



06/7788

13 December 2006

Duncan MacDonald  
AJ Lucas Coal Seam Gas Pty Ltd.  
PO Box 675  
Ryde NSW 1680

Dear Duncan,

**PEL285: Approval to drill and test coalbed methane exploration wells LMG04,  
LMGW02, LMGC02 and LMGC03**

In accordance with Condition 1 of PEL285 granted under the provisions of the *Petroleum (Onshore) Act 1991*, the titleholder is hereby granted approval to drill and test the exploration wells LMG04, LMGW02, LMC02 and LMGC03, subject to the conditions set out below. These conditions are in addition to those previously attached to PEL285 and prevail to the extent of any inconsistency. A breach of these conditions is an offence under the *Petroleum (Onshore) Act 1991*.

**ADDITIONAL CONDITIONS**

**General conditions**

1. The works must be carried out at the location(s) and in accordance with the methods contained in:
  - Review of Environmental Factors for Exploration Boreholes LMG04, LMGW02 and LMGC02, LMGC03 dated October 2006
  - Environmental Management Plan for Drilling and Testing Activities Petroleum Exploration Licence No. 285 dated 24 October 2006

Except as amended by the following conditions.

**Security**

2. An additional security of \$60,000 for the well(s) and any activities associated with this approval is to be lodged with the Department prior to the commencement of the activities subject to this approval.

**Prior to drilling**

3. Prior to the commencement of activities on each site, the title holder must make reasonable efforts to provide notice of disturbing activities, in particular any drilling or fracking operations, to immediate neighbours of the land on which the activities are to take place. The titleholder must accommodate reasonable requests by landholders for limited rescheduling of activities.
4. The titleholder must seek a written determination from the Department as to whether the well(s) subject to this approval is/are likely to intercept a



potentially mineable coal seam before commencing works (see Condition 17).

*Note that conditions under other headings may also have elements which must be fulfilled prior to drilling.*

#### **Site access and management**

5. The titleholder must maintain access roads to any sites subject to this approval in a condition satisfactory to the Department and landholder requirements.
6. The site must be securely fenced with a lockable gate and adequate signs warning of potential dangers.
7. Every effort must be made to ensure that the area of land disturbance resulting from operations subject to this approval is minimised, subject to any safety considerations.
8. The title holder must maintain the site in a clean and tidy condition and undertake a program of ongoing environmental maintenance leading to full restoration of the site.

#### **Well location data**

9. The location and height (AHD) of each well collar must be determined to an accuracy of 1 metre and the position of the hole within all potentially mineable coal seams must also be determined to an accuracy of 1 metre. This information must be supplied to the satisfaction of the Department.
10. Reasonable access must be provided to Departmental staff to carry out additional surveys or inspections as necessary.

#### **Water management**

11. All produced formation water must be collected and stored in a secure manner which prevents leakage and contamination of soil, surface water and groundwater.
12. Any on-site water storage dams must be fully lined with an impermeable barrier.
13. Any on-site water storage dams must be designed and managed to maintain sufficient freeboard to contain runoff and precipitation from a 1 in 20 year storm.
14. Volumes of produced formation water must be measured and recorded on a daily basis.
15. Any removal or discharge of water from the site requires prior notification to the Manager, Petroleum Operations. This notification must include the following details:
  - a) Water source
  - b) Water volume
  - c) Water quality
  - d) Method of removal or discharge (e.g. truck, pipeline)
  - e) Intended frequency of removal or discharge
  - f) Discharge point (e.g. name, type, location, operator and environment protection licence details)

Documentation covering the chain of custody for any off-site disposal of water must be maintained and made available for inspection by the Department on request.

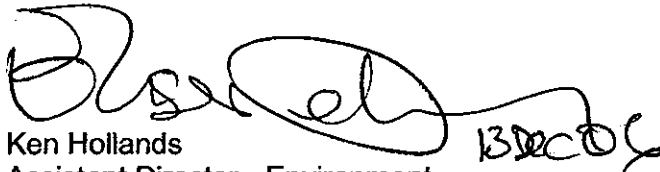
**Well abandonment and site rehabilitation**

16. Within 3 years from the date of this approval, the well(s) subject to this approval must either:
  - a) be completed and fully rehabilitated, or;
  - b) a Development Application for consent under the *Environmental Planning and Assessment Act 1979* must be lodged for conversion of the exploration well(s) to a production well(s).
17. At the completion of well testing, and prior to abandonment of the well, any steel casing must be removed from the vertical interval(s) encompassing all potentially mineable coal seams. Alternatively, glass-reinforced epoxy casing may be used across mineable coal seams subject to separate written approval of the Department. Downhole logging and/or imaging of a quality acceptable to the Department must be used to confirm the removal or absence of steel casing through potentially mineable coal seams. All logs and information pertinent to this condition must be provided to the Department. Abandonment of the well must not proceed until written confirmation is received from the Department confirming that this condition has been satisfied.
18. A Rehabilitation Report must be provided to the Department within two months of well abandonment for all surface and underground disturbance arising from activities subject to this approval.

Please contact Melanie Brown on (02) 4931 6424 in regard to the lodgement of the additional security.

Should you wish to discuss any details of this approval, please contact Mr Stephen Barry directly on (02) 4931 6608.

Yours Sincerely,



Ken Hollands  
Assistant Director - Environment  
Environmental Sustainability Branch