

31st October 2023

QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 30 September 2023

Top End Energy Limited ("TEE or "the Company") (ASX:TEE) is pleased to present its quarterly activities report for the quarter ended 30 September 2023.

HIGHLIGHTS

- Acquisition of 109 line kilometres of infill 2D seismic data on ATP 1069 completed safely, without incident and within budget
- Data processed by Earth Signal using the latest in PSTM technologies with processing workflow providing a significant uplift in data quality
- Integration of the new 2D seismic data into the Company's existing ATP 1069 sub-surface database complete and ongoing interpretation to inform forward work program for the permit
- Grant of EP 258 in the NT expected in the December quarter once Section 31 Deed has been executed by the Company, NLC and NT government
- Ongoing preparation for post-grant exploration program on EP 258 designed to confirm the extension of the Velkerri Shale, the target for operators in the nearby highly prospective Beetaloo Basin, and presence of the conventional Bessie Sandstone formation on the permit
- Formal grant received for WA EP 501 in the highly prospective Amadeus Basin
- Multiple play fairways have been identified across EP 501 for conventional Hydrocarbons, Helium and Hydrogen, all of which have been discovered in the basin
- Company continues to pursue corporate development and strategic partnership opportunities to complement the Company's existing asset base and strategic objectives
- The Company is executing on its IPO objectives and remains well funded going into the December quarter and 2024

ATP 1069 (QUEENSLAND)

ATP 1069 (the "Permit") is a granted hydrocarbon permit located 130km north-west of Charleville in Central Queensland, covering an area of approximately 1,048km². The Company holds a 100% ownership interest in the Permit.

The Company has identified multiple plays across the Permit and intends primarily to pursue potential conventional natural gas prospectivity in the deeper Adavale Basin towards the southern part of the Permit. The Gilmore gas field, situated approximately 75 km west of the Permit, has demonstrated commercial conventional gas production from the Lissoy Sandstone and Log Creek Formation of the Adavale Basin. Initial seismic interpretation suggests these formations may be present within the Permit, but no wells have been drilled to these depths on the Permit. The Company's ongoing and intended 2023/24 work program is targeted to further increase the chance of geological success of the Coolibah conventional gas prospect and ultimately refine drilling locations for a potential exploration well.

The Permit is strategically located in proximity to existing infrastructure and the east coast gas market, which is forecast to face significant near-term supply shortfall. Strong support for natural gas is expected in light of sustained underinvestment in supply, ongoing international geo-political tensions and a refocusing on security of energy supply.

The following Prospective Resources at the Coolibah Prospect have been independently assessed by Discover Geoscience ("Discover"):

Coolibah Prospect (100%) ¹	PMean	P10	P50	P90
Gas in Place (bcf)	1,951	4,140	1,288	400
Prospective Resources (bcf)	715	1,573	491	150

Note: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both a risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons.

Table 1: Coolibah Prospective Resources independently assessed by Discover

¹ Please see ASX announcement "Certified Prospective Resource & Operational Update" (29 November 2022); the Company is not aware of any new information or data that materially affects the information included in the ASX announcement and all material assumptions and technical parameters underpinning the estimates in the ASX announcement continue to apply and have not materially changed.

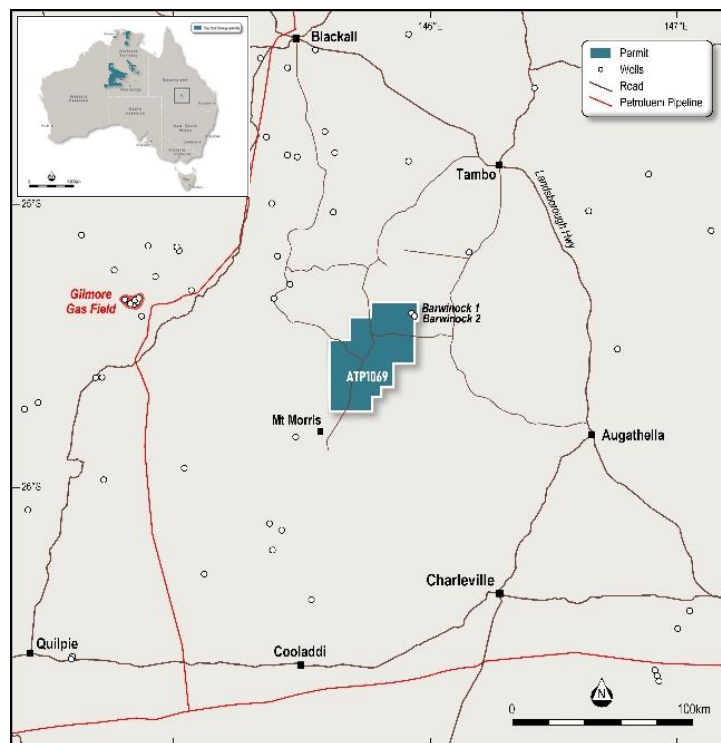


Figure 1: TEE's 100% owned permit in Queensland (ATP 1069)

Key activities undertaken on the Permit during the quarter included:

- The completion of the acquisition of approximately 109 line kilometres of 2D seismic acquisition. The preparation for and execution of the acquisition campaign was completed within budget and incident free.
- Positive engagement was had with landholders and other stakeholders throughout the process, and the Company continues to work with landholders in regard to rehabilitation of any land impacted by clearing activities.
- The high quality acquired data was then conveyed to Earth Signal Processing Ltd ("Earth Signal") for processing using the latest modern Pre-Stack Time Migration ("PSTM") technology.

After the quarter end, the data processing had been completed and integrated into the Company's existing ATP 1069 sub-surface database. The Company is currently undertaking a comprehensive subsurface assessment of the newly integrated database and preparing for a potential farm-down process.



Figure 2: Vibroseis source trucks at the Coolibah Prospect

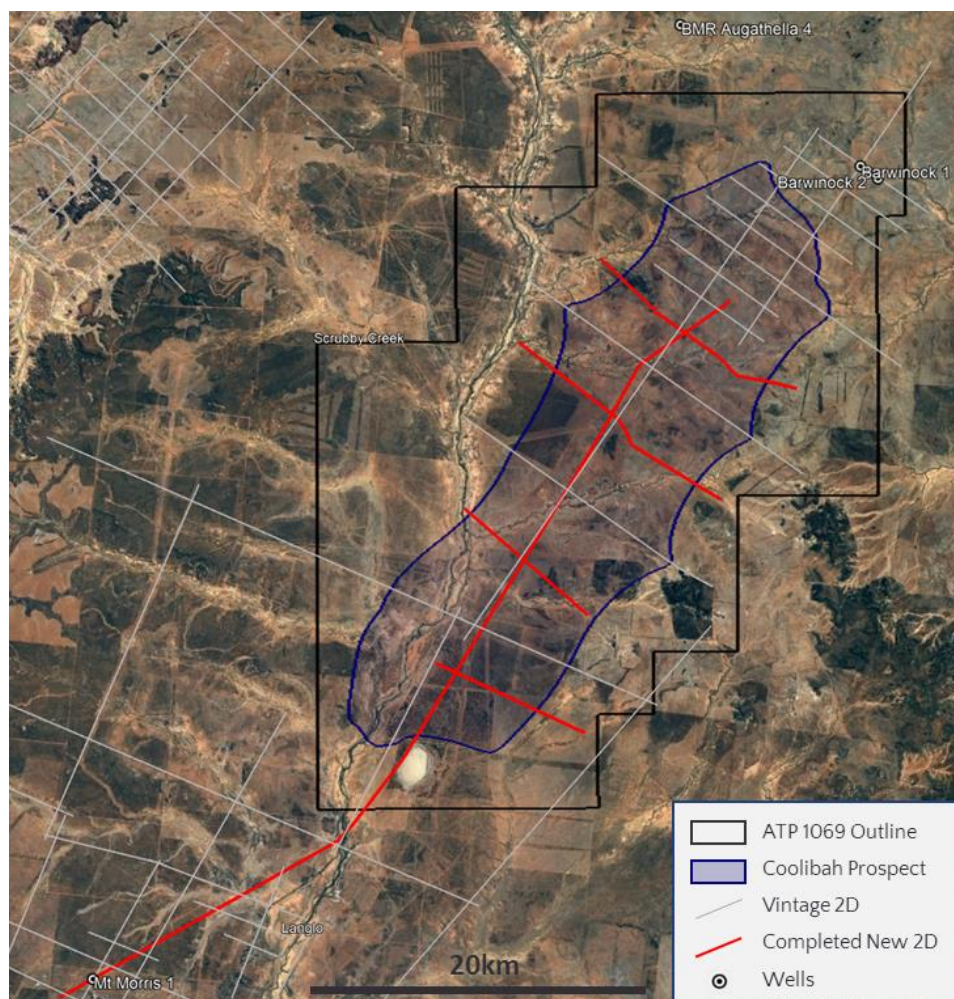


Figure 3: Completed Coolibah 2D Seismic Survey over ATP 1069

TG PROJECT (NORTHERN TERRITORY)

The Company holds an approximately 58% beneficial interest in 30 exploration permit ("EP") applications across the Northern Territory ("NT"), covering ~160,000 km². The Company has prioritised key permits based on initial technical assessments of the available data. Of these key permits, the Company has had significant engagement with the Northern Land Council ("NLC"), native title holders and NT government representatives to achieve the formal grant and work program approvals for EP 258.

EP 258 is located on the edge of the Greater McArthur Basin, south of discoveries within the Velkerri and Kyalla Shales and the conventional Moroak and Bessie Creek Sandstone reservoirs. Although there are no seismic data on the permits, seismic lines ending north of the permits suggest that both the conventional Bessie Sandstone and unconventional Velkerri Shale may be present within the deeper basin sections of the permits. The Velkerri Shale is a shale gas target for operators such as Santos, Tamboran Resources and Empire Energy across the Beetaloo sub-basin.

The primary objective of the intended initial exploration activities, subject to receiving formal grant, is to confirm the presence of the conventional Bessie Sandstone and unconventional Velkerri Shale formations.

While EP 258 and the adjacent EP 259 are the near-term focus in the NT, the Company has also commenced native title proceedings for EP 257 in the McArthur Basin and EP 279 and EP 280 in the Amadeus Basin.

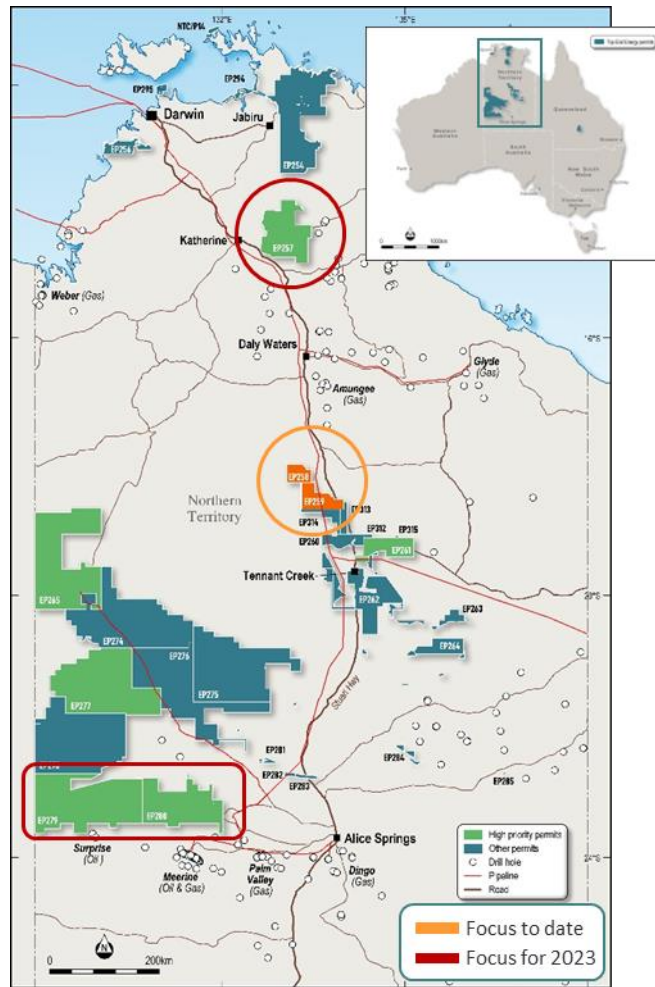


Figure 5: TEE's portfolio in the NT and prioritised permit applications

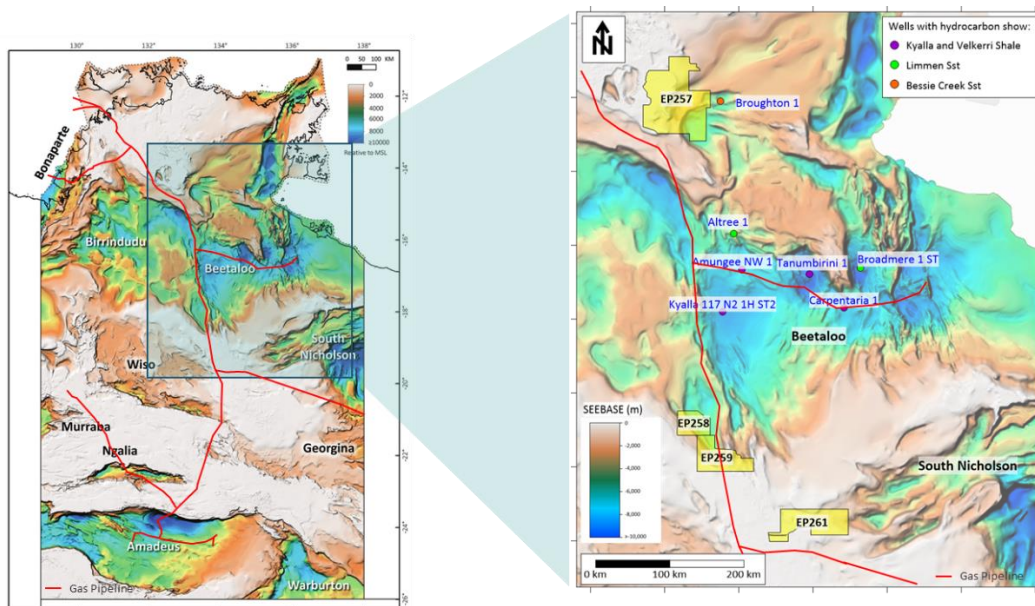


Figure 6: TEE's key permits in the Greater McArthur Basin

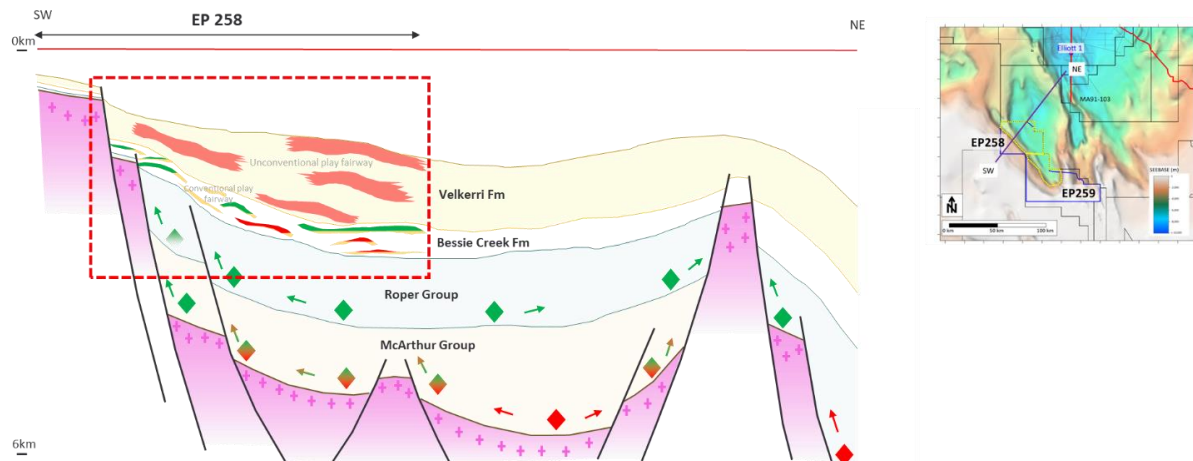


Figure 7: Regional schematic highlighting the potential of the untested southern margin of the Greater McArthur Basin and EP 258

Key activities undertaken on the TG Project during the quarter included:

- Following the execution of the exploration agreement ancillary to an agreement under section 31(1)(b) of the Native Title Act (the "Exploration Agreement") for EP 258, the Company continued to work with the NT Government ("NTG") and the NLC to finalise the form of the tripartite Section 31 Deed. This is a statutory document that the NTG relies on for the consent of the native title party to the grant of the permit under the Native Title Act. This process has taken longer than expected due to the fact that there has not been a new EP granted in the NT since 2015. Nonetheless, the Company expects the deed to be executed early in the December quarter.
- The Company continued preparations for undertaking exploration activities, subject to grant, commencing with the acquisition of approximately 2,500 line kilometres of Falcon airborne gravity gradiometry ("AGG") data over the entirety of EP 258.
- The Company also initiated the process for procuring a sacred site clearance Authority Certificate from the Aboriginal Areas Protection Authority ("AAPA") and expects to receive this before the end of the year. This is a critical path item required ahead of undertaking any on-ground activities.

EP 501 (WESTERN AUSTRALIA)

As announced on 24 January 2023², the Company was successful in its application for Area L22-6 as part of the Western Australia ("WA") Government Petroleum Acreage Release 2P/2022, a 6,300 km² area over the WA extension of the Amadeus Basin.

² Please see ASX announcement "Successful Award of WA Amadeus Basin Acreage" (24 January 2023).

Notice was provided by WA Department of Mines, Industry Regulation and Safety ("DMIRS") under section 29 of the *Commonwealth Native Title Act 1993* that the application attracts the expedited procedure. During the quarter, the Company received notification from DMIRS that no objection was lodged by a native title party to the expedited procedure, paving the way for the Minister for Mines and Petroleum to grant the area as EP 501 to the Company for a term of six years³.

Following the award of the area in January, the Company has engaged with the representatives of the affected underlying native title holders, determined to be the Kiwirrkurra People and the Ngaanyatjarra Lands (Part A) People. The Company is working with these representatives to agree Heritage Protection Agreements ("HPA"), for the purpose of identifying and protecting Aboriginal sites and heritage within the boundaries of the Permit. Execution of the HPAs will be necessary before the Company can undertake regulated exploration activities on the Permit.

The Company will be able to leverage its existing knowledge of and foothold in the Amadeus Basin to deliver an optimised work program across its high graded Amadeus permits. The Amadeus is a proven yet underexplored hydrocarbon bearing basin containing oil and gas fields that have been producing since the 1980s. The stratigraphy and facies of the WA Amadeus Basin is analogous to the eastern succession and proven Neoproterozoic petroleum systems and plays are expected to be present. The key focus initially for the Company will be the sub-salt Heavitree gas play and Lower Stairway Formation oil play.

The presence of Helium and Hydrogen in historical wells Magee-1 and Mount Kitty-1 in the Heavitree Formation of the Northern Territory Amadeus Basin also represents the opportunity to explore for these gases in natural form in the WA Amadeus Basin.

The Company's immediate work program will consist of geological and geophysical studies followed by on ground sampling and surveys, pursuant to the execution of the HPAs, including extensive soil gas sampling. The objectives of these initial workstreams will be to better understand the prospectivity potential for Natural Gas, Natural Hydrogen and Helium.

PLANNED ACTIVITIES FOR Q4 2023

During the December quarter, the Company intends to undertake the following activities on its assets:

- Finalise the interpretation of the recently acquired 2D seismic data on ATP 1069 to refine the Company's understanding of prospectivity.
- Prioritise drilling targets for an exploration well on ATP 1069, which the Company intends to drill in 2024.

³ Please see ASX announcement "Grant of WA Exploration Permit 501 in the Amadeus Basin" (13 October 2023).

- As the Company currently holds 100% of the Permit, it will also consider a potential farm-down ahead of drilling or further data acquisition to minimise funding exposure.
- Progress preliminary well design for a vertical exploration well on ATP 1069 and procurement strategy for long lead items.
- Finalise and execute Section 31 Deed with the NLC and NTG and achieve the formal grant of EP 258 in the NT.
- Undertake the planned acquisition of approximately 2,500 line kilometres of Falcon AGG data on EP 258 to better understand subsurface features and refine the scope of an intended 2D seismic survey of up to 150 line kilometres.
- Complete the AAPA Authority Certificate process for sacred site clearances on EP 258 to enable the Company to undertake on-ground activities in 2024.
- Continue engagement with the respective land councils to progress the Company's other prioritised permit applications in the NT, specifically EP 259 and EP 257 in the McArthur Basin and EP 279 and EP 280 in the Amadeus Basin.
- Initiate work program activities on the recently granted EP 501 in WA and continue engagement with the traditional owner groups to finalise the HPAs.
- Continue pursuing corporate development and strategic partnership opportunities to complement the Company's existing asset base and strategic objectives.

CORPORATE

- As per ASX Listing Rule 5.4.1, substantive oil and gas exploration activities undertaken during the quarter are outlined in this report.
- As per ASX Listing Rule 5.4.2, there were no substantive oil and gas production and development activities undertaken during the quarter.
- Section 6.1 of the Appendix 5B provides for an amount paid to related parties of circa \$168k being circa \$151k for directors' fees and salaries and circa \$17k for rent of the corporate office.
- The Company remains well-funded with cash of circa \$2.1m at 30 September 2023.
- In accordance with Listing Rule 5.4.4, as the 30 September 2023 quarter was in a period covered by a 'use of funds' statement in the IPO Prospectus, below is a comparison of the Company's actual expenditure to 30 September 2023 against the estimated expenditure in the 'use of funds' statements:

Use of Funds (A\$) ⁴	Per IPO Prospectus (2-year period)	Investment Since Listing
Exploration Budget - ATP 1069 ⁵	2,808,000	1,196,375
Exploration Budget - TG Project ⁶	1,000,000	833,121
Project generation and feasibility – Green Energy and / or Carbon Abatement Projects ⁷	450,000	22,245
Corporate and administration costs ⁸	1,463,250	1,463,250
Expenses of the Offer ⁹	778,206	567,826
Unallocated Working capital ¹⁰	465,544	372,564
Total funds	6,965,000	4,455,381

⁴ The Company remains on track in terms of meeting its business objectives in accordance with the proposed use of funds.

⁵ The funds spent by the Company relate to seismic reprocessing and interpretation activities, the planning and preparation of the future work program, and the 2D seismic acquisition of approximately 109 km.

⁶ The funds spent by the Company relate to progressing application grant for prioritised permits, including attending multiple on-country meetings with the native title holders of EP 258, preparation for the post-grant work program, upfront permit grant payments and Northern Land Council administrative costs (including environmental management plan preparation, approvals and deposit on the planned gravity gradiometry survey) and corporate overhead allocation.

⁷ Preliminary expenditure on exploring opportunities for green energy and / or carbon abatement projects have been included in "Corporate and administration costs".

⁸ Includes legal, consulting, accounting, audit and directors' fees, new business costs and other general corporate costs. The Company has incurred costs in relation to project due diligence, progressing its business activities and indirect administrative costs in preparation of the IPO Prospectus.

⁹ Expenses of the offer totalled \$1,064,387. Additional legal, consulting, accounting and audit costs were incurred between the IPO Prospectus dated 24 November 2021 and the completion of the IPO in April 2022 as a result of the Company having to issue a replacement prospectus and a supplementary prospectus. The Company continues to expect the IPO funds raised to enable two years of full operations.

¹⁰ Includes legal, consulting, accounting, audit and directors' fees, new business costs and other general corporate costs. The Company has incurred costs in relation to project due diligence, progressing its business activities and indirect administrative costs in preparation of the IPO Prospectus.

2023 SEPTEMBER QUARTER – ASX ANNOUNCEMENTS

This Quarterly Activities Report contains information extracted from the following ASX market announcements:

ATP 1069 2D Seismic Acquisition Update	24 July 2023
ATP 1069 2D Seismic Acquisition Complete	7 August 2023
Grant of WA Exploration Permit 501 in the Amadeus Basin	13 October 2023
Multiple Stacked Play Systems Identified on New 2D Seismic	27 October 2023

- END -

This release is authorised by the Board of Directors of Top End Energy Limited

For further information contact:

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ABOUT TOP END ENERGY

Top End Energy aims to be a leading Australian diversified energy provider at the forefront of the energy transition. Combining an attractive portfolio of granted and in-application petroleum permits across Australia, with intentions to pursue complementary clean energy solutions and achieve a target of net zero (Scope 1 & 2) emissions.

The Company currently holds interests in circa 170,000 km² (gross) granted and in-application permits, with prioritised permits in proximity to existing pipeline infrastructure. The Company's near-term activities are focused on working towards de-risking the prospectivity potential the Company has identified across these assets.

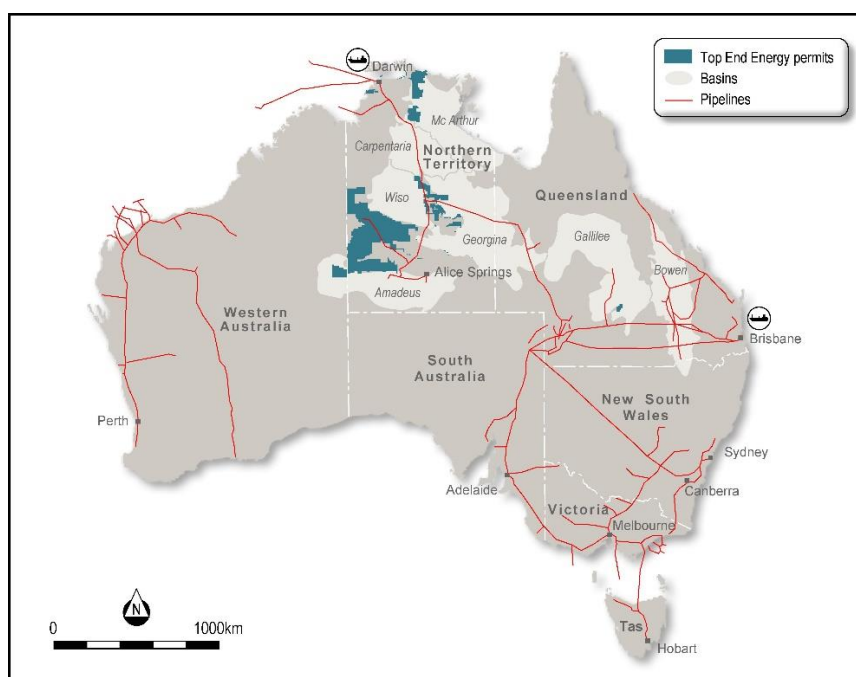


Figure 11: TEE's asset portfolio

For further information on Top End Energy Limited please visit www.topendenergy.com.au

RESOURCE ESTIMATION METHODOLOGY

Resource estimates have been prepared by Discover Geoscience in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineers.

The primary target for the Company's permit in Queensland is the Buri Limestone, a reservoir with the potential to be productive for gas within ATP 1069 and the Adavale Basin more generally.

The Prospective Resource assessment has been conducted by Dave Gilbert. Mr. Gilbert is not an employee of the Company or any entity related to the Company. Mr.

Gilbert is a subsurface advisor and contractor of Discover and has over 40 years of global experience evaluating and managing oil and gas exploration assets and is a qualified petroleum reserves and resources evaluator (QPRRE) as defined by ASX listing rules. The resources information included in this report is based on, and fairly represents, information and supporting documentation reviewed by Mr Gilbert. Mr Gilbert is qualified in accordance with ASX Listing Rule 5.41 and consents to the inclusion of the information in this report of the matters based on this information in the form and context in which it appears.

Discover is a well-known and respected independent energy advisory firm, with a history of providing impartial advice to the petroleum industry including providing Independent Technical Specialist Reports (ITSRs) and Competent Persons Reports (CPRs) for stock exchange and regulatory requirements.

For further information on Discover please visit www.discovergeoscience.com

Appendix 1: Tenement Schedule (ASX Listing Rule 5.4.3)

Petroleum tenements held by the Company and its subsidiaries at the end of the quarter and their location.

Permit / Application ¹¹	Location	Interest %	Holder
ATP 1069	Queensland	100.00	Tomorrow Energy Corporation Pty Ltd
EP(A) 254	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 256	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 257	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 258	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 259	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 260	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 261	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 262	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 263	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 264	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 265	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 274	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 275	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 276	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 277	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 278	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 279	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 280	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 281	Northern Territory	57.68	NT Gas Aust Pty Ltd

¹¹ The Company's petroleum tenements in the Northern Territory and Western Australia are permit applications. Grant of applications is subject to reaching agreements with traditional owners and native title holders pursuant to the Aboriginal Land Rights (Northern Territory) Act 1976 (Cth) and the Native Title Act 1993 (Cth)

EP(A) 282	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 283	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 284	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 285	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 294	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 295	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP(A) 312	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 313	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 314	Northern Territory	57.68	Territory Gas Aust Pty Ltd
EP(A) 315	Northern Territory	57.68	Territory Gas Aust Pty Ltd
NTC/P(A) 14	Northern Territory	57.68	NT Gas Aust Pty Ltd
EP 501	Western Australia	100	Tomorrow Energy Corporation Pty Ltd

During the quarter, the Company received notification from DMIRS that the Minister for Mines and Petroleum was prepared to grant Area L22-6 as EP 501. Grant of 501 was formally received following the quarter end. No farm-in or farm-out agreements were entered into during the quarter.

Appendix 2: Summary of cash expenditure per project

Project	Cash Expenditure A\$'000
Exploration Budget - ATP 1069	950
Exploration Budget - TG Project	200
Green Energy and / or Carbon Abatement Projects	-