

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

Suspension of Geothermal Exploration Licence—GEL 502

PURSUANT to Section 90 of the Petroleum and Geothermal Energy Act 2000, notice is hereby given that the abovementioned Geothermal Exploration Licence has been suspended under the provisions of the Petroleum and Geothermal Energy Act 2000, for the period from and including 10 March 2011 until 13 November 2011, pursuant to delegated powers dated 1 October 2009.

The expiry date of GEL 502 is now determined to be 13 November 2015.

Dated 12 August 2011.

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

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

GEOHERMAL EXPLORATION LICENCE
GEL 502

1. Suspension of licence from and including 10 March 2011 to 13 November 2011 is hereby entered on the public register.
2. The expiry date of GEL 502 is now determined to be 13 November 2015.



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

Date: 12 August 2011

Ref: 27/2/567

Petroleum and Geothermal Energy Act 2000
S.90

**SUSPENSION OF
GEOTHERMAL EXPLORATION LICENCE
GEL 502**

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

1. Suspend geothermal exploration licence GEL 502 for the period from and including 10 March 2011 to 13 November 2011.

No regulated activities are permitted to be carried out during the period of the suspension.

The expiry date of GEL 502 is now determined to be 13 November 2015.

Dated: 12 August 2011



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

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

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCES
GELs 281 and 502**

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



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

Date: 12 August 2011

Ref: 27/2/447
27/2/567

Petroleum and Geothermal Energy Act 2000

VARIATION OF GEOTHERMAL EXPLORATION LICENCE GEL 502

I, BARRY ALAN GOLDSTEIN, Executive Director, Petroleum and Geothermal Division, Minerals and Energy Resources, Department of Primary Industries and Resources in the State of South Australia, pursuant to section 25 of the *Petroleum and Geothermal Energy Act 2000* and all other enabling powers, for and on behalf of Tom Koutsantonis, Minister for Mineral Resources Development (Minister), pursuant to delegated powers dated 1 October 2009, hereby vary the conditions of the above-mentioned licence, held by -

Panax Geothermal Ltd
ACN 122 203 196

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">• Geological and geophysical studies.
Two	<ul style="list-style-type: none">• Geological and geophysical studies. <p><i>Year 2 work program to be conducted anywhere within the boundaries of GELs 281 and 502.</i></p>
Three	<ul style="list-style-type: none">• Geological and geophysical studies.
Four	<ul style="list-style-type: none">• Geological and geophysical studies.
Five	<ul style="list-style-type: none">• Drill 1 deep well and associated testing.

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Dated: 12 August 2011



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

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

Grant of Geothermal Exploration Licence—GEL 502

NOTICE is hereby given that the undermentioned Geothermal Exploration Licence has been granted under the provisions of the Petroleum and Geothermal Energy Act 2000, pursuant to delegated powers dated 1 October 2009.

No. of Licence	Licensee	Locality	Expiry	Reference
GEL 502	Panax Geothermal Limited	Cooper Basin	9 March 2015	27/02/567

Description of Area

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

Commencing at a point being the intersection of latitude 27°24'00"S GDA94 and longitude 140°06'00"E GDA94, thence east to a western boundary of Coongie Lakes No Go Zone, thence generally south-easterly and northerly along the boundary of the said zone to latitude 27°24'00"S GDA94, east to longitude 140°20'00"E GDA94, south to latitude 27°27'00"S GDA94, west to longitude 140°16'00"E GDA94, south to latitude 27°30'00"S GDA94, west to longitude 140°14'00"E GDA94, south to latitude 27°32'00"S GDA94, west to longitude 140°06'00"E GDA94, south to latitude 27°34'00"S GDA94, west to longitude 139°57'30"E GDA94, south to latitude 27°36'45"S GDA94, west to longitude 139°54'00"E GDA94, north to latitude 27°30'50"S GDA94, east to longitude 139°56'15"E GDA94, north to latitude 27°29'15"S GDA94, east to longitude 140°01'10"E GDA94, north to latitude 27°26'45"S GDA94, east to longitude 140°06'00"E GDA94 and north to the point of commencement.

Area: 471 km² approximately.

Dated 10 March 2010.

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

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

**GEOHERMAL EXPLORATION LICENCE
GEL 502**

1. This Licence granted to Panax Geothermal Limited on 10 March 2010 is hereby entered on the public register.
2. Interest in the licence are:-

Panax Geothermal Limited	100%
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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: 10 March 2010

File: 27/2/567

PETROLEUM AND GEOTHERMAL ENERGY ACT 2000

GEOTHERMAL EXPLORATION LICENCE

GEL 502

I, BARRY ALAN GOLDSTEIN, Director Petroleum and Geothermal, Minerals and Energy Resources, Primary Industries and Resources, in the State of South Australia pursuant to the provisions 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 GRANT to:

Panax Geothermal Ltd
ACN 122 203 196

(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 to expire on 9 March 2015 but carrying the right of renewal under the *Petroleum and Geothermal Energy 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">• Geological and geophysical studies.
Two	<ul style="list-style-type: none">• Geological and geophysical studies.
Three	<ul style="list-style-type: none">• Measure detailed geothermal gradients in relevant and accessible wells; and• Geological and geophysical studies.

Four	<ul style="list-style-type: none"> • Reprocess 100 line km 2D seismic data; • Conduct shallow pilot drilling for more detailed thermal measurements or undertake such measurements in an existing suitable well; and • Geological and geophysical studies.
Five	<ul style="list-style-type: none"> • Drill one deep well to a depth of 2,000 m; • Geological and geophysical studies.

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 and Geothermal Energy Act 2000*, that the report also includes an assessment of the potential economic consequences for other licensees under the *Petroleum and Geothermal Energy 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 the *Petroleum and Geothermal Energy Act 2000* cannot transfer, limit or exclude liability under the *Petroleum and Geothermal Energy 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.

Date:.....10 March 2010.....



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



Signed by the said LICENSEE

Date: 3/3/10.


Authorized Representative

KERRY PARKER
Name

DIRECTOR
Position

PANAP GOTIKRUAL LTD
Company



GEOHERMAL EXPLORATION LICENCE

GEL 502

THE SCHEDULE

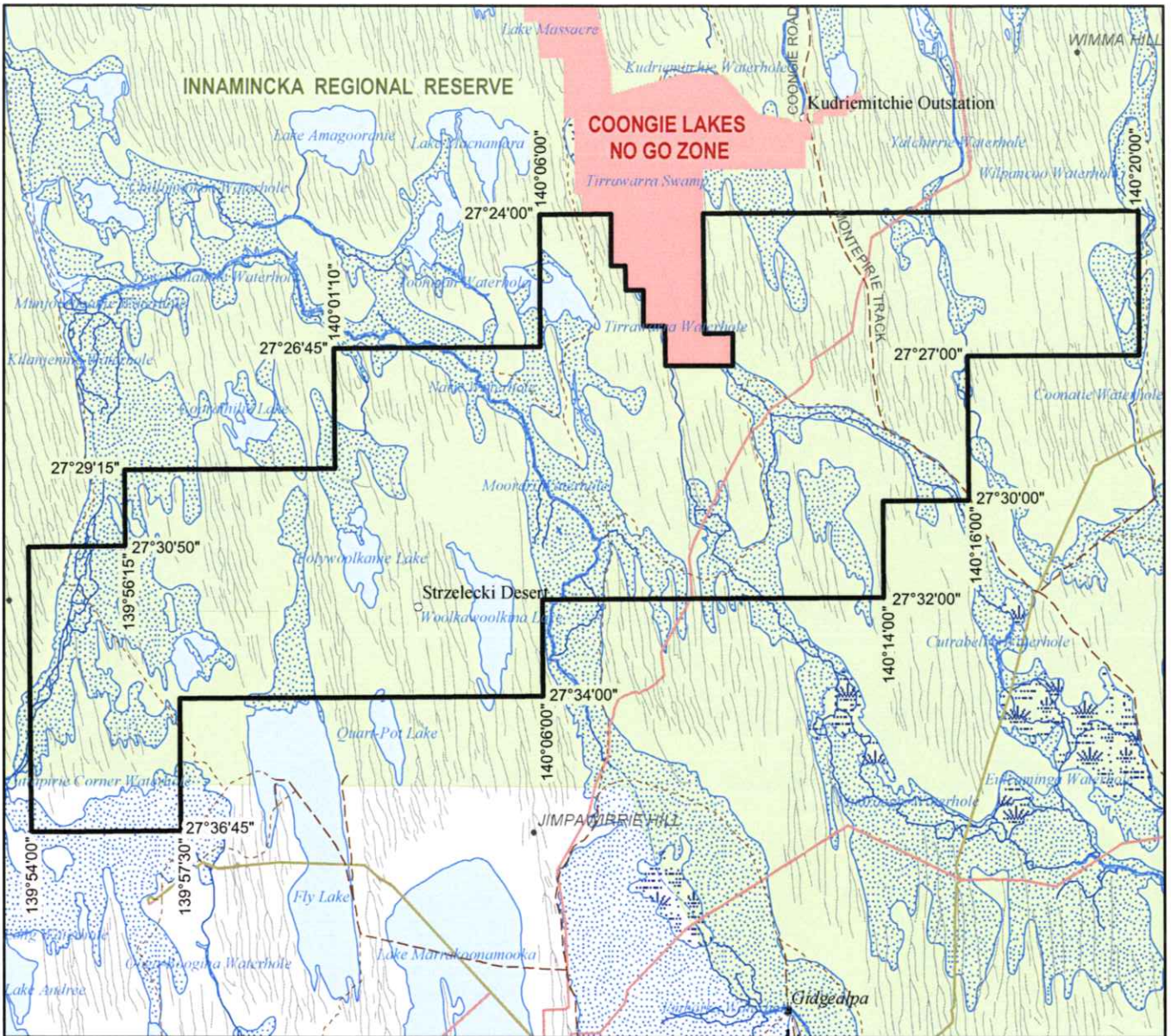
Description of Area

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

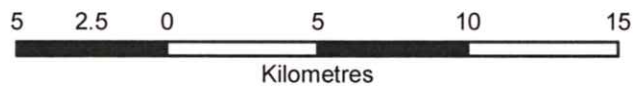
Commencing at a point being the intersection of latitude 27°24'00"S GDA94 and longitude 140°06'00"E GDA94, thence east to a western boundary of Coongie Lakes No Go Zone, thence generally south-easterly and northerly along the boundary of the said zone to latitude 27°24'00"S GDA94, east to longitude 140°20'00"E GDA94, south to latitude 27°27'00"S GDA94, west to longitude 140°16'00"E GDA94, south to latitude 27°30'00"S GDA94, west to longitude 140°14'00"E GDA94, south to latitude 27°32'00"S GDA94, west to longitude 140°06'00"E GDA94, south to latitude 27°34'00"S GDA94, west to longitude 139°57'30"E GDA94, south to latitude 27°36'45"S GDA94, west to longitude 139°54'00"E GDA94, north to latitude 27°30'50"S GDA94, east to longitude 139°56'15"E GDA94, north to latitude 27°29'15"S GDA94, east to longitude 140°01'10"E GDA94, north to latitude 27°26'45"S GDA94, east to longitude 140°06'00"E GDA94, and north to the point of commencement.

AREA: **471** square kilometres approximately.





SCALE 1:250 000



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 HEREBEFORE REFERRED TO
GEOHERMAL EXPLORATION LICENCE NO: 502