SOUTHERN REGION GRMP
SITE INSPECTION FORM

SITE NUMBER AND NAME: **S059 Siddons Slide**	HIGHWAY & KM: 22:10, 27.530	PREVIOUS INSPECTION DATE: May 9, 2023	INSPECTION DATE: **May 27, 2025**
LEGAL DESCRIPTION: 01-20-17-02 W5M	NAD 83 COORDINATES: UTM 11 Northing 5591352 Easting 696456	RISK ASSESSMENT: PF: 9 CF: 2 TOTAL: 18	
AVERAGE ANNUAL DAILY TRAFFIC: 1400 (north), 1720 (south), (Ref. No. 71130)		CONTRACTOR MAINTENANCE AREA (CMA): 521	

SUMMARY OF SITE INSTRUMENTATION:	INSPECTED BY:
There is no instrumentation at the S059 site. LAST READING DATE: N/A	Chris Gräpel (KCB) Jorge Rodriguez (KCB) Alex Frotten (TEC) Rishi Adhikari (TEC)

PRIMARY SITE ISSUE: Slope instability of the east highway backslope. The failure has undermined a length of private fence approximately 36 m long (along the highway). The slide is retrogressing onto adjacent private property.

APPROXIMATE DIMENSIONS: The slide is approximately 170 m long. The slope is approximately 12 m to 14 m high. The slope is approximately 3H:1V.

DATE OF ANY REMEDIAL ACTION: June 2021 – The highway was resurfaced, and the work included installation of a corrugated-steel-pipe (CSP) culvert in the east (northbound) ditch at the south end of the slide area, where the toe roll had previously blocked ditch flow. The bottom portion of the slope was flattened during the work.

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X	N/A – none was observed during the 2025 inspection.		X
Slope Movement	X		There is an active slope failure east of the highway. The failure has retrogressed to undermine the fence line and is impacting adjacent land.		X
Erosion	X		Minor erosion of the head scarp.		X
Seepage		X	N/A – none was observed during the 2025 inspection.		X
Culvert Distress		X	N/A – none was observed during the 2025 inspection.		X

COMMENTS

General:

- The toe rolls observed in the ditch in 2020 were removed during CSP culvert installation in June 2021. Prior to culvert installation, two areas of toe roll were noted, one 21 m long and one 19 m long (two adjacent toe rolls had coalesced together), with a gap of 19 m measured between them.
- During the June 2021 repairs, the bottom portion of the slope was flattened to approximately 3H:1V.

S059:

- TEC's Maintenance Contract Inspector (MCI) advised KCB that there's been recent activity at the north and south ends of the slide. However, the slide doesn't appear to have changed significantly between the 2023 and 2025 inspections.
- The back scarp is undermining an approximate 36-m-length of a private fence along the crest of the east highway backslope (Photos 1 and 2). The back scarp extends approximately 7.5 m into private land. The landowner installed a new fence around the failure zone sometime after 2019.
- The back scarp is up to approximately 1.5 m high and generally poorly vegetated (Photo 2).
- The ditch is open, and the culvert appears to be in good condition (Photos 3 and 4).
- The surface of the slide mass appears to be dry.

Maintenance/Repair/Monitoring Recommendations:

Short-term:

- The site should be regularly inspected by the MCI.
- The site should be inspected once per contract as part of the Southern Region GRMP Section B inspections.

Long-term:

- Since the slide is impacting private land, the slope could be flattened to maintain land use (which would require purchasing private land) or the slope could be rebuilt with geogrid-reinforced granular fill (including drainage improvements).

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PROFESSIONAL ENGINEER ALBERTA
JORGE RODRIGUEZ NAVARRO
ID 222669
2025 Oct. 10
LICENSED TO PRACTICE

Jorge Rodriguez, Ph.D., M.Sc., P.Eng.
Geotechnical Engineer

PERMIT TO PRACTICE
KLOHN CRIPPEN BERGER LTD.

RM SIGNATURE: _____

RM APEGA ID #: 187607

DATE: 10 Oct. 2025

PERMIT NUMBER: P009196
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

0 50 Metres

Legend

Scarp

Culvert

NOTES:
1. HORIZONTAL DATUM: NAD83
2. GRID ZONE: UTM ZONE 11N
3. IMAGE SOURCE: MAXAR 2025

CLIENT: Alberta

Klohn Crippen Berger

PROJECT: SOUTHERN REGION GEOHAZARD RISK MANAGEMENT PROGRAM

TITLE: Site Plan
S059 - Siddons Slide
Hwy 22:10, km 27.50

SCALE	PROJECT No.	FIG No.
1:2,000	A05116A03	1

File: Z:\AC\GY\Alberta\A05116A03 ABT Southern Region GRMP\400 Drawings\2023\01_ProFile\Section B\ABT_Southern_SectionB_230713\ABT_Southern_SectionB_230717.aprx Date: Time: Creator: : NMirhadi

Inspection Photographs

Photo 1 **Head scarp (red dashed line) behind the private fence along the crest of the slope. Fence is being impacted for approximately 35 m along the slide (red arrow). Photo taken May 27, 2025, facing north.**

Photo 2 **Head scarp of the slide intersecting the private fence. Head scarp is near vertical and poorly vegetated. Photo taken May 27, 2025, facing north.**

Photo 3 **Lower portion of the repaired slope, culvert outlet, and ditch backfill (red line). Repair work performed in June 2021. Photo taken May 27, 2025, facing south.**

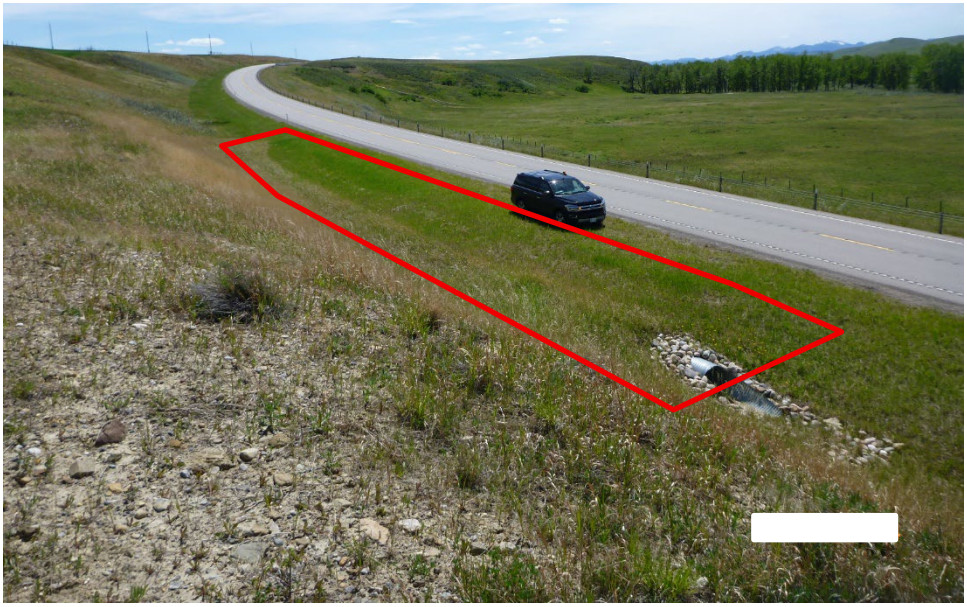

Photo 4 **Culvert inlet and riprap apron installed in June 2021. Photo taken May 27, 2025, facing north.**