State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES
6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3503 FAX (603) 271-5171

Scott Lamprey
PO Box 1034
Moultonborough, New Hampshire 03254

Re: Lamprey Suburban, Inc.
Septage Lagoon Facility
Holland Street
Moultonborough, New Hampshire

ADMINISTRATIVE ORDER
No. WD 03-024

October 6, 2003

A. INTRODUCTION

This Administrative Order is issued by the Department of Environmental Services, Water Division, to Scott Lamprey pursuant to RSA 485-C:16, and RSA 485-A:42. This Administrative Order is effective upon issuance.

B. PARTIES

1. The Department of Environmental Services, Water Division ("DES"), is a duly constituted administrative agency of the State of New Hampshire, having its principal office at 29 Hazen Drive Concord, NH 03301.

2. Scott Lamprey is an individual having a mailing address of PO Box 1034, Moultonborough New Hampshire 03234.

C. STATEMENTS OF FACTS AND LAW

1. RSA 485-C authorizes DES to regulate activities to protect water supplies, to prevent pollution in the surface and groundwaters of the state and to prevent nuisances and potential health hazards.

2. Pursuant to RSA 485-A:13 and RSA 485-A:4, DES regulates the discharge and disposal of wastewater and septage through permit systems. Pursuant to RSA 485-A:6, X-a, DES has adopted New Hampshire Administrative Rules Env-Ws 1500 to implement this program.

3. Scott Lamprey is the owner, operator, and property owner of the Lamprey Suburban, Inc. Septage Lagoon Facility ("LSLF") located on Holland Street in Moultonborough, New Hampshire The LSLF consists of three unlined septage lagoons and overland flow.

4. The LSLF discharges wastewater to the ground via infiltration and collects septage solid

5. Pursuant to Env-Ws 1504.01(a)(1), a groundwater discharge permit is required for the operation of an unlined wastewater, septage, or sludge lagoon.

6. The LSLF has been operating the lagoons with a Groundwater Discharge Permit that expired on August 26, 2002. Currently the facility is operating under the conditions of the expired permit and modified pursuant to the procedures allowed by Env-Ws 1504.03(g).

7. Pursuant to Env-Ws 1504.03, a discharge shall not cause an ambient groundwater quality standard ("AGQS") set forth in Env-Ws 1503 to be violated at any point beyond the boundary of a groundwater discharge zone established pursuant to Env-Ws 1504.02.

8. Env-Ws 1503.03(d) establishes the AGQS for nitrate at 10 mg/l.

9. Monitoring wells (MW) 2, 2A, and 7 are located downgradient of the three unlined septage lagoons on the boundary of the groundwater discharge zone and at the edge of the property owned by LSLF.

10. Exceedances of the nitrate AGQS occurred intermittently from 1998-2002 for groundwater samples obtained from MW-2 and 2A.

11. LSLF developed a response plan dated August 8, 2002 in accordance with Env-Ws 1504.03 to reduce nitrate concentrations in the groundwater at the boundary of the groundwater discharge zone. The response plan specifically: 1) Installed MW-2A to replace MW-2, which was damaged, to verify nitrate concentrations in the groundwater at the property boundary of LSLF; and 2) Modified treatment processes by reducing aeration of Lagoon 2 to reduce the generation of nitrate contaminants in the groundwater. The response plan has been executed, but nitrate concentrations in groundwater obtained from MW-2 and 2A continue to exceed the nitrate AGQS.

12. LSLF developed a response plan dated June 18, 2003 in accordance with Env-Ws 1504.03 to reduce nitrate concentrations in the groundwater at the boundary of the groundwater discharge zone. The response plan capped the daily discharge volumes to 10,000 gallons a day. Prior to the response plan, daily discharge volume periodically approached up to 19,000 gallons a day. The response plan has not reduced the concentrations of nitrate in the groundwater at the compliance boundary of the groundwater discharge zone to the extent that it complies with the nitrate AGQS.

13. As summarized below, exceedances of the AGQS for nitrate occurred consistently at the boundary of the groundwater discharge zone since May 2003.

Date	**Location**	**Contaminant**	**Concentration**	**Ambient Groundwater Quality Standard**
08/18/03	MW-2A	Nitrate	19 mg/l	10 mg/l
07/09/03	MW-7	Nitrate	14 mg/l	10 mg/l
	MW-2A	Nitrate	20 mg/l	10 mg/l
	MW-2A	Nitrate	21 mg/l	10 mg/l

05/27/03	MW-2	Nitrate	19 mg/l	10 mg/l
05/27/03	MW-2A	Nitrate	15 mg/l	10 mg/l

D. DETERMINATION OF VIOLATIONS

1. The LSLF has violated Env-Ws 1503.01(b) and Env-1504.03(d) by exceeding AGQS for nitrate at the boundary of the of the groundwater discharge zone as summarized in Section C, Item 13, above.

E. ORDER

Based on the above findings, DES hereby orders Scott Lamprey as follows:

1. By **November 26, 2003**, cease all discharges to the septage lagoons or groundwater at the LSLF facility.

2. Implement the lagoon closure plan submitted to DES on September 15, 1999 and approved on June 2, 2000. Closure of the lagoons must be completed within 2 years of the date of this order.

3. Immediately implement the following Water Quality Sampling Schedule

   Water Quality Monitoring Sampling Schedule: Collect water samples quarterly (every three months) from MW-4, 6C, 8B, 9, 10, 11, and the three other (to be named) new monitoring wells that were installed in August 2003. Collect monthly water quality samples from MW-2A, 2D, 6B, and 7. Monthly and quarterly water samples must be analyzed for specific conductance at 25C°, pH, ammonia, BOD_5, chloride, nitrate, nitrite, total phosphorous, TKN, Escherichia coli, total coliform, and temperature.

   Water samples must be collected yearly from all onsite monitoring wells and analyzed for volatile organic compounds (VOCs) listed on the attached document titled "Petroleum & Hazardous Waste Remediation Full List of Analytes" and metals regulated by the Safe Drinking Water Act. Samples must be obtained in accordance with Env-Ws 1507.01(j).

4. Continue to follow the Water Quality Sampling Schedule described in Item 3, above, until

   a. The septage lagoons have been fully closed for a period of one year in accordance with Item 2, above;

   b. The concentrations of constituents in the groundwater obtained from all monitoring wells located on the Property comply with ambient groundwater quality standards (En Ws 1500); and

Monthly groundwater samples obtained from MW-2A, MW-2D, MW-6B, and MW- exhibit nitrate concentrations below 10 mg/l for twelve consecutive months after the lagoons have been closed .

5. Send correspondence, data, reports, and other submissions made in connection with this Administrative Order, **other than appeals**, to DES as follows:

Brandon Kernen
Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095
Voice: (603) 271-0660
Fax: (603) 271-0656
e-mail: bkernen@des.state.nh.us

F. Appeal

Any person aggrieved by this Order may appeal the Order to the Water Council by filing an appeal that meets the requirements specified in Env-WC 200 within 30 days of the date of this Order. Copies of the rule are available from DES's Public Information Center at (603) 271-2975 or at *http://www.des.state.nh.us/desadmin.htm*. Appealing the Order does not automatically relieve Scott Lamprey of the obligation to comply with the Order.

G. Other Provisions

Please note that RSA 485-A:43 provides for administrative fines, civil penalties, and criminal penalties for the violations noted in this Order, as well as for failing to comply with the Order itself Scott Lamprey remains obligated to comply with all applicable Groundwater Discharge requirements.

COPY

Harry T. Stewart, P.E., Director
Water Division

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For Michael P. Nolin, Commissioner

cc Gretchen Rule, DES Legal Unit
Public Information Officer, DES PIP Office
Jennifer Patterson, Sr. Assistant Attorney General
Carroll County Registry of Deeds
Town of Moultonborough

December 16, 2002

Subject: Changes in VOC Analytical Requirements

Dear Sir or Madam:

The Department of Environmental Services (Department) is changing its requirements for volatile organics analyses for site investigations and remediation at petroleum and hazardous waste contaminated sites. These changes are a result of discussions with New Hampshire-accredited environmental laboratories to address issues of target analytes and quantitation limits at the various phases of the site remediation process. We are writing to inform you of these revisions that the Department will implement in the Spring of 2003. These changes will have an effect on the analytical services that you request for soil, groundwater and drinking water samples obtained at New Hampshire contaminated sites.

The Department will no longer reference an EPA analytical method to be used but instead will specify a standardized list of analytes along with reporting requirements and detection limits that must be achieved. In the future the Department will specify one of three standardized lists of analytes (attached) when requesting volatile organic compound (VOC) analyses:

1) Petroleum & Hazardous Waste Remediation Full List of Analytes
2) Petroleum Remediation Short List of Analytes
3) Hazardous Waste Remediation Short List of Analytes

Any EPA approved VOC analytical method and the quality controls specified in the method may be used for the analyses of the listed analytes, provided the method meets the requirements outlined in the footnotes of each list. As you know, there are a variety of analytical methods commonly used for VOC analysis for soil, groundwater and drinking water, each with its own list of analytes. These Department standardized lists will avoid the confusion on the required analytes caused by referencing a specific EPA analytical method.

These standardized lists and the reporting requirements are being provided to New Hampshire–accredited environmental laboratories, and will take effect on April 1, 2003. Analyses performed at petroleum and hazardous waste contaminated sites after that date should be performed and reported in accordance with these requirements. These changes have resulted in the amendment of the Department's table of "Recommended Analytical Methods for Petroleum Contaminated Sites." Please find enclosed a copy of the amended table for your reference. Also, you will find enclosed a sample "Chain-of-Custody" sheet. This example shows the information needed by the laboratory to meet these new reporting requirements.

Please note that these requirements apply only to soil, groundwater and drinking water samples obtained for contaminated site investigations and remediation. Samples collected for the

Wastewater, Watershed Management and Public Drinking Water programs should continue to be analyzed using the methods designated by the respective programs.

We welcome your comments as we strive to improve how we investigate and clean up contaminated sites in New Hampshire. If you have any questions or comments, please do not hesitate to contact George Lombardo, P.E. of the Waste Management Division at (603) 271-3645, or Pat Bickford, Laboratory Administrator at (603) 271-3233.

Sincerely,

COPY

Frederick J. McGarry, PE, DEE
Chief Engineer
Site Remediation Programs

Cc: Philip J. O'Brien, Ph.D., Director, DES Waste Management Division
Harry Stewart, PE, Director, DES Water Division
Pat Bickford, DES Laboratory Administrator
George Lombardo, PE, Administrator, ORCB
Carl Baxter, PE, Administrator, HWRB

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
PETROLEUM & HAZARDOUS WASTE REMEDIATION
FULL LIST OF ANALYTES FOR VOLATILE ORGANICS

		Quantitation Limit					Quantitation Limit		
		Ground -water	Drinking Water	Soil			Ground -water	Drinking Water	Soil
Compound		ug/L	ug/L	ug/Kg	Compound	CAS#	ug/L	Ug/L	ug/Kg
		5	0.5	100	Chlorobenzene	108-90-7	5	0.5	100
	71-55-6	5	0.5	100	Chloroethane	75-00-3	5	0.5	100
	79-34-5	2	0.5	100	Chloroform	67-66-3	5	0.5	100
	79-00-5	5	0.5	100	Chloromethane	74-87-3	3	1	100
	75-34-3	5	0.5	100	cis-1,2-Dichloroethene	156-59-2	5	0.5	100
	75-34-4	5	0.5	100	cis-1,3-Dichloropropene	124-48-1	5	0.5	100
	563-58-6	5	0.5	100	Dibromochloromethane	124-48-1	5	0.5	
	87-61-6	5	0.5	100	Dibromomethane	74-95-3	5	0.5	
	96-18-4	5	0.5	100	Dichlorodifluoromethane	75-71-8	5	0.5	
	120-82-1	5	0.5	100	Diethyl ether	60-29-7	5	0.5	
	95-63-6	5	0.5	100	Diisopropyl ether (DIPE)	108-20-3	5	0.5	100
1,2-Dibromo-3-chloropropane	96-12-8	5	0.5	100	Ethylbenzene	100-41-4	5	0.5	100
1,2-Dibromoethane	106-93-4	5	0.5	100	Ethyl-t-butyl ether (ETBE)	637-92-3	5	0.5	100
		5	0.5	100	Hexachlorobutadiene	87-68-3	2	0.5	100
		5	0.5	100	Isopropylbenzene	98-82-8	5	0.5	100
		5	0.5	100	m/p-Xylenes	1330-20-7	5	0.5	100
		5	0.5	100	Methylene chloride	75-09-2	5	0.5	100
	541-73-1	5	0.5	100	Methyl-t-butylether(MTBE)	1634-04-4	5	0.5	100
	142-28-9	5	0.5	100	Naphthalene	91-20-3	5	0.5	100
	106-46-7	5	0.5	100	n-Butylbenzene	104-51-8	5	0.5	100
	594-20-7	5	0.5	100	n-Propylbenzene	103-65-1	5	0.5	100
	78-93-3	10	10	500	o-Xylene	95-47-6	5	0.5	100
	95-49-8	5	0.5	100	p-Isopropyltoluene	99-87-6	5	0.5	100
	591-78-6	10	0.5	100	sec-Butylbenzene	135-98-8	5	0.5	100
	994-05-8	5	0.5	100	Styrene	100-42-5	5	0.5	100
	106-43-4	5	0.5	100	tert-Butanol (TBA)	75-65-0	50	50	2500
4-Methyl-2-pentanone(MIBK)	108-10-1	10	10	500	tert-Butylbenzene	98-06-6	5	0.5	100
Acetone	67-64-1	10	10	500	Tetrachloroethene	127-18-4	5	0.5	100
	71-43-2	5	0.5	100	Tetrahydrofuran(THF)	109-99-9	10	10	500
Bromobenzene	108-86-1	5	0.5	100	Toluene	108-88-3	5	0.5	
Bromochloromethane	74-97-5	5	0.5	100	trans-1,2-Dichloroethene	156-60-5	5	0.5	
Bromodichlorometnane	75-27-4	2	0.5	100	trans-1,3-Dichloropropene	542-75-6	5	0.5	
Bromoform	75-25-2	5	0.5	100	Trichloroethene	79-01-06	5	0.5	100
Bromomethane	74-83-9	5	0.5	100	Trichlorofluoromethane	75-69-4	5	0.5	100
Carbon disulfide	75-15-0	5	0.5	100	Vinyl chloride	75-01-4	2	0.5	100
	56-23-5	5	0.5	100					

Notes:

1) Samples shall be analyzed by an approved EPA analytical method. The method shall be capable of detecting concentrations at or below quantitation limits, expect as noted in 4 below.
2) The initial samples for a new site or a new discharge at an existing site must be analyzed by an approved EPA method that uses mass spectrometry for positively identifying the compounds.
3) For initial samples that exhibit non-listed analytes, the top ten tentatively identified compounds (TICs) must be qualified and, if possible, quantitated. If there are no non-listed analytes present in the chromatogram, this should be noted in the report narrative. Reporting of TICs is not required for residential and commercial On-Premise-Use Heating Oil Facilities sites.
4) Detecting concentrations at or below the quantitation limit is not required for all listed compounds when analyzing for highly contaminated groundwater or soil samples (collected in the vicinity of the contaminant source area). However, the analytical method shall be capable of reporting the actual concentrations of all critical compounds (compounds used to make regulatory decisions). Other compounds may be reported as less than a concentration, provided those compounds are not used in the regulatory decision-making process. A second analysis of a sample (dilutions series analysis to obtain high concentrations of some compounds and low concentrations of other compounds) are only required when specifically requested by a DES project manager. The Petroleum Cleanup Funds will only reimburse multiple analyses of a single sample when specifically requested by a DES project manager and reimbursement will be in accordance with the prevailing market rates document published by DES.
5) For the purposes of site closure, the analytical method shall be capable of detecting concentrations at or below the quantitation limits for all compounds on the list.
6) DES may require 1,3,5-Trichlorobenzene (CAS # 108-70-3, quantitation limits: groundwater=5 ppb, drinking water=0.5 ppb, soil=100 ppb) be reported as part of the full list of analytes, if this analyte is detected as a TIC or site history indicates the compound is present at the site.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
PETROLEUM REMEDIATION
SHORT LIST OF ANALYTES
FOR
VOLATILE ORGANICS

		Quantitation Limit	
		Groundwater	Soil
Compound	CAS #	ug/L	ug/Kg
1,2,4-Trimethylbenzene	95-63-6	5	100
1,3,5-Trimethylbenzene	108-67-8	5	100
2-Methoxy-2-methylbutane (TAME)	994-05-8	5	100
Benzene	71-43-2	5	100
Diisopropyl ether (DIPE)	108-20-3	5	100
Ethylbenzene	100-41-4	5	100
Ethyl-t-butyl ether (ETBE)	637-92-3	5	100
Isopropylbenzene	98-82-8	5	100
m/p-Xylenes	1330-20-7	5	100
Methyl-t-butylether(MTBE)	1634-04-4	5	100
Naphthalene	91-20-3	5	100
n-Butylbenzene	104-51-8	5	100
n-Propylbenzene	103-65-1	5	100
o-Xylene	95-47-6	5	100
p-Isopropyltoluene	99-87-6	5	100
sec-Butylbenzene	135-98-8	5	100
tert-Butanol (TBA)	75-65-0	50	2500
tert-Butylbenzene	98-06-6	5	100
Toluene	108-88-3	5	100

Notes:

1) Samples shall be analyzed by an approved EPA analytical method. The method shall be capable of detecting concentrations at or below the quantitation limits, except as noted in 3 below.
2) The Short List may be used after DES Project Manager approval. The Short List cannot be used in the following cases:
   i. initial samples for a new site or a new discharge at an existing site,
   ii. samples collected for one of the two final rounds necessary to document site closure, and
   iii. samples collected from drinking water supplies.
   The Full List of Analytes shall be reported for the above cases.
3) Detecting concentrations at or below the quantitation limit is not required for all the listed compounds, when analyzing for highly contaminated soil or groundwater samples (collected in the vicinity of the contaminant source area). However the analytical method shall be capable of reporting actual concentrations for all critical compounds (compounds used to make regulatory decisions). Other compounds may be reported as less than a concentration, provided those compounds are not used in the regulatory decision-making process. A second analysis of a sample (dilutions series analysis to obtain high concentrations of some compounds and low concentrations of other compounds) is only required when specifically requested by a DES Project Manager. The Petroleum Cleanup Funds will only reimburse multiple analyses of a single sample when specifically requested by a DES Project Manager and reimbursement will be in accordance with the prevailing market rates document published by DES.
4) For the purposes of site closure, the analytical method shall be capable of detecting concentrations at or below the quantitation limits for all compounds on the list.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
HAZARDOUS WASTE REMEDIATION
SHORT LIST OF ANALYTES
FOR
VOLATILE ORGANICS

		Quantitation Limit	
		Groundwater	Soil
Compound	CAS#	ug/L	ug/Kg
1,1,1,2-Tetrachloroethane	630-20-6	5	100
1,1,1-Trichloroethane	71-55-6	5	100
1,1,2,2-Tetrachloroethane	79-34-5	2	100
1,1,2-Trichloroethane	79-00-5	5	100
1,1-Dichloroethane	75-34-3	5	100
1,1-Dichloroethene	75-35-4	5	100
1,2,3-Trichlorobenzene	87-61-6	5	100
1,2,4-Trichlorobenzene	120-82-1	5	100
1,2-Dichlorobenzene (o-DCB)	95-50-1	5	100
1,3-Dichlorobenzene (m-DCB)	541-73-1	5	100
1,4-Dichlorobenzene (p-DCB)	106-46-7	5	100
1,2-Dichloroethane	107-06-2	5	100
Chloroethane	75-00-3	5	100
Chloromethane	74-87-3	3	100
cis-1,2-Dichloroethene	156-59-2	5	100
Methylene chloride	75-09-02	5	100
Monochlorobenzene (Chlorobenzene)	108-90-7	5	100
Tetrachloroethene	127-18-4	5	100
trans-1,2-Dichloroethene	156-60-5	5	100
Trichloroethene	79-01-06	5	100
Vinyl chloride	75-01-4	2	100

Notes:

1) Samples shall be analyzed by an approved EPA analytical method. The method shall be capable of detecting concentrations at or below the quantitation limits, except as noted in 3 below.
2) The Short List may be used after DES Project Manager approval. The Short List cannot be used in the following cases:
   i. initial samples for a new site or a new discharge at an existing site,
   ii. samples collected for one of the two final rounds necessary to document site closure, and
   iii. samples collected from drinking water supplies.
   The Full List of Analytes shall be reported for the above cases.
3) Detecting concentrations at or below the quantitation limit is not required for all the listed compounds, when analyzing for highly contaminated soil or groundwater samples (collected in the vicinity of the contaminant source area). However the analytical method shall be capable of reporting actual concentrations for all critical compounds (compounds used to make regulatory decisions). Other compounds may be reported as less than a concentration, provided those compounds are not used in the regulatory decision-making process. A second analysis of a sample (dilutions series analysis to obtain high concentrations of some compounds and low concentrations of other compounds) is only required when specifically requested by a DES Project Manager. The Petroleum Cleanup Funds will only reimburse multiple analyses of a single sample when specifically requested by a DES Project Manager and reimbursement will be in accordance with the prevailing market rates document published by DES.
4) For the purposes of site closure, the analytical method shall be capable of detecting concentrations at or below the quantitation limits for all compounds on the list.

LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the Laboratory.)

Program / Client ID: _____ **DES Site #:** _____

System Name: _____ **Site/Town:** _____ **Contact:** _____

Comments: _____ **Collected By & Phone#** _____

Sample Location /ID	Date/Time Sampled	# of Containers	Matrix					VOC Target Compounds (Check One)	Expected VOC Concentration Range (If Known, Circle One)	Check if cost of second VOC run is approved	Check if Mass Spectrometry is required for VOCs	Check if TICs are required for VOCs	Preservation: Unpreserved	4°C	HNO_3	H_2SO_4	HCL	Methanol	Other / Notes	Lab ID # (For Lab Use Only)
								☐ Full List ☐ Petroleum Short ☐ Haz. Waste Short	> 100 ppb < 100 ppb	☐	☐	☐								
								☐ Full List ☐ Haz. Waste Short ☐ Petroleum Short	> 100 ppb < 100 ppb	☐	☐	☐								
								☐ Full List ☐ Haz. Waste Short ☐ Petroleum Short	>100 ppb < 100 ppb	☐	☐	☐								
								☐ Full List ☐ Haz. Waste Short ☐ Petroleum Short	> 100 ppb < 100 ppb	☐	☐	☐								
								☐ Full List ☐ Haz. Waste Short ☐ Petroleum Short	>100 ppb < 100 ppb	☐	☐	☐								

Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____ Date and Time _____ Received For Laboratory By _____

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) ? Other: _____

Page _____ of _____ Data Reviewed By _____ Date _____

ion No.: 22.0
ion No.: 4
4-15-03
1 of 1

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
RECOMMENDED ANALYTICAL METHODS FOR PETROLEUM CONTAMINATED SITES (see note 1)

PETROLEUM PRODUCT	WATER MATRIX			SOIL MATRIX (see note 2)		
	Analytes	Recommended Analytical Methods		Analytes	Recommended Analytical Methods	
		Initial Round	All Other Samples (see notes 3 & 9)		Initial Round	All Other Samples (see note 3)
Gasoline and similar weight product	VOC (see note 4)	Full VOC List	Full VOC List or Petroleum VOC Short List	VOC (see note 4) TPH-as Gasoline	Full VOC List (see note 8) 8015B-GRO (see note 8)	Full VOC List or Petroleum VOC Short List (see note 8) 8015B-GRO (see note 8)
No. 2, 4, 6 Fuel Oil Diesel Waste Oil(see note 5) and similar weight product	VOC (see note 4) PAH (see note 6)	Full VOC List 8310 or 525 or 8270(see note 7)	Full VOC List or Petroleum VOC Short List 8310 or 525 or 8270(see note 7)	VOC (see note 4) PAH(see note 6), TPH-as Fuel Oil As, Ba, Cd, Cr, Pb, Hg, Se, Ag (waste oil only- see note 5)	Full VOC List (see note 8) 8270 or 8310, 8015B-DRO 6010 or 7060, 7080, 7130, 7190, 7420, 7470, 7740 cold vapor, 7760	Full VOC List or Petroleum VOC Short List (see note 8) 8270 or 8310 8015B-DRO 6010 or 7060, 7080, 7130, 7190, 7420, 7470, 7740 cold vapor, 7760

VOC: Volatile Organic Compounds
TPH: Total Petroleum Hydrocarbons
MTBE: Methyl-t-butyl ether
PAH: Polyaromatic Hydrocarbons
P&T-GC/FID: Purge and Trap - Gas Chromatography / Flame Ionization Detector
TCLP: Toxicity Characteristic Leaching Procedure
AGQS: Ambient Groundwater Quality Standards
RCM Policy: NHDES Contaminated Sites Risk Characterization and Management Policy

NOTES:
(1) EPA method results must be reported to DES according to SW 846 current edition.
(2) Soils destined for off-site treatment must be analyzed in accordance with Env-Ws 412.14.
(3) Analytical methods used for all other samples must be able to detect all analytes discovered in the initial round. For the purpose of site closure, the analytical method shall be capable of detecting concentrations at or below the regulatory cleanup level.
(4) For VOC analytical methods and reporting requirements, see the footnotes in the "Petroleum and Hazardous Waste Full List of Analytes for Volatile Organics" and the "Petroleum Remediation Short List of Analytes for Volatile Organics.
(5) Metals analysis must be performed on waste oil contaminated soils. Soil standards in the NHDES RCM Policy are based on total metals. Analysis for soils destined for off-site treatment are based on TCLP.
(6) PAH analysis shall be completed on all sampling locations during the initial round of sampling for soil and water.
(7) Ion-specific analysis may be required on 8270 tests for selected compounds in order to reach detection limits that are less than the AGQS.
(8) Soil samples collected for VOC analysis shall use EPA 5035 (methonal preservation) as required in the NH DES Soil Policy.
(9) Additional field testing and laboratory analysis of geochemical indicators may be required on a site specific basis at the request of DES.

evised June 2002