



Latitude:35.09490, Longitude:-91.88244

Route:31 Section:04 Log:5.02

Arnold Road ID:73x31x4xA, Arnold Log mile:3.35

District 05, 145 - White County

Owner: 1 - State Highway Agency

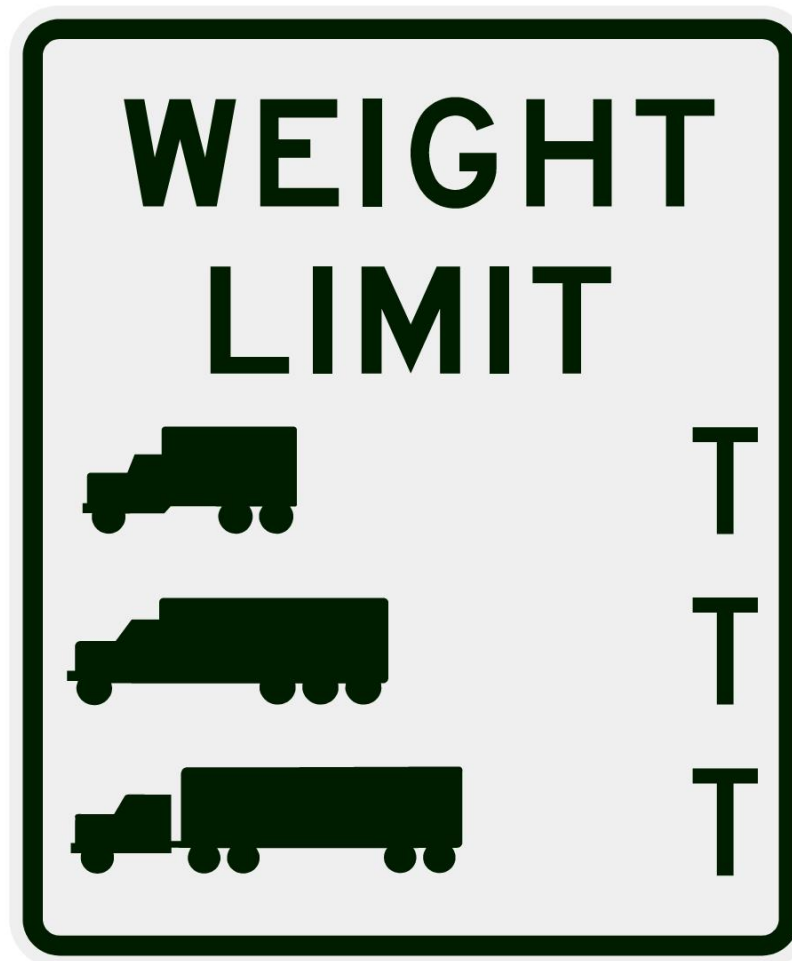
### Bridge Posting Information

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

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

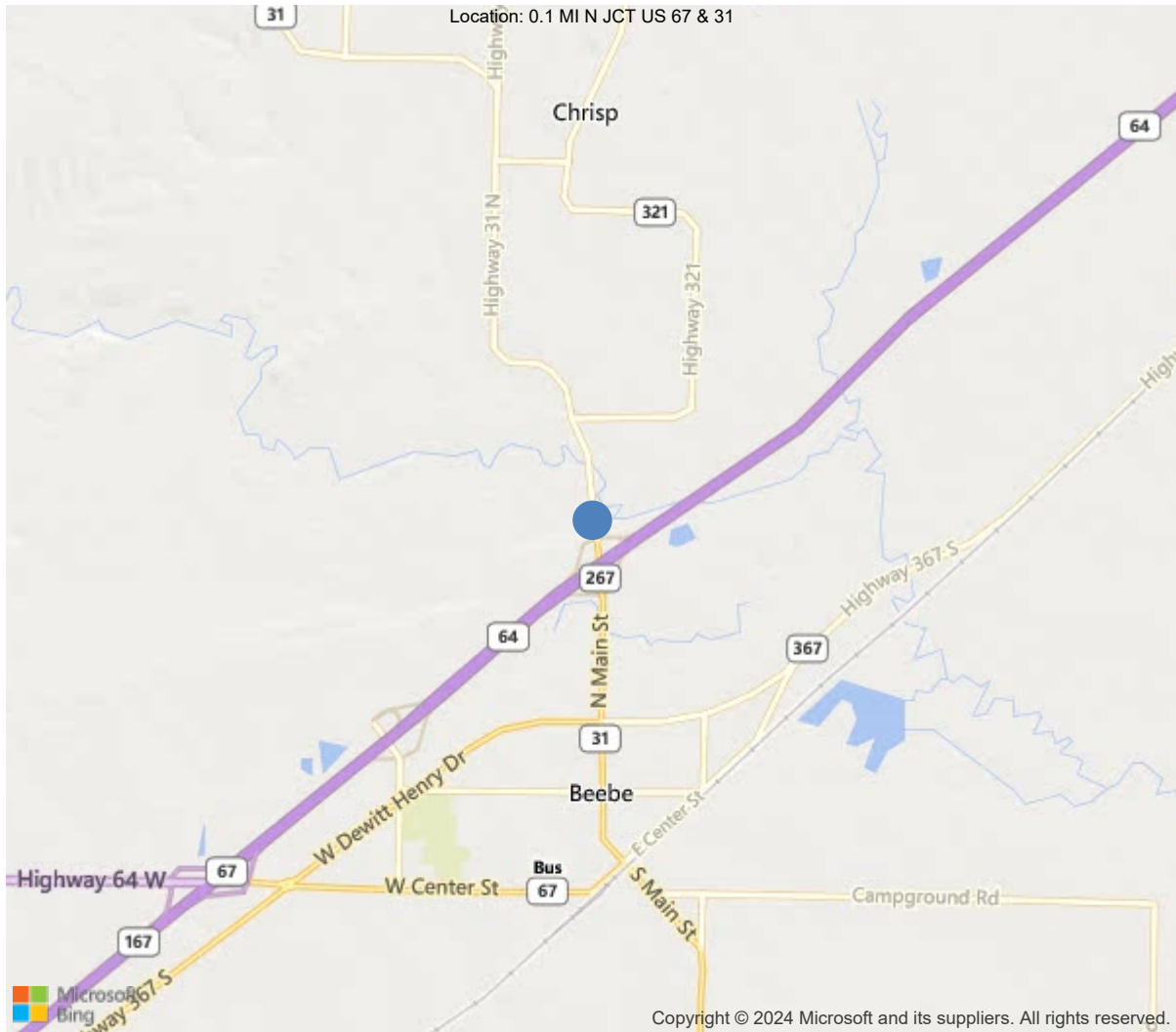
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	32		
Code 9 (31 Tons)	37		
Code 5 (40 Tons)	50		

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





35.09490, -91.88244



**Asset #03318**(Routine, Underwater type 2)

**SH 31 White County over BULL CREEK**

**Location: 0.1 MI N JCT US 67 & 31**

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

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03318
(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	0.1 MI N JCT US 67 & 31
(11) Mile Point	5.02 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.0949
(17) Longitude	-91.88244
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	522
Material	5 - Prestressed concrete *
Type	22 - Channel beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	5
(46) No. of Approach Spans	0
(107) Deck Structure Type	2 - Concrete Precast Panels
(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	3799
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	15 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	155 ft
(50) Curb or Sidewalk Width	
Left	0.6 ft
Right	0.6 ft
(51) Bridge Roadway Width Curb to Curb	24.3 ft
(52) Deck Width Out to Out	26.1 ft
(32) Approach Roadway Width (W/Shoulders)	22 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	24.3 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	17 - Urban 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	7
(59) Superstructure	7
(60) Substructure	7
(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	46
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	27
(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	185 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 125
(96) Total Project Cost	\$ 463
(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 #03318(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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#### 43A - Kind of Material/Design, Main (5 - Prestressed concrete \*)

After research of these structures, it does appear that all of these channel beam bridges show to be prestressed on the layout with prestressed detail drawings.

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

Roadway with Log Mile running South to North.

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ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
15	Prestressed Concrete Top Flange	SF	3767	3741	26	0	0
1110	Cracking (PSC)	SF	5	0	5	0	0
1120	Efflorescence/Rust Staining	SF	21	0	21	0	0
510	Wearing Surfaces	SF	3767	3180	0	587	0
3220	Crack (Wearing Surface)	SF	587	0	0	587	0
(15) Asphalt cracked all joints. Debris in gutterlines. Efflorescent cracking to soffit @ Units 2 & 4 @ Span 1. Efflorescent cracking to soffit @ Units 2, 3 & 5 @ Span 2. Efflorescent cracking to soffit @ Unit 4 @ Span 3. Span 4 - Unit 5 has 4' longitudinal crack to soffit. Unit 6 has longitudinal efflorescent crack to soffit.							
109	Prestressed Concrete Open Girder/Beam	LF	1085	1009	52	24	0
1080	Delamination/Spall/Patched Area	LF	17	0	3	14	0
1090	Exposed Rebar	LF	10	0	0	10	0
1110	Cracking (PSC)	LF	39	0	39	0	0
1120	Efflorescence/Rust Staining	LF	10	0	10	0	0
(109) Span 2 - Unit 1 has Spall with rebar exposed to diaphragm beginning of span. Units 2, 3, 5 have minor spalls to girders. Units 2, 3 has efflorescent cracking along top of Girder. Units 2, 3 & 5 have minor spalls with rebar exposed to bottom of girder & at end of span. Span 4 - Unit 1 has spalls with no rebar exposed. Unit 2 has 3' longitudinal cracks to girder. Unit 3 has spalls with no rebar exposed. Units 4 & 5 have horizontal cracking to girders. Unit 5 has 4' longitudinal crack to soffit. Unit 6 has longitudinal efflorescent crack to soffit.							
215	Reinforced Concrete Abutment	LF	70	69	1	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
(215) Abutment 2: Spall to cap under Unit 5.							
227	Reinforced Concrete Pile	EA	12	6	3	3	0
1190	Abrasion/Wear (PSC/RC)	EA	6	0	3	3	0
(227) Abrasion to Piles @ Bents 2 & 3.							
234	Reinforced Concrete Pier Cap	LF	106	96	0	10	0
1080	Delamination/Spall/Patched Area	LF	10	0	0	10	0
(234) Bent 2 - Spall to cap under Units 2, 4, 5, 6 & 7 with no rebar exposed. Bent 4 - Spall to cap under Unit 5.							

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
304	Open Expansion Joint	LF	104	8	0	96	0
2350	Debris Impaction	LF	96	0	0	96	0
(304) Joints are not visible due to asphalt overlay.							
330	Metal Bridge Railing	LF	310	0	308	2	0
1000	Corrosion	LF	288	0	288	0	0
7000	Damage	LF	22	0	20	2	0
515	Steel Protective Coating	SF	930	0	310	310	310
3440	Effectiveness (Steel Protective Coatings)	LF	930	0	310	310	310
(330) Paint flaking with rust forming to metal rail. Right approach rail at Abutment 1 has collision damage. Span 4 - 5th concrete post on Right has spall with rebar exposed. Minor damage to Left & Right rails.							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
15	Prestressed Concrete Top Flange	SF	3767	3741	26	0	0
1110	Cracking (PSC)	SF	5	0	5	0	0
1120	Efflorescence/Rust Staining	SF	21	0	21	0	0
510	Wearing Surfaces	SF	3767	3180	0	587	0
3220	Crack (Wearing Surface)	SF	587	0	0	587	0
(15) Asphalt cracked all joints. Debris in gutterlines. Efflorescent cracking to soffit @ Units 2 & 4 @ Span 1. Efflorescent cracking to soffit @ Units 2, 3 & 5 @ Span 2. Efflorescent cracking to soffit @ Unit 4 @ Span 3. Span 4 - Unit 5 has 4' longitudinal crack to soffit. Unit 6 has longitudinal efflorescent crack to soffit.							

## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
109	Prestressed Concrete Open Girder/Beam	LF	1085	1009	52	24	0
1080	Delamination/Spall/Patched Area	LF	17	0	3	14	0
1090	Exposed Rebar	LF	10	0	0	10	0
1110	Cracking (PSC)	LF	39	0	39	0	0
1120	Efflorescence/Rust Staining	LF	10	0	10	0	0
(109) Span 2 - Unit 1 has Spall with rebar exposed to diaphragm beginning of span. Units 2, 3, 5 have minor spalls to girders. Units 2, 3 has efflorescent cracking along top of Girder. Units 2, 3 & 5 have minor spalls with rebar expsoed to bottom of girder & at end of span.							
Span 4 - Unit 1 has spalls with no rebar exposed. Unit 2 has 3' longitudinal cracks to girder. Unit 3 has spalls with no rebar exposed. Units 4 & 5 have horizontal cracking to girders. Unit 5 has 4' longitudinal crack to soffit. Unit 6 has longitudinal efflorescent crack to soffit.							

**Asset #03318**(Routine, Underwater type 2)





Elevation with Log Mile running to the Right.



Roadway with Log Mile running South to North.

**Maintenance Needs**

**Date Reported:** 06/18/2018

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Assigned

**Component:** Approach

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**Deficiency Description**

Right Approach Rail @ Abutment 2 has severe collision damage & is not functioning.

**Remarks**

Rail has been repaired.

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Right Approach Rail @ Abutment 2 has severe collision damage & is not functioning.



Right Approach Rail @ Abutment 2 has severe collision damage & is not functioning.  
Repaired.(Remove)



**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**

Spalls to cap at Bents 2 & 4.

Spalls to Units 1 & 3 at Span 4. No rebar exposed.

**Remarks**

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Spalls to cap at Bents 2 & 4.



Spalls to Units 1 & 3 at Span 4.  
No rebar exposed.



Spalls to cap at Bents 2 & 4.



**Maintenance Needs**

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

**Priority:** D- Routine

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

**Status:** Assigned

**Component:**

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**Deficiency Description**

Collision damage to right rail & post at Abutment 1

Collision damage to right rail and 5th post at Span 4.

**Remarks**

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Collision damage to right rail & post at Abutment 1.



Collision damage to right rail and 5th post at Span 4.



Collision damage to right rail & post at Abutment 1



Collision damage to right rail and 5th post at Span 4.

**Maintenance Needs**

**Date Reported:** 06/18/2018

**Priority:** D- Routine

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

**Status:** Assigned

**Component:**

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**Deficiency Description**

Debris in gutterlines.

**Remarks**

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Debris in Left gutterline.



Debris in Right gutterline.





**Asset #03318**(Routine, Underwater type 2)

**SH 31 White County over BULL CREEK**

**Location: 0.1 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 #03318**(Routine, Underwater type 2)

**SH 31 White County over BULL CREEK**

**Location: 0.1 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**



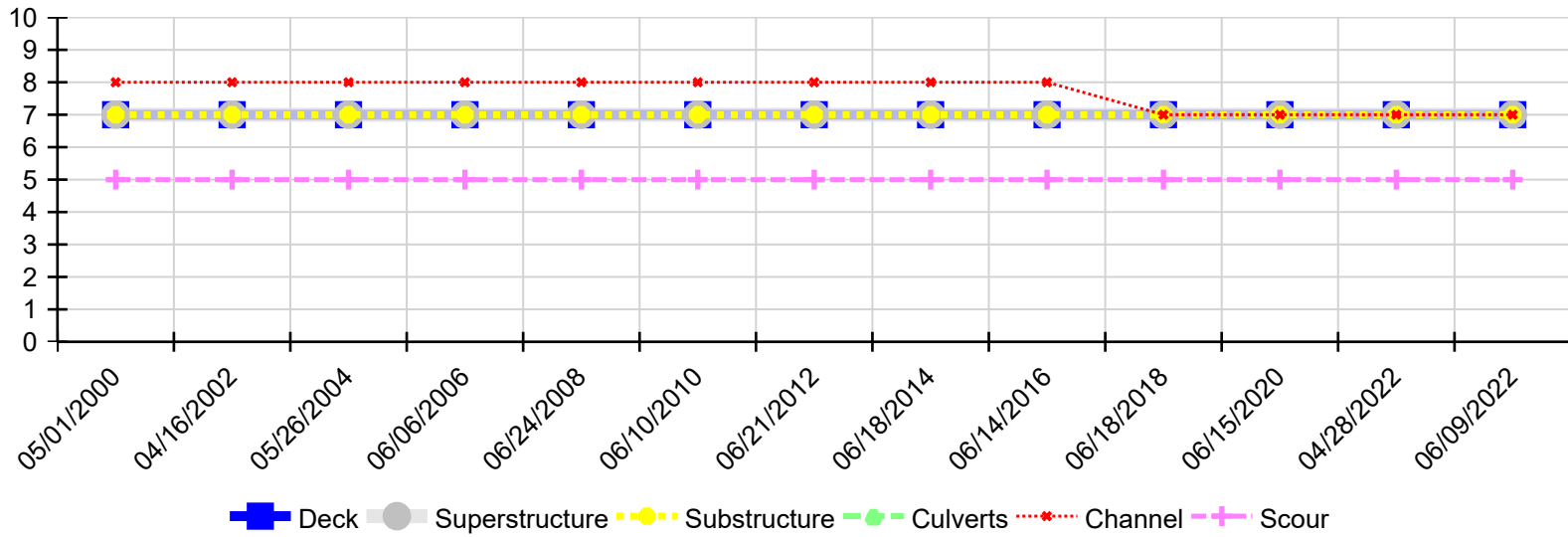
Asset #03318(Routine, Underwater type 2)

SH 31 White County over BULL CREEK

Location: 0.1 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	7	7	7	N	7	5
04/28/2022	7	7	7	N	7	5
06/15/2020	7	7	7	N	7	5
06/18/2018	7	7	7	N	7	5
06/14/2016	7	7	7	N	8	5
06/18/2014	7	7	7	N	8	5
06/21/2012	7	7	7	N	8	5
06/10/2010	7	7	7	N	8	5
06/24/2008	7	7	7	N	8	5
06/06/2006	7	7	7	N	8	5
05/26/2004	7	7	7	N	8	5
04/16/2002	7	7	7	N	8	5
05/01/2000	7	7	7	N	8	5