OCEAN EXPLORATION FINAL REPORT
Search for Trouvadore

I. OVERVIEW

Grant Number: NA06AOR46000103

Amount of Funding from OE: $77,660

Project Title: Search for Trouvadore

Area of Operation: "North coast of East Caicos Island"
19Q 233964 2407920 NW corner,
19Q 238868 2405313 N middle,
19Q 243729 2405034 NE corner,
19Q 243945 2403566 SE corner,
19Q 238884 2403772 S Breezy Point,
19Q 236416 2404980 NE corner,
19Q 233920 2406964 SW corner

Principal Investigator:
Dr. Donald H. Keith
Ships of Discovery, 1900 N. Chaparral St., Corpus Christi, TX 78401

Participating Institutions/Organizations:
Conservation Fund of the Turks & Caicos Islands
Corpus Christi Museum of Science and History
Dayton Foundation
Department of Environment and Coastal Resources (DECR, TCI)
Friends of the Turks & Caicos National Museum
KUHT, HoustonPBS
NOAA Ocean Exploration Grant Program
San Francisco Foundation
Ships of Discovery
Teddy Foundation
Turks & Caicos National Museum
Turks & Caicos Islands Tourist Board
Windward Media

Award Period:	From: 5/1//2006	To: 4/30/2007
Period Covered by this Report:	From: 5/1/2006	To: 5/1/2007

Prepared by: Donald H. Keith March 27, 2007
Principal Investigator

II. SUMMARY

1. Abstract

2. Purpose of Project

a. Describe issue that was addressed

It was long rumored in the Turks & Caicos Islands (TCI) that the ancestors of part of the present population arrived directly from Africa when the ship carrying them wrecked somewhere in the Caicos Islands. Archival research conducted over the past six years confirms this and identifies the ship as the Spanish slaver Trouvadore. Recognizing that a sizable proportion of the native population of the TCI today is descended from survivors of this wreck, the 2006 Search for Trouvadore Project grant requested funding for an expanded search for the remains of Trouvadore, wrecked in 1841 near Breezy Point on East Caicos, Turks & Caicos Islands, BWI.

b. Describe/list the project objectives

The work to be completed included: a comprehensive remote sensing and visual survey of the project area to locate all shipwrecks and debris fields; metal detector and visual surveys of the shore for remains of the survivors' and salvors' camps; sample and data collection to assist in the characterization of all sites; testing of a small wooden-hulled shipwreck site located in 2004; determination of the feasibility of future research in the search area; filming of the search for the ships and survivors' camp as part of a documentary film already underway; professional and popular reports, articles, and presentations; expanded educational information on slavery and current research on the TCNM-sponsored project website: www.slaveshiptrouvadore.com; and a report to the Government of the TCI with a comprehensive analysis of the results of the work and future research recommendations.

3. Approach

a. Describe the work that was performed

Please see section 4, below.

b. Describe how the project was organized and managed

In order to accomplish the tasks of remote sensing, site testing, visual search, and filming, the team was divided into four groups, each dedicated to their specific task. Overall management was under the leadership of Dr. Donald H. Keith, principal investigator. Filming was under the direction of Richard Coberly, Windward Media. Remote Sensing was under the direction of Jason Burns, SEARCH, Inc. Visual search was under the direction of Nigel Sadler. Site testing was under the direction of Dr. Toni L. Carrell.

c. Describe how the data was organized, processed, and archived

Digital Data:

High-definition video, magnetometer (positioning and mapping), GPS mapping and tracking, and digital images were backed up to CDs or DVDs. Magnetometer data was

processed by SEARCH, Inc. The high-definition video was archived by Windward Media and HoustonPBS/KUHT. The project images were archived at the Turks & Caicos National Museum and at Ships of Discovery on back-up hard drives and copied to DVDs. Copies of all data, with the exception of the film, will be deposited with the Turks & Caicos National Museum, Ships of Discovery, and the Department of Coastal and Environmental Resources, TCI.

Written field records:

This information was entered into word processing programs during the project, copies of which were backed up to CD or DVD as appropriate. Field drawings were scanned and photocopied and deposited at the Turks & Caicos National Museum and with Ships of Discovery. Final written reports will be deposited with the TCNM, DECR and with Ships of Discovery.

4. Findings

a. Describe significant findings or discoveries

Magnetometer Survey

The magnetometer survey used a Marine Magnetics Explorer instrument integrated with a Trimble DSM 232 DGPS providing sub-meter accuracy for the location and re-location of anomalies identified. The acquisition of all remote sensing survey data was controlled using Hypack navigation software. The magnetometer survey identified a total of 84 magnetic anomalies within the search area. Of these, 66 remain unidentified, 10 are associated with the Black Rock Wreck, 5 are associated with an iron-hulled shipwreck, one is a mooring float, one is a wooden keel and sternpost assembly, and one is an iron anchor. Most of the unidentified anomalies are small, isolated targets likely created by modern debris. However, the potential remains high that at least some of these could be pieces of historic debris, or anchors. Test excavation of one cluster of magnetic anomalies located close to the Black Rock Wreck identified wreckage clearly associated with the wreck, including outer hull planking, iron fasteners, a barrel stave, and a cathead timber. A close review of the additional magnetometer data reveals no other obvious wreck sites located within those areas surveyed. The relative paucity of magnetic anomalies within the overall search area is somewhat surprising, given the historical references to several other shipwrecks occurring there in the 19th century.

Towboard Survey

The towboard survey was highly successful despite rough seas that made the task more difficult and dangerous. Among the team's accomplishments were the discovery that one suspected shipwreck site is really a "train wreck," evidently a place where a ship carrying railroad equipment was stranded and forced to jettison tons of railroad wheels and axles to escape the reef. The team also found the remains of a relatively modern sailboat in very shallow water at the extreme northwestern end of the survey area.

Test Excavation of the Black Rock Wreck

It was a relief to find that the "Black Rock Wreck" site discovered in 2004 had not been disturbed in the intervening two years. Within a few minutes from commencement of test excavations, however, it was clear that the site was larger, more deeply buried and

better preserved than we had thought. Our original objectives with respect to test excavation of the BRW were to:

1) tow magnetometer over site to develop a "baseline profile" and to see if large concentrations of iron artifacts were in the immediate area.

2) locate bow and stern ends of the keel.

3) excavate an exploratory trench transversely across the hull to discover width of vessel amidships.

4) locate the vessel's mastercouple (widest part of the hull).

5) expose the "stempost."

6) recover wood samples from scantlings (the ship's major structural timbers) See also Appendix I.

7) record dimensions of the scantlings.

8) uncover and document construction features of the hull.

9) recover potentially diagnostic artifacts. See Appendix II.

Although we were not able to locate the bow or stern ends of the shipwreck or the master couple, we did accomplish all the other objectives which gave us a much better idea (although still just an approximation) of the ship's original size. A formal site map and feature drawings are complete. Two areas away from the main concentration of wreckage were tested and found to contain objected associated with the main wreckage field.

The documents relative to the Trouvadore story tell us very little about Trouvadore itself. We know that it was a brigantine (two-masted vessel) of about "111 Tons burthen" built some time before 1841. It was capable of carrying at least 200 people, required a crew of at least 20, and "the net proceeds of the hull and materials" salvaged was £71 6p. While the excavated physical remains of the Black Rock Wreck are consistent with this description, they are not unique. They could be those of any similar-size ship built a century earlier or half a century later.

Samples and Artifact Analysis – Results

Wood. Samples were taken from different timber "sets" of the hull: outer planking, keel, garboard, tree-nails, stringer, frames, etc. (see also Appendix I). Samples were sent to Dr. Roy A. Whitmore for identification. All of the key structural timbers in the ship are White Oak (frame, keel, and garboard). Hull planking and treenails are also white oak. Oak is a commonly used building material and is widespread throughout the Northern Hemisphere. The surviving outboard stringer is Southern Yellow Pine, which has an extensive range from Texas to Georgia and as far north as Maryland. This pine species is also found in southern Europe. The native range, however, does not limit its use in shipbuilding in northern yards as suitable timber was often trans-shipped as needed. Charcoal collected at the site is probably Eastern White Pine, which was often used in bulkheads. This species is found from Indiana to Pennsylvania/Massachusetts and from New York to Virginia as well as Northern Europe. Three samples were sent to the Forest Products Laboratory for identification. Two, 0002-A and 006, were too degraded to identify other than being a hardwood, probably Oak. The third sample, 011,

was identified as Ash (Fraxinus). Various species of ash are found in the eastern US from Maine to Florida, Canada, and in Northern Europe. Because our samples were split and quite small in diameter, they could have been intended for use as wythe to wrap barrels and containers.

Coal. Some coal bears distinctive characteristics allowing it to be traced to its source. Sample analysis was undertaken by Dr. James Robinson, SGS North America, Minerals Services Division. The sample was examined microscopically at approximately 600X magnification. Results revealed that the sample is anthracite rather than bituminous coal. Anthracite is found and produced in only limited areas and in limited quantities worldwide. In the historic past anthracite was produced in Eastern Pennsylvania in the U.S., the Asturias region on the Mediterranean coast of northern Spain, and the Mpumalanga (Eastern Transvaal) on the eastern coast of the present-day Republic of South Africa. Unfortunately, it is not possible to further define the country of origin. Other than being used in the past as a smelting agent, anthracite was and still is predominantly used as a fuel.

Ballast stone. The specimens we recovered appeared to be basalt, a type of stone which has been exhaustively studied worldwide and can be sometimes traced to region of origin. One sample was sent to Dr. John Callahan for analysis. The sample was thin-sectioned and found to be a gabbro. Gabbro is a dark, coarse-grained, intrusive igneous rock chemically equivalent to basalt. It is a plutonic rock, formed when molten magma is trapped beneath the Earth's surface and cools into a crystalline mass. The vast majority of the Earth's surface is underlain by gabbro within the oceanic crust produced by basalt magmatism at mid-ocean ridges; as such it is widely distributed. Trace element analysis is being undertaken in an effort to narrow the source of the specimens on the wreck site.

Seed. A single large pit or seed found between the ship's frames was collected and sent to Dr. Linda Perry at the Smithsonian Institution ethnobotanical laboratory. It was identified as a peach seed (Prunus persica). The morphology is solid for that species and there are no known species from Africa and Europe that could produce a confuser. This peach species was widely planted in the Northeastern United States and Europe and so does not provide any additional evidence on the nationality of the crew or ports the ship might have visited.

Ceramics. The three sherds recovered from the site, all the same type of ceramic, were sent to Dr. Debra J. Wells, archaeologist and laboratory supervisor at SEARCH, Inc. All three pieces are well fired with a buff slip interior and a reddish brown slip exterior. While none of the sherds mended to one another, they may well be from the same vessel. Two of the samples appear to be shoulder fragments while the third is a base. Based on diameter measurement of the basal sherd (10cm), this fragment is most likely from a bottle. According to South (1977: 210), brown slip stoneware bottles of this type range in date of manufacture from 1820 to 1900+ and have a mean ceramic date of 1860. In any case three sherds–possibly from the same vessel–do not constitute conclusive evidence of nationality or nature of the ship's last voyage.

Given the limited extent of the test excavations and the relatively unremarkable nature of the samples and artifacts recovered, it is unrealistic to expect a definitive result from the analyses alone. More telling, perhaps, is the fact that the Black Rock Wreck site is the only example of a large, wooden-hulled sailing ship wreck on the North coast of East Caicos. It is tempting to make the connection between Trouvadore and the Black Rock Wreck on the weight of this evidence alone; however, that is not sufficient. In the words of Sherlock Holmes, "Extraordinary claims require extraordinary evidence," and so far we do not have that evidence. That there is only one wreck, however, also presents a problem. For more on this, please see Part III, number 3, below.

Photographic and Video Coverage

All aspects of the project on the surface and below water were filmed in high-definition video. Photographic stills were taken by many members of the project and compiled in digital format for distribution to the Museum and the DECR. The documentary film makers are presently reviewing footage and coordinating editing with KUHT/HoustonPBS.

b. Inventory of activities (number of submersible dives, CTD, net tows, etc)

Summary of Digital Data Collected

High-definition video = 18 hours, about 30% underwater footage
Magnetometer, positioning and mapping = 50 MB
GPS mapping and tracking = 6 GB
Digital images = 7 GB

National Archives and Records Administration, Old Military and Civil Records Division

Enrollment records for Benj Haskell, 49 tons, built 1851 at Essex, MA; 12 pgs
Enrollment records for J. Taylor, 118 tons, built 1865 at Kennebunk, ME; 29 pgs
Enrollment records for Sidney, wrecked Sept 26, 1846, still seeking

Remote Sensing Report and Analysis by SEARCH, Inc., completed
Analysis of ethnobotanical sample, wood, ballast, coal, and ceramics, completed
Test excavation and preliminary analysis of Black Rock Wreck remains, completed

c. Inventory of samples collected

Appendix I: Samples and Specimens Recovered from the Black Rock Wreck, Ethnobotanical Sample Inventory

Appendix II: Artifacts Recovered from the Black Rock Wreck, Artifact Inventory

d. Describe resulting publications, Web sites, presentations, etc.

Publications

An unpublished report, prepared in part for the Government of the Turks & Caicos Islands Department of Environment and Coastal Resources, completed March 2007. This is a comprehensive review and analysis of the field work conducted in 2004 and 2006. A copy of this report is included with this final document to the NOAA OE Program Office.

Symposium

A symposium entitled The Search for the Slave Ship Trouvadore was given at the Society for Historical Archaeology's 2007 Conference on Historical and Underwater Archaeology from January 10-14, 2007, Williamsburg, Virginia. The presentation included a review of research and results of the 2004 and 2006 field work.

Public Presentations

Presentations in the Turks & Caicos Islands by Mr. Nigel Sadler, Director of the TNCM, have been provided to various government departments and public/private clubs and educational groups on a regular basis since the completion of the field work in July 2006.

A public presentation on the project by Dr. Toni L. Carrell was given on February 15, 2007 at the Corpus Christi Museum. The presentation was given to commemorate Black History Month.

Media coverage

Web sites: www.trouvadore.org, www.slaveshiptrouvadore.com and www.oceanexplorer.noaa.gov/explorations/06trouvadore/welcome.html

TV coverage including promotional DVD before project (local TCI station)

TV interviews after project (local TCI station)

Radio interview after project (local TCI station)

Radio interview February 13, 2007, KEDT-FM (local Texas public radio station)

Newspaper articles before and after project (Gainesville Sun, July 8 and July 24, 2006)

e. Location and status of data archive and/or sample storage

All samples are stored at the Turks & Caicos National Museum (TCNM) on Grand Turk, British West Indies. Two full data sets exist, one is stored at the TCNM, a second set is stored with Ships of Discovery, 1900 N. Chaparral St, Corpus Christi, TX 78401. The data set includes field notes and drawings, digital images, and reports.

III. EVALUATION

1. Accomplishments

a. Tasks Scheduled for the Project

1) To complete a magnetometer survey of the search area
2) To complete the visual tow-board survey begun in 2004
3) To test excavate the Black Rock Wreck discovered in 2004
4) To film every aspect of the project in high-definition video
5) To submit samples for testing and analysis
6) To conduct follow up archival research at the US National Archives on known shipwrecks in the survey area
7) To analyze the results of the test excavation of the Black Rock Wreck
8) To produce site maps and feature drawings of the Black Rock Wreck
9) To analyze the results of the magnetometer survey

10) To produce a comprehensive report on the results of the 2004 and 2006 field work and analyses with recommendations to the TCI DECR

b. Tasks accomplished this period

All of tasks scheduled above have been completed.

2. Expenditures

a. Describe expenditures scheduled for this period

Federal share expenses included: boat time, travel, remote sensing, expendable supplies, and similar were planned for this period. Non-federal expenses included: salaries of principal investigators, web updates, samples analysis, archival research, and similar.

b. Describe actual expenditures this period

Federal share expenses paid: boat time, travel, remote sensing, expendable supplies, and similar. Non-federal expenses: salaries of principal investigators, web updates, samples analysis, archival research, and similar.

c. Explain special problems, differences between scheduled and accomplished work

No special problems encountered.

3. Next Steps

a. Planned or expected reports (professional papers, presentations, etc.)

A comprehensive report on the results of the 2004 and 2006 field seasons to the TCI Department of Environment and Coastal Resources (DECR) completed in March 2007 and submitted April 2007. Public presentations on the project will continue throughout 2007 at various venues, including in the Turks & Caicos Islands. A symposium was held in January 2007 at the Society for Historical Archaeology Conference on Historical and Underwater Archeology in Williamsburg, Virginia. No other professional conference presentations are anticipated at this time. No formal publications are anticipated at this time.

b. Brief description of need for additional work, if any (next project phase, new research questions, unaccomplished work, etc.)

An unresolved question is the location of the other wooden ships known to have wrecked at Breezy Point, East Caicos. Archival research revealed that the following ships were lost here:

Sydney, schooner, wrecked 1846
Benj. Haskell, schooner, wrecked 1883
J. Taylor, schooner, wrecked 1886

Together with Trouvadore, the remains of at least four ships should be in this area. Based upon the remote sensing survey, only one ship has been unambiguously identified. It should be noted that the survey concentrated inside the fringing reef under the assumption that upon striking a prudent captain would make every effort to lighten the ship in an effort to float off the reef or be carried over into the lagoon. Failure to do so

would result in the ship breaking up on the reef with elements scattered both the outside and inside.

Archival documents uncovered to date to not provide any particulars on the wrecking events of these ships other than each was declared a total loss. This suggests that only limited salvage, if any, would have been undertaken at the time and, therefore, some remains of these ships should still be in the vicinity. But where are they?

The remote sensing survey identified 84 anomalies, 66 of which have yet to be identified. These targets are buried in the sandy lagoon and in order to "ground truth" them excavation is required. The TCI Government permit for the 2006 field work only permitted testing of the Black Rock Wreck, no other ground disturbance was authorized. Unless and until these anomalies are examined, there is no way to eliminate or identify them as ship remains. This makes it impossible for us to determine, given the generic analysis results of the samples collected in 2006, whether the Black Rock Wreck is Trouvadore or any of the other three ships.

Any next phase of this project should include a return to the search area to undertake the following:

1) localize and test the 66 anomalies;
2) expand the remote sensing search outside the fringing reef;
3) expand the remote sensing search inside the reef toward Drum Point; and
4) expand the excavations at the Black Rock Wreck to obtain more information that might result in an identification.

These efforts will require the use of a ship similar to that used in 2004 and 2006, a platform that could be moored over the Black Rock Wreck to maximize time spent on site, as well as a larger, more protected, and more seaworthy boat for the remote sensing team. The ship used in 2004 and 2006 was able to serve as a floating "base camp" for the team. These efforts will also require a field session lasting considerably longer than the slightly less than two weeks spent in each of the previous two seasons.

Should Trouvadore be identified, it will be a landmark event for the Turks and Caicos Islands. This ship carried the ancestors of a large majority of the population and is an important cultural icon for the islands.

References Cited

South, Stanley A.
Method and Theory in Historical Archaeology (Studies in Archaeology). Academic Press 1977.

APPENDIX I: SAMPLES AND SPECIMENS RECOVERED FROM THE BLACK ROCK WRECK

Ethnobotanical Sample Inventory

Site: "Wooden Shipwreck" aka "Black Rock Wreck", East Caicos, Turks & Caicos Islands

Note: All samples collected from one of two areas: 1) Area 1 in association with the centerline components, or 2) Area 2 in association with the cathead timber. Refer to field notes for geographic location of each area. Samples taken to Texas for analysis are held by Ships of Discovery. All wood left at the TCNM conservation lab stored wet in freshwater treated with bleach. Water is from a rainwater cistern at the TCNM. Samples brought to Texas for analysis, were NOT treated with bleach or a fungicide.

Wood samples collected from major frame components as indicated below

Sample #: BRW-EB001
Description: Frame
Notes: Collected Area 1, test area at 14-16m on baseline.
ID: White Oak.
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB002
Description: Treenail, several pieces.
Notes: Collected area 1, test area at 14-16m on baseline.
ID: White Oak
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB003
Description: Longitudinal stringer
Notes: Collected area 1, test area at 14-16m on baseline.
ID: So. Yellow Pine.
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB004
Description: Keel
Notes: Collected area 1, test area at 14-16m on baseline.
ID: White Oak.
Photo: No

Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB005
Description: Hull planking (outer)
Notes: Collected Area 1, test area 14-16m on baseline.
ID: White Oak.
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB006
Description: Treenail #2
Notes: Collected Area 1, test area 14-16m on baseline.
ID: White Oak.
Photo: No
Drawing: No
Treatment: Rinsed in freshwater, stored wet.

Sample #: BRW-EB007
Description: Garboard strake
Notes: Collected Area 1, vicinity of 14-16m on baseline.
ID: White Oak
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB008
Description: Keel #2 (in bag marked K&L)
Notes: Collected area 1, test area at 14-16m on baseline.
ID: White Oak.
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB009
Description: Unknown wood, 3 pieces. From ship timbers.
Notes: Collected area 1, test area at 14-16m on baseline.
ID: Red Oak.
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Other wood samples:

Sample #: BRW-EB010
Description: Pit/seed, 1 piece
Notes: Collected Area 1, vicinity of 14-16m on baseline.
ID: Peach.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB011
Description: ½ round, split wood; approximately 30 pieces.
Notes: Collected Area 2 in direct association with cathead.
ID: Ash
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Sample #: BRW-EB012
Description: Burned wood, approximately 30 pieces.
Notes: Collected Area 1, test area 14-16m on baseline.
ID: Eastern White Pine
Photo: No
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Recorded by: Toni L. Carrell
July 24, 2006 (rev March 2006)
Turks & Caicos National Museum

APPENDIX II: ARTIFACTS RECOVERED FROM THE BLACK ROCK WRECK

Artifact Inventory

Site: "Wooden Shipwreck" aka "Black Rock Wreck", East Caicos, Turks & Caicos Islands

Note: All samples collected from one of two areas: 1) Area 1 in association with the centerline components, or 2) Area 2 in association with the cathead timber. Refer to field notes for geographic location of each area. Samples taken to Texas for analysis are held by Ships of Discovery. All wood stored wet in freshwater treated with bleach in TCNM conservation lab.

Artifact #: 001
Description: Copper sheathing, 6 pieces, 1 tack
Notes: Collected area 1, test area at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 002, 003
Description: Ballast stones, 2 pieces
Notes: Collected area 1, test area at 14-16m on baseline. One piece to Texas for analysis, one piece left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored dry.

Artifact #: 004
Description: Concreted 'ring', possible thimble, 1 piece.
Notes: Collected area 1. Left at TCNM
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored in sodium carbonate.

Artifact #: 005, 006, 007
Description: Coal, 3 pieces. Taken to Texas for analysis.
Notes: Collected area 2 in association with cathead and other large concretions. Also seen in Area 1.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 008, 009, 010
Description: Ceramics, 3 pieces. Two body sherds (008, 009), one base fragment (010).
Notes: Collected Area 1, at location of 'stem post'. All taken to Texas for analysis.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored damp.

Artifact #: 011
Description: Glass bottle base with kick-up, green, 1 piece. "R. Cooper & Co. Portobello" on bottom.
Notes: Collected on shore at Breezy Point. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored dry.

Artifact #: 012
Description: Curved wood piece, probable cant piece from cask. Several nail holes on outer (curved) edge. 1 piece.
Notes: Collected Area 1, vicinity of knees. Location on basemap. Left at TCNM
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 013
Description: Cask stave; complete but broken into 3 pieces. Dimension: 108.5cm (42 3/4 in) long; 11 cm (4 1/4 in) wide; 2.2cm (7/8 in) thick.
Notes: Collected Area 2. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 014
Description: Bronze fastener, no head, 1 piece, 18cm long, tapered end, slight curve, square cross-section.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 015
Description: Bronze fastener, no head, 1 piece, 11cm long, tapered end, straight, square cross-section.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes

Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 016
Description: Bronze fastener, with head, 1 piece, 38cm long, broken end, round cross-section.
Notes: Collected Area 1, at 22m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 017
Description: Bronze fastener w/head and washer, 1 piece, wood concreted to shaft, round cross-section, peaned both ends; 42cm long, 17mm diam.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 018
Description: Bronze fastener, 1 piece, tapered point, with head, straight, square cross-section, 19 cm long.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 019
Description: Bronze Fastener, 1 piece, tapered point, w/head, square cross-section, 15 cm long, wood present.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 020
Description: Bronze fastener, 1 piece, incomplete, square cross-section, 11 cm long, wood present.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored wet.

Artifact #: 021
Description: Concretion with pinched ring on round-shafted eye-bolt fastener with key on tip, 2 pieces. Has 3 fasteners concreted to it: 1 round cross-section, 1

square cross-section, 1 square cross-section that has broken off (this is the second piece).
Notes: Collected Area 2. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored in sodium carbonate.

Artifact #: 022
Description: Concretion with two pinched-ring eye-bolt fasteners. Small fastener has key on end. Both eye-bolts are round cross-section. Other miscellaneous fasteners attached. 1 piece.
Notes: Collected Area 2. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored in sodium carbonate.

Artifact #: 023
Description: Ballast, 1 very small piece.
Notes: Collected Area 1, at 14-16m on baseline. Left at TCNM.
Photo: Yes
Drawing: No
Treatment: Rinsed freshwater, stored dry.

Recorded by: Toni L. Carrell
July 24, 2006
Turks & Caicos National Museum