



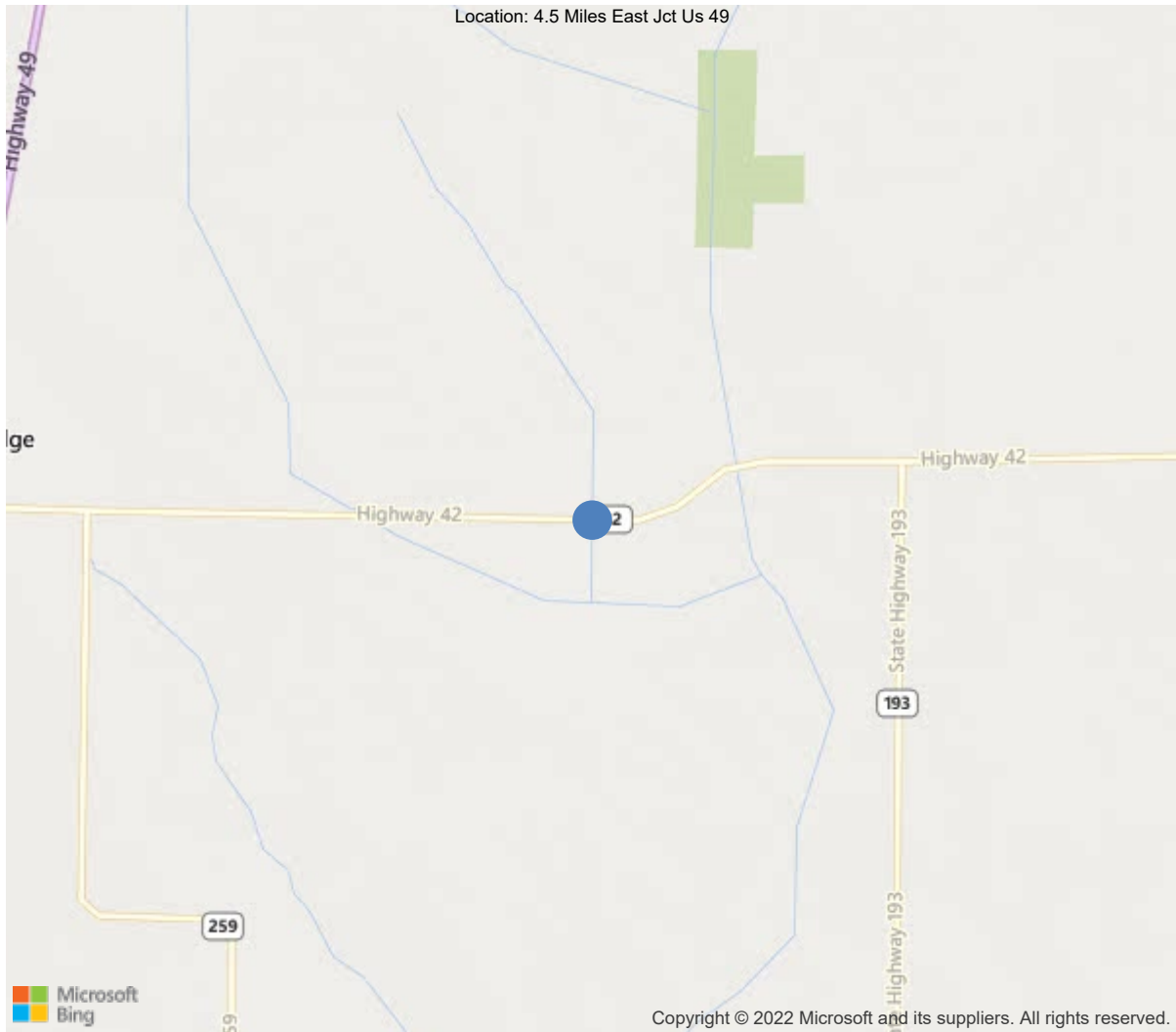
Latitude:35.39625, Longitude:-90.93997

Route:42 Section:02 Log:5.63

Arnold Road ID:19x42x2xA, Arnold Log mile:5.629

District 01, 37 - Cross County

Owner: 1 - State Highway Agency



35.39625, -90.93997



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	01791
(5) Inventory Route	1
(2) Highway Agency District	01 - District 01
(3) County Code	37 - Cross County
(4) Place Code	0
(6) Features Intersected	Gum Slough
(7) Facility Carried	Sh-42/Sec-2/L-5.63
(9) Location	4.5 Miles East Jct Us 49
(11) Mile Point	5.63 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.39625
(17) Longitude	-90.93997
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3 - Steel
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	1
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1934
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	609
(30) Year of ADT	2018
(109) Truck ADT	8 %
(19) Bypass, Detour Length	21 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	29 ft
(49) Structure Length	29 ft
(50) Curb or Sidewalk Width	
Left	0.6 ft
Right	0.6 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	25.2 ft
(32) Approach Roadway Width (W/Shoulders)	25 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	24 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	1 - Navigation protection not
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	7 - Rural Major Collector
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	6
(59) Superstructure	7
(60) Substructure	5
(61) Channel & Channel Protection	5
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	52
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	31
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	6
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	5 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	602
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	12/06/2021		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



58 - Deck (6)

Deck is in fair condition, deck has achm overlay and is not visible, soffit has transverse cracks, some with efflorescence and a few spalls with exposed rebar.

59 - Superstructure (7)

Superstructure is in good shape, steel girders have freckled rust full length with no section loss.

60 - Substructure (5)

11/30/2022-Substructure is in fair condition, abutment #1 caps have decay each side of bridge, pile #1 does not touch cap, piles 2 thru 7 are spliced and encased in concrete, no information on makeup of splice. Pile encasement on piles 3 thru 6 and timber backwall are undermined up to three feet. Abutment #2 piles 2,3,5,6,7,9, are spliced and encased in concrete. Left side of abutment #2 cap has approximately 18' with up to 30% section loss due to decay, backwall has areas of decay.

12/06/2021-Lowered substructure from 6 to 4 due to decay in abutment #2 cap.

11/30/2022-Raised substructure from 4 to 5 due to abutment #2 cap has been repaired.

61 - Channel/Channel Protection (5)

12/06/2021-Lowered channel from 6 to 5 due to erosion at abutment #2.

11/30/2022-Channel has silt build-up on left side at abutment #2, upstream of bridge, causing erosion at abutment #1 . Down stream channel has trees growing in it.

A-46 - Asset Files

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General Observation (False)

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A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (5)

Abutment #1 backwall is undermined up to two feet.

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	730	520	140	70	0
1090	Exposed Rebar	SF	20	0	0	20	0
1120	Efflorescence/Rust Staining	SF	90	0	40	50	0
1130	Cracking (RC and Other)	SF	100	0	100	0	0
510	Wearing Surfaces	SF	696	696	0	0	0
(12) Abutment #2 both sides curb is spalled on end with no rebar exposed. Soffit has transverse cracks some with light to moderate efflorescence and some rebar exposed with 5% section loss. Soffit between girders #1 and 2 has two transverse cracks with moderate efflorescence and ten feet of moderate efflorescence beside girder #1 top flange. Soffit between girders #2 and 3 has five small transverse spalls with exposed rebar with 5% section loss. Soffit between girders #3 and 4 has two transverse spalls with exposed rebar with 5% section loss. Soffit between girders #4 and 5 has four transverse cracks with heavy efflorescence and heavy efflorescence full length beside girder #5. Wearing surface has cracks all direction full length of bridge. Gutters have vegetation and debris blocking drains. (510-12) 12/06/2021-Deck has been chip sealed since previous inspection.							
107	Steel Open Girder/Beam	LF	145	0	145	0	0
1000	Corrosion	LF	145	0	145	0	0
515	Steel Protective Coating	SF	870	0	431	431	8
3440	Effectiveness (Steel Protective Coatings)	LF	870	0	431	431	8
(107) Girders have speckled rust full length with 5% bare steel.							
215	Reinforced Concrete Abutment	LF	63	63	0	0	0
216	Timber Abutment	LF	89	59	30	0	0
6000	Scour	LF	30	0	30	0	0
(216) Small void behind abutment #2 back wall by pile #5 causing hole in abutment #2 approach roadway right side at bridge end. Void developing behind timber abutment at abutment #1 between piles #2,4 and abutment #2 between piles #4,5.							
228	Timber Pile	EA	16	0	0	15	1
1140	Decay/Section Loss	EA	16	0	0	15	1
(228) Abutment #1 - pile #1 spliced, piles # 2,3,4,5,6,7 are spliced and encased in concrete. Piles #3,4,5,6 encasement is undermined up to three feet. Abutment #2 pile #1 not touching cap. Abutment #2 - piles #2,3,5,6,9 are spliced and encased in concrete, pile #7 is spliced.							
235	Timber Pier Cap	LF	89	67	4	18	0
1140	Decay/Section Loss	LF	22	0	4	18	0
(235) Abutment #1 caps are decayed on top cord on each side of bridge with up to 15% section loss. Abutment #2 cap left section is decayed with up to 30% section loss, for 18'. Abutment #2 cap right section has been replaced.							

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
331	Reinforced Concrete Bridge Railing	LF	58	52	6	0	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1090	Exposed Rebar	LF	2	0	2	0	0
(331) Bridge rails have a few small spalls with some rebar exposed. Left rail second and third posts are broken with exposed rebar.							



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	730	520	140	70	0
1090	Exposed Rebar	SF	20	0	0	20	0
1120	Efflorescence/Rust Staining	SF	90	0	40	50	0
1130	Cracking (RC and Other)	SF	100	0	100	0	0
510	Wearing Surfaces	SF	696	696	0	0	0
<p>(12) Abutment #2 both sides curb is spalled on end with no rebar exposed. Soffit has transverse cracks some with light to moderate efflorescence and some rebar exposed with 5% section loss. Soffit between girders #1 and 2 has two transverse cracks with moderate efflorescence and ten feet of moderate efflorescence beside girder #1 top flange. Soffit between girders #2 and 3 has five small transverse spalls with exposed rebar with 5% section loss. Soffit between girders #3 and 4 has two transverse spalls with exposed rebar with 5% section loss. Soffit between girders #4 and 5 has four transverse cracks with heavy efflorescence and heavy efflorescence full length beside girder #5. Wearing surface has cracks all direction full length of bridge. Gutters have vegetation and debris blocking drains.</p> <p>(510-12) 12/06/2021-Deck has been chip sealed since previous inspection.</p>							

58 - Deck (6)

Comment: Deck is in fair condition, deck has achm overlay and is not visible, soffit has transverse cracks, some with efflorescence and a few spalls with exposed rebar.



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	145	0	145	0	0
1000	Corrosion	LF	145	0	145	0	0
515	Steel Protective Coating	SF	870	0	431	431	8
3440	Effectiveness (Steel Protective Coatings)	LF	870	0	431	431	8
(107) Girders have speckled rust full length with 5% bare steel.							

59 - Superstructure (7)

Comment: Superstructure is in good shape, steel girders have freckled rust full length with no section loss.



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	63	63	0	0	0
216	Timber Abutment	LF	89	59	30	0	0
6000	Scour	LF	30	0	30	0	0
(216) Small void behind abutment #2 back wall by pile #5 causing hole in abutment #2 approach roadway right side at bridge end. Void developing behind timber abutment at abutment #1 between piles #2,4 and abutment #2 between piles #4,5.							
228	Timber Pile	EA	16	0	0	15	1
1140	Decay/Section Loss	EA	16	0	0	15	1
(228) Abutment #1 - pile #1 spliced, piles # 2,3,4,5,6,7 are spliced and encased in concrete. Piles #3,4,5,6 encasement is undermined up to three feet. Abutment #2 pile #1 not touching cap. Abutment #2 - piles #2,3,5,6,9 are spliced and encased in concrete, pile #7 is spliced.							
235	Timber Pier Cap	LF	89	67	4	18	0
1140	Decay/Section Loss	LF	22	0	4	18	0
(235) Abutment #1 caps are decayed on top cord on each side of bridge with up to 15% section loss. Abutment #2 cap left section is decayed with up to 30% section loss, for 18'. Abutment #2 cap right section has been replaced.							

60 - Substructure (5)

Comment: 11/30/2022-Substructure is in fair condition, abutment #1 caps have decay each side of bridge, pile #1 does not touch cap, piles 2 thru 7 are spliced and encased in concrete, no information on makeup of splice. Pile encasement on piles 3 thru 6 and timber backwall are undermined up to three feet. Abutment #2 piles 2,3,5,6,7,9, are spliced and encased in concrete. Left side of abutment #2 cap has approximately 18' with up to 30% section loss due to decay, backwall has areas of decay.

12/06/2021-Lowered substructure from 6 to 4 due to decay in abutment #2 cap.

11/30/2022-Raised substructure from 4 to 5 due to abutment #2 cap has been repaired.

61 - Channel/Channel Protection (5)

Comment: 12/06/2021-Lowered channel from 6 to 5 due to erosion at abutment #2.

11/30/2022-Channel has silt build-up on left side at abutment #2, upstream of bridge, causing erosion at abutment #1 .

Down stream channel has trees growing in it.



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Channel left side



Channel right side



Typical soffit



Typical soffit



Abutment #2 pile #9 has been spliced and encased



Abutment #2 pile #9 has been spliced and encased



Abutment #2 cap repaired



Abutment #2 cap repaired



Abutment #1 cap



Abutment #1 cap



Abutment #2 hole in roadway repaired.



Left rail posts 1&2 are spalled with exposed rebar



Typical deck



Top view/inventory



Side view/elevation



Side view / elevation

Maintenance Needs

Date Reported: 12/09/2019

Priority: C - Important

Type of Work: (Inactive) (Inactive) 0 - N/A

Status: Monitor

Component:

Deficiency Description

Gutters have vegetation and debris blocking drains.

Remarks



Debris and vegetation in gutters

Date Reported: 12/09/2019

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 0 - N/A

Status: Monitor

Component:

Deficiency Description

Bridge rails have a few small spalls with some rebar exposed.
Second and third rail posts on left side are broken at top with exposed rebar.

12/06/2021-added broken posts on left side.

Remarks



Right bridge rail



Left bridge rail



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

Date Reported: 12/12/2017

Priority: C - Important

Type of Work: (Inactive) (Inactive) 0 - N/A

Status: Monitor

Component:

Deficiency Description

Void developing behind timber abutment at abutment #1 between piles #3 and 5 and abutment #2 between piles #6 and 7. Small void behind abutment #2 backwall right side..

12/6/2021-Erosion at abutment #1 is increasing, pile encasements are now undermined up to three feet.

Remarks



Voids starting under and behind abutment #1 back wall between piles #2,4.



Void at abutment #2.



Small void behind abutment #2 back wall by pile #5 causing hole in abutment #2 approach roadway right side at bridge end.



Abutment #1

Date Reported: 12/10/2021
Priority: A - Safety deficiency; requires prompt action
Type of Work: Repair (General)
Status: RepairDocumented
Component: Approach

Deficiency Description

Small hole in abutment #2 right approach roadway at bridge end with small void underneath, behind backwall. Backwall sand bagged and void has been filled in-11/30/2022.

Remarks



Abutment #2 hole in roadway repaired.



Small hole in abutment #2 right approach roadway at bridge end with small void behind backwall.



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, **Inspection Date:** 11/30/2022

Date Reported: 12/10/2021
Priority: A - Safety deficiency; requires prompt action
Type of Work: Replace (General)
Status: RepairDocumented
Component: Element

Deficiency Description

Abutment #2 cap right side above pile #7 is very hollow with up to 85% section loss, right end decayed with up to 90% section loss.

Abutment #2 cap has been repaired-11/30/2022.

Remarks



Abutment #2 cap repaired



Abutment #2 cap right end



Abutment #2 cap above pile #5

Date Reported: 12/10/2021
Priority: C - Important
Type of Work: Replace (General)
Status: Forward State
Component: Element

Deficiency Description

Abutment #1 caps are decayed on top cord on each side of bridge with up to 15% section loss.
Abutment #2 cap left section is decayed with up to 30% section loss, for 18'.
Abutment #2 cap above pile #5 sounds slightly hollow for four feet.

Remarks



Abutment #2 cap left side



Abutment #2.

Date Reported: 12/15/2021
Priority: B - Pressing
Type of Work: Replace (General)
Status: Forward State
Component: Element

Deficiency Description

Abutment #2 pile #9 decayed with 100% section loss.

Remarks



Abutment #2 pile #9 decayed non-functional



Abutment #2 pile #9 decayed non-functional



Asset #01791(Other Special Recurring)

Sh-42/Sec-2/L-5.63 over Gum Slough

Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, **Inspection Date:** 11/30/2022

Routine Maintenance

Check Box Maintenance Items

Data Field	Value
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57-Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	Yes
A-61 - Polymer Overlay Advised	
A-62 - Hydo and LMC Advised	



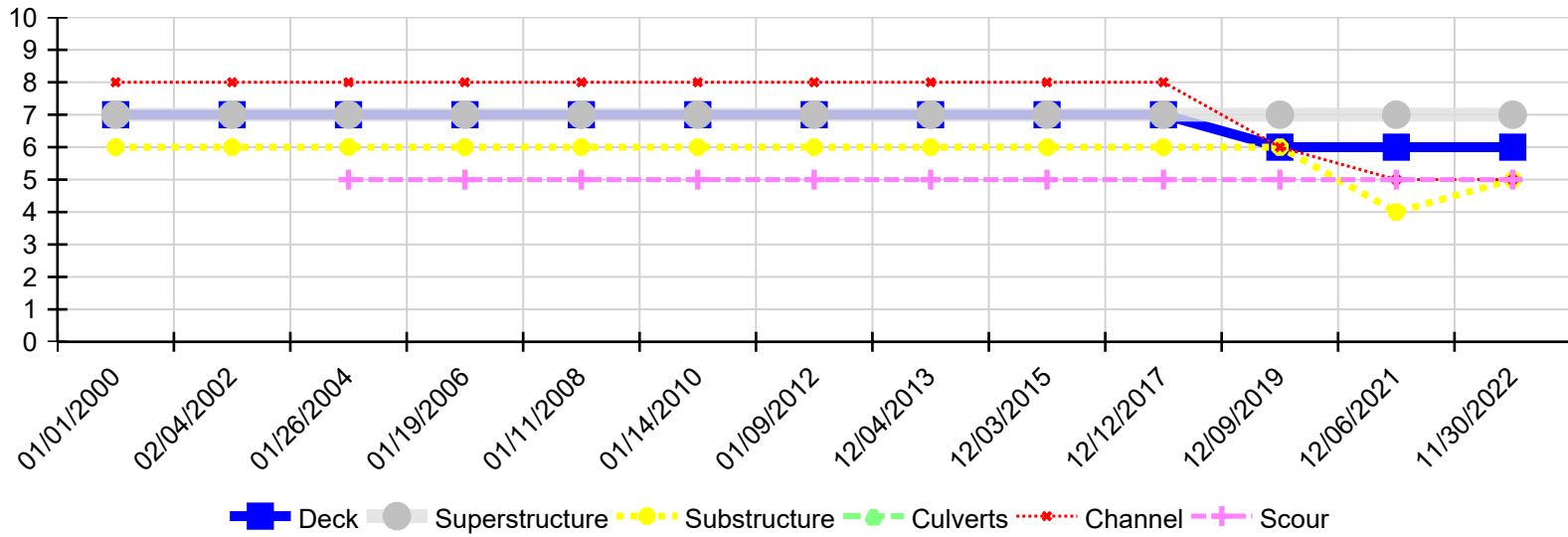
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Location: 4.5 Miles East Jct Us 49

Team Lead: Myron Futrell, Inspection Date: 11/30/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
11/30/2022	6	7	5	N	5	5
12/06/2021	6	7	4	N	5	5
12/09/2019	6	7	6	N	6	5
12/12/2017	7	7	6	N	8	5
12/03/2015	7	7	6	N	8	5
12/04/2013	7	7	6	N	8	5
01/09/2012	7	7	6	N	8	5
01/14/2010	7	7	6	N	8	5
01/11/2008	7	7	6	N	8	5
01/19/2006	7	7	6	N	8	5
01/26/2004	7	7	6	N	8	5
02/04/2002	7	7	6	N	8	N
01/01/2000	7	7	6	N	8	N