

17. 27 September 2010 Consolidation of licence area with GELs 170, 172, 173 and 184 and subsequent revocation of licence.
18. 27 September 2010 Memorandum entering consolidation of licence area and revocation of licence on the public register.

**Petroleum and Geothermal Energy Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173 and 184**

1. Consolidation with effect from 22 July 2010, of the adjacent licence areas of GELs 170, 171, 172, 173 and 184, whereby the consolidated licence area is now designated as GEL 170 is hereby entered on the public register.

The total area of GEL 170 is now 2,496 square kilometres approximately.

2. Revocation of GELs 171, 172, 173 and 184 with effect from 22 July 2010 is hereby entered on the public register.



**ELINOR ALEXANDER
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development**

Date: 27 September 2010

Ref: 27/2/293
27/2/294
27/2/295
27/2/296
27/2/310

Petroleum and Geothermal Energy Act 2000

Consolidation of licence areas Geothermal Exploration Licences GELs 170, 171, 172, 173 and 184

Revocation of licences Geothermal Exploration Licences GELs 171, 172, 173 and 184

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources, in the State of South Australia, pursuant to section 82 of the *Petroleum and Geothermal Energy Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 1 October 2009, hereby;

1. consolidate with effect from 22 July 2010, the adjacent areas of Geothermal Exploration Licences GELs 170, 171, 172, 173 and 184 held by –

Scopenery Limited
ACN 095 747 729

The consolidated licence area shall be designated as:

Geothermal Exploration Licence GEL 170

DESCRIPTION OF CONSOLIDATED AREA

All that part of the State of South Australia, bounded as follows:-

Commencing at a point being the intersection of latitude 37°21'00"S GDA94 and longitude 140°02'00"E GDA94,
thence east to longitude 140°12'00"E GDA94,
south to latitude 37°29'00"S GDA94, east to longitude 140°13'00"E GDA94,
south to latitude 37°30'00"S GDA94, east to longitude 140°15'00"E GDA94,
south to latitude 37°31'00"S GDA94, east to longitude 140°17'00"E GDA94,
south to latitude 37°32'00"S GDA94, east to longitude 140°19'00"E GDA94,
north to latitude 37°27'00"S GDA94, east to longitude 140°30'00"E GDA94,
south to latitude 37°29'00"S GDA94, east to longitude 140°39'00"E GDA94,
south to latitude 37°36'00"S GDA94, east to longitude 140°45'00"E GDA94,
south to latitude 37°38'00"S GDA94, east to longitude 140°46'00"E GDA94,
south to latitude 37°39'00"S GDA94, east to longitude 140°52'00"E GDA94,
south to latitude 37°40'00"S GDA94, east to longitude 140°55'00"E GDA94,
south to latitude 37°41'00"S GDA94, thence east to the South Australian - Victorian border, south along the said State border to latitude 37°56'00"S GDA94,
west to longitude 140°50'00"E GDA94,
north to latitude 37°55'00"S GDA94, west to longitude 140°48'00"E GDA94,
south to latitude 38°00'00"S GDA94, west to longitude 140°39'00"E GDA94,
north to latitude 37°59'00"S GDA94, west to longitude 140°36'00"E GDA94,
north to latitude 37°52'00"S GDA94, west to longitude 140°34'00"E GDA94,
north to latitude 37°51'00"S GDA94, west to longitude 140°33'00"E GDA94,
north to latitude 37°50'00"S GDA94, west to longitude 140°31'00"E GDA94,
north to latitude 37°49'00"S GDA94, west to longitude 140°30'00"E GDA94,
north to latitude 37°48'00"S GDA94, west to longitude 140°27'00"E GDA94,
north to latitude 37°46'00"S GDA94, west to longitude 140°25'00"E GDA94,



north to latitude 37°44'00"S GDA94, west to longitude 140°24'00"E GDA94, north to latitude 37°40'00"S GDA94, west to longitude 140°21'00"E GDA94, north to latitude 37°39'00"S GDA94, west to longitude 140°20'00"E GDA94, north to latitude 37°38'00"S GDA94, west to longitude 140°18'00"E GDA94, north to latitude 37°37'00"S GDA94, west to an eastern boundary of the Canunda National Park, then beginning north-westerly along the boundary of the said National Park to the Territorial Sea Baseline at Low Water Mark, Southern Ocean (Rivoli Bay), thence beginning north-easterly following the said Baseline to longitude 140°02'00"E GDA94, and north to point of commencement, but excluding the Telford Scrub Conservation Park and Gower Conservation Park.

AREA: 2,496 square kilometres approximately.

2. consequently revoke Geothermal Exploration Licences GELs 171, 172, 173 and 184 with effect from 22 July 2010.

As a consequence of the consolidation, the work program forming 'condition 1' of the consolidated GEL 170 comprises:

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none"> • Review of open file geological and geophysical data.
Two	<ul style="list-style-type: none"> • 3D modelling of geological and heat resources, including detailed 3D lithology; • Conceptual development planning, engineering and commercial scope study; and • Measure detailed geothermal gradients in any accessible water wells. <i>(to be conducted anywhere in the area covered by GELs 170, 171, 172, 173, 184 and 212.)</i>
Three	<ul style="list-style-type: none"> • Geological and geophysical review. <i>(to be conducted anywhere in the area covered by GELs 170, 171, 172, 173, 184, 212 and 223.)</i>
Four	<ul style="list-style-type: none"> • Re-interpretation of 1,200 line km of 2D seismic data; • Review SEEBASE 3D geological model; • 159 station MT survey across Rivoli, St Clair, Tantanoola and Rendelsham Troughs; and • Drill narrow diameter holes to an aggregate depth of at least 1,800m and measure geothermal gradients. <i>(to be conducted anywhere in the area covered by GELs 170, 171, 172, 173, 184, 212 and 223.)</i>
Five	<ul style="list-style-type: none"> • Drill one deep well; • Measure geothermal gradient; • Measurement of detailed geothermal gradients in relevant and accessible water wells; • Conduct infill geophysical surveys (if required); and • Geological and geophysical studies. <i>(to be conducted anywhere in the area covered by GELs 170, 212 and 223)</i>



Dated: 27 September 2010

Elinor Alexander
A/ Director Petroleum
and Geothermal for



BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development

The following signature evidences the consent of the licensee to the consolidation of GELs 170, 171, 172, 173 and 184 as set out in this document and made pursuant to Section 82 of the *Petroleum and Geothermal Energy Act 2000*.

Signed for and on behalf of **Scopenegy Limited** by its authorised representative:

20/9/10

.....
Date



.....
Authorised Representative

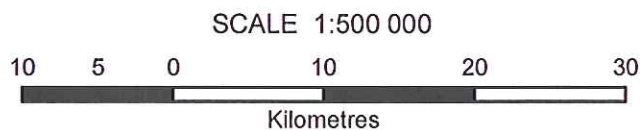
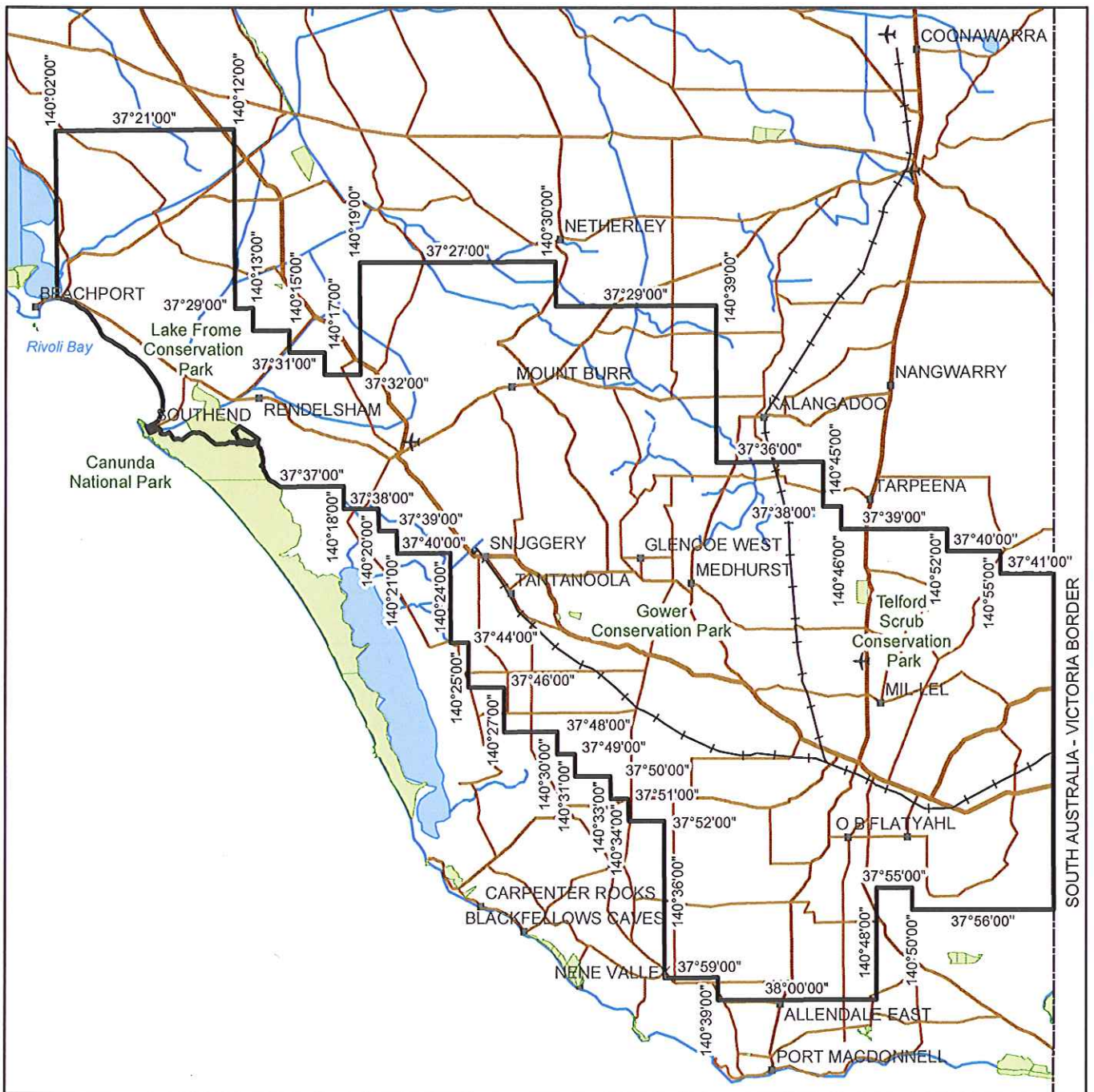
KERRY PARKER

.....
Name

Director

.....
Position





Note: There is no warranty that the boundary of this licence is correct in relation to other features of the map. The boundary is to be ascertained by reference to the Australian Geodetic Datum (AGD66), the Geocentric Datum of Australia (GDA94) and the schedule.

THE PLAN HEREBEFORE REFERRED TO
GEOHERMAL EXPLORATION LICENCE NO: 170



Government of South Australia
 Primary Industries and Resources SA

SR 27/2/293

AREA: 2496 sq km (approx)

**Petroleum and Geothermal Energy Act 2000
S.134**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173 and 184**

1. Notation of extension of time to 9 July 2010 by which the licensee must apply for the renewal of Geothermal Exploration Licences GELs 170, 171, 172, 173 and 184 is hereby entered on the public register.



**BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development**

Date: 26 May 2010

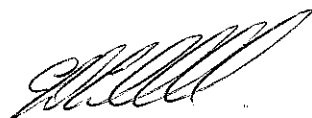
File: 27/2/293
27/2/294
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27/2/296
27/2/310

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173, 184, 212, 220, 221, 223 and 484**

1. Notation of revision to security arrangements is hereby entered on the public register of licences.



**C. D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development**

Date: 1 September 2009

Ref: 27/2/293 27/2/370
27/2/294 27/2/371
27/2/295 27/2/354
27/2/296 27/2/373
27/2/310 27/2/551

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173,
184, 212, 223 & 484**

1. Variation of licence conditions is hereby entered on the public register.



**BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development**

Date: 22 June 2009

Ref: 27/2/293 27/2/310
27/2/294 27/2/354
27/2/295 27/2/373
27/2/296 27/2/551

Petroleum Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 170, 171, 172, 173 & 184

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573, hereby vary the conditions of the above-mentioned geothermal exploration licences held by -

Scopenegy Limited
ACN 095 747 729

Condition 1 of the licence is omitted and the following substituted:

" During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. These exploratory operations shall include but not necessarily be limited to:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">Review of open file geological and geophysical data.
Two	<ul style="list-style-type: none">3D modelling of geological and heat resources, including detailed 3D lithology;Conceptual development planning, engineering and commercial scoping study; andMeasure detailed geothermal gradients in any accessible water wells <p><i>Year 2 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>
Three	<ul style="list-style-type: none">Geological and geophysical review <p><i>Year 3 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212 and 223.</i></p>

<p>Four</p>	<ul style="list-style-type: none"> • Re-interpretation of 1,200 line km of 2D seismic data; • Review SEEBASE 3D geological model; • 159 station MT survey across Rivoli, St Clair, Tantanoola and Rendelsham Troughs; and • Drill narrow diameter holes to an aggregate depth of at least 1,800m and measure geothermal gradients. <p><i>Year 4 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212 and 223.</i></p>
<p>Five</p>	<ul style="list-style-type: none"> • Drill 1 deep well; • Measure geothermal gradient; • Measurement of detailed geothermal gradients in relevant and accessible water wells; • Conduct infill geophysical surveys (if required); and • Geological and geophysical studies. <p><i>Year 5 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212, 223 and 484.</i></p>

Dated: 22 June 2009



BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

PETROLEUM ACT 2000

*Suspension of Geothermal Exploration Licences—
GELs 170, 171, 172, 173, 194 and 212*

PURSUANT to section 90 of the Petroleum Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licences have been suspended under the provisions of the Petroleum Act 2000, from and including 21 November 2008 until 23 July 2009, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

The expiry date of GELs 170, 171, 172, 173 and 184 is now determined to be 23 July 2010.

The expiry date of the GEL 212 is now determined to be 23 July 2011.

Dated 13 February 2009.

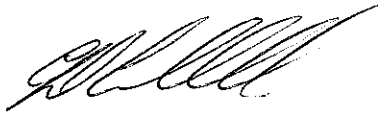
C. D. COCKSHELL,
Acting Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral
Resources Development

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173, 184, 212 and 223**

1. Variation of licence conditions is hereby entered on the public register.



**C.D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development**

Date: 13 February 2009

Ref: 27/2/293 27/2/310
27/2/294 27/2/354
27/2/295 27/2/373
27/2/296

Petroleum Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES GELs 170, 171, 172, 173 and 184

I, CYRIL DAVID COCKSHELL, Acting Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573 hereby vary the conditions of Geothermal Exploration Licences GELs 170, 171, 172, 173 and 184 held by-

Scopenenergy Limited
ACN 095 747 729

Condition 1 of the licence is omitted and the following substituted:

- " 1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. These exploratory operations shall include but not necessarily be limited to:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Review of open file geological and geophysical data.
Two	<ul style="list-style-type: none">• 3D modelling of geological and heat resources, including detailed 3D lithology;• Conceptual development planning, engineering and commercial scoping study; and• Measure detailed geothermal gradients in any accessible water wells. <p><i>Year 2 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>
Three	<ul style="list-style-type: none">• Geological and geophysical review. <p><i>Year 3 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>

<p>Four</p>	<ul style="list-style-type: none"> • Re-interpretation of 1,200 line km of 2D seismic data; • Review SEEBASE 3D geological model; • 159 station MT survey across Rivoli, St Clair, Tantanoola and Rendelsham Troughs; and • Drill narrow diameter holes to an aggregate depth of at least 1,800m and measure geothermal gradients. <p><i>Year 4 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212</i></p>
<p>Five</p>	<ul style="list-style-type: none"> • Drill 1 deep well; • Measure geothermal gradient; • Measurement of detailed geothermal gradients in relevant and accessible water wells; • Conduct infill geophysical surveys (if required); and • Geological and geophysical studies. <p><i>Year 5 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184, 212 and 223.</i></p>

Dated: 13 February 2009



C.D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Petroleum Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173, 184 and 212

1. Suspension of licences from and including 21 November 2008 to 23 July 2009 is hereby entered on the public register.
2. The expiry date of GELs 170, 171, 172, 173 and 184 is now 23 July 2010.
3. The expiry date of GEL 212 is now 23 July 2011.



C.D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Date: 13 February 2009

Ref: 27/2/293 27/2/296
27/2/294 27/2/310
27/2/295 27/2/373

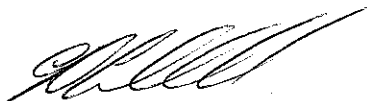
Petroleum Act 2000
S.90

**SUSPENSION OF
GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173, 184 and 212**

I, CYRIL DAVID COCKSHELL, Acting Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources, in the State of South Australia, pursuant to the provisions of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573 –

- (a) suspend geothermal exploration licences exploration licence GELs 170, 171, 172, 173, 184 and 212 for the period from and including 21 November 2008 to 23 July 2009.
1. No regulated activities are permitted to be carried out during the period of the suspension.
 2. The expiry date of GELs 170, 171, 172, 173 and 184 is now 23 July 2010.
 3. The expiry date of GEL 212 is now 23 July 2011.

Dated: 13 February 2009



**C.D. COCKSHELL
A/Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development**

Petroleum Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCES

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573 hereby vary the conditions of Geothermal Exploration Licences GELs 170, 171, 172, 173 and 184 held by -

Scopenergy Limited
ACN 095 747 729

Condition 1 of the licences is omitted and the following substituted:

- " 1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. These exploratory operations shall include but not necessarily be limited to:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">Review of open file geological and geophysical data.
Two	<ul style="list-style-type: none">3D modelling of geological and heat resources, including detailed 3D lithology; andConceptual development planning, engineering and commercial scoping study; andMeasure detailed geothermal gradients in any accessible water wells. <p><i>Year 2 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212</i></p>
Three	<ul style="list-style-type: none">Geological and geophysical review. <p><i>Year 3 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>

<p>Four</p>	<ul style="list-style-type: none"> • Re-interpretation of 1,200 line km of 2D seismic data; and • Review SEEBASE 3D geological model; and • 159 Station MT survey across Rivoli, St Clair, Tantanoola and Rendelsham troughs; and • Drill narrow diameter holes to an aggregate depth of at least 1,800m and measure geothermal gradients. <p><i>Year 4 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>
<p>Five</p>	<ul style="list-style-type: none"> • Drill a deep appraisal well and conduct production testing. <p><i>Year 5 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212</i></p>

Dated: 25 September 2008



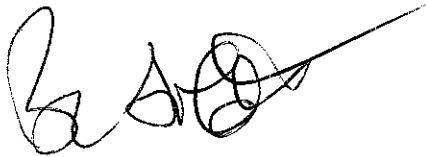
BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173, 184 and 212**

1. Variation of licence conditions is hereby entered on the public register.



**BARRY A. GOLDSTEIN
Director Petroleum and Geothermal
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development**

Date: 25 September 2008

Ref: 27/2/293
27/2/294
27/2/295
27/2/296
27/2/310
27/2/354

Petroleum Act 2000

VARIATION OF PETROLEUM EXPLORATION LICENCES GELs 170, 171, 172, 173 and 184

I, BARRY ALAN GOLDSTEIN, Director Petroleum, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 28 March 2002, Gazetted 11 April 2002, page 1573 hereby vary the conditions of Geothermal Exploration Licences GELs 170, 171, 172, 173 and 184 held by -

Scopenergy Limited ACN 45 095 747 729

Condition 1 of the licences is omitted and the following substituted:

- " 1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. These exploratory operations shall include but not necessarily be limited to:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none"> • Review of open file geological and geophysical data.
Two	<ul style="list-style-type: none"> • 3D modelling of geological and heat resources, including detailed 3D lithology. • Conceptual development planning, engineering and commercial scoping study. • Measure detailed geothermal gradients in any accessible water wells. <p><i>Note: Year 2 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>
Three	<ul style="list-style-type: none"> • Reprocess available seismic data for detailed resolution of target areas; and/or • Conduct geophysical surveying. <p><i>Note: Year 3 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>

Four	<ul style="list-style-type: none"> • Drill narrow diameter holes to an aggregate of at least 3000 metres and measure detailed geothermal gradients. • Conduct 100km² 3D Seismic Survey. <p><i>Note: Year 4 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>
Five	<ul style="list-style-type: none"> • Drill and complete 3 geothermal wells. • Log sedimentary remaining sequence. • Measure detailed temperature gradient. • Measure reservoir temperature. • Analysis of reservoir properties. • Analysis of reservoir fracturing. • Conduct production testing. <p><i>Note: Year 5 work program to be conducted anywhere within the boundaries of GELs 170, 171, 172, 173, 184 and 212.</i></p>

”

Dated: 21 October 2005



BARRY A. GOLDSTEIN
Director Petroleum
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172, 173 and 184**

1. Variation of licence conditions is hereby entered on the public register.



**BARRY A. GOLDSTEIN
Director Petroleum
Minerals and Energy Resources
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development**

Date: 21 October 2005

Ref: 27/2/263
27/2/264
27/2/265
27/2/266
27/2/310

PETROLEUM ACT 2000

Grant of Geothermal Exploration Licences—GEL 181 and GEL 184

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have been granted under the provisions of the Petroleum Act 2000, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573.

No of Licence	Licensees	Locality	Area in km ²	Reference
GEL 181	Havilah Resources NL	Arrowie Basin of South Australia	497	27/02/306
GEL 184	Scopenergy Limited	Otway Basin of South Australia	499	27/02/310

Description of Area—GEL 181

All that part of the State of South Australia, bounded as follows: Commencing at a point being the intersection of latitude 31°29'00"S GDA94 and longitude 139°41'00"E GDA94, thence east to longitude 139°58'00"E GDA94, south to latitude 31°39'00"S GDA94, west to longitude 139°41'00"E GDA94, and north to the point of commencement.

Area: 497 km² approximately.

Description of Area—GEL 184

All that part of the State of South Australia, bounded as follows: Commencing at a point being the intersection of latitude 37°40'00"S GDA94 and longitude 140°24'00"E GDA94, thence east to longitude 140°29'00"E GDA94, south to latitude 37°43'00"S GDA94, east to longitude 140°32'00"E GDA94, south to latitude 37°44'00"S GDA94, east to longitude 140°33'00"E GDA94, south to latitude 37°46'00"S GDA94, east to longitude 140°38'00"E GDA94, south to latitude 37°49'00"S GDA94, east to longitude 140°43'00"E GDA94, south to latitude 37°52'00"S GDA94, east to the eastern border of the State of South Australia, thence southerly along the border of the said State to latitude 37°56'00"S GDA94, west to longitude 140°50'00"E GDA94, north to latitude 37°55'00"S GDA94, west to longitude 140°46'00"E GDA94, south to latitude 37°59'00"S GDA94, west to longitude 140°41'00"E GDA94, north to latitude 37°53'00"S GDA94, west to longitude 140°36'00"E GDA94, north to latitude 37°52'00"S GDA94, west to longitude 140°34'00"E GDA94, north to latitude 37°51'00"S GDA94, west to longitude 140°33'00"E GDA94, north to latitude 37°50'00"S GDA94, west to longitude 140°31'00"E GDA94, north to latitude 37°49'00"S GDA94, west to longitude 140°30'00"E GDA94, north to latitude 37°48'00"S GDA94, west to longitude 140°27'00"E GDA94, north to latitude 37°46'00"S GDA94, west to longitude 140°25'00"E GDA94, north to latitude 37°44'00"S GDA94, west to longitude 140°24'00"E GDA94, and north to the point of commencement.

Area: 499 km² approximately.

Dated 22 November 2004.

B. A. GOLDSTEIN, Director Petroleum
Minerals and Energy Division
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

PETROLEUM ACT 2000

*Surrender of Geothermal Exploration Licences—GEL 170, GEL 171, GEL 172 and GEL 173, dated 19 August 2004**Grant of Geothermal Exploration Licences—GEL 170, GEL 171, GEL 172 and GEL 173, effective from 22 November 2004*

NOTICE is hereby given that the undermentioned Geothermal Exploration Licences have been granted under the provisions of the Petroleum Act 2000, pursuant to delegated powers dated 28 March 2002, *Gazetted* 11 April 2002, page 1573. These licences supersede those of the same designation, granted on 19 August 2004, and *Gazetted* 26 August 2004, page 3390, which have been surrendered concurrently with the grant of the undermentioned Geothermal Exploration Licences effective from 22 November 2004.

No of Licence	Licensees	Locality	Area in km ²	Reference
GEL 170	Scopenergy Limited	Otway Basin of South Australia	500	27/02/293
GEL 171	Scopenergy Limited	Otway Basin of South Australia	498	27/02/294
GEL 172	Scopenergy Limited	Otway Basin of South Australia	497	27/02/295
GEL 173	Scopenergy Limited	Otway Basin of South Australia	498	27/02/296

Description of Area—GEL 170

All that part of the State of South Australia, bounded as follows: Commencing at a point being the intersection of latitude 37°31'00"S GDA94 and longitude 140°22'00"E GDA94, thence east to longitude 140°32'00"E GDA94, south to latitude 37°38'00"S GDA94, east to longitude 140°33'00"E GDA94, south to latitude 37°40'00"S GDA94, east to longitude 140°35'00"E GDA94, south to latitude 37°42'00"S GDA94, east to longitude 140°38'00"E GDA94, south to latitude 37°44'00"S GDA94, east to longitude 140°41'00"E GDA94, south to latitude 37°46'00"S GDA94, east to longitude 140°44'00"E GDA94, south to latitude 37°47'00"S GDA94, east to longitude 140°47'00"E GDA94, south to latitude 37°48'00"S GDA94, east to longitude 140°51'00"E GDA94, south to latitude 37°49'00"S GDA94, east to longitude 140°54'00"E GDA94, south to latitude 37°50'00"S GDA94, east to longitude 140°56'00"E GDA94, south to latitude 37°52'00"S GDA94, west to longitude 140°43'00"E GDA94, north to latitude 37°49'00"S GDA94, west to longitude 140°38'00"E GDA94, north to latitude 37°46'00"S GDA94, west to longitude 140°33'00"E GDA94, north to latitude 37°44'00"S GDA94, west to longitude 140°32'00"E GDA94, north to latitude 37°43'00"S GDA94, west to longitude 140°29'00"E GDA94, north to latitude 37°40'00"S GDA94, west to longitude 140°26'00"E GDA94, north to latitude 37°37'00"S GDA94, west to longitude 140°25'00"E GDA94, north to latitude 37°36'00"S GDA94, west to longitude 140°23'00"E GDA94, north to latitude 37°35'00"S GDA94, west to longitude 140°22'00"E GDA94 and north to the point of commencement but excluding Tantanoola Conservation Park and Gower Conservation Park.

Area: 500 km² approximately.

Description of Area—GEL 171

All that part of the State of South Australia, bounded as follows:

Area 1: Commencing at a point being the intersection of latitude 37°27'00"S GDA94 and longitude 140°19'00"E GDA94, thence east to longitude 140°30'00"E GDA94, south to latitude 37°29'00"S GDA94, east to longitude 140°39'00"E GDA94, south to latitude 37°39'00"S GDA94, west to longitude 140°38'00"E GDA94, south to latitude 37°42'00"S GDA94, west to longitude 140°35'00"E GDA94, north to latitude 37°40'00"S GDA94, west to longitude 140°33'00"E GDA94, north to latitude 37°38'00"S GDA94, west to longitude 140°32'00"E GDA94, north to latitude 37°31'00"S GDA94, west to longitude 140°22'00"E GDA94, south to latitude 37°34'00"S GDA94, west to longitude 140°20'00"E GDA94, north to latitude 37°33'00"S GDA94, west to longitude 140°19'00"E GDA94 and north to the point of commencement.

Area 2: Commencing at a point being the intersection of latitude 37°53'00"S GDA94 and longitude 140°36'00"E GDA94, thence east to longitude 140°41'00"E GDA94, south to latitude 37°59'00"S GDA94, east to longitude 140°46'00"E GDA94, north to latitude 37°55'00"S GDA94, east to longitude 140°48'00"E GDA94, south to latitude 38°00'00"S GDA94, west to longitude 140°39'00"E GDA94, north to latitude 37°59'00"S GDA94, west to longitude 140°36'00"E GDA94 and north to the point of commencement.

Area: 498 km² approximately.

Description of Area—GEL 172

All that part of the State of South Australia, bounded as follows: Commencing at a point being the intersection of latitude 37°36'00"S GDA94 and longitude 140°39'00"E GDA94, thence east to longitude 140°45'00"E GDA94, south to latitude 37°38'00"S GDA94, east to longitude 140°46'00"E GDA94, south to latitude 37°39'00"S GDA94, east to longitude 140°52'00"E GDA94, south to latitude 37°40'00"S GDA94, east to longitude 140°55'00"E GDA94, south to latitude 37°41'00"S GDA94, east to the eastern border of the State of South Australia, thence southerly along the border of the said State to latitude 37°52'00"S GDA94, west to longitude 140°56'00"E GDA94, north to latitude 37°50'00"S GDA94, west to longitude 140°54'00"E GDA94, north to latitude 37°49'00"S GDA94, east to longitude 140°51'00"E GDA94, north to latitude 37°48'00"S GDA94, west to longitude 140°47'00"E GDA94, north to latitude 37°47'00"S GDA94, west to longitude 140°44'00"E GDA94, north to latitude 37°46'00"S GDA94, west to longitude 140°41'00"E GDA94, north to latitude 37°44'00"S GDA94, west to longitude 140°38'00"E GDA94, north to latitude 37°39'00"S GDA94, east to longitude 140°39'00"E GDA94 and north to the point of commencement but excluding Telford Scrub Conservation Park.

Area: 497 km² approximately.

Description of Area—GEL 173

All that part of the State of South Australia, bounded as follows: Commencing at a point being the intersection of latitude 37°21'00"S GDA94 and longitude 140°02'00"E GDA94, thence east to longitude 140°12'00"E GDA94, south to latitude 37°29'00"S GDA94, east to longitude 140°13'00"E GDA94, south to latitude 37°30'00"S GDA94, east to longitude 140°15'00"E GDA94, south to latitude 37°31'00"S GDA94, east to longitude 140°17'00"E GDA94, south to latitude 37°32'00"S GDA94, east to longitude 140°19'00"E GDA94, south to latitude 37°33'00"S GDA94, east to longitude 140°20'00"E GDA94, south to latitude 37°34'00"S GDA94, east to longitude 140°22'00"E GDA94, south to latitude 37°35'00"S GDA94, east to longitude 140°23'00"E GDA94, south to latitude 37°36'00"S GDA94, east to longitude 140°25'00"E GDA94, south to latitude 37°37'00"S GDA94, east to longitude 140°26'00"E GDA94, south to latitude 37°40'00"S GDA94, west to longitude 140°21'00"E GDA94, north to latitude 37°39'00"S GDA94, west to longitude 140°20'00"E GDA94, north to latitude 37°38'00"S GDA94, west to longitude 140°18'00"E GDA94, north to latitude 37°37'00"S GDA94, west to the eastern boundary of Canunda National Park, thence generally north-westerly along the boundary of the said National Park to a line being Low Water Mark, Southern Ocean (Rivoli Bay), thence generally north-westerly along the said line to longitude 140°02'00"E GDA94 and north to the point of commencement but excluding sections 410 and 427, Hundred of Rivoli Bay.

Area: 498 km² approximately.

Dated 22 November 2004.

B. A. GOLDSTEIN, Director Petroleum
Minerals and Energy Division
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

**Petroleum Act 2000
S.115**

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 170, 171, 172 & 173**

1. These Licences granted on 22 November 2004 are hereby entered on the public register.

2. Interests in the licence are:-

Scopenergy Limited	100%
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3. Notation of receipt of security is hereby entered on the public register.



**BARRY A. GOLDSTEIN
Director Petroleum
Minerals and Energy Division
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources
Development**

Date: 22 November 2004

Ref: 27/2/293
27/2/294
27/2/295
27/2/296

PETROLEUM ACT 2000

GEOHERMAL EXPLORATION LICENCE

GEL 171

I, BARRY ALAN GOLDSTEIN, Director Petroleum, Minerals and Energy Division, Primary Industries and Resources, in the State of South Australia pursuant to the provisions of the *Petroleum Act 2000* and all other enabling powers, for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegation dated 28 March 2002, (refer Government Gazette dated 11 April 2002 page 1573), HEREBY GRANT to:

Scopenegy Limited
ACN 45 095 747 729

(hereinafter referred to as the Licensee) an Exploration Licence in relation to a source of geothermal energy in respect of the area set out below, to have effect for a period of five years and to expire on ^{21 November} 2009 but carrying the right of renewal under the *Petroleum Act 2000*.

BAG

DESCRIPTION OF AREA

The land comprised in this licence is that part of the State of South Australia described in the Schedule hereto:

CONDITIONS

1. During the term of the licence, the Licensee shall carry out or cause to be carried out, exploratory operations on the area comprised in the licence in accordance with such work programs as are approved by the Minister from time to time. Year one exploratory operations are guaranteed, and any subsequent licence year work program becomes guaranteed upon entry into any such licence year. These exploratory operations shall include but not necessarily be limited to:-

Year of Term of Licence	Minimum Work Requirements
One	<ul style="list-style-type: none">• Review of open file geological and geophysical data
Two	<ul style="list-style-type: none">• 3D modelling of geological and heat resources, including detailed 3D lithology.• Conceptual development planning, engineering and commercial scoping study• Measure detailed geothermal gradients in any accessible water wells within or adjacent to GEL 171
Three	<ul style="list-style-type: none">• Reprocess available seismic data for detailed resolution of target areas: and/or• Conduct magneto-telluric survey to assess potential for water movement within sedimentary sequence

Four	<ul style="list-style-type: none"> • Drill narrow diameter holes to an aggregate of at least 1000 metres and measure detailed geothermal gradients; or • Re-enter at least 1 abandoned petroleum well with a target of measuring detailed geothermal gradients
Five	<ul style="list-style-type: none"> • Re-enter and deepen at least one abandoned Petroleum well, with a target of penetrating the basement lithology; or • Within the boundaries of the four tenements (GELs 170, 171, 172 & 173) or such lesser area as may then be held, drill and complete 2 geothermal wells.

2. The Licensee must take all reasonable precautions to minimise the risks of its activities resulting in a significant loss of petroleum reserves or a significant reduction in the recovery of petroleum reserves.
3. The Licensee must:
 - (a) upon commencement of regulated activities under this licence, maintain in force during the term of this licence public liability insurance to cover regulated activities under this licence (including sudden and accidental pollution) in the name of the Licensee for a sum not less than twenty million dollars (\$20,000,000.00) or such greater sum as specified by the Minister and make such amendments to the terms and conditions of the insurance as the Minister may from time to time require;
 - (b) maintain in force during the drilling of any well or operation in any well, control of well insurance in the name of the Licensee for a sum not less than ten million dollars (\$10,000,000.00) or such greater sum as specified by the Minister and make such amendments to the terms and conditions of the insurance as the Minister may from time to time require;
 - (c) upon request by the Minister, provide the Minister with a cover note or certificate of currency of each insurance policy referred to in paragraphs (a) and (b).
4. The Minister in specifying the levels of insurance accepts no liability for the completeness of their listing, the adequacy of the sum insured, the limit of liability, the scoped coverage, the conditions or exclusions of these insurances in respect to how they may or may not respond to any loss, damage or liability.
5. The Licensee will ensure, when preparing an Environmental Impact Report under Part 12 of the *Petroleum Act 2000*, that the report also includes an assessment of the potential economic consequences for other licensees under the *Petroleum Act 2000* or *Mining Act 1971* and owners of land, arising out of proposed regulated activities to be carried out in the licence area.
6. The Licensee must keep confidential any measurements made in a well which would enable the estimation of petroleum reserves ("Confidential Information") and must not disclose the Confidential Information without first obtaining the written consent of the licensee of the overlapping compatible licence, unless:
 - (a) it is a disclosure required under the Act, this licence or any other law;
 - (b) it is a disclosure which is for the purposes of prosecuting or defending any legal proceedings; or
 - (c) it is information which is or becomes public knowledge other than by breach of this licence condition.

7. A contract or agreement entered into by the licensee to transfer or accept liability for any well or facility constructed for the purpose of undertaking a regulated activity under the *Petroleum Act 1940* or *2000* cannot transfer, limit or exclude liability under the *Petroleum Act 2000* unless written consent of the Minister is obtained.
8. In the event that the Licensee during any year of the term of this licence (a year being the period of twelve calendar months ending on the anniversary of the date upon which the licence comes into force) fails to comply with the work program requirements of this licence, it is an express term of this licence that the Minister then may use discretion to either cancel this licence or authorise such variation to these requirements as the Minister thinks fit.
9. The Licensee shall during periods determined by the Minister, lodge and maintain with the Minister, for the satisfaction of obligations arising under the Act or this licence, a security of \$50,000 (fifty thousand dollars) or such greater sum as specified by the Minister from time to time.
 ("the Security").
 - 9.1 The Security shall be lodged in the form of either;
 - (a) cash; or
 - (b) an unconditional, irrevocable bank guarantee or letter of credit in a form, and from a financial institution, approved by the Minister,
 - 9.2 Interest will not be payable by the Minister to the Licensee on any cash Security.
 - 9.3 All charges incurred by the Licensee in obtaining and maintaining the Security shall be met by the Licensee.
 - 9.4 If upon expiry, this Licence is not renewed and the Minister is satisfied that there are no further obligations under this Licence or the Act, the Minister will return the Security to the Licensee.

22 November

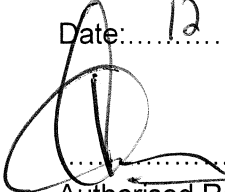
Date:.....2004

Barry A. Goldstein

.....
BARRY A. GOLDSTEIN
Director Petroleum
Minerals and Energy Division
Primary Industries and Resources SA
Delegate of the Minister for Mineral Resources Development

Signed by the said LICENSEE

Date: 12 NOV 2004.....2004

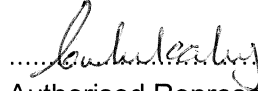

.....
Authorised Representative

R. MASSY-GREENG
.....
Name

DIRECTOR
.....
Position

SCOPENERGY LIMITED
.....
Company




.....
Authorised Representative

C. MULCAHY
.....
Name

COMPANY SECRETARY
.....
Position

SCOPENERGY LIMITED
.....
Company

GEOTHERMAL EXPLORATION LICENCE

GEL 171

THE SCHEDULE

Description of Area

All that part of the State of South Australia, bounded as follows:-

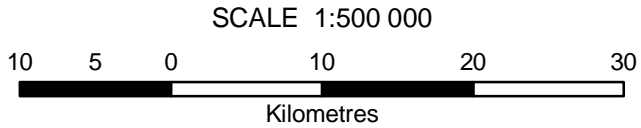
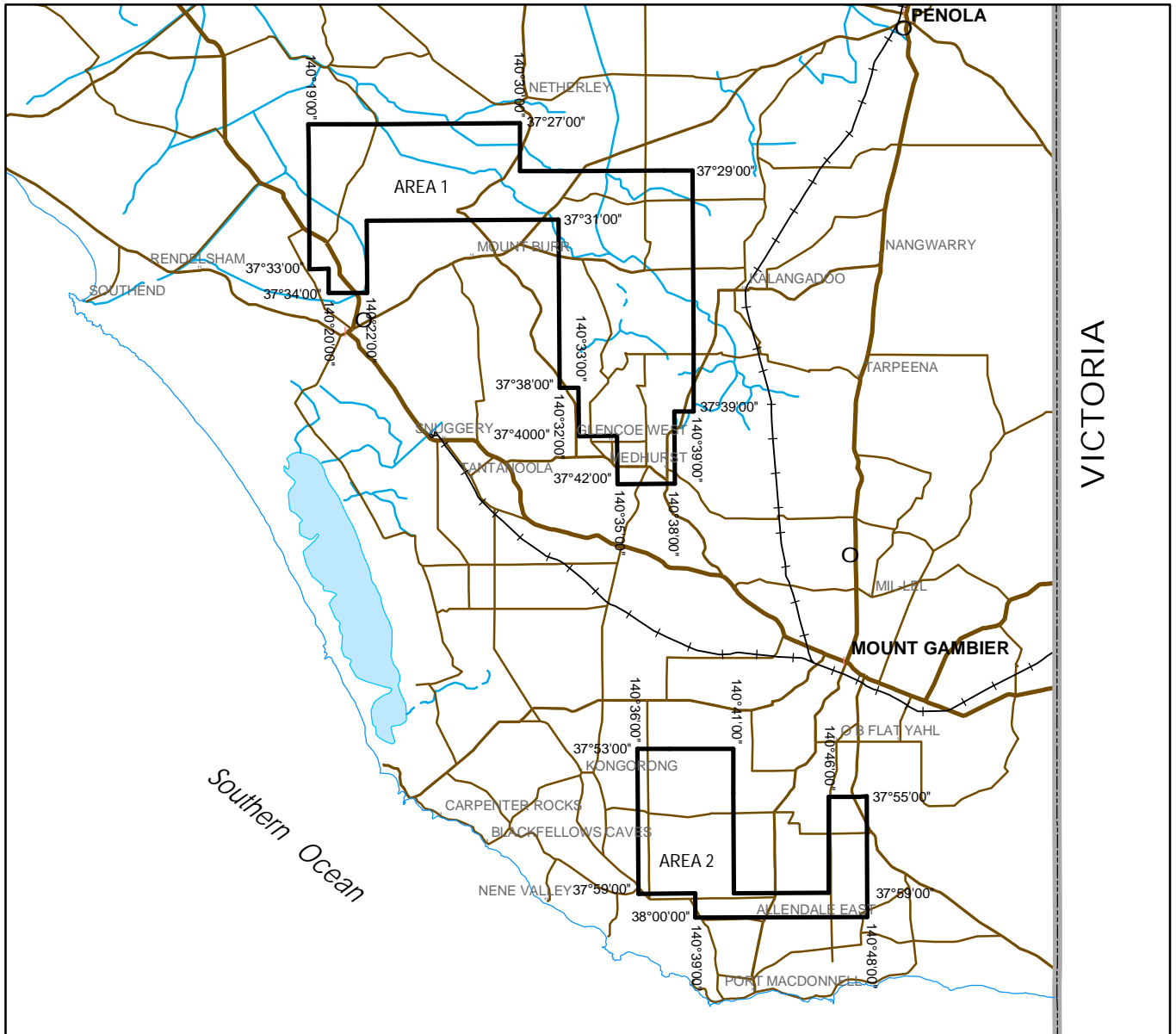
AREA 1

Commencing at a point being the intersection of latitude 37°27'00"S GDA94 and longitude 140°19'00"E GDA94, thence east to longitude 140°30'00"E GDA94, south to latitude 37°29'00"S GDA94, east to longitude 140°39'00"E GDA94, south to latitude 37°39'00"S GDA94, west to longitude 140°38'00"E GDA94, south to latitude 37°42'00"S GDA94, west to longitude 140°35'00"E GDA94, north to latitude 37°40'00"S GDA94, west to longitude 140°33'00"E GDA94, north to latitude 37°38'00"S GDA94, west to longitude 140°32'00"E GDA94, north to latitude 37°31'00"S GDA94, west to longitude 140°22'00"E GDA94, south to latitude 37°34'00"S GDA94, west to longitude 140°20'00"E GDA94, north to latitude 37°33'00"S GDA94, west to longitude 140°19'00"E GDA94, and north to point of commencement.

AREA 2

Commencing at a point being the intersection of latitude 37°53'00"S GDA94 and longitude 140°36'00"E GDA94, thence east to longitude 140°41'00"E GDA94, south to latitude 37°59'00"S GDA94, east to longitude 140°46'00"E GDA94, north to latitude 37°55'00"S GDA94, east to longitude 140°48'00"E GDA94, south to latitude 38°00'00"S GDA94, west to longitude 140°39'00"E GDA94, north to latitude 37°59'00"S GDA94, west to longitude 140°36'00"E GDA94, and north to point of commencement.

AREA: **498** square kilometres approximately.



Note: There is no warranty that the boundary of this licence is correct in relation to other features of the map. The boundary is to be ascertained by reference to the Geocentric Datum of Australia (GDA94) and the schedule.

THE PLAN HEREINBEFORE REFERRED TO

GEOHERMAL EXPLORATION LICENCE NO: 171

