

SITE C13: CUTSLOPE SLIDE

LEGAL LOCATION: **SE20-28-19-W4**

REFERENCE LOCATION
ALONG HIGHWAY: About 1km S of Junction with Highway 10

UTM COORDINATES (NAD83): **N 5,695,784 E 387,155**

AT FILE: **H56:08**

AT PLAN & PROFILE:

Date of Initial Observation: 2001

Dates of Previous Inspections:
(Inspected by) May 22, 2001 (KCCL)
May 16, 2002 (KCCL)
May 21, 2003 (KCCL)
May 18, 2004 (KCCL)

Instruments Installed: none

Instruments Operational: none

Reading Dates:
(Read by) none

Risk Assessment: **PF(9) * CF(1) = 9**

Last Updated by: Klohn Crippen Consultants Ltd. (KCCL)
Date: June 2004

Location and General Description of Instability

The slide on the west side of H56:08 is located about 1 km south of the junction with Highway 10, east of Drumheller. The highway grade rises to the south.

The slide has been observed for at least the last three years over which time the size has doubled to the present size of about 6 m to 10 m wide and about 3 m high. A cultivated field is present to the west and a small coulee is located to the north.

Even in dry weather, a distinct seepage zone is apparent at the base of the slide. The native material appears to be a light brown silt that is being softened by the water flow and creating the instability. The proposed repair for the site is to construct a gravel drain to carry the water from the backscarp to the ditch and reinstate the slope.

Material should be excavated from the slide area and temporarily stockpiled in the ditch. The intent is to be able to install the gravel drain on a smooth clean surface that is well graded to the ditch area. Filter cloth is to be placed for the full width over the base area and extending from the slope toe up the slide area to about 0.5 m above the seepage zone.

A 0.2 m thick pit run gravel layer is then to be placed on the filter cloth. A second layer of filter cloth is then to be placed over the gravel ensuring that the gravel is completely enclosed. The slope can then be reinstated over the drain. Care should be taken not to bury the drain outlet at the toe of the slope.

Geotechnical Conditions

The native material appears to be a light brown silt that is being softened by the water flow and creating the instability.

Chronology (Refer to Section G for Further Information)

May 2001

The features described above were first observed.

May 2003

Recommendations for a filter drain and slope reinstatement were provided.

Reports and Documents

May 2001 Inspection Report (KCCL)

May 2002 Inspection Report (KCCL)

May 2003 Inspection Form (KCCL)

May 2004 Inspection Form (KCCL)