NPS Form 10-900
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Wisconsin Word Processing Format (Approved 1/92)

OMB No. 10024-0018

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 *Christina Nilsson*
other names/site number Wisconsin Archaeological Site Inventory DR 0326

2. Location

street & number Baileys Harbor, Lake Michigan N/A **not for publication**
city or town Baileys Harbor N/A **vicinity**
state Wisconsin **code** WI **county** Door **code** 029 **zip code** 54202

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 _ statewide X locally. (_ See continuation sheet for additional comments.)

Alexia D. Cole — June 2, 2003

Signature of certifying official/Title — Date

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

Christina Nilsson	Door 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:)

Edson H. Beall — 7.17.03

for
Signature of the Keeper — 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
1		sites
		structures
		objects
1		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 is previously listed in the National Register
0

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
roof
other

Narrative Description

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

Site Description

Lying in 11 to 15 feet of Lake Michigan water, east of the Old Baileys Harbor Lighthouse, rest the remains of the wooden, three-masted schooner *Christina Nilsson* (Figs.1 and 2). Built in 1871, the 140-foot vessel is representative of the thousands of wooden schooners that sailed the Great Lakes in the latter nineteenth century and remains an object of significant interest to archaeologists, historians, and recreational divers. The site is comprised of two large sections of wreckage. The larger portion consists chiefly of the schooner's bilge and the smaller is a sizable fragment of the vessel's side. Due to Lake Michigan's cold fresh water, the *Nilsson's* bilge, lower framing, centerboard slot and portions of the centerboard, bottom planking and a large segment of hull are structurally intact and well preserved.

In June 2002, Wisconsin Historical Society (WHS) archaeologists and volunteers installed a WHS sponsored mooring at the site. The permanent mooring makes the site easier to locate, encourages safe recreational diver visitation and eliminates further anchor damage to the shipwreck's structure. A nearby, recently refurbished town boat ramp further increases site accessibility. With calm water and good sunlight, the *Nilsson*'s remains can be seen easily from the surface, making the site of interest to snorkelers and kayakers as well. Underwater visibility ranges from zero to 30 feet depending on lake conditions, and summer water temperature ranges from 40 to 60 F.

History of Investigations

Archaeologists from the WHS and the Wisconsin Underwater Archaeology Association (WUAA) have been investigating the *Christina Nilsson* shipwreck site since its discovery in 1997. That year Wisconsin State Underwater Archaeologist David Cooper carried out a preliminary field survey with limited measuring and videotaping. In 1998, fieldwork consisted of mapping and photographic documentation of the wreck site's two large portions. All mapping was non-intrusive, resulting in plan view drawings of both sections of the site (Figs. 3 and 4). Additional joint WHS and WUAA fieldwork is scheduled for summer 2003 and will include a survey of the several portions of unidentified wreckage adjacent to the *Nilsson*.

Notably, much of the data generated during the above fieldwork and corresponding historical research will be "repackaged" for several outreach and education initiatives. In spring 2003, a WHS Maritime Trails historical marker will be installed on the observation deck of the harbormaster's building at the Baileys Harbor marina. The building is an excellent venue, providing a panoramic view of the harbor. The interpretive marker will use underwater images, historic photographs and archaeological site plans of the *Christina Nilsson*, to give visitors a better understanding of this particular shipwreck, as well an understanding of how the vessel fits into Wisconsin's broader maritime context. The WHS has currently produced similar historical markers for six other historic shipwrecks statewide.

Additionally, the WHS is currently producing a hard plastic dive guide for use by recreational divers. The 10-inch by 6-inch guide contains an archaeological site plan of the *Nilsson* and short descriptive and historical text. Designed to be used underwater, the *Christina Nilsson* guide will join 17 other WHS dive guides highlighting

Wisconsin's historic shipwrecks.

Vessel Description

Located 1/10 mile east-southeast of the Baileys Harbor lighthouse, the *Christina Nilsson's* bilge section sits upright on the cobble and bedrock lake bottom in approximately 15 feet of water. This 26-foot by 121-foot section consists of the vessel's lower frames, outer and inner hull planking, centerboard slot, keelson assembly, an intact mast step (a fitting where the bottom of the mast was joined to the keelson) and remnants of two pump shafts (piping used to carry water out of the bilge). The bilge is a flat, nearly level wooden surface, planked longitudinally in white oak, and fastened with iron spikes. Each ceiling plank is fastened to the underlying frames with four rosette-headed, square-shank iron spikes. The diagonally broken centerboard lies amidships on the bilge wreckage. Notably, this large section, essentially the entire bottom of the vessel, is located at the schooner's point of impact with the limestone reef.

The second feature of the site, a 100-foot by 20-foot fragment of the *Nilsson's* side, rests in 12 feet of water roughly 2,000 feet southeast of the main wreckage. This sizable piece consists of 55 sets of frame timers, as well as long, intact spans of inner and outer hull planking. Most frames are paired together with 1-inch diameter iron fasteners, the heads of which were peened (flattened out) over a large washer to prevent the fastener from slipping through the wood. Interestingly, several frame sets near the aft portion of the centerboard trunk are tripled, suggesting the need for additional strength in that area. Aside from a few of these loose fasteners, no artifacts were found on site, save a single iron pig (small block of iron) that was illegally removed from the site sometime after 1997.

An interesting but frustrating, by-product of the *Nilsson* survey was the opportunity to examine the process by which zebra mussels colonize a Great Lakes shipwreck site. Metal fittings were heavily encrusted with the organisms, as was the ship's wooden structure to a lesser extent. The mussels have strongly adhered in these areas, and could only be removed with careful scraping. The mussels apparently favor the wreck's many curved and angular surfaces, including the edges of timbers and planks because they offer a greater surface area for colonization than flat surfaces. Mussels also colonized the more open sections of wooden hull structure, but the patchy nature of this colonization indicates that it is a newer area of growth, and perhaps less successful than the large colonies on the metallic surfaces.

The area least favored for colonization was the *Nilsson's* bilge. Interestingly, the mussels on this section continue their preference for curved and angled surfaces, choosing the round heads of large iron drift pins and the adjoining edges of planks to colonize. As a result, strakes of bilge ceiling are oddly outlined with an edging of zebra mussels adhering between the spaces, cracks and butted ends of adjoining planks. The heads of many spikes are also clustered with zebra mussels highlighting the iron bilge fastenings. Notably, a zebra mussel study by the Canadian Government and Lake Champlain Maritime Museum found that there was a deleterious effect on shipwrecks through the accelerated corrosion of the wrecks' metal fasteners thereby deteriorating

their structural integrity. Fieldwork planned for summer 2003 will document further changes in zebra mussel colonization and subsequent deterioration in iron fasteners.

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.)

X 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.

_ 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
Transportation

Period of Significance

1871-1884

Significant Dates

N/A

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

Euro-American

Architect/Builder

Hanson & Scove

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

Statement of Significance

Summary Paragraph

In an October 1884 storm, the three-masted schooner *Christina Nilsson*, carrying a cargo of pig iron bound for Chicago, struck a reef in Baileys Harbor, Wisconsin and quickly sank in 15 feet of water (Figs. 1 and 2). Vessels like the *Nilsson* were critical to the transportation of goods throughout the Great Lakes in the latter nineteenth-century, often braving lake gales, winter ice, hard times and increasing competition for steamships as they made possible the settlement and economic development of the Great Lakes region. The Wisconsin-built *Nilsson* carried a variety of bulk cargoes including grain to Buffalo, pig iron to Cleveland and Chicago, and coal and manufactured goods to new settlements in Wisconsin and further west. Evaluated in the context of sailing vessels, as documented in the multiple property documentation, *Great Lakes Shipwrecks of Wisconsin* (Kreisa and Cooper 1992), the *Christina Nilsson* is considered eligible for the National Register of Historic Places under Criterion A, specifically in the areas of maritime history and transportation.

The vessel is also eligible for the National Register of Historic Places under Criterion D, for its past and future contribution to the archaeological record. The two separated sections of the *Nilsson* are structurally intact and well preserved, providing a unique glimpse into the design, construction and workmanship of post Civil War Great Lakes schooners (Figs. 3 and 4). Built in 1871, she represents the apex of Great Lakes schooner construction and what skilled Wisconsin shipwrights could create from the local bountiful timber. The fact that two of her sections are still solidly intact today testifies to the quality and skill of the designers and builders at the Manitowoc, Wisconsin shipyard of Hanson & Scove. Schooners like the *Christina Nilsson* were indeed the "tractor trailers" of their day- so ubiquitous that written descriptions regarding their construction often escaped contemporary observation and are today scarce. As noted in *Great Lakes Shipwrecks of Wisconsin*, sailing ships were "very much a vernacular engineering work, and much of the knowledge of their construction and maintenance has been lost." Few construction plans for Great Lakes schooners built prior to 1880 have survived, making the *Nilsson* an important a source of archaeological data as well as a tangible icon of nineteenth-century waterborne trade on the Great Lakes. In this respect, the wreck of the *Christina Nilsson* offers a unique underwater "classroom" for students and recreational divers interested in studying how Great Lakes schooners were built. The interpretive outdoor signage noted in Section 7 facilitates this experience for the general public as well.

History of the *Christina Nilsson*

The illustrative history of the *Christina Nilsson* (U.S. Registry 125293) begins in winter of 1871 when the Manitowoc, Wisconsin shipyard of Hanson & Scove laid the keel for the new three-masted schooner. Built for Swedish immigrant Charles M. Lindgren of Chicago, who named his new vessel after world renowned Swedish diva Christine Nilsson, the *Nilsson* measured 139 feet in length, 26 feet in beam and 11.4 feet in depth of hold. According to enrollment documents, the single-decked, 315-ton schooner possessed a plain head and square stern, quite typical for the era. With planking completed in June, *Christina Nilsson's* masts were stepped the following month and the new vessel slid down the ways on 3 August 1871. So great was Charles Lindgren's

enthusiasm for what local newspapers deemed "a splendid craft," that an inspired Hanson and Scove laid the keel for an identical craft the same day the *Nilsson* was launched.

Built at a cost of $23,000, the *Nilsson* was completed during the first year of the Hanson & Scove partnership (1871), though Jasper Hanson appears to have already been building ships for at least four years. Notably, between 1860 and 1880, Manitowoc shipbuilders had gained a reputation among the Great Lakes for their clipper built ships used as grain, lumber and merchandise carriers. Hanson and Scove operated a relatively busy shipyard and were responsible for 16 of the 43 (39%) total sailing craft constructed in Manitowoc between 1871 and 1885. Manitowoc-built schooners were recognized as unequaled for their sailing qualities and the city's thriving grain trade kept many of these vessels close to home. In the early 1860s, during a single sighting, Manitowoc's Dr. Louis Falge reportedly counted 55 sailing vessels in the mouth of the Manitowoc River. Equally significant, the first Lake Michigan centerboard schooner, the *Challenge*, was built in Manitowoc by William Bates in 1851-52. The centerboard schooner may very much be considered the consummate Great Lakes sailing vessel, and the Manitowoc-built *Christina Nilsson* was, and indeed still is, an important example of this vessel type. The history and significance of the Great Lakes centerboard schooner, as well as an explanation of its essential role in the transportation of goods throughout the Lakes, is detailed in Kresia and Cooper's multiple property documentation *Great Lakes Shipwrecks of Wisconsin.*

The *Nilsson's* maiden voyage commenced on 7 August 1871. Destined for the grain and iron bulk cargo trades, the vessel was first enrolled in Chicago on 16 August 1871, with John Hanson as master. The *Nilsson's* size and design suggests that it was well suited for the bulk carrying trade and built specifically for that purpose. With a gross and net tonnage of 311.36 and 295.79 respectively, the burdensome vessel was about average size for a three-masted Great Lakes schooner. Capacity in the upper deck enclosures was 9.4 tons, with the below decks cargo area rated at 301.87 tons. The National Board of Lake Underwriters (BLU) classified the *Nilsson* as a "trader," valued at $19,000 and rated A-2. Such a rating, then the Inland Lloyds system's third highest, indicates the *Nilsson's* "workaday" role. From the time of the Civil War until well after the *Nilsson's* final voyage, sailing vessels were divided into three classes for marine insurance purposes: A, B, and OO (uninsurable). These vessels were not subject to any governmental regulations or safety inspections. The only vessel quality control was the underwriter's insurance standards, applying only when a sailing vessel was insured, which was not always the case.

The *Nilsson* plied the eastern Great Lakes without serious misfortune until the fall of 1873, while enroute from Chicago to Sarnia, Ontario. Encountering a gale off Point Betsy, Michigan, due east of Sturgeon Bay, Wisconsin, the vessel had two jib sails blown off causing her to run to Manitowoc for repairs. With winter approaching it was questionable whether the *Nilsson* could be repaired in time to continue her voyage. The needed repairs were made in a few days, however, and Captain Hanson decided to continue the voyage to Sarnia. After departing Manitowoc, the *Nilsson* "went missing" for two weeks causing considerable anxiety. The next news heard of her was that she was safely moored for the winter at Cheboygan, Michigan in the Straits of Mackinac.

On 7 August 1880 title was transferred to Lindgren's wife Johanna at Chicago. By this time the *Nilsson* also had a new master, N.A. Hammer of Evanston, Illinois. While wintering at Manitowoc in 1881-82, Hanson & Scove installed new keelsons and performed much needed maintenance, restoring her BLU insurance rating to A-2 from B-1, where it had slipped due to her aging and sailing wear. The "trader" classification remained unchanged throughout the vessel's entire career, placing the *Nilsson* in the same category as thousands of other Great Lakes schooners that proved essential to the economic development of the Great Lakes region.

The *Christina Nilsson* and the Great Lakes Bulk Cargo Trade

The *Christina Nilsson's* primary cargoes were grain, iron ore and pig iron. These commodities constituted the great outbound bulk cargoes of the upper (western) lake ports. During the early nineteenth century the Great Lakes bulk trade consisted chiefly of grain from Milwaukee and Chicago being shipped to Buffalo. After mid century, pig iron and iron ore from eastern Great Lakes ports of Houghton, Marquette and Escanaba, Michigan was shipped to Detroit, Cleveland and Chicago requiring voyages of up to two or three weeks. Coal, used to fuel the forges of the western Great Lakes iron industry, and manufactured goods were the paramount cargo for return voyages.

In the 1830s, canal barges brought Ohio wheat and corn to Cleveland where it was loaded into sailing vessels for the eastern markets. The first weeks of September 1839 in Cleveland, for example, saw the shipment of 60,000 bushels of wheat and over 5,000 bushels of flour. Some of the grain went to Buffalo where it was transshipped via the Erie Canal and the Hudson River to New York City and Europe, or through the Welland Canal to markets on Lake Ontario and Europe. By 1840 Cleveland was receiving two million bushels of wheat annually. With the opening of wheat fields in southern Wisconsin and the prairies of Illinois, however, Cleveland was ultimately supplanted by Milwaukee and Chicago as major transshipment ports. In 1830, Newberry and Dole built a grain dock and elevator on the Chicago River, and soon after the brig *Osceola* loaded the first bulk grain cargo for Buffalo. An elevator was erected at Buffalo in 1842 and that port was on its way to becoming the general market city for western grain.

By 1850, Chicago was shipping east 50 million bushels of wheat annually. Milwaukee shipped one million bushels of wheat in 1853 and doubled that amount the next year. Three years later the first direct consignment of Milwaukee grain was made to Liverpool, England. The Crimean War and the loss of the Russian harvest in the mid 1850s sent wheat prices sky rocketing, causing a great expansion of grain farming over the upper Mississippi Valley. Nonetheless, the Lake Michigan grain was declining by 1870, though a new grain trade was beginning on Lake Superior. The opening of the Soo Locks in 1857 permitted the first cargoes of wheat from Minnesota and the western plains to be shipped eastward via the Great Lakes. With an eye on increasing profits, ship owners of latter half of the nineteenth century demanded schooners with larger cargo capacities. The sizable *Nilsson* was built toward the last quarter of this trend. Statistics reveal that a typical schooner built in the 1850s could haul approximately 1,000 bushels. Only a decade later, schooners were carrying 28,000 bushels, and by 1881, a decade after the *Nilsson's* construction, grain cargo capacities reached 150,000 bushels.

Grain shipping was dictated by the harvest schedule, with most cargoes delivered in the fall. Consequently,

grain shipping was at its peak during a season when the Midwest experiences often unpredictable and severe weather. Moreover, the grain trade required staunch vessels that could withstand the long trip across Lake Erie, up through Lake Huron, across the Straits of Mackinac and down Lake Michigan. It was in this demanding trade that the *Christina Nilsson* began her early career. In her later years, however, the *Nilsson* plied Lake Michigan conveying still another lucrative bulk cargo: iron.

The iron ore industry in the Upper Peninsula of Michigan began in 1840 and continued on a relatively small scale until the Civil War when substantially increased demands dramatically escalated the Upper Peninsula's iron ore mining and pig iron smelting. Local forges were used to melt the iron from the ore prior to forming it into pig iron ingots (pigs). Pig iron weighs 450 pounds per cubic foot with an individual pig being one-fourth of a cubic foot, measuring 12 inches by six by six inches and weighing 112.5 pounds. The pigs are formed when the molten iron from the blast furnace is tapped, run off through long channels in the sand floor into sand called sows and then put into sand molds called pigs in the floor of the casting room. After a short cooling period, laborers with sledgehammers broke the pigs from the sows and wheeled them to the docks for stacking while awaiting shipment. It was these "pigs" that comprised the whole of the *Nilsson's* cargo when she wrecked on a reef in Baileys Harbor, Wisconsin.

Significantly, the mining, refining and shipping of iron was a very regional endeavor. Forges of Michigan's Upper Peninsula were heated by charcoal obtained from the area's hardwood forests and local dolomite limestone was used as a flux to remove the silica present in the iron ore. One cord of hardwood (128 cubic feet) was required to make fifty bushels of charcoal, which in turn would be enough fuel to produce one thousand pounds of pig iron. Charcoal iron was the major form of iron ore smelting and iron production nationally in 1854. This process consumed vast quantities of hardwood, yet Michigan's Upper Peninsula was fortunate in having a seeming inexhaustible supply of materials for the iron making triangle: iron ore, dolomite limestone, and hardwood forests.

As the wood supplies diminished, Pennsylvania coal gradually supplanted wood as fuel. By 1901, for example, Escanaba, Michigan was consuming 5,500 tons of coal daily. As noted in the multiple property document *Great Lakes Shipwrecks of Wisconsin* (Kreisa and Cooper 1992), iron mining benefited the lakeshore economies of northern Wisconsin by producing an increased demand for transportation infrastructure to ship the ore to distant markets. By 1880, the total production of all iron in the United States was over 4,295,000 tons. During the 1800s, much of the iron for Lake Michigan bulk cargo transportation was smelted at and shipped from Escanaba, Michigan, on Green Bay's northwestern shore. The iron ore came from the Menominee Range located along the Wisconsin-Michigan border and was of the world's highest quality. The Menominee Range produced and shipped 10,375 tons of ore in 1877, 554,735 tons in 1880 and 895,634 tons in 1884- the year of the *Nilsson's* loss. This was 10%, 29% and 35%, respectively for the years of all iron mined in the Lakes Superior-Michigan region and was 2.3%, 6.7% and 8.1% of the total American production. Iron from this region sat stacked in the *Christina Nilsson's* cargo hold and on her deck as she cleared Escanaba, Michigan in October 1884 on what would be her last voyage.

Christina Nilsson's Final Voyage

The final days at sea for the *Christina Nilsson*, N. A. Hammer master, began on Thursday, 23 October 1884 when she cleared Escanaba carrying 575 tons of pig iron bound for Chicago. The vessel and cargo were insured for $8,000 and $13,000 respectively, a disparity in value not uncommon between an aging schooner and a valuable cargo. The *Nilsson*, like thousands of other Great Lakes vessels, fell victim to overwhelming natural forces. Sailing the Great Lakes has long been recognized as equally, if not more, hazardous than sailing the ocean because of the ever present nearby shore leaving no room to "run" before a storm. The rapid development of storms, tremendous wave height and short frequency between waves further compound the danger.

The fall storm that claimed the *Christina Nilsson* started on 22 October with cautionary weather flags flying at Milwaukee, Duluth and Escanaba. By 10:00 p.m. that evening, Milwaukee, Escanaba and Duluth were experiencing northwest winds at 24, 20 and 13 miles per hour, respectively. Twenty-four hours later, the day of the *Nilsson's* departure from Escanaba, snow and northerly winds were forecasted.

Having crossed Green Bay and successfully navigated Death's Door, a notoriously dangerous passage at tip of Door County, the *Nilsson* turned south and headed for Chicago while sailing just off the Door County Peninsula's eastern shore. By the time she passed the Sturgeon Bay ship canal the weather had deteriorated into a blinding snowstorm with gale force winds and high seas. Unable to enter the canal due to the storm, Captain Hammer decided to turn north and run before the storm. His intention was to retrace his course for 20 miles back up the Door County coastline to the protective shelter of Baileys Harbor. Preparing for a desperate run to safety, Captain Hammer ordered all sails single reefed (partially lowered to prevent storm damage) and turned the *Nilsson* north.

As the schooner fought her way toward relative safety, the force of the gale and the blinding blizzard caused the *Nilsson's* course to be too far to the west, dangerously close to the east shore of Baileys Harbor. Finally discerning his vessel's perilous position, Captain Hammer attempted to sail eastward to avoid the Outer Reef at Baileys Harbor and gain adequate "sea room" to maneuver. His effort failed and at 8:30 A.M. on 24 October 1884, the *Christina Nilsson* struck hard upon Outer Reef and began to founder. The anchor was quickly dropped causing the vessel's stern to swing around and strike hard on the reef a second time. The *Nilsson* sank immediately in 15 feet of water. Due to relatively shallow depth the vessel was literally pounded to pieces. Without any possessions and with no assistance from shore (The Baileys Harbor life-saving station would not be built for another 13 years), all eight crew abandoned the stricken vessel and made their way in the *Nilsson's* yawl boat to a small island where they obtained refuge. No lives were lost.

What happened during the night of 23-24 October was an equinoctial storm, better known as the "Gales of November," for which the Great Lakes are famous. Between 6:00 a.m. and 6:00 p.m. on 24 October 1884, gale winds in excess of 37 miles per hour went from south to north violently churning the waters of Lake Michigan. The "heavy northwesterly", as it was reported by the Milwaukee Sentinel newspaper, did not begin to subside

until late that evening. By then, however, it was too late for the *Christina Nilsson*. She had already been a wreck for 12 hours.

Significantly, the *Nilsson's* wrecking, coupled with a recent grounding by the schooner *Itasca* prompted some to consider the need for navigational aids in Baileys Harbor. On November 20, 1884, just a month after the *Nilsson*'s loss, the region's largest newspaper, The Door County Advocate, proposed that a siren be installed and operated at the old lighthouse wreck site to prevent the repetition of these "last two disasters."

Captain Hammer filed an official wreck report at Chicago on 3 November 1884, and the *Nilsson's* owner surrendered the vessel to the insurance underwriters. Wasting little time, the insurance company hired a Detroit, Michigan salvage contractor just 10 days later. The salvage operation was subcontracted to a Captain Williams of Sturgeon Bay, Wisconsin, who consequently dispatched the wrecking scow-schooner, *F.H. Williams*. Significantly, contemporary newspaper accounts offer a detailed account of the vessel's initial wrecking and subsequent salvage. This record provides a helpful glimpse into the early "site formation process,' essential to interpreting the shipwreck archaeologically. Moreover, as the chronology of events below reveals, the rapidity with which the *Nilsson* broke apart is astonishing testimony to the destructive forces of Mother Nature, as well as the perils of seafaring life.

Captain Williams' salvage crew initially attempted to refloat the vessel. Divers patched up the *Christina Nilsson's* bottom and steam driven pumps were used to siphon water from the vessel's hold in an attempt to make her buoyant again. However, the salvors' confidence proved misplaced when four steam pumps working in unison could lower the water in the hold only a few inches after four hours of continuous operation. Focusing solely on the cargo proved more fruitful. By 20 November, 250 tons of pig iron had been raised and placed on the Chipman & Roesser's Pier in Baileys Harbor for spring shipment. The plan was to raise another 100 tons of pig iron, buoy the *Nilsson* up with cedar logs and have the tug *John Gregory* pull the schooner off and take her to Chicago. Because of unfavorable weather no cargo was salvaged between 20 November and 4 December. By the beginning of December, the salvors concluded that the *Nilsson's* bottom was beyond repair and operations were suspended for the winter. Plans to refloat the *Nilsson* were ultimately abandoned and the vessel was declared a total loss. Her enrollment was surrendered at Chicago on 10 December 1884.

The wrecked schooner continued to deteriorate in the dynamic, shallow environment of the reef. A severe storm on 15 January 1885, compounded by ice accumulation, toppled the wrecked schooner's mizzen mast, indicating the *Nilsson* was breaking up even though she laid submerged. The vessel's stern, deck and aft cabin had apparently been crushed by ice, leaving nothing but the keelson, which was insufficient to hold the top weight of the mast and standing rigging. By 29 January the mainmast had been carried away, leaving only the foremast and bowsprit above water, and the schooner's deck load of pig iron finally came to rest on the lake bottom. The foremast remained standing until 5 March 1885 when the retreating ice dislodged and carried it away. Divers eventually salvaged the remaining cargo during June and July of 1885. The schooner's remaining rigging was salvaged and brought to Chicago on 5 July 1885 by the schooner *A. Ford*, thus ending any contemporary interest in the *Christina Nilsson*. Modern historians, archaeologists, recreational divers and tourists, however,

continue to benefit immensely from the history and physical remains of this nineteenth-century icon.

Under Criterion D, the *Christina Nilsson* is significant for its past and future contributions to the archeological record. Representative of post-Civil War Lakes merchant schooners, the *Nilsson* meets the registration requirements for Criterion D as established in the multiple property document, *Great Lakes Shipwrecks of Wisconsin*. As noted in this section's opening paragraphs, centerboard schooners like the *Nilsson* plied the Great Lakes by the thousands during the nineteenth century. Ironically, relatively little is know about how they were built. As detailed in Section 7, the *Nilsson's* entire bilge and a large section of side are intact, providing archaeologists with a window into later nineteenth-century schooner construction. Observations regarding the *Nilsson's* framing, timber dimensions and wood types, fasteners and construction characteristics are important because they add to a growing body of archaeological data regarding Great Lakes schooners. Every archaeological example should be considered carefully, for only with a comprehensive body of archaeological data can one begin to make substantial observations about design trends and construction techniques.

Indeed, it may be the *Nilsson's* very ubiquity that constitutes its greatest contribution to the archaeological and historical record. With recent trends in history and archaeology toward interpreting "history from below," that is from the perspective of the common laborer or sailor, for example, the *Nilsson's* workaday history takes on special significance. As a typical vernacular working craft, the physical remains of the *Nilsson* also contribute to this overall perspective of "history from below," in that the *Nilsson* is a tangible reminder of an entire class of vessel. Integral to the economic and cultural development of Wisconsin, the *Christina Nilsson* and her sister schooners still carry valuable archaeological cargo in their submerged hulls. Considering that thousands of schooners operated on the Great Lakes over time, many with unique regional and even individual characteristics, the body of archaeological data required to make observations on this aspect of Great Lakes maritime history is considerable. And although the *Christina Nilsson* has contributed significantly to this endeavor, the site's true value clearly transcends pure academia. The shipwreck's close proximity to shore, shallow depth and easy accessibility make it an ideal site for divers and non-divers to discover maritime history beneath the Lake Michigan's waters.

Title to Wisconsin's historic shipwrecks is held in public trust by the State of Wisconsin for the benefit of all - both divers and non-divers. Consequently, the general public should be able to share equally in the discovery, exploration and appreciation of Wisconsin's historic shipwrecks. A seasonal mooring buoy and waterproof dive guide, both sponsored by the Wisconsin Historical Society, facilitate this experience at the *Christina Nilsson* site. Moreover, the outdoor interpretive signage mentioned in Section 7 will allow the non-diving public to "experience" the site through historic photos, underwater images and archaeological site plans. Increased visitation to the site does require important preservation considerations, of which a National Register Nomination is an essential component, yet there is a mutual benefit at work here. Shipwrecks are an exciting medium through which the larger story of Wisconsin's maritime history can told, and by telling this story effectively, preservationists may garner wider public support for their efforts. This is one reason why education and outreach, including increasing accessibility to the site, should be considered an important component of shipwreck preservation. In a metaphorical sense, the voyage of the *Christina Nilsson* is long from over.

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 less than 1 acre

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

	Zone	Easting	Northing
1	16N	492295	4989003
2			
3			
4			

☐ 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	Hank Whipple, Russell Green, Catherine Green				
organization	Wisconsin Historical Society			**date**	3/15/03
street & number	816 State Street			**telephone**	608-221-5909
city or town	Madison	**state**	WI	**zip code**	53706

Christina Nilsson	Door County	Wisconsin
Name of Property	County and State	

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	Robert Howe, Director Cofrin Center for Biodiversity				
organization	University of Wisconsin- Green Bay			**date**	4/1/03
street&number	Mary Ann Cofrin Hall			**telephone**	920-465-2272
city or town	Green Bay	**state**	WI	**zip code**	54311

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

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Wreck Report No. 243 for Christina Nilsson (3 November 1884), Milwaukee Public Library, Milwaukee, Wisconsin.

Verbal Boundary Description

The boundary of the *Christina Nilsson* site is shown on Figure 1and on NOAA Chart 14909.

Boundary Justification

The boundary was drawn to encompass all known sections of the wreck.

Photograph 1
View of the schooner *Moonlight* under full sail. This three-masted schooner is similar to the schooner *Christina Nilsson.* Location and date unidentified. Milwaukee Public Library. Negative located at the Wisconsin Historical Society.

Photograph 2
Intact pump shafts of the *Christina Nilsson*, looking forward along the centerline of the vessel. Taken by Russell Green, July 2002. Negative located at the Wisconsin Historical Society.

Photograph 3
One of the mast steps of the *Christina Nilsson*, looking forward along the centerline of the vessel. Taken by Russell Green, July 2002. Negative located at the Wisconsin Historical Society.

Photograph 4
Frames at the turn of the bilge on the *Christina Nilsson*. Taken by Russell Green, July 2002. Negative located at the Wisconsin Historical Society.

Photograph 5
Keelson and centerboard slot of the *Christina Nilsson.* Taken by Russell Green, July 2002. Negative located at the Wisconsin Historical Society.

Photograph 6
Centerboard laying on the bilge ceiling of the *Christina Nilsson.* Taken by Russell Green, July 2002. Negative located at the Wisconsin Historical Society.

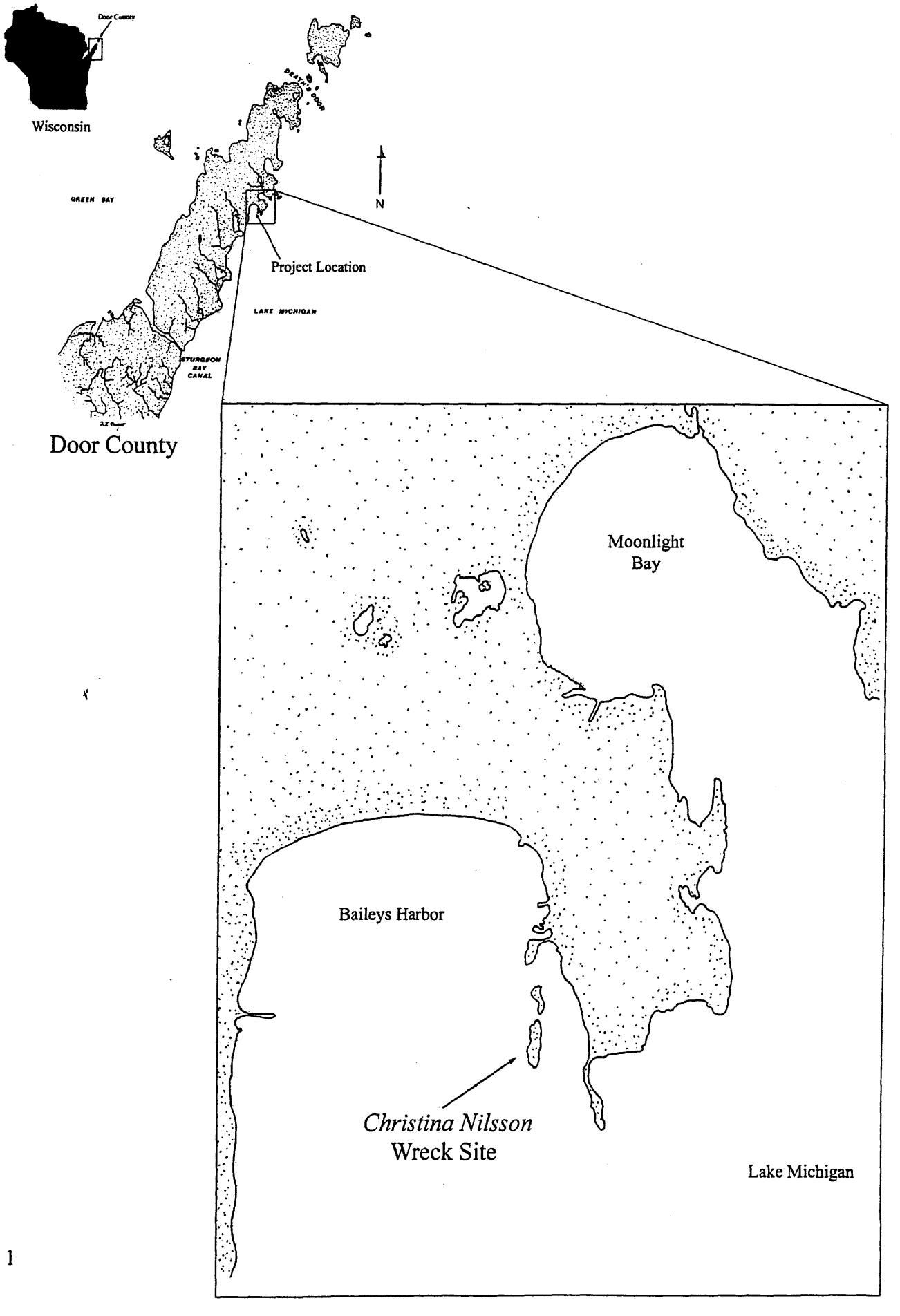

Door County
Wisconsin
GREEN BAY
LAKE MICHIGAN
STURGEON BAY CANAL
N
Project Location
Door County
Moonlight Bay
Baileys Harbor
Christina Nilsson
Wreck Site
Lake Michigan

Figure 1

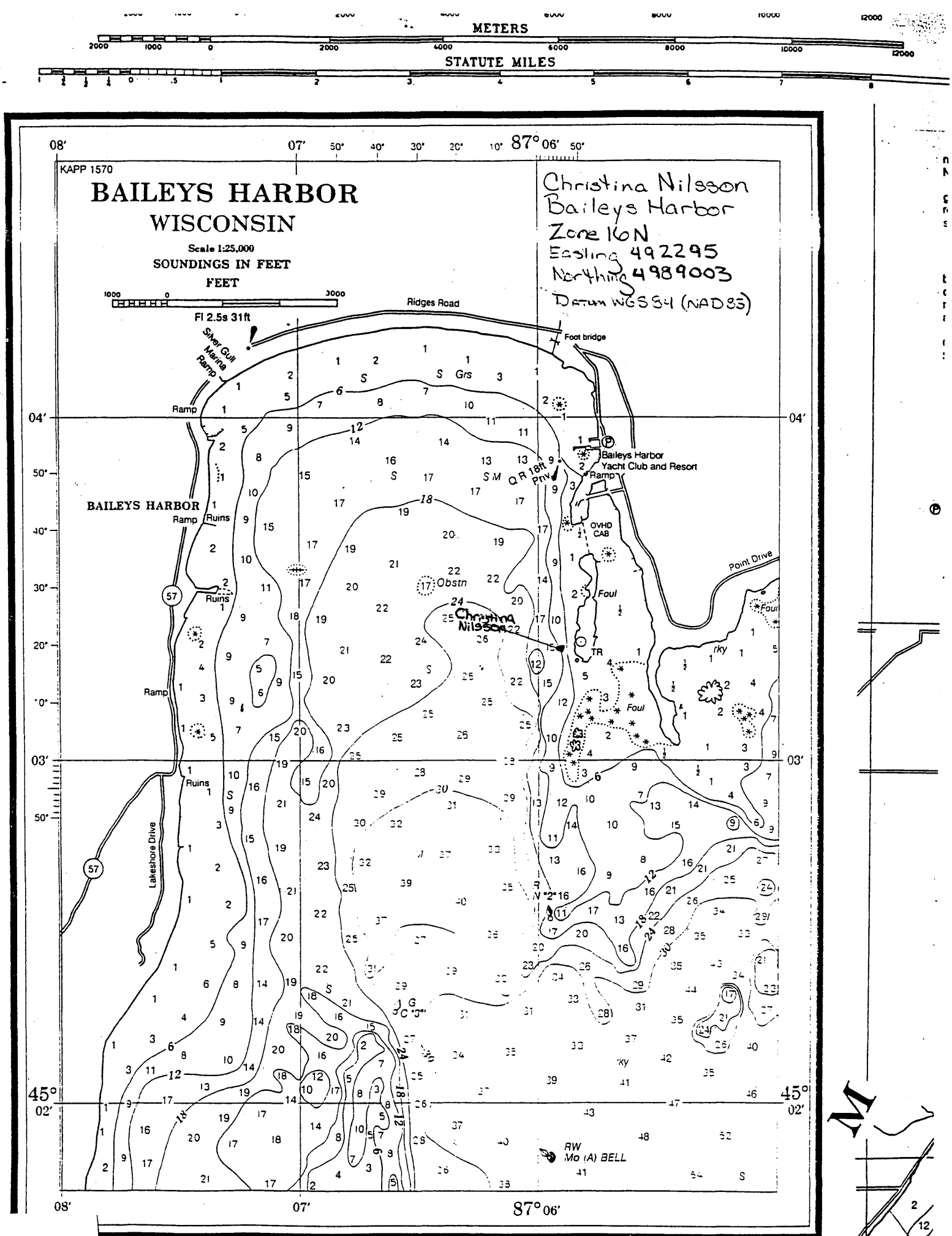
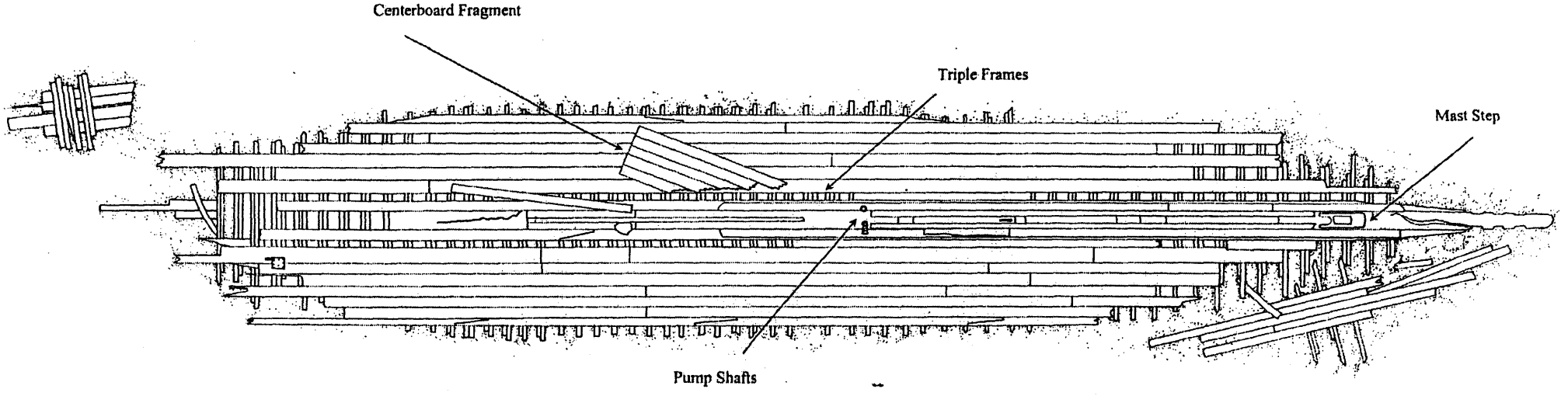

METERS
STATUTE MILES
KAPP 1570
BAILEYS HARBOR
WISCONSIN
Scale 1:25,000
SOUNDINGS IN FEET
FEET
Christina Nilsson
Baileys Harbor
Zone 16N
Easting 492295
Northing 4989003
Datum WGS84 (NAD83)
Ridges Road
Foot bridge
Silver Gull Marina Ramp
Ramp
Fl 2.5s 31ft
Baileys Harbor Yacht Club and Resort
Ramp
QR 18ft Priv
BAILEYS HARBOR
Ramp
Ruins
OVHD CAB
Point Drive
Obstn
Foul
Christina Nilsson
TR
Ramp
Ruins
Lakeshore Drive
RW
Mo (A) BELL
08'
07'
87°06'
04'
03'
02'
45°

Figure 2

Christina Nilson
site plan 1998



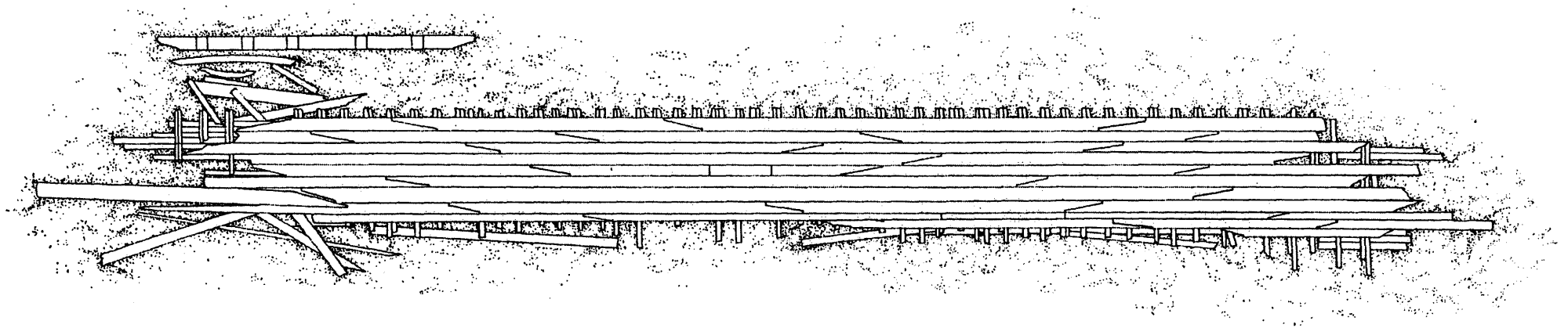
Scale: = 10 Feet

N

Figure 3

Christina Nilson Site

Section 5
July 1999



N

= 10 Feet

Figure 4