

**Clayton Environmental Consultants, Inc.**

22345 Roethel Drive • Novi, Michigan 48050 • (313) 344-1770

SFUND RECORDS CTR  
0222-91477

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MAR 7 1988  
MONTGOMERY & ASSOC., INC.

February 23, 1988

Mr. Thomas M. Weisbeck  
CONESTOGA-ROVERS &  
ASSOCIATES LIMITED  
7703 Niagara Falls Boulevard  
Niagara Falls, NY 14304

Dear Mr. Weisbeck:

As requested in your letter dated February 15, 1988, enclosed are 22 Tenax tubes for EPA TO1 sampling. As discussed with Daryl Strandbergh, Clayton uses a modified EPA TO1 methodology. The modifications include the use of a 200-mg Tenax tube and the list of compounds scanned (see attached list). Please note that the TO1 list is given as a guideline and is not considered to be a regulatory list. The analysis is performed using gas chromatography/mass spectrometry (GC/MS) qualitative/semi-quantitative techniques.

The samples should be collected in accordance with the enclosed procedure and returned to Clayton using the shipping materials provided.

Please call if I can be of further assistance.

Sincerely,



Catherine L. Crozier  
Supervisor, Client Services

CLC:le  
Enclosure

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TARGET COMPOUNDS

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BENZENE  
TOLUENE  
XYLENES & ETHYL BENZENE  
C9H12 ALKYL BENZENES  
C10H14 ALKYL BENZENES  
C6-C9 ALIPHATIC HYDROCARBONS  
C10 ALIPHATIC HYDROCARBONS (AS DECANE)  
C11 ALIPHATIC HYDROCARBONS (AS UNDECANE)  
C12 ALIPHATIC HYDROCARBONS (AS DODECANE)  
C13 & GREATER HYDROCARBONS (AS TRIDECANE)

2-BUTANONE (MEK)  
2-PENTANONE  
4-METHYL-2-PENTANONE (MIBK)  
LIMONENE  
NAPHTHALENE  
BUTYLATEDHYDROXYTOLUENE (BHT)  
METHYLENE CHLORIDE  
CHLOROFORM  
1,1,1-TRICHLOROETHANE  
1,1,2-TRICHLOROETHENE (TCE)  
TETRACHLOROETHENE  
DICHLOROBENZENE

ADDITIONAL COMPOUNDS

## GC/MS TENAX TUBE COLLECTION PROCEDURE

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Enclosed are the Tenax tubes you requested for qualitative organic determination by gas chromatography/mass spectrometry (GC/MS).

The tubes are six inches long and contain 200 mg of Tenax which has been carefully conditioned to minimize interferences.

The tube will be thermally desorbed in our laboratory upon return to us, and the entire sample will be injected into the GC/MS for analysis. To avoid "overloading" the GC/MS with too much sample, it is important that the sample size, or the amount of contaminant collected on the Tenax tube, be controlled. We recommend the following sample volumes depending on the type of environment being sampled. Please also note that we are unable to adequately analyze a sample of insufficient size (one with a sample volume less than shown below).

<u>Environment</u>	<u>Total Sample Volume (liters)</u>
Very Clean (no odor)	100 to 200
Clean (no odor but something expected, or very faint odor)	50 to 100
Moderately Dirty (some noticeable odor, not intolerable)	20 to 50
Dirty (very noticeable odor)	10 to 20
Very Dirty (bad odor, noticeable smoke, etc.)	1 to 10

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The flowrate of the sampling pump may vary from 50 to 200 cc/min.

If you are unsure about the sample size that you should collect, we recommend that two side-by-side samples be taken. Collect 10 times more sample on one tube than the other. At your direction, we will hold one of the samples, pending the results of the other.

Please retain the blank tube (the tube which has been broken) and return it to us with the other Tenax tubes for analysis. We will analyze the blank together with the others to determine background contamination.