Memorandum

To who it may concern

From: Jean-Claude Roegiers
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Concern: DUSEL – Kimballton Site

My field of research is Rock Mechanics, especially as it applies to the problems associated with the production of hydrocarbons. The Kimballton site definitely offers a preferred location for such research to be pursued and I am working as a member of the Kimballton team to help make this a reality.

The features of Kimballton which appeal to me are:

- Access to naturally fractured sedimentary formations; typical of some carbonate reservoirs.
- These formations have porosity as well as permeability, allowing the study of fully coupled phenomena; i.e. thermal, poroelastic media.
- Interactions between the fractures and the porous medium can be validated.
- Large rock masses can be isolated and local conditions can be changed, such as in-situ stresses, pore pressure, temperature, etc…
- The strength of the formation is such that large stable cavities could be constructed at minimal cost.
- A sedimentary site will appeal to the oil and gas industry as a potential site to validate new concepts and new technologies.
- Having both primary and secondary porosity/permeability will add an 'additional dimension' to geophysical investigations as far as separating 'storage' from 'transmissivity'.

A limited number of research and engineering applications are included in appendix to this S2-proposal.