

## **SECTION A – FILE REVIEW**

### **Site Location**

- North side of Highway 541:02, approximately 800 m east of the junction between Highways 40, 541 and 940 at Highwood House.
- SW-33-16-5 W5M
- UTM coordinates: Easting 667719, Northing 5584034 (NAD 83, Zone 11U).
- NTS mapsheet 82J/7

### **Chronological Background**

Table A1 provides a chronological background of this site.

### **Site Geology, Hydrogeologic And Geomorphologic Setting**

This site consists of a cut slope along the north side of the highway where the highway runs between the north side of the Highwood River and the lower portion of a bedrock ridge extending southwards from Mount Head. The slopes above the highway corridor are underlain by shallow bedrock consisting of steeply dipping Carboniferous and Devonian-age limestones that have been thrust up-section along a thrust fault.

There is no hydrogeological data for this site and groundwater seepage has not been noted from the cut slope face during site inspections up to May 2008. It is likely that rainfall and snowmelt infiltrating into the natural slopes above the cut slope flows downwards towards the Highwood River along joints and fractures in the steeply-dipping bedrock.

### **Description Of Past Site Problems**

No record of reported problems since the present highway was constructed in the 1970's. Caution signs ("Watch For Fallen Rock") are posted for traffic approaching the site from both directions, but no information available regarding if this was done in response to a problem or as a precautionary measure only.

### **Description Of Past Investigations**

No records of previous site investigations were noted during the documentation review for this site.

This site was initially inspected by AMEC in August 2004 and on three occasions between July and September 2005 as part of the geohazard review for the Highway 40 / Highway 541 corridor. The site has also been inspected annually since 2007 as part of the annual Southern Region geohazard inspection tour.

### **Description Of Mitigative Measures Implemented**

No mitigative measures implemented to date, aside from occasional cleaning of accumulated rockfall debris from the ditch, based on documentation review and discussions with AT.

**Table A1 – S20 – Highwood House Rockfall – Chronological Background**

Date	Description
1970's	Current highway constructed.
August 2004	First inspection by AMEC, followed by notification to AT of the rockfall hazard at this site.
2005	<p>Site inspections by AMEC as part of the Highway 40 / 541 corridor geohazard review.</p> <p>Recommended Risk Level = 45.</p> <p>Recommendations for ditch cleaning along with consideration of increasing the ditch depth, placing a line of jersey barriers along the edge of the highway to increase the effective ditch capacity and scaling of the slopes above the road.</p>
June 2007	<p>Site inspection by AMEC and AT personnel as part of the 2007 Southern Region geohazard inspection tour.</p> <p>No change to the recommended Risk Level (45) or the recommendations from the 2005 inspections.</p>
June 2008	<p>Site inspection by AMEC and AT personnel.</p> <p>No significant changes to the site conditions. The recommended Risk Level and recommendations for additional work were also unchanged.</p>