

CAMDEN GAS PROJECT

Independent Environmental Audit 2012-2015

Submitted to:

AGL Upstream Investments Pty Ltd PO Box 67 Menangle NSW 2568



Report Number. 1535803-001-R-Rev1







Table of Contents

1.0	INTRO	DUCTION	<i>'</i>
	1.1	Camden Gas Project	<i>'</i>
	1.2	Requirement for an IEA	1
	1.3	Objective	2
	1.4	Scope and criteria	2
	1.5	Methodology	3
	1.6	Structure of this report	4
2.0	CAMD	EN GAS PROJECT OPERATIONS	б
	2.1	Overview of Operations	6
	2.2	Audit Period Operations	6
3.0	ENVIR	ONMENTAL PERFORMANCE	8
	3.1	Introduction	8
	3.2	Environmental Management System	8
	3.3	Compliance Monitoring System	9
	3.4	Environmental Complaints	9
	3.5	Incident Management System	9
	3.6	Gas Leak Detection Surveys	10
	3.7	Site Observations	10
	3.8	Non-Compliances with Consent Conditions	10
	3.9	Regulatory Action Undertaken by the EPA During the Audit Period	12
	3.10	Petroleum Exploration Licence and Petroleum Production Leases	12
	3.11	Bore Water Licences	12
4.0	CONC	LUSION	13
5.0	LIMITA	TIONS	15
TAB		n-Compliances Level 2 Identified During Audit	1′
APP Tabl	ENDIX I	A ect approvals and modifications	
ıabı	e ∠: PA	06_0137 (Razorback) Table 3: PA 06-0138 (Elizabeth Macarthur) Table 4: PA 06-0291 (Spring Farm	

4 December 2015

Menangle Park)

Report No. 1535803-001-R-Rev1



1.0 INTRODUCTION

This report presents the Independent Environmental Audit (IEA) for selected elements of the Camden Gas Project (CGP) for the period 1 July 2012 to 30 June 2015 (referred to throughout this report as the 'audit period'). This report has been prepared for AGL Upstream Investments Pty Ltd (AGL) by Mr Tom Carmichael of Golder Associates Pty Ltd (Golder) in accordance with proposal P1535803-001-P-RevA, dated 15 July 2015. This IEA Report will be provided by AGL to the New South Wales (NSW) Department of Planning & Environment (DP&E, previously the NSW Department of Planning and Infrastructure) in fulfilment of certain conditions of the development consents applicable to the CGP.

This IEA Report is based on information disclosed verbally and/or in writing by AGL to Golder and observations by Golder during site inspections. Golder has assumed such information to be correct and complete. Golder does not accept any liability for any such information which may be false or misleading.

Camden Gas Project 1.1

The CGP is located 60 km southwest of Sydney in the Wollondilly, Camden and Campbelltown local government areas. The development of the CGP has occurred in a staged manner with exploration activities commencing in 1998 under Sydney Gas (Camden) Operations. The CGP is now owned and operated by

The CGP currently consists of 91 producing gas wells, 37 shut in and suspended gas wells, low pressure underground gas gathering lines, the Rosalind Park Gas Plant (RPGP) and a high pressure supply line to the NSW gas grid. These assets enable the production, gathering, processing and sale of coal seam gas to the market. Sixteen former gas wells of the CGP have been plugged and abandoned and are no longer part of the CGP.

This audit report addresses the following parts of the CGP:

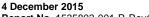
- Project Approval 06 0137 Razorback Wells, where seven wells were drilled RB6 to RB12.
- Project Approval 06 0138 Elizabeth Macarthur Agricultural Institute Wells, where twelve wells were drilled - EM23, EM24, EM25, EM27, EM28, EM30, EM31, EM32, EM33, EM34, EM36, EM37.
- Project Approval 06_0291 Spring Farm and Menangle Park Project Area, comprising the following:
 - Spring Farm where two surface well locations were drilled each comprising multiple drill lines:
 - SF01, SF02, SF03; and
 - SF05, SF07, SF08, SF09.
 - Menangle Park where four surface well locations were drilled each comprising multiple drill lines:
 - MP01, MP02, MP03, MP09, MP10;
 - MP05, MP05A, MP07, MP08;
 - MP12, MP23; and
 - MP11, MP22.

All of these wells were drilled prior to 2012, i.e. prior to the audit period.

Well EM23 was plugged and abandoned in March 2014 and rehabilitated during the audit period.

1.2 Requirement for an IEA

The CGP is currently subject to nine development consents and associated modifications issued by DP&E (and its predecessors). The development consents each contain a condition requiring AGL to commission a periodic IEA to assess compliance with their conditions of consent. The requirements of three of the development consents required an IEA to be undertaken during 2015 i.e.:







- Condition 5 of Schedule 4 of PA 06-0137 (Razorback Wells (RB03-RB12));
- Condition 5 of Schedule 4 of PA 06-0138 (Elizabeth Macarthur Agricultural Institute Wells (EM23 to EM36)); and
- Condition 5 of Schedule 4 of PA 06-0291 (Spring Farm Project Area and Menangle Park Project Area).

This IEA Report assesses compliance against the above consents for the audit period.

The key requirements of the above conditions for the IEA are as follows and as specified by condition 5 of Schedule 4 of PA 06_0137 and similarly referenced in the other conditions:

Within two years of the date of this approval and every three years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full costs of an Independent Environmental Audit. The Independent Environmental Audit shall:

- (a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General;
- (b) be consistent with ISO 19011:2002 Guidelines for Quality and/or Environmental Management Systems Auditing, or updated versions of these publications;
- (c) assess the environmental performance of the project, and its effects on the surrounding environment;
- (d) include a hazard audit of the project in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, "Hazard Audit Guidelines";
- (e) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;
- (f) review the adequacy of the OEMP; and
- (g) recommend measures or actions to improve the environmental performance of the project, and/or its environmental management and monitoring systems.

This audit does not address the Hazard Audit (item (d)) which will be addressed by a separate audit.

The audit was conducted by Mr Tom Carmichael, Associate of Golder, a registered Environmental Lead Auditor with Exemplar Global (formerly RABQSA International). Mr Carmichael was approved as independent auditor by the Director-General for this IEA on 2 September 2015.

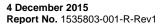
The findings of this report reflect conditions and audit responses provided by AGL during the period 29 September 2015 to 12 October 2015, including site inspections on 29 September and 9 October 2015.

1.3 Objective

The objective of the IEA as addressed in this report was to complete the IEA for the period 1 July 2012 to 30 June 2015 as required by the consent conditions referenced in **Section 1.2** of this report.

1.4 Scope and criteria

The scope of the audit is limited to an assessment of construction and operational activities of the CGP undertaken between 1 July 2012 and 30 June 2015. This IEA Report has adopted a similar format, and makes reference, to the previous IEA Report for the CGP dated 27 August 2013 for the period 1 July 2010 to 30 June 2012 prepared by Treo Environment Pty Ltd. Where consent conditions were closed in the previous audit (2010-2012 Independent Environmental Audit) and there has not been any relevant change to the CGP operations those conditions have not been revisited by the current auditor and are noted as having been previously closed.





1.5 Methodology

The audit was conducted in accordance with ISO 19011:2003 – Guidelines for Quality and/or Environmental Management Systems Auditing and included the following tasks:

- Project Initiation Teleconference: At the commencement of the project a project initiation teleconference was held with AGL's representative to:
 - confirm the Audit scope:
 - confirm which development consents were relevant to the Audit;
 - obtain contact details for relevant AGL personnel;
 - discuss arrangements for obtaining copies of relevant documentation; and
 - discuss timing for site inspections/document review.
- Initial Review and Preparation of the Audit Protocol: Reviewed the relevant development consents and prepare the Audit Protocol identifying each compliance document and condition requiring compliance review.
- **Site Visits:** Visits to the CGP operations. During the site visits Golder undertook the following:
 - Held an audit opening meeting to discuss schedule and approach to the site visits;
 - Discussed the nature of operations at the CGP during the audit period to ascertain:
 - What development works were undertaken;
 - Were there any other changes in operations relevant to environmental performance.
 - Inspected selected elements of CGP's operations, including new developments undertaken since the most recent prior audit;
 - Interviewed appropriate AGL personnel, such as CGP's environmental representative and operational staff where relevant. AGL personnel interviewed by the Auditor comprised:
 - Aaron Clifton (Environment Manager, Gas Operations);
 - Kelly Franke (Operations Superintendent, CGP);
 - Tom Rofe (HSE Officer, CGP);
 - Shane Bottin (Production Supervisor, CGP);
 - Amer Hussein (Community Relations Coordinator and Strategy, AGL NSW & QLD); and
 - Peter Keep, (Maintenance Manager, AGL Gas Operations).
 - Reviewed relevant environmental documentation held on site and not previously provided to Golder for review;
 - Obtained copies of relevant documentation for further review and compliance assessment;
 - Held daily closing meetings presenting progressive findings of the Audit to AGL.
- Compliance Assessment

The assessment of compliance with each condition of the relevant project approvals was based on the following criteria provided by AGL and approved by the DP&E on 02 September 2015:





Colour Code	Finding	Definition
	Compliance	The intent and requirements of the condition have been met. The inability to provide formal written verification (letter, fax, email, meeting minutes etc.) that a requirement has been met does not necessarily result in a non-compliance. If verification that a condition has been met can be provided by other means (visual inspection, personal communication, etc.) the operation should be considered in compliance for that condition.
		Where an opportunity for improvement was identified, this was included in the audit findings.
	Compliance - Improvement	The intent of the condition has been met; however it is considered that either:
	Recommended	 The issue has the potential to deteriorate to a non-compliance if not further addressed; or
		Further improvement is recommended.
	Observation	A finding which is not likely to significantly affect the operation, which does not strictly relate to the scope of the audit of compliance and which could lead to performance improvement.
	Not triggered	A condition or requirement has an activation or timing requirement which had not been triggered or completed at the time of the audit and therefore an assessment of compliance could not be made.
	Non-	Specific requirements of the condition have not been met.
	Compliance Level 1 (NC1)	A total absence of planning or implementation of a required operations element which presents an immediate risk or an isolated lapse in control in the implementation of an operations element which will lead to a significant risk.
	Non- Compliance Level 2 (NC2)	An isolated lapse or absence of control in the implementation of an operations element which may not be of significant risk.

Use of the above criteria was requested by AGL to align with other audits undertaken by AGL and represent a slight change from the criteria used in the 2010-2012 audit of the CGP.

- Review and Reporting: Review of the information provided by AGL or observed on site and preparation of an Audit Report.
- Submission of Draft Report: The draft Audit Report was submitted to AGL for factual review prior to finalisation.
- Preparation of Final Report: The Audit Report was finalised with consideration of AGL's factual comments and the final copy submitted to AGL.

In the event that a condition was considered completed and closed in a previous audit, the auditor has not conducted a specific assessment.

1.6 Structure of this report

The remainder of this report is structured as follows:



Report No. 1535803-001-R-Rev1





- **Section 2** summarises operations at the CGP and details works undertaken during the audit period;
- **Section 3** assesses the environmental performance of the CGP; and
- Section 4 presents the audit conclusions.

The detailed audit findings are provided in the Appendices as follows:

- Appendix A (Table 1) lists the development consents, including modifications, which apply to the CGP;
 and
- Appendix B (Table 2 to Table 4) provides an assessment of performance against each of the consent conditions.



4 December 2015 Report No. 1535803-001-R-Rev1

2.0 CAMDEN GAS PROJECT OPERATIONS

2.1 Overview of Operations

The CGP currently consists of 91 producing gas wells, 37 shut in and suspended gas wells, low pressure underground gas gathering lines, the RPGP and a high pressure supply line to the NSW gas grid. These assets enable the production, gathering, processing and sale of coal seam gas to the market. Sixteen former gas wells of the CGP have been formally abandoned and are no longer part of the CGP. Exploration activities are conducted under Petroleum Exploration Licence (PEL) No. 2 and gas is produced under five Petroleum Production Leases (PPLs) No. 1, No. 2, No. 4, No. 5 and No. 6.

Produced gas is gathered from wells through a low pressure gathering system and transported to the RPGP for cleaning and compression. The gas is then transported by a 500 metre sales pipeline into the Moomba to Sydney Natural Gas pipeline.

Operational activities included in the CGP include:

- Gas wells: Drilling, re-drilling (as required), commissioning, initial rehabilitation, extraction of coal seam gas, collection/storage and removal of produced water, maintenance, workover activities, closure and final rehabilitation.
- Gas Gathering Lines: Excavation of trenches, installation of gas gathering lines, rehabilitation, maintenance and decommissioning.
- RPGP: Treatment, pressurising and odorising of gas, water treatment including oil-water separation, water storage, and gas delivery by pressurised pipeline.
- Ancillary: Administrative facilities, maintenance workshop and vehicle washbay.

The scope of this audit was restricted to the gas wells and gas gathering lines subject to the relevant project approvals identified in **Section 1.1**.

2.2 Audit Period Operations

Within the scope of this audit, development works and operations comprised:

- 2012-2013:
 - Menangle Park 3 to Menangle Park 5 Gas Gathering Line was installed, which involved an underbore of the South Western (F5) Freeway and works through the Australian Botanic Garden Mount Annan (both trenching and underboring) and wells MP01/MP02/MP03/MP09/MP10 were brought into production.
 - Site rehabilitation works were undertaken at surface well location SF05/SF07/SF08/SF09.
 - Site rehabilitation works were undertaken at surface well location MP11/MP22.
 - Fugitive Emissions Monitoring was undertaken around Spring Farm and Menangle Park.
 - Operations Noise Monitoring was undertaken at the two Spring Farm surface well locations.
- 2013-2014:
 - EM23 was plugged and abandoned, and rehabilitation works undertaken.
 - 30 June 2014, AGL's compliance monitoring system transitioned to a new system called CMO-Compliance.
 - Noise monitoring was undertaken at Spring Farm surface well location SF05/SF07/SF08/SF09 to demonstrate compliance.
 - Well workovers were completed on the following wells:



Report No. 1535803-001-R-Rev1



- Spring Farm SF05/SF07/SF08/SF09;
- MP02, MP03; and
- MP22.
- 2014-2015:
 - Monitoring and rehabilitation continued at EM23 (plugged and abandoned in previous year).
 - Well workovers were completed at:
 - MP02/MP03/MP10;
 - MP08; and
 - MP11/MP22.
 - All EMPs and Sub-Plans were updated, including preparing sub-plan compliance audit schedule and commencing the audits.
 - Operational noise monitoring was completed at Razorback (RB07 and RB10), Spring Farm (SF05/SF07/SF08/ SF09), and Menangle Park (MP12/MP23, MP11/MP22, and MP01/MP02/MP03/MP09/MP10).
 - Broader operational improvements:
 - AGL transitioned to use of instrument air (a 12 volt air compressor, using atmospheric air) instead of well gas for instrumentation to reduce fugitive emissions, at the wells which have a lower pressure.
- Operation of selected wells and gas gathering lines.

No wells were drilled or fracture stimulated during the audit period.

No exploration activities were undertaken during the audit period.



3.0 ENVIRONMENTAL PERFORMANCE

3.1 Introduction

The IEA is required to assess the environmental performance of the development, and its effects on the surrounding environment. This assessment has been undertaken with regards to the conditions of the relevant project approvals and the CGP Environmental Management System (EMS) implemented by AGL. The EMS includes the Environmental Management Plan (EMP) and associated Sub-Plans, and the various environmental monitoring and management reports prepared for the CGP during the audit period. Brief comments are also presented for completeness purposes on compliance with CGP's Environmental Protection Licence (EPL) and other environmental licences.

AGL reports on its environmental performance via the Camden Gas Project: Annual Environmental Performance Reports (AEPR) each financial year, a copy of which is placed on the CGP website. These Reports have been referenced in the following evaluation of environmental performance.

3.2 Environmental Management System

The CGP EMS provides a framework for achieving Compliance with legal and other requirements while promoting continual improvement of environmental performance. Key elements of the system are listed below:

- AGL Energy Environment Policy;
- Environmental Management Plan (EMP), updated 17 April 2015;
- EMP Sub-Plans, including;
 - Rehabilitation & Landscape Management Sub-Plan, updated 16 April 2015
 - Soil & Water Management Sub-Plan, updated 04 May 2015
 - Flora and Fauna Management Sub-Plan, updated 16 April 2015
 - European Heritage Management Sub-Plan, updated 16 April 2015
 - Aboriginal Cultural Heritage Management Sub-Plan, updated 19 December 2013
 - Waste Management Sub-Plan, updated 04 May 2015
 - Dangerous Goods and Hazardous Materials Sub-Plan, updated 15 April 2015
 - Noise Management Sub-Plan, updated 04 May 2015
 - Air Quality Management Sub-Plan, updated 30 July 2015
 - Traffic Management Sub-Plan, updated 17 April 2015
- Compliance register; and
- Monitoring and reporting.

The 2010-2012 Independent Environmental Audit identified that the Statement of Commitments associated with the development consents had not been incorporated into the Sub-Plans. AGL has reported that this has now been done within the updated EMP and Sub Plans.

With the exception of the Sub-Plans for Air Quality and the Aboriginal Cultural Heritage, the updated Sub-Plans were forwarded to DP&E for review and approval on 30 June 2015. The Air Quality Management Sub-Plan was updated after the audit period. The Aboriginal Cultural Heritage Management Sub-Plan was revised in December 2013 and forwarded to DP&E at that time. The updated EMP and Sub-Plans relating to noise, soil and water, traffic, rehabilitation and landscape, and waste were submitted to the NSW





Environment Protection Authority (EPA) for review and comment on 26 June 2015. The DP&E and EPA were advised by AGL on 4 September 2015 that the EMP and Sub-Plans had been loaded onto the CGP's website.

The approved versions of the EMP and Sub-Plans have been implemented and are available on the CGP's web-site.

The EMP and Sub-Plans provide detailed reference to the relevant conditions of consent and management measures implemented by AGL to address the conditions of consent. The EMP and Sub-Plans are considered by the Auditor to provide a robust and transparent framework for management of the environmental impacts of the CGP.

3.3 Compliance Monitoring System

AGL maintains an environmental compliance register detailing key environmental legislative obligations and the conditions of consent. The register includes references to evidence demonstrating compliance with these requirements. The register transitioned during the audit period from Mipela to RCR (Regulatory Compliance Register, in May 2013) and then to CMO-Compliance (30 June 2014). CMO-Compliance provides a weekly update of identified non-compliances.

3.4 Environmental Complaints

AGL's AEPRs for the 2012/2013, 2013/2014, 2014/2015 financial years indicates that the following environmental complaints were received by AGL during the audit period in relation to the operations and well sites within the scope of this IEA:

- A noise complaint from a resident at Glen Alpine in December 2012 reporting noise coming from the MP03 location during the Christmas/New Year period. AGL's Land and Compliance Officer spoke with the resident and confirmed that the source of the noise was not AGL operations as there were no AGL related activities occurring during the period of complaint.
- A noise complaint from a resident at Glen Alpine reporting noise coming from the MP03 location on 24 October 2013. AGL's Land and Compliance Officer spoke with the resident to discuss the details of the complaint. A noise consultant (Wilkinson Murray Pty Ltd) was engaged by AGL to undertake noise monitoring on 25 (Friday) and 28 (Monday) October 2013.
- A noise complaint from a local resident at Spring Farm reported noise coming from the SF05 well site on 31 August 2014. Upon becoming aware of the noise, AGL stopped the gas flow from the well and contacted the relevant regulators. The CGP Community Relations Manager contacted the complainant. AGL cooperated with the EPA in its investigation into the incident that caused the complaint. The source of the noise was a Pressure Safety Valve (PSV) being activated. The well had been closed due to works at the RPGP (the gas processing plant). During opening of the well when the RPGP was brought on line, coal fines caused the pressure transmitter to read incorrectly, pressure built up and the PSV activated at 7:00 pm, resulting in a release of coal seam gas (methane) from SF05, generating noise which triggered the complaint from the resident. On 5 March 2015 the EPA issued a Penalty Infringement Notice (PIN) to AGL for non-compliance with EPL12003 Condition 02 for failure to 'maintain plant and equipment' causing the incident. The PIN resulted in a penalty payment of \$15,000 by AGL to the EPA.

3.5 Incident Management System

AGL maintains an incident management system (including environmental complaints) which transitioned from Connect First to MyHSE in August 2014. The incident management system provides a useful means of documenting and facilitating response to environmental incidents and complaints. Review of the list of environmental related incidents for the audit period indicates the following incidents attributable to AGL operations:

31 August 2014, release of gas from a PSV at SF05 (refer to Section 3.4).





15 February 2015, a leak of approximately 20 litres of produced water from a weld joint on a mud tank. The tank was removed from site and repaired. The leak was cleaned up and no environmental impact occurred.

This audit report specifically excludes reporting on any environmental compliance matters associated with CGP's EPL under instruction from AGL. Compliance with the EPL is reported by AGL in the Annual Returns submitted to the EPA and in the AEPR for the CGP for each financial year, a copy of which is publicly available on CGP's website.

None of the identified incidents appears to have resulted in harm to the environment. However, the incidents highlight the need for ongoing diligence in management of the operations of the CGP.

3.6 Gas Leak Detection Surveys

AGL undertakes an annual leak detection survey of its gas well heads and gas gathering lines, using third party specialist consultants. The incident register identifies gas leaks from gas well infrastructure during routine leak detection and repair surveys on 14, 15, 28 and 29 April 2015 as environmental hazards. AGL advised that the sources of the gas leaks were repaired within the required response times.

3.7 Site Observations

As part of the audit, site inspections were undertaken on 29 September 2015 of the following assets:

- Well heads of MP01, MP02, MP03, MP09 and MP10.
- Well heads of SF05, SF07, SF08 and SF09.
- Rehabilitated site of EM23.
- Location of Menangle Park 3 to Menangle Park 5 Gas Gathering Line, for which the installation involved an underbore of the Freeway and works through the Mount Annan Botanic Gardens (both trenching and underboring).

The sites were inspected to assess the extent of operational footprint, degree of disturbance and status of rehabilitation works.

At all locations the well heads and associated infrastructure were observed to be enclosed within locked man-proof fences. The access areas adjacent to the enclosed areas were observed to be adequately rehabilitated. No evidence of significant leaks, spills or erosion were sighted.

The environmental controls as specified in the CGP Environmental Management Plan and Sub-Plans appeared to be adequately implemented.

No significant concerns were identified from the Auditor's inspection of the field areas.

3.8 Non-Compliances with Consent Conditions

Detailed findings of performance against each relevant condition of the relevant project approvals for the audit period are provided in **Appendix B** of this report. The findings identified a number of Compliances, Level 2 Non-Compliances, and Compliance – Improvement Recommended. No Level 1 Non-compliances were identified during this audit. The Non-Compliances Level 2 are summarised in Table A.

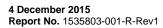


4 December 2015 Report No. 1535803-001-R-Rev1



Table A: Non-Compliances Level 2 Identified During Audit

Project Approval Number	Condition Number	Requirement	Finding
06_137	4.7	Following each Independent Environmental Audit, the Proponent shall review and if necessary revise the OEMP (and any documents contained in the plan), to the satisfaction of the Director-General. The revised OEMP shall be submitted to the Director-General within 6 months of completing the audit.	The Environmental Management Plan for the Camden Gas Project was updated in February 2014, and submitted to the Department of Planning & Infrastructure on 14 March 2014, i.e. slightly beyond 6 months of completion of the 2010-2012 audit.
06_138	4.7	Following each Independent Environmental Audit, the Proponent shall review and if necessary revise the OEMP (and any documents contained in the plan), to the satisfaction of the Director-General. The revised OEMP shall be submitted to the Director-General within 6 months of completing the audit.	The Environmental Management Plan for the Camden Gas Project was updated in February 2014, and submitted to the Department of Planning & Infrastructure on 14 March 2014, i.e. slightly beyond 6 months of completion of the 2010-2012 audit.
06_291	2.15(a)	The Proponent shall ensure that all plant and equipment used at the site is: (a) Maintained in a proper and efficient condition.	There was one environmental incident during the audit period which triggered this condition. The incident related to release of gas from a process safety valve on SF05 on 31 August 2014, which the NSW EPA alleged was due to failure to maintain plant and equipment in a proper and efficient manner, which would represent a failure to comply with 2.15 (a) of this Project Approval. The EPA issued a Penalty Infringement Notice (No. 3085776183) dated 5 March 2015 in relation to the incident. The incident was disclosed by AGL in the 2014-15 Annual Environmental Performance Report.
06_291	3.5	The proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 3:	On 25/28 October 2013, noise monitoring was undertaken at MP03 in response to a noise complaint during workover operations. The results on 25 October 2013 (with no noise mitigation) were 52 dBA (daytime) which was 3 dBA above the criterion of 49 dBA. Following extensions to the noise barrier shielding the main noise source, follow-up monitoring on 28 October recorded a noise level of 48 to 49 dBA at the nearest residence, which







Project Approval Number	Condition Number	Requirement	Finding
			was deemed to be compliant with the criterion. The exceedance of the criterion on 25 October 2013 is deemed to be a Non-Compliance Level 2. This matter was disclosed by AGL in the 2013-14 Annual Environmental Performance Report.
06_291	4.7	Following each Independent Environmental Audit, the Proponent shall review and if necessary revise the EMP (and any documents contained in the plan), to the satisfaction of the Director-General. The revised EMP shall be submitted to the Director-General within 6 months of completing the audit.	The Environmental Management Plan for the Camden Gas Project was updated in February 2014, and submitted to the Department of Planning & Infrastructure on 14 March 2014, i.e. slightly beyond 6 months of completion of the 2010- 2012 audit.

3.9 Regulatory Action Undertaken by the EPA During the Audit Period

The EPA did not have any regulatory role in relation to the conditions of the relevant project approvals during the audit period. The EPA's regulatory role during the audit period was limited to the EPL. Review of compliance against the conditions of the EPL for the CGP was specifically excluded from the scope of this audit by AGL.

Section 3.4 details the EPA's regulatory action in response to a noise complaint resulting from activation of a Pressure Safety Valve (PSV) at SF05 on 31 August 2014.

3.10 Petroleum Exploration Licence and Petroleum Production Leases

The CGP is subject to the conditions of PEL No. 2 and PPL No.1, No. 2, No. 4, No. 5 and No. 6. The 2010-2012 Independent Environmental Audit noted that the requirements of the PPLs and the Pipeline Licence are fully replicated within the development/project approvals. As such, a separate assessment of compliance was not conducted as part of this audit.

The PEL applies to exploration activities which do not relate to activities addressed by the project and therefore have not been addressed by this audit report. AGL surrendered PEL 2 on 24 June 2015.

3.11 Bore Water Licences

The operations subject to the approvals addressed by this audit are subject to a number of Water Access Licences (previously referred to as Water Bore Licences).

An annual compliance report (Technical Report, Industrial Bore Licences/Works Approval, Dewatering Activities, Camden Gas Project) is prepared by AGL in relation to former bore licences (now referred to as Water Access Licences (WALs) and works/use approvals) and submitted to NSW DPI Water (previously the NSW Office of Water). Reports were submitted for the 2012/2013, 2013/2014 and 2014/2015 years, dated 30 September 2013, 18 September 2014 and 28 September 2015 respectively. The Reports present factual details of actions taken in relation to the conditions of the WALs and works/use approval but do not include a specific statement of compliance status. The Reports were submitted to NSW DPI Water within the required timeframe and AGL advised that NSW DPI Water has not identified any compliance issues regarding the Reports.





A detailed assessment of Compliance against Bore Water Licence requirements was not undertaken as part of this independent audit.

4.0 CONCLUSION

An independent environmental audit was conducted of selected components of the CGP for the period 1 July 2012 to 30 June 2015, i.e. those components addressed by Project Approvals 06_0137 (Razorback wells), 06_0138 (Elizabeth Macarthur Agricultural Institute Wells) and 06_0291 (Spring Farm Project Area and Menangle Park Project Area).

The scope of the audit, as defined by the development approvals for the project, was focussed on the environmental performance of the development, including supporting systems, and compliance with relevant standards, performance measures and statutory requirements.

The key requirements for the IEA as specified by condition 5 of Schedule 4 of Project Approvals 06_0137, 06_0138 and 06_0291 are as follows:

Within two years of the date of this approval and every three years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full costs of an Independent Environmental Audit.

This audit comprised the sixth independent environmental audit for the project, and was commissioned within 3 years of completion of the previous audit (2010-2012 Independent Environmental Audit).

The Independent Environmental Audit shall:

(a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General;

The audit was conducted by Mr Tom Carmichael, Associate of Golder, and a registered Environmental Lead Auditor with Exemplar Global (formerly RABQSA International). Mr Carmichael was approved as the independent auditor by the Director-General for this IEA on 2 September 2015.

(b) be consistent with ISO 19011:2002 – Guidelines for Quality and/or Environmental Management Systems Auditing, or updated versions of these publications;

The audit was conducted in accordance with ISO 19011:2002 – Guidelines for Quality and/or Environmental Management Systems Auditing.

(c) assess the environmental performance of the project, and its effects on the surrounding environment:

This IEA report has assessed the environmental performance of the project and its effects on the surrounding environment. There were two environmental incidents recorded by AGL during the audit period, neither of which were considered to have, or likely to have, resulted in actual or potential environmental harm.

Environmental control measures were implemented and employees demonstrated an understanding of environmental risks and controls.

- (d) [Item (d) relates to a hazard audit which was not within the scope of this audit.]
- (e) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;

AGL has demonstrated substantial compliance with the relevant standards, performance measures and statutory requirements that apply to the development.

Five 'Non-Compliances (Level 2)' and seven 'Compliance - Improvement Recommended' with regards to the conditions of consent were identified during this Audit. No 'Level 1 Non-Compliances' were identified for the audit period. Three of the Non-Compliances (Level 2) were administrative in nature, and all five Non-

4 December 2015

Report No. 1535803-001-R-Rev1





compliances (Level 2) were assessed as unlikely to result in actual or potential harm to the environment or human health.

During the audit period AGL received one Penalty Infringement Notice (PIN) in relation to operations subject to this audit (noise generated by activation of a Pressure Safety Valve on SF05 on 31 August 2014). AGL undertook the measures required by the EPA in relation to the PIN during the audit period. The EPA has not indicated any intention to pursue matters in relation to the PIN through the legal courts.

A number of non-compliances with the conditions of the CGP's EPL have been identified by AGL and reported in the Annual Returns and the AEPRs for the audit period. It is noted that the EPL extends to the whole of the CGP and that this audit addressed only part of the CGP's operations. The scope of this IEA, as instructed by AGL, specifically excluded an assessment of compliance with the conditions of the EPL.

(e) review the adequacy of the Applicant's Environmental Management Plan; and

The adequacy of CGP's EMP has been reviewed in **Section 3.2** of this IEA Report. The EMP and Sub-plans provide detailed reference to the relevant conditions of consent and management measures implemented by AGL to address the conditions of consent. The EMP and Sub-Plans are considered by the Auditor to provide a robust and transparent framework for management of the environmental impacts of the CGP.

(f) recommend measures or actions to improve the environmental performance of the development and/or its environmental management and monitoring systems.

The audit findings and recommendations are detailed in **Section 4.0** and in **Appendix B** of this report.



4 December 2015 Report No. 1535803-001-R-Rev1



5.0 LIMITATIONS

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd ("Golder") subject to the important limitations and other qualifications set out below.

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Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed Golder to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by Golder or otherwise made available to Golder. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to Golder when the Services were performed and this Report was prepared. Golder has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

Where permitted by the Contract, Golder may have retained subconsultants affiliated with Golder to provide some or all of the Services. However, it is Golder which remains solely responsible for the Services and there is no legal recourse against any of Golder's affiliated companies or the employees, officers or directors of any of them.

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Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification.



Report Signature Page

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4 December 2015 Report No. 1535803-001-R-Rev1



APPENDIX A

Table 1: Project approvals and modifications



4 December 2015 Report No. 1535803-001-R-Rev1



Table 1: Project approvals and modifications

Approval	Issue Date	Modification Date (if any)
PA 06-0137 (Razorback Wells (RB03-RB12))	09/12/06	No modifications
PA 06-0138 (Elizabeth Macarthur Agricultural Institute Wells (EM230EM36))	09/12/06	06/07/07
PA 06-0291 (Spring Farm Project Area and Menangle Park Project Area)	04/09/08	07/01/11 20/04/11

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APPENDIX B

Table 2: PA 06_0137 (Razorback)

Table 3: PA 06-0138 (Elizabeth Macarthur)

Table 4: PA 06-0291 (Spring Farm Menangle Park)



4 December 2015 Report No. 1535803-001-R-Rev1



APPENDIX B

CAMDEN GAS PROJECT INDEPENDENT ENVIRONMENTAL AUDIT 2012-2015 PA 06_137 (Razorback)

Table 3: PA 06_0137 (Razorback)

No.	Consent Condition	Evaluation	Fine	ding
	SCHEDULE 2 ADMINISTRATIVE CONDITIONS			
	Obligation to Minimise Harm to the Environment			
2.1	The Proponent shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction or operation of the project.	An Environmental Management System (EMS) has been established to manage environmental risks and drive improvements in performance. The EMS consists of an Environmental Management Plan (EMP), related sub-plans and an Environmental Compliance Register.	Co	mpliance
		Various management tools have been implemented to monitor and measure implementation of the EMS.		
		AGL's Environmental Compliance Register (CMO-Compliance) was sighted and found to be effective for monitoring compliance against project approval obligations. During the audit period the compliance register transitioned from Mipela to the Regulatory Compliance Register and then to CMO-Compliance. CMO was commissioned only on 30 June 2014.		
		EMP Sub Plan audits commenced during July 2014. The strategy is to audit each Sub-Plan once per year subject to relevant works being undertaken. Each of the ten Sub-Plans has been audited since July 2014. Corrective actions were implemented via MyHSE.		
		Annual Environmental Performance Reports (AEPRs) are prepared and submitted to the Department of Planning & Environment.		



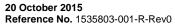


No.	Consent Condition	Evaluation	Finding
		There were no reported incidents of harm being caused to the environment during the audit period.	
	Terms of Approval		
2.2	The Proponent shall carry out the project generally in accordance with the:	AGL reported that the development is being undertaken in accordance with the EMS, which	Compliance – Improvement
2.2(a)	Project Application 06_0137.	incorporates the requirements of Consent	Recommended
2.2(b)	EA titled Environmental Assessment – Camden Gas Project Joint Venture Stage 2 Drilling Program, Razorback Wells (RB03-RB12), dated 20 July 2006, and prepared by HLA Envirosciences Pty Ltd.	Conditions and the supporting documentation. The Sub-Plans went through a process of review and upgrade during 2013/2014 and again during the first half of 2015 (except the Aboriginal	
2.2(c)	Proposed changes to works in the EMAI and Razorback projects contained in a letter from AGL to the Department, dated 23 November 2006.	Cultural Heritage Management Plan which was last updated in December 2013). The revised Sub-Plans were submitted to the Department of	
2.2(d)	Revised Statement of Commitments contained in a Letter from AGL to the Department, dated 4 December 2006.	Planning & Environment and were uploaded on to AGL's web-site. AGL advised that these documents are considered during the each	
2.2(e)	Conditions of this approval.	review of the EMP Sub-Plans.	
		A copy of each of the source documents listed under this Condition was not readily available to the auditor. It is recommended that a copy of each of the source documents be made available for reference within AGL's compliance register (CMO-Compliance).	
2.3	If there is any inconsistency between the above documents, the latter document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.	Condition is noted.	Not Triggered
2.4	The Proponent shall comply with any reasonable	Condition was not activated during the audit	Not Triggered





No.	Consent Condition	Evaluation	Finding
	requirement/s of the Director General arising from the Department's assessment of:	period.	
2.4(a)	Any reports, plans or correspondence that are submitted in accordance with this approval.	Condition was not activated during the audit period.	Not Triggered
2.4(b)	The implementation of any actions or measures contained in these reports, plans or correspondence.	Condition was not activated during the audit period.	Not Triggered
	Limits on Approval		
2.5	This approval shall lapse 21 years after the date of this approval or on the expiry date of Petroleum Production Lease No. 4, whichever is the sooner.	Condition was not activated during the audit period.	Not Triggered
2.6	Nothing in this approval permits the drilling and operation of any additional gas wells (beyond the approved 10 wells for gas production).	The auditor reviewed the gas wells against the development consents and confirmed that no additional wells have been drilled or operated.	Compliance
2.7	The Proponent shall surrender the approval for any well that has not been drilled within 5 years of the date of this approval.	It is noted that the approval has lapsed for any well that has not been drilled. It was reported that there were no wells drilled during the audit period.	Compliance – Improvement Recommended
		It is recommended that AGL confirm the required process for surrendering approvals with the Department of Planning & Environment.	
	Notification		
2.8	Within 3 months of the commissioning of the wells, the Proponent shall provide Council with:	No wells were commissioned during the audit period.	Not Triggered
2.8(a)	The Geographical Positioning System (GPS) co-ordinates and digital survey data for the gas well sites and gas gathering system, in a format suitable to the Council.		







No.	Consent Condition	Evaluation	Finding
2.8(b)	The wellhead configuration of each gas well.		
	Operation of Plant and Equipment		
2.9	The Proponent shall ensure that all plant and equipment used at the site is:	Preventative maintenance of plant and equipment is controlled through the MEX system. The auditor sighted the MEX system and it was noted that maintenance schedules are defined by usage and manufacturers requirements. It was reported that the MEX system has been operating since early 2014.	Compliance
2.9(a)	Maintained in a proper and efficient condition.	Review of summary data of maintenance backlog for 2015 provided by AGL indicates that maintenance items are generally being completed during the month scheduled. As of September 2015 the 12-month rolling average indicated a monthly completion rate of 98% of scheduled maintenance items. No environmental incidents occurred during the audit period as a result of maintenance issues.	Compliance
2.9(b)	Operated in a proper and efficient condition.	No environmental complaints or incidents have arisen during the audit period for sites subject to this approval as a result of operation of plant and equipment.	Compliance
	SCHEDULE 3		
	ENVIRONMENTAL PERFORMANCE CONDITIONS		





No.	Consent Condition	1		Evaluation	Finding
	NOISE				
	Construction and	d Maintenance Hours			
3.1	maintenance hour			The auditor sighted the Noise Management Sub-Plan (April 2015) and noted Compliance with the requirements of this condition. It was reported that this condition is communicated to employees and contractors through the rolespecific induction program.	Compliance
	Activity	tion and Maintenance Hour	Time		
	Construction	Monday - Friday	7:00am to 6:00pm		
		Saturday	8:00am to 1:00pm		
		Sunday and Public Holidays	NII		
	Planned maintenance activities	Monday – Friday	7:00am to 6:00pm		
		Saturday	8:00am to 1:00pm		
		Sunday and Public Holidays	Nil (unless inaudible at any residential receiver)		
	heard by the receivers. This condition delivery is receivery	eans that the construction a human ear at the nearest a n does not apply to the deliv quired by the police or other for the operation or personr	ffected residential very of material if that r authorities for safety		

20 October 2015

Reference No. 1535803-001-R-Rev0





No.	Consent Condition	Evaluation	Finding
	provided to affected residents where possible.		
	Construction Noise Goals		
3.2	The Proponent shall use its best endeavours to undertake construction activities to comply with the construction noise goal specified in Table 2. Location Day Any residential receiver 54 Note: See notes to condition 4.	The auditor sighted the Noise Management Sub-Plan (August 2008) and noted Compliance with the requirements of this condition. It was reported that there were no construction works undertaken during the audit period and as such no noise monitoring was conducted.	Compliance
	Construction Noise Management Plan		
3.3	The Proponent shall prepare and implement a Construction Noise Management Plan for construction of the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencing construction and shall include:	The 2010-2012 Independent Environmental Audit report referenced correspondence from the Department of Planning to AGL (9/01/2007) confirming that the Department reviewed the Construction Noise Management Plan (Razorback) and was satisfied that the Plan addresses the relevant conditions of PA 06_0137.	Compliance
3.3(a)	A detailed description of the measures that would be implemented to achieve the construction noise goal in condition 2.	The auditor sighted the Camden Gas Project Noise Management Sub-Plan (April 2015)	Compliance
3.3(b)	A community notification protocol for the proposed construction activities (including any redrilling or re-fraccing of wells).	and noted that the Plan conforms to the requirements of this condition.	
3.3(c)	A description of the measures that would be implemented where the construction noise goal in condition 2 is unlikely to be achieved or is not being achieved.		
3.3(d)	Details of who would be responsible for monitoring, reviewing and		

20 October 2015

Reference No. 1535803-001-R-Rev0





No.	Consent Co	ndition					Evaluation		Finding
	implementi	ng the plan							
	Operationa	I Noise C	riteria						
3.4	The Propor project doe Table 3. Table 3: No Location Any residential receiver Notes: Notes: Noise from within the within 3 30 metricidentified. Noise from Noise fr	nent shall er s not exceed bise Impact Day LAeq(15 minute) 39	Assessme Evening LAeq(15 minute) 39 is to be mea al boundary, the dwelling boundary, tits, except wite distribute to be received as the dwelling boundary.	nt Criteria d Night LAeq(15 minute) 35 assured at the reg where the reg where otherw measured at	Night LA1(1 minute) 45 most affected prost affected point dwelling is more compliance with vise specified bel 1 metre from the	oint han the ow.	The auditor sighted the Noise Management Sub-Plan (April 2015) and noted the inclusion of this condition and appropriate controls to minimise noise. The monitoring location distances specified in the Sub-Plan are different to, though arguably more stringent than, those specified under this condition. Noise monitoring of a selection of operational wells, including wells within PA06_0137 (RB07 and RB10) was undertaken on 20 November 2014. The results of the monitoring complied with the requirements of this condition.		Complianc
	dwelling facade to determine compliance with the LA1 (1 minute) noise level.								
	Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance may be acceptable (see Chapter 11 of the NSW Industrial Noise Policy).								
	The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.								
	■ The ide	ntified noise	e emission l	imits apply u	nder meteorolog	ical			

20 October 2015
Reference No. 1535803-001-R-Rev0 7/70





No.	Consent Condition	Evaluation	Finding
	conditions of wind speed up to 3m/s at 10 metres above ground level, and temperature inversion conditions.		
	Continuous Improvement		
3.5	The Proponent shall, to the satisfaction of the Director-General:	The auditor sighted the Noise Management	Compliance
3.5(a)	Implement all reasonable and feasible best practice noise mitigation measures.	Plan (April 2015) and noted the inclusion of noise mitigation measures.	
3.5(b)	Investigate ways to reduce the noise generated by the project.	No noise complaints were generated during	
3.5(c)	Report on these investigations and the implementation and effectiveness of these measures in the AEPR.	the audit period.	
	Noise Monitoring Program		
3.6	The Proponent shall prepare and implement a Noise Monitoring Program for the construction and operation of the project to the satisfaction of the Director-General. The Program shall be submitted to the Director-General prior to construction commencing and shall include a noise monitoring protocol for evaluating compliance with the construction noise goals and the operational noise impact assessment criteria in this approval	There were no matters of non-Compliance identified during the audit period in regards to the implementation of the Noise Monitoring Program. The auditor sighted correspondence from AGL to the Department of Planning & Environment dated 30 June 2015 providing updated versions of the Noise Management Sub-Plan, which details the monitoring program. No response was received from the Department.	Compliance
		Previous correspondence from the Department of Planning to AGL (9/01/2007) confirmed that the Department reviewed the then Construction Noise Management Plan (Razorback) and was satisfied that the Plan addresses the relevant conditions of PA 06_0137.	





No.	Consent Condition	Evaluation	Finding
	AIR QUALITY		
3.7	The Proponent shall implement all practicable measures to minimise dust emissions generated by the construction and operation of the project to the satisfaction of the Director-General.	It was noted by the auditor that a number of dust mitigation measures are detailed in the Air Quality Management Sub-Plan (30 July 2015). There were no dust complaints raised during the audit period in relation to this condition.	Compliance
	SURFACE WATER		
3.8	The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencing construction and shall:	The auditor sighted the Soil and Water Management Sub-Plan (May 2015) and noted the inclusion of appropriate controls as detailed in this condition. It was reported that AGL conduct frequent site inspections to verify that pollution controls are established prior to the commencement of works.	Compliance
3.8(a)	Be consistent with the requirements in Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom).		Compliance
3.8(b)	Identify construction and operational activities that could cause soil erosion and generate sediment.		Compliance
3.8(c)	Describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters.		Compliance
3.8(d)	Describe the location, function, and capacity of erosion and sediment control structures for both construction and operation.		Compliance
3.8(e)	Describe what measures would be implemented to maintain the structures over time.		Compliance
3.8(f)	Describe the procedures that would be followed for planned and unplanned water discharges from the site. Note: To fulfil this condition, the Proponent may prepare and		Compliance





No.	Consent Condition	Evaluation	Finding
	implement an updated version of the Soil and Water Management Plan prepared under Schedule 4 Condition 84 of development consent DA-282-6-2003-i, dated 16 June 2004.		
	WASTE MANAGEMENT		
3.9	The Proponent shall ensure that any waste or wastewater is assessed and classified in accordance with the DEC's Environmental Guidelines: Assessment Classification and Management of Liquid and Non-Liquid Wastes, and disposed of at a licensed waste disposal facility or as otherwise agreed with the DEC.	It was reported that the waste service provider undertakes waste classification. The auditor sighted a sample of waste disposal dockets for waste oil and noted that the waste was disposed as waste oil. It is noted that a waste audit was not within the scope of this independent audit.	Compliance
	HAZARDS AND RISK		
	Safety and Risk Management		
3.10	The Proponent shall prepare and implement an Emergency Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director General prior to commissioning of the project and shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1; Industry Emergency Planning Guidelines. Note: To fulfil this condition the Proponent may prepare and implement an updated version of the Plan prepared under Schedule 4 condition 92(a) development consent DA-282-6-2003-I, dated 16 June 2004.	The auditor sighted the Emergency Response Plan (November 2013) and noted Compliance with the requirements of this condition. The updated Emergency Response Plan was provided to DP&E on 20/10/13. The Plan notes earlier revisions which were approved by the then Department of Infrastructure Planning and Natural Resources.	Compliance
3.11	The Proponent shall prepare and implement Safety Management System (SMS) for the project, to the satisfaction of the Director-	The auditor sighted the Safety Management Plan, Camden Project NSW (March 2015)	Compliance





No.	Consent Condition	Evaluation	Finding
	General. The SMS shall be submitted to the Director-General prior to commissioning of the project and shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9 - Safety Management. The SMS shall:	and noted Compliance with the requirements of this condition.	
3.11 (a)	Cover all operations on the wells and gas gathering system	The Plan states that it applies to the whole of the Camden Gas Project.	Compliance
3.11 (b)	Clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures;	The Plan addresses the requirements of this condition.	Compliance
3.11 (c)	Include a summary of records to demonstrate that management of	Closed in a previous audit.	Not triggered
	change procedures were followed for the connection of new gas lines to the existing network and for the integration of new wells into the automatic control system; and	AGL advised that there were no connections of new gas lines or new gas wells during the audit period.	
3.11 (d)	Confirm that the design and operation of all wellheads comply with the Department's Locational Guidelines; Development in the Vicinity of Operating Coal Seam Methane Wells (May 2004) for an Automatically Controlled Well (with Separator/Optional Pump) and that all safety related systems required by the guidelines have been included. Note: To fulfil this condition the Proponent may prepare and implement an updated version of the SMS prepared under Schedule 4 condition 92(b) of development consent DA-282-6-2003-i, dated 16 June 2004.	Closed in a previous audit. The auditor notes that the Safety Management Plan for operation of the Camden Gas Project was updated in 2015 (A_GN_HSE_MP_007-Camden Safety Management Plan, Version 8, dated 30 March 2015 addresses).	Not triggered.
	Compliance Report		
3.12	Within 3 months of commissioning of the project, the Proponent shall prepare a compliance report to the satisfaction of the Director-General. The report shall be prepared by a suitably qualified, experienced, and	A non-Compliance was reported against this condition in the 2008-2010 Independent Environmental Audit (24 August 2011) due to failure to prepare and submit a compliance	Compliance

20 October 2015

Reference No. 1535803-001-R-Rev0





No.	Consent Condition	Evaluation	Finding
	independent expert whose appointment has been endorsed by the Director-General and shall include:	report within three months of commencement of operation of the development.	
		The Compliance Report was commissioned in 2012 following DoPI approval on 17 August 2012 of an independent expert. The Compliance Report was finalised on 6 January 2014 and amended on 3 June 2014 and submitted to the Director-General on 6 June 2014.	
3.12 (a)	Dates of commencement of construction and commissioning.	Construction of wells is noted as having occurred in February 2007 and being commissioned in May 2007.	Compliance
3.12 (b)	Actions taken (or proposed to be taken) to implement conditions 10 and 11.	The Compliance Report states that the Emergency Plan and the Safety Management System have been implemented for the Camden Gas Project.	Compliance
3.12 (c)	A signed statement that: the Emergency Plan required under condition 10 is effectively in place and that at least one emergency exercise has been conducted;	This requirement is addressed in Table 1 of the Compliance Report.	Compliance
	the SMS required under condition 11 has been fully implemented and that records required by the system are being kept;		
	the Emergency Plan and SMS have been prepared in accordance with the relevant Hazardous Industry Planning Advisory Paper;		
	 all recommendations of the Emergency Plan and SMS have been implemented and are being maintained; and 		





No.	Consent Condition	Evaluation	Finding
	all safety management systems and their associated risk controls have been implemented and are being maintained.		
	ABORIGINAL HERITAGE		
3.13	The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project, in consultation with the DEC and relevant Aboriginal communities, and to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencing construction (unless otherwise agreed with the Director-General) and shall include:	The auditor sighted the Camden Gas Project Aboriginal Cultural Heritage Management Plan (updated December 2013). The Plan includes documented consultation with the Tharawal Local Aboriginal Land Council and the Cubbitch Barta Native Title Claimants Aboriginal Corporation. The Plan states that it was prepared in consultation with the then Department of Environment and Climate Change and Water (DECCW). An earlier version of the Plan was submitted to the Director-General on 9 January 2007. There was no reported construction works associated with this development consent undertaken during the audit period.	Compliance
3.13 (a)	A description of the measures that would be implemented for the test pit excavation, mapping and salvage or relocation of the archaeological relics on RB5 IF 1, RB5 Site 1, and RB11 IF 2.	Appendix 1 of the Plan addresses these requirements in general terms. These requirements were specifically addressed for RB5 IF 1, RB5 Site 1 and RB11 IF 2 in a 2006 version of the Plan prior to the works being undertaken.	Compliance
3.13 (b)	A description of the measures that would be implemented if any new Aboriginal objects are discovered during the project.	Appendix 1 of the Plan addresses this requirement.	Compliance
3.13 (c)	A protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site. Note: The archaeological	Appendix 1 of the Plan addresses this requirement.	Compliance

20 October 2015

Reference No. 1535803-001-R-Rev0





No.	Consent Condition	Evaluation	Finding
	site references in conditions 13 are the same as those in the Aboriginal Archaeological Survey and Assessment Report for Twelve Proposed Gas Production Well Sites, Gathering Systems & Access Routes The Razor Back Property prepared by Dominic Steele Consulting Archaeology, and dated July 2005.		
	ONGOING OPERATIONS		
	Redrilling and Re-fraccing		
3.14	The Proponent shall obtain the prior approval of the Director- General prior to undertaking work involving the redrilling and/or re-fraccing of wells approved under this approval. Note: For the purposes of this approval the redrilling and/or re fraccing of a well does not constitute wellhead maintenance.	It was reported by AGL that there were no re- drilling or fraccing activities during the audit period.	Not Triggered
	Gas Gathering System		
3.15	The Proponent shall, to the satisfaction of the Director- General, ensure that:	Condition closed in a previous audit. It is noted that there were no construction works undertaken during the audit period.	Not triggered.
3.15 (a)	Pipelines are designed, constructed and operated in accordance with the Australian Standard for the Installation and Maintenance of Plastic Pipe Systems for Gas AS 3723;1989 (or its latest version).		Not triggered.
3.15 (b)	The route of gas gathering and water transport systems and access roads follow previously or currently disturbed areas wherever possible.		Not triggered.
3.15 (c)	Trenches are not left open overnight, unless adequately covered.		Not triggered.
3.15 (d)	Routes of gas gathering and water transport lines are rehabilitated and reseeded with local grasses on completion of pipe laying.		Not triggered.
3.15 (e)	Works within 20 metres of watercourses are only undertaken during dry weather conditions.		Not triggered.





No.	Consent Condition	Evaluation	Finding
3.15 (f)	The pipeline crossing of Finns Road is located at a depth of at least 1.2 metres below the road surface.		Not triggered.
3.15 (g)	Construction activities do not impede lateral water flows.		Not triggered.
3.15 (h)	No crown or camber remains along any gas gathering system line, following rehabilitation.		Not triggered.
3.15 (i)	Signs are erected at intervals along all gas gathering system lines indicating the presence of a buried gas pipeline.		Not triggered.
	REHABILITATION		
3.16	The Proponent shall progressively rehabilitate the site to the satisfaction of the Director-General, in a manner that is generally consistent with the landform of the surrounding land.	It was reported that there were no rehabilitation works undertaken during the audit period.	Not triggered.
3.17	The Proponent shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Director-General. The Plan shall be submitted to the Director; General within 6 months of the date of this approval and shall:	The auditor sighted the Rehabilitation and Landscape Management Sub-Plan (updated April 2015) and noted Compliance with the requirements of this condition.	Compliance
3.17 (a)	Identify the areas likely to be disturbed by the project.	It is noted that no rehabilitation works were	Compliance
3.17 (b)	Describe the measures that would be implemented to rehabilitate the site.	required to be undertaken during the audit period.	Compliance
	SCHEDULE 4		
	ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS		
	OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN (OEMP)		
4.1	The Proponent shall prepare and implement an Operational	Compliance with this condition has been	Compliance





No.	Consent Condition	Evaluation	Finding
	Environmental Management Plan (OEMP) for the project to the satisfaction of the Director-General. The OEMP shall be submitted to the Director-General prior to commissioning of the project and shall:	closed out in previous audits. The auditor sighted the current version of the Environmental Management Plan dated April 2015.	
4.1(a)	Incorporate the various environmental management plans, monitoring programs and other requirements set out in Schedule 3 of this approval.		Compliance
4.1(b)	Identify statutory and other obligations that the Proponent is required to fulfil during the operation of the project.		Compliance
4.1(c)	Describe the environmental policies and principles to be applied to the operation of the project.		Compliance
4.1(d)	Describe in general how the environmental performance of the project would be monitored and managed.		Compliance
4.1(e)	Describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; • manage cumulative impacts; and • respond to emergencies (including bushfires)		Compliance
4.1(f)	Describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project. Note: To fulfil this condition, the Proponent may prepare and implement an updated version of the OEMP prepared under Schedule 5 condition 2 of development consent DA-282-6-2003;i, dated 16 June 2004.		Compliance
	INCIDENT REPORTING		
4.2	Within 7 days of detecting an exceedance of the	Condition was not activated during the audit	Not Triggered





No.	Consent Condition	Evaluation	Finding
	goals/limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment; the Proponent shall report the exceedance/incident to the Department (and any relevant agency). The report shall:	period.	
4.2(a)	Describe the date, time, and nature of the exceedance/incident.		Not Triggered
4.2(b)	Identify the cause (or likely cause) of the exceedance/incident;		Not Triggered
4.2(c)	Describe what action has been taken to date; and		Not Triggered
4.2(d)	Describe the proposed measures to address the exceedance/incident		Not Triggered
	ANNUAL REPORTING		
4.3	Within 12 months of the date of this approval, and annually thereafter during the life of the project, the Proponent shall prepare an Annual Environmental Performance Report (AEPR) for the project to the [sic] Director-General. The AEPR shall:	The auditor sighted the Annual Environmental Performance Reports for 2012-2013, 2013-2014 and 2014-2015 and noted Compliance with the requirements of this condition.	Compliance
	a) Identify the standards, performance measures and statutory requirements that apply to the project;		Compliance
	 b) Assess the environmental performance of the project to determine whether it is complying with these standards, performance measures, and statutory requirements; 		Compliance
	 c) Identify any non-compliance during the year with the conditions of this approval or any standard, performance measure or statutory requirement that applies to the project; 		Compliance
	 d) Describe, if any non-compliance is identified, the actions and measures carried out or being carried out to ensure compliance, clearly indicating who would carry out these actions and measures, when they would be carried out, and how the effectiveness of these measures would be monitored over time; 		Compliance





No.	Consent Condition	Evaluation	Finding
	 e) Include a copy of complaints for the year and a description of actions taken or being taken to address registered complaints; 		Compliance
	f) Include a discussion of issues or recommendations raised by the Camden gas Project's Community Consultative Committee and a description of actions taken or being taken to address these issues or recommendations; and		Compliance
	 g) Include a detailed summary of results of all monitoring required by this approval and a discussion of any significant results, trends or exceptions in these results 		Compliance
	Note: The proponent may include this report in the Annual Environmental Performance Report required under Schedule 5 condition 5 of development consent DA-282-6-2003-I, dated 16 June 2004. The due date for a combined report shall be the earlier of the due dates for the separate reports.		
4.4	The Proponent shall submit a copy of the AEPR to the DPI, DEC and Council.	The 2012-2013 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 22 October 2013.	Compliance
		The 2013-2014 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 16 December 2014.	
		The 2014-2015 AEPR was finalised and issued on 3 November 2015.	
	INDEPENDENT ENVIRONMENTAL AUDIT		
4.5	Within 2 years of the date of this approval and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full costs of an Independent Environmental Audit. The Independent	The scope and conduct of this 2012-2015 Independent Environmental Audit satisfies this condition.	Compliance





No.	Consent Condition	Evaluation	Finding
	Environmental Audit shall:		
4.5(a)	Be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General.		Compliance
4.5(b)	Be consistent with ISO 19011:2002 - Guidelines for Quality and/or Environmental Management Systems Auditing, or updated versions of these guidelines/manuals.		Compliance
4.5(c)	Assess the environmental performance of the project, and its effects on the surrounding environment.		Compliance
4.5(d)	Include a hazard audit of the project in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, Hazard Audit Guidelines. The auditor sighted the 'Hazard Audit Report for Sydney Gas Operations' (3 March 2006) and a report of the 2013 audit (Hazard Audit, AGL Rosalind Park Gas Plant, Medhurst Road, Menangle Park, AECOM, 24 October 2013 which includes the approval for the Razorback gas wells for the period 2006 to June 2013). The audit for the current period is in the planning stages.		Not Triggered
4.5(e)	Assess whether the project is complying with the relevant standards, performance measures, and statutory requirements.	The scope and conduct of this 2012-2015 Independent Environmental Audit satisfies this	Compliance
4.5(f)	Review the adequacy of the OEMP.	condition.	Compliance
4.5(g)	Recommend measures or actions to improve the environmental performance of the project, and/or its environmental management and monitoring systems.		Compliance
	Note: The Proponent may include audit in the Independent Environmental Audit required under Schedule 5 condition 10 of development consent DA-282-6-2003-i, dated 16 June 2004. The due date for a combined audit shall be the earlier of the due dates for the separate audits.		





No.	Consent Condition	Evaluation	Finding
4.6	Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director General, DPI and DEC, with a response to any of the recommendations contained in the audit report.	The auditor sighted correspondence confirming that the 2010-2012 Independent Environmental Audit was finalised on 27 August 2013 and submitted to the Director-General of the NSW Department of Planning and Infrastructure on 9 September 2013, i.e. to the relevant authorities within one month of completion.	Compliance
4.7	Proponent shall review and if necessary revise the OEMP (and any documents contained in the plan), to the satisfaction of the Director-General. The revised OEMP shall be submitted to the Director-General within 6 months of completing the audit. The Environmental Manager Camden Gas Project was up February 2014, and submitted to the Director-General within 6 months of completing the audit. March 2014, i.e. slightly beyonce the March 2014, i.e. slightly beyonce the months of the 2010-2012.		Non-Compliance Level 2
	COMMUNITY CONSULTATIVE COMMITTEE		
4.8	The Proponent shall ensure that the construction and operation of the project is subject to the consideration of the Camden Gas Project Community Consultative Committee, as established under Schedule 5 Condition 17 of development consent DA No. 282;6;2003;I, dated 16 June 2004.	The auditor sighted relevant documentation including meeting minutes (e.g. 7 May 2014, 30 July 2014 and 24 September 2014) and verified Compliance with the requirements of this condition.	Compliance
	ACCESS TO INFORMATION		
4.9	From 31 March 2007, and during the life of the project thereafter, the Proponent shall place a copy of the following documents and information (and any subsequent revisions) required under this approval on its website:	shall place a copy of the following documents and dany subsequent revisions) required under this verified Compliance with the requirements of this condition	
4.9(a)	All current environmental management plans, strategies and programs.]	Compliance
4.9(b)	All Independent Environmental Audits.]	Compliance





No.	Consent Condition	Evaluation	Finding
4.9(c)	All AEPRs.		Compliance
4.9(d)	A summary of all environmental monitoring results required under this consent (to be updated at least every 6 months).		Compliance





Table 4: PA 06-0138 (Elizabeth Macarthur)

No.	Consent Condition	Evaluation	Finding
	SCHEDULE 2 ADMINISTRATIVE CONDITIONS		
	Obligation to Minimise Harm to the Environment		
2.1	The Proponent shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction or operation of the project.	An Environmental Management System (EMS) has been established to manage environmental risks and drive improvements in performance. The EMS consists of an Environmental Management Plan (EMP), related sub-plans and an Environmental Compliance Register.	Compliance
		Various management tools have been implemented to monitor and measure implementation of the EMS.	
		AGL's Environmental Compliance Register (CMO-Compliance) was sighted and found to be effective for monitoring compliance against project approval obligations. During the audit period the compliance register transitioned from Mipela to the Regulatory Compliance Register and then to CMO-Compliance. CMO was commissioned only on 30 June 2014.	
		EMP Sub Plan audits commenced during July 2014. The strategy is to audit each Sub-Plan once per year subject to relevant works being undertaken. Each of the ten Sub-Plans has been audited since July 2014. Corrective actions were implemented via MyHSE.	
		Annual Environmental Performance Reports (AEPRs) are prepared and submitted to the	





No.	Consent Condition	Evaluation		Finding
		Department of Planning & Environment.		
		There were no reported incidents of harm being caused to the environment during the audit period.		
	Terms of Approval			
2.2	The Proponent shall carry out the project generally in accordance with the:	AGL reported that the development is being undertaken in accordance with the EMS, which		Compliance – Improvement
2.2(a)	Project Application 06_0138.	incorporates the requirements of Consent		Recommended
2.2(b)	EA titled Environmental Assessment – Camden Gas Project Joint Venture Stage 2 Drilling Program, Elizabeth Macarthur Agricultural Institute Wells (EM23-EM36), dated 20 July 2006, and prepared by HLA Envirosciences Pty Ltd.	Conditions and the supporting documentation. The Sub-Plans went through a process of review and upgrade during 2013/2014 and again during the first half of 2015 (except the Aboriginal Cultural Heritage Management Plan which was		
2.2(c)	EM32 and EM34 Additional Noise Assessment contained in a letter from AGL to the Department, dated 26 September 2006.	last updated in December 2013). The revised Sub-Plans were submitted to the Department of		
2.2(d)	Proposed changes to works in the EMAI and Razorback projects contained in a letter from AGL to the Department, dated 23 November 2006.	Planning & Environment and were uploaded on to AGL's web-site. AGL advised that these documents are considered during the each		
2.2(e)	Raptor breeding seasons and revised Statement of Commitments contained in a letter from AGL to the Department, dated 4 December 2006.	review of the EMP Sub-Plans. A copy of each of the source documents listed		
2.2(f)	Modification application (06_0138 Mod 1) titled EM37 Well Modification Project Environmental Assessment, dated 21 March 2007.	under this Condition was not readily available to the auditor. It is recommended that a copy of each of the source documents be made available for reference within AGL's compliance		
2.2(g)	Letter concerning E\$M32 from AGL Gas Production (Camden) Pty Limited to the Department, dated 31 May 2007.	register (CMO-Compliance).		
2.2(h)	Conditions of this approval.			
2.3	If there is any inconsistency between the above documents, the	Condition is noted.		Not





No.	Consent Condition	Evaluation	Finding
	latter document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.		Triggered
2.4	The Proponent shall comply with any reasonable requirement/s of the Director; General arising from the Department's assessment of:	Condition was not activated during the audit period.	Not Triggered
2.4(a)	Any reports, plans, programs or correspondence that are submitted in accordance with this approval.	Condition was not activated during the audit period.	Not Triggered
2.4(b)	The implementation of any actions or measures contained in these reports, plans, programs or correspondence. Condition was not activated during the audit period.		Not Triggered
	Limits on Approval		
2.5	This approval shall lapse 21 years after the date of this approval or on the expiry date of Petroleum Production Lease No. 1 or Petroleum Production Lease No. 4, whichever is the sooner.	Condition was not activated during the audit period.	Not Triggered
2.6	Nothing in this approval permits the drilling and operation of any additional gas wells (beyond the approved 15 wells for gas production).	The auditor reviewed the gas wells against the development consents and confirmed that no additional wells have been drilled or operated during the audit period.	Compliance
2.7	The Proponent shall surrender the approval for any well that has not been drilled within 5 years of the date of this approval.	It is noted that the approval has lapsed for any well that has not been drilled. It was reported that there were no wells drilled during the audit period.	Compliance – Improvement Recommended
		It is recommended that AGL confirm the required process for surrendering approvals with the Department of Planning & Environment.	





No.	Consent Condition	Evaluation	Finding
	Notification of Council		
2.8	Within 3 months of the commissioning of the wells, the Proponent shall provide Council with:	Closed in a previous audit.	Not triggered.
2.8(a)	The Geographical Positioning System (GPS) co-ordinates and digital survey data for the gas well sites and gas gathering system, in a format suitable to the Council.	Closed in a previous audit.	Not triggered.
2.8(b)	The wellhead configuration of each well.	Closed in a previous audit.	Not triggered.
	Operation of Plant and Equipment		
2.9	The Proponent shall ensure that all plant and equipment used at the site is:	Preventative maintenance of plant and equipment is controlled through the MEX system. The auditor sighted the MEX system and it was noted that maintenance schedules are defined by usage and manufacturers requirements. It was reported that the MEX system has been operating since early 2014.	Compliance
2.9(a)	Maintained in a proper and efficient condition.	Review of summary data of maintenance backlog for 2015 provided by AGL indicates that maintenance items are generally being completed during the month scheduled. As of September 2015 the 12-month rolling average indicated a monthly completion rate of 98% of scheduled maintenance items. No environmental incidents occurred during the audit period as a result of maintenance issues.	Compliance
2.9(b)	Operated in a proper and efficient condition.	No environmental complaints or incidents have arisen during the audit period for sites subject to this approval as a result of operation of plant and	Compliance





No.	Consent Condition	n		Evaluation		Finding
				equipment.		
	SCHEDULE 3				П	
	ENVIRONMENTA	AL PERFORMANCE CO	ONDITIONS			
	NOISE					
	Construction and	d Maintenance Hours				
3.1	Except for the drilling (including well casing and grouting) of SIS wells EM32 and EM34, the Proponent shall comply with the construction and maintenance hours in Table 1: Table 1: Construction and Maintenance Hours for the Project		The auditor sighted the Noise Management Sub-Plan (updated May 2015) and noted that the Plan conforms to the requirements of this condition. It was reported that this condition is		Compliance	
	Activity	Day	Time	communicated to employees and contractors		
	Construction	Monday – Friday	7:00am to 6:00pm	through the role-specific induction program.		
		Saturday Sunday and Public Holidays	8:00am to 1:00pm Nil			
		Suriday and Fublic Floridays				
	Planned maintenance activities	Monday - Friday	7:00am to 6:00pm			
		Saturday	8:00am to 1:00pm			
		Sunday and Public Holidays	Nil (unless inaudible at any residential receiver)			
	 Notes: Inaudible means that the construction activity cannot be heard by the human ear at the nearest affected residential receivers. This condition does not apply to the delivery of material if that delivery is required by the police or other authorities for safety reasons; and/or the operation or personnel or equipment is endangered. In such circumstances, prior notification is to be provided to affected residents where possible. 					





No.	Consent Condition				Evaluation	Finding
	Construction Noise	Goals				
3.2	construction activities	The Proponent shall use its best endeavours to undertake construction activities to comply with the construction noise goals specified in Table 2. Table 2: Construction Noise Goals dB(A) LA10(15 min)			The auditor sighted the Noise Management Sub-Plan (updated May 2015) and noted the inclusion of the construction noise goals as detailed in this condition. It was reported that	Compliance
	Location Day Evening Night				there were no construction works undertaken	
	Any residential receiver	54	39	35	during the audit period.	
	Note: See notes to con	ndition 4.				
	Construction Noise	Manageme	nt Plan			
3.3	The Proponent shall prepare and implement a Construction Noise Management Plan for construction of the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to construction commencing and shall include:			ect to the be submitted	The auditor sighted the Noise Management Sub-Plan (updated May 2015) and noted that the Plan conforms to the requirements of this condition.	Compliance
3.3(a)	A detailed description to achieve the constru					Compliance
3.3(b)	A community notificati activities (including an	ion protocol f	or the proposed o	construction	1	Compliance
3.3(c)	A description of the me the construction noise achieved or are not be	easures that goals in con-	would be implem dition 2 are unlike	ented where		Compliance
3.3(d)	Details of who would be implementing the plan		e for monitoring,	reviewing and		Compliance
	Operational Noise C	riteria				
3.4	The Proponent shall e	nsure that th	e noise generate	d by the	The auditor sighted the Noise Management	Compliance

Golder



No.	Consent Condition					Evaluation	Finding
	Table 3. Table 3: Noise Impact Assessment Criteria dB(A)				Sub-Plan (updated May 2015) and noted the inclusion of this condition and appropriate		
	Location	Location Day Evening right		controls to minimise noise.			
	Any residential receiver	L _{Aeq(15 minute)}	L _{Aeq(15 minute)}	L _{Aeq(15 minute)}	L _{A1(1 minute)}	No noise monitoring was required to be undertaken during the audit period.	
	Notes: Noise from the point within the point within 30 more than 30 compliance wotherwise specific points.	ne residentia 0 metre of the metres fron vith the ident	al boundary, ne dwelling n the bound iified noise l	at the most where the d ary to deteri	affected welling is mine	G I	
	Noise from the dwelling facate minute) noise	de to determ					
	Where it can noise from the determining of of the NSW Ir	e project is i compliance r	mpractical, nay be acce	alternative r	neans of		
	■ The modificat Industrial Nois noise level wh	se Policy sh	all also be a				
	The identified meteorologica metres above conditions.	al conditions	of wind spe	ed up to 3n			
	Continuous Impro	vement					





No.	Consent Condition	Evaluation	Finding
3.5	The Proponent shall, to the satisfaction of the Director-General	The auditor sighted the Noise Management Plan (updated May 2015) and noted the inclusion of noise mitigation measures. There were no matters of non-Compliance identified during the audit period in regards to the implementation of the Noise Monitoring Program. The auditor sighted correspondence from	Compliance
3.5(a)	Implement all reasonable and feasible best practice noise mitigation measures.		Compliance
3.5(b)	Investigate ways to reduce the noise generated by the project.		Compliance
3.5(c)	Report on these investigations and the implementation and effectiveness of these measures in the AEPR.		Compliance
	Noise Monitoring Program		
3.6	The Proponent shall prepare and implement a Noise Monitoring Program for the construction and operation of the project to the satisfaction of the Director-General. The Program shall be submitted to the Director-General prior to construction	identified during the audit period in regards to the implementation of the Noise	Compliance
	commencing and shall include a noise monitoring protocol for evaluating compliance with the construction noise goals and the operational noise impact assessment criteria in this approval.	The auditor sighted correspondence from AGL to the Department of Planning & Environment dated 30 June 2015 providing updated versions of the Noise Management Sub-Plan, which details the monitoring program. No response was received from the Department.	
		Previous correspondence from the Department of Planning to AGL (9/01/2007) confirmed that the Department reviewed the then Construction Noise Management Plan (EMAI) and was satisfied that the Plan addresses the relevant conditions of PA 06_0138.	
	AIR QUALITY		





No.	Consent Condition	Evaluation	Finding
3.7	The Proponent shall implement all practicable measures to minimise dust emissions generated by the construction and operation of the project to the satisfaction of the Director-General.	It was noted by the auditor that a number of dust mitigation measures are detailed in the Air Quality Management Sub-Plan (30 July 2015).	Compliance
		There were no dust complaints associated with this development consent during the audit period.	
	SURFACE WATER		
3.8	The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to construction commencing and shall:	The auditor sighted the Soil and Water Management Sub-Plan (May 2015) and noted the inclusion of appropriate controls as detailed in this condition. It was reported that AGL	Compliance
3.8(a)	Be consistent with the requirements in Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom).	conduct frequent site inspections to verify that pollution controls are established prior to the commencement of works.	Compliance
3.8(b)	Identify construction and operational activities that could cause soil erosion and generate sediment.		Compliance
3.8(c)	Describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters.		Compliance
3.8(d)	Describe the location, function, and capacity of erosion and sediment control structures for both construction and operation.		Compliance
3.8(e)	Describe what measures would be implemented to maintain the structures over time.		Compliance
3.8(f)	Describe the procedures that would be followed for planned and unplanned water discharges from the site. Note: To fulfil this condition, the Proponent may prepare and implement an updated version of the Soil and Water Management Plan prepared under Schedule 4 condition 4 of development consent DA 282 6 2003i, dated 16 June 2004.		Compliance
	FLOOD MANAGEMENT		





No.	Consent Condition	Evaluation	Finding
3.9	The Proponent shall prepare and implement a Flood Management Plan for wells EM34 and EM35 located within the 1 in 100 year flood level, to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commissioning of wells EM34 and EM35, and shall include measures to minimise and mitigate flooding impacts associated with the project. Note: To fulfil this condition, the Proponent may prepare and implement an updated version of the Flood Management Plan prepared under Schedule 3 condition 12 of development consent DA 171 7 2005i, dated 25 March 2006. WASTE MANAGEMENT	The auditor sighted the Emergency Response Plan (2 June 2014) and noted the inclusion of controls to minimise and mitigate flooding impacts. Control measures in relation to EM34 were not activated in the audit period.	Compliance
3.10	The Proponent shall ensure that any waste or wastewater is assessed and classified in accordance with the DEC's Environmental Guidelines: Assessment Classification and Management of Liquid and Non-Liquid Wastes, and disposed of at a licensed waste disposal facility or as otherwise agreed with the DEC.	It was reported that the waste service provider undertakes waste classification. The auditor sighted a sample of waste disposal dockets for waste oil and noted that the waste was disposed as waste oil. It is noted that a waste audit was not within the scope of this independent audit.	Compliance
	HAZARDS AND RISK		
	Safety and Risk Management		
11.	The Proponent shall prepare and implement an Emergency Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director General prior to commissioning for the project and shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1 – Industry Emergency Planning Guidelines. Note: To fulfil this condition the Proponent may prepare and implement an updated version of the Plan prepared under	The auditor sighted the Emergency Response Plan (November 2013) and noted Compliance with the requirements of this condition. The updated Emergency Response Plan was provided to DP&E on 20/10/13. The Plan notes earlier revisions which were approved by the then NSW Department of	Compliance





No.	Consent Condition	Evaluation	Finding
	Schedule 4 condition 92(a) development consent DA-282-6-2003-I, dated 16 June 2004.	Infrastructure, Planning and Natural Resources.	
3.12	The Proponent shall prepare and implement a Safety Management System (SMS) for the project, to the satisfaction of the Director-General. The SMS shall be submitted to the Director- General prior to commissioning of the project and shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9 - Safety Management. The SMS shall:	The auditor sighted the Health and Safety Management Plan, Camden Project NSW (March 2015) and noted Compliance with the requirements of this condition.	Compliance
3.12 (a)	Cover all operations on the wells and gas gathering system		Compliance
3.12 (b)	Clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures		Compliance
3.12 (c)	Include a summary of records to demonstrate that management of change procedures were followed for the connection of new gas lines to the existing network and for the integration of new wells into the automatic control system		Compliance
3.12 (d)	Confirm that the design and operation of all wellheads comply with the Department's Locational Guidelines - Development in the Vicinity of Operating Coal Seam Methane Wells (May 2004) for an Automatically Controlled Well (with Separator/Optional Pump) and that all safety related systems required by the guidelines have been included. Note: To fulfil this condition the Proponent may prepare and implement an updated version of the SMS prepared under Schedule 4 condition 92(b) of development consent DA;282;6;2003;i, dated 16 June 2004.		Compliance
	Compliance Report		





No.	Consent Condition	Evaluation	Finding
3.13	Within 3 months of commissioning of the project, the Proponent shall prepare a compliance report to the satisfaction of the Director-General. The report shall be prepared by a suitably qualified, experienced, and independent expert whose appointment has been endorsed by the Director-General and shall include:	A non-Compliance was reported against this condition in the 2008-2010 Independent Environmental Audit (24 August 2011) due to failure to prepare and submit a compliance report within three months of commencement of operation of the development.	Compliance
		The Compliance Report was commissioned in 2012 following DoPI approval on 17 August 2012 of an independent expert. The Compliance Report was prepared by 6 January 2014, amended on 3 June 2014 and submitted to the Director-General on 6 June 2014.	
3.13 (a)	Dates of commencement of construction and commissioning.	Construction of wells is noted as having occurred in February 2007 and being commissioned in May 2007.	Compliance
3.13 (b)	Actions taken (or proposed to be taken) to implement conditions 11 and 12.	The Compliance Report states that the Emergency Plan and the Safety Management System have been implemented for the Camden Gas Project.	Compliance
3.13 (c)	A signed statement that: the Emergency Plan required under condition 11 is effectively in place and that at least one emergency exercise has been conducted;	This requirement is addressed in Table 1 of the Compliance Report.	Compliance
	the SMS required under condition 12 has been fully implemented and that records required by the system are being kept;		
	 the Emergency Plan and SMS have been prepared in accordance with the relevant Hazardous Industry Planning 		





No.	Consent Condition	Evaluation	Finding
	Advisory Paper; all recommendations of the Emergency Plan and SMS have been implemented and are being maintained; and all safety management systems and their associated risk controls have been implemented and are being maintained. FLORA AND FAUNA		
3.14	The Proponent shall only undertake drilling and fraccing of EM23, EM27, EM33 and EM36, and construction of gas gathering lines and access roads located within the raptor zones outside of the recognised breeding season (June to January) of raptor species nesting in the EMAI's raptor zones.	This condition was not activated during the audit period.	Not Triggered
	ABORIGINAL HERITAGE		
3.15	The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project, in consultation with the DEC and relevant Aboriginal communities, and to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencing construction (or as otherwise agreed by the Director-General) and shall include:	The auditor sighted the Camden Gas Project Aboriginal Cultural Heritage Management Plan (updated December 2013). The Plan includes documented consultation with the Tharawal Local Aboriginal Land Council and the Cubbitch Barta Native Title Claimants	Compliance
3.15 (a)	A description of the measures that would be implemented for the mapping, and salvage or relocation of the archaeological relics on EMAI Sites 1, 2 4, 5, 6, and 7; CP OS 3; and IF 1 and IF 2.	Aboriginal Corporation. The Plan states that it was prepared in consultation with the then Department of Environment and Climate	Compliance
3.15 (b)	A description of the measures that would be implemented if any new Aboriginal objects are discovered during the project.	Change and Water (DECCW). An earlier version of the Plan was submitted to the	Compliance
3.15 (c)	A protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site. Note: The archaeological site references in condition 15 are the same as those in the Aboriginal Cultural Heritage Survey and Assessment Report for	Director-General on 9 January 2007. There was no reported construction works associated with this project approval undertaken during the audit period. Compliance with the requirements of	Compliance





No.	Consent Condition	Evaluation	Finding
	Fifteen New Proposed Gas Production Well Sites, Gathering Systems Access Routes Camden Gas Project Stage 2 The Elizabeth Macarthur Agricultural Institute Property prepared by Dominic Steele Consulting Archaeology, and dated December 2005.	3.15(a), (b) and (c) was confirmed in a previous audit.	
	ONGOING OPERATIONS		
	Redrilling and Re-fraccing		
3.16	The Proponent shall obtain the approval of the Director-General prior to undertaking work involving the redrilling and/or re-fraccing of wells approved under this approval. Note: Forthe purposes of this approval the redrilling and/or re-fraccing of a well does not constitute wellhead maintenance.	It was reported that there were no re-drilling or fraccing activities during the audit period.	Not Triggered
	Gas Gathering System		
3.17	The Proponent shall, to the satisfaction of the Director-General, ensure that:	The auditor sighted the EMP and relevant Sub- Plans and noted inclusion of the requirements	Not Triggered
3.17 (a)	Pipelines are designed, constructed and operated in accordance with the Australian Standard for the Installation and Maintenance of Plastic Pipe Systems for Gas AS 3723-1989 (or its latest version).		Not Triggered
3.17 (b)	The route of gas gathering and water transport systems and access roads follow previously or currently disturbed areas wherever possible.		Not Triggered
3.17 (c)	Trenches are not left open overnight, unless adequately covered.		Not Triggered
3.17 (d)	Works within 20 metres of watercourses are only undertaken during dry weather conditions.		Not Triggered
3.17 (e)	The pipeline crossing of Remembrance Drive is located at a depth of at least 1.2 metres below the road surface.		Not triggered
3.17 (f)	Construction activities do not impede lateral water flows.		Not Triggered





No.	Consent Condition	Evaluation		Finding
3.17 (g)	No crown or camber remains along any gas gathering system line, following rehabilitation.			Not Triggered
3.17 (h)	Signs are erected at intervals along all gas gathering system lines indicating the presence of a buried gas pipeline.			Not Triggered
	REHABILITATION			
3.18	The Proponent shall progressively rehabilitate the site to the satisfaction of the Director-General, in a manner that is generally consistent with the landform of the surrounding land.	The auditor sighted the Rehabilitation and Landscape Management Sub-Plan (April 2015) and noted Compliance with the requirements of this condition. It was reported that rehabilitation works during the audit period were limited to the EM23 site.		Compliance
		The auditor inspected the EM23 site and rehabilitation was consistent with the landform of the surrounding area.		
3.19	The Proponent shall prepare and implement a Rehabilitation Management Plan to the satisfaction of the Director-General. The Plan shall be submitted to the Director; General within 6 months of the date of this approval and shall:	The auditor sighted the Rehabilitation and Landscape Management Sub-Plan (April 2015) and noted Compliance with the requirements of this condition. The rehabilitation works sighted by the auditor (EM23) confirm implementation of the Sub-		Compliance
3.19 (a)	Identify the areas likely to be disturbed by the project.			Compliance
3.19 (b)	Describe the measures that would be implemented to rehabilitate the site.	Plan.		Compliance
	SCHEDULE 4			
	ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS			
	OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN (OEMP)			





No.	Consent Condition	Evaluation	Finding
4.1	The Proponent shall prepare and implement an Operational Environmental Management Plan (OEMP) for the project to the satisfaction of the Director-General. The OEMP shall be submitted to the Director-General prior to commissioning of the project and shall:	The auditor sighted the Environmental Management Plan (April 2015) and noted that the content conforms to the requirements of this condition.	Compliance
4.1(a)	Incorporate the various environmental management plans, monitoring programs and other requirements set out in Schedule 3 of this approval.		Compliance
4.1(b)	Identify statutory and other obligations that the Proponent is required to fulfil during the operation of the project.		Compliance
4.1(c)	Describe the environmental policies and principles to be applied to the operation of the project.		Compliance
4.1(d)	Describe in general how the environmental performance of the project would be monitored and managed.		Compliance
4.1(e)	Describe the procedures that would be implemented to: keep the local community and relevant agencies informed about the environmental performance of the project;		Compliance
	 receive, handle, respond to, and record complaints; resolve any disputes that may arise during the course of the project; 		
	respond to any non-compliance;		
	manage cumulative impacts; and		
	respond to emergencies (including bushfires).		
4.1(f)	Describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project. Note: To fulfil this condition, the Proponent may prepare and implement an updated version of the OEMP prepared under		Compliance





No.	Consent Condition	Evaluation	Finding
	Schedule 5 condition 2 of development consent DA-282-6-2003-i, dated 16 June 2004.		
	INCIDENT REPORTING		
4.2	Within 7 days of detecting an exceedance of the goals/limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment; the Proponent shall report the exceedance/incident to the Department (and any relevant agency). The report shall:	Condition not activated during the audit period.	Not Triggered.
4.2(a)	Describe the date, time, and nature of the exceedance/incident.		Not Triggered.
4.2(b)	Identify the cause (or likely cause) of the exceedance/incident.		Not Triggered.
4.2(c)	Describe what action has been taken to date.		Not Triggered.
4.2(d)	Describe the proposed measures to address the exceedance/incident.		Not Triggered.
	ANNUAL REPORTING		
4.3	Within 12 months of the date of this approval, and annually thereafter during the life of the project, the Proponent shall prepare an Annual Environmental Performance Report (AEPR) for the project to the satisfaction of the Director-General. The AEPR shall:	The auditor sighted the Annual Environmental Performance Reports for 2012-2013, 2013-2014 and 2014-2015 and noted Compliance with the requirements of this condition.	Compliance
4.3(a)	Identify the standards, performance measures and statutory requirements that apply to the project.	The 2012-2013 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 22 October 2013. The 2013-2014 AEPR was submitted to the Department of Planning & Environment, the	Compliance
4.3(b)	Assess the environmental performance of the project to determine whether it is complying with these standards, performance measures, and statutory requirements.		Compliance
4.3(c)	Identify any non-compliance during the year with the conditions of this approval or any standard, performance measure or statutory requirement that applies to the project.	Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 16 December 2014.	Compliance





No.	Consent Condition	Evaluation	Finding
4.3(d)	Describe, if any non-compliance is identified, the actions and measures carried out or being carried out to ensure compliance, clearly indicating who would carry out these actions and measures, when they would be carried out, and how the effectiveness of these measures would be monitored over time.	The 2014-2015 AEPR has been finalised but not yet issued to the external parties.	Compliance
4.3(e)	Include a copy of complaints for the year and a description of actions taken or being taken to address registered complaints.		Compliance
4.3(f)	Include a discussion of issues or recommendations raised by the Camden Gas Project's Community Consultative Committee and a description of actions taken or being taken to address these issues or recommendations.		Compliance
4.3(g)	Include a detailed summary of results of all monitoring required by this approval and a discussion of any significant results, trends or exceptions in these results, Note: The Proponent may include this report in the Annual Environmental Performance Report required under Schedule 5 condition 5 of development consent DA-282-6-2003-i, dated 16 June 2004. The due date for a combined report shall be the earlier of the due dates for the separate reports.		Compliance
4.4	The Proponent shall submit a copy of the AEPR to the DPI, DEC and Council.	The 2012-2013 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 22 October 2013.	Compliance
		The 2013-2014 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 16 December 2014.	
		The 2014-2015 AEPR has been finalised but not yet issued to the external parties.	
	INDEPENDENT ENVIRONMENTAL AUDIT		





No.	Consent Condition	Evaluation	Finding
4.5	Within 2 years of the date of this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full costs of an Independent Environmental Audit. The Independent Environmental Audit shall:	The scope and conduct of this 2012-2015 Independent Environmental Audit satisfies this condition.	Compliance
4.5(a)	Be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General.		Compliance
4.5(b)	Be consistent with ISO 19011-2002 - Guidelines for Quality and/or Environmental Management Systems Auditing, or updated versions of these guidelines/manuals.		Compliance
4.5(c)	Assess the environmental performance of the project, and its effects on the surrounding environment.		Compliance
4.5(d)	Include a hazard audit of the project in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, Hazard Audit Guidelines.	The auditor sighted the 'Hazard Audit Report for Sydney Gas Operations, (3 March 2006) and a report of the 2013 audit (Hazard Audit, AGL Rosalind Park Gas Plant, Medhurst Road, Menangle Park, AECOM, 24 October 2013 which includes the approval for the Razorback gas wells for the period 2006 to June 2013). The audit for the current period is in the planning stages.	Compliance
4.5(e)	Assess whether the project is complying with the relevant standards, performance measures and statutory requirements.	The scope and conduct of this 2012-2015 Independent Environmental Audit satisfies	Compliance
4.5(f)	Review the adequacy of the OEMP.	this condition.	Compliance
4.5(g)	Recommend measures or actions to improve the environmental performance of the project, and/or its environmental management and monitoring systems. Note: The Proponent may include this audit in the Independent Environmental Audit required under Schedule 5 condition 10 of		Compliance

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No.	Consent Condition	Evaluation		Finding
	development consent DA-282-6-2003-i, dated 16 June 2004. The due date for a combined audit shall be the earlier of the due dates for the separate audits.			
4.6	Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General, DPI and DEC, with a response to any of the recommendations contained in the audit report.	The auditor sighted correspondence confirming that the 2010-2012 Independent Environmental Audit was finalised on 27 August 2013 and submitted to the Director-General of the NSW Department of Planning and Infrastructure on 9 September 2013, i.e. to the relevant authorities within one month of completion.		Compliance
4.7	Following each Independent Environmental Audit, the Proponent shall review and if necessary revise the OEMP (and any documents contained in the plan), to the satisfaction of the Director-General. The revised OEMP shall be submitted to the Director-General within 6 months of completing the audit.	The Environmental Management Plan for the Camden Gas Project was updated in February 2014, and submitted to the Department of Planning & Infrastructure on 14 March 2014, i.e. slightly beyond 6 months of completion of the 2010-2012 audit.		Non-Compliance Level 2
	COMMUNITY CONSULTATIVE COMMITTEE		П	
4.8	The Proponent shall ensure that the construction and operation of the project is subject to the consideration of the Camden Gas Project Community Consultative Committee, as established under Schedule 5 condition 17 of development consent DA No. 282-6-2003-I, dated 16 June 2004.	The auditor sighted relevant documentation including meeting minutes (e.g. 7 May 2014, 30 July 2014 and 24 September 2014) and verified Compliance with the requirements of this condition.		Compliance
	ACCESS TO INFORMATION			
4.9	From 31 March 2007, and during the life of the project thereafter, the Proponent shall place a copy of the following documents and	The auditor sighted the AGL website and verified Compliance with the requirements of		Compliance

20 October 2015

Reference No. 1535803-001-R-Rev0





No.	Consent Condition	Evaluation	Finding
	information (and any subsequent revisions) required under this approval on its website:	this condition.	
4.9(a)	OEMP.		Compliance
4.9(a)	All Independent Environmental Audits.		Compliance
4.9(a)	All AEPRs.		Compliance
4.9(a)	A summary of all environmental monitoring results required under this consent (to be updated at least every 6 months).		Compliance





APPENDIX B

CAMDEN GAS PROJECT INDEPENDENT ENVIRONMENTAL AUDIT 2012-2015 PA 06_291 (Spring Farm and Menangle Park)

Table5: PA 06-0291 (Spring Farm and Menangle Park)

No.	Consent Condition	Evaluation	Finding
	SCHEDULE 2		
	ADMINISTRATIVE		
	Obligation to Minimise Harm to the Environment		
2.1	The Proponent shall implement all practicable measures to prevent or minimise any harm to the environment that may result from the construction or operation of the project.	An Environmental Management System (EMS) has been established to manage environmental risks and drive improvements in performance. The EMS consists of an Environmental Management Plan (EMP), related sub-plans and an Environmental Compliance Register.	Compliance
		Various management tools have been implemented to monitor and measure implementation of the EMS.	
		AGL's Environmental Compliance Register (CMO-Compliance) was sighted and found to be effective for monitoring compliance against project approval obligations. During the audit period the compliance register transitioned from Mipela to the Regulatory Compliance Register and then to CMO-Compliance. CMO was commissioned only on 30 June 2014.	
		EMP Sub Plan audits commenced during July 2014. The strategy is to audit each Sub-Plan once per year subject to relevant works being undertaken. Each of the ten Sub Plan has been audited since July 2014. Corrective actions were implemented via MyHSE.	
		Annual Environmental Performance Reports (AEPRs) are prepared and submitted to the Department of Planning & Environment.	





No.	Consent Condition	Evaluation	Finding
		There were no reported incidents of harm being caused to the environment during the audit period.	
	Terms of Approval		
2.2	The Proponent shall carry out the project generally in accordance with the:	AGL reported that the development is being undertaken in accordance with the EMS, which	Compliance – Improvement
2.2(a)	Project Application 06-0291.	incorporates the requirements of Consent	Recommended
2.2(b)	EA titled Environmental Assessment gExpansion of Stage 2 of the Camden Gas Project Stage 2 Concept Area Spring Farm Project Area Menangle Park Project Area, Volume 1 and 2 prepared by ENSR Australia Pty Ltd and dated December 2007.	Conditions and the supporting documentation. On receipt of an approved consent or modification, it was reported that the EMP is revised to reflect the new requirements. This	
2.2(c)	Submissions Report prepared by ENSR Australia Pty Ltd, and dated December 2007.	was evidenced by the revision history of the document. The 2010-2012 Independent	
2.2(d)	Statement of Commitments.	Environmental Audit Report for the Camden Gas Project found that the EMP was informed	
2.2(e)	EA titled Spring Farm and Menangle Park Gas Gathering System Modifications - Gas gathering line MP06 to MP11 and MP11 to MP23 (via MP19) prepared by AGL Gas Production (Camden) Pty Ltd, and dated December 2010.	by the approval conditions only; the statement of commitments detailed in environmental assessments had not specifically been incorporated into the EMP. The statement of	
2.2(f)	EA titled, Spring Farm and Menangle Park Gas Gathering System Modifications - Gas gathering line MP03 to MP05 prepared by AGL Gas Production (Camden) Pty Ltd, and dated 24 November 2010.	commitments was subsequently incorporated into the EMP and Sub-Plans during the 2015 revisions.	
2.2(g)	EA titled Sprig Farm and Menangle Park Gas Gathering System Modifications - Gas gathering line MP22 to SL02 prepared by AGL Gas Production (Camden) Pty Ltd, and dated 7 December 2010.	The Sub-Plans went through a process of review and upgrade during 2013/2014 and again during the first half of 2015 (except the Aboriginal Cultural Heritage Management Plan which was	
2.2(h)	Modification Application MP 06_0291 MOD 3 and supporting letter/report headed Proposed Modification to Project Approval 06_0291, dated 17 January 2011.	last updated in December 2013). The revised Sub-Plans were submitted to the Department of Planning & Environment and were uploaded on	

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No.	Consent Condition	Evaluation	Finding
2.2(i)	Conditions of this approval.	to AGL's web-site. AGL advised that these documents are considered during the each review of the EMP Sub-Plans.	
		A copy of each of the source documents listed under this Condition was not readily available to the auditor. It is recommended that a copy of each of the source documents be made available for reference within AGL's compliance register (CMO-Compliance).	
2.3	If there is any inconsistency between the above documents, the latter document shall prevail over the former to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.	Condition is noted.	Not Triggered
2.3a	Within 3 months of any modification to this approval, the Proponent shall review and if necessary revise all management and monitoring strategies, plans and programs required under this approval which are relevant to the modification to the satisfaction of the Director-General.	Condition was not activated during the audit period.	Not Triggered
2.4	The Proponent shall comply with any reasonable requirements of the Director; General arising from the Department's assessment of: Condition was not activated during the audit period.		Not Triggered
2.4(a)	Any reports, plans, programs or correspondence that are submitted in accordance with this approval.		Not Triggered
2.4(b)	The implementation of any actions or measures contained in these reports, plans, programs or correspondence.		Not Triggered
	Limits on Approval		
2.5	This approval shall lapse 21 years after the date of this approval or on the expiry date of petroleum production lease No.4 or Petroleum Lease No. 5 whichever is the sooner.	Condition was not activated during the audit period.	Not Triggered
2.6	Nothing in this approval permits the drilling and operation of more	The auditor reviewed the gas wells against the	Compliance





No.	Consent Condition	Evaluation	Finding
	than four well surface locations in Spring Farm and more than 12 in Menangle Park.	development consent and confirmed that no additional wells were drilled or operated during the audit period.	
2.7	This approval permits the drilling of well surface locations SF04A, SF10, SF17, and SF20 in Spring Farm. The Proponent shall not drill well surface location SF04.	The auditor sighted the list of wells constructed during the audit period and noted that well surface location SF04 was not drilled. No wells were drilled during the audit period.	Not Triggered
2.8	This approval permits the drilling of well surface locations MP02, MP03, MP04, MP05, MP06, MP11, MP19, MP21, MP22, MP23, MP24, and MP33 in Menangle Park.	Closed out in previous audit.	Not Triggered
2.9	The Proponent shall not drill more than 6 co-located wells within each well surface location.	No wells were drilled during the audit period.	Not Triggered
2.10	The Proponent shall surrender the approval for any well surface location where work has not been commenced within 5 years of the date of this approval.	It is noted that the approval has lapsed for any well that has not been drilled. It was reported that there were no wells drilled during the audit period.	Compliance – Improvement Recommended
		It is recommended that AGL confirm the required process for surrendering approvals with the Department of Planning & Environment.	
2.11	The Proponent shall not construct well surface locations MP04, MP19 and MP21 without the written approval of the Director-General. In seeking the Director; General's approval, the Proponent shall:	Condition was not activated during the audit period.	Not Triggered
2.11 (a)	In relation to MP04, submit evidence that the Proponent has consulted with Trans grid and/or Integral Energy on the design and location of MP04 and considered the safety issues of the location of gas well(s) adjacent to the Macarthur Substation and	Condition was not activated during the audit period.	Not Triggered





No.	Consent Condition	Evaluation	Finding
	its earthing system.		
2.11 (b)	In relation to MP19 and MP21, submit evidence that the Proponent has consulted with Landcom and Campbelltown City Council on the design and location of MP19 and MP21 in relation to the proposed Spring Farm arterial road and the relevant Menangle Park draft urban layout.	Condition was not activated during the audit period.	Not Trigger
2.11 (c)	Provide a detailed site layout plan(s) of the well surface location (condition 1 of Schedule 3); to the satisfaction of the Director-General.	tion 1 of Schedule 3); to the satisfaction of the period.	
2.12	The Proponent shall not produce gas from any well unless a Production Lease under the Petroleum (Onshore) Act 1991 has been obtained for the full length of the well.	Condition closed out in previous audit.	Not Trigger
2.13	Within three months of commissioning the wells, the Proponent shall provide Camden Council and Campbelltown City Council with:	Condition closed out in previous audit.	Not Trigger
2.13 (a)	The Geographical Positioning System (GPS) co-ordinates and digital survey data for the well surface locations and gas gathering system, in a format suitable to the councils.	Condition closed out in previous audit.	Not Trigger
2.13 (b)	The wellhead configuration of each well. The Proponent shall provide a copy of this information to the landowner on request.	Condition closed out in previous audit.	Not Trigger
	Protection of Public Infrastructure		
2.14	The Proponent shall:	It was reported that there was no damage to	Compliance
2.14 (a)	Repair, or pay all reasonable costs associated with repairing public infrastructure that is damaged by the project.	public infrastructure as a result of operations during the audit period.	
2.14 (b)	Relocate, or pay all reasonable cost associated with relocating public infrastructure that needs to be relocated as a result of the project. Where agreement is not reached with the owner on the cost of repairs, the Director; General shall determine the amount considered reasonable.		Compliance





No.	Consent Condition	Evaluation	Finding
	Operation of Plant and Equipment		
2.15	The Proponent shall ensure that all plant and equipment used at the site is:	Preventative maintenance of plant and equipment is controlled through the MEX system. The auditor sighted the MEX system and it was noted that maintenance schedules are defined by usage and manufacturers requirements. It was reported that the MEX system has been operating since early 2014.	Compliance
2.15 (a)	Maintained in a proper and efficient condition.	There was one environmental incident during the audit period which triggered this condition. The incident related to release of gas from a process safety valve on SF05 on 31 August 2014, which the NSW EPA alleged was due to failure to maintain plant and equipment in a proper and efficient manner, which would represent a failure to comply with 2.15 of this Project Approval. The EPA issued a Penalty Infringement Notice	Non Compliance Level 2
		(No. 3085776183) dated 5 March 2015 in relation to the incident.	
2.15 (b)	Operated in a proper and efficient condition.	AGL advised that no incidents related to this condition occurred during the audit period.	Compliance
	SCHEDULE 3		
	ENVIRONMENTAL PERFORMANCE		
	IDENTIFICATION OF WELL SURFACE LOCATION		
3.1	Prior to construction commencing at an individual well surface location, the proponent shall submit a Site Layout	No construction works were undertaken	Not Triggered

20 October 2015

Reference No. 1535803-001-R-Rev0





No.	Consent Condition			Evaluation	Finding
	Director-General. Th	ace location to the satisf ne Site Layout Plan mus Landowner and includ	st be prepared in	during the audit period.	
3.1(a)	The site construction	n layout and constructio	n footprint.		Not Triggered
3.1(b)	The wellheads and p	roduction compound la	yout.	7	Not Triggered
3.1(c)	The route of the gas	gathering lines and acc	ess roads.		Not Triggered
3.1(d)	Initial rehabilitation v	vorks following construc	ction.		Not Triggered
	NOISE				
	Construction and Maintenance Hours				
3.2 Except for the drilling (including well casing a wells, the Proponent shall comply with the comaintenance hours in Table 1: Activity			The auditor sighted the Noise Management Sub-Plan (May 2015) and noted Compliance with the requirements of this condition. It was reported that this condition is communicated to employees and contractors through the rolespecific induction program.	Compliance	
	 by the human ea This condition do delivery is require reasons; and/or to 	that the construction acr at the nearest affected ses not apply to the delived by the police or other the operation or personnuch circumstances, prior	tivity cannot be heard residential receivers. rery of material if that authorities for safety all or equipment is		





No.	Consent Condition					Evaluation		Finding	
	provided to affected	residents v	where poss	sible.					
	Construction Noise Goals								
3.3	The Proponent shall us construction activities to goals specified in Table Table 2: Construction N	o comply w	ith the con	struction	noise	The auditor sighted the Noise Management Sub-Plan (May 2015) and noted the inclusion of the construction noise goals as detailed in this condition.		Compliance	
	Location	Day	Eveni ng	Night	Saturday 1pm-6pm	The construction work undertaken during the audit period was the installation of the gas			
	(nearest residential dwelling)				Sunday 7am-6pm	gathering line from MP03 to MP05. No noise monitoring was undertaken and no noise complaints were received during the construction works.			
	MP02, MP03, MP04	49	47	41	47				
	MP05, MP06	40	40	40	40				
	MP11, MP24, MP33	42	42	40	42				
	MP19, R3	40	40	40	40				
	MP19, R25	49	47	41	47	1			
	MP21, MP22, MP23	49	47	41	47	1			
	SF04A	43	42	37	42	1			
	SF10, SF17, SF20	43	41	36	43	1			
	Construction Noise N	Construction Noise Management Plan							
3.4	The Proponent shall proposed Noise Management Plate Director-General. The	an of the pro	ject to the	satisfact	tion of the	The auditor sighted the Noise Management Sub-Plan (May 2015) and noted that the plan		Compliance	





No.	Consent Condition				Evaluation		Finding
	General prior to construction comm	nencing an	nd shall inclu	ıde:	conforms to the requirements of this condition.		
3.4(a)	A detailed description of the measu achieve the construction noise goa	ption of the measure that would be implemented to struction noise goals in condition 3.		emented to	AGL advised that the requirements of the Sub-Plan were adhered to during the		Compliance
3.4(b)	A community notification protocol for activates (including any redrilling or	or the proposed construction construction of the gas gathering line from				Compliance	
3.4(c)	A description of the measures that the construction noise goals in con or are not being achieved.				designated construction hours and use of noise barriers during directional drilling works.		Compliance
3.4(d)	Details of who would be responsible implementing the plan.	e for monit	toring, revie	wing and			Compliance
	Operational Noise Criteria						
3.5	The proponent shall ensure that the project does not exceed the noise in Table 3: Table 3: Noise Impact Assessment C	mpact ass	essment cr		The auditor sighted the Noise Management Sub-Plan (May 2015) and noted the inclusion of the operational noise criteria as detailed in this condition.		Non- Compliance Level 2
	Location	Day	Evening	Night	Wilkinson Murray undertook noise monitoring		
	(nearest residential dwelling)	L _{Aeq(15} minute)	L _{Aeq(15} minute)	L _{Aeq(15} minute)	on 20 November 2014 and 15 January 2015 at MP03, MP11/MP22 and SF20. Indeterminant compliance was detected at SF20 on 20 November (the recorded noise level was 36 to		
	SF10	43	42	37			
	SF04A, SF17, SF20	43	41	36	37 dBA, the criterion was 36 dBA). Follow-up monitoring was undertaken on 15 January		
	MP05, MP06, MP11	40	40	40	2015 at the well-head site and it was calculated that the noise level at the nearest		
	MP19, MP21, MP24, MP33	42	42	40	residence would be 25 dBA, which is within the approved limits.		
	MP02, MP03, MP04, MP22, MP23	49	45	40	On 25/28 October 2013, noise monitoring was		
	Notes: Noise from the site is to be mea within the residential boundary,			•	undertaken at MP03 in response to a noise complaint during workover operations. The results on 25 October (with no noise mitigation) were 52 dBA (daytime) which was 3		





No.	Consent Condition	Evaluation	Finding
	 within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the identified noise limits, except where otherwise specified below. Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance may be acceptable (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable. The identified noise emission limits apply under meteorological conditions of wind speed up to 3m/s at 10 metres above ground level, and temperature inversion conditions. As the area develops the background noise may change. At that time it may be appropriate to review the intrusive noise criteria for the proposal. 	dBA above the criterion of 49 dBA. Following extensions to the noise barrier shielding the main noise source, follow-up monitoring on 28 October recorded a noise level of 48 to 49 dBA at the nearest residence, which was deemed to be compliant with the criterion. The exceedance of the criterion on 25 October 2013 is deemed to be a Non-Compliance Level 2. Operational noise monitoring was undertaken the two Spring Farm wells (SF17 and SF20) on 3 April 2013 and 4 April 2014. The results were compliant with the noise criteria for day, eventing and night-time.	
	Continuous Improvement		
3.6	The Proponent shall, to the satisfaction of the Director-General:	The auditor sighted the Noise Management	Compliance
3.6(a)	Implement all reasonable and feasible best practice noise mitigation measures.	Plan (May 2015) and noted the inclusion of noise mitigation measures. The modification of	Compliance
3.6(b)	Investigate ways to reduce the noise generated by the project.	noise barriers in response to detected noise levels represents continuous improvement.	Compliance
3.6(c)	Report on these investigations and the implementation and effectiveness of these measures in the AEMR.	iovois representa continuous improvement.	Compliance
	Noise Monitoring Program		
3.7	The Proponent shall prepare and implement a Noise Monitoring Program for the construction and operation of the project to the	The auditor sighted the Noise Management Sub-Plan (May 2015), which was submitted to	Compliance





No.	Consent Condition	Evaluation	Finding
	satisfaction of the Director-General. The Program shall be submitted to the Director-General prior to construction commencing and shall include a noise monitoring protocol for evaluating compliance with the construction noise goals and the operational noise impact assessment criteria in this approval.	the Director-General and results of operational noise monitoring as detailed in the response to Condition 3.5.	
	AIR QUALITY		
3.8	The Proponent shall implement all practicable measures to minimise dust emissions generated by the construction and operation of the project to the satisfaction of the Director-General.	It was noted by the auditor that a number of dust mitigation measures are detailed in the Air Quality Management Sub-Plan (July 2015). AGL advised that there were no reported dust complaints received during the audit.	Compliance
	WATER		
	Soil and Water Management Plan		
3.9	The proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to construction commencing and shall:	The auditor sighted the Soil and Water Management Sub-Plan (May 2015) and noted Compliance with the requirements of this condition.	Compliance
3.9(a)	Be consistent with the requirements in Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004 (Landcom).		Compliance
3.9(b)	Identify construction and operation activities that could cause soil erosion and generate sediment.		Compliance
3.9(c)	Describe measure to minimise soil erosion and the potential for the transport of sediment to downstream waters.		Compliance
3.9(d)	Describe the location, function, and capacity of erosion and sediment control structures for both construction and operation.		Compliance
3.9(e)	Describe what measures would be implemented to maintain the structures over time.		Compliance

Golder



No.	Consent Condition	Evaluation	Finding
3.9(f)	Describe the procedures that would be followed for planned and unplanned water discharges from the site.		Compliance
3.9A	The Proponent shall ensure that, in respect of any underboring of the Upper Canal, the underbore works shall be undertaken and monitored to the satisfaction of the Sydney Catchment Authority, and:	Underboring of the Upper Canal was undertaken in late 2012 during construction of the gas gathering line from MP03 to MP05. A land access agreement was entered into with Sydney Catchment Authority (SCA), evidenced by a Consent issued by the SCA to AGL dated 7/12/12. The SCA reviewed and accepted the construction design of the underbore works. A dilapidation report and a geotechnical assessment were undertaken prior to the underbore works. The SCA did not require any monitoring of vibration during the works.	Compliance
3.9A (a)	Must proceed at a reduced force or load if vibration levels exceed 2.4 millimetres per second (mm/s).	No vibration monitoring was required by the SCA to be undertaken of the underbore works.	Not Triggered
3.9A (b)	Must halt if vibration levels exceed 3mm/s, except with the prior agreement of the Sydney Catchment Authority.	No vibration monitoring was required by the SCA to be undertaken of the underbore works.	Not Triggered
3.9B	The Proponent shall ensure that the design and construction of any watercourse crossing must be undertaken by a suitably qualified person in accordance with the Guidelines for Watercourse Crossings (NOW, 2010)	AGL advised that no water course crossings were undertaken during the audit period. All watercourse crossings were completed prior to the audit period and were addressed in the 2010-2012 Independent Environmental Audit.	Not Triggered
	Gas Gathering System		
3.10	The Proponent shall, to the satisfaction of the Director-General, ensure that:	The auditor sighted the EMP and relevant Sub- Plans and noted Compliance with the requirements of this condition.	Compliance





No.	Consent Condition	Evaluation	Finding
3.10 (a)	Pipelines are designed, constructed and operated in accordance with the Australian Standard for the Installation and Maintenance of Plastic Pipe Systems for Gas AS 3723-1989 (or its latest version).	The current Petroleum Operations Plan (POP) specifies the requirements for design, construction and operation of the gas gathering line. Section 2.3.2 of the POP states that the gas gathering line will be designed, constructed and operated in accordance with the requirements of Australian Standard AS 4645.3:2008 Gas Distribution Networks Part 3: Plastics pipe systems.	Compliance
		AS 4645.3: 2008 has superseded AS 3723-1989, which is referenced in PA06_0291 Schedule 3 Condition 10(a). This is confirmed via the AS website: http://infostore.saiglobal.com/store/Details.aspx?productID=1089795	
		A photo showing the installation of the gas gathering line within the Australian Botanic Garden Mount Annan was sighted by the auditor.	
3.10 (b)	The route of gas gathering and water transport systems and access roads follow previously or currently disturbed areas wherever possible.	The route of the gas gathering line from MP03 to MP05 followed an existing access track.	Compliance
3.10 (c)	Trenches are not left open overnight, unless adequately covered.	AGL advised that trenches were not left open overnight.	Compliance
3.10 (d)	Works within 20 metres of watercourses are only undertaken during dry weather conditions.	The works were not undertaken within 20 metres of a water course.	Compliance
3.10 (e)	Construction activities do not impede lateral water flows.	The works did not impeded lateral water flows.	Compliance
3.10 (f)	No crown or camber remains along any gas gathering system line, following rehabilitation.	The route of the gas gathering line was rehabilitated back to its original condition.	Compliance
3.10 (g)	Signs are erected at intervals along all gas gathering system lines indicating the presence of a buried gas pipeline.	The auditor sighted signs along the route of the gas gathering line indicating the presence of a	Compliance





No.	Consent Condition	Evaluation	Finding
		buried gas pipeline.	
3.10 (h)	Impacts to riparian vegetation and endangered ecological communities are minimised.	The auditor inspected the alignment of the gas gathering line which indicated minimal impacts to riparian vegetation and ecological communities.	Compliance
3.10 (i)	Impacts to the Cumberland Land Snail (Meridolum corneovirens) are negligible.	This condition was part of a modification that was issued for the gas gathering line between MP06 to MP11 and MP11 to MP23 as per the inclusion of Condition 2 (e). This MP06 to MP11 and MP11 to MP23 gas gathering line was not constructed during the audit period, and so the condition is not applicable for the scope of the audit.	Not Triggered
3.11	Should the future urban development of the Spring Farm and Menangle Park urban release areas identity the need to relocate any gas gathering lines the subject of this approval, that infrastructure shall be relocated by, and at the cost of the Proponent to the satisfaction of the Director-General, following consultation with the relevant council and/or landowner. The requirement to relocate at the cost of the Proponent shall be limited to one occasion.	Condition was not activated during the audit period.	Not Triggered
	FLOOD MANAGEMENT		
3.12	The Proponent shall prepare and implement a Flood Management Plan for well surface location within the 1 in 100 year flood level, to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to the	The auditor sighted the Emergency Response Plan (2 June 2014) and noted the inclusion of controls to minimise and mitigate flooding impacts.	Compliance
	commissioning of the wells and shall include measure to minimise and mitigate flooding impacts associated to one occasion.	The 2010-2012 Independent Environmental Audit reported that correspondence was sighted from AGL to the DoPI (10 September 2008 and 1 October 2008) verifying submission of the EMS (including the	





No.	Consent Condition	Evaluation	Finding
		Emergency Response Plan) prior to commencement of operations.	
	WASTE MANAGEMENT		
3.13	The Proponent shall ensure that any waste or wastewater (including drill pits and drill/formation waters) is assessed and classified in accordance with the OEH's Environmental Guidelines: Assessment Classification and Management of Liquid and Non Liquid Wastes, and disposed of at a licensed waste disposal facility or as otherwise agreed with the OEH.	The auditor sighted the EMP for the CGP, including the Soil and Water Management Sub-Plan (May 2015) and the Waste Management Sub-Plan (May 2015) which address the requirements of this condition.	Compliance
		The Auditor sighted records of removal of grey water, septic water and produced water by EPA licensed liquid waste contractors.	
	HAZARD AND RISK		
	Safety and Risk Management		
3.14	The Proponent shall prepare and implement an Emergency Plan for the project to the satisfaction of the Director-General. The plan shall be submitted to the Director; General prior to commissioning of the project and shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory paper No. 1 Industry Emergency Planning Guidelines.	The auditor sighted the Emergency Response Plan (2 June 2014) and noted Compliance with the requirements of this condition.	Compliance
3.15	The Proponent shall prepare and implement a Safety Management System (SMS) for the project, to the satisfaction of the Director-General. The SMS shall be submitted to the Director- General prior to commissioning of the project and shall be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9 - Safety Management. The SMS shall:	Condition closed in a previous audit.	Not Triggered
3.15 (a)	Cover all operations on the wells and gas gathering system	The Plan states that it applies to the whole of the	Compliance





No.	Consent Condition	Evaluation	Finding
		Camden Gas Project.	
3.15 (b)	Clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures;	The Plan addresses the requirements of this condition.	Compliance
3.15 (c)	Include a summary of records to demonstrate that management of change procedures were followed for the connection of new gas lines to the existing network and for the integration of new wells into the automatic control system; and	Records of management of change are retained by AGL in relation to the MP03 gas gathering line works comprised commissioning and decommissioning procedures, a Site Specific Risk Assessment for SCA underbore works and a HSE Hazard Identification for the SCA underbore works.	Compliance
3.15 (d)	Confirm that the design and operation of all wellheads comply with the Department's Locational Guidelines; Development in the Vicinity of Operating Coal Seam Methane Wells (May 2004) or the Quantitative Risk Assessment carried out by Planager Pty Ltd (dated 19 September 2007) and that all safety related systems required by the guidelines or QRA have been included.	Closed in a previous audit. The auditor notes that the Safety Management Plan for operation of the Camden Gas Project was updated in 2015 (A_GN_HSE_MP_007-Camden Safety Management Plan, Version 8, dated 30 March 2015 addresses).	Not triggered.
	Compliance Report		
3.16	Within 3 months of commissioning of the project, the Proponent shall prepare a compliance report to the satisfaction of the Director-General. The report shall be prepared by a suitably qualified, experienced, and independent expert whose appointment has been endorsed by the Director-General and shall include:	A non-Compliance was reported against this condition in the 2008-2010 Independent Environmental Audit (24 August 2011) due to failure to prepare and submit a compliance report within three months of commencement of operation of the development. The Compliance Report was commissioned in	Compliance
		2012 following DoPI approval on 17 August 2012 of an independent expert. The Compliance Report was prepared by 6 January 2014, amended on 3 June 2014 and	





No.	Consent Condition	Evaluation	Finding
		submitted to the Director-General on 6 June 2014.	
3.16 (a)	Dates of commencement of construction and commissioning.	Construction of wells is noted as having occurred in February 2007 and being commissioned in May 2007.	Compliance
3.16 (b)	Actions taken (or proposed to be taken) to implement conditions 10 and 11.	The Compliance Report states that the Emergency Plan and the Safety Management System have been implemented for the Camden Gas Project.	Compliance
3.16 (c)	A signed statement that: the Emergency Plan required under condition 14 is effectively in place and that at least one emergency exercise has been conducted;	This requirement is addressed in Table 1 of the Compliance Report.	Compliance
	the SMS required under condition 15 has been fully implemented and that records		
	required by the system are being kept;		
	the Emergency Plan and SMS have been prepared in accordance with the relevant Hazardous Industry Planning Advisory Paper;		
	 all recommendations of the QRA, Emergency Plan and SMS have been implemented and are being maintained; and 		
	 all safety management systems and their associated risk controls have been implemented and are being maintained. 		
	LANDSCAPE AND REHABILITATION		
3.17	The Proponent shall progressively rehabilitate the site to the satisfaction of the Director-General, in a manner that is	The auditor sighted a number of well sites that were being progressively rehabilitated,	Compliance

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No.	Consent Condition	Evaluation	Finding
	generally consistent with the landform of the surrounding land.	including SF01/SF02/SF03 and SF05/SF07/SF08/SF09. Rehabilitation works were deemed to be effective and consistent with the surrounding landform.	
3.18	The Proponent shall prepare and implement a Landscape and Rehabilitation Management Plan for each well surface location, to the satisfaction of the Director-General. This Plan must:	No new well surface locations were constructed during the audit period and therefore no Landscape and Rehabilitation	Compliance
3.18 (a)	Be prepared in consultation with the landowner by suitably qualified experts.	Management Plans for well surface locations were required to be prepared during the audit period. The 2010-2012 Independent Environmental Audit report noted compliance with this condition. Rehabilitation is undertaken in accordance with the Rehabilitation and Landscape Management Sub-Plan (April 2015). Ongoing rehabilitation was undertaken during the audit period at surface well locations SF01/SF02/SF03, SF05/SF07/SF08/SF09 and MP11/MP22. The Camden Gas Project Landscape and Rehabilitation Management Plan Compliance	Compliance
3.18 (b)	Be submitted to the Director-General for approval prior to commissioning.		Compliance
3.18 (c)	Describe in detail the short, medium and long term measures that would be implemented to: rehabilitate the site implement planting of native vegetation; manage the remnant vegetation and habitat on the site; and landscape the site to mitigate visual impacts of the project.		Compliance
3.18 (d)	Include a description of what measures would be implemented to rehabilitate the site.	Audit reports progress with rehabilitation of the well sites.	Compliance
3.18 (e)	Provide details on who is responsible for monitoring, reviewing and implementing the plan.	Inspection of the sites by the auditor confirmed implementation of the rehabilitation works. Rehabilitation works were deemed to be effective and consistent with the surrounding landform.	Compliance
3.19	The Proponent shall consult with the landowner in the selection of fencing and other material to be used for landscaping, to the satisfaction of the Director-General.	AGL consults with the landowner in relation to landscaping materials via Access and Compensation Agreements with land owners.	Compliance – Improvement Recommended





No.	Consent Condition	Evaluation	Finding
		The Agreements include a Site Layout Plan and a commitment by AGL to rehabilitate the works areas at the completion of works in accordance with the planning approval. Under the planning approval AGL has prepared and implemented a Rehabilitation and Landscape Management Sub-Plan (April 2015). The auditor sighted by the Sub-Plan and noted the inclusion of this condition.	
		However, the documentation does not specifically indicate that AGL will consult with the landowner in the selection of fencing and other material to be used for landscaping. While AGL consults with land owners regarding proposed works, it is recommended that specific consultation and agreement regarding landscaping materials be documented. AGL has not received any landowner complaints regarding fencing or other landscaping materials.	
	ABORIGINAL HERITAGE		
3.20	The Proponent shall prepare and implement an Aboriginal Heritage Management Plan for the project, in consultation with the DEC and relevant Aboriginal communities, and to the satisfaction of the Director-General. The plan shall be submitted to the Director-General prior to commencing construction (or as otherwise agreed by the Director-General) and shall include:	The auditor sighted the Camden Gas Project Aboriginal Cultural Heritage Management Plan (updated December 2013). The Plan includes documented consultation with the Tharawal Local Aboriginal Land Council and the Cubbitch Barta Native Title Claimants	Compliance
3.20 (a)	A description of the measures that would be implemented for the mapping, and salvage or relocation of the archaeological relics.	Aboriginal Corporation. The Plan states that it was prepared in consultation with the then	Compliance
3.20 (b)	A description of the measures that would be implemented if any	Department of Environment and Climate	Compliance





No.	Consent Condition	Evaluation	Finding
3.20 (c)	new Aboriginal objects are discovered during the project. A protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.	Change and Water (DECCW). An earlier version of the Plan was submitted to the Director-General on 9 January 2007. Appendix 3 of the Sub-Plan includes recommended actions for specific sites resulting from a survey of Aboriginal heritage by specialist heritage consultants (Biosis Pty Ltd). The alignment of the gas gathering line from MP03 to MP05 was identified as "no issues or recommendations".	Compliance
	HERITAGE		
3.21	The Proponent shall ensure that the location of wells or other infrastructure avoid or minimise any impacts on the heritage significance of any state heritage register listed items in the project area.	The Upper Canal in the Menangle Park area is listed on the State Heritage Register, with reference to the Stage 2 Concept Area Environmental Assessment, Volume 1, September 2007, by HLA Enviro-Sciences Pty Ltd. To avoid impacts during installation of the gas gathering line, underboring methods were used.	Compliance
	TRAFFIC AND TRANSPORT		
3.22	The Proponent shall prepare and implement a Construction Traffic Management Plan for the project, in consultation with the RTA, Camden Council and Campbelltown City Council, and to the satisfaction of the Director-General. The Plan shall be submitted to the Director-General prior to construction commencing (or as otherwise agreed by the Director-General) and shall include:	The auditor sighted the Traffic Management Sub-Plan (April 2015) and noted that the Plan conforms to the requirements of this condition. The 2010-2012 Independent Environmental Audit Report referenced correspondence from	Compliance





No.	Consent Condition	Evaluation	Finding
3.22 (a)	A description of the measures that would be implemented to: maintain access; minimise the potential noise and safety impacts associated with the construction of the gas gathering lines and construction traffic; and keep the community informed of any traffic disruptions that would be cause by the project.	AGL to the DoPI (10 September 2008 and 1 October 2008) verifying submission of the EMS (including the Traffic Management Sub-Plan) prior to commencement of operations. Correspondence was also sighted from AGL to the RTA (1 October 2008) to demonstrate consultation prior to commencement of works.	Compliance
3.22 (b)	Traffic control plans where appropriate.		Compliance
3.23	Prior to under-boring the South Western (F5) Freeway or Menangle Road, the Proponent shall consult with the RTA to obtain its requirements for construction, and shall ensure that under-boring of the Freeway, Menangle Road, is conducted to the satisfaction of the RTA.	Condition closed in a previous audit.	Not Triggered
3.23A	Prior to under-boring the Main Southern Railway Line, the Proponent shall submit detailed design plans to the ARTC for review, and obtain its requirements for construction. The Proponent shall ensure that under-boring of the Railway Line is conducted to the satisfaction of the ARTC.	Condition closed in a previous audit.	Not Triggered
3.23B	The Proponent shall ensure that the design, location and construction of any road under-boring in the vicinity of the Jim Affleck Bridge and under-boring of the proposed link road between Menangle Road and the F5 must be undertaken in consultation with, and to the satisfaction of the RTA.	Condition closed in a previous audit.	Not Triggered
3.23C	The Australian Botanic Garden, Mount Annan The Proponent shall ensure that the design, location and construction of any under-boring within the Australian Botanic Garden, Mount Annan, must be undertaken in consultation with, and to the satisfaction of, the Botanic Gardens Trust, and must	AGL entered into an Access Agreement with the Australian Botanic Garden, Mount Annan, for the underbore works.	Compliance





No.	Consent Condition	Evaluation	Finding
	take into consideration the Guidelines for developments adjoining land and water managed by the DECCW (DECCW, 2010)		
	ONGOING OPERATIONS		
	Community Notification		
3.24	The Proponent shall give written notification of planned maintenance activates (including well workover) to landowners, potentially affected residences and identified noise sensitive receivers at least 14 days prior to work commencing. The notification is to include:	The auditor sighted the Noise Management Sub- Plan (May 2015) and noted a requirement to notify affected receivers fourteen days prior to planned maintenance activities. Examples of notifications were provided by AGL.	Compliance
3.24(a)	Information explaining the maintenance procedures to be undertaken.		Compliance
3.24 (b)	An estimate of the length of works at each site.		Compliance
3.24 (c)	Contact details for a representative of the Proponent.		Compliance
3.24 (d)	Information regarding a 24 hour telephone contact number.		Compliance
	Redrilling and Re-fraccing		
3.25	The Proponent shall obtain the approval of the Director-General prior to undertaking work involving the redrilling and/or re-fraccing of wells approved under this approval.	It was reported that there was no redrilling or re- fraccing undertaken during the audit period.	Not Triggered
	Reporting		
3.26	The Proponent may satisfy conditions 4, 7, 9, 12, 15, 18, 20 and 22 in schedule 3 of this approval by demonstrating to the satisfaction of the Director-General that existing equivalent documentation has been appropriately updated to reflect the expansion of stage 2 of the Camden Gas Project.	Condition closed in a previous audit.	Not Triggered
	SCHEDULE 4 ENVIROMENTAL MANAGEMENT AND		





No.	Consent Condition	Evaluation	Finding
	MONITORING		
	ENVIRONMENTAL MANAGEMENT PLAN		
4.1	The Proponent shall prepare and implement an Environmental Management Plan (EMP) for the construction and operation of the project to the satisfaction of the Director-General. The EMP shall be submitted to the Director-General prior to the construction of the project and shall:	The auditor sighted the Environmental Management Plan (April 2015) and noted that the content conforms to the requirements of this condition.	Compliance
4.1(a)	Incorporate the various environmental management plans, monitoring programs and other requirements set out in schedule 3 of this approval.		Compliance
4.1(b)	Identify statutory and other obligations that the Proponent is required to fulfil during the construction and operation of the project.		Compliance
4.1(c)	Describe the environmental policies and principles to be applied to the project.		Compliance
4.1(d)	Describe in general how the environmental performance of the project would be monitored and managed.		Compliance
4.1(e)	Describe the procedure that would be implemented to: keep the local community and relevant agencies informed about the environmental		Compliance
	performance of the project;		
	receive, handle and respond to, and record complaints		
	resolve disputes that may arise during the course of the project;		
	respond to any non-Compliance;		
	manage cumulative impacts; and		
	respond to emergencies (including bushfires).		





No.	Consent Condition	Evaluation	Finding
4.1(f)	Describe the role, responsibility, authority and accountability of all the key personnel involved in the environmental management of the project.		Compliance
	INCIDENT REPORTING		
4.2	Within 7 days of detecting an exceedance of the goals/limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment; the Proponent shall report the exceedance/incident to the Department (and any relevant agency). The report shall:	There was one environmental incident during the audit period which potentially triggered this condition. The incident related to release of gas from a process safety valve on SF05 on 31 August 2014,	Compliance
4.2(a)	Describe the date, time, and nature of the exceedance/incident.	which the NSW EPA alleged was due to	Compliance
4.2(b)	Identify the cause (or likely cause) of the exceedance/incident.	failure to maintain plant and equipment in a proper and efficient manner, which would	Compliance
4.2(c)	Describe what action has been taken to date.	represent a failure to comply with Condition	Compliance
4.2(d)	Describe the proposed measures to address the exceedance/incident.	2.15(a) of this Project Approval. Nonetheless AGL reported the incident to the NSW Department of Planning and Environment within seven days of the incident as required by this condition.	Compliance
	ANNUAL REPORTING		
4.3	Within 12 months of the date of this approval, and annually thereafter during the life of the project, the Proponent shall prepare an Annual Environmental Performance Report (AEPR) for the project to the satisfaction of the Director-General. The AEPR shall:	The auditor sighted the Annual Environmental Performance Reports for 2012-2013, 2013-2014 and 2014-2015 and noted Compliance with the requirements of this condition.	Compliance
4.3(a)	Identify the standards, performance measures and statutory requirements that apply to the project.		Compliance
4.3(b)	Assess the environmental performance of the project to determine whether it is complying with these standards, performance measures, and statutory requirements.		Compliance





No.	Consent Condition	Evaluation	Finding
4.3(c)	Identify any non-compliance during the year with the conditions of this approval or any standard, performance measure or statutory requirement that applies to the project.		Compliance
4.3(d)	Describe, if any non-compliance is identified, the actions and measures carried out or being carried out to ensure compliance, clearly indicating who would carry out these actions and measures, when they would be carried out, and how the effectiveness of these measures would be monitored over time.		Compliance
4.3(e)	Include a copy of complaints for the year and a description of actions taken or being taken to address registered complaints.		Compliance
4.3(f)	Include a discussion of issues or recommendations raised by the Camden Gas Project's Community Consultative Committee and a description of actions taken or being taken to address these issues or recommendations.		Compliance
4.3(g)	Include a detailed summary of results of all monitoring required by this approval and a discussion of any significant results, trends or exceptions in these results, Note: The Proponent may include this report in the Annual Environmental Performance Report required under Schedule 5 condition 5 of development consent DA-282-6-2003-i, dated 16 June 2004. The due date for a combined report shall be the earlier of the due dates for the separate reports.		Compliance
4.4	The Proponent shall submit a copy of the AEPR to the OER, OEH and Council.	The 2012-2013 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 22 October 2013.	Compliance
		The 2013-2014 AEPR was submitted to the Department of Planning & Environment, the NSW EPA, Camden, Campbelltown and Wollondilly Councils on 16 December 2014.	
		The 2014-2015 AEPR has been finalised but	





No.	Consent Condition	Evaluation	Finding
		not yet issued to the external parties.	
	INDEPENDENT ENVIRONMENTAL AUDIT		
4.5	Within 2 years of the date of this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full costs of an Independent Environmental Audit. The Independent Environmental Audit shall:	The scope and conduct of this 2012-2015 Independent Environmental Audit satisfies this condition.	Compliance
4.5(a)	Be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General.		Compliance
4.5(b)	Be consistent with ISO 19011:2002; Guidelines for Quality and/or Environmental Management Systems Auditing, or updated versions of these guidelines/manuals.		Compliance
4.5(c)	Assess the environmental performance of the project, and its effects on the surrounding environment.		Compliance
4.5(d)	Include a hazard audit of the project in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, Hazard Audit Guidelines.	The auditor sighted the 'Hazard Audit Report for Sydney Gas Operations, (3 March 2006) and a report of the 2013 audit (Hazard Audit, AGL Rosalind Park Gas Plant, Medhurst Road, Menangle Park, AECOM, 24 October 2013 which includes the approval for the Razorback gas wells for the period 2006 to June 2013). The audit for the current period is in the planning stages.	Not Triggered
4.5(e)	Assess whether the project is complying with the relevant standards, performance measures and statutory requirements.	The scope and conduct of this 2012-2015 Independent Environmental Audit satisfies this	Compliance
4.5(f)	Review the adequacy of the OEMP.	condition.	Compliance
4.5(g)	Recommend measures or actions to improve the environmental performance of the project, and/or its environmental management		Compliance





No.	Consent Condition	Evaluation	Finding
	and monitoring systems.		
4.6	Within 3 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General, OER and OEH, with a response to any of the recommendations contained in the audit report.	The auditor sighted correspondence confirming that the 2010-2012 Independent Environmental Audit was finalised on 27 August 2013 and submitted to the Director-General of the NSW Department of Planning and Infrastructure on 9 September 2013, i.e. to the relevant authorities within three months of completion.	Compliance
4.7	Following each Independent Environmental Audit, the Proponent shall review and if necessary revise the EMP (and any documents contained in the plan), to the satisfaction of the Director-General. The revised EMP shall be submitted to the Director-General within 6 months of completing the audit.	The Environmental Management Plan for the Camden Gas Project was updated in February 2014, and submitted to the Department of Planning & Infrastructure on 14 March 2014, i.e. slightly beyond 6 months of completion of the 2010-2012 audit.	Non-Compliance Level 2
	COMMUNITY CONSULTATIVE COMMITTEE		
4.8	The Proponent shall ensure that the construction and operation of the project is subject to the consideration of the Camden Gas Project Community Consultative Committee, as established under Schedule 5 condition 17 of development consent DA No. 282;6;2003;I, dated 16 June 2004.	The auditor sighted relevant documentation including meeting minutes (e.g. 7 May 2014, 30 July 2014 and 24 September 2014) and verified Compliance with the requirements of this condition.	Compliance
	ACCESS TO INFORMATION		
4.9	Within 1 month of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMR required under this approval, the Proponent shall:	The auditor sighted the AGL website and correspondence with third parties and verified Compliance with the requirements of this condition.	Compliance





No.	Consent Condition	Evaluation	Finding
4.9(a)	Provide a copy of the relevant document(s) to the relevant agencies and the CCC.	The auditor sighted examples of documents provided to agencies and the CCC.	Compliance
4.9(b)	Ensure that a copy of the relevant document(s) is made publicly available on its website.	The auditor sighted the AGL website and verified Compliance with the requirements of this condition	Compliance
4.10	During the project, the Proponent shall:		
4.10 (a)	Make a summary of all environmental monitoring results required under this approval publicly available on the website.	Environmental monitoring results required under this approval (for noise monitoring) are available on the AGL website.	Compliance
4.10 (b)	Update these results on a regular basis (at least every 6 months) or as required.	Noise monitoring results are updated as required, noting that there is no defined required frequency for the noise monitoring.	Compliance
	Reporting		
4.11	The Proponent may satisfy conditions 1, 3 and 5 in schedule 4 of this approval by demonstrating to the satisfaction of the Director-General that existing equivalent documentation has been appropriately updated to reflect the expansion of Stage 2 of the Camden Gas Project.	Noted. Refer to specific conditions for compliance status.	

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