



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	02/07/2018	Time in	Out
What parts of the permit were assessed	Pre-operational Condition PO3 - Hydraulic Fracture Plan		
Assessment	Report/data review	EPR Activity:	Installation: X Waste Op: Water Discharge:
Recipient's name/position	HSE & P Manager		
Officer's name	EA Officers	Date issued	04/07/2018

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	N
b) Infrastructure	1. Engineering for prevention & control of pollution	N
	2. Closure & decommissioning	N
	3. Site drainage engineering (clean & foul)	N
	4. Containment of stored materials	N
	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	N
	2. Land & Groundwater	A
	3. Surface water	N
	4. Sewer	N
	5. Waste	N
f) Amenity	1. Odour	N
	2. Noise	N
	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	N
	3. Maintenance records	N
	4. Reporting & notification	A
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
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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.

A panel of specialists have completed an assessment of the Hydraulic Fracture Plan (HFP) for well PNR 1/1z submitted by Cuadrilla Bowland Ltd on 24 July 2017 to satisfy Pre-Operational Condition 3 of the Environmental Permit EPR/AB3101MW. The HFP now forms part of the Operator's Environmental Management System required in permit condition 1.1.1 and forms an operating technique under condition 2.3.1.

Condition 2.4.4 prevents the operator from carrying on the groundwater activity A5 until the measures specified in pre-operational condition 3 of Schedule 1, table S1.3 have been completed.

We require the information in the HFP in order to assess fracture growth and understand any risk to groundwater (requirement under Groundwater Directive). The plan must also demonstrate that the fractures remain within the permitted boundary which in this case is the top of the Upper Bowland formation, (requirement under Mining Waste Directive).

A number of revisions have been made throughout the assessment process and the final version was received on the 29 June 2018.

We now consider that the information provided in the HFP for PNR 1/1z satisfies our requirements and those of Pre Operational Condition P03 of the Environmental Permit.

The key elements of the plan are:

Microseismic monitoring

We consider that the proposals for microseismic monitoring are proportionate to the planned operations and adequate measures are in place for the protection of groundwater.

Fault reactivation

This is fundamental to understanding whether existing faults could be reactivated by the fracturing process, and therefore create a pathway beyond the permit boundary into groundwater bearing strata above.

The fault reactivation assessment concluded that the risk of faults reactivating is mitigated by the staged control of the injections and by seismic monitoring.

Mitigation Measures

We note the commitments in section 5.0 p) of the HFP to assess and review the injection rates and pressures and to adjust the injection program in the event that the monitoring data indicates fractures or fault interactions with preferential flow pathways towards the edge of the permitted boundary.

Reporting

Cuadrilla commits to provide information on a daily basis throughout the fracturing programme, as detailed in section 6.0 of the HFP. We will also request to see any additional data we deem necessary in accordance with our regulatory powers in a timely manner. For example, seismic

event location diagrams to coincide with information provided in the morning report. We will put in place a programme of audits and inspections during the injection stages to verify the data that is being used to inform the fracturing programme.


Relevant permit conditions

As well as operating within the parameters established by the approved HFP, specific permit conditions are applicable to the hydraulic fracturing activities; 1.1.1 and 2.3.1 as mentioned above and 2.4.4 as it applies to the pre operational requirements. In addition the operator should note condition 3.5.5 regarding calibration and use of monitoring equipment. Testing and confirmation of performance of the geophones must also be part of this system.

Further information

Certain information stills needs to be submitted prior to hydraulic fracturing commencing, the operator has undertaken to provide:

- Geophone location and calibration – we will expect assurance of calibration methods when a Contractor has been instructed by Cuadrilla. (we shall conduct a site inspection at the time of the testing using the downhole source.)
- Source & geophone array testing – we are expecting to see the results, showing a definite recording from the furthest available fracture stage position at which the test source can be physically emplaced and fired.
- Noise monitoring, at the time of geophone installation, together with a review of the magnitude sensitivity of the array vs range, in the ambient noise conditions, based on the use of the test source of known energy input.

 Environment Agency	EPR Compliance Assessment Report	Report ID: UP3431VF/0309861	
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Operator/ Permit	Cuadrilla Bowland Limited	Date	02/07/2018

Section 3- Enforcement Response	Only one of the boxes below should be ticked
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.	
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.	
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.	
We will now consider what enforcement action is appropriate and notify you, referencing this form.	

Section 4- Action(s)

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.

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.