

Report of the Thermal Bitumen Subcommittee

to the

**Government Industry Advisory Group (GIAG) on
Gas & Bitumen Conservation in Oil Sands Areas**

Participants:

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GOVERNMENT – INDUSTRY ADVISORY GROUP (GIAG)

Thermal Bitumen Subcommittee Interim Progress Report & Recommendations June 28, 2001

GOALS & OBJECTIVES:

- i. Set realistic and deliverable goals for the June 28, 2001 deadline - understanding of the short time constraints.
- ii. To define and further refine criteria used to determine the viability and commercial potential of Thermal Bitumen Projects.
- iii. Propose a definition for “*reasonable foreseeable technology*.”
- iv. To present a go-forward action plan – projects to be completed over the summer and fall.

TBCS INTERIM RECOMMENDATIONS:

i. Realistic Goals (Phase 1):

The Scope of the Thermal Bitumen Subcommittee limited to:

- The McMurray formation
- SAGD Technology

Future Scope pending success of “phase 1” includes:

- Evaluation of other formations (i.e. Clearwater)
- Cyclic Steam technology

ii. Thermal Bitumen Criteria:

ID 99-1 Suggests:

- $S_o \geq 50\%$ pore volume
- Net Bitumen Pay ≥ 10 meters

TBSC Recommendations:

- Porosity * Bitumen Saturation factor: $\phi S_o \geq 0.18$ (see attachment)
- Net Bitumen Pay ≥ 10 meters
- Minimum Standalone Recoverable Reserves $\geq 12,000,000 \text{ m}^3$ *
- Minimum Add-on Recoverable Reserves $\geq 4,000,000 \text{ m}^3$ *
- Maximum distance to add-on project = 5 km (edge to edge)

*To be further determined.

iii. Proposed Definition for “reasonable foreseeable technology.”

Reasonable foreseeable technology is defined as that technology:

- That has a sound theoretical basis;
- Has been demonstrated in the lab;
- **Has been demonstrated in at least one (1) field pilot that has met short and long-term expectations of performance and recovery.**

Short and long term expectations of performance and recovery:

- **Results are predictable and scalable (field scale); and**
- **Predicted field scale performance meets a conservative supply cost economic standard or ROI.**

GO FORWARD ACTION PLAN (Summer-Fall 2001)

i. Determination of Minimum Recoverable Reserves:

- DOE unable to provide an aggregated or sterilized capital or opex data (used by DOE for royalty calculations). This information is limited to a few projects/schemes – can’t be aggregated/sterilized.
- AEUB to review the NEB 2000 Supply Cost Study to determine the applicability for capex and opex data.
- GIAG to approve two (2) independent evaluators. Will incorporate supplied cost and forecast data.

Evaluators:

- Company X - \$50,000 economic + \$30,000 for facility costing.
- Fekete \$14,000 economic evaluation only (Colt for facilities?).

ii. Further Technical Support for the Phi*So cutoff of 0.18

iii. Further refinement of the definition of “reasonable foreseeable technology”

iv. Evaluation of other formations and thermal technology

- Wabiskaw, Clearwater and Grand Rapids/Colony fms.
- SAGD and Cyclic Steam for the above.

Phi Vs So

