

**ALBERTA TRANSPORTATION
GEOHAZARD ASSESSMENT PROGRAM
PEACE REGION–GRANDE PRAIRIE
2016 INSPECTION REPORT**



Site Number	Location	Name	Hwy	km
GP039-2	Bear River Bridge	Embankment Slide and Erosion (4 km's S. of LaGlace)	724:04	21.191
Legal Description		UTM Co-ordinates		
SE¼33-073-08 W6M		11U E 363440	N 6137137	

	Date	PF	CF	Total
Previous Inspection:	28-May 2014	14	7	98
Current Inspection:	9-Jun-2016	14	7	98
Road AADT:	980		Year:	2015
Inspected by:	Roger Skirrow, TRANS Ed Szmata, TRANS Ken Misik, TRANS		Renato Clementino, Thurber Shawn Russell, Thurber	
Report Attachments:	<input checked="" type="checkbox"/> Photographs <input checked="" type="checkbox"/> Plans <input type="checkbox"/> Maintenance Items			

Primary Site Issue:	<p>A runoff erosion was first observed in 2012 on the southwest side of the headslope of the south abutment at the crest of the south valley slope of the Bear River.</p> <p>An runoff erosion occurred on the south valley slope along the northwest limits of a privately owned land located on the east of the intersection between Hwy 724:04 and Township Road TTWP RD 735.</p>	
Dimensions:	The erosion gully near the private property was about 0.5 m in width and 0.5 m in depth.	
Maintenance:	The bridge department of Alberta Transportation conducted repairs that involved the placement of rip rap armoring the south abutment headslope.	
Observations:	Description	Worsened?
<input checked="" type="checkbox"/> Pavement Distress	There are patches on the ACP at the approaches to north and south bridge abutments.	<input type="checkbox"/>
<input checked="" type="checkbox"/> Slope Movement		<input type="checkbox"/>
<input checked="" type="checkbox"/> Erosion	Erosion took place at locations where roadway drainage ditch and crest of the south valley slope intersect.	<input checked="" type="checkbox"/>
<input type="checkbox"/> Seepage		<input type="checkbox"/>
<input checked="" type="checkbox"/> Bridge/Culvert Distress	Patches in the ACP at the approaches to both abutments of the Bear River Bridge indicate that the bridge structure is under some distress due to the activities of the Bear River.	<input type="checkbox"/>
<input type="checkbox"/> Other		<input type="checkbox"/>

Instrumentation: (None at this site)

Assessment:

Erosion protection is required on the south bridge abutment headslope to protect the roadway embankment and bridge structure.

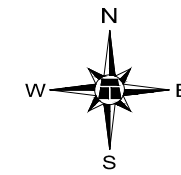
Erosion protection and a ditch block are recommended on the NBL ditch near the crest of the Bear River Valley south slope on the east side of the TWP RD 735 to prevent further erosion at this location.

At both locations erosion protection at ditch bottom could consist of gabion mattresses.



Recommendations:

Ballpark Cost

Armor/line the ditch bottoms near the crest of the Bear River south valley slope and build a ditch block in the NBL ditch at the east side of the intersection between Hwy 724:04 and TWP RD 735.	\$200,000 to \$300,000
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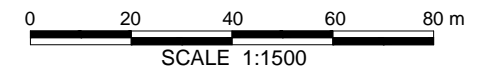


LEGEND

-  SCARP CRACK
-  DIRECTION AND NUMBER OF PHOTO

NOTES :

1. FEATURE LOCATIONS ARE APPROXIMATE
2. PREVIOUS OBSERVATIONS SHOWN IN BLACK
3. JUNE 8, 2016 FEATURES SHOWN IN RED



**PEACE REGION (GRANDE PRAIRIE) 2016
GP39-2: HWY 724:04 km 21.191 EMBANKMENT SLIDE
AND EROSION (4 km SOUTH OF LA GLACE)**

2016 INSPECTION FIGURE

DWG No. 13353-GP39-2-1

DRAWN BY	ML
DESIGNED BY	SGR
APPROVED BY	XW
SCALE	1:1500
DATE	JUNE 2016
FILE No.	13353





Photo 1.
Looking north from
the SBL shoulder of
Hwy 724:04 at
about 10 m north of
the intersection
with Township
Road (TWP RD)
735.



Photo 2.
Looking south
along the NBL
shoulder of Hwy
724:04 on the east
side of the TWP RD
735 intersection.



Photo 3.

Looking southeast from east side of the intersection of TWP RD 735 and Hwy 724:04 towards the erosion at the south wouth valeely slope of the Bear River. The backscarp is about 3 m m from the fencline of the privately owned land. No significant change since 2014.



Photo 4.

Looking south from about 20 m east of the intersection between Hwy724:04 and TWP RD 735 towards the at erosion at the top of bank near the NBL ditch outflow channel.



Photo 5.
Looking southeast from about 5 m south and 5 m west of the Bear River Bridge south abutment towards the erosion forming at interface between the NBL ditch and the south crest of the Bear River valley slope.



Photo 6.
Looking south from about 5m west of the Bear River Bridge north abutment towards the rip rap placed as part of the erosion repair on the south abutment northwest headslope.