

SCIENTIFIC INQUIRY INTO
HYDRAULIC FRACTURING
IN THE NORTHERN TERRITORY



FINAL REPORT

APRIL 2018



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This is the *Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*. There is also a Summary of the Final Report and a set of Appendices.

Each document has been published separately, but together they form the totality of the Final Report.

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The Hon Michael Gunner MLA
Chief Minister
Parliament House
Darwin, NT 0801

Dear Chief Minister

RE: RELEASE OF THE INQUIRY'S FINAL REPORT

On 3 December 2016 your Government announced the final Terms of Reference for the Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs and Associated Activities in the Northern Territory (**the Inquiry**). Under the *Inquiries Act 1945* (NT) I was appointed Chair of the Inquiry together with a panel of eminent scientists across a diverse range of expertise (**the Panel**).

I am pleased to present to you the Inquiry's *Final Report*, which is the culmination of the Panel's comprehensive scientific research, extensive consultation with the community, and consideration of more than 1250 submissions.

The *Final Report* contains 135 recommendations to reduce the identified risks associated with any development of any onshore shale gas industry in the Northern Territory to acceptable levels.

The Inquiry would like to express its utmost gratitude to everyone who has contributed to it during the past 15 months. The level of engagement with the Inquiry by the public, by environmental groups, by the gas industry and by other stakeholders has been of a consistently high quality, and which is reflected in the Report and its recommendations.

The Inquiry would also like to thank the Government for the considerable respect that it has afforded the Inquiry's processes. At all times the Government has allowed the Inquiry to carry out its duties free from political interference or influence. The public can have every confidence that the Inquiry has been truly independent.

The Inquiry has had the great privilege of visiting many different communities and interacting with many people, groups and organisations during the course of its work. If it has learnt one thing, it is that the Northern Territory is immensely fortunate to have so many passionate and committed individuals who only have the Territory's very best interests and brightest future at heart.

Yours sincerely

THE HON JUSTICE RACHEL PEPPER

Chair

27 March 2018

Dr Alan Andersen

Prof Peta Ashworth

Dr Vaughan Beck AM

Prof Barry Hart AM

Dr David Jones

Prof Brian Priestly

Dr David Ritchie

Dr Ross Smith

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Final Report foreword

There are many people who must be thanked because without their advice, expertise, diligence and herculean effort, the completion of this Report, and therefore, this Inquiry, would not have been possible.

Ms Jane Coram was an invaluable member of the Panel until 20 December 2017, when she resigned to take up her appointment as CEO of the National Measurement Institute. Ms Coram has recently been appointed as the Land and Water Director of CSIRO.

The Taskforce established to assist the Inquiry, comprising of Mr James Pratt, Ms Amy Dennison, Ms Geraldine Lee and Ms Kate Walker, has been unparalleled and unwavering in their support. Each has done the work of many, always to the highest possible standard and always willingly. They are a credit to the Northern Territory. Until 28 June 2017, Mr Richard McAllister provided further administrative assistance as part of the Taskforce.

The communications strategy was commendably carried out by Ms Claire Sprunt and Ms Jo Brosnan.

The Aboriginal Interpreter Service (**AIS**) organised interpreters to accompany the Panel to consultations in remote communities. The AIS also translated the key publications of the Inquiry into language, the recordings of which are available on the Inquiry's website.

The team at Dreamedia Creative Event Production was outstanding in providing the technical and transcription expertise necessary to conduct the highly successful public hearings.

Additional academic assistance was provided by Prof Sandra Kentish (University of Melbourne) in respect of Chapter 9 and Mr Angus Veitch and Ms Nicole Heesh (University of Queensland) for Chapter 12.

Research assistance was more than capably provided by Ms Rachael Chick and Ms Veronica Finn.

Proofreading of the *Interim Report*, *Draft Final Report* and *Final Report* was carefully carried out by Ms Jo Robertson of Communicate NT.

The graphic designers are to be commended for giving life to the text through their layout and design.

This and other reports of the Inquiry were printed by Zip Print, Image Offset and Colemans Printing, occasionally at short notice but always professionally and without compromise to the quality of the final product.

Webservices were ably provided by Brainium Labs.

Ms Kim Pitt, along with others, provided critical secretarial support.

Chambers were generously found for the Inquiry in Sydney by the Hon Chief Justice Tom Bathurst AC of the Supreme Court of New South Wales, Mr Chris D'Aeth, Executive Director and Principal Registrar of the Supreme Court of New South Wales (for whom no problem was too big to solve), and Ms Melinda Morgan, Registrar of the Industrial Relations Commission of NSW.

Because the Panel took its mandate to consult the community seriously, many hours were spent in small planes travelling between urban, rural and remote communities. In particular, Hardy Aviation, Chartair, Airnorth, Murin Air and Adagold Aviation delivered us safely and comfortably to each destination.

Initially, advice was sought on that most prosaic of matters, namely, how to run an inquiry. It was willingly and generously given by Professor Mary O'Kane, the former New South Wales Chief Scientist and Engineer, the Hon Justice Peter Garling of the Supreme Court of New South Wales and the Hon Justice Tim Moore of the Land and Environment Court of New South Wales. All of it proved to be invaluable.

To the long suffering partners of both the Panel and the Taskforce, who endured many absences and countless domestic disruptions, the debt is profound.

Finally, the Inquiry must express its deep gratitude to all those people who genuinely and sincerely participated in the Inquiry by way of written submissions, public presentations and community forum discussions. From the outset this Inquiry was always intended to be for the Territory, by the Territory. This is exactly what occurred. Territorians embraced the consultation process in full, and in doing so, greatly strengthened and improved the end result.

The enthusiasm and passion with which Territorians engaged with the Inquiry was inspiring. And while not everyone may agree with some, or even any, of the findings made in this Report, their effort is reflected in many of the recommendations made by the Panel. There can be no doubt that the *Final Report* is all the better for it.

THE HON JUSTICE RACHEL PEPPER

Chair of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory

27 March 2018

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