

N61165.AR.005190  
CNC CHARLESTON  
5090.3a

MISCELLANEOUS FILES ZONE G SITE 19 BUILDING 3909 CNC CHARLESTON SC  
10/31/2002  
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



31 October 2002

100 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Earl Hunter

BOARD:  
Bradford W. Wyche  
Chairman

Mark B. Kent  
Vice Chairman

Howard L. Brilliant, MD  
Secretary

Earl L. Brazell

Louisiana W. Wright

Michael Blackmon

Harry R. Chewning, Jr., DMD

Commander  
NAVFACENGCOM Southern Division  
Attn: Code ES24 (Gabriel Magwood)  
P.O. Box 190010  
North Charleston, SC 29419-9010

Re: CNB – Zone G, Site 19 / BLDG 3909  
**Site Identification # 01093**  
Well Abandonment  
Charleston County

Dear Mr. Magwood:

Information submitted to the Department indicates that the current tenant of this site has placed materials on top of various wells at this site. The tenant has requested that site activities be placed on hold until January. When site activities resume, the tenant will (at their expense) take a survey of the wells and replace any damaged wells.

Any wells currently damaged may be permanently abandoned by a certified well driller licensed in South Carolina in accordance with the South Carolina Well Standards and Regulations, R.61-71. Please submit a well abandonment record to my attention within 30 days of abandonment.

Please submit a site status report no later than 28 March 2003. Should you have any questions, please contact me at (803) 898-3553 (office phone), (803) 898-2893 (fax) or via e-mail: [bishopma@dhec.state.sc.us](mailto:bishopma@dhec.state.sc.us).

Sincerely,

Michael A. Bishop, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC  
Jerry Stamps, SCDHEC-BLWM  
Brian Crawford, 1849 Ave. F, N. Charleston SC, 29405  
Technical File



19 May 2000

2600 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Douglas E. Bryant

Department of the Navy  
Southern Division NFEC

BOARD:  
Bradford W. Wyche  
Chairman

P.O. Box 190010  
North Charleston, SC 29419-9010

William M. Hull, Jr., MD  
Vice Chairman

Attention: Mr. Gabriel Magwood

Mark B. Kent  
Secretary

Re: Final Assessment Report dated 25 January 2000  
Zone G/Site 18-Building 123 (Site Identification # 16763)  
Zone G/Site 19-AST 3909 (Site Identification # 01093)  
Charleston Naval Complex/Charleston Naval Base  
Charleston, SC  
Charleston County

Howard L. Brilliant, MD

Brian K. Smith

Rodney L. Grandy

Larry R. Chewning, Jr., DMD

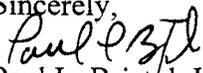
Dear Mr. Magwood:

The author has completed technical review of the referenced document. As submitted, the report provides a narrative and summary of previous assessment activities and analytical results from additional sampling conducted to establish the environmental fate of suspected contamination at the subject property. Analytical results provided indicate that concentrations of PAH and VOC compound(s) were reported in soil and groundwater samples obtained at the subject site. The reported concentrations exceed the RBSL (Risk-Based Screening Levels, SCDHEC *Risk-Based Corrective Action for Petroleum Releases*, 5 January 1998), proposed RBC (Risk-Based Concentrations for Residential Soils, EPA Region III Risk-Based Concentrations Table, 07 October 1999) and established groundwater MCLs (maximum contaminant levels) and/or established health advisories. Available analytical data and applied interpretations appear to indicate that a reasonable delineation and characterization of the extent and severity of soil contamination has been developed for the subject sites. Additional investigations are necessary to complete groundwater characterizations in the downgradient direction. This information and data were then utilized to develop SSTL (site specific target levels) for CoC (contaminants of concern) in evidential discussion(s) for consideration of employing active remediation (free product recovery) with subsequent monitored natural attenuation at the subject sites.

With consideration to the above, the author concurs with the proposal for corrective actions at the referenced site. The facility should develop an appropriate CAP (corrective action plan), including appropriate groundwater assessments and proposed sampling and reporting schedule. A schedule for development of the requested CAP should be submitted to my attention by 30 June 2000. Should you have any questions please contact me at 803-898-3559 (land line), 803-898-3795 (fax) or [bristopl@gw.state.sc.us](mailto:bristopl@gw.state.sc.us) (e-mail).

Charleston Naval Complex/Charleston Naval Base  
19 May 2000  
page 2

Sincerely,

  
Paul L. Bristol, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC

BOARD:  
Elizabeth M. Hagood  
Chairman  
  
Edwin H. Cooper, III  
Vice Chairman  
  
L. Michael Blackmon  
Secretary



C. Earl Hunter, Commissioner

*Promoting and protecting the health of the people and the environment.*

04/13/2005

BOARD:  
Carl L. Brazell  
  
Steven G. Kisner  
  
Paul C. Aughtry, III  
  
Coleman F. Buckhouse, MD

Commander  
NAVFACENGCOM Southern Division  
Attn: Code ES24 (Gabriel Magwood)  
P.O. Box 190010  
North Charleston, SC 29419-9010

Re: CNB – Zone G, Site 19 / BLDG 3909  
**Site Identification # 01093**  
Monitoring Well Installation and Sampling Proposal received 8 April 2005  
Charleston County

Dear Mr. Magwood:

The Department has reviewed the referenced correspondence and offers the following comments:

1. The Department understands that limits imposed upon the site by the current tenant necessitate the installation of additional monitoring points. CNB may proceed immediately with the installation of the new upgradient and downgradient monitoring points as proposed.
2. CNB has proposed that wells CNC18-MW01 and CNC19-MW04 be abandoned due to physical damage to the wells. CNB may proceed with the abandonment of MW04 using best professional judgment. However, should the northeast side of the plume prove undefined due to such abandonment, CNB will be required to reestablish this monitoring point. Well MW01 should be replaced as it proves vital to the monitoring of the release at UST Facility - CNB BLDG 123. As you may recall, BLDG 123 was issued an NFA by the UST Program with the caveat that contamination in this area would be investigated under the AST 3909 project.
3. As other wells at this site have been damaged by onsite activities and required abandonment, the Department requests that CNB provide information as to the status of monitoring wells FDSGW01C and CNC18MW02 in all future monitoring reports. When the wells are uncovered, CNB should immediately conduct an inspection of both wells and provide a status and recommendations for any needed corrective actions to the Department.
4. Once well installation activities have been completed, CNB should resume routine monitoring at this site. Please submit the next monitoring report no later than 31 August 2005.

Should you have any questions, please contact me at (803) 898-3553 or [bishopma@dhec.sc.gov](mailto:bishopma@dhec.sc.gov).

Sincerely,

Michael Bishop, Hydrogeologist  
Groundwater Quality Section  
Water Monitoring, Assessment and Protection Division

enc: Copy of Monitor Well Approval

cc: Trident District EQC (w/enc)  
Jerry Stamps – BLWM (w/enc)  
Darryl F. Gates, CH2M Hill-Jones, 1330 Kilo St, N. Charleston, SC 29405 (with original Monitoring Well Approval)  
Technical File (w/enc)

BOARD:  
Elizabeth M. Hagood  
Chairman  
Mark B. Kent  
Vice Chairman  
Howard L. Brilliant, MD  
Secretary



BOARD:  
Carl L. Brazell  
Louisiana W. Wright  
L. Michael Blackmon  
Coleman F. Buckhouse, MD

C. Earl Hunter, Commissioner

*Promoting and protecting the health of the public and the environment.*

13 August 2004

Commander  
NAVFACENGCOM Southern Division  
Attn: Code ES24 (Gabriel Magwood)  
P.O. Box 190010  
North Charleston, SC 29419-9010

Re: CNB – AST 3909  
**Site Identification # 01093**  
Remediation Monitoring Report received 12 August 2004  
Charleston County

Dear Mr. Magwood:

The Department has completed technical review of the referenced document. Interpretation of the analytical data provided in the referenced report indicates that chemicals of concern remain above established Risk-Based Screening Levels and MCLs. The Department concurs with the conclusions as presented in the report; routine groundwater monitoring and reporting should continue in conjunction with passive free product recovery.

Please submit the next remediation monitoring report no later than 31 December 2004. Should you have any questions, please contact me at 803-898-3553 (office phone), 803-898-2893 (fax) or [bishopma@dhec.sc.gov](mailto:bishopma@dhec.sc.gov).

Sincerely,

Michael A. Bishop, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC  
Jerry Stamps, BLWM  
Darryl Gates, CH2M-Jones, 1330 Kilo Street, N. Charleston, SC 29405  
Technical File



19 July 2001

2600 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Douglas E. Bryant

BOARD:  
Bradford W. Wyche  
Chairman

William M. Hull, Jr., MD  
Vice Chairman

Mark B. Kent  
Secretary

Howard L. Brilliant, MD

Brian K. Smith

Louisiana W. Wright

Larry R. Chewning, Jr., DMD

DEPARTMENT OF THE NAVY  
SOUTHERN DIVISION NAVAL FEC  
GABRIEL MAGWOOD  
2155 EAGLE DRIVE  
N. CHARLESTON SC 29406

RE: Site 19, AST 3909, Zone G - Charleston Naval Complex  
Site Identification # 01093  
Corrective Action Plan received 1 May 2001  
Charleston County

Dear Mr. Magwood:

The Department has completed technical review of the referenced document. As submitted, the Corrective Action Plan (CAP) provides an outline of active corrective action activities designed to remediate hydrocarbon contamination at the referenced facility.

Groundwater remediation will consist of free product removal. Three options were presented in the CAP, Manual bailing, passive removal / skimming and bioremediation. Manual bailing will be implemented first and passive removal / skimming and/or bioremediation will only be used if manual efforts are unsuccessful. As bioremediation may require additional permits, the Department must be notified prior to implementing this method. Please give due consideration to the fact that free product recovery may lead to an increase in dissolved contamination, necessitating a modification to the CAP in order to achieve reasonable cleanup goals. The CAP stated that existing monitoring wells would be used for free product recovery. The Department retains the right to require additional verification wells at the conclusion of corrective action activities to ensure cleanup consistency. Although soil contamination is not present in excess of the established RBSL limits, confirmation sampling of soils may also be required at the conclusion of remediation activities.

The request to initiate corrective action activities as outlined in the reference document is approved for implementation with consideration for the limitations discussed above.

Please provide the Department with a schedule for corrective action implementation at this site. Once corrective action is initiated, the Department should receive monitoring reports as described in the CAP. Should you have any questions please contact me at 803-898-3553 (office phone), 803-898-3795 (fax) or by e-mail [bishopma@columb32.dhec.state.sc.us](mailto:bishopma@columb32.dhec.state.sc.us).

Sincerely,

Michael A. Bishop, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC  
Paul Bergstrand, SCHDEC-BLWM  
Brian Crawford, Charleston Naval Complex, 1848 Ave. F, North Charleston, SC 29405  
Technical File



24 February 1999

2600 Bull Street  
Columbia, SC 29201-1708

COMMISSIONER:  
Douglas E. Bryant

BOARD:  
John H. Burriss  
Chairman

William M. Hull, Jr., MD  
Vice Chairman

Roger Leaks, Jr.  
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

Department of the Navy  
Southern Division NFEC  
P.O. Box 190010  
North Charleston, SC 29419-9010  
Attention: Mr. Gabriel Magwood

Re: Site Assessment Plan dated 9 February 1999  
Zone G/Site 19-AST 3909 (Site Identification # 01093)  
Charleston Naval Complex/Charleston Naval Base  
Charleston, SC  
Charleston County

Dear Mr. Magwood:

The author has completed technical review of the referenced document. As submitted, the SAP (site assessment plan) provides for additional investigative endeavors to determine the extent and severity of soil and groundwater contamination, if any, associated with a suspected release at the subject site. It is recognized that the initial tasks (i.e., soil borings, piezometers, etc.) are generically designed to allow for field modifications/adjustments, as necessary. Based on the foregoing review, the proposal to perform soil borings, piezometer installation (Phase I) and monitoring well installation (Phase II) and appropriate sampling is approved for implementation. Permanent monitoring well installation (Phase II), with the exception(s) noted below, will be conducted after appropriate consultation with the Department concerning Phase I analytical results.

The facility may use best professional judgement to install additional temporary monitoring points to define the extent and severity of free phase petroleum product and/or significant dissolved phase contamination if identified during Phase I field activities. Temporary monitoring wells may be converted to permanent wells at the time of installation in the presence of free phase petroleum product, as appropriate.

Please find enclosed monitoring well approval # 0392 for the proposed piezometers, soil borings and monitoring wells. Abandonment of all intrusive sampling points will be in accordance with the technical specifications and descriptions provided and/or referenced in the SAP or as approved by the Department.

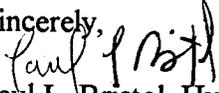
Please be reminded that the Department retains the authority to request additional assessments and/or remedial endeavors, as appropriate, if future conditions or information warrant and are

Charleston Naval Complex/Charleston Naval Base  
24 February 1999  
page 2

deemed necessary.

Should you have any questions please contact me at (803) 898-3559.

Sincerely,



Paul L. Bristol, Hydrogeologist  
Groundwater Quality Section  
Bureau of Water

enc.: Monitoring Well Approval # 0392  
cc: Trident District EQC



Date of Issue: 24 February 1999  
Approval No: 0392

2600 Bull Street  
Columbia, SC 29201-1708

## Monitoring Well Installation Approval

COMMISSIONER:  
Douglas E. Bryant

Approval is hereby granted to: Charleston Naval Complex/Charleston Naval Base  
(on behalf of): Zone G/Site 19-AST 3909  
Site ID#: 01093  
County: Charleston

BOARD:  
John H. Burriss  
Chairman

William M. Hull, Jr., MD  
Vice Chairman

Roger Leaks, Jr.  
Secretary

Mark B. Kent

Cyndi C. Mosteller

Brian K. Smith

Rodney L. Grandy

This approval is for the construction of DPT (direct push technology) piezometers and monitoring wells (number to be field determined) in accordance with the construction plans and technical specifications submitted to the Department on 9 February 1999. The piezometers and monitoring wells are to be constructed within the surficial aquifer for the intended purpose of monitoring groundwater quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well be submitted to within thirty (30) days of completion (of last well(s) installed).  
(to be submitted with Assessment Report)
2. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.
3. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Trident District EQC Office (843-740-1590).
4. Please provide groundwater quality analytical data (chemical analyses and/or water level(s)) and associated measurements (i.e., field measurements) to Paul L. Bristol within thirty (30) days of receipt from laboratory.  
(to be submitted with Assessment Report)
5. Monitoring wells shall be installed by a well driller certified by the State of South Carolina.
6. Each well shall be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate shall provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification number.  
(for permanent wells, only)

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Approved by:

  
\_\_\_\_\_  
Paul L. Bristol, P.G.  
Groundwater Quality Section  
Bureau of Water

cc: Trident District EQC



**TETRA TECH NUS, INC.**

1311 Executive Center Drive, Ellis Building, Suite 220 Tallahassee, FL 32031  
(850) 656-5458 ■ FAX (850) 656-7403 ■ www.tetrattech.com

LI 2.24.99  
LO 2.24.99

TTNUS/TAL-99-008/0124/3.2

9 February, 1999

Project Number 0124

Mr. Paul Bristol  
South Carolina Department of Health and Environmental Control  
Groundwater Quality Section  
Bureau of Water  
2600 Bull Street  
Columbia, South Carolina 29201-1708

Reference: Clean Contract No. N62467-94-D0888  
Contract Task Order No. 0088

Subject: Site Assessment Plan for  
Charleston Naval Complex - Zone G  
Charleston, South Carolina

Dear Mr. Bristol:

On behalf of the Department of the Navy, Southern Division, Naval Facilities Engineering Command, Tetra Tech NUS, Inc. is pleased to submit for your review and approval, the Site Assessment Plan for the referenced zone at the Charleston Naval Complex.

If you have any questions regarding this plan or require further information, please contact me at (850) 656-5458.

Very truly yours,

Paul E. Calligan, P.G.  
Task Order Manager

/pc

Enclosures (1)

- c: Ms. D. Evans-Ripley, SOUTHDIV (w/o enclosure)
- Mr. Gabriel Magwood, SOUTHDIV
- Ms. D Wroblewski, TtNUS (w/o enclosure)
- Mr. A. Kendrick, TtNUS
- file