

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose permit number: CPS 502/1

Permit holder: Arc Energy Limited Petroleum exploration

Shire: Irwin

Duration of permit: 21 October 2006 – 21 October 2011

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The permit holder is authorised to clear native vegetation for the above stated purposes, subject to the conditions of this Permit.

PART I-CLEARING AUTHORISED

1. Land on which clearing is to be done

Production License L1

Production License L2

Production License L7

Exploration Permit EP320

2. Area of Clearing

The permit holder must not clear more than 40 hectares of native vegetation.

3. Clearing not authorised

The Permit Holder shall not clear any riparian vegetation.

4. Application

This Permit allows the permit holder to authorise persons, including employees, contractors and agents of the permit holder, to clear *native vegetation* for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1 and 2 of this Permit, the permit holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II - ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

6. Avoid, minimise etc clearing

- (a) In determining the amount of native vegetation to be cleared for the purposes of petroleum exploration the Permit Holder must have regard to the following principles, set out in order of preference:
 - (i) avoid the clearing of native vegetation;
 - (ii) minimise the amount of native vegetation to be cleared; and
 - (iii) reduce the impact of clearing on any environmental value.

7. Flora management

- (a) Prior to undertaking clearing within the areas described in conditions 1 and 2, the areas shall be inspected by a *flora specialist* who shall identify *Rare* and *Priority Flora taxa*.
- (b) Where *Rare Flora* or *Priority Flora* are identified in relation to condition 7(a) the Permit Holder shall ensure that:
 - (i) The Rare and Priority Flora is flagged with fluorescent flagging tape;
 - (ii) No clearing occurs within 50m of Rare or Priority Flora; and
 - (iii) All records of Declared Rare and Priority Flora taxa must be submitted to the Department of Environment and Conservation, Species and Communities Branch.

8. Dieback and weed control

- (a) When undertaking any *clearing*, *revegetation* and *rehabilitation*, or other activity pursuant to this permit the Permit Holder must take the following steps to minimise the risk of introduction and spread of *dieback*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) avoid the movement of soil in wet conditions;
 - (iii) ensure that no *dieback*-affected *road building materials*, *mulches* or *fill* are brought into an area that is not affected by *dieback*; and
 - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) When undertaking any *clearing*, *revegetation* and *rehabilitation*, or other activity pursuant to this Permit the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) ensure that no weed-affected road building materials, mulch, fill or other material is brought into the area to be cleared; and
 - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
 - (c) At least once in each 12 month period for the *term* of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas *cleared*, *revegetated* and *rehabilitated* under this Permit.

9. Revegetation and rehabilitation

- (a) Within one month of any area cleared under this permit no longer being required for exploration, the Permit Holder shall allow native vegetation to naturally regenerate.
- (b) Within one year of allowing regeneration in accordance with condition 9(a), the Permit Holder must:
 - (i) Determine the species composition, structure and density of the area that has regenerated in accordance with condition 9(a); and
 - (ii) Where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 9(b)(i) will not result in a similar species composition, structure and density to pre-clearing vegetation types in that area the

Permit Holder must undertake additional planting or seeding of *native vegetation* in accordance with the requirements of condition 9(c)(i) and (ii).

- (c) The permit holder must revegetate areas by:
 - (i) Deliberately planting and/or seeding *native vegetation* that will result in a similar species composition, structure and density of *native vegetation* to pre-clearing vegetation types in that area;
 - (ii) Ensuring only local provenance seeds and propagating material from within 10km of the area cleared are used to revegetate the area;

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, as relevant:

- (a) in relation to the *clearing* of *native vegetation* undertaken pursuant to condition 1 and 2:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) the location where the clearing occurred, recorded using Geocentric Datum Australia 1994;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) in relation to the revegetation and rehabilitation of areas pursuant to condition 9:
 - (i) the location of any area *revegetated* and *rehabilitated* in accordance with condition 9 recorded using Geocentric Datum Australia 1994;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken pursuant to condition 9; and
 - (iii) the size of the area revegetated and rehabilitated (in hectares) pursuant to condition
- (c) in relation to *flora management* pursuant to condition 7:
 - (i) the location of each *Rare Flora* and *Priority Flora* recorded using Geocentric Datum Australia 1994; and
 - (ii) the species of each Rare Flora or Priority Flora identified.

11. Reporting

The Permit Holder shall provide to the *CEO*, on or before 30 June of each year, a written report of records requested under condition 9 and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.

12. Definitions

The following meanings are given to terms used in this Permit:

CEO means the Chief Executive Officer of the Department of Environment;

clearing has the meaning given to it in section 51A of the Environmental Protection Act 1986;

dieback means the effect of Phytophthora species on native vegetation;

EP Act means the Environmental Protection Act 1986;

fill means material used to increase the ground level, or fill a hollow:

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

native vegetation has the meaning given to it in sections 3 and 51A of the *Environmental Protection Act 1986*:

Priority flora means those plant taxa that described as priority flora classes 1, 2, 3 or 4 in the Declared Rare and Priority Flora List for Western Australia, Department of Conservation and Land Management, as amended;

Rare Flora means flora that is declared to be rare flora under section 23F of the *Wildlife Conservation Act 1950*;

rehabilitation means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetation means the re-establishment of a cover of *native vegetation* in an area such that the species composition, structure and density is similar to pre-*clearing* vegetation types in that area, and can involve regeneration, direct seeding and/or planting;

riparian vegetation means the distinctive vegetation associated with a wetland or watercourse;

road building materials means rock, gravel, soil, stone, timber, boulders and water;

term means the duration of this Permit, including as amended or renewed:

watercourse has the meaning given to that term in Schedule 5 to the Act;

wetland has the meaning given to that term in Schedule 5 to the Act;

Fred Tromp

Director, Natural Resource Management, Department of Environment and Conservation. Officer delegated under Section 20 of the Environmental Protection Act 1986

21 September 2006