



City of Long Beach

Department of Health and Human Services
Environmental Health, Hazardous Materials Division
CUPA (Certified Unified Program Agency)
2525 Grand Avenue, Room 222, Long Beach, California 90815

POST TANK REMOVAL GUIDELINES

- A. Soil samples will be required from beneath tanks, dispensers, pipes and spoils pile. Sampling must be witnessed by an Inspector from the City of Long Beach Fire Department.
- B. Analytical tests for the soil samples are indicated on pages 5 and 6 under Laboratory Analyses. Soil sampling guidelines and the format for the required Soil Sampling Report can be found starting on page 2. This report must be submitted to City of Long Beach Department of Health and Human Services (LBDHHS) within 14 days of sampling.
- C. All excavated soil must be retained on site until the LBDHHS has reviewed the Soil Sampling Report. Excavated soil must be handled in compliance with the South Coast Air Quality Management District's Rule 1166 regarding volatile organic compound (VOC) emissions from contaminated soil.
- D. All soil excavated during removal of an underground storage tank is considered contaminated until proven otherwise by laboratory analysis performed by a California certified environmental laboratory. Leaking underground fuel tank (LUFT) contaminated soil, once it has been excavated, becomes waste. The contaminated site and the excavated soil must be treated under the authority of the Porter Cologne Water Quality Control Act (Water Code). The soil to be placed into a tank excavation must be either the excavated soil that has been deemed acceptable or remediated to the satisfaction of the LBDHHS, or clean imported soil, as proven by laboratory analysis by a California certified environmental laboratory. The LBDHHS does not stipulate how long an excavation can remain open as long as precautions have been taken by the responsible party to assure the avoidance of any potential public danger.
- E. All stockpiles shall be covered with heavy duty, continuous plastic sheet(s), joined at the seams and securely anchored to prevent any exposure of soil to the atmosphere.
- F. The site shall be temporarily fenced to a height of six feet.
- G. If an excavation is left in an unsafe condition, the property will be returned to a safe condition by the City of Long Beach and all costs incurred will be charged to the owner/permittee.
- H. Within 30 days of tank removal, a Final Tank Removal Report (see page 3 for requirements and format) and a check for the project review fee must be mailed to the **City of Long Beach Department of Health and Human Services, Division of Hazardous Materials: 2525 Grand Avenue, Suite 222, Long Beach, CA 90815.**
(Call 562-570-4131 for the current UST Removal Report Review fee)
- I. In addition, a **copy** of the Final Tank Removal Report must be mailed to the Long Beach Fire Department at 3205 Lakewood Blvd, Long Beach, CA 90808.

SOIL SAMPLING GUIDELINES

1. Soil samples from beneath the dispensers, pipes, spoil piles and tank(s) will be required and witnessed by a Long Beach Fire Department Inspector. Samples must be taken 2 to 4 feet below the tank invert, the product lines (at 20 foot intervals) and from each dispenser.
2. Accepted sampling methods are: Split-barrel core sampler, modified California sampler, Shelby Tube, or other accepted method.
3. Core samples are to be collected using a volumetric sampling system designed to collect, store and deliver a soil sample. To preserve and minimize organic losses, the EPA Method 5035 specified in USEPA SW- 846, version (April 1998), or subsequent edition is to be used.
4. Soil sampling must be done under the direct supervision of a California Professional Geologist (PG).

The **Soil Sampling Report** is a preliminary assessment, through documentation, of the subsurface conditions from the open excavation where a tank was removed and is considered the minimum documentation required before the backfilling of an open excavation.

SOIL SAMPLING REPORT requirements and format:

1. SITE HYDROGEOLOGY:

- a. Indicate depth to groundwater, aquifer system and local use of groundwater.
- b. If groundwater is encountered, grab water samples must be obtained from a Hydropunch TM or similar type of system and properly analyzed. Because these sample results are not repeatable, they will be considered qualitative measurements. Also, the results will determine if the water is to be disposed of as hazardous waste.

2. SOIL SAMPLING:

Samples are to be collected using a volumetric sampling system designed to collect, store and deliver a soil sample. To preserve and minimize organic losses, EPA Method 5035 specified in USEPA SW-846, version (April 1998) or subsequent version is to be used. Samples must be tested by a laboratory with certification under the California Environmental Laboratory Accreditation program (ELAP).

3. SITE GEOLOGY:

- a. Submit cross-section of subsurface discovered during tank excavation.
- b. Describe soil lithology.

4. SOIL TEST RESULTS:

5. MANIFESTS

- a. Tank disposal. Certification by Marine Chemist or Industrial Hygienist)
- b. Rinseate disposal.
- c. Contaminated soil disposal.

6. CONCLUSIONS

- a. Recommend any additional work (site characterization.).
- b. Recommend no additional work (closure)

7. SIGNATURE/STAMPS REQUIRED FROM ONE OF THE FOLLOWING:

- a. California Professional Civil Engineer (PE).
- b. California Professional Geologist (PG).

FINAL TANK REMOVAL REPORT requirements and format:

1. Tank Information

- a. Date tank(s) removed and contents samples.
- b. Number of tanks removed.
- c. Stored product.
- d. Tank capacity.
- e. Age of tank.
- f. Tank construction material.
- g. Tank disposal documentation: Removal as hazardous waste (manifested), or as scrap metal (Certification by a Marine Chemist or Industrial Hygienist).
- h. Product disposal documentation: manifest if tank is destroyed to be rendered as scrap metal.

2. Tank Removal

- a. Describe removal procedure.
- b. Monitor excavated soil for air emissions to comply with SCAQMD rule 1166.

3. Site Plan

- a. Show location of -tanks, sampling points, building structures, piping and pumps.
- b. Show adjacent streets.
- c. North arrow.
- d. Area of excavation.

4. Soil Sampling Report

5. Underground Storage Tank Unauthorized Release Report (Leak) / Contamination Site Report

(Important information to Remember)

- a. A California LUFT GCIFID Fingerprint Carbon Chain Analysis must be provided regardless of previous contents inside tank(s) in addition to other analysis.
- b. Laboratory data and chain of custody attached to corresponding reports must be original.
- c. Depth to groundwater must be provided.
- d. Soil samples (native soil only) must be provided from the following locations:
 - (1) At least two soil samples, one from either end of the tank excavation.
 - (2) At least one soil sample from under each dispenser and every 20 ft interval of piping.
 - (3) At least one sample from the spoils pile.

LABORATORY ANALYSES

Product or Contaminant	Test Method	
	SOIL	WATER
Gasoline and MTBE BTXE	TPH= C4 - C12 8260B	TPH= C4 - C12 602
Diesel fuel	TPH= C13 - C22 8260B	TPH= C13 - C22 602
Jet fuel	TPH= C13 - C22 8260B	TPH= C13 - C22
Waste motor oil	TPH= C23 - C32 8260B CAM Metals	TPH= C23 - C32 8260B CAM Metals
Solvent	Site Specific	Site Specific
Pesticides	Site Specific	Site Specific
Hydraulic Lift Vaults	TPH= C23 - C32 8260B CAM Metals	TPH= C23 - C32 8260B CAM Metals
Clarifiers	TPH= C13 - C32 8260B CAM Metals	TPH= C13 - C32 8260B CAM Metals
Above –Ground Petroleum Tanks	TPH= C4 - C32 8260B CAM Metals	TPH= C4 - C32 8260B CAM Metals
Unknowns	(Tank contents must be analyzed)	(Tank contents must be analyzed)

Refer to Table I for method detection limit (MDL) requirements.

TEST METHODS

- 602** Aromatic volatile organics (water only)
- Cal-LUFT GCIFID** C4-C12 C13-C22 C23+
- 8021B** Aromatic and halogenated (up to 3 carbons) volatile organics
- 8260B** Volatile and halogenated organics

TABLE I: ANALYTICAL REQUIREMENTS

ANALYTE	ANALYTICAL METHOD	<i>(Required MDL)</i>	
		SOIL (µg/kg)	WATER (µg/L)
BTEX	EPA Method 8260B (8021B)	1	0.5
MTBE	EPA Method 8260B	2	1
DIPE	EPA Method 8260B	2	1
ETBE	EPA Method 8260B	2	1
TAME	EPA Method 8260B	2	1
TBA	EPA Method 8260B	20	10
TPHg	Cal-LUFT GC/FID or GC/MS	100 - 200	50 -100
TPHd	Cal-LUFT GC/FID	1,000	500
Methanol	Cal-LUFT GC/FID	1,000	500
Ethanol	Cal-LUFT GC/FID (EPA8260B)	500	250

Source: California Regional Water Quality Control Board, Los Angeles Region, UST Lab Requirements For Oxygenates (09/06)

Report any concentration detected between the method detection limit (MDL) and estimated quantification limit (EQL) or reporting limit (RL) in a numerical value "J" flag indicator. All "Non-Detect" (ND) shall be **reported** in a format with "< (numerical MDL)." Integrate all fuel oxygenate additive concentration into total petroleum hydrocarbons (TPH) and report it as TPH. EPA Method 8021B may be used to substitute EPA Method 8260B at the sites where all fuel oxygenates have not been identified by EPA Method 8260B in soil and/or groundwater.