><td> - Source machinery locally if available to avoid importation of exotic weeds. </td></tr><tr><td>Eng</td><td> - All plant and machine operators to monitor for weeds during civil construction, including routine checks along access track and change in vegetation community. </td></tr><tr><td>Adm</td><td> - Site environmental inductions, including trained in weed identification and reporting. </td></tr></table>	Eli	Corrective action initiated immediately where weed outbreaks are reported.	Sub	Source machinery locally if available to avoid importation of exotic weeds.	Eng	All plant and machine operators to monitor for weeds during civil construction, including routine checks along access track and change in vegetation community.	Adm	Site environmental inductions, including trained in weed identification and reporting.
Eli	Corrective action initiated immediately where weed outbreaks are reported.																										
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Eng	All plant and machine operators to monitor for weeds during civil construction, including routine checks along access track and change in vegetation community.																										
Adm	Site environmental inductions, including trained in weed identification and reporting.																										
29	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Introduction and Spread of Weeds	Degradation of the existing environment – introduction of weeds Description Weeds can have a range of deleterious impacts to the landscape ecosystem,	2	3	M	1	1	L	M		2	2	L	1	1	L	L									

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment						Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment						ALARP Discussion (Hierarchy of Controls)			
				Environment and Community			Law, Regs and Civil Action				Risk	Environment and Community			Law, Regs and Civil Action				Risk	
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood				Risk Level
			such as altering fire regimes.								- All staff to be trained in weed identification and reporting. - Weed surveys are to be conducted in all activity areas to establish a baseline, inform weed control activities and compare post-activity vegetation with the baseline (refer Appendix C and Appendix H). - Ensure machinery is clean and free from mud and plant material prior to entering or leaving the exploration area. - Site inductions are to ensure that all personnel are aware of vehicle weed hygiene requirements and staying on designated areas and existing access tracks. - The most appropriate and applicable cleaning procedure is visual inspection and dry removal. This will reveal vegetative material caught in the underbody, moving parts of machinery or any other part of the vehicle or machine and the materials located could be manually removed or removed with the assistance of compressed air. With this method, there is no requirement to be able to distinguish between weed and native species, as all vegetative matter will be removed. - If an outbreak of a declared weed occurs during exploration activities weed treatment is to be undertaken as soon as possible to control and eradicate the infestation, with treatment undertaken according to guidelines on the DEPWS website. The Northern Territory Weed Control Handbook (DENR, 2018) will also serve as a reference (DENR, 2018) (refer Appendix H). - All plant and machine operators to monitoring for weeds during civil construction, including routine checks at change in vegetation community. - All vehicles, plant and equipment to be checked and cleaned prior to demobilisation from exploration area to avoid the spread of weeds off the EP. - Ongoing monitoring of rehabilitated areas in accordance with the rehabilitation approach to ensure declared weed species become established interfering with the rehabilitation success (refer Section 9.0 and Appendix F), including photo monitoring. - A post-exploration weed control program is to be undertaken within the exploration area if NT <i>Weeds Management Act 2001</i> declared weed is identified.								- Monitoring and Auditing (refer Section 8.5 and Section 8.6), including Photo Monitoring. - Spatial data before and after to confirm stayed within survey parameters. If weed prevention, monitoring and treatment mitigation measures (as per the Appendix H) are effectively implemented the likelihood and consequence of weed impacts will be reduced.	
30	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Introduction and Spread of Weeds	Harmful effects of certain weed species on livestock or native fauna Description Some weed species are harmful to livestock and native fauna. The weeds could be poisonous or potentially compete with the pasture within the properties.	1	1	L	1	3	L	L		1	1	L	1	1	L	L		

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment							Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment							ALARP Discussion (Hierarchy of Controls)						
				Environment and Community			Law, Regs and Civil Action			Risk		Environment and Community			Law, Regs and Civil Action			Risk							
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level								
FERAL ANIMAL AND PEST SPECIES																									
31	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Feral Animals and Other Pest Species	Introduction of feral animals and pest species - impacts to native fauna Description - Introduced predators can impact native such as reptiles, and ground-dwelling birds. - Pest species could be attracted to the camp site, potentially increasing their abundance in the landscape.	1	1	L	1	1	L	L	- No domestic animals are to be brought to site - All rubbish, including food packaging, is to be discarded into appropriate sealed waste container as soon as possible, to be transported off site and later disposed - Solid domestic waste storage areas will have lids and protective barriers installed that restrict access to pest species - Waste is to be removed from site as soon as reasonably practicable.	1	1	L	1	1	L	L	<table><tr><td>Eng</td><td> - Ensure waste is managed correctly to prevent attracting pest fauna. - Rehabilitation efforts post construction can be hindered by feral animal and pest species accessing the lease areas. </td></tr><tr><td>Adm</td><td> - Monitoring and Auditing (refer Section 8.5 and Section 8.6), including Photo Monitoring. - Records of observed presence, with identification of pest if possible, will be maintained within Sweetpea’s GIS and if required provided to DEPWS. </td></tr><tr><td colspan="2">If waste is managed and disposed of in an appropriate manner, as specified in the Section 7.5 Waste Management Plan (WMP) the risk profile of feral animal impacts to native fauna will remain low.</td></tr></table>	Eng	- Ensure waste is managed correctly to prevent attracting pest fauna. - Rehabilitation efforts post construction can be hindered by feral animal and pest species accessing the lease areas.	Adm	- Monitoring and Auditing (refer Section 8.5 and Section 8.6), including Photo Monitoring. - Records of observed presence, with identification of pest if possible, will be maintained within Sweetpea’s GIS and if required provided to DEPWS.	If waste is managed and disposed of in an appropriate manner, as specified in the Section 7.5 Waste Management Plan (WMP) the risk profile of feral animal impacts to native fauna will remain low.	
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32	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Feral Animals and Other Pest Species	Introduction of diseases associated with feral and pest species may impact upon existing habitats, vegetation, native fauna and livestock. Description Feral cats and dogs spread diseases that affect livestock and wildlife. Diseases can cause abortions in livestock which reduces farmers' productivity and create scar tissue in livestock meat which reduces farmers' incomes.	1	1	L	1	1	L	L	1	1	L	1	1	L	L								
33	Civil Construction-access track, water bores, lease pads and camp construction	Natural Environment - Feral Animals and Other Pest Species	Damage of vegetation or natural habitat through feral animal activity Description Hard-hoofed feral animals such as camels, horses and donkeys have a major effect on native vegetation by damaging soil and overgrazing on native herbs, grasses, shrubs and trees.	1	1	L	1	1	L	L	1	1	L	1	1	L	L								
34	Civil Construction-access track,	Natural Environment - Feral Animals	Feral animal nuisance around campsites and domestic waste material	1	1	L	1	1	L	L		1	1	L	1	1	L	L							

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment						Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment						ALARP Discussion (Hierarchy of Controls)		
				Environment and Community			Law, Regs and Civil Action				Risk	Environment and Community			Law, Regs and Civil Action			Risk	
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood			Risk Level
	water bores, lease pads and camp construction	and Other Pest Species	Description Feral animals can be attracted to campsites by the smell of food and rubbish. They may find and scatter rubbish and hang around the camp.																
LAND – BUSHFIRE																			
35	Civil Construction-access track, water bores, lease pads and camp construction	Bushfire	The civil construction activities may increase the risk of accidental bushfires and change the fire regime Description - Increased incidence and intensity of bushfires can lead to vegetation degradation and habitat modification. - Bullwaddy and Lancewood communities are fire sensitive. Inappropriate fire regimes may result in a community succession from Bullwaddy through Lancewood to a Eucalypt dominated open woodland (PWCNT, 2005).	1	1	L				L	- A Bushfire Management Plan (BMP) (Appendix I) has been developed that includes the following information: - Analysis of baseline fire information (at least 10 years) - Analysis of impacts of the proposed activities on the existing fire management regime - Coordination with the landholder and other land users and consistency with the landholder’s fire management obligations and strategies - No hot works are permitted on total fire ban days without written approval from a fire control officer or fire warden - Implementation of the interest holder’s appropriate fire mitigation measures such as: -Monitoring of seasonal conditions and fuel loads -Maintenance of fire access trails and fire breaks around infrastructure -Controlled burns -Communication system for monitoring bushfire alerts in the area - Annual fire mapping to monitor changes to fire frequency in the relevant area - Monitor the NAFI website and adhere to total fire ban days. Updates provided at daily toolbox meetings. - Fire extinguishers fitted to all vehicles - All personnel and contractors will be informed about the key features of the BMP as part of their induction - Clean out vehicle engine bay regularly, with special attention paid on red alert days, to prevent grass igniting on the hot vehicle components - Smoking only allowed in designated smoking areas. - Mobilise water cart to be on site during construction activities. The Bushfire Management Plan and the specific controls incorporated into the plan have considered previous	1	1	L	1	1	L	L	Eli - Hot works not permitted on total Fire Ban Days. - Civil construction activities in grassed areas will managed to reduce the build-up of fuel within the vehicle’s engine bays. - Regular inspections of vehicle’s engine bay and remove any build-up of vegetated matter.
36	Civil Construction-access track, water bores, lease pads and camp construction	Bush Fire	The civil construction activities may increase the risk of accidental bushfires and change the fire regime.	3	2	M				M		3	1	L	1	1	L	Sub Not applicable.	
37	Civil Construction-access track, water bores, lease pads and camp construction	Bush Fire	The civil construction activities may increase the risk of accidental bushfires and change the fire regime Description Fire could cause damage to culturally significant sites.	1	1	L				L	- All personnel and contractors will be informed about the key features of the BMP as part of their induction - Clean out vehicle engine bay regularly, with special attention paid on red alert days, to prevent grass igniting on the hot vehicle components - Smoking only allowed in designated smoking areas. - Mobilise water cart to be on site during construction activities.	1	1	L	1	1	L	Eng 4 m fire access trail around camp site and lease pad. - Monitor NAFI to identify any severe, extreme and catastrophic Fire Danger Index (FDI) days and assess risk of conducting activities on such days and if additional controls are required to conduct the day’s activities. - Water cart to be within 100 m of civil construction activities.	
																	Adm - Bushfire Management Plan (Appendix I), including engaging with Bushfires NT and pastoral leaseholders in the area. - Bushfire Management Plan to note location of culturally significant sites that may require additional protection in event of fire.		

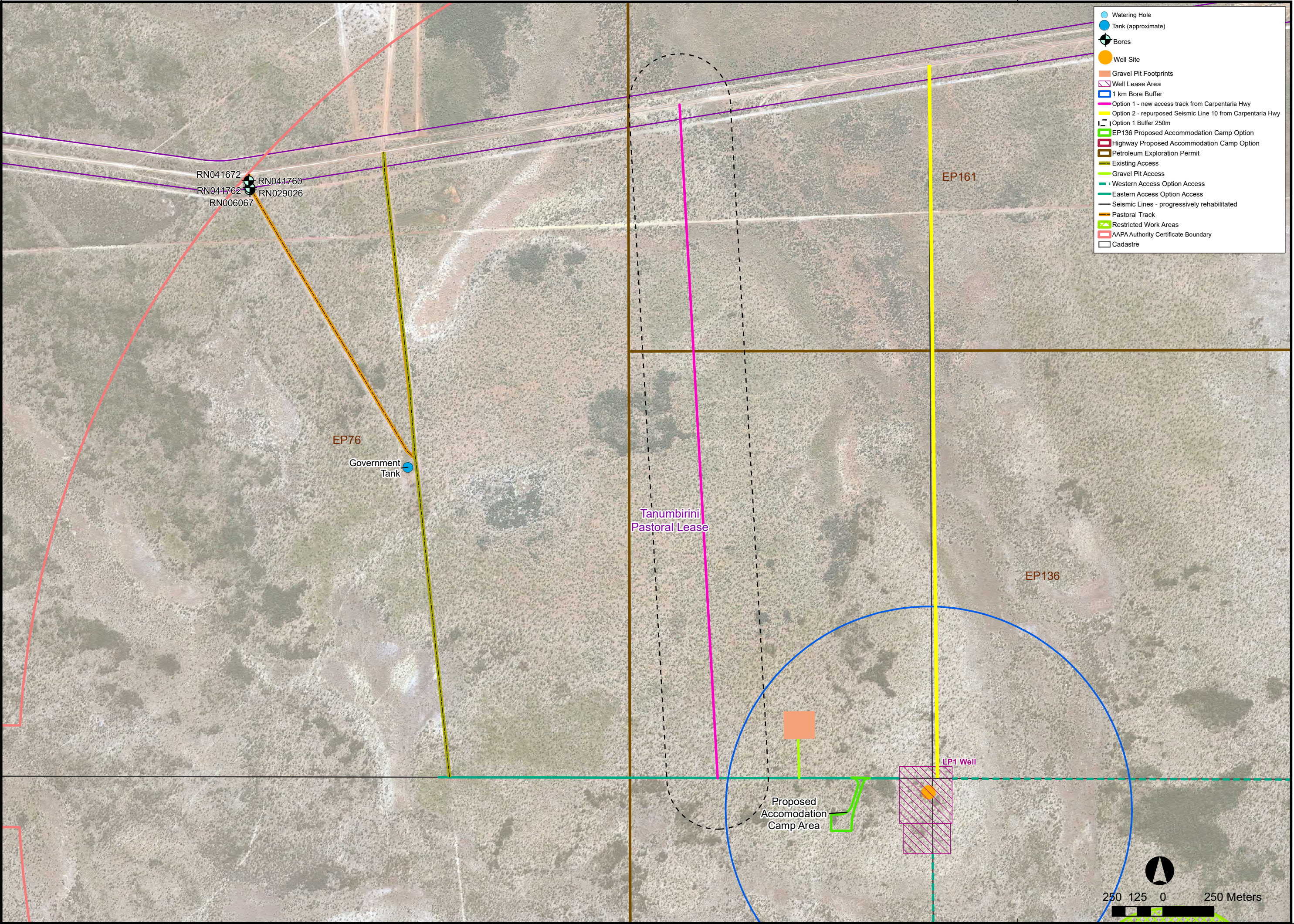
Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment							Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment							ALARP Discussion (Hierarchy of Controls)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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											industry experience for similar activities in the Beetaloo Basin (Imperial Energy Incident Report available on DEPWS Recordable incident report website).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</

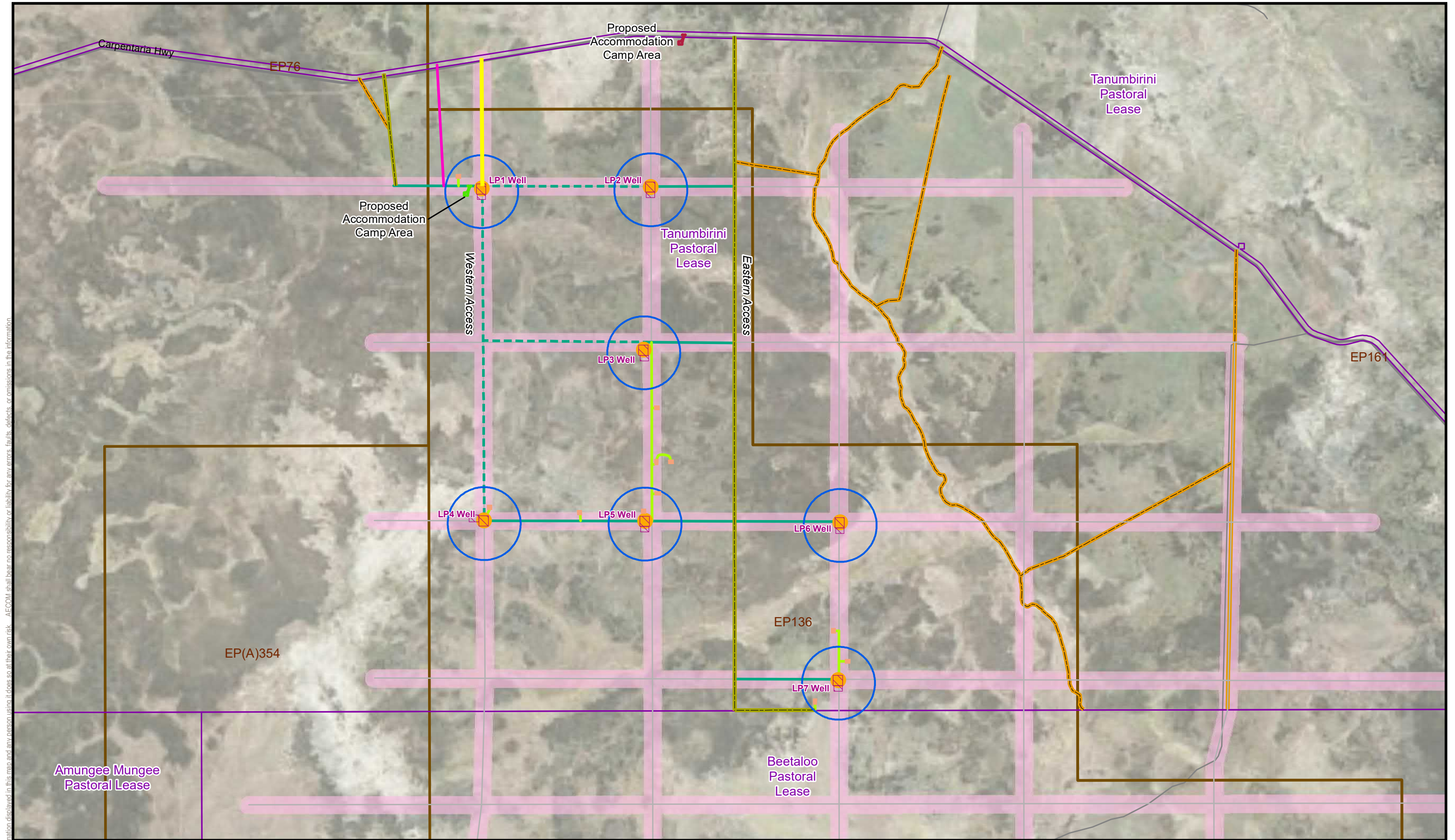
Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment							Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment							ALARP Discussion (Hierarchy of Controls)
				Environment and Community			Law, Regs and Civil Action			Risk		Environment and Community			Law, Regs and Civil Action			Risk	
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level		
	camp construction		Personnel are more likely to cause damage if they remain unaware of culturally significant artefacts, areas or species that occur within the project area.																sacred sites making it highly unlikely that these areas will be impacted. A number of RWA have conditions that need to be met which the project will adhere to. Site inductions will aim to make personnel aware of their responsibilities regarding RWAs and cultural heritage in general. This will reduce the extent of impacts to cultural heritage within the project area.
PEOPLE AND COMMUNITY																			
40	All Activities	People and Community	Restrict access to area and/or interfere with pastoral operations and Traditional Owners activities during exploration activity.	2	3	M	2	3	M	M	- Site inductions are to ensure that all personnel are aware of and understand social constraints of working with in the permit area, including conditions specified in the Land Access Agreement with the host pastoral leaseholder. - All workers will be required to attend cultural awareness training and Sweetpea’s code of conduct. - Work instruction to be issued to all contractors relating to access constraints (Work Instruction – Access). - NLC is consulted through the ministerial office and agreements in place. - Consult with other relevant land users and public interest groups, such as pastoral leaseholders, Aboriginal communities, natural resource managers, conservation groups, tourism operators and other affected parties, to exchange information and facilitate good working relationships as required. - Seek advice from the NLC on appropriate persons to fulfil the role of Aboriginal Liaison Officer, who can speak for certain areas and on behalf of certain groups. - Provide a Work Program for each year’s proposed activities to the NLC and other regulatory bodies, which includes site-specific environmental and cultural issues, likely impacts and their mitigation (conducted August 2020 and schedule early 2021). - Prior to commencement onsite, communicate with pastoral leaseholders for access permission. Provide detail of the time and dates proposed to be on site, and the location, in advance of works commencing according to the regulations, including detailed maps showing pastoral infrastructure (i.e. bore runners/paddock maps).	2	2	L	2	2	L	L	Adm - Land Access Agreements - Native Title Exploration Agreement - Site inductions are to ensure that all personnel are aware of and understand social constraints of working with in the permit area, including conditions specified in the Land Access Agreement with the host pastoral leaseholder, as well as Cultural constraints (refer Section 7.12). - Daily engagement with station manager and station personnel during activities to monitor potential disturbances to cattle and jointly arrive at reasonable solutions to mitigate any observed effects. - Monitoring and Auditing (refer Section 8.5 and Section 8.6).
41	All Activities	People and Community	Lack of consultation with stakeholders resulting in adverse community perception.	3	3	M	-	-	-	M		3	1	L	-	-	-	L	
42	All Activities	People and Community	Increase traffic on public roads due to exploration activities.	2	2	L	-	-	-	L		2	1	L	-	-	-	L	
43	All Activities	People and Community	Facilitation of unwanted access to lease area through the creation and improvement or use of access tracks.	1	1	L	-	-	-	L		1	1	L	-	-	-	L	

Risk #	Activity Description	Aspect	Impact	Inherent Risk Assessment							Mitigation Measures (Note preliminary mitigation summary, full mitigation required are presented in Section 7.0 of the EMP and associated Appendices))	Residual Risk Assessment							ALARP Discussion (Hierarchy of Controls)	
				Environment and Community			Law, Regs and Civil Action			Risk		Environment and Community			Law, Regs and Civil Action			Risk		
				Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			Consequence	Likelihood	Risk Level	Consequence	Likelihood	Risk Level			
											- LACA to be in place with each station prior to commencement of the regulated activity in the permit area. - Routine engagement with station manager and station personnel during activities to monitor potential disturbances to cattle and jointly arrive at reasonable solutions to mitigate any observed effects. - Local businesses to be assessed and utilised where possible to deliver the exploration program. - A community contact number will be provided in communications correspondence. - On completion of exploration activities rehabilitation will commence in accordance with the Rehabilitation Plan and monitoring instigated to ensure successful restoration of the activity areas (Section 9.0). - Engage with pastoral leaseholders on the rehabilitation areas to determine potential interaction with pastoral operations with the rehabilitation success.									

APPENDIX B Updated EMP Figures

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Projection: GDA 1994 MGA Zone 53

2 1 0 2 km

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- Well Site
 - Option 1 - new access track from Carpentaria Hwy
 - Option 2 - repurposed Seismic Line 10 from Carpentaria Hwy
 - Existing Access Track
 - Gravel Pit Access Track
 - Western Access Option Access
 - Eastern Access Option Access
- Seismic Lines - progressively rehabilitated
 - Pastoral Track
 - Highway
 - Roads
 - 250 m buffer to Seismic Line
 - Gravel Pit Footprints
 - Well Lease Area
 - 1 km Bore Buffer
- EP136 Proposed Accommodation Camp Option
 - Highway Proposed Accommodation Camp Option
 - Native Title Register
 - Petroleum Exploration Permit

DARWIN

EP136

Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

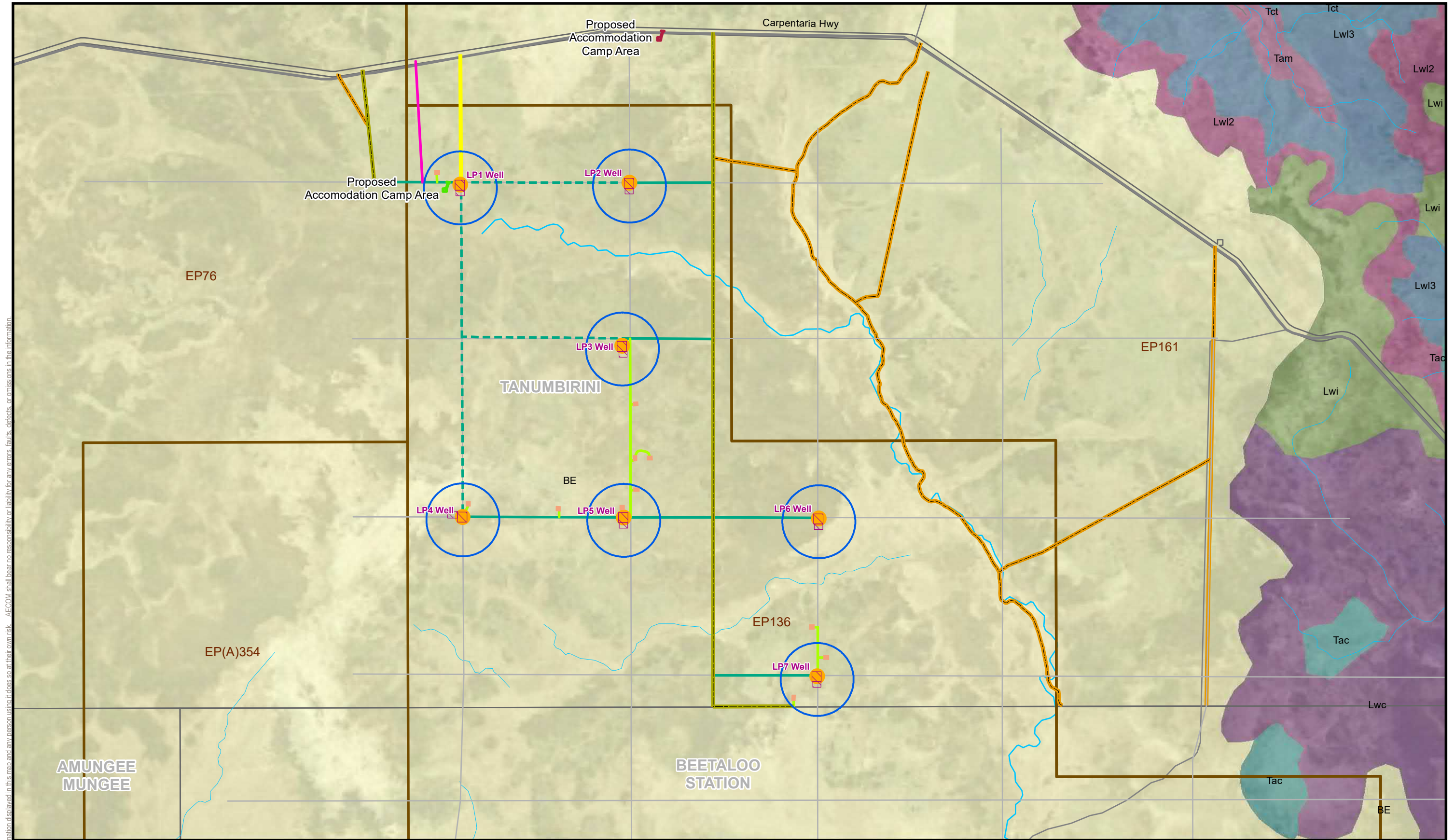
Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP

Location of Lease Pads, Gravel Pits,
Camp Pads, Seismic Lines and
Access Tracks

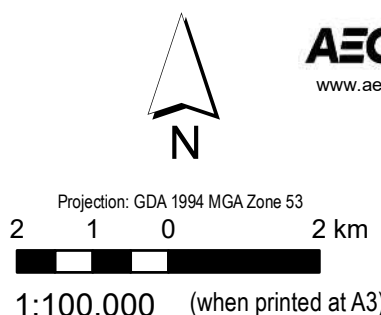
PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	21-May-2022
VERSION	1

Figure

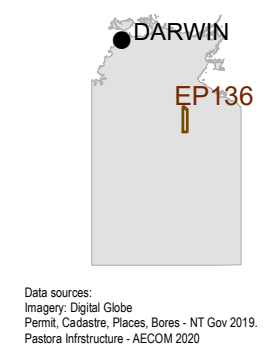
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- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none">Well SiteGravel Pit FootprintsWell Lease Area1 km Bore BufferEP136 Proposed Accommodation Camp OptionHighway Proposed Accommodation Camp OptionPetroleum Exploration Permit | <ul style="list-style-type: none">Option 1 - new access track from Carpentaria HwyOption 2 - repurposed Seismic Line 10 from Carpentaria HwyExisting AccessGravel Pit AccessWestern Access Option Access TrackEastern Access Option Access Track | <ul style="list-style-type: none">Seismic Lines - progressively rehabilitatedPastoral TrackRoadsCadastre <p>Land Systems</p> <ul style="list-style-type: none">Beetaloo (BE)Coolibah (Tac)Cresswell (Lwc)Inacumba (Lwi) | <ul style="list-style-type: none">Lancewood 2 (Lwl2)Lancewood 3 (Lwl3)McArthur (Tam)Tanumbirini (Tct) |
|---|---|--|--|



Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

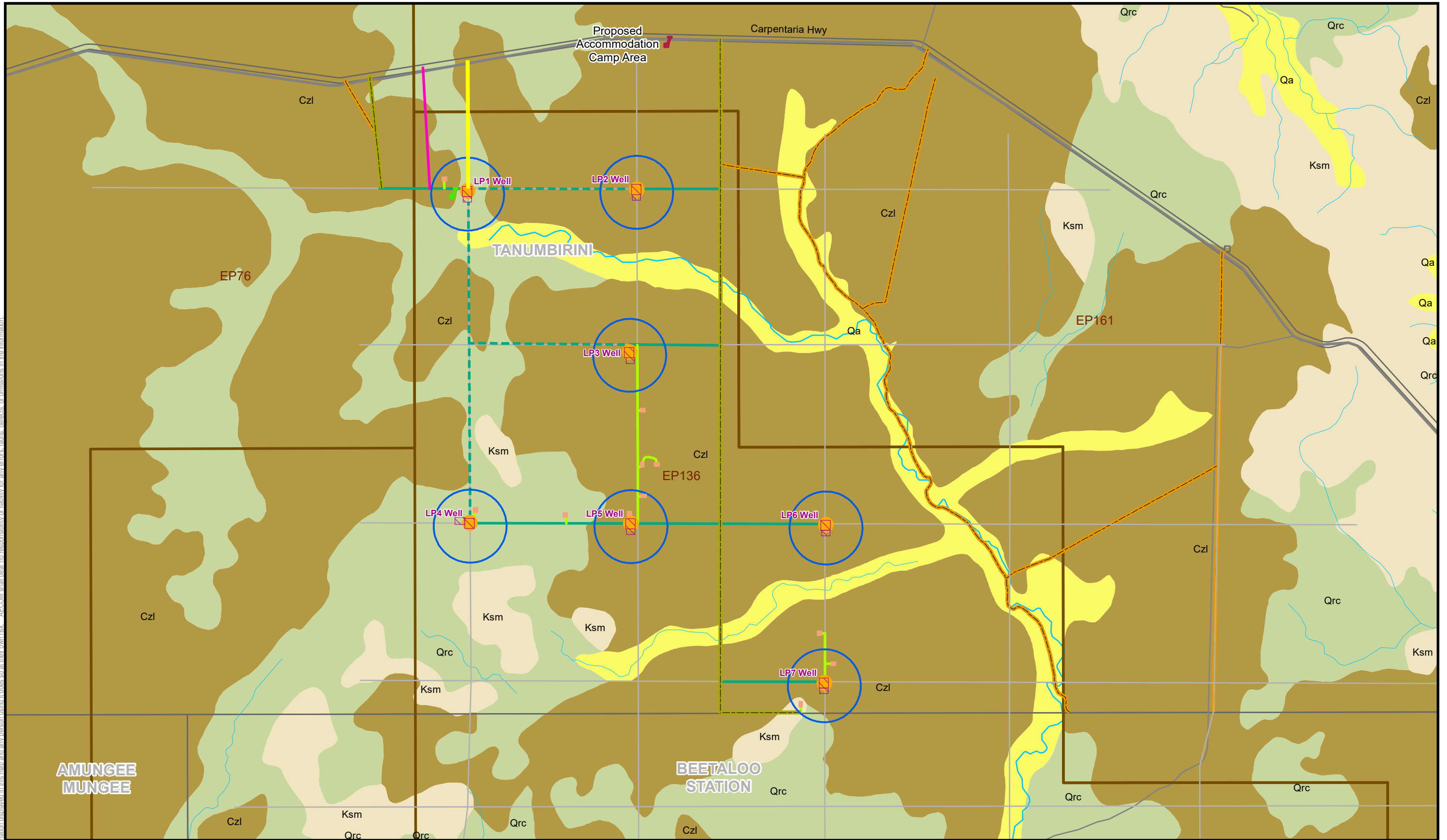
**Land Systems within
the Civil Construction Program**

PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	21-May-2022
VERSION	1

Figure

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Projection: GDA 1994 MGA Zone 53

2 1 0 2 km

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- Well Site

Gravel Pit Footprints

Well Lease Area

1 km Bore Buffer

EP136 Proposed Accommodation Camp Option

Highway Proposed Accommodation Camp Option

Petroleum Exploration Permit

Option 1 - new access track from Carpentaria Hwy

Option 2 - repurposed Seismic Line 10 from Carpentaria Hwy

Existing Access Track

Gravel Pit Access Track

Western Access Option Access Track

Eastern Access Option Access Track

Seismic Lines - progressively rehabilitated

Pastoral Track

Roads

Cadastre

- Geology**
- Czl-lateritic duricrust
 - Ksm-sandstone
 - Qa-alluvial sediment
 - Qrc-sand, gravel

Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

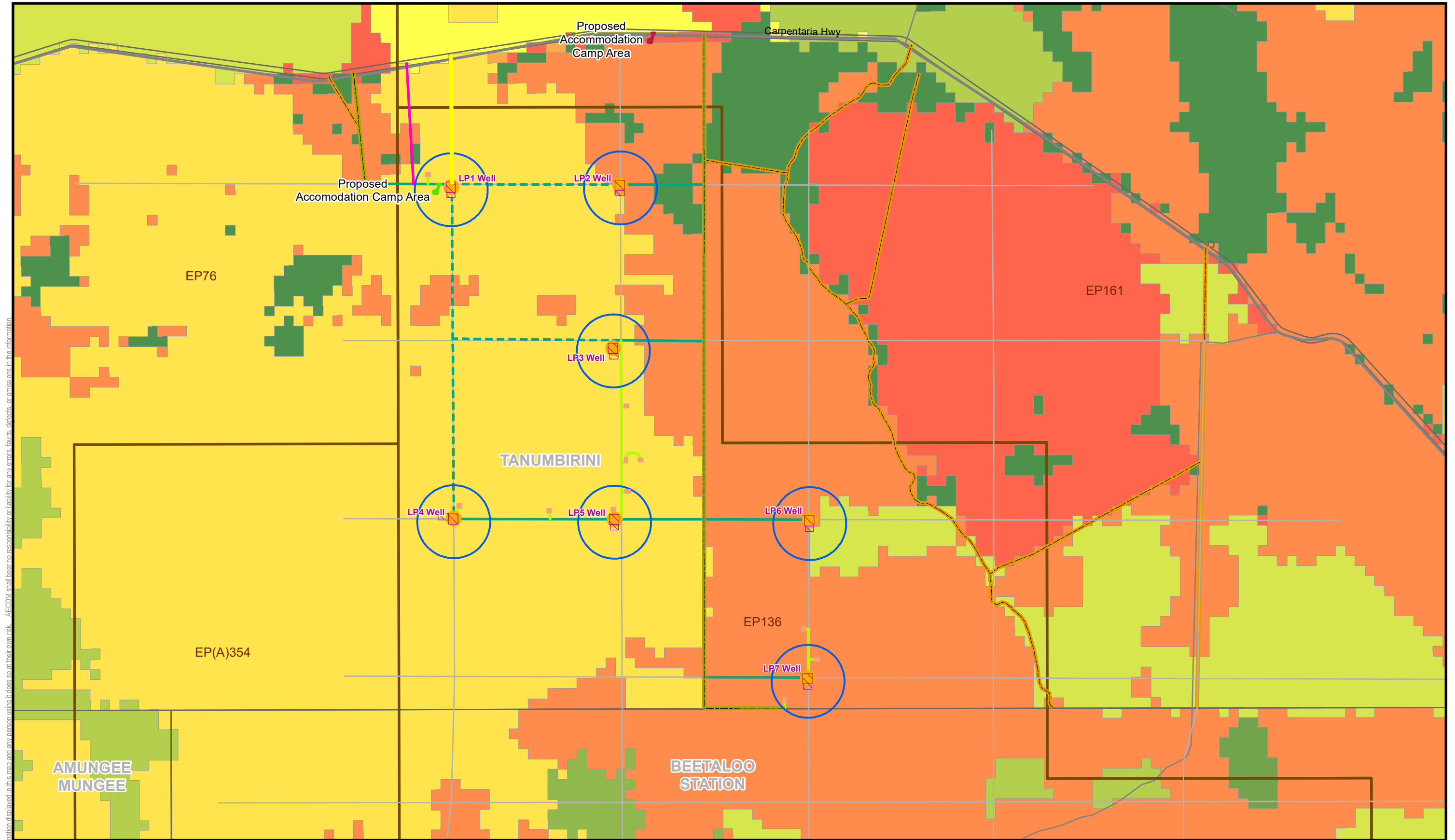
Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP

Geology within
EP136 Exploration Area

PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	21-May-2022
VERSION	1

Figure

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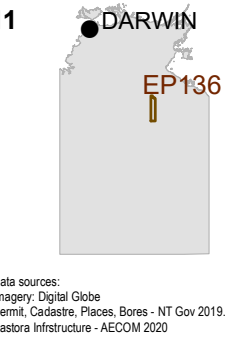
2 1 0 2 km

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- Well Site
 - Gravel Pit Footprints
 - Well Lease Area
 - 1 km Bore Buffer
 - EP136 Proposed Accommodation Camp Option
 - Highway Proposed Accommodation Camp Option
 - Petroleum Exploration Permit
- Option 1 - new access track from Carpentaria Hwy
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 - Gravel Pit Access Track
 - Western Access Option Access Track
 - Eastern Access Option Access Track
 - Seismic Lines - progressively rehabilitated
 - Pastoral Track
 - Roads
 - Cadastre
- Number of Years Burnt since 2011**

0 1 2 3 4 5 6 8 9 10



Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

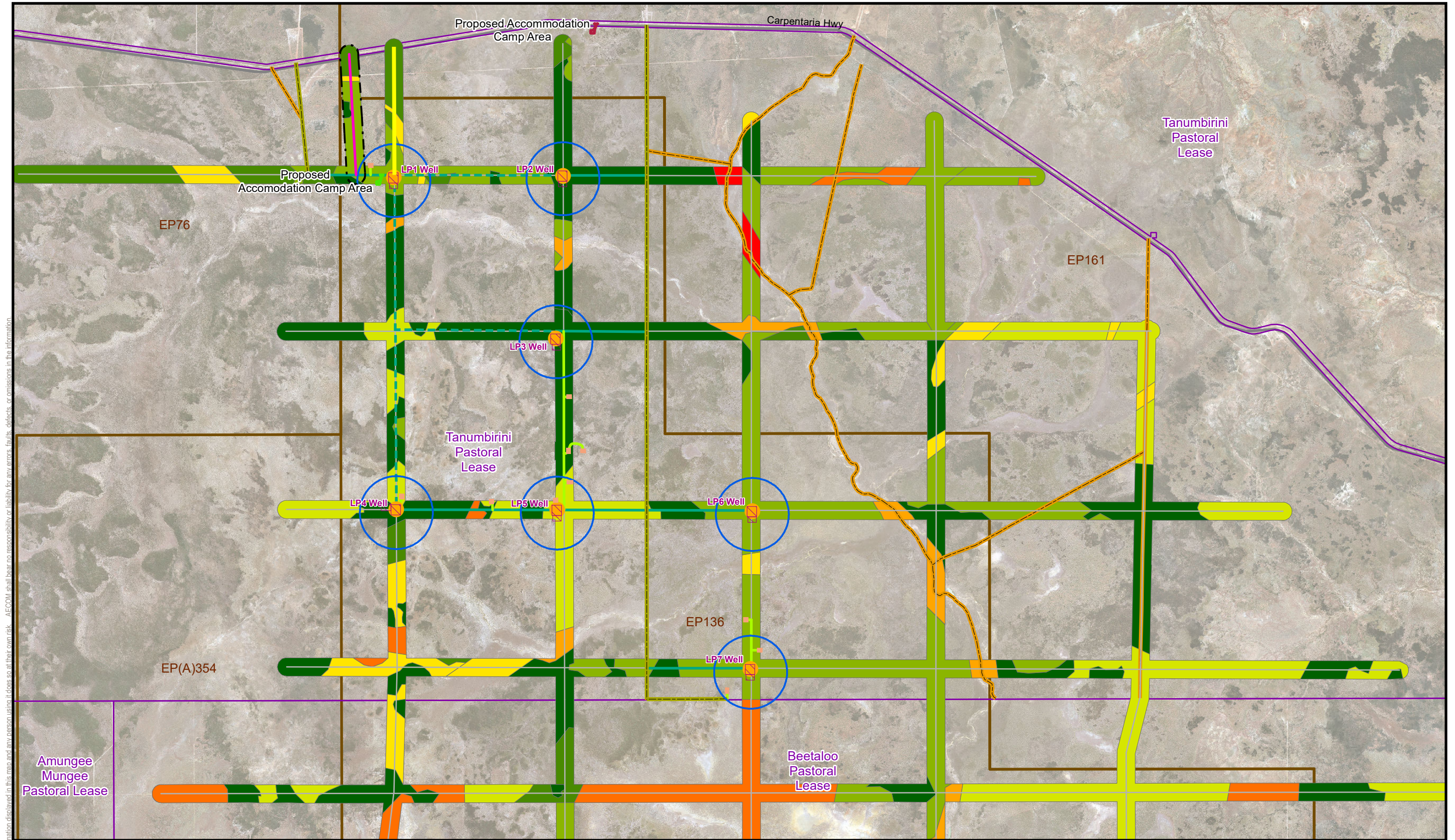
**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

**Fire Frequency within
EP136 Exploration Area**

PROJECT ID	60611666
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LAST MODIFIED	21-May-2022
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Projection: GDA 1994 MGA Zone 53

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AECOM
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- Well Site
- Gravel Pit Footprints
- Well Lease Area
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- EP136 Proposed Accommodation Camp Option
- Highway Proposed Accommodation Camp Option
- Native Title Register
- Petroleum Exploration Permit

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- Eastern Access Option Access Track
- Seismic Lines - progressively rehabilitated
- Pastoral Track
- Highway

- Vegetation Type**
- Acacia shirleyi forest / open woodland
 - Macropteranthes kekwickii shrubland / open woodland
 - Corymbia dichromophloia open woodland
 - Eucalyptus leucophloia open woodland
 - Eucalyptus chlorophylla low open woodland
 - Eucalyptus microtheca woodland / isolated trees
 - Eucalyptus pruinosa open woodland

Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bore - NT Gov 2019.
Pastora Infrastructure - AECOM 2020



**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

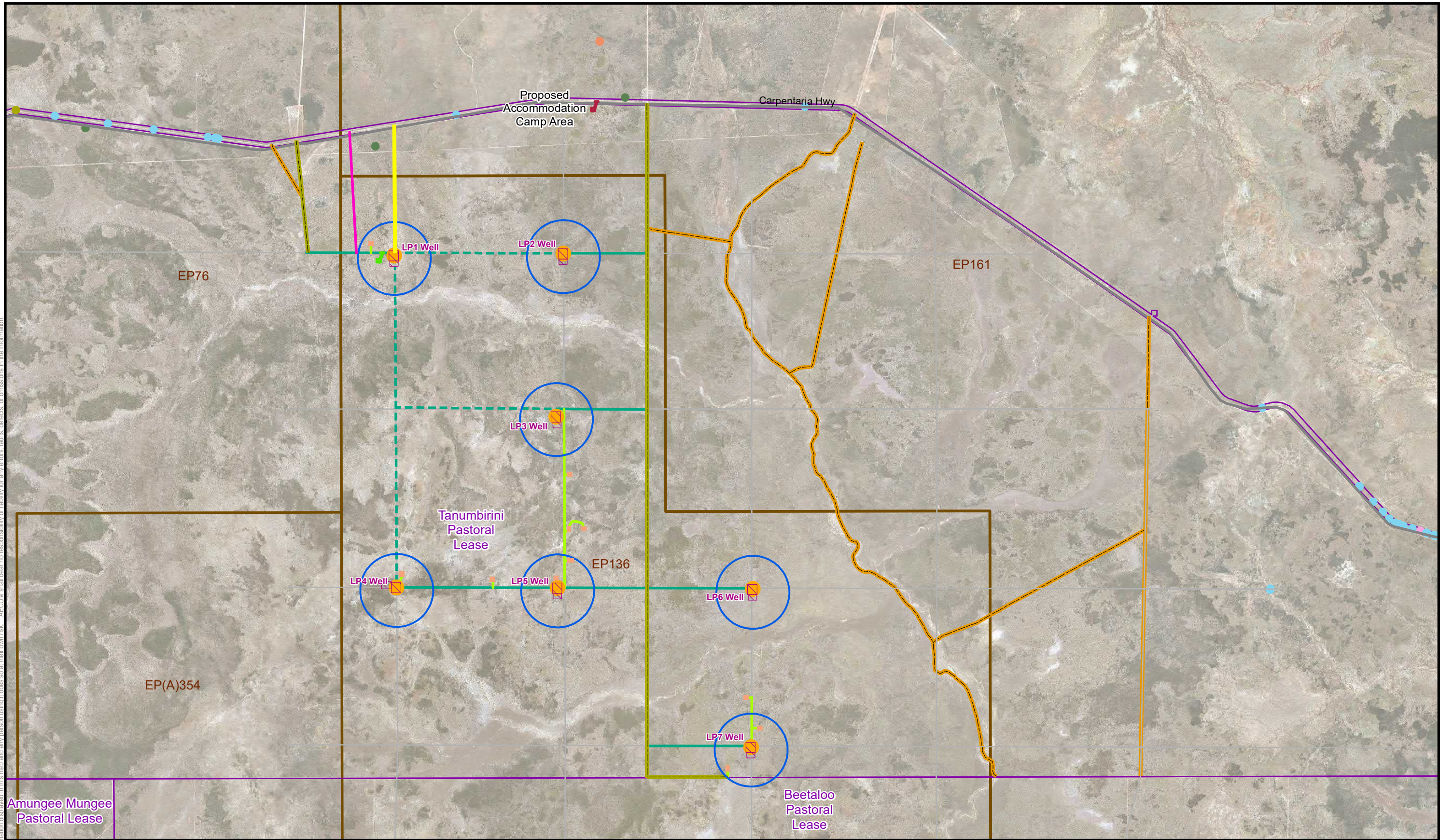
**Vegetation Type Mapping within
EP136 Exploration Area**

PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	23-May-2022
VERSION	1

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Projection: GDA 1994 MGA Zone 53

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- Well Site
- Gravel Pit Footprints
- Well Lease Area
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- EP136 Proposed Accommodation Camp Option
- Highway Proposed Accommodation Camp Option
- Native Title Register
- Petroleum Exploration Permit

- Option 1 - new access track from Carpentaria Hwy
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- Western Access Option Access Track
- Eastern Access Option Access Track
- Seismic Lines - progressively rehabilitated
- Pastoral Track
- Highway

Weed Name

- Buffel grass
- Hyptis
- Lovegrass - amabilis
- Sesame
- Urochloa - Sabi grass

DARWIN

EP136

Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

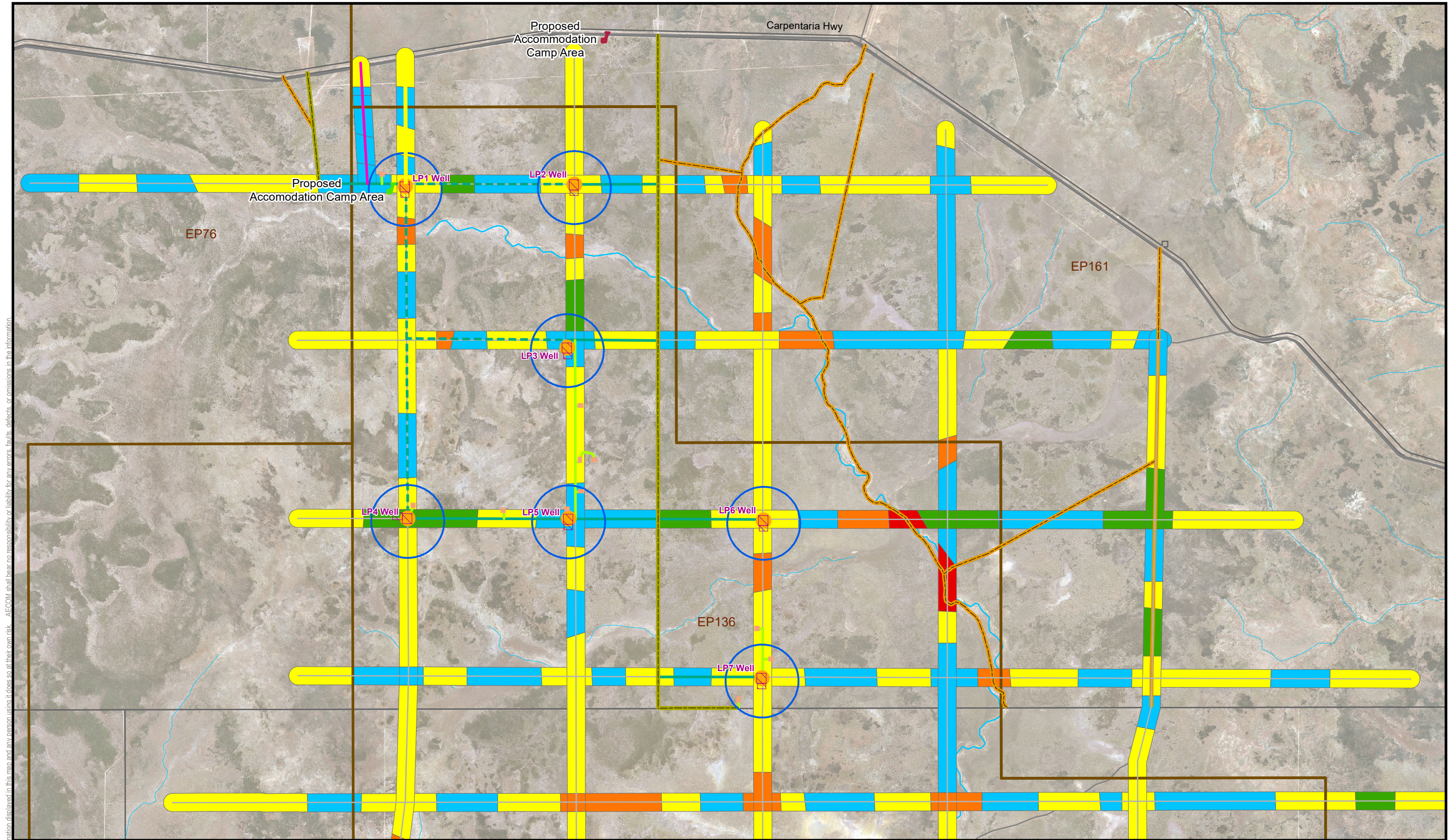
**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

**Regional Weed data within
the Civil Construction Program**

PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	21-May-2022
VERSION	1

Figure

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- Well Site
- Gravel Pit Footprints
- Well Lease Area
- 1 km Bore Buffer
- EP136 Proposed Accommodation Camp Option
- Highway Proposed Accommodation Camp Option
- Petroleum Exploration Permit

- Existing Access Track
- Gravel Pit Access Track
- Option 1 - new access track from Carpentaria Hwy
- Option 2 - repurposed Seismic Line 10 from Carpentaria Hwy
- Western Access Option Access Track
- Eastern Access Option Access Track
- Seismic Lines - progressively rehabilitated
- Pastoral Track
- Roads
- Cadastre

- Land Condition Assessment**
- Very Poor
 - Poor
 - Disturbed
 - Good
 - Excellent

DARWIN

EP136

Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

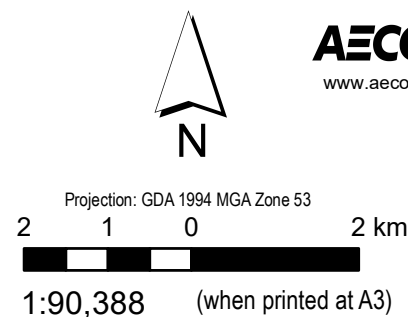
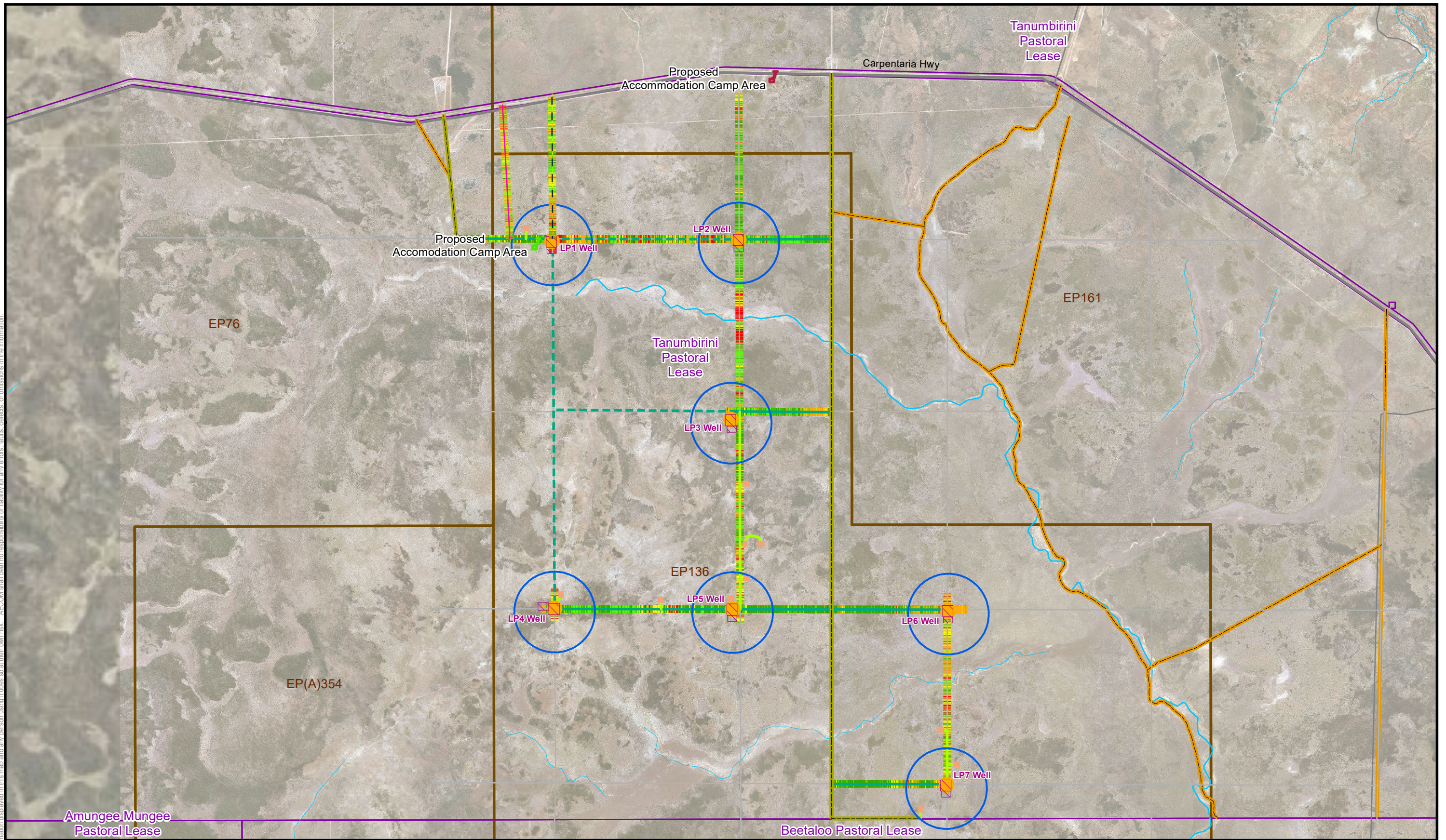
**Land Condition Assessment within
the Civil Construction Program**

PROJECT ID 60611666
CREATED BY sam.schroder
LAST MODIFIED 23-May-2022
VERSION 1

Figure

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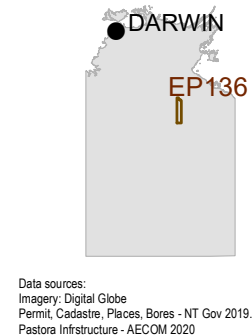


AECOM
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- Well Site
- Gravel Pit Footprints
- Well Lease Area
- 1 km Bore Buffer
- EP136 Proposed Accommodation Camp Option
- Highway Proposed Accommodation Camp Option
- Native Title Register
- Petroleum Exploration Permit
- Option 1 - new access track from Carpentaria Hwy
- Option 2 - repurposed Seismic Line 10 from Carpentaria Hwy

- Existing Access Track
- Gravel Pit Access Track
- Western Access Option Access Track
- Eastern Access Option Access Track
- Seismic Lines - progressively rehabilitated
- Pastoral Track
- Roads
- Cadastre

- Class Type**
- Trees
 - Shrubland
 - Grassland
 - Dry Grassland
 - Bare Earth



Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP

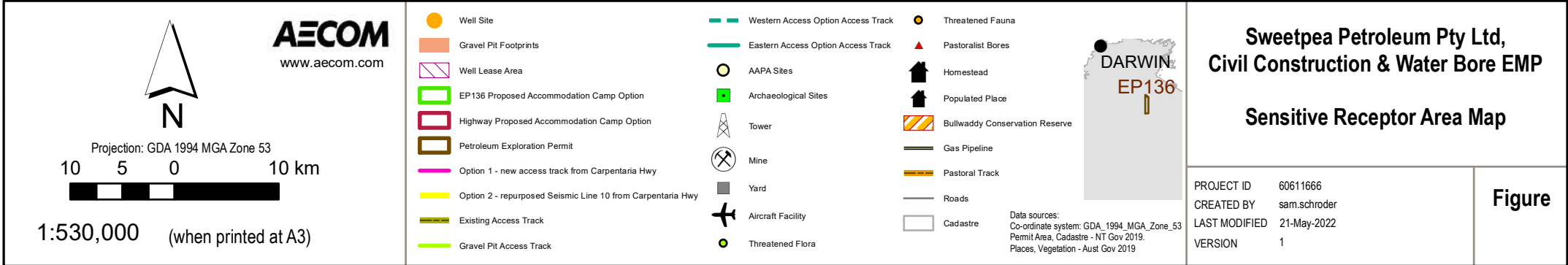
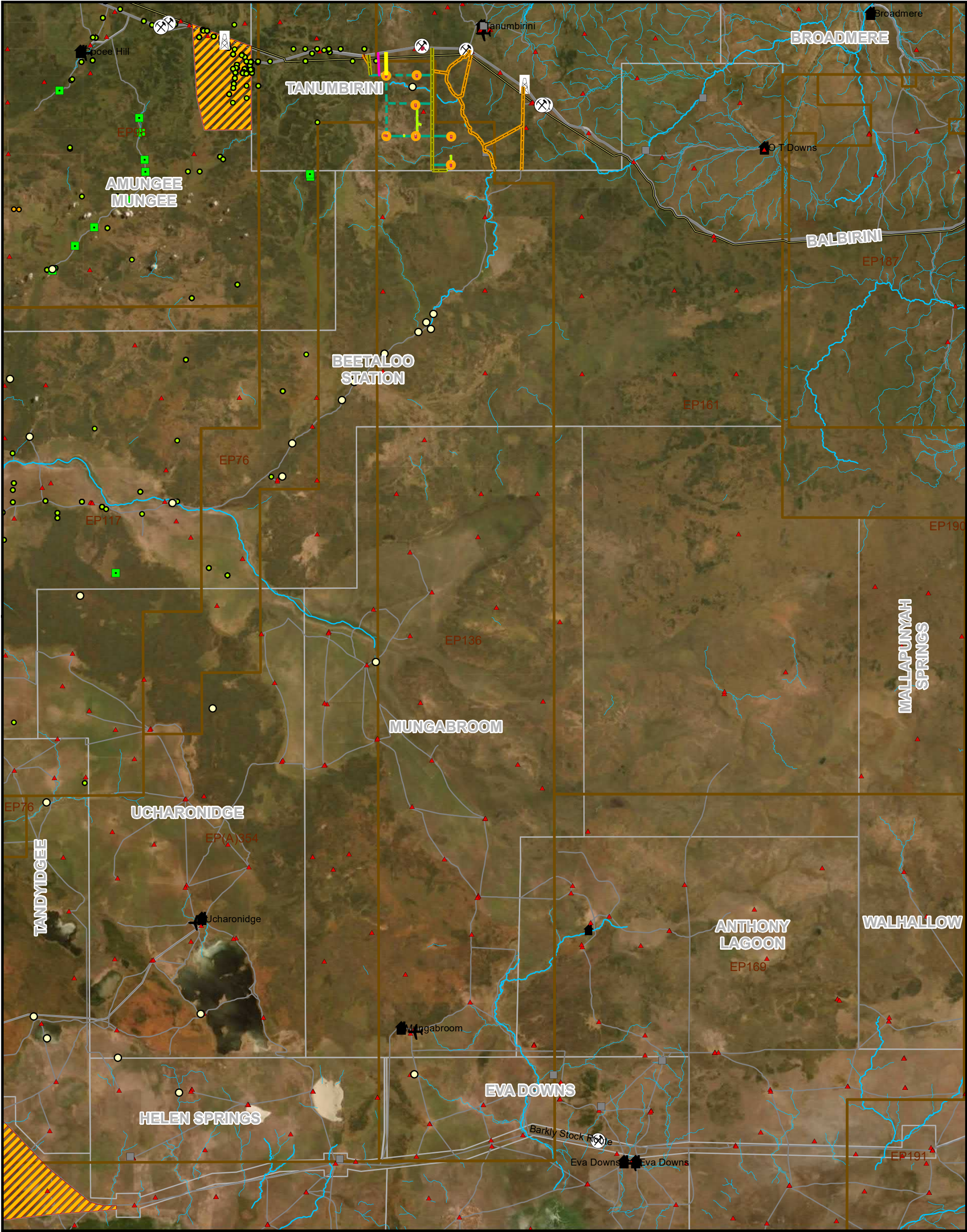
**Bare Earth Overview for
the Project Area**

PROJECT ID 60611666
CREATED BY sam.schroder
LAST MODIFIED 23-May-2022
VERSION 1

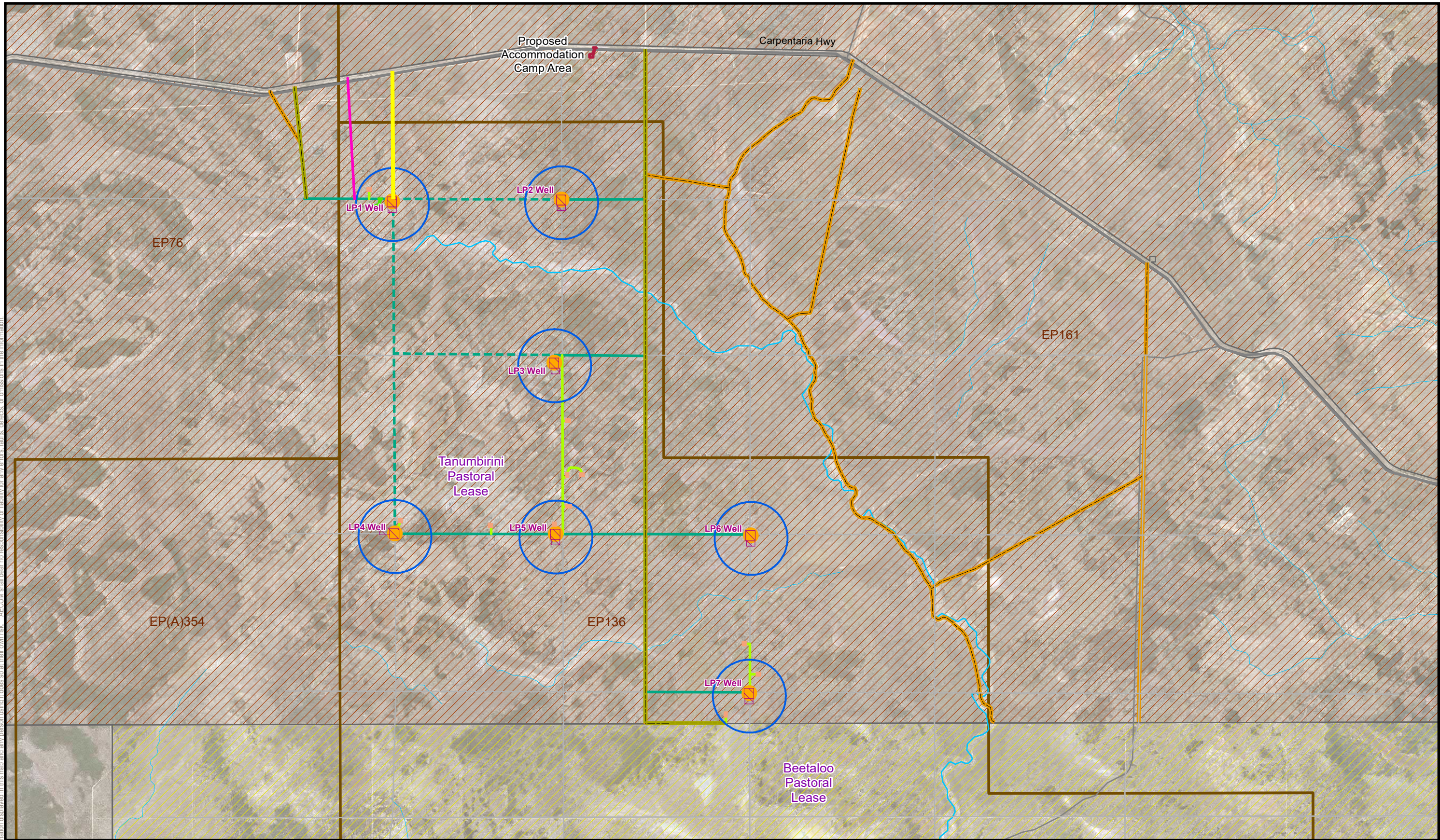
Figure

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Projection: GDA 1994 MGA Zone 53

2 1 0 2 km

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- Well Site
 - Gravel Pit Footprints
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 - Highway Proposed Accommodation Camp Option
 - Petroleum Exploration Permit
- Option 1 - new access track from Carpentaria Hwy
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 - Existing Access Track
 - Gravel Pit Access Track
 - Western Access Option Access Track
 - Eastern Access Option Access Track
 - Seismic Lines - progressively rehabilitated
 - Pastoral Track
 - Roads
 - Cadastre
- Native Title Claim**

 - NTD27/2010
 - NTD33/2012

DARWIN

EP136

Data sources:
Imagery: Digital Globe
Permit, Cadastre, Places, Bores - NT Gov 2019.
Pastora Infrastructure - AECOM 2020

**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

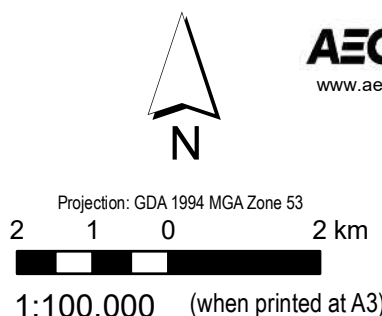
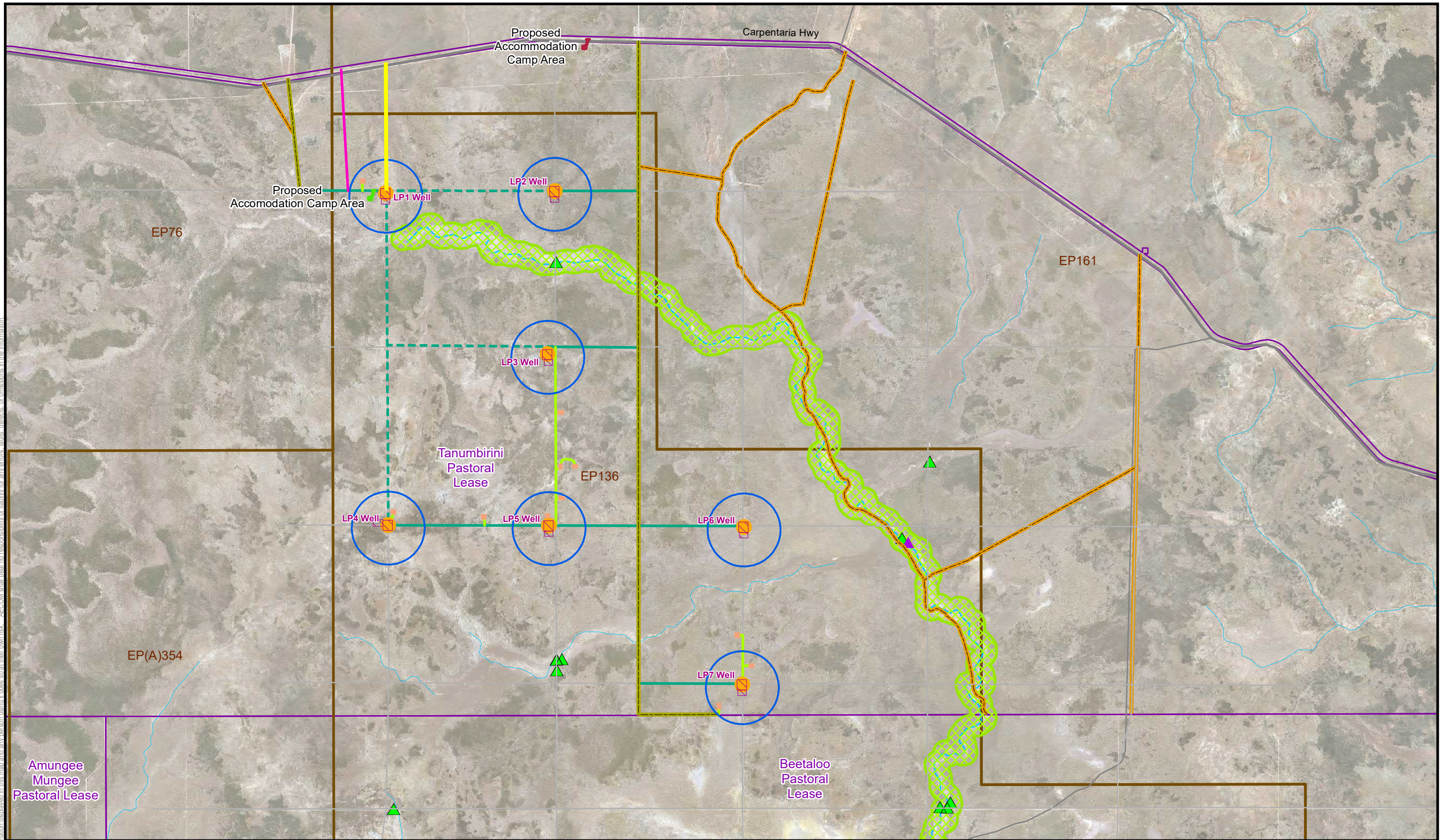
**Native Title within
EP136 Exploration Area**

PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	21-May-2022
VERSION	1

Figure

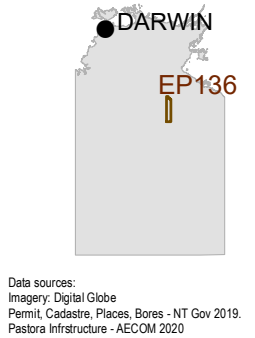
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- Well Site
- Gravel Pit Footprints
- Well Lease Area
- 1 km Bore Buffer
- EP136 Proposed Accommodation Camp Option
- Highway Proposed Accommodation Camp Option
- Petroleum Exploration Permit
- Existing Access Track
- Gravel Pit Access Track
- Option 1 - new access track from Carpentaria Hwy
- Option 2 - repurposed Seismic Line 10 from Carpentaria Hwy
- Western Access Option Access Track
- Eastern Access Option Access Track
- Seismic Lines - progressively rehabilitated
- Pastoral Track
- Restricted Work Areas
- Roads
- Cadastre

- Aboriginal Archaeological Sites**
- Moderate Significance
 - Low Significance



**Sweetpea Petroleum Pty Ltd,
Civil Construction & Water Bore EMP**

**Areas of Cultural Heritage within
the Civil Construction Program**

PROJECT ID	60611666
CREATED BY	sam.schroder
LAST MODIFIED	21-May-2022
VERSION	1

Figure

A3 size

APPENDIX C Stakeholder Engagement Log Update

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
Tanumbirini Station Communication Log					
21/07/2019	Sweetpea Petroleum	Introductory Phone Call	Phone Call	-	Introductory phone call to Tanumbirini Station owners.
9/08/2019	Insight Investment Sweetpea	Sweetpea Petroleum Proposed Activity	Face-to-Face Meeting	-	Meeting with owner of Tanumbirini Station to discuss Work Program and timelines of Sweetpea activities, including baseline studies required to prepare EMPs.
9/08/2019	Insight Investment	-	Follow up email to Sweetpea	-	A thank you email sent from Tanumbirini Station owners.
12/08/2019	Sweetpea Petroleum	Additional information provided for background and context	Email response to Tanumbirini Station owner.	-	Sweetpea provided additional background and context into the EP136. Detailed outline of proposed works and proposed schedule. Site-based environmental and archaeological assessments for Seismic EMP (October 2019).
14/08/2019	Insight Investment	-	Email response to Sweetpea	-	Tanumbirini Station owner advised he would await formal application for access for baseline studies.
12/09/2019	Tanumbirini Station Sweetpea AECOM	Sweetpea Petroleum Proposed Activity	Face-to-Face Meeting	-	Sweetpea and their consultant attended Tanumbirini Station to provide overview of Sweetpea's planned exploration activities for next two years and intention of conducting seismic exploration in 2020.
13/09/2019	Sweetpea Petroleum	-	Follow up email to Tanumbirini Station Manager	-	Thankyou email to Tanumbirini Station Manager.
14/10/2019	Sweetpea Petroleum	Sweetpea Seismic Line Scouting Figure	Email and phone call to Tanumbirini Station Manager	No	Request to access Tanumbirini Station for seismic line scouting activities with a seismic contractor to assess ground conditions. Advised planned scouting for Saturday, 19th October 2019.
16/10/2019	Sweetpea Petroleum	Maps and NTG Guidelines for land access notices and agreements.	Email response to Tanumbirini Station Owner	No	Sweetpea provided to Tanumbirini Station advice about the NTG Stakeholder Guideline Land Access Agreements requirements, and advised that this email provided required 14 days notice that plan to undertake aerial reconnaissance surveys.
30/10/2019	Sweetpea Petroleum	Sweetpea helicopter baseline survey 4-8 November	Email to Tanumbirini Station Manager	-	Confirmation of the dates of the helicopter reconnaissance survey 4 November to 8 November. Request to stay at the Station for 5 persons, including pilot. Requested price to stay at Station.
1/11/2019	AECOM	Sweetpea helicopter baseline survey 4-8 November	Email to Tanumbirini Station Manager	-	Advised Tanumbirini Station Manager that will stay Hi-Way Inn and fly in and out each day. Requested confirmation that fuel drums for helicopter were stored at Tanumbirini Airstrip.
2/11/2019	Santos	Santos requirements for utilising their camp	Email to AECOM consultant	-	Santos representative confirmed that the AECOM field crew can stay at the Santos camp. Requested information to be provided for the field team. Information provided for accessing the camp.
4/11/2019	AECOM	Sweetpea helicopter baseline survey 4-8 November	Email to Tanumbirini Station Manager	No	Advised Station Manager of the AECOM team mobilising to Tanumbirini Station to commence the reconnaissance survey (background data to support the development of the EMP).
5/11/2019	AECOM	Sweetpea helicopter baseline survey 4-8 November	Email to Tanumbirini Station Manager	-	Email communication over duration of field program commencing morning of 5/11/2019 through to 7/11/2019. Alerted Station Manager start time and finish time.
21/02/2020	Sweetpea Petroleum	Sweetpea update	Email to Tanumbirini Station Owner	-	Request to Station Owner to meet in person to provide update on Sweetpea's activities on Tanumbirini Station.
26/02/2020	Sweetpea Petroleum Insight Investment	Sweetpea update	Face-to-Face Meeting	-	Met station owners. Advised that the Station is being sold.
3/03/2020	Sweetpea Petroleum	Maps and planned schedule for Sweetpea EP136 scouting and baseline surveys in	Email to Tanumbirini Station Manager	-	Provided notice of a seismic contractor scout visit to the proposed project area. Provide scout contact details. Notice of two other planned field visits in future. Request consent to use the airstrip at Tanumbirini Station for the helicopter and fixed-wing landings. Copy of Sweetpea draft Seismic EMP provided to Station Manager for comment.
3/03/2020	Insight Investment	Contact details for new owner	Email to Sweetpea and new Tanumbirini Station Owner (Rallen Australia)	-	Email from Tanumbirini Station Owner introducing Sweetpea to new Station Owner regarding sale of Tanumbirini Station. Settlement date planned mid-late March. Advised new owner of Sweetpea's planned reconnaissance survey for 16 March 2020.
4/03/2020	Sweetpea Petroleum	Sweetpea - EP136 Field Scouting Plan	Email to Tanumbirini Station Manager	-	Request acknowledgment of planned scouting by seismic contractor between 7-9 March 2020. Asked any station activities that need to be aware of. Noted survey is via vehicle and will be weed and seed certified.
5/03/2020	Sweetpea Petroleum	Sweetpea - update on planned reconnaissance field work in March	Email to Tanumbirini Station Manager and cc'd Station Owner	-	Sweetpea provided update on planned reconnaissance field work.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
13/03/2020	Sweetpea Petroleum	Email advice regarding planned scouting activities	Email to Tanumbirini Station Manager	No	Notified Tanumbirini Station Manager of further environmental baseline studies on EP136, and scouting potential drill pad sites and access roads.
16/03/2020	Sweetpea Petroleum	Reconnaissance work next week	Email response to Tanumbirini Station Manager	-	Requested advice on current conditions on the ground.
20/03/2020	AECOM	EP136 Field Scouting Saturday	Email to Tanumbirini Station Manager	No	Advising that field scouting of well pad locations and access roads on EP136 will occur on Saturday 21 March. Details of charter flight and contact details provides. Advised will call in evenings to check in.
30/03/2020	Ward Keller on behalf of Thames Pastoral Co.	Sweetpea - Notice of Sale - Tanumbirini - Matter: 20192748	Email to Sweetpea	-	Notice of Sale - Tanumbirini Station.
1/04/2020	Hunt&Hunt on behalf of new owner of Tanumbirini Station	Sweetpea - Notice of Sale - Tanumbirini - Matter: 20192748 (HH 190378)	Email to Sweetpea	-	Advised Sweetpea that their client (new owners of Tanumbirini Station) will liaise directly with Sweetpea in relation to planned reconnaissance field work on Tanumbirini Station. Provided updated contact details for new Owners.
27/04/2020	Sweetpea Petroleum	Tanumbirini Station - Sweetpea Petroleum Exploration Permit 100	Email to new owners of Tanumbirini Station	-	Sweetpea advised new Station Owner that Sweetpea Petroleum Pty Ltd is the registered holder of a 100% interest in EP136. Requested registered business address of new Station owner in order to send formal correspondence. Requested to meet.
8/05/2020	Sweetpea Petroleum	Sweetpea Introduction Pack for planned activities on EP136 on 5-11 May 2020	Email to new owners of Tanumbirini Station	-	Introduction and provision of formal letter regarding Sweetpea's exploration activities on Tanumbirini Station and provided summary of the impact of COVID-19 on activities. Advise of baseline studies w/o 18 May. Provided copy of EMP for consultation, review and feedback. Attachments included Full EMP and supporting documents.
9/05/2020	Sweetpea Petroleum	Sweetpea EP136 - Tanumbirini Station Letter Part II draft EMP appendices	Email to new owners of Tanumbirini Station	-	Provided more details for the proposed exploration activities on Tanumbirini Station.
13/05/2020	Rallen Australia	Sweetpea EP136 - Tanumbirini Station Letter Part II draft EMP appendices	Email to Sweetpea	Yes	Informed Sweetpea the new owners of Tanumbirini Station and requested that a new Land Access Agreement will need to be agreed by both parties.
21/05/2020	Sweetpea Petroleum	Sweetpea EP136 - Tanumbirini Station Survey Plan and COVID Management Plan	Email to Tanumbirini Station Manager and cc'd the new Tanumbirini Station Owner	-	Provided Travel and Operational Plans for the baseline survey (helicopter based). Confirmed permission from Santos to access their site to get Fuel supply for helicopter. Advised on the measures in place for COVID-19.
21/05/2020	Sweetpea Petroleum	Sweetpea EP136 - Tanumbirini Station	Follow up email to new Tanumbirini Station Owner	-	Notification of resumption of reconnaissance activities. Confirmation that baseline surveys are planned for next week fully inform draft Seismic EMP. Request feedback on the provided summary and draft EMP so can capture Station comments.
22/05/2020	Sweetpea Petroleum	EP136: Authority to access Tanumbirini Station 26th-30th May for reconnaissance	Email to Tanumbirini Station Manager	-	Request authority to access EP136/Tanumbirini Station to carry out helicopter-based reconnaissance surveys. Request communication protocols required.
25/05/2020	Sweetpea Petroleum	Sweetpea Reconnaissance Activities 26th-30th May	Follow up email to Tanumbirini Station Manager	-	Confirmation that the baseline surveys and field scouting by AECOM will commence on 26th May (following day). Noted similar activity to what was planned mid-March but postponed due to COVID-19 impacts. AECOM to liaise further. Noted that Santos had permitted access to have helicopter access fuel drums. Confirm if no issues for Tanumbirini Station.
26/05/2020	AECOM	Sweetpea scouting survey check-in	Email to Tanumbirini Station Manager	-	Email communication over duration of field program commencing morning of 26/5/2020 through to 31/5/2020. Alerted Station Manager start time and finish time.
22& 24/06/2020	Tanumbirini Station Representative	84.6.1 Rallen: Tanumbirini: Sweetpea	Email to Sweetpea	-	Correspondence for Sweetpea's attention.
29/06/2020	Tanumbirini Station Representative	84.6.1 Rallen Australia Pty Ltd: Sweetpea Petroleum Pty Ltd – General comments	Letter to Sweetpea	Yes	Letter response provided to Sweetpea following review of proposed Work Program and draft EMP.
6/07/2020	Ward Keller on behalf of Sweetpea	Tanumbirini Station Sweetpea EMP EP138	Letter Response to Tanumbirini Station	-	Sweetpea provided a response letter to Tanumbirini Station in relation to comments on Sweetpea's proposed Work Program and draft EMP.
13/07/2020	Sweetpea Petroleum	Tanumbirini Station Sweetpea EMP EP136	Email to Tanumbirini Station Owner	-	Request opportunity to meet.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
3/08/2020	Tamboran Resources/Sweetpea Petroleum and Tanumbirini Station Representative	Proposed exploration activities on EP136 over next 3-7 years	Face-to-Face Meeting	-	Meeting with owner of Tanumbirini Station to discuss ways to work in collaboration on Tanumbirini Station. Outlined proposed exploration works within EP136. Sweetpea advised that would like to engage further on the formalised Land Access and Compensation Agreement.
15/09/2020	Tanumbirini Station Representative	Response to DPIR notification of Sweetpea application for Access Authority over part of Tanumbirini Station	Email to DPIR	Yes	Objections to Sweetpea's proposed activities on Tanumbirini Station.
23/09/2020	Tanumbirini Station Representative	Additional information provided to support Rallen's objection to the grant of AA9 over	Email to DPIR	Yes	Summary of scientific studies undertaken by a NSW vet done on the impact of mining exploration activities on sheep.
25/09/2020	Ward Keller on behalf of Sweetpea	Address of issues raised by Rallen in emails of 15 Sept and 23 Sept	Letter to DPIR	-	Letter to DPIR (now DITT), addressing issues raised by Tanumbirini Station.
23/10/2020	Sweetpea Petroleum	Update on EP136 Work Program, Notice of access for site surveys	Letter to Rallen Australia, cc. Tanumbirini Station Manager	-	Update on EP136 Work Program, Notice of Access for Site Surveys.
6/11/2020	BB Survey (contractor to Sweetpea)	Sweetpea site surveys EP136	Email/voice message to Tanumbirini Station Owner and Station Manager	-	BB Survey Representative provided information regarding survey schedule.
17/12/2020	Ward Keller on behalf of Sweetpea	Draft Land Access and Compensation Agreement with Tanumbirini Station	Draft LACA emailed to Tanumbirini Station Representative	-	Draft Land Access and Compensation Agreement with Tanumbirini Station.
7/01/2021 to 05/03/2021	Ward Keller on behalf of Sweetpea, and Tanumbirini Station Representatives	Draft Land Access and Compensation Agreement with Tanumbirini Station	Multiple emails between Ward Keller and Tanumbirini Station Representatives	-	Draft Land Access and Compensation Agreement with Tanumbirini Station. Land Condition Assessment and vegetation clearing for access specific items.
9/03/2021	Sweetpea Petroleum	Notice of preliminary activities - Form 52	Letter to Rallen Australia, cc. Tanumbirini Station Manager	-	Letter and Form 52 notice of preliminary activities on EP136/Tanumbirini Station.
14/04/2021	Ward Keller on behalf of Sweetpea	Tanumbirini Station and Land Access & Compensation Agreement - Matter 20210287	Email to Tanumbirini Station Representative	-	Attached email correspondence of fees (and confirming payments).
14/04/2021	DITT	Request to DITT	Application to appoint a mediator	-	Sweetpea applied to the Northern Territory Department of Industry, Tourism and Trade (DITT) on 14 April 2021 request the appointment of a mediator.
28/07/2021 to 11/08/2021	Sweetpea Petroleum	Facilitated negotiations with the mediator	Negotiations	-	Mediation.
13/08/2021	Northern Territory Civil and Administrative Tribunal (NTCAT)	NTCAT application	Application	-	Application lodged with the Northern Territory Civil and Administrative Tribunal (NTCAT).
26/10/2021	Sweetpea Petroleum	Letter, form 54, arial survey route	Email to Station Owner and Tanumbirini Station Manager	-	Letter to the Tanumbirini Station manager to notify of intent to perform Airborne Survey, Nov 9th onward. Form 54 Notification, and Airborne Route pdf.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
5/11/2021	Sweetpea Petroleum	Letter, aerial survey route	Email to Station Owner and Tanumbirini Station Manager	-	Letter to the Tanumbirini Station manager to notify them we are providing an updated Airborne Survey map
12/8/2021 - 12/10/2021	NTCAT	NTCAT Hearings	NTCAT Hearing	-	-
25/01/2022	Sweetpea Petroleum	Introduction and update from Sweetpea	Email to Station Owner	-	Email to Station Owner introducing VP Operations & External Affairs and providing updates on EMPs for civil works, water bores and well activities.
28/01/2022	Tanumbirini Station Owner	Reply to introduction and update from Sweetpea	Email to Sweetpea	-	Email back to Sweetpea regarding timing of engagement and request for copy of EMPs and Appendices.
28/01/2022	Sweetpea Petroleum	Reply to Station Owner's response to introduction and update.	Email to Station Owner	-	Email to Station Owner regarding timing of engagement and EMPs.
31/01/2022	Tanumbirini Station Owner	Reply to Sweetpea's response to concerns.	Email to Sweetpea	Yes	Email to Sweetpea outlining further concerns and request for a hard copy of the Drilling, HFS and Testing EMP plus all Appendices.
2/02/2022	Sweetpea Petroleum	Reply to Station Owner.	Email to Station Owner	-	Email response to Station Owner advising that further consideration is being given to concerns raised and a response will be provided in due course. In the meantime, hard copy of the EMP will be printed and delivered to the Station Owner.
3/02/2022	Tanumbirini Station Owner	Reply to Sweetpea's email.	Email to Sweetpea	-	Email from Tanumbirini Station Owner thanking Sweetpea for responding.
4/02/2022	Sweetpea Petroleum	Email response to concerns raised by Station Owner in email dated 31 Jan-22.	Email to Station Owner	-	Sweetpea responded to the Station Owner's concerns in email dated 31 Jan-22.
10/02/2022	Sweetpea Petroleum	Minimum well compensation and costs	Email to Station Owner	-	Sweetpea emailed and requested to have a conversation regarding an agreement about minimum well compensation and costs.
Feb-Apr 2022	Tanumbirini Station Owner	Minimum well compensation and costs	Multiple emails and calls with Sweetpea	-	Ongoing Without Prejudice discussions regarding SMP12 and compensation
Feb-Apr 2022	Sweetpea Petroleum	Minimum well compensation and costs	Multiple emails and calls with Tanumbirini	-	Ongoing Without Prejudice discussions regarding SMP12 and compensation
15/02/2022	Sweetpea Petroleum	Response to Tanumbirini Owner's email dated 5 Feb-22	Email to Station Owner	-	Sweetpea emailed and provided response to EMP concerns raised in email dated 5 Feb-22.
8/04/2022	Tanumbirini Station Owner	Further objections to EMP SWP3-1	Email to Sweetpea with attachment	-	Tanumbirini Station owner provided further comments, feedback and objections in relation to EMP SWP3-1. These objections are assessed in EMP SWP4-1, which will be provided to the Tanumbirini Station owner.
6/05/2022	Sweetpea Petroleum	Notice of Access and Site Visit	Email to Tanumbirini Station Owner	-	Sweetpea sent via email to Tanumbirini Station Owner notice regarding access and a proposed site visit in accordance with directions of the Approved Access Agreement determined by NTCAT.
6/05/2022	Sweetpea Petroleum	Copy of DST EMP for comments	Email to Tanumbirini Station Owner	-	Sweetpea provided copy of DST EMP (SWP4-1) to Tanumbirini Station Owner for review and feedback. Advised that Objections from 8 April have been considered and relevant sections of the EMP have been updated.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
6/05/2022	Tanumbirini Station Owner	Copy of DST EMP for comments	Email to Sweetpea	-	Tanumbirini Station Owner responded to email regarding the EMP, requesting a marked-up copy for review.
10/05/2022	Tanumbirini Station Owner	Response to Notice of Access and Site Visit dated 6 May-22	Email to Sweetpea	-	Tanumbirini Station Owner responded to notice of access and site visit and requested additional information.
11/05/2022	Sweetpea Petroleum	Site Visit with Tanumbirini Station Owner	Site Visit with Tanumbirini Station Owner	Yes	Sweetpea and Tanumbirini Station Owner and delegate took part in a site visit. Broad ranging discussion including the Station Owner reiterating they don't believe that gas exploration/development/production is compatible with their business; and Sweetpea representatives making an alternative case. The more detailed conversations required under the AAA were conducted, regarding access points, camp location(s), and s111 "no go zones".
14/05/2022	Tanumbirini Station Owner	Site Visit Notes	Email to Sweetpea	-	Tanumbirini Station Owner provided site visit notes; indicating that the Eastern Access Track has substantial water infrastructure and that they didn't think it would be a feasible access point. The Station Owner indicated they were now reviewing the Western Access Track in more detail ("it should be noted that the Western Access Track has been proposed and put to the Station Owner since January 2022).
16/05/2022	Sweetpea Petroleum	Site Visit Notes and Update on Actions	Email to Tanumbirini Station Owner	-	Sweetpea provided site visit notes and update on actions.
17/05/2022	Sweetpea Petroleum	Copy of DST EMP for comments	Email to Tanumbirini Station Owner	-	Sweetpea provided a marked-up copy of DST EMP (SWP4-1) to Tanumbirini Station Owner for review and feedback as per request from 6 May 2022.
17/05/2022	Tanumbirini Station Owner	Information regarding access tracks, cattle and infrastructure	Email to Sweetpea	Yes	Tanumbirini Station Owner informed Sweetpea that it did not agree with the use of the eastern access track and discussed matters to consider for planning and redesigning of the western access track.
17/05/2022	Sweetpea Petroleum	Compensation payment	Email exchanges with Tanumbirini Station Owner	-	Without Prejudice conversation regarding compensation.
17/05/2022	Tanumbirini Station Owner	Compensation payment	Email exchanges with Sweetpea	-	Without Prejudice conversation regarding compensation.
17/05/2022	Sweetpea Petroleum	Actions from Site Visit	Email exchanges with Tanumbirini Station Owner	-	Without Prejudice discussions and closing out actions from site visit.
17/05/2022	Tanumbirini Station Owner	Actions from Site Visit	Email exchanges with Sweetpea	-	Without Prejudice discussions and closing out actions from site visit; Tanumbirini Station Owner advised that there is water infrastructure at the entrance to the Western Access Track and requested that it also not be used.
18/05/2022	Tanumbirini Station Owner	Letter regarding access	Email with letter attachment	Yes	Without Prejudice, Tanumbirini Station Owner provided an extensive letter relating to access provisions and notices under the AAA.
18/05/2022	Sweetpea Petroleum	Requesting additional information to close out Actions from Site Visit.	Email to Tanumbirini Station Owner	-	Sweetpea requested Tanumbirini Station Owner to provide additional information regarding water (or other relevant) infrastructure required to close out actions from site visit.
19/05/2022	Sweetpea Petroleum	Update on Actions from Site Visit	Email to Tanumbirini Station Owner	-	Sweetpea provided an update on actions from site visit.
Beetaloo Station Communication Log					

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
6/09/2019 - 11/05/2021	Sweetpea Petroleum	Email, Face-to-Face and telephone	General	-	Ongoing conversations regarding multiple EMP scopes of work and future Land Access and Compensation Agreement.
1/02/2022	Sweetpea Petroleum	Email	Update on 2022 EMPs and program.	-	Sweetpea representative reached out to Beetaloo Station Manager via email and provided an update on EMPs and program for 2022.
8/02/2022	Beetaloo Station Manager	Email acknowledgement	Email to Sweetpea.	-	Beetaloo Station Manager responded to Sweetpea's email dated 1 Feb-22, acknowledged update and clarified its position in relation to upcoming activities within EP136.
10/02/2022	Sweetpea Petroleum	Minimum well compensation and costs	Email to Station Manager	-	Sweetpea emailed and requested to have a conversation regarding an agreement about minimum well compensation and costs.
14/02/2022	Beetaloo Station Manager	Minimum well compensation and costs	Email to Sweetpea	-	Beetaloo Station Manager advised Sweetpea that the preference is for any conversation regarding an agreement about minimum well compensation and costs to go through the station's lawyers.
OSD Pipeline Communication Log					
13/07/2020 - 26/08/2020	OSD Pipelines	Sweetpea planned Seismic Survey activities and where cross MRM pipeline	Emails, telephone	No	Communication with OSD in relation to Sweetpea activities that may interact with the MRM gas pipeline (i.e. transit). Advise on requirements where transit over pipeline provided.
NLC Communication Log					
1/07/2019	Ward Keller on behalf of Sweetpea	EP136 and EP143 Sweetpea Petroleum and Paltar Petroleum - Matter: 20181126	Email to NLC coordinator	-	Introductory email identifying Sweetpea Petroleum are now the title holder and operator of EP136 and EP143.
3/07/2019	Sweetpea Petroleum	Introductory Meeting	Face-to-Face Meeting between NLC, Ward Keller and Sweetpea	-	Initial meet and greet between NLC and Sweetpea. Introduce Sweetpea and update NLC on the acquisition of EP136 interest and to re-engage with NLC.
25/07/2019	Sweetpea Petroleum	Follow up Meeting	Face-to-Face Meeting between NLC, Ward Keller and Sweetpea	-	Follow-up catch up to discuss processes going forward for intended 2020 work program.
25/07/2019	Sweetpea Petroleum	Sweetpea Petroleum Environment & Heritage Assessments for EMP on EP136	Email to NLC representative	-	Sweetpea provided notice of the intention to undertake seismic surveys in 2020 in EP136. Request for support of the NLC staff during site-based assessments, in the form of Cultural Monitors and any other relevant NLC staff for the duration of the field work, and to provide a Cultural Heritage Assessment and Report to AAPA to obtain a clearance certificate. A brief outline of site assessment provided.
29/08/2019	AECOM	Land Condition and Heritage (Archaeological and Anthropological) (AECOM/NLC) Assessment	Email to NLC representative	-	Notice that AECOM would like to progress with the field works for land condition and heritage assessments for the Sweetpea Seismic program. Request to check that the proposed fieldwork timings with NLC resource constraints.
30/08/2019	NLC	Land Condition and Heritage (Archaeological and Anthropological) (AECOM/NLC) Assessment	Response to AECOM and Sweetpea	-	No works are able to be facilitated by the NLC. Noted that Sweetpea will need to submit a work program, and hold work program meeting prior to any on ground work. NLC requested confirmation of ownership of land and the submission of work program.
3/09/2019	Sweetpea Petroleum	Land Condition and Heritage (Archaeological and Anthropological) (AECOM/NLC) Assessment	Response to NLC representative	-	Sweetpea requested NLC to schedule dates for work program meeting.
10/10/2019	NLC	Request for meeting	Response to Sweetpea	-	NLC are seeking further guidance and advice in relationship to the requirements under the agreement, and the transfer deed requirements. Requested update on the transfer deed with the NLC. Confirmed Sweetpea will need to engage and provide information with Native Title Parties to have a social licence to operate.
10/10/2019	Sweetpea Petroleum	Request for meeting	Response to NLC representative	-	Sweetpea acknowledges the need to engage and share information with Native Title Parties. Requested assistance with baseline surveys to inform the EMP, in the form of cultural monitors and an Anthropologist. Conditions required before NLC could formally provide help with this. Sweetpea requested a copy of the Service Agreement to be signed and estimate for holding work program meetings.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
10/10/2019	Ward Keller on behalf of Sweetpea	Sweetpea Petroleum - EP 136 and EP 143	Response to NLC representative	-	Sweetpea seeking to co-ordinate with the NLC on its initial baseline environmental studies planned to be undertaken in the first week of November 2019. Noted that the initial baseline environmental studies do not constitute "Exploration" as defined in the Exploration Agreement for EP136 and are not the subject of the Sacred Site Avoidance Survey or Work Program provisions contained in clause 5 of the Exploration Agreement.
7/11/2020	Sweetpea Petroleum	Follow up discussion on EP136 Work Program	Face-to-Face Meeting	-	Meeting between Sweetpea/Ward Keller and NLC representatives to discuss EP136 work program and exploration agreement.
21/01/2020	Sweetpea Petroleum	Subject: Meeting this week	Email to NLC representative	-	Sweetpea advised that will be in Darwin and would like catchup in relation to the following matters: 1.Deed of Assumption EP 136 and 143 Exploration Agreement executed by Sweetpea 2.Receipt and updated Statement of Account 3.Submission of a Work Program etc. as required under the Exploration Agreement EP136 dated 18 July 2012 ("Exploration Agreement") – which is the relevant native title agreement covering EP136 4.Work Program meeting for EP136 – scheduling, cost estimate, materials/content 5.Update on Sweetpea activity plans and preparedness for 2020 on EP136 (i.e. draft EMP for seismic, AAPA application for sacred site clearance).
6/02/2020	Sweetpea Petroleum	Letter EP136 2020 Work Program	Email to NLC representative	-	Letter detailing 2020 work program. Request scheduling of on-country meeting to discuss the program with TO's. Close to finalising a draft EMP for 2020 activities, final draft copy will be sent to NLC. Request for meeting.
9/03/2020	Sweetpea Petroleum	Sweetpea EP136 2020 Exploration Work Program	Email to NLC representative	-	Sweetpea confirmed to NLC that the draft EMP submitted to DENR (now DEPIWS) for the EP136 2020 Work Program of a proposed seismic and gravity survey. Copy of EMP provided to NLC along with updated shape files and kmz files and maps of seismic survey program. Confirmed that had submitted an application to AAPA for sacred site clearance and avoidance certificates. Letters of notice of the draft seismic survey EMP sent to Tanumbirini and Beetaloo Stations. Request for confirmation that the on-country work program meetings have been scheduled.
24/03/2020	NLC	COVID-19 Potential Impacts	Email to Sweetpea	-	NLC requested information in relation to how Sweetpea is managing the risk of COVID-19 transmission in the NLC's regions
15/05/2020	Sweetpea Petroleum	COVID-19 Response - Sweetpea activities on EP136 and	Follow up with NLC Representative	-	Sweetpea confirmed that activities on EP136 by Sweetpea remain temporarily suspended due to COVID-19. Noted that Sweetpea had developed COVID-19 Response Management Plan and that plan to resume reconnaissance activities on EP136 as governed by the plan. Request for time of rescheduled on-country meetings.
29/05/2020	Sweetpea Petroleum	Update on Work Program	Video Meeting	-	Video conference with Sweetpea and NLC for update on Work Program.
29/05/2020	NLC	RE: Catch-up call	Phone Call with NLC coordinator	-	Phone call between Sweetpea and NLC Coordinator to discuss Sweetpea's operations within the NT. NLC wanted to confirm that the information provided to the NLC, AAPA, and DPIR was consistent. Requested Sweetpea provide copy of Sweetpea's latest submission to AAPA and DPIR, including all spatial files so that we can cross-reference the information against our records.
4/06/2020	Sweetpea Petroleum	Phone Call	Phone Call	-	Catch up call between Sweetpea and NLC representative.
4/06/2020	NLC	2020 work program	Email to Sweetpea	-	Sweetpea are required to engage with adjacent land/lease owners and exploration permit holders regarding the work proposed on their land or leases.
10/06/2020	Sweetpea Petroleum	Sweetpea Petroleum EP136 2020 Work Program	Email to NLC coordinator	-	Details the Sweetpea's 2020 Work Program provided to NLC.
18/06/2020	Sweetpea Petroleum	Sweetpea Work Program Notice & Meetings	Email to NLC coordinator	-	Sweetpea enquire into the residual restrictions to enter the Barkly region associated with COVID-19. Requested an update of scheduling for the Sweetpea on-country Work Program meetings. Queried if NLC had and questions or feedback on the draft seismic EMP for EP136.
19/06/2020	NLC	Sweetpea Work Program Notice & Meetings	Email to Sweetpea	-	NLC reviewed draft EMP and discussed risk assessment. Confirmed Work Program meeting secured for 10th August.
19/06/2020	Sweetpea Petroleum	[EXTERNAL] FW: Sweetpea Work Program Notice & Meetings	Email to NLC coordinator	-	Sweetpea confirm the 10th of August for the Work Programme Meeting. Identified that works well with the AAPA sacred site avoidance survey work, noting AAPA were doing preliminary field work next week and looking at formal consultations around mid-July.
9/07/2020	Sweetpea Petroleum	[EXTERNAL] FW: On-country Work Program Meeting EP136 10th August	Email to NLC coordinator	-	Sweetpea requested details for Work Program Meeting from NLC.
14/07/2020	NLC	[EXTERNAL] FW: Standard Work Program meeting agenda	Email to Sweetpea	-	NLC provided Sweetpea with the generic meeting agenda for Work Programs.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
15/07/2020	NLC	Call to discuss EP136 WP meeting	Email to Sweetpea	-	Requested if the latest round of NT coronavirus restrictions will impact on the Sweetpea Work Program progressing.
23/07/2020	NLC	EP136 2020 August Work Program and Cultural Monitor cost estimates	Email to Sweetpea	-	NLC provide cost estimates for the proposed Work Program meetings and Cultural Monitor requirements for EP136.
29/07/2020	NLC	Work Program Meetings EP136	Email to Sweetpea	-	NLC advice delay may occur to Work Program Meeting due to unforeseen circumstances. Will keep Sweetpea updated.
31/07/2020	Sweetpea Petroleum	Work Program Meetings EP136	Email to NLC coordinator	-	Sweetpea request update on current schedule/dates of Work Program Meeting and locations.
6/08/2020	NLC	EP136 meeting information	Email to Sweetpea	-	Unable to provide information about previous Work Programs and meeting notes/attendance without legal advice. Suggest to contact DIPR and see if they are willing to provide it. Team's meeting scheduled with NLC employees.
10/08/2020 to 14/08/2020	NLC/TO/Sweetpea	On country Work Program Meetings	Presentation to Native Title Representatives and TOs	-	Work program meetings held over between 10 August and 14 August 2020. Meetings were held in Tennant Creek, Elliott and Mataranka with Sweetpea presenting the planned seismic surveys and temporary camp locations. The NLC hosted the work program meetings and arranged for the affected parties to attend.
27/08/2020	Sweetpea Petroleum	Sweetpea EP136 2020 Schedule of Operations	Email to NLC coordinator	-	Sweetpea provide NLC current operational schedule to assist in planning of Cultural Monitors.
28/08/2020	NLC	Sweetpea EP136 2020 Schedule of Operations	Email to Sweetpea	-	NLC confirm Cultural Monitors are employed by the NLC and as such the NLC is responsible for ensuring the appropriate individuals are engaged. The primary objectives of the program, as I understand them, are to: 1. ensure the protection of areas of high cultural and environmental significance during on Country works; 2. assist with environmental and cultural heritage management issues including surveys; and 3. deliver onsite cultural competence training to the Proponent's employees participating in on Country works.
28/08/2020	Sweetpea Petroleum	Input required from NLC to address comments from DENR on the EMP	Email to NLC coordinator	-	Sweetpea requested if NLC could provide the identification of TO's and Native Title Parties present or represented at the Work Program Meetings. This is in response to comments received on the draft EMP from DENR (now DEPWS) and if it is appropriate for this level of detail to be provided.
28/08/2020	NLC	Input required from NLC to address comments from DENR on the EMP	Email to Sweetpea	-	NLC response by confirming cannot provide individual details that attended work program meeting, but can provide high level summary.
25/01/2021	Sweetpea Petroleum	EP136 2021 Work Program - Seismic Survey amendments; draft Civils & Waterbore EMP	Email to NLC coordinator	-	Sweetpea provide updated map and shape files of the proposed amended seismic survey lines in the Northern Area of EP136/Access Area. Noted that many of the ingress seismic lines have been reduced in length and to route away from sacred sites and will be part of an AAPA Certificate variation request/application, along with extension lines. Also provide copy of the draft Civil Construction and Waterbore EMP for review and comment by NLC.
28/01/2021	Sweetpea Petroleum	EP136 2021 Proposed Work Program	Email letter to NLC coordinator	-	Notification of proposed 2021 Work Program for EP136 in accordance with clause 5.7 and 5.8 of the EP136 Exploration Agreement.
5/02/2021	Sweetpea Petroleum	EP136 & AA9 Areas 2021 consultation/work program meetings with TO's	Face-to-Face Meeting NLC representatives	-	1.Access Authority (AA9) – Section 31 Deed and Ancillary Agreement (to EP136 Exploration Agreement) with Native Title Party in Access Area 2.EP136 2021 work program, including minor modifications (seismic program) to carried-over 2020 Work Program 3.Provisional scheduling of 2021 work program meetings & likely format 4.Cultural Monitors for 2021 work program 5.AAPA Authority Certificate Revision request 6.Feedback on draft Civils Construction and Waterbores EMP.
8/02/2021	Sweetpea Petroleum	EP136 & AA9 Areas 2021 consultation/work program meetings with TO's	Email to NLC Coordinator	-	Request work program meeting dates in March/April that combines with consultations with the TO's representing the Access Authority Areas outside the EP136, for cost, time and logistics efficiency, noting that there are modifications to the seismic program within the EP136 permit area and outside the permit boundary.
8/02/2021	Sweetpea Petroleum	EP136 & AA9 Areas 2021 consultation/work program meetings with TO's	Email in response to NLC Coordinator	-	Sweetpea confirm one modification to a seismic line has been made which exceeds the buffer. There are also a number of contingent modifications being considered.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
8/02/2021	NLC	EP136 & AA9 Areas 2021 consultation/work program meetings	Email in response to Sweetpea	-	Confirming that NLC has been progressing the request for anthropological information over the AA9 areas. Requested Sweetpea to provide further detail on the list of priority lots - which may impact the consultations prioritised.
11/02/2021	Sweetpea Petroleum	EP136 & AA9 Areas 2021 consultation/work program meetings	Email to NLC Coordinator	-	Reviewed the cost determination and to arrange payment of the estimated cost invoice.
12/02/2021	Sweetpea Petroleum	Statement of Account Request	Email in response to NLC Coordinator	-	State that will review and provide annual exploration expense report since inception.
15/02/2021	Sweetpea Petroleum	Variation of Work Program	Email in response to NLC Coordinator	-	In regard to whether Sweetpea requires further consultation if the seismic program is adjusted. Sweetpea to go with base case assumptions: - Resubmission of work program notice - Re-Consultation with TO's on revised seismic program in conjunction with AA9 consultations (tentatively mid-April).
15/02/2021	Ward Keller	Ep136 & AA9 - Ancillary Agreement and Section 31 Deed	Email to NLC representative	-	Sweetpea representative requested the progress of drafting of the Ancillary Agreement for AA9 - EP136 and the Section 31 Deed regarding the grant of AA9. Any proposed changes to the draft (provided last September) can be addressed while awaiting the advice, and can be incorporated along with modifications as a result of the prioritisation of the AA9 areas in the norther exploration area.
16/02/2021	Sweetpea Petroleum	Variation of Work Program	Email to NLC Coordinator	-	Sweetpea requested a time to discuss the change in seismic alignment and if would trigger the need for further consultation with TO's.
22/02/2021	AECOM	EP136 & AA0 - Ancillary Agreement and Section 31 Deed	Email to NLC Coordinator	-	Forward email from NLC legal branch which stated that in the scheduling meeting previous week, discussions held on establishing a time when logistically consultations can be achieved. Can be difficult with Clients based in remote areas and issues with road closures in the wet season. Consultation dates are scheduled for April.
23/02/2021	NLC	Variation of Work program	Email to Sweetpea	-	After internal discussion, the advice is that if Sweetpea change the seismic program to cover different areas they will need to consult.
24/02/2021	Sweetpea Petroleum	2021 EP136 Work Program Meeting	Email to NLC Coordinator	-	Sweetpea acknowledge the dates for 2021 Work Program Meeting. Sweetpea also no longer considering changing the seismic program alignment.
24/02/2021	Sweetpea Petroleum	2021 EP136 Work Program Meeting and AA9 Areas consultations	Email to NLC Coordinator	-	Sweetpea requests NLC coordinator to provide rough cost estimate for the AA9 consultations for budgeting purposes. Also requested feedback or comments on the EP136 draft Civil Construction and Waterbore EMP to finalise and submit to DEPWS early next week.
2/03/2021	Sweetpea Petroleum	AA9 Areas research and consultations. Detail of activities in AA9 Areas.	Email to NLC representative	-	Sweetpea highlighted the critical timeline of undertaking the seismic survey in EP136 in early May 2021, and to reinforce the prioritisation of research and consultation of the AA9. Requested that NLC advance the consultations to early April, weather and travel conditions allowing. Progression of the Ancillary Agreement for AA9 – EP136 and the Section 31 Deed regarding the grant of AA9.
3/03/2021	Sweetpea Petroleum	Request list of indigenous Civils companies	Email to NLC Coordinator	-	Sweetpea requested if NLC have a list of Civils Contractors that could support the civil construction work on EP136. Requested advice on any regional sensitivity with the TO's on EP136 that should be aware of when looking at contracting Indigenous companies?
1/04/2021	Ward Keller on behalf of Sweetpea	Amendment of AA9 Application and negotiations	Email to NLC representative	-	Sweetpea confirmed that did not wish to amend the AA9 application.
31-05-2021	Sweetpea	Updated 2021 WP	Email to NLC Coordinator	-	Annual 2021 WP submitted for NLC
07-08-2021	NLC	Cultural Monitor Fee Estimate	Email to Sweetpea PM	-	Provided cost estimate for Cultural Monitors.
13/08/2021	Sweetpea Petroleum	Cultural Monitor Fee Estimate	Email to NLC Coordinator	-	Sweetpea approved cost estimate.
25/08/2021	Sweetpea Petroleum	Contact by TO	Email to NLC representative	-	Request to NLC in relation to a voice mail received from a TO regarding royalties from August 2020 meeting. Noted this was when NLC and Tamboran presented the annual work program. Wanted NLC to follow up with TO and to obtain guidance from NLC.
25/08/2021	NLC	Contact by TO	Email to Sweetpea PM	-	Replied to Sweetpea, requesting message to determine course of action.
25/08/2021	Sweetpea Petroleum	Contact by TO	Email to NLC representative	-	Sweetpea advised NLC representative that received call from a Traditional Owner for EP136.
31/09/2021	NLC	Update on AA9 Consults	Email to Sweetpea PM	-	NLC planning to hold the EP136 and AA9 meetings for each different Native Title group. Agenda: · Native title legal overview · Hydraulic fracturing (fracking) information · Questions and answers · AA9 (for decision) · EP136 and AA9 work program for information (Sweetpea to present) · EP136 royalty instructions (if time permits)
8/10/2021	NLC	AA9 and Annual WP Consulting scheduling update	Email to Sweetpea PM	-	NLC identified finalising logistics for the 2022 Work Program Meetings.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
13/10/2021	NLC	AA9 and Annual WP Consulting scheduling update	Email to Sweetpea PM	-	NLC noted that have some issues with logistics organising meeting as planned for next week due to the large number of people and the location of where they live, and the logistical coordination of driving people to the meeting locations. Advised working to overcome the issues and plan to reschedule for the following week. Plan is one large meeting at Tennant Creek for AA9 and Work Program, as well as two shorter meetings at Katherine and Elliot over the preceding two days focussing on the Work Program.
22/10/2021	Sweetpea Petroleum	Annual 2022 WP Draft Slides for presentation	Email to NLC representative	-	Confirmed accept work program costs for NLC to commence arrangement for Work Program meetings.
22/10/2021	Sweetpea Petroleum	Annual 2022 WP Draft Slides for presentation	Email to NLC coordinator	-	Sweetpea provided copies to NLC of the Work Program Letter, Draft slide pack that will be presented by Sweetpea representatives during the meeting and confirmed remote attendance of Sweetpea technical members not able to attend in person.
21/10/2021	NLC	Agenda and meeting times for NLC annual WP consultations	Email to Sweetpea/Tamboran Representatives	-	NLC provided copies of the agendas for the work program and AA9 meetings to be held between 27 and 29 October 2021. Noted that agendas aspirational in terms of times but provide a plan for intended order of business.
27-29/10/2021	NLC, Native Title Owners and Sweetpea representatives.	Annual 2022 Work Program consults	Presentation in person	-	Sweetpea attended Katherine, Elliott and Tennant to present Sweetpea's work program for 2022. Advised of all planned activities and how manage environmental risks during exploration.
5/11/2021	NLC	Agenda and meeting times for NLC annual WP consultations	Email to Tamboran/Sweetpea representatives	-	Update on last meeting date for Darwin confirm to be held at the NLC office in Darwin at 8:30 on Saturday 6 November 2021.
16/11/2021	NLC	Agenda and meeting times for NLC annual WP consultations	Email to Tamboran/Sweetpea representatives	-	Informed that needed to cancelled Darwin meeting of the Annual Work Program consult due to Covid. Noted that NLC had postponed all meetings until after next Monday given the evolving COVID situation in the NT.
30/11/2021	NLC	Update on 2022 work program and future plans for EP136	Tamboran/Sweetpea meeting with NLC	-	NLC provided feedback on future consultations and Sweetpea/Tamboran provided company updates on on ground activities in EP136.
9/12/2021	DITT	Marked up s31 Deed	Email from DITT to Ward Keller.	-	DITT provided marked up s31 Deed to Ward Keller.
9/12/2021	Ward Keller	Marked up s31 Deed	Email from Ward Keller to Sweetpea.	-	Ward Keller advised Sweetpea that changes to s31 Deed by DITT were not substantive.
9/12/2021	Sweetpea Petroleum	Marked up s31 Deed	Email from Sweetpea to Ward Keller.	-	Sweetpea queried if there was an action to follow up on.
9/12/2021	Ward Keller	Marked up s31 Deed	Email from Ward Keller to Sweetpea.	-	Ward Keller advised Sweetpea that no further action is required and that NLC have been advised that the s31 Deed is acceptable.
14/02/2022	Ward Keller	Tripartite Deed for AA9	Email from Ward Keller to Sweetpea.	-	Ward Keller provided Deed for signing off in preparation for consideration at the next scheduled meeting of the Prescribed Body Corporate (PBC).
21/02/2022	Ward Keller	Ancillary Exploration Agreement for AA9/EP136	Email from Ward Keller to Sweetpea.	-	Ward Keller provided final version of the Ancillary Exploration Agreement with Service Level Agreement with recommendation to sign off. Both the Agreement and s31 Deed will be considered by the PBG at the next AGM.
21/02/2022 - 22/02/2022	Sweetpea Petroleum	Ancillary Exploration Agreement for AA9/EP136	Emails from Sweetpea to Ward Keller.	-	Sweetpea advised Ward Keller that there are no issues with the final version of the Ancillary Exploration Agreement with Service Level Agreement. Both accepted and approved to progress.
3/03/2022	Ward Keller	AA9/EP136 Ancillary Exploration Agreement, s31 Deed	Email from Ward Keller to Sweetpea.	-	Ward Keller advised Sweetpea that PBC resolved to enter into agreements at its AGM on 25 Feb-22. All ready for signing off. NT Government will be last party to sign the s31 Deed.
20/01/2022	NLC	New Senior Project Officer and Project Officer.	Email update from NLC.	-	NLC advised that a new Senior Project Officer and Project Officer have joined the NLC's Resources and Energy Branch.
7/02/2022	Sweetpea Petroleum	EMPs Update	Email to NLC.	-	Sweetpea notified NLC that the Well Drilling, HFS and Testing EMP has been submitted to DEPWS and is now available for public comment. Further advise was also provided for approved EMPs on DEPWS' website.
3/03/2022	NLC	Media Release about Biosecurity Zones.	Email update from NLC.	-	NLC provided copy of media release about Biosecurity Zones in the NLC area being lifted at midnight of 3 March 2022.

Summary of Sweetpea Petroleum Pty Ltd Stakeholder Engagement Log					
Date	Company	Information Provided	Correspondence Type	Objections	Discussion/Assessment of Objections
30/03/2022	Sweetpea Petroleum	Rescheduled Darwin Work Program Meeting.	Email to NLC.	-	Requesting NLC to provide an update on Work Program meeting for Darwin.
31/03/2022	NLC	Rescheduled Darwin Work Program Meeting.	Email to Tamboran/Sweetpea representative	-	NLC provided update on potential dates for the Darwin Work Program Meeting.
Mineral Exploration Licence Holder Communication Log					
18/03/2022	Sweetpea Petroleum	EP136 Activity Update	Email to AMETS, Pennant Resources Pty Ltd's representative in NT.	-	Provided 2022 activity updates in an email to AMETS with link to approved EMPs published on DEPWS website.
DEPWS Communication Log					
7/01/2022	Sweetpea Petroleum	Water Extraction Licence (WEL) Meter Readings.	Email to DEPWS Water Licensing Team.	-	Advised DEPWS Water Licensing Team that Sweetpea/Tamboran have not commenced water extraction under WEL GRF10346.
11/01/2022	DEPWS Water Licensing Team	Water Extraction Licence (WEL) Meter Readings.	Email from DEPWS Water Licensing Team.	-	DEPWS Water Licensing Team responded to advise Sweetpea/Tamboran that advise received via email regarding water extraction under WEL GRF10346 has been recorded.
4/03/2022	Sweetpea Petroleum	Application to amend Water Extraction Licence (WEL) GRF10346.	Email application to DEPWS Water Resources Division's Water Licensing Team.	-	Applied to amend Special Condition 5.5 of WEL GRF10346.
8/03/2022	DEPWS Water Licensing Team	Email received with amended Water Extraction Licence (WEL) GRF10346.	Email application to DEPWS Water Licensing Team.	-	Sweetpea/Tamboran received Amended WEL GRF10346.
DITT Communication Log					
31/01/2022	Sweetpea Petroleum	Exploration Activities near EP Boundary.	Email for clarification sent to DITT.	-	Email sent to DITT seeking clarification on how close can regulated activities be conducted to an EP boundary.
31/01/2022	DITT	Exploration Activities near EP Boundary.	Email from DITT with clarification.	-	DITT provide clarifications on how close to conduct a regulated activity near an EP boundary.
23/02/2022	Sweetpea Petroleum	Update on Schedule for 2022 proposed activities within EP136.	Email to DITT.	-	Provided EP136 operational phase schedule to DITT via email.
AAPA Communication Log					
7/02/2022	Sweetpea Petroleum	EMPs Update	Email to AAPA	-	Sweetpea notified AAPA that the Well Drilling, HFS and Testing EMP has been submitted to DEPWS and is now available for public comment. Further advise was also provided for approved EMPs on DEPWS' website.

APPENDIX D Traffic Impact Statement

Traffic Impact Statement

Beetaloo Sub-Basin, NT

20-May-2022
Civil Construction and Water Bore EMP

Traffic Impact Statement

Beetaloo Sub-Basin, NT

Client: Sweetpea Petroleum Pty Ltd

ABN: 42 074 750 879

Prepared by

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Job No.: 60611666

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Quality Information

Document Traffic Impact Statement

Ref 60611666

Date 20-May-2022

Prepared by Adam Tran, Lydia Laouris

Reviewed by James Jentz, Tyler Hill, Alana Court

Revision History

Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
0	11-Dec-2020	Draft	James Jentz Darwin Office Manager	
1	03-Mar-2021	Final	James Jentz Darwin Office Manager	
01	29-Mar-2021	Final – Appendix	James Jentz Darwin Office Manager	
2	20-May-2022	Final – Revised	James Jentz Darwin Office Manager	

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1.0 Executive Summary

The proposed works are located along the Carpentaria Highway, situated 132 km east of the Stuart Highway. Department of Infrastructure Planning and Logistics (DIPL) Annual Traffic Report 2019 showed an average traffic flow of 118 vehicles per day with an even distribution of traffic in both directions.

The Carpentaria Highway is a two lane, two-way road which allows a road capacity limit of 17,400 vehicles per day. Vehicle use generated from the proposed activities within exploration permit (EP) 136 produced an increase of 56 vehicles per day for the Carpentaria Highway. Vehicle use generated from other explorations within EP136 include Santos at EP161 and Imperial Oil and Gas (Imperial) at EP187. Their combined proposed activities produced an increase of 123 vehicles (67 Santos and 56 Imperial) per day for the Carpentaria Highway. The cumulative traffic flow from exploration activities produced an increase of 179 vehicles per day for the Carpentaria Highway, which does not exceed the calculated road capacity limit.

This assessment concluded that the cumulative traffic volumes from other explorations with the inclusion of the proposed works will not negatively impact traffic activities in both directions, for the three-year phases.

2.0 Introduction

2.1 General

The purpose of this document is to discuss the potential traffic management issues associated with Sweetpea Petroleum Pty Ltd (Sweetpea) 2022-2024 development of permit area EP136, in particular the civil works including installation of water bores, upgrading access tracks and constructing drilling lease pads in preparation for future drilling, fracture stimulation and testing phase. This assessment will highlight the impacts of the additional vehicle load to the Carpentaria Highway, constrained particularly to the proposed site.

The Traffic Impact Statement (TIS) will be divided into four sections to better represent each stage of the program, where generally the stages will display similar traffic volume results. The TIS is broken down as follows:

- Identifying the traffic movements associated with the project, including the establishment and demobilisation procedures.
- Existing traffic conditions and road Level of Service.
- Assessment of the total traffic levels created by the works and its potential impact, including other exploration activities within EP136.
- Determine the required impact mitigation treatments.

2.2 Project Description

The Beetaloo Basin is located within the Barkly Region, 500 km south-east of Darwin, Northern Territory.

With reference to Figure 1 and Figure 2, as part of the continued development of EP136, Sweetpea aim to complete the civil works required in preparation for drilling. These works will involve:

- Establishment of an access junction with the Carpentaria Highway.
- Main Camp establishment.
- Construction of monitoring bores.
- Construction of access tracks.
- Construction of seven drilling pads.

Two campsite options are proposed in the C&WB EMP with one located adjacent the Carpentaria Highway and one within EP136 near Lease Pad 1. Only one of these options will proceed, with preference for camp to be located on EP136. Should camp progress at the Carpentaria Highway location, the interaction with Carpentaria Highway is discussed in Section 6.1.

The initial construction activities for Sweetpea's exploration program will be the construction of the intersection with the Carpentaria Highway and access track into EP136, the establishment of the camp, well pad 1 and construction of water bores. This is planned to commence in the 2022 Dry Season with demobilisation planned to occur before the start of the Wet Season. It is noted that the camp will stay on site over the wet season.

The civil works for the balance of the well pad sites cover 2-3 sites a year and is summarised below:

- Install pairs of control monitor bores on site.
- Construct campsite (mobilise to camp site after initial year)
- Construct access tracks to site.
- Construct well pad and tank pad on site.
- Install pairs of impact monitor bores on each well pad site.
- Survey of bores and ongoing groundwater monitoring.
- Demobilise from site before wet season.

It is expected that traffic flows will remain similar for each year of the civil works.

3.0 Intersection and Access Track Locations

Table 1 provides the intersection options for gaining access to EP136 for Sweetpea's exploration activities. It is reiterated that only one of the three Western Access Track options would become the access to Lease Pad 1, with the preference being Option 2 - proposed new access.

Table 1 Access Track Intersection to Carpentaria Highway Coordinates

Access Track Options	Coordinates	
	Latitude	Longitude
Access Track West – Option 1 (Original Access Option in EMP)	-16.489672°	134.489934°
Access Track West Option 2 (New access to EP136 - Preferred)	-16.487558°	134.503563°
Access Track West Option 3 (Repurposed Seismic Line)	-16.485852°	134.515142°
Access Track Highway Camp (only progress if Lease Pad 1 Camp doesn't go ahead)	-16.480136°	134.566989°
Access Track East	-16.480506°	134.579975°

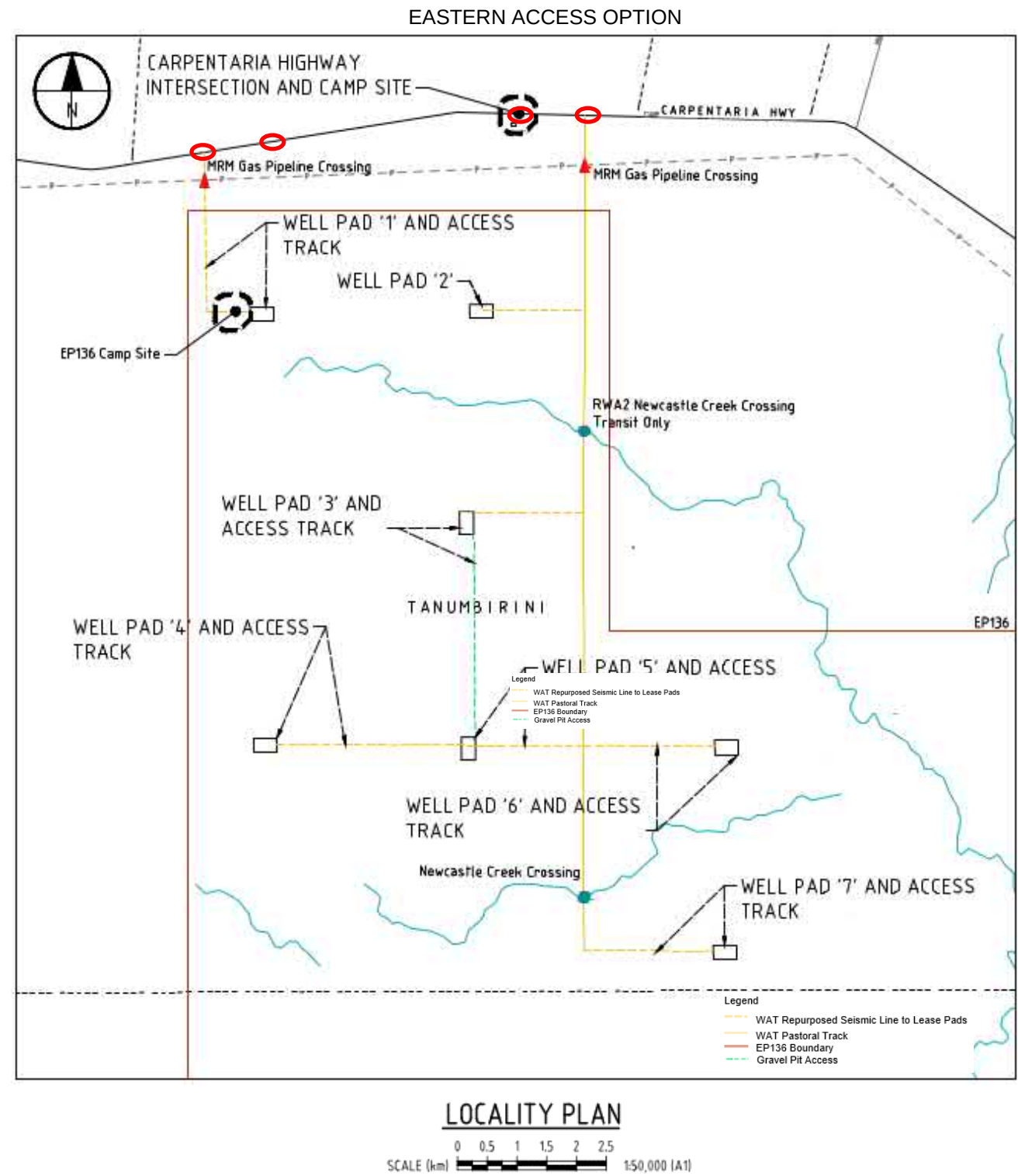


Figure 1 Eastern Access Track Option

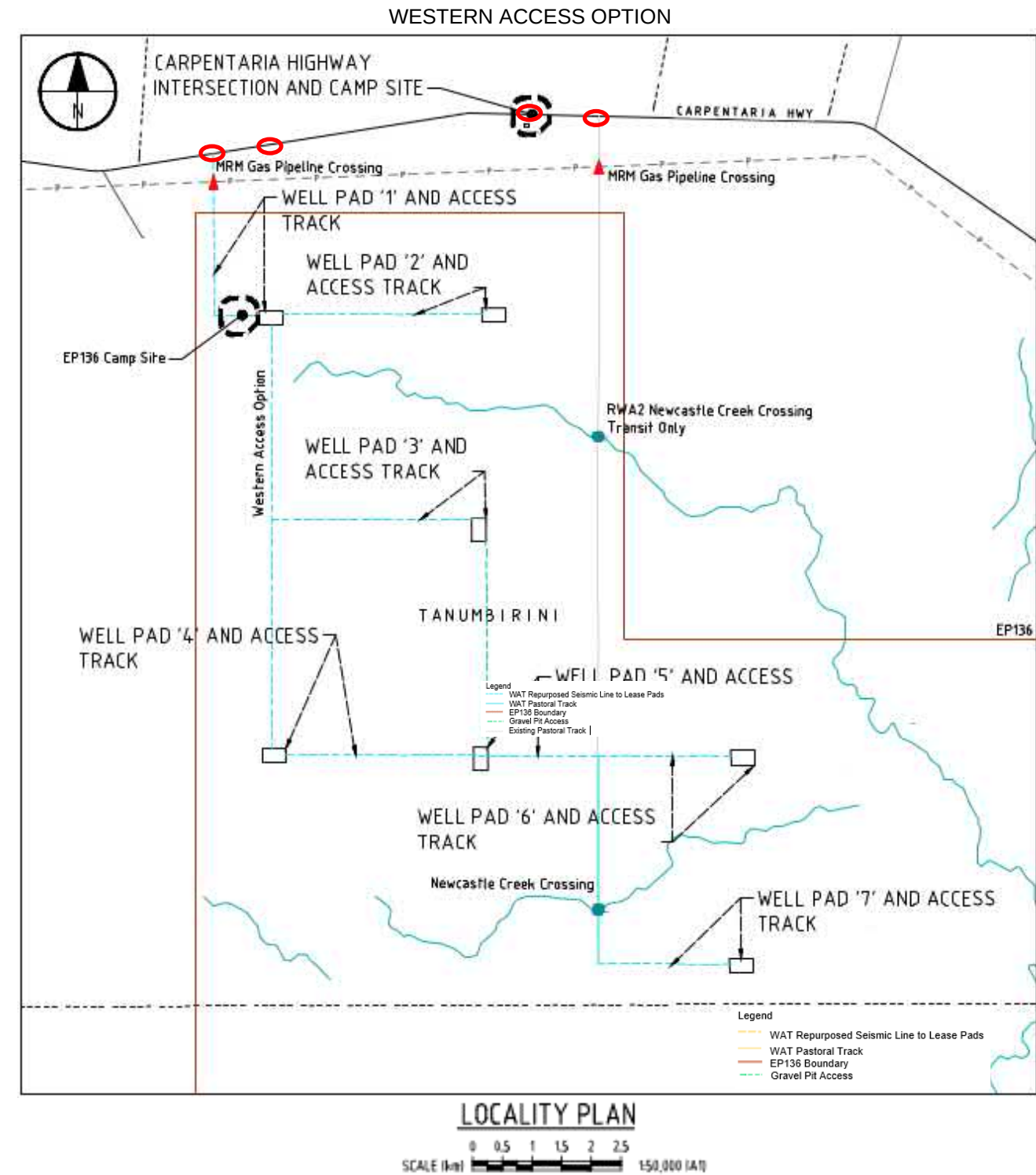


Figure 2 Western Access Track Option

4.0 Traffic Generation Figures

4.1 Vehicle Movement

Conservative estimates of traffic movement for the site is highlighted in Table 2. Peak traffic flows will be experienced during the initial phase due to the establishment of the control monitoring bores at wells 1 and 2. With the installation of the control monitoring bores being independent to the construction activities required to establish the well and tank pads, vehicle estimates for both activities and establishing the camp site will be combined. It is estimated that for a week during the mobilisation for the bore and camp civil works, that an additional 35 trucks per day and 21 light vehicles per day (56 vehicles per day, total) will be generated from the site.

The construction of the 100×100 m² campsite will house a maximum of 55 personnel and will contain amenities (living quarters, kitchen, bathroom) to cater for the duration of the entire civil construction phases. Personnel will mobilise to the campsite using private vehicles where their vehicles will also reside at the campsite for the duration of the civil works and it assumed that some personnel will leave and return camp on rotating rosters via private vehicles or buses, but with most personnel remaining onsite.

Vehicles used to transport machinery and personnel to the well sites will mobilise from the campsite and will not impact traffic from the Carpentaria Highway. During the mobilisation from the camp to the well sites, there will be a day of approximately 47 vehicles a day (32 heavy and 15 light vehicles) accessing the permit used for the pad construction. Simultaneously, during the mobilisation to the bore sites, there will be approximately 9 vehicles (3 heavy and 6 light vehicles) which may coincide with the camp site establishment activities. The expected equipment and machinery can be seen below.

- | | |
|------------------------------|---------------------|
| • Light 4WD Vehicle | • Grader |
| • Truck-mounted drilling rig | • Dozer |
| • Cement mixing plant | • Four-wheel loader |
| • Support truck | • Tip truck |
| • Water truck/tanks | • Water truck/tanks |
| • Bore test pump | • Water tanks |
| • Gamma logging equipment | • Excavator |
| • Mobile camp | • Compactor |

The start of the wet season will also coincide with the demobilisation of the work personnel's private vehicles from the campsite and machinery related to the civil works. The 2022 and 2024 phase commencement will begin in the Dry Season where traffic conditions will follow a similar pattern of traffic flow of initially arriving at camp, where again the vehicles will mobilise from the campsite once re-mobilised.

Both Santos EP161 and Imperial EP187 have exploration activities which may coincide with Sweetpea's development of permit area EP136 schedule. From respective EMPs found from the Department of Environment, Parks and Water Security (DEPWS), the period with the highest vehicle generation from respective explorations have been taken as a conservative measure i.e. mobilisation to respective camp sites from the Carpentaria Highway.

Peak traffic flows generated from Santos and Imperial are approximately 67 (46 heavy and 21 light) and 56 (35 heavy and 21 light) vehicles per day for the Carpentaria Highway respectively. The cumulative traffic flow produced an increase of 179 vehicles per day for the Carpentaria Highway (Table 3).

Table 2 Indicative Flows Carpentaria Highway – Sweetpea

Activity	Duration	Average heavy vehicles per day	Light vehicles per day	Total trips per day
Establishment of camp site				
Construct access junction w/ Carpentaria Highway and establish camp	1 week	32	15	Once at mobilisation and demobilisation.
Work personnel arriving on site in private vehicles	2 weeks	NA	15	Once at mobilisation and demobilisation.
Construction of bores per site				
Control & impact monitor bore mobilisation*	1 week	3	6	Once at mobilisation and demobilisation.
Control & impact monitor bore construction*	5 weeks	6	6	Once at mobilisation and demobilisation.
Survey of bore monitors	1 day	NA	2	2
Construction of well and tank pads per site				
Well and tank pad mobilisation*	1 week	NA (vehicles will be already on site from construction of camp)	NA (vehicles will be already on site from construction of camp)	Once at mobilisation and demobilisation.
Construct well pad and tank pad*	3-8 weeks	NA (vehicles will be already on site from construction of camp)	NA (vehicles will be already on site from construction of camp)	Once at mobilisation and demobilisation.
Wet season shutdown				
Demobilisation of personnel and construction vehicles	1 week	32	15	47

*These activities will mobilise from the camp site and will not impact traffic.

Table 3 Indicative Flows Carpentaria Highway – Other Activities

Activity	Duration	Average heavy vehicles per day	Light vehicles per day	Total trips per day
Establishment of camp site/mobilisation to campsite				
Santos	2 weeks	46	21	Once at mobilisation and demobilisation.
Imperial	2 weeks	35	21	Once at mobilisation and demobilisation.

Note: Vehicle numbers were not explicitly provided in respective EMPs. Determination of vehicle numbers were based on indicative project schedules using Table 2 Indicative Flows Carpentaria Highway – Sweetpea

as the basis.

5.0 Analysis of Traffic Flows

5.1 Impact of Additional Traffic Volumes Generated

The preceding section identifies that the maximum anticipated traffic flow increases associated with the civil works by Sweetpea and works related to Santos and Imperial will be approximately 179 vehicles per day.

To evaluate the impact of additional vehicles, AUSROADS guidelines and DIPL's *Annual Traffic Report 2019* was used to determine the typical level of service operating conditions that would be expected by traffic on rural roads, such as the Carpentaria Highway, which is constrained to a single lane without overtaking. Eq (5) from AUSROADS *Guide to Traffic Management Part 3 (AGTM03-20)* will consequently be used and is broken down below.

$$C = 1800 f_w f_{HV}$$

Where,

C = capacity in vehicles/hour under prevailing roadway and traffic conditions.

f_w = adjustment factor for narrow lanes and lateral clearances (Table 5.1 AGTM03-20).

$f_{HV} = \frac{1}{1 + P_{HV}(E_{HV} - 1)}$ = adjustment factor for heavy vehicles.

P_{HV} = the proportion of heavy vehicles in the traffic stream.

E_{HV} = the average passenger car equivalents for heavy vehicles obtained from Table 5.2 of AGTM03-20.

The Carpentaria Highway was estimated to have a width and lateral clearances on each side of 2.7m and 1m respectively; these measurements are of a conservative estimate. This equated to an f_w value of 0.63.

The proportions of heavy vehicle use on the Carpentaria Highway was determined via DIPL's *Annual Traffic Report 2019* and AUSTROADS vehicle classification guidelines found in Chart 1 of the DIPL report, where a heavy vehicle is identified with a Class 3 or above. By summing the percentage of vehicles under the Vehicle Classification of 1 and 2 using Figure 3, the remaining percentage will equate to the proportion of heavy vehicles on the Carpentaria Highway which resulted in 19%.

The E_{HV} value was taken as a conservative approach, equating to 4 and was determined using Table 5.2 from AGTM03-20.

Road Name/Location	Station	Month (Days)	Direction	Vehicle Classification											
				1	2	3	4	5	6	7	8	9	10	11	12
Carpentaria Highway 2km East of Stuart Highway	RKVDPO08	Apr (30)	Both	74.01	10.06	9.28	0.71	0.32	1.22	0.66	0.10	0.24	0.11	1.12	2.16
		May (31)	Both	70.57	8.54	11.93	1.11	0.53	0.99	0.79	0.19	0.46	0.44	1.43	3.01
		Jun (30)	Both	71.91	8.65	11.48	0.74	0.32	0.93	0.86	0.12	0.51	0.16	1.41	2.90
		Jul (31)	Both	71.07	9.36	10.90	0.89	0.34	1.18	0.91	0.12	0.49	0.22	1.29	3.24
		Aug (31)	Both	71.44	7.44	11.77	1.14	0.33	1.12	0.82	0.18	0.57	0.31	1.71	3.17
		Sep (30)	Both	72.01	6.85	11.27	1.07	0.34	0.89	0.76	0.17	0.65	0.32	2.16	3.51
		Oct (31)	Both	73.28	5.73	10.71	1.22	0.46	0.86	0.52	0.12	0.65	0.50	1.75	4.19
		Nov (31)	Both	74.37	4.92	10.33	1.19	0.37	0.63	0.60	0.13	1.10	0.54	2.13	3.68
		Dec (31)	Both	77.02	4.54	9.57	1.03	0.25	0.56	0.43	0.10	0.64	0.37	2.05	3.44
		All (365)	Inbound	70.64	7.10	12.76	1.02	0.34	1.16	0.92	0.13	0.58	0.33	1.59	3.43
		All (365)	Outbound	75.77	7.99	8.22	0.85	0.35	0.78	0.51	0.13	0.52	0.29	1.51	3.09
		All (365)	Both	73.26	7.56	10.44	0.94	0.34	0.96	0.71	0.13	0.55	0.31	1.55	3.25

Figure 3 Heavy Vehicle Proportions Carpentaria Highway (DIPL Annual Traffic Report 2019)

This results in a capacity of 725 vehicles per hour (17,400 vehicles per day) for the Carpentaria highway. These anticipated traffic conditions will be used to assess the potential traffic impacts that the project brings.

DIPL's *Annual Traffic Report 2019* showed a peak average traffic flow of 118 vehicles per day in August, with an even distribution of inbound and outbound traffic which can be seen in Figure 4 below. These counts would be used as a conservative estimate throughout the project's timeline. In a study undertaken by GHD for the "Mt Todd Gold Project Traffic and Transport Impact Assessment June 2013" highlighted that physical counts during peak periods could reach a 50% increase in average daily flows.

This will also be taken into consideration and hence the 118 vehicles per day will be artificially increased to 177 vehicles per day. This represents a worst-case scenario for traffic flows in the vicinity of the site, from regular traffic.

Figure 4 Calculated AADT for Carpentaria Highway (DIPL Annual Traffic Report 2019)

Road Name / Location	Station No	Direction	Units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT
Carpentaria Highway 2km East of Stuart Highway	RKVD008	Inbound	Veh	20	23	31	34	41	53	62	62	41	42	36	25	39
		Outbound	Veh	17	23	30	30	40	51	55	56	43	41	35	28	37
		Both	Veh	37	46	61	64	81	104	117	118	84	83	71	53	76

The peak cumulative traffic flow produced from mobilisation to respective camp sites within the vicinity of the Sweetpea camp site is expected to be 179 vehicles per day. This brings the worst-case scenario of 356 vehicles per day or 15 vehicles per hour which is well below the calculated 725 vehicles per hour capacity. It is therefore expected that impacts on traffic flows are to be negligible.

5.2 Impact of Composition of Traffic

Regarding AUSTROADS vehicle classification guidelines, the distribution of vehicles based on the most recent DIPL traffic report for the Carpentaria Highway can be seen under the subheading “*Current split of vehicles*” in Table 4. Traffic Level of Service may also be impacted through changes in traffic compositions, with the volume of trucks affecting the road capacity greater than light vehicles. To assess the changes in traffic compositions, vehicle category data obtained from DIPL’s *Annual Traffic Report 2019* were assessed against expected peak total project traffic figures.

Taking into consideration the period with the largest increase in traffic flow, the split of vehicles for the Carpentaria Highway changes, where a comparison can also be seen in Table 4 under the subheading “*Estimated split of vehicles*”. By looking at the “*Estimated increase of vehicles*” heading, the distribution of vehicle show that the proportion of short vehicles decreased by 19.2% and long combination vehicles by 1.7%. The proportion of medium vehicles increased by 3.8%, long vehicles by 8.4% and medium combination by 8.4%. This change in percentage is unlikely to negatively impact upon the road’s capacity and LOS.

Table 4 Comparison of Vehicle Distribution of current and estimated additional traffic flows

Vehicle Type Description	Current split of vehicles		Estimated split of vehicles		Estimated increase of vehicles
	Vehicles Per Day (VPD)	Percentage of Vehicles Per Day (%)	Vehicles Per Day (VPD)	Percentage of Vehicles Per Day (%)	
Short	130	73.4	193	54.2	63
Medium	34	19.2	82	23.0	48
Long	4	2.3	38	10.7	34
Medium Combination	3	1.7	37	10.4	34
Large Combination	6	3.4	6	1.69	No change
Total no. of vehicles	177		356		

6.0 Other Potential Risks and Mitigations

6.1 Camp adjacent the Carpentaria Highway

It is likely that the exploration camp option will be located within EP136 in close proximity to Lease Pad 1

1. Should the highway camp progress, the following information is presented:

- The location of the camp is approximately 125 m off the highway alignment.
- The site is an existing clearing used as a camp for road construction and maintenance crews through the year. Potentially it may cause a distraction for road users, particularly with the use of lights at night with the operation hours of the site starting and ending at 0600-1800 respectively, 7 days a week.
- Plate 1 shows the camp site surrounded by a well vegetated buffer which will assist in shielding the camp from the Carpentaria Highway.
- Traffic entering and exiting the site will also be using this access point. To mitigate these impacts, appropriate signage will be placed before the camp to inform road users of the camp location. All traffic management protocols as per the DIPL Roadworks Master Specification - Section 1; Provisions for Traffic will be followed.



Plate 1 Site entry off Carpentaria Highway

6.2 Intersection Option Sight Line Assessment

Table 5 presents the sight lines for each proposed intersection that are currently approved under the Civil and Water Bore EMP or are part of the r22 Modification (reference SWP2-3.1). Of the below options, Option 2 new access track from Carpentaria Highway is the preferred which will provide direct access to Lease Pad 1 and the proposed camp on EP136.

Table 5 Intersection Option Sight Lines

Access Track Options	Coordinates		Sight Lines for Intersection Options		
	Latitude	Longitude	South View	East View	West View
Access Track West – Option 1 (Original Access Option in EMP)	-16.489672°	134.489934°			
Access Track West Option 2 (New access to EP136 - Preferred) (Imagery from Google Street View – imagery dated 05/2008)	-16.487558°	134.503563°			
Access Track West Option 3 (Repurposed Seismic Line) (Imagery from Google Street View – imagery dated 05/2008)	-16.485852°	134.515142°			

Access Track Options	Coordinates		Sight Lines for Intersection Options		
	Latitude	Longitude	South View	East View	West View
Access Track Highway Camp (only progress if Lease Pad 1 Camp doesn't go ahead)	-16.480136°	134.566989°			
Access Track East	-16.480506°	134.579975°			

Shaded = Preferred Access Point.

7.0 Conclusion

The proposed activities are located on the Carpentaria Highway approximately 132 km east of the Stuart Highway. Average peak flows from DIPL *Annual Traffic Report 2019* was artificially increased from 118 to 177 vehicles, including a peaking factor of 50%.

The peak additional traffic generated from mobilisation of the vehicles relating to the construction of bore works and camp site establishment will be approximately 56 vehicles per day. The peak additional traffic generated from Santos and Imperial works will be approximately 67 and 56 vehicles per day respectively. Cumulatively, this causes the Carpentaria Highway to experience 356 vehicles per day when factoring existing daily flows. These anticipated values are well below the AUSROADS *Guide to Traffic Management Part 3 (AGTM03-20)*.

It is concluded that with the low traffic volumes relative to the calculated 17,400 vehicles per day capacity for a two lane, two-way road and utilisation of management practises, impacts of the proposed civil works on existing traffic conditions will be negligible.

8.0 Reference

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