



**siteLAB** Petroleum Hydrocarbon Solutions  
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**Target PAHs**  
*Calibration Kit CAL-060 used for PAH Analysis*

These case studies highlight Sitelab's accuracy from customers who have used the UVF-3100D for testing Target PAHs. This test correlates well to U.S. EPA Method 8270 or similar GC methods, which includes a list of 16 or more compounds. The analyzer is fitted with special optical filters sensitive to this same group of hydrocarbons.

Compound	Concentration (mg/Kg)
Naphthalene	14
2-Methylnaphthalene	55
Phenanthrene	11
Acenaphthene	12
Acenaphthylene	ND <3
Fluorene	6.0
Anthracene	ND <3
Fluoranthene	3.6
Pyrene	ND <3
Benzo[a]Anthracene	ND <3
Chrysene	ND <3
Benzo[b]Fluoranthene	ND <3
Benzo[k]Fluoranthene	ND <3
Benzo[a]Pyrene	ND <3
Indeno[1,2,3]Pyrene	ND <3
Dibenzo[ah]Anthracene	ND <3
Dibenzo[ghi]Perylene	ND <3

**Soil Sample from Wharf Site**

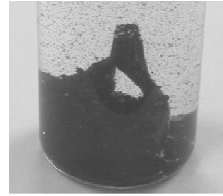
**Lab PAHs = 102**  
*As sum of PAHs added together*

**Sitelab = 105**  
*UVF calibrated with PAH Kit CAL-060*

*Concentrations in ppm (mg/Kg)*

## Examples of UVF-3100D testing Polycyclic Aromatic Hydrocarbons in Soils vs. Certified Laboratories. Concentrations in ppm (mg/Kg)

### Manufactured Gas Plant, Coal Tar Site



A contractor rented the UVF to test contaminated river sediments at a former gas plant in Colorado. Like most MGP sites, this one contains coal tar (DNAPL pictured), high in Benzo[a]Pyrene and other PAHs.

UVF Results	vs. Lab PAHs
1,500	1,200
600	666
110	113
90	40
0.3	ND <1

### Power Plant, Coal Ash Site:



Environmental consultants field screened PAHs to monitor their bioremediation project. The soils contain coal ash and "clinkers" from a power plant located at a U.S. Air Force Base in North Carolina.

UVF Results	vs. Lab PAHs
30	21
16	13
9	10
8	10

### Petroleum Tank Farm, Fuel Oil Site:



A consultant used Sitelab during a site investigation testing soil borings on a tank farm located on Boston Harbor. The site has a large commingled plume of LNAPL containing diesel fuel and No. 6 fuel oil.

UVF Results	vs. Lab PAHs
455	682
370	350
180	130
75	80
3	ND <1

### Wharf Site with Heating Oil and Gasoline:



Unlike coal-related contaminants, refined petroleum products contain lighter PAH compounds, like 2-Methylnaphthalene. The UVF is sensitive to all PAHs, but cannot detect one compound from another.

UVF Results	vs. Lab PAHs
213	220
<b>105</b>	<b>102</b>
70	72
18	20
12	11