

October 29, 2001

9000-1725/2700-59240-15 OGC - 01205

Peter W. MacFarlane Senior Geologist Koch Petroleum Canada, L.P. 1400, 111 – 5th Avenue Calgary AB T2P 3Y6

Dear Mr. MacFarlane:

EXPERIMENTAL SCHEME FOR COAL BED METHANE WOLVERINE AREA, GATES AND GETHING FORMATION COALS RE:

The Commission has reviewed your application dated September 26, 2001 requesting approval of an experimental scheme to test coalbed methane (CBM) potential from Lower Cretaceous Gates and Gething Formation coals in the Wolverine area of northeast British Columbia.

The Commission designates the Lower Cretaceous coals as the Gates and Gething Formation coals.

Attached is Approval 01-15-009 for the application granted under section 100 of the Petroleum and Natural Gas Act. The CBM scheme is considered experimental as it involves a potentially long dewatering period with unknown gas flow rates. Approval of an experimental scheme allows the determination of permeability and production testing of the wells for a long period with sweet gas flaring. No objections were received following the publication of a notice of your application in the B.C. Gazette. It should be noted that the approved scheme area includes lands presently held under three Drilling Licences (DL # 52013, 52014 and 52015). Approval amendment must be requested to reflect the lands Koch controls once lease selections have been made.

Disposal of produced water will be to an underground formation as specified by section 94 of the Drilling and Production Regulation (D & P Regulation), unless otherwise approved by the Commission. Similarly, gas analyses and bottom hole pressure measurements will be required as specified by section 90 and 95, respectively, of the D & P Regulation unless otherwise approved by the Commission.

In accordance with section 57 of the D & P Regulation all well reports and well data within the scheme area will be held confidential for a period of 3 years.

Approval Letters to Industry GEP, SWD, CONCURRENT PROD, Sincerely, PRESSURE MAINTENANCE, WATERFLOOD, ETC. Сору 9 Wellfile (originals) 59240 Craig Gibson, P. Eng. Daily Resource Revenue Manager S. Chicorelli Reservoir Engineering and Geology R. Stefik G. Farr Attachment P. Attariwala D. Krezanoski Petroleums Lands Branch cc: Ministry of Energy and Mines

ENGINEERING AND GEOLOGY BRANCH

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APPROVAL 01-15-009

THE PROVINCE OF BRITISH COLUMBIA <u>PETROLEUM AND NATURAL GAS ACT</u> OIL AND GAS COMMISSION

IN THE MATTER of the experimental scheme of Koch Petroleum Canada, L.P. (Koch), to test coalbed methane potential of the Lower Cretaceous Gates and Gething Formation coals of the Wolverine area of northeast British Columbia.

NOW THEREFORE, the Commission, pursuant to section 100 of the <u>Petroleum and Natural Gas Act</u>, R.S.B.C. 1996, c.361 orders as follows:

- 1. The experimental scheme to test coalbed methane potential by exploration and pilot production from the Lower Cretaceous Gates and Gething Formation coals in the Wolverine area as described in the application from Koch to the Commission dated September 26, 2001 is hereby approved, subject to terms and conditions herein contained.
- 2. The area of the experimental scheme consists of the following lands:

93-I-14 Block K - units 92, 93

93-P-3 Block B - units 18-20, 28-30, 34-40, 44-50, 56-60, 66-70, 78-80, 88-90, 98-100 Block C - units 2, 3, 11-13, 21-23, 31-33, 41-43, 51-55, 61-65, 71-75, 81-85, 91-93 Block F - units 1-3

Block G - units 8-10.

- 3. Within 60 days after the end of each 6-month period, a report of the progress, performance and efficiency of the scheme during that period must be filed. The following information must be included in the progress report:
 - The daily average rate of gas and water production during each month for each producing well, and for the scheme as a whole;
 - The monthly cumulative gas and water production for each producing well, and for the scheme as a whole;
 - Representative sample analysis of produced water obtained once each 6 months;
 - The date and type of any well treatment or workover for any well in the scheme;
 - All information gathered to evaluate the coal's reservoir qualities such as gas content, desorption analysis, injectivity tests and permeabilities of coal seams;
 - Any other information that is considered necessary, in the opinion of the Commission, to evaluate the progress, performance and efficiency of the scheme.

- 4. Associated gas produced during the pilot testing may be flared for a maximum period of 6 months with a total volume not to exceed 255 10³ m³/well.
- 5. A well may be drilled anywhere within the scheme area provided that it is not nearer than 250 m to the sides of the scheme area.
- 6. All information and analysis related to the scheme shall be made available to the Commission upon request.
- 7. The approval or any condition of it may be modified or rescinded upon application or if deemed appropriate by the Commission.

Craig Gibson

Manager

Reservoir Engineering and Geology

Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this gray of October, 2001.