

**Guidelines to assist  
licensees in demonstrating  
Financial Responsibility to DECC  
for the consent of Exploration &  
Appraisal Wells in the UKCS**

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**Issue 1  
November 2012**

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## **Guidelines to assist licensees in demonstrating Financial Responsibility to DECC for the consent of Exploration & Appraisal Wells in the UKCS**

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## **Foreword**

The UK Oil Spill Prevention and Response Advisory Group (OSPRAG), was set up as a collaborative response by the oil and gas industry, its regulators and trade unions, to the Deepwater Horizon incident at Macondo in the Gulf of Mexico. These Guidelines have been produced following a recommendation from the Indemnity and Insurance Review Group of OSPRAG to provide a good practice guide for demonstrating financial responsibilities to the Department of Energy and Climate Change (DECC) as part of the well consent process.

The United Kingdom Continental Shelf (UKCS) has an excellent record in well control and a blowout or other incident is a very low probability event. Recent changes in regulation and in working practices have reduced this risk even further. However, it is important to ensure that contingency arrangements are in place to address the potentially very serious consequences if such an event did occur.

DECC requires assurance that operators and their co-venturers have the financial resources not only to carry out the work programme obligations of a petroleum licence but also to control, respond to and compensate for any unintended and uncontrolled release of hydrocarbons from the well (normally referred to as a “blowout”) that might result from this activity. Their requirements are outlined in their “Guidance Note to UK Offshore Oil and Gas Operators on the Demonstration of Financial Responsibility Before Consent May be Granted for Exploration and Appraisal Wells on the UKCS”.

These industry Guidelines are intended as good industry practice, and provide a simple method by which financial responsibility may be calculated and demonstrated to address the requirements of DECC’s Guidance Note as part of the submissions before consent is given for the drilling of an exploration or appraisal well.

Oil & Gas UK has prepared these Guidelines in good faith as an industry good practice guide, which is not intended to replace professional advice and is not deemed to be exhaustive or prescriptive in nature. Although DECC have indicated that they will give significant weight to an operator who can show that the Guidelines have been followed, following these Guidelines may not necessarily fulfil all DECC’s requirements in every case.



## Executive summary

These industry Guidelines are intended to provide licensees with a practical method by which DECC's requirements as outlined in their Guidance Note may be fulfilled. These Guidelines outline a new process by which operators may assess the potential cost of well control, pollution remediation and compensation in the unlikely event of a well control incident occurring and demonstrate to DECC that they and their co-venturers have the financial resources to address those potential consequences. DECC have indicated in their Guidance Note that it intends to give "considerable weight" to an operator who can show that these industry Guidelines have been followed.

In order to estimate the financial resources required to be demonstrated by those companies it is necessary to estimate the potential consequences which might result from a blowout of a well. These Guidelines propose methods to assess the two elements of this cost identified in DECC's Guidance Note:

- The cost of bringing a well under control following a blowout; and
- The cost of remedial measures and payments of compensation to third parties for pollution damage.

The figures resulting from these two estimates are then aggregated to produce the total amount of financial resources which it is recommended should be demonstrated to DECC. This does not in any way limit the legal liability of the operator and its co-venturers.

The Guidelines are written on the assumption that each member of the joint venture should be responsible for demonstrating its financial resources to meet its percentage interest share of this level of costs. The operator at its own discretion may choose to demonstrate financial resources in respect of the total amount on behalf of the venture. There are a variety of means by which financial responsibility can be demonstrated by each party.

Certificates and supporting evidence demonstrating the assessments and the licensees' financial responsibility are collated by the operator. This is then communicated to DECC, generally at the time of submission of the final Oil Pollution Emergency Plan (OPEP) (with which it needs to be consistent), but in any event before DECC consents to the drilling of an Exploration or Appraisal (E&A) well.



## Abbreviations and acronyms

BOP	Blow Out Preventer
DECC	Department of Energy and Climate Change
E&A	Exploration or Appraisal
FR	Financial Responsibility
IIRG	Indemnity and Insurance Review Group
JOA	Joint Operating Agreement
MCA	Maritime & Coastguard Agency
OPEP	Oil Pollution Emergency Plan
OPOL	Offshore Pollution Liability Association Ltd
OSPRAG	Oil Spill Prevention and Response Advisory Group
RMT	National Union of Rail, Maritime and Transport Workers
SOSREP	Secretary of States Representative for Maritime Salvage and Intervention
UK	United Kingdom
UKCS	United Kingdom Continental Shelf



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Certificate of Assessment of Financial Responsibility for Well Operations in the UKCS

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Figure 1 The financial responsibility process

# 1 Introduction

## 1.1 Oil spill prevention and response advisory group (OSPRAG)

- 1.1.1 Oil Spill Prevention and Response Advisory Group (OSPRAG) was established on 25 May 2010 to identify and address emerging cross industry issues arising from the Macondo incident in April 2010, and was made up of senior representatives from operator and contractor companies as well as participants from the Department of Energy and Climate Change (DECC), Health and Safety Executive (HSE), Maritime & Coastguard Agency (MCA), Secretary of States Representative for Maritime Salvage and Intervention (SOSREP), the offshore unions, National Union of Rail, Maritime and Transport Workers (RMT) and Unite, and Oil Spill Response Ltd.
- 1.1.2 One of OSPRAG's priorities was to ensure that sufficient financial arrangements are in place to cover the response to any spill from wells in the UKCS. The Indemnity and Insurance Review Group (IIRG) was set up under OSPRAG to assess the potential pollution remediation and compensation costs associated with a large oil spill in the UKCS following a well incident and to determine how these are provided for and whether the provisions the United Kingdom (UK) has in place required improving.
- 1.1.3 In the UK, there is no financial cap on the liability of oil and gas companies for the consequences of an incident for which they are legally liable. Nevertheless, in addition to any legal liability under the general law, the industry also operates, through Offshore Pollution Liability Association Ltd (OPOL), a voluntary industry mutual agreement which requires each operator to accept strict liability for pollution damage and reimbursement of third parties (including public authorities) for clean-up and compensation costs under the terms of the OPOL agreement up to a pre-determined limit. The first action of IIRG was to recommend that the limit be raised from US \$120 million per occurrence to US \$250 million per occurrence. This was passed at an OPOL EGM on 18 August 2010 and came into effect on 1 October 2010.
- 1.1.4 Oil spill modelling work carried out on behalf of the IIRG (See *OPOL/Oil & Gas UK Oil Spill Cost Study – OPOL Financial Limits February 2012*) identified that with the capping device which has been developed under the auspices of OSPRAG on hand for rapid deployment, the OPOL limit of US \$250 million per occurrence limit should be sufficient to cover the third party pollution compensation and remediation costs associated with the majority of spill scenarios, with only a small number of wells having the potential to exceed the OPOL limit.
- 1.1.5 While OPOL provides for third party clean-up and compensation costs to a predetermined limit, there are additional extra expenses that the operator has to cover in the event of a blowout, such as those related to bringing the well back under control and drilling a relief well. The industry regulator, DECC, carries out checks on a company's finances before it grants a licence to that company, with the focus on a company's ability to carry out the agreed work programme rather than on its ability to pay for unforeseen events. In a letter issued to operators in December 2010, DECC stated that it would now require explicit confirmation that sufficient finance or insurance/indemnity provision is available to cover the drilling of relief wells.

- 1.1.6 OSPRAG recommended that the industry should be issued with good practice guidance on the requirements for operators to demonstrate adequate financial resources to DECC with respect to the costs arising from a potential incident. A working group was tasked to implement this recommendation and these Guidelines are the result of the detailed work undertaken by that working group. They have also been the subject of a consultation process with the industry and DECC. The working group also considered the detailed recommendations contained within the Maitland Panel Report on UK Regulation issued on 14 December 2011.
- 1.1.7 In November 2012 DECC published their Guidance "Guidance Note to UK Offshore Oil and Gas Operators on the Demonstration of Financial Responsibility before Consent may be Granted for Exploration and Appraisal Wells on the UKCS". This document outlines DECC's expectations for demonstrating that the risks of the operation have been accurately calculated and that the financial mechanisms are in place to meet those risks, should they materialise.

## **1.2 The process of obtaining consent to drill a well**

- 1.2.1 Any operator wishing to drill an exploration, appraisal, or development well is required to make an application for consent to DECC not less than 30 calendar days prior to expected start of operations. Application is made on form PON4 which contains basic data about the well, which must be accompanied by other documentation including a prospect summary sheet, seismic depth map and representative seismic section, a synopsis briefly describing the geological rationale and objectives of drilling the well, details of the proposed sampling/coring/logging and testing programme, and details of estimated pressures. In particular the operator must indicate if the well is in an area of High Pressure and/or High Temperature and whether there are any other hazards such as shallow gas or hydrogen sulphide.
- 1.2.2 As part of the consent process for well operations, DECC consults with various other Government departments and non-Governmental bodies with regard to a proposed well. Each application to drill is considered with respect to the fulfilment of specific licence obligations and the impact on the environment and other users of the sea, e.g. shipping. Drilling and petroleum developments offshore are subject to the requirements of the Offshore Petroleum Production and Pipelines (Assessment of Environmental Effects) Regulations 1999 which implement the EU Environmental Impact Assessment Directive. A full environmental statement may be required for wells which are determined to be likely to have significant effect on the environment by virtue of their nature, size or location. The operator may submit a Form PON15b seeking direction that an Environmental Statement is not required for a proposed well, and/or seeking a permit for chemical use and/or discharge during drilling and completion operations.
- 1.2.3 Safety is dealt with by the HSE which also requires a 21 day notification period for well applications. Under the Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996 the operator must have a detailed well design which has been verified by an independent competent person.

### 1.3 Oil Pollution Emergency Plans (OPEPs)

- 1.3.1 Under the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998, operators are required to prepare an Oil Pollution Emergency Plan (OPEP) which must set out the “arrangements for responding to incidents which cause or may cause marine pollution by oil, with a view to preventing such pollution or reducing or minimising its effect”. Any application for a well consent must therefore be accompanied by an OPEP relating to the specific drilling operation.
- 1.3.2 Clause 4.2 of the DECC OPEP Guidance Notes specifies that operators must identify potential scenarios which could give rise to a pollution incident, including the worst-case scenario.
- 1.3.3 DECC requires that all OPEPs associated with exploration, appraisal and development (production) drilling operations, that are undertaken on the UKCS should assess and provide for an effective response to an identified worst-case scenario where all containment barriers have failed resulting in a blowout. This must include the measures that would be taken to stop the release. This could include the use of an appropriate method to stop or control the release, such as the deployment of a capping or containment device. In addition to capping which prevents further release of hydrocarbons, in order to permanently “kill” the well the drilling of a relief well would normally be required.
- 1.3.4 Where appropriate, the OPEP must also include details of plans to implement the drilling of a relief well; and/or plans to deploy any other method to stop or control the release. Operators must demonstrate that a relief well could be drilled in a timely manner. It will therefore be necessary to confirm that sufficient financial arrangements are in place to cover the eventuality; that consideration has been given to relief well design; that procedures are in place to implement a relief well management plan, supported by relevant specialist personnel; and that consideration has been given to sourcing a rig in the event that the unit drilling the primary well is not available. Estimates should also be provided of the time that it would take to commence drilling and complete the relief well.
- 1.3.5 The OPEP must now also address well and reservoir information relevant to the scale of potential releases of hydrocarbons, including information relating to the nature of the hydrocarbons and the well flow characteristics; the potential daily release rate; and the total quantity of hydrocarbons that could be released during the maximum time that it could take to stop the release. It should also include modelling data to identify areas that could be impacted, a summary of predicted environmental and socio-economic impacts of the worst-case scenarios taking account of that modelling and details of the response strategy to protect the environment in the event of a hydrocarbon release. This includes robust and location-specific arrangements to deal with any liquid hydrocarbon release based on the outcome of the modelling and the predicted environmental and socio-economic impacts. The information provided should include details of the pollution prevention and response equipment that the operator intends to access and deploy in the event of a release, or a potential release, and the time that it would take to deploy that equipment.

## 2 Overview of the Guidelines

### 2.1 Scope

- 2.1.1 It is recognised that the UKCS has an excellent record in well control and that a blowout or other incident is a very low probability event. The Well Lifecycle Practices Forum has developed good industry practice Guidelines on competency of wells personnel, well integrity and Blow Out Preventers (BOPs) to ensure that this probability is reduced to the lowest possible extent. However, it is important to ensure that contingency arrangements are in place to address the potentially very serious consequences if such an event did occur, both in terms of well control and in terms of the remediation of pollution and the compensation of those affected by it.
- 2.1.2 These Guidelines outline a new process by which operators may estimate the potential cost of well control, pollution remediation and compensation in the unlikely event of a well control incident occurring and demonstrate to DECC that they and their co-venturers have the financial resources to address those potential consequences.
- 2.1.3 Under DECC's Guidance Note, the requirement to demonstrate financial responsibility applies to all exploration and appraisal wells in the UKCS for which an OPEP submission is made, after the 1 January 2013. The requirement applies to any Exploration or Appraisal well for which an OPEP is required. However, there are some wells which would not flow without some form of artificial lift even if the well integrity was compromised, and for these wells the financial capability of the operator as demonstrated to OPOL is likely to be sufficient to address any incident and DECC is unlikely to require any further demonstration of financial responsibility.
- 2.1.4 The Guidelines are intended to represent good industry practice in the majority of situations. If an operator and its co-venturers follow the procedures set out in these Guidelines we believe that in most cases this aspect of DECC's requirements should be satisfied. However, the Guidelines may not fit all circumstances and should not be treated as prescriptive. Although DECC has been consulted in their preparation and has indicated in its Guidance that considerable weight will be given to those operators making use of these Guidelines, nothing in these Guidelines should be taken as suggesting that DECC has limited its discretion in any particular case.

### 2.2 Calculating Financial Responsibility (FR)

- 2.2.1 The overall level of FR that companies should demonstrate for any particular well is calculated by determining the aggregate of:
- Cost of well control; and
  - Cost of remedial measures and compensation for pollution.

- 2.2.2 The first element of the calculation applies to all wells other than those which are expected to require artificial lift to flow. The second element of the calculation applies to oil wells (other than those which will require artificial lift) but not to gas or gas condensate wells other than HP/HT wells. The methodology for calculating these two figures is set out in sections 3 and 4 below respectively.

## **2.3 Demonstrating Financial Responsibility and Effective Date**

- 2.3.1 Under DECC's Guidance Note, FR must be demonstrated before consent to carry out drilling operations on an exploration or appraisal well will be granted. The necessary certification should normally be submitted to DECC with the OPEP, as outlined in section 5. The OPEP may be submitted in draft in which case it should generally be sufficient if the assessment of FR is provided by the time the OPEP is in final form. Certificates demonstrating the provision of FR may be provided later but DECC is unlikely to grant drilling consent until these have been received.
- 2.3.2 The likelihood of occurrence of a well control incident is very low. The likelihood of an individual operator suffering two or more such incidents on different wells at the same time is even more remote, as is the risk of a company finding itself a co-venturer in two or more simultaneous drilling operations being conducted by different operators whether in the UKCS or elsewhere which each suffer a well control incident. For this reason, it should generally be sufficient for a company to demonstrate adequate FR to deal with a single incident provided that the level of FR is appropriate to the worst case scenario of all of the operations with which that party is involved and that the FR will respond to any of the operations with which that company is involved. In other words, it should not be necessary for an operator or co-venturer to demonstrate multiples of FR for the cumulative impact of well control events in relation to every well which it operates or in which it has a participating interest.<sup>1</sup> (An illustration of how this works is set out at section 5.2.2 below).
- 2.3.3 FR can be demonstrated by means of: (a) reliance on credit/financial strength rating of the applicable operator or co-venturer; (b) insurance; (c) parent company/affiliate undertaking; and (d) any combination of (a), (b) or (c) and any other form of FR which DECC may agree in any particular case. Further details are provided in section 5.
- 2.3.4 Oil and gas exploration in the UK is conducted under licences granted by DECC, generally through joint ventures consisting of a number of companies (informally referred to as "co-venturers") each of whom hold a specified percentage interest in the venture. Under the Joint Operating Agreement (JOA) establishing the joint venture, one of the co-venturers is appointed to act as operator: the operator is responsible for conducting the exploration operations on behalf of all the co-venturers. Under the JOA, each co-venturer in the joint venture bears its share of the liabilities of the venture and takes the same percentage of any resulting production. Under these Guidelines, it

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<sup>1</sup> [http://og.decc.gov.uk/en/olgs/cms/environment/leg\\_guidance/deepwater/deepwater.aspx](http://og.decc.gov.uk/en/olgs/cms/environment/leg_guidance/deepwater/deepwater.aspx)

is recommended that the operator should submit to DECC the necessary certificates to demonstrate that the joint venture as a whole has the appropriate level of FR. However, in most cases these Guidelines propose that it should do this by forwarding to DECC certificates from its co-venturers showing that each of them has sufficient FR for its individual participating interest, adding up in aggregate to the full amount of FR. Exceptionally, it may choose to demonstrate its own financial resources in respect of the full amount of FR to be provided. In either case the operator's responsibility is to assemble the relevant paperwork and submit it to DECC. Under these Guidelines, the operator is not responsible for any assessment of the underlying strength of the FR provided by its co-venturers nor for any ongoing monitoring of their FR.

- 2.3.5 Regardless of the division of rights and liabilities between the co-venturers under their JOA, under the licence granted by DECC, all of the co-venturers are jointly and severally liable to DECC for the obligations of the licence and nothing in these Guidelines affects that joint and several liability nor is anything in these Guidelines intended to increase the operator's liability to its co-venturers.

## **2.4 Review of Guidelines**

- 2.4.1 It is the intention that these Guidelines should be reviewed after the first year of their use and three yearly thereafter. They may need to be updated to reflect changes in technology and in oil industry or insurance industry practice or further information as to the likely level of costs of well control incident.

## The Financial Responsibility Process

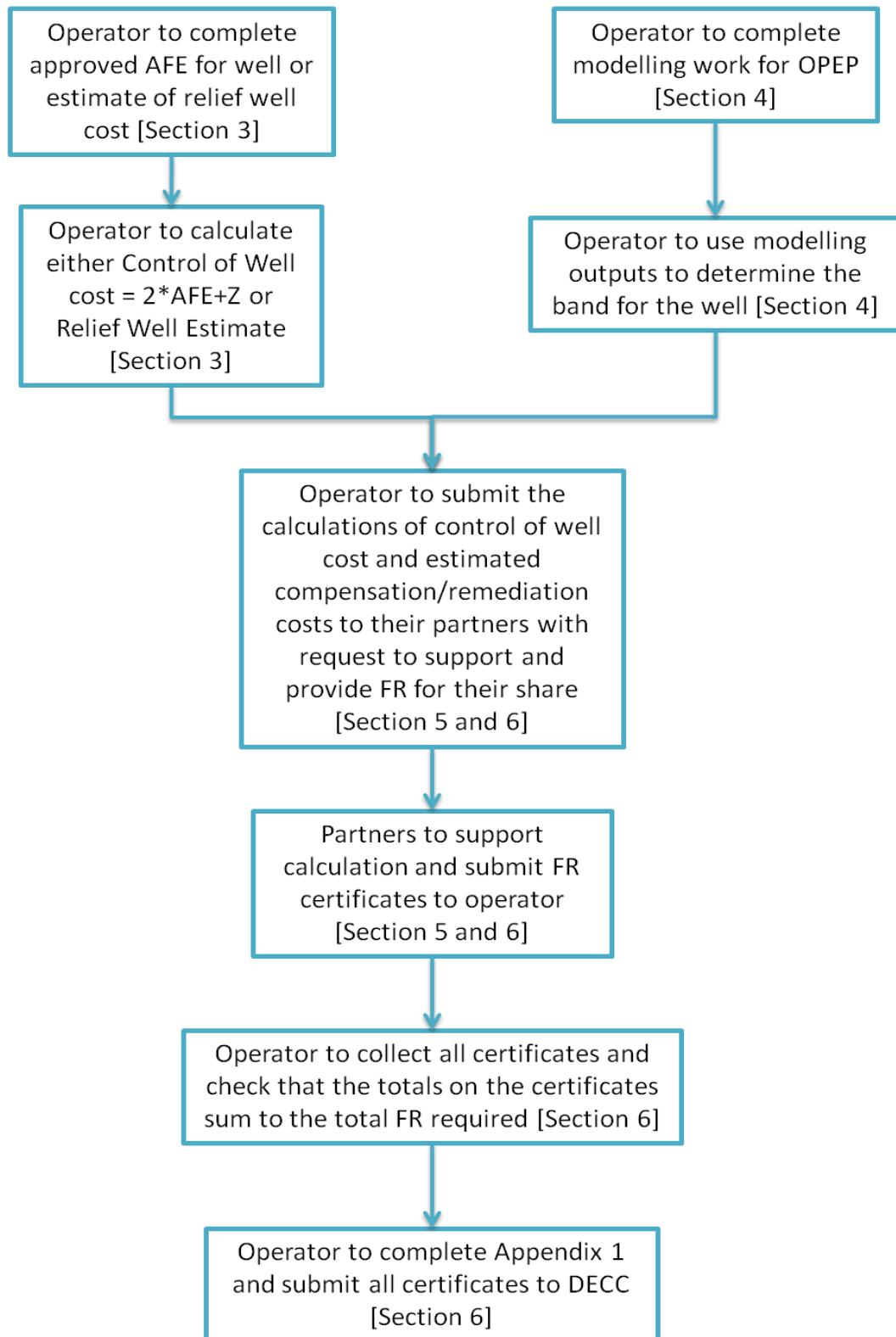


Figure 1 The financial responsibility process

## 3 Calculating Cost of Well Control

### 3.1 Introduction

- 3.1.1 In the very unlikely event of a blowout or other incident the first response of the operator on behalf of the joint venture should be to ensure the safety of personnel and to control the flow of hydrocarbons from the well. In assessing what financial resources a joint venture should have available to address a well control incident in relation to a particular well, the first step is to consider the methods which would be employed in bringing the well under control and the costs of those methods.
- 3.1.2 Other groups within OSPRAG have looked at the tools and methods available for well control both using safety devices on the rig itself and using external resources in the event that those devices fail. Their recommendations have led to the development of the OSPRAG capping device, as well as other recommendations on good industry practice. Other capping devices are also available. In certain cases, a capping device may not be appropriate. However, even if a capping device is deployed, this may not be sufficient to resolve the underlying issue with the well and therefore it will be necessary to drill a relief well. As noted above, DECC now requires the operator to consider in its OPEP the use of a capping device where this is appropriate, and to be suitably prepared to drill a relief well. Oil & Gas UK have published *Guidelines on relief well planning – subsea wells* in January 2012 which help operators understand how much relief well planning is required for “basic” and “complex” wells.
- 3.1.3 Other than the use of devices on the rig itself which would involve minimal or no additional cost, the potential costs of well control consist primarily of the costs of deploying a capping device and the costs of the drilling of a relief well. The costs estimated below include some provision for clearance of the site, the application of dispersants to provide safer surface conditions and aid subsea visibility, regaining access to the well and also for the plugging and abandoning of the original well and the relief well.
- 3.1.4 The intention of these Guidelines is to provide a methodology which can be applied consistently across the industry to estimate the costs of these two major aspects of well control.
- 3.1.5 In practice, the largest part of the cost of bringing an E&A well under control will be the cost of drilling a relief well. Operators should follow the Oil & Gas UK *Guidelines for relief well planning – subsea wells*. These guidelines require operators to carry out a complexity assessment on the relief well required. For “complex” relief wells, the operator should have prepared more extensive relief well plans, and as such the value of the estimate for the relief well should be used. For “basic” relief wells, less relief well planning may have been carried out, and it would be appropriate to apply a scaling factor to the original well AFE as approved by the joint venture.
- 3.1.6 The cost of deployment of a cap is likely to be a constant for those well control events where its use is appropriate and the value of this constant is further discussed below.

- 3.1.7 In the case of those wells which would not flow without some form of artificial lift, even if the well integrity was compromised, there should be no requirement to assess the costs of drilling a relief well or deploying an emergency capping device.

### **3.2 Factors determining the cost of drilling a well on the UKCS**

- 3.2.1 There are four primary criteria which influence the cost of drilling a well on the UKCS. These are location, well depth, water depth and geo-environment. Other criteria may be relevant in other regions.

- (1) Location – the location of the well and the distance from a suitable onshore support base will influence rig mobilisation and demobilisation costs and supply line costs for boats and helicopters – the greater the distance the higher the cost.
- (2) Water depth – one of the key requirements of rig selection is water depth: deeper water and harsher environments require more sophisticated rigs with complex marine risers and dynamic positioning systems which command higher day rates because they are often in short supply.
- (3) Well depth – wells are typically designed so that the pressure exerted by the hydrostatic column of fluid used to drill a well (drilling mud) is greater than any expected pressure from the formations drilled and that the casing, cement and well head used are strong enough to retain that pressure should this “over balance” not be maintained, such that the well starts to flow in an uncontrolled manner (a kick) and the well has to be shut-in. The expected pressure in a formation will help determine the rig type, well head selection, casing design, cement programme and mud choice. The higher the expected pressure the more expensive and less readily available each item becomes.
- (4) Geo-environment – as wells are drilled deeper they encounter harder formations which are slower to drill and potentially contain higher pressures, which takes more time to manage safely. Also, as wells get deeper they require proportionally more and higher specification drill bits, drilling technology, casing, cement and drilling mud which significantly increase the cost of the operation.

### **3.3 The role of the drilling AFE**

- 3.3.1 Prior to seeking DECC consent to drill a routine well, an operator will need to obtain the consent of its joint venture co-venturers to the drilling of that well. This invariably requires the creation and approval of a document called an authority for expenditure (AFE) which sets out in detail the expected costs of drilling the well. This document is then sent to co-venturers for approval. The costs of drilling a well will be based on the approved well design. The main elements of these costs will be driven by the criteria identified in section 3.2 above. Some examples are given in paragraph 0 below.

### 3.3.2 Costs:

- (1) The drilling rig – the type and therefore the rate for the rig will depend on the water depth and pressure regime of the well to be drilled while the overall cost will depend on the depth and therefore the duration of the well multiplied by that rate. Mobilisation and demobilisation costs will depend on the rate and the distance from the agreed mobilisation and demobilisation points;
- (2) Well head - the type and therefore the cost of the well head will depend on the water depth and pressure regime of the well to be drilled;
- (3) Casing and accessories - the type and therefore the cost of the casing will depend on the water depth, formation strength and pressure regime of the well to be drilled and will be proportional to the depth;
- (4) Cement – the type and therefore the cost of the cement will depend on the pressure regime of the well to be drilled;
- (5) Completion – the type and therefore the cost of the completion will depend on the pressure regime and flow characteristics of the well to be drilled. For exploration and appraisal wells it would be usual to include a sum for the plugging and abandonment (P & A) of the well.
- (6) Drilling fluids – the type and therefore the cost of the drilling fluids will depend on the pressure regime of the well to be drilled and will be proportional to the depth;
- (7) Drill bits – the number and cost of drill bits will depend on the formation strength and depth of well being drilled;
- (8) Logistics – the cost for anchor handling boats for rig moves, supply boats and helicopters will be proportional to the depth of the well and therefore the duration of the drilling operation (and to a lesser extent the distance from the shore base);
- (9) Specialist manpower – the cost of these services will also be proportional to the depth of the well and therefore the duration of the drilling operation.

3.3.3 The AFE may also include additional elements which would not be required when drilling a relief well. These include logging and coring during the drilling process (so that the formation can be studied) and well testing. Where the original well AFE includes these costs, the cost of these additional elements (not required for a relief well) provide further contingency when calculating the cost for the relief well.

## 3.4 The cost of drilling a relief well for an E&A well

3.4.1 One guide for the cost of drilling a relief well is a Relief Well Estimate developed in accordance with Oil & Gas UK's *Guidelines on relief well planning – subsea wells*. This will be developed for "Complex" relief wells (as

defined in Oil & Gas UK Guidelines on relief well planning – subsea wells). For “Basic” wells, the requirements for relief well planning are lower and a Relief Well Estimate is unlikely to be available. In the case of a “Basic” relief well to an E&A well, a scaling factor applied to the original well AFE will be an appropriate estimation of the costs of the relief well. There is no expectation that a relief well estimate, whether for a Basic or Complex well, should be approved for expenditure pursuant to the JOA or included in any approved budget, even as a contingent item.

3.4.2 The cost of drilling a relief well is likely to be higher than the cost of drilling the original well. The factors that could affect the cost of the relief well are outlined below and these factors have been taken into consideration in the development of a scaling factor for “basic” E&A wells.

- (1) Potential for variation in the day rate for the relief well rig;
- (2) Potential for additional mobilisation / demobilisation time, plus suspension and re-entry of the well that the relief well rig was drilling when called up;
- (3) Potential for increased costs due to the high angle nature of the relief well and multiple intersection attempts;
- (4) Relief well specific services and logistics.

3.4.3 Taking all these factors into account, where the relief well can be classed as “Basic” it is appropriate to multiply the original E&A well AFE by a factor of two to reflect the likely increased costs of drilling a relief well. Note that this equation is appropriate only for “Basic” relief wells to bring a subsea E&A well under control. For a “Complex” well the Relief Well Estimate should be used.

3.4.4 In all cases the estimate for purposes of demonstrating financial responsibility should be consistent with the assumptions made in the OPEP justification and other well consent documents, and with the Oil & Gas UK *Guidelines on relief well planning – subsea wells*.

### **3.5 The cost of deployment of a capping device**

3.5.1 In addition to the cost of drilling a relief well, the other significant element of the cost of well control is likely to be the cost of deploying a capping device, if this is appropriate. The capping device is a further means of capping a subsea well should the blowout preventer (BOP) fail.

3.5.2 In these Guidelines, it is assumed that for appropriate wells, and in accordance with OSPRAG recommendations as to good industry practice in relation to oil spill response, each operator has in place arrangements which would give it access to a capping device in the event of a well control incident (whether by means of an existing contract with a provider of a capping device or because it has developed its own capping device). There is therefore unlikely to be any significant cost in obtaining access to or the right to use a capping device at the time of the incident and the only costs likely to be involved are those associated with its deployment.

- 3.5.3 The costs associated with the deployment of a cap are the cost of hiring vessels to prepare the site and then deploy the cap (this may involve ROV/BOP intervention, the use of subsea dispersants in order to create a safe environment for the deployment, cutting and clearance of debris e.g. risers, and then the cap installation itself) and the consultant expertise to manage this operation. These costs are estimated at about US \$40 million for the 30 day operation.
- 3.5.4 The cost of capping is a constant as it is not dependent on the criteria mentioned in paragraph 3.2.1. The proposed formula therefore includes a fixed component for the estimated cost of mobilisation, preparation and installation of a capping device of US \$40 million where such deployment is appropriate, or zero where a capping device is not appropriate.

### 3.6 Formula

- 3.6.1 In summary therefore, and except for those wells falling within paragraph 3.1.7, the suggested methodology for estimating the cost of well control is:

for a Basic Well  $C = [(2 \times AFE) + Z]$  or

for a Complex Well  $C = [R + Z]$

- 3.6.2 Where:

Basic Well and Complex Well have the meanings given to those terms in the Oil & Gas UK Guidelines on relief well planning – subsea wells and

$C =$  the estimated cost to cap a well and drill a relief well in US\$

$AFE =$  the US\$ value of the approved drilling AFE for the original well (converted at the exchange rates used for the purposes of the AFE, if the AFE was prepared in pounds sterling)

$R =$  the Relief Well Estimate in US\$ (as determined in accordance with paragraph 3.4)

$Z =$  US \$40 million (the estimated cost of deployment of a capping device as described in paragraph 3.5 where this is appropriate or zero where a capping device is not appropriate.

### 3.7 Data to be included in the Certificate

- 3.7.1 The information regarding the estimated costs of well control should be included on a certificate in the form attached as Appendix 1 to ensure a consistent approach across industry.
- 3.7.2 The operator should certify that it has carried out its assessment in accordance with these Guidelines or if it has applied any different criteria it should indicate what these are and its reasons for applying them.

## 4 Calculating Cost of Remedial Measures and Compensation for Pollution and Determining Banding Introduction

### 4.1 Remedial measures and compensation

- 4.1.1 In parallel with its efforts to bring the well under control, the operator will need to address the remediation of pollution from the well and the compensation of those affected by the pollution. The purpose of this section is to offer a methodology that will enable operators to assess their exposure to pollution clean-up and compensation costs in a simple and transparent manner not requiring complicated cost modelling.
- 4.1.2 DECC imposes an obligation under UKCS licences for an operator to belong to the OPOL Scheme to ensure funds are available up to a limit to meet spill response and compensation claims. In summary, the OPOL Scheme members agree to meet claims for clean-up and compensation for oil pollution on a strict liability basis up to US \$250 million per incident under the terms of the OPOL agreement.
- 4.1.3 Should an operator be unable to meet its obligations under the OPOL agreement to pay for clean-up costs and compensation up to US \$250 million, and its co-venturers also fail to meet those liabilities, then the other Scheme members agree to meet claims up to the US \$250 million limit. Each operator is required to submit to OPOL evidence of financial responsibility for this amount as per the terms of the OPOL agreement.
- 4.1.4 *The OPOL/Oil & Gas UK Oil Spill Cost Study* – OPOL Financial Limits February 2012 identified that in the majority of scenarios this limit of US\$ 250 million was appropriate, but in certain limited cases spill clean-up and pollution compensation costs could result in claims and costs above this limit. The study has been used to inform this aspect of these Guidelines.
- 4.1.5 Accurately predicting the actual costs of clean up and pollution compensation for a hypothetical incident is extremely difficult so the methodology used in this section categorises each well into one of four bands as shown in paragraph 4.2. The operator should determine the band and should certify that the band has been supported by the operator's co-venturers. The operator should submit the band to DECC as part of the process of demonstrating FR under these Guidelines. DECC reserves the right to query the assessment.
- 4.1.6 There are a number of categories of well for which the calculation is not necessary – in these cases the likelihood of any pollution is extremely remote and costs are highly unlikely to exceed US \$250m. For these wells it is considered that the financial responsibility demonstrated by the operator to OPOL will be sufficient to address the pollution impact of any incident. This exempt category includes:
  - (1) Gas wells;
  - (2) Gas condensate wells (other than HP/HT wells);

- (3) Wells which require artificial lift to flow.

Note however that for gas and gas condensate wells it will still be appropriate to demonstrate FR in relation to the costs of control of well as recommended in section 3 of these Guidelines.

4.1.7 For the purposes of paragraph 4.5 the following definitions apply.

- (1) **Gas condensate:** a portion of natural gas of such composition that it is in the gaseous phase at temperature and pressure of the reservoirs, but that, when produced, it is in the liquid phase at surface pressure and temperature. Normally condensate has a composition of C5 to C8 and an API gravity of greater than 40.
- (2) **HT:** any well where the anticipated undisturbed bottom hole temperature is greater than 300 degrees F or 150 degrees C
- (3) **HP:** any well where the maximum anticipated pore pressure of the porous formation to be drilled exceeds a hydrostatic gradient of 0.8 psi/ft, or the well requires pressure control equipment with a rated working pressure in excess of 10,000 psi or 69MPa.

## 4.2 Banding

For remaining wells operators should apply the methodology set out in paragraphs 0 and 4.4 in order to determine which of the four bands they fall within:

- (1) BAND 1: Costs unlikely to exceed US \$250m (FR demonstrated to OPOL deemed to be sufficient);
- (2) BAND 2: Costs over US \$250 but under US \$375m;
- (3) BAND 3: Costs over US \$375 but under US \$500m;
- (4) BAND 4: Costs over US \$500m.

4.2.1 The methodology to assess costs has been designed to be carried out in parallel with preparation of the OPEP justification; and is as follows:-

4.2.2 Deterministic or trajectory oil spill modelling should be carried out using a recognised model such as OSIS, OSCAR, or Oilmap;

4.2.3 The results of the modelling should be analysed to determine coverage in the following four categories.

- (1) Marine fishing areas;
- (2) Aquaculture areas;
- (3) Amount of oil on the coastline;

- (4) Length of coastline becoming oiled.

- 4.2.4 The categories that have been chosen above reflect those that have the most influence on cost. (Source: OPOL/Oil & Gas UK Oil Spill Cost Study – OPOL Financial Limits February 2012).
- 4.2.5 For the purpose of these Guidelines, it should be assumed that the release is a point surface release.
- 4.2.6 The modelling should assume that the well flows for thirty (30) days before being effectively capped and that the oil released during that time continues to travel until reaching a shoreline or until such oil has become insignificant at sea.

Each category in paragraph 4.2.3 above should be graded High, Medium or Low based on the criteria set out in Table 1 - Category assessment and this grading should be translated to a numerical value. As noted in Table 1, a High category scores three points, Medium two points and Low one point.

- 4.2.7 Note that operators should ensure when specifying the output they require from their modelling provider that the information required for this assessment will be produced. The modelling outputs should be based on a 30 day full bore release of oil from the surface for worst case deterministic trajectory model (wind and current to nearest shoreline) and the oil should be allowed to travel until reaching shore or dispersing at sea. The outputs needed are:

- (1) A pictorial analysis of the surface oiling showing the path of the slick;
- (2) An analysis of the shoreline oiling giving:
  - (a) The length of coastline oiled under this criteria
  - (b) The volume of oil that becomes stranded on the shorelines indicated in (a) above.

- 4.2.8 The model parameters should be consistent with those used to model the worst case for the OPEP, as outlined in the DECC supplementary OPEP Guidance<sup>2</sup> section 3 “worst case discharges”.

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<sup>2</sup> [http://og.decc.gov.uk/en/olgs/cms/environment/leg\\_guidance/deepwater/deepwater.aspx](http://og.decc.gov.uk/en/olgs/cms/environment/leg_guidance/deepwater/deepwater.aspx)

**Table 1 Category assessment table**

Category	Assessment	High Score 3 Points	Med Score 2 Points	Low Score 1 Points
Fisheries	<p><b>Referring</b> to the deterministic modelling</p> <p><b>Identify</b> the marine area covered by the oil spill</p> <p><b>Identify</b> the number of full (adding partial squares together) ICES squares that the oil transits through of the High, Medium High or Medium category from the Relative Values All Species data set of the Fisheries Sensitivities Maps in British Waters.</p>	Greater than 5	Between 1 and 5	1 or less
Aquaculture	<p><b>Referring</b> to the deterministic modelling</p> <p><b>Identify</b> those areas with shoreline oiling and the SEPA Aquaculture Maps 2009</p> <p><b>Identify</b> how many Aquaculture sites are located on those areas of coastline.</p>	Greater than 30	Between 5 and 30	5 or less
Length of coastline impacted	<p><b>Referring</b> to the deterministic modelling</p> <p><b>Measure</b> the lengths of coastline with shoreline oiling. Note that no difference is applied for differing shoreline types.</p> <p><b>Identify</b> the length of coastline oiled in miles.</p>	Greater than 100 miles/160 km	Between 10 and 100 miles/16 and 160 km	10 miles /16 km or less
Volume of oil on shoreline	<p><b>Referring</b> to deterministic modelling</p> <p><b>Identify</b> areas with shoreline oiling.</p> <p><b>Identify</b> the volumes of oil to come ashore in m<sup>3</sup>.</p>	Greater than 5000m <sup>3</sup>	Between 1000 and 5000m <sup>3</sup>	Less than 1000m <sup>3</sup>

4.2.9 The numerical values assigned to each category as a result of the assessment using Table 1 should then be added together to achieve an overall score. The score will indicate the financial Banding that will apply as per Table 2 (Banding assignment) and this Banding should determine the level of FR to be demonstrated in respect of clean up and compensation.

- 4.2.10 Note also that the highest amount of FR of US \$750 million (US \$500 million in addition to FR demonstrated to OPOL) which results from the Banding exercise only applies to pollution remediation and compensation costs. The cost of well control would need to be demonstrated in addition. This highest amount of FR is based on the modelling carried out to date in the OPOL/Oil & Gas UK Oil Spill Cost Study and will be kept under review as further modelling is carried out. It does not reflect a cap on the liability of the parties (see paragraph 1.1.3), but only on the amount of FR which it is recommended they should demonstrate to DECC as part of the well consent process.

**Table 2 Banding assignment according to score**

<b>Scores added together</b>	<b>Banding</b>	<b>FR recommended to be demonstrated (for 100% interest in well)</b>
No calculation – see paragraph 4.1.6 above	None	Not considered necessary to demonstrate FR for pollution remediation/compensation
5 or less	1	US \$250m – it is considered that the financial responsibility demonstrated by the operator to OPOL will be sufficient for pollution remediation and compensation
6 or 7	2	US \$375m (US \$125m to address legal liability for pollution remediation and compensation in addition to financial responsibility demonstrated by the operator to OPOL)
8 or 9	3	US \$500m (US \$250m to address legal liability for pollution remediation and compensation in addition to financial responsibility demonstrated by the operator to OPOL)
10 – 12	4	US \$750m (US \$500m to address legal liability for pollution remediation and compensation in addition to financial responsibility demonstrated by the operator to OPOL)

### **4.3 Methodology**

- 4.3.1 To keep the methodology up-to-date, the bands and methodology should be reviewed on a three yearly basis. Oil & Gas UK expects to carry out the first review 12 months after the issue of these Guidelines and then every three years thereafter.

### **4.4 Constraints / Boundaries / Assumptions**

- 4.4.1 Neither preventative measures nor containment or response capability should reduce the score calculated according to Table 1.
- 4.4.2 If the operation involves more than one well or there are a number of options, all wells and options should be run through Table 1 and the highest score used to calculate the FR band.
- 4.4.3 A surface release with worst case discharge volumes and worst case fate effects (i.e. movement to sensitive areas / shoreline times) should be used, for example if the period of operation extends over different seasons and winter modelling gives a different result to summer modelling then the worst case should be applied.
- 4.4.4 Well flows may be assumed to cease flowing after 30 days to reflect capping/containment but releases during that period should then be modelled until reaching shore or dispersing at sea.

### **4.5 Data Included in the Certificate**

- 4.5.1 The information regarding the band of estimated costs of pollution remediation and compensation into which the well falls, should be included on a certificate in the form attached as Appendix 1 to ensure a consistent approach across industry.
- 4.5.2 The operator should certify it has carried out its assessment in accordance with these Guidelines. The operator should also certify that its co-venturers have approved the assessment.

**Table 3 Validation Example – The Northern North Sea release scenario from OPOL/Oil & Gas UK Oil Spill Modelling report**

Category	Assessment by Reference to Table 1 instructions	Score by Reference to Table 1
Fisheries	By overlaying the Fisheries Atlas on the trajectory modelling identify the number of ICES squares the spill transits through  Assessment = 4 ICES squares showing coverage  Result = Between 1 and 5	2
Aquaculture	From this scenario and counting the number of fish farms affected.  Count approx. 0  Result = 1 or less	1
Length of coastline impacted	Measurement = 0miles  Result = 10 miles or less	1
Volume of oil on shoreline	Measurement = 0m <sup>3</sup>  Result = Less than 5000m <sup>3</sup>	1
		Total Score = 5 Assigned Band = 1

## 5 Demonstration of Financial Responsibility

### 5.1 Introduction

5.1.1 For each relevant well, the joint venture should be in a position to demonstrate that each co-venturer has the financial resources to meet its proportionate share of the aggregate of:

- (1) The costs of a well control incident estimated in accordance with Section 3 of these Guidelines; and
- (2) The remediation and compensation costs arising from pollution, as estimated in accordance with Section 4 of these Guidelines. Note that for Band 1 wells, it is considered that the financial responsibility demonstrated by the operator to OPOL will be sufficient.

5.1.2 Alternatively, as set out in paragraph 5.4 below, the operator may choose to demonstrate that it has the financial resources to meet the total amount. The operator/co-venturer may choose different methods of demonstrating

financial responsibility for the two parts of the calculation, and/or may use a combination of methods for either part, provided that in aggregate they provide the necessary coverage. It should be noted that there is no requirement for the resources made available to meet well control costs to be available to meet the costs of remedial measures or vice versa (although some insurances may not contain individual limits for the two categories of cost).

## **5.2 Demonstrating FR**

- 5.2.1 At the time of submitting its OPEP in connection with any application for consent to drill an exploration or appraisal well, the operator should demonstrate that the appropriate level of FR is in place. The OPEP may be submitted in draft in which case it should generally be sufficient if the assessment of FR is provided by the time the OPEP is in final form. Certificates demonstrating the provision of the FR may be provided later but DECC is unlikely to grant drilling consent until these have been received.
- 5.2.2 If a company (whether an operator or a co-venturer) is involved in a number of simultaneous drilling operations on the UKCS then it should be sufficient for it to demonstrate that it has FR which would respond to any of those operations and which is at a level appropriate to the worst case scenario well out of those operations. It should not normally be necessary for an operator or co-venturer to demonstrate multiples of FR for simultaneous operations. Equally, if a number of wells are included in a single drilling consent application then it should only be necessary to demonstrate FR at a level applicable to the worst case scenario produced by the suite of wells within the application, provided that the FR would respond to any of those wells and in such circumstances only one Certificate/set of Certificates is required for the application.

## **5.3 Example**

- 5.3.1 In 2013 Company A is planning in its capacity as operator to drill two wells, a Band 1 well on a licence where it holds a 40% interest and a Band 3 well where it holds 30%. Meanwhile, it is a 10% co-venturer in a licence where the operator is planning a Band 4 well. As it happens, all three wells are due to spud in April or May 2013. Assume the costs of controlling the well are estimated in each case at \$240 million dollars.
- (1) For the Band 1 well, remediation and compensation costs are considered to be adequately addressed by the operator's OPOL provision but it should demonstrate to DECC resources to address the control of well costs of 40% of \$240m = \$96m.
  - (2) For the Band 3 well it should show 30% of \$250 m i.e. \$75m of resources for remediation/compensation liability (in addition to the operator's OPOL provision) plus 30% of \$240m of control of well costs (\$72m), a total of \$147m
  - (3) For the Band 4 well it should show 10% of \$500 m (\$50m) of resources for remediation/compensation liability (in addition to any requirement it may

have contractually to contribute to the operator's OPOL coverage) plus 10% of \$240 m of control of well costs, a total of \$74 m.

- 5.3.2 In order for this operator to comply with the good practice recommendations of these Guidelines, during April 2013 it should have resources of \$147 million, as its worst case scenario is the Band 3 Well. If it chooses to demonstrate FR using a Combined Single Limit insurance policy it should therefore provide for coverage of a minimum of \$147m in addition to its OPOL provision.
- 5.3.3 However, if the operator is using insurance with separate limits for control of well and remediation/compensation, or separate forms of FR for the two elements of cost, then it will need to consider its worst case scenario for each element. On this basis, its worst case scenario for control of well is the Band 1 Well so it should have resources of \$96 million for this while its worst case scenario for Remediation/Compensation is the Band 3 Well so it should provide for \$75m for this. If it chooses to meet its FR requirements by insurance then it should provide an insurance policy with a limit of at least \$96 million for control of well and \$75 million for remediation and compensation.
- 5.3.4 In either case, the insurance policy should provide coverage for all 3 wells and will be provided in connection with all 3 well consent applications.
- 5.3.5 Company B is the operator of the Band 4 well and holds a 60% interest in that well. It is not involved in any other drilling operations in the UKCS in 2013. In order to comply with the good practice recommendations of these Guidelines, Company B should have insurance, or other FR, of at least 60% of \$500m and 60% of \$240 m = \$444 million.

#### **5.4 Operator or Joint Venture Approach**

- 5.4.1 Sections 3 and 4 set out above estimate the potential exposure of the joint venture to specific categories of costs arising out of a well control incident. In the first instance, well control costs would usually be incurred by the operator, who would pass these back to its co-venturers under the provisions of the JOA. Claims for damage might also be made against the operator in the first instance, particularly under the OPOL scheme, but again these would usually ultimately fall to the joint account under the JOA, and be shared between the co-venturers.
- 5.4.2 In most cases therefore it will be appropriate for each co-venturer to demonstrate its share of the FR to be demonstrated under these Guidelines, which will in most cases be proportionate to its interest under the licence and JOA. (The co-venturers may have made other arrangements as to the allocation of this liability between them, for instance where the working interest in the well changes at different geological horizons or where the well is a sole risk well. In such cases, provided the total FR demonstrated meets the estimate made under these Guidelines, this should be sufficient to satisfy DECC's requirements).
- 5.4.3 If each co-venturer is to demonstrate its own capacity to meet its percentage interest share of the recommended overall level of FR, then the operator

should be responsible only for forwarding evidence supplied to it by its co-venturers relating to their financial resources which in total demonstrates FR to the level of the total costs of well control, pollution remediation and compensation estimated in accordance with these Guidelines. Under these Guidelines, the operator is not responsible for verifying the accuracy of the evidence supplied by its co-venturers or reviewing the underlying documents (although it might wish to do so for its own purposes) nor should the operator be expected to carry out any ongoing monitoring of the status of the FR provided by its co-venturers.

- 5.4.4 Each co-venturer may choose a different method (or combination of methods) to establish its own FR.
- 5.4.5 The operator's OPOL provision may be used as part of its FR for the purposes of these Guidelines and should satisfy the requirements to provide coverage for remediation and pollution costs in respect of a Band 1 well, and the first US \$250 million of the remediation and pollution coverage required for higher band wells. The operator is likely to require its co-venturers to demonstrate that they have their own coverage in respect of liabilities under OPOL but it should not be necessary for this to be demonstrated to DECC.
- 5.4.6 The operator could, for administrative ease, in respect of any drilling operation, choose to fulfil the joint venture's FR requirement based solely on its own resources (for instance where it has the required credit/financial strength rating under paragraph 5.6) but there is no expectation that this will be the case. If it chooses to do so, it is likely to require its co-venturers nonetheless to demonstrate their financial capacity to the operator's satisfaction.
- 5.4.7 It should be noted that the demonstration of FR to DECC under the OPEP is a separate matter to any requirements for the demonstration of financial security between the co-venturers to the joint venture, which may reach different conclusions as to the levels of security required and the way in which these should be demonstrated.

## **5.5 Recommended Methods of Demonstrating Financial Responsibility**

- 5.5.1 Recommended methods of demonstrating FR are set out below, and further details are given in the rest of this section:
  - (1) Reliance on credit/financial strength rating of the relevant operator/co-venturer;
  - (2) Insurance;
  - (3) Parent company/affiliate undertaking;
  - (4) Any combination of the above (for instance it may be appropriate to use different methods to meet the two elements of the FR figure);

- (5) Any other means acceptable to DECC – for instance in particular cases DECC may be prepared to accept a letter of credit.

- 5.5.2 JOAs may limit which of these options co-venturers may use or set additional requirements for them.
- 5.5.3 DECC is unlikely to object to any operator or co-venturer replacing one form of FR with another form of FR provided the latter meets the recommendations of these Guidelines.

## **5.6 Reliance on Credit/Financial Strength Rating**

The primary financial measure used for assessing a company's capacity to meet any liability, such as its share of the costs associated with a well control incident (including pollution remediation and compensation costs) is a comparison of the liability against the financial strength of the company. The question is whether, if the liability should crystallise, the company could meet its share of those costs out of its own resources and thus effectively self-insure against the loss. Such financial strength can be demonstrated by possessing an adequate credit or financial strength rating awarded by an independent rating agency. DECC has indicated that at present it will not consider as sufficient for these purposes any rating which is less than "BBB-" from Standard & Poor's; less than "B+/bbb", from A.M. Best; less than "Baa3" from Moody's; less than "BBB-" from Fitch ("Investment Grade"). This does not affect arrangements between co-venturers which may set other standards.

## **5.7 Insurance**

- 5.7.1 If a company does not satisfy the financial strength test set out above then it may demonstrate its FR by taking out insurance with third party insurer(s) (including a captive). The insurer(s) should be authorised by the Financial Services Authority, be exempt from authorisation in the UK or be subject to an equivalent level of regulation for the purposes of the Solvency II Directive. (Non-admitted insurance is acceptable provided it is not prohibited.). It should also have an adequate credit or financial strength rating. DECC has indicated that at present it will not consider as sufficient for these purposes, any rating which is less than Investment Grade.
- 5.7.2 The policy or policies should cover well control, and/or legal liability for pollution remediation and compensation, as applicable, on terms which are market standard for those types of coverage. The company may have separate policies for well control and for remediation and compensation liability provided the relevant levels of FR are appropriately demonstrated. The policy may also cover other risks e.g. re-drill and/or may also apply to operations outside the UKCS. The policy may have a Combined Single Limit for all risks. Provided that the limit is equal to or greater than the level of FR suggested under these Guidelines (taking account of any ring-fenced OPOL coverage) there should be no requirement for the insurance coverage required under these Guidelines to be ring-fenced from other risks or for UKCS coverage to be ring-fenced from coverage for other areas of operation.
- 5.7.3 Where insurance is being used to demonstrate provision of both elements of FR covered by these Guidelines i.e. well control and remediation/pollution liability, the combined limit of liability under the policy or policies should equal

or exceed the aggregate figure for well control, and for pollution remediation and compensation estimated in accordance with these Guidelines. For clarity, each co-venturer should only be required to demonstrate that level of FR relevant to its participating interest in the joint venture (except where an operator has chosen to demonstrate FR for the entire venture). It should be noted that insurance is often provided on the basis of the limit of liability for a 100% interest, but that limit is then scaled down to the relevant participating interest of the policy holder in a well. For example, a policy might have a limit of US \$250 million dollars for a 100% interest. If the policy holder had a 50% interest in the well, the effective coverage under the policy for the insured's interest would only be US \$125 million. Therefore, if the FR recommended to be demonstrated under these Guidelines for a particular well was US \$500 million dollars, the 50% owner would need to demonstrate FR of US \$250 million dollars for its interest. The insurance policy with a limit of US \$250million for 100% would not be sufficient to show FR since it would amount to FR of only US \$125 million dollars.

- 5.7.4 The insurance should cover the entire duration of the drilling activity. If the insurance is an annual policy which expires during the drilling period then it should be renewed or replaced as set out in paragraph 6.3.5.
- 5.7.5 Deductibles should not exceed US \$10 million for any interest.
- 5.7.6 Insurance should be evidenced by a certificate signed by the insurer or broker substantially in the form set out as Appendix 4.

## **5.8 Parent company/affiliate undertaking.**

- 5.8.1 FR may also be demonstrated by providing an undertaking to DECC. The undertaking should be given to DECC by the ultimate parent company or an affiliate of the operator/co-venturer which in either case has an adequate credit or financial strength rating. DECC has indicated that at present it will not consider as sufficient for these purposes, any rating which is less than Investment Grade.
- 5.8.2 The reason for recommending an undertaking rather than a guarantee is that the underlying obligations of the operator/co-venturer which are being supported are not owed directly to DECC and DECC may not be able to demonstrate loss which would enable it to claim on the guarantee, particularly in the case of pollution remediation and compensation. However, the parties who may suffer loss if an incident occurs are unknown and therefore cannot be party to a guarantee at the time the consent is sought. In order to render the undertaking effective, but to avoid the administration which would be required by a trust arrangement we have recommended that the undertaking should be an undertaking by the parent or an affiliate to be liable for payments to third parties in respect of the identified categories of costs. This means that those third parties when they are identified could potentially use third party rights to claim under the undertaking. However, the undertaking provides that this liability is conditional, arising only where the subsidiary has failed to meet the relevant liability, and where a demand is made through DECC. Liability is limited to a sum which equals the relevant co-venturer's share of the FR estimated in accordance with these Guidelines (or the total amount if the operator is providing a undertaking for the entire venture) for

any Well to which it applies. The undertaking may also be for a limited period, corresponding to the anticipated duration of drilling of the relevant well.

- 5.8.3 The undertaking should be substantially in the form attached in the Schedule to Appendix 5.
- 5.8.4 The original of the undertaking should be submitted to DECC with the certificates unless it is drafted to cover more than one well in which case a certified copy should be provided, so that further copies can be taken and provided for subsequent wells.
- 5.8.5 If there is a call on a undertaking, then that undertaking is unlikely to provide adequate financial assurance for any other ongoing or future drilling operations and therefore a new undertaking or other financial assurance should be given by the relevant co-venturer or operator before any other drilling operations are consented and if ongoing drilling operations are to continue.
- 5.8.6 Counsel's opinion may be required by DECC in the case of undertakings from companies established outside the EU.

## 6 Completion and Submission of Certification Forms

### 6.1 Co-venturers to sign off on AFE and Banding

- 6.1.1 The operator should submit to its co-venturers for approval:
  - The AFE for the well to be drilled;
  - Its assessment of the appropriate Banding of the well for the purposes of these Guidelines.
- 6.1.2 The Operator may wish also to submit to its co-venturers for comment any Relief Well Estimate, but it is not expected that this will be approved in terms of authorisation for expenditure or inclusion in any budget.
- 6.1.3 It is expected that compliance with these Guidelines concerning the assessment of the relevant Banding and the operator's AFE should provide the necessary evidence to DECC but of course DECC may wish to satisfy itself of the accuracy of any of the assumptions behind those documents.

### 6.2 The Certification Process

The operator should submit with its OPEP a certificate setting out its calculation of the level of FR to be provided (Certificate of Assessment) – this may be done on the form set out in Appendix 1. Then, if the operator is demonstrating FR for the whole joint venture it should submit for the relevant well an FR certificate on the form in Appendix 2 and attach any relevant supporting documents. If however each co-venturer is satisfying its participating interest share of the relevant FR then each co-venturer should sign an FR certificate on the form in Appendix 3 and attach any relevant supporting documents.

- 6.2.1 The operator should certify that it has carried out the assessment as required by the Guidelines and that it is attaching evidence relating to its own financial resources and/or evidence supplied to it by its co-venturers relating to their financial resources and that this evidence in total demonstrates FR to the total level of the costs of well control, pollution remediation and compensation estimated in accordance with these Guidelines. Under these Guidelines, the operator is not responsible for verifying the accuracy of the evidence supplied by its co-venturers or reviewing the underlying documents (although it may wish to do so for its own purposes).
- 6.2.2 The certificates should be signed by somebody with appropriate authority within the relevant company for these operations and financial commitments. In some instances this may need to be the Managing Director.
- 6.2.3 The operator should then submit to DECC the Certificate of Assessment and the relevant FR Certificates and any original undertakings. It is recommended that no other supporting evidence is provided to DECC unless and until DECC requests it. It will generally be sufficient if the assessment of FR is submitted with the final draft OPEP. Certificates demonstrating the provision of the FR may be provided later but DECC is unlikely to grant drilling consent until these have been received.

### **6.3 Changes affecting FR**

- 6.3.1 DECC is unlikely to object to any operator or co-venturer replacing one form of FR with another form of FR provided the latter meets the requirements of these Guidelines.
- 6.3.2 Any other change in circumstances which the operator/co-venturer considers to have a material impact on FR provision should be notified to DECC in writing.
- 6.3.3 If any FR ceases to be valid during the application process or during drilling e.g. an insurance policy expires or a fall in rating means that an insurer or provider of an undertaking no longer possesses the required rating then DECC should be informed by the relevant co-venturer promptly in writing and replacement FR, which meets the requirements of these Guidelines, should be demonstrated as soon as practicable or in any event within 30 days.
- 6.3.4 Increases in any AFE which forms the basis of the calculation of the amount of FR under these Guidelines would not normally require any change to the FR, unless they have a material impact as noted in 6.3.2
- 6.3.5 Operators and Co-venturers should be aware that DECC may at any time require them to provide further information or evidence of FR. This should be provided promptly if required.

## Appendix 1

### Certificate of Assessment of Financial Responsibility for Well Operations in the UKCS

ISSUED TO The Department of Energy and Climate Change (which shall include its successor from time to time) (“**DECC**”) in respect of United Kingdom Petroleum Licence Number [NUMBER], Block [NUMBER], Well [NUMBER / PRE-SPUD NAME] (the “**Well**”).

We, the undersigned Operator, as operator of the Well, hereby certify that we have followed the Guidelines on Financial Responsibility for Well Operations in the UKCS dated [DATE], as amended from time to time (the “**Guidelines**”). Accordingly, we, the undersigned Operator, hereby certify as follows:

#### 1. Control of the Well

1.	The Well will not flow without artificial lift (and therefore as set out in paragraph 3.1.7 of the Guidelines, it is not considered necessary to assess the cost of controlling the Well).	True  False (if false, please complete box 2)
2.	Our assessment for the cost of controlling the Well (Control of Well Cost) is	US \$ _____
3.	The Control of Well Cost has been calculated as set out in section 3 of the Guidelines and includes the estimated cost of deployment of a capping device.	Yes  No (if no please complete box 4)
4.	The Control of Well Cost has been calculated as set out in section 3 of the Guidelines, but we have excluded the estimated cost of deployment of a capping device.	Yes (if yes, please complete box 5)  No (if no please complete box 6)
5.	We have not included the cost of deploying a capping device in the Control of Well Cost because [set out reasons]	
6.	The Control of Well Cost has not been calculated as set out in section 3 of the Guidelines because [set out reasons]	

## 2. Pollution Remediation and Compensation

7.	As set out in section 4 of the Guidelines, it is not considered necessary to demonstrate FR for remediation and compensation costs for the Well (" <b>Remediation Costs</b> ") in addition to the FR already demonstrated to OPOL and Remediation Costs are therefore NIL. This assessment has been approved by our co-venturers.	True (if yes please proceed to box 8)  False (if no please proceed to box 9)
8.	It is not considered necessary to demonstrate FR for remediation and compensation costs in addition to the FR already demonstrated to OPOL because the Well is (tick as applicable):  Gas well;  Gas condensate well (other than HP/HT wells);  Well which require artificial lift to flow.	
9.	As set out in section 4 of the Guidelines, it is our assessment that the Well falls into <b>Band 1</b> , therefore there is no requirement to demonstrate Remediation Costs in addition to OPOL (which has already been demonstrated by the Operator to DECC). This assessment has been approved by our co-venturers.	Yes  No (if no please proceed to box 10)
10.	As set out in section 4 of the Guidelines, it is our assessment that the Well falls into <b>Band 2</b> and therefore we are required to demonstrate Remediation Costs of US \$125 million in addition to our OPOL provision. This assessment has been approved by our co-venturers.	Yes  No (if no please proceed to box 11)
11.	As set out in section 4 of the Guidelines, it is our assessment that the Well falls into <b>Band 3</b> and therefore we are required to demonstrate Remediation Costs of US \$250 million in addition to our OPOL provision. This assessment has been approved by our co-venturers.	Yes  No (if no please proceed to box 12)
12.	As set out in section 4 of the Guidelines, it is our assessment that the Well falls into <b>Band 4</b> and therefore we are required to demonstrate Remediation Costs of US \$500 million in addition to our OPOL provision. This assessment has been approved by our co-venturers.	Yes  No

### 3. Total Financial Responsibility for Well Operations

The total financial responsibility for well operations in respect of the Well is

Control of Well Cost	US \$[FIGURE]
Remediation Cost	US \$[FIGURE]
Total	US \$[FIGURE] (" <b>Total FR</b> ").

### 4. Evidence of Financial Responsibility

We, the undersigned Operator hereby attach [a Co-venturer's Certificate of Financial Responsibility for its Participating Interest in a Well from each of our co-venturers as set out in the Appendix 3 of the Guidelines]

OR

[an Operator's Certificate of Financial Responsibility for Well (Operator demonstrating FR for entire joint venture)] as set out in Appendix 4 of the Guidelines]

**Delete as applicable;** and

### 5. Co-venturers and Shares of Total FR

Co-venturer	% Interest	Share of Control of Well Cost	Share of Remediation Cost	Co-venturer FR (total of figures in columns 3 and 4)
Totals				

**Signed for and on behalf of the Operator as follows:**

.....Name of Operator

.....Address of Operator

.....Authorised Signature

.....Full Name

.....Title

.....Date

.....Authorised Signature

.....Full Name

.....Title

.....Date

## Appendix 2

### **Operator's Certificate of Financial Responsibility for Well (Operator demonstrating FR for entire joint venture)**

ISSUED TO The Department of Energy and Climate Change (which shall include its successor from time to time) ("DECC") in respect of United Kingdom Petroleum Licence Number [NUMBER], Block [NUMBER], Well [NUMBER / PRE-SPUD NAME] (the "Well") .

We, the undersigned Operator, as operator of the Well, hereby certify that as set out in the Guidelines on Financial Responsibility for Well Operations in the UKCS dated [DATE], as amended from time to time (the "Guidelines"), we have in place as at the date of this Certificate the financial resources necessary to meet the aggregate of the Control of Well Cost and the Remediation Costs (as defined and set out in the Certificate of Assessment of Financial Responsibility for Well Operations in the UKCS), being US \$[AMOUNT] ("Total FR").

As set out in paragraph 5 of the Guidelines, we have elected to establish financial responsibility to fulfil our obligations in respect of well control, pollution remediation and compensation of the Well, by [reliance on credit or financial strength rating/ insurance /parent company/affiliate undertaking]. [Delete as appropriate – may be a combination]

Accordingly, we, the undersigned Operator: [Delete as appropriate]

- Hereby represent and certify that as at the date of this Certificate we have one or more of the following credit or financial strength ratings: "BBB-" or higher from Standard & Poor's; "B+/bbb" or higher from A.M. Best; "Baa3" or higher from Moody's; "BBB-" or higher from Fitch; and/or the equivalent from another internationally recognised credit rating agency.
- Attach a certificate of Insurance in the form set out in Appendix 4 of the Guidelines.
- Attach a certified copy of a Parent Company/Affiliate Undertaking in the form set out in Appendix 5 of the Guidelines.
- Confirm that we have no reason to believe that such [rating/insurance/undertaking] will not continue to be in place for the duration of the drilling activity on the Well
- Agree that we shall, at the request of DECC, provide such supporting evidence as DECC may reasonably require from time to time to demonstrate our financial resources to meet our obligations in respect of the Total FR.

**Signed for and on behalf of the Operator as follows:**

.....Name of Operator

.....Address of Operator

.....Authorised Signature

.....Full Name

.....Title

.....Date

.....Authorised Signature

.....Full Name

.....Title

.....Date

e

## Appendix 3

### Co-venturer's Certificate of Financial Responsibility for its Participating Interest in a Well

ISSUED TO The Department of Energy and Climate Change (which shall include its successor from time to time) ("DECC") in respect of United Kingdom Petroleum Licence Number [NUMBER], Block [NUMBER], Well [NUMBER / PRE-SPUD NAME] (the "Well").

We, the undersigned Co-venturer, as a party to a joint operating agreement relating to the Well, hereby certify that, as required by the Guidelines on Financial Responsibility for Well Operations in the UKCS dated [DATE], as amended from time to time (the "Guidelines"), we have in place as at the date of this Certificate the financial resources necessary to meet our percentage interest share of the Control of Well Cost and the Remediation Costs (as defined and set out in the Certificate of Assessment of Financial Responsibility for Well Operations in the UKCS), being:

\_\_\_% Share of Control of Well Cost = US \$[AMOUNT]

\_\_\_ % Share of Remediation Costs = US \$[AMOUNT]

Total US \$[AMOUNT] ("Co-venturer FR").

In accordance with paragraph 5 of the Guidelines, we have elected to establish financial responsibility to fulfil our obligations in respect of well control, pollution remediation and compensation of the Well, by [reliance on credit or financial strength rating / insurance /parent company/affiliate undertaking]. [Delete as appropriate – may be a combination]

Accordingly, we, the undersigned Co-venturer: [**Delete as appropriate**]

- Hereby confirm that we support the assessment by the Operator that the Well falls within Band [X] for the purposes of the Guidelines
- Hereby represent and certify that as at the date of this Certificate we have one or more of the following credit or financial strength ratings: BBB- or higher from Standard & Poor's; B+/bbb- or higher from A.M. Best; Baa3 or higher from Moody's; BBB- or higher from Fitch; and/or the equivalent from another internationally recognised credit rating agency.
- Attach a Certificate of Insurance in the form set out in Appendix 4 of the Guidelines.
- Attach a certified copy of a Parent Company/Affiliate Undertaking in the form set out in Appendix 5 of the Guidelines.

- Confirm that we have no reason to believe that such [rating/insurance/undertaking] will not continue to be in place for the duration of the drilling activity on the Well.
- Agree that we shall, at the request of DECC, provide such supporting evidence as DECC may reasonably require from time to time to demonstrate our financial resources to meet our obligations in respect of the Co-venturer FR.

**Signed for and on behalf of the Co-venturer as follows:**

.....Name of Co-venturer

.....Address of Co-venturer

.....Authorised Signature

.....Full Name

.....Title

.....Date

.....Authorised Signature

.....Full Name

.....Title

.....Date

## Appendix 4

### Verification of Insurance

ISSUED TO The Department of Energy and Climate Change (which shall include its successor from time to time) ("DECC")

We the undersigned [Insurer] OR [Insurance Broker or Agent] hereby certify and agree:

(1) that policy number ..... effective from .....

and expiring on..... has been issued  
to.....  
.....(hereinafter referred to as the 'Insured')  
whose address is at

.....  
.....

by us, the undersigned.

(2) that subject to the policy terms and conditions, the policy provides for

- Control of Well insurance up to a limit of US \$..... Per Incident [100%] OR [for Insured's interest];
- Seepage and Pollution, Clean-up and Contamination Insurance (including coverage for remediation and compensation) up to a limit of US \$..... Per Incident [100%] OR [for Insured's interest] (including/excluding OPOL coverage);
- Control of Well plus Seepage and Pollution, Clean-up and Contamination Insurance (including coverage for pollution remediation and compensation) with a combined single limit of US ..... Per Incident [100%] OR [for Insured's interest] (including/excluding OPOL coverage)
- Deductible: Per Incident US \$.....[100%]

*[Delete as appropriate]*

Occurring in respect of [exploration/details of specific coverage] on the UKCS during the period the policy is in effect<sup>3</sup>

(3) that the coverage afforded by the said policy will not be cancelled until notice in writing has been given to the Insured and, furthermore, that such cancellation shall not become effective until after the expiration of 30 days from the date the notice is received by the Insured;

(4) [that we have one or more of the following credit or financial strength ratings]

OR

[that the insurers underwriting the policy above each have one or more of the following credit or financial strength ratings]:

“BBB-” or higher from Standard & Poor’s; “B+/bbb-” or higher from A.M. Best; “Baa3” or higher from Moody’s; “BBB-” or higher from Fitch; and/or the equivalent from another internationally recognised credit rating agency.

If [we cease] OR [any such insurer ceases] to satisfy such requirement, then we shall as soon as practicable notify the Insured and DECC in writing of the same.

*[Delete as appropriate]*

The issuance of this document does not make DECC an additional insured, nor does it modify in any manner the contract of insurance between the Insured and the Insurer.

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<sup>3</sup> Note that the policy may also provide coverage against other risks and against risks in other regions. If separate policies are in place for COW and TPL, two forms should be completed.

**Signed for and on behalf of the [Insurer] / [Insurance Broker or Agent] as follows:**

.....Name of [Insurer] / [Insurance Broker or Agent]

.....Address of [Insurer] / [Insurance Broker or Agent]

.....Authorised Signature

.....Full Name

.....Title

.....Date



## Appendix 5

### Form of Parent Company/Affiliate Undertaking

**THIS DEED OF COVENANT** dated [●]

**IS GRANTED BY:**

- (1) [●], (registered in [England] with number [●]) whose registered office is at [●]  
(‘**Grantor**’);

**IN FAVOUR OF:**

- (2) [The Secretary of State for Energy and Climate Change (“**Secretary**”).]

#### **BACKGROUND**

- (A) The [Company/Companies] (as hereinafter defined) [is/are each] [operator of or a co-venturer in one or more United Kingdom Petroleum Production Licences pursuant to which applications may be made for consent to drill exploration and appraisal wells (the “**Wells**”) ] [a licensee under United Kingdom Petroleum Licence Number [NUMBER], Block [NUMBER] pursuant to which application has been made to drill Well [NUMBER] (the “**Well**”)] .

***[Delete as appropriate: Note that the covenant may be given for a specific well or for all E & A wells drilled in the UKCS under any licence in which the Company is either operator or co-venturer so that there is no requirement for the Grantor to give multiple Deeds of Covenant. If the Grantor has multiple UK operating subsidiaries, the Deed may be amended to apply to all subsidiaries of the Grantor from time to time which are operators of/co-venturers in one or more UK PPLs or to specifically identified subsidiaries which fall into that category.]***

- (B) Pursuant to the Guidelines on Financial Responsibility for Well Operations in the UKCS dated [DATE], as amended from time to time (“**Guidelines**”), [the/each] Company wishes to demonstrate that it has the financial resources to fulfil its obligations in respect of well control, pollution remediation and compensation in respect of the Well(s).
- (C) Accordingly, the Grantor has agreed to assist [the/each] Company in demonstrating that it has such financial resources in place by covenanting to be jointly and severally liable with [the/such] Company for certain potential future obligations of [the/such] Company.

IT IS AGREED as follows:

## 1. Definitions and interpretation

### 1.1 Definitions

In this Deed:

**[Affiliate]** means: (a) if the Grantor has its registered office in the UK, any subsidiary or holding company of the Grantor or any other subsidiary of such holding company. For the purpose of this paragraph (a) of this definition, “subsidiary” and “holding company” shall have the respective meanings ascribed to them under Section 1159 of the Companies Act 2006 (and a company shall be treated, for the purposes only of the membership requirement contained in subsections 1159(1)(b) and (c), as a member of another company even if its shares in that other company are registered in the name of (i) another person (or its nominee) by way of security or in connection with the taking of security, or (ii) its nominee); or (b) if the Grantor has its registered office outwith the UK, any company or other entity controlled by, under the control or under common control with, the Grantor. For the purposes of this paragraph (b) of this definition, “control” shall mean the right to exercise directly or indirectly the vote of more than fifty percent (50%) of the voting shares or being a member of and having the right to appoint or remove a majority of the board of directors and “controlled” shall be construed accordingly;]

**Company** means [[•] (registered in [England] with number [•]) whose registered office is at [•]] **OR** [any [Affiliate/Subsidiary] from time to time of the Grantor which is operator of or a Co-venturer in one or more United Kingdom Petroleum Production Licences] **OR** [those [Affiliates/Subsidiaries] of the Grantor which are identified in Schedule 1];<sup>4</sup>

**Demand** means any written demand issued by the Secretary in respect of any liability of the Grantor pursuant to Clause 2.1 of this Deed, requiring the payment of Indemnified Obligations, (which written demand shall specify in reasonable detail the identity of the Third Party and the basis of liability for and calculation of the Indemnified Obligations);

**Expiry Date** means the earliest of the following dates:

(a) [•];

(b) where this Deed is given in respect of a single Well, the date on which drilling operations on such Well are completed and the drilling rig has moved away from the Well location

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<sup>4</sup> The undertaking may relate to a specific company or Grantor may issue a single guarantee for all of its relevant subsidiaries, or if appropriate, affiliates. If the guarantee is for a specific company, the definitions of Affiliate and Subsidiary can be deleted and the references to those terms in the definition of Company can also be deleted.

**Guidelines** has the meaning given to it in recital (B) above;

**Indemnified Obligations** means the Indemnified Well Control Obligation and the Indemnified Pollution Remediation/Compensation Obligation;

**Indemnified Pollution Remediation/Compensation Obligation** means all legal liabilities now or hereafter due, owing or incurred by the Company in respect of the cost of remediating any pollution arising directly as a result of any Well being Out of Control during the period of validity of this Deed and/or the cost of any compensation for pollution damage awarded by any court of competent jurisdiction against the Company to any Third Party arising directly as a result of any Well being Out of Control during the period of validity of this Deed which award is final and non-appealable;

**Indemnified Well Control Obligation** means the actual costs and expenses incurred by the Company in regaining or attempting to regain control of any Well(s) which get Out of Control during the period of validity of this Deed, including the costs of drilling any relief well, but only such costs and/or expenses incurred until such Well is brought Under Control;

**Insolvency Event** means in relation to any Party:

- (a) any resolution being passed or order being made for the winding-up, dissolution, administration or reorganisation of such Party;
- (b) any composition, compromise, assignment or arrangement being made with any of its creditors;
- (c) the appointment of any liquidator, administrator, receiver, administrative receiver, compulsory manager or other similar office in respect of the Party or any of its assets; or
- (d) any analogous procedure or step being taken in any jurisdiction;

**Maximum Amount** means in respect of any Well the lower of (i) [*insert figure*] and (ii) the aggregate of the Well Control Limit and the R/P Limit;

***[Note: The Guarantee is limited to the amount of FR to be demonstrated by the Company in respect of the particular Well whether that is the Total FR (where the Company is the Operator and has chosen to demonstrate the whole amount for convenience) or its Co-venturer FR. However, in order to manage their exposures, parents may wish also to include a specific maximum (based on Banding amounts, an estimate of likely Control of Well Costs and their largest participating interest) so that they are made aware if a subsidiary is to drill a well in a higher band and in such circumstances may need to issue a separate or replacement guarantee.]***

**Out of Control** in relation to any well (including a Well) means that there is an unintended flow from the well of drilling fluid, oil, gas or water above the surface of the ground or water bottom, which flow either:

- (a) cannot promptly be stopped by use of the equipment on site and/or the blowout preventer, storm chokes or other equipment at the well site;
- (b) cannot promptly be stopped by increasing the weight by volume of drilling fluid or by the use of other conditioning materials in the relevant well(s);
- (c) cannot be safely diverted into production;

**Party** means a party to this Deed;

**R/P Limit** means in respect of any Well the Pollution Remediation/Compensation Costs specified in the Operator's Certificate of Financial Responsibility for Licence Area/Well (Operator demonstrating FR for entire joint venture) signed by the Company in respect of the Well or the Share of Pollution Remediation/Compensation Costs specified in the Co-venturer's Certificate of Financial Responsibility for its Participating Interest in a Well signed by the Company in respect of the relevant Well (as the case may be);

**[Subsidiary** means: (a) if the Grantor has its registered office in the UK, any subsidiary of the Grantor. For the purpose of this paragraph (a) of this definition, "subsidiary" shall have the meaning ascribed to it under Section 1159 of the Companies Act 2006 (and a company shall be treated, for the purposes only of the membership requirement contained in subsections 1159(1)(b) and (c), as a member of another company even if its shares in that other company are registered in the name of (i) another person (or its nominee) by way of security or in connection with the taking of security, or (ii) its nominee); or (b) if the Grantor has its registered office outwith the UK, any company or other entity controlled by the Grantor. For the purposes of this paragraph (b) of this definition, "control" shall mean the right to exercise directly or indirectly the vote of more than fifty percent (50%) of the voting shares or being a member of and having the right to appoint or remove a majority of the board of directors and "controlled" shall be construed accordingly;]

**Tax Deduction** means a deduction or withholding for or on account of tax from a payment under this Deed;

**Third Party** means any person, company, partnership or other legal entity (not being a party to this Deed) to which any Indemnified Obligations are due and payable from time to time, as the Secretary may direct, pursuant to any Demand;

**Under Control** in relation to any well (including a Well) means that:

- (a) the flow giving rise to a claim hereunder stops, is stopped or can be safely stopped; or
- (b) the drilling, deepening, servicing, working over, completing, reconditioning or other similar operation(s) taking place in the well(s) immediately prior to the occurrence giving rise to a claim hereunder is (are) resumed or can be resumed; or

- (c) the well(s) is (are) or can be returned to the same producing, shut-in or other similar status that existed immediately prior to the occurrence giving rise to a claim hereunder; or
- (d) the flow giving rise to a claim hereunder is or can be safely diverted into production;

whichever shall first occur; and

**Well Control Limit** means in respect of any Well the Control of Well Cost specified in the Operator's Certificate of Financial Responsibility for Well (Operator demonstrating FR for entire joint venture) signed by the Company in respect of the relevant Well or the Share of the Control of Well Cost specified in the Co-venturer's Certificate of Financial Responsibility for its Participating Interest in a Well signed by the Company in respect of the relevant Well (as the case may be).

## 1.2 Interpretation

- (a) Unless a contrary indication appears, a reference in this Deed to:
  - (i) the Secretary, any other Party or any other person shall be construed so as to include, where relevant, its successors in title, permitted assigns and permitted transferees;
  - (ii) clauses are references to clauses of this Deed;
  - (iii) the Guidelines or any other agreement or instrument is a reference to the Guidelines or other document as amended, novated, supplemented or restated (however fundamentally) or replaced from time to time; and
  - (iv) a provision of law is a reference to a provision of any treaty, legislation, regulation, decree, order or by-law and any secondary legislation enacted under a power given by that provision, as amended, applied or re-enacted or replaced whether before or after the date of this Deed.
- (b) Clause and schedule headings are for ease of reference only.
- (c) Words importing the plural shall include the singular and vice versa.

## 1.3 Deed

This Deed is intended to take effect as a deed notwithstanding the fact that the Grantor may only execute this Deed under hand.

## 2. Covenant

### 2.1 Covenant

Subject to clauses 2.6 and 2.7, the Grantor:

- (a) covenants to the Secretary for the benefit of any Third Party to be liable for the Indemnified Obligations in respect of each Well; and

- (b) covenants to the Secretary for the benefit of any Third Party that (whenever [the/the relevant] Company does not satisfy any Indemnified Obligations, and following receipt by the Grantor of a Demand from the Secretary to make payment of the same) the Grantor shall make due and punctual payment of such Indemnified Obligations to any relevant Third Party entitled to be paid the same, and in any event within [five (5)] Business Days of receipt of the relevant Demand;

provided always that under no circumstances shall the Grantor's liability under this Deed exceed the liability of [the/the relevant] Company for the relevant Indemnified Obligations.

## 2.2 Continuing covenant

Subject to clauses 2.6 and 2.7, the covenants given in clause 2.1 of this Deed are continuing covenants and will extend to the ultimate balance of the Indemnified Obligations for each Well, regardless of any intermediate payment or discharge in whole or in part.

## 2.3 Reinstatement

If any discharge, release or arrangement is made by the Secretary or any relevant Third Party in whole or in part on the faith of any payment, security or other disposition given by the Grantor or the Company which is avoided or must be restored in insolvency, liquidation, administration or otherwise, without limitation, then the liability of the Grantor under this clause 2 will continue or be reinstated as if the discharge, release or arrangement had not occurred.

## 2.4 Waiver of defences

The obligations of the Grantor under this Deed will not be affected by an act, omission, matter or thing which, but for this clause, would reduce, release or prejudice any of its obligations under this Deed (without limitation and whether or not known to it or to the Secretary) including:

- (a) any release, time, waiver or consent granted to, or composition with, any person;
- (b) the taking, variation, compromise, exchange, renewal or release of, or refusal or neglect to perfect, take up or enforce, any rights against, or security over the assets of any person or any non-presentation or non-observance of any formality or other requirement in respect of any instrument or any failure to realise the full value of any security;
- (c) any incapacity or lack of power, authority or legal personality of or dissolution or change in the members or status of the Grantor, the Company or any other person;
- (d) any amendment (however fundamental) or replacement of the Guidelines or any other agreement or security;

- (e) any unenforceability, illegality or invalidity of any obligation of any person under the Guidelines or any other document; or
- (f) any insolvency of the Company or similar proceedings.

## 2.5 Third party rights

- (a) Unless expressly provided to the contrary in this Deed a person who is not a Party has no right under the Contracts (Rights of Third Parties) Act 1999 ("1999 Act") to enforce or enjoy the benefit of any term of this Deed.
- (b) Subject to the remaining provisions of this clause 2.5, this Deed is intended to be enforceable by a Third Party by virtue of the 1999 Act.
- (c) Notwithstanding clause 2.5(b), this Deed may be rescinded, amended or varied by the Parties without notice to or the consent of any Third Party even if, as a result, that person's right to enforce a term of this Deed may be varied or extinguished.
- (d) The rights of any Third Party under clause 2.5(b) shall be subject to the Third Party's written agreement to the provisions of this Deed. Any claim by a Third Party pursuant to this Deed shall be made through the Secretary and no such claim shall be enforceable unless and until a Demand has been served by the Secretary in accordance with clause 2.6. The Grantor shall have no liability to any Third Party to the extent that the aggregate of payments made under this Deed exceeds or would as a result of such liability exceed any of the limits set out in clause 2.7. In such circumstances the decision of the Secretary as to the apportionment of claims shall be final.

## 2.6 Recourse

- (a) The Grantor shall not be obliged to make payment to or at the direction of the Secretary of Indemnified Obligations demanded by the Secretary under clause 2.1 to the extent that such demand relates to Indemnified Obligations that the Grantor or the Company has already paid to the relevant Third Party in accordance with any Demand relating to the same or otherwise.
- (b) The Secretary shall not make a demand on the Grantor pursuant to clause 2.1 unless the Secretary has first made a demand on the Company and the Company has failed to comply with the same; and:
  - (i) the Secretary believes, in its reasonable opinion, that demand must be made on the Grantor urgently in order to preserve the rights of the Secretary under this Deed; or
  - (ii) an Insolvency Event has occurred in respect of the Company or the Grantor.

## 2.7 Maximum Amount

- (a) In no circumstances shall the amount recoverable from the Grantor under this Deed in respect of any Well exceed any of the following:

- (i) in aggregate a total financial sum equal to the relevant Maximum Amount applicable to that Well; or
  - (ii) the relevant Well Control Limit in respect of the Indemnified Well Control Obligation applicable to that Well; or
  - (iii) the relevant R/P Limit in respect of the Indemnified Pollution Remediation/Compensation Obligation applicable to that Well.
- (b) For the purposes of this clause 2.7 the Maximum Amount applicable to a Well shall be reduced by any payments made by the Grantor to the Secretary or to any Third Party in respect of any of the Indemnified Obligations relating to that Well, provided that:
  - (i) any payments made by the Grantor in respect of the Indemnified Well Control Obligation applicable to that Well shall reduce the applicable Well Control Limit; and
  - (ii) any payments made by the Grantor in respect of the Indemnified Pollution Remediation/Compensation Obligation applicable to that Well shall reduce the applicable R/P Limit.

## 2.8 Additional security

This Deed is in addition to and is not in any way prejudiced by any other undertaking, deed of covenant, guarantee or security now or subsequently held by any of the Secretary, the Company or any Third Party.

- 2.9 Grantor represents and certifies that as at the date of this Deed it has one or more of the following credit or financial strength ratings: "BBB-" or higher from Standard & Poor's; "B+/bbb" or higher from A.M. Best; "Baa3" or higher from Moody's; "BBB-" or higher from Fitch; and/or the equivalent from another internationally recognised credit rating agency.

## 3. Payment Mechanics

- 3.1 All payments by the Grantor under this Deed shall be made for value on the due date at the time and in the currency in which the Indemnified Obligations are due and payable.
- 3.2 Payment shall be made to such account and/or to such Third Party which the Secretary specifies.

## 4. Costs and expenses

The Grantor shall pay to the Secretary the amount of all costs and expenses (including legal fees, stamp duties and any value added tax) incurred by the Secretary in connection with the enforcement of, or preservation of, any rights under, this Deed on a full indemnity basis subject in the case of costs and expenses relating to any particular Well, to the Maximum Amount relevant to such Well.

## 5. Partial invalidity

If, at any time, any provision of this Deed is or becomes illegal, invalid or unenforceable in any respect under any law of any jurisdiction, neither the legality, validity or enforceability of the remaining provisions nor the legality, validity or enforceability of such provision under the law of any other jurisdiction will in any way be affected or impaired.

## **6. Remedies and waivers**

No failure to exercise, nor any delay in exercising, on the part of the Secretary, any right or remedy under this Deed shall operate as a waiver, nor shall any single or partial exercise of any right or remedy prevent any further or other exercise or the exercise of any other right or remedy. The rights and remedies provided in this Deed are cumulative and not exclusive of any rights or remedies provided by law.

## **7. Notices**

7.1 [All notices to be given to the Secretary in connection with this Deed shall be sent by email (as a pdf, tif or similar un-editable attachment) to [email address].]

7.2 All demands and notices to be given to the Grantor in connection with this Deed shall be given in writing to the Grantor at .....

..... marked for the attention of

.....

## **8. English language**

Any notice or other document given or provided under or in connection with this Deed must be in English.

## **9. Counterparts**

This Deed may be executed in any number of counterparts and this has the same effect as if the signatures on the counterparts were on a single copy of this Deed.

## **10. Termination**

10.1 The liability of the Grantor pursuant to its obligations and undertakings in clause 2 of this Deed shall not extend beyond the termination of this Deed.

10.2 This Deed shall terminate at 2400 hours G.M.T. on the Expiry Date provided, however, that if a Well is Out of Control during the period this Deed is in force, then this Deed shall not terminate with respect to any Indemnified Obligations which arise as a direct result of such Well being Out of Control until [they are discharged/the expiry of a period of three years from the date on which the Well is brought Under Control].

10.3 If [the/each] Company at any time demonstrates to the Secretary that it has the financial resources to fulfill its obligations in respect of well control, pollution remediation and compensation in respect of the Wells without reference to this Deed then the Secretary shall release the Grantor from its

undertakings under this Deed and shall return the original of this Deed to the Grantor on request for cancellation.

**11. Governing law and jurisdiction**

This Deed and any non-contractual obligations arising out of or in connection with it are governed by English law. The courts of England shall have exclusive jurisdiction to settle any dispute or claim that arises out of or in connection with this Deed.

**12. Service of process**

**[Note: to be included if Grantor is not an English company]** [Grantor irrevocably appoints [●] of [●] as its agent to receive on its behalf in England and Wales service of any proceedings. Such service shall be deemed completed on delivery to such agent (whether or not it is forwarded to and received by Grantor) and shall be valid until such time as the Secretary has received prior written notice from Grantor that such agent has ceased to act as agent. If for any reason such agent ceases to be able to act as agent or no longer has an address in England or Wales, Grantor shall forthwith appoint a substitute acceptable to the Secretary and deliver to the Secretary the new agent's name, and address within England and Wales.]

**THIS DEED** has been entered into on the date stated at the beginning of this Deed and shall be effective from \_\_\_\_\_ hours G.M.T on that date.

**The Grantor**

Executed as a deed by [●]	)	
[acting by two directors, by a director and	)	Director
its secretary or by a director whose	)	
execution of this Deed has been witnessed]	)	
	)	Director/Secretary

**[Schedule]**  
**[The Companies]**