

*26 October 2015*

*EP 304 & EP 307*

*Gravity Survey - Final  
Report*

*Geophysics and Drilling  
Collaborations Program*

Project title	Victoria Petroleum Project – Application 1b
Applicant (Company Name)	Tom Oates
Applicant ABN	15 288 464 005
Applicant postal address	PO Box 165, Spit Junction NSW 2088
Contact officer	Tom Oates
Contact phone number	02 9969 0069
Contact fax number	02 9475 1001
Contact email address	tommoates@bigpond.com
Granted exploration licence number(s) where this proposal is to be undertaken	EP307
Proposed type of exploration program for funding (diamond drilling, gravity survey etc)	Gravity survey, approved by DME Operations 8 April 2015
Brief summary of program (total number of metres to be drilled, number of gravity stations, total length of flight lines etc)	Approximately 2,000 gravity stations at 500m-1km spacing, including 4km spacing
Total direct costs for the program including GST	\$100,000
Amount of funding requested including GST	\$50,000 (50% of total direct costs, subject to a maximum of \$100,000)
Proposed timeframes for commencement and completion of program	Start in June 2015, end 3-5 days later
Names and positions of signatories to the funding contract	Tom Oates, permit holder
Signature of applicant	
Date	1 April 2015 (revised to record DME Operations approval 8 April 2015)

Project title	Birrindudu Petroleum Project – Application 4b
Applicant (Company Name)	Tom Oates
Applicant ABN	15 288 464 005
Applicant postal address	PO Box 165, Spit Junction NSW 2088
Contact officer	Tom Oates
Contact phone number	02 9969 0069
Contact fax number	02 9475 1001
Contact email address	tommoates@bigpond.com
Granted exploration licence number(s) where this proposal is to be undertaken	EP304
Proposed type of exploration program for funding (diamond drilling, gravity survey etc)	Gravity survey, approved by DME Operations 8 April 2015
Brief summary of program (total number of metres to be drilled, number of gravity stations, total length of flight lines etc)	Approximately 5,000 gravity stations at 500m-1km spacing, including 4km spacing
Total direct costs for the program including GST	\$250,000
Amount of funding requested including GST	\$100,000 (50% of total direct costs, subject to a maximum of \$100,000)
Proposed timeframes for commencement and completion of program	Start in June 2015, end 14 days later
Names and positions of signatories to the funding contract	Tom Oates, permit holder
Signature of applicant	
Date	1 April 2015 (revised to record DME approval granted 8 April 2015)

## **1. Summary**

*Provide an overview of the program, including the objectives, commencement and completion dates of the program and brief summary of the work undertaken. Discuss the main results and conclusions.*

*Objectives:*

To provide information as to basin depth and structure, hopefully providing evidence of a deep sedimentary sub basin or basins in the Victoria/Birrindudu basin.

To aid in the identification of the structure of the sedimentary basin, rifts, faults, dykes or sills, granitic plutons, and regolith drainage patterns. It will provide baseline data in a greenfield exploration area to further the available knowledge base on which to build.

*Commencement date*

1 July 2015

*Completion date*

7 August 2015

*Brief Summary of work undertaken:*

Work undertaken comprised gravity data acquired by Atlas Geophysics in July and August of 2015 (in the Birrindudu and Victoria basins) and tied to the GA reference station at Kununurra airport. Data received for processing consisted of 7398 stations including 353 repeat readings (includes daily base ties). The data were collected on a grid with a nominal station spacing of 1 km x 1km with infill in places to 500m x 500m.

*Main results and conclusions*

Please refer to the attached report from Kim Francombe Dated 22 September 2015.

## **2. Contents**

*Include a list of tables, figures and maps.*

- Maps – EP304 - Location of Gravity Survey, etc. (Schedule 1)
- Maps – EP307 - Location of Gravity Survey, etc. (Schedule 1)

## **3. Introduction**

*Include a description of the title area, locality, access and land holding.*

*Provide a map with coordinates.*

The Gravity survey took place under:

- EP304 in the Birrindudu basin as shown on the attached map – Maps – EP304 - Location of Gravity Survey, etc. (Schedule 1)
- EP307 in the Victoria/Birrindudu basin as shown on the attached map – Maps – EP307 - Location of Gravity Survey, etc (Schedule 1)

Please refer to the attached reports (Annexures 1 and 2) from Kim Francombe Dated 17 and 22 September 2015 for further details.

## **4. Regional Context**

*Provide a summary of the regional geology and summary of the project area geology. Include any known mineralisation – commodity, style and location; please also provide a map.*

EP304 and EP307 cover both the shallower Victoria and deeper Birrindudu Basins, whose petroleum potential is encouraging but untested (T.J. Munson, 2014). Currently, within the

Birrindudu Basin there are no petroleum exploration wells, no seismic data and only a sparse 10km x 10km gravity data grid. Despite this lack of data, the permittee is optimistic about the Birrindudu Basin due to good oil shows in the 99VRNTGSD1 mineral core well located ~200km to the NE of EP 304 and due to a linked geologic history with the Beetaloo sub-basin located ~350 km to the east. Recent exploratory drilling in the Beetaloo sub-basin demonstrates a working petroleum system(s) in age-equivalent sediments found in the Birrindudu Basin.

## **5. Previous Exploration**

*List previous companies' exploration efforts in the area, what commodity and style of mineralisation they were targeting and any anomalous results.*

*Provide company report numbers, if available.*

Nil petroleum exploration.

## **6. Exploration Concept**

*Describe the target, deposit or conceptual model, or mineralising style; and in relation to the regional geological context. Provide examples of similar geological context in other areas. Detail the evidence in the project area supporting this conceptual model.*

Target is conventional and/or unconventional petroleum, with presence of source rocks, trap and seal being the conventional target and a deep sedimentary pile being the unconventional target. Conceptual model is that based on possible correlations and similarities between the McArthur/Beetaloo and the Birrindudu/Victoria basin, with the McArthur super basin including the Birrindudu basin and/or the McArthur-Birrindudu being continuous. The gravity will provide control as to basin depth (important for both conventional and/or unconventional petroleum) and possibly content (important for both conventional and/or unconventional petroleum).

## **7. Details of the Collaborative Program**

*Provide the specifications of the program as well as coordinates, total depth, core type, precollar depth and type, dip and azimuth of actual holes drilled or method of acquisition, number of stations, line kilometres, orientation, height of survey etc.*

*Comment on the equipment used, sampling techniques and analytical methods used and quality control.*

Please refer to the attached reports (Annexures 1 and 2) from Kim Francombe Dated 17 & 22 September 2015.

## **8. Results and Interpretation**

*Discuss the results and any subsequent interpretation made from these results. Include relevant maps, plans or cross-sections.*

Please refer to the attached report (Annexure 2) from Kim Francombe Dated 22 September 2015.

## **9. Conclusion**

*Discussion whether the target was reached or if new targets were generated and whether there could be correlation of these targets in a regional context.*

Please refer to the attached report (Annexure 2) from Kim Francombe Dated 22 September 2015.

## **10. References**

*Provide references used in the generation of this report.*

Nil.

# Schedule 1 – Map of EP304 and EP 307 and Gravity Stations

