



This form will report compliance with your permit as determined by an Environment Agency officer

Site	Preston New Road Exploration Site EPR/AB3101MW	Permit Ref	UP3431VF		
Operator/ Permit holder	Cuadrilla Bowland Limited				
Date	17/10/2019	Time in	09:05	Out	15:00
What parts of the permit were assessed	Flaring activities, surface water management				
Assessment	Site Inspection	EPR Activity:	Installation: X	Waste Op:	Water Discharge:
Recipient's name/position	PPE Manager				
Officer's name	EA Officers	Date issued	20/12/2019		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our [Compliance Classification Scheme](#) (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your [local office](#).

Permit Conditions and Compliance Summary

Condition(s) breached

Permit Condition	Compliance	Condition(s) breached
a) Permitted activities	1. Specified by permit	A
b) Infrastructure	1. Engineering for prevention & control of pollution	A
	2. Closure & decommissioning	NA
	3. Site drainage engineering (clean & foul)	A
	4. Containment of stored materials	A
	5. Plant and equipment	N
c) General management	1. Staff competency/ training	N
	2. Management system & operating procedures	A
	3. Materials acceptance	N
	4. Storage handling, labelling, segregation	N
d) Incident management	1. Site security	N
	2. Accident, emergency & incident planning	N
e) Emissions	1. Air	A
	2. Land & Groundwater	N
	3. Surface water	A
	4. Sewer	N
	5. Waste	N
f) Amenity	1. Odour	A
	2. Noise	A
	3. Dust/fibres/particulates & litter	N
	4. Pests, birds & scavengers	N
	5. Deposits on road	N
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	A
	2. Records of activity, site diary, journal & events	A
	3. Maintenance records	N
	4. Reporting & notification	N
h) Resource efficiency	1. Efficient use of raw materials	N
	2. Energy	N

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk), A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, O = Ongoing non-compliance – not scored

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
------------------------------------	---	---	---

If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

The purpose of the inspection was to inspect records in relation to recent flaring activities and to review surface water storage and discharge from site. There were no non-compliances recorded.

Since hydraulic fracturing ceased following the 2.9ML event on 26th August, the operator has been undertaking well clean-up and well testing activities.

Surface water 29th September

Following on from the heavy rainfall on 29th September and our follow-up visit on 30th September (see CAR UP3431VF/0343180), a site walkover was undertaken, including outside of the site boundary. During the walkover, there were no signs of instability or damage to the well pad/liner or drainage ditch and no evidence of water having left the site. Field drainage in place to the east of the site had been overwhelmed and as the boundary of the site sits in a natural low point surface water from the fields had entered the site adding to the surface water contained on site. A pump has been put in place to pump surface water pooling in the fields to the field drainage system on the western side of the site. This should prevent a build up of surface water during future events and reduce the likelihood of it entering site under the boundary fence.

Surface water discharge

On 15th and 16th October, 360m³ of treated surface water was discharged from the site under permitted Activity A6. The average flow during the 13hour discharge period was 5.4l/s. The effect on Carr Bridge Brook was monitored continuously throughout the discharge period.

During the inspection, the discharge point, separator and double isolation valves were inspected.

Two samples were taken of the treated surface water and the results were received by the operator prior to discharge. The results were checked during the inspection and all of the required determinands were analysed and were within the permitted limits.

The "Surface Water Discharge Record" sheet was checked which included confirmation that flood warnings had been checked, the level in Carr Bridge Brook was suitable for receiving a discharge, the lab results had been received and reviewed, the separator was operational and had no warning alarms, and the in situ parameters (pH etc) had been checked.

Flaring causing smoke

Since 9th September, the operator has been flowing back injected water and cleaning out the well. This has resulted in the use of the flare for a number of short duration burns in order to combust the gas collected in the separator. Periods of flaring included batch burns on 10th to 12th September, 2nd October and from the 9th October onwards.

Propane is being used as a support fuel to ensure that the flare operates at, or close to, 800C. Propane is used to light the flare and increase the temperature ahead of introducing natural gas from the well. It can take several minutes (one example was 7 minutes) for the flare to get up to 800C before the natural gas is introduced. The use of propane is then decreased when the natural gas is found to be burning at 800C alone. Propane is automatically added if the temperature starts

to drop due to variations in the flow of natural gas from the well.

Initially, when burning propane, the flare may emit some smoke until the flare stack gets up to temperature and the correct air: fuel ratio is achieved. It is common for gas flares to smoke during start-up. Natural gas from the well has been returning intermittently and if flow rates are low it is being held in the separator until it is able to be sent to the flare. This has meant that the flare has been started and stopped a number of times since 9th October, each time brought up to temperature using propane. Smoke has therefore been visible intermittently during these activities. Also, occasional, momentary flames visible at the top of the flares is normal until the flare adjusts to the flow of gas.

The introduction of propane to the flares to bring them up to temperature before introducing natural gas from the well is considered good practice to limit venting or incomplete combustion of natural gas.

Once a stable flow of gas from the well is established, propane will not be required and the flare should run for longer periods of time reducing the likelihood of smoke.

No notable odour was detected by the operator during these activities.


2nd October methane notification

On 2nd October the Environment Agency was notified of elevated methane picked up by the operator's monitoring equipment at the permit boundary between 14:20 and 14:30 at 10.04ppm (10 minute average).

At the time, the operator was undertaking a clean out of the well to bring sand to the surface. During this clean out, sand returned and passed in to the sand filters causing them to blind. The well test supervisor bled off the sand filters and changed out the screens. At the same time an unexpected pocket of gas returned from the well. For safety purposes to avoid a potential build-up of gas at the sand filters the gas was sent through the surge tank and on to the flare. Due to the unexpected nature of this gas the pilot lights on the flare were not initially lit and therefore the gas was vented to atmosphere. As soon as the well test supervisor detected the gas returning, they turned on the pilot lights.

The operator's boundary methane monitoring data was viewed which showed the 10.04ppm peak, but no other reportable peaks around this period. An action was given to the operator to revise their Flowback Fluid Diversion Instruction (Instruction 009) to require the pilot lights to be lit at all times during well clean-outs, well circulation and well flowback.

The concentrations of methane are low and are within levels measured before operations started at the site. Given the short duration and the minimal proportion of benzene in the natural gas any potential for health impact is extremely low.

 Environment Agency	EPR Compliance Assessment Report	Report ID: UP3431VF/0344001	
This form will report compliance with your permit as determined by an Environment Agency officer			
Site	Preston New Road Exploration Site EPR/AB3101MW	Permit	UP3431VF

Operator/ Permit	Cuadrilla Bowland Limited	Date	17/10/2019
------------------	---------------------------	------	------------

Section 3- Enforcement Response		Only one of the boxes below should be ticked	
<p>You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.</p>			
<p>Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.</p>			
<p>In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.</p>			
<p>We will now consider what enforcement action is appropriate and notify you, referencing this form.</p>			

Section 4- Action(s)			
<p>Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.</p>			
Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			

Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.
- A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance which could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General Information

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the [Parliamentary and Health Service Ombudsman](#) phone their helpline on 0345 015 4033.