

Bridge Culvert Inspection				
Bridge File Number	70358 -1 Bridge Culvert		Form Type	CUL1
Year Built	1972		Lot No.	4
Bridge or Town Name	HEART VALLEY		Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO KAKUT CREEK, 8.10.58.11.3.1, WATERCRS-ST		Inspector Class	BR CLS B
Located On	733:04 C1 12.577		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Nov-2011
Legal Land Location	SW SEC 10 TWP 76 RGE 3 W6M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:23:18, 55:33:60		Data Entry Date	12-Dec-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05		Review Date	20-Nov-2011
Clear Roadway/Skew	9 / 0 deg.		Dept. Reviewer Name	Steve Pasquan
AADT/Year	610 / 2010 (A)		Dept. Review Date	06-Jan-2012
Road Classification	RAU-209-110		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	-	1500	MP	31	68X13	3.5	ROUND
Special Features	VERT STEEL STRUTS							
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	West r/w	Gas	
Power	15 M E. OF C/L 1 LINE	Municipal	
Others		Problem (Y/N)	No
Remarks	POWER CROSSES 5m NORTH OF CULVERT		

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm approaches 20M away, N & S.
Vertical Alignment		8	8	
Roadway Width (m)	9.000			
Embankment		7	7	
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 2.1)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	5	
Heaving (mm)	70			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	6	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1</b> , Primary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>1500</b> , Type: <b>MP</b> )				
Barrel Last Accessible Date	08-Nov-2011			
<b>Special Features</b>				
Special Feature		X	6	
(Type : <b>VERT STEEL STRUTS</b> )				
Special Feature				
(Type : )				
Roof		3	3	@ 6m u/s of d/s end.-photo
Measured Rise (mm)	1314			estimated sag due to struts.
Measured At Ring No.				
Sag (mm)	264			
Percent Sag	17			
Sidewall		2	2	@ 6m U/S of D/S end.-photo
Measured Span (mm)	1761			
Measured At Ring No.				
Deflection (mm)	261			
Percent Deflection	17			
Floor		4	4	
Bulge (mm)	60			
Measured At Ring No.	2			
Abrasion (Y/N)	No			
Circumferential Seams		5	5	near centreline
Separation (mm)	100			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		4	4	Deep pitting rust on lower 1/3.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: MP)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	2 point increase due to struts.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		7	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	6	
HWM (m below Top of Culvert)				No HWM visible
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>	

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										
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>60.0/59.0</b>	<b>Est. Repl. Yr</b>	<b>2013</b>	<b>Maint. Req. (Y/N)</b>	<b>No</b>			
Special Comments for Next Inspection	Monitor shape of culvert and corrosion. 2004 assesement recommended struting. Reduce inspection cycle to 21 months.		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	Russel Vanderschaaf	Previous Assistant's Name								
Next Inspection Date	08-Aug-2013	Previous Inspection Date	17-Sep-2010							
Inspection Cycle (Modified) (months)	21									
Comment										

**Maintenance Recommendations**

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INSTALL STRUTS						
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OTHER ACTION						
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