

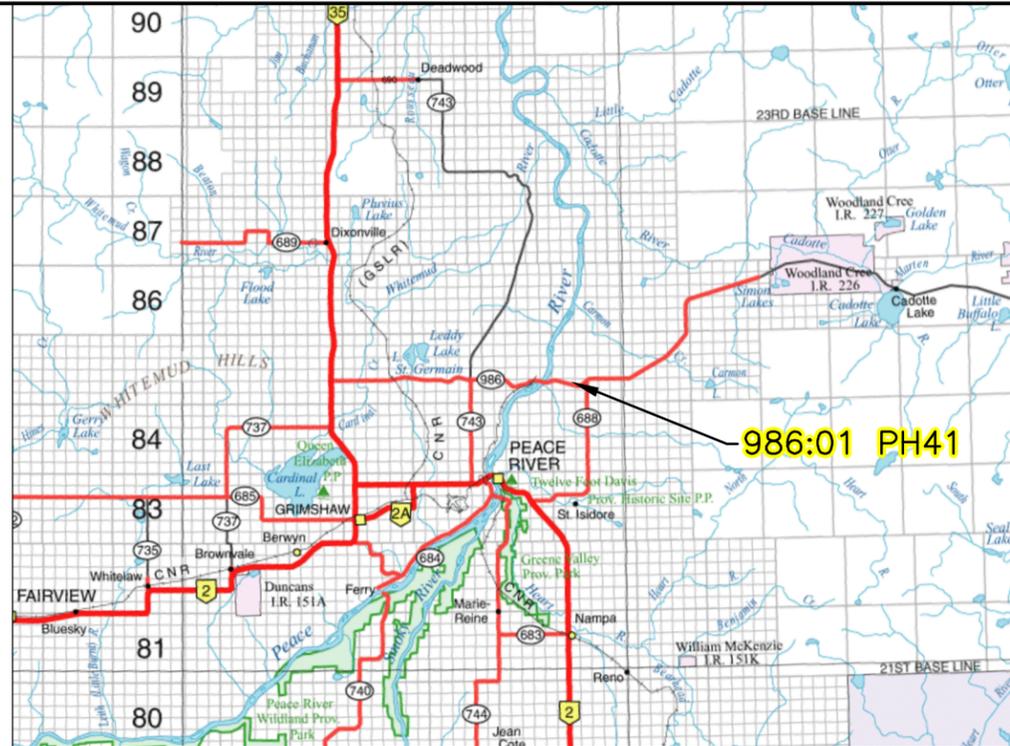
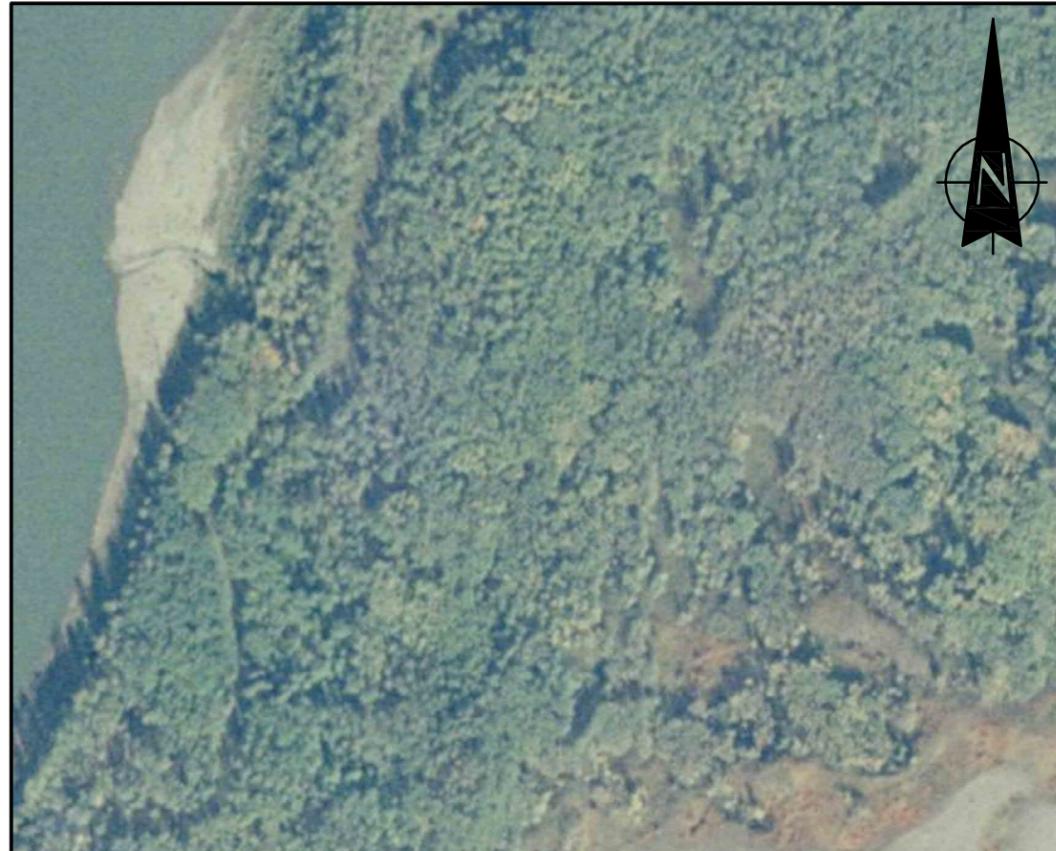
**ALBERTA TRANSPORTATION GEOHAZARD ASSESSMENT PROGRAM
PEACE REGION – PEACE-HIGH LEVEL
2012 INSPECTION**

Site Number	Location	Name	Hwy	km
PH41	Daishowa East Hill	31+600 to 32+0 Site 5	986:01	31.8
Legal Description		UTM Co-ordinates		
NE12-85-21 W5M		11V E 489760	N 6246210	

	Date	PF	CF	Total
Previous Inspection:	25-May-2011	9	2	18
Current Inspection:	27-Jun-2012	11	2	22
Road AADT:	840		Year:	2010
Inspected By:	Roger Skirrow Ed Szmata		Don Proudfoot Robert Saunders Luis Martinez	
Report Attachments:	<input checked="" type="checkbox"/> Photographs <input checked="" type="checkbox"/> Plans <input checked="" type="checkbox"/> Maintenance Items			

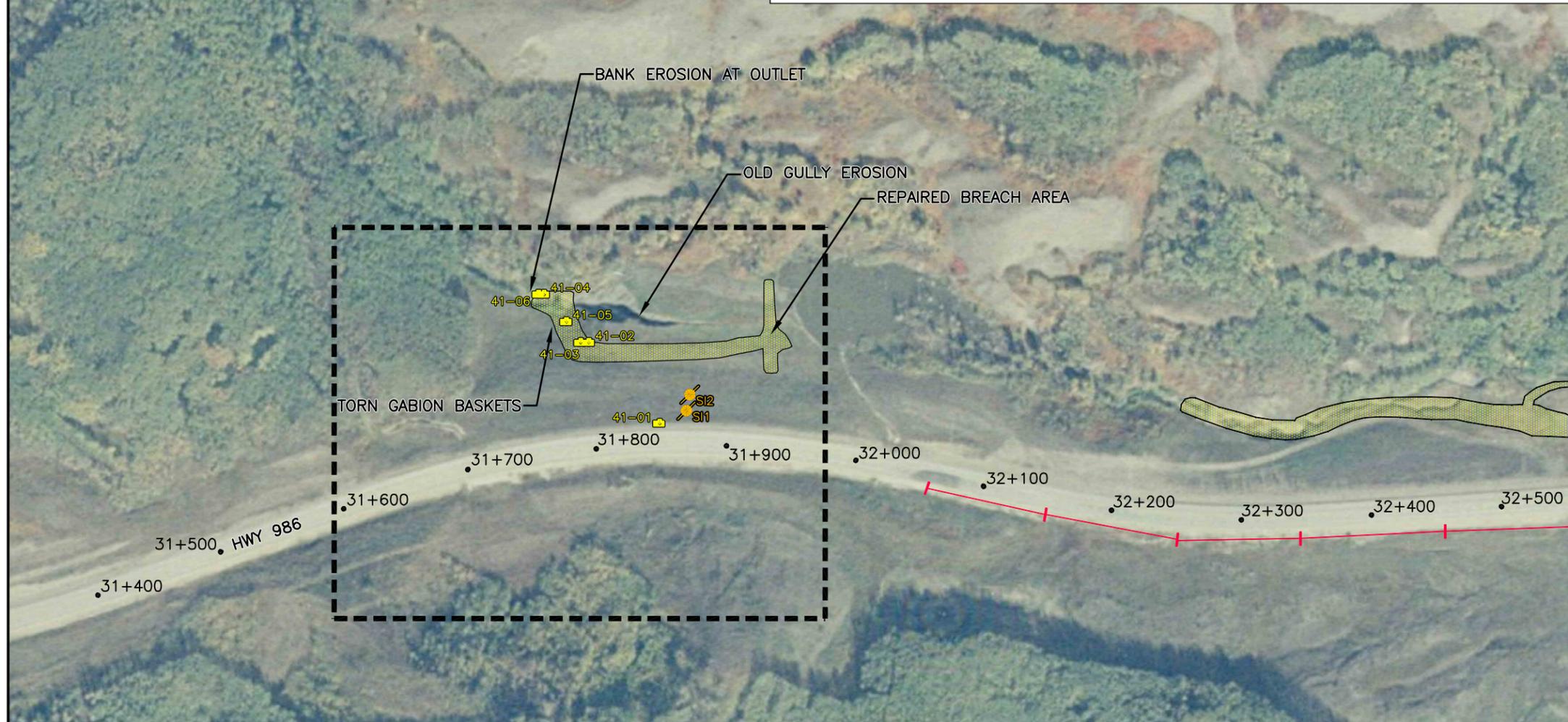
Primary Site Issue:	Prior to implementation of major erosion control and drop structure on unnamed creek on north side of roadway, fill embankment was adversely affected by erosion and instability. Site in good condition since installation of erosion control measures (Photos 41-03 and 41-04).		
Dimensions:	Site 5 is approximately 600 m. Channel inlet to gabion structure outlet is 200 m. Roadway is approximately 30 m above creek in this area.		
Maintenance:	No maintenance activity since 2011.		
Observations:	Description	Worsened?	
<input type="checkbox"/> Pavement Distress		<input type="checkbox"/>	
<input checked="" type="checkbox"/> Slope Movement	No visual evidence of ongoing slope instability on fill embankment above channel and gabion energy dissipation structure (Photo 41-01). Slope inclinometers indicate shallow creep movements are occurring. Some acceleration in SI 2 since 2011 readings.	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Erosion	No new erosion. Old erosion of natural creek banks downstream of gabion energy dissipation outlet (Photo 41-01 and 41-06).	<input type="checkbox"/>	
<input type="checkbox"/> Seepage		<input type="checkbox"/>	

<input type="checkbox"/> Bridge/Culvert Distress		<input type="checkbox"/>
<input checked="" type="checkbox"/> Other	Minor gabion basket distress and locally torn baskets (Photo 41-05). Settlement of gabions at inlet downstream of steel plate (Photo 41-02). Willows in channel should be cut so as to not impede flow capacity of channel.	<input type="checkbox"/>
Instrumentation:		
<p>SI 1 - 5 mm/yr between 1.2 m and 3 m depth; 1.5 mm/yr between 3 m and 6.1 m depth; < 1 mm/yr between 8.5 m and 9.8 m depth. SI 2 - 14 mm/yr between 0.6 m and 2.4 m depth; < 1 mm/yr between 14 m and 15.2 m depth</p>		
Assessment:		
Creep movements are occurring within the embankment below the roadway. Most active zones of movement are relatively shallow (less than 3 m) and is not a significant threat to the roadway at this time.		
Recommendations:		Cost
Repair gabion baskets in energy dissipation structure		\$2,500
Continue to monitor instruments twice yearly and undertake annual inspections.		-



KEY MAP
SCALE 1:1 000 000

- LEGEND:**
- HORIZONTAL CHAINAGE ● 32+100
 - PHOTOGRAPH LOCATION 📷 41-01
 - SLOPE INCLINOMETER
 - NO MOVEMENT ● SI 64
 - CREEP 📏 SI 82
 - MEASURABLE MOVEMENT (OR RECENTLY SHEARED) 📏 SI 82
 - PIEZOMETER ▲ PN 004
 - PH41 BOUNDARY - - - - -
 - ARMOURED CHANNEL 🟡



- NOTES:**
- 1 AIRPHOTO BASE FROM TARIN RESOURCE SERVICES LIMITED (1 m/PIXEL) 1999.
 - 2 FEATURES/PHOTOGRAPH LOCATIONS SHOWN APPROXIMATE ONLY.
 - 3 DRAWINGS MUST BE USED IN CONJUNCTION WITH ATTACHED REPORT AND ARE SUBJECT TO THE STATEMENT OF LIMITATIONS AND CONDITIONS.



PEACE REGION (PEACE RIVER/HIGH LEVEL)

**DAISHOWA
HWY 986:01 (PH41)
LOCATION PLAN**

FIGURE PH41-1

DRAWN BY	ICB
DESIGNED BY	RJS
APPROVED BY	WCW
SCALE	1:4 000
DATE	NOVEMBER 5, 2012
FILE No.	15-16-277-A4C





Photo 41-01. Looking northeast at slope below roadway. Slope inclinometer SI 1 in bushes in distance (31+850).



Photo 41-02. Close-up of steel plate at top of gabion energy dissipation structure. Gabions continue to settle downstream but are still functional (31+800).



Photo 41-03. Looking downslope at gabion energy dissipation structure. Outlet to natural creek in distance (31+800).



Photo 41-04. Looking upslope at gabion energy dissipation structure (31+800).



Photo 41-05. Close-up of torn gabion baskets (31+800).



Photo 41-06. Outlet of gabion structure to natural creek. Bank slumping becoming effaced (31+780).