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Email: DMudd@agl.com.au

David Mudd
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Lot 35 Medhurst Road
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Dear David

Re: Rosalind Park Gas Plant - 2019 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*.

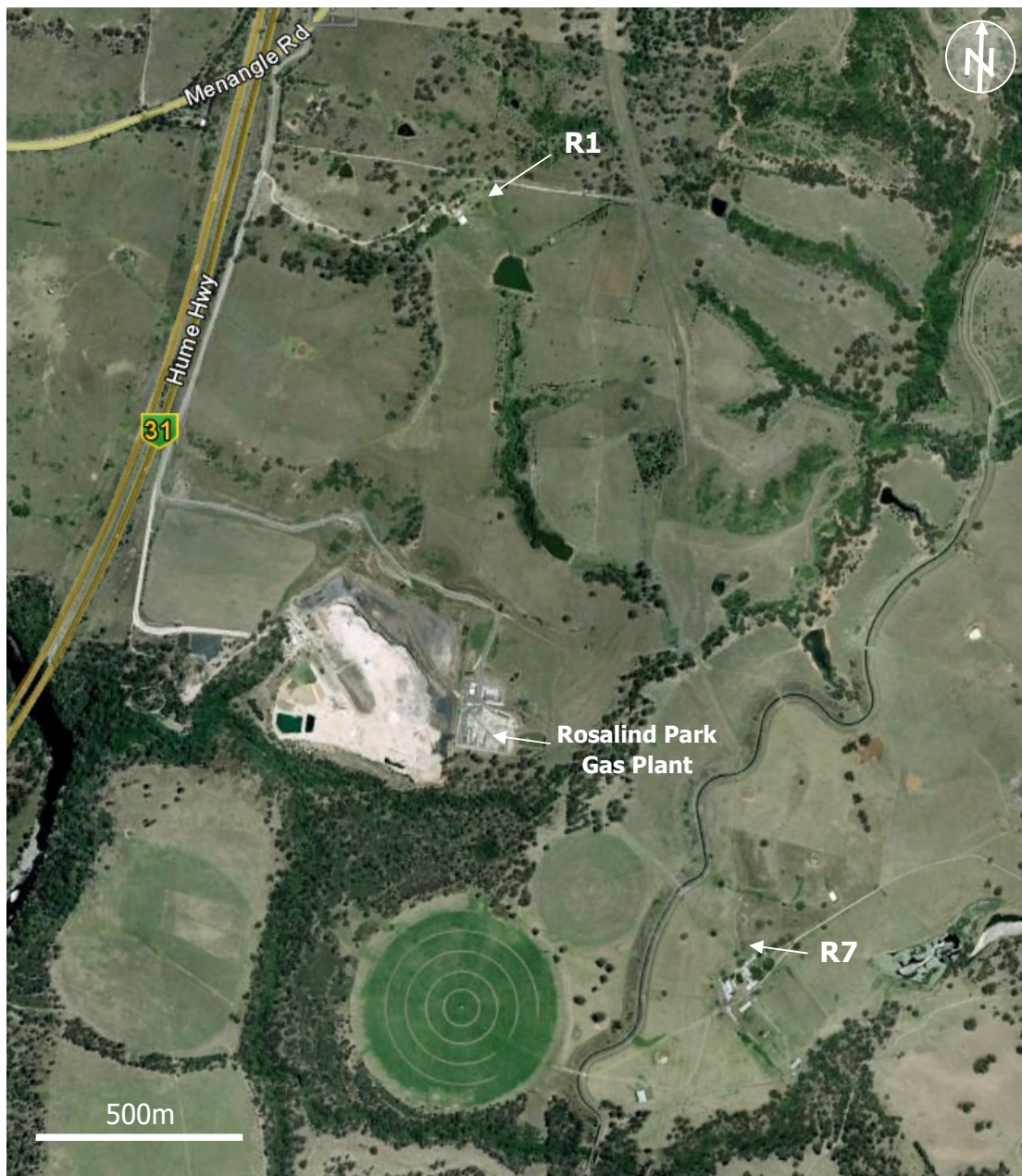
This Annual Noise Compliance Monitoring Report is based on quarterly noise monitoring conducted by WMPL on Monday 4 March 2019, Friday 31 May 2019, Friday 18 October 2019, Friday 6 December 2019, and Monday 9 December 2019. The report has been prepared to satisfy the EPA's Licence Condition R1.9 (Licence 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) L _{Aeq,15min} (dBA)	(6pm -10pm) L _{Aeq,15min} (dBA)	(10pm-7am Mon-Sat, 10pm-8am Sun) L _{Aeq,15min} (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.

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Table 2 – Summary of Cloud Cover during 2019 Noise Monitoring

Quarterly Monitoring	Assessment Period	% Cloud Cover
4 March	Day	50%
	Evening	50%
	Night	0%
31 May	Day	100%
	Evening	90%
	Night	90%
18 October	Day	0%
	Evening	0%
	Night	0%
6 December	Day	100%
9 December	Evening	0%
	Night	0%

All measurements were carried out during typical operating conditions with one (1) compressor unit operating at the RPGP site.

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 a hand-held digital anemometer Smart Sensor AR816.

MONITORING RESULTS

Table 3 summarises the 2019 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 2019 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)
4 March	Day	5.07pm – 5.22pm	Inaudible	35	4.25pm – 4.40pm	Inaudible	37
	Evening	9.04pm – 9.17pm	Inaudible	35	8.15pm – 8.30pm	32	36
	Night	10.47pm – 11.02pm	Inaudible	35	10.04pm – 10.19pm	33	36
31 May	Day	5.42pm – 5.57pm	Inaudible	35	4.44pm – 4.59pm	34	37
	Evening	8.22pm – 8.37pm	Inaudible	35	7.36pm – 7.51pm	34	36
	Night	10.44pm – 10.59pm	Inaudible	35	10.00pm – 10.15pm	31	36
18 October	Day	5.39pm – 5.54pm	Inaudible	35	4.40pm – 4.55pm	32	37
	Evening	7.49pm – 8.04pm	Inaudible	35	7.00pm – 7.15pm	32	36
	Night	10.49pm – 11.04pm	Inaudible	35	10.09pm – 10.24pm	31	36
6 December	Day	10.57am – 11.12am	Inaudible	35	11.43am – 11.58am	Inaudible	37
9 December	Evening	9.15pm – 9.30pm	Inaudible	35	8.29pm – 8.44pm	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)
			L _{Aeq,15min} due to RPGP (dBA)				L _{Aeq,15min} due to RPGP (dBA)		
	Night	10.47pm – 11.02pm	Inaudible	35	10.01pm – 10.16pm	31	36		

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

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

Gilead is considered a non-arid area (annual average rainfall greater than 500mm) according to the *INP* 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 wind speeds at 10m height were no greater than 3m/s and high strength (G-Class) temperature inversions were not present during any of the monitoring.

CONCLUSION

The results of the noise monitoring of the Rosalind Park Gas Plant conducted in 2019 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

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