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Berrimah Farm
DARWIN NT 0800
AUSTRALIA

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GPO Box 4550
DARWIN NT 0801

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File Ref: E2016/0036

The Honourable Justice
Rachel Pepper
Hydraulic Fracturing Taskforce
GPO Box 4396
DARWIN NT 0801

Dear Justice Pepper

Thank you for the recent opportunity to assist the panel for the Scientific Inquiry into Hydraulic Fracturing with responses to the two queries from Mr Rod Dunbar of Nutwood Downs, below. The Department of Primary Industry and Resources (DPIR) has sought to address the request and provided the information we believe is relevant for the panel's deliberations.

1. *There is a Contract between Origin Energy and Falcon Oil and Gas (which is now registered as a foreign company) pertaining to the exploration operations of EP98.*

This likely refers to the Farmin/Farmout Agreement (the Agreement) between the companies. These agreements are the common mechanism in the oil and gas industry whereby an Operator buys in or acquires an interest in a lease owned by another Operator which is considered prospective for oil or gas or on which oil or gas has been discovered or is being produced. Often farm-ins are negotiated to help the original owner with exploration and/or development costs and to secure for the buyer a source of crude oil or natural gas

Falcon Australia's parent company, Falcon, is listed on the Toronto Venture Exchange, the London Stock Exchange Alternative Investment Market and the Dublin Stock Exchange Enterprise Securities Market. In July 2016, Falcon consolidated its interest in Falcon Australia and increased its shareholding from 73% to 98%. Falcon is the registered holder of EP98.

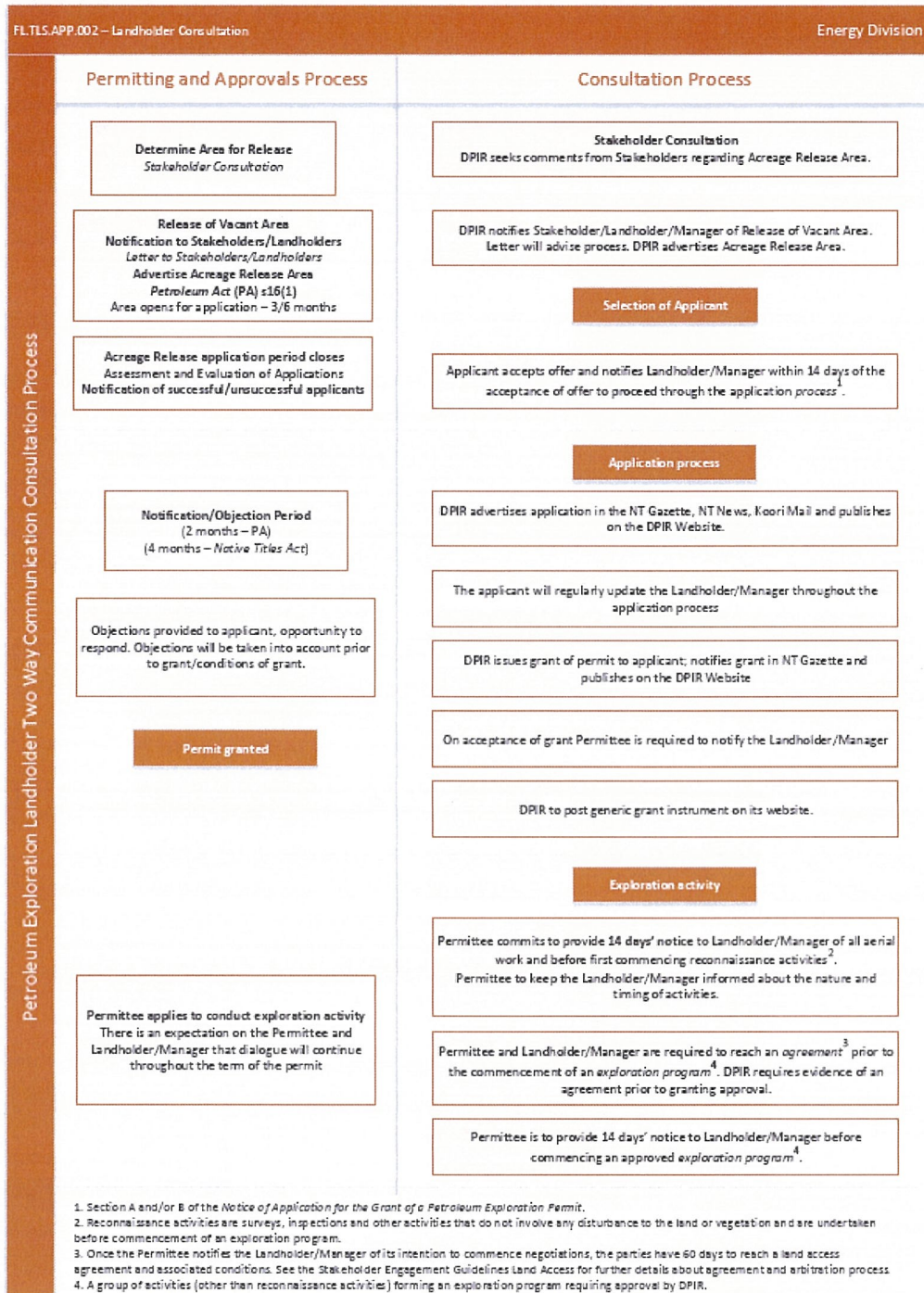
Origin Energy Limited (Origin) listed on the Australian Stock Exchange (ASX:ORG), is Australia's leading electricity and gas supplier and is a part of the Australian Pacific LNG joint venture exporting LNG from Gladstone.

In 2014 Origin made an Agreement with Falcon Oil and Gas, earning a 35% interest in the title though funding exploration activities. Origin became the Operator of the Agreement. Sasol Petroleum Australia Limited (Sasol) also held 35% at this time.

On 5 May 2017, Origin announced it had acquired Sasol's 35% interest in in the Beetaloo Joint Venture, bringing its interest to 70%. This transaction remains subject to the satisfaction of certain conditions, including Government approval, which is described below.

The transaction will not impact Falcon's 2014 Agreement as Origin has assumed 100% of the future costs of the Farmin/Farmout, including fully funding exploration activities some of which may be planned over Nutwood Downs.

No activity can occur on Nutwood Downs without the DPIR having evidence of an agreement between the landholder and the company, in accordance with the following process as shown on p.313, Attachment D to the DPIR submission to the Scientific Inquiry:



The DPIR is not privy to the content of the Agreement between the parties as these contain commercial in confidence information. If the panel requires further information, a direct approach to Origin could be made to see if further information could be made available.

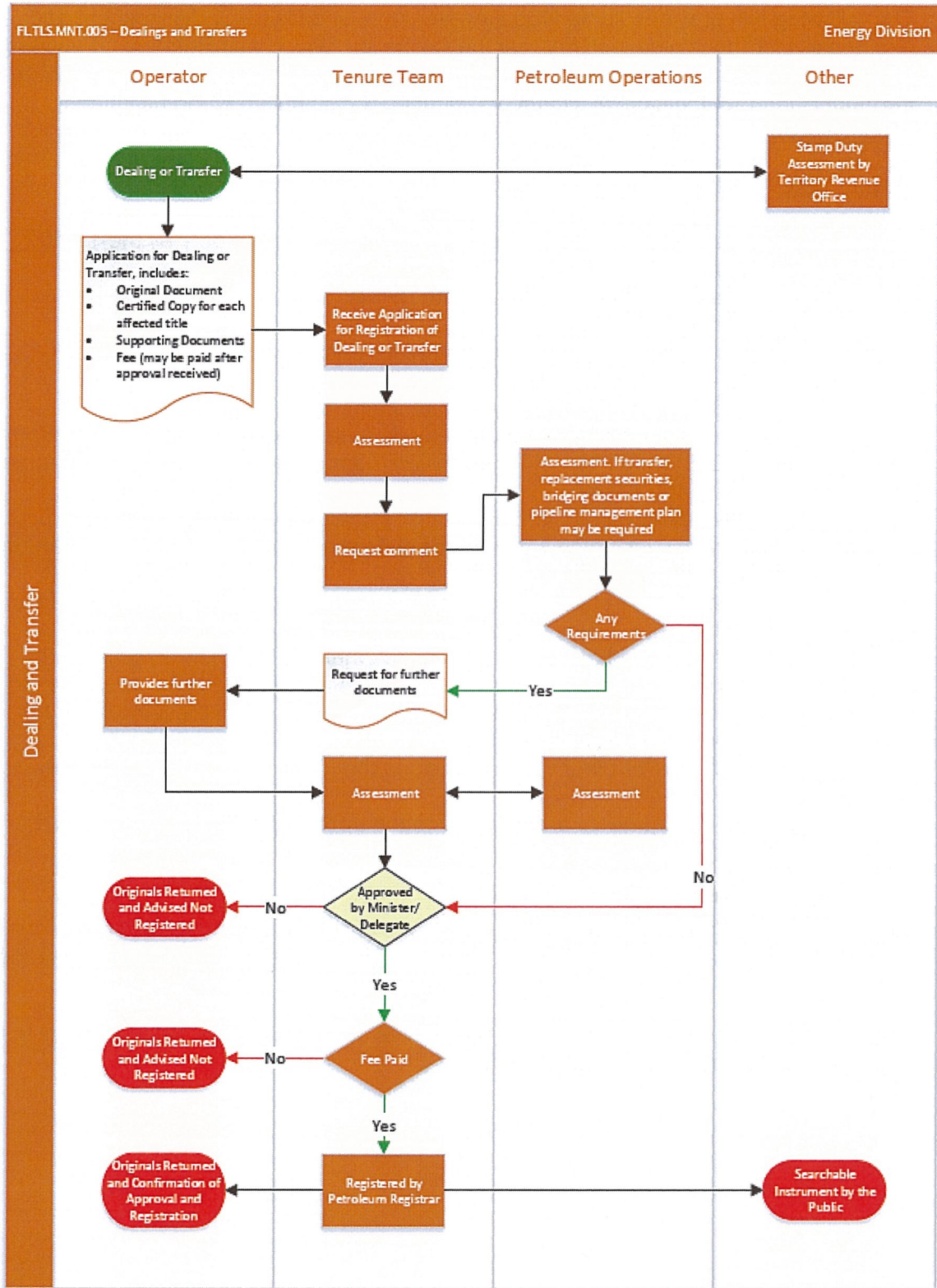
The following link provides some Model Agreements and Deeds of Assignment and Assumption for the mining industry that the Australian Mining and Petroleum Law Association (AMPLA) suggests could be used with minimal amendment with an Oil & Gas Farm in or Farmout Agreement. <https://www.ampla.org/modeldocuments/documents/modeldocuments52>

Government Process for the Transfer of a permit:

1. The original transfer instruments are assessed for stamp duty by the Territory Revenue Office
2. The applicant lodges the following with DPIR:
 - a. Application form
 - b. Original stamped transfer instrument for each permit
 - c. Certified copy of each transfer instrument
 - d. Transfer fee per permit (may also be paid prior to registration)
3. Energy Titles tenure staff generate a dealing number in Energy Division Information System (EDIS) (and internal to government database) and stamp the instruments with the Registrar Stamp
4. Energy Titles tenure staff completes assessment, confirming that the instruments are signed correctly, including whether or not Foreign Investment Review Board approval is required.
5. Energy Titles tenure staff request comments from Petroleum Operations Team with particular reference to any outstanding rehabilitation.
6. If the transferors hold any current securities then replacement security and replacement Environmental Management Plan/bridging documents will be required.
7. Energy Titles tenure staff draft a request for approval from the Minister or his delegate. Approval includes signing the stamped transfer instruments.
8. If approved, the Petroleum Registrar signs the instruments and registers the transfers in EDIS
9. The original instruments are returned to the applicant and certified copies are retained by DPIR.

The Securities for EP98 are held by Origin, except for the s79 grant securities (for compliance with the Petroleum Act and conditions of grant), which are held by Falcon. As Origin and Falcon are to remain on title, this is not an issue that would prevent/halt the transfer.

This is in accordance with the following process as shown on p.321, Attachment D to the DPIR submission to the Scientific Inquiry:



2. *There is a Contract between Origin Energy/Falcon Oil and Gas and the Northern Territory regarding Oil and Gas Exploration and Extraction in the Georgina Basin.*

This could refer to either a. or b. below:

- a. The “contract” referred to is may be the acceptance and subsequent approval of petroleum Exploration Permit, Retention Licence or Production Licence.

With respect to a Petroleum Permit, part of the contractual arrangements includes a proposed work program. These used to be placed on the website, but were withdrawn due to the amount of public confusion that subsequently arose. Often, following initial exploration investigations, seismic surveys and processing for example, companies would apply to vary a work program based on the findings. This created a tension between the “planned number of wells” frequently quoted in the press and referred to as “fracked wells” whether or not they were, with the actual number of wells (often a lesser number).

For a small fee, the information is available to the public via a search request, the template for which is at Attachment A and is available and the following link:

https://nt.gov.au/_data/assets/pdf_file/0018/203265/petroleum-register-search.pdf

The search information relating to the Beetaloo JV permit EP 98 (that includes part of Nutwood Downs), is at Attachment B.

B1 EP98 Renewal instrument dated 2 May 2014

B2 EP98 Variation instrument dated 13 October 2014

B3 EP98 Variation instrument dated 29 December 2015

Note that Mr Rod Dunbar of Nutwood Downs has recently been provided with a copy of the renewal instrument (B1) and variation instruments (B2, B3)

Since Mr Rod Dunbar obtained the above instruments, the Minister has approved a variation, suspension and extension to the work program conditions on the EP98 instrument. This instrument is provided for the panel’s information (Attachment C). Should Mr Dunbar require a copy of the instrument, it can be obtained through the above search request process.

Summary energy titles information is also publically available on STRIKE:

<http://strike.nt.gov.au/?jsessionid=1w47979g0nl1e14jetzau8exn9>

A summary information report for Beetaloo JV EP 98 is at Attachment D.

b. Native Title Tripartite Agreements

The tripartite deed is an agreement between native title parties and their representative bodies, the mining/petroleum company and the government, required under the future acts ‘right to negotiate process’. The tripartite deed is a high-level document that is supported by ancillary agreements, which include the critical objectives, commitments and level and types of community benefits to be derived from the project. Governments are not usually privy to the contents of an ancillary agreement.

A tripartite deed is normally negotiated when the impacts of the proposed activity, such as mining, are deemed to be significant. Under the right to negotiate, a time frame of 24 months is applied to completing good faith negotiations.

In the Northern Territory Tripartite Deeds are between the registered Native Title Claimants (Native Title party), the applicant (grantee), the relevant Land Council and the Northern Territory Government, in this case (DPIR).

It is also expected that the native title party will require an ancillary agreement with the applicant before signing the tripartite deed. The Ancillary Agreements are between the registered Native Title Claimants, the Land Council representing the Native Title Claimants and the applicant.

Confidential copies are distributed as follows:

1. Applicant - Original
2. Land council - Original
3. Native Title Claimants – Original (copy can be provided if necessary)
4. DPIR – Original
5. NNTT - Copy
6. Attorney Generals Department – Copy

The DPIR is not aware of any other contracts as contained in the query.

I trust that you will find the information provided comprehensive and useful. Should you require any further information please do not hesitate to contact me.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'R. Applegate', followed by a checkmark.

Rod Applegate

Deputy Chief Executive, Mines and Energy

30 May 2017

Search Request

To	Energy Titles Officer Energy Division Department of Primary Industry and Resources		
Post	GPO Box 4550 DARWIN NT 0801	Fax	(08) 8999 5191
E-mail	energy.permits@nt.gov.au	Office Hours	8:00 – 16:00 Mon – Fri
For further information or assistance please phone (08) 8999 5263 www.minerals.nt.gov.au ABN: 84 085 734 992			

Applicant Name	<input type="text"/>		
Address	<input type="text"/>		
		ABN/ACN	<input type="text"/>
Contact Person	<input type="text"/>		
Email	<input type="text"/>	Phone	<input type="text"/>
Signature	<input type="text"/>	Date	<input type="text"/>

Titles/Documents to be Searched			
Title(s) <i>(Identify by type and No)</i>	<input type="text"/>		
Dealing Nos	<input type="text"/>	Transfer Nos	<input type="text"/>

Particulars Required <i>(tick boxes)</i>			
Visual Search	<input type="checkbox"/>	Extracts	<input type="checkbox"/>
Extracts from the petroleum/pipelines register as follows:			
Register	<input type="checkbox"/>	Title Instrument	<input type="checkbox"/>
		Register & Title Instrument <i>(all)</i>	<input type="checkbox"/>

Office Use Only			
Search completed - emailed/posted	<input type="checkbox"/>	Date	<input type="text"/>
Payment details – Fee: \$	<input type="text"/>	Date paid	<input type="text"/>
Action Officer	<input type="text"/>	Date	<input type="text"/>

The Petroleum Register is a public register and pursuant to Petroleum and Pipeline Legislation, granted titles are capable of being searched and extracts of these and associated documents are capable of being taken at the fees prescribed from time to time.

The Petroleum Register comprises 2 Parts

TITLE DETAILS

- Title number, Title Holders, Term
- Annual Fee Details
- Securities held against the title
- Endorsements of matters impacting on title
E.g. Application for surrender, location, variation etc.
- Memorials of Transfers and Dealings

TITLE INSTRUMENT

This is the original title instrument issued to the title holder and contains details of the current term, including:

- A description of the Title area and plan.
- Conditions of the grant incorporating the Work Program.
- Any variations to the Title e.g. Variation of the Work Program.
- Suspensions and Extensions.

In addition to the above, registered instruments of Transfer and Dealing documents (or at least a summary) are capable of being searched and extracts copied. These Transfers and Dealings are identified in the register.

Type of Exploration and Development Tenements

NORTHERN TERRITORY LEGISLATION	FEES
i) <i>ENERGY PIPELINES ACT</i> Pipeline Licence (PL)	<i>\$6.00 Inspection of Register \$18.00 per page</i>
ii) <i>GEOHERMAL ENERGY ACT</i> Exploration Permit (GEP) Retention Licence (GRL) Production Lease (GOL)	<i>\$15.00 Inspection of Register \$5.00 per page</i>
iii) <i>PETROLEUM ACT</i> Exploration Permit (EP) Retention Licence (RL) Production Licence (L)	<i>\$21.00 Inspection of Register \$6.00 per page</i>
iv) <i>PETROLEUM (SUBMERGED LANDS) ACT</i> Exploration Permit (NTC/P) Retention Lease (NTC/RL) Production Licence (NTC/L) Pipeline Licence (NTC/PL)	<i>\$21.00 Inspection of Register \$5.75 per page</i>
v) <i>PETROLEUM (PROSPECTING AND MINING) ACT (Repealed)</i> Production Licence (OL) (OL3, OL4 and OL5 only)	<i>\$20.00 Inspection of Register \$1.00 per page</i>

Costs

Clients should be aware that a typical Title Register varies between 4-20 pages and in some instances can be considerably more.

NORTHERN TERRITORY OF AUSTRALIA

Petroleum Act

EXPLORATION PERMIT RENEWAL FOR EP98 (R1)

I, JOHN SCOTT PERKINS, the Delegate of the Minister for Mines and Energy, hereby grant to:

FALCON OIL & GAS AUSTRALIA LIMITED (ABN 53 132 857 008)
Suite 13 Level 3
3 Spring Street
SYDNEY NSW 2000

a renewal of exploration permit EP98 in respect of the blocks specified in Schedule 1, subject to the conditions set out hereunder, to have effect for a period of five (5) years commencing 1 January 2014.

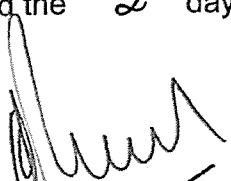
INTERPRETATION

In this document, "the Act" means the Northern Territory *Petroleum Act* and includes any Act with which that Act is incorporated and words used in this document have the same respective meanings as in the Act.

The Permittee shall at all times comply with:-

- (a) the provisions of the Act; and
- (b) all directions given to him under the Act and all regulations for the time being in force under the Act.

Dated the 2nd day of May 2014


JOHN SCOTT PERKINS
Chief Executive

Delegate of Minister for Mines and Energy
Pursuant to an Instrument of Delegation dated 4 February 2014

SCHEDULE 1
DESCRIPTION OF BLOCKS

The reference hereunder is to the name of the map sheet of the 1:1 000,000 series prepared and published for the purposes of the *Petroleum Act* and to the numbers of the graticular sections shown thereon.

- **MAP SHEET SE53 (NEWCASTLE WATERS)**
Block Nos

19	20	21	22	23
24	25	26	27	28
90	91	92	93	94
95	96	97	98	99
100	101	102	103	162
163	164	165	166	167
168	169	170	171	172
173	174	175	233	234
235	236	237	238	239
240	241	242	243	244
245	246	247	305	306
307	308	309	310	311
312	313	314	315	316
318	377	378	379	380
381	382	383	384	385
386	387	388	449	450
451	452	453	454	455
456	457	458	459	460
521	522	523	524	525
526	527	528	529	530
531	532	593	594	595
596	597	598	599	600
601	602	603	604	666
667	668	669	670	671
672	673	674	675	676

Assessed to contain 125 blocks.

SCHEDULE 2

WORK PROGRAM COMMITMENTS

Year of Term of Permit	Permit Year Starts	Permit Year Ends	Minimum Work Requirements	Estimated Expenditure (indicative only)
1	01/01/2014	31/12/2014	<p>Interpretation of unrestricted seismic data. Laboratory analyses of core/cuttings/samples from historical wells and outcrop. Complete G&G evaluation on existing data.</p> <p>Development of drilling locations, permitting, tendering and contracting of rig(s) and well services.</p>	\$900 000
2	01/01/2015	31/12/2015	<p>Drill one vertical exploration well to the Lower Velkerri and acquire core over intervals of interest.</p> <p>Formation evaluation, including but not limited to; petrophysical interpretation, routine core analysis, geomechanics studies, and stimulation design.</p>	\$6 600 000
3	01/01/2016	31/12/2016	<p>Drill and hydraulic fracture stimulate a vertical exploration/test well targeting the Velkerri Formation.</p> <p>Formation evaluation, including; petrophysical interpretation, core analysis, stimulation design.</p> <p>Drill and multi-stage hydraulic fracture stimulate a horizontal exploration/test well targeting the Velkerri Formation.</p>	\$40 000 000
4	01/01/2017	31/12/2017	<p>Undertake G&G evaluation of new and existing data and update exploration models.</p> <p>Development of drilling locations, permitting, tendering and contracting of rig(s) and well services core analysis, stimulation design.</p>	\$1 800 000
5	01/01/2018	31/12/2018	<p>Drill and multi-stage hydraulic fracture stimulate two horizontal exploration/test wells targeting the Velkerri Formation.</p>	\$45 000 000

			<p>Exact well location and stimulation strategy are subject to performance of previous wells.</p> <p>Formation evaluation of acquired data, including; petrophysical interpretation, core analysis, stimulation design.</p> <p>Undertake static and dynamic reservoir modelling.</p> <p>Planning of development program.</p> <p>Preparation of application for production license(s).</p>	
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The permittee -

- (a) shall carry out in the year of the term of the permit specified in the first column of the table, in or in relation to the permit area, to a standard acceptable to the Minister, the work specified in the minimum work requirements set out opposite that year in the fourth column of the table;
- (b) may carry out in a year of the term of the permit specified in the first column of the table, in or in relation to the permit area, to a standard acceptable to the Minister, all or part of the work specified in the minimum work requirements of a subsequent year or years of that term set out opposite that year or those years in the fourth column of the table; and
- (c) may carry out in or in relation to the permit area, to a standard acceptable to the Minister, work in addition to the work specified in the minimum work requirements set out in the fourth column of the table.

Any work carried out in accordance with above paragraphs (a) (b) and (c) shall, if the Minister in his discretion by notice in writing so approves, be treated as if it had been carried out in the subsequent year or years of the term of the permit specified by the Minister in that notice.

The permittee shall not commence a seismic survey or drilling of a well unless he has by notice informed the Minister of the relevant details (including the geographic position of the well or area of the seismic survey) and obtained the necessary approval from the Minister.

SCHEDULE 3

CONDITIONS

General Principals

1. The permittee shall comply with the provisions of, and directions lawfully given under the *Petroleum Act* (NT) as in force at 01 January 2014 and all other laws in force in the Territory, as are applicable in relation to its activities on the permit area.
2. Subject to the provisions of the *Petroleum Act*, the permittee shall in the course of their operations remain subject to the provisions of other relevant legislation. The permittee shall ensure that all exploration personnel and their contractors and agents are familiar with such legislative requirements.
3. Within twenty-eight (28) days after the expiration of each 12 month period of this permit or other longer approved period, the permittee shall lodge in writing a comprehensive report on the exploration and other activities within the permit area during that period.
4. The grant of this permit is subject to compliance with the *Schedule of Onshore Petroleum Exploration and Production Requirement 2012* which can be viewed on the Department of Resources website:
http://www.nt.gov.au/d/Minerals_Energy
5. The permittee shall indemnify and hold indemnified at all times the Territory and its servants and agents from claims, actions suits and demands whether debt, damages, costs or otherwise arising out of a breach of the duties and obligations, whether express or implied, of the permittee at common law, or of the Claim or of any law in force in the Territory that is applicable and whether such breach shall be that of the permittee or any of its subcontractors, servants, employees or agents.
6. Exploration shall not take place within one hundred and twenty-five (125) metres of the centreline of any road or railway, unless specific approval is given by the Director of Energy.
7. The permittee shall not significantly disturb any area or carry out blasting activity within 200 metres of a gas or oil pipeline unless prior written approval has been obtained from the Minister responsible for the *Energy Pipelines Act* or the pipeline operator.
8. The permittee shall carry out its activities in such a way as to minimise disturbance to the environment of the permit area, in particular, by minimising:
 - (a) interference with the use of the land by other persons;
 - (b) the disturbance of flora, fauna and other natural resources;
 - (c) pollution, including soil, water and atmospheric pollution;
 - (d) the incidence and effects of soil erosion.

9. To the extent possible the permittee should employ persons and contractors resident in or around the permit area and give them the opportunity of quoting or tendering for contract works.
10. The Minister may at any time determine that the Minister requires a security in the form and for the amount that the Minister thinks fit for the purpose of securing the permittee's compliance with the *Petroleum Act*, to secure the permittee's compliance with these permit conditions and/or for securing the payment by the permittee compensation that may be payable for the effect of the grant, renewal or variation of the permit on native title rights and interests. In the event that the Minister makes such a determination, the permittee shall, within 30 days of the date that the permittee is notified in writing that the security is required; lodge with the Minister a security in the amount and form determined by the Minister.

Consultations with Native Title Parties

11. (a) The permittee shall, prior to the commencement of exploration activities other than reconnaissance, convene a meeting on the permit area (or the nearest convenient locality) with registered native title claimants or holders to explain the exploration activities. The permittee may also invite the relevant pastoral lessee(s) or landholders to this meeting.

This provision does not apply where the Holder is required to consult with registered native title claimants or holders because of the existence of a separate agreement.

- (b) Notice of the meeting shall be by letter and shall be posted to the registered native title claimants or holders and the representative body not less than 17 days before the meeting and shall nominate the date, time and place of the meeting.
 - (c) The permittee must have regard to representations made to it at the meeting regarding any aspect of the exploration activities which raises concerns. These representations may deal with access procedures to particular areas of land within the permit area.
12. The permittee shall carry out its activities in such a way as to minimise any impact to any extant native title rights and interests in the permit area, in particular by minimising:
 - a) any interference directly with the carrying on of community or social activities of registered native title claimants or holders; or
 - b) any interference with the areas of sites of particular significance, in accordance with the traditions of registered native title claimants or holders.
 13. Compensation for the effect if any of a prescribed petroleum act or petroleum interest on native title is payable to the native title holder by the holder of the petroleum interest and includes compensation for the effect if any on native title of activities done under the prescribed petroleum act or petroleum interest. In the event that the Territory pays any compensation for the effect on native title of the grant of the prescribed petroleum act or petroleum interest, the permittee

shall, upon request of the Territory, reimburse the Territory with thirty (30) days of the date of such request.

14. If and when the permittee applies to the Minister for a retention licence or production licence, any registered native title claimants or holders are to be informed of this fact in writing so as to signal that another future act process may follow which allows them to exercise procedural rights.

Complaint Mechanism

15. Should any native title claimant or holder lodge a written complaint with the Minister that exploration activities are being conducted in a manner that adversely affects native title rights and interests in the permit area, the Minister may do one or more of the following:

- (a) seek an explanation in writing about the matter from the permittee;
- (b) request the permittee attend a meeting with the Minister to discuss the matter;
- (c) request the permittee attend a conference with the Minister and the complainant with a view to resolving the matter;

and, having done one or more of the foregoing, may do one or more of the following:

- (d) direct the permittee to carry out rectification work;
- (e) carry out rectification work at cost to the permittee;
- (f) subject to the *Petroleum Act*, take any other action, including the cancellation of the permit, as the Minister considers appropriate.

Site Protection

16. All exploration personnel and their contractors and agents shall be instructed on the legal necessity to protect sacred sites and other significant archaeological sites and structures which may exist within the permit area.
17. Prior to carrying out any work in the permit area the permittee must consult with the Aboriginal Areas Protection Authority and inspect the Register of Sacred Sites. A permittee wishing to carry out work may apply for an Authority Certificate.

Minimising of Environmental Impact

18. The permittee shall not bring firearms or traps onto the permit area and shall not take or kill any wildlife.
19. All structures, facilities, survey markings or other related infrastructure shall be of a temporary nature and shall be removed from the area at the completion of the exploration programme unless approved otherwise in writing by the Minister.
20. The permittee shall not use fire, unless in accordance with the *Bushfires Act*.

21. The permittee shall not construct new vehicle tracks unless unavoidable. New tracks should be constructed at the minimum width possible to conduct the exploration programme, avoid long straight stretches, and be constructed with sufficient furrows to provide appropriate drainage.
22. The permittee shall keep clearing and/or disturbance of vegetation to a minimum; with particular care taken in regard to preserving mature trees and vegetation along watercourses.
23. The permittee shall take such steps as are reasonably practical to prevent the spread of noxious weeds, including the washing down of vehicles and removal of grass seeds before moving vehicles and equipment to a new area.
24. No sites or structures that may have historic significance shall be disturbed or interfered with in any way unless prior written approval has been given by the Minister.
25. The permittee shall take such steps as are practical to minimise disturbance to the soil, rocks, rock formations, creeks and watercourses.
26. The permittee shall take all precautions necessary to prevent contamination of underground and surface waters in the permit area.
27. Where artesian groundwater is encountered during drilling, the permittee shall advise the Minister of its occurrence and protect the water from wastage, pollution, deterioration or undue depletion.

Environmental Rehabilitation

28. Following any soil disturbance, the permittee shall replace topsoil as near as possible to its original profile and contour.
29. The permittee shall remove all rubbish and waste from the permit area and shall comply with directions of the Minister regarding disposal.
30. To the extent possible the permittee should choose drillhole and excavation sites to minimise environmental impact and after completion of drill holes, the collar should be sealed off and casing plugged.

Definitions

"Permittee" means the grantee of the exploration permit and includes its workers, employees, contractors and agents.

"Minister" means the responsible Northern Territory Minister or delegate appointed under s7 *Petroleum Act*.

NORTHERN TERRITORY OF AUSTRALIA

*Petroleum Act***VARIATION OF CONDITIONS OF PETROLEUM EXPLORATION PERMIT 98 [EP98]**

I, JONATHAN SUMNER, Delegate of the Minister for Mines and Energy, pursuant to the provisions of Section 28 of the *Petroleum Act* hereby:

- a) vary the minimum work commitments of EP98 for Year 2 as shown in the following table.

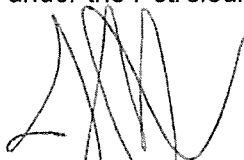
For the avoidance of doubt, this means that the work commitments should be carried out in accordance with the following table.

Year of Term of Permit	Permit Year Starts	Permit Year Ends	Minimum Work Requirements	Estimated Expenditure (indicative only)
1	01/01/2014	31/12/2014	Interpretation of unrestricted seismic data. Laboratory analyses of core/cuttings/samples from historical wells and outcrop. Complete G&G evaluation on existing data. Development of drilling locations, permitting, tendering and contracting of rig(s) and well services.	\$900 000
2	01/01/2015	31/12/2015	Drill two vertical exploration well to the Lower Velkerri and acquire core over intervals of interest. Formation evaluation, including but not limited to; petrophysical interpretation, routine core analysis, geomechanics studies, and stimulation design.	\$13 200 000
3	01/01/2016	31/12/2016	Drill and hydraulic fracture stimulate a vertical exploration/test well targeting the Velkerri Formation. Formation evaluation, including; petrophysical interpretation, core analysis, stimulation design. Drill and multi-stage hydraulic fracture stimulate a horizontal exploration/test well targeting the Velkerri Formation.	\$40 000 000

4	01/01/2017	31/12/2017	Undertake G&G evaluation of new and existing data and update exploration models. Development of drilling locations, permitting, tendering and contracting of rig(s) and well services core analysis, stimulation design.	\$1 800 000
5	01/01/2018	31/12/2018	Drill and multi-stage hydraulic fracture stimulate two horizontal exploration/test wells targeting the Velkerri Formation. Exact well location and stimulation strategy are subject to performance of previous wells. Formation evaluation of acquired data, including; petrophysical interpretation, core analysis, stimulation design. Undertake static and dynamic reservoir modelling. Planning of development program. Preparation of application for production license(s).	\$45 000 000

Dated the 13 October 2014

Made under the *Petroleum Act* of the Northern Territory of Australia.



JONATHAN SUMNER
Director of Energy

Delegate of the Minister for Mines and Energy
Pursuant to the Instrument of Delegation dated 4 February 2014

NORTHERN TERRITORY OF AUSTRALIA

Petroleum Act

VARIATION OF CONDITIONS OF PETROLEUM EXPLORATION PERMIT – EP98

I, DEBBY ANNE JAMES, Delegate of the Minister for Mines and Energy, pursuant to the provisions of Section 28 of the *Petroleum Act* hereby:

- a) vary the minimum work commitments of EP98 for Year 2 and Year 3 as shown in the following table.


For the avoidance of doubt, this means that the work commitments should be carried out in accordance with the following table.

Year of Term of Permit	Permit Year Starts	Permit Year Ends	Minimum Work Requirements	Estimated Expenditure (indicative only)
2	01/01/2015	31/12/2015	Drill two vertical exploration wells to the Lower Velkerri and acquire core over intervals of interest. Formation evaluation, including but not limited to; petrophysical interpretation, routine core analysis, geomechanics studies, and stimulation design. Drill a horizontal exploration/test well targeting the Velkerri Formation.	\$25 000 000
3	01/01/2016	31/12/2016	Drill one vertical exploration well to the Lower Velkerri and acquire core intervals of interest. Formation evaluation, including but not limited to; petrophysical interpretation, routine core analysis, geomechanics studies and stimulation design. Hydraulic fracture stimulate a vertical exploration well targeting the Velkerri Formation. Multi-stage hydraulic fracture stimulate a horizontal exploration/test well targeting the Velkerri Formation.	\$25 000 000
4	01/01/2017	31/12/2017	Undertake G&G evaluation of new and existing data and update exploration models. Development of drilling locations, permitting, tendering and contracting of rig(s) and well	\$1 800 000

			services core analysis, stimulation design.	
5	01/01/2018	31/12/2018	Drill and multi-stage hydraulic fracture stimulate two horizontal exploration/test wells targeting the Velkerri Formation. Exact well location and stimulation strategy are subject to performance of previous wells. Formation evaluation of acquired data, including; petrophysical interpretation, core analysis, stimulation design. Undertake static and dynamic reservoir modelling. Planning of development program. Preparation of application for production license(s).	\$45 000 000

Dated the 29 December 2015

Made under the *Petroleum Act* of the Northern Territory of Australia.


 DEBBY ANNE JAMES
 Director of Energy

Delegate of the Minister for Mines and Energy
 Pursuant to the Instrument of Delegation dated 15 June 2015

NORTHERN TERRITORY OF AUSTRALIA

*Petroleum Act*VARIATION, SUSPENSION AND EXTENSION OF PERMIT CONDITIONS OF
PETROLEUM EXPLORATION PERMIT – EP98

I, KENNETH EDWARD VOWLES, the Minister for Primary Industry and Resources, pursuant to the provisions of Section 28 of the *Petroleum Act* hereby:

- a) vary the minimum work commitments of EP98 for Year 3 and Year 4;
- b) suspend the work program conditions of Year 4 for a period of twelve (12) months to 31 December 2018; and
- c) extend the term of the permit for a period of twelve (12) months to expire on 31 December 2019.

For the avoidance of doubt, this means that the work commitments should be carried out in accordance with the following table.

Year of Term of Permit	Permit Year Starts	Permit Year Ends	Minimum Work Requirements	Estimated Expenditure (indicative only)
3	01/01/2016	31/12/2016	Multi-stage hydraulic fracture stimulate a horizontal exploration/test well targeting the Velkerri Formation.	\$14 000 000
4	01/01/2017	31/12/2018	Drill one vertical exploration well to the Lower Velkerrie and acquire core intervals of interest. Formation evaluation, including but not limited to; petrophysical interpretation, routine core analysis, geomechanics studies and stimulation design; Hydraulic fracture stimulate a vertical exploration well targeting the Velkerrie Formation.	\$11 000 000
5	01/01/2019	31/12/2019	Drill and multi-stage hydraulic fracture stimulate two horizontal exploration/test wells targeting the Velkerri Formation. Exact well location and stimulation strategy are subject to performance of previous wells; Formation evaluation of acquired data, including; petrophysical interpretation, core analysis, stimulation design; Undertake static and dynamic reservoir modelling; Planning of development program; Preparation of application for production license(s).	\$45 000 000

Dated the February 2017

Made under the *Petroleum Act* of the Northern Territory of Australia.

 22/3/17

KENNETH EDWARD VOWLES
Minister for Primary Industry and Resources



Title Summary Report

General Information

Legislation: *Petroleum Act*
Title Type: Onshore Exploration Permit (EP)
Title Number: 98
Status: Renew Retained
Area: Not Recorded

Holders Information

Name	Contact Information	Ownership
FALCON OIL & GAS AUSTRALIA LIMITED	Suite 4 Level 10, 3 Spring Street Sydney 2000	30%
ORIGIN ENERGY RESOURCES LIMITED	GPO Box 148 Brisbane 4001	35%
SASOL PETROLEUM AUSTRALIA LIMITED		35%

Contact Information

Name	Contact Details
ORIGIN ENERGY RESOURCES LIMITED	GPO Box 148 Brisbane 4001

Transaction History

Transaction	Effective / Start Date	Expiry / End Date	Period	Area / Blocks	Area (km2)
Native Title - Right To Negotiate					
Suspension and Extension	28/03/2017				
Variation	28/03/2017				
Extension	03/08/2016		3	125 Blocks	
Variation	04/01/2016				
Extension	14/09/2015		2	125 Blocks	
Variation	13/10/2014				
Extension	08/10/2014		1	125 Blocks	
Gazettals	30/07/2014		5 Years		
Renewal Grant	02/05/2014	31/12/2018	5 Years	125 Blocks	
Reduction Deferral	28/03/2014			125 Blocks	
Renewal Application	27/09/2013		5 Years	139 Blocks	
Variation	19/12/2012				
Suspension and Extension	10/09/2012				

Title Summary Report

Transaction	Effective / Start Date	Expiry / End Date	Period	Area / Blocks	Area (km2)
Suspension and Extension	19/12/2011				
Variation	05/07/2011				
Suspension and Extension	24/06/2010				
Variation	31/03/2010				
Suspension and Extension	30/06/2008				
Suspension and Extension	14/03/2006				
Suspension	03/12/2005				
Grant	04/02/2004	31/12/2011	5 Years	139 Blocks	
Offer Of Grant (Petroleum)	24/11/2003				
Advertisements	19/09/2001				
Advertisements	19/09/2001				
Advertisements	19/09/2001				
Application	08/11/2000		5 Years	139 Blocks	

Historical Titles, Open Filed Reports (GEMIS)

Historical Title	Report ID	Link
EP98	PR2016-W020	Report
EP98	PR2012-0011	Report
EP98	PR2011-0011	Report
EP98	PR2011-0010	Report
EP98	PR2011-0009	Report
EP98	PR2011-0008	Report
EP98	PR2011-0007	Report
EP98	PR2010-0050	Report
EP98	PR2007-0082	Report
EP98	PR2005-0010	Report
EP98	PR2004-0048	Report