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## EPA METHODS TO-3, TO-14A, TO-15 TO-15 MODIFIED & TO-12 MODIFIED

SPL's environmental lab in Houston offers EPA Methods TO-3, TO-14A, and TO-15 for soil gas, ambient and indoor air testing of volatile organic compounds and total petroleum hydrocarbons gasoline range. Additionally, SPL is certified for the analyses of TO-15 modified extended list and TO-12 modified for the PAMS (Photo Chemical Assessment Monitoring Station) program. The PAMS list consists of the Ozone Precursors breakdown by component and the Total Non Methane Organic Compounds (TNMOC). Our certified air testing laboratory provides reliable, low level reporting limits for characterizing site assessments and vapor intrusion pathways.



- State of the art air laboratory coupled with multiple GC/MS and GC/FID instrumentation, concentrators and auto samplers, ensures that your data quality objectives are met in a cost effective manner.
- SPL's experienced staff of laboratory directors, chemists and project managers are committed to handling your data and sampling equipment with the highest level of ethical standards.
- SPL supplies 400 ml, 1.4 liter and 6 liter Summa canisters with particulate filters, flow controllers, and pressure gauges. SPL cleans and certifies batch or individual canisters.

SPL provides customized sampling set-up based on customer specifications and field application.

For more information on EPA Toxic Organic Methods, please contact your local SPL sales representative.

SPL Houston: 800-969-6775  
SPL Lafayette: 800-304-5227  
SPL Traverse City: 888-775-6424



**ENVIRONMENTAL LAB**



# ANALYTE LISTS

## TO-3:

C5 + Hydrocarbons  
C6-C10 Volatiles  
TPH

## TO-14A:

1,1,1-Trichloroethane  
1,1,1,2-Tetrachloroethane  
1,1,2-Trichloro-1,1,2,2-trifluoroethane  
1,1,2-Trichloroethane  
1,1-Dichloroethane  
1,1-Dichloroethene  
1,2,4-Trichlorobenzene  
1,2,4-Trimethylbenzene  
1,2-Dibromoethane  
1,2-Dichloro-1,1,2,2-tetrafluoroethane  
1,2-dichlorobenzene  
1,2-Dichloroethane  
1,2-Dichloropropane  
1,3,5-Trimethylbenzene  
1,3-Dichlorobenzene  
1,4-dichlorobenzene  
Benzene  
Benzyl chloride  
Bromomethane  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane  
Chloroform  
Chloromethane  
cis-1,2-Dichloroethylene  
cis-1,3-Dichloropropene  
Dichlorodifluoromethane  
Ethylbenzene  
Hexachlorobutadiene  
m,p-Xylene  
Methylene chloride  
o-Xylene  
styrene  
Tetrachloroethylene  
Toluene  
trans-1,3-Dichloropropene  
Trichloroethylene  
Trichlorofluoromethane  
Vinyl chloride

## TO-12 MODIFIED:

1,2,3-Trimethylbenzene  
1,2,4-Trimethylbenzene  
1,3,5-Trimethylbenzene  
1,3-Butadiene  
1-Butene  
1-Hexene  
1-Pentene  
2,2,4-Trimethylpentane  
2,2-Dimethylbutane  
2,3,4-Trimethylpentane  
2,3-Dimethylbutane  
2,3-Dimethylpentane  
2,4-Dimethylpentane  
2-Methylheptane  
2-Methylhexane  
2-Methylpentane  
3-Methylheptane  
3-Methylhexane  
3-Methylpentane  
Acetylene  
Benzene  
cis-2-Butene  
cis-2-Pentene  
Cyclohexane  
Cyclopentane  
Ethane  
Ethylbenzene  
Ethylene  
Isobutane  
Isopentane  
Isoprene  
Isopropylbenzene  
m-Diethylbenzene  
m-Ethyltoluene  
Methylcyclohexane  
Methylcyclopentane  
n-Butane  
n-Decane  
n-Dodecane  
n-Heptane  
n-Hexane  
n-Nonane  
n-Octane  
n-Pentane  
n-Propylbenzene  
n-Undecane  
o-Ethyltoluene  
o-Xylene  
p-Diethylbenzene  
p-Ethyltoluene  
Propane  
Propylene  
Styrene  
TNMOC  
Toluene  
trans-2-Butene  
trans-2-Pentene  
m+p-Xylenes

## TO-15:

1,1,1-Trichloroethane  
1,1,2,2-Tetrachloroethane  
1,1,2-Trichloroethane  
1,1,2-trichlorotrifluoroethane  
1,1-Dichloroethane  
1,1-Dichloroethene  
1,2,4-Trichlorobenzene  
1,2,4-Trimethylbenzene  
1,2-Dibromoethane  
1,2-Dichlorobenzene  
1,2-Dichloroethane  
1,2-dichloropropane  
1,2-Dichlorotetrafluoroethane  
1,3,5-Trimethylbenzene  
1,3-Butadiene  
1,3-Dichlorobenzene  
1,4-Dichlorobenzene  
1,4-Dioxane  
2,2,4-Trimethylpentane  
2-Butanone  
2-Hexanone  
4-Ethyltoluene  
4-Methyl-2-pentanone  
Acetone  
Acrylonitrile  
Allyl Chloride  
Benzene  
Benzyl chloride  
Bromodichloromethane  
Bromoform  
Bromomethane  
Carbon disulfide  
Carbon tetrachloride  
Chlorobenzene  
Chloroethane  
Chloroform  
Chloromethane  
cis-1,2-Dichloroethene  
cis-1,3-Dichloropropene  
Cyclohexane  
Dibromochloromethane  
Dichlorodifluoromethane  
Diisopropyl Ether  
Ethyl Acetate  
Ethyl tert-butyl ether  
Ethylbenzene  
Heptane  
Hexachloro-1,3-butadiene  
Hexane  
Isopropanol  
m,p-Xylene  
Methyl tert-butyl ether  
Methylene Chloride  
o-Xylene  
Propene  
Styrene  
t-Butyl Alcohol  
tert-Amyl methyl ether  
Tetrachloroethene  
Tetrahydrofuran  
Toluene  
trans-1,2-Dichloroethene  
trans-1,3-dichloropropene  
Trichloroethene  
Trichlorofluoromethane  
Vinyl acetate  
Vinyl bromide  
Vinyl Chloride

## TO-15 MODIFIED:

1,1,1-Trichloroethane  
1,1,2,2-Tetrachloroethane  
1,1,2-Trichloroethane  
1,1-Dichloroethane  
1,1-Dichloroethene  
1,2,4-Trichlorobenzene  
1,2,4-Trimethylbenzene  
1,2-Dibromoethane  
1,2-Dichloroethane  
1,2-Dichloropropane  
1,3,5-Trimethylbenzene  
1,3-Butadiene  
2-Butanone  
2-Hexanone  
4-Methyl-2-pentanone  
Acetone  
Acetonitrile  
Acrylonitrile  
Allyl chloride  
Benzene  
Benzyl chloride  
Bromomethane  
Carbon disulfide  
Carbon tetrachloride  
Chloroacetone  
Chlorobenzene  
Chlorobutane  
Chloroethane  
Chloroform  
Chloromethane  
cis-1,2-Dichloroethylene  
cis-1,3-dichloropropylene  
Diethyl ether  
Ethyl methacrylate  
Ethylbenzene  
Freon 11  
Freon 113  
Freon 114  
Freon 12  
Hexachlorobutadiene  
m+p-Xylenes  
m-Dichlorobenzene  
Methacrylonitrile  
Methyl acrylate  
Methyl methacrylate  
Methyl tert-butyl ether  
Methylene chloride  
Nitrobenzene  
Nitropropane  
o-Dichlorobenzene  
o-Xylene  
p-Dichlorobenzene  
Styrene  
Tetrachloroethylene  
Tetrahydrofuran  
Toluene  
trans-1,3-Dichloropropene  
Trichloroethylene  
Vinyl chloride

