

LANDSLIDE RISK ASSESSMENT  
CENTRAL REGION

**SITE C6: NORTH OF MYRNAM**

LEGAL LOCATION: **NE 11 and SE 14-54-9-4**

REFERENCE LOCATION  
ALONG HIGHWAY: **Sta. 5+060 to Sta. 5+329**

UTM COORDINATES: **N 5,955,320            E 485,480            (NAD83)**

AI FILE: **SH881:10**

AI PLAN & PROFILE: **Myrnam – N. of Myrnam**

Date of Initial Observation: **September 1989**

Date of Previous Inspection: **April 1992**

Inspected By: **Alberta Transportation and Utilities**

Date of Current Inspection: **May 26, 2000**

Inspected By: **Klohn-Crippen Consultants Ltd.**

Instruments Installed: **None**

Instruments Operational: **None**

Risk Assessment: **PF(7) \* CF(1) = 7**

Last Updated by: **Klohn-Crippen Consultants Ltd.**  
Date: **May 29, 2000**

### Location and General Description of Instability

A 2 km stretch of SH 881:10 immediately south of the North Saskatchewan River crossing and north of Myrnam (Sta. 5+060 to Sta. 5+329) has suffered from frost heave of the pavement causing numerous breaks in about 6 main areas. Yearly maintenance has been required since construction in 1975. Recommendations for remedial measures were provided in 1991 (see attached).

### Geotechnical Conditions

See attached Note to File.

### Chronology (Refer to Section G for Further Information)

1970

A serious groundwater problem was encountered during construction that required the groundwater being captured and channeled west into a coulee. In time, the culvert became famous as a drinking water source known as the Myrnam Spring. However, it was noted that controlling the water at this location did not dry up the water further down the slope towards the river.

1975

The highway was paved with 100 mm of asphalt stabilized base pavement and 50 mm asphalt concrete pavement.

September 1989

Site inspection noted that frost susceptible soils, fine sands and sandy silts were documented on the mosaics.

September 1990

This investigation included a review of the files, viewing the 1987 videotapes, an airphoto interpretation and test pitting.

May 1991

Note to file with recommendations – see attached.