## Reprint as at 11 June 2009



### Crown Minerals (Petroleum) Regulations 2007

(SR 2007/138)

Anand Satyanand, Governor-General

#### **Order in Council**

At Wellington this 28th day of May 2007

#### Present:

His Excellency the Governor-General in Council

Pursuant to section 105(1) of the Crown Minerals Act 1991, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council, makes the following regulations.

Note

Changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in this reprint.

A general outline of these changes is set out in the notes at the end of this reprint, together with other explanatory material about this reprint.

These regulations are administered by the Ministry of Economic Development.

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### Regulations

### 1 Title

These regulations are the Crown Minerals (Petroleum) Regulations 2007.

#### 2 Commencement

These regulations come into force on 1 July 2007.

#### 3 Interpretation

(1) In these regulations, unless the context otherwise requires,—
accounting profits royalty means an accounting profits royalty calculated in accordance with the relevant minerals programme

Act means the Crown Minerals Act 1991

*ad valorem* royalty means an *ad valorem* royalty calculated in accordance with the relevant minerals programme

#### co-ordinates means—

- (a) latitude and longitude values and their geodetic datum; or
- (b) eastings and northings and their geodetic datum and projection

#### document means—

- (a) any material, whether or not it is signed or otherwise authenticated, that bears symbols (including words and figures), images, or sounds or from which symbols, images, or sounds can be derived, and includes—
  - (i) a label, marking, or other writing that identifies or describes a thing of which it forms part, or to which it is attached:
  - (ii) a book, report, return, map, plan, graph, or drawing:
  - (iii) a photograph, film, or negative; and
- (b) information electronically recorded or stored, and information derived from that information

**enclave** means an area of land within the boundaries of a permit area or proposed permit area which, for the purposes of the permit or proposed permit, is to be treated as being excluded from the permit area or proposed permit area

#### gas—

- (a) means all gaseous petroleum capable of being produced from wells; and
- (b) includes wet gas and residual gas remaining after the extraction of condensate from wet gas

**half-year** means the 6-month period ending on the last day of June or December in each calendar year

map has the meaning set out in regulation 4

**net sales revenue** means net sales revenue calculated in accordance with the relevant minerals programme

**particulars** means a person's full name, address for service, email address, and contact telephone number

**permit** means a permit in respect of petroleum

#### permit area,—

- (a) in relation to an application for a permit, means the unbroken area (bounded by defined lines and any coast-line, sovereign, territorial, or other boundary) to which the application relates; and
- (b) in any other case, means the unbroken area (bounded by defined lines and any coastline, sovereign, territorial, or other boundary) in relation to which the permit holder concerned has been granted a permit

**prescribed fee** means the fee payable under the Crown Minerals (Petroleum Fees) Regulations 2006

**quarter-year** means the 3-month period ending on the last day of March, June, September, or December in each calendar year **reference number**, in relation to a permit, means any unique identifying number for the permit that the Secretary may allocate to it for the purposes of section 91 of the Act

**survey** means a survey, investigation, or specialised study undertaken in relation to a permit area or samples from a permit area

**turning points** has the meaning set out in regulation 5 well—

- (a) means a borehole drilled for the purpose of exploring for, appraising, or obtaining petroleum; and
- (b) includes a borehole producing or associated with producing petroleum.
- (2) Unless the context otherwise requires, any term used but not defined in these regulations, but defined in the Act, has the same meaning as in the Act.

Regulation 3(1) **permit**: inserted, on 11 June 2009, by regulation 4 of the Crown Minerals (Petroleum) Amendment Regulations 2009 (SR 2009/126).

#### 4 Definition of map

In these regulations, unless the context otherwise requires, map,—

- (a) in relation to a permit area, means a map or plan of the area that—
  - (i) locates and defines the boundaries of the permit area by—
    - (A) lines of latitude or longitude, if practicable to do so; or
    - (B) straight line edges between turning points, in any other case; and
  - (ii) enables the boundaries of the permit area to be accurately located and relocated; and
  - (iii) identifies any enclaves; and
  - (iv) if the permit area abuts an existing permit area, coastline, or sovereign, territorial, or other boundary, identifies the source and definition of the boundary and the extent of it; and
  - (v) satisfies the requirements of paragraph (b); and
  - (vi) complies with any other express requirements in these regulations:
- (b) in any other case, means a map or plan that includes—
  - (i) a graticule of—
    - (A) the geographic co-ordinates (latitude and longitude); or
    - (B) the projected co-ordinate grid (easting and northing); or
    - (C) both; and
  - (ii) a scale that uses an appropriate standard metric representative fraction or a metric graphic bar scale; and
  - (iii) direction or compass indicators; and
  - (iv) title and reference information, including—
    - (A) a note identifying the datum and projection used for the map or plan; and
    - (B) a descriptive title; and
    - (C) the publisher's name and the place and date of the map's or plan's publication; and

- (D) the source and currency of any reference, derived, or interpreted data (for example, cadastral, topographic, or photographic data); and
- (E) a legend; and
- (v) any relevant permit area boundaries; and
- (vi) any other information that will aid in the relocation of the area to which the map or plan relates.

#### 5 Definition of turning points

- (1) In these regulations, **turning points**, in relation to locating and defining the boundaries of an area of land on a map or plan, means the inflection points or angles that, when joined by straight line edges, define the area of land on the map or plan.
- (2) For the purposes of these regulations, turning points must be described using the official geodetic datum for the time being approved by the Surveyor-General.

# Part 1 Documents, prescribed forms, and related matters

#### 6 Signing of documents

- (1) An application made by 2 or more persons for a permit under these regulations, and any other document required to be signed that is part of the application, must be signed by—
  - (a) each person; or
  - (b) a person authorised to sign on behalf of each person.
- (2) A document required to be signed by a permit holder under these regulations must, if the permit holder is more than 1 person, be signed by—
  - (a) each person; or
  - (b) a person authorised to sign on behalf of each person.
- (3) A document that is required to be signed under these regulations may be signed in accordance with section 22 of the Electronic Transactions Act 2002.

#### 7 Address of Secretary for sending of documents and things

A permit holder who is required to send to the Secretary any document or thing under these regulations must send it to the address—

- (a) supplied to the permit holder by the Secretary when the permit was granted; or
- (b) notified from time to time by the Secretary in writing to the permit holder.

#### Format requirements

#### 8 Written documents

A requirement in these regulations that a document must be in writing is met if—

- (a) the document is provided electronically; and
- (b) it is readily accessible so as to be usable for subsequent reference.

#### 9 Documents must be provided to Secretary electronically

- (1) All documents to be provided to the Secretary under these regulations must—
  - (a) be sent electronically; and
  - (b) be readily accessible so as to be usable for subsequent reference.
- (2) All raw data and processed data to be provided to the Secretary under these regulations must be—
  - (a) provided in a digital form acceptable to the Secretary; and
  - (b) accompanied by metadata that complies with accepted industry standards.
- (3) All spatial information (including any elevations) to be provided to the Secretary under these regulations, whether embedded in documents or as separate digital data, must identify the datum and, if applicable, projection used.
- (4) This regulation is subject to regulations 10 and 12.

#### 10 Headers for digital seismic survey data

Digital data collected from a seismic survey that is to be provided to the Secretary under regulation 44(3)(e) must be provided with the following information in the headers:

- (a) the survey name:
- (b) the line name:
- (c) the date the data was acquired:
- (d) the acquisition company (including the name of the vessel or crew) and the acquisition parameters of the survey:
- (e) the processing information, including—
  - (i) the processing sequence; and
  - (ii) the time correction; and
  - (iii) the gain curve; and
  - (iv) the bandpass filter; and
  - (v) the polarity and phase:
- (f) the projection, datum, spheroid, and co-ordinate units:
- (g) the sample interval:
- (h) the shot-to-trace relationship:
- (i) the trace length:
- (j) the trace header format:
- (k) the trace header byte locations for line number, common depth point, and shot point numbers, and station locations:
- (1) for three-dimensional surveys, the corner points.

#### 11 Form specified or described on website is acceptable to Secretary

- (1) A document is in a form acceptable to the Secretary if it is provided in a form that is specified or described on a Ministry of Economic Development website.
- (2) If no form is specified or described on a Ministry of Economic Development website, the document must be provided in accordance with regulation 9(1).
- (3) Subclause (2) is for the avoidance of doubt.

#### 12 Secretary may dispense with regulation 9 requirements

In any particular case, the Secretary may at his or her absolute discretion dispense with 1 or more of the requirements of regulation 9.

#### Extensions and exemptions

## 13 Permit holder may apply for extension of time within which document or thing must be provided

- (1) A permit holder may apply to the Secretary, in writing, to extend the period of time within which the permit holder must provide to the Secretary any document or thing under these regulations.
- (2) The Secretary must—
  - (a) grant the application (on any terms that he or she thinks fit); or
  - (b) reject the application.
- (3) This regulation does not apply to any document or thing to be provided under regulation 45, 54, 55, or 56.

### 14 Permit holder may apply for exemption from requirement to provide document or thing

- (1) A permit holder may apply to the Secretary, in writing, for an exemption from providing to the Secretary any document or thing required to be provided by the permit holder to the Secretary under these regulations.
- (2) The Secretary must—
  - (a) grant the application if he or she is satisfied that it is not reasonable or practicable for the permit holder to provide the document or thing; or
  - (b) reject the application.
- (3) This regulation does not apply to any document or thing to be provided under regulation 45, 54, 55, or 56.

#### Prescribed forms

#### 15 Prescribed forms

(1) The prescribed forms for the purposes of section 23(2) of the Act are as follows:

- (a) for a prospecting permit, form 1 of Schedule 1 and the information required under regulation 17(2)(b):
- (b) for an exploration permit (unless allocated by public tender under section 24 of the Act), form 1 of Schedule 1 and the information required under regulation 18(2)(b):
- (c) for a mining permit (unless allocated by public tender under section 24 of the Act), form 1 of Schedule 1 and the information required under regulation 19(2)(b).
- (2) The prescribed form for the purposes of section 40(1) of the Act is form 2 of Schedule 1 and the information required under regulation 29(2).
- (3) The prescribed forms for the purposes of section 41 of the Act are as follows:
  - (a) for the transfer or lease of a permit, form 3 of Schedule 1 and the information required under regulation 24(2):
  - (b) for any other dealing with a permit, form 3 of Schedule 1 and the information required under regulation 24(4).
- (4) The prescribed form for the purposes of section 83(1) of the Act is form 4 of Schedule 1.

#### Prescribed information

### 16 Prescribed information for purposes of section 90A(1) of Act

The information provided under regulation 39(2)(b) that relates to clauses 17 and 18 of Part 2 of Schedule 6 is prescribed information for the purposes of section 90A(1) of the Act.

# Part 2 Permit applications and notices

#### **Applications**

#### 17 Application for prospecting permit

- (1) An application to the Secretary under section 23(1) of the Act for a prospecting permit must be in form 1 of Schedule 1 and signed by the applicant.
- (2) The application must be accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and

(b) the information described in Part 1 of Schedule 2.

## 18 Application for exploration permit (unless allocated by public tender)

- (1) An application to the Secretary under section 23(1) of the Act for an exploration permit must be in form 1 of Schedule 1 and signed by the applicant.
- (2) The application must be accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) the information described in Part 2 of Schedule 2.
- (3) This regulation does not apply to any process by which a permit is offered for allocation by public tender under section 24 of the Act.

## 19 Application for mining permit (unless allocated by public tender)

- (1) An application to the Secretary under section 23(1) of the Act for a mining permit must be in form 1 of Schedule 1 and signed by the applicant.
- (2) The application must be accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) a statement of the technical qualifications and financial resources of the applicant; and
  - (c) a map of the permit area; and
  - (d) the particulars of the operator or proposed operator of the permit; and
  - (e) a report that—
    - sets out the reserves and proposed work programme for the development of the field concerned; and
    - (ii) includes the information described in Schedule 3; and
  - (f) if the application is on behalf of 2 or more persons, an explanation of each person's interest in the permit.

(3) This regulation does not apply to any process by which a permit is offered for allocation by public tender under section 24 of the Act.

#### 20 Application to extend area to which permit relates

- (1) An application to the Minister under section 36(1) of the Act to extend the area of land to which an existing permit relates must be signed by the permit holder and accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) the reference number of the permit concerned; and
  - (c) a map showing the boundaries of the area of land for which the extension is sought in relation to the existing permit area; and
  - (d) a statement of the reasons why, in the permit holder's opinion, the Minister should extend the area to which the permit relates that includes a discussion of any proposed amendments to the current work programme for the permit.
- (2) The application and accompanying material must be lodged with the Secretary.
- (3) For the purposes of subclause (1)(c), the boundaries of the area of land for which the extension is sought must be located and defined on the map by—
  - (a) lines of latitude or longitude, if practicable to do so; or
  - (b) straight line edges between turning points, in any other case.

### 21 Application to extend duration of exploration permit (unless for purpose of discovery appraisal)

- (1) An application to the Minister under section 37(1) of the Act to extend the duration of an exploration permit must be signed by the permit holder and accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) the reference number of the permit concerned; and
  - (c) a statement of the duration of the extension sought; and

- (d) a map of the existing permit area showing the boundaries of the area of land within it to which the extension of duration relates; and
- (e) a statement of the proposed work programme, including—
  - (i) its objectives; and
  - (ii) a discussion of any options proposed for surrender of the permit and when they may be exercised.
- (2) The application and accompanying material must be lodged with the Secretary.
- (3) For the purposes of subclause (1)(d), the boundaries of the area of land to which the extension relates must be located and defined on the map by—
  - (a) lines of latitude or longitude, if practicable to do so; or
  - (b) straight line edges between turning points, in any other case.
- (4) This regulation does not apply to an application to extend the duration of an exploration permit for the purpose of appraising a discovery.

## 22 Application to extend duration of exploration permit for purpose of discovery appraisal

- (1) An application to the Minister under section 37(2) of the Act to extend the duration of an exploration permit for the purpose of appraising a discovery must be signed by the permit holder and accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) the reference number of the permit concerned; and
  - (c) a statement of the duration of the extension sought; and
  - (d) a map of the existing permit area showing the boundaries of the area of land within it to which the extension of duration relates; and
  - (e) a statement setting out the proposed work programme for the appraisal, including its objectives; and
  - (f) subject to subclause (4), a report that includes the information described in Schedule 4.

- (2) The application and accompanying material must be lodged with the Secretary.
- (3) For the purposes of subclause (1)(d), the boundaries of the area of land to which the extension relates must be located and defined on the map by—
  - (a) lines of latitude or longitude, if practicable to do so; or
  - (b) straight line edges between turning points, in any other case.
- (4) A report for the purposes of subclause (1)(f) is not required to include all of the information described in Schedule 4 if—
  - (a) the permit holder concerned asks the Secretary, in writing, for permission to omit from the report certain information described in the schedule; and
  - (b) the Secretary grants the request, in writing, on the grounds that he or she is satisfied that—
    - (i) the permit holder does not have the information; or
    - (ii) the permit holder does not have the information in an appropriate form; or
    - (iii) it would be unreasonable to require the permit holder to provide the information.

#### 23 Application to extend duration of mining permit

- (1) An application to the Minister under section 36(1) of the Act to extend the duration of a mining permit must be signed by the permit holder and accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) the reference number of the permit concerned; and
  - (c) a statement of the duration of the extension sought; and
  - (d) a statement of the reasons why, in the permit holder's opinion, the Minister should extend the duration of the permit that includes information on the following matters:
    - (i) the work programme to be carried out during the proposed extension period and its objectives; and
    - (ii) the results of activities undertaken by the permit holder in the permit area to date; and

- (iii) the geology and petroleum potential of the permit area; and
- (iv) details of any modifications to the existing work programme, production schedule, or proposed level of expenditure required to deplete the field;
   and
- (e) an explanation as to why the discovery to which the permit relates cannot be economically depleted before the current permit expires; and
- (f) a report that includes so much of the information described in regulation 19(2)(e) as relates to an application under this regulation.
- (2) The application and accompanying material must be lodged with the Secretary.

### 24 Application for permit holder to transfer, lease, or otherwise deal with permit

- (1) An application to the Minister under section 41(2) of the Act for the Minister's consent to an agreement that transfers or leases a permit must be—
  - (a) in form 3 of Schedule 1; and
  - (b) signed by the permit holder; and
  - (c) lodged with the Secretary.
- (2) An application under subclause (1) must be accompanied by—
  - (a) the prescribed fee or evidence of it having been paid;and
  - (b) the reference number of the permit concerned; and
  - (c) the name of the permit holder; and
  - (d) the particulars of any proposed new operator of the permit: and
  - (e) the particulars of any proposed new permit holder for the permit; and
  - (f) if any proposed new permit holder is a New Zealand company, the address of its registered office and the unique number assigned to the company on its incorporation (commonly referred to as its Companies Office number); and

- (g) if any proposed new permit holder is 2 or more persons, an explanation of each person's proposed interest in the permit; and
- (h) a statement setting out the reasons why, in the permit holder's opinion, the Minister should consent to the agreement being entered into that includes details of the technical qualifications and financial resources of any proposed new permit holder; and
- (i) an executed copy of the agreement that requires the Minister's consent.
- (3) An application to the Minister under section 41(2) of the Act for the Minister's consent to an agreement to otherwise deal with a permit must be—
  - (a) in form 3 of Schedule 1; and
  - (b) signed by the permit holder; and
  - (c) lodged with the Secretary.
- (3A) If the permit holder is more than 1 person, regulation 6(2) is satisfied, for the purposes of subclause (3) of this regulation, if the application is signed by the permit holder to whom the dealing directly relates.
- (4) An application under subclause (3) must be accompanied by—
  - (a) the prescribed fee or evidence of it having been paid; and
  - (b) the reference number of the permit concerned; and
  - (c) the name of the permit holder; and
  - (d) a statement setting out the reasons why, in the permit holder's opinion, the Minister should consent to the dealing; and
  - (e) an executed copy of the agreement that requires the Minister's consent.
- (5) For the purposes of this regulation, **otherwise deal with a permit** includes—
  - (a) creating any interest in or affecting any existing or future permit (other than by a transfer or lease of a permit); or
  - (b) transferring or otherwise dealing, either directly or indirectly, with any interest in or affecting any existing or future permit (other than by a transfer or lease of a permit); or

(c) imposing any obligation on the permit holder which relates to or affects the production of petroleum from the land to which the permit relates or the proceeds of the production (other than by a transfer or lease of the permit).

Regulation 24(3A): inserted, on 11 June 2009, by regulation 5 of the Crown Minerals (Petroleum) Amendment Regulations 2009 (SR 2009/126).

#### 25 Application to amend conditions of permit

- (1) An application to the Minister under section 36(1) of the Act for his or her consent to amend 1 or more conditions of a permit must—
  - (a) be in writing and signed by the permit holder concerned; and
  - (b) be lodged with the Secretary; and
  - (c) include the following information:
    - (i) the reference number of the permit; and
    - (ii) details of the proposed amendment or amendments to the permit conditions; and
    - (iii) the reasons why, in the permit holder's opinion, the Minister should amend the permit condition or conditions
- (2) The application must be accompanied by—
  - (a) the prescribed fee or evidence of it having been paid;
  - (b) any other information relevant to the application (including any maps, diagrams, cross-sections, or reports).

#### 26 Application for consent to flare or vent petroleum

- (1) A permit holder may apply to the Secretary, in writing, for consent to flare or vent petroleum.
- (2) The application must include the following information:
  - (a) the extent to which the proposal complies with the requirements of regulations 35 and 36; and
  - (b) the location of the installation and facilities concerned, including their proximity to any gas-gathering system; and

- (c) a statement that all reasonable and economical alternatives to flaring or venting have been examined and eliminated (with supporting data attached); and
- (d) a statement of the impact of any flaring restrictions on the net present value of the mining operation; and
- (e) if relevant, information about whether any well shut-in may—
  - (i) cause reservoir damage; or
  - (ii) hamper reservoir performance; or
  - (iii) damage equipment.
- (3) In subclause (2)(e), **well shut-in** includes a well shut-in that is necessary to avoid wasting gas while any facilities in relation to the well are installed.

### 27 Secretary may grant consent to flare or vent petroleum with conditions

- (1) The Secretary may grant an application under regulation 26(1) with any conditions that he or she thinks fit.
- (2) Without limiting subclause (1), the Secretary may impose conditions in respect of 1 or more of the following matters:
  - (a) permissible flare size:
  - (b) ensuring the operation and maintenance of the facilities concerned are carried out in a manner that minimises flaring or venting:
  - (c) requiring the permit holder to prepare a report on options available to reduce or minimise flaring or venting (which must include options for the collection and use of the gas produced):
  - (d) implementing, to the satisfaction of the Secretary, reservoir management practices to conserve reservoir energy:
  - (e) establishing maximum annual total gas plant flaring or venting limits for production and process facilities:
  - (f) restricting the number of flaring or venting events in any 6-month period:
  - (g) keeping accurate records of all flaring or venting events, including the date, time, duration, and (as far as practicable) volume of petroleum flared or vented:

- (h) making available to the Secretary, on his or her request,—
  - (i) the records kept under paragraph (g); or
  - (ii) daily production testing reports; or
  - (iii) the records kept under paragraph (g) and daily production testing reports:
- (i) restricting the circumstances in which flaring or venting may be carried out.

### **Application for appointment of arbitrator in relation to access arrangement**

An application to the Secretary for the appointment of an arbitrator under section 64(1) of the Act must include—

- (a) the reference number of the permit to which the access arrangement relates (if applicable); and
- (b) a map and description of the land over which the arbitrator is to determine the access arrangement (access land); and
- (c) the particulars (if known) of each owner and occupier of the access land; and
- (d) the particulars of the permit holder or applicant for the permit (or the permit holder's or permit applicant's representative) who is the contact person for the application; and
- (e) a detailed statement setting out—
  - (i) the reasons for the desired access arrangement; and
  - (ii) the proposed mining operations to be undertaken in relation to the access arrangement and the timing of them; and
  - (iii) the potential effects of the mining operations on the access land and its owner or any occupier of it.

#### **Notices**

### 29 Notice of surrender of permit

(1) A notice to the Secretary under section 40(1) of the Act of the surrender of a permit or part of a permit must be in form 2 of Schedule 1 and signed by the permit holder.

- (2) The notice must be accompanied by—
  - (a) a statement of the reasons for the surrender; and
  - (b) if the notice is in respect of only part of the permit, a map of the existing permit area showing the boundaries of the area of land within it that is to be surrendered.
- (3) For the purposes of subclause (2)(b), the boundaries of the area of land that is to be surrendered must be located and defined on the map by—
  - (a) lines of latitude or longitude, if practicable to do so; or
  - (b) straight line edges between turning points, in any other case.

#### 30 Notice of access arrangement

A notice to the Registrar-General of Land of an access arrangement for the purposes of section 83(1) of the Act must be—

- (a) in form 4 of Schedule 1; and
- (b) signed by the permit holder or applicant for the permit concerned.

## Notice of intention to carry out geochemical, gravity, magnetic, or seismic survey

- (1) A permit holder must give the Secretary notice if the permit holder intends to carry out a geochemical, gravity, magnetic, or seismic survey in the permit area concerned.
- (2) The notice must—
  - (a) be given before the survey commences; and
  - (b) state the reference number of the permit to which the notice relates; and
  - (c) set out the details of the survey; and
  - (d) include a map of the area to be surveyed.

#### 32 Notice of intention to carry out well-drilling operations

- (1) A permit holder must give the Secretary notice if the permit holder intends to carry out well-drilling operations in the permit area concerned.
- (2) The notice must—
  - (a) be given before the drilling commences; and

(b) include details of the proposed drilling, including, for each well, the information described in Schedule 5.

### Notice of completion of well producing, or associated with producing, petroleum

- (1) A permit holder must give the Secretary notice that a well producing, or associated with producing, petroleum has been completed, as soon as practicable after its completion.
- (2) The notice must—
  - (a) identify the well by name and number; and
  - (b) provide full details of the method of completion and the equipment used; and
  - (c) state whether the well is capable of production.

#### 34 Notice of suspension of well-drilling operations

- (1) A permit holder must give the Secretary notice that any well-drilling operations have been suspended, as soon as practicable after the drilling is suspended.
- (2) The notice must—
  - (a) identify the well by name and number; and
  - (b) state why and how the drilling was suspended; and
  - (c) state the anticipated duration of the suspension; and
  - (d) state the status of the well; and
  - (e) provide full details of the well-drilling operations at the time the drilling was suspended.

# Part 3 Mining operations

Well-drilling operations

Well-drilling operations to be carried out in accordance with recognised good exploration and mining practice
All well-drilling operations carried out under a permit must be carried out in accordance with recognised good exploration and mining practice.

#### Prevention of waste or loss of petroleum

#### 36 Permit holder must avoid wasting petroleum resources

A permit holder must avoid wasting petroleum resources by conducting mining operations in accordance with recognised good exploration and mining practice.

#### Flaring and venting of petroleum

### 37 Permit holder may flare or vent petroleum only in certain circumstances

A permit holder may flare or vent petroleum only if—

- (a) the flaring or venting is a consequence of carrying out an emergency shutdown; or
- (b) the flaring or venting—
  - (i) is in connection with initial well testing operations; and
  - (ii) does not occur on more than 30 days during that time; or
- (c) the flaring or venting—
  - (i) occurs as a consequence of equipment failure; and
  - (ii) lasts no longer than 7 days from the date that the equipment failed; or
- (d) the flaring or venting is in accordance with a mining permit work programme approved by the Minister; or
- (e) the Secretary has granted an application under regulation 27.

# Part 4 Reports, records, samples, and related matters

### Half-yearly reports

#### 38 Half-yearly report on prospecting or exploration activities

- (1) A permit holder must supply to the Secretary, not later than 40 working days after the end of each half-year, a report on any prospecting or exploration activities that have taken place under the permit concerned during that half-year.
- (2) The report must—

- (a) be in a form acceptable to the Secretary; and
- (b) include a summary of as much of the information described in Part 1 of Schedule 6 as is applicable to the permit in that half-year; and
- (c) be accompanied by the cumulative, half-yearly, and monthly oil, condensate, gas, and water production figures (by field) from any appraisal activities.
- (3) The first report supplied under subclause (1) must relate to the half-year ending on 30 June 2007.

### 39 Half-yearly report on mining activities and production operations

- (1) A permit holder must supply to the Secretary, not later than 40 working days after the end of each half-year, a report on the mining activities and any production operations that have taken place under the permit concerned during that half-year.
- (2) The report must—
  - (a) be in a form acceptable to the Secretary; and
  - (b) include the information described in Part 2 of Schedule 6; and
  - (c) be accompanied by the following information:
    - the cumulative gas and water injection volumes since reservoir and well injection commenced; and
    - (ii) for each well, reservoir, and field, the cumulative and half-yearly oil, condensate, gas, and water production figures, and the corresponding calorific values for the oil, condensate, and gas.
- (3) The first report supplied under subclause (1) must relate to the half-year ending on 30 June 2007.
- (4) In this regulation, **production operations** means the activities associated with a well, including those that are undertaken for the purposes of testing, appraising, monitoring, recovering, injecting petroleum or other fluids (including gases), or flaring or venting.

#### 40 Half-yearly report on expenditure

- (1) A permit holder must supply to the Secretary, not later than 40 working days after the end of each half-year, a report on the expenditure incurred under the permit concerned during that half-year.
- (2) The report must—
  - (a) be supplied in a form acceptable to the Secretary; and
  - (b) include the reference number of the permit concerned; and
  - (c) include the particulars of the permit holder; and
  - (d) include the expenditure incurred for each of the matters described in Part 3 of Schedule 6.
- (3) The first report supplied under subclause (1) must relate to the half-year ending on 30 June 2007.

Reports and other documents on expiry, surrender, or revocation of permits

### 41 Reports and other documents on expiry or surrender of permit

- (1) Subclause (2) applies to a permit holder if—
  - (a) the permit concerned expires in accordance with section 35 of the Act; or
  - (b) the permit holder surrenders the permit concerned under section 40(1) of the Act.
- (2) The permit holder must supply to the Secretary any report (or other document) on any activity under the permit begun, but not completed, before the permit expired or was surrendered that the permit holder would have been required to supply to the Secretary under these regulations had the activity been completed.
- (3) The report (or other document) must be supplied not later than 40 working days after the permit expires or is surrendered.

# 42 Reports and other documents required on revocation of permit

(1) Subclause (2) applies to a permit holder if the permit concerned is revoked under section 39(2) of the Act.

- (2) The permit holder must supply to the Secretary any report (or other document) on any activity under the permit begun, but not completed, before the permit was revoked that the permit holder would have been required to supply to the Secretary under these regulations had the activity been completed.
- (3) The report (or other document) must be supplied not later than 40 working days after the permit is revoked.

## 43 Documents required if permit area partially surrendered or relinquished

- (1) Subclause (2) applies to a permit holder if the permit holder—
  - (a) surrenders part of the permit area to which the permit concerned relates under section 40(1) of the Act; or
  - (b) relinquishes part of the permit area to which the permit concerned relates.
- (2) The permit holder must supply to the Secretary, not later than 40 working days after the permit is surrendered or relinquished, a list of the documents required to be supplied to the Secretary under this Part, and indicate the documents that relate to—
  - (a) the entire permit area:
  - (b) the permit area surrendered or relinquished:
  - (c) the permit area retained.
- (3) In this regulation, **relinquish** means the process by which an area of permit land is excluded from the permit concerned by the operation of section 37(1) or (2) of the Act.

#### Reports on surveys

#### 44 Reports on surveys

- (1) A permit holder who carries out a survey must supply to the Secretary, not later than 120 working days after the survey is completed, a report about the survey.
- (2) The report must include the following information:
  - (a) the type of survey, and the method and equipment used for it, including,—
    - (i) in relation to any marine or airborne survey, the navigation method used; and

- (ii) in relation to any satellite survey, its orbit details; and
- (b) the start and finish dates of the survey; and
- (c) the location of the survey, including how the positions of the points of measurement or observation were determined (and their accuracy estimates); and
- (d) any records of data collected, including—
  - (i) the time, location, and spatial reference of each measurement or observation; and
  - (ii) the original data collected; and
  - (iii) any processed data (including a description of the processing method); and
  - (iv) if the processed data is corrected, the corrected data (including a description of the correcting method); and
- (e) a bibliography of any material referenced in the report.
- (3) For the following types of surveys, the following information must also be included in the report to which the survey relates:
  - (a) for a geological survey, the information described in Part 1 of Schedule 7:
  - (b) for a gravity survey, the information described in Part 2 of Schedule 7:
  - (c) for a magnetic survey, so much of the information described in Part 3 of Schedule 7 as is applicable to the survey:
  - (d) for a geochemical survey, the information described in Part 4 of Schedule 7:
  - (e) for a seismic survey, so much of the information described in Part 5 of Schedule 7 as is applicable to the survey:
  - (f) for a review of existing petroleum data, the information described in Part 6 of Schedule 7.
- (4) For the avoidance of doubt, the requirements of this regulation are in addition to any other requirements that the permit holder may have under these regulations in relation to the survey or any document relating to the survey.

### Reports on well-drilling operations and related activities

#### 45 Daily well-drilling report

- (1) A permit holder must supply to the Secretary a daily report on well-drilling operations as soon as practicable after the expiry of the 24-hour period to which the report relates.
- (2) A daily well-drilling report must include the information described in Part 1 of Schedule 8.

#### 46 Well completion report

- (1) A permit holder must supply to the Secretary a well completion report not later than 120 working days after drilling of the well concerned ceases.
- (2) A well completion report must—
  - (a) include as much of the information described in Part 2 of Schedule 8 as the permit holder has obtained or produced in relation to the well; and
  - (b) include, as appendices, as much of the information described in Part 3 of Schedule 8 as the permit holder has obtained or produced in relation to the well; and
  - (c) be accompanied by as much of the information described in Part 4 of Schedule 8 as the permit holder has obtained or produced in relation to the well.
- (3) Despite subclauses (1) and (2), if the well is part of an integrated coal seam gas well-drilling programme, any interpretative information required under subclause (2) may be—
  - (a) provided for the drilling programme as a whole; and
  - (b) supplied to the Secretary not later than 120 working days after the drilling programme is completed.

#### 47 Well abandonment report

- (1) A permit holder must supply to the Secretary a well abandonment report not later than 120 working days after the well concerned is abandoned.
- (2) A well abandonment report must—
  - (a) identify the well by name and number; and
  - (b) state the date when the well was abandoned; and
  - (c) give a summary of the reasons for the abandonment; and

- (d) state—
  - (i) the positions of any cement plugs or bridge plugs; and
  - (ii) details of any casing, tubing, or surface downhole equipment recovered; and
  - (iii) details of any items left in the well.

#### 48 Core analysis report

- (1) A permit holder must supply to the Secretary a list of any core analyses not later than 120 working days after the analyses are carried out.
- (2) A list must include,—
  - (a) for each sample, its porosity, permeability, and fluid saturation; and
  - (b) details of core plugs and the intervals over which the analyses were carried out.

#### Samples to be supplied to Secretary

#### 49 Drill cuttings

- (1) A permit holder must supply to the Secretary, not later than 120 working days after the well concerned reaches its total depth,—
  - (a) 2 sets of unwashed and air-dried drill cuttings from the well; and
  - (b) 1 set of washed and dried drill cuttings from the well.
- (2) All cuttings must be—
  - (a) contained in bags, approximately three-quarters full, labelled with—
    - (i) the name and number of the well from which the cuttings were taken; and
    - (ii) the drilling interval from which the cuttings were collected; and
  - (b) further contained in labelled, durable boxes with the cuttings laid out—
    - (i) consecutively in depth order; and
    - (ii) in single layers.
- (3) For any interval in which no cuttings are collected, the permit holder must include an empty bag (of the same type and

- labelled in the same way as required for a bag containing cuttings).
- (4) The permit holder must not use cuttings prepared for the Secretary under this regulation for the permit holder's own analytical purposes.
- (5) This regulation does not apply to a permit holder if—
  - (a) the well concerned is being drilled as part of coal seam gas drilling operations; and
  - (b) obtaining drill cuttings is not a purpose of drilling the well
- (6) For the purposes of subclause (2)(a), **bag** means,—
  - (a) in relation to unwashed and air-dried cuttings, a synthetic durable bag (with durable stitching) measuring  $130 \times 200$  mm; and
  - (b) in relation to washed and dried drill cuttings, a durable bag measuring 80 × 120 mm.

#### 50 Core samples (other than sidewall core samples)

- (1) A permit holder must supply to the Secretary samples of any core collected during well-drilling operations, not later than 120 days after its collection.
- (2) The samples must be—
  - (a) supplied in the following manner:
    - (i) either whole or slabbed longitudinally with a thickness of not less than one-half of the diameter of the core; and
    - (ii) labelled in accordance with standard industry convention; and
    - (iii) contained in a suitable durable and strong container (in the same order as the core was cut) that is labelled with the name and number of the well from which the core was cut; and
  - (b) accompanied by a record of the percentage of core recovered from each core interval (including a statement of any intervals in which no core was recovered).
- (3) The permit holder must ensure that the core samples prepared for the Secretary under this regulation—

- (a) are stored in a manner that, as far as possible, prevents their contamination, deterioration, or loss; and
- (b) are not used for the permit holder's own analytical purposes.
- (4) This regulation does not apply to any core collected from sidewall well-drilling operations

#### 51 Sidewall core samples

- (1) A permit holder must supply to the Secretary samples of any sidewall core collected during well-drilling operations, not later than 120 working days after their collection.
- (2) The samples must be supplied in a durable and strong container that is labelled with—
  - (a) the name and number of the well from which the core was collected; and
  - (b) the depth from which the core was taken; and
  - (c) the sidewall core suite number.
- (3) The permit holder must ensure that the sidewall core samples prepared for the Secretary under this regulation—
  - (a) are stored in a manner that, as far as possible, prevents their contamination, deterioration, or loss; and
  - (b) are not used for the permit holder's own analytical purposes.

#### 52 Microfossil and petrographic material

- (1) A permit holder must supply to the Secretary—
  - (a) microscope slides, picked residues, and a representative sample of any microfossils collected from any micropalaeontological, palynological, or other survey; and
  - (b) petrographic thin sections from any petrographic analysis carried out under a survey or in relation to a survey.
- (2) Slides, residues, samples, and thin sections must be—
  - (a) supplied to the Secretary not later than 120 working days after the survey is completed; and
  - (b) suitably packaged and labelled.

#### 53 Oil samples

- (1) A permit holder must supply to the Secretary representative samples of oil retrieved from formation testing of a well, not later than 120 working days after the oil is retrieved.
- (2) The samples must be packaged—
  - (a) at surface temperature and pressure; and
  - (b) in 1-litre sealed glass containers that are suitably labelled.

#### Part 5

#### Royalty statements and royalty returns

### 54 Royalty statement must accompany interim royalty payment

- (1) A permit holder who is required to make an interim royalty payment to the Secretary (on behalf of the Crown) must supply a royalty statement with the payment.
- (2) The royalty statement must include the following:
  - (a) the reference number of the permit concerned; and
  - (b) a statement specifying the calculation of net sales revenue for the quarter-year to which the payment relates that includes, for each product stream, the information described in Part 1 of Schedule 9; and
  - (c) a statement of the royalty payable for the quarter-year; and
  - (d) a declaration signed by the permit holder stating that the payment is correct.
- (3) This regulation is subject to regulation 58.
- (4) In this regulation, **interim royalty payment** means a payment under section 34 of the Act.

#### 55 Royalty returns

- (1) A permit holder who is required under the permit concerned to provide a royalty return to the Secretary must supply the return—
  - (a) in a form acceptable to the Secretary; and
  - (b) accompanied by—
    - (i) the information described in Part 2 of Schedule 9: and

- (ii) an auditor's statement under regulation 57.
- (2) Despite subclause (1)(b)(i), the information described in clause 3 of Part 2 of Schedule 9 is not required to be included in the return if—
  - (a) the return is for an exploration permit; or
  - (b) the net sales revenue for all the product streams concerned are less than \$1 million and have never been greater than \$1 million in any previous royalty period;
  - (c) the return is the final return for the permit.
- (3) Despite subclause (1)(b)(i), a statement supplied under clause 1 of Part 2 of Schedule 9 may comprise a summation of any net sales revenue details if the permit holder has already supplied interim royalty statements under regulation 54 that cover the period to which the royalty return relates.
- (4) This regulation is subject to regulation 58.

#### 56 Final royalty return

- (1) Subclause (2) applies to a permit holder if—
  - (a) the permit holder is required under the permit concerned to provide a royalty return to the Secretary; and
  - (b) the royalty return to be provided will be the final royalty return for the permit.
- (2) The permit holder must supply the return—
  - (a) in a form acceptable to the Secretary; and
  - (b) accompanied by—
    - (i) the information described in Parts 2 and 3 of Schedule 9; and
    - (ii) an auditor's statement under regulation 57.
- (3) This regulation is subject to regulation 58.

#### 57 Auditor statement

A royalty return must be accompanied by a statement from an auditor, in a form acceptable to the Secretary, confirming that—

(a) the deductions set out in the return have been checked by the auditor and are in accordance with the permit; and

- (b) the calculations set out in the return have been checked by the auditor and are in accordance with the permit; and
- (c) the return has been checked by the auditor for arithmetical accuracy; and
- (d) the return has been compared with the permit holder's trial balance and the amounts in the return have been correctly extracted.

#### **8** Royalty return if permit holder 2 or more persons

- (1) A permit holder that is 2 or more persons (for example, a joint venture or partnership) may supply to the Secretary separate royalty statements and royalty returns that set out each person's share of—
  - (a) net sales revenue (in accordance with clause 1 of Part 2 of Schedule 9); and
  - (b) allowable accounting profits royalty deductions (in accordance with clause 3 of Part 2 of Schedule 9); and
  - (c) royalty liability (in accordance with clause 4 of Part 2 of Schedule 9); and
  - (d) if the return is a final return,—
    - (i) abandonment or decommissioning costs to be carried back; and
    - (ii) any recapture of capital expenditure deductions; and
    - (iii) final *ad valorem* royalty and accounting profits royalty liability; and
    - (iv) any claim for refund of overpayment of provisional accounting profits royalty.
- (2) Each separate statement must—
  - (a) clearly indicate the percentage share of the royalty return the statement covers; and
  - (b) be accompanied by an auditor's statement under regulation 57.

### 59 Permit holder must keep documents verifying royalty returns

(1) A permit holder must keep any document that relates to a royalty return until the earlier of—

- (a) 7 years, calculated from the date the revenue was received or the costs were incurred; or
- (b) the date that the Secretary receives the final royalty return for the permit concerned.
- (2) The documents must be available—
  - (a) at any reasonable time for inspection in New Zealand by the Secretary (or any person authorised in writing by the Secretary for this purpose); and
  - (b) for the purposes of verifying the royalty returns concerned.
- (3) For the avoidance of doubt, this regulation is not a regulation for the purpose of section 90(4) of the Act.

### Part 6 Miscellaneous

Disclosure of information supplied to Secretary

- 60 Secretary may publicly disclose petroleum reserves and production information
- (1) The Secretary may, from time to time, make publicly available any of the following information:
  - (a) petroleum production and field reserves, including estimates of P90 and P50 remaining reserves and ultimately recoverable reserves:
  - (b) petroleum production profiles in relation to mining permits and existing privileges:
  - (c) resource estimates from discoveries or appraisals under any exploration permit, mining permit, or existing privilege.
- (2) Any information disclosed under subclause (1)(c) must state the range of uncertainties used in estimating the resource.

#### Revocation of Crown Minerals (Petroleum) Regulations 1999

61 Crown Minerals (Petroleum) Regulations 1999 revoked
The Crown Minerals (Petroleum) Regulations 1999 (SR 1999/330) are revoked.

#### Transitional provision

#### 62 Transitional provision

Despite regulation 61, the Crown Minerals (Petroleum) Regulations 1999 continue to apply to the following matters as if these regulations had not been made:

- (a) a permit application received by the Secretary but not determined before the commencement of these regulations:
- (b) an application to change a permit (for example, an application to amend its conditions, or extend the land to which it relates) received by the Secretary but not determined before the commencement of these regulations:
- (c) an application for the appointment of an arbitrator under section 64(1) of the Act received by the Secretary but not determined before the commencement of these regulations.

**Schedule 1** 

rr 15, 17(1), 18(1), 19(1), 24(1)(a), (3)(a), 29(1), 30(a)

#### **Forms**

Form 1

rr 15(1), 17(1), 18(1), 19(1)

Application for prospecting, exploration, or mining permit under section 23(1) of Crown Minerals Act 1991

Applicant details*	
Full name of applicant:	
Address for service:	
Email address:	
Full name and telephone number of general contact person for application:	
Full name and telephone number of financial contact person for application:	
Full name, telephone number, and email address of geotechnical contact person for application:	
Type of applicant:	Incorporated society/overseas company/partnership/charitable trust/registered company/local authority/industrial and provident society/Crown/other [state type]
Applicant's New Zealand Companies Office number (if applicable):†	

<sup>\*</sup>The personal information you must include in this form is needed to process your application under the Crown Minerals Act 1991. You have the right under the Privacy Act 1993 or the Official Information Act 1982 to access and request that this information be corrected.

<sup>†</sup>The unique number assigned to the company on its incorporation.

Form 1—continued

Permit details			
Permit type to which application relates:			
Permit number (if application for subsequent permit):	on		
If this is a prospecting appl non-exclusive permit sough			
Duration:	(years) (months)		
Area:	(hectares/square kilometres)		
Location:	(region) Onshore: Yes/No		
Application fee			
Cash Credit card	Cheque Direct Direct credit		
Supporting information			
Crown Minerals (Petroleum of this type (or evidence of	lication the prescribed fee required under the m Fees) Regulations 2006 for an application of it having been paid) and any information e Crown Minerals (Petroleum) Regulations lication of this type.		
Authorised signature;			
Authorised signature(s): [			
Date:			
	s, this application must be signed in accordance n Minerals (Petroleum) Regulations 2007.		

Form 2

rr 15(2), 29(1)

Notice of surrender or partial surrender of permit under section 40(1) of Crown Minerals
Act 1991

Permit holder details*					
Full name of permit holde	r:				
Permit number:					
*The personal information you must include in this form is needed to process your application under the Crown Minerals Act 1991. You have the right under the Privacy Act 1993 or the Official Information Act 1982 to access and request that this information be corrected.					
Surrender details					
Surrender:		Partial surren	der:		
f partial surrender, area to be surrendered:				(hectares/square kilometres)	
Person to contact concerning this application					
Full name of contact person	on:				
Email address:					
Contact telephone:					
Supporting information					
Please send with your notice the prescribed fee required under the Crown Minerals (Petroleum Fees) Regulations 2006 for a notice of this type (or evidence of it having been paid) and any information that is required under the Crown Minerals (Petroleum) Regulations 2007 to accompany a notice of this type.					
Authorised signature†			_		
Authorised signature(s):			L		
Date:					
			_		

 $\dagger$ If made by 2 or more persons, this application must be signed in accordance with regulation 6 of the Crown Minerals (Petroleum) Regulations 2007.

Form 3

rr 15(3), 24(1)(a), (3)(a)

Application for transfer, lease, assignment, or other dealing with permit under section 41(2) of Crown Minerals Act 1991

Permit holder details*		
Full name of permit holder:		
Permit number:		
Address for service:		
*The personal information you must include in this form is needed to process your application under the Crown Minerals Act 1991. You have the right under the Privacy Act 1993 or the Official Information Act 1982 to access and request that this information be corrected.		
Person to contact concerning this notice		
Full name of contact person:		
Email address:		
Contact telephone:		
Supporting information		
the Crown Minerals (Petro application of this type (or any information required up	ration the prescribed fee required under bleum Fees) Regulations 2006 for an evidence of it having been paid) and under the Crown Minerals (Petroleum) any an application of this type.	
Authorised signature†		
Authorised signature(s):		

 $\dagger$ If made by 2 or more persons, this application must be signed in accordance with regulation 6 of the Crown Minerals (Petroleum) Regulations 2007. However, under regulation 24(3A) of those regulations, an exception applies if the application is for the Minister's consent to otherwise deal with a permit. In this case, only the permit holder to whom the dealing directly relates is required to sign the application.

Schedule 1 form 3: amended, on 11 June 2009, by regulation 6 of the Crown Minerals (Petroleum) Amendment Regulations 2009 (SR 2009/126).

# Form 4 rr 15(4), 30(a) Notice to Registrar-General of Land of access arrangement for purposes of section 83(1) of Crown Minerals Act 1991

#### To the Registrar-General of Land

I, [full name of permit holder/permit applicant] of [address for service], being the holder of permit [permit number],\* give notice under section 83 of the Crown Minerals Act 1991 of an access arrangement (within the meaning of section 2(1) of that Act) with the following:

Land owner and occupier: [full name of land owner and occupier with whom arrangement entered into]\*

\*If the land owner and occupier are the same person, specify here; if the land occupier and owner are different, specify below.

#### or

Land owner: [full name of land owner with whom arrangement entered into]

And

Land occupier: [full name of land occupier with whom arrangement entered into]

Description of land: [specify cadastral descriptions and certificate of title or other instrument of land title details to which the access arrangement relates]

#### **Details of arrangement**

Date access arrangement commenced:

Duration of access arrangement:

Permit duration (if arrangement relates to a permit already granted):

<sup>\*</sup>Include permit number if permit holder; delete phrase if permit applicant.

#### Form 4—continued

#### Authorised signature

I/We being the permit holder(s)/applicant(s)\* or the person authorised to sign on behalf of the permit holder(s)/applicant(s)\* declare that the information given in this notice is true and correct.

\*Delete whichever does not apply.

Signed:

(permit holder/permit applicant/person authorised to sign)

Dated:

Signed:

(permit holder/permit applicant/person authorised to sign)

Dated:

#### Copy of access arrangement

A copy of the access arrangement that has been made with the land owner and any occupier is attached to this notice.

#### **Lodging notice**

Under section 83(1) of the Crown Minerals Act 1991 you are required to lodge 3 copies of this notice with the Registrar-General of Land, accompanied by any fee prescribed by regulations made under the Land Transfer Act 1952.

#### Schedule 2

rr 17(2)(b), 18(2)(b)

# Information to accompany prospecting permit or exploration permit application (unless exploration permit allocated by public tender)

#### Part 1 Information to accompany prospecting permit application under regulation 17

- 1 A statement of the technical qualifications and financial resources of the applicant.
- 2 If the application is on behalf of 2 or more persons, an explanation of each person's interest in the permit.
- 3 A map of the permit area.
- 4 A summary of the geology of the permit area.
- 5 The results of any previous prospecting and exploration work in relation to the permit area.
- The play or plays to be addressed in the permit and a description of the critical risks associated with them that demonstrates the applicant's understanding of the petroleum system.
- 7 A statement of the proposed minimum work programme that—
  - (a) states its objectives and estimated cost; and
  - (b) identifies the technical rationale, milestones, and deliverables of the programme.

#### Part 2 Information to accompany exploration permit application under regulation 18

- 1 A statement of the technical qualifications and financial resources of the applicant.
- 2 If the application is on behalf of 2 or more persons, an explanation of each person's interest in the permit.
- 3 A map of the permit area.
- 4 A summary of the geology of the permit area.
- 5 The results of any previous prospecting and exploration work in relation to the permit area.
- The play or plays to be addressed in the permit and a description of the critical risks associated with them that demonstrates the applicant's understanding of the petroleum system.
- A statement of the proposed minimum work programme that—
  - (a) states its objectives; and
  - (b) for each stage of the programme, states the estimated cost of it; and
  - (c) includes any options proposed for surrender of the permit concerned, including how and when the options are to be exercised; and
  - (d) identifies the technical rationale, milestones, and deliverables of the programme.

#### **Schedule 3**

r 19(2)(e)(ii)

## Information to be included in report to accompany application for mining permit (unless permit allocated by public tender)

- 1 An executive summary of the information supplied under clauses 2 to 10, including—
  - (a) a summary of the in-place and recoverable reserves (including the applicant's calculations of the assigned probabilities of the reserves); and
  - (b) a description of the proposed facilities to extract, treat, and transport the petroleum; and
  - (c) the proposed annual and cumulative field production.
- 2 A discussion of the permit history, including—
  - (a) exploration results (including any geophysical or geochemical survey results); and
  - (b) appraisal results (including any drilling and well testing results).
- A statement of the geology of the permit area, including its regional setting, geological history, and regional stratigraphy.
- 4 A geophysical analysis and interpretation of the permit area, including—
  - (a) a database and maps showing seismic coverage and discussion of seismic data quality; and
  - (b) the seismic ties to wells and a discussion of the accuracy of the ties; and
  - (c) the seismic interpretation techniques and results; and
  - (d) the techniques and results of depth conversion (including velocity analysis and a discussion of the sensitivity of depth mapping to variations in velocity fields); and
  - (e) maps of all average and interval velocity fields used in depth conversion, including uncertainty maps; and
  - (f) structural maps and models in time and depth for reservoir units; and

- (g) a geophysical analysis of seismic attributes and modelling, including seismic inversion; and
- (h) a discussion of reservoir structure and uncertainties that could affect reserves (including analysis of faulting, alternative fault correlations, and fault seals).
- 5 A geological interpretation covering the following:
  - (a) description of stratigraphy, including a table of formation tops, thicknesses, and cored intervals (all in measure depth and true vertical depth); and
  - (b) sedimentological analysis and facies interpretation; and
  - (c) stratigraphic and structural correlations of reservoir units; and
  - (d) net sand and net pay maps for each reservoir; and
  - (e) a geological model, including description of the petroleum system and its constituent parts on which the mining proposal is based.
- 6 A petrophysical evaluation, including—
  - a database containing wireline, logging while drilling, monitoring while drilling, core, and sidewall core measurements, and any other subsurface measurements; and
  - (b) formation temperature measurements; and
  - (c) a petrophysical interpretation that covers—
    - (i) lithology, porosity, permeability; and
    - (ii) connate water saturation and water salinity; and
    - (iii) the cut-off criteria used to determine net reservoir and net pay; and
    - (iv) fracture density; and
    - (v) comparisons of laboratory analyses and log-derived data; and
  - (d) any petrographic and core analyses of reservoir rocks.
- 7 Reservoir engineering data, including—
  - (a) results and interpretation of all subsurface pressure measurements, including wireline, logging while drilling, monitoring while drilling, and test data measurements (open and cased hole); and

- (b) the interpreted position of gas—oil, oil—water, gas—water contacts, including an electric log analysis over the reservoir interval; and
- (c) desorption data and gas content maps for any coal seam gas field; and
- (d) a description of aquifer extent and strength; and
- (e) details of reservoir fluid parameters, including—
  - pressure, volume, and temperature analysis of gas, condensate, and oil (including dew point and bubble point); and
  - (ii) the oil formation by volume factor and the gas to oil and condensate to gas ratios with depth; and
  - (iii) chemical analysis of any gas, condensate, or water samples; and
  - (iv) a discussion of any significant differences between the results from different wells or intervals within a well.

#### 8 Reserves information, including—

- (a) structure maps, cross sections, or models showing the areal and vertical extent of the field and the hydrocarbon contacts; and
- (b) a statement of the hydrocarbons-in-place, including—
  - (i) a description of the methodologies used to calculate their volume and distribution; and
  - (ii) the assigned probabilities for oil, gas, and condensate (with details for each production layer or zone); and
  - (iii) the field totals; and
- (c) recoverable hydrocarbon estimates, including their assigned probabilities, and production forecasts for individual wells and field totals (irrespective of any gas sales contracts); and
- (d) a reservoir model or models.
- 9 A proposed field development plan, including—
  - (a) a summary structure map for each reservoir showing interpreted field contacts and the surface and down-hole

- location of proposed production and injection wells; and
- (b) an estimate and range of field life, including annual forecast production profiles for oil, water, and gas (and the assumptions on which the profiles are based) and any forecast annual injection profiles; and
- (c) information on all existing and proposed well locations (and their surface and reservoir completion depths), pipelines, production and reinjection facilities, treatment facilities, and transportation and storage facilities, including—
  - (i) a development timeline showing the sequence of drilling, well completions, installation of facilities, and commissioning and production start-up dates; and
  - (ii) a discussion of well design and well completion philosophy supported by diagrams; and
  - (iii) the proposed geological, petrophysical, and reservoir monitoring programmes for the duration of the field's life (with particular emphasis on resolving field uncertainties and dynamic performance); and
  - (iv) the proposed pressure maintenance, including any assisted recovery, artificial lift, or enhanced recovery; and
  - (v) the proposed frequency of reserve re-evaluations; and
  - (vi) the proposed location of meters to be used for the metering of oil, condensate, and gas that is produced, consumed, and flared; and
  - (vii) details of petroleum to be used to fuel any of the proposed operations or to be flared, and a discussion of other methods considered for petroleum utilisation; and
  - (viii) a description of the proposed development (including diagrams) and a description of the related process facility (including flow diagrams); and
  - (ix) the reasons for selecting the proposed development; and

- (x) a discussion of the proposed abandonment of facilities; and
- (xi) proposed expenditure on matters to which this paragraph applies; and
- (xii) the proposed commencement date for production.

10 The proposed point or points of valuation for royalties payable.

#### **Schedule 4**

r 22(1)(f)

# Information to be included in report to accompany application to extend duration of exploration permit for purpose of discovery appraisal

- 1 Maps, diagrams, and cross sections identifying the interpreted limits of the petroleum discovery or discoveries to be appraised.
- 2 The field exploration and appraisal history.
- A geophysical analysis and interpretation of the area proposed to be appraised that—
  - (a) includes seismic maps and profiles; and
  - (b) discusses seismic coverage, synthetic seismogram production, seismic interpretation, and modelling; and
  - (c) states techniques and calculations used for depth conversion.
- 4 A sedimentological and stratigraphic analysis and interpretation of the area proposed to be appraised that includes—
  - (a) its regional setting and tectonic history; and
  - (b) a facies analysis of the reservoir unit; and
  - (c) a depositional model; and
  - (d) a petrographic description of reservoir rocks; and
  - (e) a description of the geological correlation and stratigraphy of the reservoir.
- 5 Structural analysis and interpretation of the area proposed to be appraised that includes—
  - (a) the derivation of the top reservoir map; and
  - (b) a discussion of the reservoir structure, including analysis of faulting and its possible effect on reservoir continuity, fracturing, and any other structure-related aspects of the reservoir.

- 6 A geological model of the field.
- 7 Relevant well test analyses.
- 8 Details of formation parameters, including—
  - (a) the petrophysical interpretation with discussion of lithology, porosity, permeability, and connate water saturation; and
  - (b) the cut-off criteria used to define net to gross and fluid interfaces; and
  - (c) comparisons of laboratory analyses and log-derived data; and
  - (d) detailed information on all wireline tests; and
  - (e) interpretation and discussion of the results of the matters in paragraphs (a) to (d); and
  - (f) detailed information on reservoir zoning; and
  - (g) data on formation temperature; and
  - (h) methods used to correct deviated hole data to true vertical depth; and
  - (i) maps for each reservoir zone showing isoporosity, the net to gross ratio, water saturation, and permeability; and
  - results and interpretation of all forms of production logging and allied techniques in cased holes, and all repeat formation testing information (including all wireline formation testing and sampling); and
  - (k) the interpreted position of oil-water, gas-oil, and gas-water contacts and their derivation; and
  - (1) a description of the extent and strength of any aquifers.
- 9 Details of reservoir fluid parameters, including—
  - (a) analyses of pressure, volume, and temperature for gas, condensate, and oil (including any variations of dew point and bubble point pressures with depth); and
  - (b) the oil formation by volume factor; and
  - (c) the gas to oil ratio with depth (including a discussion of any significant difference between results from different wells or intervals); and

- (d) chemical analyses of gas, condensate, oil, and water column fluids that include a discussion of any significant difference between results from different wells or intervals.
- 10 Details of petroleum volumes, including,—
  - (a) for petroleum in place,—
    - (i) expected volumetric and material balance estimates of oil, gas, and condensate with details for each production layer or zone; and
    - (ii) field totals and either the cumulative distribution or range of estimates of oil, gas, and condensate for each production layer or zone; and
    - (iii) a discussion of the basis for the estimates under subparagraphs (i) and (ii) and the uncertainties in the calculations; and
  - (b) for petroleum recovery,
    - estimates of expected reserves for each production layer or zone; and
    - (ii) field totals and either the cumulative distribution or range of estimates of expected reserves for each production layer or zone; and
    - (iii) a discussion of the basis for the estimates under subparagraphs (i) and (ii) and the uncertainties in the calculations.

# Schedule 5 r 32(2)(b) Information to be included in notice of intention to carry out well-drilling operations

- 1 The name, number, and location of the proposed well.
- 2 The reference number of the permit under which it is to be drilled.
- 3 The co-ordinates of the well site and, if a deviated well, the co-ordinates of the bottom hole location at total depth.
- 4 The elevation of the well site to the kelly bushing, rotary table, or derrick floor, and,—
  - (a) if onshore, above ground level; or
  - (b) if offshore, the water depth at the well site.
- 5 The proposed depth of the well.
- 6 The proposed spudding-in and completion dates for the well.
- 7 The purpose and geological objectives in drilling the well.
- 8 A table, with descriptions, of the forecasted stratigraphy for each formation, including its—
  - (a) age; and
  - (b) lithology; and
  - (c) thickness and depth to the top of the formation (measured in both metres along hole below the kelly bushing and true vertical sub-sea).
- 9 A description of the forecasted well stratigraphy.
- 10 Two-way time or depth contour maps of each target horizon.

- 11 A representative interpreted seismic line with an overlay of the projected well path.
- Details of any proposed directional drilling, including the proposed—
  - (a) kick-off depth; and
  - (b) angle build-up; and
  - (c) average and maximum deviation.
- 13 A schematic diagram of the proposed casing programme.
- 14 The drilling forecast with a schematic diagram.
- 15 Details of the proposed sampling programme, including—
  - (a) details of the proposed intervals for drill cuttings and cores; and
  - (b) the proposed types and intervals of electric logs and surveys; and
  - (c) the proposed intervals and methods of formation and reservoir testing.

#### Schedule 6

rr 38(2)(b), 39(2)(b), 40(2)(d)

### Information to be included in half-yearly reports

#### Part 1

Information to be included in half-yearly report under regulation 38 on prospecting or exploration activities

- 1 All field investigations undertaken, including—
  - (a) their location, nature, and purpose; and
  - (b) the quality of the data obtained; and
  - (c) any other relevant information.
- 2 Any surveys undertaken in relation to the permit.
- Any seismic surveys carried out in relation to the permit, including,—
  - (a) if a two-dimensional survey, the total line kilometres acquired; or
  - (b) if a three-dimensional survey, the total area surveyed and the grid size.
- 4 Any reprocessed geophysical data obtained, including the total line kilometres reprocessed.
- 5 Petroleum initially in place and gas initially in place estimates from—
  - (a) a discovery; or
  - (b) ongoing appraisal of a discovery.
- 6 Recoverable hydrocarbon resource or reserve estimates (stating the range of uncertainties) from—
  - (a) a discovery; or

- (b) ongoing appraisal of a discovery.
- 7 Any drilling activities, including, for each well,—
  - (a) its name, number, and location; and
  - (b) its spud, total depth, and rig release dates; and
  - (c) the metreage drilled for exploration appraisal; and
  - (d) the metreage, or additional metreage, of any development wells, including re-entry and sidetrack wells; and
  - (e) the kick-off depth for any sidetrack wells.

#### Part 2

Information to be included in half-yearly report under regulation 39 on mining activities and production operations

- 1 For each well, reservoir, and field,—
  - (a) the calculated daily and monthly production rates for oil, condensate, gas, and water; and
  - (b) any measured daily and monthly production rates for oil, condensate, gas, and water.
- 2 For each well, reservoir, and field, the number of days or part days that they were in production.
- For each well, reservoir, and field, the calculated daily and monthly gas and water injection rates.
- 4 For each well, the number of days or part-days on which gas and water injection occurred.
- For each well and reservoir, the watercut, and the gas to oil, and condensate to gas ratios.

- 6 For each well, if measured, the flowing tube head and flowing down-hole pressures.
- 7 The fuel gas or oil used and gas or oil flared in extracting petroleum.
- 8 If measured at any location, its oil, condensate, and gas gravity (using the American Petroleum Institute scale).
- 9 For each well, if measured, the static tube head and static down-hole pressures.
- For each well, the completion and perforation intervals and details of any changes to those intervals during the half-year.
- 11 For each well, any suspension or downtime and the reasons for it.
- 12 Any workovers and their purpose.
- 13 A summary of—
  - (a) the production, development, and exploration activities undertaken in the field or as studies; and
  - (b) the results of those activities, including—
    - (i) any significant revised views on the geology and geophysics (including any in relation to geological or seismic interpretations or models, structure, and stratigraphy); and
    - (ii) any petrophysical interpretation carried out; and
    - (iii) reservoir fluid parameters; and
    - (iv) reservoir performance, reservoir model, production, and injection profiles; and
    - (v) any seismic surveys carried out in relation to the permit, including,—
      - (A) if a two-dimensional survey, the total line kilometres acquired; or

- (B) if a three-dimensional survey, the total area surveyed and the grid size; and
- (vi) any reprocessed geophysical data obtained, including details of the total line kilometres processed.
- 14 A status report on any facilities under design or construction or that have been commissioned.
- 15 Details of any drilling activities.
- Details of any surveys undertaken during the report period.
- 17 An outline of proposed mining operations to be undertaken in the next half-year, including—
  - (a) the proposed production profile for the projected life of the field (in tabular and graphic form); and
  - (b) an indicative maximum deliverability profile using the installed infrastructure; and
  - (c) the proposed production and reservoir management programme.
- 18 A status report on—
  - (a) petroleum reserves, including remaining petroleum and gas in place (including an explanation of the methodology used to calculate the reserves); and
  - (b) P90 and P50, or proven and proven plus probable estimates (1P and 2P estimates) for remaining and ultimately recoverable oil and gas (including an explanation of the methodology used to calculate the estimates).
- An explanation of the methodology for calculating any of the data referred to in clauses 1 to 18 if—
  - (a) an explanation of the methodology has not been supplied in previous reports under regulation 39; or

- (b) the methodology has not previously been used in relation to the permit.
- 20 Supplementary figures and diagrams, if appropriate.

#### Part 3

## Information to be included in half-yearly report under regulation 40 on expenditure incurred under permit

- 1 Exploration drilling, including any re-entries and side-tracks.
- 2 Appraisal drilling, including any re-entries and side-tracks.
- 3 Development drilling, including any re-entries and side-tracks.
- 4 Seismic reprocessing.
- 5 Seismic acquisition.
- 6 Geological and geophysical technical analyses.
- 7 Permit administration.
- 8 Environmental regulation.
- 9 If the report relates to a mining permit,—
  - (a) production operating expenditure; and
  - (b) capital expenditure.

## Schedule 7 r 44(3) Information to be included in reports on surveys

#### Part 1 Information to be included in geological survey report under regulation 44(3)(a)

- 1 An interpretation of the stratigraphy and structure of the area surveyed and its regional correlation.
- 2 Geological maps, sections, and columns prepared as a result of the survey.
- 3 Any other information relevant to the survey.

#### Part 2 Information to be included in gravity survey report under regulation 44(3)(b)

- 1 For each observation point, its position, elevation, and gravity value relative to a recognised datum.
- 2 For each gravity station,—
  - (a) a description of it; and
  - (b) a location map; and
  - (c) its elevation or barometric pressure; and
  - (d) the time, temperature, and adopted gravity value for it.
- 3 The density determination of rocks measured (or their derived values).

- 4 The gravity meter closure chart and gravity meter drift (if calculated) showing misclosures or adjustments.
- 5 Any gravity anomaly maps or profiles prepared as part of the survey.
- 6 Any special processed sections, plots, or similar material resulting from the survey.
- Any observation logs and files resulting from the survey.
- 8 Any data acquisition, data processing, quality control or supervision, consultant, navigation, or survey reports produced, and any documents relating to them.
- 9 An interpretation report that includes maps, profiles, and discussion of any gravity anomalies.

# Part 3 Information required to be included in magnetic survey report under regulation 44(3)(c)

- The position, elevation, and value of the magnetic field intensity relative to a stated datum and the type of magnetometer used.
- 2 For marine surveys, the water depth and position of the magnetometer sensor relative to the vessel.
- For magnetic vector measurements, the values of observed components or directions.

- 4 The magnetometer drift curves, calibration details, and loop closure charts showing misclosures or adjustments.
- 5 For each magnetic station,—
  - (a) a description of it; and
  - (b) a location map showing its position, elevation, and adopted magnetic values.
- 6 The magnetic properties of all rock samples measured.
- 7 The magnetic anomaly maps and profiles prepared as part of the survey.
- 8 Any special processed sections, plots, or similar material resulting from the survey.
- 9 Any observation logs and files resulting from the survey.
- Any data acquisition, data processing, quality control or supervision, consultant, navigation, or survey reports produced, and any documents relating to them.
- An interpretation report that includes magnetic anomaly maps, depth maps, and profiles of the area surveyed.

#### Part 4

## Information required to be included in geochemical survey report under regulation 44(3)(d)

- 1 All assay and sample location numbers.
- 2 Sample location details, including co-ordinates for each.

- 3 Details of the sampling procedures used, including—
  - (a) the type of material sampled; and
  - (b) the size of the samples; and
  - (c) the depth of the samples.
- 4 Observation logs and files, if any.
- 5 Details of the analytical procedures used, including—
  - (a) the name of the laboratory that analysed the samples;
  - (b) the extraction or digestion techniques used; and
  - (c) the analytical methods for identifying the limits of detection and precision.
- 6 Reference background values in the area surveyed.
- 7 A report interpreting the information in clause 6.
- 8 Any anomaly or location maps or profiles prepared as part of the survey.
- 9 Any special processed sections, plots, or similar material resulting from the survey.
- Details of any quality control or quality assurance studies resulting from the survey.

#### Part 5 Information to be included in seismic survey report under regulation 44(3)(e)

1 Type and characteristics of receivers.

- 2 Type and characteristics of the seismic energy source and the characteristics of the signal generated by it.
- For any offshore seismic survey, digital navigation data in a form acceptable to the Secretary that indicates—
  - (a) the co-ordinates of the shot-point and receiver locations; and
  - (b) the depth of operation of the seismic energy source.
- 4 For any offshore seismic survey, the cetacean observer reports.
- 5 For any onshore seismic survey, digital data in a form acceptable to the Secretary that indicates—
  - (a) the co-ordinates of the shot-point and receiver locations; and
  - (b) the elevation of shot-points, receivers, and statics; and
  - (c) the depth below surface of the seismic energy source.
- 6 If a shot-hole is used,—
  - (a) the depth to groundwater (if known); and
  - (b) the lithological notes of the driller concerned.
- 7 The types and characteristics of—
  - (a) the shot-point and receiver configurations, including depth below surface; and
  - (b) the recording system and field processing techniques.
- 8 The depth to the base of weathering, if known, where up-holes or down-holes are drilled for statics corrections.
- 9 A seismic processing report that includes a digital copy of the final stacking velocities in a form acceptable to the Secretary.
- 10 Recording data from the survey, including—
  - (a) observation logs; and
  - (b) details of recording instrumentation; and

- (c) the cable and spread configuration; and
- (d) the field tape data; and
- (e) timing; and
- (f) the energy source.
- Any data acquisition, data processing, quality control or supervision, consultant, navigation, or survey reports produced, and any documents relating to them.
- 12 For any two-dimensional seismic survey,—
  - (a) the shot-point base map; and
  - (b) all stacked, migrated, filtered, or further processed seismic sections; and
  - (c) all seismic sections, which must include—
    - (i) annotation to allow identification of the records and the processing applied; and
    - (ii) a reflection time scale of 10 cm/sec (or other appropriate scale); and
    - (iii) annotation of water depths for offshore seismic reflection data; and
    - (iv) a description of processing methods; and
    - (v) shot-point maps showing the location of recorded profiles; and
  - (d) an interpretation report that includes—
    - (i) relevant enclosures and maps; and
    - (ii) two-way time, depth, isopach, isochron, isochore, and bathymetric contour maps prepared as part of the interpretation; and
    - (iii) the results of any specialised processing of the seismic data for velocity studies (for example, studies of amplitude variation with offset, inversion, spectral analysis, neural network analysis, trace classification, spectral decomposition, coherence, attribute analysis, or signal envelope analysis); and
    - (iv) depth conversion information, including—(A) average and interval velocity maps; and

- (B) details regarding any software-based depth conversion procedures; and
- (e) any special processed sections or similar material resulting from the survey.
- 13 For any three-dimensional survey,—
  - (a) a processed shot-point and receiver database; and
  - (b) the shot-point base map; and
  - (c) the unfiltered migrated data set; and
  - (d) the unscaled filtered migrated data set; and
  - (e) a digital copy of the stacking velocities; and
  - (f) a common depth point bin base map; and
  - (g) specifications and definition of the bin grid; and
  - (h) the trace binning criteria; and
  - (i) the survey corner points; and
  - (j) the in-line and cross-line vertical time sections extracted from the three-dimensional volume (every 20th line or as appropriate) that are—
    - (i) annotated to allow identification of the records and the processing applied; and
    - (ii) at a time scale of 10 cm/sec or other appropriate scale; and
    - (iii) annotated for water depths (if offshore seismic data); and
  - (k) interpretation reports accompanied by relevant enclosures and maps.
- For any seismic data that has been further processed or reprocessed, the information referred to in clauses 1 to 13 that relates to the further processing or reprocessing.

# Part 6 Information to be included in review of existing petroleum data report under regulation 44(3)(f)

- 1 A bibliography of the data on which the review is based.
- 2 An interpretation of the data reviewed and the conclusions reached.
- Any maps, geological sections or columns, or any other data relevant to the review.

### Schedule 8 Well-drilling reports

rr 45(2), 46(2)

## Part 1 Information to be included in daily well-drilling report under regulation 45(2)

- 1 The well name, number, and location.
- 2 The report number and date.
- 3 The current depth and the distance drilled.
- 4 The direction and inclination of any deviation in the well.
- 5 The current diameter of the hole.
- 6 Details of the current operation.
- 7 A formation evaluation log that clearly sets out—
  - (a) the rock types penetrated or encountered during drilling (as determined from drill cuttings, cores, and sidewall samples); and
  - (b) the proportions of each rock type; and
  - (c) lithological descriptions of the rock types penetrated or encountered; and
  - (d) the penetration rates, and particulars of any oil or gas encountered, including oil fluorescence and oil staining; and
  - (e) a summary of chromatography readings and gas readings in the mud, including—
    - (i) background and maximum levels; and
    - (ii) any trip gas, connection gas, or survey gas encountered.

- 8 A geological interpretation of the well site.
- 9 Measurements or estimates of porosity recorded at the well site.
- Details of the cored intervals and types of core recovered (conventional, wireline, sidewall, or any other) and the percentage recovery of each.
- Details of drill-stem or formation tests (open hole or cased), the interval tested, the recovery, and any relevant engineering details.
- Details of any casing operation, including setting depth and diameter.
- Details of any cementing operations, including the setting depth or plugs.
- Details of any casing pressure, formation integrity, leak-off, or cement integrity tests.
- Details of any electric and geophysical logging, deviation and temperature surveys, and any other tests or surveys carried out.
- A record of any other operations (for example, fishing, perforating, acidising, or fracturing).
- 17 Fluid data, including details of the fluid type, changes in fluid type, and circulation losses or gains.

#### Part 2

### Information to be included in well completion report under regulation 46(2)(a)

- 1 A summary of the drilling operations, including—
  - (a) the reasons for locating and drilling the well; and
  - (b) the well-drilling operations carried out; and
  - (c) the conclusions drawn from the operations.
- 2 General data, including—
  - (a) the name of the permit holder and any other participants in the drilling operations; and
  - (b) the reference number of the exploration or mining permit; and
  - (c) the well name, number, and its location co-ordinates (and, for a deviated well, the co-ordinates of the bottom hole location at total depth); and
  - (d) the elevation of the kelly bushing, rotary table, or derrick floor; and
  - (e) the following dates:
    - (i) the drilling commencement; and
    - (ii) the spudding-in of the well; and
    - (iii) the reaching of total depth of the well; and
    - (iv) the releasing of the rig; and
  - (f) the total well depth reached; and
  - (g) the status of the well; and
  - (h) details of the well completion, including down-hole equipment with schematic drawings.
- 3 A drilling data summary that includes—
  - (a) hole sizes and depths; and
  - (b) details of any directional drilling, including kick-off depth, angle buildup, average and maximum deviations, and severity and depth of any dog-legs; and
  - (c) details of casing and liners, including size, weight, grade, thread and coupling, number of joints, and setting depths; and

- (d) details of casing cementing, including brief details of the quantities and grades of cement used, the methods used (single-staged or multi-staged), and the cement top (estimated or logged); and
- (e) the drilling fluid used, including fluid type, and brief details of treatment, weight, relevant fluid properties, and the quantities of any additives used; and
- (f) details of—
  - (i) the completion fluid analysis; and
  - (ii) drilling fluid losses; and
  - (iii) the water supply for drilling fluids; and
- (g) the perforation record, including casting size and intervals, the type of charge, hole density, the size of holes, and method used; and
- (h) details of plugging back and cement squeeze operations, and methods used; and
- (i) details of fishing operations, including the depth and nature of the operation and any equipment left in the hole; and
- (j) details of any side-tracked hole, including the method used and the reason for side-tracking; and
- (k) the drilling time analysis; and
- (l) details of leak-off tests and formation integrity tests; and
- (m) schematic drawings illustrating the matters described in paragraphs (a) to (d).
- 4 Details of geological sampling, including—
  - (a) details of the method and intervals of collecting drill cutting samples, the intervals if no samples were collected, and where drill cutting samples are stored; and
  - (b) details of any coring operation, including whether conventional or wireline, the core number, the interval cored, the percentage recovery of the interval cored, and where the core is stored; and

- (c) details of any sidewall sampling, including the intervals sampled, the method used, the recovery rate, and where the samples are stored.
- 5 Digital copies and details of electric and geophysical logs and mechanical surveys and their interpretation.
- 6 Details of any formation testing, including—
  - (a) the data recorded for the intervals tested, the methods of testing, and the equipment details; and
  - (b) the results, including recoveries, pressures, and temperatures; and
  - (c) interpretation methods.
- 7 Details of any fluid or gas samples collected, including the method of sampling, the intervals sampled, and the analyses of the samples.
- 8 Details of any reservoir data collected, including the methods used and the pressure, temperature, and flow-meter surveys.
- 9 Geological information, including—
  - (a) a summary of the regional geology; and
  - (b) a stratigraphic table showing the interpreted age, thickness, lithology, and the depth to the top for each formation; and
  - (c) a description of the well stratigraphy; and
  - (d) a structural interpretation; and
  - (e) a description of any formation penetrated; and
  - (f) a correlation of the section drilled, and a comparison of the result with neighbouring wells (supported by crosssections, if appropriate); and
  - (g) details of the porosity and permeability of the sediments penetrated with reference to the log interpretation; and
  - (h) any re-evaluation of geological concepts as a result of the drilling.

#### 10 A bibliography.

# Part 3 Information to be included as appendices to well completion report under regulation 46(2)(b)

- 1 Any petrological, palaeontological, or analytical reports.
- 2 Analyses and descriptions of cores.
- 3 Copies of daily drilling reports for the entire operation.
- 4 Reports and interpretations in respect of operations on the well.
- 5 Reports prepared from studies carried out on samples during well operations.
- 6 Velocity seismic profiling reports.
- 7 Checkshot or velocity survey reports.
- 8 Data acquired during drilling and testing operations, including mudlogs, electric and geophysical logs, well tests, and gas and oil indications.

## Part 4 Information to accompany well completion report under regulation 46(2)(c)

- 1 Location and geological maps.
- 2 Formation evaluation, electric, geophysical, and composite logs, and any other well surveys.
- A well-drilling history chart showing the main drilling operations—
  - (a) by days; and
  - (b) by depths.
- 4 A well-drilling deviation survey chart and the deviation survey measurement data.
- 5 Photographs of core with each photograph labelled to show its location and depth.

#### **Schedule 9**

rr 54(2)(b), 55(1)(b)(i), 56(2)(b)(i), 58(1)

#### Royalty returns

#### Part 1 Information to be included (for each product stream) in royalty statement under regulation 54(2)(b)

- 1 The quantity of the product produced.
- 2 The quantity of the product sold.
- 3 The quantity of the product used in production.
- 4 The quantity of the product exchanged or removed without sale (other than petroleum unavoidably lost or returned to the natural reservoir within the permit area).
- 5 The quantity of product unavoidably lost or returned to the natural reservoir within the permit area.
- 6 The gross sales of the product.
- 7 The arm's length value of petroleum not sold but on which a royalty is payable.
- 8 The closing stocks.
- 9 Any allowable net backs or net forwards.

#### Part 2 Information to be included in royalty return under regulation 55(1)(b)(i) or 56(2)(b)(i)

- A statement specifying the calculation of net sales revenues for the period to which the return relates that includes, for each product stream,—
  - (a) the quantity produced; and
  - (b) the quantity of the product sold; and
  - (c) the quantity of the product used in production; and
  - (d) the quantity of the product exchanged or removed without sale (other than petroleum unavoidably lost or returned to the natural reservoir within the permit area); and
  - (e) the quantity of product unavoidably lost or returned to the natural reservoir within the permit area; and
  - (f) the gross sales of the product; and
  - (g) the arm's length value of petroleum not sold but on which a royalty is payable; and
  - (h) the closing stocks; and
  - (i) any allowable net backs or net forwards.
- 2 A calculation of the *ad valorem* royalty for the period to which the return relates.
- A calculation of any allowable accounting profits royalty deductions and the provisional accounting profits royalty for the period to which the return relates that includes the following information:
  - (a) the production costs; and
  - (b) the capital costs (including details of exploration, development, permit acquisition, and feasibility costs); and
  - (c) the indirect costs; and
  - (d) the abandonment costs; and
  - (e) the operating and capital overhead allowance claimed; and

- (f) the operating losses and capital costs carried forward from the previous period for which a royalty return was required; and
- (g) the capital proceeds.
- 4 A statement of the royalty payable for the period to which the return relates (with details of any payment attached).
- A declaration signed by the permit holder stating that the royalty return is correct for the purposes of regulation 55.

## Part 3 Information to accompany final royalty return under regulation 56(2)(b)(i)

- Details of any allowable accounting profits royalty deductions (other than abandonment costs or abandonment costs carried back) that the permit holder is claiming for the return, including—
  - (a) production costs; and
  - (b) capital costs (including details of exploration, development, permit acquisition, and feasibility costs); and
  - (c) indirect costs; and
  - (d) the operating and capital overhead allowance; and
  - (e) operating losses and capital costs carried forward from any previous period for which a royalty return was required.
- 2 Details of the abandonment costs to be carried back and any recapture of capital expenditure deductions.
- 3 The calculation of the *ad valorem* royalty and final accounting profits royalty in respect of any period for which provisional accounting profits were paid during the life of the permit.

4 A statement of any refund of overpayment of provisional accounting profits royalty claimed.

Diane Morcom, Clerk of the Executive Council.

Issued under the authority of the Acts and Regulations Publication Act 1989. Date of notification in *Gazette*: 31 May 2007.

#### **Contents**

- 1 General
- 2 Status of reprints
- 3 How reprints are prepared
- 4 Changes made under section 17C of the Acts and Regulations Publication Act 1989
- 5 List of amendments incorporated in this reprint (most recent first)

#### **Notes**

#### 1 General

This is a reprint of the Crown Minerals (Petroleum) Regulations 2007. The reprint incorporates all the amendments to the regulations as at 11 June 2009, as specified in the list of amendments at the end of these notes.

Relevant provisions of any amending enactments that have yet to come into force or that contain relevant transitional or savings provisions are also included, after the principal enactment, in chronological order.

#### 2 Status of reprints

Under section 16D of the Acts and Regulations Publication Act 1989, reprints are presumed to correctly state, as at the date of the reprint, the law enacted by the principal enactment and by the amendments to that enactment. This presumption applies even though editorial changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in the reprint.

This presumption may be rebutted by producing the official volumes of statutes or statutory regulations in which the principal enactment and its amendments are contained.

#### 3 How reprints are prepared

A number of editorial conventions are followed in the preparation of reprints. For example, the enacting words are not included in Acts, and provisions that are repealed or revoked are omitted. For a detailed list of the editorial conventions, *see* 

http://www.pco.parliament.govt.nz/legislation/reprints.shtml or Part 8 of the *Tables of Acts and Ordinances and Statutory Regulations, and Deemed Regulations in Force.* 

### 4 Changes made under section 17C of the Acts and Regulations Publication Act 1989

Section 17C of the Acts and Regulations Publication Act 1989 authorises the making of editorial changes in a reprint as set out in sections 17D and 17E of that Act so that, to the extent permitted, the format and style of the reprinted enactment is consistent with current legislative drafting practice. Changes that would alter the effect of the legislation are not permitted. A new format of legislation was introduced on 1 January 2000. Changes to legislative drafting style have also been made since 1997, and are ongoing. To the extent permitted by section 17C of the Acts and Regulations Publication Act 1989, all legislation reprinted after 1 January 2000 is in the new format for legislation and reflects current drafting practice at the time of the reprint.

In outline, the editorial changes made in reprints under the authority of section 17C of the Acts and Regulations Publication Act 1989 are set out below, and they have been applied, where relevant, in the preparation of this reprint:

- omission of unnecessary referential words (such as "of this section" and "of this Act")
- typeface and type size (Times Roman, generally in 11.5 point)
- layout of provisions, including:
  - indentation
  - position of section headings (eg, the number and heading now appear above the section)
- format of definitions (eg, the defined term now appears in bold type, without quotation marks)
- format of dates (eg, a date formerly expressed as "the 1st day of January 1999" is now expressed as "1 January 1999")
- position of the date of assent (it now appears on the front page of each Act)

- punctuation (eg, colons are not used after definitions)
- Parts numbered with roman numerals are replaced with arabic numerals, and all cross-references are changed accordingly
- case and appearance of letters and words, including:
  - format of headings (eg, headings where each word formerly appeared with an initial capital letter followed by small capital letters are amended so that the heading appears in bold, with only the first word (and any proper nouns) appearing with an initial capital letter)
  - small capital letters in section and subsection references are now capital letters
- schedules are renumbered (eg, Schedule 1 replaces First Schedule), and all cross-references are changed accordingly
- running heads (the information that appears at the top of each page)
- format of two-column schedules of consequential amendments, and schedules of repeals (eg, they are rearranged into alphabetical order, rather than chronological).

### 5 List of amendments incorporated in this reprint (most recent first)

Crown Minerals (Petroleum) Amendment Regulations 2009 (SR 2009/126)