

Bridge Culvert Inspection			
Bridge File Number	13814 -1 Bridge Culvert	Form Type	CUL1
Year Built	1949	Lot No.	2
Bridge or Town Name	PINCHER CREE	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO KETTLES CREEK, 2.12.31.4.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	6:04 C1 41.475	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	30-Oct-2011
Legal Land Location	SE SEC 14 TWP 6 RGE 30 W4M	Data Entry By	Erin Roberts
Longitude, Latitude	-113:56:01, 49:27:59	Data Entry Date	29-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA26	Review Date	12-Nov-2011
Clear Roadway/Skew	16 /	Dept. Reviewer Name	Tim Davies
AADT/Year	1,170 / 2010 (A)	Dept. Review Date	01-Dec-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2135	2135	BP	65.5			RECTANGLE
Special Features	DROP STRUCTURE							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South ditch.	Gas	
Power	2 lines crossing 60m East	Municipal	
Others		Problem (Y/N)	No
Remarks	H2O line on floor of box @ South side encased 90 degree in concrete.		

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	5	5	Sharp curve 100 m West
Vertical Alignment	4	4	Steep grade to East, est grade 7%. Also goes under 5m farm access road @ North.
Roadway Width (m)	11.000		
Embankment	4	4	Erosion to SW landowner constructed barriers to cattle grazing
Sideslope (__:1)	2.0		
(Height of Cover(m) : 8)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	4	4	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	W		South
End Treatment (Concrete, Steel, Others, None)	CONCRETE		Landowner keeps gate at inlet to keep cattle out. Fence catches drift should be removed
Headwall	6	6	
Collar	X	X	
Wingwalls	4	4	Medium scaling at corners of wingwall
(Shape :)			
Cutoff Wall	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	4	Erosion @ West embankment.- photo recommended 5m x 3m x 0.5m of class 2 rip rap
Beavers (Y/N)	No			
Upstream End General Rating		4	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2135, Rise (mm): 2135, Type: BP)				
Barrel Last Accessible Date	30-Oct-2009			
Special Features				
Special Feature			6	A 1m drop structure and large concrete plunge pool has been constructed d/s of structure for irrigation
(Type : DROP STRUCTURE)				
Special Feature				
(Type :)				
Roof		3	3	Leaching with corrosion staining through wide crack @ U/S end from roof @ joint. Longitudinal cracking in 90% of the pipe. Longitudinal, transverse cracks in middle area of roof 5 mm wide - 26 m from u/s end - no change Map cracking. Twin longitudinal cracks in roof area 3 & 5mm width in same section 8m from U/S bend. Waterline exposed in South floor area.
Measured Rise (mm)	2135			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag				
Sidewall		4	4	Spalls @ lower North sidewall - 50mm deep abrasion @ floor.
Measured Span (mm)	2135			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection				
Floor		4	4	Concrete on floor @ East side broken - exposing waterline. -
Bulge (mm)	0			
Measured At Ring No.	1			
Abrasion (Y/N)	Yes			
Circumferential Seams		5	5	
Separation (mm)	10			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2135, Rise (mm): 2135, Type: BP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		North
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Vertical cracks.
Collar		X	X	
Wingwalls		4	4	Some cracks and spalling on N wall.
(Shape :)				
Cutoff Wall		5	5	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			1m vertical drop at end of apron.
Above/Below (mm)	1100			
Scour Protection		5	5	(12m area East of apron & cutoff wall is concrete-some cracking.)
(Type : CONCRETE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	457mm drainage culvert above SE wingwall drains ditch between farm access and Hwy 6.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	Water enters structure @ 70 degree. West bank erosion.
Bank Stability		4	4	Vertical banks to SW& SE u/s 10m-50m
HWM (m below Top of Culvert)	1.0			Pipe has flowed full- grass and drift accum. @ SW fencing and wingwall
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			This drift and fencing will require removal to accomidate rip rap repair @ SW of inlet
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	place 5m x 3m x 0.5m class 2@ SW corner behind and beside wingwall					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Remove U/S fence gate					
OTHER ACTION	2012	Request landowner to keep U/S area free of fencing					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	33.7/33.7	Est. Repl. Yr	2018	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Landowner should not gate U/S side of concrete box pipes.		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	Jason Rusu		Previous Assistant's Name				
Next Inspection Date	30-Jul-2013		Previous Inspection Date	29-Nov-2009			
Inspection Cycle (Default) (months)	21						
Comment							