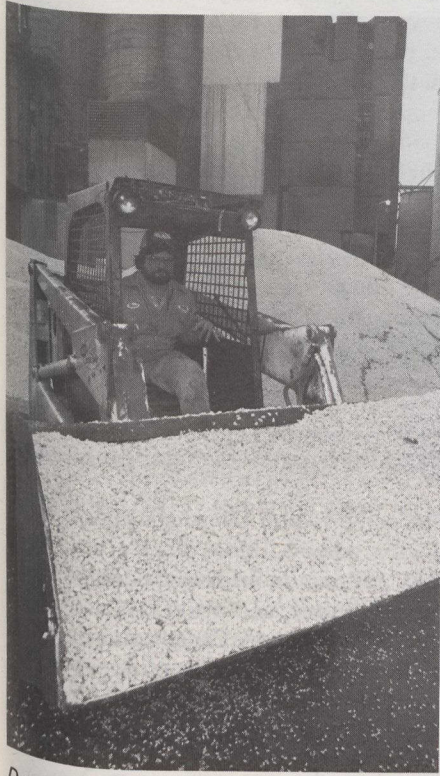


Microchip holds key to grain dryer

Canadian Farm Tec Systems, a small electronics company in Waterloo, Ontario believes it has come up with a computerized control system to dry grain more efficiently than anything available.



Dave Cyr gets a load of corn ready for Hensall Co-op's computerized grain dryer. Canadian Farm Tec, which developed the new dryer technology, has high hopes for export sales.

North America produces billions of tonnes of grain a year which all has to be dried. Allan Niziol, part owner of Farm Tec, figures there are at least 6 000 commercial grain dryers in North America. If the new system sells at an average price of about \$40 000, there is a potential \$240-million market to be exploited.

There is also the possibility of overseas sales if the new technology is used to dry Asia's huge rice crop.

Grain needs to be dried because it comes in from the field with a high, and greatly varying, moisture content. Corn, for example, usually sells on the market at 15.5 per cent moisture. But when it is harvested, it may contain as much as 35 per cent moisture.

The grain is dumped into the top of a tall silo through which hot air is blown from two to three hours. But the dryer

may be filled with a dozen or more truck-loads of grain, each with a different moisture level. And, up to now, there has been no way of adjusting the heat and rate of flow inside it to allow for the moisture variation.

Wasted energy

Inevitably, some grain gets over-dried, which means energy has been wasted, the grain loses weight and so the seller has less to sell.

Farm Tec concluded that it needed a series of sensors located at different stages in the dryer to measure temperature and moisture content. Information would flow into a computer, which would adjust temperatures and the rate of movement through the dryer to allow for varying moisture levels.

The sensors were no problem; they

had already been invented. All that was needed was the computer program, and that took two years to devise.

Burnt on microchip

The program is burnt on a new microchip that fits a standard IBM micro-computer. The computer analyzes information constantly, adjusting the dryer's performance as necessary.

Farm Tec's first working system is running in a grain dryer at the Hensall District Co-op near London, Ontario. Mr. Niziol says preliminary results indicate the system should pay for itself within the year.

Co-op operations manager Paul Ducharme calculates the co-op's dryer is putting grain through 10 to 12 per cent faster than before. It is also hitting moisture contents more accurately.

Offshores exploration agreement approves Maritime drilling

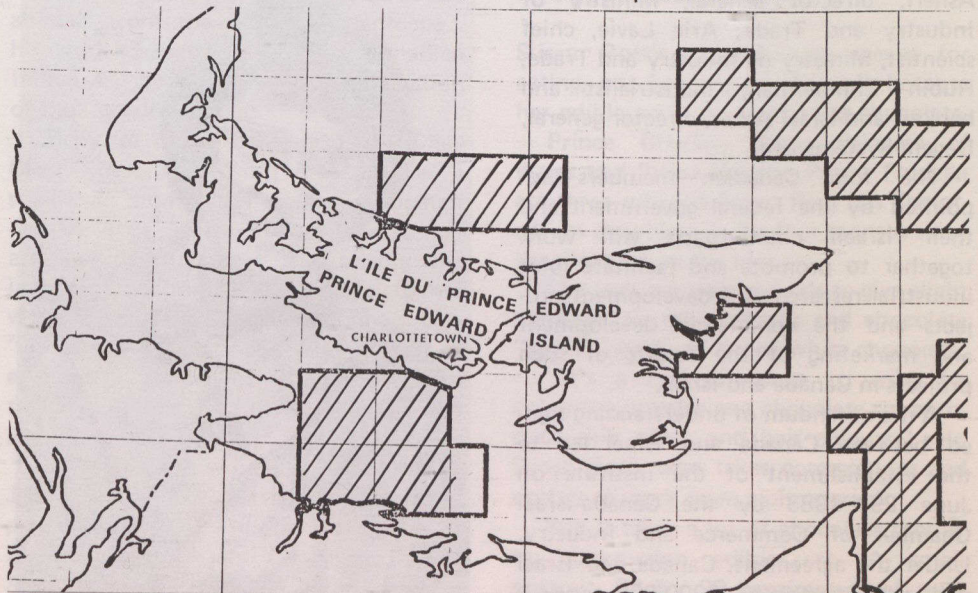
An exploration agreement with Dome Petroleum Limited and partners for lands offshore Nova Scotia, New Brunswick and Prince Edward Island was announced recently.

The agreement, covering 589 000 hectares, has a term of two and one-half years and calls for one well to be drilled by a 12-member consortium at an estimated cost of \$14.25 million. Half of the land will be relinquished to the Crown by the end of January.

The agreement, negotiated through the Canada Oil and Gas Lands Administration (COGLA), was concluded in consultation with the governments of Nova Scotia,

New Brunswick and Prince Edward Island. The Canada-Nova Scotia Offshore Oil and Gas Board approved the portion of the agreement involving the Nova Scotia offshore region.

Partners in the agreement are Dome, the operator, TCPL Resources Limited, Dome Canada Limited, Tripet Resources Limited, Dynamar Energy Limited, American Petrofina Exploration Inc., la Société québécoise d'initiatives pétrolières, Columbia Gas Development of Canada Limited, DEB Canadian Explorations Limited, Conventures Limited, Getty Oil (Canada) Limited and Petro-Canada Exploration Inc.



Striped areas show lands covered by new exploration agreement.

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