



29 December 2017

WM Project Number: 06159-B  
Our Ref: 06159-B\_Ltr summary noise results 291217RH  
Email: aclifton@agl.com.au

Aaron Clifton  
AGL Upstream Investments Pty Ltd  
Lot 35 Medhurst Road  
MENANGLE NSW 2568

Dear Aaron

**Re: Rosalind Park Gas Plant - 2017 Annual Noise Compliance Monitoring Report**

## **INTRODUCTION**

Noise monitoring of the AGL Upstream Investments Pty Ltd Rosalind Park Gas Plant (RPGP) was carried out by Wilkinson Murray (WMPL) in order to assess compliance with the relevant noise limits set by the NSW Environment Protection Authority (EPA) Environment Protection Licence conditions (Licence No. 12003) and the Department of Planning and Environment's Conditions of Consent (DA No. 282-6-2003-i).

Noise monitoring was undertaken in accordance with the *NSW Industrial Noise Policy*.

This Annual Noise Compliance Monitoring Report is based on quarterly noise monitoring conducted by WMPL on Monday, 27 March 2017, Wednesday, 14 June 2017, Monday, 11 September 2017, Monday, 11 December and Friday, 15 December 2017. The report has been prepared to satisfy the EPA's Licence Condition R1.9 (Licence No. 12003).

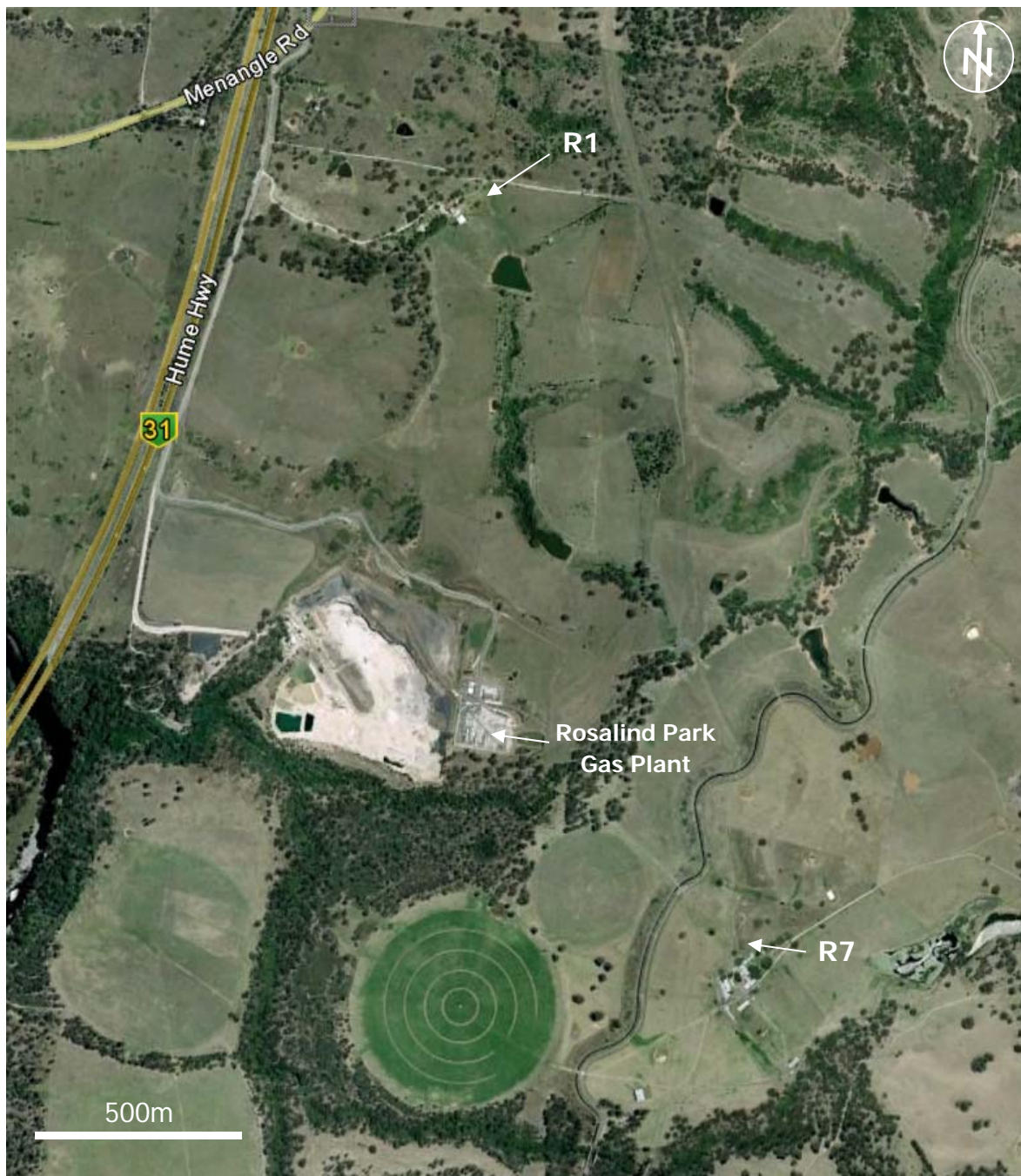
## **SITE / PROJECT DESCRIPTION**

Two receiver locations were identified in the Rosalind Park Gas Plant Environmental Impact Statement (EIS) as follows:

- R1: Medhurst Road, Gilead (approx. 0.9km north of RPGP)
- R7: Mount Gilead, Gilead (approx. 1.1km southeast of RPGP)

The approximate monitoring locations are shown in Figure 1.

Figure 1 Noise Monitoring Locations



**NOISE LIMITS**

The noise limits identified in the EPA's Licence Condition L5.1 (Licence No. 12003) apply to daytime, evening and night time periods and are expressed as  $L_{Aeq,15min}$  noise levels. The noise limits are summarised in Table 1.

**Table 1 Noise Limits (EPA Licence No. 12003)**

Location	Daytime	Evening	Night Time
	(7am-6pm Mon-Sat, 8am-6pm Sun)	(6pm -10pm)	(10pm-7am Mon-Sat, 10pm-8am Sun)
	L <sub>Aeq,15min</sub> (dBA)	L <sub>Aeq,15min</sub> (dBA)	L <sub>Aeq,15min</sub> (dBA)
R1 Medhurst	35	35	35
R7 Mt Gilead	37	36	36

## MONITORING PROCEDURE

Noise monitoring was conducted at both identified receivers for the three time periods defined in Table 1 in order to assess compliance for the day, evening and night time periods. The measurements were conducted in suitable meteorological conditions (low wind speeds and no rain). The percentage of cloud cover during each site visit is summarised in Table 2.

This Annual Noise Compliance Monitoring Report is based on quarterly noise monitoring conducted by WMPL on Monday, 27 March 2017, Wednesday, 14 June 2017, Monday, 11 September 2017, Monday, 11 December and Friday, 15 December 2017. The report has been prepared to satisfy the EPA's Licence Condition R1.9 (Licence No. 12003).

**Table 2 – Summary of Cloud Cover during 2017 Noise Monitoring**

Quarterly Monitoring	Assessment Period	% Cloud Cover
27 March	Day	0%
	Evening	0%
	Night	15%
14 June	Day	0%
	Evening	0%
	Night	0%
11 September	Evening	5%
	Night	5%
	Evening	5%
11 December	Evening	5%
	Night	0%
15 December	Day	100%

All measurements were carried out during typical operating conditions with one (1) or two (2) compressor units operating at the RPGP site. Two (2) compressor units were operating simultaneously during the March, June and September measurements. During the December measurements one (1) compressor was operating.

All attended noise measurements were conducted at a location representative of the most affected point within the 30m-perimeter surrounding the house for both identified noise sensitive receiver locations as listed in Table 1.

All measurements were made using a B&K Type 2236 Sound Level Meter. Wind speed and direction was established using hand-held digital anemometer Digitech QM1642.

## MONITORING RESULTS

Table 3 summarises the 2017 noise results expressed as  $L_{Aeq,15min}$  noise levels.

The plant was generally found to be inaudible or only barely audible. When the plant was barely audible, the measurement data was used to estimate the noise contribution from the plant.

**Table 3 – Summary of 2017 Noise Monitoring**

Quarterly Monitoring	Assessment Period	R1 Medhurst			R7 Mt Gilead		
		Measurement Period	Measured $L_{Aeq,15min}$ due to RPGP (dBA)	$L_{Aeq,15min}$ Criterion (dBA)	Measurement Period	Measured $L_{Aeq,15min}$ due to RPGP (dBA)	$L_{Aeq,15min}$ Criterion (dBA)
27 March	Day	5.31pm – 5.46pm	Inaudible	35	4.40pm – 4.55pm	32	37
	Evening	8.56pm – 9.11pm	Inaudible	35	7.59pm – 8.14pm	32	36
	Night	11.05pm – 11.20pm	Inaudible	35	10.15pm – 10.30pm	36	36
14 June	Day	5.44pm – 5.59pm	Inaudible	35	5.02pm – 5.17pm	35	37
	Evening	9.16pm – 9.31pm	Inaudible	35	8.30pm – 8.45pm	36	36
	Night	11.00pm – 11.15pm	Inaudible	35	10.14pm – 10.29pm	35	36
11 September	Day	5.03pm – 5.18pm	Inaudible	35	5.44pm – 5.59pm	36	37
	Evening	8.35pm – 8.50pm	Inaudible	35	9.29pm – 9.44pm	36	36
	Night	10.15pm – 10.30pm	Inaudible	35	11.01pm – 11.16pm	35	36
11 December	Evening	8.39pm – 8.54pm	Inaudible	35	8.03pm – 8.18pm	30	36
	Night	10.50pm – 11.05pm	Inaudible	35	10.00pm – 10.15pm	31	36

Quarterly Monitoring	Assessment Period	R1 Medhurst			R7 Mt Gilead		
		Measurement Period	Measured $L_{Aeq,15min}$ due to RPGP (dBA)	$L_{Aeq,15min}$ Criterion (dBA)	Measurement Period	Measured $L_{Aeq,15min}$ due to RPGP (dBA)	$L_{Aeq,15min}$ Criterion (dBA)
15 December	Day	11.20am – 11.35am	Inaudible	35	11.55am – 12.10pm	33	37

It should be noted that noise emission limits identified in EPL 12003 apply under all meteorological conditions except:

- a) during rain and wind speeds (at 10m height) greater than 3m/s; and
- b) under "non-significant weather conditions".

Gilead is considered a non-arid area (annual average rainfall greater than 500mm) according to the *I/NP* and as such, strong temperature inversions (G-class Pasquill-Gillford stability category) are considered to be a "non-significant weather condition". Therefore, the noise limits set out in Table 1 do not strictly apply to strong temperature inversions (G-class Pasquill-Gilford stability category).

Local meteorological data sourced from the Campbelltown (Mount Annan) Bureau of Meteorology (BoM) weather station indicated that during some of the evening and night time monitoring, high strength (G-Class) temperature inversions were present. Notwithstanding, noise generated by the site under those conditions complied with the relevant noise limits at both monitoring locations.

## CONCLUSION

The results of the noise monitoring of the Rosalind Park Gas Plant conducted in 2017 in accordance with the *NSW Industrial Noise Policy* show compliance with the relevant operational noise limits set by the NSW EPA's Environment Protection Licence conditions (Licence No. 12003) and the Department of Planning and Environment's Conditions of Consent (DA No. 282-6-2003-i) at both receiver locations for day, evening and night time with typical operating conditions.

I trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully

**WILKINSON MURRAY**



**Roman Haverkamp**  
Senior Engineer

**Note**

All materials specified by Wilkinson Murray Pty Limited have been selected solely on the basis of acoustic performance. Any other properties of these materials, such as fire rating, chemical properties etc. should be checked with the suppliers or other specialised bodies for fitness for a given purpose. The information contained in this document produced by Wilkinson Murray is solely for the use of the client identified on the front page of this report. Our client becomes the owner of this document upon full payment of our **Tax Invoice** for its provision. This document must not be used for any purposes other than those of the document's owner. Wilkinson Murray undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.

**Quality Assurance**

We are committed to and have implemented AS/NZS ISO 9001:2008 "Quality Management Systems – Requirements". This management system has been externally certified and Licence No. QEC 13457 has been issued.

**AAAC**

This firm is a member firm of the Association of Australian Acoustical Consultants and the work here reported has been carried out in accordance with the terms of that membership.