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NPS Form 10-900

Wisconsin Word Processing Format (Approved 1/92)

OMB No. 10024-0018

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OCT - 2 2015

Nat. Register of Historic Places
National Park Service

United States Department of Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name *Appomattox* Shipwreck (Second boundary expansion and additional information)

other names/site number **MI-0448**

2. Location

street & number	Lake Michigan, 150 yards off Atwater Beach						N/A	**not for publication**	
city or town	Shorewood						X	**vicinity**	
state	Wisconsin	**code**	WI	**county**	Milwaukee	**code**	079	**zip code**	53211

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets _ does not meet the National Register criteria. I recommend that this property be considered significant _ nationally X Statewide _ locally. (_ See continuation sheet for additional comments.)

Jim Draeger 9/23/15

Signature of certifying official/Title Date

State Historic Preservation Officer-WI

State or Federal agency and bureau

In my opinion, the property _ meets _ does not meet the National Register criteria.
(_ See continuation sheet for additional comments.)

Signature of commenting official/Title Date

State or Federal agency and bureau

Appomattox Shipwreck (Second boundary expansion and additional information)	Milwaukee County	Wisconsin
Name of Property	County and State	

4. National Park Service Certification

I hereby certify that the property is:

__ entered in the National Register.
___ See continuation sheet.
__ determined eligible for the National Register.
___ See continuation sheet.
__ determined not eligible for the National Register.
___ See continuation sheet.
__ removed from the National Register.
__ other, (explain:)

for Edson H. Beall — Signature of the Keeper

11-16-15 — Date of Action

5. Classification

Ownership of Property
(check as many boxes as as apply)

	private
	public-local
X	public-State
	public-Federal

Category of Property
(Check only one box)

	building(s)
	district
	structure
X	site
	object

Number of Resources within Property
(Do not include previously listed resources in the count)

contributing	noncontributing	
		buildings
		sites
		structures
		objects
0		total

Name of related multiple property listing:
(Enter "N/A" if property not part of a multiple property listing.)

Great Lakes Shipwrecks of Wisconsin

Number of contributing resources previously listed in the National Register

1

6. Function or Use

Historic Functions
(Enter categories from instructions)

TRANSPORTATION/water-related

Current Functions
(Enter categories from instructions)

LANDSCAPE/ underwater

7. Description

Architectural Classification
(Enter categories from instructions)

N/A

Materials
(Enter categories from instructions)

foundation N/A
walls N/A
roof N/A
other N/A

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

_ A Property is associated with events that have made a significant contribution to the broad patterns of our history.

_ B Property is associated with the lives of persons significant in our past.

X C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

X D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

_ A owned by a religious institution or used for religious purposes.

_ B removed from its original location.

_ C a birthplace or grave.

_ D a cemetery.

_ E a reconstructed building, object, or structure.

_ F a commemorative property.

_ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

ARCHAEOLOGY/Historic non-aboriginal
Maritime History
Architecture

Period of Significance

1897-1905

Significant Dates

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

Euro-American

Architect/Builder

Davidson, James

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):
- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic landmark
- recorded by Historic American Buildings Survey #
- recorded by Historic American Engineering Record #

Primary location of additional data:
X State Historic Preservation Office
- Other State Agency
- Federal Agency
- Local government
- University
- Other

Name of repository:

10. Geographical Data

Acreage of Property 91.29 acres

UTM References (Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	16	0429464	4772169
2	16	0429534	4771288
3	16	0428886	4771554
4	16	0428811	4771789

☐ See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title Caitlin Zant and Tamara Thomsen
organization Wisconsin Historical Society
street & number 816 State Street
city or town Madison **state** WI
Date 10/2/14
telephone 608-221-5909
zip code 53706

Introduction

An archaeological survey of the main wreckage of the wooden bulk freighter *Appomattox* (Site # MI-0448) was conducted in June and July 2003, and the shipwreck site was listed on the National Register of Historic Places January 20, 2005. At the time of the survey it was noted in the archaeologist's records that another shipwreck, the steamer *Josephine* lay nearby, nearly up on the beach, north of the Atwater swimming area. A follow-up site visit to the *Appomattox* was conducted in July 2006 to obtain photographs for a historic interpretation panel to be placed in the park at Atwater Beach. On that visit, archaeologists located the "*Josephine*" and it was determined that this piece of wreckage was not of another shipwreck but was the missing starboard hull section of the *Appomattox*. In July 2010 archaeologists from Wisconsin Historical Society independently completed a site plan of the starboard hull fragment. The National Register of Historic Places boundary was expanded to include the starboard side of the *Appomattox*'s hull and the boundary expansion nomination was listed September 15, 2011.

An additional piece of wreckage, located to the northeast of the *Appomattox* site, was found in the summer of 2013. In March 2014, Wisconsin Historical Society staff was notified of this discovery. In August 2014, Wisconsin Historical Society archaeologists visited the wreckage and determined it to be an additional hull section of the *Appomattox*, likely from the port side. A survey of the newly found wreck site was conducted, and archaeologists completed a site plan of the hull fragment.

As a result of this new information and the documentation of the additional hull fragment located outside of the current boundary, this nomination expands the boundary and documents the newly uncovered components of the resource.

Additional Site Description

The *Appomattox* was 319 feet in length and primarily carried cargos of iron ore and coal. At the time of her build, she was the largest wooden hulled, steam –powered bulk freighter ever built on the Great Lakes. No historical record of this ship's construction exists today, making archaeological evidence particularly significant.

The port side of the *Appomattox* (the subject of this additional documentation) is located 0.4 miles to the northeast of the main vessel wreckage and lies in 20 to 25 feet of water northeast of Atwater Beach in the village of Shorewood, Milwaukee County. The extant port side piece is 212.0 feet long by 24.4 feet wide at its widest point and is lying with outer hull facing down, intact from just below the lower deck knees up to the top strake. The piece is lying on a heading of 210 degrees with the bow end facing toward the southwest.

Where outer hull planking is accessible it is .27 feet thick and ranges from .63 feet to .68 feet wide. The outer hull planking is held in place with through pins and clinch rings. Inside the outer hull planking is the remains of an iron hogging arch 1.15 feet wide, which extends the length of the hull section and is made up of multiple plates. Between the iron hogging arch and the frames, are the remains of iron cross-bracing that provided additional longitudinal strength. This bracing was arranged in a lattice, or basket weave, fashion and fastened with drift bolts. This basket weave then attached to the extant frames with each futtock 0.5 feet wide and 0.7 feet high and paired with another to make a frame 1.0 foot thick with each frame at 1.0 foot spacing from the next. The frame measurements for the starboard hull section are narrower by 0.2 feet, but upon further evaluation this was determined to have been caused by weathering due to the movement of sand and the starboard section's location in the surf zone. Attached to the frames is the ceiling planking which is 0.25 thick and ranges from 0.65 feet wide to 0.9 feet wide. Another hogging arch is then extant measuring 1.15 feet wide and extending the length of the hull on top of the ceiling planking. Further investigation of the main wreck site found that, contrary to the earlier report, one remnant section of hogging arch was present in the same location as that found and described on the starboard section.

Although the lower deck shelf is no longer extant on the site, the hanging knees for the lower deck are extant (measuring .5 wide by 2.5 feet long). The upper deck shelf is extant and measures 0.2 feet thick, and extends 2.0 feet along the top of the knees. The deck shelf is supported by knees .5 wide and 2.5 feet long spaced at 1.85 feet intervals. Along the length of the hull section, there are spaces 8.0 feet wide between groupings of knees, located 61.2 feet, 110.3 feet, and 182.3 feet from the northernmost edge of the fragment. A likely explanation for these large gaps is that they were associated with cargo hatches on the *Appomattox*'s deck. Observation and documentation of the port side hull associated with the main wreckage of the *Appomattox* demonstrates that it too had this large space, measuring 8.0 feet wide between groupings of the extant knees.

Additional reports indicated the presence of a disarticulated capstan located 0.34 miles to the southwest, in shore of the port hull section. The capstan lies on its side in 5 feet of water, and was also documented by Wisconsin Historical Society archaeologists in August 2014. The capstan measures 9.75 feet in total length, including the drive shaft and gears that remain extant on the bottom. The capstan drum measures 2.4 feet long and 1.0 foot in diameter. The drum cap measures 0.5 feet tall and 1.5 feet in diameter, while the base of the drum measures 0.3 feet thick and 2.0 feet in diameter. Below this, the inner turning mechanism of the capstan remains extant and can be seen protruding from the interior of the drum. This gear measures 0.5 feet in diameter and 0.2 feet thick. The shocker wheel remains extant below this gear, measuring 0.2 feet thick and 2.0 feet in diameter. The distance from the base of the drum to the bottom edge of the shocker wheel is 1.0 foot.

Just below the shocker wheel, the base of the capstan remains extant, connected to the upper gears by a

small rod measuring 0.2 feet in diameter. The base itself measures 0.7 feet thick and has a paul rim at its base measuring 3.0 feet in diameter. Along this rim, eyelets measuring 0.2 feet in diameter are extant and were used to anchor the capstan to the deck of the ship. A lip measuring 0.2 feet wide extends from the upper edge of the capstan base. The remaining machinery attached to the capstan would have extended below the vessel's main deck and would have connected to the vessel's windless. A single drive shaft measuring 0.4 feet in diameter runs between the capstan base and another gear 1.75 feet below. This shaft has a band wrapped around it, measuring 0.6 feet in diameter and 0.3 feet wide. The top gear measures 0.4 feet thick and 1.9 feet in diameter. Located 0.2 feet above this gear is a metal plate measuring 0.1 feet thick and 1.9 feet wide. The remaining gear mechanisms measure 3.6 feet tall and contain an additional metal plate measuring 1.6 feet wide, extending from the northernmost edge of the drive shaft. An additional gear with diagonal teeth is located 2.0 feet below the top gear. This gear measures 1.2 feet in diameter and 1.0 feet thick.

Though the capstan is near the *Appomattox* wreck site, there is a possibility the capstan is from the wreck of the schooner *Josephine* which was lost to the north of this location. Other artifacts within the debris field of the wreck are uncovering as sand shifts in the area, making the expansion of the *Appomattox* boundary area pertinent in the protection of the integrity of the site.

Significance

The *Appomattox (Site # MI-0448)* was built in 1896 by master shipbuilder James Davidson, and at the time she was the largest wooden bulk carrier constructed on the Great Lakes. Davidson's career straddled the transformation from wooden to steel hull construction on the Lakes, but Davidson continued to push the length limits of wooden ship construction at a time when many of his contemporaries switched to building iron and steel hulled vessels. Davidson refined methods and techniques unique in pushing the engineering window, allowing for the lengthening of wooden vessels. Much of what we know of Davidson's work we have learned from the archaeological record that exists on the lakebed today. The recently documented starboard hull section of the *Appomattox* has furthered our understanding of Davidson's shipbuilding methodology and has provided previously unknown information about reinforcing techniques that Davidson employed on his vessels. The *Appomattox* meets the registration requirements at the Statewide level of significance under Criteria C and D of the property type bulk freighter as described in the Multiple Property Documentation *Great Lakes Shipwrecks of Wisconsin* (Cooper and Kriesa, 1992).

Wisconsin Historical Society archaeologists were able to identify this hull fragment as an additional piece of the port hull of the *Appomattox* because it contains many of the construction techniques employed by master shipbuilder James Davidson; construction techniques that match those of the main wreckage.

These features, including dimensions and spacing of diagnostic timbers and the absence of a keel, support the conclusion that the shipwreck piece was in fact an additional piece of the port section of the *Appomattox* shipwreck site. The presence of both an interior and exterior hogging arch in this section helped identify the piece as part of a Davidson built vessel. This technique incorporated a sandwich-like structure whereby the outer hull planking was supported internally by a hogging arch, which was in turn strengthened by lattice-like iron framing and then attached to the vessel's frames. Ceiling planking was then attached to the interior of the frames with an additional hogging truss running along the top of this planking. This feature helped archaeologists identify the wreckage as an additional piece of the *Appomattox*, as no other vessel lost in this area is known to have had this hogging arch design.

The survey of the port hull section provided additional information to supplement the previous work undertaken on the *Appomattox* shipwreck site. Information gathered from the *Appomattox* site has produced a wealth of archaeological knowledge and has increased our understanding of wooden bulk freighter construction and use on the Great Lakes. The *Appomattox* site retains the potential to yield even greater insight into this vessel type in future years.

Cooper, David J. and Paul P Kreisa, Great Lakes Shipwrecks of Wisconsin. National Park Service, National Register of Historic Places Multiple Property Documentation Form. Unpublished manuscript on file, Division of Historic Preservation, Wisconsin Historical Society, Madison, Wisconsin. 1992.

Verbal Boundary description:

The new boundary includes the earlier boundaries within the new, larger boundaries. The new boundary both adds to and replaces the earlier boundary.

Original Acreage and First Boundary Expansion
The acreage in the original nomination (2004) was less than 1 acre; the first boundary expansion nomination (2010) increased the acreage by 20.327 acres. This area is represented in the unshaded polygon on the map.

Additional Acreage (Second Boundary Expansion, subject of this nomination)
The area being added to this nomination is 91.29 acres. This area is represented in the shaded polygon on the map.

New Total Acreage (combining original, first and second boundary expansions)
The new acreage now encompasses a total of 112 acres.

The *Appomattox* shipwreck (second boundary expansion) site is bounded by a five sided polygon drawn to encompass the extent of the wreck site, associated artifacts and potentially undiscovered shipwreck material associated with the vessel. The first side of the polygon extends from Point 1 at Zone 16 0429464 Easting 4772169 Northing and extends 2,905 feet on a bearing of 175 degrees to Point 2 at Zone 16 0429534 Easting 4771288 Northing. From Point 2, the boundary extends 2,306 feet on a bearing of 292 degrees to Point 3 located at Zone 16 0428886 Easting 4771554 Northing. The third side extends from this point 785 feet on a bearing of 341 degrees to Point 4, located at Zone 16 0428811 Easting 4771789 Northing. The final side extends 2,473 feet on a bearing of 59 degrees to close the polygon.

Boundary justification:

This boundary expansion encompasses the *Appomattox*'s port hull section, the capstan, and areas of previously unknown artifact deposition. This additional area is important as reports from local divers indicate that other important associated artifacts in the vicinity of the wreck are uncovering as sand shifts in the area, making the expansion of the boundary pertinent in the protection of the integrity of the site and encompassing the known artifact field.

Photo #1 of 4
Appomattox Shipwreck Second Boundary Expansion
Lake Michigan, 0.4 miles northeast of main *Appomattox* wreck site, Shorewood, Wisconsin
Photographer Tamara Thomsen
August 2014
Port hull fragment of the *Appomattox* with upper and lower hanging knees, looking toward the bow end

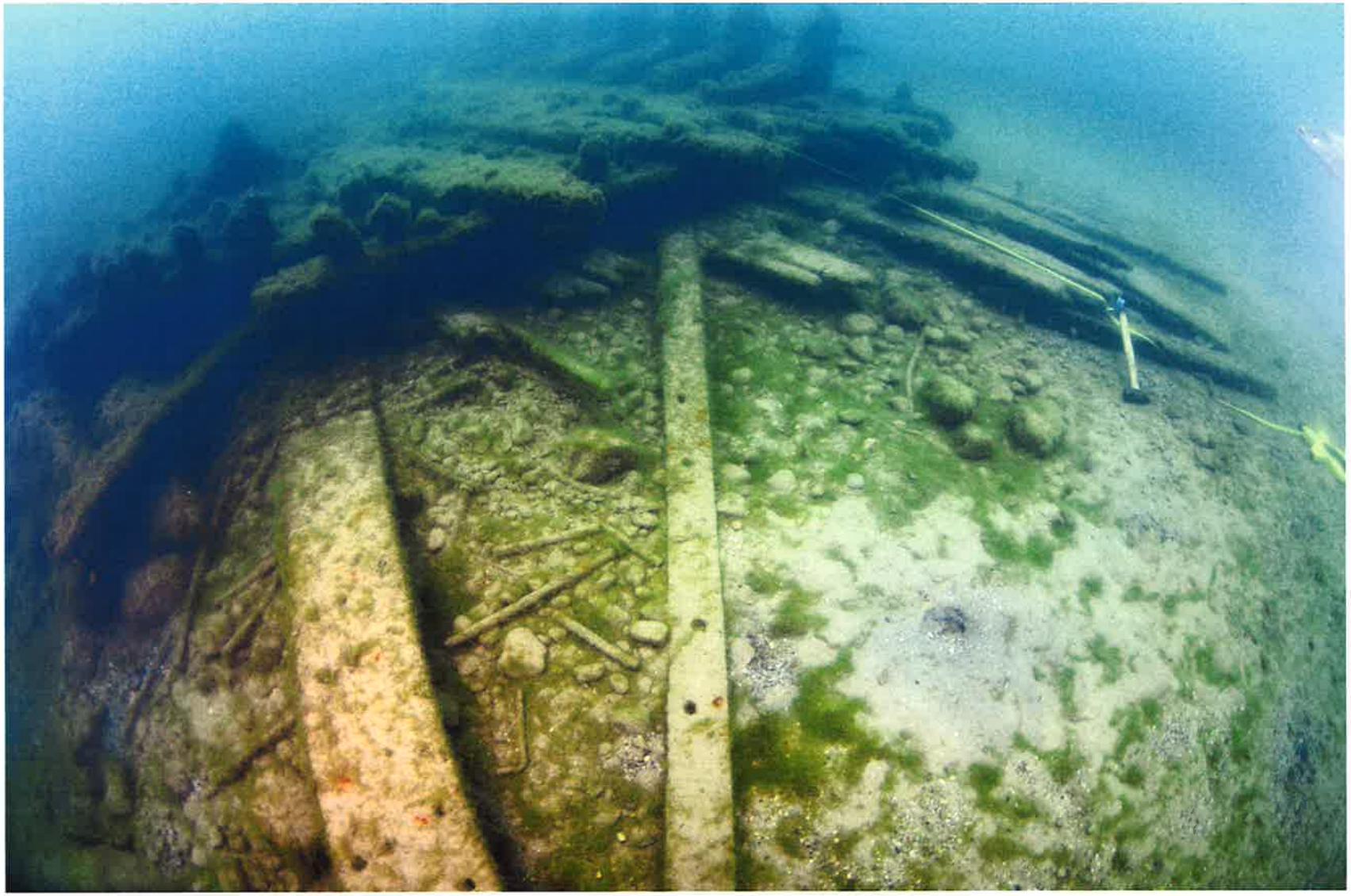
Photo #2 of 4
Appomattox Shipwreck Second Boundary Expansion
Lake Michigan, 0.4 miles northeast of main *Appomattox* wreck site, Shorewood, Wisconsin
Photographer Tamara Thomsen
August 2014
Upper deck shelf extant on the port hull fragment of the *Appomattox*

Photo #3 of 4
Appomattox Shipwreck Second Boundary Expansion
Lake Michigan, 0.4 miles northeast of main *Appomattox* wreck site, Shorewood, Wisconsin
Photographer Tamara Thomsen
August 2014
Exterior hogging arch and cross bracing near the bow end of the port side fragment of the *Appomattox*

Photo #4 of 4
Milwaukee Shipwreck Second Boundary Expansion
Lake Michigan, 0.4 miles northeast of main *Appomattox* wreck site, Shorewood, Wisconsin
Photographer Tamara Thomsen
August 2014
View of the capstan associated with the *Appomattox* wreck site

Appomattox Shipwreck (Wooden Bulk Carrier), Shorewood, Milwaukee County, 1 of 4

Appomattox Shipwreck (Wooden Bulk Carrier), Shorewood, Milwaukee County, 2 of 4



Appomattox Shipwreck (Wooden Bulk Carrier), Shorewood, Milwaukee County, 3 of 4

Appomattox Shipwreck (Wooden Bulk Carrier), Shorewood, Milwaukee County, 4 of 4

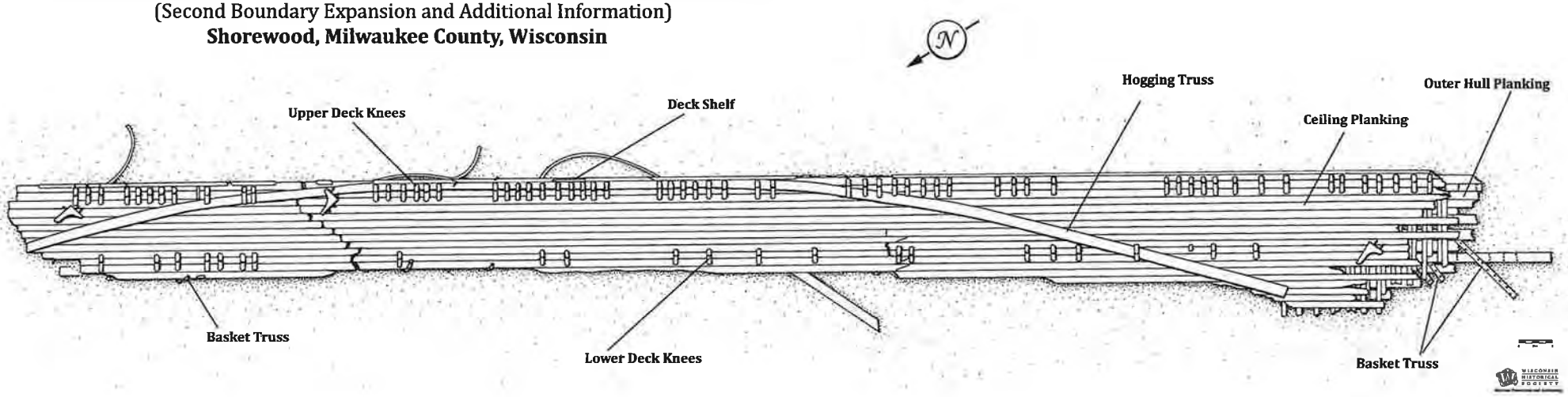
Figure #1 of 2
Appomattox Shipwreck (Wooden bulk carrier)
Site plan of the *Appomattox* port hull fragment
September 2014

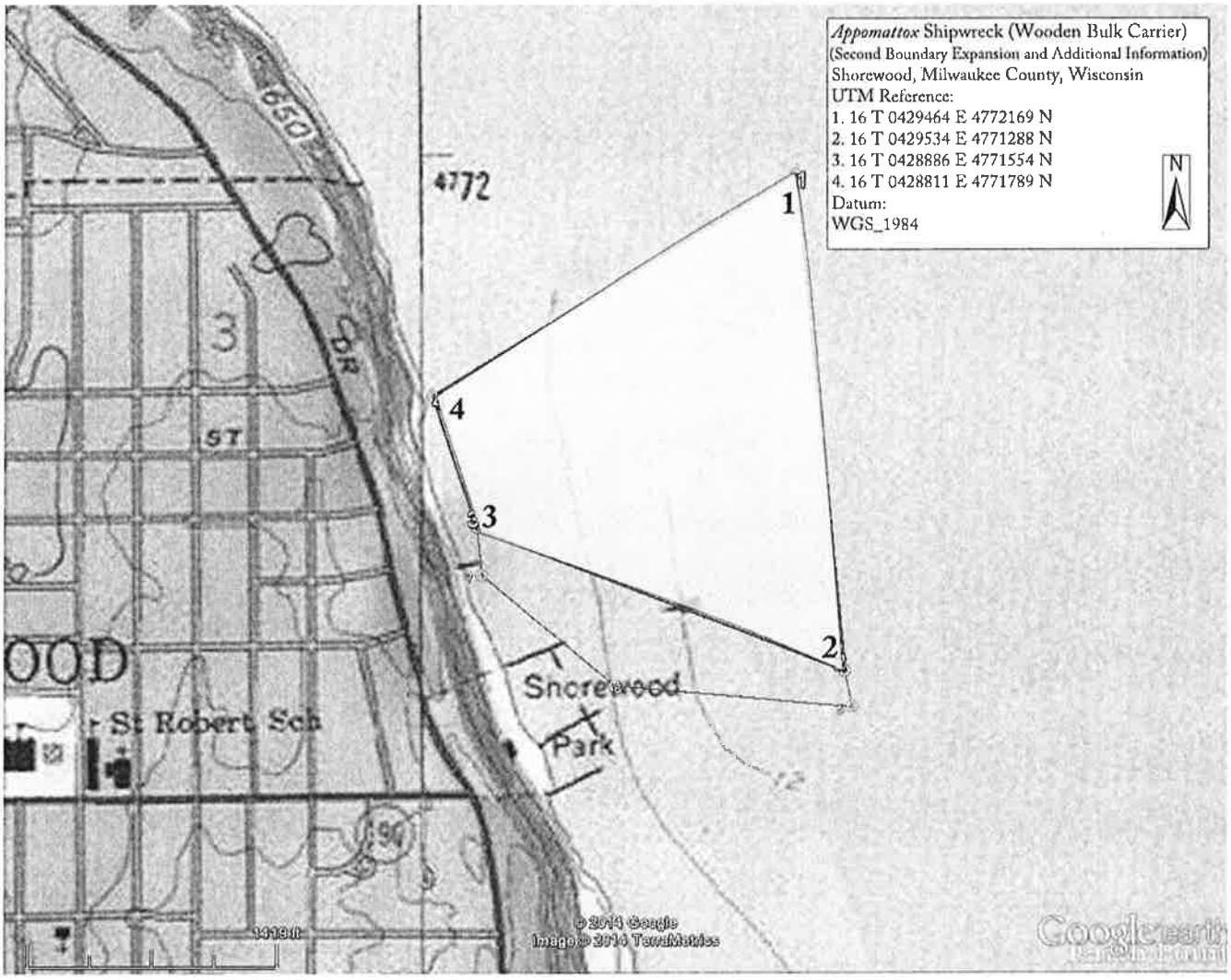
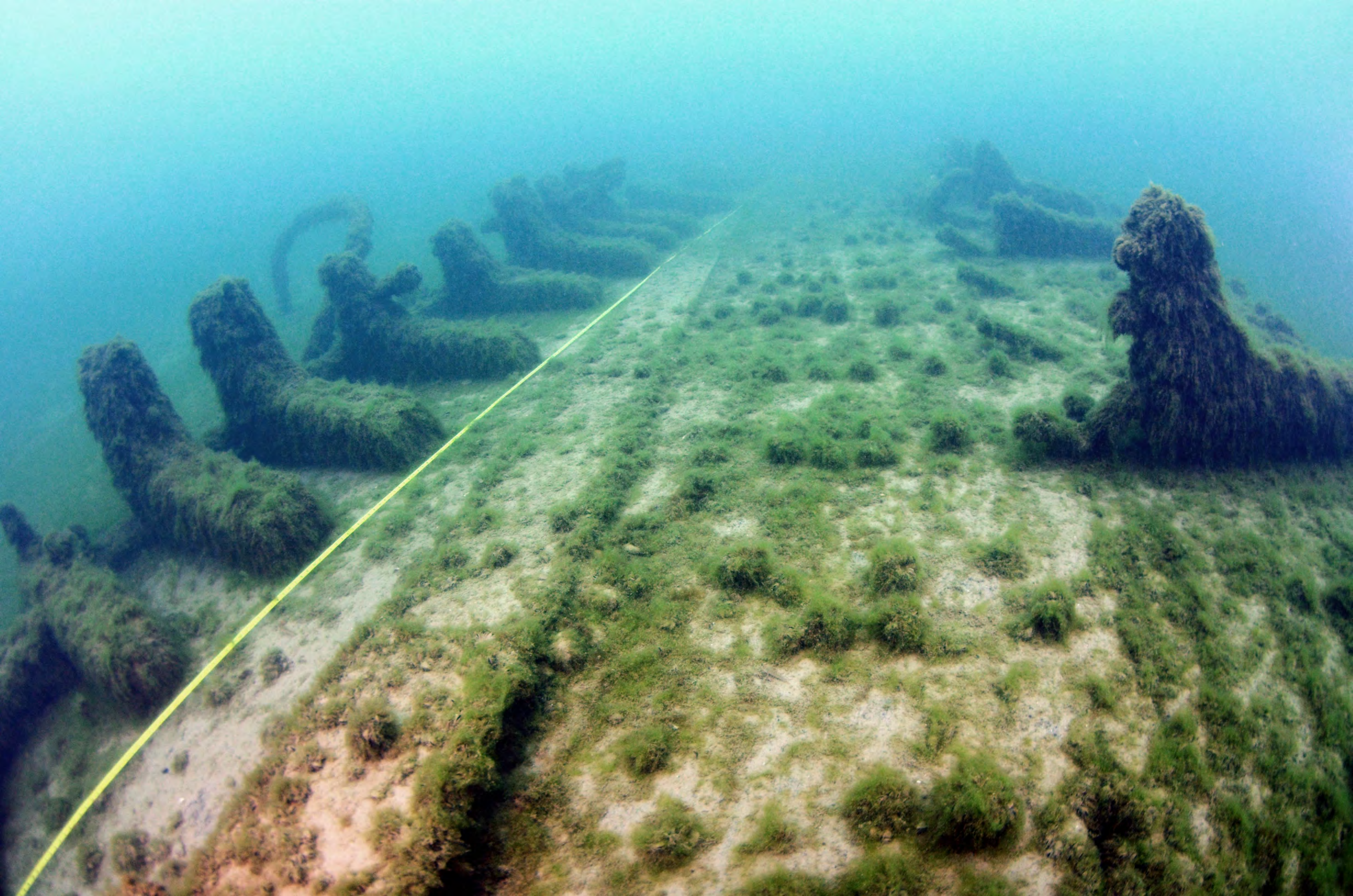
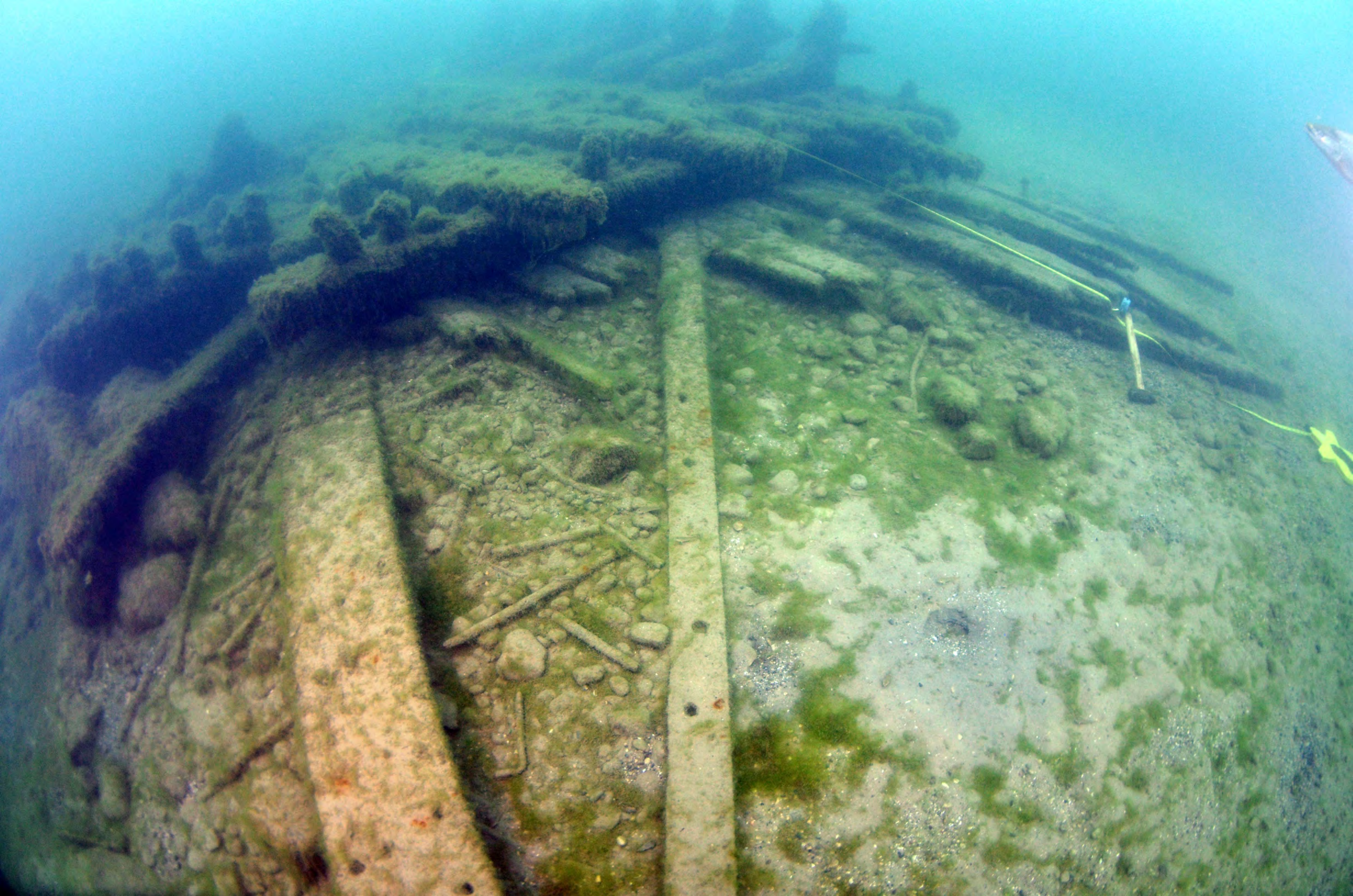
Figure #2 of 2
Appomattox Shipwreck (Wooden bulk carrier)
Map of the *Appomattox* boundary expansion
September 2014

Appomattox Shipwreck (Wooden Bulk Carrier)

(Second Boundary Expansion and Additional Information)

Shorewood, Milwaukee County, Wisconsin




Appomattox Shipwreck (Wooden Bulk Carrier)
(Second Boundary Expansion and Additional Information)
Shorewood, Milwaukee County, Wisconsin
UTM Reference:
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2. 16 T 0429534 E 4771288 N
3. 16 T 0428886 E 4771554 N
4. 16 T 0428811 E 4771789 N
Datum:
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