

Power down under

Relinquishment Report

SEL 15/2010
10th October 2010 to the 9th September 2011
First and Final Report

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Summary

KUTH Exploration Pty Ltd (KUTH) currently holds four Special Exploration Licences in Tasmania for Category 6 minerals (geothermal substances). The principle target of KUTH's work on these tenements is the location of high-temperature Hot Rock geothermal resources suitable for development as Enhanced Geothermal System (EGS) power generators.

Tenement SEL 15/2010 was granted to KUTH in October 2010. The prospectivity of the tenement area was determined based on proximity to the company's newly defined Fingal Inferred Geothermal Resource located on the adjacent tenement SEL 26/2005. Examination of the 15/2010 tenement area now indicates that, whilst it remains possible that the Fingal thermal anomaly may partially extend beneath this tenement, unfavourable topography and geology as well as infrastructure and land tenure constraints imply that development of this region would be highly unlikely. Full surrender of the licence area has been recommended.

No field work was undertaken on SEL 15/2010 during the licence period.

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1 Introduction

KUTh Exploration Pty Ltd (KUTh) is a geothermal explorer based in Hobart, Tasmania, and is the holder of four current geothermal exploration licences in that State. The principle target of KUTh's work is the location of high-temperature Hot Rock geothermal resources suitable for development as Enhanced Geothermal Systems (EGS) power generators.

This is the first and final report for KUTh's tenement SEL 15/2010 (Chain of Lagoons).

1.1 Tenement Status

KUTh Exploration Pty Ltd (KUTh) is a subsidiary of KUTh Energy Ltd and is the sole holder and operator of SEL 15/2010 (Figure 1) granted for a period of five years to search for geothermal substances (Category Type 6). Tenure details of SEL 15/2010 are provided in Table 1.

Tenement Type	SEL
Number	15/2010
Commodity	Geothermal
Licensee	KUTh Exploration P/L
Operator	KUTh Exploration P/L
Area	172km ²
Date Granted	10 October 2010
Renewal	10 October 2015

Table 1: Tenure details for SEL 15/2010.

1.2 Location and access

SEL 15/2010 is located along the north-east coast of Tasmania. The tenement extends west of St Mary's along a coastal strip north from Douglas River to Scamander. Access to the tenement area is along the north-south Tasman Highway. A significant portion of the licence area comprises land exclusions or areas of reduced or restricted access.

1.3 Topography and vegetation

Topography across the tenement area is rugged and steep, a coastal escarpment rising sharply from flat coastal plains westward to ranges of granite and sediment. The maximum elevation range across the tenement area is greater than 650m. Vegetation on the escarpment is dominated by thick coastal eucalypt forest.

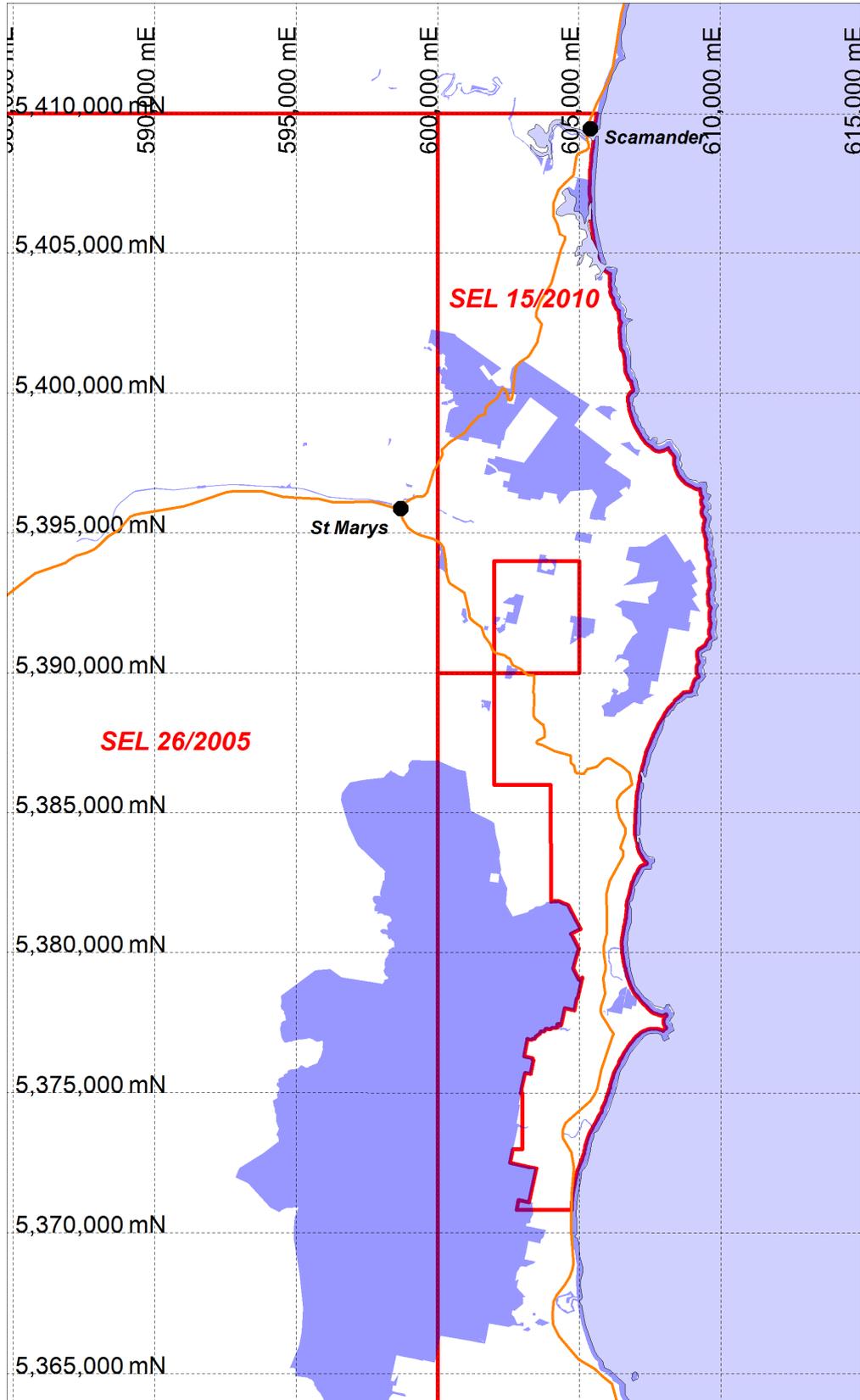


Figure 1: Location map of KUTh Energy Geothermal Special Exploration Licence 15/2010 (red) in relation to major roads (orange) and population centres. Major licence exclusions or restrictions are shown in blue.

1.4 Geological setting

Eastern Tasmania is underlain by basement comprised of deformed low-grade meta-sediments of the Ordovician – Devonian Mathinna Supergroup. These deep water turbidite deposits are analogous to the Tasmanide flysch of mainland eastern Australia. Across much of the state, basement is concealed by up to 1km of flat-lying Permian-Triassic sediments of the Tasmania Basin and the extensive thick (>300m) Jurassic dolerite sills which intruded these during Gondwana break-up. Extensive intrusion of Devonian-aged granite in the north-east of the state includes highly-fractionated high-heat-producing (HHP) types as part of three major suites (Burrett & Martin 1989).

Surface geology across the majority of tenement SEL 15/2010 comprises basement units of exposed Mathinna and the felsic intrusive/extrusive of the St Mary’s Porphyrite (Figure 2). Minor outcrops of Parmeener sediment and dolerite occur as isolated mesas and capping escarpments in the south of the tenement area.

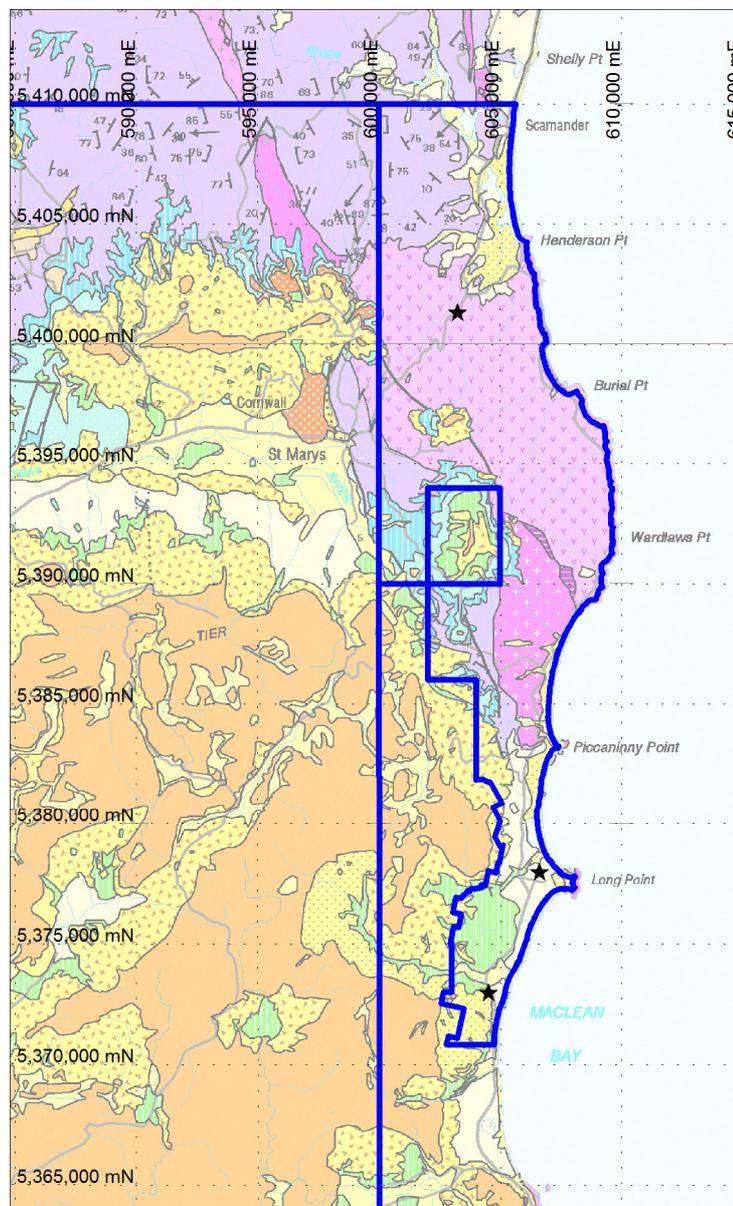


Figure 2: Surface geology of SEL 15/2010. Geological legend is as per 1:500,000 Geological Map of Tasmania; purple indicates Mathinna Group, pinks are granites, green & blue Parmeener, orange Jurassic dolerite and yellow Quaternary alluvium/colluvium and talus. Black stars indicate location of drill holes >100m.

2 Previous Exploration

No previous geothermal exploration has been undertaken across SEL 15/2010.

A small number of drill holes are present in the tenement including stratigraphic holes >100m at Falmouth in the central north and in the vicinity of the Seymour coal field in the far south (Figure 2). Drilling at Falmouth intersects 562m of felsic volcanic/intrusive of the St Mary porphyrite. In the far south drill hole Bicheno 10 intersects Mathinna basement beneath 335m of Permo-Triassic cover. Around Seymour, drillholes intersect up to 272m of Permo-Triassic sediments.

3 Work Completed

No field work was completed on licence SEL 15/2010 in the reporting interval.

4 Conclusion and Recommendations

Review of the 15/2010 tenement area reveals unfavourable geology (basement sequences exposed at surface with little or no insulating cover) combined with difficult topography and extensive land access restrictions. Combined with increased distance to grid connection, these factors imply that the development potential of this licence area is low, regardless of the presence or otherwise of crustal thermal anomalies. This being the case, full surrender of the licence area has been recommended.

5 Environment

No ground disturbances have been made on SEL 15/2010 and hence no environmental or rehabilitation work has been required.

6 Expenditure

Total expenditure on SEL 15/2010 in the reporting year is provided in Table 3.

	SEL 15/2010
Geoscience Costs	\$
Geology	954
Geochemistry	
Geophysics	
Remote Sensing	
Drilling & Gridding	
Gridding	
Drilling	
Land Access Costs	
Rehabilitation Costs	
Feasibility Study Costs	
Other Costs	428
Administrative Costs	414
TOTAL 10/11	1796

Table 3: Expenditure on SEL 15/2010 in the reporting period 10/10/2010 – 9/9/2011

7 References

Burrett, C.F. and E.L. Martin (eds). 1989 Geology and Mineral Resources of Tasmania, *Special Publication Geological Society of Australia*, **15**.

8 Keywords

Geothermal exploration

Geothermal resource

East Tasmania

HDR (Hot Dry Rock)

HFR (Hot Fractured Rock)

EGS (Enhanced Geothermal System)

High Heat Producing (HHP) granite