

Remediation Guidelines for Upstream Oil and Gas Facilities in Alberta

June 18-19, 2001

**Bill Macdonald
Acting Director, Environmental
Sciences Division**

Alberta
ENVIRONMENT



Remediation and Reclamation of Upstream Sites: Context

- **Agriculture, forestry, oil and gas industries all rely on and may impact the quality of Alberta's land**
- **Goal is to minimize environmental footprint and allow all to thrive**
- **Roughly one quarter million oil and gas wells drilled in Alberta -- perhaps 2/3 are producing or have produced**
- **All require appropriate environmental land management**

Regulatory Overview

EUB Information Letter 98-02

EUB responsibility

- exploration and operations phases
- includes waste management, ex-situ treatment, well abandonment

AENV responsibility

- remediation (contamination) and surface land reclamation
- standards for both
- in-situ contaminant management
- reclamation certificates

The Challenge ... In Its Setting

- **Exploration and production sites are leased**
- **both landowners and oil and gas operators want certainty of process and outcome in reclamation & remediation**
 - **needed for termination of lease**
- **contaminant management has been uncertain**
- **improvements needed in management process and remediation criteria**

Alberta Government Response

Process

- **Reclamation/remediation Framework**
- **Phase 1 Environmental Site Assessment Guideline**

Remediation Criteria

- **Alberta Salt Management Guidelines**
- **Canada-wide Standard for Petroleum Hydrocarbons in Soil**
- **Alberta Soil and Water Quality Guidelines for Hydrocarbons at Upstream Oil and Gas Facilities**

Canada-wide Standard for Petroleum Hydrocarbons in Soil

- **Canadian Council of Ministers of Environment (CCME) process championed and chaired by Alberta**
- **Endorsed by Ministers May 1, 2001**
- **3-tiered, land use-based remedial standard**
- **Consensus development process supported by multistakeholder consultation**

Jurisdictional commitment

- **incorporation of CWS into regulatory programs and tools**
- **report to Ministers and public on results achieved**

Workshop Program -- Day One AM

Monday 8:45 - 10:00

Reclamation and Remediation Framework

Walter Ceroici, AENV

Alberta and CCME Guidelines and Standards

Ted Nason, AENV

Alberta Salt Management Guidelines

Gordon Dinwoodie, AENV

Monday 10:30 - 12:00

Environmental Site Assessment and Phase 1 Guide

Darlene Howat, AENV

Alberta Hydrocarbon Guidelines: Scientific Basis

Jim Sevigny, Komex International

Workshop Program -- Day One PM

Monday 12:45 - 2:15

User Guidance for Alberta Hydrocarbon Guidelines
Miles Tindal, Komex International

Case Study 1 -- Flare Pit
Jim Sevigny, Komex International

Monday 2:45 - 4:00

Case Study 2 -- Pipeline Break
Miles Tindal, Komex International

Discussion -- issues -- reporting
Participants

Workshop Program -- Day Two

Tuesday 8:30 - 10:00

Recap of Day One Materials and Presentations

Ted Nason, AENV

**Regulatory Process for Reclamation and
Remediation**

Chris Powter, AENV

Tuesday 10:30- 11:15

Viewpoint of Farmer's Advocate

Carolyn Makowecki

Viewpoint of Canadian Oil and Gas Industry

Lin Callow, Gulf Canada Resources

Workshop Program -- Day Two

Conclusion

Tuesday 11:15 - 1:15

Informal Discussions

Lunch

Consolidation and Closing Remarks

Participants