

## OIL & GAS in ALBERTA' WILDERNESS

# THE DEATH OF A THOUSAND CUTS

*"The relevant question for energy: not can we produce more energy, but what are the ecological consequences of doing so?"*

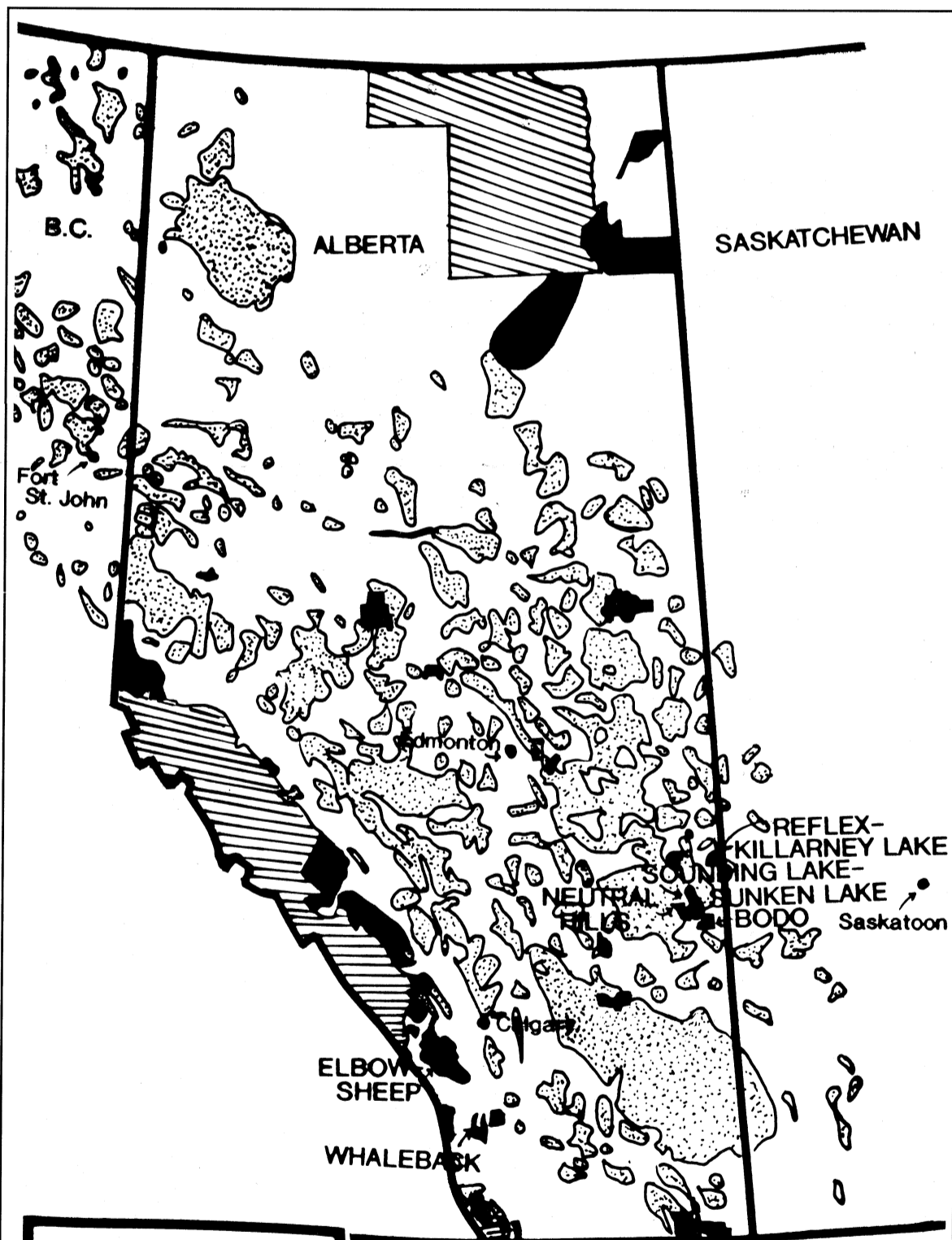
*Herman Daly,  
Steady-State Economics, 1992.*

Finding and producing oil and natural gas may not seem as threatening as open pit coal mining or clearcut logging, but its effects accumulate, gradually fracturing the land and its life - the death of a thousand cuts.

After extensive exploration and development in the 1950's and 1960's, Alberta's crowning glory - the Eastern Slopes foothills, are about to be reopened to a new round of drilling. In the past year, nearly 150 closely-spaced shallow oil wells have been drilled in the AWA's small Sounding Lake - Neutral Hills - Bodo/Altario proposals for protection, on the prairie near the Saskatchewan boundary. Over 7000 wells have been drilled so far this year, throughout Alberta.

A hungry oil and gas industry is being spurred on by increasing export commitments and domestic demand. Adding incentive is a government in deficit, hooked on revenues from oil and gas. Being targeted are Alberta's last pools and fields of oil and natural gas. Some targets are also Alberta's last, best wild places. These are the places that Albertans expect to be protected under the Alberta Government's new priority program - Special Places 2000.

*"The implementation of the Special Places 2000 initiative is a high priority for the Government of Alberta."*  
*Premier R. Klein,  
1993 letter to AWA.*



**LEGEND**

-  MAJOR PRODUCING OIL & GAS FIELDS
-  NATIONAL PARKS
-  PROPOSED AREAS FOR PROTECTION

- \* Major Producing Oil & Gas Fields
- \* Proposed Areas for Protection

### CONSERVATION GROUPS ARE CALLING FOR:

- \* publicly-developed natural resources policy, and ecosystems-based land management
- \* support for and implementation of, the Special Places 2000 program
- \* moratorium on the issuance of further mineral leases on areas proposed for protection, until "Special Places 2000" is completed and implemented
- \* changes to the mineral disposition postings procedure, allowing the public prior input

Second Class Mail Registration # 8645  
AWA, Box 6398 Stn. D., Calgary, AB T2P 2E1  
Return Postage Guaranteed

## THE CUMULATIVE IMPACTS OF OIL AND GAS DRILLING

Over 50 years, some 200,000 oil and gas wells have been drilled in Alberta. Millions of km of seismic lines have been cut during exploration. Since 1979 alone, 1.9 million km of seismic line has been sliced across the Alberta landscape. Radiating from the Alberta wells are 450,000 km of pipeline. Access roads and hydro lines to each well, compressor station and processing plant, further fragment the landscape.

Oil and gas exploration and development have left Alberta with virtually no intact watersheds, unscathed valleys, whole prairie landscapes, or undissected forests. Not a single proposal for wilderness protection outside of the Canadian Shield, is unscarred by oil and gas activity.

Wildlife also suffers. As access roads, wellsites and pipelines penetrate and fragment their habitats, populations of caribou, elk, bighorns, goats, grizzly bears, moose and furbearers decline - often quickly and permanently. Opening access invites human, industrial and off-road vehicle harassment, poaching and increased legal hunting - the cumulative effect of which can lead to habitat abandonment and population losses.

### ECOSYSTEM PROTECTION?

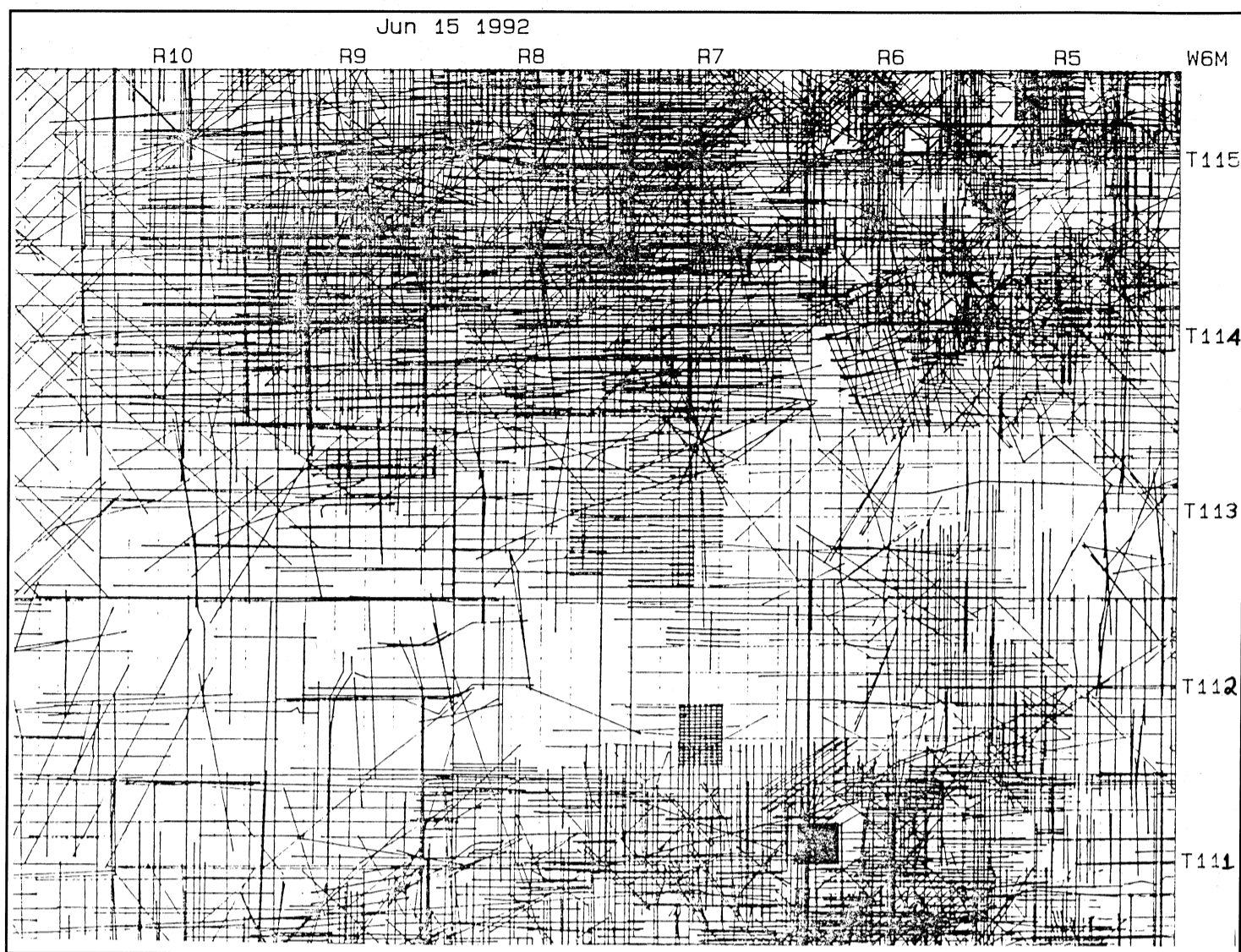
#### No Policies, No Public Input:

Ecosystem fragmentation is the result of a thousand small decisions - each being made without the benefit of environmentally sound public lands policy, forest policy, or even oil and gas policy. In Alberta there has been no requirement to assess the impact on the environment, of exploration and drilling programs.

Also lacking are consistent and effective public input processes. For example, there has been no mechanism for the public to enter the decision-making process for the posting of public lands for mineral lease.

The only formal opportunity for the public to enter the debate over drilling on public lands, has been after the mineral leases are sold and the surface access permits issued. When the ERCB issues well drilling licences, the public may object. Although the ERCB may grant a hearing on a particular well or pipeline, at this stage it is too late to alter the chain of decisions. The ERCB has never refused a drilling permit for environmental reasons.

The Alberta Government claims that the public may affect land decisions during area integrated resource planning (IRP). However, only a fraction of the province has undergone such planning, and there is a great deal of public and industry dissatisfaction with the process. Completed IRP's are often rife with political intervention and reflect little public input. Most plans take years to complete. Restrictions limiting land with commercial forest or oil and gas potential from being included in the most protective land category, undermine public confidence in the IRP process.



Seismic Line Fracturing Near Zamma Lake, N.E. Alberta - June 15, 1992

### EMPTY PROMISES

#### Eastern Slopes Recommendations for Protection:

Public concern over the lack of controls on resource exploration and extraction and the unregulated motorized use of the foothills and mountains, led to the Eastern Slopes public hearings of 1973. The final hearing report stated, "The major emphasis is to be placed on watershed protection, on recreation, on tourism, and on the use of renewable resources." Non-renewable resource industries, chiefly coal and natural gas, must take second place to these higher-priority uses.

In 1973, the Alberta Wilderness Association presented detailed proposals for nine wildland recreation areas along the Eastern Slopes, and the Wild Kakwa Society presented a tenth. The Elbow-Sheep headwaters were put forward in a separate hearing, and the recommendation was for protection. Recommendations from the Eastern Slopes hearings were for one large wilderness area to be created in the headwaters of each major river valley, beginning with the Elbow-Sheep.

The Alberta Government went on record as being 100% behind the Eastern Slopes panel recommendations. Yet, in 20 years, with the exception of Peter Lougheed Provincial Park in Kananaskis Country, no lands have been formally protected along the Eastern Slopes.

*"Some time ago, Energy and Natural Resources agreed to curtail issuance of dispositions in the proposed Wildland Recreation Areas and will continue to do so pending decisions on your proposals."*

*Letter to the AWA from Hon. Don Getty, Minister of Energy and Natural Resources, 1976.*

## THE PAINS OF GAS PRESSURE

### INCREASING DEMAND - DECREASING SUPPLY

*"Until this decade everybody knew that Canada had virtually unlimited supplies of oil, natural gas, coal, hydro-electricity, uranium, and just about any other form of energy you cared to mention. The only problem that could be foreseen was whether Canada could extract the greatest advantage out of its good fortune. We could never possibly use up all those reserves ourselves, not in any future that could then be conceived by the ingenious minds of politicians and energy industry executives, and the obvious answer was to sell them off to users in the United States at the best price."*

*John Kettle, Executive Magazine, Dec. 1978.*

#### The Demand:

At 82% of world use, North America is by far the largest consumer of natural gas. As nuclear plants close and coal-fired plants convert, demand for gas is escalating. Canada is being expected to meet growing continental shortfalls. The Oil and Gas Journal of April 26, 1993, predicts that U.S. consumption will top 20 trillion cubic feet (tcf) per year in 1993, "while the supply picture dims".

Can Canada meet such demands? According to former Alberta Energy Minister Rick Orman, speaking to the Globe and Mail, July 6, 1989, there is not enough natural gas in Alberta to supply all the pipelines proposed into the U.S. Canadian industries sounded the alarm in the winter of 1993, "Our plants were shorted by 10% to 20% of their contracted gas supplies during the cold snap..." said IGCAA Chairman Ray Poponyak, "We already have a crisis", (Calgary Sun, January 18, 1993).

Amoco Canada's environmental manager has referred to Alberta's oil and gas industry as a "sunset" industry. He and other industry representatives argue the need to produce Alberta's remaining pockets of gas now, both for the good of their companies and the general public.

#### Bursting the "Oversupply Bubble"

During the cold winter of 1992-93, the so-called surplus gas bubble burst. Users and suppliers experienced unprecedented gas shortages. The picture is the same in the U.S.A., where, according to the June 10, 1993 Daily Oil Bulletin, gas production is declining at 10% per year.

Dwindling supplies and inflated contracts have led to a frenzy of exploration activity to find new gas fields. The major companies are focusing on the Eastern Slopes, where those like Amoco, Husky, Norcen and Home have paid millions of dollars for 5-year exploratory leases on places like the Elbow-Sheep, Whaleback and North Porcupine Hills, and on Plateau Mt. Ecological Reserve and the Sheep River Wildlife Sanctuary. Lands on the north edge of the Ram wilderness proposal sold in September.

#### NATURAL GAS "The Environmentally-Friendly Fuel?"

Natural Gas is methane or CH<sub>4</sub>. When CH<sub>4</sub> burns, it joins with oxygen to produce water vapor and carbon dioxide - the primary greenhouse gas.

**CH<sub>4</sub> + 2O<sub>2</sub> —burns—> CO<sub>2</sub> + 2H<sub>2</sub>O**  
According to the 1991 State of Canada's Environment report, Canadians are among the highest per capita producers of CO<sub>2</sub> - "emitting about 4.4 tons of carbon per person per year." Alberta is Canada's largest per capita carbon producer. A May 1993 report on greenhouse gas emissions and sinks developed by Alberta Environmental Protection, states that 123,146 kilotonnes of CO<sub>2</sub> were produced in the province in 1990 (considered an average year), of which "a very significant portion ..(was).. due to the production of oil and gas for use beyond its borders."

*"Alberta believes that, as a first step, Canada should rigorously apply cost-effective energy efficiency and conservation measures that make sense in their own right."*

*Statement on Greenhouse Gas Emissions, from "A Clean Air Strategy for Alberta", adopted by Alberta Government, 1991.*

#### The Supply:

By global standards, Canada's natural gas supply is meager. Considering that Canada is the greatest per capita consumer of energy, it would seem logical to conserve our supplies of natural gas and oil. However, Canada exports gas at the world's highest ratio, compared to its reserve base. Most goes to the U.S., an amount expected to increase by 50%, to 3 tcf a year by the year 2000.

Estimates of Canada's gas and oil reserves vary enormously. In 1971, federal Energy Minister Joe Green claimed Canada had 923 years of oil and 392 years of gas, in reserve. Figures produced in 1993 by the ERCB estimate 136 tcf of gas lie in "discoverable" reserves, while Canada's Geological Survey claims 126 tcf of gas lie in the Devonian geological formation, only 40% of which has been previously found or produced.

But, hard-nosed industry analysts say Canada's proven gas reserves are in the order of only 56-60 tcf. They point to the fact that in only 3 out of the last 12 years, has Canada found as much gas as it consumed and exported. This is despite continued public subsidy of seismic exploration, "royalty holiday" programs, favorable land taxes, and the indefinite deferral of billions of dollars in petroleum company taxes. Industries are under the production gun, and Alberta's lands are under fire to produce.

Proven Reserves of Gas:  
Alberta - 52 tcf  
B.C. - 6 tcf  
Saskatchewan - 1 tcf

Domestically, Canada uses about 2 tcf per year, and exports approximately the same amount. At today's rate of use/export, Canada's proven gas supply will last only 12-15 years. Incredibly, networks of new pipelines are being built to carry increasing amounts of Canadian gas into the U.S. Where will it come from? Geological Survey says, from the Devonian.

Where is the Devonian? To a large extent it's under the Eastern Slopes foothills and mountains of Alberta and north-eastern British Columbia. It's under places like the Kakwa and Willmore Wilderness Park, like the Ram, Panther Corners, Burnt Timber, Ghost River, Elbow-Sheep, Upper Oldman, Porcupine Hills, Whaleback and South Castle. Names of places all so familiar, after 25 years of trying to protect them.

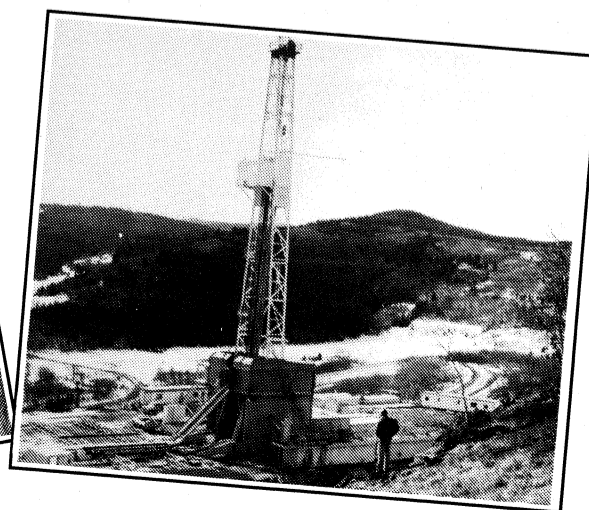
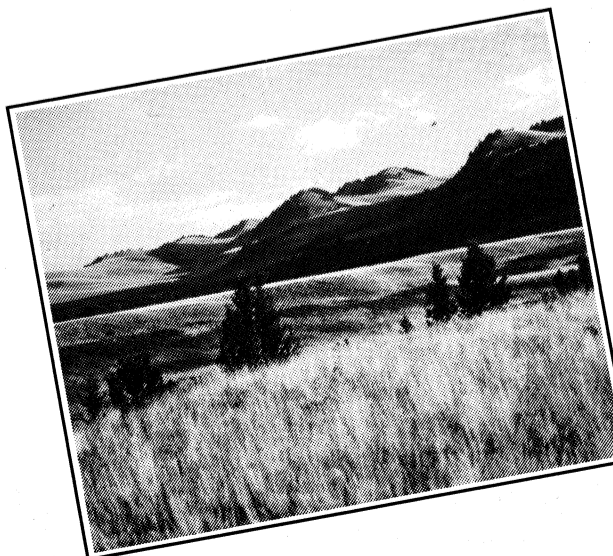
#### WORLD RESERVES OF NATURAL GAS

Country	Proven Reserves (tcf)	% Supply
E. Europe (former USSR)	1750	40.0%
Iran	600	13.7%
Saudi Arabia	184	4.2%
Abu Dhabi	183	4.2%
U.S.	169	3.9%
Qatar	162	3.7%
Algeria	117	2.7%
Venezuela	110	2.5%
Nigeria	105	2.4%
Canada	97	2.2%
Iraq	95	2.2%
Mexico	72	1.6%
etc.		

Total 4,379 tcf

\* excerpted from Oil and Gas Journal, Dec. 30, 1991.

#### WHICH FUTURE FOR THE NATIONALLY SIGNIFICANT WHALEBACK?





## TARGETING THE WHALEBACK

In July 1993, Amoco Canada approached the AWA and the community of Maycroft on the banks of the Upper Oldman River, with a plan to drill in the Whaleback wilderness proposal. This proposal has recently been massively expanded to 10 well pads, from which 3 to 4 wells will be drilled per pad. Amoco considers the Whaleback may have the potential to produce 2 tcf of gas - about 2/3 the size of Shell's Caroline development.

As the largest piece of relatively intact montane ecotype left in Canada, the Whaleback is nationally significant. Several years ago, the AWA asked the International Union for the Conservation of Nature to investigate the significance of the Whaleback on a global scale.

The open, grassy slopes of the Whaleback are crested by dark conifer ridges, emphasizing their resemblance to the crusty backs of giant humpback whales, as they rise out of a creamy prairie ocean. Sunny and open year around, the slopes with their sheltering forests, support healthy populations of such animals as elk, deer, bears, cougar, prairie falcon and golden eagle. Cattle have replaced the bison that once roamed these rich hills.

In July, the AWA and the Maycroft community applied for a public hearing into Amoco's full development. Amoco responded by hiring a mediator who is attempting to reach a compromise solution that avoids a hearing. The AWA is willing to work with oil and gas companies to help them mitigate their operations outside of significant areas like the Whaleback. However, intact core areas like the Whaleback, are integral to the conservation of more entire ecosystems, and must not be compromised.

Unfortunately, it appears that the lovely and nationally significant Whaleback, is to be the testing ground of the Klein Government's commitment to conservation.

## What You Can Do:

1. Meet with and write to your MLA and write to Premier Klein, with copies to Environment Protection Minister Brian Evans, asking for:

- \* their active support for and promotion of, the Special Places 2000 program (see AWA Action Alert, Summer 1993 - New Hope for Wilderness) and the protection of the Whaleback and the Neutral Hills/Sounding Lake/Bodo areas in particular.

- \* a moratorium on further mineral disposition leases on areas long proposed for protection, until the Special Places 2000 program has identified and protected key areas.

- \* a publicly developed natural resources policy.

Hon. Ralph Klein  
Premier of Alberta  
Legislature Bldg.  
Edmonton, AB, T5K 2B6

Hon. Brian Evans  
Minister, Environmental  
Protection  
Legislature Bldg.  
Edmonton, AB, T5K 2B6

2. Join the AWA if you are not already a member. Volunteer to help the AWA. Become an active area watchdog. Help us on new policy initiatives. Write to the AWA to find out how to volunteer.

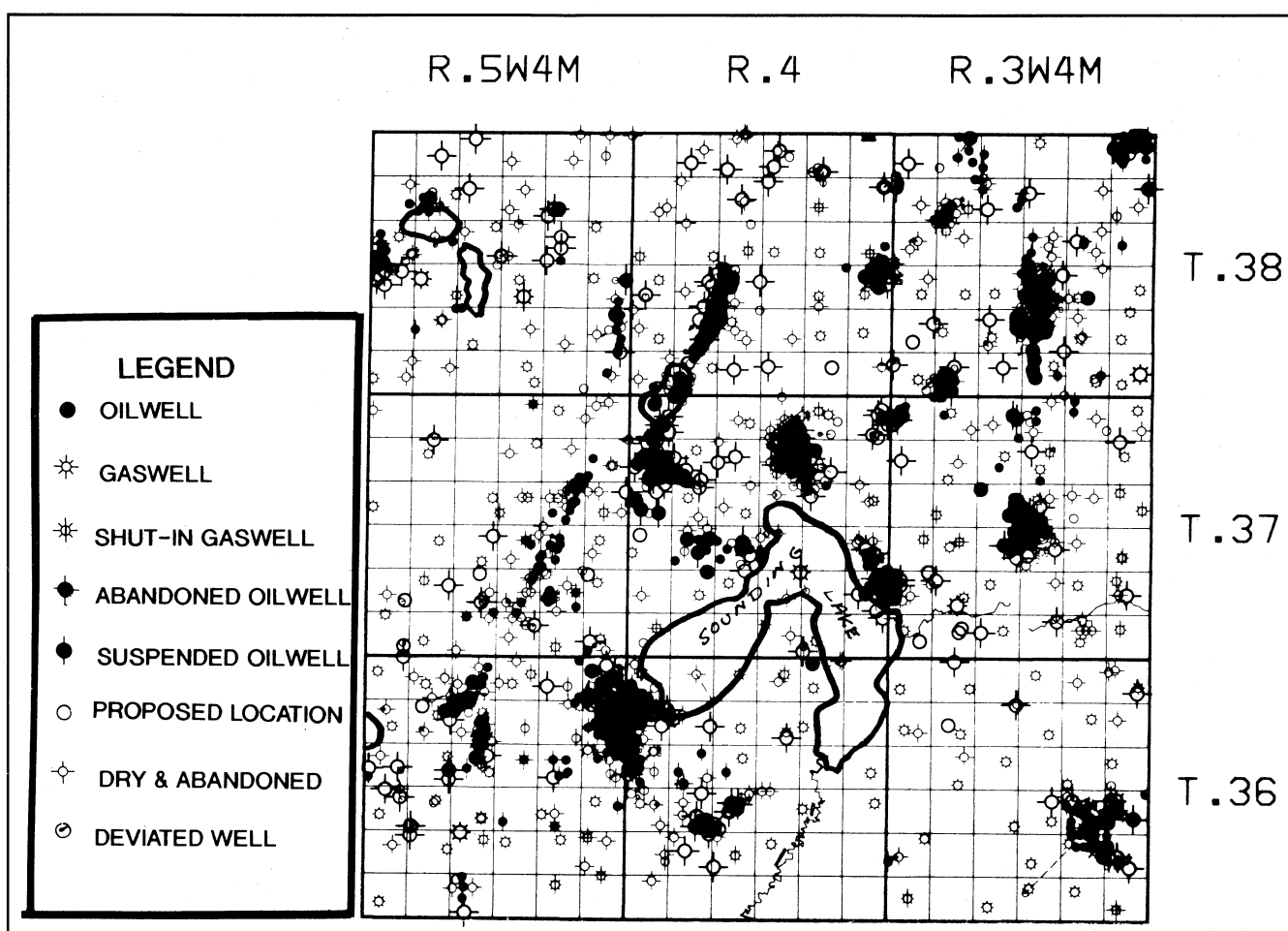
3. Give a donation, to help us in our efforts to protect wild places.

## TARGETING NEUTRAL HILLS/SOUNDING LAKE/BODO ALTARIO

Against the Saskatchewan border, the Northern Fescue Grassland ecoregion forms a transition between the more northerly Aspen Parkland and the drier Mixed Grassland to the south. Little is left that has not been cultivated, although the AWA has identified and proposed for protection, several outstanding Northern Fescue remnants. These include the 50 sq km Neutral Hills - Gooseberry Lake region north of Consort, the 500 sq km Sounding Lake basin and the 40 sq km Bodo-Altario knob and kettle uplands.

Sounding and Gooseberry Lakes are especially important as "priority migratory habitat lakes" for international waterfowl and shorebird populations. Over 50 different species are recognized as regular users. Over 200 species of native plants have been identified in the area, including such rare and endangered ones as the crowfoot violet.

In the past two years, exploration and drilling for shallow oil has become intense in these areas. The AWA has been notified of nearly 150 wells within the three areas proposed for protection, and many more occur nearby. Some are as closely spaced as one well every 4 acres. Uncontrolled recreational off-road vehicle use has increased greatly with the new access. Seismic and access roads, sculpted wellsites, hydro and pipelines, are fragmenting these prairie remnants into fragile mosaics. The AWA is attempting to gain industry guidelines and a cooperative planning process for these areas.



I would like to join the AWA:

Single \$25 - 1 year  Family \$30 - 1 year   
\$48 - 2 years  \$58 - 2 years

Student/Sr \$15  Instit. \$100

Name  Address

I would like to volunteer, please contact me  ph

I would like to send a tax-deductible donation

Visa/Mastercard #  Exp.

Alberta Wilderness Assoc. Box 6398 Stn.D Calgary AB, T2P 2E1