

Saskatchewan Industry and Resources PNG Guideline 1 April 2003

## Application for Modification of Well Spacing in a Gas Pool

- 1. An application for a change in spacing under section 17 of *The Oil and Gas Conservation Act* shall, for reduced spacing, <u>demonstrate</u> that significant incremental reserves will be recovered which could not be recovered under the existing spacing pattern. For enlarged spacing, the application shall <u>demonstrate</u> that larger drainage units will not significantly affect gas recovery. Applications may be subject to a Public Notice in *The Saskatchewan Gazette* soliciting comments or objections. If no objections are received and the department is in concurrence with the application, a Minister's Order will be issued effective on the first day of the month after the review is completed.
- 2. A submission in support of an application shall contain, where possible, the following:
  - (a) Performance history for the pool, complete with production history charts.
  - (b) Well productivity data (including productivity index).
  - (c) A map of the area in question showing all wells and their present status (producing, abandoned, etc.).
  - (d) Static bottom hole pressure survey data, including pressure build-up test data and illustrative curves (initial and current pressures).
  - (e) A map of the area in question showing mineral and working interest ownership.
  - (f) Interference test data, including flowing bottom-hole pressures and pressure charts, showing that no interference will occur in varying directions.
  - (g) Areal and vertical pulse tests to determine the horizontal and vertical permeability and reservoir continuity.
  - (h) Detailed reservoir characteristics, including rock and fluid data.
  - (i) Lithological cross-section and/or fence diagrams based on a subsea datum.
  - (j) A geological study of the depositional environment.
  - (k) Isopach maps of the area (including gas net pay) and a structure map.
  - (l) An isopermeability map (horizontal permeability) indicating approximate average vertical and horizontal permeability, from core analysis.

- (m) Estimates of original gas-in-place, existing recoverable reserves, and the effect on gas recovery due to the spacing change.
- (n) Common operator consensus for spacing change and the reasons if consensus cannot be obtained.
- (o) An estimate of the number of wells to be drilled and their locations.
- (p) The results of comparable programs in similar reservoirs or other parts of the same reservoir.
- 3. The submission shall be in written and illustrated form, signed by an officer of the company making the application, and appropriately bound.
- 4. The applicant shall, upon request, provide additional copies of the submission to any owners or operators directly affected.
- 5. Submit two (2) copies of each application to:

Engineering Services Branch Saskatchewan Industry and Resources 200 - 2101 Scarth Street Regina, Saskatchewan S4P 2H9

6. For further information contact Rick McLean at (306) 787-2596.