QAR Field Artifact Conservation & Documentation Operations Plan
Fall 2008

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I. Personnel:

At least two members of the QAR Conservation & Documentation (C&D) team will be on site for each day of field operations.

C&D Team:

Sarah Watkins-Kenney	QAR Project Chief Conservator
Wendy Welsh	QAR Assistant Conservator/Field Conservator
Shanna Daniel	QAR Assistant Conservator
Franklin Price	Underwater Archaeology Technician/QAR Conservation Technician
Lauren Hermley	Underwater Archaeology Technician
Lisa Briggs	Underwater Archaeology Technician

III. Documentation ON SITE includes:

i TAGS-

- Mylar or Tyvek tags are available from C&D team.
- QAR# marked in industrial permanent black marker on both sides of the tag.
- A tag with the QAR# is attached to each artifact with cable ties before it is brought to the surface. The tag/cable tie head will be positioned on the top surface of the artifact as *in situ*.
- East & North provenience taken to center of object or a range is obtained for large objects
- Additional information to be put on tag by lab based C&D: Unit number in circle, E & N provenience, diver initials, and date recovered.
- For ballast, one tag with QAR# should be placed inside the bag and an identical tag tied to the outside of the bag. The tag should also indicate which bag it is of the total number of bags within the QAR# i.e. 1 of 3, 2 of 3, 3 of 3
- For dredge/sluice material – one tag with QAR#, Unit# & E/N coordinates should be placed inside the bucket and two tags (QAR# tag & Duplicate of inside tag) are placed on the out outside of the bucket with cable ties.

ii BAG & CONTAINER LABELS -

- Each bag should have a tyvek tag with the QAR# marked inside the bag with the artifact.
- Each container should have a tyvek tag inside and another attached to the outside with the QAR# and contents (i.e. Dredge Spoil).

iii. ARTIFACT INVENTORY LIST

- Main field record of:
    - QAR# & Unit #
    - Short description of artifact & if needed no. of containers/bags per QAR#
    - X-ray Priority
    - Deposition (shore, transferred to QAR lab, etc)
- To be completed by C&D team during artifact recovery and artifact transfer situations to keep track of all artifact locations

iv. INVENTORY OF UNITS & QAR #s

- Main field record of:
    - Unit #, E & N provenience, QAR#s associated with each unit
- Unit # & coordinates are logged when units are assigned, QAR#s are filled in as time allows

v. C&D – ARTIFACT FIELD LOG -

- Main field record of:
    - QAR#, Unit #, E & N provenience, diver initials, basic object information, count, photography, conservator initials, etc.
- To be completed by C&D team as work done, proveniences are obtained as soon as possible.

vi. UNIT FORM

- Main field record of:
    - Unit #, E & N provenience, initials for sluice box & triage
    - Diver initials for setup, excavation, documentation & recovery
    - Miniature map for rough sketches
- Divers/Archaeologists complete this form as the unit is worked. Conservators use the form to record any information associated with an artifact.

vii. BALLAST PROCESSING FORM

- Main field record of:
    - QAR#, count of stones/bags, weight, location, comments & initials
- To be completed by C&D team during ballast processing

viii. DREDGE SPOIL PROCESSING FORM

- Main field record of:
    - QAR#, location, step (i.e. transfer, panning or sorting lead shot), object/material type, bag count, & initials
- To be completed by C&D team during dredge spoil processing

ix. C&D – DAILY LOG (NOTES) -

- To record daily – general C&D activity notes as well as additional comments on artifacts (noting QAR#) as needed.

x. ARTIFACT LAB SHEETS

- Record basic dimensions and sketch drawing for each artifact recovered as appropriate
- Record any conservation steps taken.
- Record deposition – location and dates of artifacts as moved from ship to shore to QAR lab.

xi. CONSERVATION DATABASE

- Records to be entered on master artifact database held at QAR Lab in Greenville after artifacts transferred. At site C&D laptop will have latest version of artifact database for reference.

IV. Conservation and Documentation – Numbering:

The following applies to all artifacts studied & recorded in situ and those for which recovery –i.e. removal from site is deemed to be the most appropriate step -see QAR Full Recovery Plan Fall 2007 (Southerly et al). For consistency the C&D Field Conservator (Welsh) will be responsible for assigning QAR# s and for maintaining inventory of artifacts transferred from boat to shore and then shore to QAR lab.

i. In situ:

- Artifacts/concretions being recorded in situ may be assigned **a general number** if tagging archaeologist is not available (e.g. Cannon – C1 etc; Anchors- A1 etc; Hoops - H1 etc).
- They may also be assigned **a Field/QAR #** whilst in situ if it is planned that they will be recovered in 2008. Conservation will assign the next sequential QAR# as appropriate when requested by diver/archaeologist.
- The concretion/artifact will be **tagged in situ** with a **MYLAR or TYVEK** tag, with **QAR# written on both sides with industrial permanent black marker. Tag to be tied to artifact/concretion with cable ties or line so that tag lies on top surface of object.**
- Additional information (Unit #, provenience, recovery date, diver initials) will be added to the tag in pencil after the artifact has been recovered.

ii. Dredge/sluicing:

- Retrieving and documenting artifacts recovered from dredge/sluice responsibility of C&D team.
- Diver/archaeologist must let C&D team know provenience (Unit # and E &N) of area being dredged before start and when changed. Large unit labels with coordinates are placed on the top of each sluice box to clearly indicate which dredge hose corresponds to each sluice box.
- Each unit will have a QAR# assigned to the dredge spoil recovered from the sluice. Artifacts will be assigned sequential sub numbers (e.g. QAR601.001; 601.002; 601.003) once transferred to the QAR lab. If artifacts from same dredge

area are separated, e.g. by material type for storage and transport, at site, each group will have the same QAR#. The Field Conservator will be responsible for maintaining record of number of containers per QAR# and their deposition.

- TAGS – each artifact or group of artifacts to have a TYVEK tag with: QAR#, Provenance (Unit #, E, N) and date

iii. Ballast Stones:

- Each group of ballast from a particular 5x5 ft excavation unit will be assigned a QAR#.
- Individual ballast stones will not normally be given an individual QAR#. If they are it will be assigned a sequential sub numbers by Field Conservator (e.g. QAR601.001; 601.002; 601.003).

V. Artifacts and concretions recovery – Diver/archaeologist responsibility:

i. Dredging around artifacts and mapping each artifact in all units.

ii. The mapping archaeologist is the ONLY person who gives the ok to remove an object from a unit.

iii. Recovery of artifacts (bringing them to the surface) is the responsibility of diver/archaeologist/conservator.

iv. Artifacts should be recovered from site in lift containers of appropriate size, material and strength for the item being recovered. C&D team will provide a range of options.

v. Mapping Diver/archaeologist will correspond with the C&D team to provide exact provenience

- MYLAR or TYVEK tag tied to each concretion or artifact – with cable ties, or line. Tag to be marked with **QAR# pre-written on both sides with industrial permanent black marker.**
- Tag to be tied so that lies on top surface (as in situ) of artifact/concretion.

VI Artifacts and concretions processing – C&D team responsibility:

C&D team responsible for:

1. Documentation – including assigning field/QAR #, and logging all information including provenience, recovery date, diver initials in Artifact Field log.
2. First Aid Conservation Treatment.
3. Wet storage of finds.
4. Transfer of finds – a. from boat to shore storage at end of each day and b. from shore storage to *QAR* Conservation Lab in Greenville at the end of the week.

5. Keeping a Daily Log of conservation activities during field operation

On receiving the artifact sequence of actions likely to be:

i. Preliminary Documentation – at dive platform:

- Check that tag (marked with QAR#) securely attached to artifact.
- Place object in seawater in a container or wrap in wet foam and plastic – keep object wet at all times.
- Check off artifact QAR#s on inventory sheet and write down short description
- Record provenience (Unit #, E, N, recovery date, diver initials) information into the C&D Artifact Field log.
- Enter any other information in C&D Daily Log.

ii. First Aid Conservation – at dive platform:

- All artifacts (except ballast stones) to be kept wet at all times.
- Place artifact in seawater, in container appropriate to size and fragility of the object. E.g. plastic bag, plastic ex-food container, plastic bucket. If too large for container keep artifact wet by wrapping with wet cloth or foam and sealing in plastic sheeting or tarp. Ensure that long and/or large concretions/artifacts are appropriately supported – for example have a rigid support underneath when being lifted or transferred – e.g. from ship to dockside.
- As far as practical keep metals, organics, and in-organics (ceramics, glass, bone) in separate overall containers.
- As far as possible avoid any cleaning of artifacts. Any cleaning should be limited to gentle rinsing to remove loose sand or other non-artifact debris.
- Containers to be kept covered, and as cool as possible – e.g. not in direct sun if possible.

iii**. Secondary Documentation: at shore storage area**

- Digital field photos will be taken of each object in its *in situ* position or as close to it as possible. Features (such as glass, ceramic, gun flint, etc…) on concretions will also be photographed close up. All artifacts will be photographed with a scale and QAR#, and different views will be photographed as appropriate. Complete C&D Artifact Field Log.

Although more accurate, detailed information will be recorded once the artifact is at the *QAR* Lab. It is critical to record as much as possible on site, as a means of identifying the artifact in case it becomes separated from its labels.

iv. Transfer of Artifacts from boat to shore storage.

At the end of each day finds recovered will be transferred from boat to shore storage.

- C&D team responsible for listing and recording deposition of artifacts transferred.
- All finds must have TAGS with field/QAR# assigned before they leave the boat.
- No finds to be left on boat overnight.

- Water in transfer containers should be at minimum possible to keep artifacts wet – less water – lighter container. Artifacts should be padded as appropriate to minimize physical damage during transfer from boat to dockside.
- Conservator to note on Field Inventory where each artifact has been deposited.
- At storage venue: seawater in containers to be replaced with 50/50 seawater/tap water, if possible or tap water. Metal artifacts to be placed in c. 2.5% sodium carbonate solution in tap water if deemed appropriate by conservator.
- All containers to be kept sealed, covered, as cool and as dark as possible.

v. Transfer of Artifacts to QAR Shipwreck Conservation Lab. in Greenville.

- At the end of each field week C&D team will transfer all finds (unless otherwise instructed by *QAR* Project Manager, or *QAR* Field Director) to the *QAR* Lab. in Greenville.
- Conservator/s and/or other project member) to transfer the artifacts. State vehicle to be used.
- Artifacts should be padded in containers with wet foam as appropriate to minimize physical damage during transfer.
- Water in transfer containers should be at minimum possible to keep artifacts wet – less water – lighter container. Artifacts should be padded as appropriate to minimize physical damage during transfer from boat to dockside.
- All secondary level documentation to be completed before artifacts are transferred.
- Each batch of artifacts transferred to the *QAR* Lab MUST have a copy of the appropriate pages of the C&D Field Inventory; the Artifact Field Log, Unit/QAR# Inventory, Unit Forms and also copies of the Unit drawing, if available.
- At the *QAR* Lab the Artifact Field Log (dimensions, weights, photos as needed) and Artifact Lab sheets and other post recovery documentation will be completed – as described in Appendix I – Artifact Field to Lab Protocol Fall 2008
- At end of Field Operation copies of Artifact Field Log, Daily Log, lab sheet for each artifact to be given to Field Director (CS) and to *QAR* Project Manager (MWR) as well as copies of any other paperwork – lists, notes, sketches etc, relating to the artifacts.

Appendix
QAR Lab – Post Recovery Artifact Protocol, Fall 2007.

Artifacts Arriving at Lab

- Check security of tag and any artifacts NOT labeled set aside for query
- Place a date in the **RECEIVED** box once object has reached storage at the lab
- Try to determine any missing tag situations with what is not checked, if still questions ask field conservators

Artifact Processing

*Start to make Tank Inventory by writing down each number in a list; if you use the field list then there is too much room for ERROR! While making tank inventory list, complete tag information, weights and measurements

Tag Information

*Get info from Field Log—Write in Pencil on Tag

- Put Unit # in circle and E&N Coordinates in **right** top corner of tag
- Put Diver Initials in bottom **right**
- Put Recovery Date in bottom **left** corner

Weighing and Measuring

*Record this information initially in Field Log to make Lab Sheets easier

- Record all weights as Kilograms (Kg) unless too small, then record in grams (g)
- Measurements are taken in tenths of inches, usually to the nearest ¼ measurement

Photographing

- Objects that DO NOT have a field photograph need to be photographed
- Photograph objects on gray background with cm/inches scale
- Put the images in a folder on server and label it by QAR #
- Record that the object was photographed in the Field Log (Along with Green Activity Sheet)
- Each week the photos taken in the field will be removed from the laptop and put on file at lab to consult if any number mix-ups occur

Folders in Filing Cabinet

- Create folder for each new 000#
- Create an 'Artifact Lab Sheet Location' form for each folder
- Record on 'Artifact Lab Sheet Location' form which binder contains the lab sheet

Lab Sheets

- Complete lab sheet for all new 000#s—Put 'Y' in Field Log table when lab sheet is completed
- File the lab sheet in the binder marked 'Field Fall 2007'

Database

- Go into number on database and write accession # on lab sheet if not there
- Complete all fields in the database for each record
    - In *General Provenience* use this form— Unit 10/06 #24 E80 N90
    - In *Exact Provenience* put artifact's precise coordinates—otherwise use unit coordinates
    - In *Conservation Material*—if concretion with glass and ceramic visible on outside—in 1st field put concretion and which ever is more visible put glass and ceramics in the 2nd and 3rd consmat fields
- Complete conservation steps/details for each record