Bridge No.	2017-2318-26.1	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-15

Figure 14: Top of deck (looking north)

Figure 16: Typical rear of bearing (SE)

Figure 13: SW bearing (at end of slotted hole)

Figure 15: Typical front of bearing (SE)

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Bridge Inspection Report
Agnico Eagle

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

STA.	Forest District	Access Notes
32.3 km		
Bridge Length	**Stream Crossing**	**Inspected By**
45.72 o/o m		R. Smertina
UTM Zone	**Easting**	**Northing**

No. Spans	Installation Date	Current Load Rating	Deck Width	Project No.	Anticipated Replacement
1	2017		7900 mm		

Span / Length (m)	1	44.88	2		3		4		5		6		7	

Comments	single span. steel girders (installed in 3 pieces, spliced) with precast concrete deck and integral abutments

Excellent: New or almost new condition and properly installed
Good: Structurally sound, in good repair and have minimal wear
Fair: Structurally sound, but show moderate wear or preliminary indications of rot or corrosion
Poor: Structurally unsound, major items in need of repair or replacement, or bridge load rating should be reduced

Abutment, spans, piers numbered from left bank, facing downstream / girders numbered from upstream to downstream.

Approaches		
Approach Road	Good	some gaps in road embankment approach deck edge
Alignment	Good	straight
Visibility	Good	weather dependent
Signage	N/A	temporary signage installed currently
Delineators	N/A	none
Overall	Good	
Deck - Span 1		
Running Surface	Good	lifting lug pockets exposed to gravel and traffic impact
Grout Pockets	Good	formwork still installed on bridge - unconfirmed whether drip grooves were installed in CIP deck portions
Curb Rails and Risers	Good	
Hardware	Excellent	
Overall	Good	
Superstructure - Span 1		
Girders	Good	Minor bowing observed in girder webs, particularly at splice points.
Bracing	Good	
Diaphragms	Good	
Hardware	Excellent	
Overall	Good	

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Bridge Inspection Report
Agnico Eagle

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14
Abutment - North					
Bearings		Poor	bearings not aligned within keeper bars. pillowing effects observed at front of bearings guide plates nearing limit of travel in slot.		
Bracing		Good			
Ballast Wall		Good	some loose evazote under ballast wall and at joint with deck. some minor spalling evident at welded embedded plate locations		
Corrosion Protection		N/A	weathering steel		
Caps or Sills		Good	minimal settlement. appear level.		
Fill		Good	approach grading has some gaps/dips near the ends of the deck		
Hardware		Excellent			
Riprap		Excellent			
Wingwall		Good			
Overall		Good			
Abutment - South					
Bearings		Poor	bearings not aligned within keeper bars. top front keepers were removed by the contractor during installation. pillowing effects observed at front of bearings guide plates nearing limit of travel in slot.		
Bracing		Good			
Ballast Wall		Good	some loose evazote under ballast wall and at joint with deck. some minor spalling evident at welded embedded plate locations		
Corrosion Protection		N/A	weathering steel		
Caps or Sills		Good	minimal settlement. appear level.		
Fill		Good	approach grading has some gaps/dips near the ends of the deck		
Hardware		Excellent			
Riprap		Excellent			
Wingwall		Good			
Overall		Good			
Hazards					
High Water					
Scour					
Ice					
Debris					
Aggradation					
Channel					
Estimated Present Water Level Depth					
Estimated Present Water Level Width					
Estimated High Water Level Clearance					

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Bridge Inspection Report
Agnico Eagle

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Repair Description and Cost Estimate

No.	Description	Priority	Cost Estimate
1	Jack up girders and reset bearings to proper alignment.	High	$0.00
2	Confirm that all bracing and bolted connections are tightened according to project specifications	Low	$0.00
3	Grout lifting lug pockets in deck to prevent damage from gravel and traffic	Low	$0.00
4	Grade road embankments to match bridge deck width	Low	$0.00
5	Install railings meeting facility requirements - ensure all anchor bolts are installed	Low	$0.00
6	Install permanent signage at bridge approaches	Low	$0.00

High: Immediate, non-recurring repair to assure public safety
Medium: Ongoing, regular maintenance items to protect capital investment
Low: Minor maintenance items or improvements to extend service life

The cost estimate for individual maintenance items reflects the cost of materials and labour for completing a task; it does not include any costs associated with mobilization, demobilization, delivery of materials, engineering or contract administration.

Monitoring Items

No.	Description
1	Monitor approach grading regularly to avoid traffic damaging the precast deck panel edges
2	Monitor for loose or missing evazote at underside of ballast wall or joints and replace/repair as required

Comments	Seal
Partial Inspection Skin temperature on girders varies between 9 and 12 degrees Celcius Load test conducted on July 15th - minor noise observed	

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

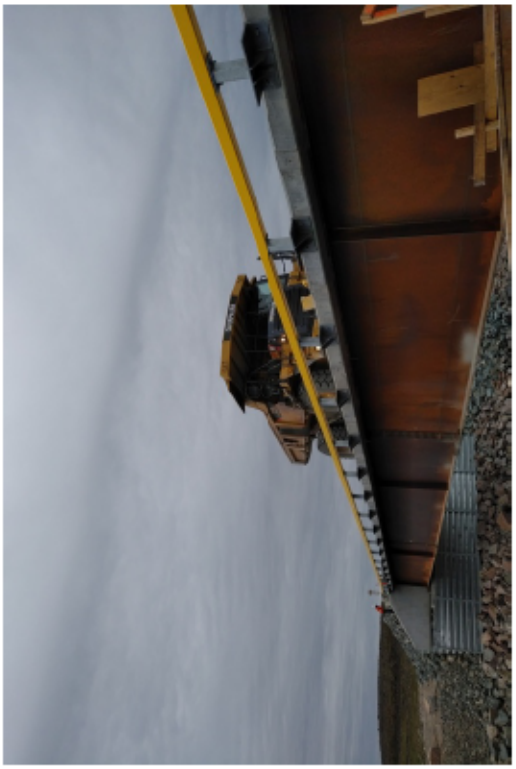

Figure 2: Bridge during July 15th load test

Figure 4: Deck soffit at ballast wall connection (SW corner)

Figure 1: Bridge - west side

Figure 3: Creek to west of bridge

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Figure 6: Minor spall in deck soffit (NW corner)

Figure 8: North centre bearing - back west corner

Figure 5: General (looking NW)

Figure 7: NE bearing remaining slot length

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Figure 10: North centre bearing front view

Figure 12: NW bearing front face

Figure 9: Nort hcentre bearing - west side view

Figure 11: NW bearing remaining slot length

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Figure 14: SW bearing (exterior back corner)

Figure 16: SW bearing front of slot cut by contractor (interior)

Figure 13: Road embankment (SE corner)

Figure 15: SW bearing (exterior front corner)

Bridge No.	2017-2318-32.3	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Figure 18: Top compression splice

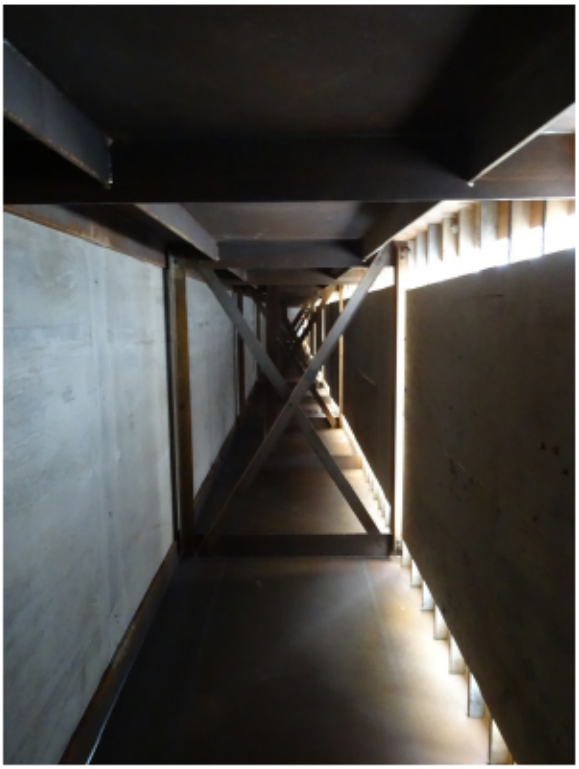

Figure 20: West bracing and temporary access platform (looking north)

Figure 17: SW exterior bearing slot

Figure 19: Top of deck

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Bridge Inspection Report
Agnico Eagle

Bridge No.	2017-2318-43.5	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

STA.	Forest District	Access Notes
43.5 km		
Bridge Length	**Stream Crossing**	**Inspected By**
14.7 o/o m		R. Smertina
UTM Zone	**Easting**	**Northing**

No. Spans	Installation Date	Current Load Rating	Deck Width	Project No.	Anticipated Replacement
1	2017		7900 mm		

Span / Length (m)	1	13.88	2		3		4		5		6		7	

Comments	single span. steel girders with precast concrete deck and integral abutments

Excellent: New or almost new condition and properly installed
Good: Structurally sound, in good repair and have minimal wear
Fair: Structurally sound, but show moderate wear or preliminary indications of rot or corrosion
Poor: Structurally unsound, major items in need of repair or replacement, or bridge load rating should be reduced

Abutment, spans, piers numbered from left bank, facing downstream / girders numbered from upstream to downstream.

Approaches		
Approach Road	Fair	Roadway embankment only partially completed from south - bridge still under construction
Alignment	Good	straight
Visibility	Good	weather dependent
Signage	N/A	none installed
Delineators	N/A	none
Overall	Good	
Deck - Span 1		
Running Surface	N/A	Currently under construction - cast-in-place deck portions not constructed
Grout Pockets	N/A	Currently under construction
Curb Rails and Risers	Fair	Not all intended anchor bolts installed into the deck
Hardware	Good	
Overall	Good	
Superstructure - Span 1		
Girders	Excellent	
Bracing	Good	
Diaphragms	Good	
Hardware	Excellent	
Overall	Good	

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Bridge Inspection Report
Agnico Eagle

Bridge No.	2017-2318-43.5	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Abutment - North		
Bearings	Poor	Guide plates installed at inconsistent locations within slot. One has reached it's limit within the slot, no longer allowing bearing shear deformation.
Bracing	Good	
Ballast Wall	Fair	Some loose and missing evazote under ballast wall and at joint with the precast deck panels. Large spall in NW corner, reinforcement visible Some minor spalls at welded steel plate locations. Ballast wall appears to be set on skew to supestructure
Corrosion Protection	N/A	weathering steel
Caps or Sills	Good	footings appear level. minimal settlement.
Fill	N/A	Roadway embankment not constructed
Hardware	Good	
Riprap	Excellent	
Wingwall	Good	
Overall	Fair	
Abutment - South		
Bearings	Poor	Guide plates installed at inconsistent locations within slot. One has reached it's limit within the slot, no longer allowing bearing shear deformation.
Bracing	Good	
Ballast Wall	Good	Some loose and missing evazote under ballast wall and at joint with the precast deck panels. Some minor spalls at welded steel plate locations. Ballast wall appears to be set on skew to supestructure
Corrosion Protection	N/A	weathering steel
Caps or Sills	Good	footings appear level. minimal settlement.
Fill	Poor	Incomplete grade. Significant drop between top of deck and roadway embankment.
Hardware	Excellent	
Riprap	Excellent	
Wingwall	Good	
Overall	Fair	
Hazards		
High Water		
Scour		
Ice		
Debris		
Aggradation		
Channel		
Estimated Present Water Level Depth		
Estimated Present Water Level Width		
Estimated High Water Level Clearance		

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Bridge Inspection Report
Agnico Eagle

Bridge No.	2017-2318-43.5	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Repair Description and Cost Estimate

No.	Description	Priority	Cost Estimate
1	Unload south road embankment temporarily. Reinstall through equal lifts at each end of the bridge to minimize asymmetrical longitudinal loads after resetting the bearings	High	$0.00
2	Jack structure and reset bearings to accurate and symmetrical alignment prior to installation of roadway embankment fill	High	$0.00
3	Repair spalled concrete areas in precast components, particularly where reinforcement is visible.	Medium	$0.00
4	Ensure drip grooves are installed in cast-in-place deck formwork prior to pouring concrete	Medium	$0.00
5	Install railings meeting facility requirements - ensure all anchor bolts are installed	Low	$0.00
6	Confirm that all bracing and bolted connections are tightened according to project specifications	Low	$0.00
7	Install permanent signage at bridge approaches	Low	$0.00

High: Immediate, non-recurring repair to assure public safety
Medium: Ongoing, regular maintenance items to protect capital investment
Low: Minor maintenance items or improvements to extend service life

The cost estimate for individual maintenance items reflects the cost of materials and labour for completing a task; it does not include any costs associated with mobilization, demobilization, delivery of materials, engineering or contract administration.

Monitoring Items

No.	Description
1	Monitor for loose or missing evazote at underside of ballast wall or joints and replace/repair as required
2	Monitor approach grading regularly to avoid traffic damaging the precast deck panel edges

Comments	Seal
Partial Inspections 11:00 am and 1:30 pm Girder skin temperature varies from 9 to 11.3 degrees Celcius No load test conducted, unfinished structure	

Bridge No.	2017-2318-43.5	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Figure 2: North centre bearing - remaining slot length

Figure 4: SE bearing slotted hole

Figure 1: North centre bearing - front west corner

Figure 3: SE bearing (front west corner)

Bridge No.	2017-2318-43.5	Road Name	Meadowbank to Amaruq	Inspection Date	2017-07-14

Figure 6: South bin wall

Figure 8: Southeast approach - partially filled

Figure 5: South abutment

Figure 7: South deck to ballast wall connection