Update on Archaeological Resources Assessment for Phase 1 Dredge Areas

Prepared by URS Corp for General Electric

Presented by John Vetter, USEPA

CAG Meeting

December 8, 2005

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Presentation Outline

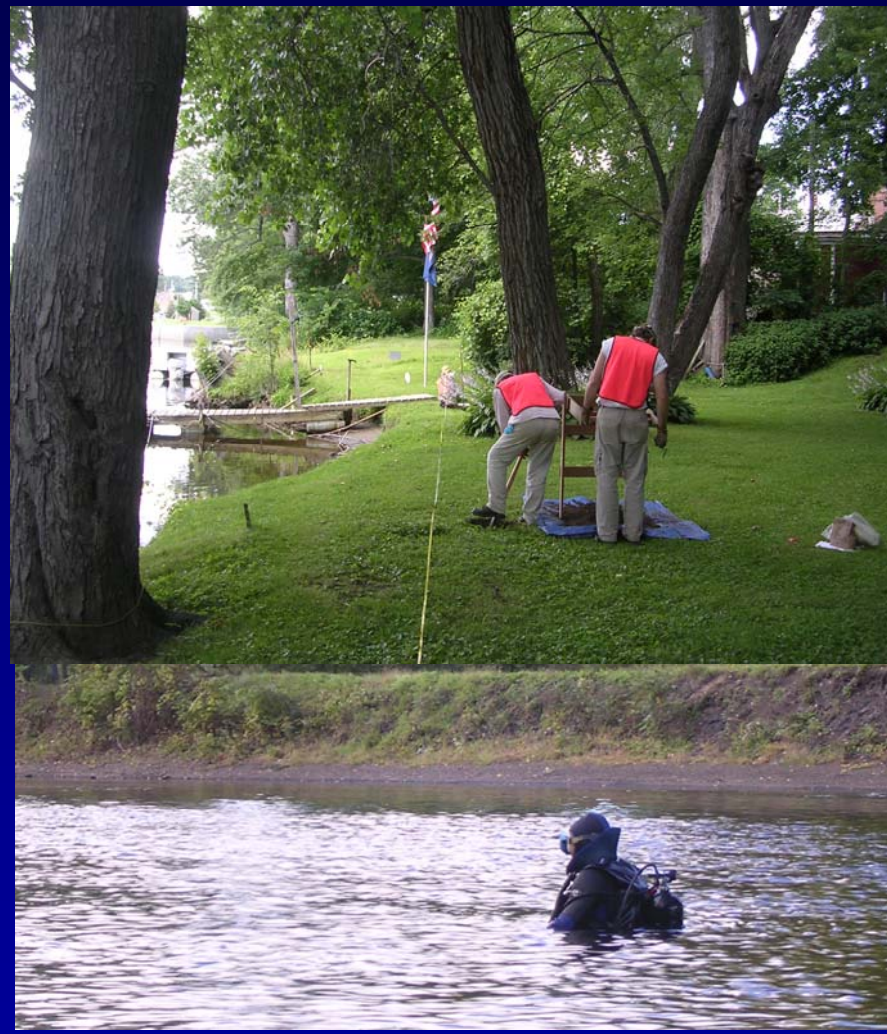
- Overview of the Shoreline Reconnaissance
- Description of submerged resources associated with Phase 1 dredge areas
- Description of riverbank areas that may be impacted during Phase 1 dredging and contain terrestrial archaeological sites.
- Summary of resources and additional data needs.

July-September 2005

1. Shoreline reconnaissance, by small boat and on foot, of ALL Phase 1 Dredge Areas (regardless of sensitivity classification)

2. Systematic surface inspection and shovel test pit survey along shorelines where needed

3. Underwater archaeological survey of remote sensing targets and historically sensitive areas



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Underwater (just barely) Archaeology

Recap of Underwater Methods

- Extensive remote sensing conducted prior to underwater field work
  - side-scan sonar
  - multibeam bathymetry survey
  - sub-bottom profiling with ground-penetrating radar (GPR)
  - magnetometer (metal detector).
- Systematic diver sweeps
- Mapping and photography
- No excavation of bottom sediments due to PCBs

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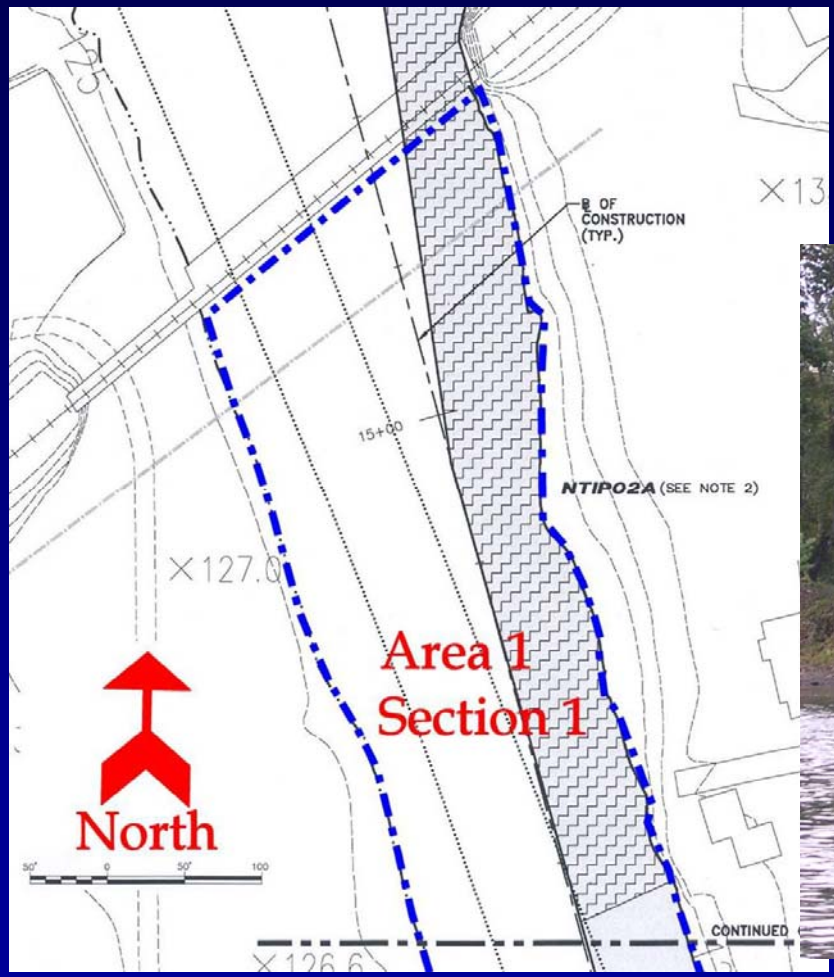
Inspection of entire channel east of Rogers Island



Scattered glass and pottery but no intact deposits

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Ceramics & Glass from the East Channel

Date range
1840 to 1900
1840 to 1900
1850 to 1880
1850 to 1890
1850 to 1930
1850 to 1930
1860 to 1910
1860-1901
1870 to 1940
1880 to 1920
1880 to 1940
1880 to 1940
1880 to 1940
1880 to 1950
1890 to 1950
1891 to 1950
1905 to 1930
1930 to 1960
Pre 1920

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Glass soda or beer bottle date range 1905-1930

**"JOHN MAHON
BOTTLER
FORT EDWARD, N.Y.
CONTENTS 8 OZ.
REGISTRED."**

Stoneware bottle, wheel thrown, salt-glazed, buff body, impressed at shoulder date range 1840-1900

"BURDOCK & CO."

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One gallon stoneware jug
Bristol glaze and dark brown slip glaze
date range 1880-1940

Salt-glazed stoneware jug or jar sherd Albany interior slip
date range 1840-1900

“FORT EDWARE . . . /FORT E . . .”

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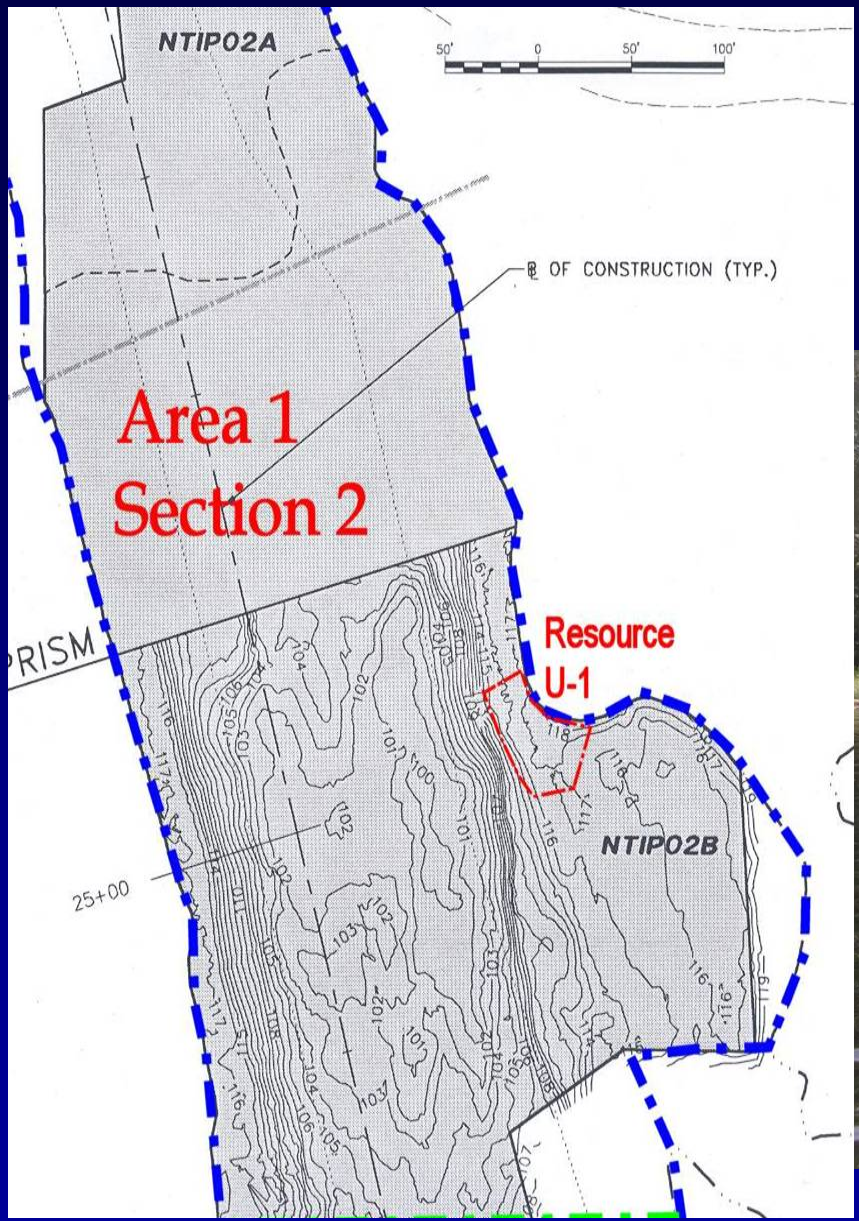
U-1



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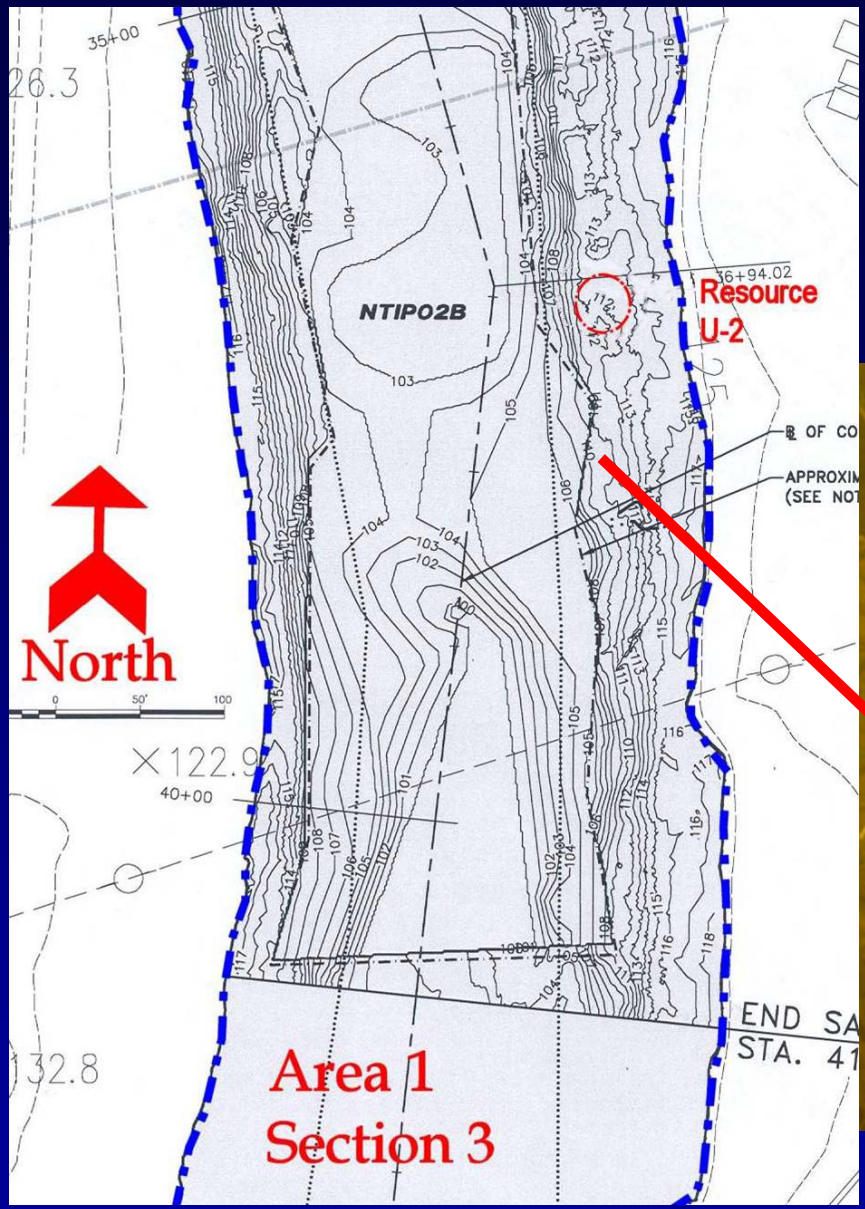
U-2



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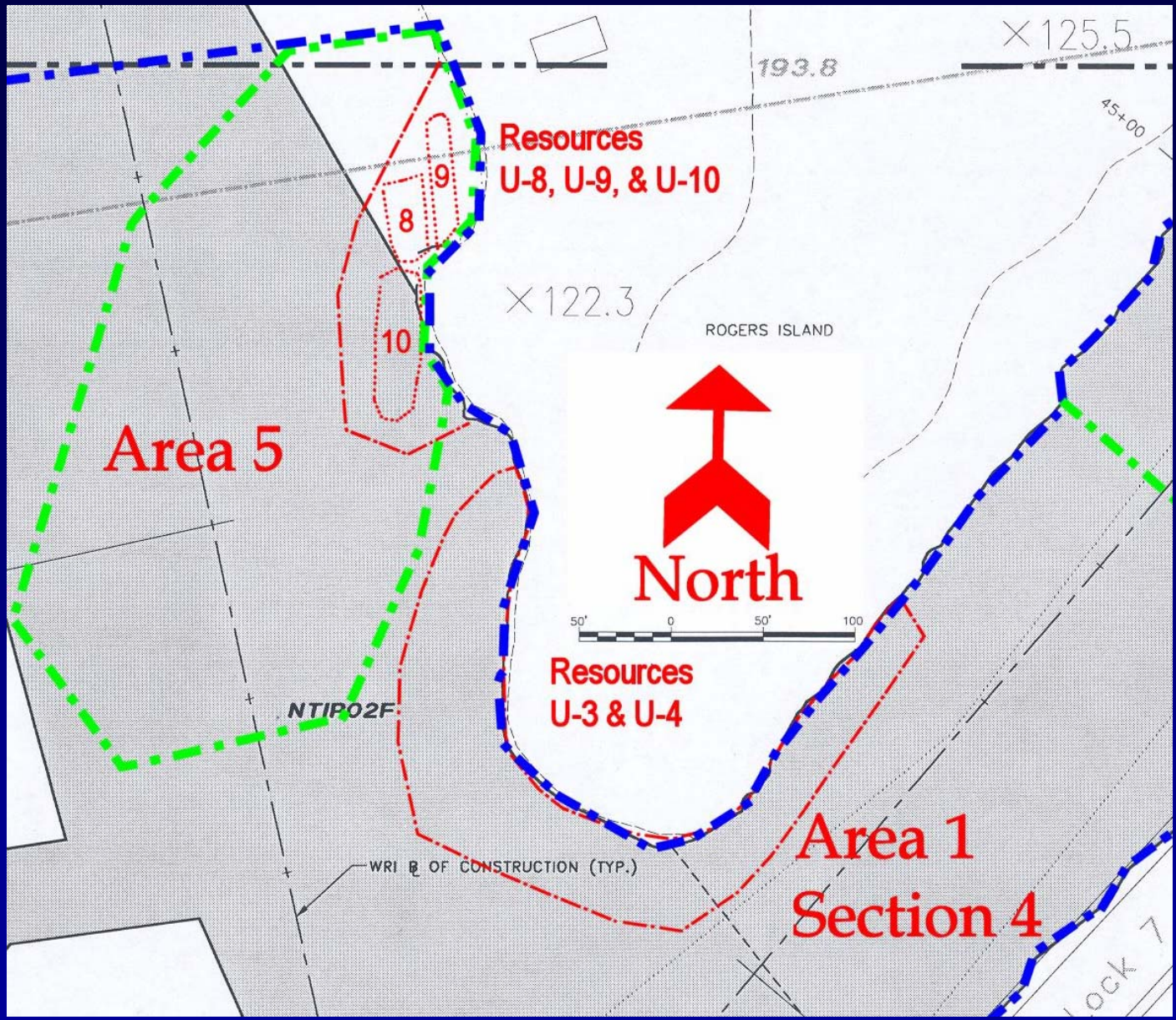

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U3 and U-4

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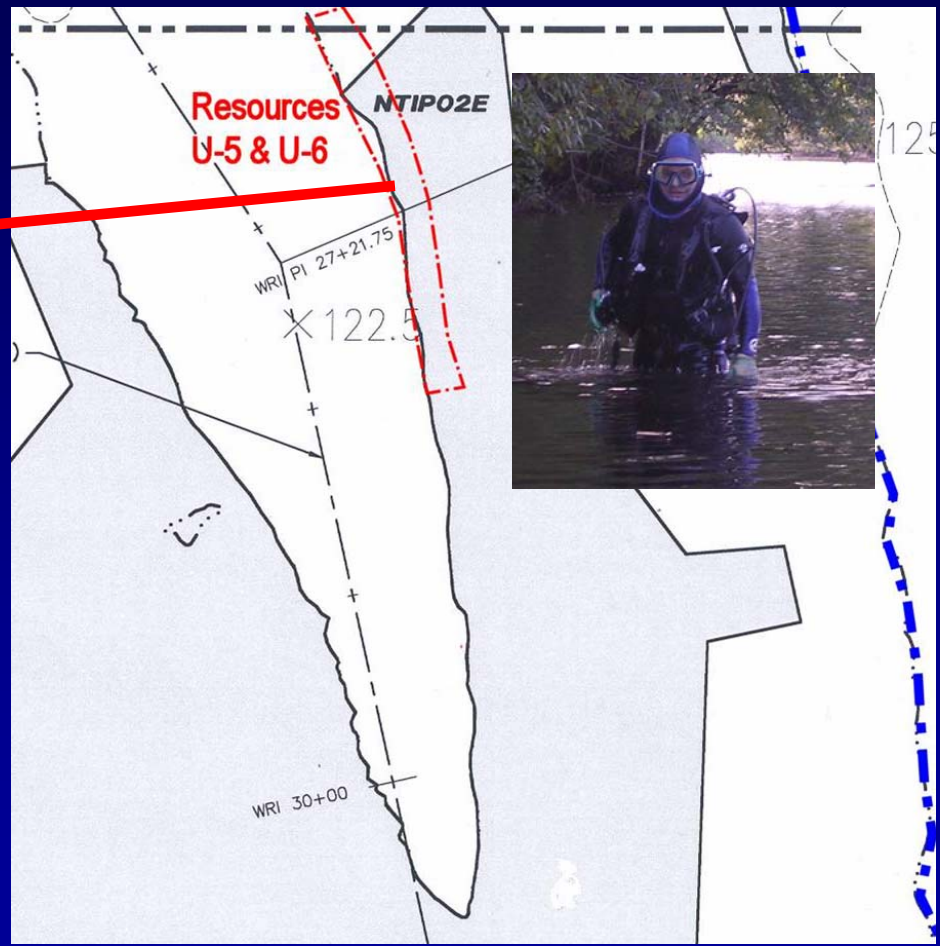
U-5 and U-6



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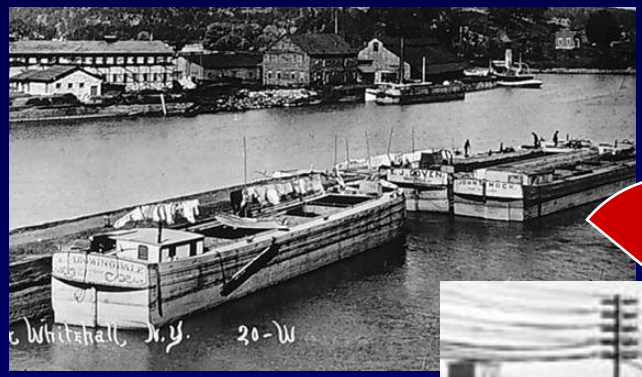
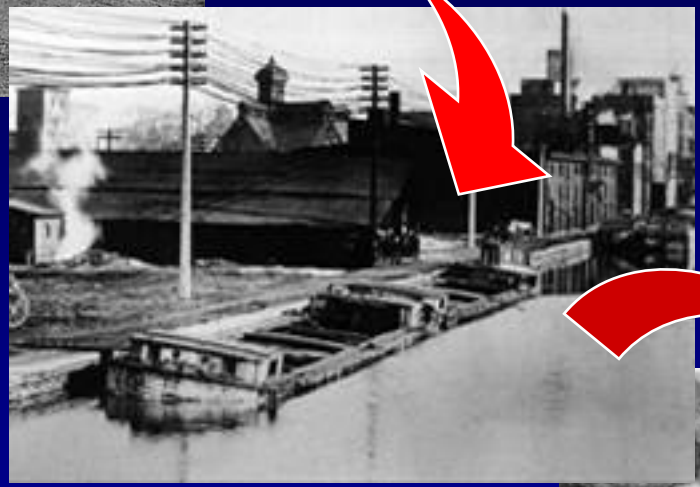


Canal boats worked hard,

withstood tremendous abuse,



and rotted quickly after abandonment

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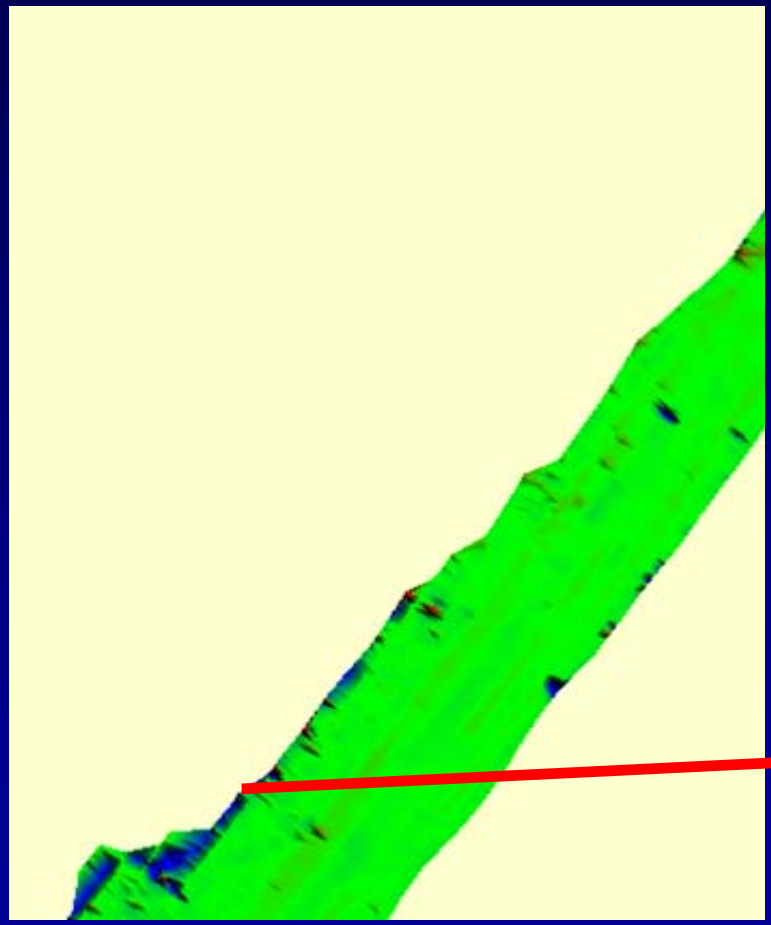
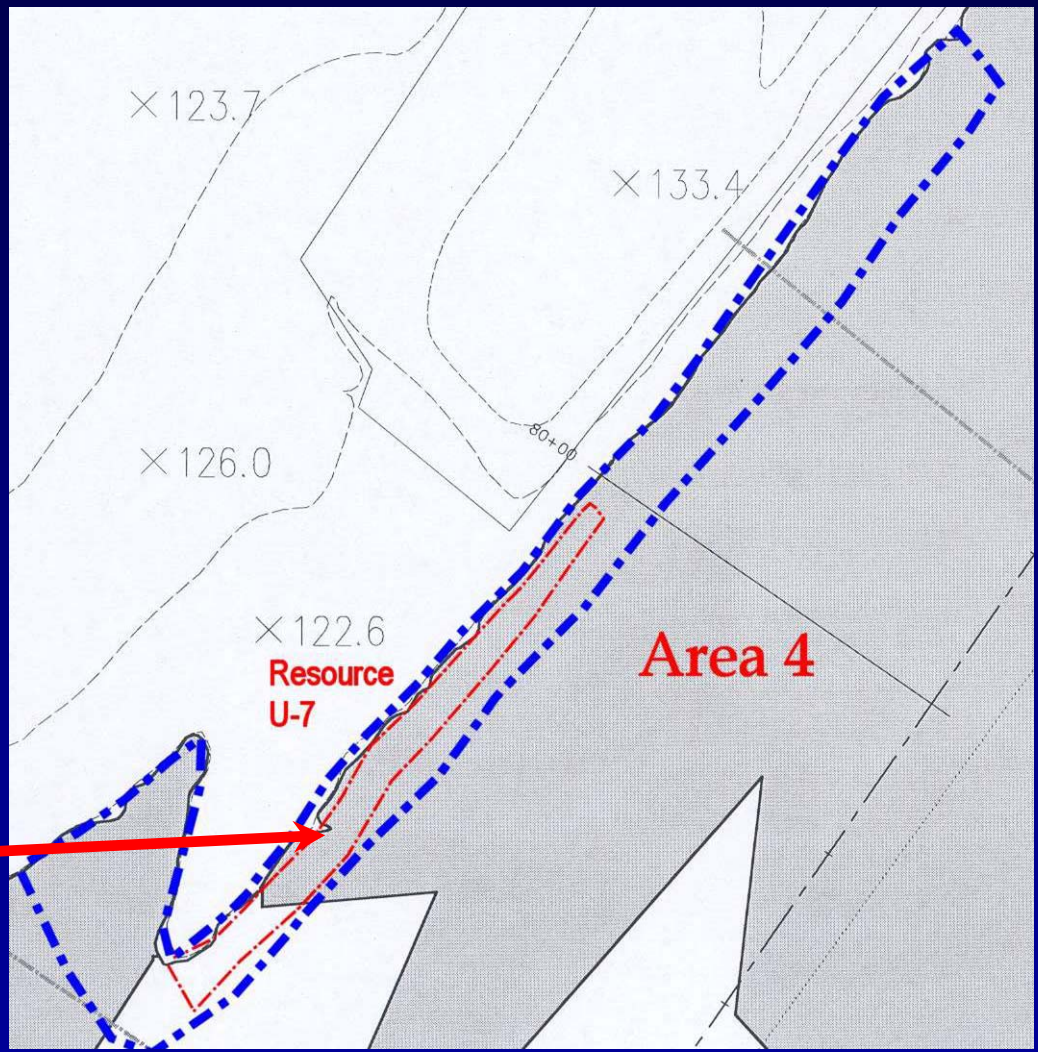
U-7





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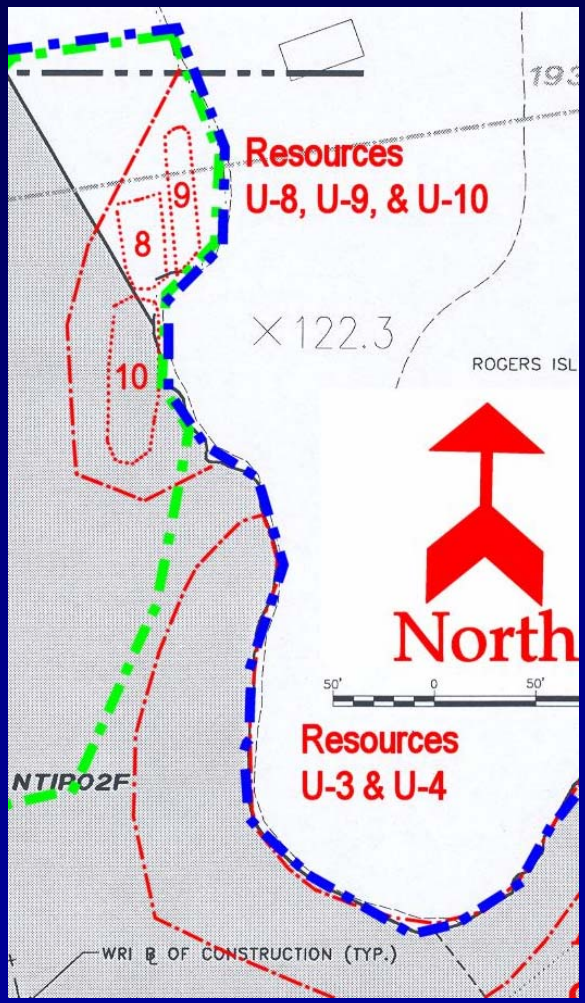
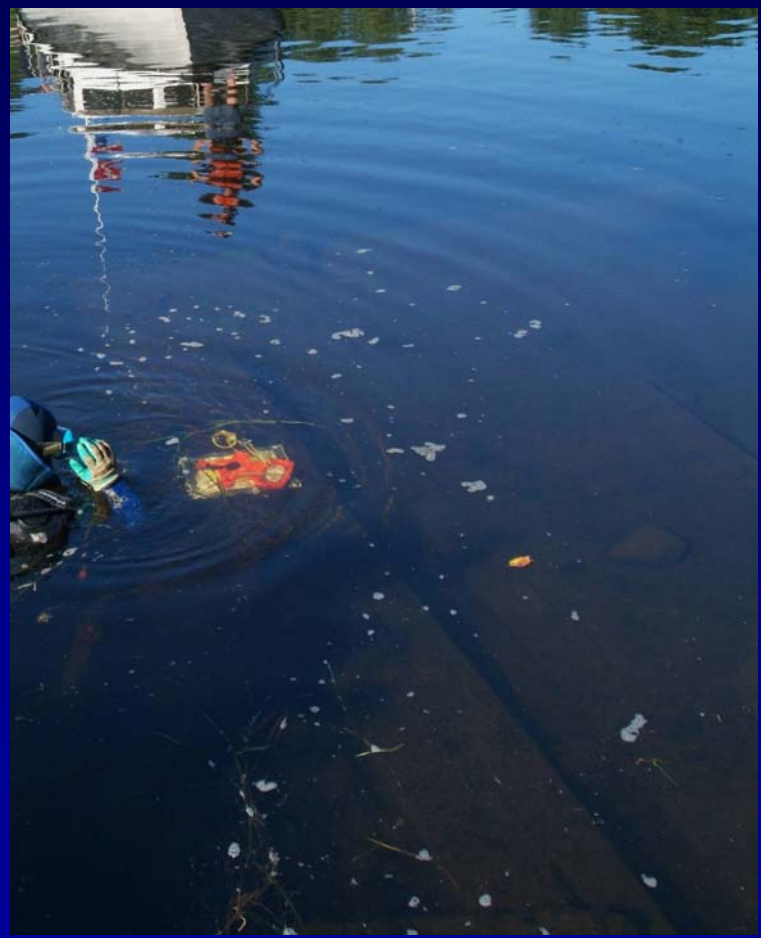
U8, U9, U10





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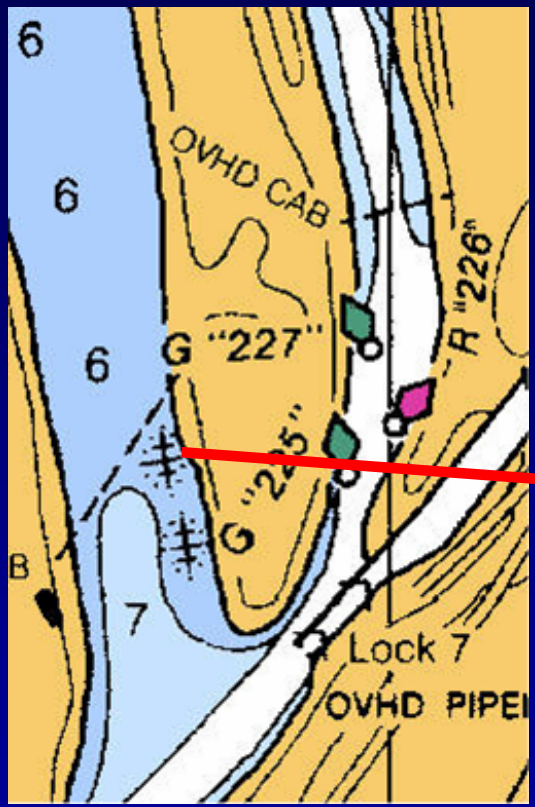
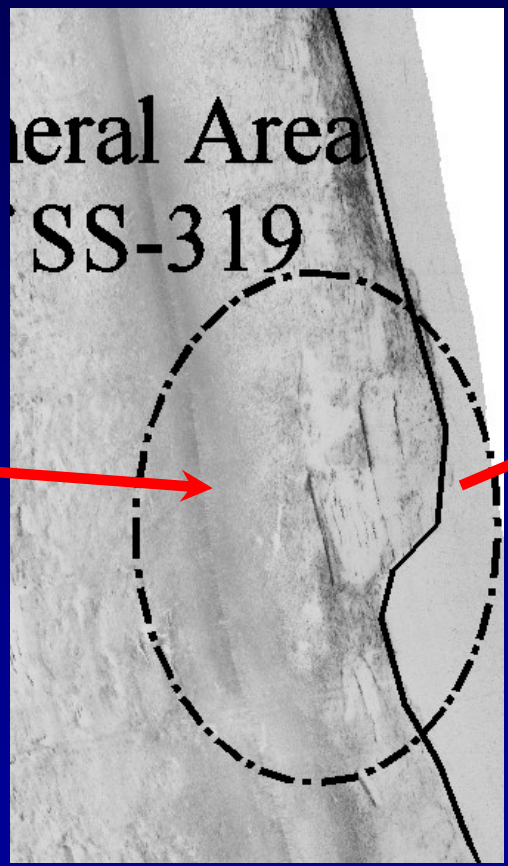
U8 (SS-319), U9, U10

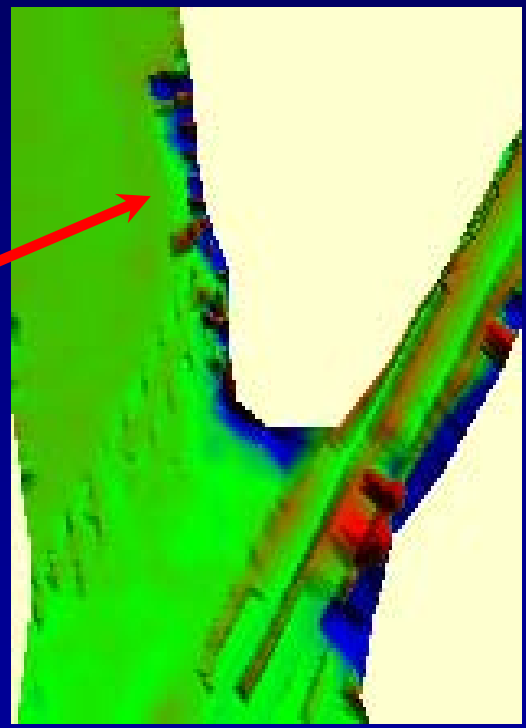
NOAA Chart



2003 Sonar



2005 Magnetometer



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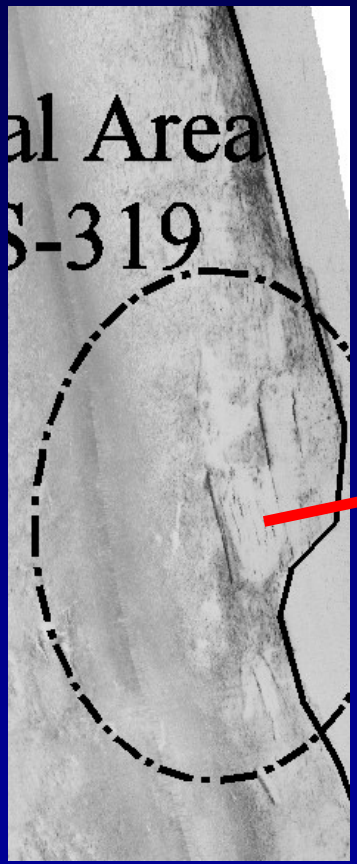
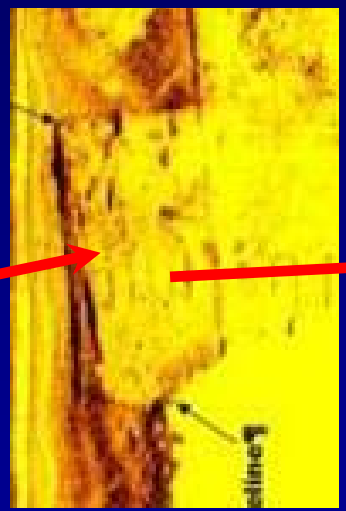
U8 (SS-319)

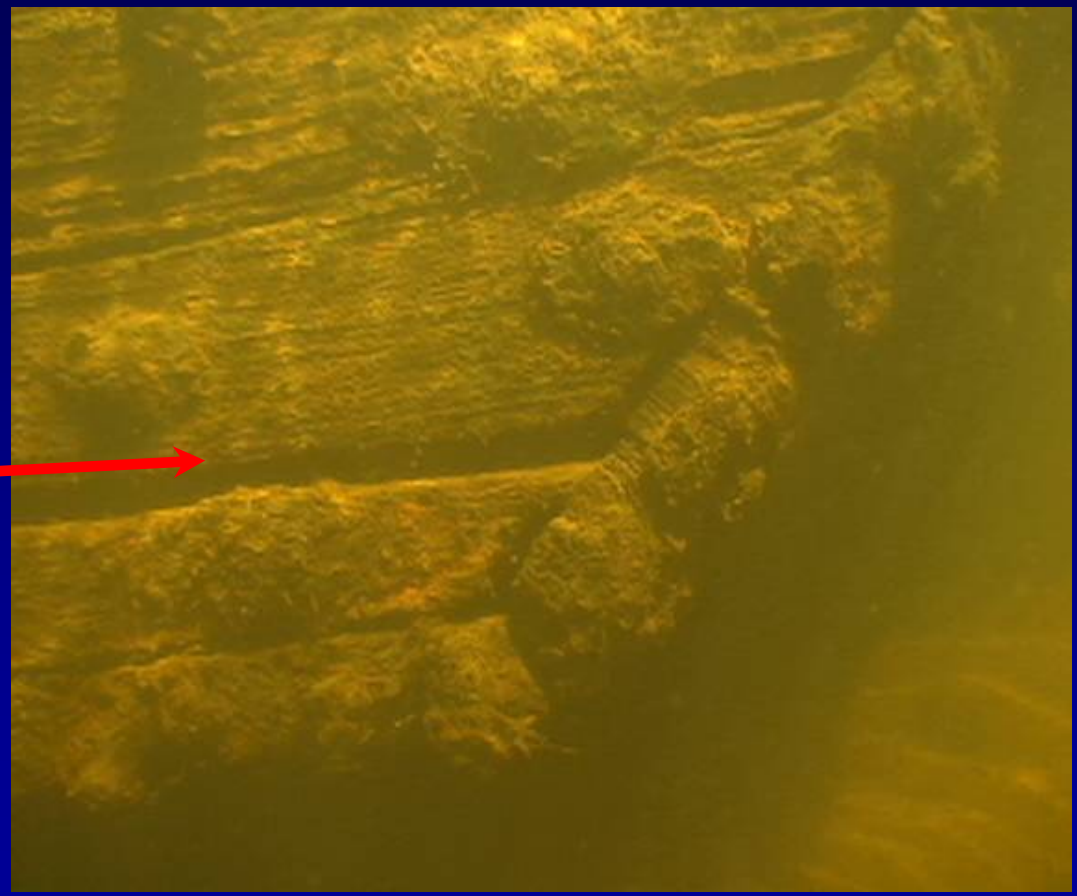
2003 Sonar



2005 Sonar



2005 Diver Photo



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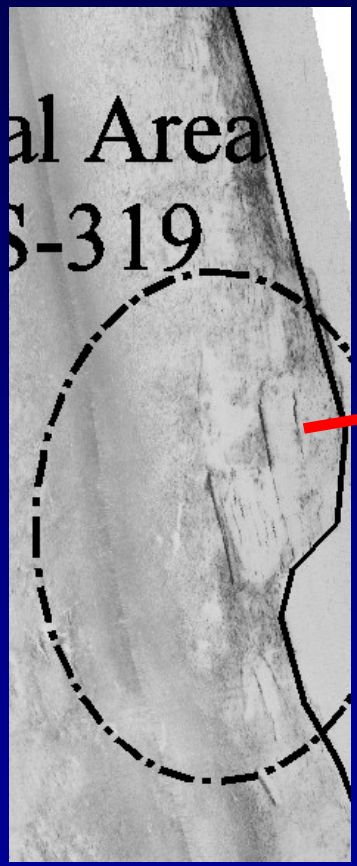
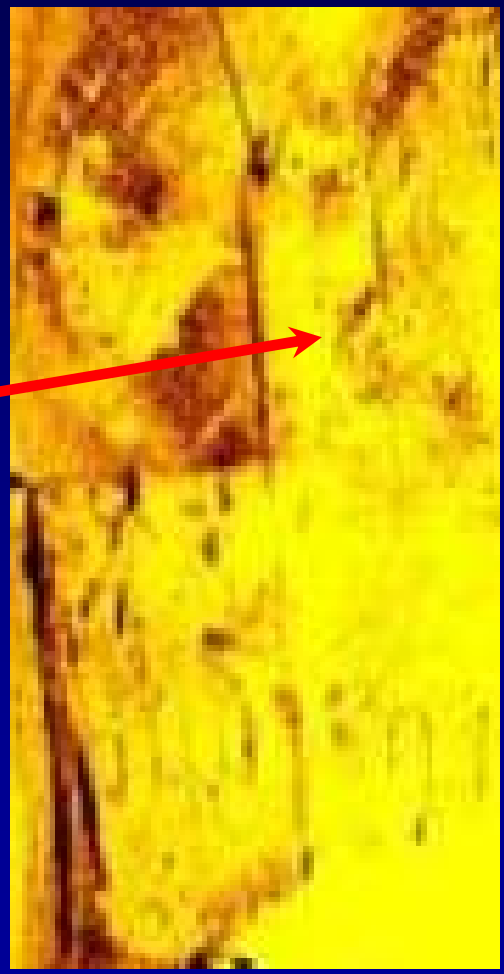
U9

2003 Sonar



2005 Sonar



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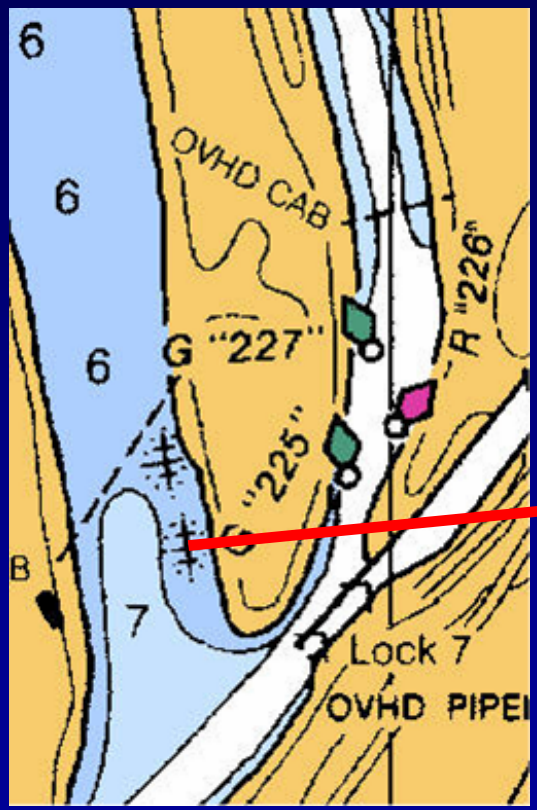
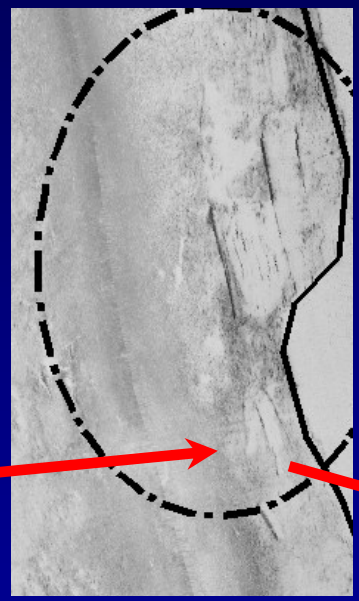
U10

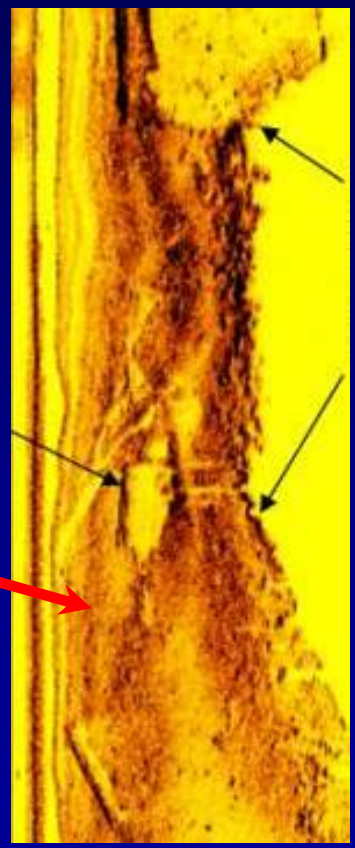
NOAA Chart

2003 Sonar

2005 Sonar







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Summary: Underwater Sites

- **Phase 1 dredging program would have an impact on underwater archaeological resources that are potentially NRHP-eligible. However, larger excavation exposures are needed to:**
  - **assess their physical integrity**
  - **evaluate their internal content and structure**
  - **determine if they possess distinctive construction features associated with historically important contexts.**
- **To obtain the necessary information to determine these resources' eligibility for the NRHP, it would be necessary to disturb and remove the PCB-containing sediments over and around them.**
- **Further discussions are needed to resolve this issue.**

Terrestrial Studies

- Crew of six people for three weeks (reconnaissance and survey)
- 180 shovel test pits (STPs) were excavated in 14 separate Test Areas.
- Over 1,600 artifacts found

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Terrestrial Artifacts

Southern NTIP & Griffin Island Area discussed in report in more detail

- **Southern NTIP has sites in need of investigation prior to Phase 2 dredging but not for Phase 1**
- **Eastern Griffin Island Area has no terrestrial or submerged sites in need of further investigation**

Area	Total	Historic	Prehistoric
A	0	0	0
B	31	31	0
C	171	171	0
D	0	0	0
E	3	3	0
F	0	0	0
G	323	323	0
H	498	460	38
I	91	89	2
J	14	14	0
K	0	0	0
L	359	270	89
M	0	0	0
N	86	70	16
O	19	19	0
P	5	5	0
Q	46	40	6
R	17	15	2
	1663	1510	153

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Concrete
Retaining Wall
N-Di
Active Flood Plain
N-Dv
Rip Rap
Sheet Pilings
N-Fii
M4-Fiii
Beach
M3-Dv
Low Area
Rip Rap
Rip Rap
M3-Dv
M4-Fiii
N-Fii
No Access
N-Fii
M3-Dv
M1-Div
M3-Dv
Low Area
Old Road
M3-Dv
Wetland
Low Area
N-Fii
M1-D
M3-Dv
Old
M3-Dv
Wet Land
Low Area
Dredge Spoil
Dredge Spoil
N-Dii
Low Island
Wetland
N-Dii
NDiv
M3-Dv
Low Area
Wetland
A
B
C
E
G
H

Area G

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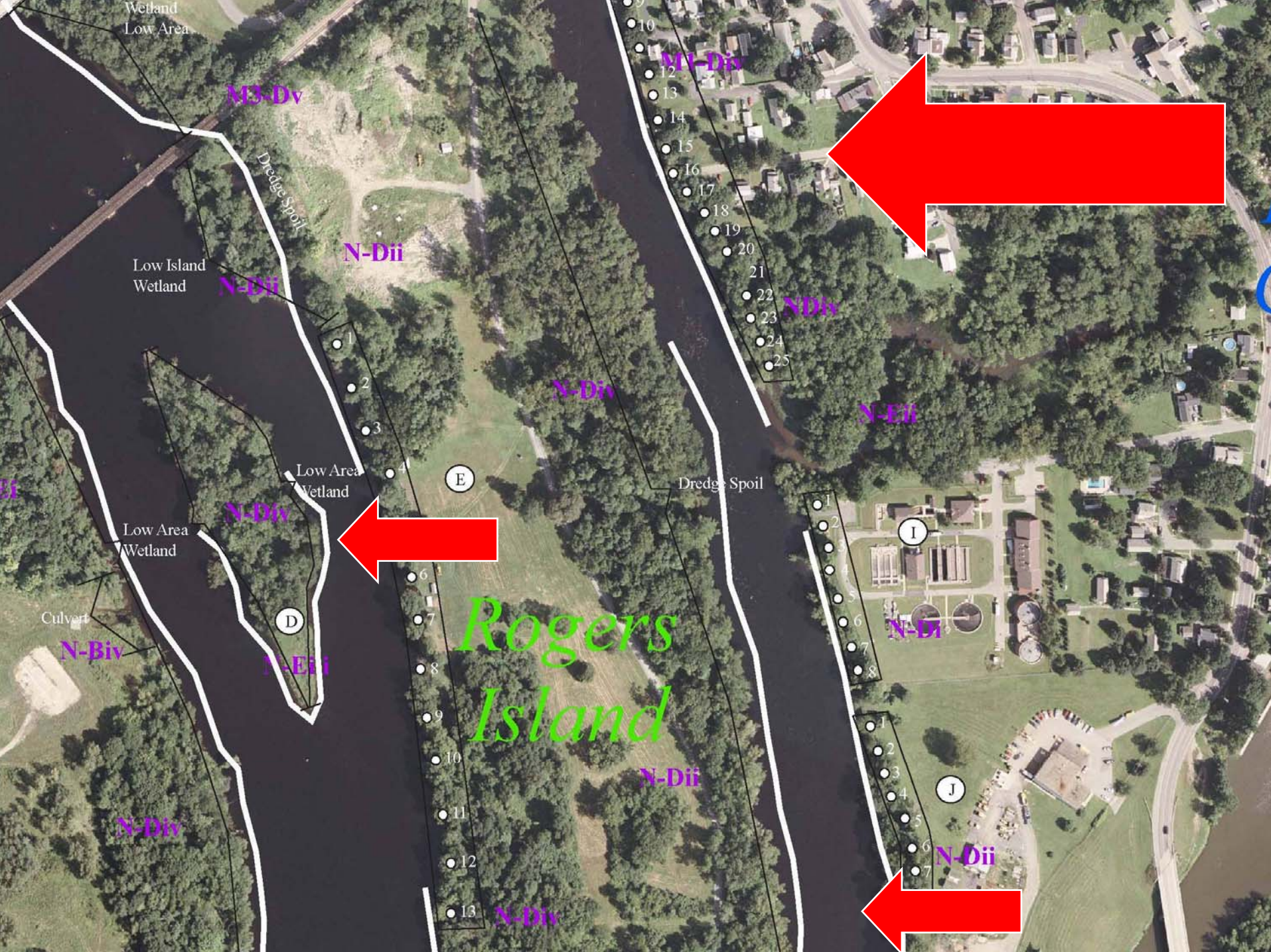
Wetland
Low Area
M3-Dv
Dredge Spoil
N-Dii
Low Island
Wetland
N-Dii
M1-Div
NDiv
N-Div
N-Eii
Low Area
Wetland
N-Div
Low Area
Wetland
Dredge Spoil
Culvert
N-Biv
N-Eii
Rogers
Island
N-Dii
N-Div
N-Div
N-Di
N-Dii
E
D
I
J
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Area H

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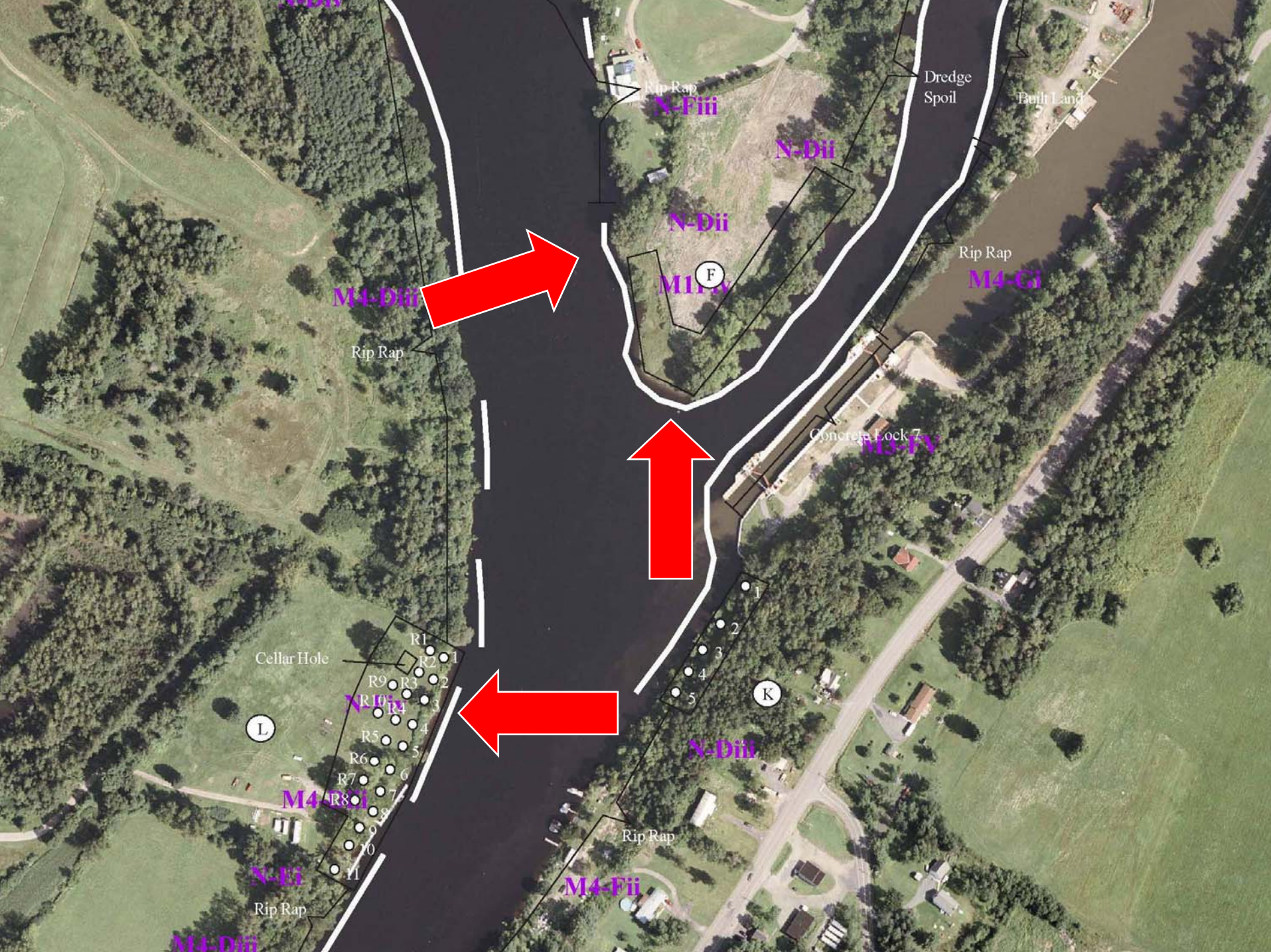
Rip Rap
N-Fiii
Dredge Spoil
Built Land
N-Dii
N-Dii
Rip Rap
M4-Gi
F
M4-Diii
Rip Rap
Concrete Lock 7
M3-Fv
1
2
3
4
5
K
R1
R2
1
Cellar Hole
R9
R3
2
R4
3
4
L
R5
5
R6
6
R7
7
M4-Gi
R8
8
9
10
11
N-Diii
Rip Rap
N-Ei
M4-Fii
Rip Rap

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1897

1955

2001

Area L

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Summary: Terrestrial Sites

Area G: a structural foundation and artifact deposits near the shoreline that appear to date to the mid to late nineteenth century.

Area L: the cellar hole of a nineteenth century structure has been identified, but it is unclear whether artifact deposits or associated features extend to the river bank. In addition, there is the possibility of deeply buried prehistoric layers.

Area H: the 18th century site of Fort Edward was previously determined eligible for the NRHP, but the boundaries of intact deposits associated with that site have not been established.

What Next? Terrestrial Sites

In Areas G, H, and L, we have identified potentially significant deposits near the river bank.

Additional data are needed for NRHP eligibility determination and impact assessment:

- **larger sample of artifacts recovered from controlled excavations**
- **horizontal exposures from bigger excavation units to expose cultural features and their stratigraphic contexts.**

What Next? Terrestrial Sites

Need to determine impacts of dredging on any NRHP-eligible resources and identify dredge design project modifications that might be needed to prevent or mitigate any adverse impacts.

Need to know what portions of any eligible sites might be impacted by the dredging and in what way.

Data on depth, thickness, soil characteristics, etc, needed to assess how vulnerable a site may be to activities such as nearby dredging, installation of erosion control measures, and backfilling and restoration.