

**SITE INSPECTION FORM**

<b>SITE NUMBER AND NAME:</b> GP046 Smoky River West Valley EBL Backslope Slumps		<b>HIGHWAY &amp; KM:</b> 43:04, 32.004	<b>PREVIOUS INSPECTION DATE:</b> June 13, 2023	<b>INSPECTION DATE:</b> <b>June 3, 2025</b>
<b>LEGAL DESCRIPTION:</b> SE 18-72-02 W6M	<b>NAD 83 COORDINATES:</b> UTM Northing Easting 11 6121397 417585		<b>RISK ASSESSMENT:</b> PF: 12 CF: 4 TOTAL: 48	
<b>AVERAGE ANNUAL DAILY TRAFFIC (AADT):</b> 8,120 (east) & 8,320 (west) (Reference No. 70001011, 2024)			<b>CONTRACT MAINTENANCE AREA (CMA):</b> 504	

<b>SUMMARY OF SITE INSTRUMENTATION:</b>  There is no instrumentation at the GP046 site.  LAST READING DATE: N/A	<b>INSPECTED BY:</b> Chris Gräpel (KCB) Courtney Mulhall (KCB) Babatunde Awokunle (TEC) Rocky Wang (TEC)
<b>PRIMARY SITE ISSUE:</b> Several slope instabilities along backslope on south side of Hwy 43:04 that have coalesced into a single slope instability with a well-defined toe roll which is partially blocking the south highway ditch. The site is located along the west valley slope of the Smoky River.	
<b>APPROXIMATE DIMENSIONS:</b> Entire site is approximately 400 m long. Backslope is approximately 10 m to 15 m high sloped with an approximate slope angle of 3H:1V.	
<b>DATE OF ANY REMEDIAL ACTION:</b> None.	

ITEM	CONDITION EXISTS		DESCRIPTION AND LOCATION	NOTICABLE CHANGE FROM LAST INSPECTION	
	YES	NO		YES	NO
Pavement Distress		X	None observed at time of 2025 inspection.		X
Slope Movement	X		Backslope instabilities have expanded laterally and coalesced.	X	
Erosion	X		Some erosion of scarps on backslope, and along toe of backslope and toe rolls from surface water runoff.	X	
Seepage		X	None observed at time of 2025 inspection.		X
Culvert Distress		X	No culverts observed by KCB.		X

<b>COMMENTS</b>
TEC previously mentioned that it was four of five separate slope instabilities initially, which have expanded and coalesced over the years.
Several well-defined scarps are visible on the backslope from the midpoint to the western site limit indicating the western portion (Photo 1) of the slope instability is more active than the eastern portion (Photo 2) where the ground is more rounded and gentler. At the western site limit where slope instability appears most active, the backscarp appears to be up to approximately 2.5 m high and near vertical.
Backscarp generally within highway right-of-way (ROW) but will eventually encroach onto public property if the slope instability continues to retrogress further upslope. At the crest of the backslope there is: <ul style="list-style-type: none"> <li>some old log cabins which are not currently being impacted by the slope instability but the cabins appear to have historical value (Photos 1 and 9); and</li> <li>a recreational trail which is beginning to be impacted by the slope instability (Photo 10).</li> </ul>
Backslope slope failures are not currently affecting the pavement surface of the highway, but the toe rolls are progressing towards edge of pavement and are partially blocking the south highway ditch (Photos 3 through 7). Some toe rolls are within 2 m to 3 m from edge of pavement. Water flowing around the toe rolls have eroded into

the highway embankment (up to approximately 10 mm to 15 mm deep), particularly near the middle of the site (Photos 2, 5, and 8). Ponded water is also being trapped behind some of the toe rolls (Photo 7) The erosion has worsened since the 2023 inspection.

Backslope well vegetated with dense grass and small shrubs, particularly from the midpoint to the eastern site limit (Photos 1 and 2).

Maintenance/Repair/Monitoring Recommendations:

- Short-term: Clean out south highway ditch with as little failure material being removed as possible to re-establish ditch flow capacity. If too much material is removed it could exacerbate slope movements. Ditch will likely fill in again and will need ongoing maintenance to maintain ditch flow capacity.
- Long-term: Repair design prepared and tender partially prepared by previous consultant for flattening the backslope to an approximate slope angle of 5H:1V. TEC working to procure land. Work may be included as part of an upcoming overlay project pending land acquisition.

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Courtney Mulhall, M.Sc., P.Eng.  
Geotechnical Engineer



File: Z:\A\EDMA05116A01\ABT Grande Prairie South GRMP\400 Drawings\GIS\MXD\2025\Section BIG\51\ABT\_GPSouth\_SectionB\_250703.aprx Date: Time: Creator: HManandyan



### Legend

× — Landowner's Fence

0 150  
Metres

NOTES:  
1. HORIZONTAL DATUM: NAD83  
2. GRID ZONE: UTM ZONE 11N  
3. IMAGE SOURCE: MICROSOFT CORPORATION  
2025 MAXAR CNES, DISTRIBUTION AIRBUS DS  
4. SIZE OF BACKSLOPE SLIDE HAS GROWN SINCE  
AIRPHOTO IMAGERY WAS TAKEN.

CLIENT

Alberta

Klohn Crippen Berger

PROJECT

PEACE REGION (GRANDE PRAIRIE DISTRICT-SOUTH)  
GEOHAZARD RISK MANAGEMENT PROGRAM

TITLE

Site Plan  
GP046 - Smoky River W. Valley EBL Backslope Slumps  
Hwy 43:04, km 32.004

SCALE  
1:3,500

PROJECT No.  
A05116A01

FIG No.  
1



## Inspection Photographs

**Photo 1** Overview of GP046 site on Hwy 43:04. Note cabins at crest of slope. UAV photo taken June 3, 2025, facing east.

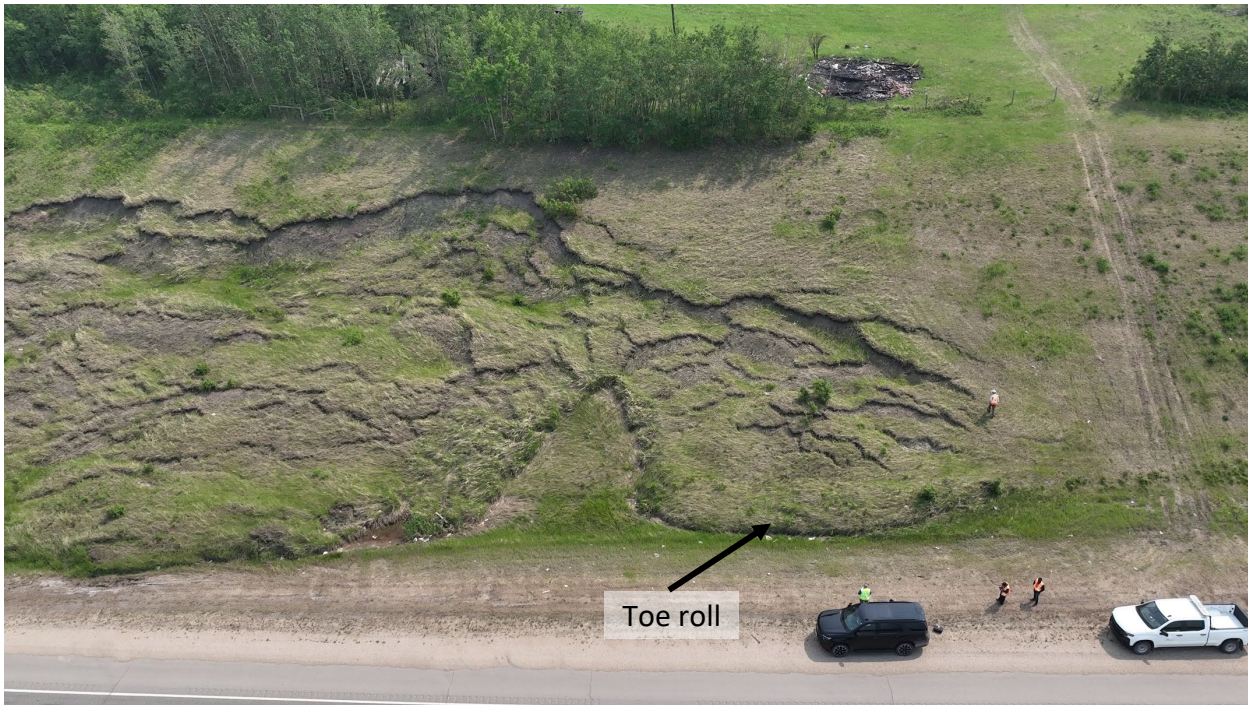


**Photo 2** Overview of GP046 site on Hwy 43:04. UAV photo taken June 3, 2025, facing west.





**Photo 3** Slope failures along backslope on south side of Hwy 43:04. Note toe rolls in highway ditch. UAV photo taken June 3, 2025, facing south.



**Photo 4** Slope failures along backslope on south side of Hwy 43:04. Note toe rolls in highway ditch. UAV photo taken June 3, 2025, facing south.

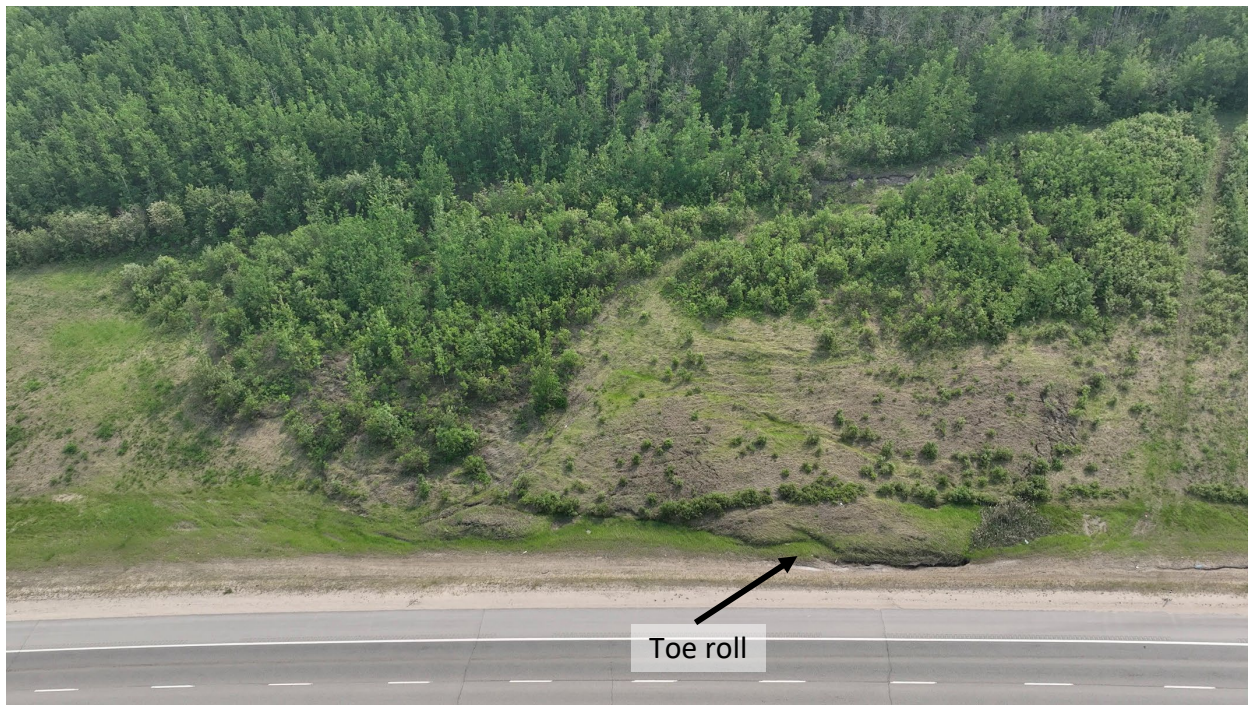




**Photo 5** Slope failures along backslope on south side of Hwy 43:04. Note toe rolls and erosion in highway ditch. UAV photo taken June 3, 2025, facing south.



**Photo 6** Slope failures along backslope on south side of Hwy 43:04. Note toe rolls in highway ditch. UAV photo taken June 3, 2025, facing south.





**Photo 7** Toe roll in ditch at toe of backslope on south side of Hwy 43:04. Note ponded water trapped in highway ditch by toe roll. Photo taken June 3, 2025, facing east.



**Photo 8** Erosion in ditch at toe of backslope on south side of Hwy 43:04. Photo taken June 3, 2025, facing east.





**Photo 9** Cabin at crest Hwy 43:04 backslope. Photo taken June 3, 2025, facing south.



**Photo 10** Recreational trail at crest Hwy 43:04 backslope. Photo taken June 3, 2025, facing south.

