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Winston-Salem  
Regional Office

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT, JR.  
GOVERNOR

P.O. BOX 25201, RALEIGH, N.C. 27611-5201

R. SAMUEL HUNT III  
SECRETARY

January 12, 1995

Ms. Shuying Wang  
Hydrogeological Technician  
DEM/Groundwater Section  
Winston-Salem Regional Office  
585 Waughtown Street  
Winston-Salem, North Carolina 27017

*For*

Re: NCDOT-Corriher Site  
Additional Closure Report Information

Dear Ms. Wang:

Attached is a letter from Aquaterra, Inc., environmental consultant for NCDOT at the above referenced site. Included is the following:

- a completed GW/UST-2 form,
- Aquaterra's sampling protocol (during conversation with Aquaterra personnel, I was told that the samples collected were "grab samples" taken from the backhoe bucket),
- Aquaterra's decontamination protocol, and
- burial depth of USTs.

Please note that no samples were collected specifically under the dispensers nor along the piping. The dispensers were located immediately above the USTs, so the closure samples should suffice for detecting leaks from tanks, dispensers and piping.

I hope this information will fulfill your request. Please contact me if you have additional questions or comments.



Sincerely,

*Gregory A. Smith*

Gregory A. Smith, L.G.  
GeoEnvironmental Supervisor  
Geotechnical Unit

cc: Susan Kite, Aquaterra



FOR  
TANKS  
IN  
NC

Return Completed Form To:

The appropriate DEM Regional Office according to the county of the facility's location.  
[SEE MAP ON REVERSE SIDE OF OWNER'S COPY (PINK) FOR REGIONAL OFFICE ADDRESS].

State Use Only

I.D. Number \_\_\_\_\_

Date Received \_\_\_\_\_

INSTRUCTIONS

Complete and return within (30) days following completion of site investigation.

I. Ownership of Tank(s)

Owner Name: NC Department of Transportation  
Corporation, Individual, Public Agency or Other Entity  
 Street Address: PO Box 25201  
 County: Wake  
 City: Raleigh State: NC Zip Code: 27611-5201  
 Telephone Number: (919) 250-4088  
(Area Code)

II. Location of Tank(s)

Facility Name: Former Henry L. Corriher Property  
(or Company)  
 Facility ID # (if available): \_\_\_\_\_  
 Street Address: Stratford Road  
(or State Road)  
 County: Forsyth City: Winston-Salem Zip Code: \_\_\_\_\_  
 Telephone Number: (\_\_\_\_) \_\_\_\_\_  
(Area Code)

III. Contact Person

Name: W. L. Moore III Job Title: State Engineering Geologist Tel. No.: (919) 250-4088  
 Closure Contractor: Four Seasons Environ. Address: 3107 S. Elm Eugene St. Tel. No.: (910) 273-2718  
 Primary Consultant: Aquaterra, Inc Address: 4600 Dundas Dr. Tel. No.: (910) 852-5003  
 Lab: IEA Address: Research Triangle Park Tel. No.: (919) 677-0427

IV. U.S.T. Information

V. Excavation Condition

VI. Additional Information Required

Tank No.	Size in Gallons	Tank Dimensions	Last Contents	Water In Excavation		Free Product		Notable Odor or Visible Soil Contamination	
				Yes	No	Yes	No	Yes	No
T1	1,000	12' x 3.9'	Gasoline		X		X		X
T2	1,000	12 x 3.9'	Gasoline		X		X		X

See reverse side of pink copy (owner's copy) for additional information required by N.C. - DEM in the written report and sketch.

**NOTE:** The site assessment portion of the tank closure must be conducted under the supervision of a Professional Engineer or Licensed Geologist. After Jan. 1, 1994, all closure site assessment reports must be signed and sealed by a P.E. or L.G.

VII. Check List (Check the activities completed)

PERMANENT CLOSURE (For Removing or Abandoning-in-place)

- Contact local fire marshal.
  - Notify DEM Regional Office before abandonment.
  - Drain & flush piping into tank.
  - Remove all product and residuals from tank.
  - Excavate down to tank.
  - Clean and inspect tank.
  - Remove drop tube, fill pipe, gauge pipe, vapor recovery tank connections, submersible pumps and other tank fixtures.
  - Cap or plug all lines except the vent and fill lines.
  - Purge tank of all product & flammable vapors.
  - Cut one or more large holes in the tanks.
  - Backfill the area.
- Date Tank(s) Permanently closed: 2/21/92  
 Date of Change-in-Service: \_\_\_\_\_

ABANDONMENT IN PLACE

- Fill tank until material overflows tank opening.
- Plug or cap all openings.
- Disconnect and cap or remove vent line.
- Solid inert material used - specify: \_\_\_\_\_

REMOVAL

- Create vent hole.
  - Label tank.
  - Dispose of tank in approved manner.
- Final tank destination: D.H. Griffin Wrecking Company

VIII. Certification (Read and Sign)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Print name and official title of owner or owner's authorized representative

Signature

Date Signed

J. Thomas Dade Jr. Staff Environmental

J. Thomas Dade Jr.

12/22/94



**aquaterra**<sup>®</sup>

ENVIRONMENTAL CONSULTANTS:

POST OFFICE BOX 49532 • GREENSBORO, NC 27419 • (910) 852-5003 • FAX (910) 854-9199

A GREAT LAKES CHEMICAL CORPORATION COMPANY

JAN 05 1995

January 4, 1995

Mr. Gregory A. Smith  
North Carolina Department of Transportation  
Geotechnical Unit  
Post Office Box 25201  
Century Center  
Raleigh, North Carolina 27611-5201

DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
GEOTECHNICAL UNIT

RECEIVED  
N.C. Dept. of EHNH

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Winston-Salem  
Regional Office

Reference: Request for Additional UST Closure Assessment Information  
NCDOT Project 9.8091812 (U-2311)  
Former Henry L. Corriher Property  
Clemmons, North Carolina  
Forsyth County, North Carolina  
Aquaterra Job No. G855

Dear Mr. Smith:

In response to your FAX transmittal dated December 19, 1994, Aquaterra, Inc. (Aquaterra) has compiled the requested data concerning the underground storage tank (UST) removal and closure assessment report from the former Henry L. Corriher property. Included is a copy of the completed GW/UST-2 form as well as a brief summary of the sampling and decontamination protocol. According to the data recorded by the Aquaterra field technician, the tops of the USTs in question were located at a depth of approximately two (2) feet below ground surface.

If any additional information is required, please contact us at (910) 852-5003

Sincerely,

AQUATERRA, INC.

*Kirk Pollard for*

J. Thomas Dade, Jr.  
Staff Environmental Scientist

*Susan Kite*

Susan Kite, P.G.  
Project Geologist/Project Manager



JTD/GL4150

## OVA Screening and Soil Sampling Procedures

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### Headspace Screening

Soils are screened with an organic vapor analyzer (OVA) for total volatile organic compounds (VOCs), which may indicate organic or petroleum hydrocarbon contamination. A typical procedure for screening soils involves filling a clean container approximately halfway with soil and sealing the container with aluminum foil. This creates a headspace in which the VOCs in the soil accumulate and equilibrate. After allowing approximately 10 minutes for this processes to occur, the probe of the OVA is then inserted through the aluminum foil seal into the headspace of the container to obtain a VOC reading.

### Sample Collection Protocols

Soil samples selected for laboratory analysis are collected into laboratory provided containers appropriate for the parameters being analyzed and are labeled with a minimum of the following information: sampler's name, date of collection, sample number, analysis to be performed, and project number. Soil samples are stored and transported to the analytical laboratory in an insulated cooler chilled to approximately 4°C. To ensure sample integrity, all samples are transported in accordance with EPA chain-of-custody protocols.

# Decontamination Procedures

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Equipment decontamination is essential to assure valid, representative samples are collected and to eliminate the potential for cross-contamination between sample points. Aquaterra strives to decontaminate equipment in the laboratory or office. However, equipment such as water level probes, sampling trowels, or hand auger buckets often must be decontaminated in the field.

## Field Decontamination

The decontamination procedures outlined below are used for field equipment (e.g., hand augers, split spoon sampling device, trowels) that comes into direct contact with the material being sampled and that is used more than once at a particular site.

1. Phosphate-free soap (Alconox or equivalent) and distilled water rinse (Note: If the equipment becomes contaminated with oils or other possible organic residues, then the equipment will be washed with isopropyl alcohol.)
2. Triple distilled water rinse

Drill rigs and drilling equipment (e.g., augers, drill rod, bits, stabilizers, hammers) are decontaminated between each boring with high pressure steam and scrub brush. If equipment does not come clean with high pressure steam and scrubbing, the equipment is washed with a phosphate free soap. If oily or chemical residues are present, the equipment is rinsed with isopropyl alcohol and potable water.

## Teflon Bailer Decontamination

Teflon bailers are decontaminated at an analytical laboratory using the following procedure:

1. Soap (Alconox or equivalent) and tap water wash
2. Tap water rinse
3. 10% nitric acid wash
4. Distilled water rinse
5. Isopropyl alcohol wash
6. Double distilled water rinse
7. Air dried and wrapped in aluminum foil with shiny side out
8. Sealed in plastic bags