

Condition 5 - 2013/00334/FUL

Coastal Oil and Gas Limited

Unit 9
Bridgend Business Centre
Bridgend
CF31 3SH

Llandow 2 Exploration Borehole Information supplied for Condition 5 of Planning 2013/00334/FUL Mitigation of Noise Impacts December 2014

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Appendices

Description	Reference
Noise Impact Assessment	APPENDIX I

1. Introduction

Coastal Oil and Gas Limited have an approved planning application 2013/00334/FUL:-

- **To drill a single vertical exploration borehole at Unit 20, Sutton Spring Road, Llandow Trading Estate**

The purpose of this document is to provide a noise mitigation scheme for the nearest residential and commercial properties together with the bat roost to the west of the site.

1.1 Site Location

The site is located near Llandow Industrial Estate, South West of Cowbridge in the Llandow community council area of Vale of Glamorgan Borough Council. The national grid co-ordinates for the site are:-

Eastings 295230 Northings 171746



2. Nearest Noise Sensitive Properties

In the Noise Impact Assessment undertaken by Hunter Acoustics in April 2013 they identified a number of noise sensitive properties.

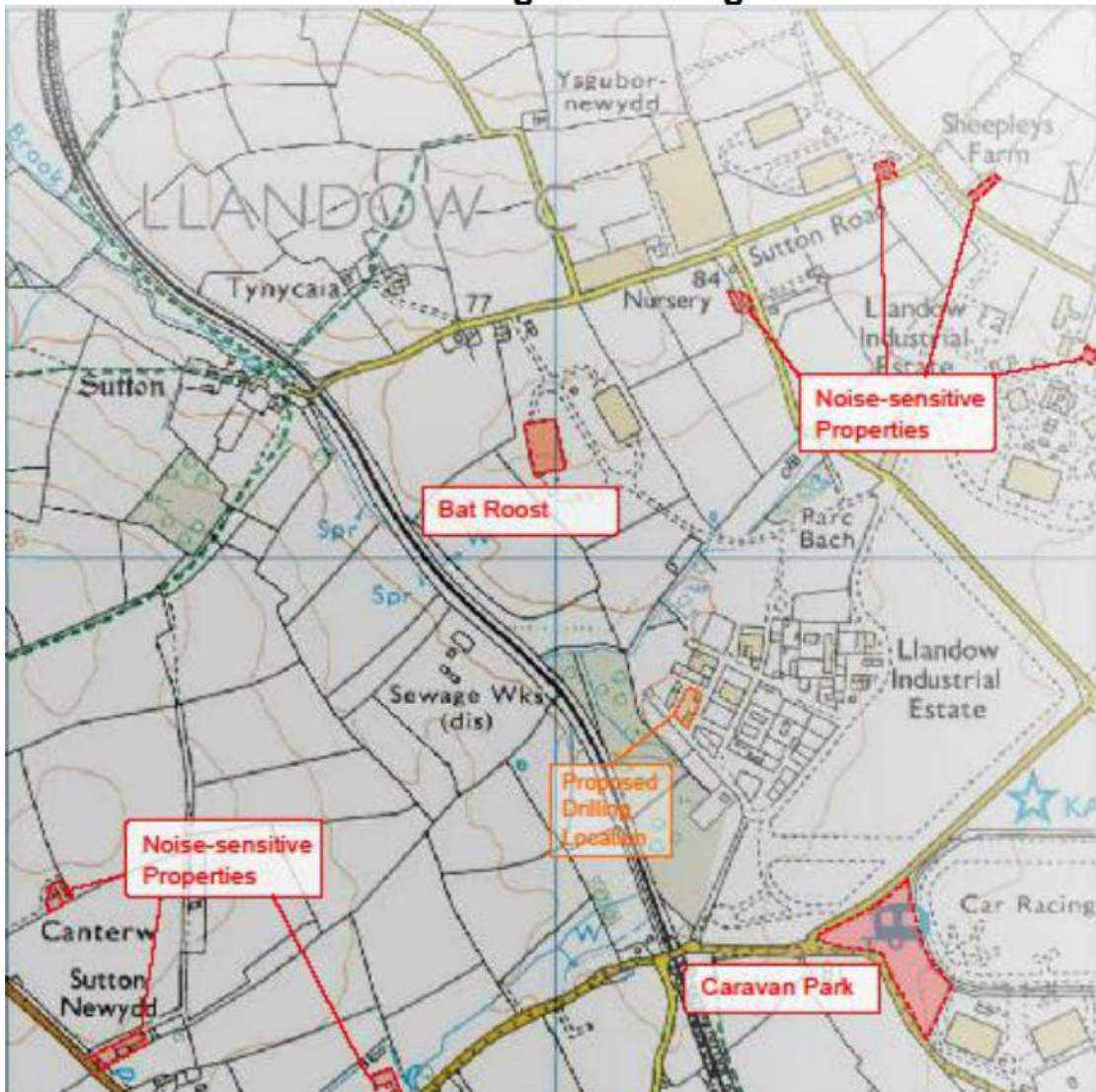


Figure 2: Location of Noise Sensitive properties

Locations of critical residential noise properties are shown in Figure 2.

The critical noise sensitive premises appear to be houses and farms located approximately,

- 375m south (Sutton Newydd)
- 750m north (house south of Sutton Rd)
- 800m – 1km west/south-west (Sutton Newydd)
- 900m north-east (Six Wells Cottage, Llandow Ind. Estate)

of the proposed drill site.

Further noise-sensitive locations have been identified as follows, located approximately:

- 475m south (caravan park)
- 525m north (Bat roost)

of the proposed drill site.

2.1 Predicted Noise Levels

Condition 4 of the planning consent states:-

- *The drill rig and all other items of plant and equipment to be used in the drilling operations hereby approved shall each have a typical noise level at 1 metre not exceeding 79 dB(A).*

Hunter Acoustics have used this noise level to predict using the CONCAWE model what the noise levels would be at residential NSPs and the caravan park:

- 375m south, the noise level of the drill rig at the residence is predicted to be approximately 35.6dB(A) LAeq.
- 475m south, the noise level of the drill rig at the caravan park is predicted to be approximately 32.8dB(A) LAeq.
- 750m north, the noise level of the drill rig at the residence is predicted to be approximately 27.2dB(A) LAeq.
- 800m west/south-west, the noise level of the drill rig at the residence is predicted to be approximately 26.4dB(A) LAeq.
- 900m north-east, the noise level of the drill rig at the residence is predicted to be approximately 24.9dB(A) LAeq.

Allowing for a 15dB loss through a partially open window should result in noise levels in bedrooms below the World Health Organisation (WHO) night-time sleep disturbance noise criteria of 30dB(A).

Noise levels from the drill rig at the bat roost are predicted to be approximately 32.0dB(A) LAeq.

Comparing 32dB(A) with the time varying noise climate at position 1 shown in time history graph 3123/TH1, noise levels from the drill rig are not indicated to be significant.

3. Noise Mitigation Scheme

The detailed noise impact assessment states that the noise from the drilling equipment will not have an impact on the local environment.

The site will also be protected by the use of a noise abatement barrier that will reduce the noise away from the site. Echo Barrier is noise absorbent matting that is attached to the site fencing. Rather than reflecting the noise back towards the noise source it adsorbs the noise making onsite and off site noise reductions. The Echo Barrier will also be placed around the larger noise generating plant to reduce the noise impacts.

If any site operative feels that the noise on site is near levels that are likely to exceed noise predicted levels then this will be highlighted to the team and drilling will either stopped, equipment repaired or additional noise protection measures will be brought to use.

The Echo Barrier noise absorbent matting will be inspected on a daily basis and any repairs will be undertaken immediately.

4. In the Event of a Noise Complaint

In the event of any noise complaints made directly to the site operators, the source of the noise will be investigated. Following an investigation, if substantiated, additional noise reduction measure will be brought into place or the source of the noise will be stopped until such time the noise levels are reduced. Any complaints via the Local Authority, if necessary, arrangements will be made to measure the noise levels at the source of the complaint and if required, appropriate action will be undertaken to reduce noise to acceptable levels.

5. Noise Management Plan

- There will be no unnecessary revving of engines
- All equipment will be switched off when not required.
- All plant and vehicles will be properly maintained, all faults to be repaired
- All silencers and bearings will be regularly checked.
- Any directional noise will be located to point the source away from noise-sensitive locations – e.g. exhausts and mudpuppy.
- The plant will be started up sequentially rather than together.
- All plant will be operated with noise control hoods closed.
- Echo Barrier will be placed around the site and around noisy equipment
- At night the telehandler will only be used for emergency work when required, a banksman will be used at night instead of the reversing beeper.