



Latitude:35.09885, Longitude:-91.88294

Route:31 Section:04 Log:5.29

Arnold Road ID:73x31x4xA, Arnold Log mile:3.624

District 05, 145 - White County

Owner: 1 - State Highway Agency

### Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

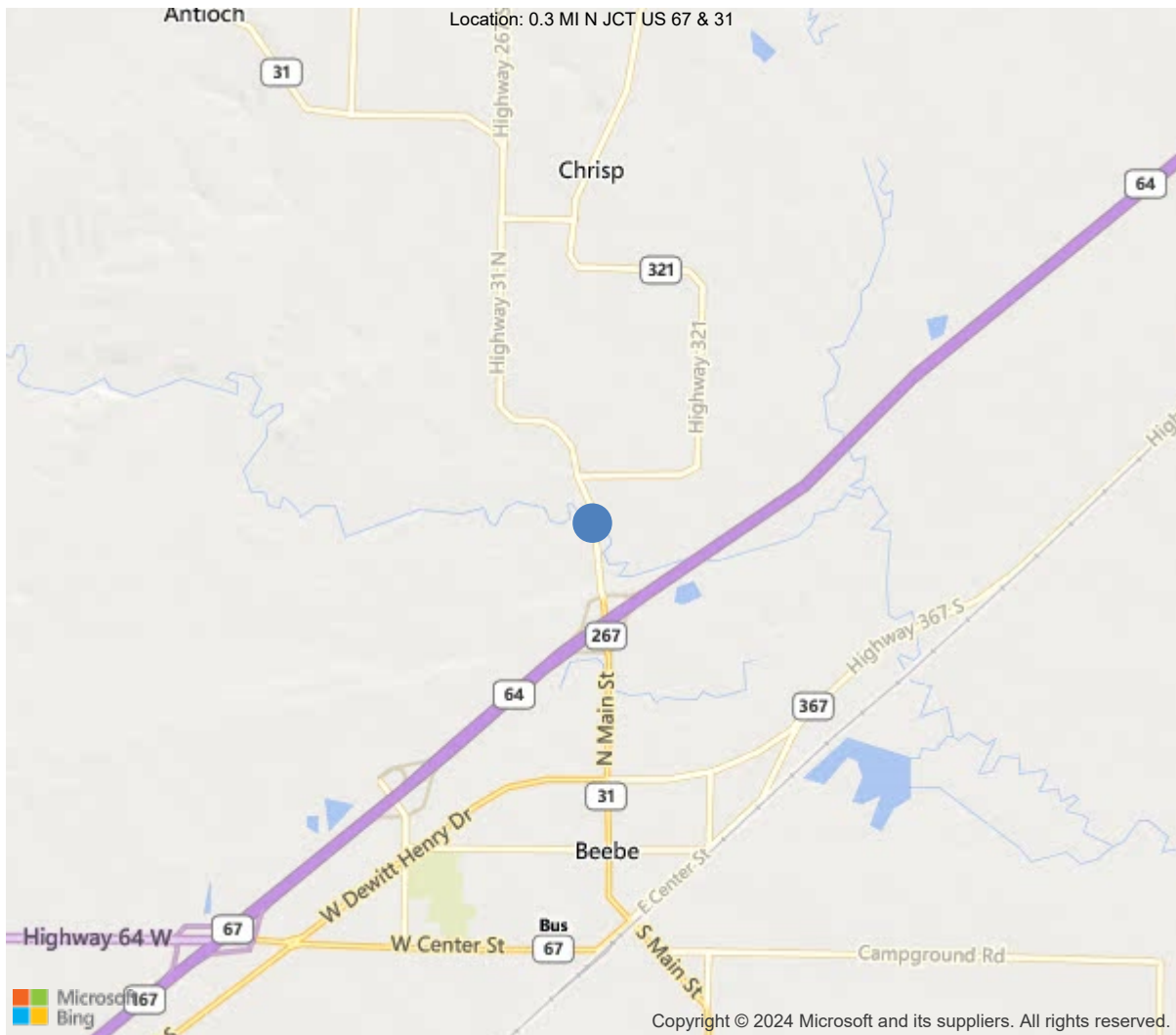
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	35		
Code 9 (31 Tons)	37		
Code 5 (40 Tons)	41		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



35.09885, -91.88294



Asset #03319(Routine, Underwater type 2)

SH 31 White County over BULL CREEK

Location: 0.3 MI N JCT US 67 & 31

Team Lead: Nathan Edwards, Inspection Date: 06/09/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03319
(5) Inventory Route	1
(2) Highway Agency District	05 - District 05
(3) County Code	145 - White County
(4) Place Code	0
(6) Features Intersected	BULL CREEK
(7) Facility Carried	SH 31 White County
(9) Location	0.3 MI N JCT US 67 & 31
(11) Mile Point	5.29 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.09885
(17) Longitude	-91.88294
(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	3
(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	1960
(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	8566
(30) Year of ADT	2015
(109) Truck ADT	1 %
(19) Bypass, Detour Length	15 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	59 ft
(49) Structure Length	162 ft
(50) Curb or Sidewalk Width	
Left	0.8 ft
Right	0.8 ft
(51) Bridge Roadway Width Curb to Curb	24.3 ft
(52) Deck Width Out to Out	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	21 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	25.3 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 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	5
(59) Superstructure	7
(60) Substructure	6
(61) Channel & Channel Protection	7
(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	44
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	26
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(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	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	192 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 125
(96) Total Project Cost	\$ 471
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	8402
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	06/09/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* 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.			



Asset #03319(Routine, Underwater type 2)

District: 05, County: 145 - White County

Team Lead: Nathan Edwards, Inspection Date: 06/09/2022

**General Observation**

Elevation with Log Mile running to the Right.  
Construction Job 5479.

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**A-51 - Inspection Direction (2 - S to N)**

Roadway with Log Mile running South to North.

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Asset #03319(Routine, Underwater type 2)

SH 31 White County over BULL CREEK

Location: 0.3 MI N JCT US 67 & 31

Team Lead: Nathan Edwards, Inspection Date: 06/09/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	4172	2205	1360	607	0
1080	Delamination/Spall/Patched Area	SF	2	0	0	2	0
1090	Exposed Rebar	SF	5	0	0	5	0
1120	Efflorescence/Rust Staining	SF	1960	0	1360	600	0
510	Wearing Surfaces	SF	3937	3356	0	581	0
3210	Delam/Spall/Patched Area/Pothole	SF	160	0	0	160	0
3220	Crack (Wearing Surface)	SF	421	0	0	421	0
(12) Asphalt is cracked with a few potholes @ joints. Spall to soffit between Girders 3 & 4 @ Span 1. Spalled/patched areas to a/c overlay @ Spans 1 & 3. Efflorescent cracking & map cracking to soffit at all spans. Spall with rebar exposed to Right overhang @ Span 1. Span 3 - Spall with 1.5' rebar exposed to soffit between Girders 4-5. Minor spalls with rebar exposed to soffit around drain openings. (510-12) Transv. & longit. cracking to asphalt overlay.							
107	Steel Open Girder/Beam	LF	800	610	120	70	0
1000	Corrosion	LF	190	0	120	70	0
515	Steel Protective Coating	SF	5440	4958	0	6	476
3420	Peeling/Bubbling/Cracking	LF	6	0	0	6	0
3440	Effectiveness (Steel Protective Coatings)	LF	476	0	0	0	476
(107) Girders 1-5 have pack rust & section loss to web below paving haunch at Bents1 & 2. Random area of pack rust to top flange at all spans. Span 3 - Paint peeling at Girders 1 & 2. Existing pitting & section loss to web at end of girders. Girders were repainted in 2000 report. (515-107) Areas of minor rust developing to top &/or bottom flanges of random areas of girders.							
215	Reinforced Concrete Abutment	LF	67	59	0	8	0
6000	Scour	LF	8	0	0	8	0
(215) Scour 1' below & back under Left end of Abutment 2. Scour to Right end of Abutment 2.							
227	Reinforced Concrete Pile	EA	10	0	10	0	0
6000	Scour	EA	10	0	10	0	0
(227) Minor erosion at Bents 1 & 2.							
234	Reinforced Concrete Pier Cap	LF	51	40	3	8	0
1130	Cracking (RC and Other)	LF	11	0	3	8	0

**Team Lead:** Nathan Edwards, **Inspection Date:** 06/09/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(234) Bent 1 - Horizontal crack between Girders 1-3 on ahead side. Bent 2 - Minor cracking over Pile 3.							
305	Assembly Joint without Seal	LF	97	0	0	97	0
2350	Debris Impaction	LF	97	0	0	97	0
(305) Joints are not visible due to asphalt overlay.							
311	Movable Bearing	EA	15	0	5	10	0
1000	Corrosion	EA	10	0	0	10	0
2220	Alignment	EA	5	0	5	0	0
515	Steel Protective Coating	SF	45	45	0	0	0
(311) Bearings rusting at Bent 2 & 3. Moveable Bearings @ beginning of Span 2 are rotated back.							
313	Fixed Bearing	EA	15	3	4	8	0
1000	Corrosion	EA	12	0	4	8	0
515	Steel Protective Coating	SF	45	45	0	0	0
(313) Bearings rusting at Bent 2.							
330	Metal Bridge Railing	LF	324	44	280	0	0
1000	Corrosion	LF	280	0	280	0	0
515	Steel Protective Coating	SF	972	572	150	0	250
3440	Effectiveness (Steel Protective Coatings)	LF	400	0	150	0	250
(330) Guard rail rusting. Transverse cracking to curbs. Damage to Left outside edge of curb @ Span 1. Deterioration & spalling to Right curb Spans 2 & 3.							

**Asset #03319**(Routine, Underwater type 2)

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	800	610	120	70	0
1000	Corrosion	LF	190	0	120	70	0
515	Steel Protective Coating	SF	5440	4958	0	6	476
3420	Peeling/Bubbling/Cracking	LF	6	0	0	6	0
3440	Effectiveness (Steel Protective Coatings)	LF	476	0	0	0	476
<p>(107) Girders 1-5 have pack rust &amp; section loss to web below paving haunch at Bents1 &amp; 2.  Random area of pack rust to top flange at all spans.  Span 3 - Paint peeling at Girders 1 &amp; 2.  Existing pitting &amp; section loss to web at end of girders.  Girders were repainted in 2000 report.</p> <p>(515-107) Areas of minor rust developing to top &amp;/or bottom flanges of random areas of girders.</p>							

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	67	59	0	8	0
6000	Scour	LF	8	0	0	8	0
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227	Reinforced Concrete Pile	EA	10	0	10	0	0
6000	Scour	EA	10	0	10	0	0
(227) Minor erosion at Bents 1 & 2.							
234	Reinforced Concrete Pier Cap	LF	51	40	3	8	0
1130	Cracking (RC and Other)	LF	11	0	3	8	0
(234) Bent 1 - Horizontal crack between Girders 1-3 on ahead side. Bent 2 - Minor cracking over Pile 3.							



Deck photo.



Soffit photo.



Roadway with Log Mile running South to North.



Elevation with Log Mile running to the Right.



Efflorescent map cracking to soffit @ Span 1.(#3)



Efflorescent cracking to soffit @ Span 1.(#2 typical)



Efflorescent map cracking to soffit @ Span 3.(#3)



Spall with rebar exposed with s/l to Right overhang @ Span 1.



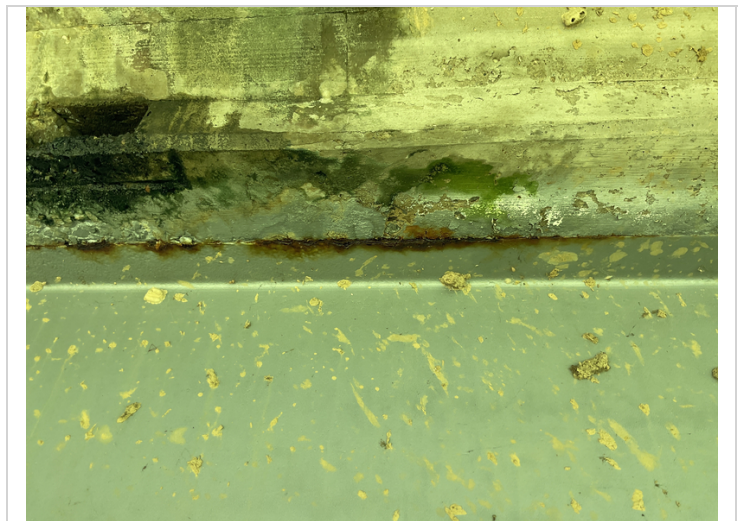
Spall with rebar exposed with s/l to soffit @ Span 3.(#3)



Spall to soffit between Girders 3 & 4 @ Span 1.(#3)



Rust with s/l to web below haunch @ Girder 2 @ end of Span 1.(#3 typical)



Pack rust between top flange & deck @ Girder 1 @ Span 1.  
(#3)



Typical rust to top flange @ all spans.(#2)



Scour 1' below & back under Left end of Abutment 2.(#3)



Horizontal cracking to ahead side of cap @ Bent 1.



Rust @ pack rust to Moveable Bearings @ Bent 1.(#3 typical)



Moveable Bearings @ beginning of Span 2 are rotated back.



Rust with pack rust to Fixed Bearings @ Abutment 1.(#3)



Rust to Fixed Bearings @ Abutment 1.(#2)



Deterioration & spalling to Right curb Spans 2 & 3.



Damage to Left outside edge of curb @ Span 1.



Typical rust to rails.



Debris impactation to joints.(#3)



Scour to piles @ Bents 1 & 2.(#2)

**Maintenance Needs**

**Date Reported:** 06/14/2016

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

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**Deficiency Description**

Approach guard rail damage on Right at Abutment 1.

**Remarks**

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Approach guard rail damage on Right at Abutment 1.



Approach guard rail damage on Right at Abutment 1.

**Maintenance Needs**

**Date Reported:** 06/25/2012

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

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**Deficiency Description**

Embankment has settled to left end of Abutment 2.

**Remarks**

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Embankment has settled to left end of  
Abutment 2.



Embankment has settled to left end of Abutment 2.

**Maintenance Needs**

**Date Reported:** 06/25/2012

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

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**Deficiency Description**

Erosion/scour to slope around Bents 1 & 2.

**Remarks**

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Erosion/scour to slope around Bents 1 & 2.



Erosion/scour to slope around Bents 1 & 2.

**Maintenance Needs**

**Date Reported:** 06/25/2012

**Priority:** D- Routine

**Status:** Monitor

**Type of Work:** (Inactive) (Inactive) 9 - None

**Component:**

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**Deficiency Description**

Spall with 1.5' of rebar exposed to deck below between Girders 4 & 5 at Span 3  
Efflorescent Cracking to deck below at all spans.

**Remarks**

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Efflorescent cracking to deck below.



Spall with 1.5' of rebar exposed to deck below between Girders 4 & 5 at Span 3.



Spall with 1.5' of rebar exposed to deck below between Girders 4 & 5 at Span 3  
Efflorescent Cracking to deck below at all spans.

**Maintenance Needs**

**Date Reported:** 06/25/2012

**Priority:** D- Routine

**Type of Work:** (Inactive) (Inactive) 9 - None

**Status:** Monitor

**Component:**

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**Deficiency Description**

Areas of peeling paint to Girders 1 & 2 at Span 3.

**Remarks**

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Areas of peeling paint to Girders 1 & 2 at Span 3.



Areas of peeling paint to Girders 1 & 2 at Span 3.

**Maintenance Needs**

**Date Reported:** 06/25/2012

**Priority:** D- Routine

**Status:** Monitor

**Type of Work:** (Inactive) (Inactive) 9 - None

**Component:**

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**Deficiency Description**

Existing pitting & section loss to webs of girders below paving haunch at all spans.

**Remarks**

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Existing pitting & section loss to webs of girders at all spans.



Existing pitting & section loss to webs of girders below paving haunch at all spans.



**Asset #03319**(Routine, Underwater type 2)

**SH 31 White County over BULL CREEK**

**Location: 0.3 MI N JCT US 67 & 31**

**Team Lead:** Nathan Edwards, **Inspection Date:** 06/09/2022

## **Routine Maintenance**

Check Box Maintenance Items

<b>Type of Maintenance</b>	<b>Is recommended?</b>
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	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

**A-54 - Sealable Deck Cracks**

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed**



**Asset #03319**(Routine, Underwater type 2)

**SH 31 White County over BULL CREEK**

**Location: 0.3 MI N JCT US 67 & 31**

**Team Lead: Nathan Edwards, Inspection Date: 06/09/2022**

**A-57 - Beam End and Bearing Painting Needed**

**A-58 - Cap Cleaning/Flushing Needed**

**A-59 - Joint Repair Needed**

**A-60 - Full Beam Painting Needed**

**A-61 - Polymer Overlay Advised**

**A-62 - Hydro and LMC Advised**

**A-63 - Missing/Incorrect Log Mile Signage**

**A-64 - Vegetation Removal Requested**



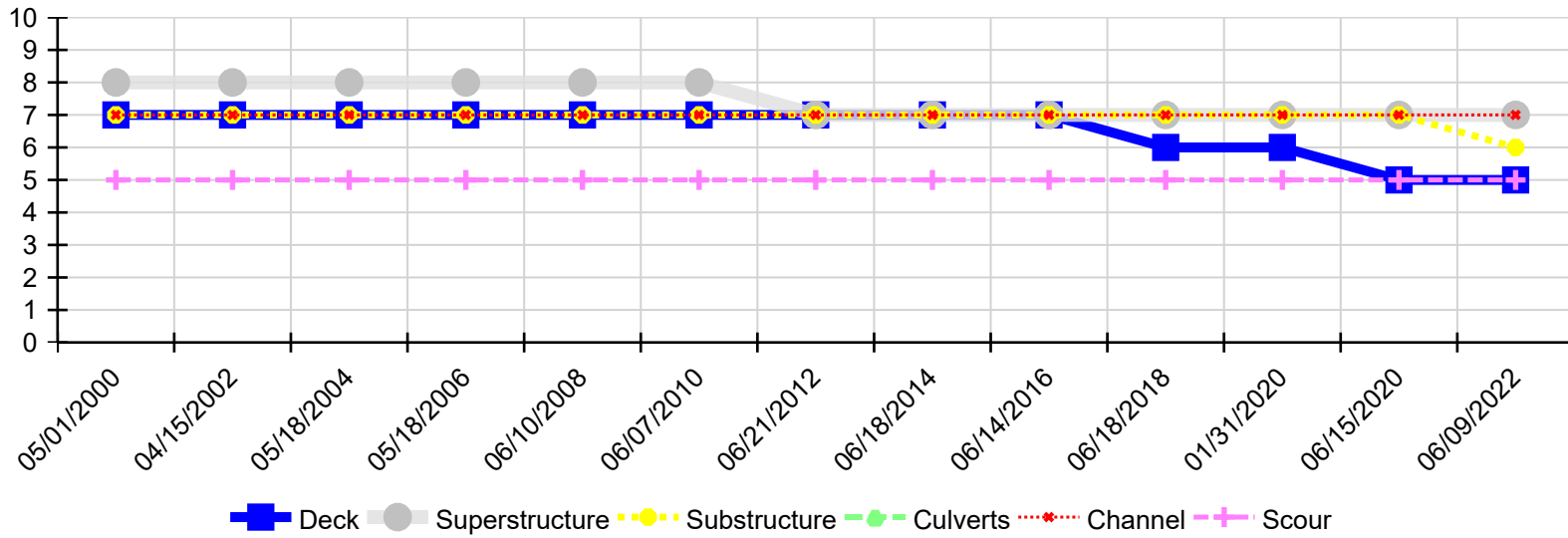
Asset #03319(Routine, Underwater type 2)

SH 31 White County over BULL CREEK

Location: 0.3 MI N JCT US 67 & 31

Team Lead: Nathan Edwards, Inspection Date: 06/09/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
06/09/2022	5	7	6	N	7	5
06/15/2020	5	7	7	N	7	5
01/31/2020	6	7	7	N	7	5
06/18/2018	6	7	7	N	7	5
06/14/2016	7	7	7	N	7	5
06/18/2014	7	7	7	N	7	5
06/21/2012	7	7	7	N	7	5
06/07/2010	7	8	7	N	7	5
06/10/2008	7	8	7	N	7	5
05/18/2006	7	8	7	N	7	5
05/18/2004	7	8	7	N	7	5
04/15/2002	7	8	7	N	7	5
05/01/2000	7	8	7	N	7	5