



**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	VOC (see note 4) TPH-as Gasoline	Full VOC List (see note 8) 8015B-GRO (see note 8)	Full VOC 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 notes 6 & 10)	Full VOC List 8310 or 525 or 8270 (see note 7)	Full VOC 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 (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
DRO: Diesel Range Organics
GRO: Gasoline Range Organics
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
RCMP: 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-Or 611.
 - (3) 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 "NHDES Waste Management Division Full List of Analytes for Volatile Organics"
 - (5) Metals analysis must be performed on waste oil contaminated soils. Soil standards in the NHDES RCMP (Appendix E) are based on total metals. Analysis for soils destined for off-site treatment is based on TCLP.
 - (6) PAH analysis shall be completed on all sampling locations during the initial round of sampling for soil and water.
 - (7) DES may require multiple dilution runs or compound specific analysis for selected compounds to reach the required VOC standard.
 - (8) Soil samples collected for VOC analysis shall use EPA 5035 (methanol preservation) as required in the NH DES Soil Policy.
 - (9) DES may require additional field testing and laboratory analysis of geochemical indicators on a site-specific basis.
 - (10) All groundwater samples for PAH analysis shall be field-filtered.