

- JOA Cross Charge Merrimelia-Innamincka JOA dated 9 March 1994 between Crusader Resources NL, Santos Ltd, Alliance Petroleum Australia NL, Delhi Petroleum Pty Ltd, Sagasco Resources Ltd and Vamgas Ltd:
 - Covenant and Acknowledgment from Santos Ltd and Crusader Resources NL to Basin Oil NL dated 8 March 1994.
8. 22 June 1994 Memorandum entering the following document on the public register:
- Deed of Variation of Charge dated 17 May 1994 entered into by Crusader Resources NL and Westpac Banking Corporation.
9. 24 July 1995 Certificate of Registration on Conversion to a Proprietary Company dated 19 January 1995. Vamgas Ltd is now Vamgas Pty Ltd.
10. 24 July 1995 Memorandum entering change of company name on public register
11. 5 September 1995 Certificate of Registration on Change of Name dated 1 September 1995:
From: SAGASCO Resources Ltd
To: Boral Energy Resources Ltd.
12. 17 February 1997 Memorandum entering the following documents on the public register:
- Deed of Assignment and Transfer dated 20 December 1996 between Santos Ltd (Santos), Delhi Petroleum Pty Ltd (Delhi), Santos Petroleum Pty Ltd (Santos Petroleum), Boral Energy Resources Ltd (Boral), Vamgas Pty Ltd (Vamgas), Bridge Oil Developments Pty Ltd (BOD), Santos (BOL) Pty Ltd (BOL), Reef Oil Pty Ltd (Reef), Alliance Petroleum Australia Pty Ltd (Alliance), Basin Oil NL (Basin) and Crusader Resources NL (Crusader).
 - New JOA Cross Charge dated 20 December 1996 between Santos, Delhi, Santos Petroleum, Boral, Vamgas, Crusader, BOD, BOL, Reef, Alliance and Basin.
 - Deed of Amendment Unit Cross Charge dated 20 December 1996 between Santos, Delhi, Santos Petroleum, Boral, Vamgas, Crusader, BOD, BOL, Reef, Alliance and Basin.
 - Deed of Amendment Downstream Cross Charge dated 20 December 1996 between Santos, Delhi, Santos Petroleum, Boral, Vamgas, Crusader, BOD, BOL, Reef, Alliance and Basin.

13. 30 June 1997 Certificate of Registration on Change of Name dated 12 June 1997:
From: Crusader Resources NL
To: Gulf (Aust) Resources NL
14. 30 June 1997 Memorandum entering change of company name on the Public Register.
15. 10 December 1999 Certificate of Registration on Change of Name dated 6 October 1999:
From: Gulf (Aust) Resources NL
To: Novus Australia Resources NL
16. 10 December 1999 Memorandum entering change of company name on the Public Register.
17. 13 March 2000 Certificate of Registration on Change of Name dated 24 February 2000:
From: Boral Energy Resources
To: Origin Energy Resources Ltd
18. 13 March 2000 Memorandum entering change of company name on the Public Register.
19. 15 October 2002 Certificate of Registration on Change of Type and Conversion to a Proprietary Company dated 8 June 2000:
From: Basin Oil NL
To: Basin Oil Pty Ltd
20. 15 October 2002 Memorandum entering change of company name on the Public Register.
21. 7 May 2004 Memorandum dated 7 May 2004 entering notation of adoption of the register for PELs 5&6 as part of the Commercial Register.
22. 23 July 2004 Memorandum entering notation of registrable dealing on the public register:
 - DPPL Security dated 21 May 2004 between Delhi Petroleum Pty Ltd and Westpac Banking Corporation
Ref:SA 2004-44
23. 23 November 2005 Notation of discharge of security and receipt of replacement security is entered on the public register.
24. 13 January 2006 Certificate of Registration on Change of Name dated 29 June 2005:
From: Novus Australia Resources NL
To: Santos (NARNL Cooper) NL

25. 13 January 2006 Memorandum entering change of company name on the Public Register.
26. 9 May 2006 Certificate of Registration on Change of Name dated 1 December 2005:
From: Santos (NARNL Cooper) NL
To: Santos (NARNL Cooper) Pty Ltd.
27. 9 May 2006 Memorandum entering change of company name on the Public Register
28. 16 February 2010 Renewal of licence, with effect from 21 December 2009.
29. 16 February 2010 Memorandum entering renewal on public register.
30. 15 February 2011 Memorandum entering notation of the following registrable dealing on the public register.

Delhi Fixed and Floating Charge and Mortgage of JV Assets dated 29 September 2010 between Delhi Petroleum Pty Limited and Westpac Banking Corporation.
Ref: SA 2011-15
31. 28 June 2012 Memorandum entering notation of the following registrable dealing on the public register.

Royalty Deed dated 19 January 2012 between Delhi Petroleum Pty Ltd and Esso Australia Resources Pty Ltd.
Ref: SA 2012-42
32. 9 August 2017 Certificate of Registration on Change of Company Name dated 29 June 2017.

From: Origin Energy Resources Limited
To: Lattice Energy Limited
33. 9 August 2017 Memorandum entering notation of change of company name on the public register.
34. 7 June 2018 Memorandum entering notation of the following registrable dealing on the public register:

Deed of Variation dated 4 December 2015 between Santos Limited, Santos Petroleum Pty Ltd, Vamgas Pty Ltd, Santos (NARNL Cooper) Pty Ltd, Santos (BOL) Pty Ltd, Reef Oil Pty Ltd, Bridge Oil Developments Pty Limited, Basin Oil Pty Ltd, Alliance Petroleum Australia Pty Ltd, Origin Energy Resources Limited and Delhi Petroleum Pty Ltd
Ref: SA 2018-18

35. 22 January 2020 Certificate of Registration on Change of Name dated 2 December 2019.
- From: Lattice Energy Limited
To: Beach Energy (Operations) Limited
36. 22 January 2020 Memorandum entering notation of change of company name on the public register.
37. 15 April 2020 Memorandum entering notation of the following registrable dealing on the public register:
- Callawonga – Tantanna Flowline Connection Agreement and purchase and sale of Tantanna Loadout Facility Letter Agreement dated 11 December 2019 between Alliance Petroleum Australia Pty Ltd, Basin Oil Pty Ltd, Bridge Oil Developments Pty Limited, Delhi Petroleum Pty Ltd, Beach Energy (Operations) Limited, Reef Oil Pty Ltd, Santos Limited, Santos (BOL) Pty Ltd, Santos (NARNL Cooper) Pty Ltd, Santos Petroleum Pty Ltd and Vamgas Pty Ltd (collectively known as the SACB Parties) and Beach Energy Limited and Cooper Energy Limited (collectively known as the Producers)
Ref: SA 2020-07

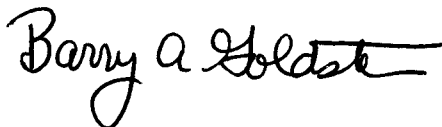
Petroleum and Geothermal Energy Act 2000
S. 115

MEMORANDUM

PETROLEUM PRODUCTION LICENCE
PPL 46

ASSOCIATED ACTIVITIES LICENCE
AAL 128

SA 2020-07 Notation of registrable dealing as evidenced by Callawonga – Tantanna Flowline Connection Agreement and purchase and sale of Tantanna Loadout Facility Letter Agreement dated 11 December 2019 between Alliance Petroleum Australia Pty Ltd, Basin Oil Pty Ltd, Bridge Oil Developments Pty Limited, Delhi Petroleum Pty Ltd, Beach Energy (Operations) Limited, Reef Oil Pty Ltd, Santos Limited, Santos (BOL) Pty Ltd, Santos (NARNL Cooper) Pty Ltd, Santos Petroleum Pty Ltd and Vamgas Pty Ltd (collectively known as the SACB Parties) and Beach Energy Limited and Cooper Energy Limited (collectively known as the Producers) is hereby entered on the public register.



BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department for Energy and Mining
Delegate of the Minister for Energy and Mining

Date: 15 April 2020

Ref: MER-2020/0225
MER-2020/0226

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

MEMORANDUM

PETROLEUM PRODUCTION LICENCES

PPLs 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 86, 87, 88, 89, 90, 91, 92, 94, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 172, 174, 175, 176, 177, 178, 179, 180, 182, 187, 189, 190, 193, 194, 195, 196, 201, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237 and 238

ASSOCIATED ACTIVITIES LICENCES

AALs 258, 259 and 263

PIPELINE LICENCES

PLs 2, 5, 9, 15 and 20

1. Notation of change of company name:

From: Lattice Energy Limited
To: Beach Energy (Operations) Limited

is hereby entered on the public registers.



**BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department for Energy and Mining
Delegate of the Minister for Energy and Mining**

Date: 22 January 2020



Certificate of Registration on Change of Name

This is to certify that

LATTICE ENERGY LIMITED

Australian Company Number 007 845 338

did on the second day of December 2019 change its name to

BEACH ENERGY (OPERATIONS) LIMITED

Australian Company Number 007 845 338

The company is a public company.

The company is limited by shares.

The company is taken to be registered under the Corporations Act 2001 in South Australia and the date of commencement of registration is the ninth day of September, 1977.

Issued by the
Australian Securities and Investments Commission
on this second day of December 2019.

A handwritten signature in black ink that reads 'James Shipton'.

James Shipton
Chair

CERTIFICATE

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

PETROLEUM PRODUCTION LICENCES

PPLs 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 86, 87, 88, 89, 90, 91, 92, 94, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 172, 174, 175, 176, 177, 178, 179, 180, 182, 187, 189, 190, 193, 194, 195, 196, 201, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237 and 238

PIPELINE LICENCES

PLs 5, 9 and 15

SA 2018-18 Notation of registrable dealing as evidenced by Deed of Variation dated 4 December 2015 between Santos Limited, Santos Petroleum Pty Ltd, Vamgas Pty Ltd, Santos (NARNL Cooper) Pty Ltd, Santos (BOL) Pty Ltd, Reef Oil Pty Ltd, Bridge Oil Developments Pty Limited, Basin Oil Pty Ltd, Alliance Petroleum Australia Pty Ltd, Origin Energy Resources Limited and Delhi Petroleum Pty Ltd is hereby entered on the public register.



BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department of the Premier and Cabinet
Delegate of the Minister for Energy and Mining

Date: 7 June 2018

Ref: 28/01/00045

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

PETROLEUM RETENTION LICENCE
PRL 106

PETROLEUM EXPLORATION LICENCES
PELs 637 and 638

PETROLEUM PRODUCTION LICENCES
PPLs 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 86, 87, 88, 89, 90, 91, 92, 94, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 172, 174, 175, 176, 177, 178, 179, 180, 182, 187, 189, 190, 193, 194, 195, 196, 201, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237 and 238

PIPELINE LICENCES
PLs 2, 5, 9, 15 and 20

1. Notation of change of company name:

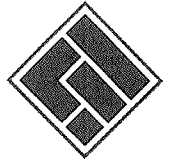
From: Origin Energy Resources Limited
To: Lattice Energy Limited

is hereby entered on the public registers.



BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department of the Premier and Cabinet
Delegate of the Minister for Mineral Resources and Energy

Date: 9 August 2017



Certificate of Registration on Change of Name

This is to certify that

ORIGIN ENERGY RESOURCES LIMITED

Australian Company Number 007 845 338

did on the twenty-ninth day of June 2017 change its name to

LATTICE ENERGY LIMITED

Australian Company Number 007 845 338

The company is a public company.

The company is limited by shares.

The company is taken to be registered under the Corporations Act 2001 in South Australia and the date of commencement of registration is the ninth day of September, 1977.

Issued by the
Australian Securities and Investments Commission
on this twenty-ninth day of June 2017.

Greg Medcraft
Chairman

CERTIFICATE

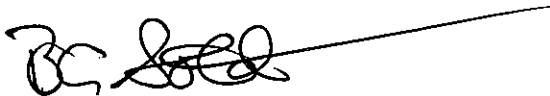
**Petroleum and Geothermal Energy Act 2000
S.115**

MEMORANDUM

PETROLEUM PRODUCTION LICENCES

PPLs 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 86, 87, 88, 89, 90, 91, 92, 94, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 172, 174, 175, 176, 177, 178, 179, 180, 182, 187, 189, 190, 193, 194, 195, 196, 201, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237 and 238

SA 2012-42 Notation of registrable dealing as evidenced by Royalty Deed dated 19 January 2012 between Delhi Petroleum Pty Ltd and Esso Australia Resources Pty Ltd is hereby entered on the public register.



**BARRY A. GOLDSTEIN
Executive Director
Energy Resources Division
Department for Manufacturing, Innovation, Trade, Resources and Energy
Delegate of the Minister for Mineral Resources and Energy**

Date: 28 June 2012

Ref: various files

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

PETROLEUM PRODUCTION LICENCES

PPLs 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 83, 84, 86, 87, 88, 89, 90, 91, 92, 94, 95, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 172, 174, 175, 176, 177, 178, 179, 180, 182, 187, 189, 190, 193, 194, 195, 196, 201, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237 and 238

and

PIPELINE LICENCES

PLs 2, 5, 9 and 15

SA 2011-15 Notation of registrable dealing as evidenced by Delhi Fixed and Floating Charge and Mortgage of JV Assets dated 29 September 2010 between Delhi Petroleum Pty Limited and Westpac Banking Corporation 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: 15 February 2011

Petroleum and Geothermal Energy Act 2000
S.115

MEMORANDUM

**RENEWAL OF
PETROLEUM PRODUCTION LICENCES
PPL 46 and PPL 47**

1. Renewal of these licences, effective from 21 December 2009 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: 16 February 2010

File: 28/1/133
28/1/131

Petroleum and Geothermal Energy Act 2000

Renewal of PETROLEUM PRODUCTION LICENCE No. 46

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 the provisions of the *Petroleum and Geothermal Energy Act 2000 (the Act)*, and all other enabling powers for and on behalf of Paul Holloway, Minister for Mineral Resources Development (Minister), pursuant to delegated powers, hereby renew Petroleum Production Licence PPL 46, held by:

Santos Limited	ACN 007 550 923
Vamgas Pty Ltd	ACN 006 245 110
Alliance Petroleum Australia Pty Ltd	ACN 004 559 951
Reef Oil Pty Ltd	ACN 000 646 800
Santos Petroleum Pty Ltd	ACN 000 146 369
Bridge Oil Developments Pty Ltd	ACN 001 152 049
Santos (BOL) Pty Ltd	ACN 000 670 575
Delhi Petroleum Pty Ltd	ACN 007 854 686
Origin Energy Resources Limited	ACN 007 845 338
Basin Oil Pty Ltd	ACN 000 628 017
Santos (NARNL Cooper) Pty Ltd	ACN 004 761 255

(herein after referred to as the 'Licensee'), and granted pursuant to the *Petroleum Act 1940* in relation to all regulated resources except a source of geothermal energy in respect of the area described below, and subject to the conditions set out below and the provisions of the *Petroleum and Geothermal Energy Act 2000*, to have effect from 21 December 2009.

DESCRIPTION OF AREA

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

TERMS AND CONDITIONS

1. Security
 - 1.1 For the purpose of ensuring the due and proper performance of the Licensee's obligations under this Licence and the Act, the Licensee shall provide security in the amount of \$50,000 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, ("the Security").
 - 1.2 The Security shall be reviewed periodically, and during the term of the Licence if in the opinion of the Minister it is reasonable to increase the Security amount, provide additional security or substitute another security for the existing Security, the Licensee must comply with the Minister's request within 28 days after being requested in writing by the Minister to do so.
 - 1.3 Interest will not be payable by the Minister to the Licensee on any cash Security.

- 1.4 All charges incurred by the Licensee in obtaining and maintaining the Security shall be met by the Licensee
- 1.5 If this Licence is surrendered or cancelled 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.

2. Insurance

2.1 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 reasonably 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 reasonably 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).

2.2 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.

3. Transfer of Liability

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 Act 1940* or *Petroleum and Geothermal Energy Act 2000* unless written consent of the Minister is obtained.

Date: 16 February 2010
~~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

Executed for and on behalf of each of:

**Santos Limited
Vamgas Pty Ltd
Alliance Petroleum Australia Pty Ltd
Reef Oil Pty Ltd
Santos Petroleum Pty Ltd
Bridge Oil Developments Pty Ltd
Santos (BOL) Pty Ltd
Basin Oil Pty Ltd
Santos (NARNL Cooper) Pty Ltd**

by its duly appointed attorney:


.....
Attorney Signature


James Leslie Baulderstone
Attorney Name

8/2/2010
.....
Date

Executed by **Delhi Petroleum Pty Ltd** in accordance with section 127(1) of the Corporations Act by authority of its Directors:

Hector Gordon
.....
Executive Director
Name (print)


.....
Director Signature




Cathy Oster
Company Secretary

11/2/2010
.....
Date

Executed for and on behalf of **Origin Energy Resources Ltd** by its duly appointed attorney:

Owen Hobbs
Eastern Australia Onshore Asset Manag.....
Upstream Oil & Gas Australia
Attorney Name (print)


.....
Attorney Signature

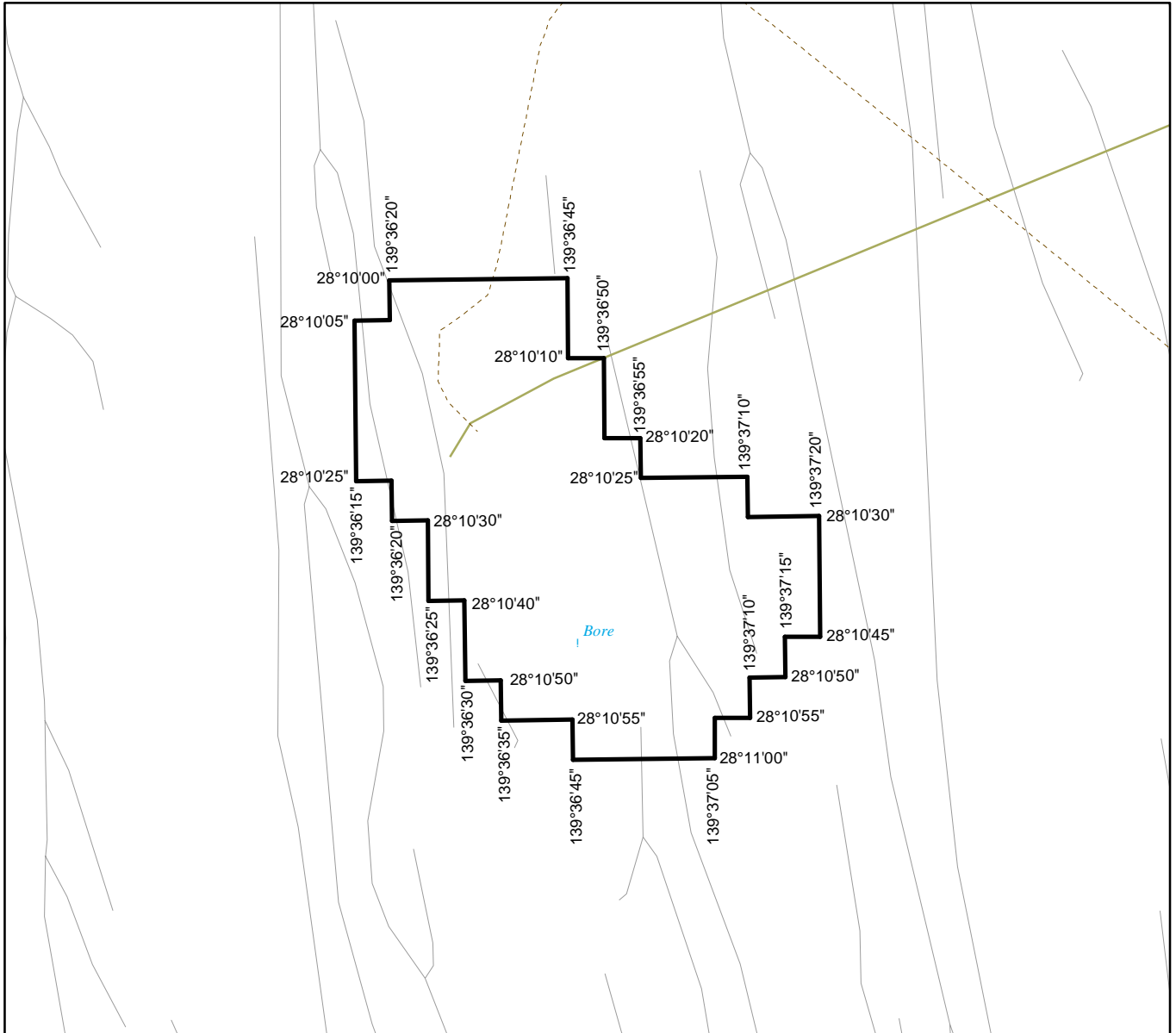
03-02-10
.....
Date

SCHEDULE
PETROLEUM PRODUCTION LICENCE
PPL 46
DESCRIPTION OF AREA

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

Commencing at a point being the intersection of latitude 28°10'00"S AGD66 and longitude 139°36'20"E AGD66, thence east to longitude 139°36'45"E AGD66, south to latitude 28°10'10"S AGD66, east to longitude 139°36'50"E AGD66, south to latitude 28°10'20"S AGD66, east to longitude 139°36'55"E AGD66, south to latitude 28°10'25"S AGD66, east to longitude 139°37'10"E AGD66, south to latitude 28°10'30"S AGD66, east to longitude 139°37'20"E AGD66, south to latitude 28°10'45"S AGD66, west to longitude 139°37'15"E AGD66, south to latitude 28°10'50"S AGD66, west to longitude 139°37'10"E AGD66, south to latitude 28°10'55"S AGD66, west to longitude 139°37'05"E AGD66, south to latitude 28°11'00"S AGD66, west to longitude 139°36'45"E AGD66, north to latitude 28°10'55"S AGD66, west to longitude 139°36'35"E AGD66, north to latitude 28°10'50"S AGD66, west to longitude 139°36'30"E AGD66, north to latitude 28°10'40"S AGD66, west to longitude 139°36'25"E AGD66, north to latitude 28°10'30"S AGD66, west to longitude 139°36'20"E AGD66, north to latitude 28°10'25"S AGD66, west to longitude 139°36'15"E AGD66, north to latitude 28°10'05"S AGD66, east to longitude 139°36'20"E AGD66, and north to point of commencement.

AREA: **2.0** square kilometres approximately.



SCALE 1:25000



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) and the schedule.

THE PLAN HEREINBEFORE REFERRED TO

TANTANNA FIELD

PETROLEUM PRODUCTION LICENCE NO: 46



Petroleum Act 2000
S.115

MEMORANDUM

Petroleum Production Licences (PPLs) 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199 and Pipeline Licence (PL) 2.

1. Notation of change of company name –

From: Santos (NARNL Cooper) NL
To: Santos (NARNL Cooper) Pty Ltd

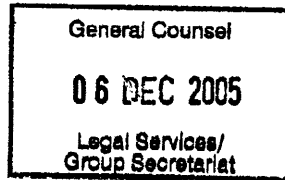
is hereby entered on the public register of licences.



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: 9 May 2006

File: 27/2/4



Form **242**

Santos Limited Attn: Graham Bollenhagen
GPO Box 2455
Adelaide SA 5001

Remove this top section if desired before framing

Certificate of Registration on Change of Type and Conversion to a Proprietary Company



This is to certify that

SANTOS (NARNL COOPER) NL

Australian Company Number 004 761 255

on the first day of December 2005 converted to
a company limited by shares
and on the first day of December 2005 changed to
a **proprietary** company.

The name of the company is now

SANTOS (NARNL COOPER) PTY LTD

Australian Company Number 004 761 255

The company is taken to be registered under the Corporations
Act 2001 in Victoria and the date of commencement of
registration is the twenty-first day of February, 1969.

Issued by the
Australian Securities and Investments Commission
on this first day of December, 2005.

A handwritten signature in black ink, appearing to read "Jeffrey Lucy".

Jeffrey Lucy
Chairman

CERTIFICATE

Petroleum Act 2000
S.115

MEMORANDUM

Petroleum Production Licences (PPLs) 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199 and Pipeline Licence (PL) 2.

1. Notation of change of company name –

From: Novus Australia Resources NL
To: Santos (NARNL Cooper) NL

is hereby entered on the public register of licences.



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

Date: 13 January 2006

File: 27/2/4

Santos Limited Attn: Graham Bollenhagen
GPO Box 2455
Adelaide SA 5001

Remove this top section if desired before framing

Certificate of Registration on Change of Name



This is to certify that

NOVUS AUSTRALIA RESOURCES NL

Australian Company Number 004 761 255

did on the twenty-ninth day of June 2005 change its name to

SANTOS (NARNL COOPER) NL

Australian Company Number 004 761 255

The company is a public company.

The company is a no liability company.

The company is taken to be registered under the Corporations Act 2001 in Victoria and the date of commencement of registration is the twenty-first day of February, 1969.

Issued by the
Australian Securities and Investments Commission
on this twenty-ninth day of June, 2005.

Jeffrey Lucy
Chairman

CERTIFICATE

Petroleum Act 2000
S.115

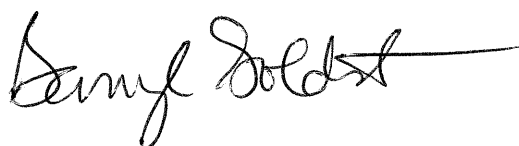
MEMORANDUM

PETROLEUM PRODUCTION LICENCES (PPLs) 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199

and

PIPELINE LICENCES (PLs) 2, 5, 9 and 15

1. Notation of receipt of Bank Guarantee dated 27 October 2005, is hereby entered on the commercial register.
2. Security is held to cover any event occurring in any licence operated by Santos Limited on behalf of the respective Cooper Basin Joint Ventures in South Australia.
3. Cash security held in respect of PPL 152 is hereby discharged to Santos Limited.
4. Bank Guarantees held in respect of the above referenced PLs and PPLs (excluding PPL 152) are hereby discharged to Santos Limited.



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

Date: 23 November 2005

Petroleum Act 2000

S.115

MEMORANDUM

PETROLEUM PRODUCTION LICENCES 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199

PIPELINE LICENCES 2, 5, 9 AND 15

1. Notation of registrable dealing as evidenced by the following document is hereby entered on the Public Register;

- SA 2004-44 DPPL Security dated 21 May 2004 between Delhi Petroleum Pty Ltd and Westpac Banking Corporation.



Paul Holloway

Leader of the Government in the Legislative Council
Minister for Industry, Trade and Regional Development
Minister for Mineral Resources Development
Minister for Small Business

Date: 23/7/04

Petroleum Act 2000

S.115(2)(e)


S.117(2)(b)

MEMORANDUM

PETROLEUM PRODUCTION LICENCES (PPLs) 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198 and 199

- 1 Pursuant to sections 115(2)(e) and 117(2)(b) of the *Petroleum Act 2000*, notation is hereby entered on the public and commercial register for each of the abovementioned PPLs, that the register created under the then *Petroleum Act 1940*, relative to Petroleum Exploration Licences 5 and 6, which expired on 27 February 1999, is adopted as part of the commercial register for each of the above said PPLs

Dated: 7 May 2004



T. AUST
A/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

PETROLEUM PRODUCTION LICENCES

PPL's 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 119, 120, 124, 126, 127, 128, 129, 130, 132, 133, 134, 135, 137, 138, 139, 140, 141, 143, 144, 145, 146, 148, 149, 150, 151, 153, 154, 155, 157, 159, 160, 161, 162, 163, 164, 165, 166, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 183, 184, 185, 186, 188, 189, 190, 192, 193, 195, 196, 198, 199;

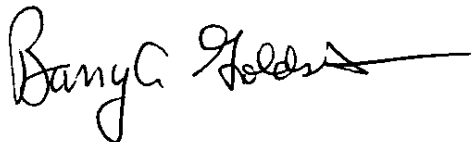
And

PIPELINE LICENCE
PL 2

1. Notation of change of company name –

From: Basin Oil NL
To: Basin Oil Pty Ltd

is hereby entered on the public register of licences.



BARRY A GOLDSTEIN
Director Petroleum
Office of Minerals and Energy Resources
Delegate of the Minister for Mineral Resources
Development

Date: 15 October 2002

Form 242

FREEHILL HOLLINGDALE & PAGE
AMP BUILDING
22nd Fl
140 ST Georges Terrace
PERTH WA 6000

Remove this top section if desired before framing

Certificate of Registration on Change of Type and Conversion to a Proprietary Company



This is to certify that

BASIN OIL N.L.

Australian Company Number 000 628 017

on the eighth day of June 2000 converted to
a company limited by shares
and on the eighth day of June 2000 changed
to a proprietary company.

The name of the company is now

BASIN OIL PTY LTD

Australian Company Number 000 628 017

The company is taken to be registered as a company
under the Corporations Law of New South Wales.

CERTIFICATE

Issued by the
Australian Securities and Investments Commission
on this eighth day of June, 2000.

Alan Cameron
Chairman

M E M O R A N D U M

PETROLEUM ACT 1940

SECTION 44

**PETROLEUM EXPLORATION LICENCES NOS. 27, 32, 57, 66 AND 72
PETROLEUM PRODUCTION LICENCES NOS. 6 TO 20, 22 TO 61 AND 63 TO 168
PIPELINE LICENCES 2, 5, 9 AND 10**

Receipt of the following document is hereby entered onto the Petroleum Register.

- Certificate of Registration on Change of Name dated 24 February 2000.
Boral Energy Resources Ltd is now known as Origin Energy Resources Ltd.



**J S ZABROWARNY
MANAGER PETROLEUM LICENSING AND ROYALTIES**

13 March 2000

24/02/00

14:37

+61 8 8223 4405

NO. 462 · 004

User: MARKK

Host: BETA1.oqa.boral.com.au

Class: Job: MARKK_TRLRP

CLAYTON UTZ
1 O'Connell Street
SYDNEY NSW 2000

Remove this top section if desired before printing

Certificate of Registration on Change of Name



This is to certify that

BORAL ENERGY RESOURCES LIMITED

Australian Company Number 007 845 338

did on the twenty-fourth day of February 2000 change its name to

ORIGIN ENERGY RESOURCES LIMITED

Australian Company Number 007 845 338

The company is a public company.

The company is limited by shares.

The company is taken to be registered as a company
under the Corporations Law of South Australia.

Issued by the
Australian Securities and Investments Commission
on this twenty-fourth day of February, 2000.

Alan Cameron
Chairman

CERTIFICATE

MEMORANDUM

Section 44, Petroleum Act 1940

PETROLEUM PRODUCTION LICENCES 6 to 20,
22 to 61, 63 to 140, 142 to 167

PIPELINE LICENCE No. 2

Receipt of the following document is hereby entered onto the Petroleum Register.

- Certificate of Registration on Change of Name dated 6 October 1999.
Gulf (Aust) Resources NL is now known as Novus Australia Resources NL.



J S Zabrowarny
Manager, Petroleum Licensing and Royalties

10 December 1999

NOVUS PETROLEUM LIMITED
Level 9
321 Kent Street
SYDNEY NSW 2000

Remove this top section if desired before printing

Certificate of Registration on Change of Name



This is to certify that

GULF (AUST) RESOURCES N.L.

Australian Company Number 004 761 255

did on the sixth day of October 1999 change its name to

NOVUS AUSTRALIA RESOURCES NL

Australian Company Number 004 761 255

The company is a public company.

The company is a no liability company.

The company is taken to be registered as a company
under the Corporations Law of Victoria.

Issued by the
Australian Securities and Investments Commission
on this sixth day of October, 1999.

Alan Cameron
Chairman

CERTIFICATE

502 0113 001

SR 27/2/4 V27

MEMORANDUM

**PETROLEUM ACT 1940
SECTION 44**

PEL 5 & 6

All Farmout Areas

PPLs 6 to 20, 22 to 61 and 63 to 84, PL 2

Receipt of the following document is hereby entered onto the Petroleum Register:

- Certificate of Registration on Change of Name dated 12 June 1997.

Crusader Resources NL is now known as Gulf (Aust) Resources NL.



**M COLELLA
A/MANAGER, PETROLEUM ADMINISTRATION**

30 / 6 / 97



Form **245**

CORRS CHAMBERS WESTGARTH
ATTN: TRACY THORNTON
COMALCO PLACE
12 CREEK ST
BRISBANE QLD 4000

remove this top section if desired before framing

Certificate of Registration on Change of Name

Corporations Law Sub-section 171 (12)

This is to certify that

CRUSADER RESOURCES N.L.

Australian Company Number **004 761 255**

did on the twelfth day of June 1997 change its name to

GULF (AUST) RESOURCES N.L.

Australian Company Number **004 761 255**

The company is a public company.

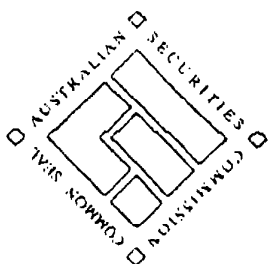
The company is a no liability company.

The company is taken to be registered as a company
under the Corporations Law of Victoria.



AUSTRALIAN
SECURITIES
COMMISSION

Given under the seal of the
Australian Securities Commission
on this twelfth day of June, 1997.



Alan Cameron
Chairman

MEMORANDUM

PETROLEUM EXPLORATION LICENCE NO 5 & 6



FARMOUT AREAS AND PETROLEUM PRODUCTION LICENCES

This memorandum will confirm that on 17 February 1997 I approved the lodgement of the following documents onto the Petroleum Register which confirms the approved provisions as contained in the Minister for Mines' letter dated 20 December 1996.

- Deed of Assignment and Transfer dated 20 December 1996 between Santos Ltd (Santos), Delhi Petroleum Pty Ltd (Delhi), Santos Petroleum Pty Ltd (Santos Petroleum), Boral Energy Resources Ltd (Boral), Vamgas Pty Ltd (Vamgas), Bridge Oil Developments Pty Ltd (BOD), Santos (BOL) Pty Ltd (BOL), Reef Oil Pty Ltd (Reef), Alliance Petroleum Australia Pty Ltd (Alliance), Basin Oil NL (Basin) and Crusader Resources NL (Crusader).
- New JOA Cross Charge dated 20 December 1996 between Santos, Delhi, Santos Petroleum, Boral, Vamgas, Crusader, BOD, BOL, Reef, Alliance and Basin.
- Deed of Amendment Unit Cross Charge dated 20 December 1996 between Santos, Delhi, Santos Petroleum, Boral, Vamgas, Crusader, BOD, BOL, Reef, Alliance and Basin.
- Deed of Amendment Downstream Cross Charge dated 20 December 1996 between Santos, Delhi, Santos Petroleum, Boral, Vamgas, Crusader, BOD, BOL, Reef, Alliance and Basin.

Interests in the following areas and licences are now as follows and effective from 1 January 1992.

Farmout Areas	PPLs	Licensees	Interests %
• Patchawarra Central	6 to 20	Santos Vamgas	40.70 8.51
• Merrimelia - Innamincka	22 to 25	Alliance Reef	3.97 1.97
• Murta	27 to	Santos Petroleum	0.40
• Tinga-Tingana	61	BOD	3.99
• Patchawarra South West	63 to 75	BOL Boral	0.21 13.19
• Nappacoongee - Murteree	78 to 83	Delhi Basin	20.21 2.10
• Lake Hope		Crusader	4.75
• Moomba			100.00
• Toolachee			
• Haddon			
• Clifton			
• Koongherra			



R A LAWS

DIRECTOR, PETROLEUM DIVISION

Delegate of the Minister for Mines

502 0113 004

MEMORANDUM

Petroleum Exploration Licences 32 and 40

Petroleum Exploration Licence 5 and 6.

Petroleum Production Licences Nos 6 to 20, 22 to 72

All PEL 5 and 6 Farmout Areas

Pipeline Licences 2 and 5

Receipt of a Certificate of Registration on Change of Name dated 1 September 1995 is hereby entered on the Petroleum Register.

SAGASCO Resources Ltd has changed its name to Boral Energy Resources Ltd.



J S Zabrowarny
MANAGER PETROLEUM ADMINISTRATION

5 September 1995

502 0113 005

Form 245

W M FOWLER
3RD FL
60 HINDMARSH SQ
ADELAIDE SA 5000

remove this top section if desired before framing

Certificate of Registration on Change of Name

Corporations Law Sub-section 171 (12)

This is to certify that

SAGASCO RESOURCES LIMITED

Australian Company Number 007 845 338

did on the first day of September 1995 change its name to

BORAL ENERGY RESOURCES LIMITED

Australian Company Number 007 845 338

The company is a public company.

The company is limited by shares.

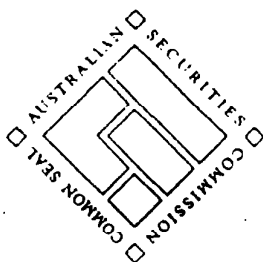
The company is taken to be registered as a company
under the Corporations Law of South Australia.



AUSTRALIAN
SECURITIES
COMMISSION

CERTIFICATE

Given under the seal of the
Australian Securities Commission
on this first day of September, 1995.



Alan Cameron

Alan Cameron
Chairman

MEMORANDUM

PETROLEUM EXPLORATION LICENCES 5 AND 6

All Farmout Areas

Petroleum Production Licences 6 to 20, 22 to 61, 63 to 72

Receipt of a Certificate of Registration on Conversion to a Proprietary Company is hereby entered on the Petroleum Register.

Vamgas Ltd is now Vamgas Pty Ltd.


J.S. Zabrowarny
MANAGER PETROLEUM ADMINISTRATION

24-17-195

502 0113 007

Form **251**

SANTOS LIMITED
ATTN: GRAHAM BOLLENHAGEN
GPO BOX 2319
ADELAIDE SA 5001

remove this top section if desired before framing

Certificate of Registration on Conversion to a Proprietary Company

Corporations Law Sub-section 168 (3)

This is to certify that

VAMGAS LTD.

Australian Company Number 006 245 110

on the nineteenth day of January 1995 converted to a **proprietary company.**

The name of the company is now

VAMGAS PTY LTD

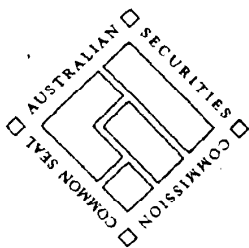
Australian Company Number 006 245 110

The company is taken to be registered as a company
under the Corporations Law of Victoria.



AUSTRALIAN
SECURITIES
COMMISSION

Given under the seal of the
Australian Securities Commission
on this nineteenth day of January, 1995.



Alan Cameron

Alan Cameron
Chairman

COPY



SR 27/2/4 Vol 25

MEMORANDUM

Petroleum Exploration Licence's 5 and 6

Petroleum Production Licence's 6 to 20, 22 to 61, 63 to 72

Pipeline Licence No. 2

Crusader Resources NL
Westpac Banking Corporation

Receipt of the following document is hereby entered on the Petroleum Register pursuant to delegated powers dated 3 December 1993, Gazetted 9 December 1993 page 2916:

-Deed of Variation of Charge dated 17 May 1994 entered onto by Crusader Resources NL and Westpac Banking Corporation.

This Memorandum is an adjunct to Memorandum dated 10 May 1991 in respect of Fixed and Floating Charge dated 25 August 1989 and Deed of Variation of Charge dated 5 November 1990.

R A LAWS
DIRECTOR, OIL, GAS & COAL DIVISION
DELEGATE OF THE MINISTER FOR MINES & ENERGY

n 16 AX

MEMORANDUM

PELs 5 and 6

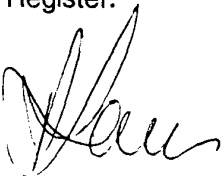
Farmout Areas and Petroleum Production Licences 6 to 20, 22 to 61 and 63 to 72.

This Memorandum will confirm that on 15th April 1994 I acknowledged receipt of the following documentation pursuant to delegated powers dated 3 December 1993, Gazetted 9 December 1993, page 2916:

- (1) Deed of Consent and Assumption dated 9 March 1994 between Santos Ltd, Crusader Resources NL, Alliance Petroleum Australia NL, Basin Oil NL, Bridge Oil Developments Pty Ltd, Bridge Oil Ltd, Delhi Petroleum Pty Ltd, Reef Oil NL, Sagasco Resources Ltd, Santos Petroleum Pty Ltd, Vamgas Ltd, Australian Hydrocarbons Ltd, Claremont Petroleum NL, Oil Company of Australia Ltd, The Australian Gas Light Company, Pipelines Authority of South Australia and Executor Trustee Australia Ltd.
- (2) JOA Cross Charge 50/40/10 JOA dated 9 March 1994 between Crusader Resources NL, Santos Ltd, Delhi Petroleum Pty Ltd, Sagasco Resources Ltd and Vamgas Ltd.
- (3) JOA Cross Charge Merrimelia-Innaminka JOA dated 9 March 1994 between Crusader Resources NL, Santos Ltd, Alliance Petroleum Australia NL, Delhi Petroleum Pty Ltd, Sagasco Resources Ltd and Vamgas Ltd.
- (4) Covenant and Acknowledgment from Santos Ltd and Crusader Resources NL to Basin Oil NL dated 8 March 1994.

The above documents are as an adjunct to the transfer as contained in the Deed of Assignment and Transfer dated 20 December 1993 between Santos Ltd and Crusader Resources NL which was approved on 17 March 1994 and do not require further approval pursuant to the Petroleum Act, 1940.

A copy of each of the abovementioned documents has been retained on the Petroleum Register.



R A LAWS
DIRECTOR, OIL GAS AND COAL
Delegate of the Minister for Mines and Energy

MEMORANDUM

Petroleum Exploration Licences 5 and 6

Farmout Areas and Petroleum production Licences

This memorandum will confirm that on 17th March..... 1994 I consented to the transfer as contained in the following documentation in relation to the following areas pursuant to delegated powers dated 3 December 1993, Gazetted 9 December 1993, page 2916.

- Deed of Assignment and Transfer dated 20 December 1993 between Santos Ltd and Crusader Resources N L.

The Assignment and Transfer can take effect as from 1 January 1992 as provided by the abovementioned document.

Interests in the following areas and licences are now as follows.

<u>Farmout Area</u>	<u>PPL</u>	<u>LICENCEES</u>	<u>FORMER INTERESTS</u> %	<u>REVISED INTERESTS</u> %
Moomba	6-7-8-9	Santos Ltd (Santos)	50.0	45.25
	10-11-51	Delhi Petroleum Pty Ltd(Delhi)	30.0	30.0
		Vamgas Ltd (Vamgas)	10.0	10.0
		Sagasco Resources Ltd (SAGASCO)	10.0	10.0
		Crusader Resources NL (Crusader)	-	4.75
Toolachee	12-13-14	Santos	50.0	45.25
	23-24-25	Delhi	30.0	30.0
	40-41-58	Vamgas	10.0	10.0
	69-71-72	SAGASCO	10.0	10.0
		Crusader	-	4.75
Nappacoongee/ Murteree	15-16-22	Santos	35.0	60.25
	30-34-36 39	Crusader	30.0	4.75
		Delhi	21.0	21.0
		Vamgas	7.0	7.0
		SAGASCO	7.0	7.0
Merrimelia/ Innamincka	17-27-33	Alliance Petroleum Aust NL	50.0	50.0
	35-42-43	Santos	25.0	20.25
	44-52-56	Delhi	15.0	15.0
	68	Vamgas	5.0	5.0
		SAGASCO	5.0	5.0
	Crusader	-	4.75	

Patchawarra Central	18-19-20	Santos	25.0	20.25
	29-50-55	Bridge Oil Developments Pty Ltd	23.75	23.75
		Delhi	15.0	15.0
		Basin Oil NL	12.50	12.50
		Reef Oil NL	12.50	12.50
		Vamgas	5.0	5.0
		SAGASCO	5.0	5.0
		Bridge Oil Ltd Crusader	1.25 -	1.25 4.75
Patchawarra East	26	Vamgas	43.75	43.75
		Santos	28.571	25.6022
		Delhi	17.143	17.143
		SAGASCO	10.536	10.536
		Crusader	-	2.9688
Patchawarra South West	28-48- 49-66	SAGASCO	30.0	30.0
		Santos	35.0	30.25
		Vamgas	20.0	20.0
		Delhi	15.0	15.0
		Crusader	-	4.75
Murta	31-32-37	Santos	45.0	40.25
	38-53-54	Delhi	27.0	27.0
	57-59-60	Vamgas	14.0	14.0
	61-65-67	SAGASCO	14.0	14.0
	70	Crusader	-	4.75
Lake Hope	45-46-47 63-64	Santos	52.0	47.25
		Delhi	30.0	30.0
		SAGASCO	10.0	10.0
		Vamgas	8.0	8.0
		Crusader	-	4.75
Clifton		Santos	50.0	45.25
		Delhi	30.0	30.0
		Vamgas	10.0	10.0
		SAGASCO	10.0	10.0
		Crusader	-	4.75
Haddon		Santos	52.50	47.75
		Delhi	30.0	30.0
		Vamgas	8.75	8.75
		SAGASCO	8.75	8.75
		Crusader	-	4.75
Koonchera		Santos	50.0	45.25
		Delhi	30.0	30.00
		Vamgas	10.0	10.0
		SAGASCO	10.0	10.0
		Crusader	-	4.75

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Tinga-Tingana	Santos	45.0	40.25
	Delhi	27.0	27.0
	Vamgas	14.0	14.0
	SAGASCO	14.0	14.0
	Crusader	-	4.75

This Memorandum is hereby entered on the Petroleum Register.



R A LAWS
DIRECTOR, OIL, GAS & COAL DIVISION
Delegate of the Minister for Mines and Energy

MEMORANDUM

Patchawarra South West and Lake Hope Blocks of Petroleum Exploration Licences 5 and 6 and Petroleum Production Licences 28, 45-49 (inclusive), 63, 64 and 66.

This Memorandum will confirm that the following document effected a transfer of interests authorised by the Minister of Mineral Resources on 14 September 1992:

- Deed of Assignment and Release dated 30 March 1993 between Australian Petroleum Development Pty Ltd and Santos Ltd.

The interests in the abovementioned tenements as from 1 May 1992 have therefore become:

PATCHAWARRA SOUTH WEST BLOCK OF PETROLEUM EXPLORATION LICENCES 5 AND 6 AND PETROLEUM PRODUCTION LICENCES 28, 48, 49 AND 66

Santos Ltd	35%
SAGASCO Resources Ltd	30%
Vamgas Ltd	20%
Delhi Petroleum Pty Ltd	15%
	<u>100%</u>

LAKE HOPE BLOCK OF PETROLEUM EXPLORATION LICENCES 5 AND 6 AND PETROLEUM PRODUCTION LICENCES 45, 46, 47, 63 AND 64.

Santos Ltd	52%
Delhi Petroleum Pty Ltd	30%
SAGASCO Resources Ltd	10%
Vamgas Ltd	8%
	<u>100%</u>

Receipt of the following document is also noted on the Petroleum Register:

- Deed of Assumption Patchawarra South West Block Lake Hope Block (PELs 5 and 6) dated 30 March 1993 between Santos Ltd., Delhi Petroleum Pty Ltd., Vamgas Ltd., SAGASCO Resources Ltd., and Australian Petroleum Development Pty Ltd.



J S ZABROWARNY
MANAGER, PETROLEUM ADMINISTRATION

2 / 6 / 93

In accordance with Section 117 of the *Petroleum Act 2000* (Act) this document forms part of 'The Commercial Register'.

Section 118 of the Act provides for the following:

Authority to search register

(1) A person is entitled to have access to the material included in the commercial register, on payment of the prescribed inspection fee, if the access is authorised by—

- (a) a person who has a legal or equitable interest in the relevant licence or registered dealing; or
- (b) (b) the Minister.

(2) The Minister must not authorise access under subsection (1)(b) unless the Minister has consulted with the licensee to whom the material relates and is satisfied that access should be authorised in the public interest.

FOR FURTHER INFORMATION PLEASE CONTACT:

Department of State Development
Energy Resources Division
GPO Box 320,
Adelaide SA 5001
(08) 8463 3204

MEMORANDUM

SR 27/4/9/5
SR 27/4/9/20

**Patchawarra South West and Lake Hope Blocks of
Petroleum Exploration Licences 5 and 6 and Petroleum Production
Licences 28,45-49 (inclusive), 63, 64 and 66**

This Memorandum will confirm that on 14th Sept. 1992, I approved the transfer provisions contained in the following document in connection with the abovementioned tenements:

- Purchase Agreement dated 1st May 1992 between Australian Petroleum Development Pty Ltd and Santos Ltd.

An appropriate instrument of transfer to give effect to the approved provisions must be lodged in accordance with the requirements of Section 42(5) of the Petroleum Act.

Following lodgement of the instrument of transfer, the interests in the tenements will become:

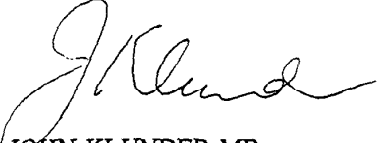
Patchawarra South West Block of Petroleum Exploration Licences 5 and 6 and Petroleum Production Licences 28, 48, 49 and 66	Existing Interests	Revised Interests
Santos Ltd	25%	35%
SAGASCO Resources Ltd	30%	30%
Vamgas Ltd	20%	20%
Delhi Petroleum Pty Ltd	15%	15%
Australian Petroleum Development Pty Ltd	10%	-
	<u>100%</u>	<u>100%</u>

Lake Hope Block of Petroleum Exploration Licences 5 and 6 and Petroleum Production Licenses 45, 46, 47, 63 and 64.	Existing Interests	Revised Interests
Santos Ltd	42%	52%
Delhi Petroleum Pty Ltd	30%	30%
SAGASCO Resources Ltd	10%	10%
Vamgas Ltd	8%	8%
Australian Petroleum Development Pty Ltd	10%	-
	<u>100%</u>	<u>100%</u>

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The transfer can take effect as from 1st May 1992 upon required lodgement of an appropriate instrument of transfer.

This Memorandum and Purchase Agreement are hereby entered an the Petroleum Register.



JOHN KLUNDER MP
MINISTER OF MINES AND ENERGY

14/9/92



GRANT OF PETROLEUM PRODUCTION LICENCES

Department of Mines and Energy, Parkside, 21 December 1988

NOTICE is hereby given that the undermentioned petroleum production licences have been granted under the provisions of the Petroleum Act, 1940.

J. KLUNDER, Minister of Mines and Energy

No. of Licence	Licenses	Locality	Date of Expiry	Area in km ²	Reference
46	SANTOS Ltd, Delhi Petroleum Pty Ltd, SAGASCO Resources Limited, Australian Petroleum Development Pty Ltd, Vamgas Limited	Tantanna Field in the Cooper Basin	2009	1.99	SR28/1/133

Description of Area

All that part of the State of South Australia bounded as follows: Commencing at a point being the intersection of latitude 28°10'00"S and longitude 139°36'20"E, thence east to longitude 139°36'45"E, south to latitude 28°10'10"S, east to longitude 139°36'50"E, south to latitude 28°10'20"S, east to longitude 139°36'55"E, south to latitude 28°10'25"S, east to longitude 139°37'10"E, south to latitude 28°10'30"S, east to longitude 139°37'20"E, south to latitude 28°10'45"S, west to longitude 139°37'15"E, south to latitude 28°10'50"S, west to longitude 139°37'10"E, south to latitude 28°10'55"S, west to longitude 139°37'05"E, south to latitude 28°11'00"S, west to longitude 139°36'45"E, north to latitude 28°10'55"S, west to longitude 139°36'35"E, north to latitude 28°10'50"S, west to longitude 139°36'30"E, north to latitude 28°10'40"S, west to longitude 139°36'25"E, north to latitude 28°10'30"S, west to longitude 139°36'20"E, north to latitude 28°10'25"S, west to longitude 139°36'15"E, north to latitude 28°10'05"S, east to longitude 139°36'20"E and north to the point of commencement. All the within latitudes and longitudes are geodetic and expressed in terms of the Australian Geodetic Datum as defined on p. 4984 of *Commonwealth Gazette* number 84 dated 6 October 1966.

Area: 1.99 square kilometres approximately.

No. of Licence	Licenses	Locality	Date of Expiry	Area in km ²	Reference
47	SANTOS Ltd, Delhi Petroleum Pty Ltd, SAGASCO Resources Limited, Australian Petroleum Development Pty Ltd, Vamgas Limited	Sturt Field in the Cooper Basin	2009	2.39	SR28/1/131

Description of Area

All that part of the State of South Australia bounded as follows: Commencing at a point being the intersection of latitude 28°07'55"S and longitude 139°34'55"E, thence east to longitude 139°35'55"E, south to latitude 28°08'40"S, west to longitude 139°35'05"E, north to latitude 28°08'30"S, west to longitude 139°34'45"E, north to latitude 28°08'05"S, east to longitude 139°34'55"E, and north to the point of commencement. All the within latitudes and longitudes are geodetic and expressed in terms of the Australian Geodetic Datum as defined on p. 4984 of *Commonwealth Gazette* number 84 dated 6 October 1966.

Area: 2.39 square kilometres approximately.

MEMORANDUM

Petroleum Production Licences Nos. 46 & 47 (Tantanna and Sturt)

1. These licences granted on 21/12/88 are hereby entered on the Petroleum Register.
2. Securities in the form of \$4000 bank guarantees have been lodged with respect to these licences.
3. Interests in the licences are as follows:-
 - . SANTOS Limited (42%)
 - . Delhi Petroleum Pty. Ltd. (30%)
 - . SAGASCO Resources Limited (10%)
 - . Australian Petroleum Development Pty. Ltd. (10%)
 - . Vamgas Limited (8%)

SR28/1/131
SR28/1/133



MINISTER OF MINES AND ENERGY

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PETROLEUM ACT, 1940

PETROLEUM PRODUCTION LICENCE NO. 46

I, JOHN HEINZ CORNELIS KLUNDER, Minister of Mines and Energy in the State of South Australia pursuant to the provisions of the Petroleum Act, 1940 and all other enabling powers HEREBY GRANT to:

- . SANTOS Limited, whose registered office is situated at 39 Grenfell Street, Adelaide S.A. 5000 ("SANTOS")
- . Delhi Petroleum Pty Ltd., whose registered office is situated at 8th Floor, 70 Pirie Street, Adelaide S.A. 5000 ("Delhi")
- . SAGASCO Resources Limited, whose registered office is situated at 60 Hindmarsh Square, Adelaide S.A. 5000 ("SAGASCO")
- . Australian Petroleum Development Pty. Ltd., whose registered office is situated at 10th Floor, 60 Marcus Clarke Street, Canberra City A.C.T. 2601 ("APD")
- . Vamgas Limited, whose registered office is situated at C/- Arthur Andersen and Co., Level 23, 35 Collins Street, Melbourne Victoria 3000 ("Vamgas")

(hereinafter referred to as the 'Licensees') a Petroleum Production Licence hereinafter referred to as the "licence") in respect of the area described below and subject to the conditions set out below, to have effect for a period of twenty-one years and to expire on ~~29. DECEMBER~~.....2009..... but carrying the rights of renewal conferred by the Petroleum Act, 1940.

Description of Area

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

Conditions

COMMISSIONER OF STAMPS
S.A. STAMP DUTY
21/12/88 221411 10:12
\$4.00

1. The Licensees shall at all times comply with:
 - (a) the provisions of the Petroleum Act, 1940 or any statutory modification or re-enactment thereof and of any regulations for the time being and from time to time in force under that Act; and
 - (b) all directions given to them under the Act or regulations for the time being and from time to time in force under that Act.
2. Royalty shall be paid in accordance with the Petroleum Act, 1940, or any statutory modification or re-enactment thereof and any regulations made thereunder.

3. The Licensees shall within two(2) months of the grant of this licence submit a reservoir management plan to the Director-General, Department of Mines and Energy for approval. The Director-General may from time to time but no more frequently than annually require the submission of an updated plan for approval and may from time to time approve variations of the plan. The Licensees shall at all times comply with the approved reservoir management plan.
4. The Licensees shall carry out all operations within the area the subject of the licence in accordance with codes of environmental practice acceptable to the Director-General, Department of Mines and Energy.

Declaration

As between the Licensees it is hereby acknowledged and agreed that the Licensees, as at the date of grant of this licence, own and hold the following undivided interests respectively in and under the licence:-

SANTOS	Forty-two per centum	(42%)
Delhi	Thirty per centum	(30%)
SAGASCO	Ten per centum	(10%)
APD	Ten per centum	(10%)
Vamgas	Eight per centum	(8%)

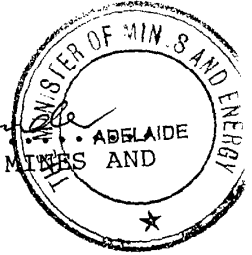
and that:

- (a) as between the Licensees the undivided interests so owned and held by the Licensees shall be subject to the provisions of a Joint Operating Agreement dated the 26th day of October 1988 to which the Licensees are parties and as the same may hereafter be amended or replaced from time to time PROVIDED THAT any amendment or replacement which affects, or could affect the undivided interests of the Licensees shall be of no force or effect unless approved by the Minister.
- (b) as between SANTOS and APD the undivided interests so owned and held by SANTOS and APD shall be subject to the provisions of a Farmout Agreement dated the 14th day of August 1987 to which SANTOS, Vamgas and APD are parties.

SIGNED SEALED AND DELIVERED
by the said MINISTER OF MINES
AND ENERGY at ADELAIDE this

.....21st..... day of December 1988..

J. Klump
.....
MINISTER OF MINES AND
ENERGY



SIGNED SEALED AND DELIVERED
by the said LICENSEES at

Melbourne, Sydney, Adelaide..... this

.....19th and 20th..... day of December 1988..

THE COMMON SEAL of SANTOS LIMITED
was hereto affixed in the presence of:

[Signature]
.....
(Director)

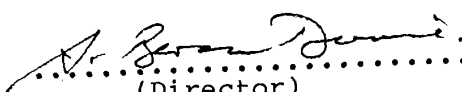
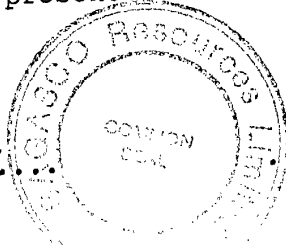
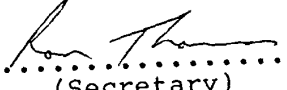
[Signature]
.....
(Secretary)

SIGNED, SEALED AND DELIVERED for and on behalf of DELHI PETROLEUM
PTY. LTD by Bruce Galloway MCKAY its duly authorised Attorney
under Power of Attorney dated the 6th day of July, 1988, who
hereby states that he has no notice of revocation of the said
Power of Attorney at the time of executing this instrument in the
presence of:


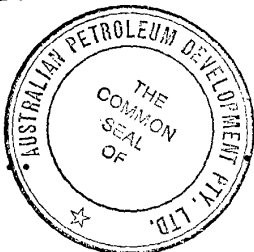
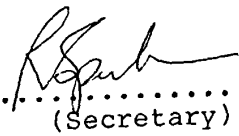
[Signature]
.....
Witness

.....*Bruce McKay*.....
Delhi Petroleum
Pty. Ltd. by its
Attorney B.G. McKay

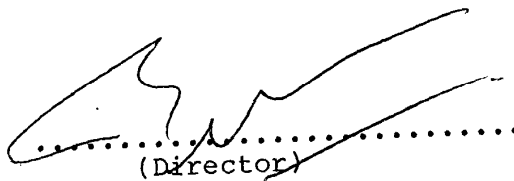

THE COMMON SEAL of SAGASCO RESOURCES LIMITED
was hereto affixed in the presence of:


 (Director)
 

 (Secretary)

THE COMMON SEAL of AUSTRALIAN PETROLEUM DEVELOPMENT PTY. LTD.
was hereto affixed in the presence of:


 (Director)
 

 (Secretary)

THE COMMON SEAL of VAMGAS LIMITED
was hereto affixed in the presence of:


 (Director)
 
 (Secretary)

PETROLEUM PRODUCTION LICENCE No. 46

THE SCHEDULE

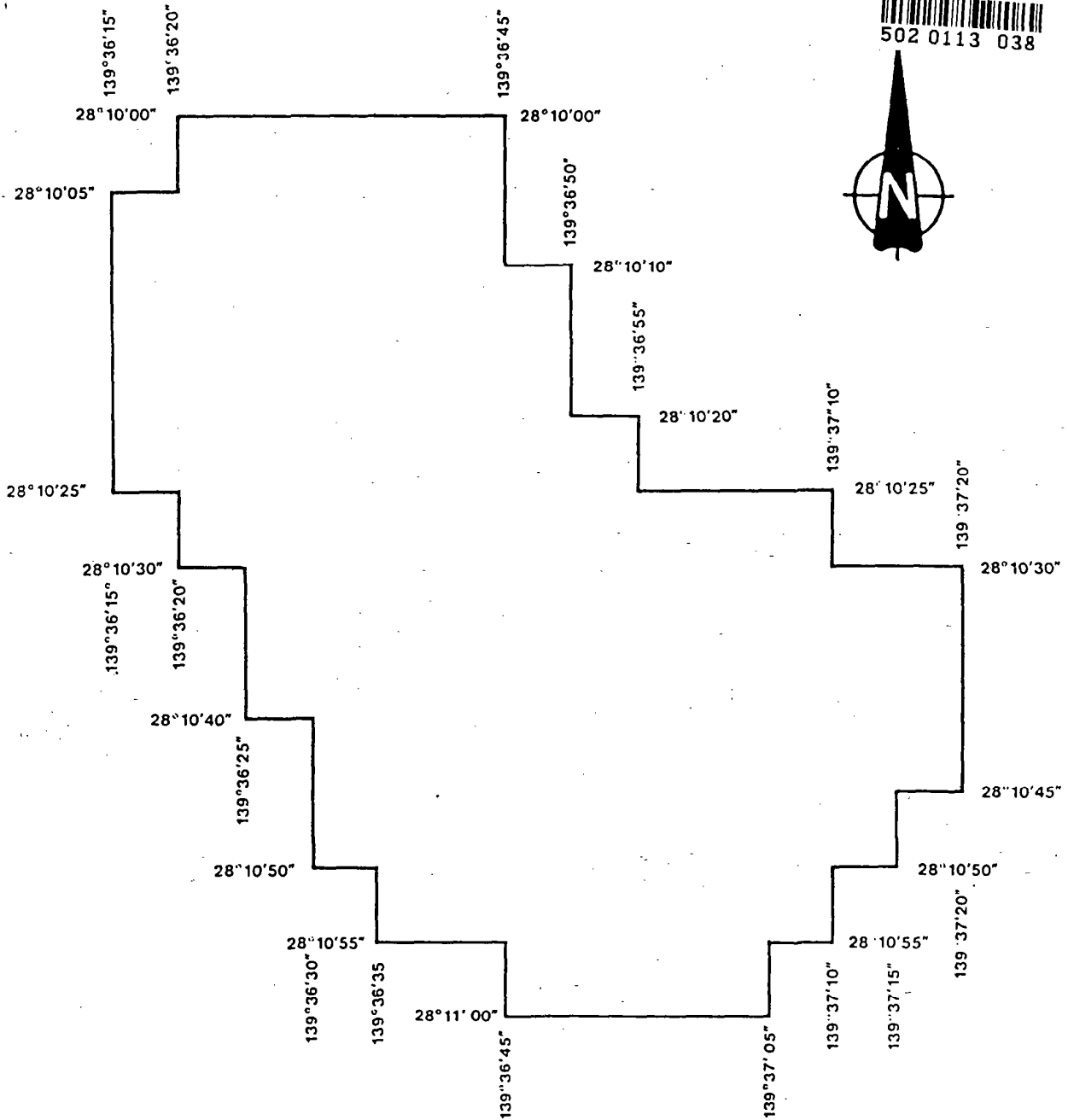
All that part of the State of South Australia bounded as follows:-

Commencing at a point being the intersection of latitude 28°10'00"S and longitude 139°36'20"E, thence east to longitude 139°36'45"E, south to latitude 28°10'10"S, east to longitude 139°36'50"E, south to latitude 28°10'20"S, east to longitude 139°36'55"E, south to latitude 28°10'25"S, east to longitude 139°37'10"E, south to latitude 28°10'30"S, east to longitude 139°37'20"E, south to latitude 28°10'45"S, west to longitude 139°37'15"E, south to latitude 28°10'50"S, west to longitude 139°37'10"E, south to latitude 28°10'55"S, west to longitude 139°37'05"E, south to latitude 28°11'00"S, west to longitude 139°36'45"E, north to latitude 28°10'55"S, west to longitude 139°36'35"E, north to latitude 28°10'50"S, west to longitude 139°36'30"E, north to latitude 28°10'40"S, west to longitude 139°36'25"E, north to latitude 28°10'30"S, west to longitude 139°36'20"E, north to latitude 28°10'25"S, west to longitude 139°36'15"E, north to latitude 28°10'05"S, east to longitude 139°36'20"E and north to the point of commencement.

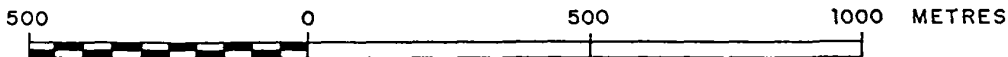
All the within latitudes and longitudes are geodetic and expressed in terms of the Australian Geodetic Datum as defined on p. 4984 of Commonwealth Gazette number 84 dated October 6, 1966.

AREA: 1.99 square kilometres (approximately).

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SCALE 1 : 12 500



NOTE : There is no warranty that the boundary of this Licence is correct in relation to other features on the map. The boundary is to be ascertained by reference to the Australian Geodetic Datum.

SANTOS LIMITED DELHI PETROLEUM PTY. LTD.
VAMGAS LIMITED SAGASCO RESOURCES LIMITED
AUSTRALIAN PETROLEUM DEVELOPMENT PTY. LIMITED

PETROLEUM PRODUCTION LICENCE NO. 46