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To: Legislative Budget & Audit Committee Representative Ralph Samuels, Chair Alaska State Legislature Alaska State Capitol Juneau, Alaska 99811-1182 USA

16th December 2008

Dear Ralph,

Re: Next steps to natural gas fiscal design study that could potentially be useful for the legislature in evaluating their future fiscal options

Our conversations and the comments and questions surrounding my presentations last week have provided me with more insight to the issues confronting the legislature in respect of the natural gas fiscal design and the timeframe in which they need to be addressed. Over the next two years leading up to the open seasons scheduled for the competing gas pipeline projects there will probably be requirements of the legislature to make some difficult decisions with respect to the natural gas fiscal design. There appears to be an opportunity over the next year to consider in some detail a range of integrated fiscal design options. These should address how best to adjust the fiscal design for gas to optimize the state's take of economic rent while at the same time to encouraging investment from existing producers and new upstream (and downstream) investors.

In order to help evaluate the impact of such decisions I believe that the development the specific model cases outlined below would provide the legislature with some useful additional information:

I) fiscal options need to be evaluated in the context of not just fiscal designs that work for a range of yet-to-find field types and sizes, but also from the perspective of proved reserves of the existing big three producers which will account for the vast majority of the gas likely to underpin the initial financing of any major gasline project. The report I presented this week addresses the upstream issues of the yet-to-find reserves and provides a starting point and a model that could be broadened to include some additional cases covering the main existing and their

proved reserves that would initially supply a gas pipeline. With this in mind I recommend the following for consideration:

- 1. Develop and maintain a multi-year, projected life of field case to run through my existing fiscal model for Prudhoe Bay field using best available data that can be accessed by legislature with respect to production forecasts (gas and oil), capital cost and operating costs that includes the following scenarios:
 - a. Gas pipeline (AGIA and/or Denali)
 - b. Gas to new liquefaction (LNG) facility at Valdez or Kenai
 - c. On slope gas-to-liquids (syncrude) plant and liquids blended or batched through TAPS with no gas pipeline
 - d. Other scenarios?
- 2. Develop and maintain a multi-year , projected life of field case to run through my existing fiscal model for Point Thompson field using best available data that can be accessed by legislature with respect to production forecasts (gas and oil), capital cost and operating costs and also evaluate with respect to scenarios a, b and c etc .
- 3. Cases for the ten hypothetical yet-to-find fields of various sizes (as now provided in my report).
- Maintain sufficient flexibility so that other gas development mechanisms, or variations on one of the mechanisms or cases already evaluated can be easily added

I believe that running potential gas fiscal designs through all these cases and sensitivities (perhaps collectively considered as a State of Alaska gas portfolio) would provide some useful insight to the impacts on both the state and producers of specific fiscal designs. The aim should be to maintain the models for items 1, 2 and 3 up-to-date as new (more detailed) information (costs and production forecasts) becomes available thereby making them available for a range of potential uses in the future (including long-term budget forecasting and planning).

II) The legislature could benefit from more detailed analysis regarding the comparison of the fiscal designs and specific fiscal instruments applied in the main oil and gas producing states of the Lower 48. Although in Appendix 3 of my report I have provided a review of fiscal design in several Lower 48 states I am aware that more detailed and up-to-date information on the detailed tax calculations, and the various tax allowances and credits for non-conventional gas, of other states is required to make more realistic comparisons with Alaska's prevailing fiscal design. As Alaska gas will be competing in the market with gas

from these states when it reaches the Lower 48 I believe that deep understanding of their natural gas fiscal systems is needed. I recommend such a study be considered and would focus it upon the following oil and gas producing states: California, Colorado, Louisiana, New Mexico, Texas, Utah, Wyoming, Oklahoma, and Kansas and perhaps broaden it to include Montana, North Dakota and Pennsylvania to focus on conventional and non-conventional gas issues. Deliverables from such a study should be detailed fiscal models incorporating royalty, severance taxes (where appropriate) and state income taxes.

Dan Dickinson and I bring complementary skills to detailed fiscal design and modelling and I would recommend that the legislature consider teaming us up to address and model in detail the issues highlighted above. In particular Dan has the detailed knowledge of the Alaska and U.S. oil and gas fiscal system essential for the evaluation of the fiscal systems of other U.S. states. On the other hand I bring an international perspective on natural gas together with integrated life of field sensitivity case models.

I would like to take this opportunity to thank the Legislature for contracting me for the work recently presented and for the stimulating discussion and hospitality shown to me during my recent visit to Alaska.

Best regards.

Yours sincerely,

David Wood

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