

OFFICE OF COAL SEAM GAS

Waukivory Pilot Project

6 August 2014

Background

AGL Upstream Investments Pty Ltd (AGL) holds Petroleum Exploration Licence (PEL) 285. PEL285 gives AGL the right to explore for coal seam gas within the Gloucester Basin. AGL cannot carry out exploration activities which disturb the surface, such as drilling, unless they apply for and are granted an activity approval by the Office of Coal Gas (OCSG). AGL has been granted activity approval for exploration drilling, fracture stimulation activities and pilot testing within PEL285 in the past.

The Project

AGL submitted an application for approval to the OCSG for the following activities:

- Conversion of four existing exploration wells to pilot wells using fracture stimulation techniques;
- Pilot testing of four existing wells (WK11, WK12, WK13 and WK14);
- Construction of water storages for flowback and produced water;
- Construction of associated infrastructure including a water pipeline and water and gas gathering lines;
- Enclosed central gas flare/s;
- Delivery of equipment (and supplies, including water) to undertake the activity;
- Lawful disposal of flowback and produced water:
- Suspension of exploration wells following completion of pilot testing; and
- Site rehabilitation of disturbed land including construction laydown areas, access tracks, water pipeline and water and gas gathering pipelines.

The application included:

- · Review of Environmental Factors;
- · Agricultural Impact Statement;
- Fracture Stimulation Management Plan;
- · Air Quality Impact Assessment;
- Surface Water and Ground Water Plan;
- Environmental Management Plan;
- Health and Safety Management Plan;
- Minimum Impact Considerations for Less Productive Aguifers;
- Ecological Assessment of Wells and Pipeline;
- Assessment of Significance for Migratory Species:
- · Risk Assessment;
- Human Health and Ecological Risk Assessment;
- Noise Assessment; and
- Environmental Incident Response Plan.

Assessment

The OCSG is responsible for activity approvals under PEL285. OCSG has a statutory obligation under s.111 of the *Environmental Planning and Assessment Act 1979* to "examine and take into account to the fullest extent possible all matters affecting of likely to affect the environment" when determining certain applications in relation to PELs

Where the activity is not State Significant Development under the *Environment Planning and Assessment Act 1979*, a Review of Environmental Factors (REF) allows OCSG to determine whether or not the activity requires a higher level of assessment in the form of an Environmental Impact Statement (EIS).

The OCSG completed the following:

- Checked the application was adequate:
- Referred the application to relevant regulatory agencies for recommendations, including the Environment Protection Authority, NSW Office of Water, the Office of Environment and Heritage and Department of Primary Industries; and
- Assessed the environmental impact of the activity under Part 5 of the Environmental Planning and Assessment Act 1979.

AGL was required to submit a Fracture Stimulation Management Plan (FSMP) in accordance with the NSW Code of Practice for Coal Seam Gas: Fracture stimulation activities. The NSW Government introduced the Code in September 2012.

This is the first fracture stimulation activity to be assessed under the Code. The OCSG has assessed the FSMP against the relevant requirements of the Code. The OCSG sought advice from an independent expert in relation to the design component of the FSMP.

Decision

The OCSG has determined that the activities are not likely to significantly affect the environment and are not likely to significantly affect any threatened species, populations, ecological communities or critical habitats. On this basis the OCSG has determined that an environmental impact statement is not required under Part 5 of the EP&A Act.

On the basis of this assessment the OCSG has granted an activity approval for the Project to AGL under the Petroleum (Onshore) Act 1991 (POA).

The OCSG has also approved the FSMP on the basis that it complies with the Code.

In the opinion of the OCSG, AGL has undertaken an appropriate level of risk assessment, research and data collection and modelling, including geomechanical earth modelling, and will have in place appropriate controls to ensure that the fracture stimulation of the Waukivory wells can be undertaken safely, with the prospect of any adverse impact on the environment, the community or beneficial aquifers being remote.

Other Licences

AGL is also required to obtain an Environment Protection Licence from the Environment **Protection Authority**

Monitoring and Compliance

AGL must carry out the activities in accordance with the following:

- Petroleum (Onshore) Act 1991
- Work Health and Safety Act 2011
- PEL285 licence conditions
- Relevant codes, including the Codes of Practice for CSG Well Integrity and Fracture Stimulation
- Commitments stated in the application, including the REF
- The Fracture Stimulation Management

The OCSG inspects and audits coal seam gas exploration activities to determine that activities are being carried out in accordance with the Petroleum (Onshore) Act and the Work Health and Safety Act.

AGL must submit reports, plans, assessments and notifications as required by licence conditions and legislation.

Site Closure and Rehabilitation

After gas flow testing is completed the initial site rehabilitation of the disturbed land will occur. This will include removing equipment and re-vegetating the area. AGL propose to secure, cap and suspend the wells, which will require an additional approval by the OCSG. A suspended well is required to be monitored and maintained to the satisfaction of the OCSG.

Further Information

Visit the Gloucester Exploration and Appraisal Project section at

www.resourcesandenergy.nsw.gov.au/landholders -and-community/coal-seam-gas/gloucester-gasproject

In addition, the application and documents supporting the decision can be found in DIGS:

http://digsopen.minerals.nsw.gov.au/

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