

Bridge Culvert Inspection			
Bridge File Number	07690 -1 Bridge Culvert	Form Type	CUL1
Year Built	1987	Lot No.	4
Bridge or Town Name	COCHRANE	Inspector Name	Garry Roberts
Located Over	SPENCER CREEK, 2.13.48, WATERCRS-ST	Inspector Class	BR CLS A
Located On	1A:04 C1 34.905	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	29-Aug-2012
Legal Land Location	NE SEC 18 TWP 26 RGE 5 W5M	Data Entry By	Lauren Korte
Longitude, Latitude	-114:40:48, 51:13:37	Data Entry Date	28-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Tom Carey
Contract Main. Area	CMA28	Review Date	04-Sep-2012
Clear Roadway/Skew	11.2 / -23 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	1,710 / 2011 (A)	Dept. Review Date	02-Oct-2012
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	12		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3658	SP	82.3	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North end.	Gas	
Power	3 wires North fence 30km from c/l & crossing road 150m East.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curves on both ends.
Vertical Alignment		8	8	
Roadway Width (m)	11.200			
Embankment		5	5	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 9.6)				
Guardrail (Y/N)	Yes			One splice over pipe @ South guardrail has only 4 bolts.
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				North.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Cracking vertical 0.5mm wide. Cracks up to 3mm wide. Minor spalling @ West.
Collar		6	6	6mm wide cracks in collar. Additional concrete cast @ outside of original collar.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		5	5	Breaking @ West haunch - still functions.
Bevel End		5	5	Superficial rust on bevel's floor. Bevel is hollow as viewed through missing grout plug @ West.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3658, Type: SP)				
Barrel Last Accessible Date	29-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	3550			
Measured At Ring No.	9			
Sag (mm)	58			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	3740			
Measured At Ring No.	9			
Deflection (mm)	82			
Percent Deflection	2			
Floor		4	5	First 4 rings at U/S have concrete pumped behind walls.
Bulge (mm)	90			D/S 1/3 of floor is silt covered
Measured At Ring No.				(Isolated perforations with piping at R10 East side)- Could not confirm.
Abrasion (Y/N)	No			(Dec 8, 2010).
Circumferential Seams		7	7	3 - 9th ring from D/S piping along East sidewall, bulge at mid span @ East sidewall. Hollow spots in haunch area of sidewall.
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			1N stagger.
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3658, Type: SP)				
Coating		5	5	Lower seams show stains and piping, spring from 3rd to 9th ring from outlet East side at 5 o'clock. Leakage @ all haunch seams @ this location. Superficial corrosion on floor.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction				South.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	Bevel projects from fill 400 mm.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		6	6	No piping seen between fill & bevel edge.
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Culvert)	2.5			(April 11, 2007) No visible HWM. Logs @ D/S banks in fence at D/S.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	71.1/71.1	Est. Repl. Yr	2025	Maint. Req. (Y/N)	No
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy							
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	29-May-2014		Previous Inspection Date	08-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							