

Bridge Culvert Inspection				
Bridge File Number	71878 -1 Bridge Culvert		Form Type	CUL1
Year Built	1983		Lot No.	4
Bridge or Town Name	EAST COULEE		Inspector Name	Jason Saly
Located Over	ATLAS MINE COULEE, 3.28, WATERCRS-ST		Inspector Class	BR CLS A
Located On	569:02 C1 21.007		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	26-Nov-2010
Legal Land Location	NW SEC 21 TWP 27 RGE 18 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-112:28:46, 51:19:40		Data Entry Date	07-Jan-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA21		Review Date	11-Dec-2010
Clear Roadway/Skew	11.4 / 6 deg. (RHF)		Dept. Reviewer Name	Chris Black
AADT/Year	120 / 2009 (A)		Dept. Review Date	11-Jan-2011
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	32			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	4266	SP	37.2	152X51		ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	E ditch and W ditch.		Gas	
Power	Both E & W of road.		Municipal	
Others			Problem (Y/N)	No
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	New ACP, on curve located approx. 300m S. of Red Deer River on S.H. 569. On long horizontal curve. Super elevated over pipe.
Vertical Alignment		7	7	
Roadway Width (m)	9.800			
Embankment		7	N	At U/S
Sideslope (__:1)	3.0			
(Height of Cover(m) : 1.7)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>5</b>	<b>5</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	N	Snow covered.
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	Buried/snow covered.
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1600			
Scour Protection		7	N	(Material built up over rock. 19Feb2009). Snow covered.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	N	Snow covered.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4266, Type: SP)				
Barrel Last Accessible Date	26-Nov-2010			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	7	Longitudinal seam along roof CL with incorrect lap. Rise not measured due to ice. Est. same deflection as sidewalls - within 5%
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	100			
Percent Sag	3			
Sidewall		7	7	Span measured at R2=4190 - 76mm=1.8%; R4=4197 - 69mm; R6=4250 - 16mm.
Measured Span (mm)	4190			
Measured At Ring No.	2			
Deflection (mm)	76			
Percent Deflection	2			
Floor		N	N	silt/ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	7	
Separation (mm)	0			
Longitudinal Seams		7	4	Missing bolt along the N long. seam.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		4	4	(Scaling rust along E sideslope interface on outside. 19Feb2009). Snow covered. Mild Alkali corrosion at isolated areas. Rating based on previous inspector's comments.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4266, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		6	6	(Silt to 1600 mm. 19Feb2009). Ice covered.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>	
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	Bent inwards 100mm both sides of bevel (50% of bevel silted in - visible portion good. 19Feb2009).
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Ice/snow covered.
Above/Below (mm)	1760			
Scour Protection		7	N	
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		6	6	Curves both ends.
Bank Stability		6	6	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			Minor at D/S
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>6</b>	<b>6</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>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>72.6/72.6</b>	Est. Repl. Yr	2032	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor long. roof seam for cracking.		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	26-Feb-2014		Previous Inspection Date	19-Feb-2009			
Inspection Cycle (Default) (months)	39						
Comment							