

SOCO UK ONSHORE LIMITED

**STORRINGTON OILFIELD DEVELOPMENT
NOISE MONITORING SCHEME**

Specification for Noise Monitoring to be undertaken by Soco UK Onshore Limited or its Appointed Representative, during the Development and Operation of the Oilfield

AT4T18/S1/BCP

Document referred to in
Decision Notice dated 8 Nov 2017

REV	DATE	DESCRIPTION
1	29/8/97	Issued for submission to Planning Authority
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FIGURE

Document referred to in
Decision Notice dated 8 Nov 2017

1. INTRODUCTION

- 1.1 To discharge the requirements of Condition 6 of the Certificate of Planning Permission to Application No. SR/68/96, this specification has been prepared for approval by the Mineral Planning Authority and gives a scheme for noise monitoring around the site of the Storrington Oilfield development. The purpose of the monitoring is to check compliance with the specified noise limits for the development, in the interests of the amenities of the locality.

2. RELEVANT PLANNING CONDITIONS

- 2.1 The relevant conditions which have a bearing on the amenities of the locality and on the residents in the locality with respect to noise are Conditions 6 to 11. Condition 6 relates to the noise monitoring scheme as described in this document; Condition 7 relates to the submission of details of the rig and equipment to be used for drilling and general requirements for noise control. Condition 8 defines the noise limits for the site:

"8 All equipment used at any stage of the development of the site or for the production of oil or gas or the generation of electricity shall at all times be silenced to a standard such that the maximum noise levels from the on-site operations measured at the facades of any residential property liable to receive increased noise levels due to the on-site operations do not exceed 45 dB LAeq 1hr during the periods in which well drilling operations are being carried out and 35 dB LAeq 1hr at all other times. The noise levels shall be measured in accordance with DoE Guidance MPG 11 (April 1993) and British Standard 7445. If so required by the Mineral Planning Authority tests shall be carried out by the operator in order to demonstrate that the equipment conforms to the above mentioned standards and, in the event that it does not, all use of that equipment shall cease until measures have been taken to silence it to an acceptable standard."

- 2.2 The remaining conditions relating to noise deal with: best endeavours to restrict tripping operations and casing cementing operations to daytime only (Condition 9); the restriction of site preparation, construction and restoration works to daytime only and the general

requirement for noise control measures for equipment in use (Condition 10); and the restriction of unauthorised venting or flaring from the site (Condition 11).

3 SPECIFICATION FOR NOISE MONITORING

3.1 Purpose

3.1.1 The purpose of the noise monitoring is to demonstrate to West Sussex County Council that noise emission from the site during the development and operational phases of the oilfield, is in compliance with Condition 8 of the planning permission. The noise monitoring may also assist in the determination of any deterioration of the noise environment around the site, and prompt action for remedial measures, where appropriate.

3.2 Instrumentation

3.2.1 A Type 1 sound level meter complying with the requirements of the latest version of BS EN 60651 or BS EN 60804 shall be used.

3.2.2 The sound level meter shall have been fully calibrated by the manufacturer, or other approved body, within a period of 24 months prior to the date of use.

3.2.3 The meter shall be field calibrated before, and at the end of, each period of measurement using a sound calibrator approved by the manufacturer for use with that meter. Any deviation in the calibration levels shall be noted.

3.2.4 Equipment to measure local wind speed, air temperature and relative humidity shall also be used.

3.3 Environmental Noise Measurements

3.3.1 Noise measurements shall be taken at night at the following residential locations outside the site boundary. The location numbers refer to Figure 1, the plan accompanying this document.

Location 1: On the south side of "Bog Common Cottages" (north of site)

Location 2: Adjacent to "Freeland" (north-east of site)

Location 3: Adjacent to "Douglas's Lodge" (south of site)

The microphone of the sound level meter shall be located approximately 1.5 m above the ground and at least 3.5 m from other reflecting surfaces.

3.3.2 At each location, noise sample periods shall be a minimum of 10 minutes in duration. The primary parameters to be monitored are $L_{A90,F}$ and L_{Aeq} overall sound pressure levels. The following additional parameters shall be monitored to give an indication of the range and distribution of the measured noise level: $L_{A50,F}$, $L_{A10,F}$, $L_{A1,F}$ and $L_{Amax,F}$.

3.3.3 Each location shall be visited sequentially three times during the survey and the noise measurements recorded.

3.3.4 The measurements shall be paused for any local noisy events not associated with the site e.g. passing road traffic, distant trains, over-flying aircraft.

3.3.5 Local weather details, including wind speed and direction, temperature, relative humidity and degree of cloud cover shall be recorded.

3.3.6 Observations shall be made during the noise survey regarding the audibility of the site, the presence of any distinctive tonal or impulsive characteristics and the occurrence of other off-site events potentially affecting the measured levels.

3.3.7 Octave band $L_{90,F}$ and L_{eq} sound pressure level measurements, from 31.5 Hz to 8 kHz, shall be made on at least one occasion during each survey at each location.

- 3.3.8 The environmental measurements shall commence after 23.00 hours and shall normally be completed by 03.00 hours.

4. CHOICE OF SURVEY DATES

- 4.1 The survey shall be undertaken on three separate nights during the initial drilling phase of the development, and similar repeat measurements for any subsequent drilling phases.
- 4.2 A survey shall be undertaken as soon as practicable following development of the site and during normal production activities. Thereafter, unless the planning noise limits are not achieved, repeat surveys will be undertaken at a minimum frequency of once per year throughout the lifetime of the site, or whenever any significant changes are made to installed plant and equipment.
- 4.2 Weather conditions for the surveys shall, whenever possible, be in accordance with the guidelines in British Standard BS 4142: 1990. Wind speeds should normally be less than 5 m/s average, temperatures should not normally be less than 3° C and there should be no rain.

5. REPORTING

- 5.1 On completion of each survey a report shall be prepared detailing the results of the noise measurements.
- 5.2 The report shall identify the operating status of the drilling rig (for the drilling phase noise surveys), the operating status of the major equipment on the site and site throughput for the production phase noise surveys.
- 5.3 All observed events contributing to the ambient noise environment shall be reported, with an indication of the type and frequency of events paused from the measurements. The meteorological parameters shall be recorded.

- 5.4 The report shall contain a statement of the degree of audibility of noise from the site at each measurement location. Where the measured noise levels are considered not to be dominated by noise from the site, this shall be clearly stated. The audibility of any distinctive tonal or intermittent noise characteristics from the site shall be stated.
- 5.5 An assessment shall be made of compliance of the environmental noise measurements with the planning noise limit and a statement of general compliance/non-compliance shall be included in the report.
- 5.6 Where the measured levels are not in compliance with the planning limit, but (i) noise from the site was audible during the survey and (ii) interference was also thought to have occurred from extraneous noise sources, the requirements to correct for the non-site background noise shall be identified and a method proposed.
- 5.7 A comparison shall be made with previously measured environmental noise levels to assess any general changes in the noise emission from the site.

6. NON-COMPLIANCE WITH PLANNING LIMITS

- 6.1 If non-compliance with the planning limits is identified as a consequence of the noise monitoring programme, or through any other reason, further noise measurements will be taken as soon as practicable following ameliorative noise control measures.

7. RESPONSE TO COMPLAINTS ABOUT NOISE

- 7.1 Prompt investigation will be undertaken by Soco UK Onshore Limited should any complaints about noise from its activities be received. Should any deviation from normally acceptable working practice be identified, steps will be taken to remedy the situation, wherever reasonably practicable.

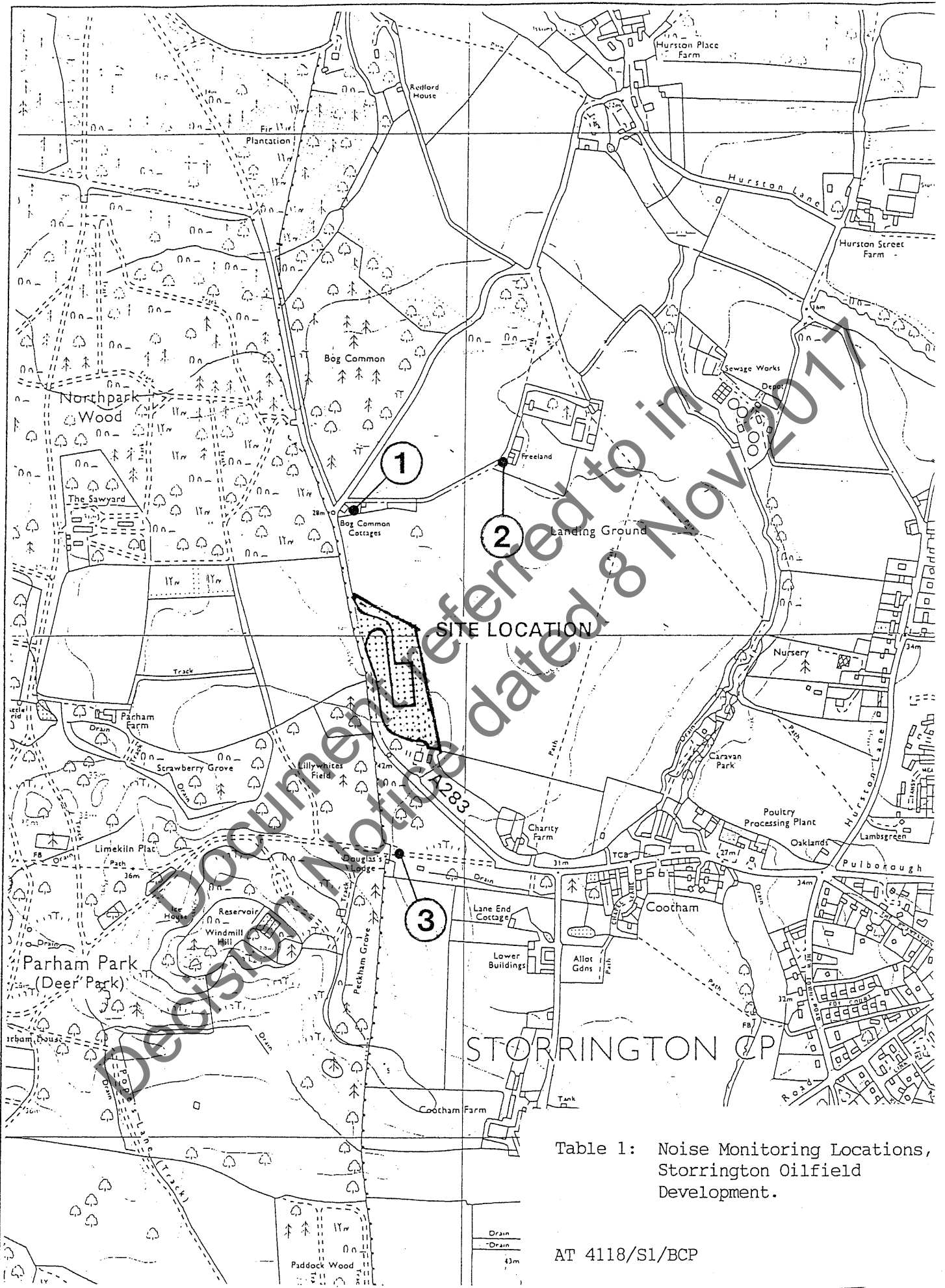


Table 1: Noise Monitoring Locations, Storrington Oilfield Development.

AT 4118/S1/BCP