CORPORATE ENVIRONMENTAL ADVISORS, INC.

Consultants | Engineers | Contractors

Via USPS Delivery Confirmation and
Electronic Mail: NPDES.Generalpermits@epa.gov

July 2, 2013

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, Massachusetts 02109-3912
ATTN: Remediation General Permit NOI Processing

RE: EPA Remediation General Permit Notice of Intent
Sunoco Station, DUNS# 0484-0898
515 Boston Providence Highway (Route 1)
Norwood, Massachusetts
MADEP RTN 4-3004011
CEA File No. 6456-07

To Whom It May Concern:

On behalf of Sunoco, Inc. (R&M), Corporate Environmental Advisors, Inc. (CEA) is submitting this EPA Remediation General Permit (RGP) Notice of Intent (NOI) to temporarily treat and discharge petroleum-impacted groundwater at the above referenced site. This work is proposed as part of construction and station renovation activities proposed at the site. It is anticipated that proposed station renovations will be iniated at the site in August 2013. Proposed station renovation and environmental monitoring activities are being performed at the site in accordance with the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000. **Figure 1**, Site Locus Map, shows the property location with respect to surrounding topography. **Figure 2**, Site Layout, depicts pertinent site features.

Based on available information depth to groundwater has ranged from approximately 5 to 11 feet below grade at the site. Therefore, groundwater will most likely be encountered during the excavation and removal of existing underground storage tanks (USTs) and associated piping and during installation of a new UST system at the site. During excavation activities, a groundwater recovery sump(s) will be installed and set at approximately 15 feet below surface grade as necessary to properly dewater the excavation. A submersible pump will be placed in the sump to pump groundwater from the excavation into a 21,000-gallon (frac) holding tank(s) for settling and temporary storage.

Groundwater will be pumped from the frac-tank using a submersible pump through a temporary on-site groundwater treatment system. Recovered groundwater will be pre-treated through two (2), 50-micron particle filtration (bag filter) units in series, and then treated using two (2) 2,000-pound capacity liquid-phase granular activated carbon adsorption (GACA) vessels, piped in series. The groundwater treatment system will be designed to treat and discharge groundwater at a maximum flow rate of 100 gallons per minute (GPM). The treatment system will be equipped with a flow meter and flow totalizer prior to the discharge point. Flow rates will be monitored during groundwater treatment and discharge activities. The total gallons of treated groundwater discharged at the site will be recorded at the end of each day.

ADDRESS Hartwell Business Park
127 Hartwell Street, Suite 2
West Boylston, MA
TEL 508.835.8822 | 800.358.7960
FAX 508.835.8812
WEB www.cea-inc.com

| Massachusetts | Connecticut | Rhode Island | New Hampshire | Indiana | New York

Groundwater treated by the temporary treatment system will be discharged to an on-site stormwater catch basin and drainage system located beneath the nearby roadway. According to the Town of Norward Department of Public Works (DPW) Engineering Department and drainage plan, the on-site catch basins and drainage system flow to the east and discharge into wetlands and tributaries of Purgatory Brook depicted on **Figures 1 and 3**. Purgatory Brook flows into the Neponset River.

The treated groundwater discharge will be monitored according to the guidelines described in the RGP. In-line sample ports for sample collection will be installed at the GACA influent, midpoint, and effluent discharge points. In addition, the flow meter and totalizer installed prior to the discharge point of the treatment system will continuously meter the discharge flow total and flow rate. The proposed dewatering and groundwater treatment system components are depicted in the Excavation Dewatering Process and Instrumentation Diagram (P&ID) as **Figure 4**. The dewatering and groundwater treatment system is anticipated to operate for a period of 4 to 8 weeks or as needed to allow the completion of proposed construction and UST replacement. The NOI forms and supporting documentation are attached.

If you have any questions or require additional information, please do not hesitate to contact the undersigned at (508)-835-8822.

Sincerely,
CORPORATE ENVIRONMENTAL ADVISORS, INC.

Phil Olson
Senior Environmental Geologist

Scott VanderSea, LSP, LEP
Principal Hydrogeologist

cc: Mr. William Brochu, Sunoco, Inc. (R&M) via ENFOS

Conservation Commission, Town of Norwood, 165 Nahatan St., Norwood, MA 02062

CEA File 6456-07

EPA REMEDIATION GENERAL PERMIT
NOTICE OF INTENT FORM

Remediation General Permit
Appendix V

Notice of Intent (NOI)
Suggested Forms & Instructions

I. Notice of Intent (NOI) Suggested Form and Instructions

In order to be covered by the remediation general permit (RGP), applicants must submit a completed Notice of Intent (NOI) to EPA Region I and the appropriate state agency. The owner or operator, as defined by 40 CFR § 122.2, means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

The following are three general "**operator"** scenarios (variations on any of these three are possible, especially as the number of owners and contractors increases):

▸ **"***Owner" as "Operator" - sole permittee.* The property owner designs the structures and control systems for the site, develops and implements the BMPP, and serves as general contractor (or has an on-site representative with full authority to direct day-to-day operations). Under the definition of operator, in this case, the "Owner" would be considered the "operator" and therefore the only party that needs permit coverage. Everyone else working on the site may be considered subcontractors and do not need to apply for permit coverage.

▸ *"Contractor" as "Operator" - sole permittee.* The property owner hires a company (e.g., a contractor) to design the project and oversee all aspects, including preparation and implementation of the BMPP and compliance with the permit (e.g., a "turnkey" project). Here, the contractor would likely be the only party needing a permit. Similarly, EPA expects that property owners hiring a contractor or consultant to perform groundwater remediation work (e.g., due to a leaking fuel oil tank) would come under this type of scenario. EPA believes that the contractor, being a professional in the industry, should be the responsible entity rather than the individual. The contractor is better equipped to meet the requirements of both applying for permit coverage and developing and properly implementing the plans needed to comply with the permit. However, property owners would also meet the definition of "operator" and require permit coverage in instances where they perform any of the required tasks on their personal properties.

▸ "*Owner" <u>and "</u>Contractor" as "Operators" - co-permittees.* The owner retains control over any changes to site plans, BMPPs, or wastewater conveyance or control designs, but the contractor is responsible for conducting and overseeing the actual activities (e.g., excavation, installation and operation of treatment train, etc.) and daily implementation of BMPP and other permit conditions. In this case, <u>both</u> parties need to apply for coverage.

Generally, a person would not be considered an "operator," and subsequently would not need permit coverage, if: 1) that person is a subcontractor hired by, and under the supervision of, the owner or a general contractor (e.g., if the contractor directs the

subcontractor's activities on-site, it is probably not an operator); or 2) the person's activities would otherwise result in the need for coverage under the RGP but another operator has legally assumed responsibility for the impacts of project activities.

A. Instructions for the Suggested Notice of Intent (NOI) - At a minimum, the Notice of Intent must include the following for each individual facility or site. Additional information may be attached as needed.

1. General facility/site information.

a) Provide the facility/site name, mailing address, and telephone and fax numbers. Provide the facility Standard Industrial Classification (SIC) code(s), which can be found online at http://www.osha.gov/pls/imis/sic_manual.html. Provide the site location, including longitude and latitude.

b) Provide the facility/site owner's name, address, email address, telephone and fax numbers, if different from the site information. Indicate whether the owner is a Federal, State/Tribal, private, or other entity.

c) Provide the site operator's (e.g., contractor's) name, mailing address, telephone and fax numbers, and email address if different from the owner's information.

d) For the site for which the application is being submitted, indicate whether:

1) a prior NPDES permit exclusion has been granted for the discharge (if so, provide the tracking number of the exclusion letter);

2) a prior NPDES application (Form 1 & 2C – for reference, please visit http://www.epa.gov/region1/npdes/epa_attach.html) has ever been filed for the discharge (if so, provide the tracking number and date that the application was submitted to EPA);

3) the discharge is a "new discharge" as defined by 40 CFR 122.2; and

4) for sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000 and exempt from state permitting.

e) Indicate whether there is any ongoing state permitting, licensing, or other action regarding the facility or site which is generating the discharge. If "yes," provide any site identification number assigned by the state of NH or MA, any permit or license number assigned, and the state agency contact information (e.g. name, location, telephone no.).

f) Indicate whether or not the facility is covered by other EPA permits including:

1) the Multi-Sector General Permit (MSGP) http://cfpub.epa.gov/npdes/stormwater/msgp.cfm;
2) the Final NPDES General Permit for Dewatering Activity Discharges in Massachusetts and New Hampshire http://www.epa.gov/region1/npdes/dewatering.html;
3) the EPA Construction General Permit http://cfpub.epa.gov/npdes/stormwater/cgp.cfm;
4) an individual NPDES permit; or
5) any other water quality-related individual or general permit.

If so, provide permit tracking number(s).

g) Indicate if the site/facility discharge(s) to an Area of Critical Environmental Concern (ACEC), as shown on the tables and maps in Appendix I.

h) Based on the nature of the facility/site and any historical sampling data, the applicant must indicate which of the sub-categories within which the potential discharge falls.

2. Discharge information.

a) Describe the discharge activities to be covered by the permit. Attach additional sheets as needed.

b) Provide the following information about each discharge:

1) the number of discharge points;
2) the maximum and average flow rate of the discharge in cubic feet per second. For the average flow magnitude, include the units and appropriate notation if this value is a calculated design value or estimate if technical/design information is not available;
3) the latitude and longitude of each discharge with an accuracy of 100 feet (see EPA's siting tool at: http://www.epa.gov/tri/report/siting_tool);
4) the total volume of potential discharge (gal), only if hydrostatic testing;
5) whether the discharge(s) is intermittent or seasonal and if ongoing.

c) Provide the expected start and end dates of discharge (month/day/year).

d) Attach a line drawing or flow schematic showing water flow through the facility including:

1) sources of intake water;
2) contributing flow from the operation;
3) treatment units; and
4) discharge points and receiving waters(s).

3. Contaminant information.

In order to complete the NOI, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for the parameters applicable to the sub-category into which the discharge falls, as listed in Appendix III of the permit and selected in Part 1 of the NOI form, except as noted below.

Permittees shall provide additional sampling results with the NOI if such sampling already exists, or if the permittee has reason to believe the site contains additional contaminants not listed in Appendix III for that sub-category or contains additional contaminants not included in Appendix III.

The applicant may use historical data as a substitute for the new sample if the data was collected no more than 2 years prior to the "Submittal of the NOI" and if collected pursuant to:

i. for sites in Massachusetts, 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E");

ii. for sites in New Hampshire, New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act;

a) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is believed present or believed absent in the potential discharge.

Based on the required sampling and analysis, the applicant must fill in the table, or provide a narrative description, with the following additional information for each chemical that is believed present (chemical that violate EPA's criteria limitations):

1) the number of samples taken (minimum of one sample for applicable parameters per Appendix III);
2) the type of sample (e.g. grab, composite, etc.);
3) the analytical method used, including the method number;
4) the minimum level (ML) of the method used (based on Appendix VI);
5) the maximum daily amount (concentration (ug/l) and mass (kg)) of each pollutant, based on the sampling data

lb/day (pounds per day) equals flow (in million gallons per day, MGD) times concentration in milligrams per liter (mg/l) times 8.34.
Example: 2.5 MGD x 30 mg/l TSS x 8.34 = 625.5 lb TSS/day
MGD = gallons per minute (gpm) x 0.00144
1 kg = 2.2 lbs

And;
6) the average daily amount (concentration and mass) of each pollutant, based on the sampling data.

If the results of any sampling indicate that pollutants exist in addition to those listed in Appendix III of the RGP of the permit, the applicant must also describe those contaminants on the NOI in boxes in section I.3.c.)on the line marked "Other," or use additional sheets as needed. Subsequently, EPA may require monitoring for such parameters or will decide if an individual permit is necessary.

c) Determination of Reasonable Potential and Allowable Dilution for Discharges of Metals:

If any *metals* are believed present in the potential discharge to freshwater[1], the applicant must follow the procedures below to determine the dilution factor for each metal.

Step 1: Initial Evaluation

1) The applicant must evaluate all metals believed present in the discharge subject to this permit, including "naturally occurring" metals such as dissolved and/or total Iron. Applicants must enter the highest detected concentration of the metal at zero dilution in the "Maximum value" column of the NOI.

2) Based on the maximum concentration of each metal, the applicant must perform an initial evaluation assuming zero dilution in the receiving water. The applicant must compare the metals concentrations in the untreated (intake) waters to the effluent limits contained in Appendix III.

[1]Dilution factors may be available for discharges to saline waters but only with approval of the flow modeling information from the State prior to the submission of the NOI.

i. If potential discharges (untreated influent) with metals contain concentrations above the concentration limits listed in Appendix III, applicant must proceed to step 2.
ii. If potential discharges (untreated influent) with metals contain concentrations below the concentrations listed in Appendix III, the applicant may skip step 2 and those metals will **not** be subject to permit limitations or monitoring requirements.

Step 2: Calculation of Dilution Factor

1) **For applicants in NH**: If a metal concentration in a potential discharge (untreated influent) to **freshwater** exceeds the limits in Appendix III with zero dilution, the applicant shall evaluate the potential concentration considering a dilution factor (DF) using the formula below. **<u>For sites in New Hampshire, the applicant must contact NH DES to determine the 7Q10 and dilution factor.</u>**

DF = [(Qd + Qs)/Qd] x 0.9

Where:

DF	**=**	**Dilution Factor**
Qd	**=**	**Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)**
Qs	**=**	**Receiving water 7Q10 flow, in cfs, where 7Q10 is the annual minimum flow for 7 consecutive days with a recurrence interval of 10 years**
0.9	=	**Allowance for reserving 10% of the assets in the receiving stream as per Chapter ENV-Wq 1700, Surface Water Quality Regulations**

i. Using the DF calculated from the formula above, the applicant must refer to the corresponding dilution range column in Appendix IV. The applicant then compares the maximum concentration of the metal entered on the NOI to the corresponding total recoverable metals limits listed in Appendix IV. Please note that for this reissuance the applicant will be permitted to determine a limit using any fraction within the 1-5 dilution factor range times the metal limit (for all regulated metals). For example: if the DF is 1.5, the Iron limit is 1,500 ug/L; if the DF is 1.5, the antimony limit is 8.4, etc. All limits above a dilution factor of 5 are maintained.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in the potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

ii. In either case, the applicant must submit the results of this calculation as part of the NOI. EPA and NH DES will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

2) **For applicants in MA**: If a metal concentration in a potential discharge (untreated influent) to **freshwater** exceeds the limits in Appendix III with zero dilution, the applicant must evaluate the potential concentration considering a dilution factor (DF) using the formula below.

DF = (Qd + Qs)/Qd

Where: **DF** **= Dilution Factor**
Qd **= Maximum flow rate of the discharge in cubic feet per second (cfs) (1.0 gpm = .00223 cfs)**
Qs **= Receiving water 7Q10 flow (cfs) where 7Q10 is the minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years**

i. The applicant may estimate the 7Q10 for receiving water by using available information such as nearby USGS stream gauging stations directly or by application of certain "flow factors," using historic streamflow publication information, calculations based on drainage area, information from state water quality offices, or other means. In many cases Massachusetts has calculated 7Q10 information using "flow factors" for a number of streams in the state. The source of the low flow value(s) used by the applicant must be included on NOI application form. Flow data can also be obtained from web applications such as the one located at: http://ma.water.usgs.gov/streamstats/.

ii. Using the DF calculated from the formula above, the applicant must refer to the corresponding dilution range column in Appendix IV. The applicant then shall compare the maximum concentration of each metal entered on the NOI to the corresponding total recoverable metals limit listed in Appendix IV. Please note that for this reissuance the applicant will be permitted to determine a limit using any fraction of the 0-5 of DF times the metal limit (for all regulated metals). For example: if the DF is 1.5, the Iron limit is 1,500 ug/L; if the DF is 1.5, the antimony limit is 8.4, etc. Not to exceed DF of 5.

1. If a metal concentration in the potential discharge (untreated influent) is less than the corresponding limit in Appendix IV, the metal will **not** be subject to permit limitations or monitoring requirements.
2. If a metal concentration in a potential discharge (untreated influent) is equal to or exceeds the corresponding limit in Appendix IV, the applicant must reduce it in the effluent to a concentration below the applicable total recoverable metals limit in Appendix IV prior to discharge.

iii. The applicant must submit the results of this calculation as part of the NOI. EPA (and MassDEP where the discharge is not covered by 310 CMR 40.0000) will review the proposed effluent limitations for each metal and approve or disapprove the limits in the notification of coverage letter to the applicant.

4. Treatment system information.

a) Provide a written description of the treatment train and how the system will be set up for each discharge and attach a schematic of the proposed or existing treatment system(s).
b) Identify each major treatment unit (e.g. frac tanks, filters, air stripper, liquid phase/vapor phase activated carbon, oil/water separators, etc.) by checking all that apply and describing any additional equipment not listed. Attach additional sheets as needed.
c) Provide the proposed average and maximum flow rates (in gallons per minute, gpm) for the discharge and the design flow rates (in gpm) of the treatment system. Clearly identify the component of the treatment with the most limited flow, i.e., the part of the treatment train that establishes the design flow.
d) Describe any chemical additives being used, or planned to be used, and attach MSDS sheets for each. EPA may request further information regarding the chemical composition of the additive, potential toxic effects, or other information to insure that approval of the use of the additive will not cause or contribute to a violation of State water quality standards. Approval of coverage under the RGP will constitute approval of the use of the chemical additive(s). If coverage of the discharge under the RGP has already been granted and the use of a chemical additive becomes necessary, the permittee must submit a Notice of Change (NOC).

5. Receiving surface water(s) information.

a) Identify the discharge pathway by checking whether it is discharged: directly to the receiving water (river, stream, or brook), within the facility (e.g., through a sewer drain), to a storm drain, to a wetland, or other receiving body.
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters into which discharge will occur.
c) Provide a detailed map(s) indicating the location of the site and outfall(s) to the receiving water(s):

1) For multiple discharges, the discharges should be numbered sequentially.
2) In the case of indirect dischargers (to municipal storm sewer, etc) the map(s) must be sufficient to indicate the location of the discharge to the indirect conveyance and the discharge to the state classified surface water. The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water and the basin (for Massachusetts, the Surface Water Quality Standards (314 CMR 4.00) are available at http://www.mass.gov/dep/water/laws/regulati.htm#wqual) (for New Hampshire, contact the NH DES at (603) 271-2984).
e) Specify the reported seven day-ten year low flow (7Q10) of the receiving water (see Section I.A.3) c. above). In New Hampshire, the 7Q10 must be provided by to the applicant by the New Hampshire Department of Environmental Services.

f) Indicate whether the receiving water is a listed 303(d) water quality impaired or limited water and if so, for which pollutants (see Section IX of the Fact Sheet for additional information).
For MA, the most updated integrated list of waters (CWA 303(d) and 305(b)) is available at http://www.mass.gov/dep/water/resources/tmdls.htm#info.
For NH, the most updated integrated list of waters (CWA 303(d) and 305(b)) is available at http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm.
Also, indicate if there is a final TMDL for any of the listed pollutants. For MA, final TMDLs can be found at: http://www.mass.gov/dep/water/resources/tmdls.htm and for NH, final TMDLs can be found at http://des.nh.gov/organization/divisions/water/wmb/tmdl/index.htm. For more information, contact the states at: New Hampshire Department of Environmental Services, Watershed Management Bureau at 603-271-3503 or the Massachusetts Department of Environmental Protection at 508-767-2796 or 508-767-2873.

6. ESA and NHPA Eligibility.
As required in Parts I.A.4 and Appendix VII the operator of a site/facility must ensure that the potential discharge will not adversely affect endangered species, designated critical habitat, or national historic places that are in proximity to the potential discharge. If the potential discharge is to certain water bodies, the applicant must also submit a formal certification with the NOI that indicates the consultation, with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (the Services), resulted in either a no jeopardy opinion or a written concurrence on a finding that the discharge is not likely to adversely affect any endangered species or critical habitat. Facilities should begin the consultation as early in the process as possible.
a) Using the instructions in Appendix VII and information in Appendix II, indicate under which criterion listed you are eligible for coverage under this general permit.
b) If you selected criterion D or F, indicate if consultation with the federal services has been completed or if it is underway.
c) If consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, indicate if a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat was received.
d) Attach documentation of ESA eligibility as described below and required in Appendix VII, Part I.C, Step 4.

Criterion A - No federally-listed threatened or endangered species or federally-designated critical habitat are present: A copy of the most current county species list pages for the county(ies) where your site or facility and discharges are located. You must also include a statement on how you determined that no listed species or critical habitat are in proximity to your site or facility or discharge locations.

Criterion B – Section 7 consultation completed with the Service(s) on a prior project: A copy of the USFWS and/or NOAA Fisheries, as appropriate, biological opinion or concurrence on a finding of "unlikely to adversely effect" regarding the ESA Section 7 consultation.

Criterion C – Activities are covered by a Section 10 Permit: A copy of the USFWS and/or the NOAA Fisheries, as appropriate, letter transmitting the ESA Section 10 authorization.

Criterion D - Concurrence from the Service(s) that the discharge is "not likely to adversely affect" federally-listed species or federally-designated critical habitat (not including the four species of concern identified in Section I of Appendix I): A copy of the USFWS and/or the NOAA Fisheries, as appropriate, letter or memorandum concluding that the discharge is consistent with the general permit's "not likely to adversely affect" determination.

Criterion E – Activities are covered by certification of eligibility: A copy of the documents originally used by the other operator of your site or facility (or area including your site) to satisfy the documentation requirement of Criteria A, B, C or D.

Criterion F - Concurrence from the Service(s) that the discharge is "not likely to adversely affect" species of concern, as identified in Section I of Appendix I: A copy of the USFWS and/or the NOAA Fisheries, as appropriate, concurrence with the applicant's determination that the discharge is "not likely to adversely affect" listed species.

e) Using the instructions in Appendix VII, identify which criterion listed in Part C makes you eligible for coverage under this general permit.

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information. Applicants should provide any supplemental information needed to meet the requirements of the permit, including any analytical data used to support the application, and any certification(s) required.

8. Signature Requirements - The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: Sunoco Station		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 71 11' 3.74" latitude: 42 11' 39.31"	Facility SIC code(s): 5541	Street: 515 Boston Providence Highway (Route 1)		
b) Name of **facility/site owner:**		Town: Norwood		
Email address of facility/site owner: Best Petroleum NET Lease, LLC., Richard P. Salinsky		State: Massachusetts	Zip: 02062	County: Norfolk
Telephone no. of facility/site **owner**: 781-593-6853				
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal ___ 2. State/Tribal ___ 3. Private ___ 4. Other ___ if so, describe: Limited Liability Company (LLC)		
Address of **owner** (if different from site):				
Street: 152 Lynnway, Suite 2f				
Town: Lynn	State: MA	Zip: 01903	County: Essex	
c) Legal name of **operator**: Sunoco, Inc. (R&M)	**Operator** telephone no: 603-715-1220	**Operator** fax no.: 866-257-9205	**Operator** email: wjbrochu@sunocoinc.com	
Operator contact name and title: William J. Brochu				
Address of **operator** (if different from owner):	Street: P.O. Box 4209			
Town: Concord	State: NH	Zip: 03302-4209	County:	

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y___ N___, if Y, number:_____
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y___ N___, if Y, date and tracking #: _____
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y___ N___
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y___ N___

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y___ N___
If Y, please list:
1. site identification # assigned by the state of NH or MA: _____
2. permit or license # assigned: _____
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y___ N___,
if Y, number: _____
2. Final Dewatering General Permit? Y___ N___,
if Y, number: _____
3. EPA Construction General Permit? Y___ N___,
if Y, number: _____
4. Individual NPDES permit? Y___ N___,
if Y, number: _____
5. any other water quality related individual or general permit? Y___ N___, if Y, number: _____

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y___ N___

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ___ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ___ C. Petroleum Sites with Additional Contamination ___
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ___ B. VOC Sites with Additional Contamination ___ C. Primarily Heavy Metal Sites ___
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ___ B. Known Contaminated Sites ___

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Discharge of treated groundwater generated during excavation dewatering for gasoline service station underground storage tank replacement.

b) Provide the following information about each discharge:

1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)? Max. flow 0.223 ft3/s Is maximum flow a **design value**? Y ○ N ⊙ Average flow (include units) 0.111 ft3/s Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat 42 11' 40.22"	long 71 11' 0.65"	pt.2: lat.	long. ;
pt.3: lat	long	pt.4: lat.	long. ;
pt.5: lat	long	pt.6: lat.	long. ;
pt.7: lat	long	pt.8: lat.	long. ; etc.

4) If hydrostatic testing, total volume of the discharge (gals): N/A	5) Is the discharge intermittent ⊙ or seasonal ○ ? Is discharge ongoing? Y ○ N ⊙

c) Expected dates of discharge (mm/dd/yy): start 08/01/2013 end 09/30/2013

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). See attached Process and Instrumentation Diagram (P&ID) Figure 4.

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	Grab	160.2	5 mg/l	2,620 mg/l			
2. Total Residual Chlorine (TRC)		☐	☒	1	Grab	330.5	200 ug/l	<50			
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	1	Grab	1664A	5 mg/l	<4.1 mg/l			
4. Cyanide (CN)	57125	☒	☐	1	Grab	335.4	5 ug/l	32			
5. Benzene (B)	71432	☐	☒	1	Grab	602	0.5 ug/l	21.4			
6. Toluene (T)	108883	☐	☒	1	Grab	602	0.5 ug/l	2.8			
7. Ethylbenzene (E)	100414	☐	☒	1	Grab	602	0.5 ug/l	9.5			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	1	Grab	602	0.5 ug/l	14.3			
9. Total BTEX [2]	n/a	☐	☒	1	Grab	602	0.5 ug/l	48			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	Grab	504.1	0.01 ug/l	<0.016			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☐	☒	1	Grab	8260c	10 ug/l	<1			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	Grab	8260c	10 ug/l	<20			

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	Grab	8260c	10 ug/l	<2			
14. Naphthalene	91203	☐	☒	1	Grab	8260c	2 ug/l	11.3			
15. Carbon Tetrachloride	56235	☒	☐	1	Grab	8260c	5 ug/l	<1			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	Grab	8260c	5 ug/l	<1			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	Grab	8260c	5 ug/l	<1			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	Grab	8260c	5 ug/l	<1			
18a. Total dichlorobenzene		☒	☐	1	Grab	8260c	5 ug/l	<1			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	Grab	8260c	5 ug/l	<1			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	Grab	8260c	5 ug/l	<1			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	Grab	8260c	5 ug/l	<1			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	Grab	8260c	5 ug/l	<1			
23. Methylene Chloride	75092	☒	☐	1	Grab	8260c	5 ug/l	<2			
24. Tetrachloroethene (PCE)	127184	☒	☐	1	Grab	8260c	5 ug/l	3.9			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	Grab	8260c	5 ug/l	<1			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	Grab	8260c	5 ug/l	<1			
27. Trichloroethene (TCE)	79016	☒	☐	1	Grab	8260c	5 ug/l	0.96			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	1	Grab	8260c	5 ug/l	<1			
29. Acetone	67641	☒	☐	1	Grab	8260c	50 ug/l	<10			
30. 1,4 Dioxane	123911	☒	☐	1	Grab	8260C	50 ug/l	<25			
31. Total Phenols	108952	☒	☐	1	Grab	8260c	5 ug/l	<5			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	Grab	8270D	5 ug/l	<10			
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	Grab	8270C					
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	Grab	8270D	5 ug/l	1.2			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Grab	8270D					
a. Benzo(a) Anthracene	56553	☒	☐	1	Grab	8270D	5 ug/l	0.24			
b. Benzo(a) Pyrene	50328	☒	☐	1	Grab	8270D	5 ug/l	0.36			
c. Benzo(b)Fluoranthene	205992	☒	☐	1	Grab	8270D	5 ug/l	<2			
d. Benzo(k)Fluoranthene	207089	☒	☐	1	Grab	8270D	5 ug/l	<2			
e. Chrysene	21801	☒	☐	1	Grab	8270D	5 ug/l	0.41			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	Grab	8270D	5 ug/l	<2			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	Grab	8270D	5 ug/l	0.4			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Grab	8270D	5 ug/l	<5			

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	1	Grab	8270D	5 ug/l	<2			
i. Acenaphthylene	208968	☒	☐	1	Grab	8270D	5 ug/l	<2			
j. Anthracene	120127	☒	☐	1	Grab	8270D	5 ug/l	<2			
k. Benzo(ghi) Perylene	191242	☒	☐	1	Grab	8270D	5 ug/l	0.53			
l. Fluoranthene	206440	☒	☐	1	Grab	8270D	5 ug/l	0.49			
m. Fluorene	86737	☒	☐	1	Grab	8270D	5 ug/l	<2			
n. Naphthalene	91203	☒	☐	1	Grab	8260C	2 ug/l	1.4			
o. Phenanthrene	85018	☒	☐	1	Grab	8270D	5 ug/l	<2			
p. Pyrene	129000	☒	☐	1	Grab	8270D	5 ug/l	0.4			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	Grab	608	5 ug/l	<0.26			
38. Chloride	16887006	☒	☐	1	Grab	300	0.1 mg/l	1,610 mgl			
39. Antimony	7440360	☒	☐	1	Grab	200	3 ug/l	0.46			
40. Arsenic	7440382	☒	☐	1	Grab	200.9	3 ug/l	2.2			
41. Cadmium	7440439	☒	☐	1	Grab	200.8	0.2 ug/l	0.037			
42. Chromium III (trivalent)	16065831	☒	☐	1	Grab	200.7	15 ug/l	4.4			
43. Chromium VI (hexavalent)	18540299	☒	☐	1	Grab	218.6	1 ug/l	<10			
44. Copper	7440508	☒	☐	1	Grab	200.9	3 ug/l	2			
45. Lead	7439921	☒	☐	1	Grab	200.8	0.2 ug/l	0.51			
46. Mercury	7439976	☒	☐	1	Grab	245.1	0.2 ug/l	0.067			
47. Nickel	7440020	☒	☐	1	Grab	200.7	20 ug/l	1.3			
48. Selenium	7782492	☒	☐	1	Grab	200.8	2 ug/l	0.87			
49. Silver	7440224	☒	☐	1	Grab	200.8	0.2 ug/l	0.025			
50. Zinc	7440666	☒	☐	1	Grab	200.7	15 ug/l	30.4			
51. Iron	7439896	☒	☐	1	Grab	200..8	50 ug/l	39,400			
Other (describe):		☐	☐	1							

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ☉ N ○	If yes, which metals? Iron, which will be treated during temporary dewatering and treatment.
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: DF: Metal: DF: Metal: DF: Metal: DF: Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ○ N ○ If Y, list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Recovered groundwater will be pumped into a holding (frac) tank, then pre-treated through particle filtration (bag filter) units in series, and then treated using two (2) ~2,000-pound capacity liquid-phase granular activated carbon adsorption (GACA) vessels, piped in series. See attached Excavation Dewatering Process and Instrumentation Diagram (P & ID) depicting the proposed treatment system layout.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
	Chlorination ☐	De-chlorination ☐	Other (please describe):			

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 50 gpm Maximum flow rate of treatment system 100 gpm
Design flow rate of treatment system 100 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

Not applicable.

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe): Catchbasin drains to wetland& brook

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Discharge to stormwater catchbasin onsite flows beneath Route 1 and discharges to wetlands/brook, flows to Purgatory Brook then to the Neponset River.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ○ N ○ If yes, for which pollutant(s)?
_____
Is there a final TMDL? Y ○ N ○ If yes, for which pollutant(s)? _____

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ___ B ___ C ___ D ___ E ___ F ___

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y___ N___ Underway___

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y___ N___

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ___ 2 ___ 3 ___

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

See cover letter, attached figures and laboratory analytical results.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	Sunoco Station
Operator signature:	
Printed Name &Title:	William J. Brochu, Environmental Engineer for Sunoco, Inc. (R&M)
Date:	6/27/13

B. Submission of NOI to EPA - All operators applying for coverage under this General Permit must submit a completed Notice of Intent (NOI) to EPA. Signed and completed NOI forms and attachments must be submitted to EPA-NE at:

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing

or electronically mailed to NPDES.Generalpermits@epa.gov

or faxed to the EPA Office at 617-918-0505

If filling out the suggested NOI form electronically on EPA's website, the signature page must be signed and faxed or mailed to EPA at the fax number and/or address listed above.

1. Filing with the states - A copy of any NOI form filed with EPA-NE must also be filed with state agencies. The state agency may elect to develop a state specific form or other information requirements.

a) Discharges in Massachusetts - In addition to the NOI, permit applicants must submit copies of the State Application Form BRPWM 12, Request for General Permit coverage for the RGP. The application form and the Transmittal Form for Permit Application and Payment may be obtained from the Massachusetts Department of Environmental Protection (MassDEP) website at www.state.ma.us/dep. Municipalities are fee-exempt, but should send a copy of the transmittal form to that address for project tracking purposes. All applicants should keep a copy of the transmittal form and a copy of the application package for their records.

1) A copy of the NOI, the transmittal form, a copy of the check, and Form BRPWM 12 should be sent to:

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd floor
Worcester, MA 01608

2) A copy of the transmittal form and the appropriate fee should be sent to:

Massachusetts Department of Environmental Protection
P.O. Box 4062
Boston, MA 02111

Please note: Applicants for discharges in Massachusetts should note that under 310 CMR 40.000, *as a matter of state law*, the general permit only applies to discharges that are **not** subject to the

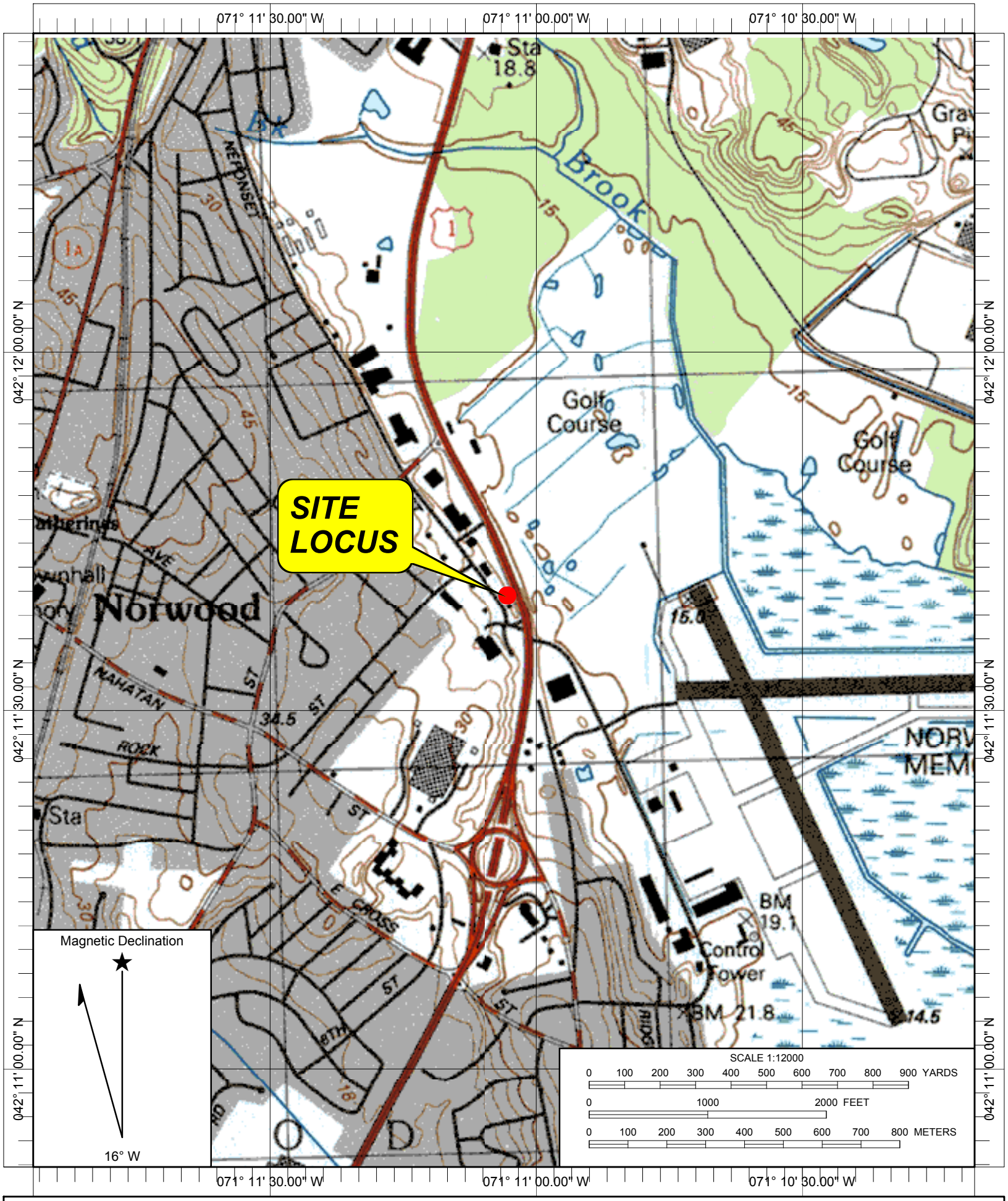
Massachusetts Contingency Plan (MCP) and 310 CMR 40.000. Therefore, discharges subject to the MCP are **not** required to fill out and submit the State Application Form BRPWM 12 or pay the state fees. However, they must submit a NOI to EPA.

b) Discharges in New Hampshire - applicants must provide a copy of the Notice of Intent to:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
P.O. Box 95
Concord, New Hampshire 03302-0095.

2. Filing with Municipalities - A copy of the NOI must be submitted to the municipality in which the proposed discharge would be located.

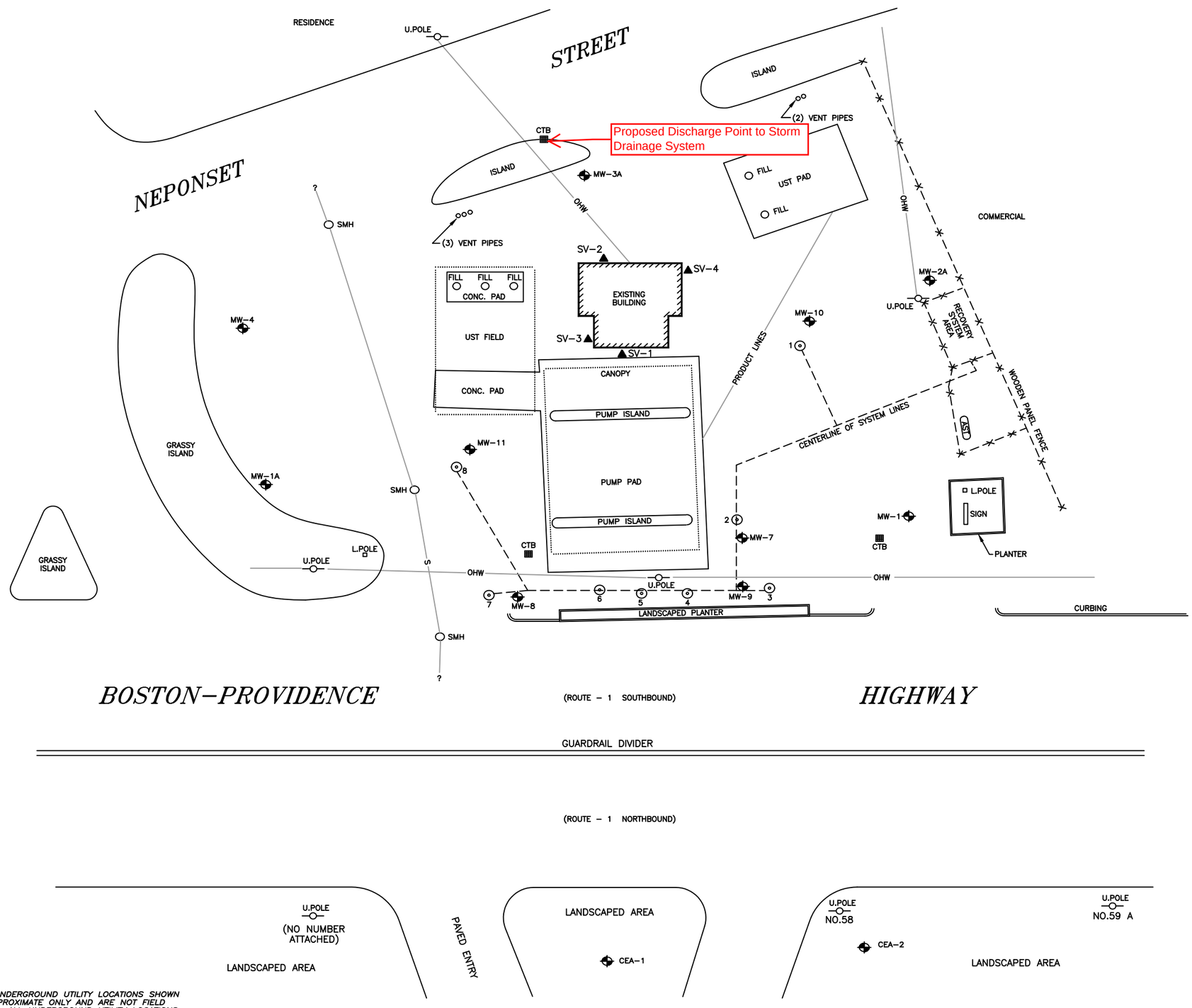
FIGURES

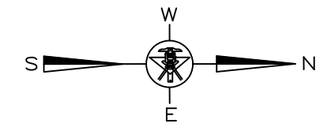


Name: NORWOOD
Date: 3/15/2013
Scale: 1 inch equals 1000 feet

Location: 042° 11' 39.31" N 071° 11' 03.74" W WGS 84
Caption: Figure-1 Site Locus Map
515 Boston Providence Hwy.
Norwood, MA

Copyright (C) 1997, Maptech, Inc.





SCALE

0 15 30 FEET

(approximate)

LEGEND

- GROUNDWATER MONITORING WELL
- SOIL BORING LOCATION
- AIR SPARGE / VAPOR EXTRACTION POINT
- CTB – CATCHBASIN
- SMH – SEWER MANHOLE
- SV-4 – SOIL VAPOR POINT

NOTE: UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT FIELD VERIFIED. ALL UNDERGROUND UTILITY LOCATIONS ARE TO BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCING ALL EXCAVATION ACTIVITIES.

CORPORATE ENVIRONMENTAL ADVISORS, INC.

Assessments – Remediation – Emergency Response

127 HARTWELL ST. W.BOYLSTON, MA.

SCALE: AS SHOWN		DR. BY: K. HAZEL
DATE: 3/15/13	APP. BY: SEV	JOB NO.: 6457-07

SITE LAYOUT

SUNOCO

515 BOSTON-PROV. HWY. (RTE.1) NORWOOD, MA.

FIGURE-2

MassDEP - Bureau of Waste Site Cleanup

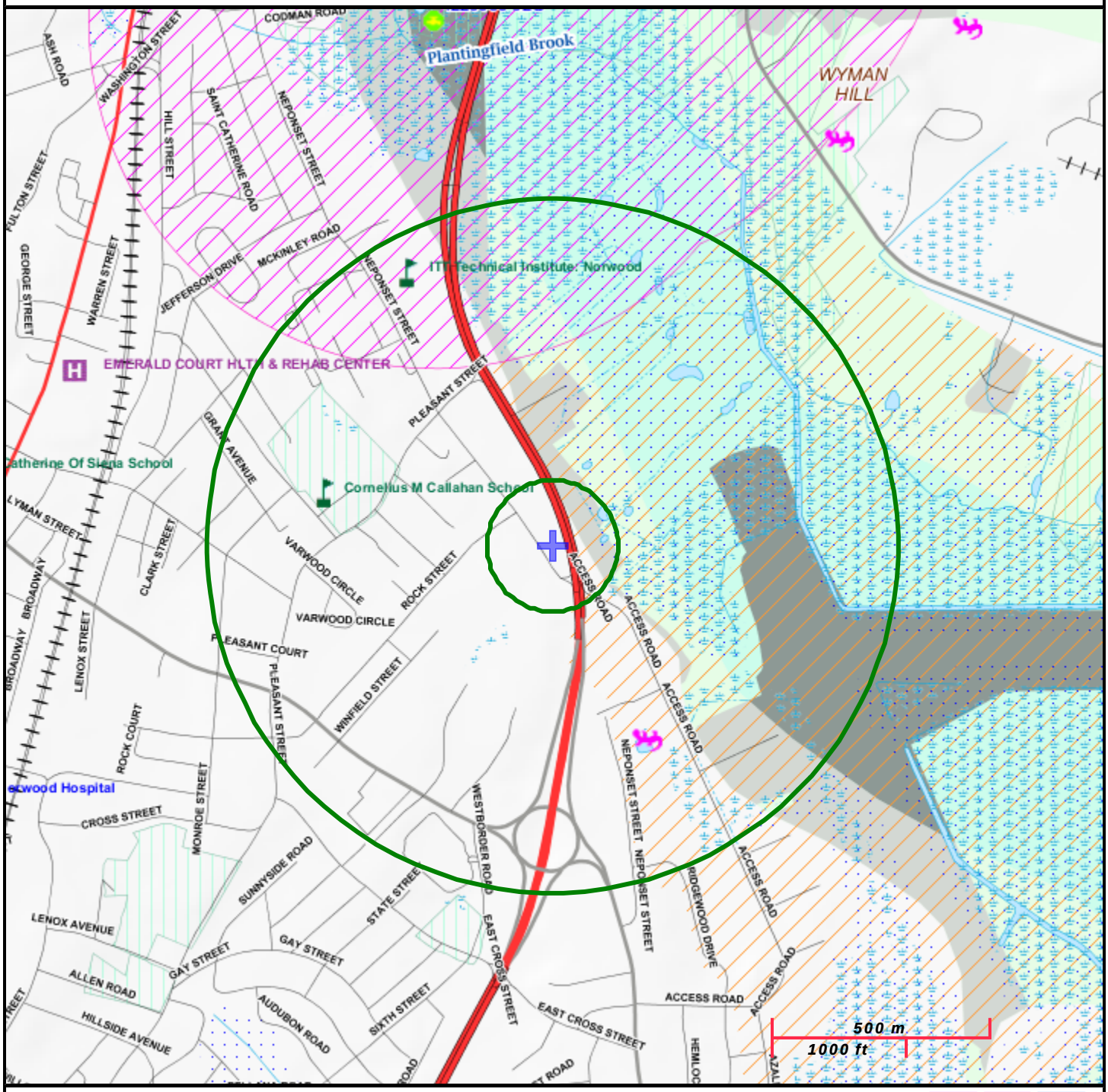
Site Information: **MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii**

SUNOCO STATION
515 BOSTON PROVIDENCE HIGHWAY NORWOOD, MA

NAD83 UTM Meters:
4673666mN , 319648mE (Zone: 19)
March 8, 2013

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately repsponsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

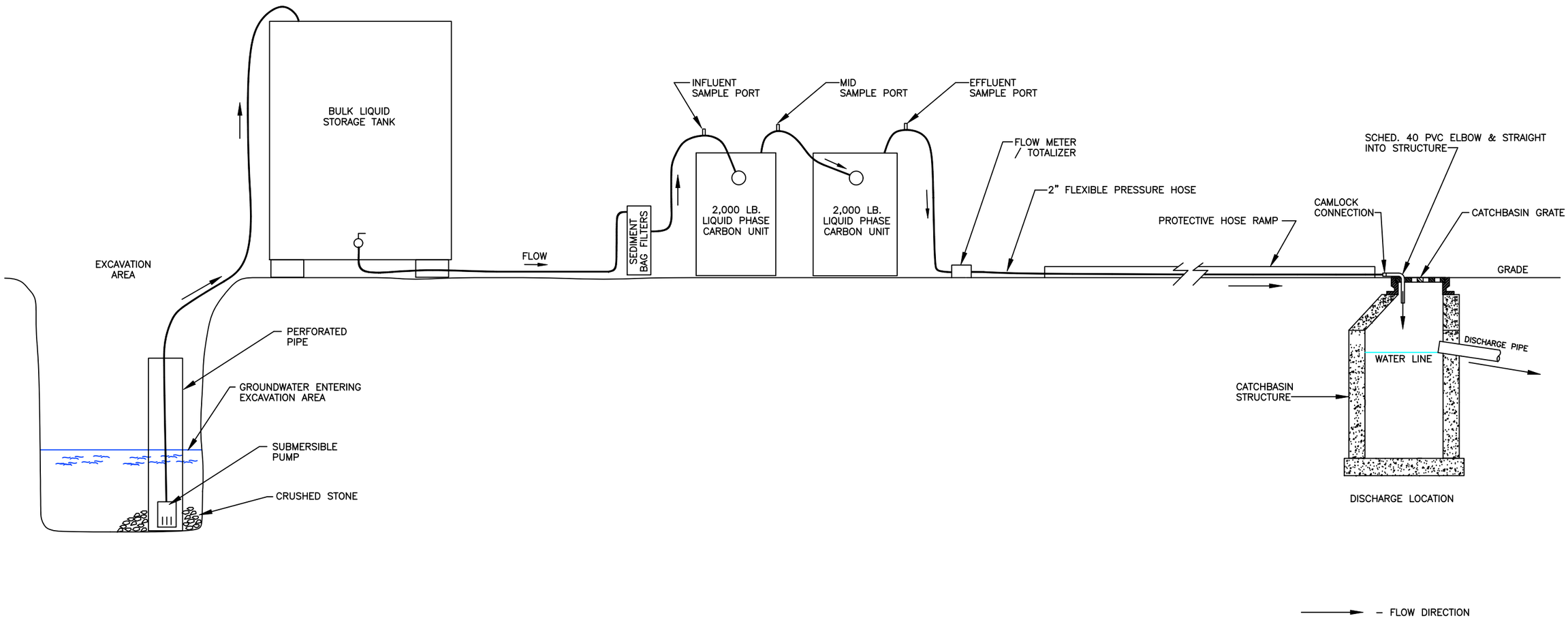
Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.



CORPORATE ENVIRONMENTAL ADVISORS, INC.

Assessments – Remediation – Emergency Response

127 HARTWELL ST. W.BOYLSTON, MA.

SCALE: NOT TO SCALE		DR. BY: K. HAZEL
DATE: 3/15/13	APP. BY: SEV	JOB NO.: 6456–07

EXCAVATION DEWATERING PROCESS & INSTRUMENTATION DIAGRAM

SUNOCO

515 BOSTON PROVIDENCE HIGHWAY NORWOOD, MA

FIGURE–4

Laboratory Analytical Report

New England ACCUTEST LABORATORIES

06/18/13

Technical Report for

Sunoco

CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA

6456-07

Accutest Job Number: MC20590

Sampling Date: 05/08/13

Report to:

CEA
127 Hartwell St. Suite 2
West Boylston, MA 01583
svandersea@cea-inc.com; polson@cea-inc.com;
ndescoteaux@cea-inc.com
ATTN: Scott Vandersea

Total number of pages in report: **29**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Matthew Morrell 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sample Summary

Sunoco

Job No: MC20590

CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA
Project No: 6456-07

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC20590-1	05/08/13	11:00	KH	05/08/13	AQ	Ground Water	GW-RGP
MC20590-1A	05/08/13	11:00	KH	05/08/13	AQ	Ground Water	GW-RGP

Summary of Hits

Job Number: MC20590
Account: Sunoco
Project: CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA
Collected: 05/08/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC20590-1	**GW-RGP**					
Benzene		21.4	0.50	0.45	ug/l	SW846 8260B
Ethylbenzene		9.5	1.0	0.38	ug/l	SW846 8260B
Naphthalene		11.3	5.0	0.79	ug/l	SW846 8260B
Tetrachloroethene		3.9	1.0	0.61	ug/l	SW846 8260B
Toluene		2.8	1.0	0.46	ug/l	SW846 8260B
Trichloroethene		0.96 J	1.0	0.45	ug/l	SW846 8260B
m,p-Xylene		13.0	1.0	0.70	ug/l	SW846 8260B
o-Xylene		1.3	1.0	0.41	ug/l	SW846 8260B
Xylene (total)		14.3	1.0	0.41	ug/l	SW846 8260B
Benzo(a)anthracene		0.24 J	2.0	0.21	ug/l	SW846 8270C
Benzo(a)pyrene		0.36 J	2.0	0.21	ug/l	SW846 8270C
Benzo(g,h,i)perylene		0.53 J	2.0	0.25	ug/l	SW846 8270C
Chrysene		0.41 J	2.0	0.20	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		1.2 J	2.0	0.49	ug/l	SW846 8270C
Fluoranthene		0.49 J	2.0	0.22	ug/l	SW846 8270C
Indeno(1,2,3-cd)pyrene		0.40 J	2.0	0.27	ug/l	SW846 8270C
Naphthalene		1.4 J	2.0	0.17	ug/l	SW846 8270C
Pyrene		0.40 J	2.0	0.22	ug/l	SW846 8270C
Antimony		0.46 B	1.0	0.044	ug/l	SW846 6020A
Arsenic		2.2	1.0	0.41	ug/l	SW846 6020A
Chromium		4.4	2.0	0.15	ug/l	SW846 6020A
Copper		2.0	2.0	0.89	ug/l	SW846 6020A
Iron		39400	50	12	ug/l	SW846 6020A
Lead		0.51 B	1.0	0.025	ug/l	SW846 6020A
Nickel		1.3 B	2.0	0.22	ug/l	SW846 6020A
Selenium		0.87 B	1.0	0.38	ug/l	SW846 6020A
Zinc		30.4	4.0	1.4	ug/l	SW846 6020A
Chloride [a]		1610	16		mg/l	EPA 300/SW846 9056A
Cyanide		0.032	0.010		mg/l	EPA 335.4
Solids, Total Suspended		2620	20		mg/l	SM21 2540D
Total Residual Chlorine [b]		< 0.050	0.050		mg/l	SM21 4500CL F
MC20590-1A	**GW-RGP**					
Anthracene		0.075 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(a)anthracene		0.25	0.053	0.032	ug/l	SW846 8270C BY SIM
Benzo(a)pyrene		0.41	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.87	0.053	0.025	ug/l	SW846 8270C BY SIM
Benzo(g,h,i)perylene		0.57	0.11	0.040	ug/l	SW846 8270C BY SIM
Benzo(k)fluoranthene		0.24	0.11	0.062	ug/l	SW846 8270C BY SIM
Chrysene		0.55	0.11	0.077	ug/l	SW846 8270C BY SIM
Dibenzo(a,h)anthracene		0.12	0.11	0.044	ug/l	SW846 8270C BY SIM
Fluoranthene		0.59	0.11	0.035	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC20590
Account: Sunoco
Project: CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA
Collected: 05/08/13

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Indeno(1,2,3-cd)pyrene	0.44	0.11	0.049	ug/l	SW846 8270C BY SIM
Naphthalene	1.6	0.11	0.038	ug/l	SW846 8270C BY SIM
Phenanthrene	0.19	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene	0.50	0.11	0.038	ug/l	SW846 8270C BY SIM

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Analysis performed past the required 15 minutes of collection time/holding time.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V19038.D	1	05/20/13	AMY	n/a	n/a	MSV746
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	21.4	0.50	0.45	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
123-91-1	1,4-Dioxane	ND	25	16	ug/l	
100-41-4	Ethylbenzene	9.5	1.0	0.38	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	11.3	5.0	0.79	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	1.9	ug/l	
75-65-0	Tert Butyl Alcohol	ND	20	13	ug/l	
127-18-4	Tetrachloroethene	3.9	1.0	0.61	ug/l	
108-88-3	Toluene	2.8	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	0.96	1.0	0.45	ug/l	J
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	13.0	1.0	0.70	ug/l	
95-47-6	o-Xylene	1.3	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	14.3	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
2037-26-5	Toluene-D8	92%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W12251.D	1	05/20/13	KR	05/14/13	OP33111	MSW566
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.38	ug/l	
106-48-9	4-Chlorophenol	ND	5.0	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
87-65-0	2,6-Dichlorophenol	ND	10	0.41	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	10	0.63	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
83-32-9	Acenaphthene	ND	2.0	0.23	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.56	ug/l	
120-12-7	Anthracene	ND	2.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	0.24	2.0	0.21	ug/l	J
50-32-8	Benzo(a)pyrene	0.36	2.0	0.21	ug/l	J
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.53	2.0	0.25	ug/l	J
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
218-01-9	Chrysene	0.41	2.0	0.20	ug/l	J
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.21	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
117-81-7	bis(2-Ethylhexyl)phthalate	1.2	2.0	0.49	ug/l	J
206-44-0	Fluoranthene	0.49	2.0	0.22	ug/l	J
86-73-7	Fluorene	ND	2.0	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.40	2.0	0.27	ug/l	J
91-20-3	Naphthalene	1.4	2.0	0.17	ug/l	J
85-01-8	Phenanthrene	ND	2.0	0.21	ug/l	
129-00-0	Pyrene	0.40	2.0	0.22	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		15-110%
4165-62-2	Phenol-d5	18%		15-110%
118-79-6	2,4,6-Tribromophenol	45%		15-110%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%
1718-51-0	Terphenyl-d14	115%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB47714.D	1	05/10/13	CZ	05/09/13	OP33031	GBB2861
Run #2							

	Initial Volume	Final Volume
Run #1	33.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.016	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	78%		36-173%
460-00-4	Bromofluorobenzene (S)	87%		36-173%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	EPA 608 EPA 608	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK24909.D	1	05/20/13	NK	05/14/13	OP33129	GBK869
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.070	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.074	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.074	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.064	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	36%		31-154%
877-09-8	Tetrachloro-m-xylene	33%		31-154%
2051-24-3	Decachlorobiphenyl	26%		10-148%
2051-24-3	Decachlorobiphenyl	25%		10-148%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
		Percent Solids:	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	0.46 B	1.0	0.044	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Arsenic	2.2	1.0	0.41	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Cadmium	0.037 U	1.0	0.037	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Chromium	4.4	2.0	0.15	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Copper	2.0	2.0	0.89	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Iron	39400	50	12	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Lead	0.51 B	1.0	0.025	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Mercury	0.067 U	0.20	0.067	ug/l	1	05/15/13	05/16/13	SA	SW846 7470A [1]	SW846 7470A [3]
Nickel	1.3 B	2.0	0.22	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Selenium	0.87 B	1.0	0.38	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Silver	0.025 U	1.0	0.025	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]
Zinc	30.4	4.0	1.4	ug/l	2	05/17/13	05/21/13	PY	SW846 6020A [2]	SW846 3010A [4]

(1) Instrument QC Batch: MA15597
(2) Instrument QC Batch: MA15631
(3) Prep QC Batch: MP20965
(4) Prep QC Batch: MP20983

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
		Percent Solids:	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride [a]	1610	16	mg/l	8	05/17/13 23:00	ANJ	EPA 300/SW846 9056A
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	05/08/13 20:15	CF	SW846 7196A
Chromium, Trivalent [b]	< 0.012	0.012	mg/l	1	05/21/13 13:09	PY	6010/7196A M/200.7
Cyanide	0.032	0.010	mg/l	1	05/15/13 12:54	MA	EPA 335.4
HEM Petroleum Hydrocarbons	< 4.1	4.1	mg/l	1	05/16/13	HS	EPA 1664A
Phenols	< 0.050	0.050	mg/l	1	05/14/13 15:50	BF	EPA 420.1
Solids, Total Suspended	2620	20	mg/l	5	05/15/13	BF	SM21 2540D
Total Residual Chlorine [c]	< 0.050	0.050	mg/l	1	05/08/13 17:33	CF	SM21 4500CL F

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Calculated as: (Chromium) - (Chromium, Hexavalent)
(c) Analysis performed past the required 15 minutes of collection time/holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GW-RGP		
Lab Sample ID:	MC20590-1A	**Date Sampled:**	05/08/13
Matrix:	AQ - Ground Water	**Date Received:**	05/08/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83442.D	1	05/17/13	NS	05/14/13	OP33112	MSI3100
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
87-86-5	Pentachlorophenol	ND	1.1	0.14	ug/l	
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	0.075	0.11	0.019	ug/l	J
56-55-3	Benzo(a)anthracene	0.25	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	0.41	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	0.87	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.57	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	0.24	0.11	0.062	ug/l	
218-01-9	Chrysene	0.55	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.12	0.11	0.044	ug/l	
206-44-0	Fluoranthene	0.59	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.44	0.11	0.049	ug/l	
91-20-3	Naphthalene	1.6	0.11	0.038	ug/l	
85-01-8	Phenanthrene	0.19	0.053	0.013	ug/l	
129-00-0	Pyrene	0.50	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		15-110%
4165-62-2	Phenol-d5	36%		15-110%
118-79-6	2,4,6-Tribromophenol	91%		15-110%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%
1718-51-0	Terphenyl-d14	116%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Parameter Certifications (MA)
- Chain of Custody
- Chain of Custody (Accutest New Jersey)

Parameter Certifications

Job Number: MC20590
Account: SUNOCOSS Sunoco
Project: CEA:DUNS#04840898, 515 Providence Highway, Norwood, MA

The following parameters included in this report are certified by the state of MA.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1016	12674-11-2	**EPA 608**	AQ	Accutest is certified for this parameter.
Aroclor 1221	11104-28-2	**EPA 608**	AQ	Accutest is certified for this parameter.
Aroclor 1232	11141-16-5	**EPA 608**	AQ	Accutest is certified for this parameter.
Aroclor 1242	53469-21-9	**EPA 608**	AQ	Accutest is certified for this parameter.
Aroclor 1248	12672-29-6	**EPA 608**	AQ	Accutest is certified for this parameter.
Aroclor 1254	11097-69-1	**EPA 608**	AQ	Accutest is certified for this parameter.
Aroclor 1260	11096-82-5	**EPA 608**	AQ	Accutest is certified for this parameter.
Cyanide	57-12-5	**EPA 335.4**	AQ	Accutest is certified for this parameter.
Phenols		**EPA 420.1**	AQ	Accutest is certified for this parameter.
Solids, Total Suspended		**SM21 2540D**	AQ	Accutest is certified for this parameter.
Total Residual Chlorine		**SM21 4500CL F**	AQ	Accutest is certified for this parameter.

Chain of Custody Record

Sunoco DUNS #: 04840898
Region: Northeast
State or Lead Regulatory Agency: MASS DEP
Requested Due Date (mm/dd/yy): Standard
COC Tracking Number: 151089-2013

On-site Time:		Temp 0.0	
Off-site Time:		Temp 0.0	
Sky Conditions:			
Meteorological Events:			
Wind Speed:	0.0	Direc	

Lab Name:	Accutest	Facility Address:	515 PROVIDENCE HWY	Consultant/Contractor:	CORPORATE ENVIRONMENTAL
Address:	495 Tech Center West. Bldg. 1	Facility City, State:	NORWOOD MA	Address:	127 Hartwell Street,
	Marlboro, MA 01752	Site Lat/Long:	0.0 0.0		West Boylston, MA, 01583
Lab PM:	Reza Tand	Sunoco PM Contact:	Bill Brochu	Consultant/Contractor Project No.:	6456-07
Tele/Fax:	508-481-6200/508-481/7753	Address:	PO Box 4209,	Consultant/Contractor PM:	Scott VanderSea
Report Type & QC Level:	US EPA Region 5 EDMAN no QC (Commercial A)	Concord, NH, 03302-4209		Tele/Fax:	508-835-8822 508-835-8812
E-mail EDD To:	SunocoENFOS@deltaenv.com	Tele/Fax:	(603) 715-1220 (866) 257-9205	Invoice to:	CEA, Inc. Sunoco Rates 21J Codes

Lab Bottle Order No: MC20590

Item No.	Sample Description	Time	Date	Matrix: Liquid	Solid	Gas	Laboratory No.	No. of Containers	Preservative: VOA's w/ HCl	VOA's w/ Na2S2O3	PLASTIC w/ HNO3 500 ml.	PLASTIC NON-PRES. 500 ml.	GLASS 1/2 gal NON-PRES.		Requested Analysis: See Attached-EPA RGP Parameters & Methods	Sample Point Lat/Long and Comments
1	GW-RGP —/	1100	5/8/13	W				16	6	3	1	2	4		X	Lab Reporting limits must be less than EPA RGP Limites Referrenced on Attached.
2																
3																
4																
5																Note: See Matt Morrell at Accutest for extraction methods.
6																
7																
8																
9																
10																Metals field filtered.

Loc: 8B > 6B 363-14C

Sampler's Name:	Kevin Hazel	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date / Time
Sampler's Company:	CEA, Inc.		5-9-13	1300		
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Email report to polson@cea-inc.com, ndescoteaux@cea-inc.com and svandersea@cea-inc.com.

Custody Seals In Place Yes ___ No ___ Temp Blank Yes ___ No ___ | Cooler Temperature on Receipt ___ OF/C 2.3 Trip Blank Yes ___ No ___

MC20590: Chain of Custody
Page 1 of 10

MC20590

Remediation General Permit
Appendix VI

Test Methods and Minimum Levels[1] for Pollutants Covered by the RGP

Parameter *	CAS Number(s)	Inorganic Test Methods				
		ICP/AES [2] Methods 200.7, 3010A/6010C	ICP/MS [3], 200.8, 3010A/6020A	GFAA [4] Method 200.9, 7010	Other	Notes Digestion method
1. Total Suspended Solids (TSS) 500 ml	unpres.				Method 160.2 SM[5] 2540D (5 mg/L)	
2. Total Residual Chlorine (TRC) 500 ml	unpres.				Methods 330.1, 330.5, SM[5] 4500-Cl D (200 ug/L) SM[5] 4500-Cl E (10 ug/L)	
4. Cyanide (CN) 500 plastic Naoh	57125				Method 335.4 (5 ug/L)	OIA-1677 (5 ug/L)
38. Chloride 250 ml plastic	16887006				300.0, SM[5] 4110B (0.1 mg/L)	(other anions: bromide, fluoride, nitrite/nitrate, o-phosphate, sulfate)
39. Antimony – metal	7440360	10 ug/L	0.5 ug/L	3 ug/L		200
40. Arsenic – metal	7440382	20 ug/L	1.0 ug/L	3 ug/L		206.5
41. Cadmium – metal	7440439	10 ug/L	0.2 ug/L	0.5 ug/L		200

1,000 plastic non-pres.

- Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category provided in Appendix III, as well as Part 3 of the Notice of Intent (Contaminant Information) in Appendix V.
-

[1] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence.
[2] Inductively Coupled Plasmas/Atomic (optical) Emissions Spectrometry
[3] Inductively Coupled Plasmas/Mass Spectrometry
[4] Graphite Furnace Atomic Absorption
[5] Standard Method

MC20590

4.2 4

metals

Parameter *	CAS Number(s)	Inorganic Test Methods				
		ICP/AES [2] Methods 200.7, 3010A/6010C	ICP/MS [3], 200.8, 3010A/6020A	GFAA [4] Method 200.9, 7010	Other	Notes Digestion method
42. Chromium III	7440473	15 ug/L	1.0 ug/L	1 ug/L		200
43. Chromium VI (hexavalent) 250 ml. non-pres.	18540299				Method 7196A (10 ug/L), Methods 218.6, 1636 (1 ug/L)	
44. Copper	7440508	15 ug/L	0.5 ug/L	3 ug/L		200
45. Lead	7439921	20 ug/L	0.2 ug/L	3 ug/L		200
46. Mercury	7439976				Method 245.1, 7470A (0.2 ug/L), Methods 245.7, 1631 (0.001 ug/l)	
47. Nickel	7440020	20 ug/L	0.2 ug/L	5 ug/L		200
48. Selenium	7782492	20 ug/L	2 ug/L	5 ug/L		200
49. Silver	7440224	10 ug/L	0.2 ug/L	1 ug/L		200
50. Zinc	7440666	15 ug/L	5 ug/L			200
51. Iron	7439896	20 ug/L	50 ug/L			200

2) 1,000 ml HCl

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
3. Total Petroleum Hydrocarbons (TPH)					Method 1664A (5 mg/l) ?	
5. Benzene (B)	71432	Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)

[6] Gas Chromatography
[7] Gas Chromatography/Mass Spectrometry
[8] Liquid Chromatography

(2) sets 3- VOAs w/ HCl

3 VOAs VOCs w/ HCl

Na2S2O4 (3) VOAs

3 VOAs HCl

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
6. Toluene (T)	108883	Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)
7. Ethylbenzene (E)	100-41-4	Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)
8. (m,p,o) Xylenes (X)	108-88-3; 106-42-3; 95-47-6; 1330-20-7	Method 602 (0.5 ug/l)	Methods 624, 1624C (4 ug/L)		MA VPH (10 ug/L)	Methods 5035A/ 8260C (4 ug/L), 524.2 (0.5 ug/l)
9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX)		Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane)	106-93-4	Method 8011, 504.1 (0.01 ug/L), Method 618 (1.0 ug/l)	Methods 524.2 (1 ug/L), SIM [9] (0.1 ug/l)			Methods 624, 5035A/8260C (10 ug/L)
11. Methyl-tert-Butyl Ether (MtBE)	1634-04-4	Method 8015D (0.5 ug/L)	Method 524.2 (10 ug/L)		MA VPH (5 ug/L)	Methods 624, 5035A/ 8260C (10 ug/L)
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75-65-0	Method 8015D (0.5 ug/L)	Method 524.2 (10 ug/L)			Methods 624, 5035A/ 8260C (10 ug/L)
13. tert-Amyl Methyl Ether (TAME)	994-05-08	Method 8015D (0.5 ug/L)	Method 524.2 (10 ug/L)			Methods 624, 5035A/ 8260C (10 ug/L)
14. Naphthalene	91-20-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA VPH (5 ug/L), MA EPH (5 ug/l)	8270D (5 ug/L), SIM (0.1 ug/L), 524.2 (0.5 ug/l), 8260C (2 ug/l)
15. Carbon Tetrachloride	56-23-5	Method 601 (0.5 ug/L)	Methods 624, 1624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
16. 1,2 Dichlorobenzene (o-DCB)	95-50-1	Methods 601, 602 (0.5 ug/L)	Methods 624, 625 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)

[9] Selected Ion Monitoring

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
17. 1,3 Dichlorobenzene (m-DCB)	541-73-1	Methods 601, 602 (0.5 ug/L)	Methods 624, 625 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
18. 1,4 Dichlorobenzene (p-DCB)	106-46-7	Methods 601, 602 (0.5 ug/L)	Methods 624, 625 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
19. 1,1 Dichloroethane (DCA)	75-34-3	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
20. 1,2 Dichloroethane (DCA)	107-06-2	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
21. 1,1 Dichloroethene (DCE)	75-35-4	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
22. cis-1,2 Dichloroethene (DCE)	156-59-2	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
23. Methylene Chloride	75-09-2	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
24. Tetrachloroethene (PCE)	127-18-4	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
25. 1,1,1 Trichloro-ethane (TCA)	71-55-6	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
26. 1,1,2 Trichloro-ethane (TCA)	79-00-5	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
27. Trichloroethene (TCE)	79-01-6	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
28. Vinyl Chloride (Chloroethene)	75-01-4	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
29. Acetone	67-64-1	Method 524.2 (10 ug/L)	Method 1624 (50 ug/L)			Method 5035A/8260C (50 ug/L)
30. 1,4 Dioxane	123-91-1		Method 522 (0.1 ug/L)			5 ug/L, Method 8260C, 50 ug/L , Method 1624C
31. Total Phenols	108-95-2					5 ug/L, Methods 8260C, 8270D, 2 ug/L, Methods 420.1, 420.2, 50 ug/L, Method 420.4

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
32. Pentachlorophenol (PCP)	87-86-5	Method 604 (10 ug/L)	Methods 625, 1625 (10 ug/L)			Methods 3510C/8270D, 525 (5 ug/L)
33. Total Phthalates						
a. Butylbenzyl Phthalate	85687	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Methods 3510C/8270D (5 ug/L), 525.2 (0.5 ug/l)
b. Di-n-butyl Phthalate	84742	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L)
c. Diethyl Phthalate	84662	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Methods 3510C/8270D (5 ug/L), 525.2 (0.5 ug/l)
d. Dimethyl Phthalate	131113	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L)
e. Di-n-octyl Phthalate	117840	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L), 525.2 (0.5 ug/L)
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117-81-7	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L), 525.2 (0.5 ug/L)
Polynuclear Aromatic Hydrocarbons (PAHs)		Methods 8310, 8315D, 610 (GC)	Methods 625, 1625	Method 610 (LC)	MA EPH	Methods 3510C/8270D, 525.2 and Selected Ion Monitoring Option (SIM)
a. Benzo(a) Anthracene	56-55-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
b. Benzo(a) Pyrene	50-32-8	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
c. Benzo(b)Fluoranthene	205-99-2	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
d. Benzo(k)Fluoranthene	207-08-9	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
e. Chrysene	218-01	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
f. Dibenzo(a,h)anthracene	53-70-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
g. Indeno(1,2,3-cd) Pyrene	193-39-5	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (0.5 ug/l)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
h. Acenaphthene	83-32-9	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
i. Acenaphthylene	208-96-8	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
j. Anthracene	120-12-7	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
k. Benzo(ghi) Perylene	191-24-2	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
l. Fluoranthene	206-44-0	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
m. Fluorene	86-73-7	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (0.5 ug/l)	MA EPH (5 ug/l	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
n. Naphthalene	91-20-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA VPH (5 ug/ll), MA EPH (5 ug/l)	8270D (5 ug/L), SIM (0.1 ug/L), 524.2 (0.5 ug/l), 8260C (2 ug/l)

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
o. Phenanthrene	85-01-8	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (5 ug/L)	MA EPH 5 ug/L	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
p. Pyrene	129-00-0	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (5 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
37. Total Polychlorinated Biphenyls (PCBs)	85-68-7; 84-74-2; 117-84-0; 84-66-2; 131-11-3; 117-81-7.	Method 608 (0.5 ug/L)				Method 8082 (0.5 ug/L), Method 1668b (0.00005 ug/L)

Notes:

Method OIA-1677 does not measure iron cyanide complexes

Methods 522, 504.1, 524, and 525.2 are drinking water methods that can be used in special situations.

Methods 3520C (continuous extraction), 3535A (Solid Phase Extraction), and 3510C (separatory funnel extraction) are comparable organic preparation methods.

Method 8270D must be preceded by either Method 3520C or Method 3535 as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). 1. Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B). Where a minimum level (ML) is listed but a test method is not specified, permittee may use any of the available methods approved for use under 40 CFR 136, including alternatives approved by this permit, that meets that ML. See EPA's "Methods and Guidance for the Analysis of Water" at www.epa.gov/water/owrccatalog.nsf. Where test method is specified but ML not listed for that method, the lowest ML for listed methods must be used before concentration can be considered as "non-detect."

For measuring volatile organic compounds, Method 8260C (or the latest version) may be used as a substitute for CWA Methods 524.2, 602, 624, or 1624. Method 8260C must be preceded by Method 5030 as the preparation method. However, any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8260C.

For measuring semi-volatile organic compounds, Method 8270D may be used as a substitute for Methods 610, 625, or 1625. Method 8270D must be preceded by Method 3535 or Method 3520C as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). Any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8270D.

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC20590 **Client:** SUNOCO **Immediate Client Services Action Required:** No

Date / Time Received: 5/8/2013 **Delivery Method:** Client

Project: SUNOCO **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample rec'd within HT:	☑	☐
2. All containers accounted for:	☐	☑
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

didn't receive samples for cyanide and 1664 analysis requested from attached RGP.

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

Sample Receipt Summary - Problem Resolution

Accutest Job Number: MC20590

CSR: mattm **Response Date** 5/9/2013

Response: Client advised to aliquot and preserve for both parameters.

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

ACCUTEST

CHAIN OF CUSTODY

trx # 5445 5670 2300

495 Tech Center West, Bldg 1, Marlboro, MA 01752
TEL: (508)481-6200 FAX: (508)-481-7753

Accutest Job #:	MC20590
Accutest Quote #:	Page 1 of 1
AMS P.O. #:	
Project No.:	

Client Information

Name: Accutest New England
Address: 50 D'Angelo Drive
City: Marlborough State: MA Zip: 01752
Send Report to:
Any questions contact: Matt Morrell
Phone/Fax #: (508)481-6200 / (508)481-7753

Subcontract Laboratory Information

Name: Accutest - New Jersey
Address: 2235 Route 130
City: Dayton State: NJ Zip: 08810
Contact: Sample Management
Phone: (732) 329-0200

Analytical Information

Field ID / Point of Collection	Collection Date			Matrix	# of bottles	Preservation HCL	NaOH	HNO3	H2SO4	None	CHL by 300					Comments
MC20590 -1	5/8/13	11:00 AM		AQ	1					X	X					BG MA

Data Deliverable Information

- [x] STD
- [ ] Other _____ (Days)

10 Day Turnaround Hardcopy, RUSH is FAX Data unless previously approved.

- [x] Commercial "A"
- [ ] Commercial "B"
- [ ] Commercial "BN"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] PDF
- [ ] Compact Disk Deliverable
- [ ] Electronic Delivery:
- [ ] State Forms
- [ ] Other (Specify)

Comments / Remarks

STD - Due 5/22/13

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date & Time:	Received By:	Date & Time:
1	5/13/13	1 Fedex	1
2 Fedex	5/14/13 9:30	2	2 5/14/13 9:30
3		3	3

Seal #: Headspace: Yes [ ] No [ ] NA [ ]
Preserved where applicable: [ ]
Temperature °C 10° g On Ice [✓]

1B GG

MC20590: Chain of Custody
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Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC20590 **Client:** **Project:**

Date / Time Received: 5/14/2013 **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (1/1); 0

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:732.329.0200
2235 US Highway 130
F: 732.329.3499
Dayton, New Jersey
www/accutest.com

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