IMMEDIATE RESPONSE ACTION MODIFICATION PLAN

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

Prepared by:
Decoulos & Company

Date: December 22, 2004

DECOULOS & COMPANY
ENVIRONMENTAL ENGINEERING & LAND PLANNING

Wednesday, December 22, 2004

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

RE: Immediate Response Action Plan Modification;
131 Main Street, Carver; RTN 4-17582

Dear Mr. Hobill:

On behalf of Eagle Gas, Inc., Decoulos & Company is pleased to submit this proposed modification to the Immediate Response Action (IRA) Plan for the above referenced release.

The most recent filing related to RTN 4-17582 was the submission of an IRA Plan Modification and Status Report dated November 5, 2004. The Department issued a denial of that Plan on November 26, 2004. This IRA Plan Modification addresses the ten reasons for the denial.

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
David Bennett, Bennett & O'Reilly, Inc.
Theodore L. Bosen, Esq.
Najib Badaoui, Eage Gas, Inc.

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Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number
4 - 17582

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: 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 1A ☐ b. Tier 1B ☐ c. Tier 1C ☐ d. Tier 2

☐ 6. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):
☐ a. CERCLA ☐ b. HSWA Corrective Action ☐ c. Solid Waste Management
☐ d. RCRA State Program (21C Facilities)

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

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): _____ (MM/DD/YYYY)

☐ 2. Submit an **Initial IRA Plan**.

☑ 3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.

☑ 4. Submit an **Imminent Hazard Evaluation** (check one)
☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.
☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.
☑ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.
☐ d. 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.

☐ 5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.

☐ 6. Submit an **IRA Status Report**.

☐ 7. Submit an **IRA Completion Statement**.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN). When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. State Release Tracking Number of Tier Classified Site (Primary RTN): ☐ - _____

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 8. Submit a **Revised IRA Completion Statement**.

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

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☑ d. Groundwater ☐ e. Residence
☑ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☐ j. Sediments
☑ k. Soil ☑ l. Storm Drain ☑ m. Surface Water ☐ n. Unknown ☑ o. Wetland ☑ p. Zone 2
☐ q. Others Specify: _____

2. Identify Oils and Hazardous Materials Released: (check all that apply)

☑ a. Oils ☐ b. Chlorinated Solvents ☐ c. Heavy Metals
☐ d. Others Specify: _____

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply. for volumes list cumulative amounts)

☐ 1. Assessment and/or Monitoring Only
☑ 3. Deployment of Absorbent or Containment Materials
☐ 5. Structure Venting System
☑ 7. Product or NAPL Recovery
☑ 9. Groundwater Treatment Systems
☐ 11. Bioremediation
☐ 13. Excavation of Contaminated Soils
☐ 2. Temporary Covers or Caps
☐ 4. Temporary Water Supplies
☐ 6. Temporary Evacuation or Relocation of Residents
☐ 8. Fencing and Sign Posting
☐ 10. Soil Vapor Extraction
☐ 12. Air Sparging

☐ a. Re-use, Recycling or Treatment ☐ i. On Site Estimated volume in cubic yards _____
☐ ii. Off Site Estimated volume in cubic yards _____

iia. Facility Name: _____ Town : _____ State: _____

iib. Facility Name: _____ Town : _____ State: _____

iii. Describe: _____

☐ b. Store ☐ i. On Site Estimated volume in cubic yards _____
☐ ii. Off Site Estimated volume in cubic yards _____

iia. Facility Name: _____ Town : _____ State: _____

iib. Facility Name: _____ Town : _____ State: _____

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards _____

Facility Name: _____ Town : _____ State: _____

☐ ii. Disposal Estimated volume in cubic yards _____

Facility Name: _____ Town : _____ State: _____

☐ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: _____

_____

b. Facility Name: _____ Town : _____ State: _____

c. Facility Name: _____ Town : _____ State: _____

☐ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

_____

b. Facility Name: _____ Town : _____ State: _____

c. Facility Name: _____ Town : _____ State: _____

☐ 16. Other Response Actions:

Describe: _____

_____

☐ 17. Use of Innovative Technologies:

Describe: _____

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number 4 - 17582

E. 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 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 the assessment activity(ies) 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 or 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.

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.

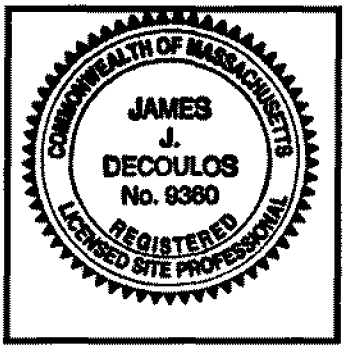
1. First Name: James 2. Last Name: Decoulos

3. Telephone: (617) 489-7795 4. Ext.: _____ 5. FAX: _____

6. Signature: _____ 7. Date: 12/22/2004

8. LSP #: 9360

9. LSP Stamp:



Bureau of Waste Site Cleanup

BWSC105

Release Tracking Number
4 - 17582

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

F. PERSON UNDERTAKING IRA:

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:

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

☑ 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 IRA Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.

☐ A Release Abatement Measure (RAM) Plan (BWSC106) ☐ Phase IV Remedy Implementation Plan (BWSC108)

☑ 2. 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.

☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Heath have been notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.

☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Heath have been notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.

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

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

Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

4 - 17582

I. CERTIFICATION OF PERSON UNDERTAKING IRA:

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: _____ (Signature) 3. Title: President

4. For: Eagle Gas, Inc. (Name of person or entity recorded in Section F) 12/22/2004 (mm/dd/yyyy)

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

6. Street: _____

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

10. Telephone: _____ 11. Ext.: _____ 12. 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:)

2.0 PURPOSE AND SCOPE

This Immediate Response Action (IRA) Plan Modification has been prepared to address a release of petroleum on property located at 131 Main Street in Carver, Massachusetts (the Site). The release poses a potential liability to Eagle Gas, Inc. (Eagle) under the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, General Laws, Chapter 21E.

The IRA Plan Modification follows the requirements of 310 CMR 40.0411 through 40.0429 of the Massachusetts Contingency Plan (MCP). The MCP is the body of regulations promulgated under G.L. c.21E.

The most recent filing related to Release Tracking Number (RTN) 4-17582 was the submission of an IRA Plan Modification and Status Report dated November 5, 2004. The Massachusetts Department of Environmental Protection (DEP or the Department) issued a denial of that Plan on November 26, 2004. The Department listed ten reasons for the denial and demanded that the passive recovery of Light Non-Aqueous Phase Liquid (LNAPL) cease unless an IRA Plan Modification was filed by December 6, 2004. It is the Department's contention that the recovery of LNAPL without express approval is a violation of 310 CMR 40.0420.

3.0 IMMINENT HAZARD/SUBSTANTIAL RELEASE MIGRATION EVALUATION

Pursuant to 310 CMR 40.0006, an Imminent Hazard (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 the 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 shall consider only current uses at 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).

LEL levels have not been measured inside these structures. Photo-ionization detector (PID) screens and Air Phase Hydrocarbon (APH) analysis has detected low levels of volatile organic compound (VOC) constituents.

A release to the environment of reactive or explosive hazardous material, as described in 310 CMR 40.0347, which threatens human health or safety.

The existing non-aqueous phase liquid (NAPL) consists of diesel fuel. It does not present the ability of a reactive or explosive threat.

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 3.1 below.

A release to the environment of OHM, which produces immediate or acute adverse impacts to freshwater or saltwater fish populations.

An inspection of South Meadow Brook 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, James J. Decoulos reported the condition to the Carver Board of Health and the Carver Conservation Commission at Town Hall. Further inquiry resulted in contact with the Carver Fire Department (CFD).

With the assistance of Chief Harriman and Deputy Chief Weston of the CFD, 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. Water emanating from the outfall appeared to be impacted from diesel fuel, home heating oil or waste oil.

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. Pads and booms have been continuously monitored and replaced by Eagle since the discovery.

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. Although this situation may be exempt from the notification requirements set forth in 310 CMR 40.0300 (see 310 CMR 40.0317(7)), the potential of chronic harm to ecological receptors within the South Meadow watershed is an on-going threat and requires a long-term solution.

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. Decoulos has not observed or received reports of any readily apparent effects to human health in connection with the diesel 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.

During a site inspection on May 16, 2003, 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 IH as described in 310 CMR 40.0950 of the MCP.

Monitoring wells DCW-1, DCW-2 and DCW-3 were advanced directly next to the stormwater piping on June 2, 2003. A sheen of petroleum was observed at DCW-1 on October 7, 2004. It is not know whether the sheen was associated with the diesel release or the historical dissolved gasoline release.

All drinking water samples collected from the Site and surrounding area have not shown any petroleum constituents equal to or greater than ten times the Category RCGW-1 Reportable Concentration.

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 40.993(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 3.1 below.

3.1 Risk to Human Health

Potential receptors to OHM at the Site include gas station workers, patrons, utility workers, and trespassers . Exposures for these potential receptors are unknown at this time, and could potentially classify the Site as an Imminent Hazard. The migration of elevated concentrations of VOC vapors within the surrounding buildings cannot be eliminated as a potential pathway. Additional APH sampling of petroleum hydrocarbons at the residential apartment on Site and at the surrounding properties is required to eliminate this potential threat.

3.2 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 listed below in italics followed by the 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 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.

The diesel release does not pose a threat of fire or explosion. It does appear however that the historical dissolved gasoline release has intermixed with the diesel release in the vicinity of wells DCW-1 and ERW-3. If the historic gasoline concentrations are confined and unable to vent, the possibility exists that explosive vapors could develop within the stormwater collection system in front of the Site.

Any uncontained materials which exhibit the characteristics of corrosivity, reactivity or flammability described in 310 CMR 40.0347.

Residual impacted soil and groundwater does not exhibit the characteristics of corrosivity, reactivity or flammability described in 310 CMR 40.0347.

3.3 Risk to 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 the 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.

A release to the environment of OHM, which produces immediate or acute adverse impacts to freshwater or saltwater fish populations.

In response to both of these criteria, groundwater 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 during dry conditions.

Groundwater migration of VOCs is not completely understood. 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.

3.4 Imminent Hazard Evaluation Conclusions

Based upon the Site evaluation, an IH could potentially exist at the Site, and further evaluative and remedial actions are therefore necessary.

3.5 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. A private residence owned by Paul Malley is located south of the Site at 133 Main Street. Currently, impacts to residential living or working spaces are not known to exist.

Pursuant to 310 CMNR 40.0006, ac condition of Substantial Release Migration (SRM) means a condition at a Site that includes any of the following:

(a) Releases that have resulted in the discharge of separate-phase OHM to surface waters, subsurface structures, or underground utilities or conduits; or
(b) 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 and existing condition of groundwater pollution; or
(c) Releases to the groundwater that have migrated or are expected to migrate more than 200 feet per year; or
(d) Releases to the groundwater that have been or are within one year likely to be detected in a public or private water supply well; or
(e) 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; or
(f) 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.

According to these criteria, the Site can potentially be considered a condition of Substantial Release Migration (SRM) for the following reasons:

> Based upon assessment activities conducted to date, small amounts of petroleum and waste oil migrate directly into South Meadow Brook during rain events and result in direct impacts to wetland resources. Additionally, there is the threat of product contaminating the private well located east of the Site, currently owned by William Holmes. Therefore, a condition of SRM is appropriate for this Site.

4.0 BORING INVESTIGATION TO DETERMINE EXTENT OF LNAPL

In order to assess the migration of LNAPL into the Main Street right-of-way and South Meadow Brook, access agreements were negotiated between Eagle, the Town of Carver and Stephen and Stephanie Davis. The agreements are provided in Appendix A.

On December 10, 2004, a GeoProbe boring investigation was conducted within the Main Street right-of-way. The borings were advanced with a track mounted GeoProbe BK66DT operated by Michael Joyce 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 east of the known LNAPL plume. Eight continuous soil samples were obtained to a depth of eight feet. The soil boring locations, EGS-1 through EGS-8, are shown in Figure 1. Two additional borings along the northeasterly boundary of the right-of-way were completed as monitoring wells DCW-9 and DCW-10 and their locations are also shown in Figure 1. The soil boring logs, with the headspace from screened soil samples measured with a MultiRAE multigas monitor PGM-50 photo-ionization detector (PID), are provided in Appendix B.

It was hoped that the boring investigation on December 10th would also identify the extent of LNAPL to the south and southwest. Unfortunately, just prior to this planned effort, the track mounted GeoProbe BK66DT broke a hydraulic line in the right-of-way. Approximately one gallon of hydraulic fluid was released onto the paved surface and immediately absorbed with speedi-dri and absorbent pads. The spent materials were collected and deposited into a dedicated spent material 55 gallon drum on the northwesterly side of the building.

5.0 CONSTRUCTION OF PRODUCT INTERCEPTOR TRENCH

Through a series of emails and telephone communications between Decoulos and Department representatives Cynthia Baran and Jonathan E. Hobill on December 14th and 15th, a LNAPL interceptor trench was conditionally approved for construction in the Main Street right-of-way. The proposal submitted by Decoulos included a layout of the interceptor trench within the right-of-way and cross-sections of existing and proposed conditions. See Figures 1 and 2. On December 16th and 17th, the interceptor trench and underground conduit lines were constructed.

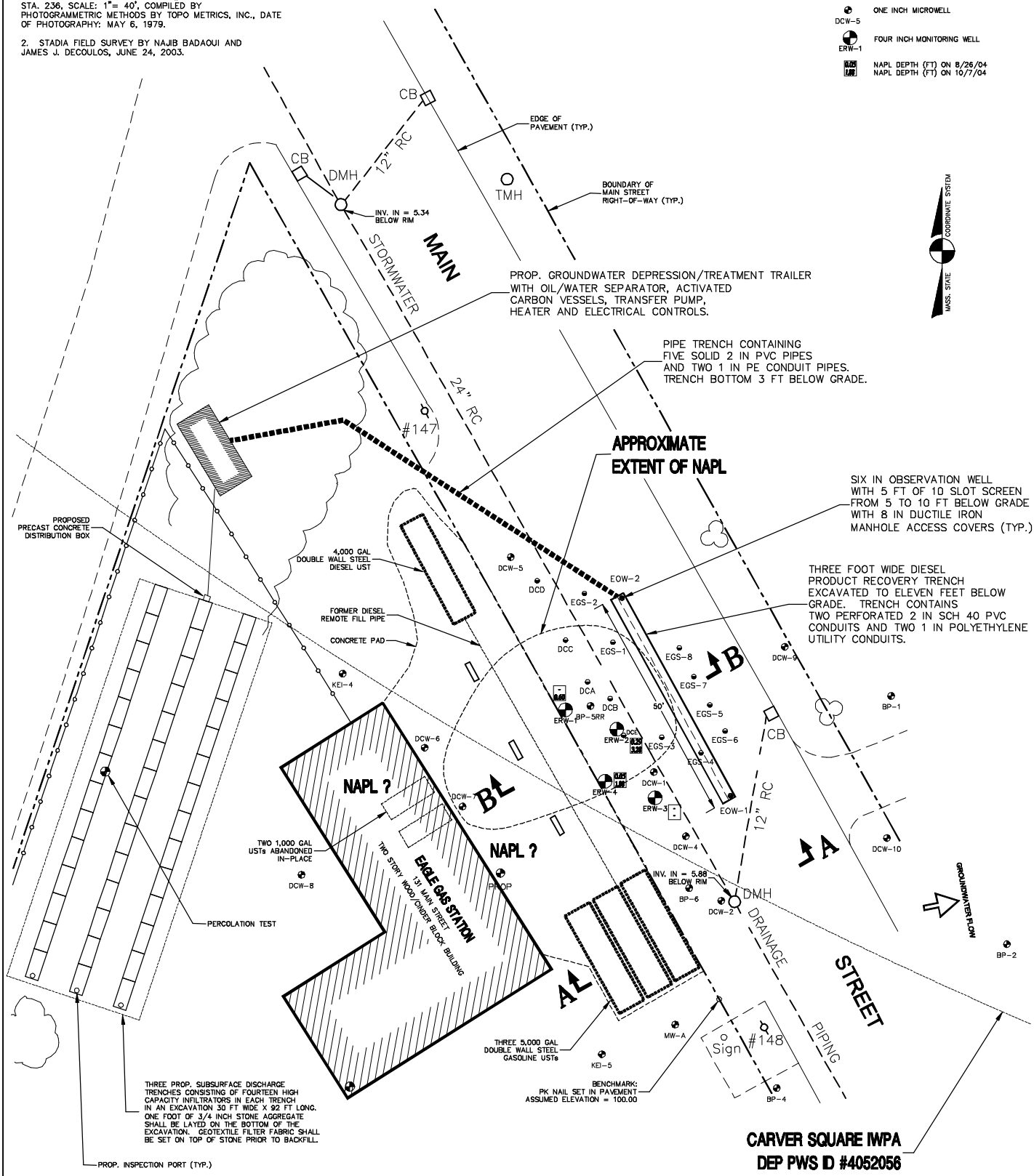
REFERENCES

1. LAYOUT OF ROUTE 58, WAREHAM – CARVER, MA HIGHWAY DEPARTMENT, CONTRACT #20907, STA. 213 TO STA. 236, SCALE: 1"= 40', COMPILED BY PHOTOGRAMMETRIC METHODS BY TOPO METRICS, INC., DATE OF PHOTOGRAPHY: MAY 6, 1979.

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

LEGEND

- DCC — ONE INCH SOIL BORING
- DCW-5 — ONE INCH MICROWELL
- ERW-1 — FOUR INCH MONITORING WELL
- 0.05 / 1.05 — NAPL DEPTH (FT) ON 8/26/04, NAPL DEPTH (FT) ON 10/7/04



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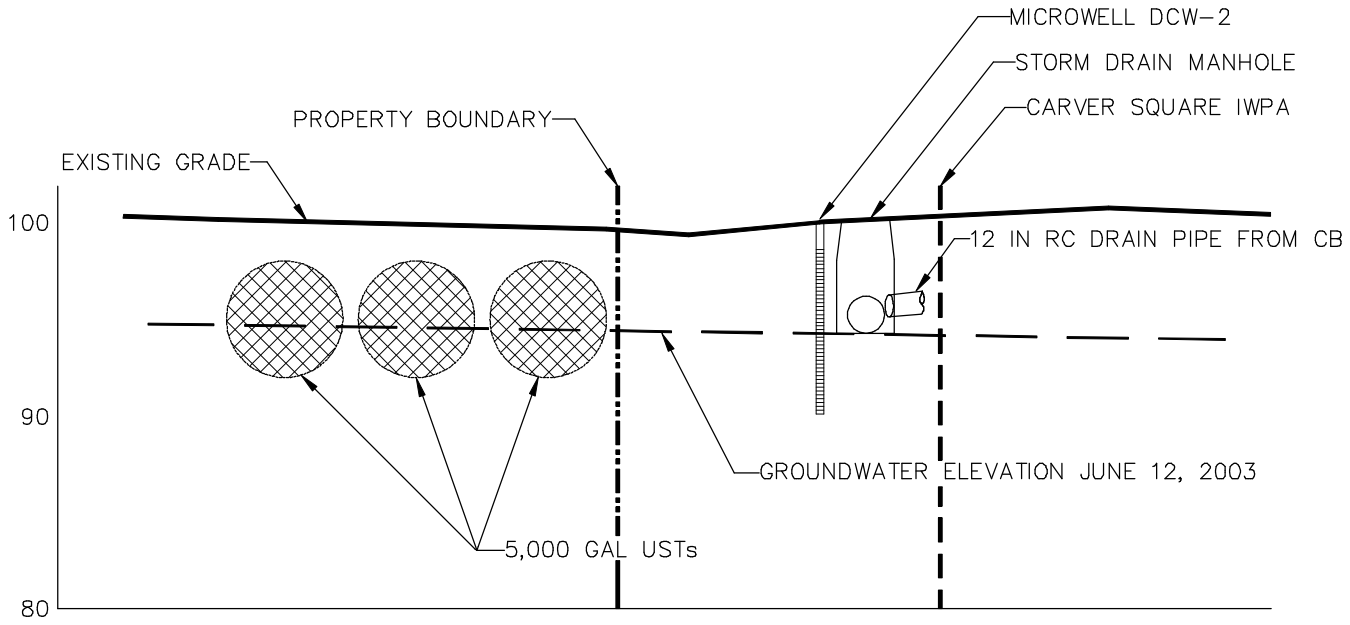
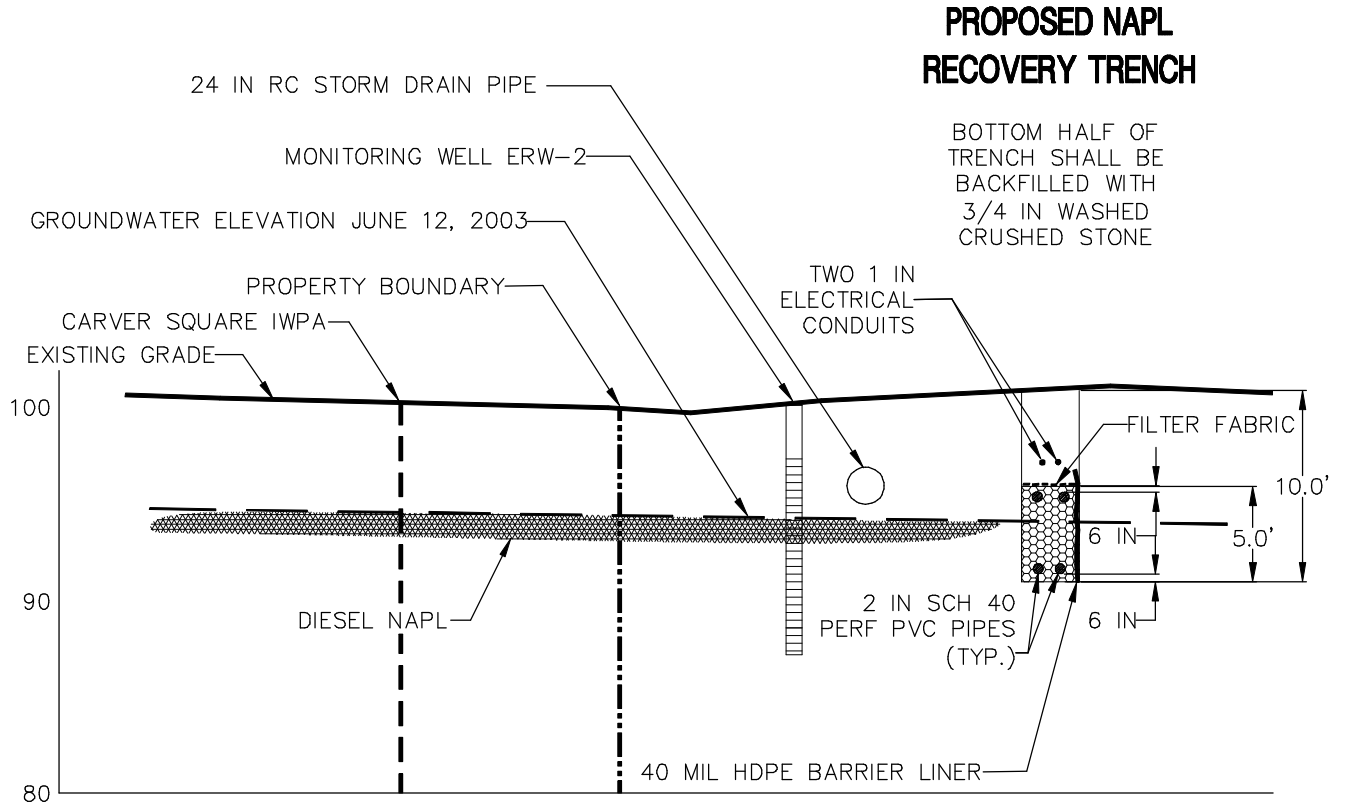
PROPOSED PRODUCT RECOVERY EAGLE GAS STATION CARVER, MASSACHUSETTS

DATE
DEC 2004
SCALE
1"= 30'
FIGURE NO.
1



SECTION A-A



SECTION B-B

DECOULOS & COMPANY 3 ELECTRONICS AVE, DANVERS, MA 01923 WWW.DECOULOS.COM 617.489.7795	***CROSS SECTIONS*** ***EAGLE GAS STATION*** ***CARVER, MASSACHUSETTS***	**DATE** DEC 2004 **SCALE** 1" = 10' **FIGURE NO.** 2

Construction was delayed on the morning of December 16th due to a frozen asphalt saw cutter. The Carver Department of Public Works required that the trench be saw cut to ensure a clean repaired surface. The asphalt cut was completed at 10:30 am.

The proposed design called for a 40 mil High Density Poly-Ethylene (HDPE) liner on the northeasterly face of the trench between five and ten feet below grade. The proposal also called for the 40 foot trench to be excavated in two sections.

Due to time constraints and the increased length of the trench (50 feet), the trench was excavated in its entirety, rather than in two sections. The work was performed by Wright Industries, Inc. of Essex, MA (Wright). Machinery operated by Wright personnel included a Komatsu Excavator Model 78 and a Uniloader skid steer.

The actual excavation extended in depth to 11 feet below grade, rather than 10 feet as originally proposed. The culmination of these factors led to an insecure open trench that left insufficient time for proper placement of the HDPE barrier liner as shown in Figure 2. Consequently, the trench began to cave in before the HDPE liner could be secured and backfilled with crushed stone.

At the time the full depth of the excavation was reached, the trench was dry (approximately 12:30 pm). After approximately two hours of open excavation to a depth of 11 feet, Cyn Environmental, Inc. of Stoughton, MA vacuumed a total of 203 gallons of groundwater from the bottom of the excavation. The groundwater was transported to Cyn's treatment facility and the manifest is provided in Appendix C.

All soil from the trench that was less than six feet below grade was transported to Aggregate Industries, Inc. at their Stoughton, MA facility under an approved Bill of Lading. The truck ticket receipts from TW Excavation of Rowley, MA are provided in Appendix C. Additional soil generated from the installation of monitoring wells ERW-1, ERW-2, ERW-3 and ERW-4 that was stockpiled under cover on the southeastern side of the Site building (from August, 2004) was included in the soil disposal. Total volume of soil disposed was 50.16 tons.

At approximately 4:30 pm on the 16th, the trench began collapsing before the five foot depth of crushed stone could be placed. The last digital photograph shot prior to the collapse, identified as PC160088.JPG, shows an average depth of between two and three feet of crushed stone. Additionally, the material that collapsed on the crushed stone was predominately the loose, fine to medium sand layer between one and four feet below grade.

The rapid failure of the open excavation limited the piping that was originally proposed. The two 2 inch schedule 40 PVC pipes on the bottom of the trench were set, but the upper two 2 inch pipes that were designed for the top of the crushed stone layer were not placed. The two 6 inch observation wells were set at each end of the trench (EOW-1 set in the south and EOW-2 set in the north) and the two 1 inch electrical conduits that connect the observation wells were also placed.

Although the HDPE liner is mostly ineffective as a barrier in the constructed trench, the crushed stone and collapsed sand strata appeared to have created a suitable collection pathway for LNAPL and groundwater recovery.

6.0 GROUNDWATER AND LNAPL RECOVERY SYSTEM DESIGN

In order to evaluate a suitable groundwater interceptor, treatment and LNAPL recovery design, field tests have been conducted at the Site to determine the response to groundwater pumping and LNAPL recovery.

6.1 Pilot Pump Test

On December 22, 2004, a 3500 gallon press vacuum tank truck arrived on Site to pump the groundwater from the recovery trench in the Main Street right-of-way. The truck was operated by Alan Pierce of Lighthouse Environmental, Inc. of Reading, MA (Lighthouse).

Static water measurements were recorded at observation wells EOW-1 and EOW-2 throughout the pumping process. A police detail was required for these direct readings with a water level interface probe. The results are presented in the attached Table 1.

The water level in EOW-1 reacted immediately to the pumping. Within eight minutes of pumping, the water level dropped over one foot. With a flashlight shining in the six inch well, the groundwater surface could be seen shimmering while pumping.

At a depth of 8.25 feet below the rim of well EOW-1, the groundwater level could no longer be read as debris had accumulated within the casing from the trench excavation. The nearly three feet of debris will be vacuumed from the well within the next month with a portable drum vacuum system.

The water level in EOW-2 was much less responsive to the pumping action. It took approximately 30 minutes to drop one static foot.

Pumping ceased after exactly one hour. For the next hour, static water level measurements continued to drop at EOW-2. Due to limited access to the right-of-way and the need for a police detail, it was not possible to measure the lowest static groundwater elevation at the well before it began to recover.

The receiving facility for the pumped groundwater from Lighthouse was Olson's Greenhouse, Inc. in Raynham, MA. The manifest is provided in Appendix C.

6.2 Percolation Test

While the pump test was running on December 22, 2004, a percolation test was being simultaneously run at a location to the northwest of the building as shown on Figure 1.

The procedure for the percolation test generally followed the guidelines established under Title 5 at 310 CMR 15.105. A hole was dug to a depth of approximately 30 inches into the fine to medium sand layer that exists below the top and subsoils. At 3:21 pm, a fifteen minute pre-soak of the hole begun. For the following 30 minutes, the water level dropped approximately 2 ½ inches. As a conservative measure, a loading rate of 25 minutes per inch in a Class II soil will be selected for design under the guidelines at 310 CMR 15.242

Table 1
VACUUM PUMP TEST
Eagle Gas, Inc.
131 Main St, Carver
DEP RTN 4-17582
December 22, 2004

Time	EOW-1 Static Water Level (ft)	EOW-2 Static Water Level (ft)	Vacuum Pressure at Tanker (in)	Cumulative Volume of Groundwater Pumped (gals)
1400	6.58	6.74		
1404	(started pumping)			
1406			22	
1408				100
1409	7.22			
1411	7.50			
1413	7.78			
1416		7.10		
1417			23	
1418		7.20		250
1419	8.25	(debris in well revealed)		
1423		7.38		
1425		7.46		
1429		7.64		
1430				650
1438			(started sucking air)	
1439		7.90		
1440			20	
1444		8.02		
1452		8.15		
1500		8.32	(stop pumping)	1100
1509		8.44		
1511		8.48		
1514		8.54		
1519		8.68		
1525		8.80		
1529	*Groundwater*	8.84		
1532	*Level*	8.92		
1537	*Below*	9.04		
1548	*Debris*	9.20		
1552	*in Well*	9.26		
1557		9.32		

6.3 Evaluation of LNAPL Recovery

As described in the IRA Status Report and Modification Plan dated November 5, 2004, a four-inch diameter Keck passive recovery canister (PRC) skimmer, with a four-liter capacity, was placed in well ERW-2 on October 28, 2004 to measure the rate of LNAPL recovery. Product information and schematic diagrams of the unit were provided in Appendix C. After an initial recovery of over 3 liters the first day, LNAPL recovery to well ERW-2 has subsequently diminished to less than 1 liter per day. Table 3 in the report presents the data.

On November 13, 2004, evaluation of LNAPL recovery began at wells ERW-1 and ERW-4. A second Keck PRC skimmer was alternated between these wells to establish the rate of LNAPL

At the request of the Department, collection and recording of the LNAPL withdrawal from the PRC skimmers by Najib Badoui ended on December 8, 2004. All LNAPL recordings since that time have been conducted by personnel who have completed OSHA certified health and safety training. The final LNAPL recovery forms completed by Badaoui are provided in Appendix D.

The primary purpose of the PRC skimmer units is to evaluate the rate of LNAPL recovery from the four inch wells set in August of 2004 (ERW-1 through ERW-4). Regardless of whether an active or passive LNAPL recovery is finally engaged, the LNAPL cannot enter these wells points any faster under normal atmospheric pressures. Either type of recovery mechanism would utilize the same type of hydrophobic screen for the selective recovery of free phase LNAPL product.

The PRC units are bringing the LNAPL in the wells down to a sheen. Checks on this function are randomly performed during LNAPL recovery measurements by lowering a clear bailer into the well after the PRC unit is discharged.

Water has occasionally entered the PRC units because they have been set too deep. Although the hydrophobic skimmer units travel 12 inches to adjust to groundwater level fluctuations, water can enter the units if they are set too deep in the well - beyond their travel range. Recent adjustments to the elevation of the units has corrected this problem.

A summary of LNAPL collections made to date is provided in Table 2. The data has been compiled from measurements recorded by both Badaoui and Decoulos.

A review of the data shows that LNAPL recovery at wells ERW-1, ERW-2 and ERW-3 has been averaging between 0.5 and 1.0 liters per day at each well. The LNAPL recovery from each of these well points is likely limited to the six inch borehole size of the auger used to construct the wells.

Table 2
Light Non Aqueous Phase Liquid (LNAPL) Recovery
between October 7, 2004 and December 22, 2004
131 Main Street, Carver, MA

Date	Time	ERW-1 DEPTH OF NAPL (IN)	ERW-1 EST. VOLUME OF NAPL (LITER)	ERW-2 DEPTH OF NAPL (IN)	ERW-2 EST. VOLUME OF NAPL (LITER)	ERW-4 DEPTH OF NAPL (IN)	ERW-4 EST. VOLUME OF NAPL (LITER)
10/7/2004	1400			40	3.8	22	2.6
10/13/2004	2100			38	3.8		
10/14/2004	1030			4	1.9		
10/14/2004	1830			1.5			
10/18/2004	2100			3	1.9	15	2.6
10/19/2004	2100			2	1.9	4	3.8
10/20/2004	2100			2	0.4	1	0.0
10/22/2004	1300			1	0.4	0.5	0.2
10/25/2004	2100			2	0.8	1	0.4
10/27/2004	2100			2	1.9	0.5	0.2
10/28/2004	1600	4	0.2		1.5		
10/28/2004	2200				1.8		
10/29/2004	1000				0.4		
10/29/2004	2100				0.5		
10/30/2004	1300				0.5		
10/31/2004	2100				0.0		
11/1/2004	1600	5	0.5		1.0		
11/2/2004	2100				1.0		
11/4/2004	1100				1.0		
11/5/2004	2100				0.5		
11/8/2004	2100		1.0		2.0		
11/10/2004	2100				1.5		
11/11/2004	1600				0.5		
11/13/2004	1500				1.0		4.0
11/14/2004	2000						1.0
11/15/2004	2100				2.0		0.5
11/16/2004	2100		4.0		0.5		0.5
11/18/2004	2100				1.0		0.5
11/21/2004	2100				2.0		1.0
11/22/2004	2100		4.0				
11/23/2004	2100		3.0				
11/26/2004	2100		2.0		3.0		
11/29/2004	2100				2.0		3.0
11/30/2004	2100						1.5
12/2/2004	1400		1.5		2.0		1.0
12/6/2004	2100		4.0		3.0		
12/8/2004	2100		1.0		1.0		
12/10/2004	1700				2.0		3.0
12/13/2004	1500				1.0		2.0
12/17/2004	1300				3.5		3.0
12/22/2004	1630				4.0		4.0
TOTALS			**21.2**		**57.0**		**34.8**

NOTES:
1. Underlined volumes represent estimates of NAPL recovered based upon water/diesel fuel mixture.
2. Recovery of NAPL from ERW-2 began with a 4 inch Keck PRC skimmer on October 28, 2004.
3. Recovery of NAPL from ERW-2 began with a 4 inch Keck PRC skimmer on November 13, 2004.
4. LNAPL recovery made by James J. Decoulos after 12/8/2004.

6.4 Proposed LNAPL Recovery and Groundwater Treatment Operation

A free product recovery and water table depression system is proposed for implementation using the constructed well and trench network.

LNAPL will be collected from wells ERW-1, ERW-2 and ERW-4 through the use of the PRC skimmers that will be retrofitted with 3/16 inch polyethylene tubing. It is believed that the collection of LNAPL close to the source of the release will help reduce the smearing of free product along the drawdown surface, between the pad of the gas station and the interceptor trench.

A skimmer unit is proposed for each of the three existing wells. The 3/16 inch tubing will be connected from the top of each well to the 4 liter cannisters through the vertical shaft of the unit. The top of the tubing will reside just below the ground surface well covers. Access to the tubing will therefore require that the well covers be removed for each LNAPL collection event.

Based upon the worst recovery rates measured to date, LNAPL will be collected from each unit twice per week. The collection will occur through the use of a peristaltic pump located at the ground surface with the 3/16 inch tubing from each cannister. This proposed passive skimming arangement is considered acceptable for the low permeability of the material in which the LNAPL resides.[1]

A single pump recovery system is proposed for withdrawal of LNAPL and groundwater from the interceptor trench. Vacuum pumping of the trench will occur through the fully perforated 2 inch PVC pipe at the bottom of the trench (one of the 2 inch pipes is perforated around the full circumference of the piping and the other is perforated only on the upper half).

A ½ horsepower Gorman Rupp centrifugal pump is proposed for withdrawal to the heated treatment trailer as shown on Figure 1. At the point of entry into the trailer, a check valve will be placed in the inlet line. The pump will discharge to a 1,000 gallon separation tank inside the trailer.

A floating skimmer will be inside the 1,000 gallon tank to collect LNAPL. The skimmer unit will collect product and be manually emptied to a 55 gallon drum in the trailer dedicated for product collection. The outlet of the 1,000 gallon tank shall be a submersible pump that resides on the bottom of the tank.

From the separation tank outlet, the water shall flow through two 55 gallon activated carbon cannisters. Sample collection valves shall be provided prior to the first drum, between the drums and at the discharge line from the second drum. The discharge from the trailer shall empty into a groundwater infiltration system as shown on Figure 1.

[1] U.S. EPA OSWER National Risk Management Research Laboratory. September, 1996. How to Effectively Recover Free Product at Leaking Underground Storage Tank Sites. P. V-8 and Checklist p. 2.

The pump test conducted on December 22, 2004 does not provide enough critical data to utilize an acceptable analytical method (such as Bouwer-Rice) to establish permeability. The most accurate method to establish flows into the interceptor trench would be through a rising head slug test at a clean EOW-1. To best characterize the sandy silt strata between 5 and 11 feet below grade, the trench should be fully pumped until air begins entering the two inch piping. The rising head could then be measured with a pressure transducer, such as a Mini-Troll© .

Without accurate empirical data to establish permeability, observations and assumptions on groundwater flow entry into the trench are sufficient to arrive at an expected treatment system flow rate.

At the time the trench was constructed, Cyn pumped 203 gallons in approximately two hours. This initial rate of recharge was approximately 102 gallons per hour or 1.7 gallons per minute.

A flow rate can also be established based upon the expected permeability of the sandy silt layer between 5 and 11 feet below grade. Typical permeability rates for this type of material range from 1×10^{-4} to 5×10^{-5} centimeters per second.[2,3] Using the saturated surface area of the trench, a recharge rate can be established.

Table 3
Calculated Trench Flow Rate based upon Assumed Permeability

Saturated Trench Sidewall Area (ft2)	**530**
Conversion (cm2/ft2)	**929**
Saturated Trench Sidewall Area (cm2)	**492,370**
Worst Expected Permeability (cm/sec)	**1.00E-04**
Area (cm2)	**492,370**
Flow rate (cm3/sec)	**49.24**
Conversion (cm3/mL)	**1**
Flow Rate (ml/sec)	**49.24**
Conversion (L/ml)	**0.00**
Flow Rate (L/sec)	**0.05**
Conversion (gallons/L)	**0.26**
Flow Rate (gal/sec)	**0.01**
Conversion (sec/min)	**60**
Flow Rate into Trench (gal/min)	**0.78**
Conversion (min/day)	**1440**
Flow Rate into Trench (gal/day)	**1123.08**

[2] Carsel, R.F. and R.S. Parrish. 1988. Variation within texture classes of soil water characteristics. Water Resource Res., Vol. 24, pp.755-769.
[3] Domenico, P.A, and F. W. Schwartz, 1990. Physical and Chemical Hydrogeology. John Wiley and Sons, New York, NY. p. 824

It would be conservative to estimate that the worst recharge rate capable of treatment (with an assumed depression cone of three feet) would be 4 gallons per minute.

Monitoring of the depression cone is proposed through the use of water level loggers at each of the observation wells. See Appendix E. The loggers shall be connected to a dedicated computer located inside the trailer to continuously monitor the water levels at each well. The data will be accessible over the web through a remote internet connection of the computer.

At a pumping rate of 3 gallons per minute and a percolation rate of 25 minutes per inch, the groundwater infiltration system requires a leaching area of 32 feet wide by 90 feet long, with a sidewall leaching height of four feet. The leaching area will be achieved with three sets of trenches, each containing 14 Infiltrator© units as shown on Figure 1.

7.0 WETLAND RESOURCE MITIGATION AT SOUTH MEADOW BROOK

All evidence collected to date demonstrates that the petroleum impacts to South Meadow Brook are caused by surface water runoff from Main Street. The primary cause of impact is the runoff into the downgradient catch basin located in front of 133 Main Street. Petroleum contaminated runoff from Eagle is the primary source of runoff to this basin.

To mitigate the impact of runoff, stormwater catch basin inserts are proposed at the 133 Main Street catch basin and the catch basin located approximately 300 feet to the south. Additionally, a ten foot long trench filter is proposed at the stormwater outlet pipe. See Appendix F.

Furthermore, management of stormwater contaminated sediment at the outlet shall be controlled through the construction of a sand bag dike at the banks of South Meadow Brook. An eighteen inch outlet pipe, with a deep tee that will draw from the bottom of the created basin, will control runoff into the Brook.

Details on the design will be forwarded to the Carver Conservation Commission in a Notice of Intent submitted under the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40. Permission will also be required from the Carver Department of Public Works.

8.0 MANAGEMENT OF REMEDIATION WASTE

As previously described, all LNAPL recoveries from ERW-1, ERW-2 and ERW-4 shall be made by OSHA certified personnel. The product shall be collected and stored in 55 gallon drums under the shed roof on the southeasterly side of the building on Site.

The operation of the treatment trailer system shall be managed by a certified wastewater plant operator. Efforts will also be made to connect the flow rate information of the treatment system into the on-Site computer located in the trailer. Monitoring of system information can then be made over the web by the operator or the Department.

Collection of absorbent booms, pads and stormwater hydrocarbon recovery units shall be made on a monthly basis. The replacement of the absorbent material shall be made by OSHA certified personnel only.

9.0 ENVIRONMENTAL MONITORING PLAN

Quarterly sampling of existing groundwater monitoring wells is proposed in the area surrounding the LNAPL plume. The quarterly sampling shall be conducted at the following wells for Extractable Petroleum Hydrocarbon (EPH) analysis: DCW-1, DCW-2, DCW-3, DCW-4, DCW-5, DCW-6, DCW-8, DCW-9, DCW-10, KEI-5, BP-1 and BP-2.

An LNAPL investigation needs to be continued to evaluate the extent of product to the south and southwest. As previously described, this effort was halted on December 10th due to a hydraulic line failure in the GeoProbe unit.

The groundwater treatment system shall be monitored for EPH and Volatile Petroleum Hydrocarbon (VPH) analysis at the inlet to the first activated carbon drum and the outlet to the second activated carbon drum.

10.0 IMPLEMENTATION SCHEDULE

Quarterly groundwater sampling of the monitoring wells described in Section 9.0 shall be conducted on March 30, 2005, June 30, 2005, September 30, 2005 and December 30, 2005.

A GeoProbe investigation shall be conducted by the end of January, 2005 to evaluate the LNAPL extent to the south and southwest.

The groundwater treatment system and discharge field shall be placed into service the week of January 17, 2005. Prior to this permanent installation, vacuum pump withdrawals shall occur on January 6th and 13th. These weekly withdrawals shall help to contain contaminated groundwater within the trench and prevent migration to the southeast.

The groundwater treatment system shall be monitored after the separation tank and at the outlet (prior to underground discharge) for EPH and VPH analysis on a weekly basis.

An IRA Status report will be submitted on January 31, 2005 to summarize the treatment system startup and report on soil and groundwater sampling that occurred since the last status report filed on November 5, 2004.

APPENDIX A
LICENSE AGREEMENTS TO CONDUCT INVESTIGATION AND REMEDIATION WORK ON PUBLIC AND PRIVATE PROPERTY

LICENSE TO ENTER AND USE REAL PROPERTY

This instrument is a license by and between the Inhabitants of the Town of Carver, Massachusetts, acting by and through its Board of Selectmen ("Licensor") and Eagle Gas, Inc., duly formed pursuant to the laws of the Commonwealth of Massachusetts, a corporation with a place of business at 131 Main Street, Carver, Massachusetts ("Licensee").

Whereas, Licensor is the owner in fee of a certain right-of-way known as Main Street as layed out by the Plymouth County Commissioners under petition of the Carver Board of Selectmen on May 8, 1951, and as amended under a petition filed on March 26, 1963. Main Street was formerly under the control of the Massachusetts Highway Department and was known as Route 58. Said layout is on file with the Plymouth County Commissioners as decree no. 1124, which is part of the Route 58 layout, Section 3, (the "Property"); and

Whereas, the Licensor is responsible for the care, custody, control and maintenance of said Property; and

Whereas, the Licensee has submitted an Immediate Response Action ("IRA") Plan Modification dated December 14, 2004 to the Massachusetts Department of Environmental Protection ("DEP") to fulfill its obligations for addressing a release of oil to the ground in accordance with the Massachusetts Oil and Hazardous Material Release Prevention Act, G.L. c. 21E and the regulation promulgated thereunder (the "IRA Plan"); and

Whereas, the Licensee desires to enter upon that portion of the Property owned by the Licensor as shown on the IRA Plan (the "Premises") in an area deemed suitable for excavating, boring, digging, and extracting materials or specimens located at the Premises for the purpose of assessing, inspecting, securing, and removing from time to time all or a portion of oil or hazardous materials during normal business hours and upon reasonable (24 hours) notice. The storage of materials during the term hereof and the access to the materials at the Property or Premises in favor of the Licensee shall be without cost or expense to the Licensor.

Now, therefore, Licensor hereby grants to Licensee the non-exclusive right to enter and use the Premises and to access the Premises from the Property subject to the following terms and conditions:

1. REFERENCE DATA

Date of License: December 14, 2004

Mailing Address of Licensor:

Board of Selectmen
Carver Town Hall
108 Main Street
Carver, MA 02330

Mailing Address of Licensee:	Eagle Gas, Inc. 131 Main Street Carver, MA 02330
Permitted Use:	Excavating, boring, digging, and extracting oil or hazardous materials located at the Premises for the purpose of inspecting, assessing, securing, and removing from time to time oil or hazardous materials during normal business hours and upon reasonable (24 hours) notice and for analysis of the specimens.
Term of License:	Six (6) months from the date of this License
Consideration to be paid by Licensee:	$1.00

2. RIGHTS APPURTENANT

The Licensee shall have, as appurtenant to the License hereby granted, the non-exclusive use, in common with others entitled thereto, of the Premises for the period of this License and only for the purposes of the Permitted Use defined in Section 1.

3. CONDITION OF PREMISES

Licensee acknowledges and agrees that it accepts the Premises in "as is" condition for the purpose of this License, and that Licensor has made no representation or warranty regarding the fitness of the Premises for the Permitted Use.

4. PERMITS

This agreement and all obligations hereunder are specifically dependent upon the issuance to the Licensee of all permits and licenses required to undertake the Permitted Use at the Premises in accordance with all applicable laws, regulations and governmental requirements from those governmental agencies having jurisdiction, and compliance by the Licensee with such permits and licenses.

6. ALTERATION OF THE PROPERTY

Licensee shall not make any alterations or improvements upon the Premises except to undertake the Permitted Use under this License, and except to restore the Premises as closely as practical to their condition prior to the exercise of Licensee's rights, immediately after they are disturbed by said Permitted Use.

7. LICENSEE'S EQUIPMENT

Licensee may bring such vehicles and other equipment upon the Premises as would ordinarily be used to undertake the Permitted Use.

8. UTILITIES

Licensor makes no representation as to the operation, presence or adequacy of any utilities for the construction and maintenance purposes of Licensee and Licensor has no obligation to supply any such utilities to the Premises.

9. CONDUCT OF LICENSEE

Non-interference with Licensor's Operations

Licensee shall at all times conduct itself so as not to interfere in any way with the operation of the Property or Premises by Licensor.

Compliance with Laws

Licensee shall at all times perform the Permitted Use in accordance with all applicable laws, statutes, ordinances, regulations, permits, licenses, orders and requirements of governmental authorities and with all requirements of its insurance policies.

Repair of Damage

Licensee shall neither cause nor suffer any waste of the Premises, and shall maintain the Premises in good order at all times. The Licensee's responsibilities shall include the restoration or repair of any and all damage to the Premises or the Property resulting from any act, failure to act or negligence of the Licensee. This obligation shall survive the termination of the License.

Sanitation

Licensee shall maintain the Premises in a sanitary condition and shall follow all directions of Licensor with regard to the collection and disposal of refuse or construction debris.

Security

Licensor is not responsible for the security of the Premises, which shall be the sole responsibility of Licensee, during the times that Licensee is using or occupying the Premises under this License.

Costs of Operations

Licensee shall be solely responsible for any and all costs, expenses, damages and liabilities associated with the exercise of its rights under this License.

Operations Limited to Permitted Use

Licensee shall not conduct any operations upon the Premises except for the Permitted Use under Section 1 of this License and except for any requirement set forth in this License. Licensee shall exercise of its rights under this license in such a manner as to minimize impacts on third parties operating over the Property and the Premises, and shall provide twenty-four hour written notification to Licensor of any anticipated interference with such operation by third parties.

10. RISK OF LOSS

Licensee agrees that it shall use and occupy the Premises at its own risk, and the Licensor shall not be liable to Licensee for any injury or death to persons entering the Premises pursuant to the License, or loss or damage to vehicles, equipment, structures or other personal property of any nature whatsoever of the Licensee, or of anyone claiming by or through any of them, that are brought upon the Premises pursuant to the License, except if such injury, death, loss or damages is caused by the willful act or gross negligence of Licensor, or its employees, agents, contractors or invitees.

11. INDEMNIFICATION

Licensee agrees to indemnify, defend and hold harmless Licensor against any claim by any person for any injury or death to persons or loss or damage to or diminution in value of any property occurring upon the Premises or the Property or relating in any way to Licensee's exercise of its rights under this License. In particular, Licensee shall indemnify, defend and hold harmless Licensor with regard to any claim or action brought by and private party or regulatory with regard to the release or threat of release of oil and/or hazardous material at or from the Premises as a result of Licensee's exercise of its rights under this License.

12. INSURANCE

The Licensee shall keep in force, at its sole cost and expense, during the full term of this License, comprehensive public liability insurance, in the amount of one million dollars ($1,000.000), insuring the Licensee and the Licensor against all claims and demands for personal injury or damage to or diminution in value of any property which may be claimed to have occurred upon the Premises or as a result of the exercise by Licensee of the rights granted by this License and naming the Licensor as a named insured. Failure to obtain and keep in force said insurance, and failure to provide the Licensor with proof of same, shall automatically terminate this License and any rights granted herein.

13. RIGHTS OF LICENSOR TO ENTER

The Licensor reserves the right and the Licensee shall permit the Licensor and its employees, contractors, agents and invitees to enter upon and use the Premises at any time and for any and all purposes at Licensor's sole discretion, provided that Licensor's use shall not interfere with Licensee's Permitted Use.

14. TERMINATION

This License is terminable at any time by the Licensor or the Licensee following notice by certified U.S. Mail, return receipt requested, to the other party. This License shall expire on the date specified in such notice.

15. NO ESTATE CREATED

This License shall not be construed as creating or vesting in Licensee any estate in the Premises or Property or any interest in real property.

16. LICENSEE TO PROVIDE ALL INFORMATION OBTAINED

The Licensee shall provide to the Licensor all information, including but not limited to reports, data, and test results obtained by the Licensee, its employees, agents, and/or contractors resulting from the use described in section 1 of this License. This information shall be made available to the Licensor at the same time it is made available to the Licensee.

17. MISCELLANEOUS

This License may not be modified except in writing, duly executed by both parties.

This License contains the entire agreement of the parties and there are no other agreements or understandings between the parties regarding the subject matter of the License.

The Licensee is not authorized to bind or involve the Licensor in any contract or to incur any liability for or on the part of the Licensor; likewise, the Licensor, its employees, agents, contractors or invitees, is not authorized to bind or involve the Licensee in any contract or to incur any liability for or on the part of the Licensee.

If any portion of this License is declared to be illegal, unenforceable or void, then all parties to this License shall be relieved of all obligations under that portion; provided, however, that the remainder of this License shall be enforced to the fullest extent permitted by law.

The captions in this License are inserted for convenience of reference only and in no way define, describe or limit the scope or intent of this License or any of the provisions thereof.

This License shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, and any and all legal actions brought in connection with this License shall be brought in courts within the Commonwealth of Massachusetts.

This License is to take effect as a sealed instrument.

LICENSOR: TOWN OF CARVER
BOARD OF SELECTMEN

12/14/04
Date

LICENSEE: EAGLE GAS, INC.

Authorized Signature

President
Title

NASIB BADAOUI
Print Name

12/15/04
Date

AGREEMENT TO ACCESS PROPERTY AND TO CONDUCT RESPONSE ACTIONS

This Agreement is made between Stephen and Stephanie Davis (hereinafter "Davises") and Eagle Gas, Inc. (hereinafter "Eagle"), its employees, authorized agents and/or contractors requiring access to a parcel of land identified below, which is owned by Davises, for the purposes of performing response actions and remediation under the authority of M.G. L. Ch. 21E, and pursuant to the M.C.P., 310CMR 40.000. Davises recognize Eagle's duty to enter the property and will allow Eagle or its agents or contractors to access this parcel of land in order to perform said response actions in accordance with the terms and conditions set forth below:

The real property (hereinafter "Property") which is the subject of this grant of license is located on the northerly side of Main Street in the Town of Carver, denoted on Carver Assessor's Map 104, Lot 2, and contains the area surrounding a municipal drainage outfall proximate to South Meadow Brook.

The primary response actions will be performed by Decoulos & Company (hereinafter "Decoulos") on behalf of Eagle and its employees, authorized agents and/or contractors , DEP release tracking Number 4-17825.

In order to perform the necessary response actions, Eagle and Decoulos and their employees, authorized agents and/or contractors will require access to the Property to, modify or install treatment systems, inspect existing treatment, install borings or wells, perform soil samplings, and remove affected materials. These response actions will be performed in accordance with applicable law. The parties acknowledge that all documents relating to the response actions are to be available for review at the Department of Environmental Protection Southeast Regional Office.

Eagle and Decoulos and their employees, authorized agents and/or contractors will maintain and repair all remedial equipment on the Property for the duration of the response action as required by law. The parties agree that any contractor performing work on the Property shall be properly insured and acknowledge that a copy of the Certificate of Insurance of shall be available upon request.

Eagle and Decoulos shall make every effort to minimize disruption to the Property and shall exercise reasonable efforts to restore any physical damage to its original condition.

The Davises retain the right to revoke this grant of license at any time by notification, in writing, to Eagle's attorney at the following address:

Theodore L. Bosen
Box 1790
114 State Road
Sagamore Beach, MA 02562

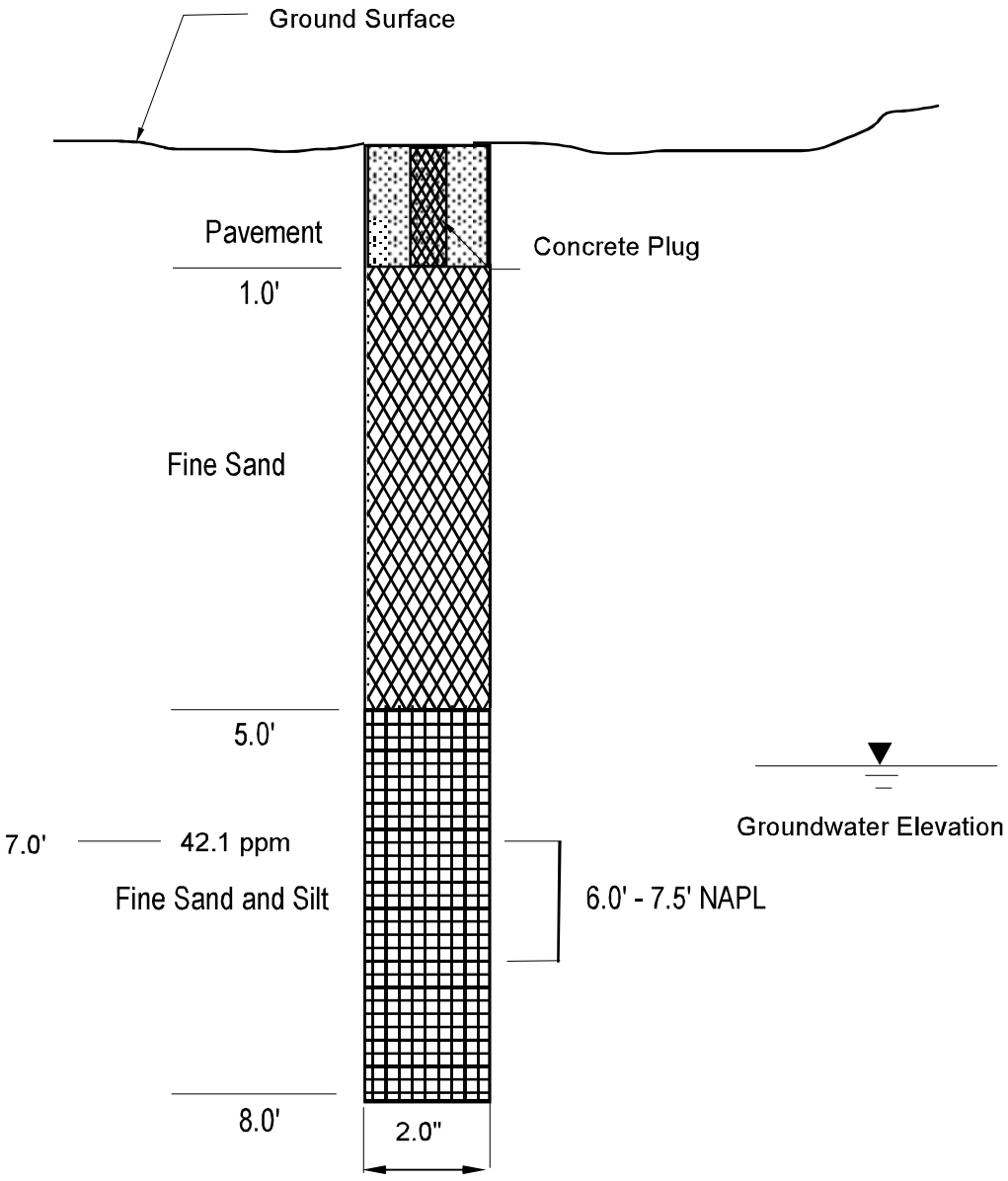
The Davises, owners of the Property identified above, hereby grant, and Eagle hereby accepts on behalf of itself, Decoulos, its employees, authorized agents and contractors, license for the purposes above described and under the conditions above imposed.

Stehpen Davis

Stephanie Davis

Eagle Gas, Inc.

APPENDIX B
SOIL BORING LOGS FROM DECEMBER 10, 2004



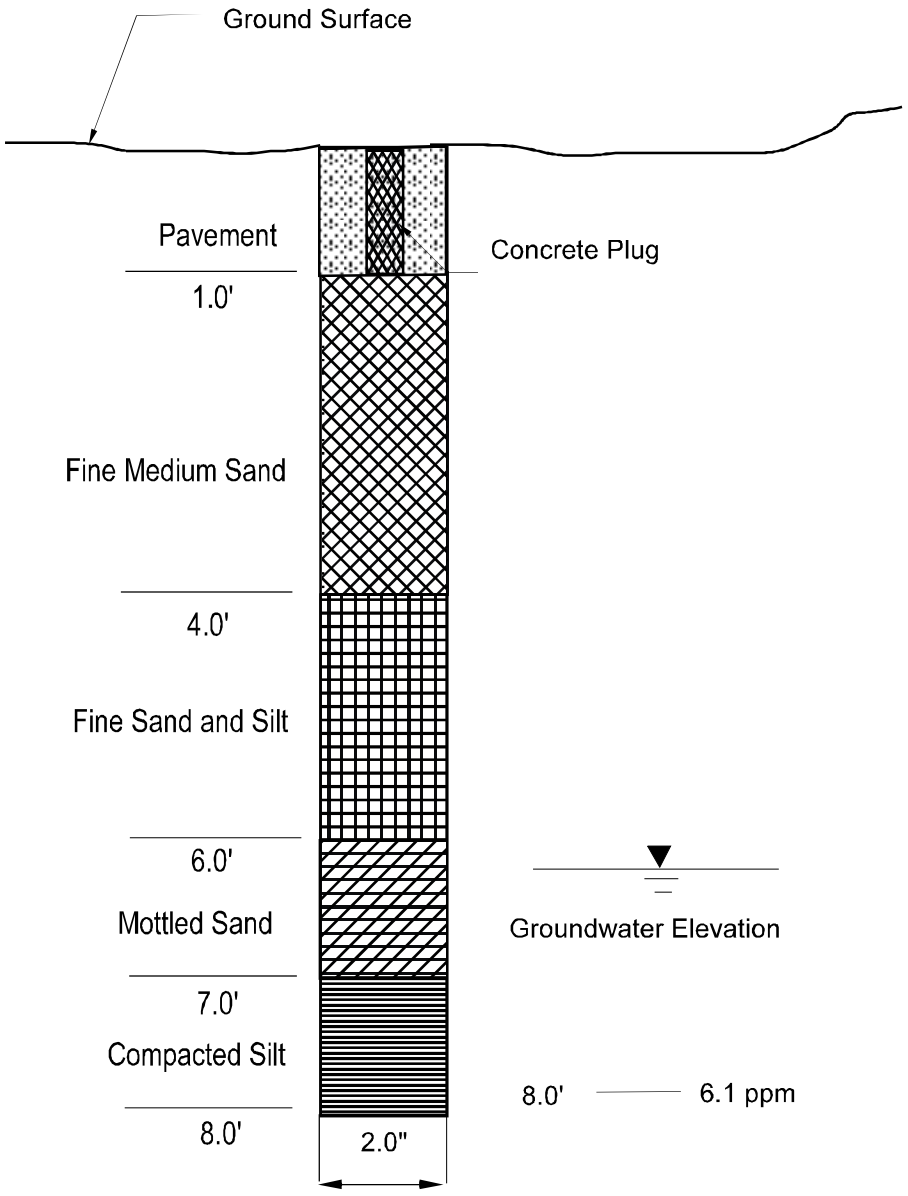
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-1 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



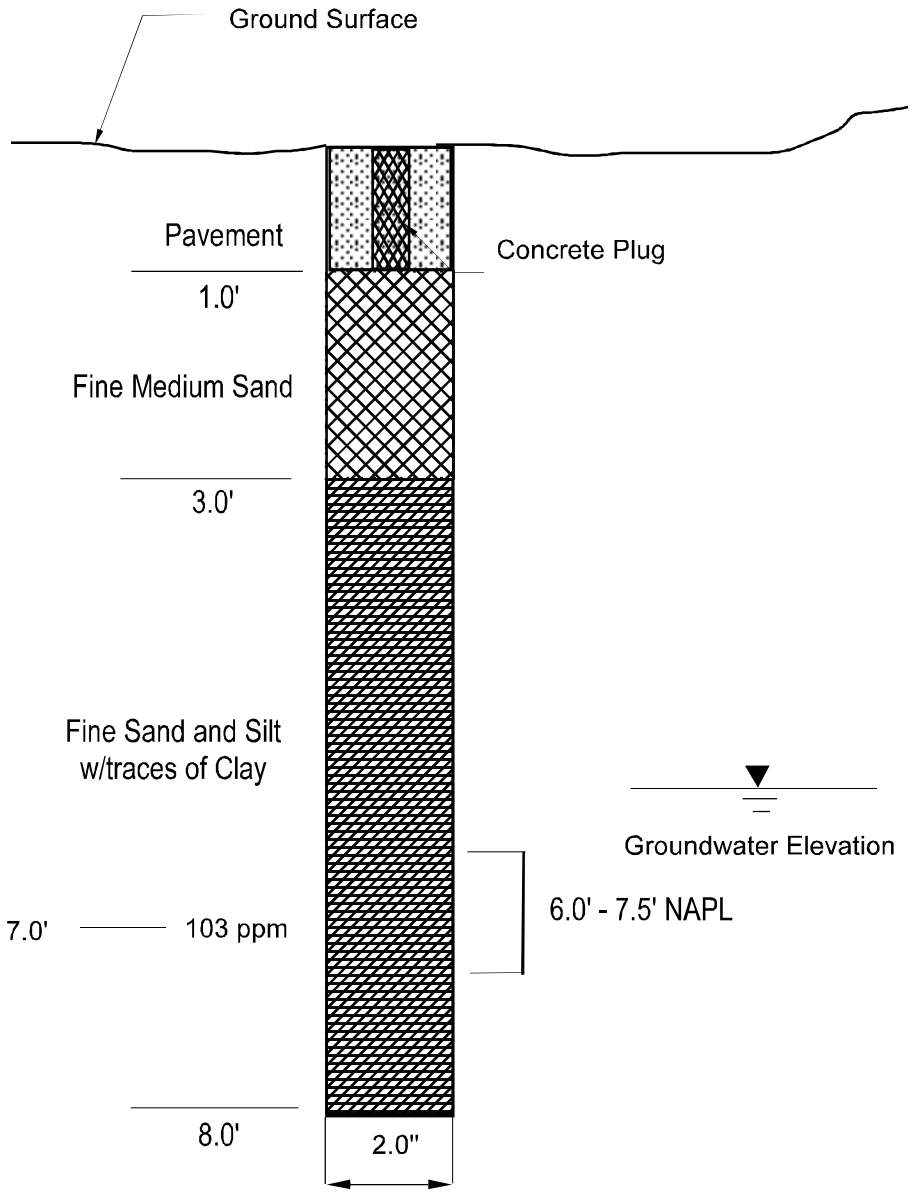
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-2 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



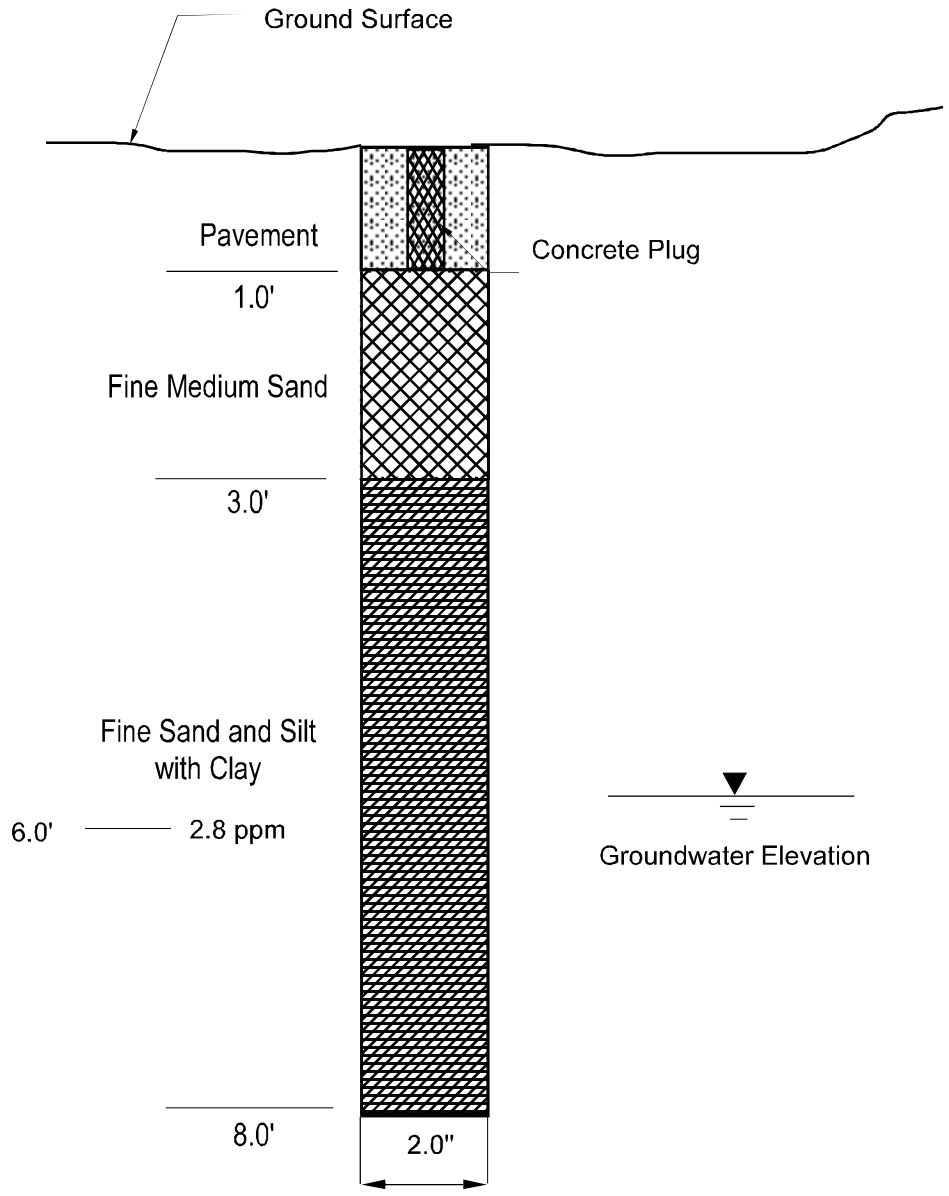
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-3 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



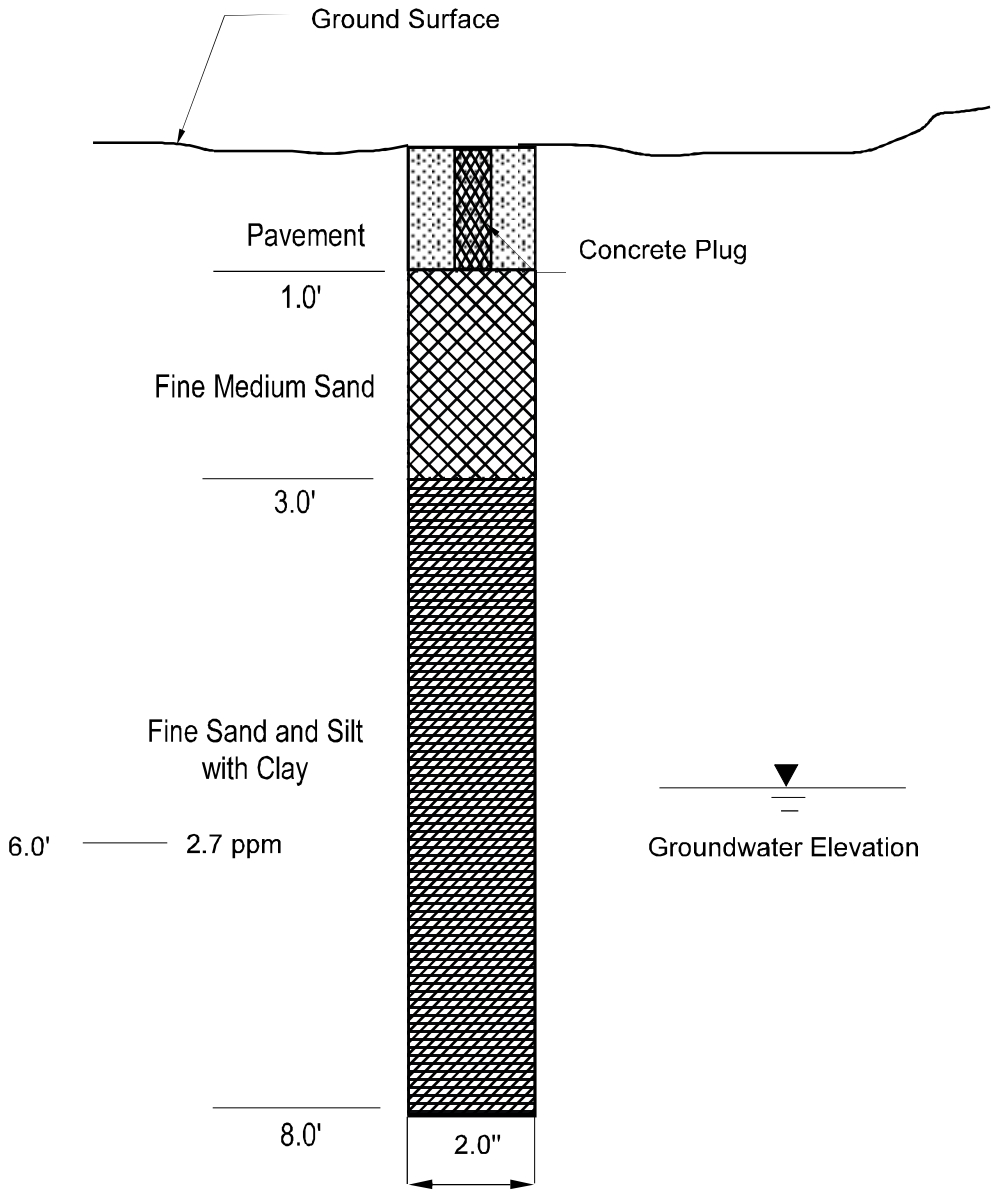
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-4 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



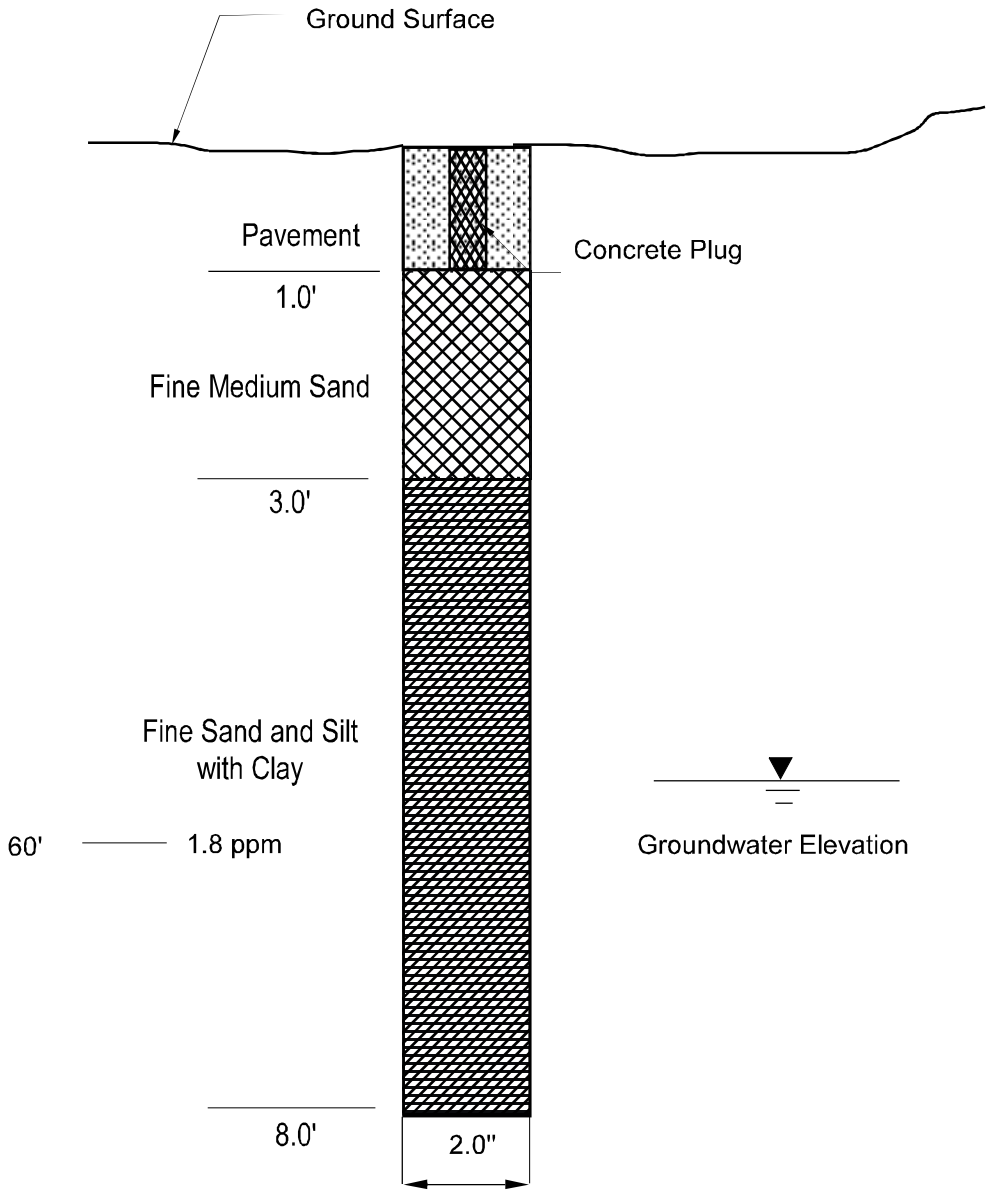
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-5 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



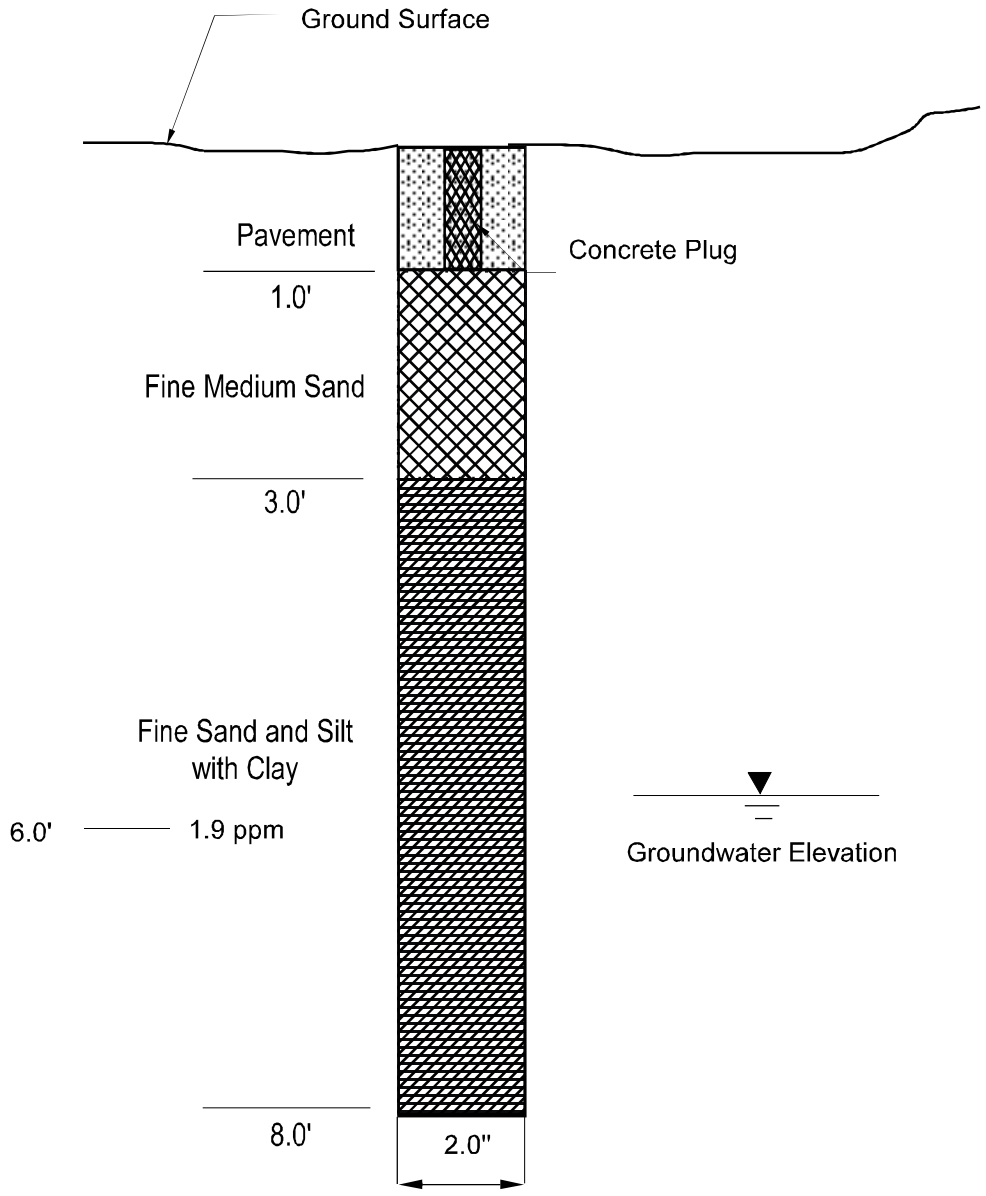
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-6 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



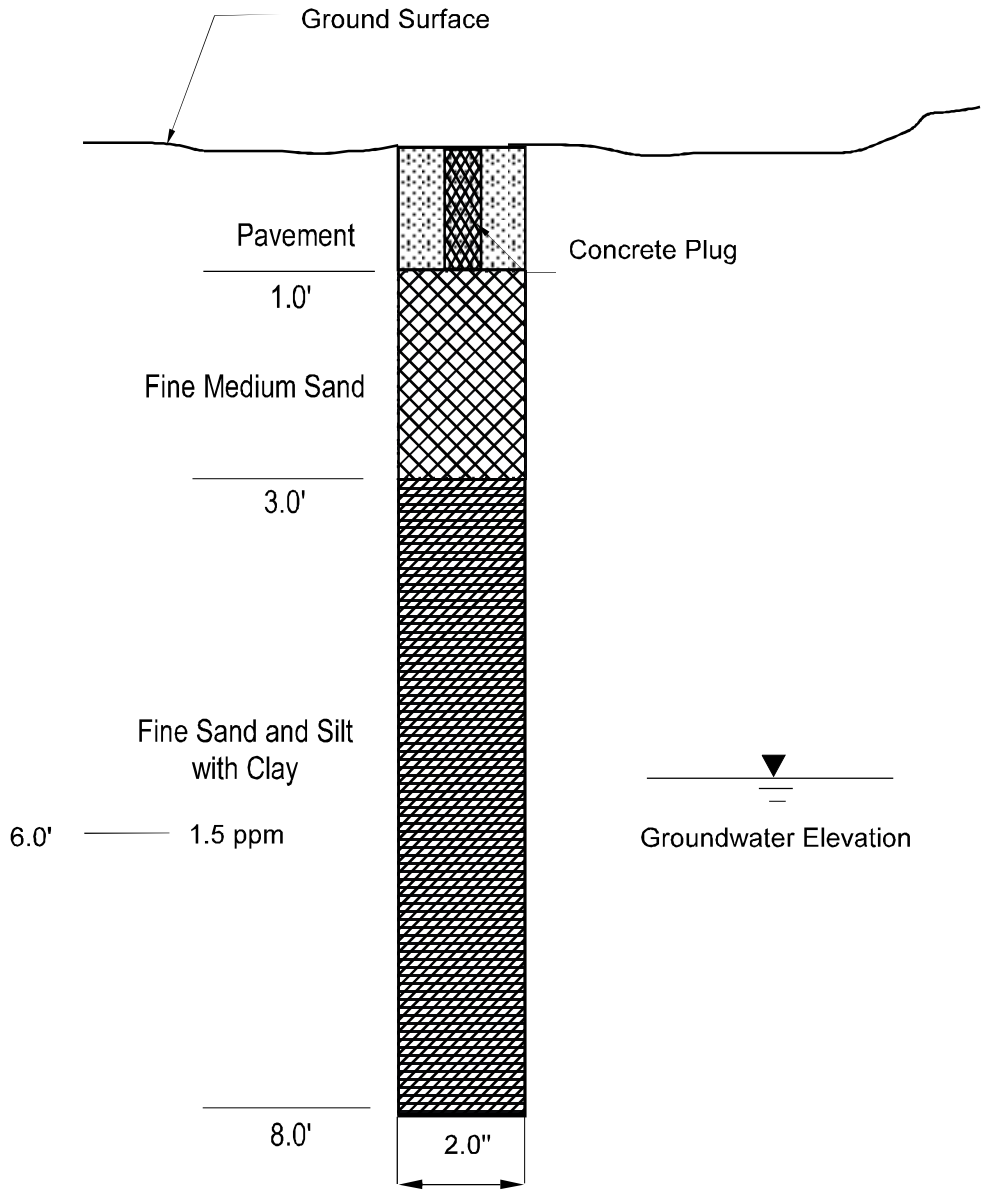
DRILLING METHOD:
DIRECT PUSH PROBE

EGS-7 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA



DRILLING METHOD:
DIRECT PUSH PROBE

EGS-8 BORING LOG

(NOT TO SCALE)

DECOULOS & COMPANY

SITE LOCATION: 131 MAIN STREET, CARVER, MA

APPENDIX C
HAZARDOUS WASTE MANIFESTS

COMMONWEALTH OF MASSACHUSETTS
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's US EPA ID No. | Manifest Document No. | 2. Page 1 | Information in the shaded areas is not required by Federal law

A. State Manifest Document Number: MA Q 366956

3. Generator's Name and Mailing Address

B. State Gen. ID

4. Generator's Phone ( )

5. Transporter 1 Company Name | 6. US EPA ID Number

C. State Trans. ID

D. Transporter's Phone ( )

7. Transporter 2 Company Name | 8. US EPA ID Number

E. State Trans. ID

9. Designated Facility Name and Site Address | 10. US EPA ID Number

F. Transporter's Phone ( )

G. State Facility's ID NOT REQUIRED

H. Facility's Phone ( )

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Waste No.
GEN a.					
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (include physical state and hazard code.)

K. Handling Codes for Wastes Listed Above

a. | b. | c. | d.

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

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

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 item19

Printed/Typed Name | Signature | Date: Month Day Year

Form Approved OMB No. 2050-0039

In case of emergency or spill, immediately call the 24 hour Response Center (800) 424-8802

AGGREGATE INDUSTRIES

(781) 344-2011

TICKET NO. 6095[illegible]

STOUGHTON
1001 TURNPIKE STREET
STOUGHTON, MA 02072

SCALE	DATE	TIME	TRUCKER NO.	TRUCK NO.
Scale 1	12/17/04	11:41	67[illegible]2	T109

CUSTOMER	PURCHASE ORDER NO.	PRODUCT CODE	SALE TYPE	ZONE	PLANT NO.	PROJECT NO.	LOADS	ACCUM. AMOUNT
[illegible]		411	[illegible]		411	31444	1	19.95

CUSTOMER NAME	JOB NAME / DIRECTIONS
[illegible]SH SLS/STOUGHTON [illegible]SH SALES STOUGHTON TOUGHTON, MA	SOUTH CARVER MAIN ST

PRODUCT	QUANTITY	UNIT	PRICE	AMOUNT		MEGAGRAMS	POUNDS	TONS
[illegible] SOIL OIL	19.95	TON	31.00	618.45	GROSS	[illegible]	[illegible]	[illegible]
	TRUCKING RATE		0.00	0.00	TARE	[illegible]	[illegible]	[illegible]
[illegible] Sales: 618.45 [illegible] Paid: 0.00 [illegible] Due: 618.45	TAX: MASS		0.000%	0.00	NET	[illegible]	[illegible]	19.95
	TOTAL DUE			618.45				

ARRIVE JOB	DEPART JOB	WAITING TIME	WEIGHTMASTER
			[illegible]

AGGREGATE INDUSTRIES relieve the seller of any liability for personal injury or property damage when delivery is made beyond the curb line.

Your business is greatly valued.

Received by: [signature]

Driver: [illegible] HOULEE

Waiting time in excess of 1/4 hour will be charged at current prices.

CUSTOMER COPY

CONTROL NO. 1191791

[illegible]-25

AGGREGATE INDUSTRIES

TICKET NO.

SCALE	DATE	TIME	TRUCKER NO.	TRUCK NO.

PURCHASE ORDER NO.	PRODUCT CODE	SALE TYPE	ZONE	PLANT NO.	PROJECT NO.	LOADS	ACCUM. AMOUNT

JOB NAME / DIRECTIONS

QUANTITY	UNIT	PRICE	AMOUNT		MEGAGRAMS	POUNDS	TONS
				GROSS			
TRUCKING RATE				TARE			
TAX RATE %				NET			
TOTAL DUE							

ARRIVE JOB	DEPART JOB	WAITING TIME	WEIGHTMASTER

relieve the seller of any liability for personal injury or property damage when delivery is made beyond the curb line.

Your business is greatly valued.

Driver:

Received by:

Waiting time in excess of 1/4 hour will be charged at current prices.

CUSTOMER COPY

CONTROL NO. 1191780

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS MATERIALS
One Winter Street
Boston, Massachusetts 02108

FOR IN-STATE WASTE
OIL ONLY
OR
IN-STATE VSQG HW/WO

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator US EPA ID No. MA0096690 Manifest Document No. 00279
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address: EAGLE GAS INC. 131 MAIN ST CARVER, MA 02330
4. Generator's Phone: 508 866 9098
5. Transporter 1 Company Name: LIGHTHOUSE ENVIRONMENTAL SOLUTIONS 110
6. US EPA ID Number: MAR000510404
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: OLSON'S GREENHOUSE, INC. 590 South Street, East Raynham, MA 02767
10. US EPA ID Number: MAD059733178
A. State Manifest Document Number: MA M825614
B. State Gen. ID: SAME
C. State Trans. ID: KR1199MA
D. Transporter's Phone: 781 893-7771
E. State Facility's ID:
F. State Facility's Phone: 508-977-9261

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Combustible Liquid N.O.S. (Fuel Oil + WATER) Combustible, NA 1993 PG III	001	TT	0110	G	MA9
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above (Include any state and local codes)
a. (a) Oily water
b.
K. Handling Codes for Wastes Listed Above
a. T 2
b.

15. Special Handling Instructions and Additional Information
Line 11A ERG Guide # 128
24 Hour Emergency Response Phone # 781-893-7771

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 governmental 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	Month	Day	Year
[illegible]		12	2	04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ALLAN C. PEIRCE		12	2	04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

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	Month	Day	Year

Form Approved. OMB No. 2050-0039
EPA Form 8700-22 (Rev. 3-94) Previous editions are obsolete.

MA M825614 COPY 4: GENERATOR RETAINS

APPENDIX D
NAPL WITHDRAWAL FORMS

NAPL WITHDRAWAL FORM
EAGLE GAS, INC.
131 MAIN STREET, CARVER, MA
DEP RTN 4-17582

DATE	TIME	THICKNESS OF DIESEL NAPL ERW-1 (IN)	EST. VOLUME OF DIESEL NAPL WITHDRAWN ERW-1 ~~(GAL)~~ N. GASTER	EST. VOLUME OF DIESEL NAPL FROM CANNISTER ERW-2 ~~(GAL)~~ N. GASTER	THICKNESS OF DIESEL NAPL ERW-4 (IN)	EST. VOLUME OF DIESEL NAPL WITHDRAWN ERW-4 ~~(GAL)~~ N. GASTER
10/28/2004	4:00 PM	4	0.25	1.5		
10/28	10PM			1.8 L		
10/29	10AM			.4 L		
10/29	9PM			.5 L		
10/30	1PM			.5 L		
10/31	9PM			0		
11/1	4PM			1.0 L		
			TOTAL	4.2		
11/2	9PM			1.0L		
11/4	11AM			1.0L		
11/5	9PM			.5L		
11/8	9PM		4.0L	2.0L		
11/10	9PM			1.5L		
11/11	4PM			0.5L		
11/13	3PM		[redacted]	1.0L		4.0L
11/14	8PM					1.0L
11/15	9PM			2.0L		0.5L
11/16	9PM		MIX 4.0L *	0.5L		0.5L
11/18	9PM			1.0L		1.5L * MIX
11/21	9PM			2.0L		3.0L * MIX 2 LAST
11/22	9PM		4.0L			

I hereby certify that the following measurements and withdrawals occurred from the above referenced monitoring wells and that the diesel fuel withdrawn from the wells was completely emptied into the dedicated 55 gallon drum located on the southerly side of the building at 131 Main Street in Carver, MA.

Najib Badaoui, President
Eagle Gas, Inc.

11/11/04
Date

NAPL WITHDRAWAL FORM
EAGLE GAS, INC.
131 MAIN STREET, CARVER, MA
DEP RTN 4-17582

DATE	TIME	EST. VOLUME OF DIESEL NAPL WITHDRAWN ERW-1 (L)	EST. VOLUME OF DIESEL NAPL FROM PRC ERW-2 (L)	EST. VOLUME OF DIESEL NAPL WITHDRAWN ERW-4 (L)	EST. VOLUME OF WATER MIXTURE WITHDRAWN ERW-4 (L)	EST. VOLUME OF DIESEL NAPL WITHDRAWN BP-SRR (L)	EST. VOLUME OF DIESEL NAPL WITHDRAWN DGW-7 (L)
11/23	9AM	(PRC) 3.0					
11/26	9AM	(PRC) 2.0	3.0	[illegible]			
11/29	9AM		2.0	(PRC) 4.0	4.0		
11/30	9AM			(PRC) 2.0	0.5		
12/1							
12/6	9AM	(PRC) 4.0	3.0				
12/8	9AM	(PRC) 1.0	1.0				

NOTES: 1. A Keck Passive Recovery Canister (PRC) is being alternated between ERW-1 and ERW-4. NAPL recovery with the PRC is appropriately noted.

2. A mixture of water and dissolved petroleum is being collected at ERW-4 and the fluid is being referred to as a "Water Mixture" in a separate column.

I hereby certify that the following measurements and withdrawals occurred from the above referenced monitoring wells and that the diesel fuel withdrawn from the wells was completely emptied into the dedicated 55 gallon drum located on the southerly side of the building at 131 Main Street in Carver, MA.

Najib Badaoui, President
Eagle Gas, Inc.

Date

APPENDIX E
WATER LEVEL LOGGERS

Click to go to www.geotechenv.com

Water Level Loggers

Global Water Level Loggers

The Global Water Level Logger monitors and records water level data. It can record up to 24,400 readings and is programmable from one reading per second to one reading per day. Pressure ranges of 0-3', 0-15', 0-30', 0-60', 0-120', and 0-250' are available. A 25 foot cable is standard, with optional cable lengths of up to 500 feet available.

FEATURES

- **Easily adapted for well-head mounting or other installations**
- **EZ-PC software allows uploading of data into standard spreadsheet format**
- **Palm Pilot® software simplifies data collection**
- **Ideal for monitoring well or surface water applications**
- **Real-time readout of current data**
- **Reliable and accurate**
- **Automatic barometric pressure and temperature compensation**
- **Weatherproof cylindrical enclosure**
- **Fully encapsulated water level sensor with marine grade epoxy**
- **No need to remove sensor for data collection or battery change. Connection and battery replacement are accessable from surface.**

Global Water Level Logger with 1 5/8 inch Data Logger

OPERATION

Place the Water Level Logger slightly below the lowest expected water level. Select a range to cover maximum water level change, not necessarily the total depth of water. Select the smallest range possible for greater accuracy.

The weatherproof cylindrical enclosure is designed to slide into a 2 inch standard ABS or PVC pipe slip coupler.

For well head monitoring, a reducer coupling is available to couple the datalogger to the well head. For monitoring surface water, a protective stilling well can be easily constructed from PVC pipe. The pipe may be attached vertically to a post or on a slant down the bank.

User friendly software and cable are provided with each water level logger. There are 10 menu items that allow you to set the date, time, recording interval, engineering units, collect date, and observe data. Tabular files may be printed or data presented by all standard spreadsheets.

Deluxe Palm Package
Includes Palm Pilot®, field cable, and rugged carrying case.

Geotech Environmental Equipment, Inc.
8035 East 40th Avenue • Denver, Colorado 80207
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com

Water Level Meters

Geotech Water Level Loggers Specifications

Size:

Datalogging unit .....1 5/8" diameter, 10” high available

Probe.....5.7" length, .77" diameter

Material of cable covering .....Marine grade polyurethane jacket, polyethylene vent tube, full foil shield Outside Diameter: 3/16”

Cable wiring.....3 wire (input, output, ground)

Weight 1.6lbs

Recording interval .....Programmable Linear fixed intervals from 1/second to once every 32,000 seconds (also 0-32,000 minutes, hours and days) and Logarithimic test (for pump and slug tests).

Memory .....24,400 readings Non-volatile flash memory

Type of memory .....Data overwite: Select memory wrap or unwrap (unwrap will stop logging data once memory is full)

Battery life .....Litium 9V DC: Up to 3 years (depending on recording intervals)

Input .....Analog 0-4V DC

Resolution .....12 bit (0.003' for 14' range)

Linearity .....0.1% Full Scale

Accuracy .....0.1% Full Scale at constant temperature, 0.2% over 35º F to 70º F range
0.25% Full Scale for temperature greater than 85º F

Pressure ranges .....0-3’, 0-15’, 0-30’, 0-60’, 0-120’, and 0-250’ are available

Computer interface .....RS232C, 9 pin female connector provided

Software.....Compatible with Microsoft’s Windows 95, 98, ME, 2000, NT, and XP. Windows and Excel are trademarks of the Microsoft Corporation.

Software features .....Programmable record interval, scaling for engineering units, output in spreadsheet format, real-time monitoring.

Operating temperature.....-40° to 170° F (Datalogger)

Overpressure: .....2 x full scale range

Burst Pressure: .....10 x full scale range

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.
8035 East 40th Avenue • Denver, Colorado 80207
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com

APPENDIX F
STORMWATER TREATMENT CONTROLS

Stormwater Management
Spill Response
Spill Containment
Contact Us
Home

Search
SITE MAP

STORMWATER MANAGEMENT - CATCH BASIN PROTECTION

Ultra-DrainGuard

DrainGuard | GrateGuard | CurbGuard | BasinGuard | PassiveSkimmer | HydroKleen | Drain Marker | Lifter/Hook | TrenchFilter

Ultra-DrainGuard Product Line

(Please click on product below for more information)

NEW!! **Ultra-DrainGuard, Reusable Model**

Ultra-DrainGuard

Ultra-DrainGuard, Curb-Style

Ultra-DrainGuard Retainers

Ultra-DrainGuard, Biodegradable

Click Here To See Testing Information and an Effectiveness Study on the Ultra-DrainGuards

Keep Sediment And Other Pollutants From Entering The Water System With Ultra-DrainGuard Catch Basin Inserts

Stormwater pollution has become a major concern both locally and on a national level. Ultra-DrainGuards remove waste from stormwater *before* it can become a problem in the water system.

BMP

Available in Three Models:

- Oil & Sediment Model - Part # 9217 (1-Pack), Part # 9218 (10-Pack)
- Oil & Sediment Plus Model - Part # 9219 (1-Pack), Part # 9220

Click For Larger Image

(10-Pack)

- Trash and Debris Model - Part #9227 (1-Pack), Part # 9229 (10-Pack)

Participant

Click For Larger Image

Click For Larger Image

Click For Larger Image

Helps comply with NPDES, 40 CFR 122.26 (1999) when used as Best Management Practice in Storm Water Pollution Prevention Plans.

Designed For Practical Use In:

- Industrial Facilities - keep oil and other contaminants from entering storm drains.
- Construction Sites - capture eroded soil and wind-blown debris.
- Parking Lots, "Drive-Up" Retail Facilities - selected geotextiles collect oil, fuel and other contaminants that drip from cars.

Unique PopUp Capacity Indicator* Automatically Signals When It's Time To Install A New Ultra-DrainGuard

Click For Larger Image

Heavy duty magnet securely attaches the reusable indicator to the bottom of the grate.

Click For Larger Image

A tether is attached to a release hook which disengages when the DrainGuard has reached its capacity.

Click For Larger Image

The bright red end cap "pops up" through the grate to visually alert maintenance personnel that the DrainGuard need to be emptied or replaced. The spring-loaded device can be driven over even in the "popped up" position.

Note:
* The PopUp Capacity Indicator is not designed for use with the Trash and Debris Model.
** The PopUp Capacity Indicator is designed to measure sediment load only and will not alert users to oil or
hydrocarbon loads.

U.S. Patent No. 5,372,714; 5,575,925

SPECIFICATIONS			
	Oil & Sediment Model	**Oil & Sediment Plus Model**	**Trash & Debris Model**
Part #:	9217 (1-Pack) 9218 (10-Pack)	9219 (1-Pack) 9220 (10-Pack)	9227 (1-Pack) 9229 (10-Pack)
Weight:	1 lb.	2 lbs.	1 lb.
Dimensions:	48" L x 36" W x 18"H	48" L x 36" W x 18" H	48" L x 36" W x 18" H
Weight:	1 lbs.	2 lbs.	1 lbs.
Performance:	Oil: Up to .87 gallons Sediment: Up to 40 lbs.	Oil: Up to 1.38 gallons Sediment: Up to 40 lbs.	1 cu. ft. (before reaching bypass ports)
Accessories	PopUp Capacity Indicator (Part # 9236), Grate Lifting Hook (Part # 9235), Retainers (Part # 9237 or 9238)		
	* The total water flow rate through the insert in new condition is in excess of 500 gpm. The bypass rate is approximately 700 gpm.		
Material Specs		**Learn more about the use of DrainGuards in freezing temperatures**	
Click Here To See Results of an Effectiveness Study on the Ultra-DrainGuards			

The Ultra-DrainGuards have just received approval from the Washington State Department of Transportation!
Click here to read the letter.
(Adobe Acrobat required)

Click here to learn about the Grate Mate Program and Planet CPR

See More Ultra-DrainGuards - Page 2

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STORMWATER MANAGEMENT - CATCH BASIN PROTECTION

Ultra-TrenchFilter

DrainGuard | GrateGuard | CurbGuard | BasinGuard | PassiveSkimmer | HydroKleen | Drain Marker | Lifter/Hook | TrenchFilter

Reduce Oil and Sediment Flowing Through Trench Drains and Pipes NEW!

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- Filter design forces water to flow around and through a series of X-Tex filter strips — sand, silt and sediment are trapped between the strips while hydrocarbons are absorbed by the X-Tex material.
- Unit has a 10 ft. x 2ft. section of filter strips — nylon cord is sewn along the entire length of the fabric for added strength.
- Loops on each end allow TrenchFilters to be connected together for long runs of trench/pipe.
- Ten-foot cord (included) can be used to tie off TrenchFilter and secure it in place.
- Helps meet new Stormwater Management Regulations — NPDES 40 CFR 122.26 (1999). Considered a Best Management Practice (BMP).

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Ultra-TrenchFilter
Part# 9700
Dimensions: 10’ L x 2’W
Absorbs up to 0.5 gallons of oil per unit
Weight: 2 lbs.

U.S. Patent No. 6,632,501

DrainGuard | GrateGuard | CurbGuard | BasinGuard | PassiveSkimmer | HydroKleen | Drain Marker | Lifter/Hook | TrenchFilter