

Reason for cattle death at a pond near a compressor station, Sand Hills area, Saskatchewan

Project Location:	Compressor Station in Saskatchewan, Canada
Client(s):	Confidential
Date Completed:	1995
Project Budget:	\$ 80,000



View from one of the dugouts towards the compressor station on the hill.

Project Summary

In the area of a compressor station and gas wells, eleven cattle, drinking from ice-covered dugouts, died within a time span of about 1.5 years. After a series of inconclusive investigations, this study was commissioned to determine the reason for the unusual deaths, which occurred only under the condition of ice-cover.

A detailed sampling program of water, gas and ice was devised to determine the organic, inorganic and isotope chemistry and radioactivity as well as the toxicity of the water sampled under winter conditions. The sampling successfully retrieved all planned samples from eight sampling points. The samples were sent to six different laboratories in Alberta, Saskatchewan and California. The analyses and evaluation of the analyses took about three months.

Services Provided

- * Design and undertaking of an expedition-style three day sampling program under extreme winter conditions.
- * Organization and management of an in-time sample maintenance and shipping program to six labs in two countries and subsequent supervision of chemical and toxicological analyses at labs within Calgary.
- * Preparation of a two volume detailed evaluation of the chemical and toxic conditions at the three dugouts.

Deliverables or Results

- * Two volume detailed report with findings, conclusions, and recommendations.