

County of Santa Clara

Department of Environmental Health

Hazardous Materials Compliance Division (HMCD)

Site Mitigation Program / Local Oversight Program (LOP)

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REQUIRED LABORATORY ANALYSES FOR UNDERGROUND STORAGE TANK SYSTEM CLOSURE

For Use In All Areas of Santa Clara County

This document describes required analyses for closure of underground storage tank (UST) systems and associated site remediation activities occurring anywhere within Santa Clara County. These requirements replace those previously described in the Unidocs guidance document titled, "Recommended Minimum Verification Analyses For Underground Storage Tank Leaks" (UN-078). If you have any questions regarding these requirements, please contact the Santa Clara County Local Oversight Program (LOP) at (408) 918-3400.

Material Stored	REQUIRED LABORATORY ANALYSES		
	Contaminant	Soil	Groundwater
Gasoline (Leaded and Unleaded)	TPH as Gasoline or Gasoline Range Organics (GRO)	EPA 8260B/C	EPA 8260B/C
	BTEX, Fuel Oxygenates ¹ , Naphthalene, EDB and EDC ² , & Ethanol	EPA 8260B/C	EPA 8260B/C
	Organic Lead ³	DHS LUFT	DHS LUFT
Diesel, Jet Fuel, Kerosene, and Fuel/Heating Oil (Excluding Bunker Fuel)	TPH as specific to known fuel (e.g., TPH as Kerosene)	EPA 8015	EPA 8015
	BTEX, Fuel Oxygenates ¹ , Naphthalene, EDB and EDC ² , & Ethanol	EPA 8260B/C ¹	EPA 8260B/C ¹
Unknown Fuel	Total Petroleum Hydrocarbons (TPH)		
	TPH as Gasoline	EPA 8015 Fuel Screen	EPA 8015 Fuel Screen
	TPH as Diesel		
	Volatile Organic Compounds (full scan ^{2,4})	EPA 8260B (full scan ^{2,4})	EPA 8260B (full scan ^{2,4})
	Organic Lead ³	DHS LUFT	DHS LUFT
Waste Oil, Used Oil, Unknown Oil, or Bunker Fuel	TPH as Gasoline	EPA 8015 Fuel Screen	EPA 8015 Fuel Screen
	TPH as Diesel		
	HEM (Hexane Extractable Materials) ⁵	EPA 9071B	EPA 1664
	Volatile Organic Compounds, including chlorinated hydrocarbons (full scan ^{2,4})	EPA 8260B (full scan ^{2,4})	EPA 8260B (full scan ^{2,4})
	Metals: Cd, Cr, Pb, Ni, Zn	EPA 6010B	--
	PCBs	EPA 8082A	EPA 8082A
	Semi Volatile Organic Compounds (SVOCS), including Polycyclic Aromatic Hydrocarbons ⁶	EPA 8270	EPA 8270

¹. Fuel Oxygenates includes: Methyl Tertiary Butyl Ether (MTBE), Tert Butyl Alcohol (TBA), Tert Amyl Ether (TAME), Di-Isopropyl Ether (DIPE), and Ethyl T-Butyl Ether (ETBE)

². Analyze for Lead Scavengers 1,2-Dibromoethane [Ethylene Dibromide (EDB)] and 1,2-Dichloroethane [Ethylene Dichloride (EDC)] only if release is pre-1992. If age of release is unknown, analyze for both Fuel Oxygenates and Lead Scavengers.

³. Organic Lead shall be analyzed at all sites storing gasoline prior to 1992.

⁴. Analyze all soil and groundwater samples for all constituents of the 8260B (full scan) plus all oxygenates and alcohols.

⁵. HEM includes what was formerly referred to as "Oil and Grease" and includes a wider range of hydrocarbons chains (more inclusive)

⁶. The analysis for polycyclic aromatic hydrocarbons (PAH) must include Naphthalene, Acenaphthene, Acenaphthylene, Anthracene, Chrysene, Fluorine, Fluoranthene, Phenanthrene, Pyrene, Benzo(b)fluoranthene, Benzo(a)pyrene, Benzo(k)fluoranthene, Benzo(a)anthracene, Indeno(1,2,3-c,d)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene.