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SOIL GAS RESULTS
Aug 2002

PHIL-16513

September 3, 2002

Project Number 4192

Mr. Romuald Roman (3HS21)
United States Environmental Protection Agency (EPA)
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Reference: RAC 3 Program
EPA Contract No. 68-S8-3003

Subject: Transmittal of Additional Soil Gas Survey Results
Valmont TCE Site
Remedial Investigation/Feasibility Study (RI/FS)
EPA Work Assignment No. 044-RICO-031M

Dear Mr. Roman:

I am forwarding the results from the second soil gas survey at the subject site. The survey was conducted between August 19 and 22, 2001 and included the collection of 33 soil gas samples for analysis. The enclosed report summarizes the project and provides the raw data.

Please call me if you have any questions or comments.

Sincerely,

Neil Teamerson

Neil Teamerson
Project Manager

NT/vh

Enclosure

c: Bruce Rundell (EPA Region 3) (with enclosure)
Patricia Flores (EPA Region 3) (with enclosure)
Jennifer Hubbard (EPA Region 3) (with enclosure)
John Mellow (PADEP) (with enclosure)
Leonard Johnson (Tetra Tech NUS) (without enclosure)
File 3.2

ACCUSCIENCE
ENVIRONMENTAL
1839 Ashurst Road
Philadelphia, PA 19151
Phone: (215) 477-5889
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23 August 2002

Neil Teamerson
Tetra Tech NUS, Inc.
600 Clark Avenue
Suite 3
King of Prussia, PA 19406-1433

Re: Results of In-Field Gas Chromatography Analysis
Valmont TCE Site-Phase 2
West Hazleton, PA

Dear Neil:

Enclosed please find the Gas Chromatography Analysis Report for the subject project. The Report provides an overview of the analytical method employed during the onsite analysis, and specific information regarding the significance of analytical results.

Should you have any questions regarding this submission please feel free to contact me at (215) 477-5889.

Thank you for the opportunity to work with Tetra Tech. I look forward to working with you folks again.

Sincerely,
Carl Mastropaolo

Encl. Gas Chromatography Analysis Report

Gas Chromatography Analysis Report
Valmont TCE Site-Phase 2
Jaycee Road
West Hazleton, PA

23 August 2002

Prepared for:

Tetra Tech NUS
600 Clark Avenue
Suite 3
King of Prussia, PA 19406-1433

Prepared by:

ACCUSCIENCE
ENVIRONMENTAL

Carl Mastropaolo
Environmental Scientist

ANALYTICAL METHODOLOGY AND PROCEDURES

Overview of Sample Analysis

AccuScience analyzed soil vapor samples for volatile organic compounds. Details regarding target compounds are discussed below. Soil vapor samples were analyzed for volatile organic compounds by using a direct injection methodology.

Sample Collection, Handling and Preparation

After purge volumes were extracted, approximately 0.1 to 1.0 liters of soil vapor were collected directly into tedlar bags for delivery to the mobile laboratory. AccuScience Environmental added surrogate standards to the bags by injection through the septa which are integral to the bag construction. The surrogate standards used, fluorobenzene and bromofluorobenzene (BFB) assisted the analyst in determining the magnitude of retention time shifts for the target compounds.

Analyses Performed

A total of 32 soil vapor samples were collected for analysis. All samples were analyzed.

Sample Processing

Samples were introduced to the gas chromatograph via the direct injection method. For soil vapor analysis, a 0.50 mL portion of the contents of the tedlar collection bag was withdrawn via syringe and injected into the GC's injector port where it is vaporized and swept into the capillary column.

Calibration of the Gas Chromatography System

The analyst used calibrant mixes containing the target compounds dissolved in methanol to calibrate the GC system.

Prior to the beginning of the project, AccuSeience Environmental programmed and calibrated a gas chromatography (GC) methodology capable of identifying and quantifying 41 chemical compounds and the two surrogate standards. A three point calibration was repeatedly performed to assure consistency in detector responses prior to the beginning of field work. Compounds were identified and quantified using a trio of detectors: flame ionization (FID), photoionization (PID), and electron capture (ECD).

PROJECT SUMMARY

This Gas Chromatography Analysis Report documents the results of an in-field gas chromatography survey performed by AccuScience Environmental. Pertinent information regarding the project follows:

Project site:	Valmont TCE site, Jaycee Road, West Hazleton, PA
On-site Client Personnel:	Dan Hartigan, Neb Dedic, & Vince Shickora
Dates:	Monday, 19 August 2002 through Thursday, 22 August 2002
On-Site Mobile Lab Analyst:	Carl Mastropaolo
Target compounds:	A total of 41 compounds were targeted for identification and quantification. Please refer to the body of this report for more details regarding targeted compounds.

Total GC analyses performed:	32
Soil vapor sample analyses performed:	32

The results of the gas chromatography survey appear on the Excel spreadsheet which is attached to this report.

ANALYTICAL RESULTS

Laboratory Performance Problems and Result Bias

Factors, which potentially introduce errors in determining unbiased target compound concentrations, are discussed below:

- Samples with relatively large mass loadings of large molecular mass compounds, particularly relatively nonvolatile compounds, tend to deposit a portion of these compounds on the coating of the capillary column, thus altering the nature of chemical partitioning within the column. This deposition may alter the retention capacity of the column and retention times of target compounds. Indeed, a shift in retention times between two successive calibrant runs is often an indication that column deposition has occurred during sample processing in the time between the two runs.

  After reviewing all chromatograms for this project, AccuScience Environmental suggests this factor had little or no effect in reporting target compound concentrations.

- Carryover of target compounds from GC run to run sometimes causes problems in properly identifying and quantifying target compounds. Such carryover may arise from several sources, including adsorption on the injector septum, syringe contamination, or column contamination.

  After reviewing all chromatograms for this project, AccuScience Environmental suggests that GC system carryover had minimal or no impact in identifying and quantifying target compounds. A total of 2 method blanks and 20 syringe blanks were performed during the project. Target compounds had virtually non-detectable concentrations in all 22 quality check runs.

Method Detection Limits

The method detection limit (MDL) is defined as the response associated with a signal to noise ratio of 2. AccuScience tracked detector noise / carryover throughout the project. Observations made during the onsite gas chromatography analytical event, and a review of printed chromatograms, indicate that, in general, detector noise produced peaks with minimal areas. The PID and FID detectors generally produced noise with areas on the order of 100 and 10 millivolt-seconds, respectively, while the more sensitive ECD produced noise with areas on the order of 1000 millivolt-seconds. Detector noise was tracked and used to determine compound-specific method detection limits.

Compound-specific method detection limits were computed for each sample analyzed during this project. A conservative background noise level of 10 (FID), 100 (PID), or 1000 (ECD) millivolt-

While 41 compounds were targeted, four pairs of compounds have identical retention times in the GC system. As a result, a total of 37 parameters were targeted and the concentrations of the four pairs of compounds were reported as sums. The four coeluting pairs are trans-1,2-DCE and MTBE, 1,2-DCA and benzene, m-xylene and p-xylene, and o-xylene and styrene. The 37 target parameters are shown in the following table.

Target Parameters		
dichlorodifluoromethane	1,1,1-tricholoroethane (TCA)	dibromochloromethane
chloromethane	carbon tetrachloride	chlorobenzene
vinyl chloride	1,2-dichloroethane (DCA) + benzene	ethylbenzene
bromomethane	trichloroethene (TCE)	m-xylene + p-xylene
chloroethane	1,2-dichloropropane	o-xylene + styrene
trichlorofluoromethane	bromodichloromethane	bromoform
1,1-dichloroethene (DCE)	2-chloroethyl vinyl ether	1,1,2,2-TeCA
methylene chloride	cis-1,3-dichloropropene	1,3,5-trimethylbenzene
trans-1,2-dichloroethene (DCE) + MTBE	toluene	1,2,4-trimethylbenzene
1,1-DCA	trans-1,3-dichloropropene	1,3-dichlorobenzene
2-propanone (MEK)	1,1,2-TCA	1,4-dichlorobenzene
cis-1,2-dichloroethene (DCE)	tetrachloroethene (PCE)	1,2-dichlorobenzene
chloroform		

seconds was used to calculate the MDLs except in cases where GC system carryover exceeded this value, in which case the carryover was used to calculate the MDL. Compound-specific MDLs are shown on the Summary of Analytical Results spreadsheet which is attached to this report.

Sample Results

An Excel spreadsheet, which provides all sample results in spreadsheet format, is attached to this report.

Disclaimer

Gas chromatography is an analytical method which identifies target compounds and determines their sample concentrations based strictly upon the retention times of compounds in the capillary column. Chromatography is unable to determine which of two or more compounds with nearly identical retention times exist in a given sample. While the analyst has applied sound scientific reasoning in drawing conclusions regarding the existence and concentration of target compounds during this analytical event, misidentifications are possible. The analyst can not be held responsible for misidentifying compounds with elution times which are nearly identical to the compounds targeted in this project.

[redacted]

Valmont TCE Site, Hazleton, PA — **Soil Vapor Sample Concentration (ppb by volume)**

Samples Collected & Analyzed Monday, 19 August 2002

[redacted]

	47B	45B	33B	36B	25B	11B	15B	39B
dicholordifluoromethane	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12
chloromethane	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150
vinyl chloride	< 770	< 770	1100	< 770	< 770	< 770	< 770	1200
bromomethane	< 390	< 390	< 390	< 390	< 390	< 390	< 390	< 390
chloroethane	< 73	< 73	< 73	< 73	< 73	< 73	< 73	< 73
trichlorofluoromethane	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,1-DCE	41	22	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	200
MeCl	310	280	< 220	< 220	< 220	< 220	< 220	< 220
t-1,2-DCE + MTBE	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
1,1-DCA	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250
MEK	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
c-1,2-DCE	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
chloroform	< 3.3	28	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	9
1,1,1-TCA	< 3.1	35	< 3.1	< 3.1	< 3.1	19	< 3.1	100
carbon tetrachloride	< 0.61	< 0.61	< 0.61	< 0.61	< 0.61	1	< 0.61	< 0.61
1,2-DCA + benzene	35	6	8	6	< 5.8	< 5.8	< 5.8	18
TCE	< 3	98	< 3	6	< 3	160	< 3	540
1,2-dichloropropane	< 220	< 220	< 220	< 220	< 220	< 220	< 220	< 220
bromodichloromethane	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
2-chloroethyl vinyl ether	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3
cis-1,3-dichloropropene	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1
toluene	10	4	4	3	< 2.9	< 2.9	< 2.9	5
t-1,3-dichloropropene	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4
1,1,2-TCA	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18
PCE	9	170	43	23	43	15	10	37
dibromochloromethane	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
chlorobenzene	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
ethylbenzene	4	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
m- + p-xylenes	5	4	4	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
o-xylene + styrene	75	140	150	190	110	160	110	300
bromoform	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
1,1,2,2-TeCA	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1,3,5-TMB	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
1,2,4-TMB	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
1,3-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9
1,4-dichlorobenzene	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9

1,1,2,2-TeCA	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5
1,3,5-TMB	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
1,2,4-TMB	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
1,3-dichlorobenzene	< 14	< 14	< 14	< 14	< 14	< 14
1,4-dichlorobenzene	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9

Samples Collected & Analyzed Thursday, 22 August 2002

	10E	11E	22E	27E	20B	35B
dicholordifluoromethane	< 54	< 54	< 54	< 54	< 54	< 54
chloromethane	< 150	< 150	< 150	< 150	< 150	< 150
vinyl chloride	< 510	< 510	< 510	< 510	< 510	< 510
bromomethane	< 390	< 390	< 390	< 390	< 390	< 390
chloroethane	< 150	< 150	< 150	< 150	< 150	< 150
trichlorofluoromethane	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,1-DCE	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
MeCl	< 180	< 180	< 180	< 180	< 180	< 180
t-1,2-DCE + MTBE	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
1,1-DCA	< 490	< 490	< 490	< 490	< 490	< 490
MEK	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
c-1,2-DCE	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
chloroform	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5
1,1,1-TCA	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5
carbon tetrachloride	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
1,2-DCA + benzene	< 5.8	8	< 5.8	< 5.8	< 5.8	< 5.8
TCE	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
1,2-dichloropropane	< 450	< 450	< 450	< 450	< 450	< 450
bromodichloromethane	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
2-chloroethyl vinyl ether	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3
cis-1,3-dichloropropene	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1
toluene	< 1.6	10	< 1.6	< 1.6	< 1.6	< 1.6
t-1,3-dichloropropene	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4
1,1,2-TCA	< 36	< 36	< 36	< 36	< 36	< 36
PCE	6	21	< 0.75	< 0.75	< 0.75	< 0.75
dibromochloromethane	< 13	< 13	< 13	< 13	< 13	< 13
chlorobenzene	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
ethylbenzene	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
m- + p-xylenes	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
o-xylene + styrene	33	110	15	64	25	44
bromoform	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9
1,1,2,2-TeCA	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5
1,3,5-TMB	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
1,2,4-TMB	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
[illegible]	[illegible]	[illegible]	< 14	< 14	< 14	< 14
			< 3.0	< 3.0	< 3.0	< 3.0
1,2-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9

1,4-dichlorobenzene	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9
Samples Collected & Analyzed Tuesday, 20 August 2002								
	B350	**F350**	**D225**	**D2-450**	**F450**	**H450**	**D00**	**J250**
dicholordifluoromethane	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12
chloromethane	< 2900	< 2900	< 2900	< 2900	< 2900	< 2900	< 2900	< 2900
vinyl chloride	< 510	< 510	< 510	570	< 510	< 510	16,000	1,600
bromomethane	< 390	< 390	< 390	< 390	< 390	< 390	< 390	< 390
chloroethane	< 73	< 73	< 73	< 73	< 73	< 73	< 73	< 73
trichlorofluoromethane	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,1-DCE	< 8.9	970	2,700	< 8.9	< 8.9	2,200	62	24
MeCl	< 240	< 240	< 240	< 240	< 240	290	< 240	< 240
t-1,2-DCE + MTBE	< 3.8	< 3.8	< 3.8	110	83	4	< 3.8	< 3.8
1,1-DCA	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250
MEK	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
c-1,2-DCE	< 4.3	23	24	1,300	2,900	68	9	40
chloroform	< 3.3	39	35	< 3.3	39	50	14	< 3.3
1,1,1-TCA	< 2	380	27	< 2	330	240	160	520
carbon tetrachloride	< 2.1	< 2.1	12	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
1,2-DCA + benzene	< 5.8	< 5.8	< 5.8	< 5.8	33	< 5.8	46	6
TCE	< 2.1	4,700	33,000	1,200	9,600	28,000	800	1,400
1,2-dichloropropane	< 620	< 620	< 620	< 620	< 620	< 620	< 620	< 620
bromodichloromethane	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
2-chloroethyl vinyl ether	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3
cis-1,3-dichloropropene	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1
toluene	< 2.1	50	< 2.1	< 2.1	17	< 2.1	14	< 2.1
t-1,3-dichloropropene	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4
1,1,2-TCA	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18
PCE	5	8	21	< 0.38	21	11	12	6
dibromochloromethane	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
chlorobenzene	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
ethylbenzene	< 21	< 21	< 21	< 21	< 21	< 21	< 21	< 21
m- + p-xylenes	< 3.6	31	< 3.6	< 3.6	4	< 3.6	< 3.6	< 3.6
o-xylene + styrene	55	97	210	54	220	170	160	78
bromoform	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
1,1,2,2-TeCA	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1,3,5-TMB	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
1,2,4-TMB	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
1,3-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9

Samples Collected & Analyzed Wednesday, 21 August 2002

	9TO	3TO	206DR	197DR	116DR	114DR	40B	1F	5F	7F
dicholordifluoromethane	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23	< 23
chloromethane	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150
vinyl chloride	< 510	< 510	< 510	< 510	< 510	< 510	< 510	< 510	< 510	< 510
bromomethane	< 390	< 390	< 390	< 390	< 390	< 390	< 390	< 390	< 390	< 390
chloroethane	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 150
trichlorofluoromethane	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
1,1-DCE	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
MeCl	< 140	< 140	< 140	< 140	< 140	< 140	< 140	< 140	< 140	630
t-1,2-DCE + MTBE	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	80	< 3.8	< 3.8
1,1-DCA	< 490	< 490	< 490	< 490	< 490	< 490	< 490	< 490	< 490	< 490
MEK	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
c-1,2-DCE	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
chloroform	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5	< 6.5
1,1,1-TCA	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9
carbon tetrachloride	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
1,2-DCA + benzene	< 5.8	6	< 5.8	< 5.8	< 5.8	< 5.8	11	13	13	< 5.8
TCE	6	19	9	< 4.3	3	< 4.3	< 4.3	< 4.3	< 4.3	< 4.3
1,2-dichloropropane	< 450	< 450	< 450	< 450	< 450	< 450	< 450	< 450	< 450	< 450
bromodichloromethane	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
2-chloroethyl vinyl ether	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3
cis-1,3-dichloropropene	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1	< 9.1
toluene	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	5	5	9	< 1.6
t-1,3-dichloropropene	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4	< 9.4
1,1,2-TCA	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36	< 36
PCE	2	13	7	1	< 0.75	< 0.75	9	4	17	< 0.75
dibromochloromethane	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13
chlorobenzene	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
ethylbenzene	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
m- + p-xylenes	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
o-xylene + styrene	20	120	46	38	36	30	58	78	380	16
bromoform	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9	< 4.9
1,1,2,2-TeCA	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5	< 5.5
1,3,5-TMB	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3	< 2.3
1,2,4-TMB	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
1,3-dichlorobenzene	< 14	< 14	< 14	< 14	< 14	< 14	< 14	< 14	< 14	< 14
1,4-dichlorobenzene	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
1,2-dichlorobenzene	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9	< 2.9