

SCIENTIFIC INQUIRY INTO HYDRAULIC FRACTURING IN THE NORTHERN TERRITORY



Department of Environment
and Natural Resources
Submission #429

Joanne Townsend
Department of Environment and Natural Resources
PO Box 496
PALMERSTON NT 0830

By email: [REDACTED]

Dear Ms Townsend

RE: HYDRAULIC FRACTURING INQUIRY – INFORMATION REQUEST

I refer to the *Scientific Inquiry into Hydraulic Fracturing of Unconventional Reservoirs in the Northern Territory (the Inquiry)*, which was established by the Northern Territory Government under the *Inquiries Act 1945 (NT)* in late 2016 to investigate the impacts and risks of hydraulic fracturing of onshore shale gas reservoirs and associated activities on the environmental, social, economic and cultural conditions in the Northern Territory.

The Inquiry seeks the assistance of the Department of Environment and Natural Resources in providing estimates for the following:

- a) The horizontal flow rate in the Cambrian Limestone Aquifer.
Information previously provided to the Inquiry by DENR (Addendum 1 in response to Inquiry request of 22 May 2017) in calculating water drawdown used transmissivity of 1100 m²/d in the Gum Ridge Formation Aquifers. What is a reasonable average thickness of this aquifer to use to calculate the horizontal flow rate (in months or years)?
- b) The vertical flow rate in the Cambrian Limestone aquifers.
- c) The age of the groundwater in these aquifers.
- d) The likelihood and potential time for a spill of wastewater in the Beetaloo Sub-basin to reach the aquifer, most easily transported through the soil profile, being sodium chloride.

In order to meet current reporting timeframes, could I please have your response no later than **28 August 2017**. Please also note that your response will be published on the Inquiry's submission library. To the extent your submission includes confidential information that should not be publicly disclosed, please identify that information and explain why it is confidential.

Yours sincerely

A handwritten signature in black ink, consisting of several overlapping, sweeping strokes that form a cursive, somewhat abstract shape.

THE HON JUSTICE RACHEL PEPPER
Chair

18 August 2017