PHASE I INITIAL SITE INVESTIGATION AND TIER CLASSIFICATION

Prepared for:
Eagle Gas, Inc.
131 Main Street, Carver, MA
DEP RTN 4-17582

Prepared by:
Decoulos & Company

Date: April 30, 2004

DECOULOS & COMPANY
ENVIRONMENTAL ENGINEERING & LAND PLANNING

Friday, April 30, 2004

Jonathan E. Hobill, Regional Engineer
Bureau of Waste Site Cleanup
20 Riverside Drive
Lakeville, MA 02347

RE: 131 Main Street, Carver; RTN 4-17582

Dear Mr. Hobill:

On behalf of Eagle Gas, Inc., Decoulos & Company is pleased to submit this Phase I Initial Site Investigation Report and Tier Classification for the above referenced property.

Based upon our findings, the score from the Numerical Ranking System scoresheet is 742 and the site is therefore classified as Tier IA.

Eagle is requesting that RTN 4-17825 be linked to this release and the Tier Classification Transmittal Form has been checked accordingly.

The Department issued a Notice of Noncompliance related to this release on March 19, 2004 (NON-SE-03-3T-103). Eagle will soon be submitting an Immediate Response Action Status Report for this release to additionally comply with the NON.

We appreciate your patience and cooperation on this matter. Please feel free to call or email if you have any questions or concerns. Thank you.

Very truly yours,

James J. Decoulos, PE, LSP
jamesj@decoulos.com

cc: Francis J. Casey, Carver Board of Selectmen
Robert C. Tinkham, Jr., Carver Board of Health
Sarah G. Hewins, Carver Conservation Commission
William A. Halunen, Carver Department of Public Works
Dana E. Harriman, Carver Fire Department
Donald P. Nagle, Esq.
Theodore J. Kaegael, Jr., Kaegael Environmental, Inc.
Theodore L. Bosen, Esq.
Najib Badaoui, Eage Gas, Inc.

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Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
4 - 17582

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

A. SITE LOCATION:

1. Site Name: Eagle Gas, Inc.

2. Street Address: 131 Main Street

3. City/Town: Carver 4. ZIP Code: 02330-0000

☑ 5. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☑ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC ☐ d. Tier II

6. If applicable, provide the Permit Number: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

☑ 1. Submit a **Phase I Completion Statement**, pursuant to 310 CMR 40.0484.

☐ 2. Submit a **Revised Phase I Completion Statement**, pursuant to 310 CMR 40.0484.

☐ 3. Submit a **Phase II Scope of Work**, pursuant to 310 CMR 40.0834.

☐ 4. Submit an **interim Phase II Comprehensive Site Assessment Report** pursuant to 310 CMR 40.0835 (An interim Phase II Report does not satisfy the response action deadline requirements in 310 CMR 40.0500).

☐ 5. Submit a **final Phase II Comprehensive Site Report and Completion Statement**, pursuant to 310 CMR 40.0836.

Specify the outcome of the Phase II Comprehensive Site Assessment: (check one)

☐ a. Comprehensive Remedial Actions are necessary at the site to achieve a Response Action Outcome. A Phase III study for the identification, evaluation, and selection of Comprehensive Remedial Action Alternatives, pursuant to 310 CMR 40.0850, is necessary.

☐ b. The requirements of a Class A Response Action Outcome have been met, and a completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class B Response Action Outcome have been met and a completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ 6. Submit a **Revised Phase II Comprehensive Site Report and Completion Statement**, pursuant to 310 CMR 40.0836.

☐ 7. Submit a **Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.

☐ 8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.

☐ 9. Submit a **Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.

☐ 10. Submit a **Modified Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.

☐ 11. Submit an **As-Built Construction Report**, pursuant to 310 CMR 40.0875.

(All sections of this transmittal form must be filled out unless otherwise noted above)

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 12. Submit a **Phase IV Final Inspection Report and Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

Specify the outcome of Phase IV activities: (check one)

☐ a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Response Action Outcome.

☐ b. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ d. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ 13. Submit a **Revised Phase IV Final Inspection Report and Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

☐ 14. Submit a **periodic Phase V Inspection & Monitoring Report**, pursuant to 310 CMR 40.0892.

☐ 15. Submit a **Remedy Operation Status**, pursuant to 310 CMR 40.0893.

☐ 16. Submit a **Termination of a Remedy Operation Status**, pursuant to 310 CMR 40.0893(5).

☐ 17. Submit a **final Phase V Inspection & Monitoring Report and Completion Statement**, pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

☐ a. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement (BWSC104) will be submitted to DEP.

☐ b. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and/or that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ 18. Submit a **Revised Phase V Inspection & Monitoring Report and Completion Statement**, pursuant to 310 CMR 40.0894.

☐ 19. Submit a **Post-Response Action Outcome Inspection & Monitoring Report**, pursuant to 310 CMR 40.0897.

(All sections of this transmittal form must be filled out unless otherwise noted above)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number: 4 - 17582

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B indicates that a* ***Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that a* ***Phase II Scope of Work*** *or a* ***Phase IV Remedy Implementation Plan*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that an* ***As-Built Construction Report, Phase V Inspection and Monitoring Report,*** *or a* ***Remedy Operation Status*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9360

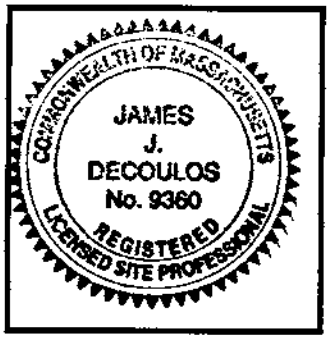
2. First Name: James 3. Last Name: Decoulos

4. Telephone: (617) 489-7795 5. Ext.: _____ 6. FAX: (877) 842-9629

7. Signature: _____

8. Date: 04/30/2004 (mm/dd/yyyy)

9. LSP Stamp:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
4 - 17582

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

D. PERSON UNDERTAKING RESPONSE ACTIONS:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: Eagle Gas, Inc.

3. Contact First Name: Najib 4. Last Name: Badaoui

5. Street: 131 Main Street 6. Title: President

7. City/Town: Carver 8. State: MA 9. ZIP Code: 02330-0000

10. Telephone: (508) 866-9098 11. Ext.: 12. FAX:

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS:

☑ 1. RP or PRP ☐ a. Owner ☑ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking Response Actions Specify Relationship:

F. REQUIRED ATTACHMENT AND SUBMITTALS:

☑ 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☑ 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.

☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.

☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.

☐ 5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.

☐ 6. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Name. Send corrections to the DEP Regional Office.

☑ 7. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
4 - 17582

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, Najib Badaoui , attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: _____ 3. Title: President
Signature

4. For: Eagle Gas, Inc. 5. Date: 04/30/2004
(Name of person or entity recorded in Section D) (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC107

TIER CLASSIFICATION TRANSMITTAL FORM

Pursuant to 310 CMR 40.0500 (Subpart E)

Release Tracking Number
4 - 17582

A. DISPOSAL SITE LOCATION:

1. Disposal Site Name: Eagle Gas, Inc.

2. Street Address: 131 Main Street

3. City/Town: Carver 4. ZIP Code: 02330-0000

B. THIS FORM IS BEING USED TO: (check all that apply)

☑ 1. Submit a new **Tier Classification Submittal for a Tier I Site**, including a **Numerical Ranking Scoresheet** (BWSC107A) (check one) A Tier I Permit Application must also be submitted.

☑ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC

☐ 2. Submit a new **Tier Classification Submittal for a Tier II Site**, including the **Numerical Ranking Scoresheet** (BWSC107A) and the **Tier II Compliance History** (BWSC107B)

☐ 3. Submit a **Phase I Completion Statement** as per 310 CMR 40.0480

If previously submitted, provide date _____ mm/dd/yyyy

☐ 4. Submit a **Phase II Scope of Work** as per 310 CMR 40.0834

If previously submitted, provide date _____ mm/dd/yyyy

☐ 5. Submit a **Phase II Conceptual Scope of Work supporting a Tier Classification Submittal**

☐ 6. Submit a **Tier II Extension Submittal** for Response Actions at a Tier II Site including the **Tier II Compliance History** (BWSC107B)

☐ 7. Submit a **Tier II Transfer Submittal** for a change in person(s) undertaking Response Actions at a Tier II Site including the **Tier II Compliance History** (BWSC107B) and the **Tier II Transferor Certification** (BWSC107C)

Proposed effective date of transfer : _____
mm/dd/yyyy

☐ 8. Submit a **Revised Tier Classification Submittal,** including a **Numerical Ranking Scoresheet** (BWSC107A) A Major Permit Modification may also need to be submitted.

If this revised submittal is re-classifying the site check the new classification.

☐ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC ☐ d. Tier II

☑ 9. Submit a **Notice that an additional Release Tracking Number(s) is (are) being linked to this Tier Classified Site** (Primary RTN). Future response actions addressing the Release or Threat of Release notification condition associated with additional Release Tracking Numbers (RTNs) will be conducted as part of the Response Actions planned or ongoing at the Primary Site listed above. For a previously Tier Classified Primary Site, if there is a reasonable likelihood that the addition of the new secondary RTN(s) would change the classification of the site, a **Revised Tier Classification Submittal** must also be made.

Provide Release Tracking Number(s): a. 4 - 17825 b. ☐ -

All future Response Actions must occur according to the deadlines applicable to the Primary RTN. Use only the Primary RTN when making future submittals for this site unless specifically relating to response actions started before the linking occurred.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC107

Release Tracking Number
4 - 17582

TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B of this form indicates that a* ***Tier I or Tier II Classification Submittal*** *including the* ***Numerical Ranking System Scoresheet*** *is being submitted*, this Tier Classification Submittal has been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that a* ***Phase I Completion Statement*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that a* ***Phase II Scope of Work*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that a* ***Tier II Extension Submittal*** *or a* ***Tier II Transfer Submittal*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9360

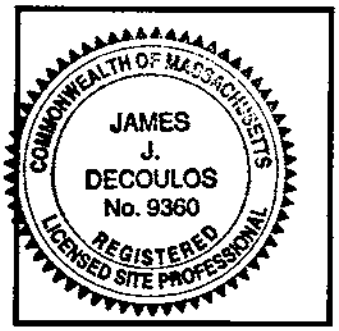
2. First Name: James 3. Last Name: Decoulos

4. Telephone: (617) 489-7795 5. Ext.: _____ 6. FAX: (877) 842-9629

7. Signature: _____

8. Date: 04/30/2004
mm/dd/yyyy

9. LSP Stamp:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC107

Release Tracking Number
4 - 17582

TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

D. PERSON MAKING SUBMITTAL:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: Eagle Gas, Inc.

3. Contact First Name: Najib 4. Last Name: Badaoui

5. Street: 131 Main Street 6. Title: President

7. City/Town: Carver 8. State: MA 9. ZIP Code: 02330-0000

10. Telephone: (508) 866-9098 11. Ext.: 12. FAX:

E. RELATIONSHIP OF PERSON MAKING SUBMITTAL TO DISPOSAL SITE:

☑ 1. RP or PRP ☐ a. Owner ☑ b. Operator ☐ c. Generator ☐ d. Transporter

☐ e. Other RP or PRP Specify:

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Making Submittal Specify Relationship:

F. REQUIRED ATTACHMENT AND SUBMITTALS:

☑ 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☑ 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.

☑ 3. Check here to certify that a Legal Notice of a Tier Classification or Re-classification Submittal has been or will be made according to 310 CMR 40.1403, and a copy of the notice sent to DEP, the Chief Municipal Officer and the Local Board of Health.

☐ 4. For a Tier II Extension Submittal, check here to certify that a statement summarizing why a Permanent or Temporary Solution has not been achieved at the Disposal Site is attached.

☐ 5. For a Tier II Transfer Submittal, check here to certify that a statement summarizing the reasons for the proposed change in person(s) undertaking the Response Actions is attached. All Response Actions must be completed by the deadline applicable to the person who first filed either a Tier Classification Submittal for the Disposal Site or received a Waiver of Approvals.

☐ 6. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.

☑ 7. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC107

Release Tracking Number
4 - 17582

TIER CLASSIFICATION TRANSMITTAL FORM
Pursuant to 310 CMR 40.0500 (Subpart E)

G. CERTIFICATION OF PERSON MAKING SUBMITTAL:

1. I, Najib Badaoui , attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

If submitting a Tier II Classification, Extension or Transfer, I also attest under the pains and penalties of perjury that (i) I/the person(s) or entity(ies) on whose behalf this submittal is made has/have personally examined and am/is familiar with the requirements of M.G.L. c. 21E and 310 CMR 40.0000; (ii) based upon my inquiry of the/those Licensed Site Professional(s) employed or engaged to render Professional Services for the disposal site which is the subject of this Transmittal Form and of the person(s) or entity(ies) on whose behalf this submittal is made, and my/that person's(s') or entity's(ies') understanding as to the estimated costs of necessary response actions, that/those person(s) or entity(ies) has/have the technical, financial and legal ability to proceed with response actions for such site in accordance with M.G.L. c. 21E, 310 CMR 40.0000 and other applicable requirements; and (iii) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is aware of the requirements in 310 CMR 40.0172 for notifying the Department in the event that I/the person(s) or entity(ies) on whose behalf this submittal is made learn(s) that it/they is/are unable to proceed with the necessary response actions.

2. By: _____ 3. Title: President
Signature

4. For: Eagle Gas, Inc. 5. Date: 04/30/2004
(Name of person or entity recorded in Section D) mm/dd/yyyy

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY):

3.0 PURPOSE AND SCOPE

This Phase I Initial Site Investigation Report and Tier Classification has been completed to address a release of hazardous materials reported to the Massachusetts Department of Environmental Protection (DEP - also referred to as the Department) Bureau of Waste Site Cleanup (BWSC) for property located at 131 Main Street in Carver, Massachusetts (the Site). The release of hazardous materials poses a potential liability under the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, General Laws, Chapter 21E. The report follows the requirements of 310 CMR 40.0480 of the Massachusetts Contingency Plan (MCP). The MCP is the body of regulations promulgated under G.L. c.21E.

The activities undertaken during the course of the investigation included researching Site history, past and present usage of oil or hazardous materials, disposal methods, geological and hydrological conditions and environmentally sensitive areas on the Site and surrounding properties. Additionally, a subsurface boring investigation was conducted to delineate the extent of hazardous materials that may have impacted soils and groundwater. The findings within the report are based upon current and historical maps for the area, local and State files or documents, federal Superfund lists, interviews with local officials, other parties with knowledge of the Site and the subsurface investigation.

4.0 CURRENT AND FORMER SITE OWNERS

4.1 Current Site Owner

The current property owner is Najib Badaoui, Trustee, Marina Realty Trust. Mr. Badaoui's deed was recorded at the Plymouth Registry of Deeds (PRD) on June 5, 2003 in Book 25358, Page 112.

4.2 Former Site Owners

The former Site ownership is as follows:

October 31, 1997 to June 5, 2003
Najib Badaoui, PRD 15615, Page 160.

1980 to October 31, 1997
Richard S. Nantais, Trustee, Nantais Realty Trust, PRD 7516/307

Prior to 1980
Virginia K. Holmes

5.0 SITE DESCRIPTION

The property is identified as the Eagle Gas Station at 131 Main Street in Carver, Massachusetts (see locus on Figures 1 through 3). The Site is identified by the Carver Assessors as on Map 74, Parcel 17 and contains an area of approximately 0.85 acres.

According to the U.S. Geological Survey (USGS) map of Plympton, Massachusetts dated 1990, the Site is located approximately 99 feet above the National Geodetic Vertical Datum of 1929 with horizontal coordinates within the Universal Transverse Mercator (UTM) system at coordinates 4638458 mN, and 353451 mE. Latitude is 41°53'04" and longitude is 70°45'59".

Approximately 264.55 feet of frontage lies along Main Street. Main Street is a public right of way owned by the Town of Carver. Main Street is also known as Route 58, as it was once under the control of the Massachusetts Highway Department. Entrance onto the Site can be gained along most of the frontage on Main Street.

5.1 Current Use

Eagle Gas, Inc., the current operator of the gas station on Site, operates and maintains four steel, double-walled, underground storage tanks (USTs) on Site. Three of the USTs have a capacity of 5,000 gallons, store gasoline and are located underneath the southerly section of the concrete pad as shown on Sheet 1 (see Appendix B). The fourth UST, with a capacity of 4,000 gallons, stores diesel fuel and is located under the northerly section of the concrete pad. Carver Fire Departmet records on the USTs are located in Appendix C.

The retail gas station distributes fuel for automobiles and trucks. UST tightness tests have been periodically conducted on Site and the latest round of testing was provided in Appendix B of the IRA Plan dated March 17, 2003.

Eagle formerly operated a general automotive repair business on Site. One automotive bay is located in the southern portion of the building. No floor drains exist within the bay area.

An unoccupied apartment exists on the second floor of the building on Site. According to a septic system design plan by Webby Engineering Associates, Inc. of Plympton, MA dated June 27, 1998, the apartment contains two bedrooms (see Appendix D). A private drinking water supply well is located beneath the station building in the southwestern corner of the building. The well is not currently being used for drinking water purposes. No data on depth or screened interval was immediately available.

5.2 Current Abutting Uses

A private residence owned by Paul Malley is located south of the Site at 133 Main Street and an access road to a rod and gun club abuts the triangular shaped Site to the west. The Malley residence is serviced by a private drinking water supply well in the western portion of the property as shown on Sheet 1 and a subsurface sewage disposal system is located on the eastern end of the property. An irrigation well is located in close proximity to the septic system and is currently not being used.

REFERENCE:

USGS QUADRANGLES
PLYMPTON, MA 1990
PLYMOUTH, MA 1974
SNIPATUIT POND, MA 1990
WAREHAM, MA 0972
SCALE: 1:25,000

LOCUS MAP

FIGURE 1

DECOULOS & COMPANY

MA DEP - Bureau of Waste Site Cleanup

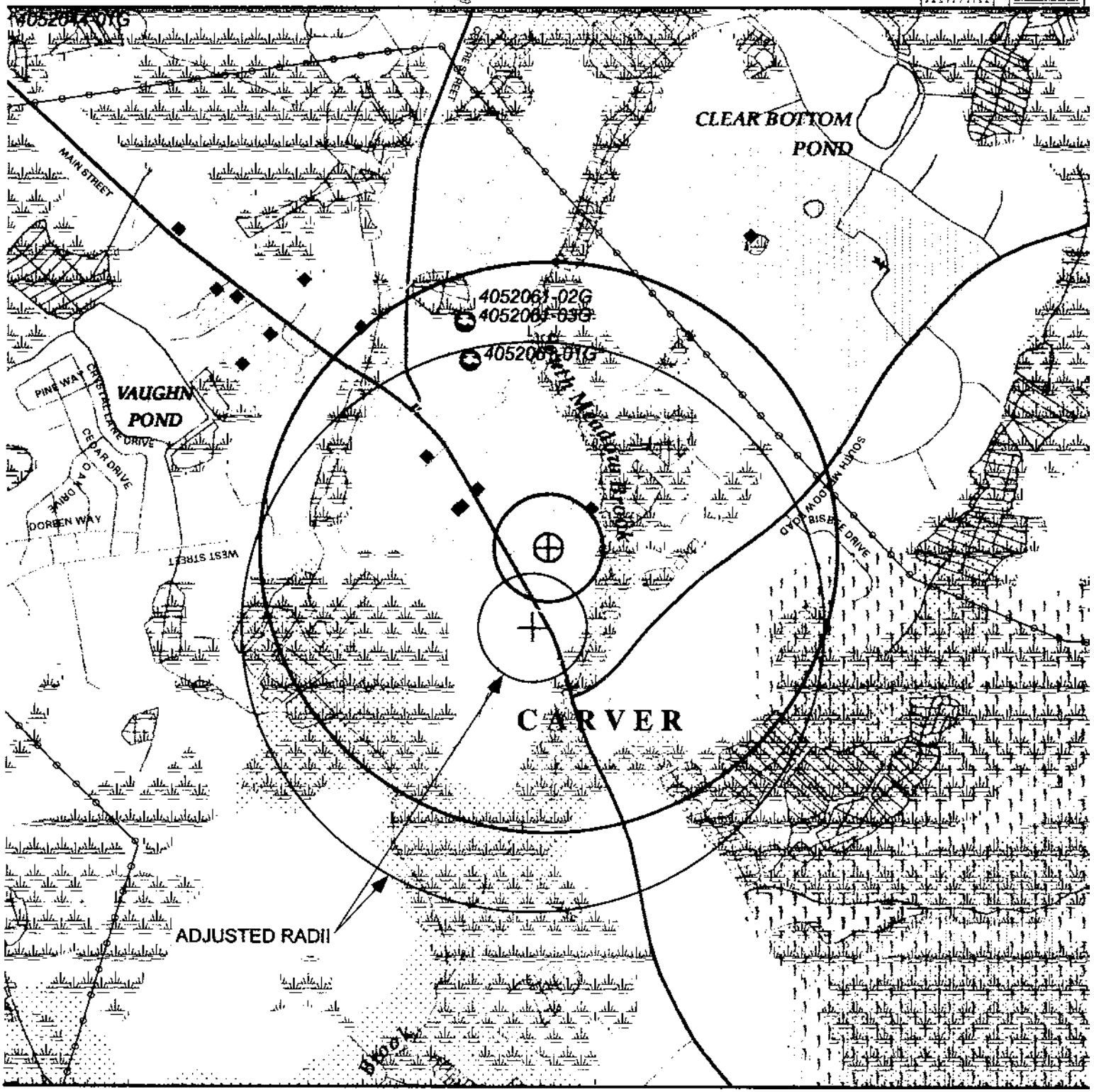
Site Scoring Map: 500 feet & 0.5 Mile Radii

SITE NAME:
Eagle Gas
131 Main Street
CARVER, MA 02330
4638458n 353451ew

Site Location

The information shown on this map is the best available at the date of printing. Please refer to the data source descriptions document.

MASSGIS — Massachusetts Geographic Information System
Massachusetts Executive Office of Environmental Affairs - 2004



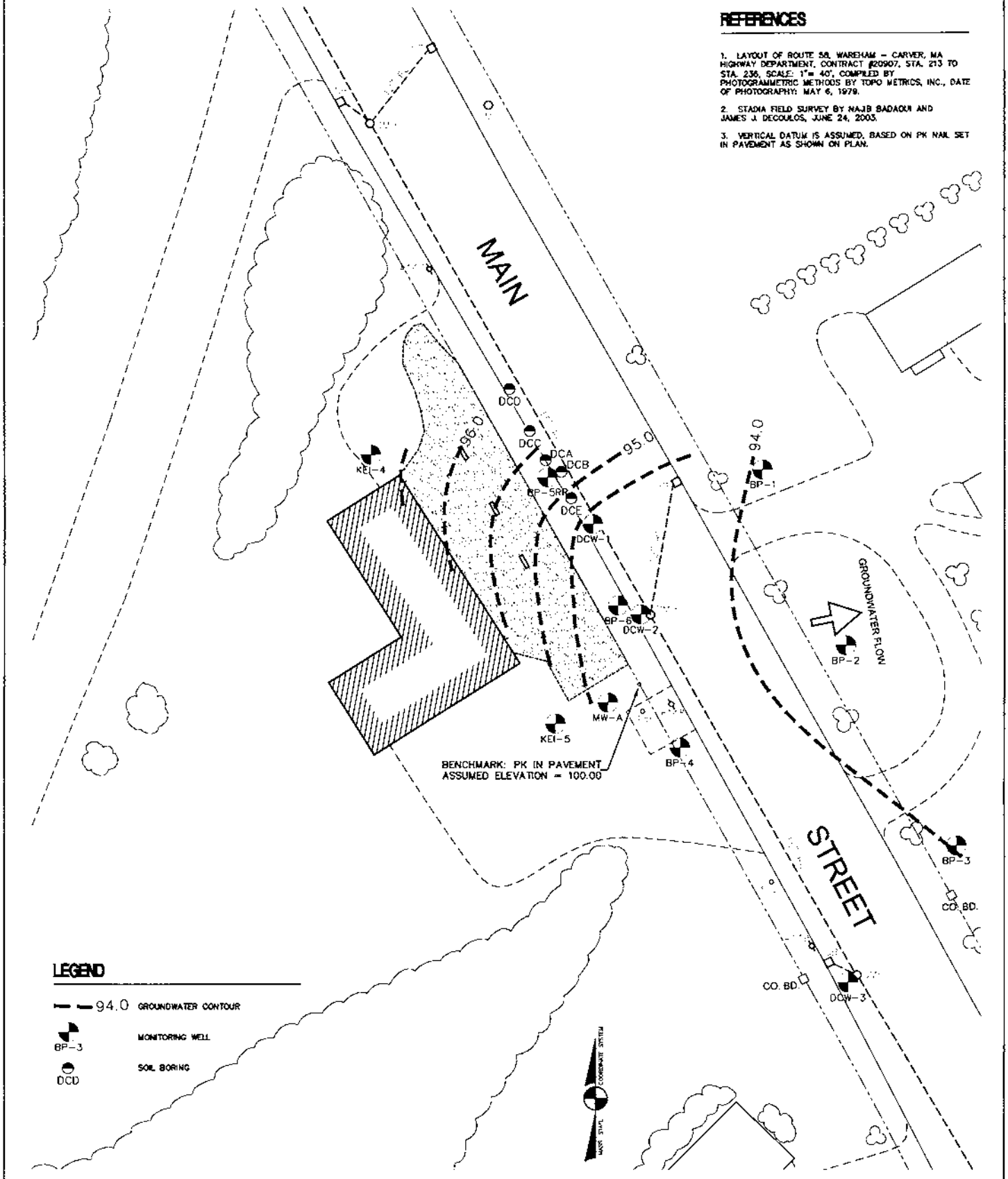
Roads: Limited Access, Divided, Major Road, Connector, Street, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dams
Potentially Productive Aquifers: Medium,High Yield
Non-Potential Drinking Water Source Area: Medium,High Yield
EPA Sole Source Aquifer; FEMA 100-year floodplain
Public Water Supplies: Ground,Surface,Non Community
Approved Zone2; IWPA; Surface Water Supply Zone A
Hydrography: Water Features,Public Surface Water Supply
Wetlands: Fresh,Salt,NHESP Wetlands Habitat
Protected Open Space: ACEC
DEP Permitted Solid Waste Facilities; Certified Vernal Pools

N W E S

SCALE 1:15000

0 1/2 0 1/2 MILES KILOMETERS

May 18, 2004



DECOULOS & COMPANY 3 ELECTRONICS AVE, DANVERS, MA 01923 WWW.DECOULOS.COM 617.489.7795	*EXISTING SITE PLAN* *EAGLE GAS STATION* *CARVER, MASSACHUSETTS*	DATE JUNE 2003 SCALE 1" = 40' FIGURE NO. 3

6.0 SITE HYDROGEOLOGY

Surficial soils in the Site area are characterized by glacial and glacio-fluvial deposits. The unconsolidated sediments are typically stratified with a mixture of well graded sand, silt and clay. These deposits overlay granitic to granodioritic and gneissic to schistose rock. It has been reported that the bedrock materials date to the lower paleozoic to precambrian eras. Subsurface investigations at the Carver Square Marketplace report an approximate depth to bedrock of 42 feet below grade. The property is located approximately 500 feet due north of the Site.

Due to the well sorted surficial deposits, groundwater levels fluctuate greatly throughout the year. Groundwater would be expected to flow to the east or southeast at the Site, towards South Meadow Brook.

Groundwater in the area is productive as a drinking water source and the Site area is classified as a GW-1 category as defined in 310 CMR 40.0930 of the MCP.

7.0 SENSITIVE RECEPTORS

In addition to the productive use of the aquifer for drinking water purposes, the indoor air quality of the Site building and surrounding residences are considered potentially sensitive receptors. The source of this potential threat would be volatile organic compounds (VOCs) partitioning from the shallow groundwater and volatizing into indoor air spaces.

The last major sensitive receptor would be wetland resources and surface waters. These receptors play a critical role in the overall health of the ecosystem and are particularly vital to the local economy. The Carver area supports thousands of acres of cranberry bogs which are reliant on clean surface water resources.

There are no reported rare or threatened species habitats within 500 feet of the Site.

8.0 REVIEW OF LOCAL, STATE AND FEDERAL RECORDS

A review of state and federal records provided by FirstSearch Technology Corporation is included in Appendix E. The report provides available hazardous material storage and release information within one half mile to the Site.

In May of 2004, a review of sites in the surrounding Site area was conducted at DEP's southeast regional office. The sites targeted for review were in immediate or close proximity to the Site. Noteworthy reviews follow.

8.1 Private drinking well contamination at 132 Main Street, RTN 4-12848

On April 7, 1997, Norfolk Environmental of Stoughton, MA submitted an Environmental Site Assessment for property located at 132 Main Street (see Appendix F). The property is directly across Main Street from the Site and is referenced by the Carver Assessors as on Map 104, Parcel 1. The property is owned by William Holmes, a former owner and operator of the Site.

Based upon a determination by Norfolk that the drinking water well was determined to contain elevated levels of benzene, the release was reported to DEP and assigned RTN 4-12848. Responsible parties associated with the release are Mr. Holmes and the Nantais Realty Trust.

8.2 Public Water Supply at Carver Square Marketplace, DEP PWS ID#4052056

Carver Square Marketplace, located due north of the Site approximately 500 feet, is a mixed use commercial property that supports restaurants, professional offices, a church, post office, gas station, convenience store and hair salon. The property is served by a six inch diameter groundwater supply drinking well that is approximately 83 feet deep. The DEP Division of Water Supply has permitted the water source for the withdrawal of up to 30,000 gallons of water per day. An Interim Wellhead Protection Area (IWPA) has been established with a radius of 1066 feet. The IWPA intersects the Site. See Sheet 1 in Appendix B.

Recent information on the water source is provided in Appendix G.

8.3 Former Carmichael's Mobil at 118 Main Street, RTN 4-0612

A historical release of gasoline was observed at 118 Main Street, located approximately 500 feet north of the Site. The property has been used as a gasoline fueling station since 1929.

During the installation of new USTs in 1987, a release of gasoline to the soil was reported to the Department. A second release, ultimately linked with the first, was reported in March of 1995.

A soil vapor extraction system was installed in 1997 at the property. As of April 9, 2004, the system has removed approximately 4,200 lbs of hydrocarbons from the subsurface. Operation of the system continues as a comprehensive response action.

An Immediate Response Action Status Report and Phase V – Operation, Maintenance and Monitoring Report dated September 26, 2002 as prepared by Norfolk Ram Group of Plymouth, MA is provided in Appendix H. Additionally, an Immediate Response Action Completion Report and Imminent Hazard Evaluation dated April 9, 2004, prepared by Norfolk Ram, is also included in Appendix H.

9.0 MCP COMPLIANCE AND SUBSURFACE INVESTIGATIONS AT SITE

On September 8, 1997, a release of petroleum was reported on Site to DEP. The release, reported by Bartlett W. Paulding, Jr., LSP, identified total petroleum hydrocarbons (TPHs), benzene and methyl tert-butyl ether (MTBE) in a monitoring well located south of the gasoline UST concrete pad. The petroleum constituents exceeded reportable concentrations for groundwater identified in the MCP at 310 CMR 40.0000. Mr. Paulding provided a response to the release on September 13, 1997 and a copy of his report is provided in Appendix I.

The installation of the monitoring well and groundwater sampling was triggered by actions at 132 Main Street and the subsequent notification assigned RTN 4-12848.

The Paulding Company, Inc. (PCI) subsequently filed an Immediate Response Action (IRA) Plan for the Site on September 16, 1997. The IRA Plan provided a history of UST storage on Site and a summary of groundwater sampling from residential drinking water supply wells located downgradient of the Site. Eight groundwater microwells were installed on the Site and surrounding area as proposed in the IRA Plan. The borings for the wells identified elevated petroleum constituents in the soil that exceeded the S-3/GW-1 Method 1 cleanup standard in the MCP.

Groundwater sampling subsequently conducted by PCI revealed elevated levels of volatile petroleum hydrocarbon (VPH) fractions. The VPH analysis did not provide suitable accuracy for the determination of GW-1 Method 1 exceedances in the MCP as the method detection limits (MDLs) for analysis were not low enough.

Without submitting a Phase I Initial Site Investigation, PCI filed with DEP a Phase II Comprehensive Site Assessment, a Phase III Comprehensive Remedial Action Plan and a Class C Response Action Outcome (RAO) report on February 4, 1998.

On April 25, 1998, PCI submitted a report to the former owner of the Site, Richard S. Nantais, Trustee of Nantais Realty Trust (Nantais RT) describing the circumstances of the abandonment of two 1,000 gallon USTs beneath the building on Site (see Appendix I). The USTs are shown on Sheet 1.

DEP subsequently audited the RAO and on December 8, 1998, issued a Notice of Noncompliance (NON) to Nantais RT. The NON identified a number of MCP violations with the RAO and report submissions. Shortly thereafter, Mr. Paulding withdrew as the LSP of record for the Site.

On March 18, 1999, Kaegael Environmental, Inc. (KEI) filed a Phase I Initial Site Investigation Report and Tier Classification for the Site. DEP reviewed the submittal and on April 26, 1999 notified Nantais RT that the Phase I report was incomplete and that section of the Numerical Ranking Scoresheet (NRS) needed to be modified. On July 21, 1999, KEI responded to DEP's April 26th notification and addressed all the issues that DEP had raised.

On November 27, 2001, KEI oversaw the advancement of the one-inch microwell BP-5RR on Site. The well was installed to address the loss of monitoring well BP-5 on Site from a concrete pad reconstruction. Also on that day, borings BP-4R and BP-5R were advanced.

KEI subsequently sampled groundwater monitoring wells on Site on December 17, 2002. Due to elevated petroleum readings at BP-5RR, KEI conducted a non-aqueous phase liquid (NAPL) measurement at the well on January 15, 2003. Approximately 10 inches of NAPL was observed. As a result of this finding, KEI contacted Eagle Gas and informed them that a reportable condition under the MCP existed. On January 21, 2003, Eagle notified DEP of the NAPL finding.

During the middle of May, 2003, a discovery was made by Eagle that the diesel supply fuel line, which runs from the southerly portion of the concrete pad to the northerly location (where the diesel UST resides), was not secure (see location of line on Sheet 1). It appeared that the unsecured line was releasing a small amount of diesel product to the ground - every time a diesel fuel delivery was made to fill the 5,000 gallon UST. Upon obtaining knowledge of this condition, all deliveries to the diesel UST were ceased.

The purpose of the remote diesel fill line was to restrict tanker deliveries to the southerly portion of the Site. Eagle Gas had designed the delivery line in this location to provide extra safety for its customers as they entered and exited the Site during a diesel fuel delivery.

At the end of May, 2003 the remote diesel delivery line was taken out of service. All diesel deliveries are now made directly over the fill manhole on top of the UST.

During a site inspection on May 16, 2003, James J. Decoulos inspected potential surrounding receptors to the NAPL impacted well BP-5RR. Due to the close proximity of the well to the stormwater drainage system on Main Street, an immediate concern of the NAPL discovery was that the product may travel underground along the exterior of the stormwater drainage piping. This potential preferential pathway outside the stormwater drainage pipes could pose an Imminent Hazard (IH) as described in 310 CMR 40.0950 of the MCP.

IH Evaluations are required to be performed as part of an Immediate Response Action. See 310 CMR 40.0426. Due to the GW-1 classification of the general area and the sensitive agricultural use of wetland resources in the Carver area, the IH Evaluation included an inspection of South Meadow Brook.

The South Meadow Brook inspection on May 16, 2003 revealed the presence of a sheen on the surface of the brook. The sheen was observed from Main Street on both the easterly (upgradient) and westerly (downgradient) portions of the brook.

Upon observation of the sheen and the apparent lack of connection with Eagle Gas, Decoulos reported the condition to the Carver Board of Health and the Carver Conservation Commission at Town Hall. Further inquiry resulted in a telephone call to the Carver Fire Department.

Chief Dana E. Harriman and Deputy Chief Craig F. Weston met Decoulos on Pond Street at the intersection with South Meadow Brook. This point was approximately 1.5 miles upgradient of the brook from the observed sheen location.

With the assistance of Chief Harriman and Deputy Chief Weston, the source of the sheen was identified as a stormwater outfall located approximately 300 feet north of the intersection of Main Street and South Meadow Street (see Impacted Outfall Area on Sheet 1). Water emanating from the outfall appeared to be impacted from diesel fuel, home heating oil or waste oil.

DEP was contacted and Mark Jablonski from the Department responded to the scene at approximately 2:30 PM on May 16th. With the support of the Carver Department of Public Works, drainage structures in Main Street were removed and the headspace within each drainage structure was field screened for VOCs. The results of the headspace screening are presented on Sheet 1.

Although the drainage structures in front of the Site did not show any signs of petroleum impact, DEP issued a Notice of Responsibility (NOR) on May 16th to Eagle due to the likelihood that the source of the outfall contamination originated from the Site.

Absorbent booms were placed by the Department at the outfall and the surrounding surface water pool. Within two days, additional absorbent pads and booms were placed in the impacted outfall area (see Sheet 1). Pads and booms have been continuously monitored and replaced by Eagle since the discovery.

Recent title investigations of the land at the outfall reveals that the area is on property identified by the Carver Assessors as on Map 75, Parcel 3. The property is owned by Stephen J. Davis.

The Town of Carver maintains a right to inspect and repair utilities within the outfall area. As shown on Sheet 1, the area of the drainage line off Main Street lies within the 1903 layout of Main Street established by the Plymouth County Commissioners. The discontinuance of the 1903 layout was set forth in Decree No. 1124 from the County and is described fully at the PRD in Book 3040, Page 255. On Page 267 of the Decree it is stated:

> All of that part of the old highway lying outside the above-described lines shall be discontinued as a public highway, unless otherwise noted on the plan mentioned below, when the new roadway has been constructed within the limits of the above-described lines to the satisfaction of the County Commissioners.
>
> The Town of Carver shall have the right to enlarge and maintain drains, water mains, hydrants or any other utilities or grant permits to any public utility company to maintain their utilities in any part of Route 58 which has been discontinued as a public way in the above decree.

A reduced copy of the plan showing Section 3 of the discontinuance of old Main Street is provided in Appendix J.

9.1 GeoProbe Investigation

On June 2, 2003, a GeoProbe boring investigation was conducted on Site and within the Main Street right-of-way. The borings were advanced with a track mounted GeoProbe BK66DT operated by Michael Legere of Technical Drilling Services, Inc. of Sterling, MA (TDS). A police detail was provided as a result of the work being conducted within the Main Street layout.

Soil borings were advanced around the NAPL impacted well BP-5RR. Seven continuous soil samples were obtained to a depth of ten feet. The soil boring locations, DCA through DCE, are shown in Figure 3. Borings DCF, DCG and DCH were completed as monitoring wells DCW-1, DCW-2 and DCW-3, respectively, and they are also shown in Figure 3. The boring logs, with the headspace from screened soil samples measured with a ThermoElectron 580B photo-ionization detector (PID), are provided in Appendix K.

General subsurface conditions observed during the investigation revealed fine to medium sand between depths of one to four feet; and, silt and clay between depths of four to ten feet.

A stadia field survey was completed on June 24, 2003 to establish the recent boring and monitoring well locations and elevations. The groundwater elevation data established from the survey is as follows:

Groundwater Elevation Data
Table 1

	Well Casing Elevation	Total Well Depth	Groundwater Depth 6/12/03	Groundwater Elevation 6/12/03
MW-A	100.20	14.30	5.82	94.38
BP-1	99.92	13.45	5.95	93.97
BP-2	99.83	13.85	6.14	93.69
BP-3	99.40	13.52	5.42	93.98
BP-4	100.11	9.50	5.77	94.34
KEI-4	100.94	12.30	4.16	96.78
DCW-1	100.24	12.05	5.98	94.26
DCW-2	100.06	11.40	5.79	94.27
DCW-3	99.02	10.80	4.90	94.12

Groundwater contours, and the resulting groundwater flow direction established from the elevation data, are graphically depicted in Figure 3. The direction of groundwater flow at the Site was established to be southeasterly and easterly, in a separate direction from the location of the stormwater outfall.

Select soil samples, screened by the PID, were submitted to GeoLabs, Inc. of Braintree, MA for analysis of VPH fractions. The results of the analysis are provided in Table 2. Certificates of analysis of all recent sampling are provided in Appendix L.

VPH soil samples DC-SG2 and DC-SH2, at monitoring well locations DCW-2 and DCW-3 respectively, reveal that the diesel fuel (from the line delivery failure) has not migrated to these locations.

9.2 Groundwater and Surface Water Sampling

On May 21, 2003, samples were collected from the stormwater outfall, monitoring wells BP-2, BP-3, BP-4, MW-A, and the private drinking water supplies at the Holmes and Malley residences (132 and 133 Main Street, respectively). The results are summarized in Tables 3 and 4.

The analytical results show that the private drinking water supplies at the private residences of Holmes and Malley have not been currently impacted by the diesel delivery line failure. The Holmes well sample identified elevated levels of MTBE and benzene, constituents of gasoline, that were originally discovered in 1997 (the MTBE level is higher than 1997 and the benzene level is lower than 1997). A quality assurance/quality control (QA/QC) sample from the Malley well showed detectable levels of the C9-C 18 Aliphatic petroleum range and the C11-C22 Aromatic petroleum range (below GW-1 drinking water standards).

On June 12, 2003, samples were collected from monitoring wells DCW-1, DCW-2, DCW-3, BP4 and the private drinking water supply at the Owens residence (151 Main Street). A QA/QC sample was also collected from the Malley residence (133 Main Street). These results are also summarized in Tables 3 and 4.

The analytical results show that the diesel delivery line failure has not migrated along a potentially preferred pathway outside the stormwater piping in Main Street. Monitoring well DCW-1 shows strong evidence of the past gasoline release associated with RTN 4-13333. The QA/QC sample for the Malley residence confirms that the detectable EPH readings from the May 21St collection were likely attributed to background laboratory conditions.

Additional rounds of groundwater and surface water sampling will be required to monitor the status of this situation.

Table 2
Positive Lab Results for Soil Samples
131 Main Street, Carver, MA
June, 2003

	Sample ID:	DC-SA2	DC-SB2	DC-SD2	DC-SE2	DC-SG2	DC-SH2	MCP Method 1 Standards for Soil		
	Sample Location:	DCA	DCB	DCD	DCE	DCW-2	DCW-3			
	Depth of Sample (ft):	5-10	5-10	5-10	5-10	5-10				
	Lab ID:	135240	135241	135242	135243	135244	135245			
	Date Collected:	06/02/03	06/02/03	06/02/03	06/02/03	06/02/03	06/02/03	UCLs	S1/GW1	S2/GW1
Parameter	**Units:**	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
	Methyl tert-butyl ether		**0.524**	ND	**4.93**	ND	ND	5,000	0.30	0.30
	Benzene		ND	ND	1.42	ND	ND	2,000	10	10
	Toluene		3.86	ND	15.0	ND	ND	10,000	90	90
	Ethylbenzene		9.61	ND	29.7	ND	ND	10,000	80	80
	m & p-Xylenes		20.2	ND	80.8	ND	ND	10,000	500	800
	o-Xylene		11.0	ND	40.2	ND	ND	10,000	500	800
	Naphthalene		**18.9**	ND	**62.8**	ND	ND	10,000	4.00	4.00
VPH	C5-C8 Aliphatic		89.5	59.9	**167**	64.3	52.5	5,000	100	500
Fractions	C9-C12 Aliphatic		81.8	ND	216	ND	ND	20,000	1000	2500
	C9-C10 Aromatic		ND	ND	ND	ND	ND	5,000	100	100
	Naphthalene	2.13	**4.72**	ND	**6.60**	ND	ND	10,000	4.00	4.00
Diesel PAH	2-Methylnaphthalene	**9.46**	**25.5**	ND	**43.2**	ND	ND	10,000	4.00	4.00
Analytes	Acenaphthene	0.284	0.717	ND	1.27	ND	ND	10,000	20	20
	Phenanthrene	2.17	6.24	ND	9.51	0.0642	ND	10,000	700	700
	Acenaphthylene	ND	0.210	ND	0.274	ND	ND	10,000	100	100
	Fluorene	1.27	2.68	ND	ND	ND	ND	10,000	400	400
	Anthracene	ND	2.32	ND	0.910	ND	ND	10,000	1000	2500
	Fluoranthene	ND	ND	ND	ND	ND	ND	10,000	1000	2000
Other	Pyrene	0.415	ND	ND	1.96	ND	ND	10,000	700	1000
Target PAH	Benz[a]Anthracene	ND	ND	ND	ND	ND	ND	100	0.70	1.00
Analytes	Chrysene	ND	ND	ND	ND	ND	ND	400	7.0	10.0
	Benzo[b]Fluoranthene	ND	ND	ND	ND	ND	ND	400	0.70	1.00
	Benzo[k]Fluoranthene	ND	ND	ND	ND	ND	ND	100	7.0	10.0
	Benzo[a]Pyrene	ND	ND	ND	ND	ND	ND	100	0.70	0.70
	Indeno[1,2,3-c,d]Pyrene	ND	ND	ND	ND	ND	ND	100	0.70	1.00
	Dibenzo[a,h]Anthracene	ND	ND	ND	ND	ND	ND	100	0.70	0.70
	Benzo[g,h,i]Perylene	ND	ND	ND	ND	ND	ND	10,000	1000	2500
EPH	C9-C18 Aliphatic	**2680**	**7960**	62.2	**10200**	ND	ND	20,000	1000	2500
Fractions	C19-C36 Aliphatic	**1080**	**2840**	37.6	**3740**	17.2	ND	20,000	2500	5000
	C11-C22 Aromatic	**1610**	**3530**	18.8	**3560**	ND	ND	10,000	200	200

Note: Exceedance of Method 1 Standard is highlighted.

Table 3
Positive Lab Results for Groundwater and Surface Water Samples
131 Main Street, Carver, MA
June, 2003

			STORMWATER OUTFALL								DCW-1 DUP						
	Sample ID:	**DC-A1**	**DC-B1**	**DC-C1**	**BP-2**	**BP-3**	**BP-4**	**DCMWA**	**DCW-1**	**DCW-A**	**DCW-2**	**DCW-3**	MCP Method 1 Standards			
	Lab ID:	134704	134705	134706	134702	134703	135585	134710	135581	135584	135582	135583				
	Date Collected:	05/21/03	05/21/03	05/21/03	05/21/03	05/21/03	06/12/03	05/21/03	06/12/03	06/12/03	06/12/03	06/12/03	UCLs	GW1	GW2	GW3
Parameter	**Units:**	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Methyl tert-butyl ether				ND	ND	15.3	**992**	**6380**	**5930**	**243**	ND	100,000	70	50,000	50,000
	Benzene				ND	ND	ND	**40.4**	**11.7**	**9.40**	ND	ND	70,000	5	2,000	7,000
	Toluene				ND	ND	ND	22.0	**1030**	**1110**	ND	ND	100,000	1000	6,000	50,000
	Ethylbenzene				ND	ND	ND	202	**1500**	**1580**	ND	ND	100,000	700	30,000	4,000
	m & p-Xylenes				ND	ND	ND	454	7090	7760	ND	ND	100,000	10000	6,000	50,000
	o-Xylene				ND	ND	ND	143	3220	3380	ND	ND	100,000	10000	6,000	50,000
	Naphthalene				ND	ND	ND	**25.2**	**446**	**442**	ND	ND	60,000	20	6,000	6,000
VPH	C5-C8 Aliphatic				ND	ND	ND	ND	ND	ND	ND	ND	100,000	400	1,000	4,000
Fractions	C9-C12 Aliphatic				ND	ND	ND	ND	ND	ND	ND	ND	100,000	4000	1,000	20,000
	C9-C10 Aromatic				ND	ND	ND	**961**	**5410**	**5650**	ND	ND	100,000	200	5,000	4,000
	Naphthalene	**113**	**110**	**117**	ND	ND	ND	8.21	**95.3**	**88.2**	ND	ND	60,000	20	6,000	6,000
Diesel PAH	2-Methylnaphthalene	**4597**	**4524**	**4854**	ND	ND	ND	1.30	**19.3**	**18.3**	ND	ND	100,000	10	10,000	3,000
Analytes	Acenaphthene	**51.5**	**40.9**	**31.8**	ND	ND	ND	ND	ND	ND	ND	ND	50,000	20	NA	5,000
	Phenanthrene	73.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,000	300	NA	50
	Acenaphthylene	13.1	10.3	9.00	ND	ND	ND	ND	ND	ND	ND	ND	30,000	300	NA	3,000
	Fluorene	182	180	150	ND	ND	ND	ND	ND	ND	ND	ND	30,000	300	NA	3,000
	Anthracene	308	260	281	ND	ND	ND	ND	ND	ND	ND	ND	30,000	2000	NA	3,000
	Fluoranthene	9.91	8.12	10.0	ND	ND	ND	ND	ND	ND	ND	ND	3,000	300	NA	200
Other	Pyrene	58.4	63.4	70.9	ND	ND	ND	ND	ND	ND	ND	ND	30,000	200	NA	3,000
Target PAH	Benz[a]Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30,000	1.0	NA	3,000
Analytes	Chrysene	**2.22**	**2.76**	**2.86**	ND	ND	ND	ND	ND	ND	ND	ND	30,000	2.0	NA	3,000
	Benzo[b]Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30,000	1.0	NA	3,000
	Benzo[k]Fluoranthene	0.636	0.742	0.265	ND	ND	ND	ND	ND	ND	ND	ND	30,000	1.0	NA	3,000
	Benzo[a]Pyrene	**0.431**	**0.474**	**0.571**	ND	ND	ND	ND	ND	ND	ND	ND	30,000	0.20	NA	3,000
	Indeno[1,2,3-c,d]Pyrene	ND	0.247	0.367	ND	ND	ND	ND	ND	ND	ND	ND	30,000	8.0	10	5,000
	Dibenzo[a,h]Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30,000	0.50	NA	3,000
	Benzo[g,h,i]Perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30,000	300	NA	3,000
EPH	C9-C18 Aliphatic	**2040000**	**2040000**	**2150000**	ND	192	ND	ND	ND	702	ND	ND	100,000	4000	1,000	20,000
Fractions	C19-C36 Aliphatic	**732000**	**696000**	**721000**	ND	ND	ND	ND	ND	ND	ND	ND	100,000	5000	NA	20,000
	C11-C22 Aromatic	**451000**	**858000**	**788000**	ND	ND	ND	ND	150	104	ND	ND	100,000	200	50,000	30,000

Note: Exceedance of Method 1 Standard is highlighted.

Table 4
Positive Lab Results for Private Drinking Water Supply Samples
131 Main Street, Carver, MA
June, 2003

		HOLMES RESIDENCE	MALLEY RESIDENCE			OWENS RESIDENCE				
	Sample ID:	**DC-D1**	**DC-E1**	**DC-F1**	**DC-E1A**	**DC-G1**	MCP Method 1 Standards			
	Lab ID:	134707	134708	134709	135586	135239				
	Date Collected:	05/21/03	05/21/03	05/21/03	06/12/03	06/21/03	UCLs	GW1	GW2	GW3
Parameter	**Units:**	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	Methyl tert-butyl ether	**192**	ND	ND		ND	100,000	70	50,000	50,000
	Benzene	**5.20**	ND	ND		ND	70,000	5	2,000	7,000
	Toluene	ND	ND	ND		ND	100,000	1000	6,000	50,000
	Ethylbenzene	ND	ND	ND		ND	100,000	700	30,000	4,000
	m & p-Xylenes	ND	ND	ND		ND	100,000	10000	6,000	50,000
	o-Xylene	ND	ND	ND		ND	100,000	10000	6,000	50,000
	Naphthalene	ND	ND	ND		ND	60,000	20	6,000	6,000
VPH	C5-C8 Aliphatic	ND	ND	ND		ND	100,000	400	1,000	4,000
Fractions	C9-C12 Aliphatic	ND	ND	ND		ND	100,000	4000	1,000	20,000
	C9-C10 Aromatic	ND	ND	ND		ND	100,000	200	5,000	4,000
	Naphthalene	ND	ND	ND	ND		60,000	20	6,000	6,000
Diesel PAH	2-Methylnaphthalene	ND	ND	ND	ND		100,000	10	10,000	3,000
Analytes	Acenaphthene	ND	ND	ND	ND		50,000	20	NA	5,000
	Phenanthrene	ND	ND	ND	ND		3,000	300	NA	50
	Acenaphthylene	ND	ND	ND	ND		30,000	300	NA	3,000
	Fluorene	ND	ND	ND	ND		30,000	300	NA	3,000
	Anthracene	ND	ND	ND	ND		30,000	2000	NA	3,000
	Fluoranthene	ND	ND	ND	ND		3,000	300	NA	200
Other	Pyrene	ND	ND	ND	ND		30,000	200	NA	3,000
Target PAH	Benz[a]Anthracene	ND	ND	ND	ND		30,000	1.0	NA	3,000
Analytes	Chrysene	ND	ND	ND	ND		30,000	2.0	NA	3,000
	Benzo[b]Fluoranthene	ND	ND	ND	ND		30,000	1.0	NA	3,000
	Benzo[k]Fluoranthene	ND	ND	ND	ND		30,000	1.0	NA	3,000
	Benzo[a]Pyrene	ND	ND	ND	ND		30,000	0.20	NA	3,000
	Indeno[1,2,3-c,d]Pyrene	ND	ND	ND	ND		30,000	8.0	10	5,000
	Dibenzo[a,h]Anthracene	ND	ND	ND	ND		30,000	0.50	NA	3,000
	Benzo[g,h,i]Perylene	ND	ND	ND	ND		30,000	300	NA	3,000
EPH	C9-C18 Aliphatic	188	266	ND	ND		100,000	4000	1,000	20,000
Fractions	C19-C36 Aliphatic	ND	ND	ND	ND		100,000	5000	NA	20,000
	C11-C22 Aromatic	ND	112	ND	ND		100,000	200	50,000	30,000

Note: Exceedance of Method 1 Standard is highlighted.

10.0 MIGRATION PATHWAYS AND EXPOSURE POTENTIALS

The Site is currently used for the retail distribution of gasoline and diesel fuels. The primary pathways of VOC migration would be soil, groundwater, surface water and air.

Soil migration of VOCs could be intercepted by the stormwater collection system along Main Street. This interception would open a direct pathway to South Meadow Brook. Investigations and sampling to date show that this route has not developed.

Groundwater migration of VOCs is currently unknown. The gasoline release at the residence of William Holmes, across Main Street from the Site, could be caused from the Site. Until additional data is collected, this pathway cannot be conclusively eliminated. An additional groundwater pathway could be the stormwater collection system in Main Street. Petroleum contaminated groundwater could infiltrate into the stormwater collection system and discharge directly into South Meadow Brook. Again, subsurface investigations and sampling to date show that this route has not developed.

The migration of petroleum residuals from the surface appears to be an on-going threat. Precipitation events directly carry small amounts of petroleum and waste oil off the Site into the first downgradient catch basin, in front of the residence of Paul Malley. From this location, stormwater carries the constituents directly into South Meadow Brook. The potential of chronic harm to ecological receptors within the South Meadow watershed is an on-going threat and requires a long term solution.

Finally, the migration of elevated concentrations of VOC vapors within buildings cannot be eliminated as a potential pathway. Air sampling of petroleum hydrocarbons at the residences on Site and at the surrounding properties is required to determine this potential threat.

11.0 NUMERICAL RANKING SYSTEM SCORESHEET

Pursuant to 310 CMR 40.1511 of the MCP, a Numerical Ranking System (NRS) scoresheet has been completed based upon the information and findings within this report (see Appendix M).

The total score from the NRS Scoresheet was 742 and the Site is therefore classified as Tier IA. See 310 CMR 40.0520(3).

12.0 SUMMARY AND CONCLUSIONS

The property is identified as the Eagle Gas Station at 131 Main Street in Carver, Massachusetts (the Site). The current property owner is Najib Badaoui, Trustee, Marina Realty Trust and the current operator is Eagle Gas, Inc (Eagle). The Site is referenced by the Carver Assessors as on Map 74, Parcel 17 and the title is recorded at the Plymouth Registry of Deeds (PRD) in Book 25358, Page 112.

Eagle maintains four steel, double-walled, underground storage tanks (USTs) on Site. Three of the USTs have a capacity of 5,000 gallons, store gasoline and are located underneath the southerly section of the concrete pad as shown on Sheet 1. The fourth UST, with a capacity of 4,000 gallons, stores diesel fuel and is located under the northerly section of the concrete pad.

An unoccupied two-bedroom apartment exists on the second floor of the building on Site. A private drinking water supply well is located beneath the station building in the southwestern corner of the building. The well is not currently being used for drinking water purposes.

Four separate releases are currently on-file with DEP related to the Site: RTN 4-12848, 4-13333, 4-17582 and 4-17825. Two of the releases occurred prior to Eagle's operation. The third release (17582) appears to be caused by Eagle and the source of the release (the diesel fuel fill pipe) has been eliminated. The NAPL discovered from this release appears limited and confined to a small area (approximately 100 square feet) within the Main Street right-of-way.

The fourth release appears historic, with many potential sources contributing to significant cumulative depositions within the Main Street stormwater collection system. Headspace screenings of stormwater structures show strong correlation of impact to the collection system from the Site.

It is clear that significant further investigations and remedial actions are required at the Site and surrounding area. The work will require the cooperation of all the potentially responsible parties identified to date; town officials; and, representatives from the Department. Funding from both private and public sources will be required and significant public involvement will be warranted.

This report is subject to the limitations outlined in Appendix A.

APPENDIX A
LIMITATIONS

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this report was carried out in accordance with the Terms and Conditions in our contract.

2. In preparing this report, Decoulos & Company has relied on certain information provided by State and local officials and other parties referenced therein, and on information contained in the files of State or local agencies available to Decoulos & Company at the time of the site investigation. Although there may have been some degree of overlap in the information provided by these various sources, Decoulos & Company did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site investigation.

3. Observations were made of the Site and of structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, Decoulos & Company renders no opinion as to the presence of hazardous materials or oil, or to the presence of indirect evidence relating to hazardous material or oil, in that portion of the Site or structure. In addition, Decoulos & Company renders no opinion as to the presence of hazardous material or oil, or the presence of indirect evidence relating to hazardous material or oil, where direct observation of the interior walls, floor, or ceiling of a structure on a Site was obstructed by objects or coverings on or over these surfaces.

4. Decoulos & Company did not perform testing or analyses to determine the presence or concentration of asbestos at the Site or in the environment at the Site.

5. The purpose of this report is to assess the physical characteristics of the subject Site with respect to the presence in the environment of hazardous material or oil. No specific attempt was made to check on the compliance of present or past owners or operators of the Site with Federal, State, or local laws and regulations, environmental or otherwise.

6. Except as noted within the text of the report, no quantitative laboratory testing was performed as part of the site assessment. Where such analyses have been conducted by an outside laboratory, Decoulos & Company has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

APPENDIX B
SITE PLAN – SHEET 1

MASS. STATE PLANE COORDINATE SYSTEM

Y=923,500

X=800,000

REFERENCES

1. LAYOUT OF ROUTE 58, WAREHAM — CARVER, MA HIGHWAY DEPARTMENT, CONTRACT #20507, STA. 213 TO STA. 236, SCALE: 1"= 40', COMPILED BY PHOTOGRAMMETRIC METHODS BY TOPO METRICS, INC., DATE OF PHOTOGRAPHY: MAY 6, 1979.

2. DEEDS NO. 1124, PLAN OF PART OF ROUTE 58, SECTION 2, IN THE TOWN OF CARVER, SHEET 1 OF 12" AS LAID OUT BY THE PLYMOUTH COUNTY COMMISSIONERS UNDER PETITION OF THE SELECTMEN FILED MAY 8, 1951 AS AMENDED UNDER PETITION FILED MARCH 26, 1963 BY LEWIS W. PERKINS.

3. STADIA FIELD SURVEY BY NAJIB BADAOUI AND JAMES J. DECOULOS, JUNE 24, 2003.

4. PHOTOIONIZATION SCREENING BY MARK JABLONSKI OF DEP AND JAMES J. DECOULOS USING A MINIRAE 2000 PID, MAY 14, 2003.

5. RECORDS FROM THE CARVER ASSESSORS OFFICE, APRIL, 2004.

6. DEED FROM WILLIAM R. HOLMES TO WILLIAM R. HOLMES AND SANDRA K. ULTLEY AS JOINT TENANTS DATED FEBRUARY 21, 2002 RECORDED AT THE PLYMOUTH REGISTRY OF DEEDS (THE REGISTRY) IN BOOK 21675, PAGE 187.

7. DEED FROM NANCY M. FAGER TO MOLLIE CEDER DATED AUGUST 1, 1988 RECORDED AT THE REGISTRY IN BOOK 8620, PAGE 32. SEE ALSO BOOK 3414, PAGE 640 AND BOOK 1522, PAGE 330.

8. DEED FROM JOSEPH T. GRABOWSKI, JR. TO STEPHEN J. DAVIS DATED JULY 1, 1994 RECORDED AT THE REGISTRY IN BOOK 12840, PAGE 61. SEE ALSO BOOK 8456, PAGE 175 AND BOOK 7560, PAGE 126.

9. PLAN OF LAND IN CARVER, MA TO BE CONVEYED BY GEORGE A. RAYMOND TO RICHARD F. WARD & JUDITH L. WARD; SCALE: 1"= 100'; DEC 13, 1965; BY WALTER E. POWERS & ASSOCIATES, WEST WAREHAM, MA. RECORDED AT REGISTRY IN 66-59.

10. ORDER OF TAKING BY THE PLYMOUTH COUNTY COMMISSIONERS DATED MAY 8, 1961 AND RECORDED AT THE REGISTRY IN BOOK 3040, PAGE 255.

LEGEND

- ○ DMH (24 PPM) — STORMWATER DRAIN MANHOLE WITH VOC HEADSPACE READING ON 5/16/03.
- □ CB (10 PPM) — STORMWATER CATCH BASIN WITH VOC HEADSPACE READING ON 5/16/03.
- PROPERTY BOUNDARY
- 104/1 — CARVER ASSESSORS MAP #/PARCEL #

CARVER SQUARE IWPA
DEP PWS ID#4052056

EAGLE GAS

Brook
Meadow
SOUTH
Gravel
Dirt
EASEMENT
1903 COUNTY LAYOUT
IMPACTED OUTFALL AREA
UTILITY
South
Meadow
STREET
Posts
MEADOW
104/3
75/4-B n/f Ciulla
104/1 n/f Holmes
104/2 n/f Ceder
75/3 n/f Davis
74/17
74/18 n/f Malley
75/2
#131
#132
#133
#134
DRINKING WATER SUPPLY WELL
GROUNDWATER FLOW DIRECTION 6/12/03
CO. BD. 1966 TOWN LAYOUT
CO. BD. 1903 COUNTY LAYOUT
15" RC
12" RC
ROUTE 58
MAIN
STREET
#147
#149
#146
REMOTE DIESEL FILL PIPE ABANDONED IN PLACE
ONE 4,000 GAL DIESEL UST
THREE 5,000 GAL GASOLINE USTs
TWO 1,000 GAL STEEL USTs ABANDONED IN PLACE
FORMER WELL
IRRIGATION WELL
SEPTIC ABSORPTION FIELD
DRINKING WATER SUPPLY WELL
TMH
CB (0 PPM)
DMH (0 PPM)
DMH (0.5 PPM)
DMH (24 PPM)
DMH (27 PPM)
DMH (28 PPM)
Sign

NO.	DATE	REVISION

DECOULOS & COMPANY
3 ELECTRONICS AVE, DANVERS, MA 01923
WWW.DECOULOS.COM
617 489 7795

EXISTING CONDITIONS
EAGLE GAS STATION
CARVER, MASSACHUSETTS

DATE
MAY 2004
SCALE
1"= 40'

DRWN TCM
DES JJD
CHKD JJD
APRVD JJD

SHEET NO.
1

APPENDIX C
UST RECORDS FROM CARVER FIRE DEPARTMENT

THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF REVENUE

Underground Storage Tank Petroleum Product Cleanup Fund

200 Arlington Street, Floor 1C
Chelsea, Massachusetts 02150

CERTIFICATE OF COMPLIANCE

100% Reimbursement

FOR PETROLEUM DISPENSING FACILITIES

Date Issued: 04/22/2004 **Date Expires:** 04/22/2009

Certificate of Compliance Number: 13175

131 MAIN ST
Street Address of UST Facility

EAGLE GAS INC
Facility Name (Corporation, Individual, or Other Entity)

EAGLE GAS INC
Owner at Time of Certification

CARVER	PLYMOUTH
City	County
MA	02330
State	Zip Code

(508) 866-9098
Phone Number

Issued By:

William J. Alpine, Executive Director

This Certificate of Compliance is granted in accordance with the provisions of M.G.L. Chapter 21J. The UST Facility identified herein is presumed by the Department of Revenue to have met the full regulatory compliance requirements of 503 CMR 2.00, and as such, is presumed to be eligible to use the Underground Storage Tank Petroleum Product Cleanup Fund as a mechanism of Financial Responsibility that meets the requirements of 527 CMR 9.07(L) as it pertains to Petroleum Product motor fuel. This presumption of compliance is rebuttable. Issuance of this Certificate of Compliance is conditional upon the above-identified UST Facility maintaining a valid FP-29C and all other requirements set forth in 502 CMR 4.00, 503 CMR 2.00, 527 CMR 5.00, CMR 9.00, and CMR 15.00.

(This Certificate Must Be Posted or Available on the Premises)

Commonwealth of Massachusetts - Department of Fire Services
Executive Office of Public Safety - UST Regulatory Compliance Unit

Notification for Storage Tanks Regulated Under 527 CMR 9.00

Forward completed form, signed by local fire department, to: ***Mass. UST Program, Dept. of Fire Services, P.O. Box 1025 - State Road, Stow, MA 01775***

Use Form FP-290R to notify of tank removals or closures in place.

Telephone (978) 567-3302

(Fire Department retains one copy of FP-290)

Fire Dept. Use Only

Date Received: 1-10-2001
Fire Dept. ID# 23052
Fire Dept. Sig. [signature]

State Use Only

A. Facility Number _____
B. Date Entered _____
C. Clerk's Initials _____
D. Comments _____

☐ A. New Facility (see instructions, #1) ☒ B. Amended ☐ C. Renewal

INSTRUCTIONS: Form FP-290 (Notification for Aboveground and Underground Storage Tanks) is to be completed for each location containing underground or aboveground storage tanks regulated under 527 CMR 9.00. If more than five tanks are owned at this location, photocopy the following pages and staple continuation sheets to the form. The FP-290 must be completed in duplicate. Although the form may be photocopied, the facility owner or owner's representative must **sign each copy separately**; photocopied signatures are not sufficient. **Both copies of the FP-290 are to be forwarded to the local fire department, who will check all information and certify the forms.** The fire department will retain one copy of the FP-290 for its records, and **the facility owner shall be responsible for forwarding the other copy to the Dept. of Fire Services at the address above.** The local fire department will issue the permit portion of the FP-290; however, registration is not complete until the FP-290 is received and checked by the UST Regulatory Compliance Unit. All questions on this form are to be answered. Incomplete forms will be returned.
"New Facility" means a tank or tanks located at a site where tanks have not been previously located.
"Facility street address" must include both a street number and a street name. Post office box numbers are not acceptable, and will cause a registration to be returned. If geographic location of facility is not provided, please indicate distance and direction from closest intersection, e.g., (facility at 199 North Street is located) 400 yards southeast of Commons Road (intersection).

General Information

Notification Required
Fire Prevention Form FP-290 is to be used as Notification, Registration, and Permit for aboveground and underground storage tanks and tank facilities regulated under 527 Code of Massachusetts Regulations 9.00. No regulated aboveground or underground storage tank facility shall be installed, maintained, replaced, substantially modified or removed without a permit (FP- 290) issued by the head of the local fire department. The owner of any storage facility shall within seven working days notify the head of the local fire department and the Dept. of Fire Services of any change in the name, address, or telephone number of the owner or operator of a storage facility subject to regulation by Chapter 148, Mass. General Law and by 527 CMR 9.00.

Underground Storage Tanks
Each owner of an underground tank first put into operation on or after Jan. 1, 1991, shall, within thirty days after the tank is first put into operation, notify the Department of Fire Services (the department) of the existence of such tank, specifying, to the extent known, the owner of the tank, date of installation, capacity, type, location, and uses of such tank. By no later than Jan. 31, 1991, each owner of an underground storage tank that was in operation at any time after Jan. 1, 1974, regardless of whether or not such tank was removed from beneath the surface of the ground at any time, shall notify the department of the existence of such tank, specifying, to the extent known, the owner of the tank, date of installation, capacity, type, and location of the tank, and the type and quantity of substances stored in such tank, or which were stored in such tank before the tank ceased being in operation if the tank was removed from beneath the surface of the ground prior to the submittal of such notice to the department. Such notice shall also specify, to the extent known, the date the tank was removed from beneath the surface of the ground prior to the submittal of such notice to the department. The operator of any tank that has no owner or whose owner cannot be definitely ascertained, shall notify the department of the existence of such tank, specifying, to the extent known, any information relating to ownership of the tank, and date of installation, capacity, type, and location of the tank, and the type and quantity of substances stored in such tank, or which were stored in such tank before the tank ceased being in operation if the tank was removed from beneath the surface of the ground prior to the submittal of such notice to the department, if the tank was abandoned beneath the surface of the ground prior to the submittal of such notice to the department, such notice shall also specify, to the extent known to the owner or operator, the date the tank was abandoned in the ground and all methods used to stabilize the tank after the tank ceased being in operation.

Exception: (a) a farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes, or (b) **a tank used for storing heating oil for consumptive use on the premises where stored are not required to be registered under 527 CMR 9.00.**

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $25,000 for each tank for which notification is not given or for which false information is submitted. (MGL Chapter 148, section 38H, 527 CMR 9.00)

Aboveground Storage Tanks
527 CMR 9.00 requires the registration of any aboveground storage tank which meets the following definition: a horizontal or vertical tank, equal to or less than 10,000 gallons capacity, that is intended for fixed installation without back fill above or below grade, and is used for the storage of Hazardous Substances, Hazardous Wastes, or Flammable or Combustible Liquids.

Exception #1: Aboveground tanks of more than 10,000 gallons capacity regulated by 520 CMR 12.00 (Requirements for the Installation of Tanks Containing Fluids Other Than Water in Excess of 10,000 Gallons) are not required to be registered under 527 CMR 9.00.

Exception #2: (a) a farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes, or (b) a tank used for storing heating oil for consumptive use on the premises where stored are not required to be registered under 527 CMR 9.00.

Penalties: Any person who knowingly violates any rule or regulation made by the Board of Fire Prevention Regulations shall, except as otherwise provided, be punished by a fine of not less than one hundred dollars nor more than one thousand dollars. (MGL, Chapter 148, section 10B, and 527 CMR 9.00)

Where to Notify? Two completed notification forms should be signed by both the tank owner and the local fire department. One copy will be retained by the fire department, and the tank owner shall send a separate copy to the address at the top of this page.

When to Notify? 1. Owners of storage tanks in use or that have been taken out of operation must notify within thirty days.

Owners and Operators of Regulated Storage Tank Systems must maintain records certifying that all leak detection, inventory control and tightness testing requirements for the Regulated Storage Tank System are current. These records must be readily available for inspection.

I. Ownership of Tank(s)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
Eagle Gas Inc
Street Address: 131 Main St.
City: Carver State: Ma Zip Code: 02330
County: Plymouth
Phone Number (Include Area Code): 508-866-9098 Owner's Employer Federal ID #: 043637165

II. Location of Tank(s)

If known, give the geographic location of tanks by degrees, minutes, and seconds. Example: Lat. 42, 36, 12 N Long. 85, 24, 17W

Latitude _____ Longitude _____

Distance and direction from closest intersection (See instructions #2): 100 FT North of c Meadow RD
Facility Name or Company Site Identifier, as applicable: Eagle Gas
Street Address (P.O. Box not acceptable - see instructions #2): 131 Main st
City: Carver State: Ma Zip Code: 02330
County: Plymouth

III. Type of Owner

- ☐ Federal Government
- ☐ State Government
- ☐ Local Government
- ☐ Commercial *(storage and sale)*
- ☒ Private *(storage and use)*

IV. Indian Lands

- ☐ Tanks are located on land within an Indian Reservation or on other trust lands.
- ☐ Tanks are owned by native American nation, tribe, or individual.

V. Type of Facility

Select the Appropriate Facility Description: (check all that apply)

X	Gas Station	___	Marina	___	Trucking/Transport
___	Petroleum Distributor	___	Railroad	___	Utilities
___	Airport	___	Federal - Military	___	Residential
___	Aircraft Owner	___	Industrial	___	Farm
___	Vehicle Dealership	___	Contractor	___	Other (explain) _____

VI. Contact Person in Charge of Tanks

Name: NASIR BADAOUI

Job Title: Owner

Address: 131 Main St

Canaan NH

Phone Number (include area code):

Home: _____

Business: 508-866-9098

VII. Financial Responsibility

☐ I have met the financial responsibility requirements in accordance with 527 CMR 9.00.

Check all that apply:

- ☐ Self Insurance
- ☐ Commercial Insurance
- ☐ Risk Retention Group
- ☐ Guarantee
- ☐ Surety Bond
- ☒ State Fund
- ☐ Letter of Credit
- ☐ Trust Fund
- ☐ Other Method Allowed - Specify _____

VIII. Environmental Site Information

This information should be available from local health agent, conservation commission, or planning department.

1. Tank site located in wellhead protection area	☐ Yes	☒ No	☐ Unknown
2. Tank site located in surface drinking water supply protection area	☐ Yes	☒ No	☐ Unknown
3. Tank site located within 100 feet of a wetland	☐ Yes	☒ No	☐ Unknown
4. Tank site located within 300 feet of a stream or water body	☐ Yes	☒ No	☐ Unknown

IX. Description of Storage Tanks and Piping (Complete for each tank at this location)

Tank Identification Number	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. ___
1. Tank status a. Tank mfr's serial # (if known)					
b. Currently in Use	X	X	X	X	
c. Temporarily Out of Use (Start Date)					
d. Permanently Out of Use					
e. Aboveground storage tank (AST) or Underground storage tank (UST)	☐ AST ☒ UST	☐ AST ☒ UST	☐ AST ☒ UST	☐ AST ☒ UST	☐ AST ☐ UST
2. Date of Installation (mo./day/yr.)	4/89	4/89	4/89	4/89	
3. Estimated Total Capacity (gallons)	5000	5000	5000	4000	

Tank Identification Number (cont.)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No. ___
4. Substance Currently or Last Stored					
a. Gasoline	☒	☒	☒	☐	☐
Motor vehicle or other use	☒ MV ☐ Marina ☐ other	☒ MV ☐ Marina ☐ other	☒ MV ☐ Marina ☐ other	☐ MV ☐ Marina ☐ other	☐ MV ☐ Marina ☐ other
b. Diesel	☐	☐	☐	☒	☐
Motor vehicle or other use	☐ MV ☐ Marina ☐ other	☐ MV ☐ Marina ☐ other	☐ MV ☐ Marina ☐ other	☒ MV ☐ Marina ☐ other	☐ MV ☐ Marina ☐ other
c. Kerosene	☐	☐	☐	☐	☐
d. Fuel Oil*	☐	☐	☐	☐	☐
** "Consumptive Use" tanks need not be registered. "Consumptive Use" fuel used exclusively for area heating and/or hot water.*					
e. Waste Oil	☐	☐	☐	☐	☐
f. Other, Please specify	___	___	___	___	___
Hazardous Substance (other than 4a thru 4e above)	☐	☐	☐	☐	☐
CERCLA name and/or	___	___	___	___	___
CAS number	___	___	___	___	___
Mixture of Substances	☐	☐	☐	☐	☐
Please specify	___	___	___	___	___
	___	___	___	___	___
5. Material of Construction - Tank (mark only one)					
Bare steel (includes asphalt, galvanized and epoxy coated)	☐	☐	☐	☐	☐
Cathodically protected steel	☒	☒	☒	☒	☐
Composite (steel with fiberglass)	☐	☐	☐	☐	☐
Fiberglass reinforced plastic (FRP)	☐	☐	☐	☐	☐
Concrete	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐
Please specify	___	___	___	___	___
6. Type of Construction-Tank (mark only one)					
Single walled	☐	☐	☐	☐	☐
Double walled	☒	☒	☒	☒	☐
Unknown	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐
Please specify	___	___	___	___	___
Is tank lined?	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No
Does tank have excavation liner?	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No

Tank Identification Number (cont.)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No.
7. Material of Construction - Piping (mark only one)					
Bare steel (includes asphalt, galvanized and epoxy coated)	☐	☐	☐	☐	☐
Cathodically protected steel	☐	☐	☐	☐	☐
Fiberglass reinforced plastic (FRP)	☐	☐	☐	☐	☐
Flexible	☒	☒	☒	☒	☐
Copper	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐
Please specify	____	____	____	____	____
8. Type of Construction - Piping (mark only one)					
Single walled	☐	☐	☐	☐	☐
Double walled	☒	☒	☒	☒	☐
Unknown	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐
Please specify	____	____	____	____	____
Has piping been repaired?	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No
Is piping gravity feed?	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No
Date	____	____	____	____	____

X. Certification of Compliance

1. Installation					
A. Installer certified by tank and piping manufacturers	☒	☒	☒	☒	☐
B. Installer certified or licensed by the implementing agency	☒	☒	☒	☒	☐
C. Installation inspected by a registered engineer	☐	☐	☐	☐	☐
D. Installation inspected and approved by the implementing agency	☒	☒	☒	☒	☐
E. Manufacturers' installation checklists have been completed	☒	☒	☒	☒	☐
F. Another method allowed by 527 CMR 9.00. Please specify	____	____	____	____	____
2. Tank Leak Detection (mark only one)	Tank	Tank	Tank	Tank	Tank
A. Double-wall tank - Interstitial monitoring	☒	☒	☒	☒	☐
B. Approved in-tank monitor	☐	☐	☐	☐	☐
C. Soil vapor monitoring (check one below)	☐	☐	☐	☐	☐
☐ Monthly ☐ Continuous					
E. Inventory record-keeping and tank testing	☐	☐	☐	☐	☐
F. Other method allowed by 527 CMR 9.00. Please specify	____	____	____	____	____

Tank Identification Number (cont.)	Tank No. 1	Tank No. 2	Tank No. 3	Tank No. 4	Tank No.
3. Piping Leak Detection (mark only one)	Piping	Piping	Piping	Piping	Piping
A. Pressurized					
a. Interstitial space monitor	☒	☒	☒	☒	☐
b. Product line leak detector (mark all that apply below)	☐	☐	☐	☐	☐
☐ Automatic flow restrictor*					
☐ Automatic shut-off device*					
☐ Continuous alarm*					
* Also requires annual test of device and piping tightness test or monthly vapor monitoring of soil.					
B. Suction: Check valve at tank only (Requires interstitial space monitor or line tightness test every three years)	☐	☐	☐	☐	☐
☐ Interstitial space monitor					
☐ Line tightness test					
C. Suction: Check valve at dispenser only (No monitor required)	☐	☐	☐	☐	☐
D. Other method allowed by 527 CMR 9.00. Please specify					
4. Date of last tightness test (tank & piping)	1/2/2001	1/2/2001	1/2/2001	1/2/2001	
5. Gravity feed piping	☐	☐	☐	☐	☐
6. Spill containment and overfill protection	Tank	Tank	Tank	Tank	Tank
A. Spill containment device installed	☒	☒	☒	☒	☐
B. Overfill prevention device installed	☒	☒	☒	☒	☐
7. Daily Inventory Control (mark only one)					
A. Manual gauging by stick and records reconciliation	☐	☐	☐	☐	☐
B. Mechanical tank gauge and records reconciliation	☐	☐	☐	☐	☐
C. Automatic gauging system	☒	☒	☒	☒	☐
8. Cathodic Protection (if applicable)	Tank / Piping	Tank / Piping	Tank / Piping	Tank / Piping	Tank / Piping
A. Sacrificial Anode Type	☒ / ☐	☒ / ☐	☒ / ☐	☒ / ☐	☐ / ☐
B. Impressed Current Type	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
C. Date of Last Test					

Certification of Compliance No.: 13175

XI. CERTIFICATION (Read and sign after completing all sections)

NOTE: Both the copy being sent to the Dept. of Fire Services and the copy retained by the local fire department must be signed separately. A photocopied signature will not be accepted on either document.

I declare under penalty of perjury 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.

Name and official title of owner or owner's authorized representative (Print)	Signature:	Date:
NAJIB BADAOUI		1/5/01

Oil Burner / Oil Tank Data

Record Updated ***4/16/98*** Reason ***Underground Tanks***

Owner/Occupant ***Richard Nantais***

Address ***131 Main Street*** Phone

Property Owner

Installation/ Tank Information

Equipment Installed Permit #

Burner Location Trade Name Installation Date

Fuel Type Burner: New/Existing

Installation Co.

Co. Address Co. Phone

Installer Certificate #

Tank Location ***Underground*** Tank Size ***1000*** Tank Type

Storage Tank: New/Existing ***Existing*** Tank Contents ***Gasoline*** Date

Tank Owner Name ***Richard Nantais*** No. of Tanks ***2***

Tank Owner Address

UST Removal Information

UST Removal Co. Permit #

UST Co. Address

UST Co. Phone

Date UST Removed

No. of UST Tanks Size Of Tanks

Substance Last Stored

Contamination Assessment
Company Or Individual: Phone No.

Address:

Firm Transporting Waste

Approved Tank Disp. Yard

Tank Yard #

Dig Safe approval number

DEP Inspector

Inspection Notes

Permit to abandon in place.
Prior to filling tanks, Building Inspector was on site and determined that removing the tanks would compromise the structural integrity of the building. Permit granted to empty, clean and fill with concrete slurry, Two-1000 Gal. underground storage tanks formerly used for gasoline.
DEH

Oil Burner / Oil Tank Data

Record Updated ***4/16/98*** Reason ***Underground Tanks***

Owner/Occupant ***Richard Nantais***

Address ***131 Main Street*** Phone

Property Owner

Installation/ Tank Information

Equipment Installed Permit #

Burner Location Trade Name Installation Date

Fuel Type Burner: New/Existing

Installation Co.

Co. Address Co. Phone

Installer Certificate #

Tank Location ***Underground*** Tank Size ***1000*** Tank Type

Storage Tank: New/Existing ***Existing*** Tank Contents ***Gasoline*** Date

Tank Owner Name ***Richard Nantais*** No. of Tanks ***2***

Tank Owner Address

UST Removal Information

UST Removal Co. Permit #

UST Co. Address

UST Co. Phone

Date UST Removed

No. of UST Tanks Size Of Tanks

Substance Last Stored

Contamination Assessment
Company Or Individual: Phone No.

Address:

Firm Transporting Waste

Approved Tank Disp. Yard

Tank Yard #

Dig Safe approval number

DEP Inspector

Inspection Notes

Permit to abandon in place.
Prior to filling tanks, Building Inspector was on site and determined that removing the tanks would compromise the structural integrity of the building. Permit granted to empty, clean and fill with concrete slurry, Two-1000 Gal. underground storage tanks formerly used for gasoline.
DEH

The Commonwealth of Massachusetts

Executive Office of Public Safety

Department of Fire Services - Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

DIG SAFE NUMBER

START DATE:

Date: 4/16/98

APPLICATION FOR PERMIT

C. 82 S.40 M.G.L.

To: Head of Fire Department: CARVER
City / Town

In accordance with the provisions of Chapter 148, M.G.L. as provided in Section 148:38A application is hereby made by:

Name: RICHARD NANTAIS
(Full name of person, firm or corporation)

Address: 133 MAIN STREET (Street or P.O. Box) CARVER (City/Town) MA (State) (Zip Code)

For Permission to: ABANDON, IN PLACE, TWO 1000-GAL. UNDERGROUND STORAGE TANKS
State clearly the purpose for which the permit is requested:
TO EMPTY, CLEAN AND FILL WITH CONCRETE SLURRY, TWO 1000-GAL UNDERGROUND STORAGE TANKS FORMERLY USED FOR GASOLINE

Location: 133 MAIN STREET, CARVER
Name of competent operator if applicable: Certificate of Competency #:
Date Issued (X) Date Rejected ( ): 4-16-98 By:
Date of Expiration: 4-30-98 Fee Paid (/) Fee Due ( ) Amount:
Applicant Signature: Richard Nantais, LSP Fire Department Number: (If Applicable)
(FOR RICHARD NANTAIS).

The Commonwealth of Massachusetts

Executive Office of Public Safety

Department of Fire Services - Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

DIG SAFE NUMBER

START DATE:

Date: 4/16/98

PERMIT

C. 82 S.40 M.G.L.

In accordance with the provisions of Chapter 148, M.G.L. as provided in Section 148:38A this permit is granted to:

Name: RICHARD NANTAIS
(Full name of person, firm or corporation)

For Permission to: ABANDON, IN PLACE, TWO 1000-GAL UNDERGROUND STORAGE TANKS
State clearly the purpose for which the permit is granted:
TO EMPTY, CLEAN AND FILL WITH CONCRETE SLURRY, TWO - 1000-GAL UNDERGROUND STORAGE TANKS FORMERLY USED FOR GASOLINE.

Restrictions:

Location: 133 MAIN STREET, CARVER
Fee Paid: This Permit Will Expire On: 4-30-98
Signature and Title of Official Granting Permit: FIRE CHIEF

⇒(THIS PERMIT MUST BE CONSPICUOUSLY POSTED UPON THE PREMISES.)⇐

The Commonwealth of Massachusetts

Executive Office of Public Safety

Department of Fire Services - Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

DIG SAFE NUMBER

START DATE:

Date: 4/16/98

APPLICATION FOR PERMIT

C. 82 S.40 M.G.L.

To: Head of Fire Department: CARVER
City / Town

In accordance with the provisions of Chapter 148, M.G.L. as provided in Section 148:38A application is hereby made by:

Name: RICHARD NANTAIS
(Full name of person, firm or corporation)

Address: 133 MAIN STREET (Street or P.O. Box) CARVER (City/Town) MA (State) (Zip Code)

For Permission to: ABANDON, IN PLACE, TWO 1000 GAL UNDERGROUND STORAGE TANKS

State clearly the purpose for which the permit is requested:
TO EMPTY, CLEAN AND FILL WITH CONCRETE SLURRY, TWO 1000 GAL UNDERGROUND STORAGE TANKS FORMERLY USED FOR GASOLINE

Location: 133 MAIN STREET, CARVER

Name of competent operator if applicable: Certificate of Competency #:

Date Issued [X] Date Rejected [ ]: 4-16-98 By:

Date of Expiration: 4-30-98 Fee Paid [ ] Fee Due [ ] Amount:

Applicant Signature: [signature], LSP Fire Department Number: (If Applicable)
(FOR RICHARD NANTAIS).

NAME AND ADDRESS OF APPROVED TANK YARD: A. W. MARTIN, INC. 1080 SHAWMUT AVE. NEW BEDFORD, MA 02746

APPROVED TANK YARD NO. 201-01

Tank Yard Ledger 502 CMR 3.03(4) Number: 8900746

I certify under penalty of law I have personally examined the underground steel storage tank delivered to this "approved tank yard" by firm, corporation or partnership Interstate Pump & Tank and accepted same in conformance with Massachusetts Fire Prevention Regulation 502 CMR 3.00 Provisions for Approving Underground Steel Storage Tank dismantling yards. A valid permit was issued by LOCAL Head of Fire Department FDID# 23052 to transport this tank to this yard.

Name and official title of approved tank yard owner or owners authorized representative:

J.W. Martin — SIGNATURE; Pres. — TITLE; 3-20-89 — DATE SIGNED

Rec'd 1-4000 gal tank.

This signed receipt of disposal must be returned to the local head of the fire department FDID# 23052 pursuant to 502 CMR 3:00. (EACH TANK MUST HAVE A RECEIPT OF DISPOSAL)

FORM F.P. 291 (OVER) MASSACHUSETTS STATE FIRE MARSHAL'S OFFICE

RECEIPT OF DISPOSAL OF UNDERGROUND STEEL STORAGE TANK

NAME AND ADDRESS OF APPROVED TANK YARD: A. W. MARTIN, INC. 1080 SHAWMUT AVE. NEW BEDFORD, MA 02746

APPROVED TANK YARD NO. 201-01

Tank Yard Ledger 502 CMR 3.03(4) Number: 8900747

I certify under penalty of law I have personally examined the underground steel storage tank delivered to this "approved tank yard" by firm, corporation or partnership Interstate Pump & Tank and accepted same in conformance with Massachusetts Fire Prevention Regulation 502 CMR 3.00 Provisions for Approving Underground Steel Storage Tank dismantling yards. A valid permit was issued by LOCAL Head of Fire Department FDID# 23052 to transport this tank to this yard.

Name and official title of approved tank yard owner or owners authorized representative:

J.W. Martin — SIGNATURE; Pres. — TITLE; 3-20-89 — DATE SIGNED

Rec'd 1-4000 gal tank

This signed receipt of disposal must be returned to the local head of the fire department FDID# 23052 pursuant to 502 CMR 3:00. (EACH TANK MUST HAVE A RECEIPT OF DISPOSAL)

FORM F.P. 291 (OVER) MASSACHUSETTS STATE FIRE MARSHAL'S OFFICE

NAME AND ADDRESS OF APPROVED TANK YARD: 1080 SHAWMUT AVE NEW BEDFORD, MA 02746

APPROVED TANK YARD NO. 201-01

Tank Yard Ledger 502 CMR 3.03(4) Number: 8900748

I certify under penalty of law I have personally examined the underground steel storage tank delivered to this "approved tank yard" by firm, corporation or partnership Interstate Pump & Tank and accepted same in conformance with Massachusetts Fire Prevention Regulation 502 CMR 3.00 Provisions for Approving Underground Steel Storage Tank dismantling yards. A valid permit was issued by LOCAL Head of Fire Department FDID# 23052 to transport this tank to this yard.

Name and official title of approved tank yard owner or owners authorized representative:

SIGNATURE	TITLE	DATE SIGNED
H.O. Martin	Pres.	3-20-89

Rec'd 1-4000 gal tank.

This signed receipt of disposal must be returned to the local head of the fire department FDID# 23052 pursuant to 502 CMR 3:00. (EACH TANK MUST HAVE A RECEIPT OF DISPOSAL)

FORM F.P. 291 (OVER) MASSACHUSETTS STATE FIRE MARSHAL'S OFFICE

RECEIPT OF DISPOSAL OF UNDERGROUND STEEL STORAGE TANK

NAME AND ADDRESS OF APPROVED TANK YARD: A. W. MARTIN, INC. 1080 SHAWMUT AVE. NEW BEDFORD, MA 02746

APPROVED TANK YARD NO. 201-01

Tank Yard Ledger 502 CMR 3.03(4) Number: 8900745

I certify under penalty of law I have personally examined the underground steel storage tank delivered to this "approved tank yard" by firm, corporation or partnership Interstate Pump & Tank and accepted same in conformance with Massachusetts Fire Prevention Regulation 502 CMR 3.00 Provisions for Approving Underground Steel Storage Tank dismantling yards. A valid permit was issued by LOCAL Head of Fire Department FDID# 23052 to transport this tank to this yard.

Name and official title of approved tank yard owner or owners authorized representative:

SIGNATURE	TITLE	DATE SIGNED
H.O. Martin	Pres.	3-20-89

Rec'd 1-4000 gal tank

This signed receipt of disposal must be returned to the local head of the fire department FDID# 23052 pursuant to 502 CMR 3:00. (EACH TANK MUST HAVE A RECEIPT OF DISPOSAL)

FORM F.P. 291 (OVER) MASSACHUSETTS STATE FIRE MARSHAL'S OFFICE

F.P. 292

The Commonwealth of Massachusetts

Department of Public Safety—Division of Fire Prevention

APPLICATION FOR PERMIT FOR REMOVAL AND TRANSPORTATION TO APPROVED TANK YARD

3/12 (Date) 1989

C.82 S.40 M.G.L.

DIG SAFE NUMBER
891102299
Start Date 3-17-89

To: HEAD OF FIRE DEPARTMENT
Carver Mass
City or Town

In accordance with the provisions of Chapter 148, G.L. as provided in Section 38A Application is hereby made by Interstate Pump and Tank
(Name of Person, Firm or Corporation)
Webster Ave Fairhaven Mass
Address

For permission to remove and transport underground steel storage tank(s) from
4 - 4000 Gal Tanks
Rt 58 Carver Mass
Street address (city or town)

FDID# 23052 to approved Tank Yard# # Martin Salvage 20101

State clearly type of inert gas used in steel storage tank
Co2 dry ice

F.P. 292

The Commonwealth of Massachusetts

Department of Public Safety—Division of Fire Prevention

APPLICATION FOR PERMIT FOR REMOVAL AND TRANSPORTATION TO APPROVED TANK YARD

3/12 (Date) 1989

C.82 S.40 M.G.L.

DIG SAFE NUMBER
891102299
Start Date 3-17-89

To: HEAD OF FIRE DEPARTMENT
Carver Mass
City or Town

In accordance with the provisions of Chapter 148, G.L. as provided in Section 38A Application is hereby made by Interstate Pump and Tank
(Name of Person, Firm or Corporation)

Webster Ave Fairhaven Mass
Address

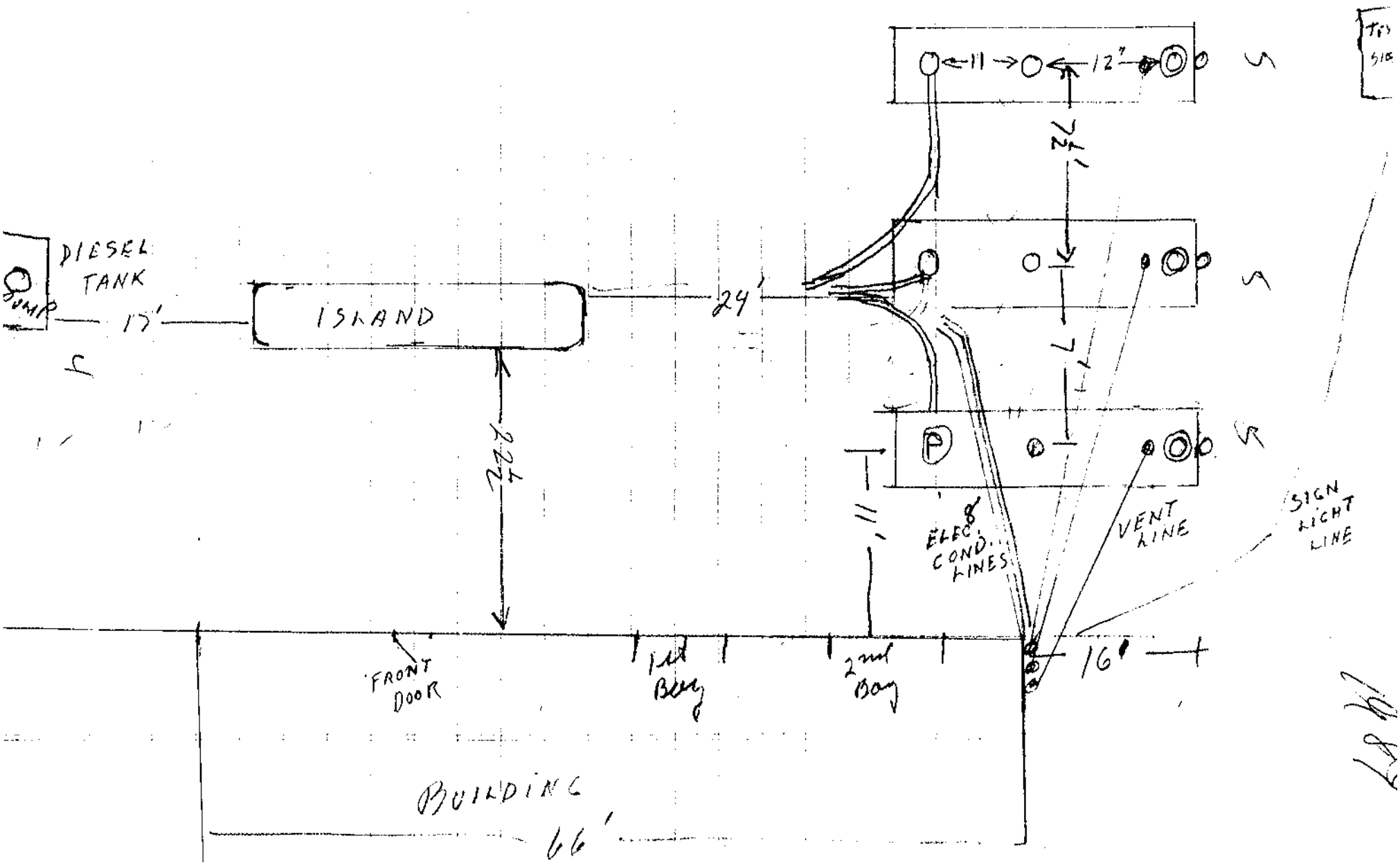
For permission to remove and transport underground steel storage tank(s) from
4 - 4000 Gal. Tanks

Rt 58 Carver Mass
Street address (city or town)

FDID# 23052 to approved Tank Yard# # Martin Salvage 20101

State clearly type of inert gas used in CO2

ROUTE 58 N ⟷ S


DIESEL TANK
PUMP
15'
ISLAND
24'
22'
11'
12'
24'
17'
P
ELEC. COND. LINES
VENT LINE
SIGN LIGHT LINE
16'
FRONT DOOR
1st Bay
2nd Bay
BUILDING
66'

LEAK DETECTOR TEST RESULTS

Test Site Name & Address:

Eagle Gas
131 Main St.
Carver, MA 02330

Testing Company

NEXTEST
PO BOX 67
MANVILLE RI 02838

Test Date: 5/28/03

	Product	Product	Product	Product
Product	Regular	Premium	Diesel	
Pump Manufacturer	Red Jacket	Red Jacket	Red Jacket	
Leak Dectector Model	FXV	FXV	FXV	
Simulated Leak Test	PASS	PASS	PASS	
L.D. Activated Flow < 2.0 G.P.M.	YES	YES	YES	
Conclusion (PASS or FAIL)	PASS	PASS	PASS	
Leak Detectors	PASS	PASS	PASS	

Results / Comments: PASS

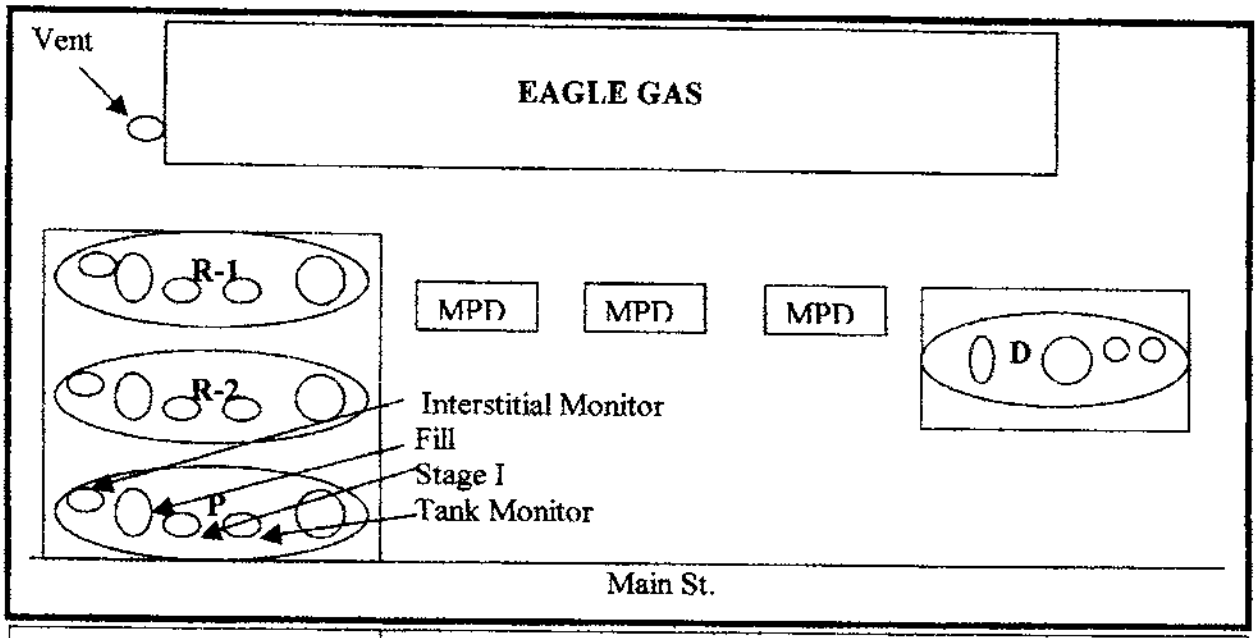
Test Conducted By: Bryan Cournoyer **Date:** 5/28/03

NEXTEST

P.O. BOX 67, MANVILLE, RI 02838
(401) 658-5021 or (800) 858-9128

GALVANIC ANODE CATHODIC PROTECTION INSPECTION REPORT

Eagle Gas
131 Main St.
Carver, MA 02330



TANK	Tank Electrolyte Potentials (mV)		
	TANK		
Regular-1 (R-1)	- 1.00 mV PASS		
Regular-2 (R-2)	- 1.05 mV PASS		
Premium (P)	-1.00 mV PASS		
Diesel (D)	-1.15 mV PASS		

Potentials Recorded By: Bryan Courtney

Date: 5-28-03

The Commonwealth of Massachusetts

Department of Public Safety—Division of Fire Prevention

APPLICATION FOR PERMIT FOR REMOVAL AND TRANSPORTATION TO APPROVED TANK YARD

3/12 1989
(Date)

C.82 S.40 M.G.L.

DIG SAFE NUMBER
891022999
Start Date 3-17-89

To: HEAD OF FIRE DEPARTMENT
Carver Mass
City or Town

In accordance with the provisions of Chapter 148, G.L. as provided in Section 38A Application is hereby made by Interstate Pump and Tank
(Name of Person, Firm or Corporation)

Webster Ave Fairhaven Mass
Address

For permission to remove and transport underground steel storage tank(s) from

4 - 4000 Gal Tanks

Rt 58 Carver Mass
Street address (city or town)

FDID# 23052 to approved Tank Yard# # Martin Salvage 20101

State clearly type of inert gas used in steel storage tank

Co2 dry ice
Type of inert gas used

Name of Person, Firm, Corporation disposing tank Interstate Pump and Tank

Date issued - rejected 3/13 1989 By: P Beaugard
Date of expiration 3/20 1989 paid/due
Signature of Applicant

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC SAFETY—DIVISION OF FIRE PREVENTION

PERMIT

FOR REMOVAL AND TRANSPORTATION TO APPROVED TANK YARD

March 12 1989
(Date)

C.82 S.40 M.G.L.

DIG SAFE NUMBER
891022999
Start Date

In accordance with the provisions of Chapter 148, G.L. as provided in Section 38A this permit is granted to

Name: Interstate Pump and Tank
Full name of person, firm or Corporation

To transport underground steel storage tank(s) to Approved tank yard# 20101

State clearly type of inert gas used in steel storage tank

steel tank: Dry ice
method

FDID# 23052

Fee paid $_____

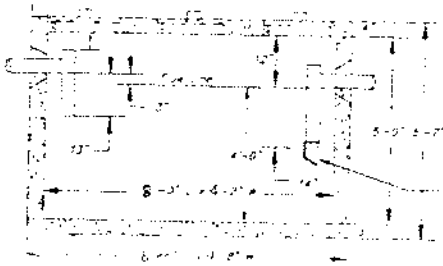
Name and address of contractor disposing tank Interstate Pump and Tank

Location to which tank will be transported

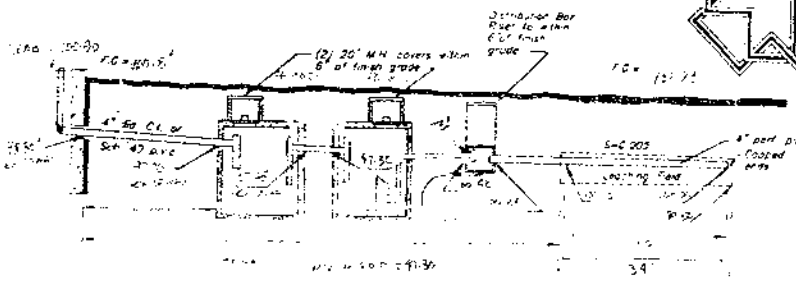
Martin Salvage 20101
Approved tank yard#

This permit will expire 3/20 1989

Signature of official granting permit (TITLE)
(Head of Fire Dept.)

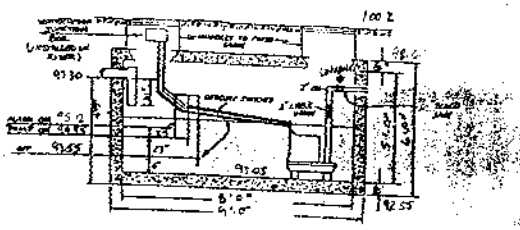


1000 Gal. [illegible]
Precast Concrete Septic Tank
1/2" = 1'-0" SCALE



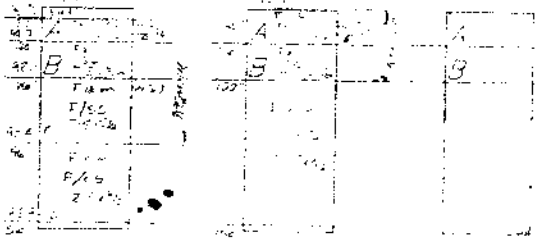
Section Thru System
Not to Scale

1,000 GALLON
PUMP CHAMBER
(NOT TO SCALE)



Proposed Flow Line Grades		"As Built" Grades
INV. AT FOUNDATION	[illegible]	
INV. INTO SEPTIC TANK	[illegible]	
INV. OUT OF SEPTIC TANK	[illegible]	
INV. INTO DISTRIBUTION BOX	[illegible]	
INV. OUT OF DISTRIBUTION BOX	[illegible]	
INV. AT BEGINNING OF FIELD	[illegible]	
INV. AT END OF LEACHING FIELD	100.[illegible]	
BOTTOM OF STONE	99.40	
WATER TABLE	95.4	

T.P. 1 T.P. 2 T.P. 3



SOIL LOGS

Soil Evaluator

Use Rate Of 30 Minutes/Inch
Percent During Tests Or [illegible]
Agent [illegible]
Soil Evaluator [illegible]

Bench Mark
[illegible]
Elev. = 100.00

[illegible] GALLONS/DAY SEPTIC SYSTEM

NUMBER OF BEDROOMS 2
GALLONS/BEDROOM = 110 gpd
PROPOSED GPD = 220 gpd
REQUIRED LEACHING AREA = 220 / (30 to 30 min/inch) = 1320 s.f.
LEACHING AREA PROVIDED = [illegible] s.f. > 1320 s.f.
LEACHING CAPACITY = 330 gpd > 220 gpd

Issue	Date	Description	Drawn	Design	Check	Field Chk
#1	5/2/96	REVISE DP SEPTIC SYSTEM	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] Sanitary System

TOWN: [illegible] LOT NO: [illegible]
LOCATION: [illegible]
PREPARED FOR: [illegible]
SCALE: 1" = 20' DATE: JUNE 3, 1996

WEBBY ENGINEERING ASSOCIATES, INC.
Civil Engineers & Land Surveyors
180 County Road - Plympton, MA.
(781) 585-1164

Prof. Land Surveyor
Prof. Engineer

nd Septic Tanks & Pump Chambers

of be structurally sound and to withstand the posed loads.

ıı be watertight

ıh be precast concrete

ıers of septic tanks shall implement a quality ...

...ıdard C-1227, as Tanks shall be minimized ...

... antecessa with a sev... as rejected

ıh be accessible for inspection and maintenance structures shall be located directly upon ... meet the tanks which may interfere with per... access, inspection, and pumping or repair

outlet tees shall be of cast iron, schedule 40 ...ipered cover

ks shall be provided with at least three (3) ter manholes. Manholes shall be at the ... over each inlet and outlet tee. For compart... s, the center manhole shall be the access to ...mpartment connection. System designs in excess ...000 gpd manholes shall be made accessible. ... designs of 1,000GPD or less at least one ...hall be made accessible. If applicable provide ...access port (risers) precast concrete or equiv... steps where appropriate. Manhole covers ...mpactable and of impermeable and durable ...terials shall be within six inches of finished ... shall be secured to prevent unauthorized

ks:

...be installed true to grade on a level stable ...been mechanically compacted, and on which ...justed stone has been placed to ensure ...prevent settling.

...ıll have a minimum of nine inches of cover.

...d outlet tees shall be installed to the grades ...drawings. The tees shall extend a minimum of ...re the flow line of the septic tank and shall ...ter line of the septic tank and located directly ...ss manholes. Cross-sectional flow baffles shall ...e substitutes for inlet or outlet tees.

...95 Contractor SHALL when connecting a new ... or existing sewer line Verify sewer line is ... proper location or it shall be reported ...diately with Mass. State Plumbing Code

DESIGN CRITERIA

...rse notes (USDA), the design of this system ... the requirements of the Commonwealth Of ...ts Environmental Code Title 5, and the ... of the town board of health.

... of this system did not allow for the use of ...posal

...tank shall be inspected and cleaned annually.

... shall be cleaned every 3 months or when ... grease is 25% of the effective depth of the ...

... of this system conforms with the following ...tances from the proposed sanitary system.

...ater supply or gravel packed wells.. 400 ft

...ion wells ..... 250 ft

...ravity wells ..... 10 ft

...ravity vs. absorption system ..... 10 ft

..... 10 ft

...es shall be located upon, above, or within ...aching Field Area. The reserve area (100% ... considered to be the same as the leaching ...

... system components, including the septic ...ion box or dosing chamber and soil ...system, shall be installed no more than 36" ...grade.

Leaching Field Area

...ns shall be true to line and grade

... of be PVC SCH 40

...s) shall have a minimum diameter of 4" ...m slope of 0.01 (0.005 in leaching field)

... material including top soil and sub soil ...oved as feasible ...ls to elevation 89.5, and a distance of ... all directions of the designated leaching ...

...s shall be replaced with clean sand, ...quirements of 310 CMR 15.255(3).

... crushed stone shall be clean of fines ...double washed to meet the requirement of ...17(1).

Inspection Schedule

... board of health certification, conformation ...nstallation is required. The installer shall ...ten approval of the engineer and the local ...h representative at the completion of each ...g stages.

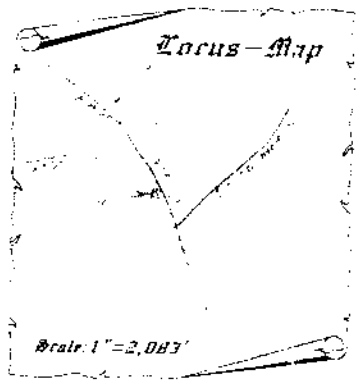
...tion of unsuitable material

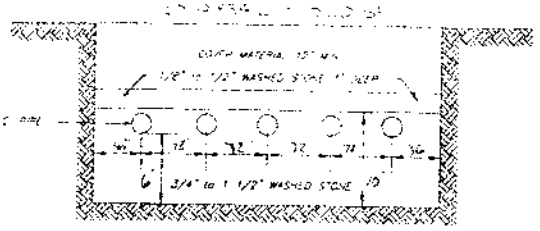
...ment of the clean backfill

...tion of the system with all components ...ed for inspection and preparation of ...ort.

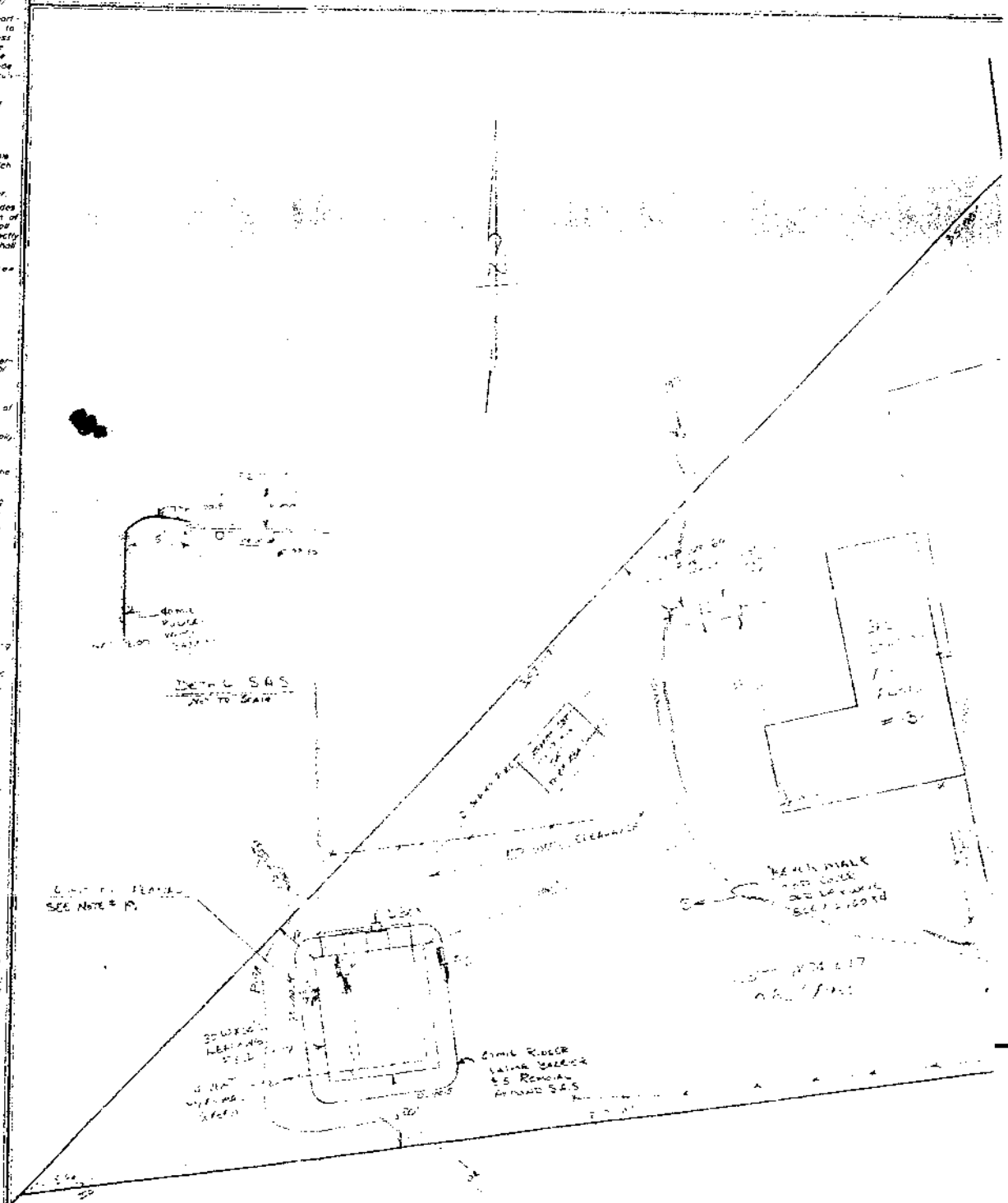
Utility Notes

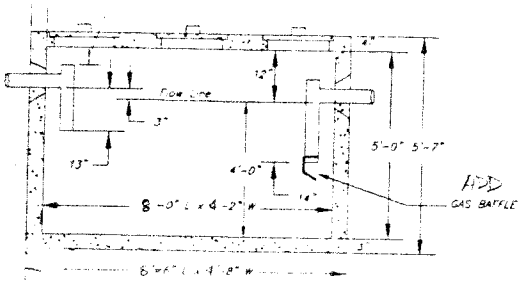
...of utilities is approximate only. Dig-Safe ...ormate authorities shall be notified to ...cations.



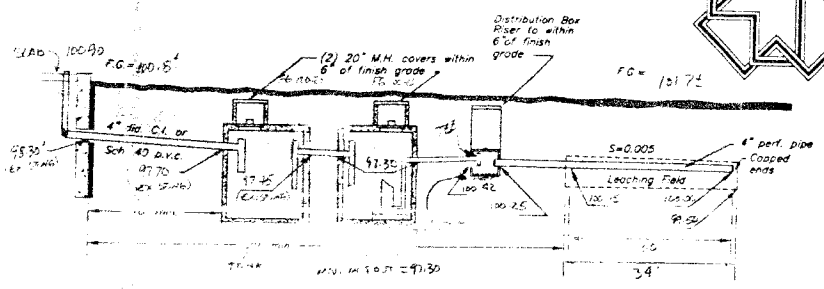


Section Thru Leaching Field



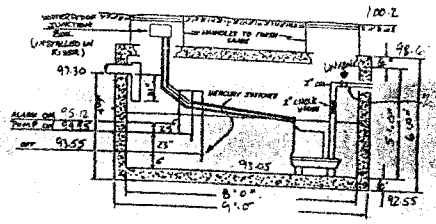


1000 Gal. (H-20 LOADING)
Precast Concrete Septic Tank
NOT TO SCALE



Section Thru System
Not To Scale

1,000 GALLON PUMP CHAMBER (H-20 LOADING)
(NOT TO SCALE)



CLASS II SOIL 1 DOSE PER DAY

$\frac{3.0 \times 4.7}{12} = 2.78 \times 7.48 = 20.79$ GAL PER INCH

116 ft. @ 1.16 GAL PER FT = 134.6 GAL + 350 = 349 GAL PER DOSE

$\frac{349}{20.9} = 16.78" = 1.40'$

BOUNMACI / CALL: 1000 GALLON PUMP CHAMBER

LEACHING AREA = 5.0 x 5.0 x 1/2 x 120 = 1500 SF

GROUND COVER = 9.0 x 5.0 x 1 x 120 = 5400 SF

LIQUID TANK WEIGHT = 16,593

21,993 > 16,593 OK

Pump & Controls

1) (1) MYERS SRM-d 5/10 HP
2" DISCHARGE @ 1 PHASE 115 VOLT

2) (1) SIMPLEX PANEL WITH BELL & LIGHT (INSTALLED IN HOUSE/GARAGE)

3) (1) WATERPROOF JUNCTION BOX

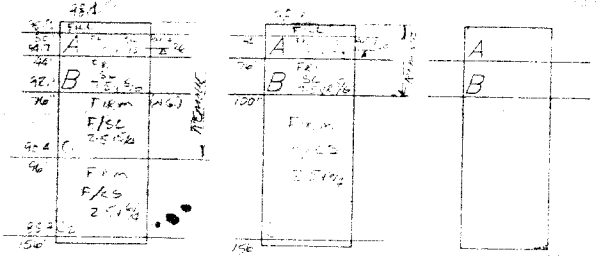
4) (3) MERCURY SWITCH LEVEL CONTROLS

5) (1) 2" UNION

6) (1) 2" CHECK VALVE

Proposed Flow Line Grades		" As Built " Grades
INV. AT FOUNDATION	98.34	
INV. INTO SEPTIC TANK	97.70	
INV. OUT OF SEPTIC TANK	97.45	
INV. INTO DISTRIBUTION BOX	100.42	
INV. OUT OF DISTRIBUTION BOX	100.25	
INV. AT BEGINING OF FIELD	100.15	
INV. AT END OF LEACHING FIELD	100.00	
BOTTOM OF STONE	99.60	
WATER TABLE	95.4	

T.P. 1 T.P. 2 T.P. 3



CLASS II SOIL

SOIL LOGS

SEE ANALYSIS

USE Rate Of 30 Minutes/Inch
Present During Tests On 6/27/98
Agent: [illegible]
Soil Evaluator: EVANS WEBBY

Bench Mark
TBM = 101.00
DR = 100.00
ELEV. = 100.34

350 x 2 = 600 GAL. EXISTING 1000 GAL S.T.

SEPTIC SYSTEM DESIGN FOR 5 BEDROOMS

NUMBER OF BEDROOMS = 2 eq.
GALLONS/BEDROOM = 330 gpd.
REQUIRED GPD = 660 gpd.
REQUIRED LEACHING AREA = 660 / 0.33 (@ 30 min./inch) = 1500 s.f.
LEACHING AREA PROVIDED = 1020 s.f. > 1000 s.f.
LEACHING CAPACITY = 336 gpd. > 330 gpd.

30 x 34 FIELD = 1020 SF

Issue	Date	Description	Drawn	Design	Check	Resp. Eng.
#1	6/27/98	REPAIR OF SEPTIC SYSTEM	MAW	MAW	JTC	JTC

Design of Sanitary System

TOWN: CARVER, MASS. LOT NO.: M24 L17 F-16

LOCATION: # 2 CRANE ST

PREPARED FOR: NAGY & WEDLAND

SCALE: 1" = 20' DATE: JUNE 27, 1998

WEBBY ENGINEERING ASSOCIATES, INC.
Civil Engineers & Land Surveyors
180 County Road – Plympton, MA.
(781) 585-1164

COMMONWEALTH OF MASSACHUSETTS — JOHN CHRISTOPHER VERRENGIA JR. — No. 29737 — REGISTERED PROFESSIONAL ENGINEER

Prof. Land Surveyor

Prof. Engineer

W: 110

APPENDIX E
ENVIRONMENTAL FIRSTSEARCH™ REPORT

FirstSearch Technology Corporation

Environmental FirstSearch™ Report

TARGET PROPERTY:

131 MAIN ST

CARVER MA 02330

Job Number: 616

PREPARED FOR:

Decoulos & Company

3 Electronics Avenue

Danvers, MA 01923

05-24-04

Tel: (781) 320-3720

Fax: (781) 320-3715

Environmental FirstSearch
Search Summary Report

Target Site: 131 MAIN ST
CARVER MA 02330

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2 >	ZIP	TOTALS
NPL	Y	04-08-04	1.00	0	0	0	0	0	0	0
CERCLIS	Y	02-09-04	0.50	0	0	0	0	-	0	0
RCRA TSD	Y	02-09-04	0.50	0	0	0	0	-	0	0
RCRA COR	Y	02-09-04	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	02-09-04	0.25	0	0	0	-	-	0	0
RCRA NLR	N	02-09-04	0.25	-	-	-	-	-	-	-
ERNS	Y	12-31-03	0.25	0	0	0	-	-	0	0
NPDES	N	01-26-04	0.25	-	-	-	-	-	-	-
FINDS	N	01-30-04	0.25	-	-	-	-	-	-	-
TRIS	N	07-16-98	0.25	-	-	-	-	-	-	-
State Sites	Y	03-12-04	1.00	1	2	0	0	1	0	4
Spills-1990	Y	03-12-04	0.50	3	2	0	1	-	1	7
Spills-1980	N	03-10-98	0.25	-	-	-	-	-	-	-
SWL	Y	01-02-04	0.50	0	0	0	0	-	0	0
Permits	N	NA	0.25	-	-	-	-	-	-	-
Other	N	NA	0.25	-	-	-	-	-	-	-
REG UST/AST	Y	03-05-04	0.25	1	0	1	-	-	1	3
Leaking UST	Y	03-12-04	0.50	2	0	0	0	-	1	3
State Wells	N	11-25-03	0.50	-	-	-	-	-	-	-
Aquifers	N	12-15-03	0.50	-	-	-	-	-	-	-
ACEC	N	07-15-03	0.50	-	-	-	-	-	-	-
Wetlands	N	11-20-00	0.50	-	-	-	-	-	-	-
Floodplains	N	05-13-98	0.50	-	-	-	-	-	-	-
Receptors	Y	01-01-95	0.50	0	0	0	0	-	0	0
Nuclear Permits	N	04-30-99	0.50	-	-	-	-	-	-	-
Historic/Landmark	N	05-19-03	0.50	-	-	-	-	-	-	-
Federal Land Use	N	06-17-98	0.50	-	-	-	-	-	-	-
Federal Wells	N	05-19-03	0.50	-	-	-	-	-	-	-
Releases(Air/Water)	N	12-31-03	0.25	-	-	-	-	-	-	-
- TOTALS -				7	4	1	1	1	3	17

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to DataMap Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in DataMap Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although DataMap Technology Corp. uses its best efforts to research the actual location of each site, DataMap Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of DataMap Technology Corp.'s services proceeding are signifying an understanding of DataMap Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date: 05-24-04
Requestor Name: James J. Decoulos
Standard: ASTM

Search Type: COORD
Job Number: 616
FILTERED REPORT

Target Address: 131 MAIN ST
CARVER MA 02330

Demographics

Sites: 17 **Non-Geocoded:** 3 **Population:** 1239
Radon: 0.1 - 3.9 PCI/L

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-70.766162	-70:45:58	**Easting:**	353460.285
Latitude:	41.884684	41:53:5	**Northing:**	4638267.732
			Zone:	19

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: **0.00 Mile(s)**

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Sanborns	N	
Aerial Photographs	N	
Topo Maps (hardcopy)	N	
City Directories	N	
Title Search	N	
Municipal Reports	N	
Online Topo Map	N	

Environmental FirstSearch
Selected Sites Summary Report

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

TOTAL: 17 **GEOCODED:** 14 **NON GEOCODED:** 3 **SELECTED:** 17

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	STATE	CARMICHAELS MOBIL STATION 4-0000612/TIER 1B	MAIN ST (RTE 58) CARVER MA 02330	0.08 SE	1
2	STATE	NO LOCATION AID 4-0012848/TIER 1D	132 MAIN ST CARVER MA 02330	0.09 SE	2
3	STATE	RTE 58 4-0012615/RAO	67 MAIN ST CARVER MA 02330	0.71 NW	3
4	STATE	RTE 58 4-0013333/TIER 2	131 MAIN ST CARVER MA 02330	0.09 NW	4
5	SPILLS	CARMICHAELS MOBIL STATION 4-0000612/TIER1B	MAIN ST (RTE 58) CARVER MA 02330	0.08 SE	1
6	SPILLS	INTERSECTION OF MALDOW & MAIN ST 4-0017825/UNCLSS	131 MAIN ST CARVER MA 02330	0.09 NW	4
7	SPILLS	NO LOCATION AID 4-0012848/TIER1D	132 MAIN ST CARVER MA 02330	0.09 SE	2
8	SPILLS	NO LOCATION AID 4-0016867/RAO	5 BISBEE DR CARVER MA 02330	0.46 NE	5
9	SPILLS	RTE 58 4-0013333/TIERII	131 MAIN ST CARVER MA 02330	0.09 NW	4
10	SPILLS	RTE 58 - EAGLE GAS STATION 4-0017582 TIER1D	131 MAIN ST CARVER MA 02330	0.09 NW	4
11	UST	EAGLE GAS INC 0-013175	131 MAIN ST CARVER MA 02330	0.09 NW	4
12	UST	THALIA F. CARMICHAEL 0-013172/PRIVATE	MAIN STREET CARVER MA 02330	0.19 NW	6
13	LUST	RTE 58 4-0013333/TIERII	131 MAIN ST CARVER MA 02330	0.09 NW	4
14	LUST	RTE 58 - EAGLE GAS STATION 4-0017582/TIER1D	131 MAIN ST CARVER MA 02330	0.09 NW	4

Environmental FirstSearch
Selected Sites Summary Report

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

TOTAL: 17 **GEOCODED:** 14 **NON GEOCODED:** 3 **SELECTED:** 17

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
15	SPILLS	NO LOCATION AID 4-0011138/UST	PLYMOUTH & NORTH MAIN ST CARVER MA 02330	NON GC	
16	UST	TOWN OF CARVER 0-013168	MAIN ST CARVER MA 02330	NON GC	
17	LUST	TOMS TEXACO STATION 4-0000194/RAO	NORTH MAIN STREET RTE 58 AND 4 CARVER MA 02330	NON GC	

Environmental FirstSearch
Normalized Summary Report

Site Name Address	Dist/Dir	Map ID	TOTAL SITES	Databases
CARMICHAELS MOBIL STATION MAIN ST (RTE 58) CARVER MA 02330	0.08 SE	1	2	ST: 1, SP: 1
INTERSECTION OF MALDOW & M 131 MAIN ST CARVER MA 02330	0.09 NW	4	7	ST: 1, SP: 3 OT: US: 1, LS: 2
NO LOCATION AID 132 MAIN ST CARVER MA 02330	0.09 SE	2	2	ST: 1, SP: 1
THALIA F. CARMICHAEL MAIN STREET CARVER MA 02330	0.19 NW	6	1	OT: US: 1
NO LOCATION AID 5 BISBEE DR CARVER MA 02330	0.46 NE	5	1	SP: 1
RTE 58 67 MAIN ST CARVER MA 02330	0.71 NW	3	1	ST: 1
	TOTALS		14	ST: 4, SP: 6 OT: US: 2, LS: 2

NP - NPL Site
CE - CERCLIS
RT - RCRA TSD
RC - RCRA COR
RG - RCRA GEN
RN - RCRA NLR
ER - ERNS
NS - NPDES
FN - FINDS
TR - TRIS
ST - State Sites
SP - 90's Spills
80 - 80's Spills
LF - Landfills
PM - Permits
OT - Other
US - UST
LS - LUST
PW - PWS
AQ - Aquifers
AC - ACEC
WE - Wetlands
FP - Floodplains
NU - Nuclear Permits
HS - Historic Sites
FL - Federal Land Use
RE - Releases

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 1 **DIST/DIR:** 0.08 SE **MAP ID:** 1

NAME: CARMICHAELS MOBIL STATION
ADDRESS: MAIN ST (RTE 58)
CARVER MA 02330
CONTACT:

REV: 3/12/04
ID1: 4-0000612
ID2:
STATUS: TIER 1B
PHONE:

SITE INFORMATION

LTBI: 1/15/1989
DELETED:
CONFIRMED: 4/15/1990
REMOVED:

CATEGORY: NONE
DATE: 1/15/1989
PHASE: PHASE V
21E STATUS: TIER1B
21E DATE: 2/21/1997
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE: GASSTATION,
SOURCE: SUCTN LINE;
SITE DESCRIPTION: GAS STATION; RELEASE TO SOIL; GROUNDWATER RELEASE;

OTHER CONTAMINATION: OVERFILL & LEAKING SUCTION LINE
OTHER RELEASES: BTEX COMPOUNDS
OTHER PROBLEMS:
OTHER TYPE OF SITE:

CHEMICALS

BTEX

SITE ACTIONS

TS DATE: 9/4/1998
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: STATUS REPORT RECEIVED
RAS TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

TS DATE: 3/20/1996
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER2EXT
RAO CLASS:

TS DATE: 3/13/1995
AUL RESTRICTION:
LSP: STEVEN MIGRIDICHIAN
RA STATUS:
RAS TYPE: TIER2EXT

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 1 **DIST/DIR:** 0.08 SE **MAP ID:** 1

NAME: CARMICHAELS MOBIL STATION
ADDRESS: MAIN ST (RTE 58)
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0000612
ID2:
STATUS: TIER 1B
PHONE:

RAO CLASS:

TS DATE: 4/22/1997
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: WRITTEN PLAN RECEIVED
RAS TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

TS DATE: 2/21/1997
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER CLASSIFICATION
RAO CLASS:

TS DATE: 2/21/1997
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: COMPLETION STATEMENT RECEIVED
RAS TYPE: PHASE I
RAO CLASS:

TS DATE: 3/9/1999
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: STATUS REPORT RECEIVED
RAS TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

ACT DATE: 2/26/2002
ACT USE LIMITATION:
LSP: MICHAEL WEBS
ACT STATUS: IMRCD
ACT TYPE: PHASE 5
RAO TYPE:

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 1 **DIST/DIR:** 0.08 SE **MAP ID:** 1

NAME: CARMICHAELS MOBIL STATION
ADDRESS: MAIN ST (RTE 58)
CARVER MA 02330
CONTACT:

REV: 3/12/04
ID1: 4-0000612
ID2:
STATUS: TIER 1B
PHONE:

ACT USE LIMITATION:
LSP: MICHAEL WEBS
ACT STATUS: STRCVD
ACT TYPE: STATUS REPORT RECEIVED
RAO TYPE:

ACT DATE: 9/25/1989
ACT USE LIMITATION:
LSP:
ACT STATUS: SOW
ACT TYPE: SCOPE OF WORK RECEIVED
RAO TYPE:

ACT DATE: 8/16/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: PEREFF
ACT TYPE: PERMIT EFFECTIVE DATE
RAO TYPE:

ACT DATE: 2/21/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: CSRCVD
ACT TYPE: COMPLETION STATEMENT RECEIVED
RAO TYPE:

Environmental FirstSearch
Site Detail Report

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 2 **DIST/DIR:** 0.09 SE **MAP ID:** 2

NAME: NO LOCATION AID
ADDRESS: 132 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0012848
ID2:
STATUS: TIER 1D
PHONE:

SITE INFORMATION

CATEGORY: TWO HR
DATE: 2/14/1997
PHASE:

21E STATUS: TIER1D
21E DATE: 2/24/1998
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE:
SOURCE: UNKNOWN:
SITE DESCRIPTION:

CHEMICALS

BENZENE 14 PPB

SITE ACTIONS

ACT DATE: 2/14/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: ASSESS
ACT TYPE: IRA ASSESSMENT ONLY
RAO TYPE:

ACT DATE: 2/14/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 3 **DIST/DIR:** 0.71 NW **MAP ID:** 3

NAME: RTE 58
ADDRESS: 67 MAIN ST
CARVER MA 02330
CONTACT:

REV: 1/29/01
ID1: 4-0012615
ID2:
STATUS: RAO
PHONE:

SITE INFORMATION

LTBI:
DELETED:
CONFIRMED:
REMOVED:

CATEGORY: TWO HR
DATE: 11/2/96
PHASE: PHASE II
21E STATUS: RAO
21E DATE: 6/23/98
HAZMAT TYPE: OIL

RAO CLASS: A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKROUND

LOCATION TYPE: RESIDNTIAL,
SOURCE: AST;
SITE DESCRIPTION:

SITE ACTIONS

TS DATE: 19971107 00:00:00
AUL RESTRICTION:
LSP: STEVEN MIGRIDICHIAN
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TCLASS: TIER CLASSIFICATION
RAO CLASS:

TS DATE: 19971107 00:00:00
AUL RESTRICTION:
LSP:
RA STATUS: RELATED TO A TRANSITION SITE (NOT TIER CLASSIFIED)
RAS TYPE: FEND
RAO CLASS:

ACT DATE: 06/23/1998
ACT USE LIMITATION: NONE
LSP: STEVEN MIGRIDICHIAN
ACT STATUS: RAO STATEMENT RECEIVED
ACT TYPE: RAO: RESPONSE ACTION OUTCOME
RAO TYPE: A2 - A PERMANENT SOLUTION HAS BEEN ACHIEVED: CONTAMINATION HAS NOT BEEN REDUCED TO BACKROUND

ACT DATE: 11/07/1997
ACT USE LIMITATION:
LSP: STEVEN MIGRIDICHIAN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASEI: PHASE I

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 3 **DIST/DIR:** 0.71 NW **MAP ID:** 3

NAME: RTE 58
ADDRESS: 67 MAIN ST
CARVER MA 02330

CONTACT:

REV: 1/29/01
ID1: 4-0012615
ID2:
STATUS: RAO
PHONE:

RAO TYPE:

ACT DATE: 11/07/1997
ACT USE LIMITATION:
LSP: STEVEN MIGRIDICHIAN
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TCLASS: TIER CLASSIFICATION
RAO TYPE:

ACT DATE: 06/23/1998
ACT USE LIMITATION:
LSP: STEVEN MIGRIDICHIAN
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: IRA: IMMEDIATE RESPONSE ACTION
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 4 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0013333
ID2:
STATUS: TIER 2
PHONE:

SITE INFORMATION

CATEGORY: 72 HR
DATE: 9/8/1997
PHASE: PHASE II

21E STATUS: TIERII
21E DATE: 3/18/1999
HAZMAT TYPE: OIL AND HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE: COMMERCIAL,
SOURCE: UNKNOWN; UST;
SITE DESCRIPTION:

CHEMICALS

BENZENE 93 PPB
UNKNOWN CHEMICAL OF TYPE - HAZARDOUS MATERIAL 4000 PPB
TOTAL PETROLEUM HYDROCARBONS (TPH) 1.3 PPM

SITE ACTIONS

ACT DATE: 1/26/1999
ACT USE LIMITATION: NONE
LSP: BARTLETT PAU
ACT STATUS: STMRET
ACT TYPE: SUBMITTAL RETRACTED
RAO TYPE: C - A TEMPORARY SOLUTION, WHIC

ACT DATE: 3/18/1999
ACT USE LIMITATION:
LSP: THEODORE KAE
ACT STATUS: TIERII
ACT TYPE: TIER 2 CLASSIFICATION
RAO TYPE:

ACT DATE: 9/8/1997
ACT USE LIMITATION:
LSP: BARTLETT PAU
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

ACT DATE: 3/18/1999
ACT USE LIMITATION:
LSP: THEODORE KAE
ACT STATUS: CSRCVD

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SITE

SEARCH ID: 4 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58
ADDRESS: 131 MAIN ST
CARVER MA 02330
CONTACT:

REV: 3/12/04
ID1: 4-0013333
ID2:
STATUS: TIER 2
PHONE:

ACT TYPE: COMPLETION STATEMENT RECEIVED
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 5 **DIST/DIR:** 0.08 SE **MAP ID:** 1

NAME: CARMICHAELS MOBIL STATION
ADDRESS: MAIN ST (RTE 58)
CARVER MA 02330

CONTACT:

REV: 12/19/03
ID1: 4-0000612
ID2:
STATUS: TIER1B
PHONE:

SITE INFORMATION

STATUS: TIER 1B - A site/release receiving an NRS score less than 550 and equal to or greater than 450. These sites/releases also require a permit, but response actions may be performed under the supervision of a License Site Professional (LSP) without prior DEP approval.

LTBI: 1/15/1989
DELETED:

CONFIRMED: 4/15/1990
REMOVED:

CATEGORY: NONE
DATE: 1/15/1989
PHASE: PHASE V

21E STATUS: TIER 1B
21E DATE: 2/21/1997
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE: GASSTATION,
SOURCE: SUCTN LINE;
SITE DESCRIPTION: GROUNDWATER RELEASE; GAS STATION; RELEASE TO SOIL;

OTHER CONTAMINATION: OVERFILL & LEAKING SUCTION LINE
OTHER RELEASES: BTEX COMPOUNDS
OTHER PROBLEMS:
OTHER TYPE OF SITE:

CHEMICALS

BTEX

SITE ACTIONS

TS DATE: 3/13/1995
AUL RESTRICTION:
LSP: STEVEN MIGRIDICHIAN
RA STATUS:
RAS TYPE: TIER2EXT
RAO CLASS:

TS DATE: 3/9/1999
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: STATUS REPORT RECEIVED
RAS TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

TS DATE: 4/22/1997
AUL RESTRICTION:

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 5 **DIST/DIR:** 0.08 SE **MAP ID:** 1

NAME: CARMICHAELS MOBIL STATION
ADDRESS: MAIN ST (RTE 58)
CARVER MA 02330

CONTACT:

REV: 12/19/03
ID1: 4-0000612
ID2:
STATUS: TIER1B
PHONE:

LSP: MICHAEL PIERDINOCK
RA STATUS: WRITTEN PLAN RECEIVED
RAS TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

TS DATE: 2/21/1997
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER CLASSIFICATION
RAO CLASS:

TS DATE: 9/4/1998
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: STATUS REPORT RECEIVED
RAS TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

TS DATE: 2/21/1997
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: COMPLETION STATEMENT RECEIVED
RAS TYPE: PHASE I
RAO CLASS:

TS DATE: 3/20/1996
AUL RESTRICTION:
LSP: MICHAEL PIERDINOCK
RA STATUS: TRANSMITTAL RECEIVED
RAS TYPE: TIER2EXT
RAO CLASS:

ACT DATE: 2/21/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE I

- Continued on next page -

Environmental FirstSearch
Site Detail Report

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 5 **DIST/DIR:** 0.08 SE **MAP ID:** 1

NAME: CARMICHAELS MOBIL STATION
ADDRESS: MAIN ST (RTE 58)
CARVER MA 02330

CONTACT:

REV: 12/19/03
ID1: 4-0000612
ID2:
STATUS: TIER1B
PHONE:

ACT DATE: 8/16/1999
ACT USE LIMITATION:
LSP:
ACT STATUS: PERMIT EFFECTIVE DATE
ACT TYPE: TIER CLASSIFICATION
RAO CLASS:

ACT DATE: 1/15/1989
ACT USE LIMITATION:
LSP:
ACT STATUS: VALID TRANSITION SITE
ACT TYPE: RELEASE DISPOSITION
RAO CLASS:

ACT DATE: 8/24/2001
ACT USE LIMITATION:
LSP: MICHAEL WEBSTER
ACT STATUS: STATUS REPORT RECEIVED
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

ACT DATE: 2/26/2002
ACT USE LIMITATION:
LSP: MICHAEL WEBSTER
ACT STATUS: IMRCD
ACT TYPE: PHASE 5
RAO CLASS:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 6 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: INTERSECTION OF MALDOW & MAIN ST
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0017825
ID2:
STATUS: UNCLSS
PHONE:

SITE INFORMATION

STATUS: UNCLASSIFIED - A release that has not reached its Tier Classification deadline (usually one year after it was reported), and where an RAO Statement, DPS Submittal, or Tier Classification Submittal has not been received by DEP.

CATEGORY: TWO HR
DATE: 5/16/2003
PHASE:

21E STATUS: UNCLASSIFIED
21E DATE: 5/16/2003
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: RESIDNTIAL, COMMERCIAL,
SOURCE: UNKNOWN;
SITE DESCRIPTION:

CHEMICALS

UNKNOWN CHEMICAL OF TYPE - OIL

SITE ACTIONS

ACT DATE: 5/16/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: APORAL
ACT TYPE: ORAL APPROVAL OF PLAN
RAO TYPE:

ACT DATE: 5/16/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 7 **DIST/DIR:** 0.09 SE **MAP ID:** 2

NAME: NO LOCATION AID
ADDRESS: 132 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0012848
ID2:
STATUS: TIER1D
PHONE:

SITE INFORMATION

STATUS: TIER 1D - A site/release where the responsible party fails to provide a required submittal to DEP by a specified deadline. Note: formerly Default Tier 1B.

CATEGORY: TWO HR
DATE: 2/14/1997
PHASE:

21E STATUS: TIER 1D
21E DATE: 2/24/1998
HAZMAT TYPE: HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE:
SOURCE: UNKNOWN;
SITE DESCRIPTION:

CHEMICALS

BENZENE 14 PPB

SITE ACTIONS

ACT DATE: 2/14/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

ACT DATE: 2/14/1997
ACT USE LIMITATION:
LSP:
ACT STATUS: ASSESS
ACT TYPE: IRA ASSESSMENT ONLY
RAO TYPE:

Site Detail Report

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 8 **DIST/DIR:** 0.46 NE **MAP ID:** 5

NAME: NO LOCATION AID
ADDRESS: 5 BISBEE DR
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0016867
ID2:
STATUS: RAO
PHONE:

SITE INFORMATION

STATUS: RAO - (Response Action Outcome): a site/release where an RAO statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

CATEGORY: TWO HR
DATE: 2/4/2002
PHASE:

21E STATUS: RAO
21E DATE: 10/24/2002
HAZMAT TYPE: OIL

RAO CLASS: B1 - REMEDIAL ACTIONS HAV

LOCATION TYPE:
SOURCE: UNKNOWN;
SITE DESCRIPTION:

CHEMICALS

OIL

SITE ACTIONS

ACT DATE: 10/24/2002
ACT USE LIMITATION: NONE
LSP: JOSEPH SALVE
ACT STATUS: FEEREC
ACT TYPE: FEE RECEIVED-FMCRA USE ONLY
RAO TYPE: B1 - REMEDIAL ACTIONS HAVE NOT

ACT DATE: 2/4/2002
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 9 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
IDI: 4-0013333
ID2:
STATUS: TIERII
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

CATEGORY: 72 HR
DATE: 9/8/1997
PHASE: PHASE II

21E STATUS: TIER 2
21E DATE: 3/18/1999
HAZMAT TYPE: OIL AND HAZARDOUS MATERIAL

RAO CLASS:

LOCATION TYPE: COMMERCIAL,
SOURCE: UST; UNKNOWN;
SITE DESCRIPTION:

CHEMICALS

UNKNOWN CHEMICAL OF TYPE - HAZARDOUS MATERIAL 4000 PPB
TOTAL PETROLEUM HYDROCARBONS (TPH) 1.3 PPM
BENZENE 93 PPB

SITE ACTIONS

ACT DATE: 1/26/1999
ACT USE LIMITATION: NONE
LSP: BARTLETT PAU
ACT STATUS: STMRET
ACT TYPE: SUBMITTAL RETRACTED
RAO TYPE: C - A TEMPORARY SOLUTION, WHIC

ACT DATE: 3/18/1999
ACT USE LIMITATION:
LSP: THEODORE KAE
ACT STATUS: CSRCVD
ACT TYPE: COMPLETION STATEMENT RECEIVED
RAO TYPE:

ACT DATE: 3/18/1999
ACT USE LIMITATION:
LSP: THEODORE KAE
ACT STATUS: TIERII
ACT TYPE: TIER 2 CLASSIFICATION
RAO TYPE:

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 9 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0013333
ID2:
STATUS: TIERII
PHONE:

ACT DATE: 9/8/1997
ACT USE LIMITATION:
LSP: BARTLETT PAU
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 10 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58 - EAGLE GAS STATION
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0017582
ID2:
STATUS: TIER1D
PHONE:

SITE INFORMATION

STATUS: UNCLASSIFIED - A release that has not reached its Tier Classification deadline (usually one year after it was reported), and where an RAO Statement, DPS Submittal, or Tier Classification Submittal has not been received by DEP.

CATEGORY: 72 HR
DATE: 1/21/2003
PHASE:

21E STATUS: UNCLASSIFIED
21E DATE: 1/21/2003
HAZMAT TYPE: OIL

RAO CLASS:

LOCATION TYPE: COMMERCIAL,
SOURCE: UNKNOWN; UST;
SITE DESCRIPTION:

CHEMICALS

DIESEL FUEL
GASOLINE 10 INCH

SITE ACTIONS

ACT DATE: 3/24/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

ACT DATE: 1/21/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORT
ACT TYPE: REPORTABLE RELEASE UNDER MGL 2
RAO TYPE:

ACT DATE: 7/8/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: STRCVD
ACT TYPE: STATUS REPORT RECEIVED
RAO TYPE:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 11 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: EAGLE GAS INC
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/5/04
ID1: 0-013175
ID2: 23052
STATUS:
PHONE:

TOTAL NUMBER OF TANKS: 8

OWNER INFORMATION
OWNER NAME: EAGLE GAS INC
OWNER ADDRESS: 131 MAIN ST
CARVER MA 02330

FACILITY TYPE: GAS STATION
WORK PHONE: (508) 866-9098

TANK INFORMATION

TANK NUMBER: 1
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 4000
CONTENTS: GASOLINE
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL:
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 2
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 4000
CONTENTS: GASOLINE
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL:
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 3
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 4000

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 11 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: EAGLE GAS INC
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/5/04
ID1: 0-013175
ID2: 23052
STATUS:
PHONE:

CONTENTS: GASOLINE
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL:
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 4
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 4000
CONTENTS: DIESEL
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL:
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 5
TANK STATUS: IN USE
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 5000
CONTENTS: GASOLINE
USE: MV
TANK MATERIAL: CATHODIC
TANK TYPE: 2 WALLS
LEAK DETECTION: Interstitial Monitoring

PIPE MATERIAL: FLEXIBLE
PIPE TYPE: 2 WALLS
LEAK DETECTION: Interstitial Space Monitor

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 12 **DIST/DIR:** 0.19 NW **MAP ID:** 6

NAME: THALIA F. CARMICHAEL
ADDRESS: MAIN STREET

REV:
ID1: 0-013172

PIPE MATERIAL:	FLEXIBLE
PIPE TYPE:	2 WALLS
LEAK DETECTION:	Interstitial Space Monitor

TANK NUMBER:	8
TANK STATUS:	IN USE
SERIAL NUMBER:	
ABOVE GROUND:	N
CAPACITY(GAL):	4000
CONTENTS:	DIESEL
USE:	MV
TANK MATERIAL:	CATHODIC
TANK TYPE:	2 WALLS
LEAK DETECTION:	Interstitial Monitoring

PIPE MATERIAL:	FLEXIBLE
PIPE TYPE:	2 WALLS
LEAK DETECTION:	Interstitial Space Monitor

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 12 **DIST/DIR:** 0.19 NW **MAP ID:** 6

NAME: THALIA F. CARMICHAEL
ADDRESS: MAIN STREET
CARVER MA 02330

CONTACT: THALIA F. CARMICHAEL

REV:
ID1: 0-013172
ID2:
STATUS: PRIVATE
PHONE: (617) 866-2760

	Tanks	Installed	Capacity
CURRENT:	3	MAY 71	3000 - 5000
REMOVED:	0		
PERMANENT:	0		
UNKNOWN:	0		
TEMP:	0		
CLOSED:	0		

PRODUCTS: GASOLINE
TANK MATERIAL: BARE STEEL, GALVANIZED STEEL
PIPE MATERIAL: OTHER

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 13 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58
ADDRESS: 131 MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0013333
ID2:
STATUS: TIERII
PHONE:

SITE INFORMATION

STATUS: TIER 2 - A site/release receiving a total NRS score less than 350, unless the site meets any of the Tier 1 Inclusionary Criteria (CMR 40.0520(2)(a)). Permits are not required at Tier 2 sites/releases and response actions may be performed under the supervision of an LSP without prior DEP approval. All pre-1993 transition sites that have accepted waivers are categoricallyTier 2 sites.

LOCATION TYPE: COMMERCIAL,
SOURCE: UNKNOWN; UST;
SITE DESCRIPTION:

CHEMICALS

TOTAL PETROLEUM HYDROCARBONS (TPH) 1.3 PPM
BENZENE 93 PPB
UNKNOWN CHEMICAL OF TYPE - HAZARDOUS MATERIAL 4000 PPB

SITE ACTIONS

ACT DATE: 1/26/1999
ACT USE LIMITATION: NONE
LSP: BARTLETT PAU
ACT STATUS: SUBMITTAL RETRACTED
ACT TYPE: RESPONSE ACTION OUTCOME - RAO
RAO CLASS: C - A TEMPORARY SOLUTION, WHIC

ACT DATE: 9/8/1997
ACT USE LIMITATION:
LSP: BARTLETT PAU
ACT STATUS: REPORTABLE RELEASE UNDER MGL 2
ACT TYPE: RELEASE DISPOSITION
RAO CLASS:

ACT DATE: 3/18/1999
ACT USE LIMITATION:
LSP: THEODORE KAE
ACT STATUS: COMPLETION STATEMENT RECEIVED
ACT TYPE: PHASE 1
RAO CLASS:

ACT DATE: 3/18/1999
ACT USE LIMITATION:
LSP: THEODORE KAE
ACT STATUS: TIER 2 CLASSIFICATION
ACT TYPE: TIER CLASSIFICATION
RAO CLASS:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 14 **DIST/DIR:** 0.09 NW **MAP ID:** 4

NAME: RTE 58 - EAGLE GAS STATION
ADDRESS: 131 MAIN ST
CARVER MA 02330
CONTACT:

REV: 3/12/04
ID1: 4-0017582
ID2:
STATUS: TIER1D
PHONE:

SITE INFORMATION

STATUS: - Tier1D, a release where the responsible party fails to provide a required submittal to DEP by a specified deadline.

LOCATION TYPE: COMMERCIAL,
SOURCE: UNKNOWN; UST;
SITE DESCRIPTION:

CHEMICALS

GASOLINE 10 INCH
DIESEL FUEL

SITE ACTIONS

ACT DATE: 3/24/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 2
ACT TYPE: RELEASE NOTIFICATION
RAO CLASS:

ACT DATE: 7/8/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: STATUS REPORT RECEIVED
ACT TYPE: IMMEDIATE RESPONSE ACTION
RAO CLASS:

ACT DATE: 1/21/2003
ACT USE LIMITATION:
LSP:
ACT STATUS: REPORTABLE RELEASE UNDER MGL 2
ACT TYPE: RELEASE DISPOSITION
RAO CLASS:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

STATE SPILLS SITE

SEARCH ID: 15 **DIST/DIR:** NON GC **MAP ID:**

NAME: NO LOCATION AID
ADDRESS: PLYMOUTH & NORTH MAIN ST
CARVER MA 02330

CONTACT:

REV:
ID1: 4-0011138
ID2:
STATUS: UST
PHONE:

CASE #:
CLOSED:

SPILL DATE:
SPILL TIME:
REPORT DATE: 02/16/95

NOTIFIER:
PHONE:
STAFF:

MATERIAL: GASOLINE
PCB LEVEL:
SOURCE: UST
ENV IMPACT:
CONTRACTOR:
PREPARE RPT:
DAYS/CLOSE:

PET/HAZ:
VIR/WASTE:
INCIDENT: 72 HR
QUANTITY REPORTED:
QUANTITY ACTUAL:
UNITS REPORTED:
UNITS ACTUAL:

LUST:
SOIL CONTAM:

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 16 **DIST/DIR:** NON GC **MAP ID:**

NAME: TOWN OF CARVER
ADDRESS: MAIN ST
CARVER MA 02330
CONTACT:

REV: 3/5/04
ID1: 0-013168
ID2: 23052
STATUS:
PHONE:

TOTAL NUMBER OF TANKS: 5

OWNER INFORMATION
OWNER NAME: TOWN OF CARVER
OWNER ADDRESS: MAIN ST
CARVER MA 02330

FACILITY TYPE: MUNICIPAL
WORK PHONE: (617) 866-2561

TANK INFORMATION

TANK NUMBER: 1
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 10000
CONTENTS: GASOLINE
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL: STEEL
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 2
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 10000
CONTENTS: GASOLINE
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL: STEEL
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 3
TANK STATUS: REMOVED
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 1000

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

REGISTERED UNDERGROUND STORAGE TANKS

SEARCH ID: 16 **DIST/DIR:** NON GC **MAP ID:**

NAME: TOWN OF CARVER
ADDRESS: MAIN ST
CARVER MA 02330

CONTACT:

REV: 3/5/04
ID1: 0-013168
ID2: 23052
STATUS:
PHONE:

CONTENTS: DIESEL
USE:
TANK MATERIAL: STEEL
TANK TYPE:
LEAK DETECTION:

PIPE MATERIAL: STEEL
PIPE TYPE:
LEAK DETECTION:

TANK NUMBER: 4
TANK STATUS: IN USE
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 10000
CONTENTS: GASOLINE
USE:
TANK MATERIAL: CATHODIC
TANK TYPE: 2 WALLS
LEAK DETECTION: Interstitial Monitoring

PIPE MATERIAL: REINFORCED
PIPE TYPE: PRESSURE
LEAK DETECTION: Interstitial Space Monitor

TANK NUMBER: 5
TANK STATUS: IN USE
SERIAL NUMBER:
ABOVE GROUND: N
CAPACITY(GAL): 10000
CONTENTS: DIESEL
USE:
TANK MATERIAL: CATHODIC
TANK TYPE: 2 WALLS
LEAK DETECTION: Interstitial Monitoring

PIPE MATERIAL: REINFORCED
PIPE TYPE: PRESSURE
LEAK DETECTION: Interstitial Space Monitor

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 17 **DIST/DIR:** NON GC **MAP ID:**

NAME: TOMS TEXACO STATION
ADDRESS: NORTH MAIN STREET RTE 58 AND 4
CARVER MA 02330

CONTACT:

REV: 3/12/04
ID1: 4-0000194
ID2:
STATUS: RAO
PHONE:

SITE INFORMATION

STATUS: RAO - (Response Action Outcome): a site/release where an RAO statement was submitted. An RAO Statement asserts that response actions were sufficient to achieve a level of no significant risk or at least ensure that all substantial hazards were eliminated.

LTBI:
DELETED:

CONFIRMED: 1/15/1987
REMOVED:

LOCATION TYPE: COMMERCIAL, FORMER, GASSTATION,
SOURCE: UST;
SITE DESCRIPTION: GROUNDWATER RELEASE; GASOLINE PRESENT; FORMER; GAS STATION; CONTAINED IN A LUST; RELEASE TO SOIL;

OTHER CONTAMINATION:
OTHER RELEASES:
OTHER PROBLEMS:
OTHER TYPE OF SITE:

CHEMICALS

GASOLINE

SITE ACTIONS

TS DATE: 3/2/1995
AUL RESTRICTION: NON
LSP: THOMAS QUIGLEY
RA STATUS: RAO STATEMENT RECEIVED
RAS TYPE: RESPONSE ACTION OUTCOME - RAO
RAO CLASS: C - A TEMPORARY SOLUTION, WHICH ENSURES THE ELIMINATION OF ANY SUBSTANTIAL HAZARD, HAS BEEN ACHIEVED AT THE DISPOSAL SITE.

TS DATE: 3/1/1995
AUL RESTRICTION:
LSP: THOMAS QUIGLEY
RA STATUS:
RAS TYPE: TS-ACCEPT
RAO CLASS:

ACT DATE: 3/2/1995
ACT USE LIMITATION: NONE
LSP:
ACT STATUS: RAO STATEMENT RECEIVED
ACT TYPE: RESPONSE ACTION OUTCOME - RAO
RAO CLASS: C - A TEMPORARY SOLUTION, WHIC

- Continued on next page -

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

LEAKING UNDERGROUND STORAGE TANKS

SEARCH ID: 17 **DIST/DIR:** NON GC **MAP ID:**

NAME: TOMS TEXACO STATION
ADDRESS: NORTH MAIN STREET RTE 58 AND 4
CARVER MA 02330
CONTACT:

REV: 3/12/04
ID1: 4-0000194
ID2:
STATUS: RAO
PHONE:

ACT DATE: 3/1/1995
ACT USE LIMITATION:
LSP:
ACT STATUS: PERMIT EFFECTIVE DATE
ACT TYPE: TIER CLASSIFICATION
RAO CLASS:

ACT DATE: 12/16/1988
ACT USE LIMITATION:
LSP:
ACT STATUS: TIER IA OR PRIORITY SUBMITTAL
ACT TYPE: PHASE 2
RAO CLASS:

ACT DATE: 7/11/1986
ACT USE LIMITATION:
LSP:
ACT STATUS: VALID TRANSITION SITE
ACT TYPE: RELEASE DISPOSITION
RAO CLASS:

Environmental FirstSearch
Federal Databases and Sources

1. **NPL:** ***National Priority List.*** The EPA's list of confirmed or proposed Superfund sites. Source: Environmental Protection Agency.

   Updated quarterly.

2. **CERCLIS:** ***Comprehensive Environmental Response Compensation and Liability Information System.*** The EPA's database of current and potential Superfund sites currently or previously under investigation. Source: Environmental Protection Agency.

   Updated quarterly.

3. **RCRIS:** ***Resource Conservation and Recovery Information System.*** The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List). Source: Environmental Protection Agency.

   Updated quarterly.

4. **ERNS:** ***Emergency Response Notification System.*** The EPA's database of emergency response actions. Source: Environmental Protection Agency.

   Updated quarterly.

5. **NPDES:** ***National Pollution Discharge Elimination System.*** The EPA's database of all permitted facilities receiving and discharging effluents. Source: Environmental Protection Agency.

   Updated semi-annually.

6. **FINDS:** ***The Facility Index System.*** The EPA's Index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. Source: Environmental Protection Agency.

   Updated semi-annually.

7. **TRIS:** ***Toxic Release Inventory System.*** The EPA's database of all facilities that have had or may be prone to toxic material releases. Source: Environmental Protection Agency.

   Updated semi-annually.

8. **ACEC:** ***Areas of Critical Environmental Concern.*** This database contains contact information for threatened and endangered species. Source: U.S. Fish and Wildlife Services, Ecological Services Offices; State GIS Departments.

Updated periodically.

9. **Floodplains** - 100 year and 500 year flood zone boundaries for select counties in the United States. Source: Federal Emergency Management Agency (FEMA).

   This database will be updated by us as new data becomes available for purchase.

10. **Historic Sites-** National Register of Historical Places Database. The nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant

Environmental FirstSearch
Massachusetts Databases and Sources

1. **State Sites**: Confirmed Disposal Sites and Locations To Be Investigated. The Department of Environmental Protection Agency database of confirmed, LTBI, waiver, deleted and reserved sites maintained by the Bureau of Waste Site Cleanup.

   Updated immediately upon release.

2. **Spills**: The Department of Environmental Protection Agency database of emergency response actions and spill releases maintained by the Bureau of Waste Site Cleanup.

   Updated immediately upon release.

3. **Landfills**: The Department of Environmental Protection Agency Agency database of active solid waste landfill facilities maintained by the Division of Solid Waste Management.

   Updated annually.

4. **UST**: Underground Storage Tanks. The Department of Public Safety/Office of the Fire Marshall's database of registered underground storage tanks.

   Updated semi-annually.

5. **PWS**: The Department of Environmental Protection Agency's database of public water supply well locations maintained by the Division of Water Supply and MassGIS.

   Updated semi-annually.

6. **Aquifers**: The Executive Office of Environmental Affairs GIS database of high, medium and low yield aquifers, EPA sole source aquifers, known zone II boundaries for public water supplies and surface water.

   Updated annually.

7. **ACEC**: Areas of Critical Environmental Concern. The Executive Office of Environmental Affairs GIS database of legislated ACECs, protected open spaces, estimated habitats of endangered species and vernal pools.

   Updated annually.

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

TARGET SITE: 131 MAIN ST
CARVER MA 02330

JOB: 616

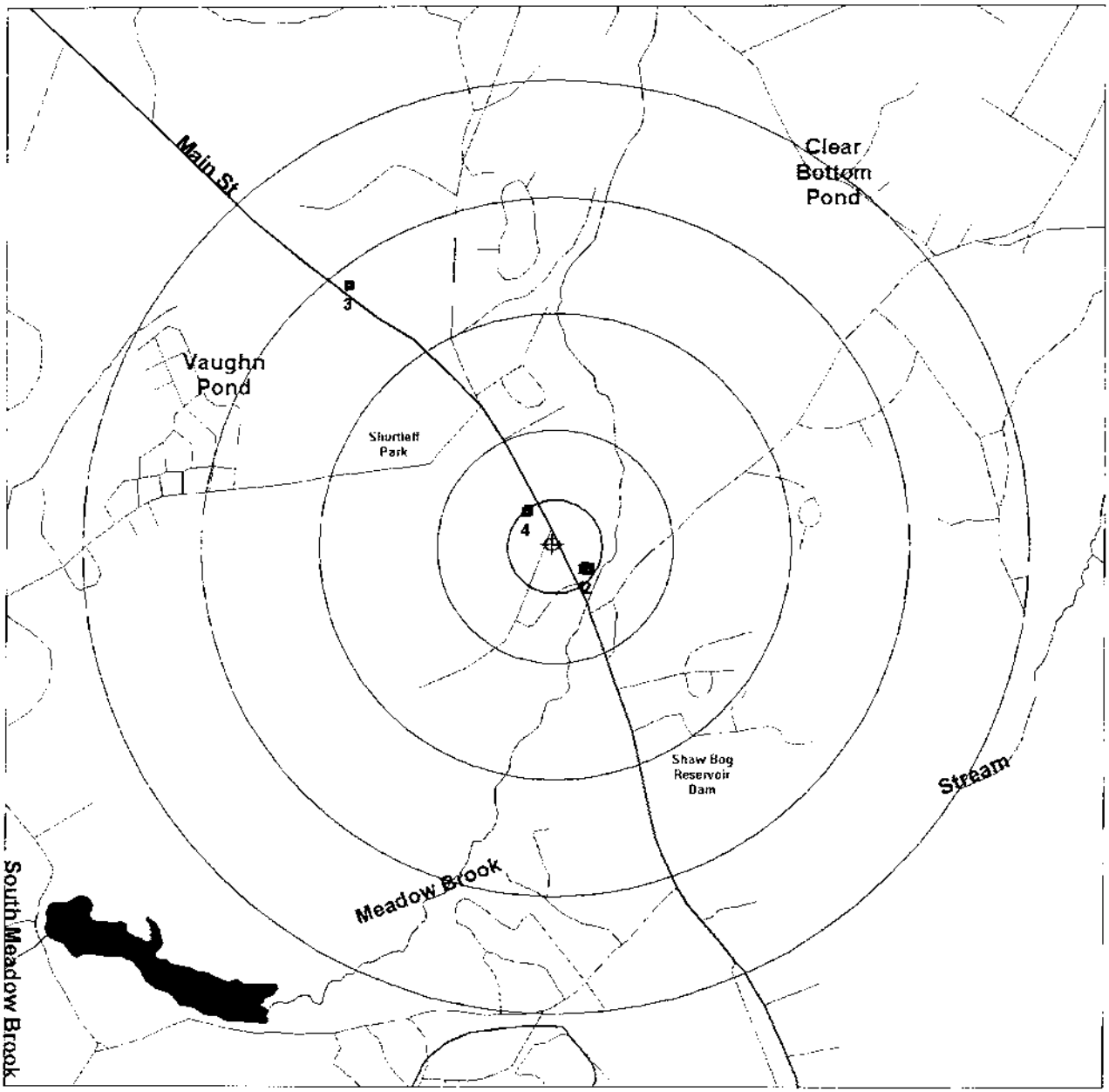
Street Name	Dist/Dir	Street Name	Dist/Dir
Carver Square Blvd	0.25 NW		
Cresent Rd	0.17 SE		
Main St	0.01 NE		
S Meadow Rd	0.16 SE		
SOUTH Meadow Rd	0.16 SE		

Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCRACOR, STATE Sites

131 MAIN ST, CARVER MA 02330



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 41.884684 Longitude: -70.766162) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

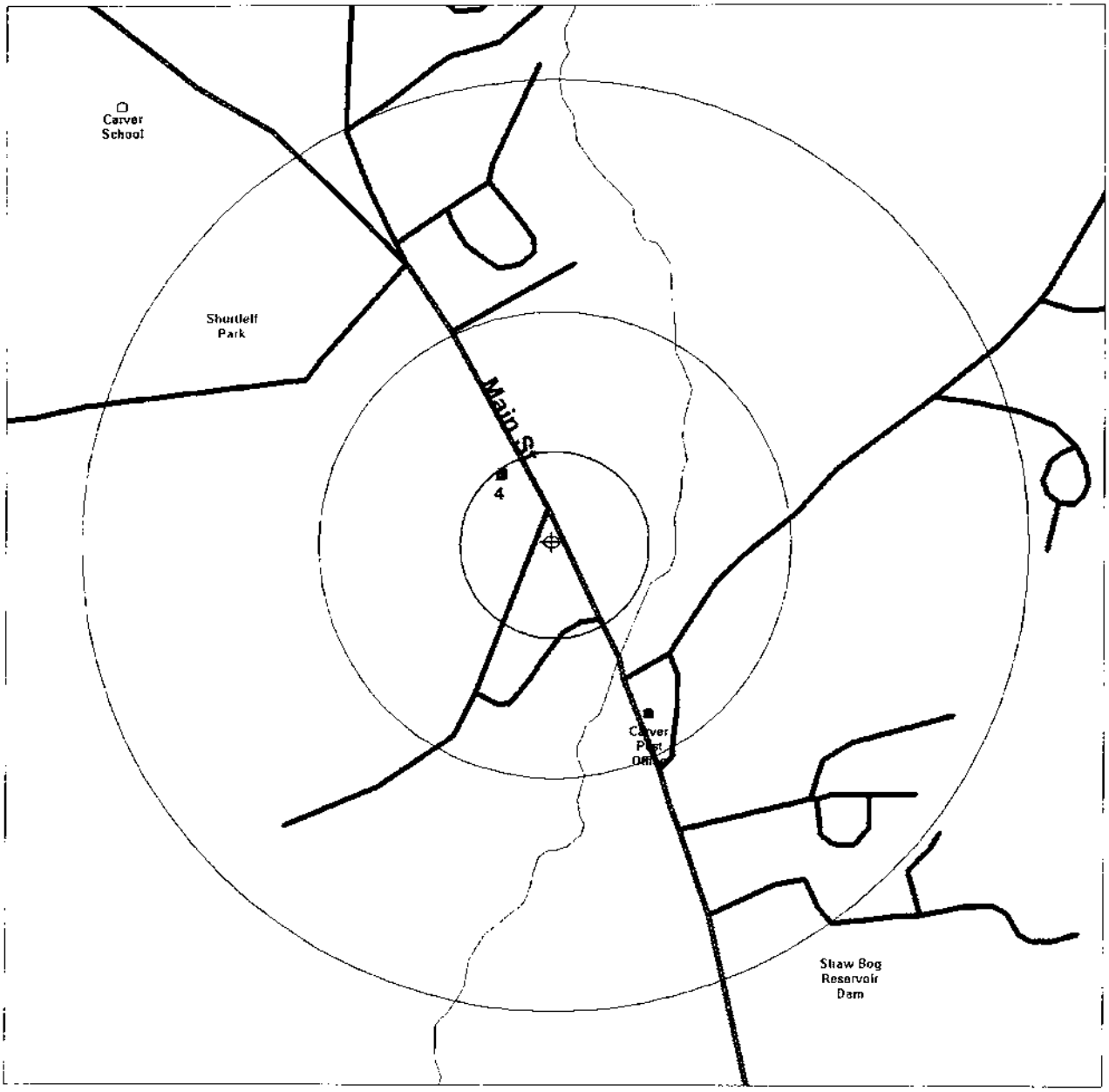
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

131 MAIN ST, CARVER MA 02330



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 41.884684 Longitude: -70.766162) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

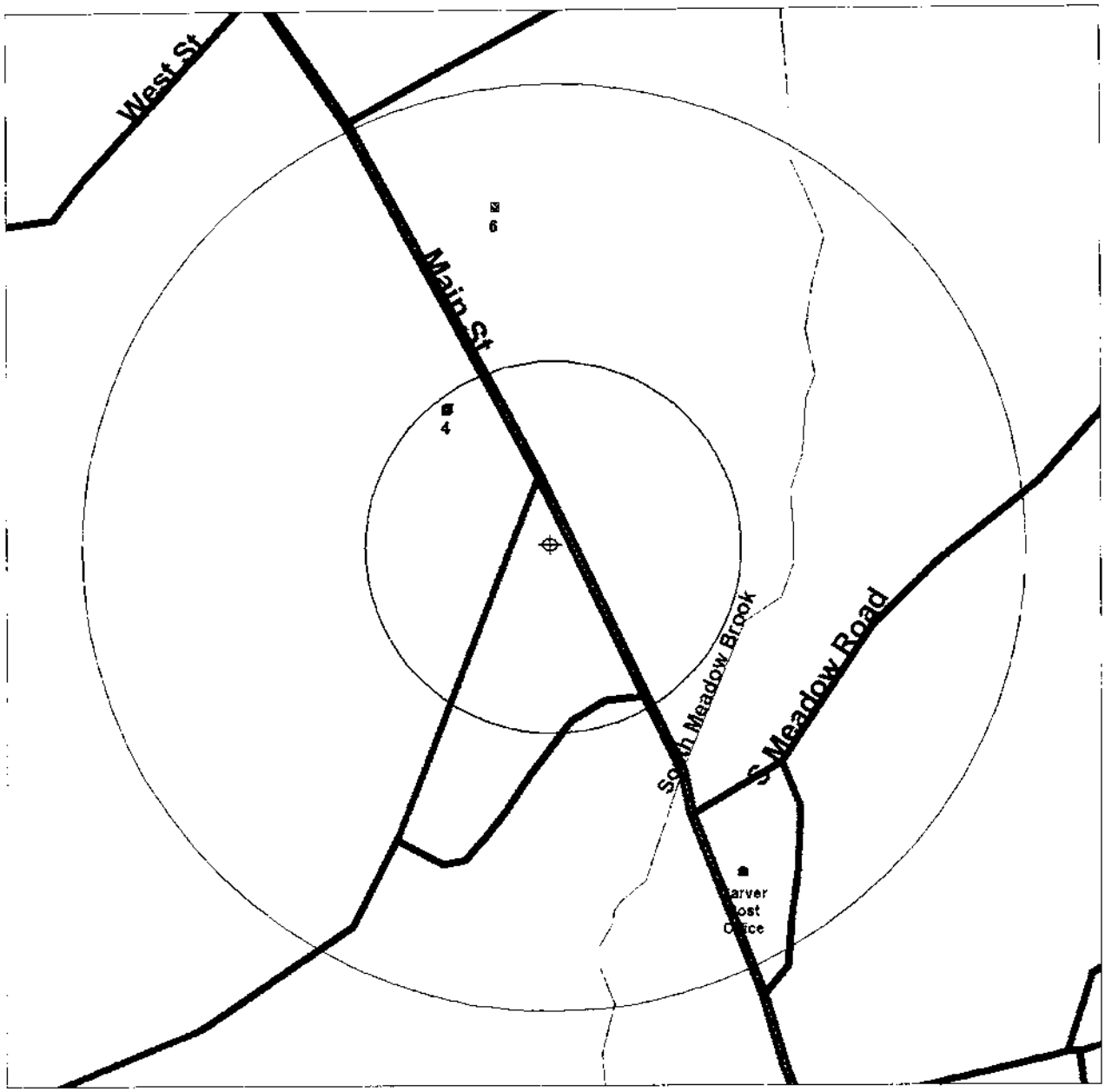
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCRAGEN, ERNS, UST

131 MAIN ST, CARVER MA 02330



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 41.884684 Longitude: -70.766162) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

APPENDIX F
ENVIRONMENTAL SITE ASSESSMENT OF 132 MAIN STREET

Environmental Site Assessment

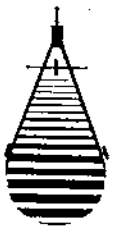
of

132 Main Street
Carver, Massachusetts

Prepared For

Our Lady of Lourdes Parish
Carver Square
Carver, Massachusetts

April 7, 1997



NORFOLK ENVIRONMENTAL

Norfolk International Corp.
378 Page Street - Bldg. #10
Stoughton, MA 02072-1141

Phone (617) 297-5200
Fax (617) 297-7050

NORFOLK ENVIRONMENTAL

Reply to: 378 Page Street - Bldg. #10
Stoughton, MA 02072-1141
Phone (617) 297-5200
Fax (617) 297-7050

April 7, 1997

Rev. Edward Gallagher
Our Lady of Lourdes Parish
Carver Square
Carver, MA 02366

Re: Environmental Site Assessment
132 Main Street
Carver, Massachusetts

Dear Father Gallagher:

Enclosed is the Environmental Site Assessment Report requested by Our Lady of Lourdes Parish in Carver, Massachusetts and the Archdiocese of Boston.

If you have any questions or comments concerning this report, please do not hesitate to call the undersigned at (617) 297-5200. Norfolk appreciates the opportunity to have been of service.

Sincerely,
NORFOLK ENVIRONMENTAL

Andrew T. Donoghue
Environmental Scientist

Mark S. Bartlett, P.E.
President

Attachments: Environmental Site Assessment Report

cc: Mr. William R. Holmes
Mr. Dudley S. Mulcahy - Archdiocese of Boston

Table of Contents

1.0 Introduction

1.1 Authorization

Pursuant to the request of Our Lady of Lourdes Parish and the Archdiocese of Boston, an Environmental Site Assessment has been performed for the property located at 132 Main Street in Carver, Massachusetts (hereafter referred to as the Site).

1.2 Purpose and Scope of the Investigation

This Investigation has been performed to assess the general environmental condition of the Site which includes, but is not limited to, the following:

- Assessing current conditions and activities at the Site for potential threats to the environment.
- Checking for evidence of a release of petroleum or other hazardous materials at the site.
- Assessing the potential impact of abutters on the Site and if releases of petroleum or other hazardous materials have occurred in the vicinity that may have affected the Site.

To accomplish these goals, the following scope of work has been performed in accordance with industry standards and good practice:

- An extensive site walkover and a visual inspection of the abutting properties from the confines of the Site and public roads.
- Research of the Site history through available records pertaining to the Site and surrounding properties at the Town of Carver Assessor's Office, Board of Health and Building Inspector's Office.
- An inspection of appropriate Wetlands, Aquifer and Zoning maps.
- A study of regional Topography via inspection of the USGS Topographical Maps for the Plympton, Massachusetts Quadrangle.
- A visit to the Town of Carver Fire Department (Fire Prevention Office) to inquire about registered Underground Storage Tanks both in use and removed in the vicinity of the Site.
- Conversations with Mr. William Holmes of 132 Main St., Carver for background information concerning the history of the Site and surrounding area.

- A computer search of State and Federal Government databases by New England DataMap of Dedham, Massachusetts. Databases searched are as follows:

  National Priority List
  CERCLIS List
  RCRIS TSD/Large Generator List
  RCRIS Small Generator List
  Emergency Response Notification List
  State Priority List
  State Spills List - 1990's
  Active Solid Waste Landfills
  Permitted Facilities
  Registered Underground Storage Tanks
  Public Water Supplies

- A visit to the Massachusetts Department of Environmental Protection Southeast Regional Office to review records regarding DEP Sites and reported incidents in the general vicinity of the 132 Main Street, Carver property.

- Sampling of soil in the vicinity of a former underground storage tank (UST) located on the southeast side of the onsite dwelling both before and after conducting a Limited Removal Action (LRA, as defined in 310 CMR 40.0318).

- Sampling and analysis of drinking water at the onsite residence to assess the quality of the water supply from an onsite shallow well.

2.0 Site Location and Description

2.1 Site Location

The Site is located at 132 Main Street in Carver, Massachusetts (see Figure 1, Site Locus), immediately southeast of the Carver Square commercial development and west of South Meadow Brook.

2.2 Site Description / Conditions

An extensive inspection of the Site was performed on December 27, 1996 by Andrew Donoghue of Norfolk Environmental. The inspection of the Site consisted of a walkover of the property and inspection of the single story residence located at the front of the property. Soil samples were also collected from a partially filled excavation cavity remaining from the removal of an underground storage tank (UST) in 1987 (according to the recollection of the homeowner, Mr. William Holmes).

A description of the Site, and other relevant observations and information obtained from the site walkover, conversations with Mr. Holmes, and file searches are as follows:

- Site Description - The Site (see Figure 2: Site Plan) is a 5.5 acre parcel of land. The Site is improved by a single story house (currently occupied by the property owner, Mr. William Holmes) and a two story barn.

The house is located on the southwest side of the property, facing Main Street. The property extends to the northeast until reaching South Meadow Brook which comprises the northeast boundary of the property. The majority of the property is lawn area with the northeast and east end of the property overgrown and wooded.

- Site Boundaries - The Site is bounded to the southwest by Main Street and to the northwest by Our Lady of Lourdes Parish and the Carver Square commercial development. South Meadow Brook bounds the property to the northeast and east and a residential property abuts the Site to the southeast.

- Site Utilities - Electricity enters the Site via overhead lines. No other utilities enter from the street. The house is heated with #2 fuel oil stored in an above ground storage tank (located in the basement), water is supplied from an onsite well, and sanitary waste is discharged to a septic system located to the northeast (rear) of the house.

- Fencing - No fencing or barricades are present at the boundaries of the Site.

- Easements - No easements were noted in the municipal document review.

- Transformers - No transformers were observed on the property itself. One utility pole mounted transformer was observed across Main Street in front of the Main Street Garage (Eagle Gas Station).

- Drinking Water Supplies - A shallow, onsite well is located in the northwest corner of the building. This provides water to the residence and is currently the only available source, as Carver has no municipal water supply. Currently, Mr. Holmes uses bottled water for consumption.

- Ponds, Streams, Wetlands and/or Floodplains - South Meadow Brook, a tributary of the Weweantic River, runs along the northeast boundary of the Site and flows to the south southwest.

- Sanitary Sewers/Septic Systems - Sanitary waste at the Site is discharged to a septic system located to the rear of the house.

- Vegetation - Approximately two thirds of the Site is covered with a cut lawn. The remainder of the site along the northeastern and eastern property line (South Meadow Brook) is wooded with thick underbrush

- Catch Basins, Floor Drains, Drainage Lines - A series of catch basins are present along Main Street to provide drainage during precipitation events. The Main Street drainage system eventually discharges to South Meadow Brook south of the Site.

- Structures - The Site is improved by a single story, wood frame house constructed with a full concrete basement foundation and slab. Also located onsite is a two story barn used for storage and recreation.

- Debris / Litter - Small amounts of debris and miscellaneous items such as scrap metal, snow tires and bottles were observed behind the onsite barn.

- Surface Staining - No surface staining was observed during the site walk over. Shallow, sub-surface soil samples collected on December 27, 1996 from the excavation cavity of a former underground storage tank located on the southeast side of the house were observed to be discolored from weathered fuel oil contamination and exhibited a weathered fuel oil odor. Soil from this former tank cavity was excavated and removed from the Site on January 15 and February 20, 1997 and transported to Bardon Trimount of Stoughton, Massachusetts for asphalt batch soil recycling. This work was performed as a Limited Removal Action which is discussed in detail in Section 3.7 below.

3.0 SITE HISTORY / ENVIRONMENTAL HISTORY

Information contained in Section 3.0 was obtained through a file search performed at the Town of Carver municipal offices (Assessors Office, Board of Health, Building Inspectors Office and Fire Department) on January 7, 1997; the Massachusetts Department of Environmental Protection (DEP) Southeast Regional Office in Lakeville on February 9, 1997; the Plymouth County Registry of Deeds, and an online computer search of Federal and State environmental databases.

3.1 Current Use

The Site is currently used for residential purposes and is occupied by the property owner, William Holmes. Structures located on the Site include a single story wood frame house and two story barn.

3.2 Historical Use

The Site has been used for residential purposes since at least 1958. Prior to that time it was likely used either for residential or agricultural purposes.

3.3 Title/Deed Search

The ownership history of the Site was researched through the records at the Plymouth County Registry of Deeds. The chain of Title transactions are follows:

- 2608/295 - John A. and Grace B. Silva to Alice N. Adams - 12/11/57
- 2623/282 - Alice N. Adams to John P. Pierce - 3/28/58
- 2706/265 - John P. Pierce Jr. to William R. and Virginia K. Holmes. 11/29/58

No other documentation was found regarding previous owners.

3.4 Spills and Releases of Petroleum or other Hazardous Materials

No record of any spills or releases of hazardous materials occurring at the Site or the abutting properties were found through Municipal, State or Federal Government file searches. However, petroleum contamination was encountered in soil samples collected from the excavation cavity which remained after the removal of an underground storage tank in 1987. Also, testing of water from the on-site water supply well indicates the

A UST was excavated and removed from the ground at the Site in 1987. This tank, which remains abandoned at the rear of the property, was observed to have numerous holes from corrosion. It is not known if these holes formed before of after the tank was removed from the ground, however, fuel oil contaminated soils were encountered in the partially backfilled excavation cavity adjacent to the southeast end of the house. Contaminated soil was excavated and removed from the excavation cavity in January and February of 1997 as part of a Limited Removal Action. This is addressed in detail in Section 3.7.

3.6 Environmental Permits

No environmental permits have been issued in association with the Site or properties in the immediate vicinity.

3.7 Limited Removal Action

An 500 gallon UST used for the storage of #2 fuel oil to heat the Holmes residence was taken out of service sometime in 1987, excavated, and removed to the rear of the property. The excavation cavity was observed to be partially backfilled and overgrown with weeds and grasses on December 27, 1996 when the site walkover was performed. Soil samples were collected from the excavation cavity to determine if fuel oil had leaked from the former UST prior to removal. Soils in the walls and floor of the cavity were observed to be discolored and exhibited a mild to moderate weathered fuel oil odor. Soil samples collected on December 27, 1996 were field screened for jar headspace concentrations of volatile petroleum fractions using a calibrated Photo-Vac MicroTip brand photoionization detector. Results of this screening indicated elevated levels of petroleum contamination in the soils from the excavation cavity. It was decided at this point to excavate the area of the tank cavity to determine the extent of the petroleum contamination and if necessary, conduct remedial response actions under the provisions of a Limited Removal Action.

Excavation in the former tank cavity was performed on January 15, 1997. Soil consisting primarily of dense, silty material was encountered. Initially, soil from all excavation side walls and the floor exhibited gray discoloration and an odor typical of weathered fuel oil contamination. A perched water table was encountered at approximately 4.5 to 5.0 feet below surface grade. Soils located below the water surface were not discolored and did not exhibit any significant evidence of contamination. Approximately seven (7) cubic yards of contaminated soil was excavated and stockpiled on polyethylene sheeting. At the conclusion of excavation activities, soil samples were collected from the excavation cavity. Three equally weighted composites were made from these samples and sent to Groundwater Analytical, Inc. of Buzzards Bay, Massachusetts to be analyzed for Total Petroleum Hydrocarbons (TPH) via ASTM Method D3328-78 (GCFID). Results of these analysis indicated an average residual TPH concentration of 503 mg/Kg, exceeding the Method I, S-1 cleanup standard of 500 mg/Kg. In response to this, an additional one and a half to two (1.5 - 2.0) cubic yards were excavated from the base of the southeast end of the excavation cavity on February 20, 1997. A composite soil sample was then collected from this area. Results from this analysis indicated TPH below the method reporting limit of 74 mg/Kg. Combined with previous results, the weighted average of residual TPH associated with the former UST is 425 mg/Kg, below the Method I, S-1 cleanup standard of 500 mg/Kg for TPH. A total of approximately eight (8) cubic yards (12.67 tons) of fuel oil contaminated soil was excavated and shipped from the Site to Bardon Trimount, Inc. of Stoughton, Massachusetts for asphalt batch soil recycling. The soil was transported to

Bardon Trimount under a Massachusetts Department of Environmental Protection Bill of Lading.

Remedial actions were performed under the provisions of a Limited Removal Action, as permitted under 310 CMR 40.0318, for releases of oil or hazardous materials indicated solely by the detection of a reportable concentration requiring 120 day notification to the DEP. With an LRA, notification to DEP is not required if soil removal is less than 100 cubic yards and remedial activities are completed within 120 days of obtaining knowledge that a reportable concentration has been exceeded.

A test pit was also excavated approximately fifteen (15) feet southwest of the excavation to check for possible lateral migration of fuel oil contamination and to confirm the depth to groundwater. No visual or olfactory evidence of contamination was observed in soil excavated from the test pit. Groundwater was encountered at approximately 9.5 feet below surface grade in the test pit. It is believed, based on the depth of water in this test pit, that water encountered at 4.5 - 5.0 feet below surface grade in the former UST cavity was perched water resulting from poor drainage near the house. Since soil samples collected from the floor of the excavation approximately 5.5 feet below surface grade did not exhibit evidence of petroleum contamination, it is considered unlikely that groundwater at the Site has been impacted by the release of fuel oil from the former UST.

3.8 Drinking Water Quality

Drinking water at the Site is supplied by a shallow well located in the northwest corner of the basement of the house. Because of concern over the close proximity of a gasoline/service station located across Main Street from the Site, in a presumed hydraulically upgradient direction, sampling and analysis of groundwater at the Site was performed to check for the presence of gasoline/light petroleum related compounds. A sample of the well water was collected by Frank Nichols of Norfolk Environmental on January 14, 1997 and sent to Groundwater Analytical, Inc. to be analyzed for volatile organic compounds (VOC's) via EPA Method 524.2. Benzene was detected through this analysis at 14 µg/L (parts per billion) which exceeds the applicable GW-1 reportable concentration of 5 µg/L. Other compounds detected, but below reportable concentrations, were ethlybenzene, o-xylene, isopropyl benzene and n-propyl benzene. All of these compounds are consistent with typical gasoline constituents. The presumed direction of groundwater flow is to the east southeast toward South Meadow Brook. Given these conditions, it is considered likely that the source of this contamination in the well water is the gas station across Main Street.

The owner of the Site, Mr. Holmes, reported the detection of a reportable concentration of benzene in the well water on February 14, 1997, within 72 hours of obtaining knowledge of the condition, as required by the MCP. Because benzene was detected at less than ten times the reportable concentration, it does not represent an Imminent Hazard as defined by the MCP. According to Mr. Holmes, he is currently using bottled water for drinking water.

4.0 HAZARDOUS MATERIALS AND WASTES

No hazardous materials or wastes were observed being stored on the property, with the exception of #2 fuel oil in an above ground storage tank (AST).

5.0 GEOLOGY/HYDROGEOLOGY

- Regional Geology - The geology of the Carver area is characterized as a glacial and glacio-fluvial environment. Predominant unconsolidated sediments in the area consist of glacially derived and fluvially deposited stratified sand, silt, gravel, and clay materials. This material overlays the bedrock, which is reported to consist of granitic to granodioritic and gneissic to schistose materials. These bedrock materials are Lower Paleozoic to Precambrian in age (630 +/-million years).

- Local Hydrogeology - Local groundwater levels and seasonal fluctuations of groundwater are known to vary widely in Carver. Observed topographic relief and drainage patterns indicated on the USGS Topographical Map, for the Plympton Quadrangle suggests localized groundwater flow at the site to be to the southeast toward South Meadow Brook. Groundwater flow to the southeast is also indicated on the U.S. Department of Interior/USGS Water Resources Investigation Report 40-4204, Plate 1. Plate 1 also indicates that the groundwater elevation between 11/30/84 and 12/02/84 is 90 feet above sea level. The surface elevation shown on the USGS Topographical Map indicates a surface elevation of 99 feet above sea level. Based on this, the depth to groundwater at the Site is expected to be approximately 9 feet below surface grade.

- Site Groundwater Classification - Under the Massachusetts Contingency Plan, 310 CMR 40.000, groundwater categories have been established based on site use and surrounding receptors. Because the Site is located within a potentially productive aquifer and no public water supply is available, groundwater at the site meets the criteria of a GW-1 classification. Groundwater at the Site is also classified as GW-3 since all groundwater in the Commonwealth is considered a potential source of discharge to surface waters.

- Topography - The topography of the Site is generally flat, with a slight grade to the east southeast.

6.0 FINDINGS

Norfolk Environmental has completed the Environmental Site Assessment of the 132 Main Street property in Carver, Massachusetts. The results of the investigation are as follows:

- The site is a residentially developed 5.5 acre parcel of land of generally flat topography. The Site is improved by a single story house and two story barn.

- A UST used for the storage of #2 fuel oil was removed from the Site in 1987. This UST apparently leaked prior to removal and soil contaminated with weathered #2 fuel oil was encountered in the UST cavity. Contaminated soil was excavated and removed from the former UST cavity and transported to Bardon Trimount, Inc. of Stoughton, Massachusetts for asphalt batch soil recycling as a Limited Removal Action. Analysis of composite confirmation samples indicates that the residual level of contamination measured as TPH in soil is 425 mg/ Kg. Since this is below the applicable Method I, S-1 cleanup standard of 500 mg/Kg for TPH, a Condition of No Significant Risk, as defined by the MCP, has been achieved. Accordingly, the LRA is considered complete and there is no reporting obligation to the DEP.

- Water supplied to the residence by an onsite well located in the northwest corner of the basement was sampled and analyzed for volatile organic compounds (VOC's) via EPA Method 524.2. The results of this analysis indicated the presence of potential gasoline related compounds. Benzene was detected a 14 µg/L which is above the applicable GW-1 reportable concentration of 5 µg/L. The DEP has been notified of the reportable concentration by Mr. Holmes, the homeowner.

- Based upon inspection of the Site, no hazardous materials or wastes are stored at the Site with the exception of #2 fuel oil in a 275 gallon above ground storage tank.

- Fire Department and State records do not indicate the presence of any registered underground storage tanks on the site. Four registered UST's (three 5,000 gallon and one 4,000 gallon) are located across the street to the west northwest of the Site at the Main Street Garage (Eagle gas station) and used to store gasoline. These tanks were installed in 1989 to replace four UST's that had been in service since 1971.

- Groundwater at the Site, in the absence of site specific hydrological data, is presumed to flow to the east/southeast toward South Meadow Brook, based on review of the U.S. Department of Interior/USGS Water Resources Investigation Report 40-4204, Plate 1.

7.0 Conclusions and Recommendations

No activities or conditions at the Site observed or discovered through Norfolk Environmental's investigation are considered likely to pose a significant threat to the environment. Petroleum contaminated soil associated with a former UST has been excavated and removed from the Site as a Limited Removal Action and average residual TPH concentrations have been reduced to a level consistent with a Condition of No Significant Risk.

Drinking water at the Site has been determined to contain benzene above the applicable GW-1 Reportable Concentration. The source of this contamination is unknown, but is suspected to be the Main Street Garage service/gas station located across the street. A groundwater investigation will be required to confirm this and determine the potential for obtaining Downgradient Property Status for this Site.

8.0 Limitations

All professional opinions presented in this report are based solely on the scope of work conducted and the sources referred to in this report. The data presented by Norfolk Environmental in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the field work was conducted. No inferences regarding other conditions, locations or materials at a

later date or earlier time may be based on the contents of the report. No other warranty, express or implied, is made.

Observations were made of the Site and of structures on the Site as indicated within the report. Where access to portions of the Site or to structures on the Site was unavailable or limited, Norfolk renders no opinion as to the presence of hazardous materials or oil, or to the presence of indirect evidence relating to hazardous material or oil where direct observations of the interior walls, floor, or ceiling of a structure on a site was obstructed by objects or coverings on or over these surfaces.

Norfolk did not perform testing or analyses to determine the presence or concentration of asbestos at the Site or in the environment at the site. Norfolk did not perform testing or analyses to determine the presence or concentration of radon gas at the Site or in the environment at the Site.

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client.

This report was prepared for the sole use of our client. The use of this report by anyone other than our client or Norfolk Environmental is strictly prohibited without the express prior written consent of Norfolk. Portions of this report may not be used independently of the entire report.

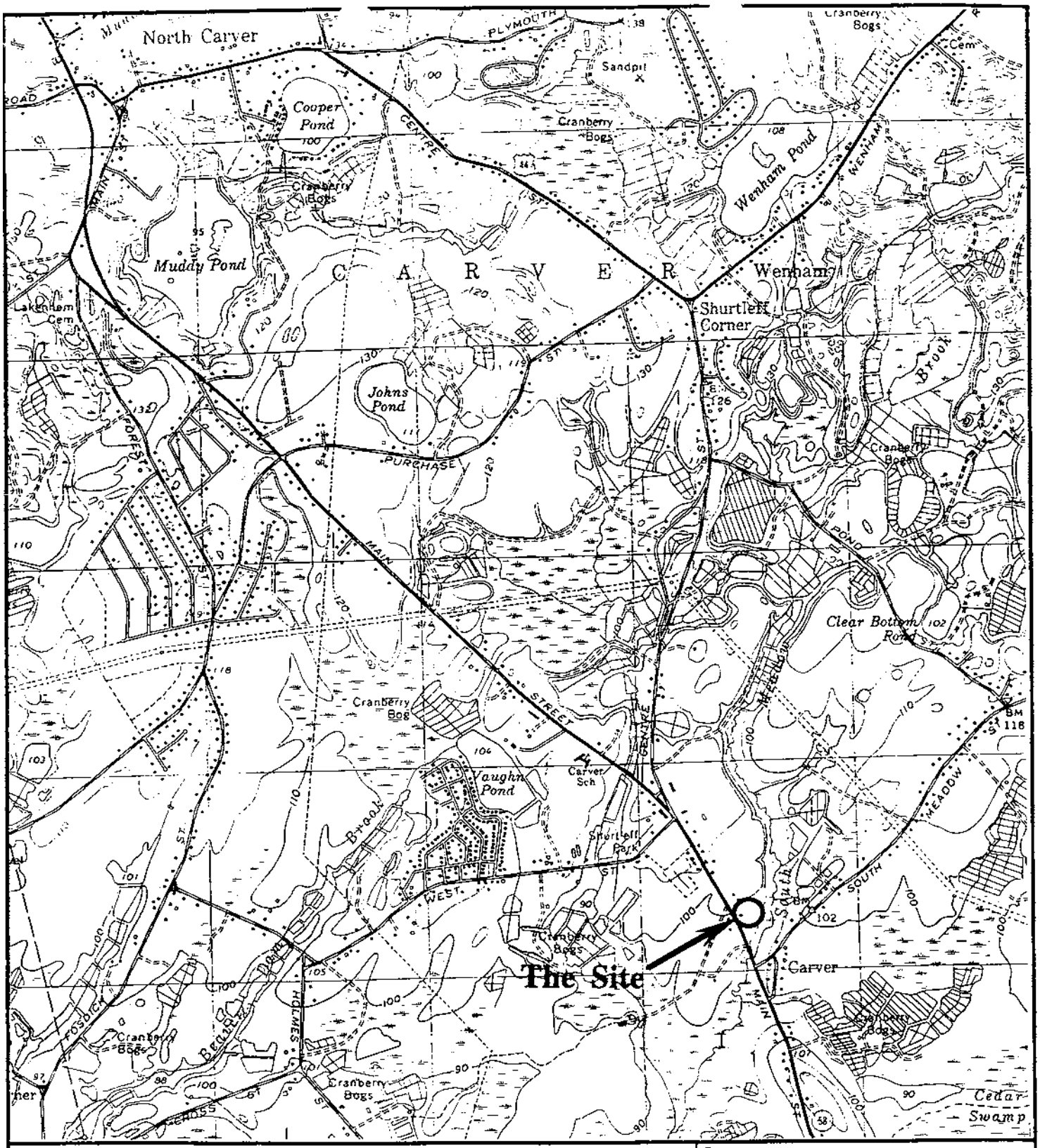


FIGURE 1 - SITE LOCUS
132 MAIN STREET
CARVER, MASSACHUSETTS
FROM USGS TOPOGRAPHIC MAP OF
PLYMPTON, MASSACHUSETTS QUADRANGLE

Drawn by	Andrew T. Donoghue
Approved by	----
Revised	----
Date	4/04/97
Scale	1 : 25, 000
Project No.	31.01
Drawing No.	----

Norfolk Environmental
A Division of Norfolk International

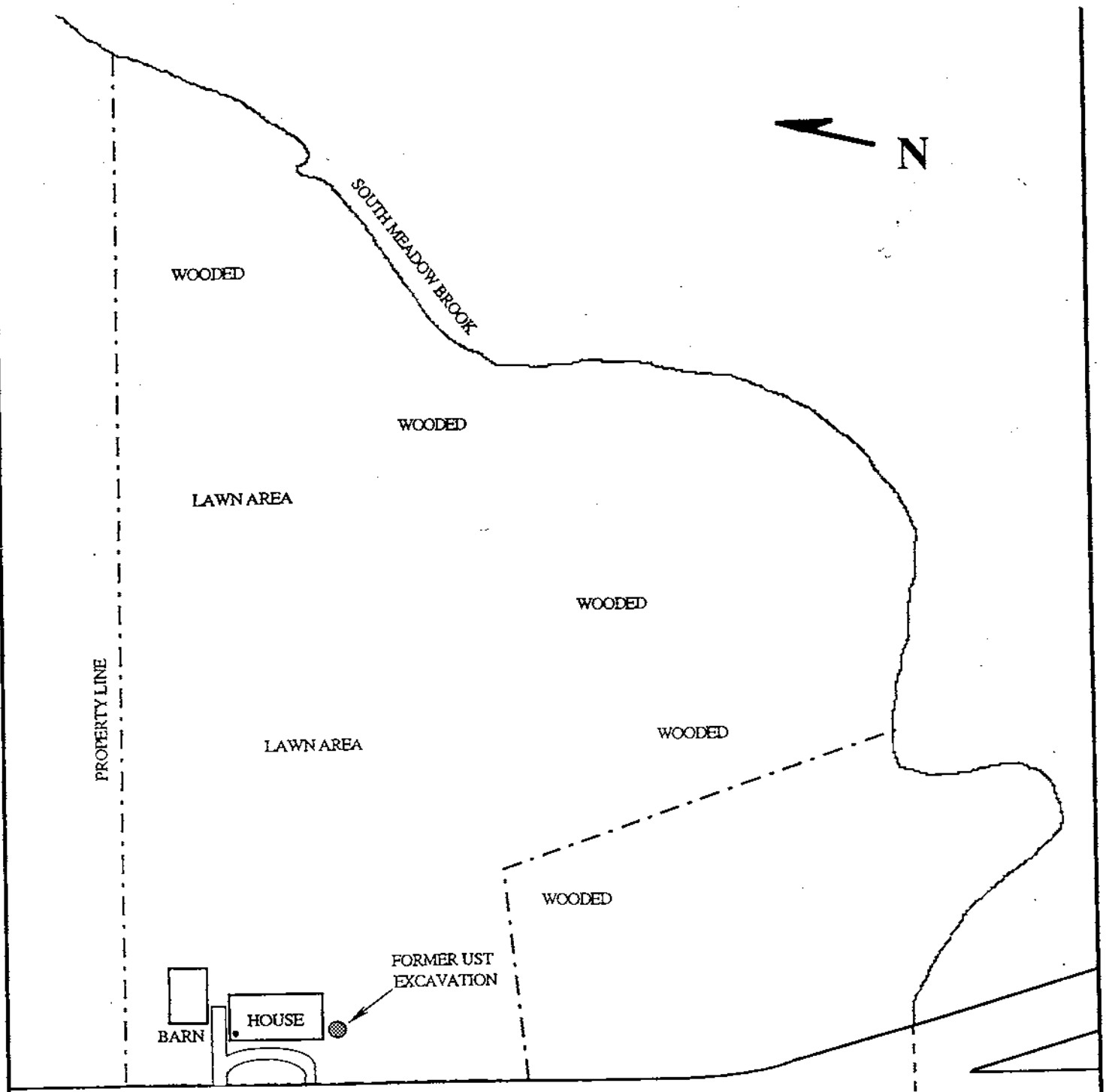


FIGURE 2
SITE PLAN
HOLMES RESIDENCE
132 MAIN STREET
CARVER, MASSACHUSETTS

Drawn by	Andrew T. Donoghue
Approved by	- - - -
Revised	- - - -
Scale	1 inch = 100 feet (approximate scale only)
Drawing No.	- - - -

Norfolk Environmental — *A Division of Norfolk International*

Date	4/04/97
Project No.	31.01

APPENDIX G
DOCUMENTATION OF CARVER SQUARE PUBLIC WATER SUPPLY

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

February 13, 2004

Tony Baldwin
Corporate Realty Associates, Inc.
142 Crescent Street
Brockton, Massachusetts 02402-3104

RE: Carver
Carver Square
PWS ID #4052056
General

Dear Mr. Baldwin:

Please find attached documentation listing the issues the Department of Environmental Protection, the Department, has with the expanded use of the Carver Square Site and it's public water supply zone 1.

Please note that the signature on this cover letter indicates formal issuance of the attached document. If you have any questions regarding this letter, please contact Charles Shurtleff @ 508-946-2879.

Very truly yours,

David A. DeLorenzo
Bureau of Resource Protection

D/CPS

fcc: Carver Board of Health
Carver Board of Selectmen
Carver Building Department
Carver Fire Department

Y:\DWP Archive\SERO\Carver-4052056-Enforcement-2004-02-13
Cshurtleff/Carver./status4052056

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

EDWARD P. KUNCE
Acting Commissioner

June 3, 2003

Carver Square
C/O Corporate Realty Associates Inc.
142 Crescent Street
Brockton, Massachusetts 02402

RE: Carver --Public Water Supply
Carver Square Marketplace
Source Water Assessment and Protection Program
PWS ID #4052056

Dear Public Water Supplier,

Enclosed you will find the final Source Water Assessment and Protection (SWAP) program Report for your public water system. Thank you for meeting with SWAP staff and contributing to the SWAP report for your water supply protection area(s). The final report for your system includes:

- Discussion of Land Uses in Your Water Supply Protection Areas
- Protection Recommendations
- A Geographic Information System (GIS) Map
- Attachments – Protection Factsheets and Brochures

We hope that the information on the SWAP report will be useful to you and your local officials, and we encourage you to use the report to focus and improve protection for your well(s) and community. Please visit our web site for information on other resources available to aid your protection efforts, at http://www.state.ma.us/dep/brp/dws/.

If you have any questions about this report, feel free to contact Isabel Collins at (508) 946-2726 and she will be happy to provide solutions to support your ongoing protection of Massachusetts' drinking water supply. Thank you for your interest in water supply protection.

Very truly yours,

David A. DeLorenzo
Deputy Regional Director
Bureau of Resource Protection

Cc: Board of Selectmen
Board of Health

Massachusetts Department of Environmental Protection
Source Water Assessment and Protection (SWAP) Report
For
Carver Square Marketplace Realty Trust

What is SWAP?

The Source Water Assessment and Protection (SWAP) program, established under the federal Safe Drinking Water Act, requires every state to:

- Inventory land uses within the recharge areas of all public water supply sources;
- Assess the susceptibility of drinking water sources to contamination from these land uses; and
- Publicize the results to provide support for improved protection.

SWAP and Water Quality

Susceptibility of a drinking water source does *not* imply poor water quality. Actual water quality is best reflected by the results of regular water tests.

Water suppliers protect drinking water by monitoring for more than 100 chemicals, treating water supplies, and using source protection measures to ensure that safe water is delivered to the tap.

Prepared by the Massachusetts Department of Environmental Protection, Bureau of Resource Protection, Drinking Water Program

Date Prepared:
December 10, 2001

Table 1: Public Water System (PWS) Information

PWS NAME	Carver Square Marketplace Realty Trust
PWS Address	Main Street (Route 58)
City/Town	Carver, Massachusetts
PWS ID Number	4052056
Local Contact	Wayne Southworth, Certified Operator
Phone Number	508 238-4230

Well Name	*Source ID#*	*Zone I (in feet)*	*IWPA (in feet)*	*Source Susceptibility*
Well #1	4052056-01G	250	1066	High

Introduction

We are all concerned about the quality of the water we drink. Drinking water wells may be threatened by many potential sources of contamination, including septic systems, road salting, and improper disposal of hazardous materials. Citizens and local officials can work together to better protect these drinking water sources.

Purpose of this report:
This report is a planning tool to support local and state efforts to improve water supply protection. By identifying land uses within water supply protection areas that may be potential sources of contamination the assessment helps focus protection efforts on appropriate best management practices (BMPs) and drinking water source protection measures. Department of Environmental Protection (DEP) staff are available to provide information about funding and other resources that may be available to your community.

This report includes:
1. Description of the Water System
2. Discussion of Land Uses within Protection Areas
3. Recommendations for Protection
4. Attachments, including a Map of the Protection Area
5. Appendix

1. Description of the Water System

Carver Square Marketplace Realty Trust (the "facility") is a public water supply currently serving a commercial/retail complex consisting of restaurants, professional offices, Church, post office, gas station, convenience store, hair salon and doctors office. The facility is served by Well #1, which is located in the eastern portion of the property. Well #1 is a 6-inch diameter well drilled to a final depth of 83 feet. The well is located in a bedrock aquifer with a high vulnerability to contamination due to the absence of hydrogeologic barriers that can prevent contaminant migration. The average daily withdrawal for the well is limited to 30,000 gallons per day, based on the current Zone I of 250 feet and Interim Wellhead Protection Area (IWPA) of 1066 feet. The IWPA

What is a Protection Area?

A well's water supply protection area is the land around the well where protection activities should be focused. Each well has a Zone I protective radius and an Interim Wellhead Protection Area (IWPA).

- The Zone I is the area that should be owned or controlled by the water supplier and limited to water supply activities.
- The IWPA is the larger area that is likely to contribute water to the well.

In many instances the IWPA does not include the entire land area that could contribute water to the well. Therefore, the well may be susceptible to contamination from activities outside of the IWPA that are not identified in this report.

What is Susceptibility?

Susceptibility is a measure of a well's potential to become contaminated due to land uses and activities within the Zone I and Interim Wellhead Protection Area (IWPA).

provides an interim protection area for a water supply well when the actual recharge area has not been delineated. The actual recharge area to the well may be significantly larger or smaller than the IWPA. Please refer to the attached map of the Zone I and IWPA. The well serving the facility has no treatment at this time. For current information on monitoring results and treatment, please contact the Public Water System contact person listed above in Table 1.

2. Discussion of Land Uses in the Protection Areas

There are a number of land uses and activities within the drinking water supply protection areas that are potential sources of contamination.

Key issues include:

1. **Inappropriate Activities in Zone Is;**
2. **Underground Storage Tanks (UST),**
3. **Septic System,**
4. **Athletic Fields and Lawn Care,**
5. **Hazardous Waste/Material Storage and Use,**
6. **Presence of Oil Contamination Sites within the IWPA. With**

The overall ranking of susceptibility to contamination for the well is high, based on the presence of at least one high threat land use or activity in the IWPA, as seen in Table 2.

1. **Zone I** – Currently, the well does not meet DEP's restrictions, which only allow water supply related activities in Zone Is. The facility's Zone I contains parking areas, a cul-de-sac, a detention basin, and catch basins. The public water supplier does own and/or control all land encompassed by the Zone I. Please note that systems not meeting DEP Zone I requirements must get DEP approval and address Zone I issues prior to increasing water use or modifying systems.

   Catch basins transport storm water from the eastern portions of the parking lot to the detention basin. Generally, as flowing storm water travels, it picks up debris and contaminants from streets, parking areas and lawns. Common potential sources of contamination include lawn chemicals, pet waste, leakage from dumpsters, household hazardous waste, and contaminants from vehicle leaks, maintenance, washing or accidents.

   Recommendations:

√ To the extent feasible, remove all non-water supply activities from the Zone I to

Table 2: Table of Activities within the Water Supply Protection Areas

Potential Contaminant Sources	Zone I	IWPA	Threat	Comments
Underground Storage Tanks	No	Well #1	High	At town facility and 1 service station
Agriculture	No	Well #1	High	Cranberry bogs
Storm water (Parking lot, detention basin & roads)	Well #1	Well #1	Moderate	Limit road salt usage and provide drainage away from wells
Athletic fields	No	Well #1	Moderate	Fertilizer and pesticide use
Septic System	No	Well #1	Moderate	Refer to septic systems brochure in the appendix
Storage and use of hazardous materials	No	Well #1	Low	Small quantities of petroleum products, cleaning supplies, etc.
Oil Contamination Sites	No	Well #1	-	Refer to appendix

* -For more information on Contaminants of Concern associated with individual facility types and land uses please see the SWAP Draft Land Use / Associated Contaminants Matrix on DEP's website - www.state.ma.us/dep/brp/dws/.

Glossary

Zone I: The area closest to a well; a 100 to 400 foot radius proportional to the well's pumping rate. To determine your Zone I radius, refer to the attached map.

IWPA: A 400 foot to ½ mile radius around a public water supply well proportional to its pumping rate; the area DEP recommends for protection in the absence of a defined Zone II. To determine IWPA radius, refer to the attached map.

Zone II: The primary recharge area defined by a hydrogeologic study.

Aquifer: An underground water-bearing layer of permeable material that will yield water in a usable quantity to a well.

Hydrogeologic Barrier: An underground layer of impermeable material that resists penetration by water.

Recharge Area: The surface area that contributes water to a well.

comply with DEP's Zone I requirements.

√ Do not use or store pesticides, fertilizers or road salt within the Zone I.

√ Prohibit public access to the well by locking facilities and posting signs.

√ Conduct regular inspections of the Zone I and look for illegal dumping, evidence of vandalism, etc.

√ Consider nonstructural techniques such as parking lot sweeping to reduce the amount of potential contaminants in storm water runoff. Sediments should be removed from detention basin as necessary. To learn more refer to the *Storm Water Management Handbook, Volume 1 and 2* for information on BMPs and documents available at http://www.state. ma.us/dep/brp/ww/wwpubs.htm.

2. **Underground Storage Tanks** - There are several facilities with underground storage tanks containing gasoline and diesel fuel within the IWPA. There are three (3) UST's at Carver Square Auto Services, located approximately 750 feet west of Well #1. The Town of Carver has two (2) UST's located approximately 900 feet west northwest of Well #1. All the UST's at both facilities have double wall tanks that have cathodic protection. If managed improperly, USTs can be potential sources of contamination due to leaks or spills of the chemicals they store.

Recommendation:

√ Work with the local fire department to have the UST's in your IWPA inspected for compliance with local code requirements. Any modifications to the UST must be accomplished in a manner consistent with Massachusetts's plumbing, building, and fire code requirements.

3. **Septic System** - All of the facility's septic systems are located within the IWPA. The closest leaching field is located approximately 300 the southwest of Well #1.

Recommendations:

√ Educate tenants on private septic systems about using cleaning compounds that are safe for the septic system, and on proper disposal practices, i.e. only sanitary waste in the septic system.

√ Tenants should dispose of used oil, antifreeze, paints, and other household chemicals properly-not in septic systems. Information on septic systems can be found at Massachusetts DEP website http://www.state.ma.us/dep/brp/files/yoursyst.htm.

√ Septic system components should be located, inspected, and maintained on a regular basis. Refer to the attachments for more information regarding septic systems.

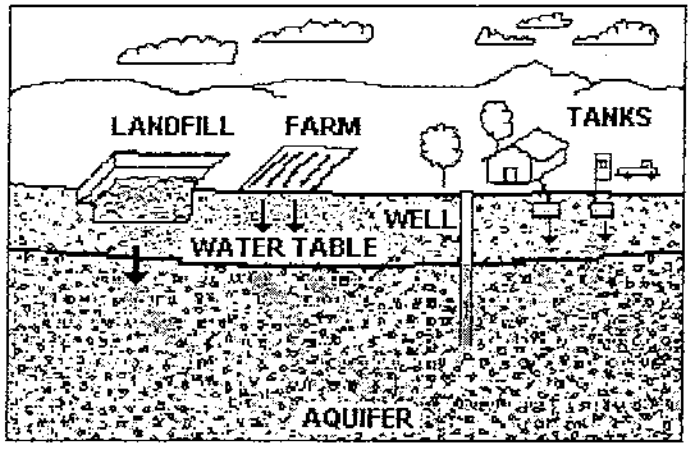


Figure 1: Example of how a well could become contaminated by different land uses and activities.

4. **Athletic Fields and facility Lawn Care** - The facilities lawn area and towns athletic Fields are located within the IWPA. Over application of pesticides and fertilizers on lawns is a potential source of contamination to the water supply.

Recommendations:

√ Work with local officials to develop a turf management program for athletic playing fields and municipal recreation areas. For more information on turf management, refer to: http://www.extension.umn.edu/distribution/horticulture/DG5726.html

√ Use best management practices (BMPs) for applying, handling, and storage of pesticides, herbicides, and fertilizers (refer to attachments on fertilizer and pesticide use). Information on environmentally sound lawn care practices is available from the Massachusetts Department of Food and Agriculture Pesticide Bureau's at http://www.massdfa.org.

5. **Storage, Use and Handling of Oil/Hazardous Materials in IWPA** - Within building #2 is a maintenance storage area

For More Information:

Contact Isabel Collins in DEP's Lakeville office at (508) 946-2726 for more information and for assistance in improving current protection measures.

More information relating to drinking water and source protection is available on the Drinking Water Program web site at: www.state.ma.us/dep/brp/dws/

Additional Documents:

To help with source protection efforts, more information is available by request or online at www.state.ma.us/dep/brp/dws, including:

1. Water Supply Protection Guidance Materials such as model regulations, Best Management Practice information, and general water supply protection information.
2. MA DEP SWAP Strategy
3. Land Use Pollution Potential Matrix
4. Draft Land/Associated Contaminants Matrix

Copies of this assessment have been made available to the public water supplier, town boards, and the local media.

that contains small quantities of gasoline, oil, paints and cleaning supplies. The oil/hazardous material storage (e.g. gasoline, paint, petroleum products, cleaning supplies, etc.) poses a potential threat to the well due to its proximity and potential for accidental release. Additionally, within the IWPA are municipal garages.

Recommendations:

√ Provide containment and exercise caution when using and storing these products.

√ Implement standard operating procedures regarding proper storage, use and disposal of hazardous materials. To learn more, see the hazardous materials guidance manual at www.state.ma.us/dep/bwp/dhm/dhmpubs.html.

√ Educate tenants and staff on proper hazardous material use, disposal, emergency response, and best management practices; include custodial staff, and certified operator. Post labels as appropriate on raw materials and hazardous waste.

√ Work with the town to incorporate best management practices for stormwater, salts, and road-building materials at the municipal garages. For more information, refer to: http://www.epa.gov/region1/steward/neeat/munis1.html

6. **Presence of Oil Contamination Site within the IWPA** - The IWPA for Well #1 contains DEP Tier Classified Oil and/or Hazardous Material Release Sites indicated on the map as Release Tracking Number 4-0000612 and 4-0012848. Refer to the attached map and Appendix for more information.

Recommendation:

√ Monitor progress on any ongoing remedial action conducted for the known oil and/or Hazardous Material Release Sites.

Other activities noted during the assessment: Approximately 17 percent of the wellhead protection area is comprised of cranberry bogs which are located northeast of the well. As is the case for most other crops, the commercial production of cranberries usually requires input of fertilizer and pesticides. Utilization of best management practices (BMPs) as planned and described in an established conservation farm plan can ensure that agricultural system will uphold the integrity of the surrounding natural resources.

Recommendation:

√ Encourage Cranberry bog owner/operator to:

1. Obtain and follow an approved USDA, Natural Resource Conservation Service Conservation Farm Plan.
2. Maintain a pesticide license or certification with the Massachusetts Department of Food and Agriculture including all applicable training and recertification courses.

Implementing the following recommendations will reduce the system's susceptibility to contamination.

3. Protection Recommendations

Implementing protection measures and best management practices (BMPs) will reduce the well's susceptibility to contamination. Carver Square Marketplace Realty Trust should review and adopt the key recommendations above and the following:

Zone I:

√ Keep non-water supply activities out of the Zone I.

√ Prohibit public access to the well by locking facilities, gating roads, and posting signs.

Training and Education:

√ Train staff on proper hazardous material use, disposal, emergency response, and best management practices; include custodial staff, groundskeepers, certified operator, and food preparation staff. Post labels as appropriate on raw materials and hazardous waste.

√ Post drinking water protection area signs at key visibility locations.

√ Work with your community to ensure that stormwater runoff is directed away from the well and is treated according to DEP guidance.

Facilities Management:

√ Implement Best Management Practices (BMPs) for the use of fertilizer, herbicides and pesticides on facility property.

Planning:

√ Work with local officials in Carver to include the Carver Square Marketplace IWPA in Aquifer Protection District Bylaws and to assist you in improving protection.

√ Have a plan to address short-term water shortages and long-term water demands. Keep the phone number of a bottled water company readily available.

√ Supplement the SWAP assessment with additional local information and incorporate it into water supply educational efforts. Use a land use inventory to assist in setting priorities, focusing inspections, and creating educational activities.

Funding:

The Department's Wellhead Protection Grant Program provides funds to assist public water suppliers in addressing Wellhead protection through local projects. Protection recommendations discussed in this document may be eligible for funding under the "Wellhead Protection Grant Program". For additional information, please refer to the attached program fact sheet. Please note: each program year the Department posts a new Request for Response for the Grant program (RFR). Other funding opportunities are described in "Grant and Loan Programs: Opportunities for Watershed Protection, Planning and Implementation" at http://www.state.ma.us/dep/brp/mf/files/glprgm.pdf.

These recommendations are only part of your ongoing local drinking water source protection. Citizens and community officials should use this SWAP report to spur discussion of local drinking water protection measures.

4. Attachments

- Map of the Public Water Supply (PWS) Protection Area.
- Recommended Source Protection Measures Fact sheet
- Your Septic System Brochure
- Pesticide and Fertilizer Use Fact sheets
- Wellhead Protection Grant Program Fact Sheet
- Source Protection Sign Order Form

5. Appendix

Table of DEP Regulated Chapter 21E Hazardous Materials Release Sites

DEP's datalayer depicting oil and/or hazardous material (OHM) sites is a statewide point data set that contains the approximate location of known sources of contamination that have been both reported and classified under Chapter 21E of the Massachusetts General Laws. Location types presented in the layer include the approximate center of the site, the center of the building on the property where the release occurred, the source of contamination, or the location of an on-site monitoring well. Although this assessment identifies OHM sites near the source of your drinking water, the risks to the source posed by each site may be different. The kind of contaminant and the local geology may have an effect on whether the site poses an actual or potential threat to the source.

The DEP's Chapter 21E program relies on licensed site professionals (LSPs) to oversee cleanups at most sites, while the DEP's Bureau of Waste Site Cleanup (BWSC) program retains oversight at the most serious sites. This privatized program obliges potentially responsible parties and LSPs to comply with DEP regulations (the Massachusetts Contingency Plan – MCP), which require that sites within drinking water source protection areas be cleaned up to drinking water standards.

For more information about the state's OHM site cleanup process to which these sites are subject and how this complements the drinking water protection program, please visit the BWSC web page at http://www.state.ma.us/dep/bwsc. You may obtain site -specific information two ways: by using the BWSC Searchable Sites database at http://:www.state.ma.us/dep/bwsc/sitellst.htm, or you may visit the DEP regional office and review the site file. These files contain more detailed information, including cleanup status, site history, contamination levels, maps, correspondence and investigation reports, however you must call the regional office in order to schedule an appointment to view the file.

The table below contains the list of Tier Classified oil and/or Hazardous Material Release Sites that are located within your drinking water source protection area.

Table 1: Bureau of Waste Site Cleanup Tier Classified Oil and/or Hazardous Material Release Sites (Chapter 21E Sites) - Listed by Release Tracking Number (RTN)

RTN	Release Site Address	Town	Contaminant Type
4-0000612	118 Main Street	Carver	Oil
4-0012848	132 Main Street	Carver	Hazardous Materials

For more location information, please see the attached map. The map lists the release sites by RTN.

Carver Sq. Marketplace Realty Trust

CARVER

Source Water Assessment Program

LEGEND

MA Towns

IWPA

Zone I

Zone II

Zone A

Zone C

Solid Waste Landfill

Protected Open Space

Rivers & Streams

Stream

Intermittent Stream

Transmission Lines

Railroads

Water Supplies

Groundwater

Surface Water

Distribution Reservoir

Non-Transient Non-Community

Transient Non-Community

Land Use

1	Crop Land
2	Pasture
3	Forest
4	Non-Forested Wetland
5	Mining
6	Open Land
7	Participation Rec
8	Spectator Rec.
9	Water-based Rec.
10	Multi-Fam. Res.
11	High Density Res.
12	Medium Dens. Res
13	Low Dens. Res
14	Salt Water Wetland
15	Commercial
16	Industrial
17	Urban Open
18	Transportation
19	Waste Disposal
20	Water
21	Woody Perennial

Ground Water Discharges

Car Wash

Industrial Discharge

Laundromat

Other

Reclamation (Cleanup)

Sanitary Discharge

Geowell

DEP Tier Classified Oil or Hazardous Material Release Sites

Contamination Site

NPDES Major Discharge Points

NPDES Major Discharge

Underground Storage Tanks

Active UST

Bureau of Waste Prevention Regulated Facilities

Facility with Groundwater Discharge Permit (GWD)

Facility with Air Operating Permit (AIR)

Large Quantity Toxic User (LQTU)

Large Quantity Generator of Hazardous Waste (LQG)

Hazardous Waste Treatment, Storage and/or Disposal Facility (TSDF)

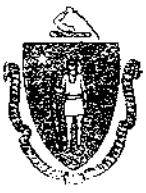
Hazardous Waste Recycler (HWR)

This map is for illustrative purposes only. It represents the best available statewide data for a given theme. There are other important natural resources and potential contamination sources that are not shown on this map because the digital spatial data do not exist. If you have questions about any of the data shown on the map, please contact MassGIS at (617) 727-5227.

Map Scale 1:5000

500 0 500 Feet

Locator Map



Data Sources

SOLID WASTE (SW) FACILITIES: MA DEP-DSW, 1:25,000. Includes only SW facilities regulated since 1971. SW facility boundaries were compiled onto USGS quads and automated by the DEP-Division of Solid Waste (DSW).

MA DEP APPROVED ZONE II: MA DEP DWP, 1:25,000. As stated in 310 CMR 22.02; "that area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated." Zone II boundaries are automated from source maps based on USGS 1:25,000 topographic manuscripts. Source maps are provided by consultants in either analog or digital and are approved by DEP DWP prior to automation. Zone II data is updated on a quarterly basis.

INTERIM WELLHEAD PROTECTION AREAS (IWPA): MA DEP DWP, 1:25,000. Variable width IWPA's represent a public water supply (PWS) source's wellhead protection area until a Zone II is approved by DEP DWP. IWPA's are generated using DEP's PWS datalayer and pumping rate information provided by DEP DWP. IWPA width is calculated as: IWPA radius = (32 x pumping rate in gallons per minute) + 400, with a maximum radius of 1/2 mile (default) for community supplies. Non Transient Non Community (NTNC) supplies have a default IWPA radius of 750 feet. Transient Non Community supplies (TNC) have a default IWPA radius of 500 feet. DEP DWP is currently in the process of assessing pumping rates for all sources with default IWPA radii. As pumping rates are assessed, default radii are being replaced by calculated radii.

SURFACE WATER SUPPLY PROTECTION AREA (ZONE A): MADEP,1:25,000. Zone A: represents a) the land area between the surface water source (SWS) and the upper boundary of the bank, b) the land area within a 400' lateral distance from the upper boundary of the bank of a Class A SWS, and c) the land area within a 200' lateral distance from the upper boundary of the bank of a tributary or associated surface water body. Zone A data is generated by buffering MassGIS 1:25,000 hydrography data according to the above criteria.

SURFACE WATER SUPPLY PROTECTION AREA (ZONE C): MA DEP DWP, 1:25,000. A Zone C represents the land area not designated as Zone A or B within the watershed of a Class A surface water source, as defined in 314 CMR 4.05(3)(a). Zone C features are generated by extracting MassGIS sub drainage basin polygons that contribute to a Class A surface water source.

HYDROGRAPHY: USGS/MassGIS, 1:25,000/1:100,000 (enhanced). 1:25,000 hydro was generated using USGS 1:25,000 and 1:100,000 DLG data and enhanced with linework digitized from 1:25,000 USGS topographic quadrangles, 1997. 1:100,000 hydro generated and modified from USGS 1:100,000 DLG data.

NON-FORESTED WETLANDS: UMass Amherst Resource Mapping Project (RMP)/MassGIS, 1:25,000. Extracted from the 1971-1984 Land Use datalayer which was photointerpreted by UMass RMP from 1:25,000 summer CIR photography. Interpretation was not done in stereo. Includes nonforested freshwater wetlands and salt marshes. Forested wetlands, which make up the majority of Massachusetts wetlands, were not included.

TRAINS AND TRANSLINES: USGS/MassGIS, 1:100,000. Generalized and modified USGS DLG data. Train updated by Central Transportation Planning (CTP).

POLITICAL BOUNDARIES: MassGIS/USGS, 1:25,000. Except for the coastline, this datalayer was digitized by MassGIS from mylar USGS quads. The coastline was taken from the USGS 1:100,000 Hydrography DLG files.

PUBLIC WATER SUPPLIES (PWS): MA DEP DWP. Located by US EPA and DEP DWP using several methodologies, including DGPS, USGS topographic map interpolation and photo interpretation. This data is updated quarterly.

LAND USE: UMass Amherst Resource Mapping Project (RMP)/MassGIS, 1:25,000. 21 land use categories, photointerpreted from 1985/1990 summer CIR aerial photography.

UNDERGROUND STORAGE TANKS (UST): US EPA/MA DEP. Locations were compiled through a combination of address matching and differential GPS. Attribute information from the MA Department of Public Safety's Division of Fire Protection.

DISCHARGE TO GROUNDWATER PERMIT LOCATIONS: MA DEP Division of Water Pollution Control (DWPC), 1:25,000. Coordinate data taken from DEP-DWPC permit applications were compiled onto USGS quads and digitized.

PROTECTED AND RECREATIONAL OPEN SPACE (OS): MA EOEA MassGIS, 1:25,000. Contains Federal, State, county, municipal, non-profit and private conservation land and recreational facilities. Boundary information is compiled by local volunteers and EOEA land holding agencies, coordinated and automated by MassGIS. This datalayer is currently under development and constantly updated.

BLACK AND WHITE DIGITAL ORTHOPHOTO (DOQ) IMAGERY: EOEA MASSGIS, 1:5000. MassGIS 1:5000 DOQ images were developed at 0.5 meter base resolution. These images meet or exceed the National Map Accuracy Standards (NMAS) to the extent that 90% of the well defined features fall within 0.5mm of their true position on the ground at the nominal output scale of 1:5000 (2.5 meters on the ground). Additionally, the maximum displacement of well defined features is less than 5 meters. The 0.5 meter base DOQ images were resampled to 1 meter resolution. Dates of these images range from 1992 - 1999.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM: DEP GIS Program. Major discharge points permitted under the National Pollutant Discharge Elimination system (NPDES). This spatial data has not been quality controlled through field verification and is subject to revision. This is currently a draft data set.

DEP TIER CLASSIFIED CHAPTER 21E (OIL OR HAZARDOUS MATERIAL) RELEASE SITES (MGL c21E): DEP GIS/BWSC, 1:25,000. Interpreted from source maps and textual information from DEP BWSC files. When file information was inadequate, DEP technical staff were contacted to locate the site, through knowledge gained in the course of their professional activities. Automation was conducted using on-screen digitizing technique, incorporating digital (1:25,000) USGS topographic images and (1:5,000) digital orthophoto images as a base.

DEP BWP MAJOR FACILITIES: MA DEP, Bureau of Waste Prevention, surveys, site plans, focus maps from DEP records; GPS field verification; site-specific staff knowledge.

jcollins - February 21, 2003

ercent

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SOUTH MEADOW ROAD
Identified Land
Forest
Non-Forested We
Participation Rec
Multi-Family Resi
Residential >1/2 a
Commercial
Urban Open
Woody Perennial
TOTAL ACRES
Protected Open S

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
20 RIVERSIDE DRIVE, LAKEVILLE, MA 02347 508-946-2700

ARGEO PAUL CELLUCCI
Governor

JANE SWIFT
Lieutenant Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

COPY

May 26, 2000

Mr. George Baldwin
Corporate Realty Associates Inc.
142 Crescent Street
Brockton, Massachusetts 02402

RE: CARVER--Public Water Supply
CARVER SQUARE MARKETPLACE
Sanitary Survey
PWS ID #4052056

Dear Mr. Baldwin:

On May 5, 2000, a sanitary survey of the above-referenced public water system was conducted by the Department of Environmental Protection (the Department). A sanitary survey is an on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water system to evaluate its ability to produce and distribute safe drinking water. Any deficiencies with regard to Department standards, guidelines, and policies, or violations of the Massachusetts Drinking Water Regulations, which were discovered in the course of this survey, are listed in the enclosed sanitary survey report.

Any person who owns or operates a public water system is responsible for the safety of the system under his or her control. If deficiencies have been noted, you should proceed to take the corrective actions specified in the sanitary survey without delay. Please note that you may receive a Notice of Noncompliance or Order with respect to this sanitary survey under separate cover for any deficiencies or violations listed.

Please contact Paul Jankauskas at (508) 946-2805, if you have any questions concerning this matter.

Sincerely,

Jeffrey E. Gould, Chief
Buzzards Bay Watershed

G/PJ/ka

Enclosure

cc: Wayne Southworth
108 Howard Street
South Easton, Massachusetts 02375

Board of Health
Post Office Box 123
Carver, Massachusetts 02330

GENERAL COMMENTS, RECOMMENDATIONS
AND REQUIRED CORRECTIVE ACTIONS

SANITARY SURVEY

CARVER SQUARE MARKETPLACE REALTY TRUST
CARVER, MA
PWS #4052056

FACILITY INFORMATION:

1. The Carver Square Marketplace Realty Trust is a public water supply currently serving a population of greater than 100 persons per day. The system is classified as a Nontransient Noncommunity public water supply.

2. The system is composed of several lots containing commercial/retail businesses, restaurants, professional offices, a bank, a church, a post office, and a gas station, which includes a convenience store and a take-out Dunkin Donuts.

SOURCE:

1. The system is supplied by one bedrock well. The well is 6 inches in diameter and 83 feet deep. The well is located in a pump house. There have been no changes inside the pump house since the last sanitary survey, which was conducted on August 23, 1995.

2. A sampling location for routine monitoring is provided prior to the storage tank in the pump house. The current sample tap consists of a standard hose bib. As stated in the last sanitary survey, the standard hose bib should be replaced with a smooth-nosed sample tap.

3. The vent pipe for the well is not properly screened.

4. The approved Zone 1 distance is 250 feet, and the approved IWPA (Zone 2) distance is 1066 feet.

5. The Department requires that only water supply related activities are to occur within the Zone 1. The Zone 1 currently contains a paved cul-de-sac area, several trash dumpsters, and a water fill station for fire department vehicles. In addition, several storm water catch basins in the vicinity drain to a surface water body inside the Zone 1. Therefore the well location does not provide for the required protective radius.

DISTRIBUTION SYSTEM:

1. A cross connection survey was recently conducted by a certified cross connection surveyor, and an approved cross connection program plan is on file at the Department.

Association, 6 Prim Road, Post Office Box 622, Colchester, Vermont 05446, (802) 660-4988. The group's primary aim is to assist the small system operator to provide an adequate supply of quality water to rural residents.

In addition, the Rural Housing Improvement Program is a non-profit organization that provides service to rural low-income communities throughout the Northeast to ensure access to adequate and affordable drinking water supplies. This group is located at 218 Central Street, Box 429, Winchendon, Massachusetts 01475-0429, (508) 297-1376.

Other useful sources of information relative to general water works practice and operator certification is as follows:

1. New England Water Works Association, 42-A Dilla Street, Milford, MA 01757-1104, (508) 478-6996.

2. Massachusetts Water Works Association, contact George Allan, P.O. Box 4056, Westford, MA 01886, (508) 692-0199.

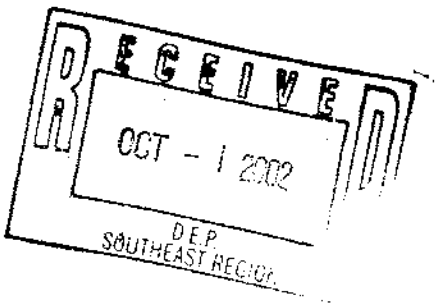
3. Plymouth County Water Works Association, contact Carl Hillstrom, Duxbury Water Department, 878 Tremont Street, Duxbury, MA 02332 (508) 934-6586.

APPENDIX H
IRA STATUS REPORT AND PHASE V – FORMER CARMICHAEL'S MOBIL

IMMEDIATE RESPONSE ACTION
STATUS REPORT
AND
PHASE V - OPERATION, MAINTENANCE, AND/OR MONITORING REPORT

Former Carmichael's Mobil
118 Main Street
Carver, Massachusetts 02330

RTN No. 4-11188
(NRG Ref. No. 101.3)



September 26, 2002

Prepared for:

Carver Square Auto Services, Inc.
One Roberts Road
Plymouth, Massachusetts 02360

Prepared by:

Norfolk Ram Group, LLC
One Roberts Road
Plymouth, Massachusetts 02360

NORFOLK RAM GROUP
ENGINEERING : ENVIRONMENT

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LIST OF APPENDICES

1.0 INTRODUCTION

On behalf of Carver Square Auto Services, Inc. (Carver Square), the Norfolk Ram Group, (NRG) has prepared this *Immediate Response Action Status Report* and *Phase V - Operation, Maintenance, and/or Monitoring Report* (the Phase V Report), pursuant to 310 CMR 40.0425 and 40.0890, respectively, in connection with the disposal site located at the former Carmichael's Mobil property located at 118 Main Street in Carver, Massachusetts (the "Site"). A Site Locus Map is attached as Figure 1-1, Appendix A. Pursuant to 310 CMR 40.0891(1) the provisions of a Phase V Report apply to disposal sites where Phase IV response actions have been conducted, a Response Action Outcome ("RAO") has not yet been achieved, and operation, maintenance, and/or monitoring of the Comprehensive Remedial Action (CRA) is necessary to achieve a RAO.

The Massachusetts Department of Environmental Protection (the DEP) has assigned Release Tracking Number (RTN) 4-11188 to the release. An Immediate Response Action (IRA) is required at the Site due to a release of oil and/or hazardous material (OHM) to the environment, where groundwater concentrations are above groundwater Reporting Category RCGW-1 (RCGW-1) levels within 500 feet of a private water well. An IRA Plan was submitted to the DEP on April 21, 1997 and IRA Status Reports have been submitted every 6 months thereafter. An Immediate Response Action Transmittal Form (BWSC-105) and a Comprehensive Response Action Transmittal Form (BWSC-108) are being submitted to the DEP concurrently with this report.

Pursuant to 310 CMR 40.0871, the February 1991 *Phase IV Implementation of the Approved Remedial Response Alternative Report* (the Phase IV Report) by Green Mountain Environmental Services, and the April 21, 1997 *Immediate Response Action Plan*, (IRA Plan) by Norfolk Ram Group (then RAM Environmental, LLC), detailed the design, construction and implementation of the CRA alternative selected in the January 1991 *Phase III Development of Remedial Response Alternatives and the Final Remedial Response Action Plan* (the Phase III Report) by Green Mountain Environmental Services. As set forth in the Phase III Report and the IRA Plan, on behalf of Carver Square, Green Mountain Environmental Services and Norfolk Ram Group recommended a groundwater monitoring program and a soil vapor extraction/air sparging (SVE/AS) remedial system as the CRA to address OHM impact at the disposal site.

This report summarizes the response actions conducted at the disposal site during the reporting period between February 23, 2002 and September 23, 2002, (the "reporting period"), as set forth below:

- the operation, maintenance and monitoring of the SVE/AS remedial system;
- quarterly groundwater sampling; and
- monthly groundwater and surface water elevation measurements, and non-aqueous phase liquid (NAPL) thickness measurements.

The results of the response actions conducted are set forth below.

2.0 INSPECTION AND MONITORING REPORT

Pursuant to 310 CMR 40.0892(1) through (6), Phase V inspections and monitoring activities conducted at the Site during the reporting period are set forth below.

2.1 General Operating Procedures

Pursuant to 310 CMR 40.0892(1), NRG, performs monthly operation and maintenance on the SVE/AS remedial equipment, and monitoring of groundwater elevations, as set forth below:

- Change oil on all positive displacement blowers;
- Grease bearings on all positive displacement blowers;
- Check and/or adjust belt tension on drive shives;
- Replace air filters as required, but not more than monthly;
- Clean basket strainers;
- Clean and check the operation of float switches;
- Record the runtime for remedial equipment;
- Measure and record the operational data (vacuum, pressure, flow);
- Measure the removal efficiency of SVE off-gas consistent with 310 CMR 40.0049(5) and the DEP's *Off-Gas Treatment of Point Source Remedial Air Emissions (WSC-94-150)*;
- Measure and record groundwater elevations and NAPL thicknesses, if present, in monitoring wells, MW-4, MW-8, MW-10, MW-14, MW-17, and MW-19, as indicated on Figure 2-1, Appendix A; and

A master control panel operates the remedial equipment and alerts NRG via facsimile if key components of the system shutdown. If key components of the system shut down, the entire SVE/AS system is automatically shut down. NRG responds to shutdowns upon receiving notification.

NRG performs quarterly groundwater monitoring and sampling, that generally consists of the following tasks:

- Purge and sample groundwater from monitoring wells MW-4, MW-8, MW-10, MW-14, MW-17, and MW-19;
- Submit groundwater samples collected from MW-4, MW-8, MW-10, MW-14, MW-17, and MW-19 for volatile petroleum hydrocarbons (VPH) with target volatile organic compounds (VOCs) analyses;
- Collect trip blank and duplicate samples and submit them for laboratory analysis consistent with samples for Quality Assurance/Quality Control (QA/QC) purposes.

2.2 Significant Modifications Of Inspection And/Or Monitoring Program

Pursuant to 310 CMR 40.0892(2), a description of any significant modifications to the Inspection and/or Monitoring Program (IMP) made since the submission of the preceding Inspection and Monitoring Report is set forth below.

No significant modifications have been made to the IMP. This is the third Phase V Report submitted to the DEP in connection with RTN 4-11188.

2.3 Conditions Or Problems Affecting The Performance Of The Remedial Actions

Pursuant to 310 CMR 40.0892(3), a description of any conditions or problems noted during the inspection and/or monitoring period, which are or may be affecting the performance of the remedial actions, are set forth below.

High ambient outside temperature caused the SVE/AS remedial trailer to achieve a high inside temperature on several occasions, triggering an automatic shutdown of the system. Heavy rainfalls resulted in the SVE/AS system moisture separator registering a high water level, on several occasions, triggering an automatic shutdown of the system. These events are further discussed in Section 2.4.

Measurements of air flow at several sparge wells indicated well blockage, resulting in sub-optimal performance of the air sparging system.

2.4 Measures Taken To Correct Conditions Which Are Affecting The Performance Of The Remedial Actions

Pursuant to 310 CMR 40.0892(4), a description of any measures taken to correct the condition, that are affecting the performance of the remedial actions are set forth below.

On July 3, July 9, August 18 and August 27,2002, high outside ambient temperatures caused the SVE/AS remedial trailer to achieve a high inside temperature, triggering an automatic shutdown of the system. Upon inspection by NRG the system was restarted after each of these events.

On April 11, April 18, April 24 and June 11, 2002, heavy rains caused the moisture separator to fill, triggering the high water level shutoff alarm which automatically shuts down the system. Upon inspection by NRG the moisture separator was drained, and the system restarted after each of these events. Worn AS belts were replaced during a July 9, 2002 maintenance visit.

On March 22, 2002, several of the sparge wells were unclogged using compressed air. Subsequent measurements indicated restoration of flow to these wells.

2.5 Results Of Sampling Analysis And Screening Conducted As Part Of The Inspection And/Or Monitoring Program

Pursuant to 310 CMR 40.0892 (5), the results of the sampling analyses and screening, conducted as part of the IMP, are set forth in Sections 3.0 and 6.0.

2.6 Name, License Number, Signature, And Seal Of The Licensed Site Professional

Pursuant to 310 CMR 40.0892(6), the name, license number and seal of the Licensed Site Professional (LSP) are set forth below.

The LSP-of-record for the disposal site is set forth on forms BWSC-105 and BWSC-108, being submitted concurrently with the IRA Status Report and the Phase V Report.

3.0 STATUS OF ASSESSMENT AND/OR REMEDIAL ACTIONS

Pursuant to 310 CMR 40.0425(3), the status of the assessment and/or remedial actions conducted at the Site is set forth below.

3.1 Monthly Groundwater and Non-Aqueous Phase Liquid Gauging Results

Groundwater and LNAPL elevation measurements are collected monthly utilizing an oil-water interface probe, and LNAPL thickness, if present, is confirmed with a disposable bailer. NRG conducted monthly depth to groundwater and NAPL thickness gauging of monitoring wells MW-4, MW-8, MW-10, MW-14, MW-17, and MW-19 during this reporting period. Groundwater monitoring well locations are indicated on Figure 2-1, Appendix A.

3.1.1 Groundwater

Groundwater elevations at the Site typically fluctuate seasonally between 5 and 13.5 feet below grade. During this reporting period, groundwater elevations generally decreased between Marchand August, Groundwater elevations have fluctuated since the startup of the SVE/AS system and are presented in tabular and graphical form as Appendix C. Based upon the August 27, 2002 groundwater elevations, the inferred groundwater flow direction was to the east, consistent with historical trends.

3.1.2 Non-aqueous Phase Liquid

NAPL was detected in monitoring well MW-17 on September 4, 1998 at a thickness of approximately 0.57 inches. NAPL has not been detected in monitoring well MW-17 before or since September 4, 1998. NAPL has not been observed by NRG in monitoring wells MW-4, MW-8, MW-10, MW-14, or MW-19.

3.2 Quarterly Groundwater Sampling

NRG conducted quarterly groundwater sampling at the Site in February, May and August 2002 as set forth below. Monitoring well locations are indicated on Figure 2-1, Appendix A.

3.2.1 Groundwater Analytical Results

Consistent with the IRA Plan, on February 13, May 28, and August 27, 2002, quarterly groundwater samples were collected from monitoring wells MW-4, MW-8, MW-10, MW-14, MW-17, and MW-19 at the locations indicated on Figure 2-1, Appendix A.

Each monitoring well was purged five well volumes prior to sample collection. Upon completion of well purging, groundwater samples were collected with dedicated polyethylene bailers and submitted to a laboratory for VPH with VOCs analyses. The target VOCs included: benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and naphthalene. Analytical summary tables and graphs are attached as Appendix C, and the laboratory analytical data packages are attached as Appendix D.

VPH and target VOCs detected in groundwater in the February, May and August 2002. groundwater sampling events are summarized in the tables in Appendix C. The groundwater analytical results were compared to the Method 1 GW-1 Groundwater Cleanup Standards, and the monitoring wells, which exceeded these standards, are set forth below.

- VPH aliphatic and aromatic hydrocarbon fractions, benzene, ethylbenzene and naphthalene were detected at concentrations exceeding the Method 1GW-1/2 Groundwater Standards in groundwater from MW-8 during the February 13, 2002 groundwater sampling round; and
- VPH C_5-C_8 aliphatic and C_9-C_{10} aromatic hydrocarbon fractions, ethylbenzene and naphthalene were detected at concentrations exceeding the Method 1GW-1/2 Groundwater Standards in groundwater from MW-8 during the May 28 and August 27, 2002 groundwater sampling rounds

The laboratory analytical results are tabulated with the historical groundwater analytical results and presented graphically in Appendix C. The laboratory analytical data packages for the groundwater sampling events conducted during this reporting period are attached as Appendix D.

3.3 Quality Assurance/Quality Control Results

The results of NRG's QA/QC program are summarized in the following sections.

3.3.1 Trip Blanks

Trip blanks accompany samples to the laboratory and are only submitted for volatile analyses. Trip blanks (RAM-QA/QC-100) for the February, May and August 2002 quarterly sampling event were submitted to the analytical laboratory for VPH with target VOCs.analysis. No target analytes were detected in the trip blanks.

3.3.2 Duplicate Samples

NRG collected a sample duplicate (RAM-QA/QC-500) from MW-8 during the August 28, 2002 quarterly groundwater sampling event. The relative percent differences in the concentrations of constituents detected in the sample and the duplicate sample were within 10% for all analytes except C9 to C12 aliphatic hydrocarbon fractions, where the relative percent difference was 33%.

3.3.3 Surrogate Recovery

NRG reviewed the surrogate recoveries for each of the groundwater samples collected from the Site. Surrogate recoveries were all within acceptable limits.

3.3.4 Laboratory Quality Control Evaluation

NRG compared the format of the laboratory analytical data sheets to the Licensed Site Professional Association's (LSPA" *VPH and EPH: Required Content of Laboratory Reports*, revised on September 18, 1998. The analytical data sheets were prepared consistent with the LSPA's document, with the exception that each data sheet was not signed by a responsible person at the laboratory. According to a representative at the analytical laboratory (Groundwater Analytical), a signed cover letter was provided to serve the same purpose. The cover letter was signed "under the pains and penalties of perjury" by a "responsible person," Jonathan R. Sanford, President of Groundwater Analytical.

The laboratory analytical data package includes a statement regarding the laboratory's QA/QC program. NRG reviewed the QA/QC results for the groundwater samples set forth above. All of the QA/QC methods were within acceptable limits.

4.0 SIGNIFICANT NEW SITE INFORMATION OR DATA

Pursuant to 310 CMR 40.0425 (3)(b), significant new Site information is set forth in Section 3.0 and Section 6.0.

5.0 DETAILS OF/OR PLANS FOR THE MANAGEMENT OF REMEDIATION WASTE, REMEDIAL WASTEWATER AND/OR REMEDIAL ADDITIVES

Pursuant to 310 CMR 40.0425 (3)(c), details and/or plans for the management of remediation waste, remedial wastewater and/or remedial additives are set forth below.

5.1 Air Emissions/Vapor Phase Carbon

Prior to discharging SVE air emissions into the atmosphere, the air emissions are treated with two 1,000-pound vapor-phase carbon vessels connected in series. Pursuant to 310 CMR 40.0049 (5) and the DEP's *Off-Gas Treatment of Point Source Remedial Air Emissions (WSC-94-150)*, a minimum of 95% removal efficiency is required. Air emission monitoring details are set forth in Section 6.1.1.

NRG subcontracts Carbon Filtration Systems, Inc. (CFS) to remove the spent granular activated carbon (GAC) and to install virgin carbon in both of the vapor-phase carbon vessels. The carbon in the vessels was exchanged on May 9, 2002.

5.2 Purged Groundwater, Process Water and Product

Pursuant to 310 CMR 40.0045 (7), purged groundwater from monitoring well sampling is returned to the point of withdrawal at each well location. Process water from the SVE condensate and collected pure-phase product are drummed, pre-characterized, transported, and disposed at a Massachusetts licensed facility. No SVE condensate or pure-phase product has been collected, and/or disposed of since the last IRA Status Report.

5.3 Soil

Impacted soil has not been generated, stored on-Site, or transported off-Site since the last IRA Status Report.

6.0 MONITORING DATA RELATED TO THE OPERATION OF REMEDIAL SYSTEMS

Pursuant to 310 CMR 40.0425(3)(d), monitoring data related to the operation of remedial systems is set forth below.

6.1 Soil Vapor Extraction/Air Sparging Remedial System

During this reporting period, the SVE/AS remedial system experienced several short-duration shutdowns due to routine maintenance, temperature and/or moisture-related shutdowns, as detailed in Section 2.4.

6.1.1 Soil Vapor Extraction/Air Sparging Influent and Effluent Air Sampling

Pursuant to the DEP's *Off-Gas Treatment of Point Source Remedial Air Emissions (WSC-94-150)* dated May 25, 1994, the removal efficiency of the vapor treatment system must be greater than or equal to 95%, and must be monitored a minimum of once monthly. NRG collected samples of vapor off-gas emissions in tedlar bags on February 28, March 26, April 24, April 30, May 29, July 1, July 25 and August 27, 2002. Samples were collected from the influent and effluent sampling ports and screened for total organic vapors (TOV) concentrations utilizing a photo-ionization detector (PID). The results of the vapor sampling are summarized in Table 6-1, Appendix B. Based on the results of the vapor screening, the carbon in the treatment vessels was replaced on May 9, 2002.

6.2 Mass Removal

Vapor influent concentrations within the SVE/AS process stream have been measured to estimate the vapor-phase mass removal, as indicated in Table 6-1, Appendix B. Cumulative pounds of petroleum constituents removed versus time has been plotted in Figure 6-1, Appendix A. As of August 27, 2002, approximately 3,690 pounds of vapor-phase petroleum constituents have been treated through vapor-phase carbon adsorption or catalytic oxidation since the initiation of the SVE remedial system on September 15, 1997.

7.0 REMEDY OPERATION STATUS

Pursuant to 310 CMR 40.0893(1), Remedy Operation Status (ROS) applies to disposal sites where a remedial system, which relies upon Active Operation and Maintenance, is being operated for the purpose of achieving a Permanent Solution, pursuant to 310 CMR 40.0890.

7.1 Performance Standards For Remedy Operation Status

Pursuant to 310 CMR 40.0893(2), the Performance Standards for maintaining Remedy Operation Status ("ROS") at the disposal site are set forth below:

(a) *The remedial system shall be adequately designed in accordance with 310 CMR 40.0870 to achieve a Permanent Solution.*

NRG designed and installed the SVE/AS remedial system, as set forth in the IRA Plan submitted to the DEP on April 21, 1997, to achieve a permanent solution.

(b) *The remedial system shall be operated and maintained in accordance with the requirements of 310 CMR 40.0890.*

As set forth in this IRA Plan, on behalf of Carver Square, NRG is operating and maintaining the SVE/AS remedial system in accordance with 310 CMR 40.0890.

(c) *Each source of [OHM] shall be eliminated or controlled in accordance with 310 CMR 40.1003(5).*

As set forth in the *Phase II - Comprehensive Site Assessment Report* prepared by Green Mountain Environmental Services, Inc. and submitted to the DEP on November, 1990, the historic gasoline Underground Storage Tanks ("USTs") at the Site were removed in February of 1987.

(d) *Any substantial hazard shall be eliminated.*

The implementation of the SVE/AS remedial system at the disposal site has stabilized the impacts to the environment; therefore, a substantial hazard does not exist at the disposal site.

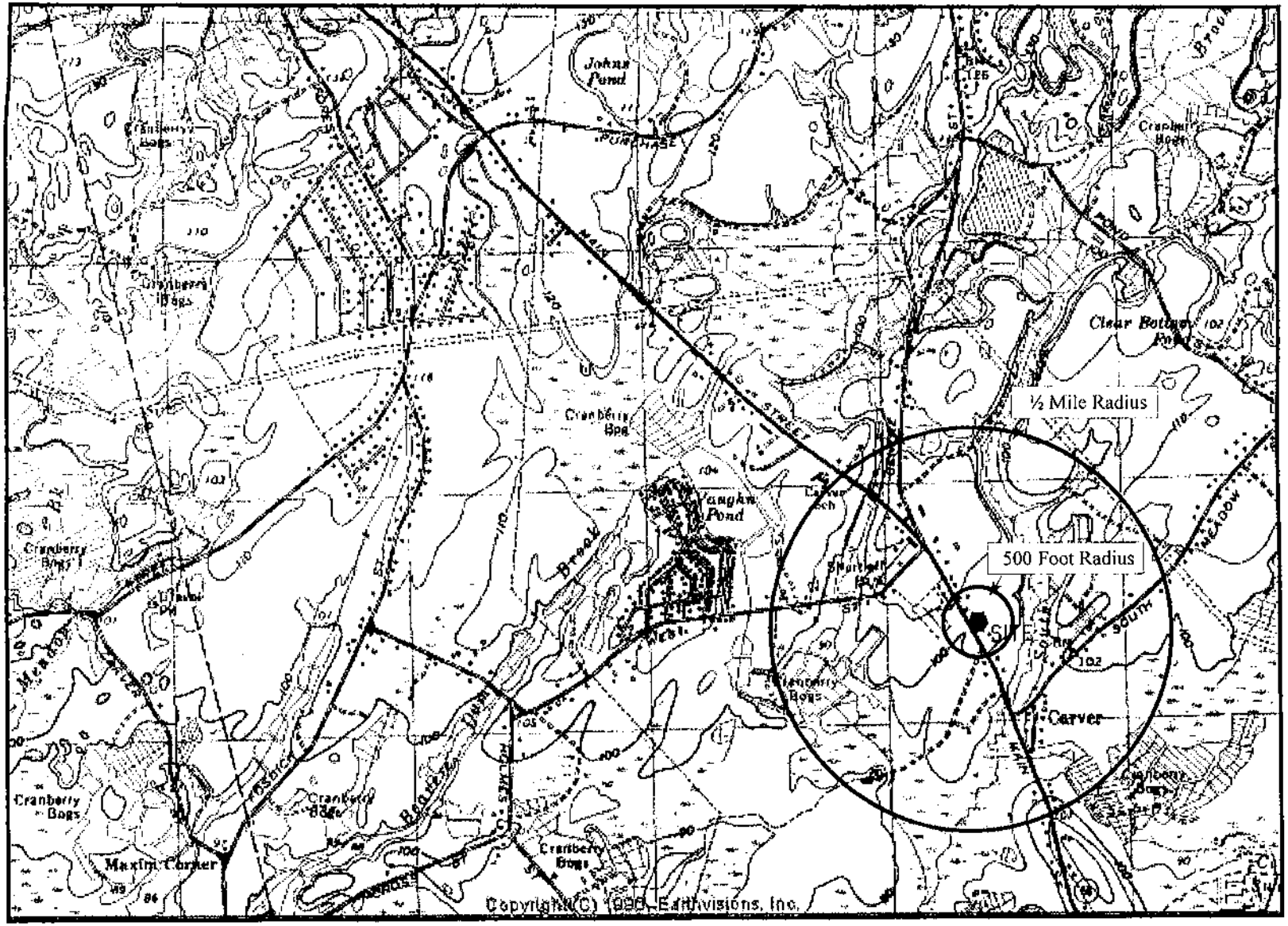
(e) *At a minimum, information and data on operation and maintenance, and/or monitoring shall be gathered and submitted to the DEP every six months in a report as described in 310 CMR 40.0892.*

On behalf of Carver Square, NRG will submit operation and maintenance, and/or monitoring reports every six months to the DEP, pursuant to 310 CMR 40.0983(2)(c).

7.2 Termination of Remedy Operation Status

Pursuant to 310 CMR 40.0893(5)(a) and (b), ROS shall terminate if the person providing the ROS opinion fails to meet the requirements of 310 CMR 40.0893(2), or the person providing the ROS opinion notifies the DEP in accordance with 310 CMR 40.0893(5)(c), that such person intends to discontinue the remedial system.

A Termination of ROS does not presently exist for the disposal site.



NORFOLK RAM GROUP
ENGINEERING : ENVIRONMENT

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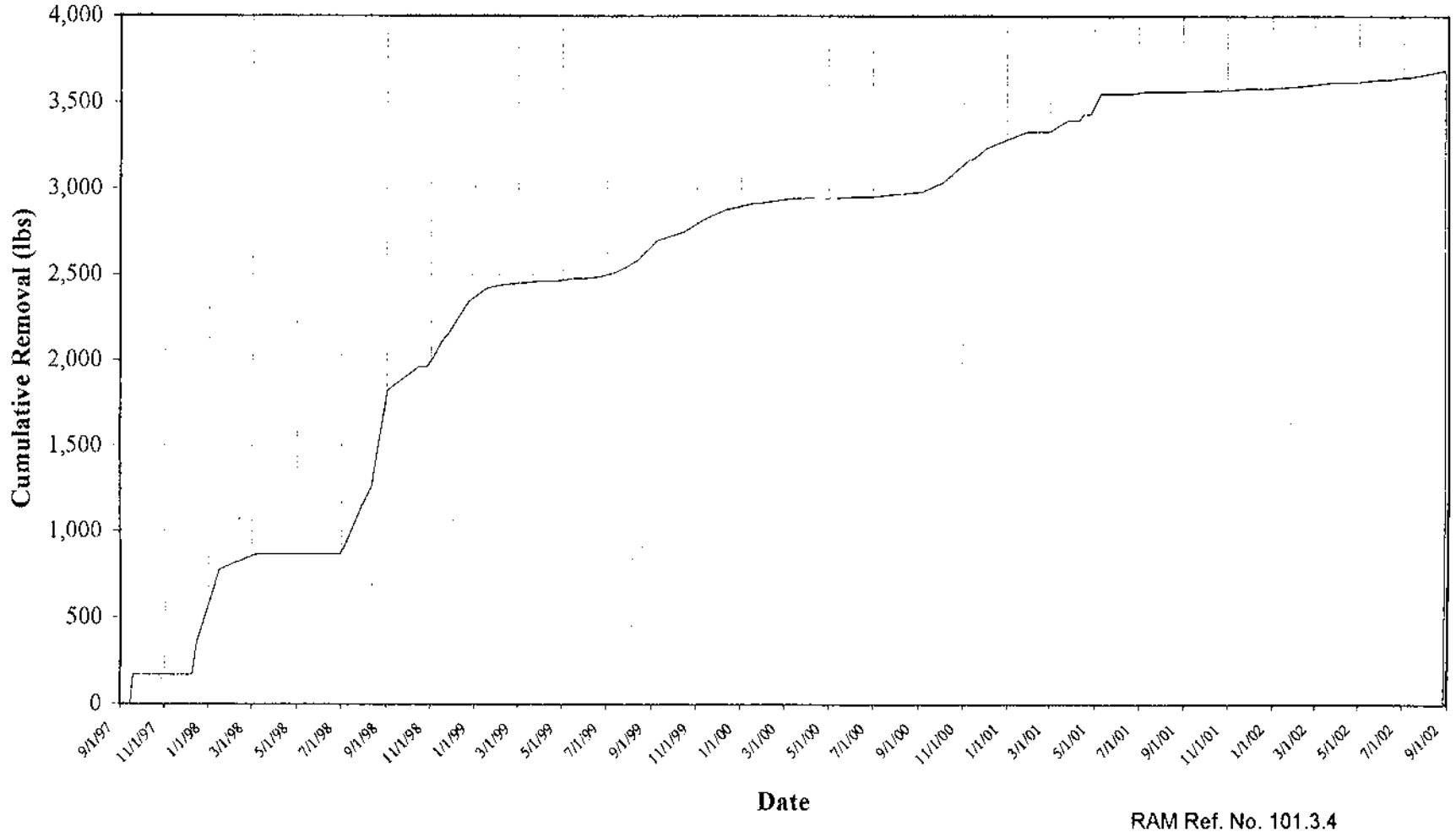
Figure 1-1
Site Locus Map
118 Main Street
Carver, Massachusetts
Source: U.S.G.S. Quadrangle Plympton MA
1 : 26,000

Figure 6-1
CUMULATIVE MASS REMOVAL vs. TIME

Former Carmichael's Mobil
Carver, Massachusetts



RAM Ref. No. 101.3.4

Table 6-1
Petroleum Mass Removal Rate and Cumulative Mass Removal vs. Time

Carmicheals - SVE/AS
NRG project # 101.3.2

Current Date	Current Time	Previous Date	Previous Time (mins)	Operational Status	Elapsed Time (days)	Influent Conc. (ppmv)	Effluent Conc. (ppmv)	Total Air Flow (cfm)	Removal Rate (range) (lbs/day)	Removal period (pounds)	Cumulative Removal (Total lbs.)	Removal Efficiency (%)
9/15/97	5:00 PM	9/15/97	5:00 PM	on	0	287	5	550	52.09	0.00	0.00	98.26%
9/18/97	12:00 PM	9/15/97	5:00 PM	on	2.79	333	120	550	60.44	168.73	168.73	63.96%
12/8/97	12:00 PM	9/18/97	12:00 PM	off	81.00	0	0	0	0.00	0.00	168.73	0.00%
12/11/97	3:00 PM	12/8/97	12:01 PM	on	3.12	313	0.6	240	24.79	77.45	246.18	99.81%
12/13/97	4:00 PM	12/11/97	3:00 PM	on	2.04	265	3	260	22.74	46.42	292.60	98.87%
12/15/97	2:00 PM	12/13/97	4:00 PM	on	1.92	288	6.8	348	33.07	63.39	355.99	97.64%
1/15/98	3:15 PM	12/15/97	2:00 PM	on	31.05	116	0	350	13.40	416.04	772.03	100.00%
2/9/98	3:45 PM	1/15/98	3:15 PM	on	25.02	36	0	159	1.89	47.26	819.29	100.00%
2/10/98	12:00 PM	2/9/98	3:45 PM	on	0.84	38.4	0	159	2.01	1.70	820.99	100.00%
2/25/98	12:30 PM	2/10/98	12:00 PM	on	15.02	28.8	0	174	1.65	24.84	845.83	100.00%
3/6/98	12:00 PM	2/25/98	12:31 PM	on	8.98	27.7	0	174	1.59	14.28	860.11	100.00%
3/10/98	3:10 PM	3/6/98	12:00 PM	on	4.13	17	0	174	0.98	4.03	864.14	100.00%
3/25/98	1:50 PM	3/10/98	3:10 PM	on	14.94	0	0	174	0.00	0.00	864.14	0.00%
3/31/98	1:06 PM	3/25/98	1:50 PM	on	5.97	0.8	0	43.5	0.01	0.07	864.21	100.00%
5/6/98	5:00 PM	3/31/98	1:06 PM	on	36.16	0.5	0	87.5	0.01	0.52	864.73	100.00%
6/1/98	12:25 PM	5/6/98	5:00 PM	on	25.81	0.5	0	87.5	0.01	0.37	865.11	100.00%
6/30/98	12:25 PM	6/1/98	5:00 PM	off	28.81	0	0	0	0.00	0.00	865.11	0.00%
7/1/98	1:30 PM	6/30/98	12:25 PM	on	1.05	168	0	262.5	14.55	15.21	880.32	100.00%
7/2/98	1:30 PM	7/1/98	12:25 PM	on	1.05	87.2	0	262.5	7.55	7.89	888.21	100.00%
7/10/98	10:00 AM	7/2/98	1:30 PM	on	7.85	87.2	0	262.5	7.55	59.33	947.54	100.00%
7/28/98	11:15 AM	7/10/98	10:00 AM	on	18.05	132.5	0	239.25	10.46	188.85	1136.38	100.00%
8/11/98	2:53 PM	7/28/98	11:15 AM	on	14.15	192	0	130.5	8.27	117.01	1253.40	100.00%
8/12/98	7:14 AM	8/11/98	2:53 PM	on	0.68	187	5.8	217.5	13.42	9.14	1262.54	96.90%
9/3/98	4:20 PM	8/12/98	7:14 AM	on	22.38	219	0	348	25.15	562.84	1825.37	100.00%
9/4/98	4:40 PM	9/3/98	4:20 PM	on	1.01	25.5	0.8	261	2.20	2.23	1827.60	96.86%
9/9/98	4:51 PM	9/4/98	4:40 PM	on	5.01	38.9	0	261	3.35	16.78	1844.38	100.00%
10/7/98	2:45 PM	9/9/98	4:51 PM	on	27.91	22.4	0	435	3.22	89.75	1934.13	100.00%
10/16/98	12:00 PM	10/7/98	2:45 PM	on	8.89	22.4	0	435	3.22	28.57	1962.70	100.00%
10/27/98	12:00 PM	10/16/98	12:00 PM	off	11.00	0	0	0	0.00	0.00	1962.70	0.00%
11/4/98	5:00 PM	10/27/98	12:00 PM	on	8.21	49	0	348	5.63	46.19	2008.89	100.00%
11/10/98	9:20 AM	11/4/98	5:00 PM	on	5.68	79.4	0	339.3	8.89	50.50	2059.39	100.00%
11/19/98	1:45 PM	11/10/98	9:20 AM	on	9.18	56.9	0	353.7	6.64	61.00	2120.39	100.00%
11/25/98	2:20 PM	11/19/98	1:45 PM	on	6.02	43.6	0	387.1	5.57	33.55	2153.94	100.00%
12/24/98	10:00 AM	11/25/98	2:20 PM	on	28.82	51.5	0	382.8	6.51	187.49	2341.43	100.00%
1/15/99	2:00 PM	12/24/98	10:00 AM	on	22.17	33.6	0	304.5	3.38	74.84	2416.27	100.00%
1/26/99	12:10 PM	1/15/99	2:00 PM	on	10.92	15.9	0	243.6	1.28	13.96	2430.24	100.00%
2/12/99	2:15 PM	1/26/99	12:10 PM	on	17.09	7.7	0	274	0.70	11.90	2442.13	100.00%
3/11/99	11:00 AM	2/12/99	2:45 PM	on	26.84	5.5	0	243.6	0.44	11.87	2454.00	100.00%
3/31/99	1:30 PM	3/11/99	11:00 AM	on	20.10	5.5	0	243.6	0.44	8.89	2462.89	100.00%
4/6/99	2:00 PM	3/31/99	1:30 PM	off	6.02	0	0	0	0.00	0.00	2462.89	0.00%
4/7/99	12:30 PM	4/6/99	2:00 PM	on	0.94	9	0	243.6	0.72	0.68	2463.57	100.00%
4/22/99	2:00 PM	4/7/99	12:30 PM	off	15.06	0	0	0	0.00	0.00	2463.57	0.00%
4/27/99	1:30 PM	4/22/99	2:00 PM	on	4.98	5.2	0	261	0.45	2.23	2465.80	100.00%
5/5/99	11:15 AM	4/27/99	1:30 PM	on	7.91	6	0	243.6	0.48	3.81	2469.61	100.00%
5/10/99	3:30 PM	5/5/99	11:15 AM	on	5.18	9.6	0	261	0.83	4.28	2473.89	100.00%
5/18/99	10:30 AM	5/10/99	3:30 PM	on	7.79	7.2	0	261	0.62	4.83	2478.72	100.00%
6/1/99	10:00 AM	5/18/99	10:30 AM	off	13.98	0	0	0	0.00	0.00	2478.72	0.00%
6/1/99	12:00 PM	6/1/99	10:00 AM	on	0.08	6.5	0	234.9	0.50	0.04	2478.77	100.00%
6/17/99	12:30 PM	6/1/99	12:00 PM	on	16.02	4.2	0	234.9	0.33	5.22	2483.98	100.00%
7/12/99	3:00 PM	6/17/99	12:30 PM	on	25.10	13.8	0	243.6	1.11	27.85	2511.83	100.00%
8/2/99	1:00 PM	7/12/99	3:00 PM	on	20.92	29	0	243.6	2.33	48.76	2560.59	100.00%
8/11/99	3:15 PM	8/2/99	1:00 PM	on	9.09	22	0	295.8	2.15	19.53	2580.12	100.00%
9/8/99	2:00 PM	8/11/99	3:15 PM	on	27.95	45.8	2.3	278.4	4.21	117.60	2697.72	94.98%
10/14/99	9:00 AM	9/8/99	2:00 PM	on	35.79	15	5	261	1.29	46.24	2743.96	66.67%
10/14/99	11:30 AM	10/14/99	9:00 AM	off	0.10	0	0	0	0.00	0.00	2743.96	0.00%
11/10/99	12:00 PM	10/14/99	11:30 AM	on	27.02	32	0	261	2.76	74.47	2818.44	100.00%
12/14/99	1:45 PM	11/10/99	12:00 PM	on	34.07	18	6	304.5	1.81	61.63	2880.06	66.67%
12/15/99	2:00 PM	12/14/99	1:45 PM	off	1.01	0	0	0	0.00	0.00	2880.06	0.00%
12/29/99	1:50 PM	12/15/99	2:00 PM	on	13.99	9	0.2	304.5	0.90	12.65	2892.72	97.78%
1/19/00	11:20 AM	12/29/99	1:50 PM	on	20.90	12	3.5	261	1.03	21.60	2914.32	70.83%
1/26/00	3:00 PM	1/19/00	11:20 AM	off	7.15	0	0	0	0.00	0.00	2914.32	0.00%
1/28/00	1:00 PM	1/26/00	3:00 PM	on	1.92	9.4	0	261	0.81	1.55	2915.87	100.00%
2/15/00	3:00 PM	1/28/00	1:00 PM	on	18.08	7.5	0.2	261	0.65	11.68	2927.55	97.33%
3/8/00	10:00 AM	2/15/00	3:00 PM	on	21.79	6	0.8	304.5	0.60	13.14	2940.69	86.67%
3/10/00	10:00 AM	3/8/00	10:00 AM	off	2.00	0	0	0	0.00	0.00	2940.69	0.00%
3/10/00	2:00 PM	3/10/00	10:00 AM	on	0.17	7.5	0	304.5	0.75	0.13	2940.81	100.00%
3/12/00	9:00 AM	3/10/00	2:00 PM	on	1.79	7.5	0	304.5	0.75	1.35	2942.16	100.00%
3/20/00	10:00 AM	3/12/00	9:00 AM	off	8.04	0	0	0	0.00	0.00	2942.16	0.00%
4/6/00	10:00 AM	3/20/00	10:00 AM	on	17.00	5.9	0.2	130.5	0.25	4.32	2945.13	96.61%
4/25/00	2:20 AM	4/6/00	10:00 AM	on	18.68	5.9	0.2	130.5	0.25	4.75	2946.91	96.61%
4/26/00	12:00 PM	4/25/00	2:20 AM	off	1.40	0	0	0	0.00	0.00	2942.16	0.00%

Table 6-1
Petroleum Mass Removal Rate and Cumulative Mass Removal vs. Time

Carmicheals - SVE/AS
NRG project # 101.3.2

Current Date	Current Time	Previous Date	Previous Time (mins)	Operational Status	Elapsed Time (days)	Influent Conc. (ppmv)	Effluent Conc. (ppmv)	Total Air Flow (cfm)	Removal Rate (range) (lbs/day)	Removal period (pounds)	Cumulative Removal (Total lbs.)	Removal Efficiency (%)
5/11/00	12:40 PM	4/26/00	12:00 PM	on	15.03	6.1	0.3	87	0.18	2.63	2947.76	95.08%
6/7/00	10:00 AM	5/11/00	12:40 PM	on	26.89	6	0.2	87	0.17	4.63	2952.40	96.67%
6/9/00	4:00 AM	6/7/00	10:00 AM	on	1.75	6	0.2	87	0.17	0.30	2952.70	96.67%
6/19/00	9:00 AM	6/9/00	4:00 AM	off	10.21	0	0	0	0.00	0.00	2952.70	0.00%
6/20/00	7:00 AM	6/19/00	9:00 AM	on	0.92	11.2	0	174	0.64	0.59	2953.29	100.00%
6/29/00	9:00 AM	6/20/00	7:00 AM	off	9.08	0	0	0	0.00	0.00	2953.29	0.00%
7/12/00	3:20 PM	6/29/00	9:00 AM	on	13.26	9.3	0.3	174	0.53	7.08	2960.37	96.77%
8/9/00	11:30 AM	7/12/00	3:20 PM	on	27.84	7.5	2.6	174	0.43	11.99	2972.36	65.33%
8/11/00	10:00 AM	8/9/00	11:30 AM	off	1.94	0	0	0	0.00	0.00	2972.36	0.00%
8/11/00	11:00 AM	8/11/00	10:00 AM	on	0.04	3	0	261	0.26	0.01	2972.37	100.00%
9/5/00	11:30 AM	8/11/00	11:00 AM	on	25.02	4.5	0	261	0.39	9.70	2982.07	100.00%
10/3/00	10:30 AM	9/5/00	11:30 AM	on	27.96	16.5	0	348	1.87	52.33	3034.40	100.00%
11/10/00	11:45 AM	10/3/00	10:30 AM	on	38.05	32.3	3.3	348	3.71	141.15	3175.55	89.78%
11/15/00	11:45 AM	11/10/00	11:45 AM	off	5.00	0	0	0	0.00	0.00	3175.55	0.00%
11/15/00	2:00 PM	11/15/00	11:45 AM	on	0.09	22.5	0	348	2.58	0.24	3175.79	100.00%
12/4/00	11:20 AM	11/15/00	2:00 PM	on	18.89	30.2	9	348	3.47	65.51	3241.30	70.20%
12/5/00	1:00 PM	12/4/00	11:20 AM	off	1.07	0	0	0	0.00	0.00	3241.30	0.00%
12/5/00	3:00 PM	12/5/00	1:00 PM	on	0.08	29.1	0	348	3.34	0.28	3241.58	100.00%
1/30/01	10:00 AM	12/5/00	3:00 PM	on	55.79	14.4	3.4	348	1.65	92.26	3333.84	76.39%
2/2/01	4:00 PM	1/30/01	10:00 AM	off	3.25	0	0	0	0.00	0.00	3333.84	0.00%
3/1/01	12:00 AM	2/2/01	4:00 PM	off	38.33	0	0	0	0.00	0.00	3333.84	0.00%
3/26/01	11:00 AM	3/1/01	12:00 PM	on	24.96	26	0	304.5	2.61	65.21	3399.05	100.00%
4/11/01	12:00 PM	3/26/01	11:00 AM	off	16.04	0	0	0	0.00	0.00	3399.05	0.00%
4/17/01	2:30 PM	4/11/01	12:00 PM	on	6.10	52	0	348	5.97	36.45	3435.50	100.00%
4/26/01	12:00 PM	4/17/01	2:30 PM	off	8.90	0	0	0	0.00	0.00	3435.50	0.00%
5/10/01	2:00 PM	4/26/01	12:00 PM	on	14.08	72	0	348	8.27	116.45	3551.95	100.00%
6/5/01	10:00 AM	5/10/01	2:00 PM	on	25.83	1.1	0	300	0.11	2.81	3554.76	100.00%
6/18/01	9:30 AM	6/5/01	10:00 AM	off	12.98	0	0	0	0.00	0.00	3554.76	0.00%
6/22/01	10:00 AM	6/18/01	9:30 AM	off	4.02	0	0	0	0.00	0.00	3554.76	0.00%
6/22/01	1:00 PM	6/22/02	10:00 AM	on	0.08	0.3	0	300	0.03	0.00	3554.77	100.00%
7/10/01	8:45 AM	6/22/01	1:00 PM	on	17.82	6.1	0	348	0.70	12.49	3567.25	100.00%
8/3/01	8:30 AM	7/10/01	8:45 AM	on	23.99	0.2	0	165	0.01	0.26	3567.51	100.00%
8/17/01	11:00 AM	8/3/01	8:30 AM	off	14.10	0	0	0	0.00	0.00	3567.51	0.00%
8/17/01	11:45 AM	8/17/01	11:00 AM	on	0.03	0.3	0	165	0.02	0.00	3567.51	100.00%
8/27/01	4:15 PM	8/17/01	11:45 AM	off	10.19	0	0	0	0.00	0.00	3567.51	0.00%
8/27/01	5:00 PM	8/27/01	4:15 PM	on	0.03	0	0	0	0.00	0.00	3567.51	0.00%
9/13/01	11:10 AM	8/27/01	5:00 PM	on	16.76	0.2	0	165	0.01	0.18	3567.70	100.00%
11/6/01	3:15 PM	9/13/01	11:10 AM	on	54.17	2.1	0	170	0.12	6.38	3574.08	100.00%
11/28/01	9:00 AM	11/6/01	3:15 PM	on	21.74	8.1	0	168	0.45	9.76	3583.84	100.00%
12/29/01	12:00 AM	11/28/01	9:00 AM	off	31.63	0	0	0	0.00	0.00	3583.84	0.00%
1/14/02	9:00 AM	12/29/01	12:00 AM	on	15.38	7.1	0	165	0.39	5.95	3589.79	100.00%
1/31/02	11:00 AM	1/14/02	9:00 AM	on	17.08	5.3	0	170	0.30	5.08	3594.86	100.00%
2/28/02	9:30 AM	1/31/02	11:00 AM	on	27.94	7.5	5.1	170	0.42	11.75	3606.62	32.00%
3/26/02	2:40 PM	2/28/02	9:30 AM	on	26.22	8.1	5.3	170	0.45	11.91	3618.53	34.57%
4/11/02	10:00 AM	3/26/02	2:40 PM	off	15.81	0	0	0	0.00	0.00	3618.53	0.00%
4/18/02	12:00 PM	4/11/02	10:00 AM	off	7.08	0	0	0	0.00	0.00	3618.53	0.00%
4/24/02	10:15 AM	4/18/02	12:00 PM	off	5.93	0	0	0	0.00	0.00	3618.53	0.00%
4/30/02	9:30 AM	4/24/02	10:15 AM	on	5.97	9.5	3.7	165	0.52	3.09	3621.62	61.05%
5/9/02	11:30 AM	4/30/02	9:30 AM	off	9.08	0	0	0	0.00	0.00	3621.62	0.00%
5/29/02	11:20 AM	4/30/02	9:30 AM	on	29.08	9.3	0	165	0.51	14.72	3636.34	100.00%
6/11/02	10:15 AM	5/29/02	11:20 AM	off	12.95	0	0	0	0.00	0.00	3636.34	0.00%
7/1/02	8:30 AM	6/11/02	10:15 AM	on	19.93	11.1	0.1	166	0.61	12.12	3648.46	99.10%
7/3/02	3:35 PM	7/1/02	8:30 AM	off	2.30	0	0	0	0.00	0.00	3648.46	0.00%
7/9/02	2:30 PM	7/3/02	3:35 PM	off	5.95	0	0	0	0.00	0.00	3648.46	0.00%
7/25/02	11:00 AM	7/9/02	2:30 PM	on	15.85	13.2	0.3	164	0.71	11.33	3659.79	97.73%
8/27/02	2:35 PM	7/25/02	11:00 AM	on	33.15	16.3	0	170	0.91	30.31	3690.10	100.00%

System Shutdown (Alarm Condition)
Carbon Changeout

MW-4 GROUNDWATER CONCENTRATIONS

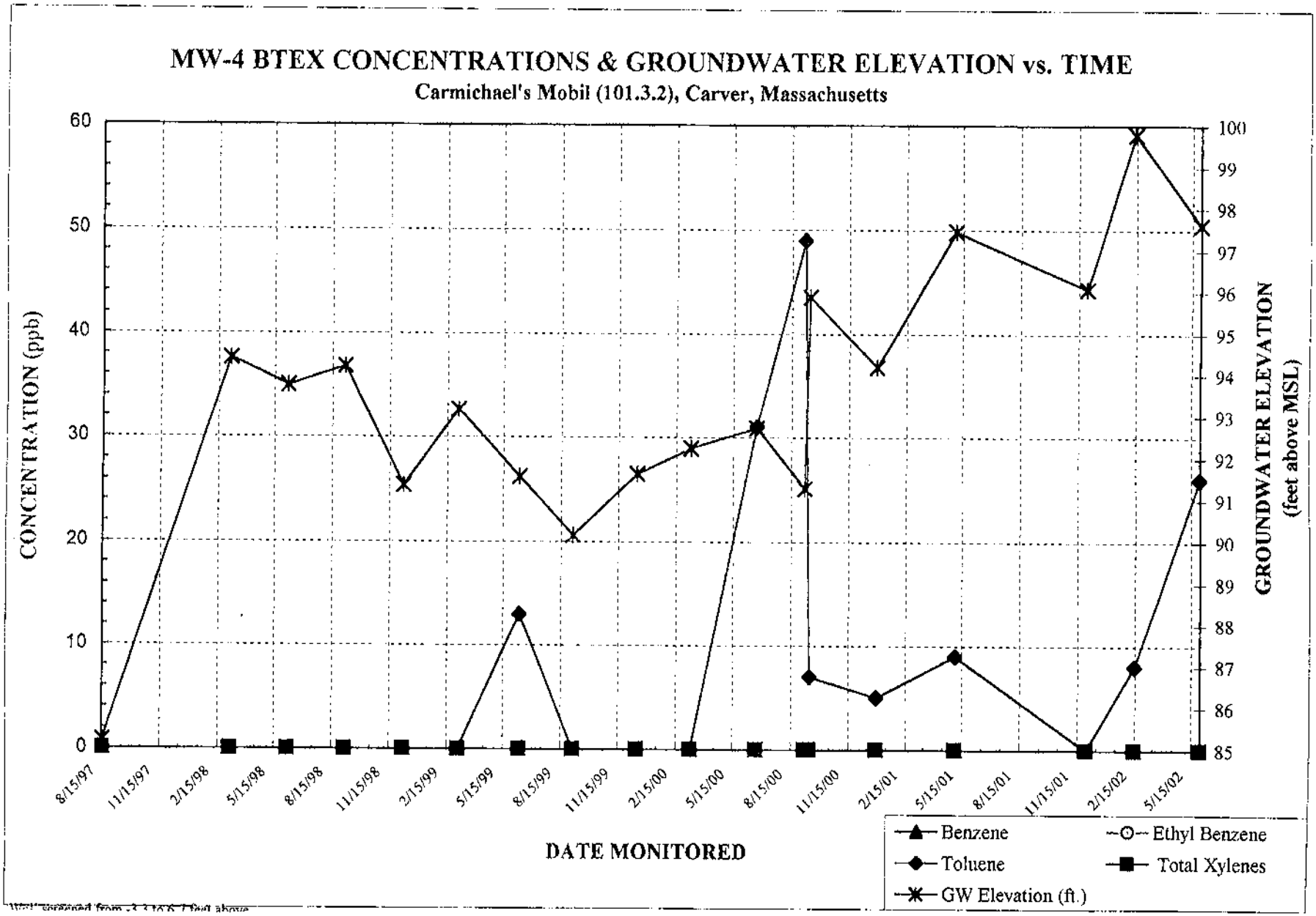
MW-4	Concentrations (ppb)													
Date	Top of PVC	Depth to Water (ft.)	Depth to NAPL (ft.)	GW Elevation (ft.)	Benzene	Ethyl Benzene	Toluene	Total Xylenes	MTBE	Naphthalene	Lead	C_5-C_8 Aliphatics	C_9-C_{12} Aliphatics	C_9-C_{10} Aromatics
8/15/97	94.39	9.20	9.18	85.20	BRL< 250	BRL< 250	BRL< 250	BRL< 250	BRL<1,250	BRL<250	BRL<3	BRL<250	BRL<250	BRL<250
3/5/98	100.41	6.02	6.02	94.39	BRL< 1	BRL< 1	BRL< 1	BRL< 2	9	BRL< 5	NA	BRL< 5	BRL< 5	6
6/5/98	100.41	6.67	6.67	93.74	BRL< 1	BRL< 5	BRL< 5	BRL< 10	9	BRL< 5	NA	22	32	23
9/4/98	100.41	6.22	6.22	94.19	BRL< 1	BRL< 5	BRL< 5	BRL< 10	260	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
12/7/98	100.41	9.06	9.06	91.35	BRL< 1	BRL< 5	BRL< 5	BRL< 10	BRL< 5	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
3/4/99	100.41	7.25	7.25	93.16	BRL< 1	BRL< 5	BRL< 5	BRL< 10	49	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
6/9/99	100.41	8.85	8.85	91.56	BRL< 1	BRL< 5	13	BRL< 10	BRL< 5	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
9/3/99	100.41	10.25	10.25	90.16	BRL< 1	BRL< 5	BRL< 5	BRL< 10	110	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
12/14/99	100.41	8.78	8.78	91.63	BRL< 1	BRL< 5	BRL< 5	BRL< 10	BRL< 5	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
3/8/00	100.41	8.18	8.18	92.23	BRL< 1	BRL< 5	31	BRL< 10	23	BRL< 5	NA	22	BRL< 20	BRL< 20
6/20/00	100.41	7.69	7.69	92.72	BRL< 1	BRL< 5	49	BRL< 10	BRL< 5	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
9/5/00	100.41	9.12	9.12	91.29	BRL< 1	BRL< 5	5	BRL< 10	BRL< 5	BRL< 5	NA	32	BRL< 20	BRL< 20
12/29/00	100.41	6.22	6.22	94.19	BRL< 1	BRL< 5	9	BRL< 10	BRL< 5	11	NA	34	BRL< 20	BRL< 20
5/3/01	100.41	2.95	2.95	97.46	BRL< 1	BRL<5	7	BRL<10	BRL<5	BRL<5	NA	120	24	BRL<20
9/13/00	100.41	4.53	4.53	95.88	BRL<1	BRL<5	BRL<5	BRL<10	16	BRL<5	NA	430	66	BRL<20
11/28/01	100.41	4.34	4.34	96.07	BRL<1	BRL< 5	8	BRL< 10	17	BRL< 5	NA	53	BRL< 20	BRL< 20
2/13/02	100.41	0.62	0.62	99.79	BRL<1	BRL< 5	26	BRL< 10	BRL< 5	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
5/28/02	100.41	2.80	2.80	97.61	BRL<1	BRL< 5	BRL< 5	BRL< 10	7	BRL< 5	NA	BRL< 20	BRL< 20	BRL< 20
8/27/02	100.41	4.87	4.87	95.54	BRL<1	BRL< 5								
Method 1 Groundwater Cleanup Standards (310 CMR 40.0974(2)); 10/29/99														
Method 1 GW-1					5	700	1,000	10,000	70	20	15	400	4,000	200
Method 1 GW-2/3					2,000	4,000	6,000	6,000	50,000	6,000	NS	1,000	1,000	4,000

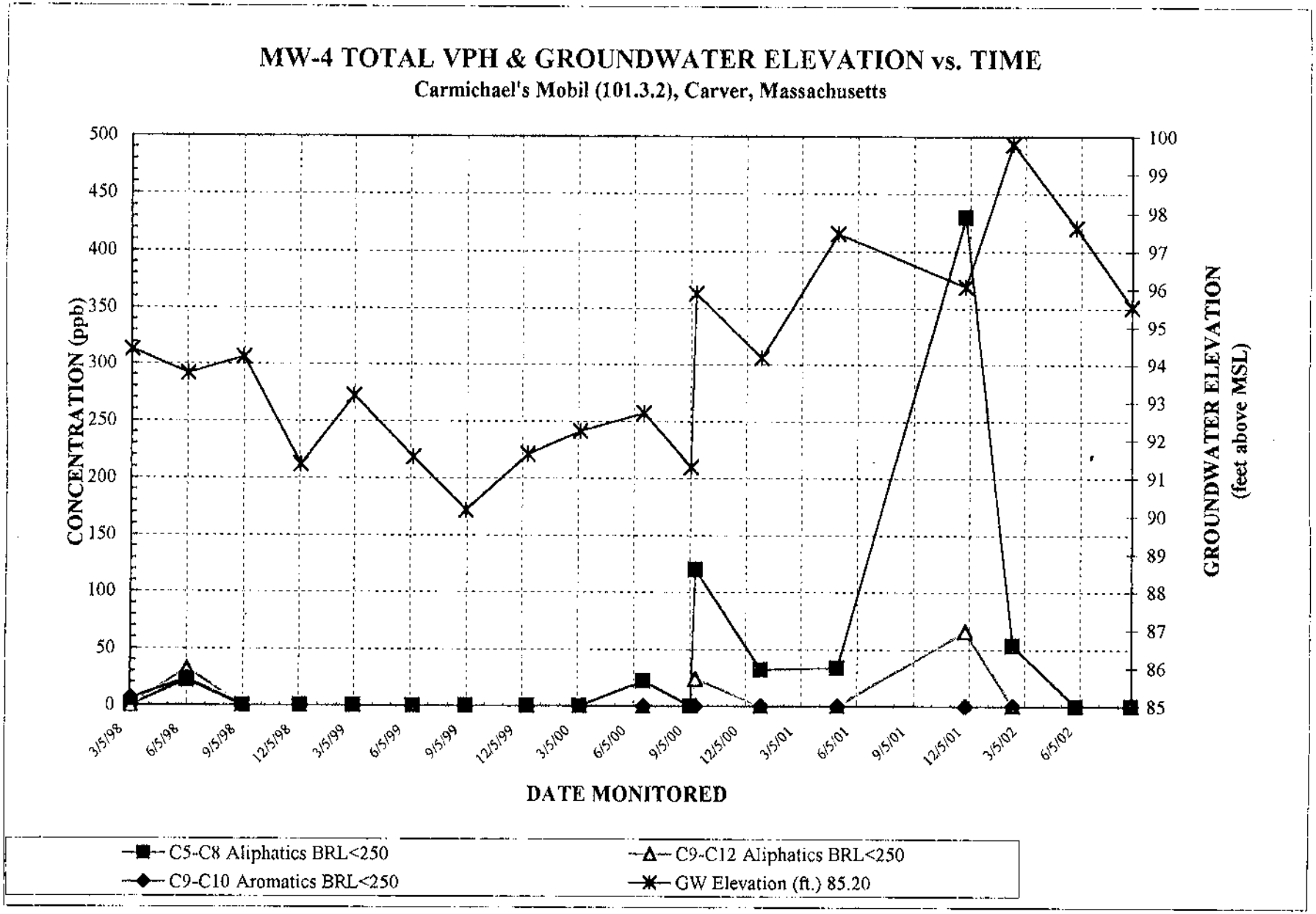
All data prior to 6/28/96 taken from LCR Inc., report dated 12/4/89

No depth to groundwater was reported in the LCR Report for 10/04/89, just a groundwater elevation is reported. It is not known whether this measurement was corrected for NAPL depression. According to the LRC Report, MW-1 had 2" of NAPL at the time of sampling.

Formula used to correct groundwater elevation for depression by NAPL.
Corrected Elevation = Oil/Water elevation - (NAPL Thickness * Specific Gravity of NAPL)
Specific Gravity for gasoline used = 0.74 (Taken from Merck Index Eleventh Edition, 1989).

BRL < 10 Indicates concentration, if any, is below reporting limit for analyte.
NA - sample not analyzed for this analyte.
NS - no standard available for analyte


MW-4 BTEX CONCENTRATIONS & GROUNDWATER ELEVATION vs. TIME
Carmichael's Mobil (101.3.2), Carver, Massachusetts
CONCENTRATION (ppb)
GROUNDWATER ELEVATION (feet above MSL)
DATE MONITORED
60
50
40
30
20
10
0
100
99
98
97
96
95
94
93
92
91
90
89
88
87
86
85
8/15/97
11/15/97
2/15/98
5/15/98
8/15/98
11/15/98
2/15/99
5/15/99
8/15/99
11/15/99
2/15/00
5/15/00
8/15/00
11/15/00
2/15/01
5/15/01
8/15/01
11/15/01
2/15/02
5/15/02
Benzene
Ethyl Benzene
Toluene
Total Xylenes
GW Elevation (ft.)


MW-4 TOTAL VPH & GROUNDWATER ELEVATION vs. TIME
Carmichael's Mobil (101.3.2), Carver, Massachusetts
CONCENTRATION (ppb)
GROUNDWATER ELEVATION (feet above MSL)
DATE MONITORED
3/5/98
6/5/98
9/5/98
12/5/98
3/5/99
6/5/99
9/5/99
12/5/99
3/5/00
6/5/00
9/5/00
12/5/00
3/5/01
6/5/01
9/5/01
12/5/01
3/5/02
6/5/02
C5-C8 Aliphatics BRL<250
C9-C12 Aliphatics BRL<250
C9-C10 Aromatics BRL<250
GW Elevation (ft.) 85.20

MW-8 GROUNDWATER CONCENTRATIONS

MW-8	Concentrations (ppb)													
Date	Top of PVC	Depth to Water (ft.)	Depth to NAPL (ft.)	GW Elevation (ft.)	Benzene	Ethyl Benzene	Toluene	Total Xylenes	MTBE	Naphthalene	Lead	C_5-C_8 Aliphatics	C_9-C_{12} Aliphatics	C_9-C_{10} Aromatics
3/5/98	102.05	6.51	6.51	95.54	BRL< 5	500	6	2,020	BRL< 25	**130**	NA	***1,700***	BRL< 25	***4,300***
6/5/98	102.05	7.20	7.20	94.85	BRL< 2	190	BRL< 10	710	BRL< 10	**48**	NA	**660**	940	**1,200**
9/4/98	102.05	6.79	6.79	95.26	**27**	**860**	BRL< 25	3,100	BRL< 25	**250**	NA	***4,200***	*2,800*	**2,900**
12/7/98	102.05	10.08	10.08	91.97	**21**	**2,000**	BRL< 50	5,500	BRL< 50	**510**	NA	***8,700***	***15,000***	***6,300***
3/4/99	102.05	8.32	8.32	93.73	**10**	380	BRL< 10	1,450	BRL< 10	**110**	NA	***1,800***	*3,400*	**2,300**
6/9/99	102.05	9.40	9.40	92.65	**39**	**1,000**	BRL< 25	3,950	BRL< 25	**280**	NA	***7,200***	***8,200***	***5,700***
9/3/99	102.05	11.28	11.28	90.77	BRL< 5	**770**	BRL< 25	3,180	BRL< 25	**330**	NA	***7,100***	***6,200***	***6,400***
12/14/99	102.05	9.90	9.90	92.15	BRL< 10	**1,700**	BRL< 50	*6,600*	BRL< 50	**440**	NA	***6,400***	***7,300***	***11,000***
3/8/00	102.05	8.99	8.99	93.06	BRL< 5	540	BRL< 25	2,230	35	**160**	NA	***3,300***	*3,400*	**3,500**
6/20/00	102.05	8.44	8.44	93.61	BRL< 1	44	BRL< 5	212	BRL< 5	11	NA	300	340	**320**
9/5/00	102.05	9.78	9.78	92.27	**15**	570	BRL< 25	2,220	BRL< 25	**180**	NA	***2,300***	730	**3,400**
12/29/00	102.05	8.92	8.92	93.13	BRL< 5	430	BRL< 25	1,850	BRL< 25	**180**	NA	***1,600***	*2,300*	**2,500**
5/3/01	102.05	7.51	7.51	94.54	BRL< 5	360	BRL< 25	1,520	BRL< 25	**90**	NA	***2,400***	*3,200*	**2,300**
9/13/00	102.05	10.14	10.14	91.91	BRL<10	**1,300**	BRL<50	5,200	BRL<50	300	NA	4,700	***4,800***	***5,800***
11/28/01	102.05	10.76	10.76	91.29	**10**	**1,100**	BRL<50	4,700	BRL<50	**330**	NA	***4,400***	***15,000***	***6,100***
2/13/02	102.05	10.31	10.31	91.74	**23**	**800**	BRL< 25	3,090	BRL< 25	**230**	NA	***3,000***	*1,400*	***6,000***
5/28/02	102.05	8.94	8.94	93.11	BRL< 5	**760**	BRL< 25	2,770	BRL< 25	**210**	NA	***3,100***	*3,600*	***5,400***
8/27/02	102.05	10.67	10.67	91.38	**42**	**1,500**	BRL<50	5,500	BRL<50	**390**	NA	***5,400***	1,000	***9,300***
Method 1 Groundwater Cleanup Standards (310 CMR 40.0974(2)); 10/29/99														
Method 1 GW-1					5	700	1,000	10,000	70	20	15	400	4,000	200
Method 1 GW-2/3					2,000	4,000	6,000	6,000	50,000	6,000	NS	1,000	1,000	4,000

Formula used to correct groundwater elevation for depression by NAPL.

Corrected Elevation = Oil/Water elevation - (NAPL Thickness * Specific Gravity of NAPL).

Specific Gravity for gasoline used = 0.74 (Taken from Merck Index Eleventh Edition, 1989).

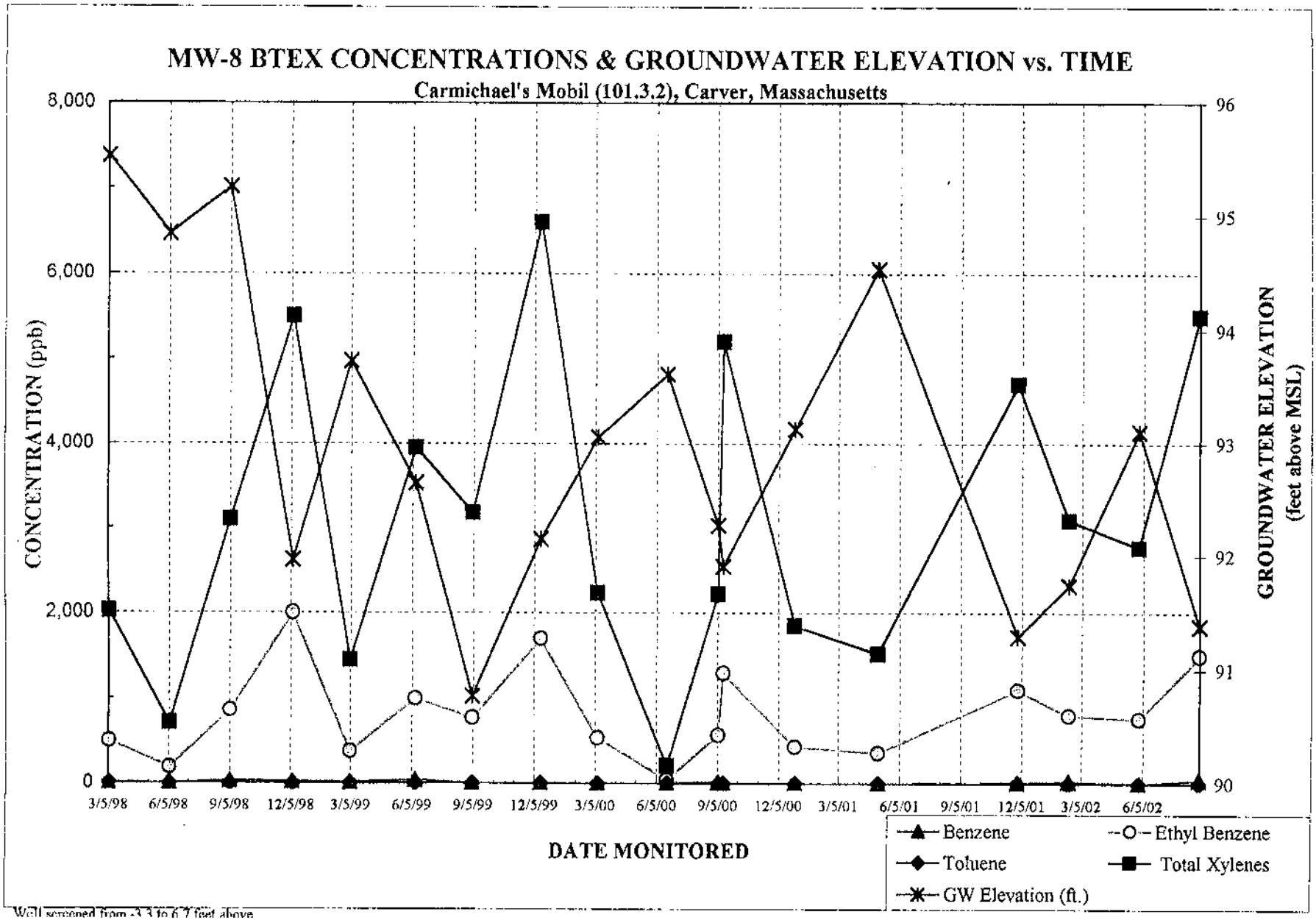
BRL < 10 Indicates concentration, if any, is below reporting limit for analyte.

NA - sample not analyzed for this analyte.

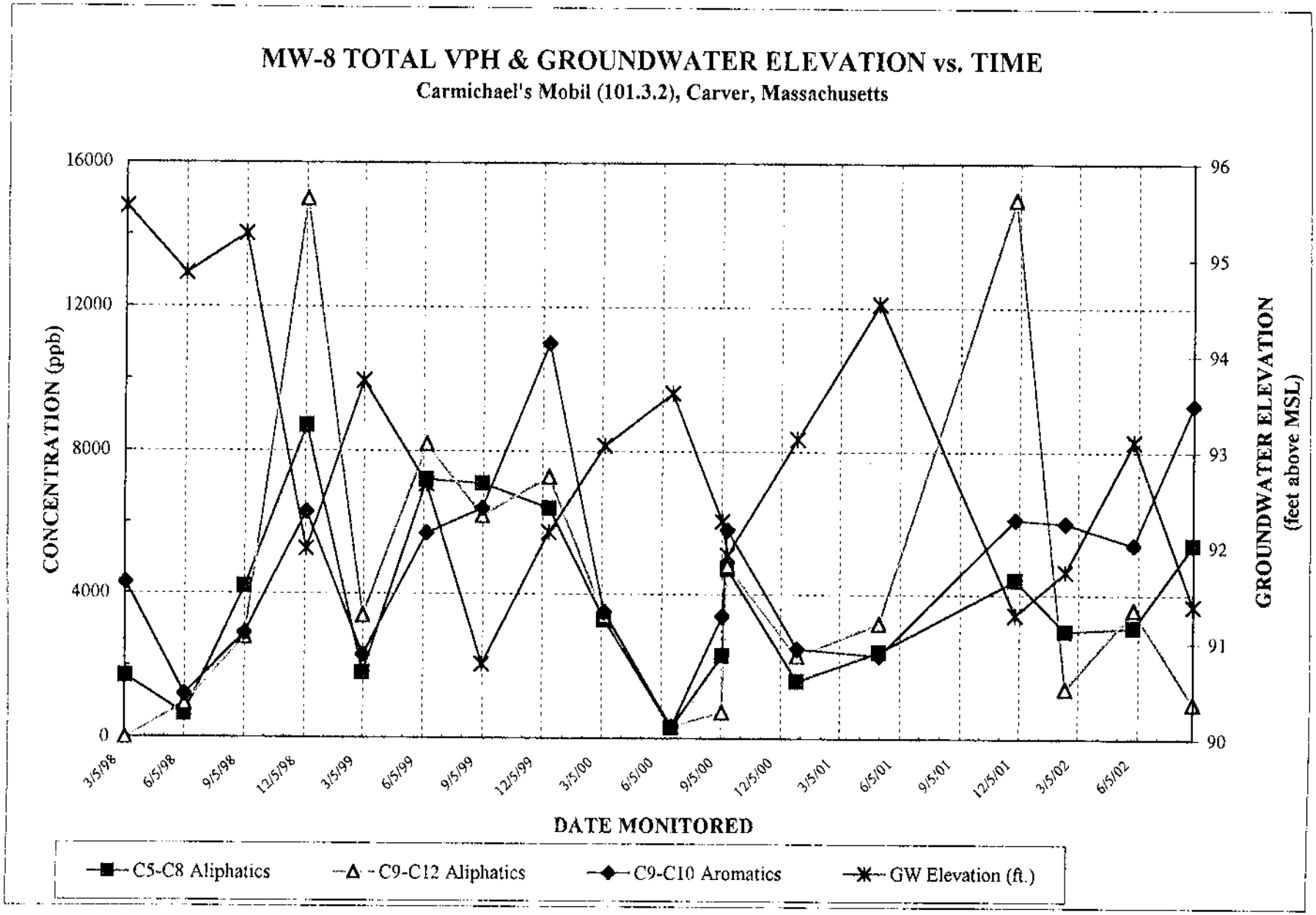
NS - no standard available for analyte.

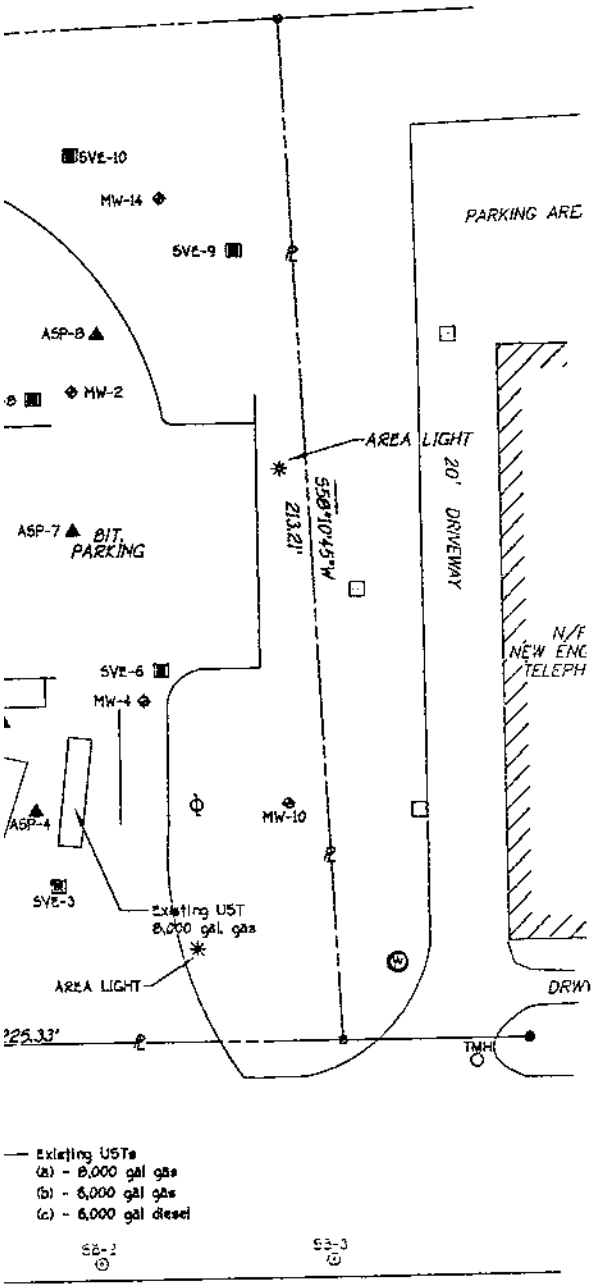
Bold indicates concentration exceeds Method 1 GW-1 Groundwater Cleanup Standard.

Italic indicates concentration exceeds Method 1 GW-2/3 Groundwater Cleanup Standard.



Well screened from -3.3 to 6.7 feet above


MW-8 TOTAL VPH & GROUNDWATER ELEVATION vs. TIME
Carmichael's Mobil (101.3.2), Carver, Massachusetts
CONCENTRATION (ppb)
16000
12000
8000
4000
0
GROUNDWATER ELEVATION (feet above MSL)
96
95
94
93
92
91
90
3/5/98
6/5/98
9/5/98
12/5/98
3/5/99
6/5/99
9/5/99
12/5/99
3/5/00
6/5/00
9/5/00
12/5/00
3/5/01
6/5/01
9/5/01
12/5/01
3/5/02
6/5/02
DATE MONITORED
C5-C8 Aliphatics
C9-C12 Aliphatics
C9-C10 Aromatics
GW Elevation (ft.)



Legend

- STORM DRAIN
- SURFACE WATER RUNOFF DRY WELL
- MONITORING WELL LOCATION
- DRINKING WATER SUPPLY WELL
- SOIL VAPOR EXTRACTION WELLS
- AIR SPARGING WELLS
- PROPERTY LINE
- SOIL BORING LOCATION (11/18/99)
- SOIL VAPOR EXTRACTION/AIR SPARGING WELLS
- UTILITY POLE

INFERRED GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE

0 20' 40'

FEET

FILE: N:\CAD\ACTIVE\PROJECTS BY NUMBER\101.3.1\CARMSUN.DWG

NORFOLK RAM GROUP
ENGINEERING : ENVIRONMENT

ONE ROBERTS ROAD
PLYMOUTH MA. 02360

SOURCE:

TITLE: FIGURE 2-1
SITE MAP

PREPARED FOR:

FORMER CARMICHAEL'S MOBIL
118 MAIN STREET
CARVER, MASSACHUSETTS

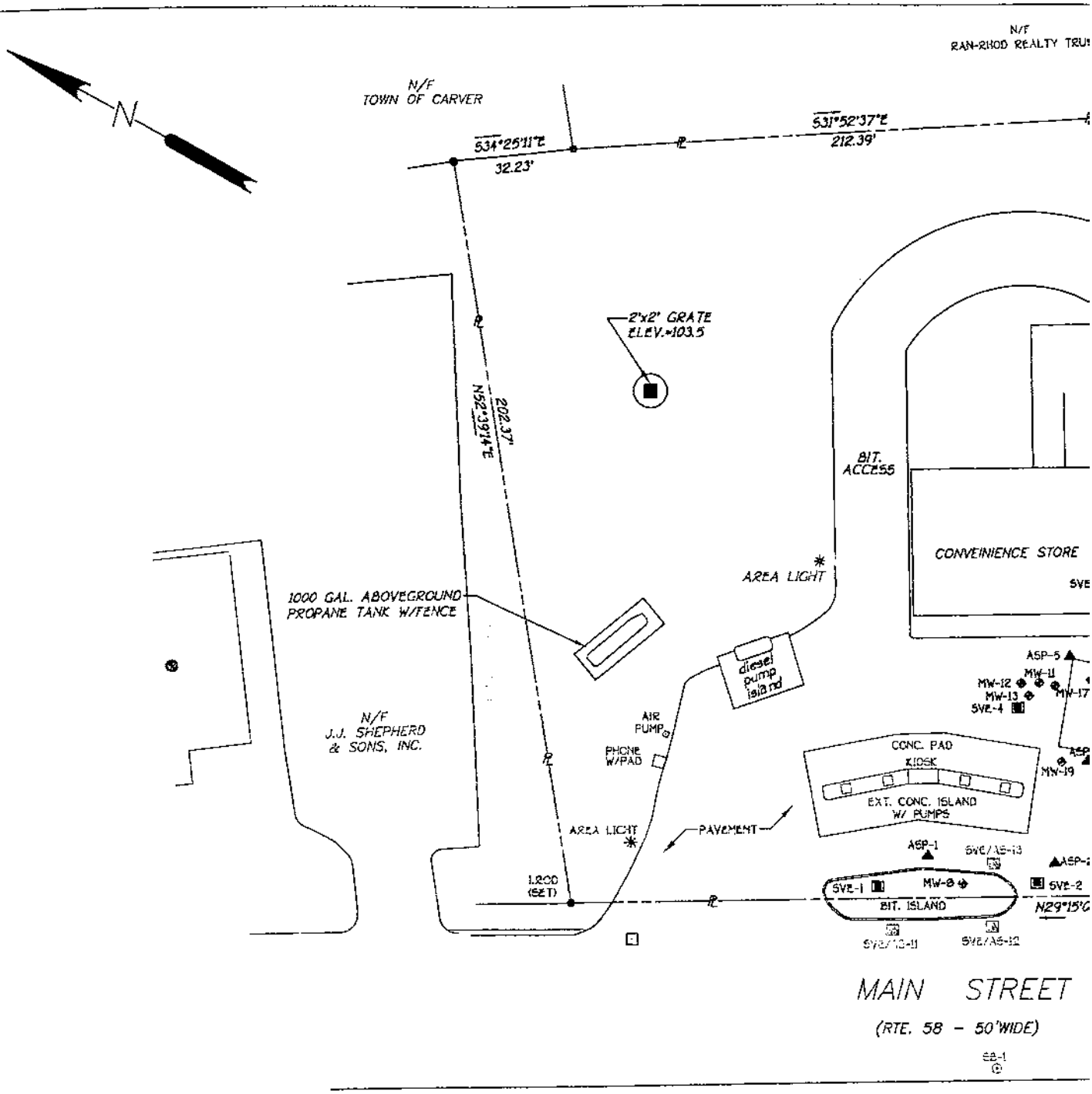
CHECKED BY:	J.P.S.
EDITED BY:	L.K.H.
DATE:	02/19/02
DWG SCALE:	1" ~ 40'

RAM REF NUMBER: 101.3.2

SHEET NO: 1 OF 1

'ISIONS

DESCRIPTION


N/F
RAN-RHOD REALTY TRU
N
N/F
TOWN OF CARVER
S34°25'11"E
32.23'
S31°52'37"E
212.39'
2'x2' GRATE
ELEV.=103.5
202.37'
N52°39'14"E
BIT.
ACCESS
CONVENIENCE STORE
AREA LIGHT
1000 GAL. ABOVEGROUND
PROPANE TANK W/FENCE
diesel
pump
island
N/F
J.J. SHEPHERD
& SONS, INC.
AIR
PUMP
PHONE
W/PAD
CONC. PAD
KIOSK
EXT. CONC. ISLAND
W/ PUMPS
AREA LIGHT
PAVEMENT
1.2OD
(SET)
ASP-5
MW-11
MW-12
MW-13
MW-17
SVE-4
MW-19
ASP-1
SVE/AS-13
SVE-1
MW-8
SVE-2
BIT. ISLAND
N29°15'0
SVE/AS-11
SVE/AS-12
MAIN STREET
(RTE. 58 - 50'WIDE)
EB-1

NO.	DATE	

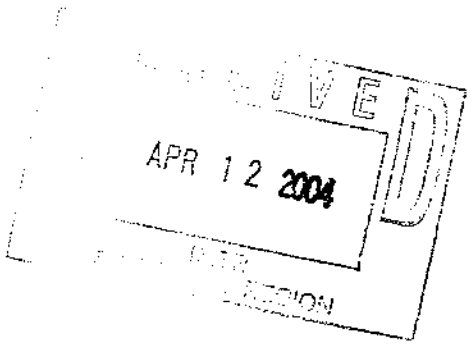
Jablonski, Mark (DEP)

From: Jablonski, Mark (DEP)
Sent: Wednesday, October 09, 2002 2:37 PM
To: Martin, Gerard (DEP)
Cc: Packard, Richard (DEP); Ferreira, Lori (DEP); Hill, Beverly (DEP); Kenny, James (DEP)
Subject: Carmichael's Mobil- Carver (4-11188 & 4-612)

GM-I called Joe Salvetti because he submitted an IRA Status/Phase V O&M Report without any MCP phased reports (specifically II, III, & IV) credited to these RTNs. I checked BPICs & the file room & didn't find anything. I also told Joe that he should close RTN 4-11188 because NAPL hasn't been observed on-site since 1998. Joe thought an IRA should stay open while an active treatment system is operating that is located within 500' of a private drinking water well? Joe stated that the IRA condition would reoccur if the treatment system were to shutdown. I told him that he should conduct these response actions as a comprehensive action or remedy operation status if indeed all the phases are complete. Jim issued a Tier IB permit in 1999 which required a Phase II SOW. A letter in the report was issued to Mark Wood. Any thoughts or recall by anybody out there in email land on these RTN's would be helpful. Joe is going to research & get back to me.

IMMEDIATE RESPONSE ACTION COMPLETION REPORT AND IMMINENT HAZARD EVALUATION

Former Carmichael's Mobil
118 Main Street
Carver, Massachusetts



RTN 4-0612
(Norfolk Ref. No. 101.3)

April 9, 2004

Prepared for:

Carver Square Auto Services, Inc.
One Roberts Road
Plymouth, Massachusetts 02360

Prepared by:

Norfolk Ram Group, LLC
One Roberts Road
Plymouth, Massachusetts 02360

NORFOLK RAM GROUP
ENGINEERING THE ENVIRONMENT

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

Pursuant to 310 CMR 40.0427, on behalf of Carver Square Auto Services, Inc., Norfolk Ram Group, LLC (Norfolk) has prepared this *Immediate Response Action (IRA) Completion AND Imminent Hazard Evaluation Report,* in connection with a release of oil and/or hazardous materials (OHM) at the Former Carmichael's Mobil located at 118 Main Street in Carver, Massachusetts (the Site). The Massachusetts Department of Environmental Protection (DEP) has assigned Release Tracking Number (RTN) 4-0612 to the release. This RTN was issued as a result of the presence of elevated concentrations of gasoline-related volatile organic compounds (VOCs) in soil and groundwater at the Site. The presence of VOCs was attributed to historical release(s) of gasoline associated with the use of the Site as a filling station since approximately 1929. A second RTN (4-11188) was issued to the Site in March 1995, when a release of gasoline to soil was reported as a result of a leaking pump gasket. RTN 4-11188 was subsequently linked to 4-0612 in 1997, which is still open at the Site. A Site Locus Map and a Site Map are included as Figures 1-1 and 1-2, respectively, Appendix A.

Pursuant to 310 40.0412(2), an IRA is required as a result of the existence of a 72-hour release notification condition. Specifically, the IRA was triggered by the presence of gasoline-related VOCs in excess of Category RCGW-1 Reportable Concentrations within 500 feet of a private water supply well. An *Immediate Response Action Plan* was submitted to the DEP on April 21, 1997, proposing the installation and operation of a soil vapor extraction/air sparge (SVE/AS) system to remediate soil and groundwater impacted by the release. The system was started on September 15, 1997.

2.0 POTENTIALLY RESPONSIBLE PARTY INFORMATION

Pursuant to 310 CMR 40.0424(1)(a), the entity assuming responsibility for conducting the IRA and the Licensed Site Professional (LSP) of record, are listed below.

POTENTIALLY RESPONSIBLE PARTY

Carver Square Auto Services, Inc.
One Roberts Road
Plymouth, Massachusetts 02360
Contact person: Bruce Garrett
Telephone: (508) 747-3778, extension 124

LSP OF RECORD

Joseph P. Salvetti,
LSP License No. 9546
Norfolk Ram Group, LLC
One Roberts Road
Plymouth, Massachusetts 02360
Telephone:(508) 747-7900, extension 127

3.0 DESCRIPTION OF RELEASE(S), SITE CONDITIONS AND SURROUNDING RECEPTORS

Pursuant to 310 CMR 40.0426(4)(a), a description of the release, Site conditions and surrounding receptors are provided below.

The disposal site is located on the east side of Main Street in Carver, Massachusetts. A Site Locus Map and Disposal Site Map are attached as Figures 1-1 and 1-2, respectively, Appendix A.

3.1 DESCRIPTION OF RELEASE(S)

Pursuant to 310 CMR 40.0424(1)(b), a description of the release, site conditions and surrounding receptors is provided below.

According to a review of pertinent local records, the sale of gasoline at the Site has been licensed since 1929. Continuous flammables storage permits for the Site were on file locally from 1957 to 1996. In 1982, three existing USTs were internally lined with fiberglass. According to the Carver Fire Chief, the USTs were relined due to the discovery of water in one of the tanks.

New USTs were installed in January 1987. During the installation, two releases were documented: 1) an overfill of one new UST occurred when the tank was being prepared for tightness testing, and, 2) a leak from a suction line. Both leaks were reportedly cleaned up immediately. USTs were removed from the Site in February 1987. Although no release was documented, the tank removal contractor later reported to the DEP that the tank graves were "not perfectly clean". Test pits performed by the tank removal contractor (Zecco, Inc.) were documented in a 1989 Subsurface Evaluation report. The report indicated that gasoline impacted soil was evident in the tank grave area.

In June 1988, an improperly sealed overfill containment box was identified and repaired. Short term groundwater extraction and treatment was implemented to reduce benzene, toluene, ethylbenzene and xylene (BTEX) concentrations in groundwater, but was determined to be generally ineffective.

Soil and groundwater sampling performed approximately one year after the USTs were installed indicated the presence of gasoline constituents in soil, and elevated concentrations of gasoline constituents were detected in groundwater sampled from monitoring wells adjacent to the newly installed USTs.

A soil vapor survey was conducted and additional monitoring wells were installed by Green Mountain Environmental Services, Inc. (GMES) during 1989-1990. Based upon these investigative activities, GMES delineated dissolved-phase gasoline in groundwater in the general vicinity of the USTs installed in 1987, and identified gasoline impacts to the vadose zone in the areas of the former (pre-1987) USTs to the north of the 1987-installed USTs.

In January of 1992, a petroleum sheen and beads of what appeared to be motor oil were observed on groundwater in MW-6. The presence of oil in this well was attributed to vandalism of the well, and was not observed in other wells in the immediate vicinity.

Periodic groundwater monitoring from 1991 through 1994 indicated increasing concentrations of BTEX and MTBE in groundwater, most notably in MW-6. UST lines tested tight in 1992, and inventory records showed continued compliance with state and federal UST requirements. In March 1995, a leaky gasket on the submersible system pump was identified and repaired. An Immediate Response Action (RTN 4-11188) was undertaken to remove impacted soil (approximately 2 cubic yards) from around the leaky pump. Post-excavation soil samples were below Method 1 S-1 soil standards.

As a part of Site reconnaissance activities performed in 1997, ten (10) existing monitoring wells were located and evaluated. An elevation survey of each wellhead was performed, and depth to groundwater measurements were collected to update existing groundwater contour data. Groundwater elevations were gauged in each well, and each well was inspected for the presence of petroleum odors, and separate phase product. No separate phase product was observed, but petroleum odors were noted in several monitoring wells in the vicinity of the former UST grave.

Based upon the foregoing, gasoline constituents have persisted in groundwater since the initial groundwater sampling event was performed in 1988. As of the most recent sampling event (February 24, 2004), concentrations of benzene, toluene, naphthalene, and two of the three Volatile Petroleum Hydrocarbons (VPH) hydrocarbon fractions exceeded the Method 1 GW-1 standards for groundwater collected from monitoring wells MW-8.

A description of the response actions associated with RTN 3-0612, which is the subject of this IRA Completion Report, is presented in Section 4.0.

3.2 DESCRIPTION OF SITE CONDITIONS

The Site is an active gasoline station/convenience store located on the east side of Main Street (Route 58). It is situated in an area primarily composed of commercial and municipal properties. Property uses abutting the Site include a Verizon switching station office to the south; the Carver Square shopping center development (business offices, restaurants and retail shops) to the east and southeast; and a funeral home to the north. A meeting hall, a church, and a cemetery are located across Main Street from the Site. The topography of the Site and vicinity is generally flat, as indicated on Figure 1-1, Appendix A.

3.3 DESCRIPTION OF SURROUNDING RECEPTORS

3.3.1 Institutions

There are no publicly or privately owned hospitals, health care facilities, orphanages, or educational facilities which provide overnight housing within 500 feet of the Site. The Meadowbrook residential development is located approximately 500 feet northeast of the Site. Meadowbrook is a residential community for the physically and mentally disabled, and the elderly. According to the Carver Board of Health Agent, this development does not meet the common definition of a nursing home or convalescent home, because in-house medical care is not provided. Approximately 200 residents live in the Meadowbrook complex.

3.3.2 Surface Waters and Wetlands

According to the Massachusetts Geographic Information Systems (MassGIS) Natural Resources Map, attached as Figure 3-1, Appendix A, there are no vernal pools, wetlands, lakes, streams, rivers or reservoirs located within 500 feet of the disposal site. The nearest surface water body is South Meadow River, located approximately 1,000 feet east of the Site.

3.3.3 Drinking Water Supplies

There are no drinking water supplies consisting of Zone II Areas or Zone A Surface Water Bodies within 500 feet of the Site, as indicated on the MassGIS Map. The Site is located within a designated sole source aquifer as defined by 310 CMR 40.0006.

The Site building and properties within a 500-foot radius of the Site are served by drinking water wells. Many of these wells are located in businesses, restaurants and public buildings. Therefore, these wells are considered public non-community supply wells. The Site is located within the Interim Wellhead Protection Area of several public, non-community supply wells. No well construction records were available. However, according to the Carver Board of Health Agent, the potable water supply wells in the vicinity of the Site are assumed to be shallow. The nearest downgradient water supply well is located on the Verizon property, which abuts the site to the east. The wellhead is located approximately 20 feet east of the southern site boundary and approximately 80 feet south of MW-4, the closest impacted monitoring well.

A non-transient, non-community public water supply well is located approximately 750 feet east of the Site at the Carver Square Shopping Center. This well is reported to be a six-inch diameter bedrock well with an approximate depth of 83 feet. According to the records on file at the Carver Board of Health, the well is solidly cased through the unconsolidated aquifer. The casing extends 11 feet into bedrock (42 to 53 feet below grade). Records on file with the DEP indicated that water quality testing has been performed since 1995, when the Carver Square well was initially registered as a non-transient, non-community supply well. Based upon a review of analytical reports of sampling events, VOCs have not been detected in samples from the Carver Square well. The Site is supplied water from the Carver Square well.

3.3.4 Environmental Resource Areas

Based upon the MassGIS Map, there are no areas of critical environmental concern (ACEC), Natural Heritage and Endangered Species Program (NHESP) Rare Species Habitats, NHESP Estimated Habitats of Rare Wildlife, or NHESP Certified Vernal Pools located within 500 feet of the Site. An open space area is located immediately north of the Site.

4.0 DESCRIPTION OF IRA ACTIVITIES CONDUCTED AT THE SITE

Pursuant to 310 CMR 40.0424(1)(b) and (c) a description of the IRA activities conducted at the Site is presented below.

4.1 INSTALLATION, MAINTENANCE, AND OPERATION OF THE SVE/AS SYSTEM

In accordance with the IRA Plan dated April 21, 1997, an SVE/AS system was installed at the Site. The system was started on September 15, 1997, and has been in operation continuously since that time except for short-term shutdowns due to maintenance or alarm conditions. As currently configured, the system consists of thirteen (13) SVE points and twelve (12) AS points. Extracted vapors are passed through two activated carbon vessels prior to discharge to the atmosphere. To date, approximately 4,200 lbs. of hydrocarbons have been removed from the subsurface in the vapor phase. Detailed information regarding the operation and maintenance of the SVE/AS system has been provided in IRA Status Reports and Phase V Reports submitted between February 1998 and November 2003. Operation of the SVE/AS system will continue as a Comprehensive Response Action.

4.2 NON-AQUEOUS PHASE LIQUID GAUGING

NAPL was detected in monitoring well MW-17 on September 4, 1998 at a thickness of approximately 0.57 inches. NAPL has not been detected in monitoring well MW-17 before or since September 4, 1998. NAPL has not been observed by Norfolk in monitoring wells MW-4, MW-8, MW-10, MW-14, or MW-19.

4.3 GROUNDWATER SAMPLING

Since March 1998, Norfolk has collected groundwater samples on a quarterly basis from monitoring wells MW-4, MW-8, MW-10, MW-14, MW-17, and MW-19. Groundwater samples are collected with dedicated disposable bailers, and submitted to a laboratory for VPH with target VOCs analyses. In order to assess potential impacts to the drinking water supply well located at the downgradient Verizon property, a drinking water sample were collected from within the building on June 19, 2003 and analyzed for VPH with target VOCs. An additional sample was collected on February 3, 2004 and analyzed for VOCs via EPA Method 524.2.

4.3.1 Groundwater Analytical Results

The analytical results were compared to the Method 1 GW-1/2/3 groundwater standards, as applicable. Exceedences of these standards are summarized below.

- Concentrations of the VPH C_5-C_8 aliphatic and C_9-C_{10} aromatic hydrocarbon fractions, and naphthalene have consistently exceeded Method 1 GW-1/3 groundwater standards in samples collected from MW-8. Concentrations of benzene and ethylbenzene have periodically exceeded Method 1 GW-1 standards.

- Concentrations of MtBE have exceeded the Method 1 GW-1 groundwater standard in samples collected from MW-17 in four of the last five quarterly sampling events and in May 2001. During the June 2000 groundwater sampling event, the C_9-C_{10} aromatic hydrocarbon fraction was detected at a concentration above the Method 1 GW-1 groundwater standard. No other exceedences of Method 1 GW-1 groundwater standards for compounds of concern have been detected in groundwater collected from MW-17 since September 1998.

- No contaminants of concern have been detected above Method 1 GW-1 standards in groundwater collected from MW-4 since September 1999, other than a one-time exceedence of the Method 1 GW-1 groundwater standard for MtBE in August 2003 and the VPH C_5-C_8 aliphatic hydrocarbon fraction in November 2001.

- No contaminants of concern have been detected above Method 1 GW-1 standards in groundwater collected from MW-10 or MW-14 since sampling of these wells commenced in 1990, other than a one-time exceedence of the Method 1 GW-1 standard for benzene in groundwater collected from MW-14 in April 1993.

The laboratory analytical results are tabulated with the historical groundwater analytical results and are presented in Appendix B. The laboratory analytical data packages for recent groundwater sampling events are attached as Appendix C.

4.3.2 Drinking Water Analytical Results

- No detectable contaminants of concern were indicated in the drinking water samples collected from the abutting Verizon property on June 19, 2003 and February 3, 2004.

4.4 IMMINENT HAZARD EVALUATION

Pursuant to 310 CMR 40.0006, an IH is defined as "a hazard which would pose a significant risk of harm to health, safety, public welfare or the environment if it were present for even a short period of time...." The definitive IH conditions identified in 310 CMR 40.0321(1) and the potential IH conditions identified in 310 CMR 40.0321(2) which may be applicable to the release are presented below in italics followed by Norfolk's Site-specific evaluation of whether the condition exists at the Site. Consistent with the DEP's *Guidance for Disposal Site Risk Characterization* and 310 CMR 40.0950, the quantitative IH evaluation considered only current uses of the Site.

A release to the environment which results in the presence of oil and/or hazardous material vapors within buildings, structures, or underground utility conduits at a concentration equal to or greater than 10% of the Lower Explosive Limit (LEL).

The release occurred crossgradient of the Site building, which has no basement. The measured depth to groundwater in monitoring wells located adjacent to the Site building has ranged from approximately 6 to 13 feet below grade, with a long-term average of approximately 8 feet below grade. No exceedence of Method 1 GW-2 Groundwater Standards has occurred within 30 feet of the Site building since 1998. Neither the Site operator nor Norfolk have received any reports of petroleum odors within the Site building or in any downgradient buildings or utility conduits.

A release to the environment of reactive or explosive hazardous material, as described in 310 CMR 40.0347, which threatens human health or safety.

Soil and groundwater impacts at the Site are the result of historical release(s) of gasoline. No NAPL has been detected at the Site since 1998, and residual impacted soil and groundwater are not expected to contain enough of the volatile components that would make it reactive or explosive, as defined in 310 CMR 40.0347.

A release to the environment of OHM which poses a significant risk to human health when present for even a short period of time, as specified in 310 CMR 40.0950.

The risk to human health, associated with current exposures to impacted soil and groundwater detected at the Site is evaluated in Section 4.4.1 below.

A release to the environment of OHM, which produces immediate or acute adverse impacts to freshwater or saltwater fish populations.

Impacted groundwater from the release is not located within 500 feet of a freshwater or saltwater body.

A release to the environment, which produces readily apparent effects to human health, including respiratory distress or dermal irritation.

Impacted soil and groundwater at the Site exists primarily beneath pavement. Norfolk has not observed or received reports of any readily apparent effects to human health in connection with the release at the Site.

A release to the environment indicated by the measurement of OHM in a private drinking water supply well at a concentration equal to or greater than ten times the Category RCGW-1 Reportable Concentration.

As detailed in Section 4.3.2, sampling and analysis of groundwater collected from the closest downgradient water supply well indicated no detectable concentration of any contaminant of concern.

A release to the environment for which estimated long-term risk levels associated with current exposures are greater than ten times the Cumulative Receptor Risk Limits in 310 CMR 40.0993(6). Past exposures may be included in such evaluations to the extent that it is reasonable to quantify those exposures.

The estimated long-term risk levels associated with current exposures to impacted soil and groundwater detected at the Site are evaluated in Section 4.4.1 below.

4.4.1 Risk to Human Health

Potential receptors to OHM at the Site include workers in the Site building, workers, utility workers, gas station customers, and trespassers. Exposures for these potential receptors are considered minimal or non-existent since a complete exposure pathway to impacted soil and groundwater does not exist. This is based upon the following:

The depth and limited extent of impacted soil and groundwater below grade.

The average depth to groundwater within the impacted area is approximately 8-9 feet below grade. Soil screening conducted during the installation of various soil borings and test pits at the Site consistently indicated minimal or non-detectable TOV readings from 0-6 feet below grade. Impacted soil and groundwater is limited to a small area in the southwest portion of the Site, nearly all of which is paved with asphalt.

In the event that excavation activities associated with utility repair or construction become necessary at the Site, Norfolk recommends that the risk of exposure to impacted soil and groundwater be managed by the development of a Soil Management Plan and Health and Safety Plan.

4.4.2 Risk to Safety

The characterization of risk to safety was evaluated at the Site based upon the criteria listed in 310 CMR 40.0960. The release-related conditions identified as posing a risk to safety in 310 CMR 40.0960(3) are set listed below in italics followed by Norfolk's Site-specific evaluation of whether or not the condition exists at the Site.

The presence of rusted or corroded drums or containers, open pits, lagoons or other dangerous structures;

Based upon Norfolk's observations during response actions, there are no rusted or corroded drums or containers, open pits, lagoons or other dangerous structures at the Site.

Any threat of fire or explosion, including the presence of explosive vapors resulting from a release of OHM;

As described above, soil and groundwater impacts at the site are the result of historical release(s) of gasoline. No NAPL has been detected at the Site since 1998, and residual impacted soil and groundwater are not expected to contain enough of the volatile components that would make it explosive.

Any uncontained materials which exhibit the characteristics of corrosivity, reactivity or flammability described at 310 CMR 40.0347;

Residual impacted soil and groundwater does not exhibit the characteristics of corrosivity, reactivity or flammability described at 310 CMR 40.0347.

4.4.3 Risk to the Environment

The characterization of risk to the environment was evaluated based upon the criteria contained in 310 CMR 40.0955(3). The release-related conditions identified as posing a risk to the environment in 310 CMR 40.0955(3) are listed below in italics followed by Norfolk's site-specific evaluation of whether or not the condition exists at the Site.

Evidence of stressed biota attributable to the release at the disposal site, including, without limitation, fish kills or abiotic conditions;

Based upon Norfolk's observations, there is no evidence of stressed biota, fish kills or abiotic conditions attributable to the release at the Site or in the vicinity of the Site.

A release to the environment of OHM which produces immediate or acute adverse impacts to freshwater or saltwater fish populations;

There are no indications that OHM released at the Site has impacted surface water, and there are no fish populations located within 500 feet of the Site. Therefore, there are no indications that the release has resulted in immediate or acute adverse impacts to freshwater or saltwater fish populations

4.4.4 Imminent Hazard Evaluation Conclusions

Based upon Norfolk's evaluation, an IH does not currently exist at the Site.

4.5 CRITICAL EXPOSURE PATHWAY AND SUBSTANTIAL RELEASE MIGRATION EVALUATION

Pursuant to 310 CMR 40.0006, a Critical Exposure Pathway (CEP) is defined as those routes by which OHM released at a Site is transported, or is likely to be transported to human receptors via:

(a) vapor-phase emissions of measurable concentrations of OHM into the living or working space of a pre-school, daycare, school or occupied residential dwelling; or

(b) ingestion, dermal absorption or inhalation of measurable concentrations of OHM from drinking water supply wells located at and servicing a pre-school, daycare, school or occupied residential dwelling. .

Pre-school, daycare, or other schools are not located within 500 feet of the release. Residential properties are located approximately 500 feet northeast of the Site and hydraulically cross-gradient. Impacts to residential living or working spaces are not known to exist. Sampling and analysis of groundwater collected from the nearest downgradient water supply well indicates no measurable concentration of any contaminant of concern. Based upon the current understanding of the Site conditions, a CEP is not evident at the Site.

Pursuant to 310 CMR 40.0006, a condition of Substantial Release Migration (SRM) means a condition at a Site that includes any of the following.

- *Releases that have resulted in the discharge of separate-phase OHM to surface waters, subsurface structures, or underground utilities or conduits*;

Based upon assessment activities conducted to date, there have been no discharges of NAPL to surface waters, subsurface structures, or underground utilities or conduits.

- *Releases to the ground surface or to the vadose zone that, if not promptly removed or contained, are likely to significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution*;

Based upon Norfolk's assessment activities conducted to date, it is not likely that impacts in the vadose zone will significantly impact the underlying groundwater, or significantly exacerbate an existing condition of groundwater pollution. The continued operation of the SVE/AS system has served to reduce the contaminant mass.

- *Releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year;*

Based upon Norfolk's assessment activities conducted to date, it is not likely that impacted groundwater will migrate over 200 feet in one year.

- *Releases to the groundwater that have been or are within one year likely to be detected in a public or private water supply well;*

No public water supply wells have been identified within 500 feet of the Site. Drinking water for the Site and vicinity is provided by private water supply wells. Sampling of downgradient water supply wells has not indicated the presence of contaminants of concern. Groundwater sampling data from on-Site groundwater monitoring wells installed downgradient of the release area has not indicated that off-Site contaminant migration has occurred. Therefore, it is unlikely that impacts to groundwater will be detected in a public or private water supply well.

- *Releases to the groundwater that have been or are within one year likely to be detected in a surface water body, wetland, or public water supply reservoir; and*

No surface water body, wetland or public reservoir has been identified within 500 feet of the Site. Groundwater monitoring data collected to date does not indicate that impacted groundwater has migrated off-Site.

- *Releases to the groundwater that have or are within one year likely to result in the discharge of vapors into school buildings or occupied residential dwellings.*

Based upon the limited extent of impacted groundwater, continued removal of contaminants at the Site by the SVE/AS system, and the absence of nearby school buildings or occupied residential dwellings, discharge of vapors into school buildings or residential dwellings is not likely.

Based upon the current understanding of the Site conditions, a condition of SRM does not exist at the Site.

5.0 MANAGEMENT OF REMEDIAL WASTE

Pursuant to 310 CMR 40.0424(1)(f) the management of remedial waste is described below.

5.1 AIR EMISSIONS/SPENT CARBON

Norfolk subcontracts Carbon Filtration Systems, Inc. (CFS) to remove spent granular activated carbon (GAC) used to treat SVE air emissions. GAC is replaced on an as-needed basis, based on the results of monthly emissions monitoring. The most recent carbon change-out was performed on March 1, 2004. Since the implementation of the IRA, approximately 26,000 pounds of spent GAC has been generated.

5.2 SOIL

Impacted soil has not been generated, stored on-Site, or transported off-Site since the implementation of the IRA.

5.3 WATER AND NON AQUEOUS PHASE LIQUID

Pursuant to 310 CMR 40.0045 (7), purged groundwater from monitoring well sampling is returned to the point of withdrawal at each well location. No NAPL has been collected, and/or disposed of since the implementation of the IRA.

7.0 FINDINGS AND CONCLUSIONS

On behalf of Carver Square Auto Services, Norfolk has prepared this IRA Completion Report and Imminent Hazard Evaluation pursuant to 310 CMR 40.0427, in connection with a release of OHM at the disposal site. Pursuant to 310 CMR 40.0427(1), an IRA shall be considered complete when the release which gave rise to the need for that IRA has been assessed, and where necessary, remediated in a manner and degree that will ensure, at a minimum:

(a) the accomplishment of necessary stabilization of disposal site conditions;

(b) the elimination or control of any Imminent Hazards (IH) to health, safety, public welfare, and the environment without the continued operation and maintenance of active remedial systems, pending the completion of any necessary comprehensive response actions; and

(c) the elimination, prevention or mitigation of Critical Exposure Pathways (CEPs) without the continued operation and maintenance of active remedial systems, pending the completion of a risk characterization pursuant to 310 CMR 40.0900 and feasibility study pursuant to 310 CMR 40.0860.

Conditions at the Site fulfill these requirements, since Site conditions are stable, there is no IH to health, safety, public welfare, or the environment connected with the release, and no CEP exists at the disposal site. Remedial activities, including operation of the existing SVE/AS system, will continue to be conducted as a Comprehensive Response Action.

APPENDIX I
PAULDING COMPANY REPORTS

THE PAULDING COMPANY, INC.
18 Pepperell Road
P.O. Box 500
West Groton, MA 01472
508-448-2549

Project 96553
September 13, 1997

Ms. Julie J. Hutcheson
Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

RE: Carver -- BWSC
131 Main Street
RTN 4-12848
RTN 4-13333

Dear Ms. Hutcheson:

This letter and enclosures are sent in response to Notice of Responsibility (NOR) letter addressed to Richard Nantais and dated August 11, 1997.

As can be seen from the enclosed copy of the Certified Mail envelope, Mr. Nantais received this NOR on August 26, 1997.

Background Information

The NOR states that concentrations of benzene were found in the drinking water well located at 132 Main Street and that, because of the estimated direction of groundwater flow toward South Meadow Brook, the gasoline station located at 131 Main Street is a potential source of the benzene.

The relative locations of 131 and 132 Main Street are shown in Figure 1, which is a copy of a portion of the USGS topographic map of the Plympton quadrangle. Note that the locations of the private residences at 133 and 134 Main Street have also been identified. The approximate scale of Figure 1 is one inch equals 2083 feet.

Figures 2 and 3 are, respectively, portions of the Carver Assessor's Maps. Figure 2 shows the relative locations and dimensions of the properties of 131 Main Street (shown on the Figure 2 as Parcel 17) and 133 Main Street (Parcel 18). Similarly, Figure 3 shows the locations of 132 Main Street (Parcel 1) and 134 Main Street (Lot 2). The approximate scale of Figures 2 and 3 is 1 inch equals 100 feet. Figures 2 and 3 can be juxtaposed at the location of the 20-foot jog along the west side of Main Street, 175 feet south of Lot 18.

Proposed IRA Scope and Schedule

The NOR contains the requirement that an Immediate Response Action (IRA) Plan be submitted within 21 days of receipt of the NOR. The minimum requirements of the IRA Plan are provided on pages 3 and 4 of the NOR. This proposed IRA Plan, the components of which are described below, includes those items.

(1) Sample the drinking water wells at 133 and 134 Main Street

Given that these two properties are generally downgradient from the gasoline station at 131 Main Street, it is appropriate to sample the water from each residence and analyze the water for volatile organic compounds, such as those that might originate from gasoline.

Toward that end, following notification of the Carver Board of Health, samples of water from each residence were obtained on September 9, 1997 and the samples were delivered to Analytical Balance Corp. in Middleboro. Their analysis of the water samples, by EPA Method 502.2, should be completed by September 18 and the results will be delivered to the occupants of those two residences. Copies of both analyses will also be forwarded to your office as soon as they are available.

(2) History of Use of the Subject Property

The station was constructed in 1945 by William R. Holmes and the property has been operated as a gasoline station since that time. The original building was the southern portion of the existing structure and the original gasoline tanks were abandoned and are presently beneath the newer portion of the building which was constructed about 1979. In addition to the sale of gasoline, the property was used by Mr. Holmes as an automotive repair facility. Although never a junk yard as stated in the NOR, automobiles and automobile parts were stored on the property as they awaited either repair, reuse or transport elsewhere.

In 1960 or 1961, Mr. Holmes installed three 4000-gal steel tanks which were centered in the approximate location of the existing groundwater monitoring well. The property was purchased by Richard Nantais in 1978 and these three tanks were removed in 1979 at which time three new steel tanks were installed at the same location. Then, in 1989, these three steel tanks were removed and four double-walled fiberglass tanks were installed at the locations shown in Figure 4.

(3) Reportable Concentrations of Groundwater Contamination

It is important to note that at the time of removal of the three steel tanks in 1989, careful inspection, by visual examination and odor, by both the contractor (Dennison Oil) and the representative of the Carver Fire Department found no evidence of a release of gasoline. However, examination of the soil samples obtained during installation of the existing monitoring well indicated a hydrocarbon odor and recent testing of the groundwater from this monitoring well, conducted in July 1997, indicated concentrations of benzene, MTBE and TPH above the applicable reportable concentrations.

A copy of the test results, which were brought to my attention on September 7, is appended. I explained the significance of the results to Richard Nantais on the morning of September 8 and, as can be seen from the enclosed Release Notification Form (BWSC-103), the conditions were reported to the DEP, by telephone, less than an hour later.

(4) Identification of Potential Sources of Groundwater Contamination

Figure 4 is a schematic drawing of the subject property at 131 Main Street and portions of the adjacent properties at 133 and 132 Main Street. The approximate scale of Figure 4 is one inch equals 50 feet.

The locations of the potential sources of groundwater contamination at 131 Main Street are shown as are other features pertinent to the proposed investigation. The potential sources of contamination consist of (a) the septic leaching system where gasoline contamination may have entered the wash sink from hand-washing, (b) the pump island where a release of gasoline occurred a few years ago at the southern pump, (c) the two 1000-gal gasoline tanks which were abandoned in 1960 (and which are partially beneath the building), and (d) the former location of three 4000-gal gasoline tanks which were removed in 1989 (which is the location of the existing groundwater monitoring well).

The existing underground storage tanks are not considered to be potential sources of contamination: They are double-walled fiberglass with interstitial monitoring systems. Similarly, the existing pipes which go from the tanks to the pumps are double walled and are not considered to be sources of groundwater contamination.

(5) Proposed Subsurface Investigation

One portion of the IRA Plan is to determine if any of the features noted above as potential sources are, in fact, actual sources of groundwater contamination. It is also considered appropriate to determine whether or not groundwater contamination exists downgradient of the gasoline station, given that it has been documented at the existing monitoring well. Toward this end, it is proposed to install small-diameter groundwater monitoring wells at

the four locations on the west side of Main Street noted by the small squares in Figure 4. The proposed well at the north end of the property is to serve as an upgradient well.

It is also proposed to determine if there is evidence of groundwater contamination between the gasoline station at 131 Main Street and the drinking water well at 132 Main Street. Toward that end, it is proposed to install two small-diameter monitoring wells on the property of William Holmes at the locations of the two small squares east of Main Street.

The soil samples obtained during the advance of the microwells will be examined for odor as evidence of hydrocarbon contamination. Samples which evidence such contamination will be analyzed according to the VPH/EPH criteria in order to document the concentrations of hydrocarbons in the soil. Groundwater samples will be obtained from all six of the microwells and the samples will be analyzed for volatile organic compounds according to EPA Method 8260.

Following installation of the six microwells, they will be surveyed and gauged so that the local directions of groundwater flow can be determined.

(6) Analytical Results Of Drinking Water Well at 131 Main Street

This drinking water well has been sampled and analyzed on three occasions: September 12, 1996; July 6, 1997 and August 14, 1997. As can be seen from the enclosed results, the waters have consistently met the GW-1 drinking water quality standards.

(7) Compliance of the Underground Storage Facility With Regulations

As can be seen from the enclosed Permit, which will be in effect until March 22, 1999, the underground storage tanks at 131 Main Street are in compliance with 527 CMR 9.00.

According to the Chief of the Carver Fire Department, tightness testing of the storage system is not required because the storage facility consists of double walled tanks which are monitored continuously by means of a Veeder-Root interstitial monitoring system.

(8) Proposed Schedule for the Subsurface Investigation

Arrangements will be made this coming week to secure the services of a qualified drilling contractor to install the proposed microwells. Based on their availability, it is expected that the wells can be installed prior to or during the first week of October. A few days after installation the wells will be surveyed, gauged and sampled. Consequently, it is expected that the results of the analyses of soil and groundwater samples will be available prior to the end of October.

A report summarizing the results of the subsurface investigation will be provided to your office prior to or during the second week of November.

Closure

I hope you find this letter and enclosures adequate for your purposes. If not, or if you have any questions or suggestions, please do not hesitate to contact either myself or Richard Nantais. His telephone number is 508-866-4582.

Sincerely,

THE PAULDING COMPANY, INC.
Bartlett W. Paulding Jr., PhD
Consulting Geologist
Registered Professional Engineer (Mass. No. 24420)
Licensed Site Professional (Mass. No. 7266)

cc: Richard Nantais
P.O. Box 478
Carver, MA 02330

Figure 1

Project 96553

Primary
hard su

Second

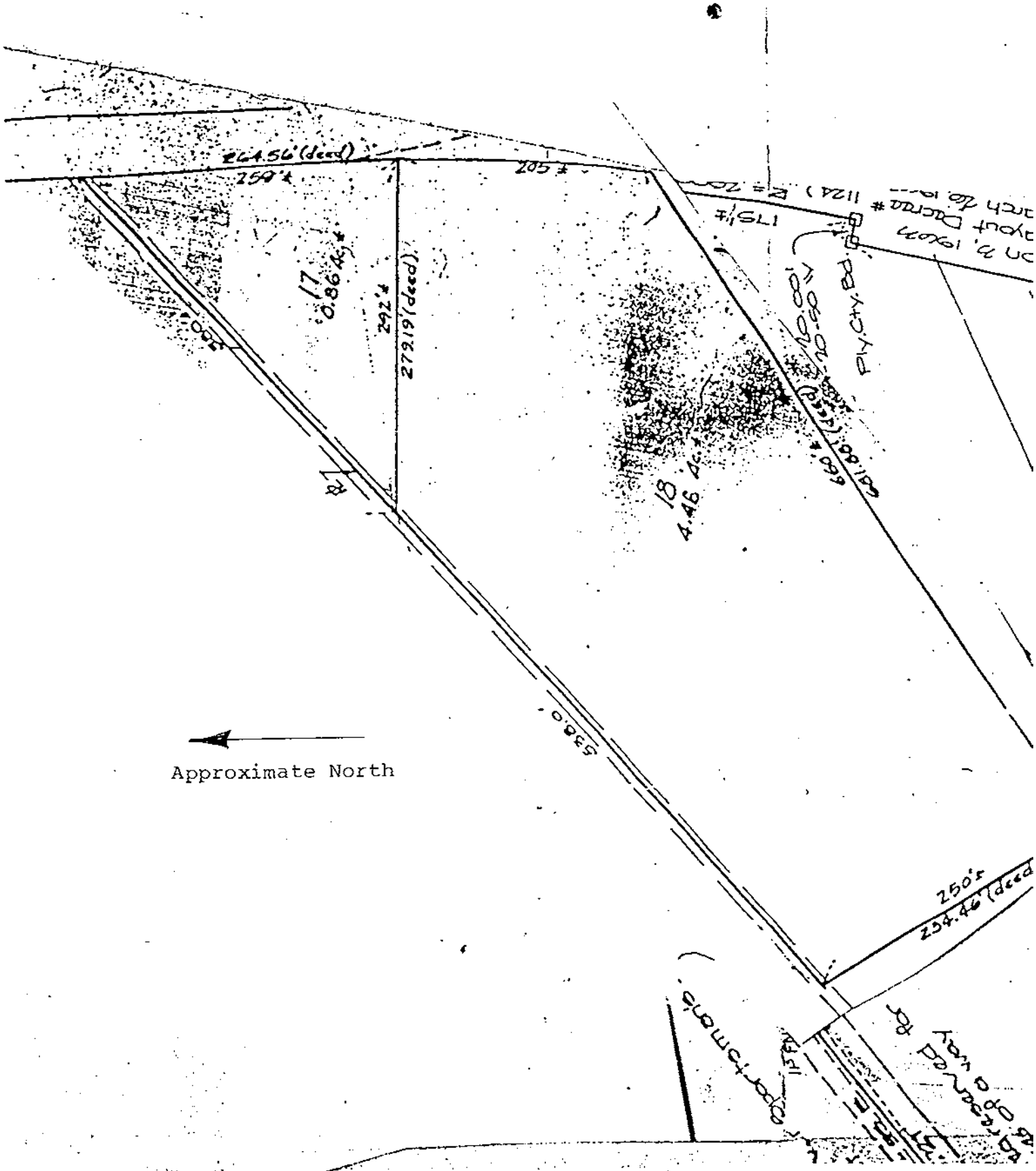


Figure 2
Project 96553

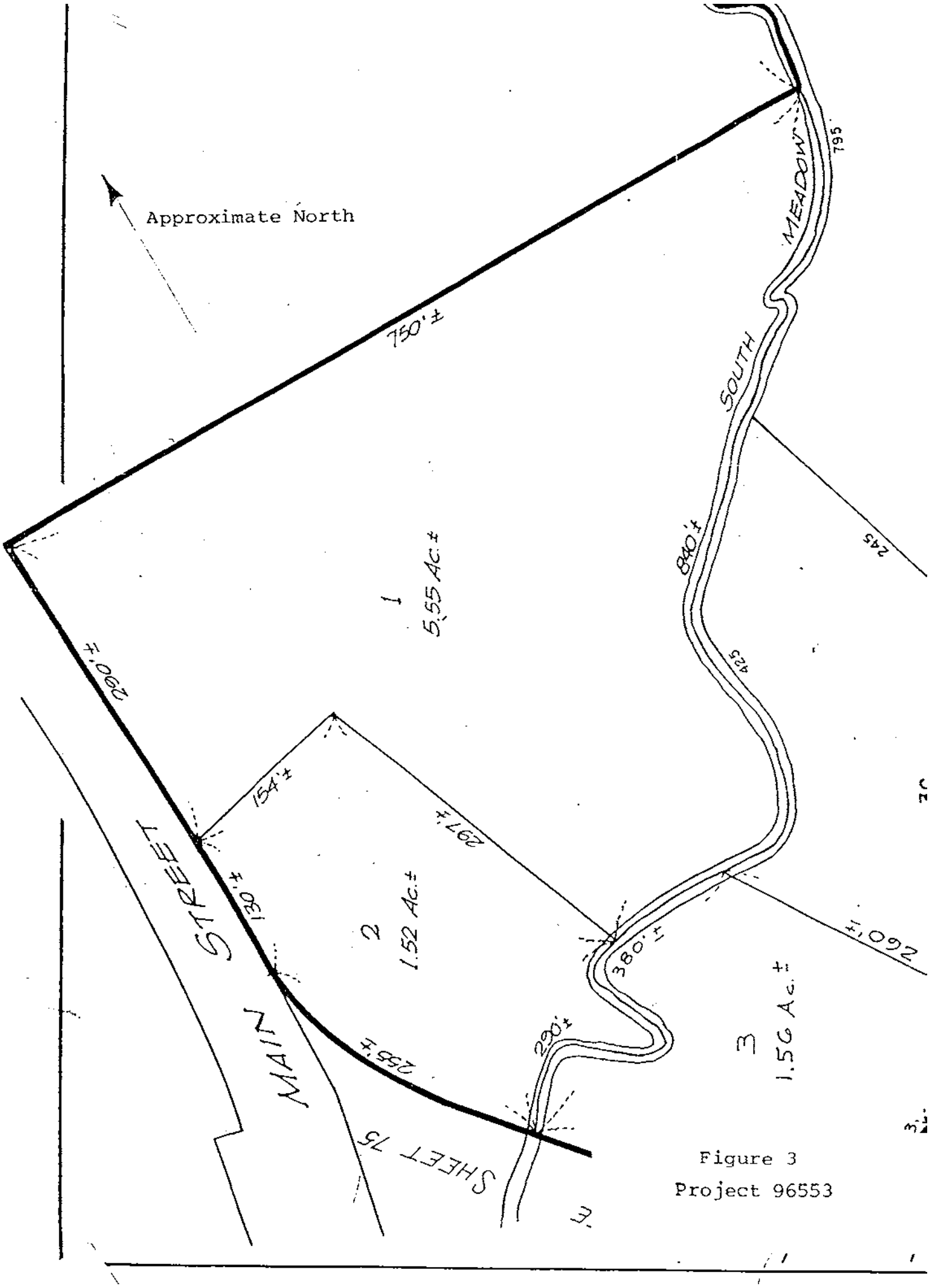


Figure 3
Project 96553

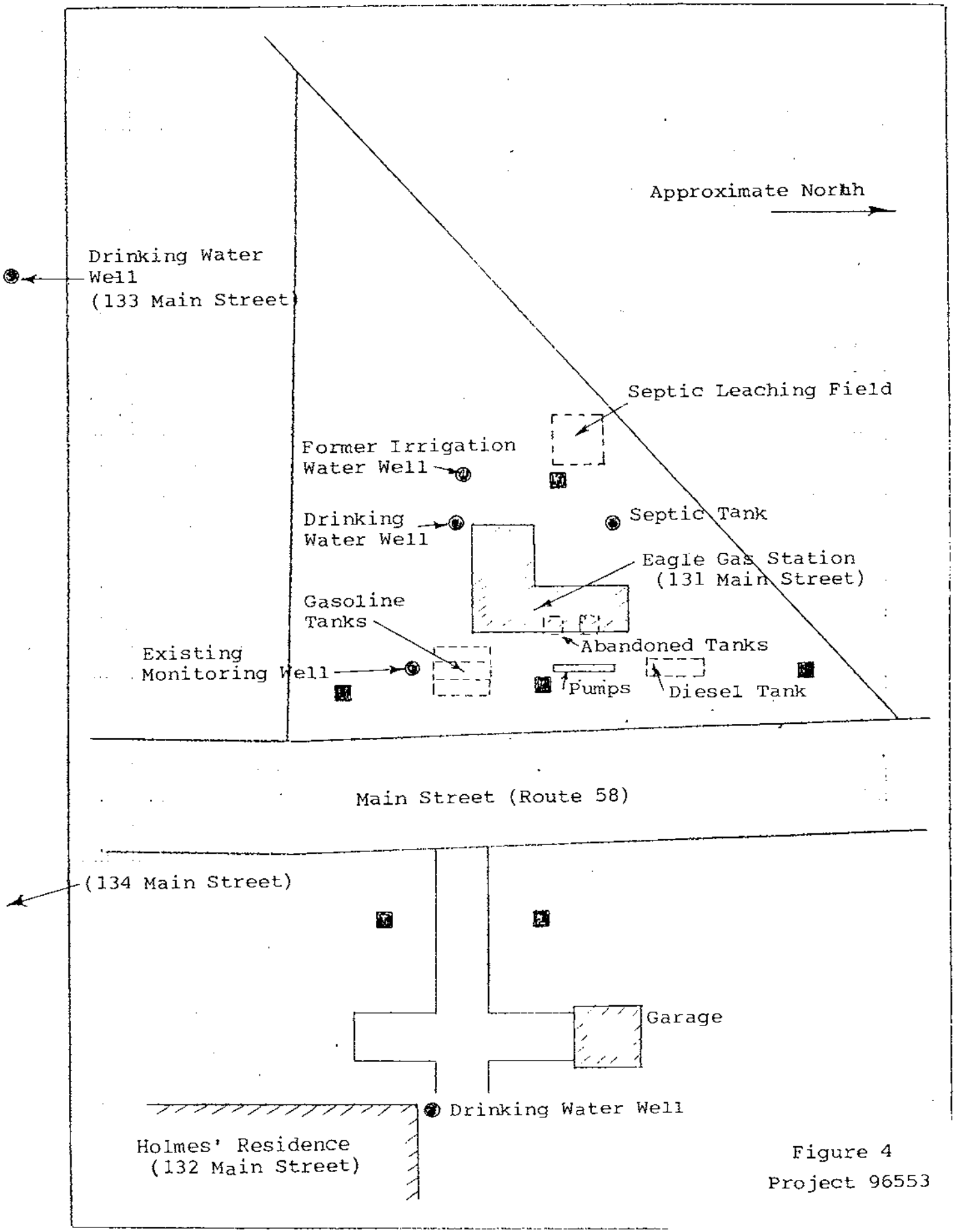


Figure 4
Project 96553

GROUNDWATER ANALYTICAL

ASTM METHOD D3328-78 (Modified)
Hydrocarbon Fingerprinting (GC/FID)

Field ID:	Monitoring Well
Project:	Eagle Gas
Client:	Theodore L. Bosen
Cont/Prsv:	1L Glass/H2SO4 Cool
Matrix:	Aqueous

Lab ID:	17253-03
Batch ID:	HF-0698-F
Sampled:	07-06-97
Preserved:	07-08-97
Received:	07-08-97
Extracted:	07-10-97
Analyzed:	07-11-97

Qualitative Identification

This sample has GC/FID characteristics that are similar to Gasoline.

Quantification

PARAMETER	CONCENTRATION (mg/L)	REPORTING LIMIT (mg/L)
Total Petroleum Hydrocarbons	1.3	0.6

QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
o-Terphenyl	0.045	0.036	80 %	60 - 140 %

BRL = Below Reporting Limit. Method Reference: Method D3328-78 (Modified) - Comparison of Waterborne Petroleum Oils by Gas Chromatography, Volume 11.02 Water, American Society for Testing and Materials, Reapproved (1982).

GROUNDWATER ANALYTICAL

EPA METHOD 8020
Volatile Aromatics (GC/PID)

Field ID: Monitoring Well
Project: Eagle Gas
Client: Theodore L. Bosen
Cont/Prsv: 1L Glass/HCl Cool
Matrix: Aqueous

Lab ID: 17253-01
Batch ID: VG1-1095-W
Sampled: 07-06-97
Received: 07-08-97
Analyzed: 07-19-97

PARAMETER	CONCENTRATION (ug/L)		REPORTING LIMIT (ug/L)
Methyl *tert*-butyl Ether *	4,000	e	10
Benzene	93		2
Toluene	15		2
Chlorobenzene		BRL	2
Ethylbenzene	150		2
meta-and *para*-Xylene	200		2
ortho-Xylene	140		2
1,3-Dichlorobenzene		BRL	2
1,4-Dichlorobenzene		BRL	2
1,2-Dichlorobenzene		BRL	2

QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
a,a,a-Trifluorotoluene	30	30	99 %	87 - 113 %

e = Analyte response exceeded calibration range. Analyte result is an estimate. Analyte response was not attenuated to maintain maximum detectability of other target analytes. Elevated reporting limit due to required sample dilution. BRL = Below Reporting Limit. * Non-target compound. Method References: Method 8020 - Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986).

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-103

Release Tracking Number: 4 - 13333 (If assigned by DEP)

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

A. RELEASE OR THREAT OF RELEASE LOCATION:

Street: 131 MAIN STREET (ROUTE 58) Location Aid:

City/Town: CARVER ZIP Code: 02330

B. THIS FORM IS BEING USED TO: (check one)

☑ Submit a Release Notification (complete all sections of this form).

☐ Submit a Retraction of a Previously Reported Notification of a Release or Threat of Release (complete Sections A, B, E, F and G of this form). You MUST attach the supporting documentation required by 310 CMR 40.0335.

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

Date and time you obtained knowledge of the Release or TOR. Date: 9/8/97 Time: 8:30 AM Specify: ☑ AM ☐ PM

The date you obtained knowledge is always required. The time you obtained knowledge is not required if reporting only 120 Day Conditions.

IF KNOWN, record date and time release or TOR occurred. Date: _____ Time: _____ Specify: ☐ AM ☐ PM

☑ Check here if you previously provided an Oral Notification to DEP (2 Hour and 72 Hour Reporting Conditions only).

Provide date and time of Oral Notification. Date: 9/8/97 Time: 9:15 AM Specify: ☑ AM ☐ PM

Check all Notification Thresholds that apply to the Release or Threat of Release: (for more information see 310 CMR 40.0310 - 40.0315)

2 HOUR REPORTING CONDITIONS

- ☐ Sudden Release
- ☐ Threat of Sudden Release
- ☐ Oil Sheen on Surface Water
- ☐ Poses Imminent Hazard
- ☐ Could Pose Imminent Hazard
- ☐ Release Detected in Private Well
- ☐ Release to Storm Drain
- ☐ Sanitary Sewer Release (Imminent Hazard Only)

72 HOUR REPORTING CONDITIONS

- ☐ Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch
- ☐ Underground Storage Tank (UST) Release
- ☐ Threat of UST Release
- ☑ Release to Groundwater near Water Supply
- ☐ Release to Groundwater near School or Residence

120 DAY REPORTING CONDITIONS

- ☐ Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)
- ☐ Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards
- ☐ Release of Oil to Groundwater Exceeding Reportable Concentration(s)
- ☐ Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

List below the Oils or Hazardous Materials that exceed their Reportable Concentration or Reportable Quantity by the greatest amount. If necessary, attach a list of additional Oil and Hazardous Material substances subject to reporting.

Name and Quantities of Oils (O) and Hazardous Materials (HM) Released:

O or HM Released	O (check one)	HM (check one)	CAS # (If known)	Amount or Concentration	Units	Reportable Concentrations Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
BENZENE	☐	☑		93	ppb	5 ppb
MTBE	☐	☑		4000	ppb	700 ppb
TPH	☑	☐		1.3	ppm	1 ppm

D. ADDITIONAL INVOLVED PARTIES:

☐ Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).

☐ Check here if attaching Licensed Site Professional (LSP) name and address (optional).

You may write in names and addresses on the bottom of the second page of this form.

Massachus s Department of Environmental otection
Bureau of Waste Site Cleanup

BWSC-103

Release Tracking Number
4 - 13333
If assigned by DEP

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM
Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

E. PERSON REQUIRED TO NOTIFY:

Name of Organization: _____

Name of Contact: RICHARD NANTAIS Title: _____

Street: P.O. BOX 478

City/Town: CARVER State: MA ZIP Code: 02330

Telephone: 508-866-4582 Ext.: _____ FAX: (optional) _____

F. RELATIONSHIP OF PERSON REQUIRED TO NOTIFY TO RELEASE OR THREAT OF RELEASE: (check one)

☑ RP or PRP Specify: ⊘ Owner ○ Operator ○ Generator ○ Transporter Other RP or PRP: _____

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Any Person Otherwise Required to Notify Specify Relationship: _____

G. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

I, RICHARD NANTAIS, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: Richard Nantais (signature) Title: owner

For: RICHARD NANTAIS (print name of person or entity recorded in Section E) Date: 9/9/97

Enter address of the person providing certification, if different from address recorded in Section E:

Street: _____

City/Town: _____ State: _____ ZIP Code: _____

Telephone: _____ Ext.: _____ FAX: (optional) _____

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

LSP: BARTLETT W. PAULDING JR
18 PEPPERELL ROAD
P.O. BOX 500
WEST GROTON, MA 01472

Massachusetts Department of Environmental Protection — BWSC-105

Bureau of Waste Site Cleanup

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 4 - 13333

A. RELEASE OR THREAT OF RELEASE LOCATION:

Release Name: (optional) _____

Street: 131 MAIN STREET (ROUTE 58) Location Aid: _____

City/Town: CARVER ZIP Code: 02330

☐ Check here if a Tier Classification Submittal has been provided to DEP for this Release Tracking Number.

☐ Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114.

Specify Program: ☐ CERCLA ☐ HSWA Corrective Action ☐ Solid Waste Management ☐ RCRA State Program (21C Facilities)

Related Release Tracking Numbers That This IRA Addresses: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

☑ Submit an IRA Plan (complete Sections A, B, C, D, E, H, I, J and K).

☐ Check here if this IRA Plan is an update or modification of a previously approved written IRA Plan. Date Submitted: _____

☐ Submit an **Imminent Hazard Evaluation** (complete Sections A, B, C, F, H, I, J and K).

☐ Submit an **IRA Status Report** (complete Sections A, B, C, E, H, I, J and K).

☐ Submit a **Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard** (complete Sections A, B, C, D, E, H, I, J and K).

☐ Submit an **IRA Completion Statement** (complete Sections A, B, C, D, E, G, H, I, J and K).

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

Identify Media and Receptors Affected: (check all that apply) ☐ Air ☑ Groundwater ☐ Surface Water ☐ Sediments ☑ Soil

☐ Wetland ☐ Storm Drain ☐ Paved Surface ☑ Private Well ☐ Public Water Supply ☐ Zone 2 ☐ Residence

☐ School ☐ Unknown ☐ Other Specify: _____

Identify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply) ☐ 2 Hour Reporting Condition(s)

☑ 72 Hour Reporting Condition(s) ☐ Substantial Release Migration ☐ Other Condition(s)

Describe: BENZENE, MTBE, TPH ABOVE RC GW-1 IN A MONITORING WELL LOCATED LESS THAN 500' FROM PRIVATE WATER WELLS.

Identify Oils and Hazardous Materials Released: (check all that apply) ☑ Oils ☐ Chlorinated Solvents ☐ Heavy Metals

☐ Others Specify: _____

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)

☑ Assessment and/or Monitoring Only

☐ Excavation of Contaminated Soils

☐ Re-use, Recycling or Treatment

○ On Site ○ Off Site Est. Vol.: _____ cubic yards

Describe: _____

☐ Store ○ On Site ○ Off Site Est. Vol.: _____ cubic yards

☐ Landfill ○ Cover ○ Disposal Est. Vol.: _____ cubic yards

☐ Removal of Drums, Tanks or Containers

Describe: _____

☐ Deployment of Absorbent or Containment Materials

☐ Temporary Covers or Caps

☐ Bioremediation

☐ Soil Vapor Extraction

☐ Structure Venting System

☐ Product or NAPL Recovery

☐ Groundwater Treatment Systems

☐ Air Sparging

☐ Temporary Water Supplies

SECTION D IS CONTINUED ON THE NEXT PAGE.

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 4 - 13333

D. DESCRIPTION OF RESPONSE ACTIONS (continued):

☐ Removal of Other Contaminated Media

Specify Type and Volume: _____

☐ Temporary Evacuation or Relocation of Residents

☐ Fencing and Sign Posting

☐ Other Response Actions Describe: _____

☐ Check here if this IRA involves the use of Innovative Technologies (DEP is interested in using this information to aid in creating an Innovative Technologies Clearinghouse).

Describe Technologies: _____

E. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste has been sent to an off-site facility, answer the following questions)

Name of Facility: _____

Town and State: _____

Quantity of Remediation Waste Transported to Date: _____

F. IMMINENT HAZARD EVALUATION SUMMARY: (check one of the following)

☐ Based upon an evaluation, an Imminent Hazard exists in connection with this Release or Threat of Release.

☐ Based upon an evaluation, an Imminent Hazard does not exist in connection with this Release or Threat of Release.

☑ Based upon an evaluation, it is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.

☐ Based upon an evaluation, it is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

G. IRA COMPLETION STATEMENT:

☐ Check here if future response actions addressing this Release or Threat of Release will be conducted as part of the Response Actions planned for a Site that has already been Tier Classified under a different Release Tracking Number, or a Site that is identified on the Transition List as described in 310 CMR 40.0600 (i. e., a Transition Site, which includes Sites with approved Waivers). These additional response actions must occur according to the deadlines applicable to the earlier Release Tracking Number (i. e., Site ID Number).

State Release Tracking Number (i. e., Site ID Number) of Tier Classified Site or Transition Site: _____

If any Remediation Waste will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement, you must submit either a Release Abatement Measure (RAM) Plan or a Phase IV Remedy Implementation Plan, along with the appropriate transmittal form, as an attachment to the IRA Completion Statement.

H. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

- *if Section B of this form indicates that an Immediate Response Action Plan is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

- *if Section B of this form indicates that an Imminent Hazard Evaluation is being submitted*, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and all assessment activities(y) undertaken to support this Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

- *if Section B of this form indicates that an Immediate Response Status Report is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

- *if Section B of this form indicates that an Immediate Response Action Completion Statement or a Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

SECTION H IS CONTINUED ON THE NEXT PAGE.

Massach[illegible]etts Department of Environmental Protection — BWSC-105

Bureau of Waste Site Cleanup

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 4 - 13333

H. LSP Opinion (continued):

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false inaccurate or materially incomplete.

☐ Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

LSP Name: BARTLETT W. PAULDING JR LSP #: 7266 Stamp:

COMMONWEALTH OF MASSACHUSETTS — BARTLETT W. PAULDING JR. NO. 7266 REGISTERED LICENSED SITE PROFESSIONAL

Telephone: 508-448-2549 Ext.:

FAX: (optional)

Signature: B.W. Paulding Jr.

Date: SEPT. 13, 1997

I. PERSON UNDERTAKING IRA:

Name of Organization:

Name of Contact: RICHARD NANTAIS Title: OWNER

Street: P.O. BOX 478

City/Town: CARVER State: MA ZIP Code: 02330

Telephone: 508-866-4582 Ext.: FAX: (optional)

☐ Check here if there has been a change in the person undertaking the IRA.

J. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA: (check one)

☑ RP or PRP Specify: (✓) Owner ( ) Operator ( ) Generator ( ) Transporter Other RP or PRP:

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Any Other Person Undertaking IRA Specify Relationship:

K. CERTIFICATION OF PERSON UNDERTAKING IRA:

I, RICHARD NANTAIS, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: Title: OWNER
(signature)

For: RICHARD NANTAIS Date:
(print name of person or entity recorded in Section I)

Enter address of the person providing certification, if different from address recorded in Section I:

Street:

City/Town: State: ZIP Code:

Telephone: Ext.: FAX: (optional)

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

MASS DEP
ATTN: JULIE HUTCHESON

THE PAULDING COMPANY, INC.
18 Pepperell Road
P.O. Box 500
West Groton, MA 01472
978-448-2549

Project 96353
April 25, 1998

Richard S. Nantais
P.O. Box 478
Carver, MA 02330

RTN 4-13333

Dear Mr. Nantais:

The purpose of this letter is to describe the endeavors associated with the abandonment of two 1000-gallon underground tanks at the property located at 131 Main Street in Carver, Mass.

Location and Description of Tanks – The tanks were installed in the mid-1940s, prior to construction of the right hand (i.e., northern) portion of the existing building. As noted in Figure 4 of my letter of September 13, 1997 to Julie Hutcheson of the Massachusetts DEP, the major portion of the two tanks were located beneath the northern portion of the building.

The tanks were made of steel, had a capacity of 1000-gallons each and had been used for the storage of gasoline until about 1961 when three new tanks were installed at the location of the present tank field.

Because of the location of the tanks, it was determined at the outset that the tanks could not be removed without jeopardizing the foundation of the existing building. Therefore, in keeping with the policies of the State Fire Marshall and the Carver Fire Department, it was decided to uncover the tanks, remove their contents, if any, and fill the emptied tanks with a concrete slurry.

Summary of Abandonment Activities – A Permit for the abandonment of the two tanks was obtained from the Carver Fire Department. A copy of the Permit is appended.

Enviro-Safe Corporation of Sandwich, MA was the contractor which located and uncovered the tanks. The two tanks were centered about the pedestrian doorway which enters the northern portion of the building. The tanks were located with their long axis perpendicular to the highway, with about 8 feet of the 11-foot length of each tank beneath the building. The tanks had a diameter of 4 feet and bottomed at a depth of between 6 and 7 feet.

The tanks were nearly filled with water which had an odor of gasoline but no measurable LNAPL. The water was pumped out by Enviro-Safe and delivered, under Manifest, to Clean Harbors Inc, in Braintree, MA. As can be seen from the copy of the Manifest which is appended, about 1700 gallons of water were pumped from the two tanks.

The conditions associated with the emptied tanks were observed by the Chief of the Fire Department and the decision was made to fill the tanks with an excavatable concrete in the event that the tanks would be excavated and removed in the future during any major remodeling of the service station. Consequently, 10 cubic yards of Controlled Density Fill were delivered by Lakeville Redi-Mix Inc. of South Carver, MA and placed into the two tanks.

Following the filling of the tanks, the soils which had been excavated were replaced and compacted in place to assure protection of the foundation of the building.

Sampling and Testing of Soils Adjacent to the Tanks – Samples of soil were obtained from locations adjacent to the bottoms of the two tanks prior to filling the tanks with the concrete slurry. The samples were moist due to the fact that the depth of the groundwater table coincided approximately with the bottom of the tanks. The sample from the left (i.e., southern) tank had a pronounced hydrocarbon odor whereas the sample from the other tank had no discernable odor. There was no indication of soil contamination in the shallower soils which had been excavated.

The soil samples were iced and delivered to Alpha Analytical Laboratories with the request that they be analyzed according to the Volatile Petroleum Hydrocarbons (VPH) protocols. The results obtained by Alpha are appended. Note that, for the soil sample from the left (i.e., southern) tank, the concentrations of certain hydrocarbon ranges exceed the Reportable Concentrations for S-1 soils and the S-3/GW-1 Method 1 Standards.

Discussion of Test Results – The occurrence of soil contamination adjacent to the left tank suggests that a release had occurred from that tank by either overfilling or a leak. Given that this tank is generally upgradient of monitoring well BP-9 provides an explanation of the origin of the groundwater contamination in that well. Therefore, this is not a new release and the consequences of it have already been reported to the DEP and described in earlier correspondence.

It is worthwhile to compare the conditions in the soil sample from the base of the left tank with the soils samples from the test boring associated with monitoring well BP-5. Note in the appended table from the Phase II Report, dated January 28, 1998, that the chemistry of the soil sample designated as BP-5,S-2A is essentially the same as that obtained from the base of the left (i.e., southern) tank. Consequently, I would conclude that the conditions encountered during the abandonment of the two tanks is no worse than the conditions reported earlier to the DEP.

In net, the conditions encountered during this abandonment process are essentially the same as had been described earlier and there is no reason to re-consider the appropriateness of the Class C Response Action Outcome which was submitted to the DEP on February 4, 1998.

Inability to Excavate Contaminated Soil – As noted above, the soil which had been excavated was replaced in the excavation. The question may arise as to why an attempt was not made to excavate the contaminated soil rather than leave it in place. The answer is that the excavation of the contaminated soil adjacent to the left tank would have jeopardized the foundation of the building. The soil consisted of a clean fine sand which quickly becomes unstable when excavations are attempted below the groundwater table. As noted above, the contamination was not present in the soil until the approximate depth of the groundwater. And at this point, the soil began to slump into the excavation made to obtain the soil sample. Given the risk to the integrity of the building, it was considered imprudent to attempt even a partial excavation of the impacted soils.

Submit Reports to the Carver Fire Department and the Massachusetts DEP – I would suggest you send a copy of this report to the Chief of the Carver Fire Department in response to his request. I suggest you also send a copy to Julie Hutcheson of the Massachusetts DEP in order to keep their files complete on the environmental conditions of your former property.

Closure – I hope you find this report helpful in your endeavors to address the environmental issues associated with the property at 131 Main Street in Carver. If you have any questions or require additional information, do not hesitate to contact me.

Sincerely,

THE PAULDING COMPANY, INC.
Bartlett W. Paulding Jr., PhD
Consulting Geologist
Registered Professional Engineer (Mass. No. 24420)
Licensed Site Professional (Mass. No. 7266)

The Commonwealth of Massachusetts

Executive Office of Public Safety

Department of Fire Services - Office of the State Fire Marshal

P.O. Box 1025, State Road, Stow, MA 01775

PERMIT

DIG SAFE NUMBER 981206030

START DATE:

Date: 4/16/98

C. 82 S.40 M.G.L.

In accordance with the provisions of Chapter 148, M.G.L. as provided in Section 148:38A this permit is granted to:

Name: RICHARD NANTAIS
(Full name of person, firm or corporation)

For Permission to: ABANDON, IN PLACE, TWO 1000-GAL UNDERGROUND STORAGE TANKS

State clearly the purpose for which the permit is granted:
TO EMPTY, CLEAN AND FILL WITH CONCRETE SLURRY, TWO - 1000-GAL. UNDERGROUND STORAGE TANKS FORMERLY USED FOR GASOLINE.

Restrictions:

Location: 133 MAIN STREET, CARVER

Fee Paid:

This Permit Will Expire On: 4-30-98

Signature and Title of Official Granting Permit: FIRE CHIEF

⇒(THIS PERMIT MUST BE CONSPICUOUSLY POSTED UPON THE PREMISES.)⇐

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street
Boston, Massachusetts 02108

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. MP5088669184 — Manifest Document No. 000001
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Richard Nantais
P.O. Box 478 Carver, MA 02330

4. Generator's Phone (508) 866-9184

5. Transporter 1 Company Name
Enviro-Safe Corporation

6. US EPA ID Number
MAD982852693

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
Clean Harbors of Braintree, MA
385 Quincy Avenue
Braintree, MA 02184

10. US EPA ID Number
MAD053452637

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Waste Gasoline, 3 UN1203, pg II	001	T	110	G
b.				
c.			X	
d.				

J. Additional Descriptions for Materials Listed Above (Including any local state or hazard codes)
CH045113

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Date (Month Day Year)
[illegible]	[signature]	

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
[illegible]	[signature]	

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date (Month Day Year)

Form Approved OMB No. 2050-0039
EPA Form 8700-22 (Rev. 9-94) Previous editions are obsolete

COPY>6: GENERATOR MAILS TO DESTINATION STATE

ALPHA ANALYTICAL LABORATORIES

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

CERTIFICATE OF ANALYSIS

Client: The Paulding Co. Inc

Address: P.O. Box 500
18 Pepperell Road
West Groton, MA 01472

Attn: Bart Paulding

Project Number:

Site: Nantais

Laboratory Job Number: L9802894

Invoice Number: 14374

Date Received: 16-APR-98

Date Reported: 24-APR-98

Delivery Method: Client

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L9802894-01	LEFT UST	Carver, MA
L9802894-02	RIGHT UST	Carver, MA
L9802894-03	TRIP BLANK	Carver, MA

Authorized by: James R. Roth

James R. Roth, PhD - Laboratory Manager

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L9802894-01
LEFT UST
Sample Matrix: SOIL

Date Collected: 16-APR-98
Date Received : 16-APR-98
Date Reported : 24-APR-98

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2 Vial,2 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS	ID
Solids, Total	82.	%	0.10	3	2540B		23-Apr	ST
Volatile Petroleum Hydrocarbon				39	Draft 1.0	22-Apr	22-Apr	NL
C5-C8 Aliphatics	537000	ug/kg	2000					
C9-C12 Aliphatics	1830000	ug/kg	2000					
C9-C10 Aromatics	1010000	ug/kg	2000					
VPH, Total	3380000	ug/kg	2000					
----------	-							
Benzene	ND	ug/kg	1000					
Toluene	ND	ug/kg	1000					
Ethylbenzene	6590	ug/kg	1000					
p/m-Xylene	86600	ug/kg	1000					
o-Xylene	31700	ug/kg	1000					
Methyl tert butyl ether	ND	ug/kg	1000					
Naphthalene	9150	ug/kg	1000					
SURROGATE RECOVERY								
2,5-Dibromotoluene	93.0	%						

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L9802894-02
RIGHT UST
Sample Matrix: SOIL

Date Collected: 16-APR-98
Date Received : 16-APR-98
Date Reported : 24-APR-98

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2 Vial,2 Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS	ID
Solids, Total	80.	%	0.10	3	2540B		23-Apr	ST
Volatile Petroleum Hydrocarbon				39	Draft 1.0	21-Apr	21-Apr	NL
C5-C8 Aliphatics	250.	ug/kg	200.					
C9-C12 Aliphatics	338.	ug/kg	200.					
C9-C10 Aromatics	ND	ug/kg	200.					
VPH, Total	588.	ug/kg	200.					
----------	-							
Benzene	ND	ug/kg	100.					
Toluene	ND	ug/kg	100.					
Ethylbenzene	ND	ug/kg	100.					
p/m-Xylene	ND	ug/kg	100.					
o-Xylene	ND	ug/kg	100.					
Methyl tert butyl ether	ND	ug/kg	100.					
Naphthalene	ND	ug/kg	100.					
SURROGATE RECOVERY								
2,5-Dibromotoluene	106.	%						

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL LABORATORIES
CERTIFICATE OF ANALYSIS

MA:M-MA-086 NH:200395-B/C CT:PH-0574 ME:MA086 RI:65

Laboratory Sample Number: L9802894-03
TRIP BLANK
Sample Matrix: SOIL

Date Collected: 16-APR-98
Date Received : 16-APR-98
Date Reported : 24-APR-98

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1 Vial

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATES PREP	DATES ANALYSIS	ID
Volatile Petroleum Hydrocarbon				39	Draft 1.0	21-Apr	21-Apr	NL
C5-C8 Aliphatics	ND	ug/kg	200.					
C9-C12 Aliphatics	ND	ug/kg	200.					
C9-C10 Aromatics	ND	ug/kg	200.					
VPH, Total	ND	ug/kg	200.					
----------	-							
Benzene	ND	ug/kg	100.					
Toluene	ND	ug/kg	100.					
Ethylbenzene	ND	ug/kg	100.					
p/m-Xylene	ND	ug/kg	100.					
o-Xylene	ND	ug/kg	100.					
Methyl tert butyl ether	ND	ug/kg	100.					
Naphthalene	ND	ug/kg	100.					
SURROGATE RECOVERY								
2,5-Dibromotoluene	110.	%						

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA
Analytical Laboratories, Inc.

Eight Walkup Drive
Westborough, MA 01581-1019
508-898-9220 FAX 508-898-9193

CHAIN OF CUSTODY RECORD and ANALYSIS REQUEST RECORD

No.
Sheet 1 of 1

Company Name: THE PAULDING CO INC.
Project Number:
P.O. Number:
Project Name/Location: NANTAIS / CARVER
Date Received in Lab: 4/16
Date Due: 4/24
Company Address: PO BOX 500 W. GROTON MA 01472
Phone Number: 978 448-2549
FAX No.:
Project Manager:
Alpha Job Number (Lab use only): 980894

Container Codes: P=Plastic V=Vial C=Cube G=Glass A=Amber Glass B=Bacteria Container O=Other

MATRIX/SOURCE CODES: MW=Monitoring Well RO=Runoff O=Outfall W=Well FL=Landfill L=Lake/Pond/Ocean I=Influent E=Effluent DW=Drinking Water R=River Stream S=Soil SG=Sludge B=Bottom Sediment X1=Other _____ X2=Other _____

ALPHA Lab # (Lab Use Only)	Sample I.D.	Containers (number/type)	Matrix/Source	Method Preserve. (number of containers): Unpres.	Ice	Nitric	Sulfuric	HCl	Other	Solubles - F.F.	Sampling Date	Sampling Time	Analysis Requested
894-1	LEFT UST	2G, 2V	S		✓				✓		4/16	1300	VPH DELUXE, TS
													↓ ↓
-2	RIGHT UST	2G, 2V	S		✓				✓		4/16	1300	
-3	FIELD BLANK												VPH

Sampler's Signature	Affiliation	Date	Time
B W Paulding Jr.		4/16	340

ADDITIONAL COMMENTS:

NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	B W Paulding Jr		4/16/91	1535
2				
3				
4				

EAGLE GASOLINE STATION, 131 MAIN STREET, CARVER, MASS.

GROUNDWATER ANALYSES

Parameter	GW-1	MCP Criteria GW-2	GW-3	UCL	BP-1	BP-2	BP-3	BP-4	BP-5	BP-6	BP-7	BP-9	BP-A
C5-C8 Aliphatics	400	1000	4000	100000	ND	ND	ND	ND	***11000***	21	ND	350	2000
C9-C12 Aliphatics	4000	1000	20000	100000	ND	ND	ND	ND	***24000***	ND	ND	690	770
C9-C10 Aromatics	200	5000	4000	100000	ND	ND	ND	ND	3400	ND	ND	440	350
Benzene	5	2000	7000	70000	ND	ND	ND	ND	1100	ND	ND	ND	ND
Toluene	1000	8000	50000	100000	ND	ND	ND	ND	2600	ND	ND	ND	ND
Ethylbenzene	700	30000	4000	100000	ND	ND	ND	ND	1900	ND	ND	ND	ND
Xylene	10000	6000	50000	100000	ND	ND	ND	ND	***11300***	ND	ND	ND	ND
Methyl tert butyl ether	700	50000	50000	100000	ND	ND	ND	ND	4700	60	ND	25	2300
Naphthalene	20	6000	6000	20000	ND	ND	ND	ND	370	ND	ND	ND	ND

Concentrations are in parts per billion (ppb)
Bold = Exceeds GW-1 criterion
Bold/Italized = *Exceeds GW-1 and GW-2 criteria*
Groundwater samples obtained on November 17, 1997

SOIL ANALYSES

Parameter	S-1/GW-1	MCP Criteria S-2/GW-1	S-3/GW-1	UCL	BP-5,S-2A	BP-5,S-3A	BP-9,S-3B
C5-C8 Aliphatics	100	500	500	5000	***2470***	195	32
C9-C12 Aliphatics	1000	2500	5000	20000	1850	134	13
C9-C10 Aromatics	100	100	100	5000	***1230***	75	2
C9-C18 Aliphatics	1000	2500	5000	20000	ND	ND	ND
C19-C-36 Aliphatics	2500	5000	5000	20000	10	14	ND
C10-C22 Aromatics	200	200	200	10000	ND	ND	ND
Benzene	10	10	10	2000	5	ND	ND
Toluene	90	90	90	100000	42	3	ND
Ethylbenzene	80	80	80	100000	***105***	9	ND
Xylene	500	800	800	100000	580	46	ND
Methyl tert butyl ether	3	3	3	100000	ND	ND	ND
Naphthalene	4	4	4	20000	36	3	ND

Concentrations in parts per million (ppm)
Bold = Exceeds S-1 criterion
Bold/Italized = *Exceeds S-1/GW-1, S-2/GW-1 and S-3/GW-1 criteria*
The EPH-targeted compounds were ND for all three soil samples
Soil samples obtained on September 25, 1997

APPENDIX J
DISCONTINUANCE PLAN OF MAIN STREET

SECTION 3, 1963.
Decree No. 1124
Plan of part of

ROUTE 58

in the town of

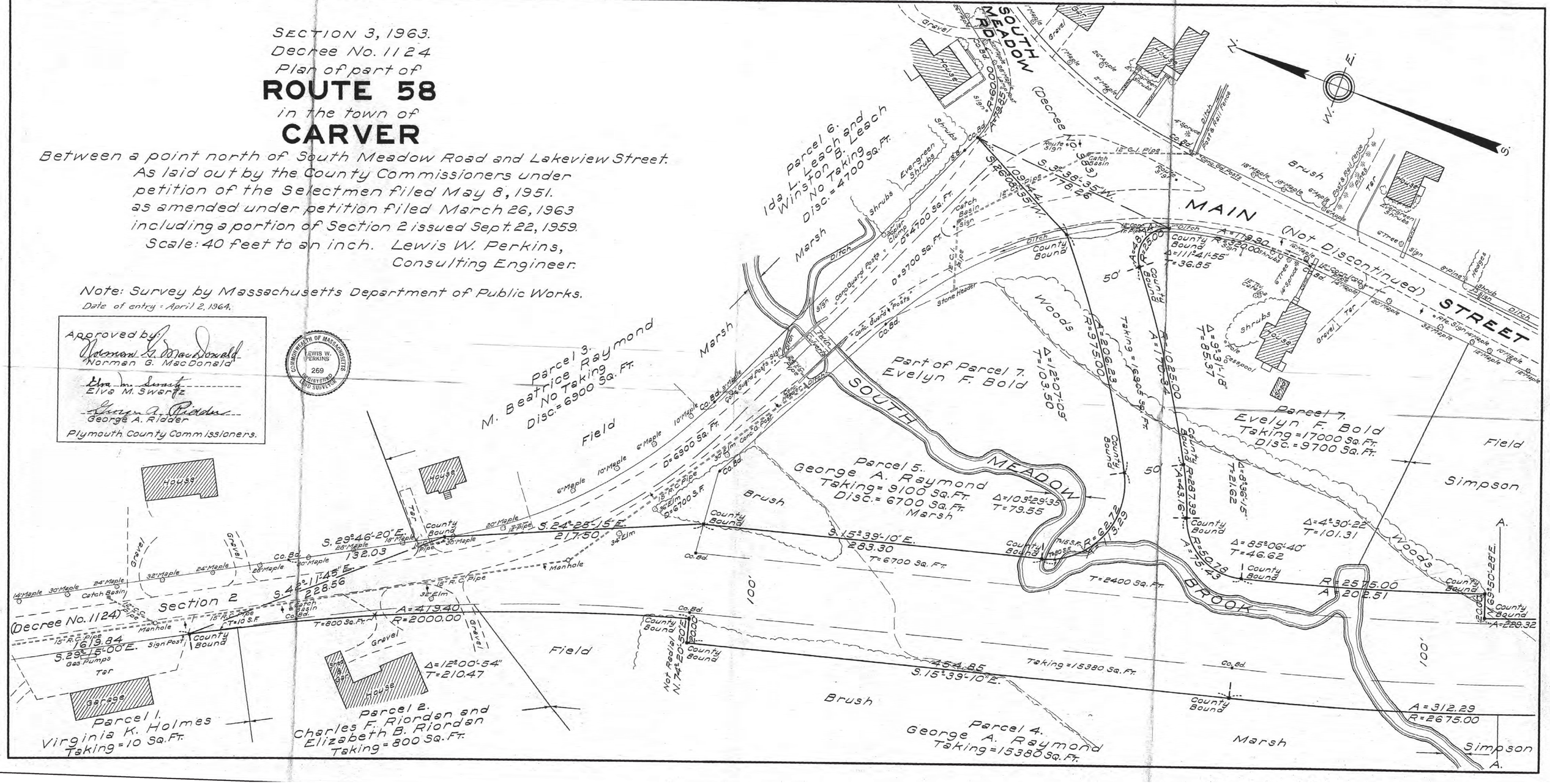
CARVER

Between a point north of South Meadow Road and Lakeview Street.
As laid out by the County Commissioners under
petition of the Selectmen filed May 8, 1951.
as amended under petition filed March 26, 1963
including a portion of Section 2 issued Sept. 22, 1959.
Scale: 40 feet to an inch. Lewis W. Perkins,
Consulting Engineer.

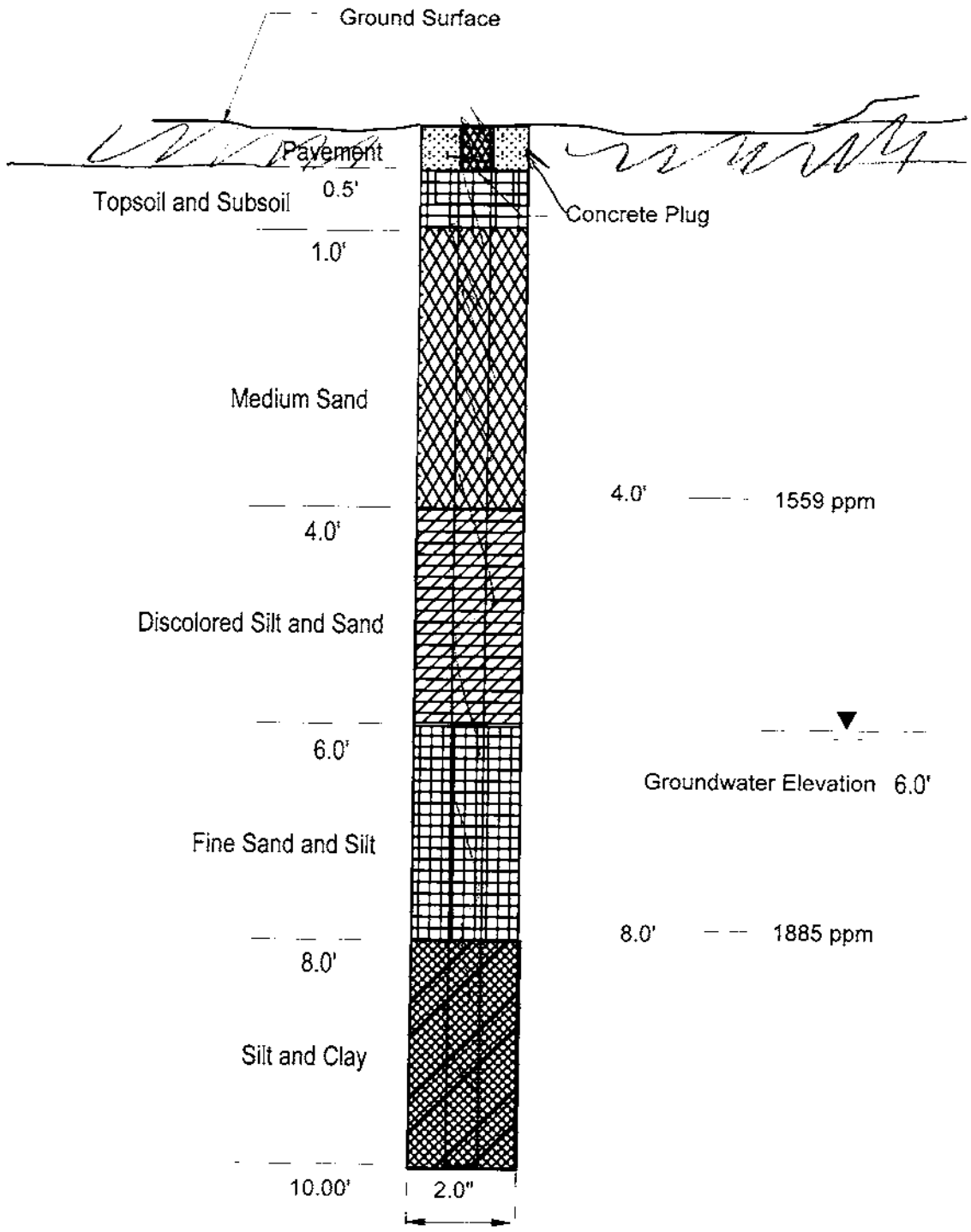
Note: Survey by Massachusetts Department of Public Works.
Date of entry: April 2, 1964.

Approved by:
Norman G. MacDonald
Norman G. MacDonald
Elva M. Swartz
Elva M. Swartz
George A. Ridder
George A. Ridder
Plymouth County Commissioners.

COMMONWEALTH OF MASSACHUSETTS
LEWIS W. PERKINS
269
REGISTERED LAND SURVEYOR



APPENDIX K
BORING LOGS



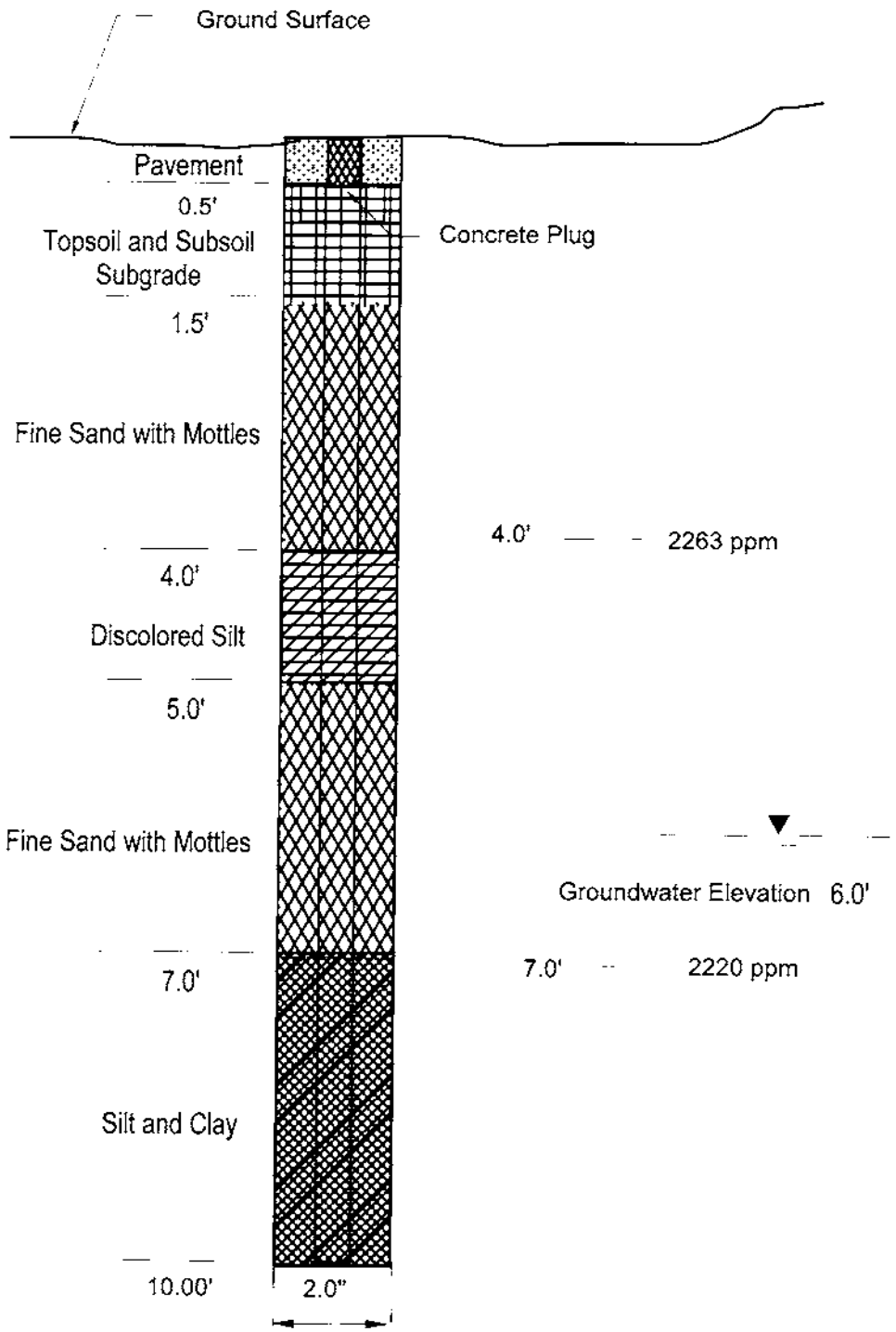
DRILLING METHOD:
DIRECT PUSH PROBE

DCA BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



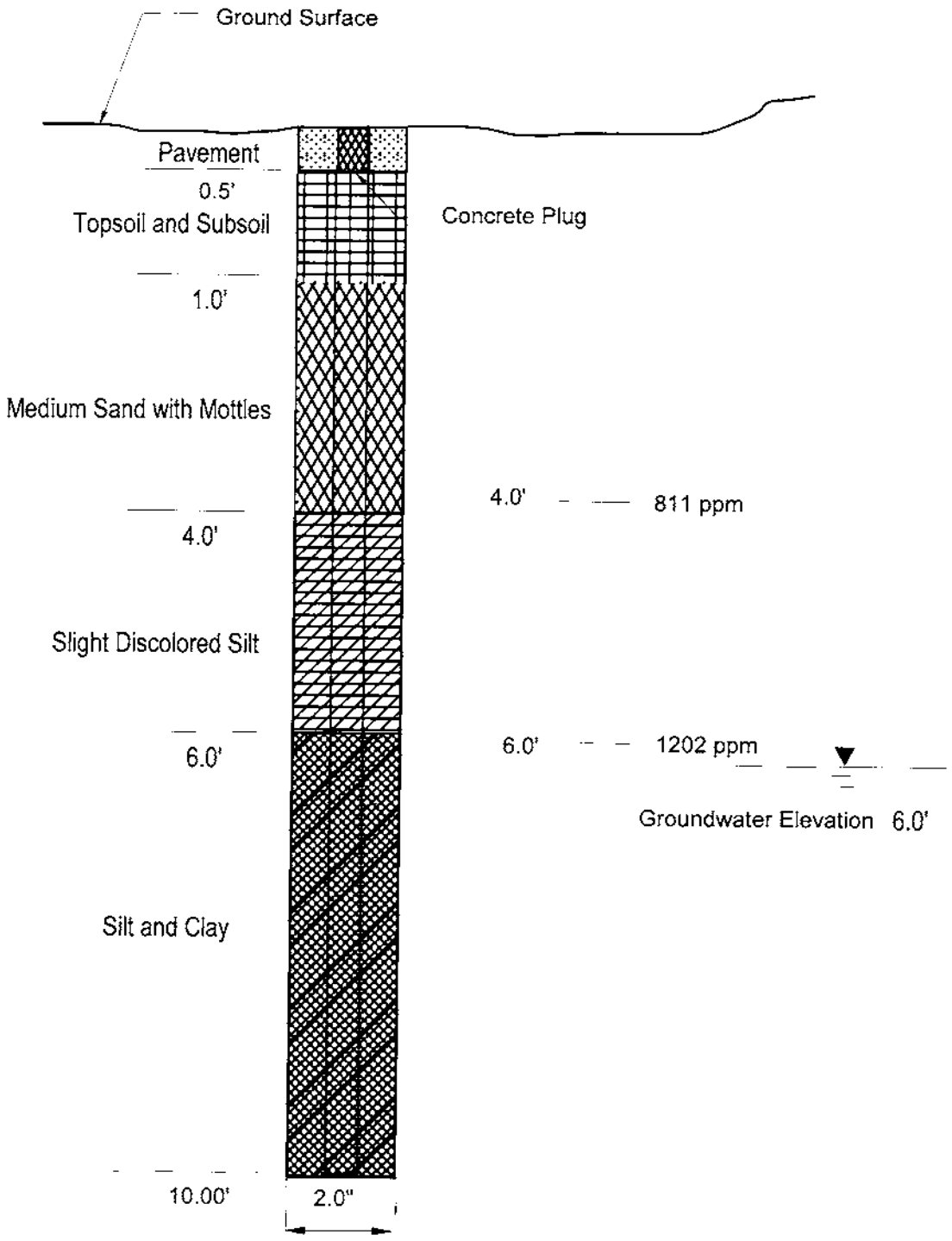
DRILLING METHOD:
DIRECT PUSH PROBE

DCB BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



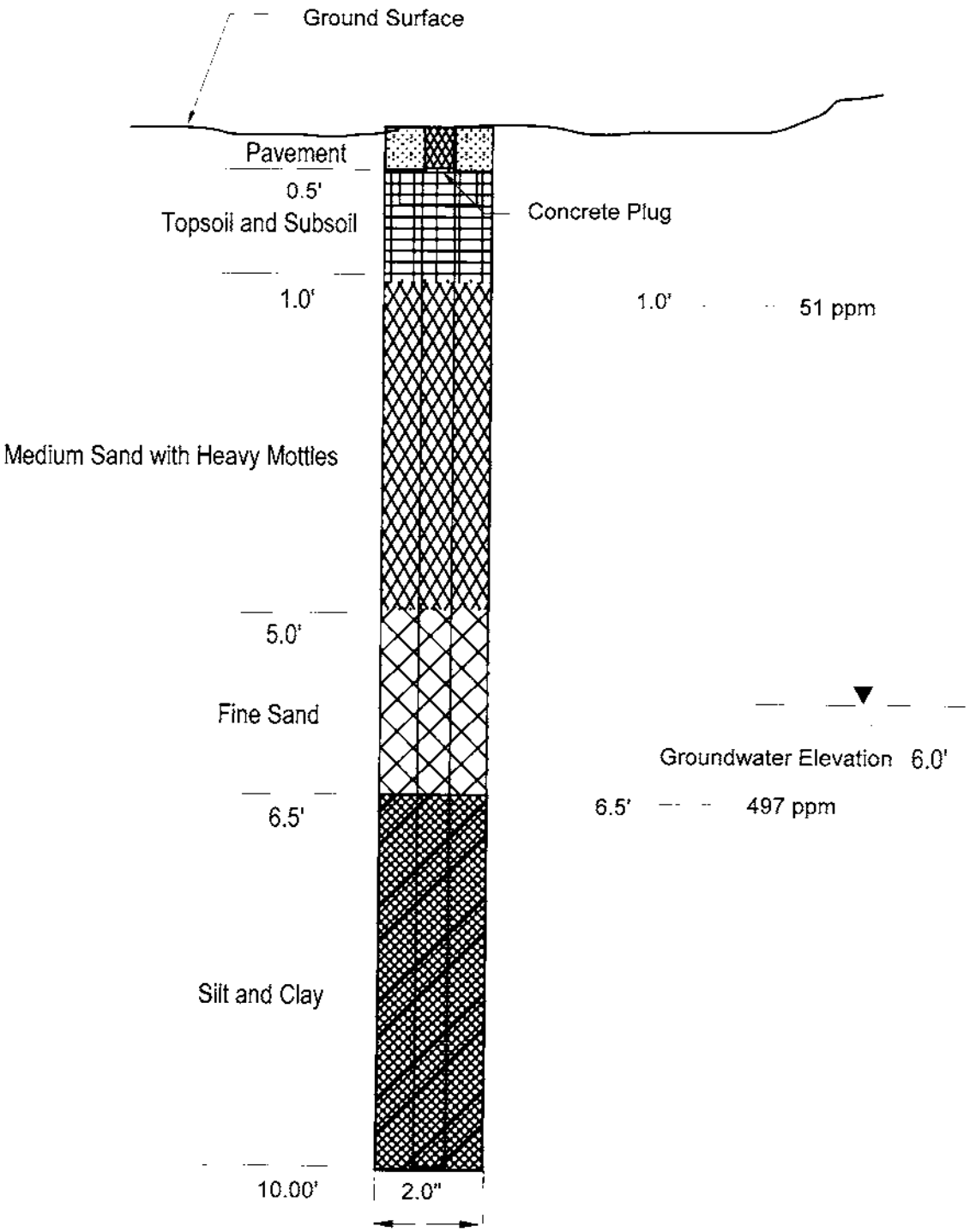
DRILLING METHOD:
DIRECT PUSH PROBE

DCC BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



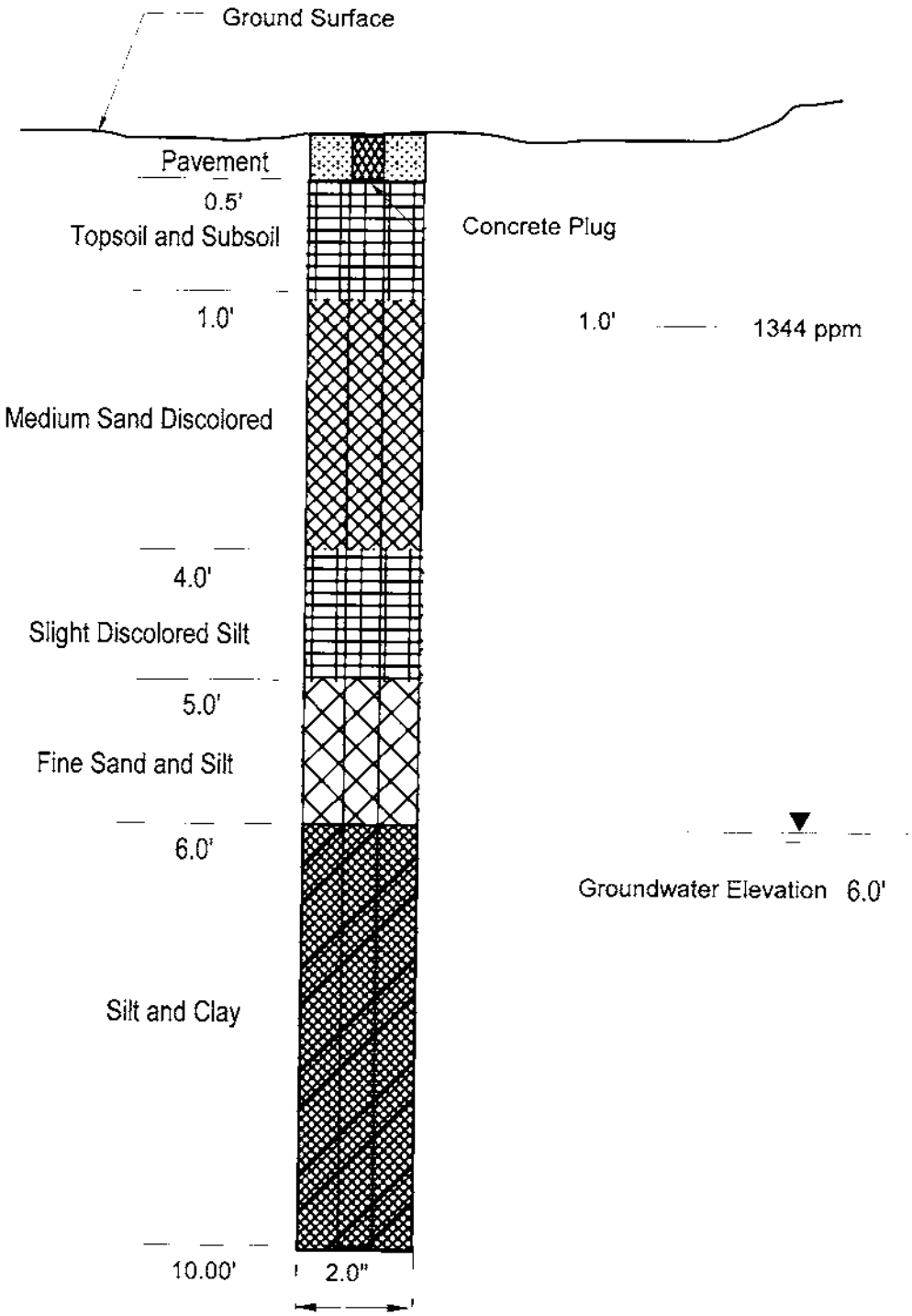
DRILLING METHOD:
DIRECT PUSH PROBE

DCD BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



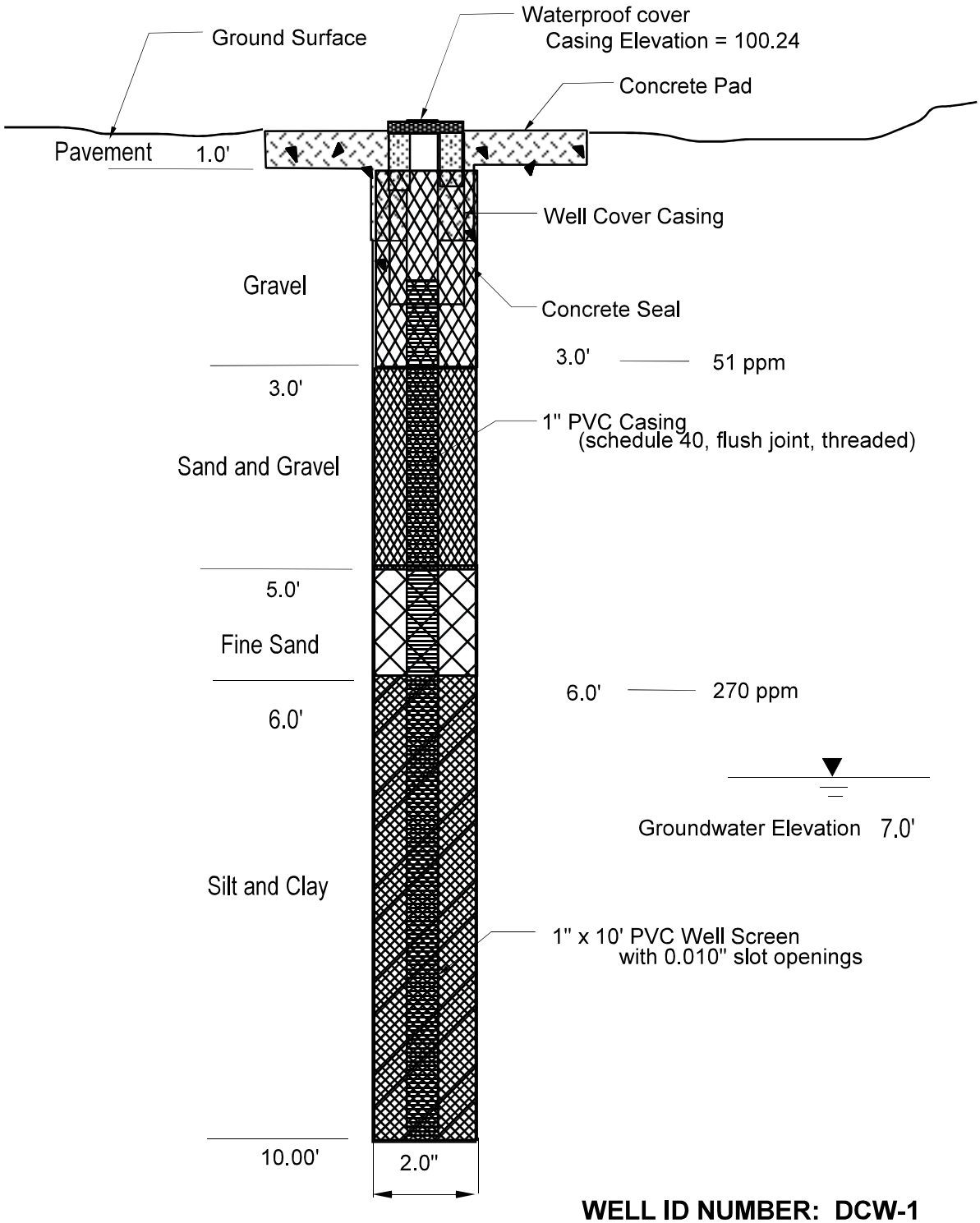
DRILLING METHOD:
DIRECT PUSH PROBE

DCE BORING LOG

NOT TO SCALE

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



WELL ID NUMBER: DCW-1

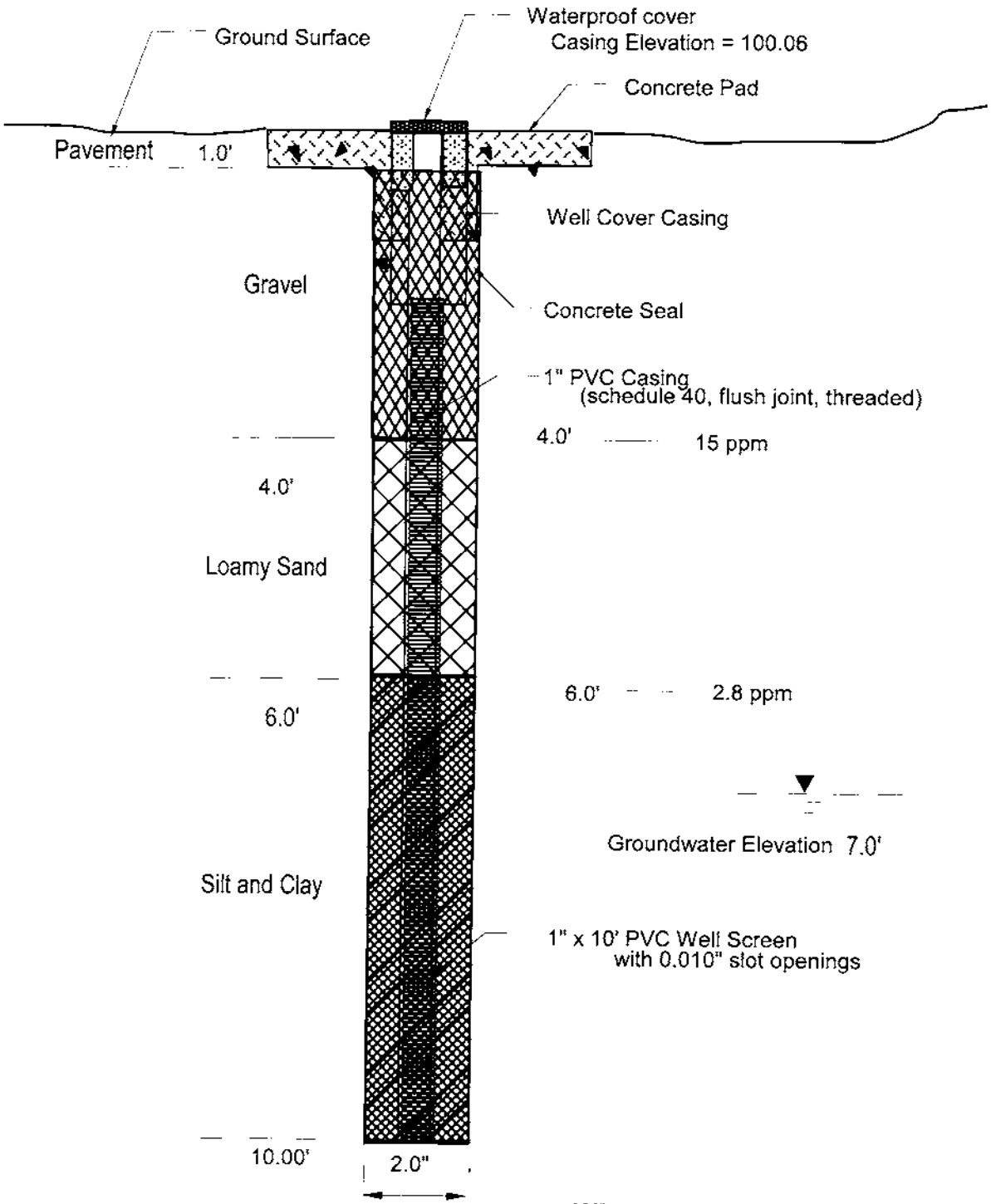
DRILLING METHOD:
DIRECT PUSH PROBE

DCF/DCW-1 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



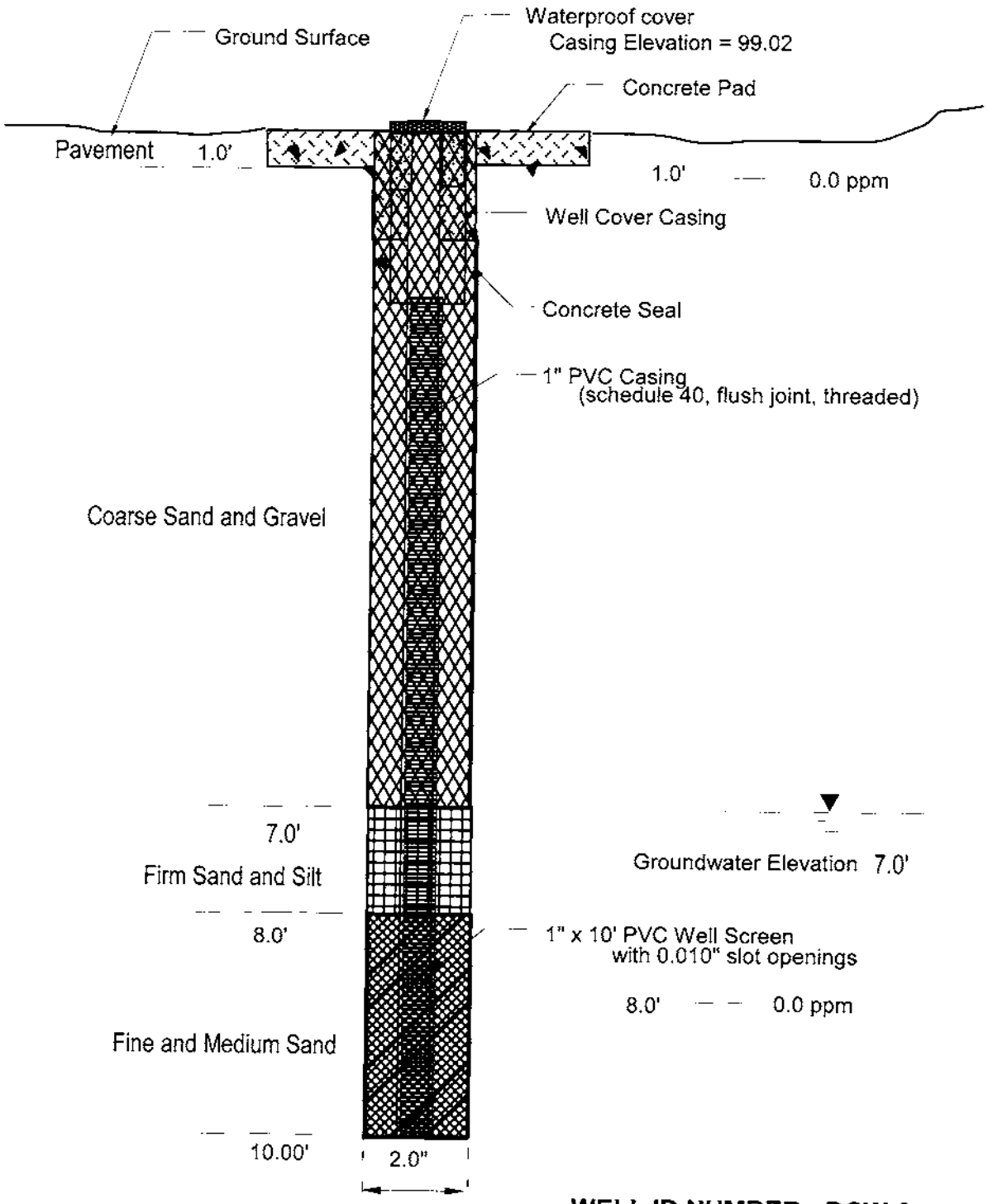
WELL ID NUMBER: DCW-2

DRILLING METHOD:
DIRECT PUSH PROBE

DCG/DCW-2 BORING LOG

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



WELL ID NUMBER: DCW-3

DRILLING METHOD:
DIRECT PUSH PROBE

DCH/DCW-3 BORING LOG

NOT TO SCALE

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA

APPENDIX L
LABORATORY CERTIFICATES OF ANALYSIS

GeoLabs, Inc.

Environmental Laboratories

LABORATORY REPORT

PREPARED FOR:

Decoulos & Company
3 Electronics Avenue
Danvers, MA 01923

Attn: Jim Decoulos

PROJECT ID:	616 131 Main Street Carver, MA
GEOLABS CERTIFICATION #:	M-MA015
SAMPLE NUMBER:	134699
DATE PREPARED:	May 27, 2003
PREPARED BY:	Christine Johnson

APPROVED BY:

Jim Chen, Laboratory Director/Date

GeoLabs, Inc.
Environmental Laboratories

Exhibit VII A-1 MCP Response Action Analytical Report Certification Form

Analytical Report Certification Form

Laboratory Name: GeoLabs, Inc.
Laboratory Project #: 134699
MCP Site Name: 616
MCP RTN #:

MCP SW-846 Methods	8260B ( )	7470/1 ( )	8082 ( )	VPH ( )	Other: TPH 8100M
	8270C ( )	8081A ( )	7000 ( )	EPH ( )	Other:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*
Were all QA/QC performance standards for specified analytical method(s) included in this report met (including those not required to be reported)?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*
Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples, by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?	Yes * ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)* *If **Yes**, reported in: ☒ Analytical Report ☐ Case Narrative
Were all samples received by laboratory in a condition consistent with those described on their Chain-of-Custody documentation?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Jim Chen Position: Lab Director

Printed Name: Jim Chen Date: May 27, 2003

GeoLabs, Inc.

Environmental Laboratories

CASE NARRATIVE

Project ID:	616	Sample Number:	134699
Client Name:	Decoulos & Company	Received:	5/23/03

Physical Condition of Samples

This project was received by the laboratory in satisfactory condition. The sample (s) were received undamaged, in appropriate containers with the correct preservation, with the following exceptions.

1. Samples received on ice with temperatures at 10°

Project Documentation

This project was accompanied by satisfactory Chain of Custody documentation. The sample container label(s) agreed with the Chain of Custody.

Analysis of Sample(s)

No analytical anomalies or non-conformances were noted by the laboratory during the processing of these sample(s).

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	05/27/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	CL 05/27/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	05/23/03
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	SULFURIC ACID		

TOTAL PETROLEUM HYDROCARBONS

SAMPLE NUMBER	SAMPLE LOCATION	TPH (mg/L)	DETECTION LIMIT (mg/L)
134699 *	BP-5RR	**1060**	50.0

ND = NOT DETECTED *** 250x dilution**

Method Reference:

EPA Method 8100 (1) Modified

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1986, 3rd Edition.

TPH WATER QA/QC

	BLANK	MDL	LCS %	% REC.
Gasoline	ND	0.2 mg/L		
Kerosene / Jet Fuel	ND	0.2 mg/L		
Diesel Fuel #2	ND	0.2 mg/L	86.0	40-140%
Fuel #4	ND	0.2 mg/L		
Fuel #6	ND	0.2 mg/L		
Transformer Oil	ND	0.2 mg/L		
Parafin Oil	ND	0.2 mg/L		
Motor Oil	ND	0.2 mg/L		
Surrogate				
OTP % Recovery	97%		100%	40-140%

GEOLABS, INC.
45 JOHNSON LANE
BRAINTREE, MA 02184
M-MA015

LIMITATIONS & EXCLUSIONS

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by GeoLabs in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the work was conducted. No inferences regarding other conditions, locations or materials, at a later or earlier time may be made based on the contents of the report. No other warranty, express or implied is made.

This report was prepared for the sole use of our client. Portions of the report may not be used independent of the entire report.

All analyses were performed within required holding times, in accordance with EPA protocols and using accepted QA/QC procedures. All QA/QC meets acceptable limits unless otherwise noted. The information contained in this report is, to the best of my knowledge, accurate and complete.

Any and all subsequent pages of this report are chain(s) of custody.

GeoLabs, Inc.
Environmental Laboratories
45 Johnson Lane
Braintree, MA 02184
Office: 781-848-7844
Fax: 781-848-7811

Turnaround Time
RUSH: 24hrs ☐ 48hrs ☐ 72hrs ☐
STANDARD: (5 Days)
Rush Approved by:

Page 1 of 1

SPECIAL INSTRUCTIONS
NEED "PLAIN ASCII REPORT"
- CALL TO DISCUSS
THIS SAMPLE CONTAINS PURE PRODUCT
CONTINUE TO HOLD AFTER ANALYSIS
EMAIL RESULTS Rec'd on TB6 (JV)

Client: DECOULOS + CO
Address: 3 ELECTRONICS AVE
DANVERS, MA 01923
Phone: 617-489-7795
Fax: 877-842-9629
Contact: JIM DECOULOS
E-mail: JAMESJ@DECOULOS.COM

Project Number: 616
Project Location: 131 MAIN ST
CANTON MA
Purchase Order #:
Collected By: JMD

ANALYSES REQUESTED

SAMPLE ID	COLLECTION DATE	COLLECTION TIME	COLLECTION SAMPLED BY	SAMPLE LOCATION	CONTAINER TYPE	CONTAINER QUANT	MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	TPH 8100								TEMPERATURE	LAB PH
BP-SRR	5/21	1900	JD		A	1	GW+		X		134699	X								10°	<2

CONTAINER CODES:
A = Amber
B = Bag
G = Glass
P = Plastic
S = Summa Canister
O = Other V = VOA

MATRIX CODES:
GW = Ground Water
WW = Wastewater
DW = Drinking Water
SL = Sludge
S = Soil A = Air
O = Oil OT = Other

PRESERVATIVE CODES:
1 = HCl 7 = ICE
2 = HNO_3
3 = H_2SO_4
4 = $Na_2S_2O_3$
5 = NaOH
6 = MeOH

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	5/23/03 1600	E Coons	5-23-03 16:55
Relinquished By: 5-23-03 E Coons 9:05		Received By: [signature]	5/23/03 9:05
Relinquished By:		Received By: GeoLabs:	

GEOLABS CHAIN OF CUSTODY

GeoLabs, Inc.

Environmental Laboratories

LABORATORY REPORT

PREPARED FOR:

Decoulos & Company
3 Electronics Avenue
Danvers, MA 01923

Attn: Jim Decoulos

PROJECT ID:	616 131 Main Street Carver, MA
GEOLABS CERTIFICATION #:	M-MA015
SAMPLE NUMBER:	134702 - 134710
DATE PREPARED:	June 4, 2003
PREPARED BY:	Christine Johnson

APPROVED BY:

Jim Chen, Laboratory Director/Date

GeoLabs, Inc.
Environmental Laboratories

Exhibit VII A-1 MCP Response Action Analytical Report Certification Form

Analytical Report Certification Form

Laboratory Name: GeoLabs, Inc.
Laboratory Project #: 134702 - 134710
MCP Site Name: 616
MCP RTN #:

MCP SW-846 Methods	8260B (x) 7470/1 ( ) 8082 ( ) VPH (x) 8270C ( ) 8081A ( ) 7000 ( ) EPH (x)	Other: RCRA-8 Other:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*
Were all QA/QC performance standards for specified analytical method(s) included in this report met (including those not required to be reported)?	Yes ☐ No ☒ *(if **No** must address in narrative. Attach additional information if required)*
Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples, by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?	Yes * ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)* *If **Yes**, reported in: ☒ Analytical Report ☐ Case Narrative
Were all samples received by laboratory in a condition consistent with those described on their Chain-of-Custody documentation?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Lab Director

Printed Name: Jim Chen Date: June 4, 2003

GeoLabs, Inc.

Environmental Laboratories

CASE NARRATIVE

Project ID:	616	Sample Number:	134702 - 134710
Client Name:	Decoulos & Company	Received:	5/13/03

Physical Condition of Samples

This project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

This project was accompanied by satisfactory Chain of Custody documentation. The sample container label(s) agreed with the Chain of Custody.

Analysis of Sample(s)

The following analytical anomalies or non-conformances were noted by the laboratory during the processing of these sample(s):

1. Not all surrogate recoveries pass on EPH samples, matrix interference confirmed

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

	Client ID:			BP-2	BP-3
	Lab ID:			134702	134703
	Date Collected:			05/21/03	05/21/03
	Date Received:			05/23/03	05/23/03
	Date Extracted:			05/23/03	05/23/03
	Date Fractions Analyzed:			05/28/03	05/28/03
	Date Targets Analyzed:			05/30/03	05/30/03
	Dilution Factor:			1.0	1.0
	Total solids (%):			N/A	N/A
Range/Target Analyte		RL	Units		
Unadjusted C11-C22 Aromatics[1]		100	(µg/L)	ND	ND
Diesel PAH Analytes	Naphthalene	1.00	(µg/L)	ND	ND
	2-Methylnaphthalene	1.00	(µg/L)	ND	ND
	Acenaphthene	1.00	(µg/L)	ND	ND
	Phenanthrene	1.00	(µg/L)	ND	ND
Other Target PAH Analytes	Acenaphthylene	1.00	(µg/L)	ND	ND
	Fluorene	1.00	(µg/L)	ND	ND
	Anthracene	1.00	(µg/L)	ND	ND
	Fluoranthene	1.00	(µg/L)	ND	ND
	Pyrene	1.50	(µg/L)	ND	ND
	Benz[a]Anthracene	1.00	(µg/L)	ND	ND
	Chrysene	1.00	(µg/L)	ND	ND
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	ND
	Benzo[k]Fluoranthene	0.120	(µg/L)	ND	ND
	Benzo[a]Pyrene	0.080	(µg/L)	ND	ND
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND	ND
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	ND
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	ND
C9-C18 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND	**192**
C19-C36 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND	ND
C11-C22 Aromatic Hydrocarbons[1,2]		100	(µg/L)	ND	ND
Aliphatic Surrogate % Recovery (COD)				**89%**	**82%**
Aromatic Surrogate % Recovery (OTP)				**102%**	**97%**
Sample Surrogate Acceptance Range				40-140%	40-140%
2,2'-Difluorobiphenyl % Recovery				**54%**	**55%**
2-Fluorobiphenyl % Recovery				**49%**	**51%**
Fractionation Surrogate Acceptance Range				40-140%	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DC-A1	DC-B1	
		Lab ID:		134704	134705	
		Date Collected:		05/21/03	05/21/03	
		Date Received:		05/23/03	05/23/03	
		Date Extracted:		05/23/03	05/23/03	
		Date Fractions Analyzed:		05/28/03	05/28/03	
		Date Targets Analyzed:		05/30/03	05/30/03	
		Dilution Factor:		See Dilution		
		Total solids (%):		N/A	N/A	
Range/Target Analyte		RL	Units			**Dilution**
Unadjusted C11-C22 Aromatics[1]		100	(µg/L)	**456000**	**863000**	125
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)	**113**	**110**	1
	2-Methylnaphthalene	25.0	(µg/L)	**4597**	**4524**	25
	Acenaphthene	1.00	(µg/L)	**51.5**	**40.9**	1
	Phenanthrene	1.00	(µg/L)	**73.9**	ND	1
Other Target PAH Analytes	**Acenaphthylene**	1.00	(µg/L)	**13.1**	**10.3**	1
	Fluorene	1.00	(µg/L)	**182**	**180**	1
	Anthracene	1.00	(µg/L)	**308**	**260**	1
	Fluoranthene	1.00	(µg/L)	**9.91**	**8.12**	1
	Pyrene	1.50	(µg/L)	**58.4**	**63.4**	1
	Benz[a]Anthracene	1.00	(µg/L)	ND	ND	1
	Chrysene	1.00	(µg/L)	**2.22**	**2.76**	1
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	ND	1
	Benzo[k]Fluoranthene	0.120	(µg/L)	**0.636**	**0.742**	1
	Benzo[a]Pyrene	0.080	(µg/L)	**0.431**	**0.474**	1
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND	**0.247**	1
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	ND	1
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	ND	1
C9-C18 Aliphatic Hydrocarbons[1]		125000	(µg/L)	**2040000**	**2040000**	1250
C19-C36 Aliphatic Hydrocarbons[1]		50000	(µg/L)	**732000**	**696000**	500
C11-C22 Aromatic Hydrocarbons[1,2]		12500	(µg/L)	**451000**	**858000**	125
Aliphatic Surrogate % Recovery (COD)				**961%***	**1420%***	
Aromatic Surrogate % Recovery (OTP)				**793%***	**884%***	
Sample Surrogate Acceptance Range				40-140%	40-140%	
2,2'-Difluorobiphenyl % Recovery				**74%**	**67%**	
2-Fluorobiphenyl % Recovery				**47%**	**40%**	
Fractionation Surrogate Acceptance Range				40-140%	40-140%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION *** Matrix interference confirmed by re-run**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DC-C1		
		Lab ID:		134706		
		Date Collected:		05/21/03		
		Date Received:		05/23/03		
		Date Extracted:		05/23/03		
		Date Fractions Analyzed:		05/28/03		
		Date Targets Analyzed:		05/30/03		
		Dilution Factor:		See Dilution		
		Total solids (%):		N/A		
Range/Target Analyte		RL	Units		**Dilution**	
Unadjusted C_{11}-C_{22} Aromatics[1]		100	(µg/L)	**794000**	125	
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)	**117**	1	
	2-Methylnaphthalene	25.0	(µg/L)	**4854**	25	
	Acenaphthene	1.00	(µg/L)	**31.8**	1	
	Phenanthrene	1.00	(µg/L)	ND	1	
Other Target PAH Analytes	**Acenaphthylene**	1.00	(µg/L)	**9.00**	1	
	Fluorene	1.00	(µg/L)	**150**	1	
	Anthracene	1.00	(µg/L)	**281**	1	
	Fluoranthene	1.00	(µg/L)	**10.0**	1	
	Pyrene	1.50	(µg/L)	**70.9**	1	
	Benz[a]Anthracene	1.00	(µg/L)	ND	1	
	Chrysene	1.00	(µg/L)	**2.86**	1	
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	1	
	Benzo[k]Fluoranthene	0.120	(µg/L)	**0.265**	1	
	Benzo[a]Pyrene	0.080	(µg/L)	**0.571**	1	
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	**0.367**	1	
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	1	
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	1	
C9-C18 Aliphatic Hydrocarbons[1]		125000	(µg/L)	**2150000**	1250	
C19-C36 Aliphatic Hydrocarbons[1]		50000	(µg/L)	**721000**	500	
C11-C22 Aromatic Hydrocarbons[1,2]		12500	(µg/L)	**788000**	125	
Aliphatic Surrogate % Recovery (COD)				953%*		
Aromatic Surrogate % Recovery (OTP)				1220%*		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				73%		
2-Fluorobiphenyl % Recovery				40%		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION *** Matrix interference confirmed by re-run**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

				Client ID:	DC-D1	DC-E1	DC-F1
				Lab ID:	134707	134708	134709
				Date Collected:	05/21/03	05/21/03	05/21/03
				Date Received:	05/23/03	05/23/03	05/23/03
				Date Extracted:	05/23/03	05/23/03	05/23/03
				Date Fractions Analyzed:	05/28/03	05/28/03	05/28/03
				Date Targets Analyzed:	05/30/03	05/30/03	05/30/03
				Dilution Factor:	1.0	1.0	1.0
				Total solids (%):	N/A	N/A	N/A
Range/Target Analyte			RL	Units			
Unadjusted C11-C22 Aromatics[1]			100	(µg/L)	ND	**112**	ND
Diesel PAH Analytes		Naphthalene	1.00	(µg/L)	ND	ND	ND
		2-Methylnaphthalene	1.00	(µg/L)	ND	ND	ND
		Acenaphthene	1.00	(µg/L)	ND	ND	ND
		Phenanthrene	1.00	(µg/L)	ND	ND	ND
Other Target PAH Analytes		Acenaphthylene	1.00	(µg/L)	ND	ND	ND
		Fluorene	1.00	(µg/L)	ND	ND	ND
		Anthracene	1.00	(µg/L)	ND	ND	ND
		Fluoranthene	1.00	(µg/L)	ND	ND	ND
		Pyrene	1.50	(µg/L)	ND	ND	ND
		Benz[a]Anthracene	1.00	(µg/L)	ND	ND	ND
		Chrysene	1.00	(µg/L)	ND	ND	ND
		Benzo[b]Fluoranthene	1.00	(µg/L)	ND	ND	ND
		Benzo[k]Fluoranthene	0.120	(µg/L)	ND	ND	ND
		Benzo[a]Pyrene	0.080	(µg/L)	ND	ND	ND
		Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND	ND	ND
		Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	ND	ND
		Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	ND	ND
C9-C18 Aliphatic Hydrocarbons[1]			100	(µg/L)	**188**	**266**	ND
C19-C36 Aliphatic Hydrocarbons[1]			100	(µg/L)	ND	ND	ND
C11-C22 Aromatic Hydrocarbons[1,2]			100	(µg/L)	ND	**112**	ND
Aliphatic Surrogate % Recovery (COD)					**68%**	**80%**	**65%**
Aromatic Surrogate % Recovery (OTP)					**79%**	**101%**	**90%**
Sample Surrogate Acceptance Range					40-140%	40-140%	40-140%
2,2'-Difluorobiphenyl % Recovery					**26%***	**51%**	**49%**
2-Fluorobiphenyl % Recovery					**22%***	**49%**	**43%**
Fractionation Surrogate Acceptance Range					40-140%	40-140%	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

*** Matrix interference confirmed by re-run**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DCMWA		
		Lab ID:		134710		
		Date Collected:		05/21/03		
		Date Received:		05/23/03		
		Date Extracted:		05/23/03		
		Date Fractions Analyzed:		05/28/03		
		Date Targets Analyzed:		05/30/03		
		Dilution Factor:		1.0		
		Total solids (%):		N/A		
Range/Target Analyte		RL	Units			
Unadjusted C_{11}-C_{22} Aromatics[1]		100	(µg/L)	ND		
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)	**8.21**		
	2-Methylnaphthalene	1.00	(µg/L)	**1.30**		
	Acenaphthene	1.00	(µg/L)	ND		
	Phenanthrene	1.00	(µg/L)	ND		
Other Target PAH Analytes	Acenaphthylene	1.00	(µg/L)	ND		
	Fluorene	1.00	(µg/L)	ND		
	Anthracene	1.00	(µg/L)	ND		
	Fluoranthene	1.00	(µg/L)	ND		
	Pyrene	1.50	(µg/L)	ND		
	Benz[a]Anthracene	1.00	(µg/L)	ND		
	Chrysene	1.00	(µg/L)	ND		
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND		
	Benzo[k]Fluoranthene	0.120	(µg/L)	ND		
	Benzo[a]Pyrene	0.080	(µg/L)	ND		
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND		
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND		
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND		
C9-C18 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND		
C19-C36 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND		
C11-C22 Aromatic Hydrocarbons[1,2]		100	(µg/L)	ND		
Aliphatic Surrogate % Recovery (COD)				86%		
Aromatic Surrogate % Recovery (OTP)				97%		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				53%		
2-Fluorobiphenyl % Recovery				49%		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

EPH - QC - Ranges
EXTRACTABLE PETROLEUM HYDROCARBONS

	QC RESULTS						
	Method Blank	**MDL (µg/L)**	**Spike % Recovery 1**	**Spike % Recovery 2**		**RPD**	**%**
*c9-c18 Aliphatics	25.8	100	66.0	70.1	40-140	4.33	≤ 50
c19-c36 Aliphatics	22.7	100	95.9	104	40-140	7.08	≤ 50
c11-c22 Aromatics	42.5	100	79.4	71.7	40-140	8.35	≤ 50

Surrogate % Recovery:

COD	82%	40-140	72%	95%	40-140	27.4%	≤ 50
OTP	100%	40-140	96%	99%	40-140	3.10%	≤ 50

EPH - QC Target Analyte
EXTRACTABLE PETROLEUM HYDROCARBONS

	QC RESULTS		
	Method Blank	**Spike % Recovery 1**	**Limits %**
Naphthalene	ND	47%	40-140%
Acenapthalene	ND	66%	40-140%
Anthracene	ND	74%	40-140%
Pyrene	ND	83%	40-140%
Chrysene	ND	94%	40-140%

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS	Client ID:	BP-2	BP-3	DC-D1
Method for Ranges: MADEP VPH	Lab ID:	134702	134703	134707
Method for Target Analytes: MADEP VPH	Date Collected:	05/21/03	05/21/03	05/21/03
VPH Surrogate Standards	Date Received:	05/23/03	05/23/03	05/23/03
PID (2,5-Dibromotoluene)	Date Analyzed:	05/29/03	05/29/03	05/29/03
FID (2,5-Dibromotoluene)	Dilution Factor:	1.0	1.0	1.0
	Total solids (%):	N/A	N/A	N/A

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	ND	ND	**108**
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	ND	ND	ND
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	ND	ND	**192**
Benzene	C_5-C_8 Aliph.	5	ug/L	ND	ND	**5.20**
Toluene	C_5-C_8 Aliph.	5	ug/L	ND	ND	ND
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	ND
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND	ND	ND
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	ND
Naphthalene	N/A	20	ug/L	ND	ND	ND
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND	ND	ND
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND	ND	ND
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND	ND	ND
2,5-Dibromotoluene (PID) Surrogate Recovery				**91%**	**98%**	**92%**
2,5-Dibromotoluene (FID) Surrogate Recovery				**72%**	**76%**	**79%**
Surrogate Acceptance Range				70-130%	70-130%	70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/04/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

			Client ID:	DC-E1	DC-F1	
			Lab ID:	134708	134709	
			Date Collected:	05/21/03	05/21/03	
			Date Received:	05/23/03	05/23/03	
			Date Analyzed:	05/29/03	05/29/03	
			Dilution Factor:	1.0	1.0	
			Total solids (%):	N/A	N/A	
Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	ND	ND	
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	ND	ND	
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Benzene	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Toluene	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
Naphthalene	N/A	20	ug/L	ND	ND	
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND	ND	
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND	ND	
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND	ND	
2,5-Dibromotoluene (PID) Surrogate Recovery				93%	96%	
2,5-Dibromotoluene (FID) Surrogate Recovery				73%	76%	
Surrogate Acceptance Range				70-130%	70-130%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/04/03

GeoLabs, Inc.
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SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

Client ID:	DCMWA		
Lab ID:	134710		
Date Collected:	05/21/03		
Date Received:	05/23/03		
Date Analyzed:	05/29/03		
Dilution Factor:	1.0 / 5.0*		
Total solids (%):	N/A		

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	**571**		
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	**287**		
Methyl tert-butyl ether	C_5-C_8 Aliph.	25*	ug/L	**992**		
Benzene	C_5-C_8 Aliph.	5	ug/L	**40.4**		
Toluene	C_5-C_8 Aliph.	5	ug/L	**22.0**		
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	**202**		
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	**454**		
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	**143**		
Naphthalene	N/A	20	ug/L	**25.2**		
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND		
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND		
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	**961**		
2,5-Dibromotoluene (PID) Surrogate Recovery				**100%**		
2,5-Dibromotoluene (FID) Surrogate Recovery				**83%**		
Surrogate Acceptance Range				70-130%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/04/03

Matrix:	Water	µg/L	LCS %	Limit	BLANK
MTBE			96%	70-130%	ND
Benzene			88%	70-130%	ND
Toluene			108%	70-130%	ND
Ethyl Benzene			97%	70-130%	ND
m,p-xylene			122%	70-130%	ND
o-xylene			106%	70-130%	ND
Naphthalene			104%	70-130%	ND
Surrogate Recoveries:					
2,5-Dibromotoluene (PID)			97%		
2,5-Dibromotoluene (FID)			88%		

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/25/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

1,2-DIBROMOETHANE

SAMPLE NUMBER	SAMPLE LOCATION	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
134703	BP-3	ND	0.650
134710	DCMWA	ND	0.650

ND = NOT DETECTED CALCULATIONS BASED ON DRY WEIGHT

Method Reference:

EPA Method 8260B (1) GC/MS 5035 Collection Method

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134707
SAMPLE LOCATION: DC-D1

* 5x dilution	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Acetone	ND	50.0
Acrylonitrile	ND	50.0
Benzene	**5.37**	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	2.0
Bromoform	ND	5.0
Bromomethane	ND	2.8
2-Butanone	ND	10.0
n-Butylbenzene	ND	5.0
Carbon Tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	5.0
2-Chloroethylvinylether	ND	5.0
Chloroform	ND	5.0
Chloromethane	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
Dibromomethane	ND	5.0
Dibromochloromethane	ND	5.0
Dichlorobromomethane	ND	5.0
Dichlorodifluoromethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	0.96
1,1-Dichloropropene	ND	0.4
1,2-Dibromoethane	ND	0.63
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropane	ND	5.0
c-1,2-Dichloroethene	ND	5.0
c-1,3-Dichloropropene	ND	0.65
t-1,2-Dichloroethene	ND	5.0

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134707
SAMPLE LOCATION: DC-D1

*** 5x dilution**	**RESULTS (µg/L)**	**DETECTION LIMIT (µg/L)**
t-1,3-Dichloropropene	ND	0.95
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	0.19
2-Hexanone	ND	10.0
Isopropylbenzene	ND	5.0
p-Isopropyltoluene	ND	5.0
Methylene Chloride	ND	10.0
4-Methyl-2-pentanone	ND	5.0
Methyl tert-butyl ether *	**214**	25.0
Naphthalene	ND	20
n-propylbenzene	ND	5.0
Sec-butylbenzene	ND	5.0
Styrene	ND	5.0
tert-butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.61
1,1,1,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
Vinyl Chloride	ND	2.0
Xylenes	ND	5.0

Surrogate Recoveries:				
	dibromofluoromethane	92%	toluene-d8	86%
	1,2-Dichloroethane	111%	BFB	97%

ND = NOT DETECTED

Method Reference:

EPA Method 8260B (1) GC/MS

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134708
SAMPLE LOCATION: DC-E1

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Acetone	ND	50.0
Acrylonitrile	ND	50.0
Benzene	ND	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	2.0
Bromoform	ND	5.0
Bromomethane	ND	2.8
2-Butanone	ND	10.0
n-Butylbenzene	ND	5.0
Carbon Tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	5.0
2-Chloroethylvinylether	ND	5.0
Chloroform	ND	5.0
Chloromethane	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
Dibromomethane	ND	5.0
Dibromochloromethane	ND	5.0
Dichlorobromomethane	ND	5.0
Dichlorodifluoromethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	0.96
1,1-Dichloropropene	ND	0.4
1,2-Dibromoethane	ND	0.63
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropane	ND	5.0
c-1,2-Dichloroethene	ND	5.0
c-1,3-Dichloropropene	ND	0.65
t-1,2-Dichloroethene	ND	5.0

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134708
SAMPLE LOCATION: DC-E1

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
t-1,3-Dichloropropene	ND	0.95
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	0.19
2-Hexanone	ND	10.0
Isopropylbenzene	ND	5.0
p-Isopropyltoluene	ND	5.0
Methylene Chloride	ND	10.0
4-Methyl-2-pentanone	ND	5.0
Methyl tert-butyl ether	ND	5.0
Naphthalene	ND	20
n-propylbenzene	ND	5.0
Sec-butylbenzene	ND	5.0
Styrene	ND	5.0
tert-butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.61
1,1,1,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
Vinyl Chloride	ND	2.0
Xylenes	ND	5.0

Surrogate Recoveries:				
	dibromofluoromethane	88%	toluene-d8	89%
	1,2-Dichloroethane	106%	BFB	96%

ND = NOT DETECTED

Method Reference:

EPA Method 8260B (1) GC/MS

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

BLANK **ND** 05/25/03

VOLATILE ORGANICS LCS

%RECOVERY

Dichlorodifluoromethane	77%	1,1,2-Trichloroethane	106%
Chloromethane	75%	Tetrachloroethene	99%
Vinyl chloride	78%	1,3-Dichloropropane	106%
Bromomethane	104%	Dibromochloromethane	102%
Chloroethane	117%	EDB	108%
Trichlorofluoromethane	90%	Chlorobenzene	102%
Acrolein	107%	1,1,1,2-tetrachloroethane	97%
1,1-Dichloroethene	86%	Ethylbenzene	110%
Acetone	114%	m,p-Xylene	118%
Carbon Disulfide	85%	o-Xylene	106%
Methylene chloride	101%	Styrene	104%
Acrylonitrile	105%	Bromoform	109%
trans-1,2-Dichloroethene	87%	Isopropylbenzene	114%
MTBE	98%	Bromobenzene	99%
1,1-Dichloroethane	90%	1,1,2,2-Tetrachloroethane	114%
Vinyl Acetate	102%	1,2,3-Trichloropropane	115%
2-Butanone	107%	N-propylbenzene	119%
Carbon tetrachloride	86%	2-Chlorotoluene	107%
2,2-Dichloropropane	88%	4-Chlorotoluene	106%
c-1,2-dichloroethene	92%	1,3,5-Trimethylbenzene	112%
Bromochloromethane	97%	tert-Butylbenzene	107%
Chloroform	91%	1,2,4-Trimethylbenzene	115%
1,1,1-Trichloroethane	86%	sec-Butylbenzene	119%
1,1-dihloropropene	97%	1,3-Dichlorobenzene	105%
Benzene	96%	1,4-Dichlorobenzene	105%
1,2-Dichloroethane	94%	p-Isopropyltoluene	115%
Trichloroethene	95%	1,2-Dichlorobenzene	109%
1,2-Dichloropropane	97%	N-Butylbenzene	119%
Dibromomethane	99%	1,2-dibromo-3-chloropropane	130%
Bromodichloromethane	94%	1,2,4-trichlorobenzene	165%
2-Chloroethylvinyl Ether	76%	Hexachlorobutadiene	142%
c-1,3-Dichloropropene	93%	Naphthalene	180%
Toluene	104%	1,2,3-Trichlorobenzene	192%
t-1,3-Dichloropropene	102%		

MCP Limits 70%-130%

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	QS / GS
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	SEE BELOW
PRESERVATIVE:	NITRIC ACID		

DISSOLVED RCRA METALS

SAMPLE NUMBER: 134710
SAMPLE LOCATION: DCMWA

	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DIGESTION DATE	ANALYSIS DATE
ARSENIC	ND	0.05	05/28/03	05/28/03
BARIUM	**0.393**	0.03	05/28/03	05/28/03
CADMIUM	ND	0.005	05/28/03	05/28/03
CHROMIUM	ND	0.05	05/28/03	05/28/03
LEAD	ND	0.010	05/28/03	05/28/03
MERCURY	ND	0.001	05/23/03	05/23/03
SELENIUM	ND	0.05	05/28/03	05/28/03
SILVER	ND	0.007	05/28/03	05/30/03

ND = NOT DETECTED

Method Reference:

EPA Method	3005A (1)	Metal Preparation
EPA Method	6010B (1)	Inductively Coupled Plasma
EPA Method	245.1 (2)	Manual Cold Vapor (Mercury)

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.
2) U.S. EPA 1994. "Methods for the Determination of Metals in Environmental Samples", Supplement I-EPA/600/R-94-111-May 1994.

METALS QC

	Blank	Spike % Rec.	Limits	MS	Limits	MSD
Arsenic	ND	103%	80-120%	105%	75-125%	103%
Barium	ND	97%	80-120%	97%	75-125%	98%
Cadmium	ND	105%	80-120%	103%	75-125%	105%
Chromium	ND	102%	80-120%	100%	75-125%	99%
Lead	ND	103%	80-120%	100%	75-125%	99%
Mercury	ND	91%	80-120%	103%	75-125%	100%
Selenium	ND	108%	80-120%	92%	75-125%	92%
Silver	ND	96%	80-120%	102%	75-125%	102%

GEOLABS, INC.
45 JOHNSON LANE
BRAINTREE, MA 02184
M-MA015

LIMITATIONS & EXCLUSIONS

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by GeoLabs in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the work was conducted. No inferences regarding other conditions, locations or materials, at a later or earlier time may be made based on the contents of the report. No other warranty, express or implied is made.

This report was prepared for the sole use of our client. Portions of the report may not be used independent of the entire report.

All analyses were performed within required holding times, in accordance with EPA protocols and using accepted QA/QC procedures. All QA/QC meets acceptable limits unless otherwise noted. The information contained in this report is, to the best of my knowledge, accurate and complete.

Any and all subsequent pages of this report are chain(s) of custody.

GeoLabs, Inc.
Environmental Laboratories
45 Johnson Lane
Braintree, MA 02184
Office: 781-848-7844
Fax: 781-848-7811

Adjusted pH < 2 with HCl
LOT # m0503.039
grab W 5-15-03 (JD)
grab sed

Turnaround Time
RUSH: 24hrs ☐ 48hrs ☐ 72hrs ☐
STANDARD: (5 Days)
Rush Approved by:

Page 1 of 1

SPECIAL INSTRUCTIONS

ALL DLs MUST BE BELOW MCP GW-1 STANDARDS

NEED "PEAK AREA REPORTS" FOR ALL EPH/VPH DATA - CALL TO DISCUSS

EMAIL RESULTS rec'd on 5/23 (JC)

Client: DECOLOS + CO
Address: 3 ELECTRONICS AVE
DANVERS MA 01923
Phone: 617-489-7795
Fax: 877-842-9629
Contact: JIM DECOLOS
E-mail: JAMESJ@DECOLOS.COM

Project Number: 616
Project Location: 131 MAIN ST
CARVER

Purchase Order #:
Collected By: JIM D

ANALYSES REQUESTED

SAMPLE ID	COLLECTION DATE	COLLECTION TIME	SAMPLED BY	SAMPLE LOCATION	CONTAINER TYPE	CONTAINER QUANT	MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	EPH	VPH	EDB	DHS: RCRA 8 (Not Air)	8260B				TEMPERATURE	LAB PH
BP-2	5/21	1530	JD		A/V	3	GW		X	1	134702	X6	X6							4	
BP-3		1600			A/V	5	GW		X		134703	X6	X6	X6						↓	
DC-A1		1615			A	1	SW		X		134704	X6								3-4	
DC-B1		1630			A	1	SW		X		134705	X6								3-4	
DC-C1		1640			A	1	SW		X		134706	X6		(4)						3-4	
DC-D1		1650			A/V	3	GW		X		134707	X6	X6	X6		X				4	
DC-E1		1730			A/V	5	GW		X		134708	X6	X6	X6		X					
DC-F1		1800			A/V	3	GW		X		134709	X6	X6								
DCMWA		2015			A/V/P	6	GW		X		134710	X6	X6	X6	X6					↓	7

CONTAINER CODES:
A = Amber
B = Bag
G = Glass
P = Plastic
S = Summa Canister
O = Other V = VOA

MATRIX CODES:
GW = Ground Water
WW = Wastewater
DW = Drinking Water
SL = Sludge
S = Soil A = Air
O = Oil OT = Other

PRESERVATIVE CODES:
1 = HCl 7 = ICE
2 = HNO_3
3 = H_2SO_4
4 = $Na_2S_2O_3$
5 = NaOH
6 = MeOH

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	5/23/03 0600	E Connor	5-23-03 6:45
Relinquished By: 5-23-03 E Connor 9:05		Received By: Jen L 5/23/03 9:45	
Relinquished By:		Received By: GeoLabs:	

GEOLABS CHAIN OF CUSTODY

GeoLabs, Inc.

Environmental Laboratories

LABORATORY REPORT

PREPARED FOR:

Decoulos & Company
3 Electronics Avenue
Danvers, MA 01923

Attn: Jim Decoulos

PROJECT ID:	616 131 Main Street Carver, MA
GEOLABS CERTIFICATION #:	M-MA015
SAMPLE NUMBER:	134702 - 134710
DATE PREPARED:	June 4, 2003
PREPARED BY:	Christine Johnson
APPROVED BY:	Jim Chen, Laboratory Director/Date

GeoLabs, Inc.
Environmental Laboratories

Exhibit VII A-1 MCP Response Action Analytical Report Certification Form

Analytical Report Certification Form

Laboratory Name: GeoLabs, Inc.
Laboratory Project #: 134702 - 134710
MCP Site Name: 616
MCP RTN #:

MCP SW-846 Methods	8260B (x)	7470/1 ( )	8082 ( )	VPH (x)	Other: RCRA-8
	8270C ( )	8081A ( )	7000 ( )	EPH (x)	Other:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*
Were all QA/QC performance standards for specified analytical method(s) included in this report met (including those not required to be reported)?	Yes ☐ No ☒ *(if **No** must address in narrative. Attach additional information if required)*
Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples, by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?	Yes * ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)* *If **Yes**, reported in: ☒ Analytical Report ☐ Case Narrative
Were all samples received by laboratory in a condition consistent with those described on their Chain-of-Custody documentation?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Lab Director

Printed Name: Jim Chen Date: June 4, 2003

GeoLabs, Inc.

Environmental Laboratories

CASE NARRATIVE

Project ID:	616	Sample Number:	134702 - 134710
Client Name:	Decoulos & Company	Received:	5/13/03

Physical Condition of Samples

This project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

This project was accompanied by satisfactory Chain of Custody documentation. The sample container label(s) agreed with the Chain of Custody.

Analysis of Sample(s)

The following analytical anomalies or non-conformances were noted by the laboratory during the processing of these sample(s):

1. Not all surrogate recoveries pass on EPH samples, matrix interference confirmed

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		BP-2	BP-3	
		Lab ID:		134702	134703	
		Date Collected:		05/21/03	05/21/03	
		Date Received:		05/23/03	05/23/03	
		Date Extracted:		05/23/03	05/23/03	
		Date Fractions Analyzed:		05/28/03	05/28/03	
		Date Targets Analyzed:		05/30/03	05/30/03	
		Dilution Factor:		1.0	1.0	
		Total solids (%):		N/A	N/A	
Range/Target Analyte		RL	Units			
Unadjusted C11-C22 Aromatics[1]		100	(µg/L)	ND	ND	
Diesel PAH Analytes	Naphthalene	1.00	(µg/L)	ND	ND	
	2-Methylnaphthalene	1.00	(µg/L)	ND	ND	
	Acenaphthene	1.00	(µg/L)	ND	ND	
	Phenanthrene	1.00	(µg/L)	ND	ND	
Other Target PAH Analytes	Acenaphthylene	1.00	(µg/L)	ND	ND	
	Fluorene	1.00	(µg/L)	ND	ND	
	Anthracene	1.00	(µg/L)	ND	ND	
	Fluoranthene	1.00	(µg/L)	ND	ND	
	Pyrene	1.50	(µg/L)	ND	ND	
	Benz[a]Anthracene	1.00	(µg/L)	ND	ND	
	Chrysene	1.00	(µg/L)	ND	ND	
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	ND	
	Benzo[k]Fluoranthene	0.120	(µg/L)	ND	ND	
	Benzo[a]Pyrene	0.080	(µg/L)	ND	ND	
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND	ND	
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	ND	
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	ND	
C9-C18 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND	**192**	
C19-C36 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND	ND	
C11-C22 Aromatic Hydrocarbons[1,2]		100	(µg/L)	ND	ND	
Aliphatic Surrogate % Recovery (COD)				89%	82%	
Aromatic Surrogate % Recovery (OTP)				102%	97%	
Sample Surrogate Acceptance Range				40-140%	40-140%	
2,2'-Difluorobiphenyl % Recovery				54%	55%	
2-Fluorobiphenyl % Recovery				49%	51%	
Fractionation Surrogate Acceptance Range				40-140%	40-140%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

			Client ID:	DC-A1	DC-B1	
			Lab ID:	134704	134705	
			Date Collected:	05/21/03	05/21/03	
			Date Received:	05/23/03	05/23/03	
			Date Extracted:	05/23/03	05/23/03	
			Date Fractions Analyzed:	05/28/03	05/28/03	
			Date Targets Analyzed:	05/30/03	05/30/03	
			Dilution Factor:	See Dilution		
			Total solids (%):	N/A	N/A	
Range/Target Analyte		RL	Units			**Dilution**
Unadjusted C_{11}-C_{22} Aromatics[1]		100	(µg/L)	**456000**	**863000**	125
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)	**113**	**110**	1
	2-Methylnaphthalene	25.0	(µg/L)	**4597**	**4524**	25
	Acenaphthene	1.00	(µg/L)	**51.5**	**40.9**	1
	Phenanthrene	1.00	(µg/L)	**73.9**	ND	1
Other Target PAH Analytes	**Acenaphthylene**	1.00	(µg/L)	**13.1**	**10.3**	1
	Fluorene	1.00	(µg/L)	**182**	**180**	1
	Anthracene	1.00	(µg/L)	**308**	**260**	1
	Fluoranthene	1.00	(µg/L)	**9.91**	**8.12**	1
	Pyrene	1.50	(µg/L)	**58.4**	**63.4**	1
	Benz[a]Anthracene	1.00	(µg/L)	ND	ND	1
	Chrysene	1.00	(µg/L)	**2.22**	**2.76**	1
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	ND	1
	Benzo[k]Fluoranthene	0.120	(µg/L)	**0.636**	**0.742**	1
	Benzo[a]Pyrene	0.080	(µg/L)	**0.431**	**0.474**	1
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND	**0.247**	1
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	ND	1
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	ND	1
C9-C18 Aliphatic Hydrocarbons[1]		125000	(µg/L)	**2040000**	**2040000**	1250
C19-C36 Aliphatic Hydrocarbons[1]		50000	(µg/L)	**732000**	**696000**	500
C11-C22 Aromatic Hydrocarbons[1,2]		12500	(µg/L)	**451000**	**858000**	125
Aliphatic Surrogate % Recovery (COD)				**961%***	**1420%***	
Aromatic Surrogate % Recovery (OTP)				**793%***	**884%***	
Sample Surrogate Acceptance Range				40-140%	40-140%	
2,2'-Difluorobiphenyl % Recovery				**74%**	**67%**	
2-Fluorobiphenyl % Recovery				**47%**	**40%**	
Fractionation Surrogate Acceptance Range				40-140%	40-140%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION *** Matrix interference confirmed by re-run**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DC-C1		
		Lab ID:		134706		
		Date Collected:		05/21/03		
		Date Received:		05/23/03		
		Date Extracted:		05/23/03		
		Date Fractions Analyzed:		05/28/03		
		Date Targets Analyzed:		05/30/03		
		Dilution Factor:		See Dilution		
		Total solids (%):		N/A		
Range/Target Analyte		RL	Units		**Dilution**	
Unadjusted C_{11}-C_{22} Aromatics[1]		100	(µg/L)	**794000**	125	
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)	**117**	1	
	2-Methylnaphthalene	25.0	(µg/L)	**4854**	25	
	Acenaphthene	1.00	(µg/L)	**31.8**	1	
	Phenanthrene	1.00	(µg/L)	ND	1	
Other Target PAH Analytes	**Acenaphthylene**	1.00	(µg/L)	**9.00**	1	
	Fluorene	1.00	(µg/L)	**150**	1	
	Anthracene	1.00	(µg/L)	**281**	1	
	Fluoranthene	1.00	(µg/L)	**10.0**	1	
	Pyrene	1.50	(µg/L)	**70.9**	1	
	Benz[a]Anthracene	1.00	(µg/L)	ND	1	
	Chrysene	1.00	(µg/L)	**2.86**	1	
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	1	
	Benzo[k]Fluoranthene	0.120	(µg/L)	**0.265**	1	
	Benzo[a]Pyrene	0.080	(µg/L)	**0.571**	1	
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	**0.367**	1	
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	1	
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	1	
C9-C18 Aliphatic Hydrocarbons[1]		125000	(µg/L)	**2150000**	1250	
C19-C36 Aliphatic Hydrocarbons[1]		50000	(µg/L)	**721000**	500	
C11-C22 Aromatic Hydrocarbons[1,2]		12500	(µg/L)	**788000**	125	
Aliphatic Surrogate % Recovery (COD)				**953%***		
Aromatic Surrogate % Recovery (OTP)				**1220%***		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				**73%**		
2-Fluorobiphenyl % Recovery				**40%**		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

*** Matrix interference confirmed by re-run**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

	Client ID:			DC-D1	DC-E1	DC-F1
	Lab ID:			134707	134708	134709
	Date Collected:			05/21/03	05/21/03	05/21/03
	Date Received:			05/23/03	05/23/03	05/23/03
	Date Extracted:			05/23/03	05/23/03	05/23/03
	Date Fractions Analyzed:			05/28/03	05/28/03	05/28/03
	Date Targets Analyzed:			05/30/03	05/30/03	05/30/03
	Dilution Factor:			1.0	1.0	1.0
	Total solids (%):			N/A	N/A	N/A
Range/Target Analyte		RL	Units			
Unadjusted C11-C22 Aromatics[1]		100	(µg/L)	ND	**112**	ND
Diesel PAH Analytes	Naphthalene	1.00	(µg/L)	ND	ND	ND
	2-Methylnaphthalene	1.00	(µg/L)	ND	ND	ND
	Acenaphthene	1.00	(µg/L)	ND	ND	ND
	Phenanthrene	1.00	(µg/L)	ND	ND	ND
Other Target PAH Analytes	Acenaphthylene	1.00	(µg/L)	ND	ND	ND
	Fluorene	1.00	(µg/L)	ND	ND	ND
	Anthracene	1.00	(µg/L)	ND	ND	ND
	Fluoranthene	1.00	(µg/L)	ND	ND	ND
	Pyrene	1.50	(µg/L)	ND	ND	ND
	Benz[a]Anthracene	1.00	(µg/L)	ND	ND	ND
	Chrysene	1.00	(µg/L)	ND	ND	ND
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND	ND	ND
	Benzo[k]Fluoranthene	0.120	(µg/L)	ND	ND	ND
	Benzo[a]Pyrene	0.080	(µg/L)	ND	ND	ND
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND	ND	ND
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND	ND	ND
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND	ND	ND
C9-C18 Aliphatic Hydrocarbons[1]		100	(µg/L)	**188**	**266**	ND
C19-C36 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND	ND	ND
C11-C22 Aromatic Hydrocarbons[1,2]		100	(µg/L)	ND	**112**	ND
Aliphatic Surrogate % Recovery (COD)				**68%**	**80%**	**65%**
Aromatic Surrogate % Recovery (OTP)				**79%**	**101%**	**90%**
Sample Surrogate Acceptance Range				40-140%	40-140%	40-140%
2,2'-Difluorobiphenyl % Recovery				**26%***	**51%**	**49%**
2-Fluorobiphenyl % Recovery				**22%***	**49%**	**43%**
Fractionation Surrogate Acceptance Range				40-140%	40-140%	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION *** Matrix interference confirmed by re-run**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DCMWA		
		Lab ID:		134710		
		Date Collected:		05/21/03		
		Date Received:		05/23/03		
		Date Extracted:		05/23/03		
		Date Fractions Analyzed:		05/28/03		
		Date Targets Analyzed:		05/30/03		
		Dilution Factor:		1.0		
		Total solids (%):		N/A		
Range/Target Analyte		RL	Units			
Unadjusted C_{11}-C_{22} Aromatics[1]		100	(µg/L)	ND		
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)	**8.21**		
	2-Methylnaphthalene	1.00	(µg/L)	**1.30**		
	Acenaphthene	1.00	(µg/L)	ND		
	Phenanthrene	1.00	(µg/L)	ND		
Other Target PAH Analytes	Acenaphthylene	1.00	(µg/L)	ND		
	Fluorene	1.00	(µg/L)	ND		
	Anthracene	1.00	(µg/L)	ND		
	Fluoranthene	1.00	(µg/L)	ND		
	Pyrene	1.50	(µg/L)	ND		
	Benz[a]Anthracene	1.00	(µg/L)	ND		
	Chrysene	1.00	(µg/L)	ND		
	Benzo[b]Fluoranthene	1.00	(µg/L)	ND		
	Benzo[k]Fluoranthene	0.120	(µg/L)	ND		
	Benzo[a]Pyrene	0.080	(µg/L)	ND		
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)	ND		
	Dibenzo[a,h]Anthracene	0.500	(µg/L)	ND		
	Benzo[g,h,i]Perylene	1.50	(µg/L)	ND		
C9-C18 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND		
C19-C36 Aliphatic Hydrocarbons[1]		100	(µg/L)	ND		
C11-C22 Aromatic Hydrocarbons[1,2]		100	(µg/L)	ND		
Aliphatic Surrogate % Recovery (COD)				86%		
Aromatic Surrogate % Recovery (OTP)				97%		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				53%		
2-Fluorobiphenyl % Recovery				49%		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/4/03

EPH - QC - Ranges
EXTRACTABLE PETROLEUM HYDROCARBONS

	QC RESULTS						
	Method Blank	**MDL (µg/L)**	**Spike % Recovery 1**	**Spike % Recovery 2**		**RPD**	**%**
*c9-c18 Aliphatics	25.8	100	66.0	70.1	40-140	4.33	≤ 50
c19-c36 Aliphatics	22.7	100	95.9	104	40-140	7.08	≤ 50
c11-c22 Aromatics	42.5	100	79.4	71.7	40-140	8.35	≤ 50

Surrogate % Recovery:

COD	82%	40-140	72%	95%	40-140	27.4%	≤ 50
OTP	100%	40-140	96%	99%	40-140	3.10%	≤ 50

EPH - QC Target Analyte
EXTRACTABLE PETROLEUM HYDROCARBONS

	QC RESULTS		
	Method Blank	**Spike % Recovery 1**	**Limits %**
Naphthalene	ND	47%	40-140%
Acenapthalene	ND	66%	40-140%
Anthracene	ND	74%	40-140%
Pyrene	ND	83%	40-140%
Chrysene	ND	94%	40-140%

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

	Client ID:	BP-2	BP-3	DC-D1
	Lab ID:	134702	134703	134707
	Date Collected:	05/21/03	05/21/03	05/21/03
	Date Received:	05/23/03	05/23/03	05/23/03
	Date Analyzed:	05/29/03	05/29/03	05/29/03
	Dilution Factor:	1.0	1.0	1.0
	Total solids (%):	N/A	N/A	N/A

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	ND	ND	**108**
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	ND	ND	ND
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	ND	ND	**192**
Benzene	C_5-C_8 Aliph.	5	ug/L	ND	ND	**5.20**
Toluene	C_5-C_8 Aliph.	5	ug/L	ND	ND	ND
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	ND
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND	ND	ND
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	ND
Naphthalene	N/A	20	ug/L	ND	ND	ND
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND	ND	ND
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND	ND	ND
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND	ND	ND
2,5-Dibromotoluene (PID) Surrogate Recovery				91%	98%	92%
2,5-Dibromotoluene (FID) Surrogate Recovery				72%	76%	79%
Surrogate Acceptance Range				70-130%	70-130%	70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/04/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

Client ID:	DC-E1	DC-F1		
Lab ID:	134708	134709		
Date Collected:	05/21/03	05/21/03		
Date Received:	05/23/03	05/23/03		
Date Analyzed:	05/29/03	05/29/03		
Dilution Factor:	1.0	1.0		
Total solids (%):	N/A	N/A		

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	ND	ND	
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	ND	ND	
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Benzene	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Toluene	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
Naphthalene	N/A	20	ug/L	ND	ND	
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND	ND	
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND	ND	
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND	ND	
2,5-Dibromotoluene (PID) Surrogate Recovery				93%	96%	
2,5-Dibromotoluene (FID) Surrogate Recovery				73%	76%	
Surrogate Acceptance Range				70-130%	70-130%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/04/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

				Client ID:	DCMWA	
				Lab ID:	134710	
				Date Collected:	05/21/03	
				Date Received:	05/23/03	
				Date Analyzed:	05/29/03	
				Dilution Factor:	1.0 / 5.0*	
				Total solids (%):	N/A	
Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	**571**		
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	**287**		
Methyl tert-butyl ether	C_5-C_8 Aliph.	25*	ug/L	**992**		
Benzene	C_5-C_8 Aliph.	5	ug/L	**40.4**		
Toluene	C_5-C_8 Aliph.	5	ug/L	**22.0**		
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	**202**		
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	**454**		
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	**143**		
Naphthalene	N/A	20	ug/L	**25.2**		
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND		
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND		
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	**961**		
2,5-Dibromotoluene (PID) Surrogate Recovery				100%		
2,5-Dibromotoluene (FID) Surrogate Recovery				83%		
Surrogate Acceptance Range				70-130%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/04/03

Matrix: **Water** µg/L	**LCS %**	**Limit**	**BLANK**
MTBE	96%	70-130%	ND
Benzene	88%	70-130%	ND
Toluene	108%	70-130%	ND
Ethyl Benzene	97%	70-130%	ND
m,p-xylene	122%	70-130%	ND
o-xylene	106%	70-130%	ND
Naphthalene	104%	70-130%	ND
Surrogate Recoveries:			
2,5-Dibromotoluene (PID)	97%		
2,5-Dibromotoluene (FID)	88%		

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/25/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

1,2-DIBROMOETHANE

SAMPLE NUMBER	SAMPLE LOCATION	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
134703	BP-3	ND	0.650
134710	DCMWA	ND	0.650

ND = NOT DETECTED CALCULATIONS BASED ON DRY WEIGHT

Method Reference:

EPA Method 8260B (1) GC/MS 5035 Collection Method

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134707
SAMPLE LOCATION: DC-D1

* 5x dilution	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Acetone	ND	50.0
Acrylonitrile	ND	50.0
Benzene	**5.37**	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	2.0
Bromoform	ND	5.0
Bromomethane	ND	2.8
2-Butanone	ND	10.0
n-Butylbenzene	ND	5.0
Carbon Tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	5.0
2-Chloroethylvinylether	ND	5.0
Chloroform	ND	5.0
Chloromethane	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
Dibromomethane	ND	5.0
Dibromochloromethane	ND	5.0
Dichlorobromomethane	ND	5.0
Dichlorodifluoromethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	0.96
1,1-Dichloropropene	ND	0.4
1,2-Dibromoethane	ND	0.63
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropane	ND	5.0
c-1,2-Dichloroethene	ND	5.0
c-1,3-Dichloropropene	ND	0.65
t-1,2-Dichloroethene	ND	5.0

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134707
SAMPLE LOCATION: DC-D1

*** 5x dilution**	**RESULTS (µg/L)**	**DETECTION LIMIT (µg/L)**
t-1,3-Dichloropropene	ND	0.95
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	0.19
2-Hexanone	ND	10.0
Isopropylbenzene	ND	5.0
p-Isopropyltoluene	ND	5.0
Methylene Chloride	ND	10.0
4-Methyl-2-pentanone	ND	5.0
Methyl tert-butyl ether *	**214**	25.0
Naphthalene	ND	20
n-propylbenzene	ND	5.0
Sec-butylbenzene	ND	5.0
Styrene	ND	5.0
tert-butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.61
1,1,1,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
Vinyl Chloride	ND	2.0
Xylenes	ND	5.0

Surrogate Recoveries:				
	dibromofluoromethane	92%	toluene-d8	86%
	1,2-Dichloroethane	111%	BFB	97%

ND = NOT DETECTED

Method Reference:

EPA Method 8260B (1) GC/MS

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134708
SAMPLE LOCATION: DC-E1

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Acetone	ND	50.0
Acrylonitrile	ND	50.0
Benzene	ND	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	2.0
Bromoform	ND	5.0
Bromomethane	ND	2.8
2-Butanone	ND	10.0
n-Butylbenzene	ND	5.0
Carbon Tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	5.0
2-Chloroethylvinylether	ND	5.0
Chloroform	ND	5.0
Chloromethane	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
Dibromomethane	ND	5.0
Dibromochloromethane	ND	5.0
Dichlorobromomethane	ND	5.0
Dichlorodifluoromethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	0.96
1,1-Dichloropropene	ND	0.4
1,2-Dibromoethane	ND	0.63
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropane	ND	5.0
c-1,2-Dichloroethene	ND	5.0
c-1,3-Dichloropropene	ND	0.65
t-1,2-Dichloroethene	ND	5.0

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	ZYZ 05/26/03
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 134708
SAMPLE LOCATION: DC-E1

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
t-1,3-Dichloropropene	ND	0.95
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	0.19
2-Hexanone	ND	10.0
Isopropylbenzene	ND	5.0
p-Isopropyltoluene	ND	5.0
Methylene Chloride	ND	10.0
4-Methyl-2-pentanone	ND	5.0
Methyl tert-butyl ether	ND	5.0
Naphthalene	ND	20
n-propylbenzene	ND	5.0
Sec-butylbenzene	ND	5.0
Styrene	ND	5.0
tert-butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.61
1,1,1,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
Vinyl Chloride	ND	2.0
Xylenes	ND	5.0

Surrogate Recoveries:				
	dibromofluoromethane	88%	toluene-d8	89%
	1,2-Dichloroethane	106%	BFB	96%

ND = NOT DETECTED

Method Reference:

EPA Method 8260B (1) GC/MS

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

BLANK **ND** 05/25/03

VOLATILE ORGANICS LCS

%RECOVERY

Dichlorodifluoromethane	77%	1,1,2-Trichloroethane	106%
Chloromethane	75%	Tetrachloroethene	99%
Vinyl chloride	78%	1,3-Dichloropropane	106%
Bromomethane	104%	Dibromochloromethane	102%
Chloroethane	117%	EDB	108%
Trichlorofluoromethane	90%	Chlorobenzene	102%
Acrolein	107%	1,1,1,2-tetrachloroethane	97%
1,1-Dichloroethene	86%	Ethylbenzene	110%
Acetone	114%	m,p-Xylene	118%
Carbon Disulfide	85%	o-Xylene	106%
Methylene chloride	101%	Styrene	104%
Acrylonitrile	105%	Bromoform	109%
trans-1,2-Dichloroethene	87%	Isopropylbenzene	114%
MTBE	98%	Bromobenzene	99%
1,1-Dichloroethane	90%	1,1,2,2-Tetrachloroethane	114%
Vinyl Acetate	102%	1,2,3-Trichloropropane	115%
2-Butanone	107%	N-propylbenzene	119%
Carbon tetrachloride	86%	2-Chlorotoluene	107%
2,2-Dichloropropane	88%	4-Chlorotoluene	106%
c-1,2-dichloroethene	92%	1,3,5-Trimethylbenzene	112%
Bromochloromethane	97%	tert-Butylbenzene	107%
Chloroform	91%	1,2,4-Trimethylbenzene	115%
1,1,1-Trichloroethane	86%	sec-Butylbenzene	119%
1,1-dihloropropene	97%	1,3-Dichlorobenzene	105%
Benzene	96%	1,4-Dichlorobenzene	105%
1,2-Dichloroethane	94%	p-Isopropyltoluene	115%
Trichloroethene	95%	1,2-Dichlorobenzene	109%
1,2-Dichloropropane	97%	N-Butylbenzene	119%
Dibromomethane	99%	1,2-dibromo-3-chloropropane	130%
Bromodichloromethane	94%	1,2,4-trichlorobenzene	165%
2-Chloroethylvinyl Ether	76%	Hexachlorobutadiene	142%
c-1,3-Dichloropropene	93%	Naphthalene	180%
Toluene	104%	1,2,3-Trichlorobenzene	192%
t-1,3-Dichloropropene	102%		

MCP Limits 70%-130%

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/04/03
COLLECTION DATE:	05/21/03	ANALYZED BY:	QS / GS
REC'D BY LAB:	05/23/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	SEE BELOW
PRESERVATIVE:	NITRIC ACID		

DISSOLVED RCRA METALS

SAMPLE NUMBER: 134710
SAMPLE LOCATION: DCMWA

	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DIGESTION DATE	ANALYSIS DATE
ARSENIC	ND	0.05	05/28/03	05/28/03
BARIUM	**0.393**	0.03	05/28/03	05/28/03
CADMIUM	ND	0.005	05/28/03	05/28/03
CHROMIUM	ND	0.05	05/28/03	05/28/03
LEAD	ND	0.010	05/28/03	05/28/03
MERCURY	ND	0.001	05/23/03	05/23/03
SELENIUM	ND	0.05	05/28/03	05/28/03
SILVER	ND	0.007	05/28/03	05/30/03

ND = NOT DETECTED

Method Reference:

EPA Method	3005A (1)	Metal Preparation
EPA Method	6010B (1)	Inductively Coupled Plasma
EPA Method	245.1 (2)	Manual Cold Vapor (Mercury)

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.
2) U.S. EPA 1994. "Methods for the Determination of Metals in Environmental Samples", Supplement I-EPA/600/R-94-111-May 1994.

METALS QC

	Blank	Spike % Rec.	Limits	MS	Limits	MSD
Arsenic	ND	103%	80-120%	105%	75-125%	103%
Barium	ND	97%	80-120%	97%	75-125%	98%
Cadmium	ND	105%	80-120%	103%	75-125%	105%
Chromium	ND	102%	80-120%	100%	75-125%	99%
Lead	ND	103%	80-120%	100%	75-125%	99%
Mercury	ND	91%	80-120%	103%	75-125%	100%
Selenium	ND	108%	80-120%	92%	75-125%	92%
Silver	ND	96%	80-120%	102%	75-125%	102%

GEOLABS, INC.
45 JOHNSON LANE
BRAINTREE, MA 02184
M-MA015

LIMITATIONS & EXCLUSIONS

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by GeoLabs in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the work was conducted. No inferences regarding other conditions, locations or materials, at a later or earlier time may be made based on the contents of the report. No other warranty, express or implied is made.

This report was prepared for the sole use of our client. Portions of the report may not be used independent of the entire report.

All analyses were performed within required holding times, in accordance with EPA protocols and using accepted QA/QC procedures. All QA/QC meets acceptable limits unless otherwise noted. The information contained in this report is, to the best of my knowledge, accurate and complete.

Any and all subsequent pages of this report are chain(s) of custody.

GeoLabs, Inc.
Environmental Laboratories
45 Johnson Lane
Braintree, MA 02184
Office: 781-848-7844
Fax: 781-848-7811

Adjusted pH < 2 with HCl

LOT # m0503.039
Sup. 11-15-03

Turnaround Time
RUSH: 24hrs ☐ 48hrs ☐ 72hrs ☐
STANDARD: (5 Days)
Rush Approved by:

Page 1 of 1

SPECIAL INSTRUCTIONS

ALL DLs MUST BE BELOW MCP GW-1 STANDARDS

NEED "PEAK AREA REPORTS" FOR ALL EPH/VPH DATA - CALL TO DISCUSS

EMAIL RESULTS

Rec'd on CD (JC)

Client: DECOULOS + CO
Address: 3 ELECTRONICS AVE
DANVERS MA 01923
Phone: 617-489-7795
Fax: 877-842-9629
Contact: JIM DECAROS
E-mail: JAMES@DECAROS.COM

Project Number: 616
Project Location: 131 MAIN ST CARVER
Purchase Order #:
Collected By: JIM D

ANALYSES REQUESTED

SAMPLE ID	COLLECTION DATE	COLLECTION TIME	COLLECTION SAMPLED BY	SAMPLE LOCATION	CONTAINER TYPE	CONTAINER QUANT	MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	EPH	VPH	EDB	DISS. RCRA 8 (NOT AS)	8260B				TEMPERATURE	LAB PH
BP-2	5/21	1530	JD		A/V	3	GW		X	1	134702	X[6]	X[6]							L7	
BP-3		1600			A/V	5	GW		X		134703	X[6]	X[6]	X[6]						↓	
DC-A1		1615			A	1	SW		X		134704	X[1]								3-4°	
DC-B1		1630			A	1	SW		X		134705	X[6]								3-4°	
DC-C1		1640			A	1	SW		X		134706	X[6]		(4)						3-4°	
DC-D1		1650			A/V	3	GW		X		134707	X[6]	X[6]	X[6]		X				L7	
DC-E1		1730			A/V	5	GW		X		134708	X[6]	X[6]	X[6]		X					
DC-F1		1800			A/V	3	GW		X		134709	X[6]	X[6]								
DCMWA		2015			A/V/P	6	GW		X		134710	X[6]	X[6]	X[6]	X[6]					↓	7

CONTAINER CODES:
A = Amber
B = Bag
G = Glass
P = Plastic
S = Summa Canister
O = Other V = VOA

MATRIX CODES:
GW = Ground Water
WW = Wastewater
DW = Drinking Water
SL = Sludge
S = Soil A = Air
O = Oil OT = Other

PRESERVATIVE CODES:
1 = HCl 7 = ICE
2 = HNO_3
3 = H_2SO_4
4 = $Na_2S_2O_3$
5 = NaOH
6 = MeOH

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	5/23/03 0600	E Connor	5-23-03 0655
Relinquished By: 5-23-03 E Connor 9:05		Received By: Jim D	5/23/3 9:05
Relinquished By:		Received By: GeoLabs:	

GEOLABS CHAIN OF CUSTODY

GeoLabs, Inc.

Environmental Laboratories

LABORATORY REPORT

PREPARED FOR:

Decoulos & Company
3 Electronics Avenue
Danvers, MA 01923

Attn: Jim Decoulos

PROJECT ID:	616 131 Main Street Carver
GEOLABS CERTIFICATION #:	M-MA015
SAMPLE NUMBER:	135239 - 135247
DATE PREPARED:	June 17, 2003
PREPARED BY:	Christine Johnson

APPROVED BY: _____
Jim Chen, Laboratory Director/Date

GeoLabs, Inc.
Environmental Laboratories

Exhibit VII A-1 MCP Response Action Analytical Report Certification Form

Analytical Report Certification Form

Laboratory Name: GeoLabs, Inc.
Laboratory Project #: 135239 - 135247
MCP Site Name: 616
MCP RTN #:

MCP SW-846 Methods	8260B (x)	7470/1 ( )	8082 ( )	VPH (x)	Other:
	8270C ( )	8081A ( )	7000 ( )	EPH (x)	Other:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?	Yes ☒ No ☐ *(if* **No** *must address in narrative. Attach additional information if required)*
Were all QA/QC performance standards for specified analytical method(s) included in this report met (including those not required to be reported)?	Yes ☐ No ☒ *(if* **No** *must address in narrative. Attach additional information if required)*
Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples, by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?	Yes * ☒ No ☐ *(if* **No** *must address in narrative. Attach additional information if required)* *If **Yes**, reported in: ☒ Analytical Report ☐ Case Narrative
Were all samples received by laboratory in a condition consistent with those described on their Chain-of-Custody documentation?	Yes ☒ No ☐ *(if* **No** *must address in narrative. Attach additional information if required)*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Lab Director

Printed Name: Jim Chen Date: June 17, 2003

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CASE NARRATIVE

Project ID:	616	Sample Number:	135239 - 135247
Client Name:	Decoulos & Company	Received:	6/9/03

Physical Condition of Samples

This project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

This project was accompanied by satisfactory Chain of Custody documentation. The sample container label(s) agreed with the Chain of Custody.

Analysis of Sample(s)

The following analytical anomalies or non-conformances were noted by the laboratory during the processing of these sample(s):

1. Samples 135241 abd 135243 do not pass Surrogate recoveries, matrix interference confirmed

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/17/03
COLLECTION DATE:	06/02/03	ANALYZED BY:	ZYZ 06/09/03
REC'D BY LAB:	06/09/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 135239
SAMPLE LOCATION: DC-G1

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Acetone	ND	50.0
Acrylonitrile	ND	50.0
Benzene	ND	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	2.0
Bromoform	ND	5.0
Bromomethane	ND	2.8
2-Butanone	ND	10.0
n-Butylbenzene	ND	5.0
Carbon Tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	5.0
2-Chloroethylvinylether	ND	5.0
Chloroform	ND	5.0
Chloromethane	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
Dibromomethane	ND	5.0
Dibromochloromethane	ND	5.0
Dichlorobromomethane	ND	5.0
Dichlorodifluoromethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	0.96
1,1-Dichloropropene	ND	0.4
1,2-Dibromoethane	ND	0.63
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropane	ND	5.0
c-1,2-Dichloroethene	ND	5.0
c-1,3-Dichloropropene	ND	0.65
t-1,2-Dichloroethene	ND	5.0

CLIENT NAME:	**DECOULOS & COMPANY**	PROJECT ID:	131 MAIN STREET
SAMPLE TYPE:	GROUNDWATER	REPORT DATE:	06/17/03
COLLECTION DATE:	06/02/03	ANALYZED BY:	ZYZ 06/09/03
REC'D BY LAB:	06/09/03	EXTRACTION DATE:	N/A
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A
PRESERVATIVE:	HYDROCHLORIC ACID		

VOLATILE ORGANICS

SAMPLE NUMBER: 135239
SAMPLE LOCATION: DC-G1

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
t-1,3-Dichloropropene	ND	0.95
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	0.19
2-Hexanone	ND	10.0
Isopropylbenzene	ND	5.0
p-Isopropyltoluene	ND	5.0
Methylene Chloride	ND	10.0
4-Methyl-2-pentanone	ND	5.0
Methyl tert-butyl ether	ND	5.0
Naphthalene	ND	20
n-propylbenzene	ND	5.0
Sec-butylbenzene	ND	5.0
Styrene	ND	5.0
tert-butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.61
1,1,1,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
Vinyl Chloride	ND	2.0
Xylenes	ND	5.0

Surrogate Recoveries:				
	dibromofluoromethane	93%	toluene-d8	96%
	1,2-Dichloroethane	102%	BFB	107%

ND = NOT DETECTED

Method Reference:

EPA Method 8260B (1) GC/MS

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.

BLANK **ND** 06/09/03

VOLATILE ORGANICS LCS

%RECOVERY

Dichlorodifluoromethane	89%	1,1,2-Trichloroethane	102%
Chloromethane	87%	Tetrachloroethene	110%
Vinyl chloride	92%	1,3-Dichloropropane	103%
Bromomethane	114%	Dibromochloromethane	106%
Chloroethane	104%	EDB	106%
Trichlorofluoromethane	95%	Chlorobenzene	112%
Acrolein	104%	1,1,1,2-tetrachloroethane	105%
1,1-Dichloroethene	103%	Ethylbenzene	113%
Acetone	92%	m,p-Xylene	120%
Carbon Disulfide	101%	o-Xylene	115%
Methylene chloride	115%	Styrene	117%
Acrylonitrile	97%	Bromoform	105%
trans-1,2-Dichloroethene	102%	Isopropylbenzene	118%
MTBE	99%	Bromobenzene	113%
1,1-Dichloroethane	97%	1,1,2,2-Tetrachloroethane	101%
Vinyl Acetate	96%	1,2,3-Trichloropropane	104%
2-Butanone	85%	N-propylbenzene	124%
Carbon tetrachloride	110%	2-Chlorotoluene	117%
2,2-Dichloropropane	114%	4-Chlorotoluene	119%
c-1,2-dichloroethene	104%	1,3,5-Trimethylbenzene	118%
Bromochloromethane	97%	tert-Butylbenzene	108%
Chloroform	103%	1,2,4-Trimethylbenzene	118%
1,1,1-Trichloroethane	104%	sec-Butylbenzene	118%
1,1-dihloropropene	105%	1,3-Dichlorobenzene	114%
Benzene	91%	1,4-Dichlorobenzene	102%
1,2-Dichloroethane	104%	p-Isopropyltoluene	117%
Trichloroethene	102%	1,2-Dichlorobenzene	110%
1,2-Dichloropropane	102%	N-Butylbenzene	115%
Dibromomethane	101%	1,2-dibromo-3-chloropropane	98%
Bromodichloromethane	104%	1,2,4-trichlorobenzene	117%
2-Chloroethylvinyl Ether	151%	Hexachlorobutadiene	124%
c-1,3-Dichloropropene	106%	Naphthalene	117%
Toluene	105%	1,2,3-Trichlorobenzene	116%
t-1,3-Dichloropropene	101%		

MCP Limits 70%-130%

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SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

Client ID:	DC-G1
Lab ID:	135239
Date Collected:	06/02/03
Date Received:	06/09/03
Date Analyzed:	06/10/03
Dilution Factor:	1.0
Total solids (%):	N/A

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C5-C8 Aliphatics[1]	N/A	40	ug/L	ND		
Unadjusted C9-C12 Aliphatics[1]	N/A	15	ug/L	ND		
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	ND		
Benzene	C_5-C_8 Aliph.	5	ug/L	ND		
Toluene	C_5-C_8 Aliph.	5	ug/L	ND		
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND		
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND		
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND		
Naphthalene	N/A	20	ug/L	ND		
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND		
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND		
C9-C10 Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND		
2,5-Dibromotoluene (PID) Surrogate Recovery				112%		
2,5-Dibromotoluene (FID) Surrogate Recovery				107%		
Surrogate Acceptance Range				70-130%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

Matrix: Water µg/L	LCS %	Limit	BLANK
MTBE	97%	70-130%	ND
Benzene	99%	70-130%	ND
Toluene	120%	70-130%	ND
Ethyl Benzene	117%	70-130%	ND
m,p-xylene	130%	70-130%	ND
o-xylene	125%	70-130%	ND
Naphthalene	108%	70-130%	ND
Surrogate Recoveries:			
2,5-Dibromotoluene (PID)	106%		
2,5-Dibromotoluene (FID)	101%		

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SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative:	Aqueous	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☒ Samples received in MeOH ☒ Covering soil ? ☐ Not	☒ 1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS				Client ID:	DC-SB2	DC-SD2	DC-SE2
Method for Ranges: MADEP VPH				Lab ID:	135241	135242	135243
Method for Target Analytes: MADEP VPH				Date Collected:	06/02/03	06/02/03	06/02/03
VPH Surrogate Standards				Date Received:	06/09/03	06/09/03	06/09/03
PID (2,5-Dibromotoluene)				Date Analyzed:	06/10/03	06/10/03	06/10/03
FID (2,5-Dibromotoluene)				Dilution Factor:	1.00	1.00	1.00
				Total solids (%):	84	79	84
Range/Target Analyte	Elut. Range	RL	Units				
Unadjusted C_5-C_8 Aliphatics[1]	N/A	6.50	mg/Kg		**93.9**	**59.9**	**188**
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	6.50	mg/Kg		**123**	ND	**367**
Methyl tert-butyl ether	C_5-C_8 Aliph.	0.50	mg/Kg		**0.524**	ND	**4.93**
Benzene	C_5-C_8 Aliph.	0.50	mg/Kg		ND	ND	**1.42**
Toluene	C_5-C_8 Aliph.	0.50	mg/Kg		**3.86**	ND	**15.0**
Ethylbenzene	C_9-C_{12} Aliph.	0.50	mg/Kg		**9.61**	ND	**29.7**
m&p-Xylenes	C_9-C_{12} Aliph.	0.50	mg/Kg		**20.2**	ND	**80.8**
o-Xylene	C_9-C_{12} Aliph.	0.50	mg/Kg		**11.0**	ND	**40.2**
Naphthalene	N/A	1.00	mg/Kg		**18.9**	ND	**62.8**
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	6.50	mg/Kg		**89.5**	**59.9**	**167**
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	6.50	mg/Kg		**81.8**	ND	**216**
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	1.50	mg/Kg		ND	ND	ND
2,5-Dibromotoluene (PID) Surrogate Recovery					**116%**	**97%**	**107%**
2,5-Dibromotoluene (FID) Surrogate Recovery					**97%**	**93%**	**89%**
Surrogate Acceptance Range					70-130%	70-130%	70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

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SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☒ Samples received in MeOH ☒ Covering soil ? ☐ Not	☒ 1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS	Client ID:	DC-SG2	DC-SH2	
Method for Ranges: MADEP VPH	Lab ID:	135244	135245	
Method for Target Analytes: MADEP VPH	Date Collected:	06/02/03	06/02/03	
VPH Surrogate Standards	Date Received:	06/09/03	06/09/03	
PID (2,5-Dibromotoluene)	Date Analyzed:	06/10/03	06/10/03	
FID (2,5-Dibromotoluene)	Dilution Factor:	1.00	1.00	
	Total solids (%):	81	83	

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	6.50	mg/Kg	**64.3**	**52.5**	
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	6.50	mg/Kg	ND	ND	
Methyl tert-butyl ether	C_5-C_8 Aliph.	0.50	mg/Kg	ND	ND	
Benzene	C_5-C_8 Aliph.	0.50	mg/Kg	ND	ND	
Toluene	C_5-C_8 Aliph.	0.50	mg/Kg	ND	ND	
Ethylbenzene	C_9-C_{12} Aliph.	0.50	mg/Kg	ND	ND	
m&p-Xylenes	C_9-C_{12} Aliph.	0.50	mg/Kg	ND	ND	
o-Xylene	C_9-C_{12} Aliph.	0.50	mg/Kg	ND	ND	
Naphthalene	N/A	1.00	mg/Kg	ND	ND	
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	6.50	mg/Kg	**64.3**	**52.5**	
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	6.50	mg/Kg	ND	ND	
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	1.50	mg/Kg	ND	ND	
2,5-Dibromotoluene (PID) Surrogate Recovery				100%	99%	
2,5-Dibromotoluene (FID) Surrogate Recovery				95%	95%	
Surrogate Acceptance Range				70-130%	70-130%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

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SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Soil: Soxhlet

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS

EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP

EPH Fractionation Surrogates:
2-Fluorobiphenyl
2-Bromonaphthalene

Client ID:	DC-SA2
Lab ID:	135240
Date Collected:	06/02/03
Date Received:	06/09/03
Date Extracted:	06/10/03
Date Fractions Analyzed:	06/13/03
Date Targets Analyzed:	06/11/03
Dilution Factor:	See Dilution
Total solids (%):	81

Range/Target Analyte		RL	Units		Dilution
Unadjusted C_{11}-C_{22} Aromatics[1]		50.0	mg/Kg	**1630**	5
Diesel PAH Analytes	**Naphthalene**	0.050	mg/Kg	**2.13**	1
	2-Methylnaphthalene	0.050	mg/Kg	**9.46**	1
	Acenaphthene	0.100	mg/Kg	**0.284**	1
	Phenanthrene	0.050	mg/Kg	**2.17**	1
Other Target PAH Analytes	Acenaphthylene	0.050	mg/Kg	ND	1
	Fluorene	0.025	mg/Kg	**1.27**	1
	Anthracene	0.050	mg/Kg	ND	1
	Fluoranthene	0.200	mg/Kg	ND	1
	Pyrene	0.200	mg/Kg	**0.415**	1
	Benz[a]Anthracene	0.100	mg/Kg	ND	1
	Chrysene	0.100	mg/Kg	ND	1
	Benzo[b]Fluoranthene	0.150	mg/Kg	ND	1
	Benzo[k]Fluoranthene	0.100	mg/Kg	ND	1
	Benzo[a]Pyrene	0.100	mg/Kg	ND	1
	Indeno[1,2,3-c,d]Pyrene	0.050	mg/Kg	ND	1
	Dibenzo[a,h]Anthracene	0.100	mg/Kg	ND	1
	Benzo[g,h,i]Perylene	0.100	mg/Kg	ND	1
C_9-C_{18} Aliphatic Hydrocarbons[1]		100	mg/Kg	**2680**	10
C_{19}-C_{36} Aliphatic Hydrocarbons[1]		50.0	mg/Kg	**1080**	5
C_{11}-C_{22} Aromatic Hydrocarbons[1,2]		50.0	mg/Kg	**1610**	5
Aliphatic Surrogate % Recovery (COD)				**79%**	
Aromatic Surrogate % Recovery (OTP)				**87%**	
Sample Surrogate Acceptance Range				40-140%	
2,2'-Difluorobiphenyl % Recovery				**46%**	
2-Fluorobiphenyl % Recovery				**53%**	
Fractionation Surrogate Acceptance Range				40-140%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Soil: Soxhlet

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates:
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DC-SB2		
		Lab ID:		135241		
		Date Collected:		06/02/03		
		Date Received:		06/09/03		
		Date Extracted:		06/10/03		
		Date Fractions Analyzed:		06/13/03		
		Date Targets Analyzed:		06/11/03		
		Dilution Factor:		See Dilution		
		Total solids (%):		84		
Range/Target Analyte		RL	Units		**Dilution**	
Unadjusted C_{11}-C_{22} Aromatics[1]		50.0	mg/Kg	**3570**	5	
Diesel PAH Analytes	**Naphthalene**	0.050	mg/Kg	**4.72**	1	
	2-Methylnaphthalene	0.050	mg/Kg	**25.5**	1	
	Acenaphthene	0.100	mg/Kg	**0.717**	1	
	Phenanthrene	0.050	mg/Kg	**6.24**	1	
Other Target PAH Analytes	**Acenaphthylene**	0.050	mg/Kg	**0.210**	1	
	Fluorene	0.025	mg/Kg	**2.68**	1	
	Anthracene	0.050	mg/Kg	**2.32**	1	
	Fluoranthene	0.200	mg/Kg	ND	1	
	Pyrene	0.200	mg/Kg	ND	1	
	Benz[a]Anthracene	0.100	mg/Kg	ND	1	
	Chrysene	0.100	mg/Kg	ND	1	
	Benzo[b]Fluoranthene	0.150	mg/Kg	ND	1	
	Benzo[k]Fluoranthene	0.100	mg/Kg	ND	1	
	Benzo[a]Pyrene	0.100	mg/Kg	ND	1	
	Indeno[1,2,3-c,d]Pyrene	0.050	mg/Kg	ND	1	
	Dibenzo[a,h]Anthracene	0.100	mg/Kg	ND	1	
	Benzo[g,h,i]Perylene	0.100	mg/Kg	ND	1	
C_9-C_{18} Aliphatic Hydrocarbons[1]		500	mg/Kg	**7960**	50	
C_{19}-C_{36} Aliphatic Hydrocarbons[1]		100	mg/Kg	**2840**	10	
C_{11}-C_{22} Aromatic Hydrocarbons[1,2]		50.0	mg/Kg	**3530**	5	
Aliphatic Surrogate % Recovery (COD)				**129%**		
Aromatic Surrogate % Recovery (OTP)				**160%***		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				**63%**		
2-Fluorobiphenyl % Recovery				**49%**		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

*** Matrix interference confirmed**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Soil: Soxhlet

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1		Client ID:		DC-SD2		
Method for Target Analyte: 8270 GC/MS		Lab ID:		135242		
EPH Surrogate Standards:		Date Collected:		06/02/03		
Aliphatic COD		Date Received:		06/09/03		
Aromatic OTP		Date Extracted:		06/10/03		
		Date Fractions Analyzed:		06/13/03		
EPH Fractionation Surrogates:		Date Targets Analyzed:		06/13/03		
2-Fluorobiphenyl		Dilution Factor:		1.0		
2-Bromonaphthalene		Total solids (%):		79		
Range/Target Analyte		RL	Units			
Unadjusted C_{11}-C_{22} Aromatics[1]		10.0	mg/Kg	**18.8**		
Diesel PAH Analytes	Naphthalene	0.050	mg/Kg	ND		
	2-Methylnaphthalene	0.050	mg/Kg	ND		
	Acenaphthene	0.100	mg/Kg	ND		
	Phenanthrene	0.050	mg/Kg	ND		
Other Target PAH Analytes	Acenaphthylene	0.050	mg/Kg	ND		
	Fluorene	0.025	mg/Kg	ND		
	Anthracene	0.050	mg/Kg	ND		
	Fluoranthene	0.200	mg/Kg	ND		
	Pyrene	0.200	mg/Kg	ND		
	Benz[a]Anthracene	0.100	mg/Kg	ND		
	Chrysene	0.100	mg/Kg	ND		
	Benzo[b]Fluoranthene	0.150	mg/Kg	ND		
	Benzo[k]Fluoranthene	0.100	mg/Kg	ND		
	Benzo[a]Pyrene	0.100	mg/Kg	ND		
	Indeno[1,2,3-c,d]Pyrene	0.050	mg/Kg	ND		
	Dibenzo[a,h]Anthracene	0.100	mg/Kg	ND		
	Benzo[g,h,i]Perylene	0.100	mg/Kg	ND		
C_9-C_{18} Aliphatic Hydrocarbons[1]		10.0	mg/Kg	**62.2**		
C_{19}-C_{36} Aliphatic Hydrocarbons[1]		10.0	mg/Kg	**37.6**		
C_{11}-C_{22} Aromatic Hydrocarbons[1,2]		10.0	mg/Kg	**18.8**		
Aliphatic Surrogate % Recovery (COD)				**84%**		
Aromatic Surrogate % Recovery (OTP)				**94%**		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				**45%**		
2-Fluorobiphenyl % Recovery				**47%**		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Soil: Soxhlet

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates:
2-Fluorobiphenyl
2-Bromonaphthalene

		Client ID:		DC-SE2		
		Lab ID:		135243		
		Date Collected:		06/02/03		
		Date Received:		06/09/03		
		Date Extracted:		06/10/03		
		Date Fractions Analyzed:		06/13/03		
		Date Targets Analyzed:		06/13/03		
		Dilution Factor:		See Dilution		
		Total solids (%):		84		
Range/Target Analyte		RL	Units		**Dilution**	
Unadjusted C_{11}-C_{22} Aromatics[1]		50.0	mg/Kg	**3620**	5	
Diesel PAH Analytes	**Naphthalene**	0.050	mg/Kg	**6.60**	1	
	2-Methylnaphthalene	0.050	mg/Kg	**43.2**	1	
	Acenaphthene	0.100	mg/Kg	**1.27**	1	
	Phenanthrene	0.050	mg/Kg	**9.51**	1	
Other Target PAH Analytes	**Acenaphthylene**	0.050	mg/Kg	**0.274**	1	
	Fluorene	0.025	mg/Kg	ND	1	
	Anthracene	0.050	mg/Kg	**0.910**	1	
	Fluoranthene	0.200	mg/Kg	ND	1	
	Pyrene	0.200	mg/Kg	**1.96**	1	
	Benz[a]Anthracene	0.100	mg/Kg	ND	1	
	Chrysene	0.100	mg/Kg	ND	1	
	Benzo[b]Fluoranthene	0.150	mg/Kg	ND	1	
	Benzo[k]Fluoranthene	0.100	mg/Kg	ND	1	
	Benzo[a]Pyrene	0.100	mg/Kg	ND	1	
	Indeno[1,2,3-c,d]Pyrene	0.050	mg/Kg	ND	1	
	Dibenzo[a,h]Anthracene	0.100	mg/Kg	ND	1	
	Benzo[g,h,i]Perylene	0.100	mg/Kg	ND	1	
C_9-C_{18} Aliphatic Hydrocarbons[1]		500	mg/Kg	**10200**	50	
C_{19}-C_{36} Aliphatic Hydrocarbons[1]		100	mg/Kg	**3740**	10	
C_{11}-C_{22} Aromatic Hydrocarbons[1,2]		50.0	mg/Kg	**3560**	5	
Aliphatic Surrogate % Recovery (COD)				**164%***		
Aromatic Surrogate % Recovery (OTP)				**154%***		
Sample Surrogate Acceptance Range				40-140%		
2,2'-Difluorobiphenyl % Recovery				**52%**		
2-Fluorobiphenyl % Recovery				**52%**		
Fractionation Surrogate Acceptance Range				40-140%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

*** Matrix interference confirmed**

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☐ Yes ☒ No - Details attached **See * above**
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☐ Aqueous ☒ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☒ N/A ☐ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Soil: Soxhlet

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1 Method for Target Analyte: 8270 GC/MS EPH Surrogate Standards: Aliphatic COD Aromatic OTP EPH Fractionation Surrogates: 2-Fluorobiphenyl 2-Bromonaphthalene			Client ID:	DC-SG2	DC-SH2	
			Lab ID:	135244	135245	
			Date Collected:	06/02/03	06/02/03	
			Date Received:	06/09/03	06/09/03	
			Date Extracted:	06/10/03	06/10/03	
			Date Fractions Analyzed:	06/13/03	06/13/03	
			Date Targets Analyzed:	06/13/03	06/13/03	
			Dilution Factor:	1.0	1.0	
			Total solids (%):	81	83	
Range/Target Analyte		RL	Units			
Unadjusted C_{11}-C_{22} Aromatics[1]		10.0	mg/Kg	ND	ND	
Diesel PAH Analytes	Naphthalene	0.050	mg/Kg	ND	ND	
	2-Methylnaphthalene	0.050	mg/Kg	ND	ND	
	Acenaphthene	0.100	mg/Kg	ND	ND	
	Phenanthrene	0.050	mg/Kg	**0.0642**	ND	
Other Target PAH Analytes	Acenaphthylene	0.050	mg/Kg	ND	ND	
	Fluorene	0.025	mg/Kg	ND	ND	
	Anthracene	0.050	mg/Kg	ND	ND	
	Fluoranthene	0.200	mg/Kg	ND	ND	
	Pyrene	0.200	mg/Kg	ND	ND	
	Benz[a]Anthracene	0.100	mg/Kg	ND	ND	
	Chrysene	0.100	mg/Kg	ND	ND	
	Benzo[b]Fluoranthene	0.150	mg/Kg	ND	ND	
	Benzo[k]Fluoranthene	0.100	mg/Kg	ND	ND	
	Benzo[a]Pyrene	0.100	mg/Kg	ND	ND	
	Indeno[1,2,3-c,d]Pyrene	0.050	mg/Kg	ND	ND	
	Dibenzo[a,h]Anthracene	0.100	mg/Kg	ND	ND	
	Benzo[g,h,i]Perylene	0.100	mg/Kg	ND	ND	
C_9-C_{18} Aliphatic Hydrocarbons[1]		10.0	mg/Kg	ND	ND	
C_{19}-C_{36} Aliphatic Hydrocarbons[1]		10.0	mg/Kg	**17.2**	ND	
C_{11}-C_{22} Aromatic Hydrocarbons[1,2]		10.0	mg/Kg	ND	ND	
Aliphatic Surrogate % Recovery (COD)				**87%**	**88%**	
Aromatic Surrogate % Recovery (OTP)				**107%**	**103%**	
Sample Surrogate Acceptance Range				40-140%	40-140%	
2,2'-Difluorobiphenyl % Recovery				**53%**	**60%**	
2-Fluorobiphenyl % Recovery				**44%**	**44%**	
Fractionation Surrogate Acceptance Range				40-140%	40-140%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/17/03

QC RESULTS

	SB	MDL (mg/Kg)	LCSS1	%
*c9-c18 Aliphatics	4.86	10	54	40-140
c19-c36 Aliphatics	2.32	10	98.9	40-140
c11-c22 Aromatics	5.23	10	63.7	40-140
Surrogate % Recovery:				
COD	68%		40-140	89%
OTP	79%		40-140	97%

EPH - QC Target Analyte
EXTRACTABLE PETROLEUM HYDROCARBONS

QC RESULTS

	Blank	Spike % Recovery 1	Spike % Recovery 2	Limits %
Naphthalene	ND	43%	40%	40-140%
Acenapthalene	ND	63%	62%	40-140%
Anthracene	ND	61%	60%	40-140%
Pyrene	ND	86%	75%	40-140%
Chrysene	ND	83%	82%	40-140%

GEOLABS, INC.
45 JOHNSON LANE
BRAINTREE, MA 02184
M-MA015

LIMITATIONS & EXCLUSIONS

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by GeoLabs in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the work was conducted. No inferences regarding other conditions, locations or materials, at a later or earlier time may be made based on the contents of the report. No other warranty, express or implied is made.

This report was prepared for the sole use of our client. Portions of the report may not be used independent of the entire report.

All analyses were performed within required holding times, in accordance with EPA protocols and using accepted QA/QC procedures. All QA/QC meets acceptable limits unless otherwise noted. The information contained in this report is, to the best of my knowledge, accurate and complete.

Any and all subsequent pages of this report are chain(s) of custody.

GeoLabs, Inc.
Environmental Laboratories
45 Johnson Lane
Braintree, MA 02184
Office: 781-848-7844
Fax: 781-848-7811

Turnaround Time
RUSH: 24hrs ☐ 48hrs ☐ 72hrs ☐
STANDARD: (5 Days)
Rush Approved by:

Page 1 of 1

SPECIAL INSTRUCTIONS
NEED "PEAK AREA REPORTS" FOR ALL EPH/VPH DATA
-CALL IF ANY QUESTIONS
EMAIL RESULTS

Client: DECOULOS + CO
Address: 3 ELECTRONICS AVE DANVERS
Phone: 617-989-7795
Fax: 877-842-9629
Contact: JIM
E-mail: JAMESJ@DECOULOS.COM

Project Number: 616
Project Location: 131 MAIN ST CARVER
Purchase Order #:
Collected By: JIM

SAMPLE ID	COLLECTION DATE	COLLECTION TIME	COLLECTION SAMPLED BY	SAMPLE LOCATION	CONTAINER TYPE	CONTAINER QUANT	MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	ANALYSES REQUESTED: EPH	VPH	8260	% SOLIDS					TEMPERATURE
DC-G1	6/2	1100	JD		V	4	GW		X	1	135239		X	X						
DC-SA2	"	1200	"		G/V	1	S	X			135240	X	X							
DC-SB2	"	1230	"		G/V	2	"	"			135241	X	X							
DC-SD2	"	1300	"		"	"	"	"			135242	X	X							
DC-SE2	"	1330	V		"	"	"	"			135243	X	X							
DC-SG2	V	1400	"		"	"	"	"			135244	X	X							
DC-SH2	"	1430	"		V	V	V	V			135245	X	X							
SA2→SE2	"	1406	"								135246	X			X					
SG2→SH2	V	1440	"								135247				X					

CONTAINER CODES:
A = Amber
B = Bag
G = Glass
P = Plastic
S = Summa Canister
O = Other V = VOA

MATRIX CODES:
GW = Ground Water
WW = Wastewater
DW = Drinking Water
SL = Sludge
S = Soil A = Air
O = Oil OT = Other

PRESERVATIVE CODES:
1 = HCl 7 = ICE
2 = HNO_3
3 = H_2SO_4
4 = $Na_2S_2O_3$
5 = NaOH
6 = MeOH

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/9/03 0600	E. Connors	6-9-03 7:25
E. Connors	6-9-03 11:30	Devin Ryan	6/9/03 11:30
Relinquished By:		Received By: GeoLabs:	

GEOLABS CHAIN OF CUSTODY

GeoLabs, Inc.

Environmental Laboratories

LABORATORY REPORT

PREPARED FOR:

Decoulos & Company
3 Electronics Avenue
Danvers, MA 01923

Attn: Jim Decoulos

PROJECT ID:	616 131 Main Street Carver, MA
GEOLABS CERTIFICATION #:	M-MA015
SAMPLE NUMBER:	135581 - 135586
DATE PREPARED:	June 20, 2003
PREPARED BY:	Christine Johnson

APPROVED BY:

Jim Chen, Laboratory Director/Date

GeoLabs, Inc.
Environmental Laboratories

Exhibit VII A-1 MCP Response Action Analytical Report Certification Form

Analytical Report Certification Form

Laboratory Name: GeoLabs, Inc.
Laboratory Project #: 135581 - 135586
MCP Site Name: 616
MCP RTN #:

MCP SW-846 Methods	8260B ( )	7470/1 ( )	8082 ( )	VPH (x)	Other:
	8270C ( )	8081A ( )	7000 ( )	EPH (x)	Other:

Were all QA/QC procedures required for the specified analytical method(s) included in this report followed?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*
Were all QA/QC performance standards for specified analytical method(s) included in this report met (including those not required to be reported)?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*
Were all contaminants identified and quantified by the laboratory in the course of this analysis of field samples, by comparison to a calibration standard, even if not a requested analyte, reported by the laboratory to the person that requested the analysis?	Yes * ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)* *If **Yes**, reported in: ☒ Analytical Report ☐ Case Narrative
Were all samples received by laboratory in a condition consistent with those described on their Chain-of-Custody documentation?	Yes ☒ No ☐ *(if **No** must address in narrative. Attach additional information if required)*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ Position: Lab Director

Printed Name: Jim Chen Date: June 20, 2003

GeoLabs, Inc.

Environmental Laboratories

CASE NARRATIVE

Project ID:	616	Sample Number:	135581 - 135586
Client Name:	Decoulos & Company	Received:	6/16/03

Physical Condition of Samples

This project was received by the laboratory in satisfactory condition. The sample (s) were received undamaged, in appropriate containers with the correct preservation, with the following exceptions.

1. Samples received with temperatures at 7° C

Project Documentation

This project was accompanied by satisfactory Chain of Custody documentation. The sample container label(s) agreed with the Chain of Custody.

Analysis of Sample(s)

No analytical anomalies or non-conformances were noted by the laboratory during the processing of these sample(s).

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

				Client ID:	DCW-1	DCW-2	DCW-3
				Lab ID:	135581	135582	135583
				Date Collected:	06/12/03	06/12/03	06/12/03
				Date Received:	06/16/03	06/16/03	06/16/03
				Date Extracted:	06/17/03	06/17/03	06/17/03
				Date Fractions Analyzed:	06/18/03	06/18/03	06/18/03
				Date Targets Analyzed:	06/18/03	06/18/03	06/18/03
				Dilution Factor:	1.0	1.0	1.0
				Total solids (%):	N/A	N/A	N/A
Range/Target Analyte			RL	Units			
Unadjusted C11-C22 Aromatics[1]			100	(µg/L)	**265**	ND	ND
Diesel PAH Analytes	**Naphthalene**		1.00	(µg/L)	**95.3**	ND	ND
	2-Methylnaphthalene		1.00	(µg/L)	**19.3**	ND	ND
	Acenaphthene		1.00	(µg/L)	ND	ND	ND
	Phenanthrene		1.00	(µg/L)	ND	ND	ND
Other Target PAH Analytes	Acenaphthylene		1.00	(µg/L)	ND	ND	ND
	Fluorene		1.00	(µg/L)	ND	ND	ND
	Anthracene		1.00	(µg/L)	ND	ND	ND
	Fluoranthene		1.00	(µg/L)	ND	ND	ND
	Pyrene		1.50	(µg/L)	ND	ND	ND
	Benz[a]Anthracene		1.00	(µg/L)	ND	ND	ND
	Chrysene		1.00	(µg/L)	ND	ND	ND
	Benzo[b]Fluoranthene		1.00	(µg/L)	ND	ND	ND
	Benzo[k]Fluoranthene		0.120	(µg/L)	ND	ND	ND
	Benzo[a]Pyrene		0.080	(µg/L)	ND	ND	ND
	Indeno[1,2,3-c,d]Pyrene		0.240	(µg/L)	ND	ND	ND
	Dibenzo[a,h]Anthracene		0.500	(µg/L)	ND	ND	ND
	Benzo[g,h,i]Perylene		1.50	(µg/L)	ND	ND	ND
C9-C18 Aliphatic Hydrocarbons[1]			100	(µg/L)	ND	ND	ND
C19-C36 Aliphatic Hydrocarbons[1]			100	(µg/L)	ND	ND	ND
C11-C22 Aromatic Hydrocarbons[1,2]			100	(µg/L)	**150**	ND	ND
Aliphatic Surrogate % Recovery (COD)					**81%**	**82%**	**87%**
Aromatic Surrogate % Recovery (OTP)					**102%**	**63%**	**88%**
Sample Surrogate Acceptance Range					40-140%	40-140%	40-140%
2,2'-Difluorobiphenyl % Recovery					**50%**	**62%**	**59%**
2-Fluorobiphenyl % Recovery					**54%**	**57%**	**58%**
Fractionation Surrogate Acceptance Range					40-140%	40-140%	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/20/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other
Containers	☒ Satisfactory ☐ Broken ☐ Leaking
Aqueous Preservative	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other
Extraction Method	Water: Separatory Funnel Soil:

FULL EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 98-1
Method for Target Analyte: 8270 GC/MS
Method for PAH Targets: GC/MS
EPH Surrogate Standards:
Aliphatic COD
Aromatic OTP
EPH Fractionation Surrogates
2-Fluorobiphenyl
2-Bromonaphthalene

				Client ID:	DCW-A	BP-4	DC-E1A
				Lab ID:	135584	135585	135586
				Date Collected:	06/12/03	06/12/03	06/12/03
				Date Received:	06/16/03	06/16/03	06/16/03
				Date Extracted:	06/17/03	06/17/03	06/17/03
				Date Fractions Analyzed:	06/18/03	06/18/03	06/18/03
				Date Targets Analyzed:	06/18/03	06/18/03	06/18/03
				Dilution Factor:	1.0	1.0	1.0
				Total solids (%):	N/A	N/A	N/A
Range/Target Analyte		RL	Units				
Unadjusted C_{11}-C_{22} Aromatics[1]		100	(µg/L)		**211**	ND	ND
Diesel PAH Analytes	**Naphthalene**	1.00	(µg/L)		**88.2**	ND	ND
	2-Methylnaphthalene	1.00	(µg/L)		**18.3**	ND	ND
	Acenaphthene	1.00	(µg/L)		ND	ND	ND
	Phenanthrene	1.00	(µg/L)		ND	ND	ND
Other Target PAH Analytes	Acenaphthylene	1.00	(µg/L)		ND	ND	ND
	Fluorene	1.00	(µg/L)		ND	ND	ND
	Anthracene	1.00	(µg/L)		ND	ND	ND
	Fluoranthene	1.00	(µg/L)		ND	ND	ND
	Pyrene	1.50	(µg/L)		ND	ND	ND
	Benz[a]Anthracene	1.00	(µg/L)		ND	ND	ND
	Chrysene	1.00	(µg/L)		ND	ND	ND
	Benzo[b]Fluoranthene	1.00	(µg/L)		ND	ND	ND
	Benzo[k]Fluoranthene	0.120	(µg/L)		ND	ND	ND
	Benzo[a]Pyrene	0.080	(µg/L)		ND	ND	ND
	Indeno[1,2,3-c,d]Pyrene	0.240	(µg/L)		ND	ND	ND
	Dibenzo[a,h]Anthracene	0.500	(µg/L)		ND	ND	ND
	Benzo[g,h,i]Perylene	1.50	(µg/L)		ND	ND	ND
C9-C18 Aliphatic Hydrocarbons[1]		100	(µg/L)		**702**	ND	ND
C19-C36 Aliphatic Hydrocarbons[1]		100	(µg/L)		ND	ND	ND
C11-C22 Aromatic Hydrocarbons[1,2]		100	(µg/L)		**104**	ND	ND
Aliphatic Surrogate % Recovery (COD)					**80%**	**85%**	**91%**
Aromatic Surrogate % Recovery (OTP)					**92%**	**87%**	**94%**
Sample Surrogate Acceptance Range					40-140%	40-140%	40-140%
2,2'-Difluorobiphenyl % Recovery					**52%**	**115%**	**54%**
2-Fluorobiphenyl % Recovery					**54%**	**117%**	**52%**
Fractionation Surrogate Acceptance Range					40-140%	40-140%	40-140%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_{11}-C_{22} Aromatic Hydrocarbons exclude concentrations of Target PAH Analytes.

CERTIFICATION

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☒ Yes ☐ No - Details attached
Were all performance/acceptance standards acheived? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the EPH method?? ☒ No ☐ Yes - Details attached

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

SIGNATURE: POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 6/20/03

EPH - QC - Ranges
EXTRACTABLE PETROLEUM HYDROCARBONS

	QC RESULTS				
	Method Blank	**MDL (µg/L)**	**Spike % Recovery 1**	**Spike % Recovery 2**	
*c9-c18 Aliphatics	34.4	100	51.8	46.5	40-140
c19-c36 Aliphatics	21.0	100	98.8	92.8	40-140
c11-c22 Aromatics	44.6	100	69.9	71.1	40-140

Surrogate % Recovery:

COD	81%	40-140	91%	77%	40-140
OTP	95%	40-140	97%	94%	40-140

EPH - QC Target Analyte
EXTRACTABLE PETROLEUM HYDROCARBONS

	QC RESULTS		
	Method Blank	**Spike % Recovery**	**Limits %**
Naphthalene	ND	41%	40-140%
Acenapthalene	ND	61%	40-140%
Anthracene	ND	76%	40-140%
Pyrene	ND	82%	40-140%
Chrysene	ND	87%	40-140%

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SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative:	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

Client ID:	DCW-1
Lab ID:	135581
Date Collected:	06/12/03
Date Received:	06/16/03
Date Analyzed:	06/19/03
Dilution Factor:	20 / 1.0*
Total solids (%):	N/A

Range/Target Analyte	Elut. Range	RL	Units	
Unadjusted C_5-C_8 Aliphatics[1]	N/A	800	ug/L	**4310**
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	300	ug/L	**2540**
Methyl tert-butyl ether	C_5-C_8 Aliph.	100	ug/L	**6380**
Benzene	C_5-C_8 Aliph.	5.0*	ug/L	**11.7**
Toluene	C_5-C_8 Aliph.	100	ug/L	**1030**
Ethylbenzene	C_9-C_{12} Aliph.	100	ug/L	**1500**
m&p-Xylenes	C_9-C_{12} Aliph.	100	ug/L	**7090**
o-Xylene	C_9-C_{12} Aliph.	100	ug/L	**3220**
Naphthalene	N/A	400	ug/L	**446**
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	800	ug/L	ND
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	300	ug/L	ND
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	1100	ug/L	**5410**
2,5-Dibromotoluene (PID) Surrogate Recovery				**74%**
2,5-Dibromotoluene (FID) Surrogate Recovery				**75%**
Surrogate Acceptance Range				70-130%

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/20/03

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

	Client ID:	DCW-2	DCW-3	
	Lab ID:	135582	135583	
	Date Collected:	06/12/03	06/12/03	
	Date Received:	06/16/03	06/16/03	
	Date Analyzed:	06/19/03	06/19/03	
	Dilution Factor:	1.0	1.0	
	Total solids (%):	N/A	N/A	

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C5-C8 Aliphatics[1]	N/A	40	ug/L	**93.7**	ND	
Unadjusted C9-C12 Aliphatics[1]	N/A	15	ug/L	ND	ND	
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	**243**	ND	
Benzene	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Toluene	C_5-C_8 Aliph.	5	ug/L	ND	ND	
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND	ND	
Naphthalene	N/A	20	ug/L	ND	ND	
C5-C8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND	ND	
C9-C12 Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND	ND	
C9-C10 Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND	ND	
2,5-Dibromotoluene (PID) Surrogate Recovery				**90%**	**90%**	
2,5-Dibromotoluene (FID) Surrogate Recovery				**84%**	**83%**	
Surrogate Acceptance Range				70-130%	70-130%	

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/20/03

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

Client ID:	DCW-A
Lab ID:	135584
Date Collected:	06/12/03
Date Received:	06/16/03
Date Analyzed:	06/19/03
Dilution Factor:	20 / 1.0*
Total solids (%):	N/A

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	800	ug/L	**3400**		
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	300	ug/L	**2660**		
Methyl tert-butyl ether	C_5-C_8 Aliph.	100	ug/L	**5930**		
Benzene	C_5-C_8 Aliph.	5.0*	ug/L	**9.40**		
Toluene	C_5-C_8 Aliph.	100	ug/L	**1110**		
Ethylbenzene	C_9-C_{12} Aliph.	100	ug/L	**1580**		
m&p-Xylenes	C_9-C_{12} Aliph.	100	ug/L	**7760**		
o-Xylene	C_9-C_{12} Aliph.	100	ug/L	**3380**		
Naphthalene	N/A	400	ug/L	**442**		
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	800	ug/L	ND		
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	300	ug/L	ND		
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	1100	ug/L	**5650**		
2,5-Dibromotoluene (PID) Surrogate Recovery				**92%**		
2,5-Dibromotoluene (FID) Surrogate Recovery				**83%**		
Surrogate Acceptance Range				70-130%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/20/03

GeoLabs, Inc.
Environmental Laboratories

SAMPLE INFORMATION

Matrix	☒ Aqueous ☐ Soil ☐ Sediment ☐ Other		
Containers	☒ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous	☐ N/A ☒ pH ≤ 2 ☐ pH > 2 Comment:	
	Soil or Sediment	☐ N/A ☐ Samples NOT preserved in MeOH or air-tight containers	ml MeOH
		☐ Samples received in MeOH ☐ Covering soil ? ☐ Not	☐1:1±25%
		☐ Received in air tight container	☐ Other
Temperature	☒ Received on ice ☐ Received at 4° C ☐ Other		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH
Method for Target Analytes: MADEP VPH
VPH Surrogate Standards
PID (2,5-Dibromotoluene)
FID (2,5-Dibromotoluene)

Client ID:	BP-4
Lab ID:	135585
Date Collected:	06/12/03
Date Received:	06/16/03
Date Analyzed:	06/19/03
Dilution Factor:	1.0
Total solids (%):	N/A

Range/Target Analyte	Elut. Range	RL	Units			
Unadjusted C_5-C_8 Aliphatics[1]	N/A	40	ug/L	ND		
Unadjusted C_9-C_{12} Aliphatics[1]	N/A	15	ug/L	ND		
Methyl tert-butyl ether	C_5-C_8 Aliph.	5	ug/L	**15.3**		
Benzene	C_5-C_8 Aliph.	5	ug/L	ND		
Toluene	C_5-C_8 Aliph.	5	ug/L	ND		
Ethylbenzene	C_9-C_{12} Aliph.	5	ug/L	ND		
m&p-Xylenes	C_9-C_{12} Aliph.	5	ug/L	ND		
o-Xylene	C_9-C_{12} Aliph.	5	ug/L	ND		
Naphthalene	N/A	20	ug/L	ND		
C_5-C_8 Aliphatic Hydrocarbons[1,2]	N/A	40	ug/L	ND		
C_9-C_{12} Aliphatic Hydrocarbons[1,3]	N/A	15	ug/L	ND		
C_9-C_{10} Aromatic Hydrocarbons[1]	C_9-C_{12} Aliph.	55	ug/L	ND		
2,5-Dibromotoluene (PID) Surrogate Recovery				94%		
2,5-Dibromotoluene (FID) Surrogate Recovery				78%		
Surrogate Acceptance Range				70-130%		

[1]Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range
[2]C_5-C_8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3]C_9-C_{12} Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C_9-C_{10} Aromatic Hydrocarbons

CERTIFICATION

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☒ Yes ☐ No - Details attached
Were all QA/QC performance /acceptance standards achieved? ☒ Yes ☐ No - Details attached
Were any significant modifications made to the VPH method, as specified in Sect 11.3.? ☒ No

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immedately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge, accurate and complete.

SIGNATURE: _____ POSITION: Lab Director

PRINTED NAME: Jim Chen DATE: 06/20/03

Matrix: **Water** µg/L	**LCS %**	**Limit**	**BLANK**
MTBE	113%	70-130%	ND
Benzene	103%	70-130%	ND
Toluene	127%	70-130%	ND
Ethyl Benzene	120%	70-130%	ND
m,p-xylene	130%	70-130%	ND
o-xylene	126%	70-130%	ND
Naphthalene	120%	70-130%	ND
Surrogate Recoveries:			
2,5-Dibromotoluene (PID)	94%		
2,5-Dibromotoluene (FID)	89%		

GEOLABS, INC.
45 JOHNSON LANE
BRAINTREE, MA 02184
M-MA015

LIMITATIONS & EXCLUSIONS

All the professional opinions presented in this report are based solely on the scope of work conducted and sources referred to in our report. The data presented by GeoLabs in this report was collected and analyzed using generally accepted industry methods and practices at the time the report was generated. This report represents the conditions, locations and materials that were observed at the time the work was conducted. No inferences regarding other conditions, locations or materials, at a later or earlier time may be made based on the contents of the report. No other warranty, express or implied is made.

This report was prepared for the sole use of our client. Portions of the report may not be used independent of the entire report.

All analyses were performed within required holding times, in accordance with EPA protocols and using accepted QA/QC procedures. All QA/QC meets acceptable limits unless otherwise noted. The information contained in this report is, to the best of my knowledge, accurate and complete.

Any and all subsequent pages of this report are chain(s) of custody.

GeoLabs, Inc.
Environmental Laboratories
45 Johnson Lane
Braintree, MA 02184
Office: 781-848-7844
Fax: 781-848-7811

Turnaround Time
RUSH: 24hrs ☐ 48hrs ☐ 72hrs ☐
STANDARD: 5 Days
Rush Approved by:

Page ___ of ___

SPECIAL INSTRUCTIONS
NEED "PEAK AREA REPORTS" FOR ALL EPH/VPH DATA
EMAIL RESULTS
Received 6/16/03

Client: DECOULOS + CO
Address: 3 ELECTRONICS AVE
DANVERS MA 01923
Phone: 617-489-7795
Fax: 877-842-9629
Contact: JIM
E-mail: JAMESJ@DECOULOS.COM

Project Number: 616
Project Location: 131 MAIN ST
CARVER
Purchase Order #:
Collected By: JIM

ANALYSES REQUESTED

SAMPLE ID	COLLECTION DATE	COLLECTION TIME	COLLECTION SAMPLED BY	SAMPLE LOCATION	CONTAINER TYPE	CONTAINER QUANT	MATRIX	COMP	GRAB	PRES	GEOLABS SAMPLE NUMBER	EPH	VPH	TEMPERATURE	LAB PH
DCW-1	6/12	1650	JD		A/V	3	GW		X	1	135581	X	X	7°	
DCW-2		1540			A/V	3					135582	X	X		
DCW-3		1445			A/V	3					135583	X	X		
DCW-A		—			A/V	3					135584	X	X		
BP-4		1900			A/V	3					135585	X	X		
DC-EIA		1800			A	1					135586	X			

Adjusted pH < 2 with HCl
LOT # M06G2.033 (60)
Exp. 11-18-03 1pm

CONTAINER CODES:
A = Amber
B = Bag
G = Glass
P = Plastic
S = Summa Canister
O = Other V = VOA

MATRIX CODES:
GW = Ground Water
WW = Wastewater
DW = Drinking Water
SL = Sludge
S = Soil A = Air
O = Oil OT = Other

PRESERVATIVE CODES:
1 = HCl 7 = ICE
2 = HNO_3
3 = H_2SO_4
4 = $Na_2S_2O_3$
5 = NaOH
6 = MeOH

	Relinquished By:	Date/Time	Received By:	Date/Time:
1		6/16/03 0600	E Connor	6-16-03 9:33
2	Relinquished By: 6-16-03 E Connor 12:45		Received By:	
3	Relinquished By:		Received By: GeoLabs:	6/16/03 12:45

GEOLABS CHAIN OF CUSTODY

APPENDIX M
NUMERICAL RANKING SYSTEM SCORESHEET

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC107A

Release Tracking Number
4 - 17582

NUMERICAL RANKING SYSTEM (NRS) SCORESHEET

Pursuant to 310 CMR 40.1511 (Subpart O)

A. NRS SCORESHEET SUMMARY SECTION:

1. Classification Submittal: (check one) ☑ a. Initial NRS Score ☐ b. Revised NRS Score

2. Disposal Site Score:

II	III	IV	V	VI	Total
440	117	135	50	0	742

3. Disposal Site Classification: (check one)

☑ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC ☐ d. Tier II

B. DISPOSAL SITE INFORMATION (NRS SECTION I):

1. UTM Coordinates: a. UTM N: 4638458 b. UTM E: 353451

2. Check which, if any, of the Tier I inclusionary criteria are met by the Disposal Site, pursuant to 310 CMR 40.0520(2):

☑ a. Groundwater is located within an Interim Wellhead Protection Area or a Zone II, and there is evidence of groundwater contamination by an Oil or Hazardous Material at the time of Tier Classification at concentrations equal to or exceeding the applicable RCGW-1 Reportable Concentration set forth in 310 CMR 40.0360.

☐ b. An Imminent Hazard is present at the time of Tier Classification.

C. EXPOSURE PATHWAYS (NRS SECTION II):

1. Exposure Pathways, and Oil and Hazardous Material (OHM) Sources:

For A.-D., score according to 310 CMR 40.1512 - Exposure Pathway Designation Criteria and NRS Table II.
For E., score using NRS Table II.E.

	Score
A. Soil (includes sediment)	150
B. Groundwater	100
C. Surface Water (includes wetlands)	150
D. Air	15
E. Number of OHM Sources	25
Total NRS Section II Score (15 - 700)	440

2. Was Section G (NRS Section VI) used to amend the score for this Section of the NRS? ☐ a. Yes ☑ b. No

3. Summary Rationale for Exposure Pathway Values, A. -D., and Phase I Report References:

Soil score based upon contaminated sediment at stormwater outfall. Groundwater score based upon potential impact to Carver Square IWPA and private well of William Holmes. Surface waters at South Meadow Brook are known to be impacted (see Table 3 of Phase I on page 23). Air impact is possible but not yet known. These potential pathways have not been demonstrated to be linked to Eagle Gas, Inc.

D. DISPOSAL SITE CHARACTERISTICS (NRS SECTION III):

1. Oil and Hazardous Material (OHM) Toxicity Score (NRS Section III.A.):

a. Use the Highest OHM Toxicity Score from either NRS Table III.A. or Worksheet III.A.1.:

OHM Scored	Concentration and Media	Toxicity Score (1 - 80)
C11-C22 Aromatic NAPL	10 in @ BP-5RR	55

b. Score using NRS Worksheet III.A.1. to determine the OHM Toxicity Score for OHM not listed in NRS Table III.A.:

OHM	Human Health-based Toxicity Value	Concentration (Soil - ug/g)	Concentration (Water - ug/l)	Toxicity Score

2. Multiple OHMs (NRS Section III.B.):

Was the Toxicity Score of more than one OHM greater than or equal to 30? ☑ a. Yes (30) ☐ b. No (0)

3. OHM Mobility and Persistence (NRS Section III.C.):

Score according to 310 CMR 40.1514 - OHM Mobility and Persistence

a. OHM Scored	b. Score (0 - 50)
Virgin Fuel Oil	20

4. Disposal Site Hydrogeology (NRS Section III.D.):

Score according to 310 CMR 40.1515 - Soil Permeability, and NRS Table III.D.

Site Hydrogeology Score
12

5. Total NRS Section III Score:

A.	B.	C.	D.	Total for Section III (3 - 180)
55	30	20	12	117

6. Was Section G (NRS Section VI) used to amend the score for this Section of the NRS? ☐ a. Yes ☑ b. No

E. HUMAN POPULATION AND LAND USES (NRS SECTION IV):

1. Human Population (NRS Section IV.A.):

Score using NRS Table IV.A.

Residential Population within 1/2 Mile	Institutions within 500 Feet	On-site Workers	Population Score (0 - 40)
15	0	5	20

2. Aquifers (NRS Section IV.B.):

a. Sole Source Aquifer: ☐ i. Yes (25) ii. Name: _____ ☑ iii. No (0)

b. Potentially Productive Aquifer: ☑ i. Medium or High (15) ☐ ii. No (0)

3. Water Use (NRS Section IV.C.):

Score using NRS Table IV.C.

Proximity to Public Drinking Water Source	Persons Served by Public Drinking Water Supply	Private Water Supplies within 500 Feet	Alternate Public Water Supply Available	Water Use Score (0 -125)
50	0	25	25	100

4. Total NRS Section IV Score:

A.	B.	C.	Total for Section IV (0 - 205)
20	15	100	135

5. Was Section G (NRS Section VI) used to amend the score for this Section of the NRS? ☐ a. Yes ☑ b. No

F. ECOLOGICAL POPULATION (NRS SECTION V):

1. Environmental Resource Areas (NRS Section V.A.): Score using NRS Table V.A.

Area of Critical Environmental Concern	Species of Special Concern, Threatened or Endangered Species Habitat	Wetlands, Certified Vernal Pool, or Outstanding Resource Water	Fish Habitat	Protected Open Space	Environmental Resource Area Score (0 - 150)
0	0	30	0	0	30

2. Environmental Toxicity Score (NRS Section V.B.):

Score only if Environmental Resource Area Score is greater than or equal to 30.

a. Use the Highest Environmental Toxicity Score from either NRS Table V.B. or from Worksheet V.B.1.:

OHM Scored	Concentration and Media	Toxicity Score (0 - 35)
#2 Fuel Oil at Stormwater Outfall	2,150,000 ug/l surface wtr	20

b. Score using NRS Worksheet V.B.1. to determine the Environmental Toxicity Score for OHM not listed in NRS Table V.B. See 310 CMR 40.1516 for Environmental Toxicity Values for each OHM.

OHM	Environmental Toxicity Value	Concentration (Soil - ug/g)	Concentration (Water - ug/l)	Environmental Toxicity Score

3. Total NRS Section V Score:

A.	B.	Total for Section V (0 - 185)
30	20	50

4. Was Section G (NRS Section VI) used to amend the score for this Section of the NRS? ☐ a. Yes ☑ b. No

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC107A

NUMERICAL RANKING SYSTEM (NRS) SCORESHEET
Pursuant to 310 CMR 40.1511 (Subpart O)

Release Tracking Number
4 - 17582

G. MITIGATING DISPOSAL SITE -SPECIFIC CONDITIONS (NRS SECTION VI):

1. Disposal site-specific conditions that warrant amending the site score. Changes directly related to NRS Sections or Subsection scores may not reduce the score more than the relevant subsection value assigned for the disposal site in that subsection. Section VI must reference specific pages of the Phase I. Section VI may not exceed plus or minus 50 points and may be scored only in 5-point increments.

Ranking has been established based upon cumulative threats of RTNs 4-12848, 4-13333, 4-17582 and 4-17825. Significant data is still required to fully assess all four releases. Future sampling of surface waters and sediments will require analysis for metals, SVOCs and PCBs.

☐ 2. Check here if additional pages are provided in an attachment.

3. Disposal Site Amendment (Not to exceed plus or minus 50 points):

Total Score Section VI
0