EnviroMail™ 05 *Canada*

BRITISH COLUMBIA CONTAMINATED SITES REGULATION (BC CSR) OMNIBUS UPDATE

Key Topics Covered in this Enviromail:

- **Searching and Accessing the latest information on Stage 11 BC CSR Omnibus Amendments**
- **Updated Analytical Packages to meet BC CSR Omnibus Amendments**
- **How to Request the most common BC CSR Omnibus parameters**
- **Reporting and comparison to guidelines**

The Stage 11 BC CSR Omnibus Amendments list analytical parameters in alphabetical order. To aid clients, ALS has compiled a simple, easy to use sorting tool for ALL the analytical parameters (CLICK HERE) which organizes by common classifications and includes the new standard levels, naming conventions and common sources.

INTRODUCTION

The Stage 11 (Housekeeping) amendments to the CSR were approved on October 31, 2017. The Stage 11 amendments corrected a number of errors in the Stage 10 amendments found during the year of transition prior to coming into legal force on November 1, 2017.

Additional method development, the revision of analytical packages and the construction of new packages has been underway at ALS. This bulletin serves as a comprehensive guide on grouping of parameters and analytical packages to meet the new standards in support of industry clients. Our new analytical packages provide total flexibility to our clients by combining the most commonly requested parameters in standardized analytical runs. There is also recognition that for specific sites, projects or industry activity, only select parameters may be preferred for reporting. All parameters in a given standard package will be analyzed by the laboratory, but only those requested will be reported. Clients will need to specify which parameters are to be reported at the time of initial sample submission. If additional parameters that are part of the standard package are required at a later date, ALS can offer the convenience of retrieving and reporting additional test results for a nominal reprocessing fee for each request rather than having to undertake a more costly resampling and reanalysis program.

Note that all of the following parameters will be included in the ALS standard packages by default as of November 2017. Customized parameter packages can also be created upon request for large projects – simply contact your ALS Account Manager with your product specifications. In the case where fewer parameters are required, please list those parameters and/or the customized package names on the chain of custody form at the time of sample submission.

Additional less common or new parameters are also available as alternate packages or by special request. See tables on following page for full details of these common standard packages.

REPORTING AND GUIDELINE COMPARISON

ALS Webtrieve – https://webtrievena.alsenviro.com/

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MOST COMMON STANDARD PACKAGES

TIP: USE THE NOTED "ALS PACKAGE NAME" ON THE CHAIN OF CUSTODY.

Class	ALS Package Name	Description	Sample
Metals	BC Total Metals BC Dissolved Metals	Water Comprehensive full list package that meets all BC and Federal Regulatory requirements plus commonly requested metals. Meets lowest standards for: • BC CSR Omnibus Schedules 3.1, 3.2 and 3.4 • CCME Canadian Environmental Quality Guidelines • BC Ambient Water Quality Guidelines - Approved & Working • Canadian Drinking Water Quality Guidelines • BC Water & Air Baseline Monitoring Guidance Document for Mine Proponents and Operators (DL Guidance)	60mL Plastic with HNO3 + 40 mL Glass with HCl Or Filtered 60mL with HNO3 + 40 mL Glass with HCl
	BC Metals	Soil: BC CSR Omnibus Metals. Includes Mercury.	125mL Soil Jar
PAH	BC PAH Routine	Water : Most common broad range list of PAHs to meet BC CSR Omnibus.	100mL Glass + NaHSO4
		Soil: Most common broad range list of PAHs to meet BC CSR Omnibus.	125mL Soil Jar
VOC	BC VOC Routine	Water: Most commonly requested VOCs	2x40mL Glass + NaHSO4
		Soil: Most commonly requested VOCs	2x40 mL Methanol Vials or Hermetic Sampler
	BC VOC Fuels	Water: Common short list VOC package for diesel or gasoline contaminated sites	2x40mL Glass + NaHSO4
		Soil: Common short list VOC package for diesel or gasoline contaminated sites	2x40 mL Methanol Vials or Hermetic Sampler
Soil Vapour	BC VOC+VPHv	Most commonly requested VOCs plus VPHv to meet BC CSR	TD Tube or Canister
	BC BTEX+VPHv	Short list BTEX only plus VPHv to meet BC CSR	
	BC Dry Cleaning	Short list VOCs common to dry cleaning sites	
	BC Fuels	Short list VOCs common to diesel and gasoline fuel contaminated sites. Often requested in addition to standard VOC package for full list	
Phenolics	BC Chlorinated Phenols	Water: Common Chlorinated Phenolics to meet BC CSR	2x500mL Glass + NaHSO4 (Field pH or unpreserved sample required for pH determination)
	BC Non-Chlorinated Phenols	Water: Methylphenols + Phenol to meet BC CSR	
	BC Hydroxyphenols	Water: Hydroxyphenols to meet BC CSR	
	BC Nitrophenols	Water: Nitrophenols to meet BC CSR	
	BC Chlorinated Phenols	Soil: Common Chlorinated Phenolics to meet BC CSR	125mL Soil Jar
	BC Non-Chlorinated Phenols	Soil: Methyl phenols + Phenol to meet BC CSR	
	BC Hydroxyphenols	Soil: Hydroxy phenols to meet BC CSR	
	BC Nitrophenols	Soil: Nitro phenols to meet BC CSR	

Online web access reports are available through ALS Webtrieve. These reports can be generated by ALS clients at any time. The report options include screening tools with colour-coded highlighting of guideline exceedances of the most conservative standard where more than one numerical value exists. This report option may assist with rapid screening of data.

Additionally, the ALS customized criteria-based EXCEL files are available through Webtrieve or by request through your Account Manager. This report can be used to compare the total concentration results against limits of the standard that are equal to or above the upper limit. The report assists the process of classification by removing the need for cross checking any manual comparison of a large number of data points.

REFERENCES: October 31, 2017 – Stage 11 Amendments to the Contaminated Sites Regulation (PDF) with the following hyperlink
https://www2.gov.bc.ca/assets/gov/environment/air-land-water/site-remediation/docs/laws-regulations-and-compliance/stage_10-11_amendment_update.pdf

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METALS

METALS	BC DISSOLVED METALS OR TOTAL METALS WATER MET-D-REG-ALL-VA/MET-T-REG-ALL-VA		BC METALS SOIL MET-CSR-FULL-VA	
Parameters	**ALS LOR mg/L**	**CSR Schedule 3.2 mg/L**	**ALS LOR ug/g**	**CSR Schedule 3.1 ug/g**
Aluminum (Al)	0.001 / 0.003	5	50	40000
Antimony (Sb)	0.0001	0.006	0.1	15
Arsenic (As)	0.0001	0.01	0.1	10
Barium (Ba)	0.00005	1	0.5	350
Beryllium (Be)	0.0001	0.0015	0.1	1
Bismuth (Bi)	0.00005	-	0.2	-
Boron (B)	0.01	0.5	5	8500
Cadmium (Cd)	0.000005	0.0005	0.02	1
Calcium (Ca)	0.05	1	50	-
Cesium (Cs)	0.00001	-	-	-
Chromium (Cr)	0.0001	0.008	0.5	60
Cobalt (Co)	0.0001	0.001	0.1	25
Copper (Cu)	0.0002 / 0.0005	0.02	0.5	75
Iron (Fe)	0.01	5	50	35000
Lead (Pb)	0.00005	0.01	0.5	120
Lithium (Li)	0.001	0.008	2	30
Magnesium (Mg)	0.005	-	20	-
Manganese (Mn)	0.0001	0.2	1	2000
Molybdenum (Mo)	0.00005	0.01	0.1	15
Nickel (Ni)	0.0005	0.08	0.5	70
Phosphorus (P)	0.05	-	50	-
Potassium (K)	0.05	-	100	-
Rubidium (Rb)	0.0002	-	-	-
Selenium (Se)	0.00005	0.01	0.2	1
Silicon (Si)	0.05 / 0.1	-	-	-
Silver (Ag)	0.00001	0.0005	0.1	15
Sodium (Na)*	0.05	0.2	50	150
Strontium (Sr)	0.0002	2.5	0.5	9500
Sulfur (S)**	0.5	-	1000	-
Tellurium (Te)	0.0002	-	-	-
Thallium (Tl)	0.00001	0.00004	0.05	5.5
Thorium (Th)	0.0001	-	-	-
Tin (Sn)	0.0001	2.5	2	5
Titanium (Ti)	0.0003	1	1	-
Tungsten (W)	0.0001	0.003	0.5	15
Uranium (U)	0.00001	0.01	0.05	15
Vanadium (V)	0.0005	0.02	0.2	100
Zinc (Zn)	0.001 / 0.003	0.075	2	150
Zirconium (Zr)	0.00006	-	1	
Mercury (Hg)	0.000005	0.00025	0.05	0.6

**Sodium - Please note that sodium (CAS# 17341-25-2) must be analyzed using methods specified in the 2015 BC Environmental Lab Manual.*

*** Sulfur - Please note the standard for Elemental Sulfur (CAS# 7704-34-9) is not directly comparable to the Total Sulfur value generated by the BC SALM method; please contact ALS for additional details.*

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PAH

Polycyclic Aromatic Hydrocarbons	BC PAH ROUTINE WATER PAH-WATER-VA		BC PAH ROUTINE SOIL PAH-CSR-VA	
Parameters	**ALS LOR mg/L**	**CSR Schedule 3.2 mg/L**	**ALS LOR ug/g**	**CSR Schedule 3.1 ug/g**
Acenaphthene	0.00005	0.06	0.05	950
Acenaphthylene	0.00005	-	0.05	-
Acridine	0.00005	0.0005	-	-
Anthracene	0.00005	0.001	0.05	1.5
Benz(a)anthracene	0.00005	0.00007	0.05	0.1
Benzo(a)pyrene	0.000005	0.00001	0.05	5
Benzo(b&j)fluoranthene	0.00005	0.00007	0.05	0.1
Benzo(g,h,i)perylene	0.00005	-	0.05	
Benzo(k)fluoranthene	0.00005	-	0.05	0.1
Chrysene	0.00005	0.001	0.05	200
Dibenz(a,h)anthracene	0.000005	0.00001	0.05	0.1
Fluoranthene	0.00005	0.002	0.05	30
Fluorene	0.00005	0.12	0.05	600
Indeno(1,2,3-c,d)pyrene	0.00005	-	0.05	0.1
1-Methylnaphthalene	0.00005	0.0055	0.05	250
2-Methylnaphthalene	0.00005	0.015	0.05	60
Naphthalene	0.00005	0.01	0.05	0.4
Phenanthrene	0.00005	0.003	0.05	0.1
Pyrene	0.00005	0.0002	0.05	0.1
Quinoline	0.00005	0.00005	0.05	2.5
Additional Polycyclic Aromatic Hydrocarbons	**BC PAH MISC Water PAH-M-ME-MS-VA**		**BC PAH MISC Soil PAH-M-TUMB-H/A-VA**	
9,10-Anthraquinone	0.00005	0.004	0.01	30
2-Chloronaphthalene	0.00001	0.3	0.01	1500
7,12-Dimethylbenz(a)anthracene	0.00001	0.00002	0.01	0.02
3-Methylcholanthrene	0.00001	0.00002	0.01	0.07
PAH Dibenzo (a,e) pyrene			**PAH Dibenzo (a,e) pyrene Soil PAH-M2-H/A-MS-VA**	
Dibenzo(a,e)pyrene	-	-	0.05	0.6

4-Nitropyrene and dibenzothiophene by quotation.

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VOC

Volatile Organic Compounds	BC VOC ROUTINE VOC+MTBE+WATER-VA		BC VOC ROUTINE VOC+MTBE-ROUT-VA	
Parameters	**ALS LOR mg/L**	**CSR Schedule 3.2 mg/L**	**ALS LOR ug/g**	**CSR Schedule 3.1 ug/g**
1,1,1,2-Tetrachloroethane	0.001	0.006	0.05	250
1,1,1-Trichloroethane	0.001	8	0.05	0.1
1,1,2,2-Tetrachloroethane	0.0002	0.0008	0.05	35
1,1,2-Trichloroethane	0.0005	0.003	0.05	0.1
1,1-Dichloroethane	0.001	0.03	0.05	0.1
1,1-Dichloroethylene	0.001	0.014	0.05	0.1
1,2-Dichlorobenzene	0.0005	0.007	0.05	0.1
1,2-Dichloroethane	0.001	0.005	0.05	0.1
1,2-Dichloropropane	0.001	0.0045	0.05	0.1
1,3-Dichlorobenzene	0.001	1.5	0.05	0.1
1,3-Dichloropropene (cis & trans)	0.001	0.0015	-	-
1,4-Dichlorobenzene	0.001	0.005	0.05	0.1
Benzene	0.0005	0.005	0.005	0.035
Bromodichloromethane	0.001	0.1	0.05	100
Bromoform	0.001	0.1	0.05	300
Carbon Tetrachloride	0.0005	0.002	0.05	0.1
Chlorobenzene	0.001	0.013	0.05	0.1
Chloroethane	0.001	-	0.1	-
Chloroform	0.001	0.02	0.1	0.1
Chloromethane	0.005	-	0.1	-
cis-1,2-Dichloroethylene	0.001	0.008	0.05	0.1
cis-1,3-Dichloropropylene	0.0005	-	0.05	0.1
Dibromochloromethane	0.001	0.1	0.05	85
Dichloromethane	0.005	0.05	0.3	3-50 (0.1 for AL standard)
Ethylbenzene	0.0005	0.14	0.015	15
meta- & para-Xylene	0.0005	-	0.05	-
Methyl t-butyl ether (MTBE)	0.0005	0.095	0.2	320
ortho-Xylene	0.0005	-	0.05	-
Styrene	0.0005	0.72	0.05	0.1
Tetrachloroethylene	0.001	0.03	0.05	2.5
Toluene	0.00045	0.005	0.05	0.5
trans-1,2-Dichloroethylene	0.001	0.08	0.05	-
trans-1,3-Dichloropropylene	0.0005	-	0.05	-
Trichloroethylene	0.001	0.005	0.01	0.3
Trichlorofluoromethane	0.001	1	0.1	4500
Vinyl Chloride	0.0004	0.002	0.1	0.95
Xylenes	0.00075	0.09	0.075	6.5

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ADDITIONAL VOC

Additional VOCs	BC VOC MISC 1 WATER VOC-M-HSMS-VA		BC VOC MISC 1 SOIL VOC-M-HSMS-VA	
Parameters	**ALS LOR mg/L**	**CSR Schedule 3.2 mg/L**	**ALS LOR ug/g**	**CSR Schedule 3.1 ug/g**
Bromobenzene	0.001	0.03	0.05	150
Bromochloromethane	0.001	-	0.05	
Bromomethane	0.001	0.0055	0.05	20
n-Butylbenzene	0.001	0.2	0.05	800
sec-Butylbenzene	0.001	0.4	0.05	1500
tert-Butylbenzene	0.001	0.4	0.05	1500
2-Chlorotoluene	0.001	0.08	0.05	300
4-Chlorotoluene	0.001	0.08	0.05	300
1,2-Dibromo-3-chloropropane	0.001	0.0005 for 3.2 DW Standard only	0.05	2
Dibromomethane	0.001	-	0.05	-
Dichlorodifluoromethane	0.001	0.8	0.05	3000
1,3-Dichloropropane	0.001	0.08	0.05	300
2,2-Dichloropropane	0.001	-	0.05	-
1,1-Dichloropropylene	0.001	-	0.05	-
Hexachlorobutadiene	0.0004	0.002	0.05	15
1,2,3-Trichlorobenzene	0.0005	0.003	0.05	0.05
1,2,4-Trichlorobenzene	0.001	0.0055	0.05	0.05
1,2,3-Trichloropropane	0.001	0.0005 for 3.2 DW Standard only	0.05	0.05
Additional VOCs	**BC VOC MISC 2 WATER VOC-M2-HSMS-VA**		**BC VOC MISC 2 SOIL VOC-M2-HSMS-VA**	
Acetone	0.001	3.5	4	15000
Carbon Disulfide	0.005	0.4	0.05	1500
n-Heptane (nC7)	0.001	-	0.05	-
2-Hexanone	0.001	0.02	0.05	80
Methyl ethyl ketone (MEK)	0.001	2.5	20	9500
Methyl isobutyl ketone (MIBK)	0.001	-	0.05	-
Methyl isobutyl carbinol (MIBC)	0.001	-	0.05	-
n-Octane (nC8)	0.001	-	0.05	-
n-Pentane	0.001	-	0.05	-
1,2,3-Trimethylbenzene	0.001	-	0.05	-

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VOC FUELS PACKAGE

VOC FUELS PACKAGE	BC VOC FUELS WATER FUELS-HSMS-VA		BC VOC FUELS SOIL FUELS-HSMS-VA	
Parameters	**ALS LOR mg/L**	**CSR Schedule 3.2 mg/L**	**ALS LOR ug/g**	**CSR Schedule 3.1 ug/g**
1,3-Butadiene	0.0002	0.001 for 3.2 DW Standard only	0.05	2.0
Decane (nC10)	0.001	-	4	-
1,2-Dibromoethane	0.0001	0.0005	0.05	-
1,2-Dichloroethane	0.001	0.005	0.05	3.0
n-Hexane (nC6)	0.001	-	0.05	-
Isopropylbenzene	0.001	0.4	0.05	1500
4-Isopropyltoluene	0.001	-	0.05	-
Methylcyclohexane	0.001	-	0.05	-
Naphthalene	0.001	0.01	0.05	0.4
n-Propylbenzene	0.001	0.4	0.05	1500
1,2,4-Trimethylbenzene	0.001	-	0.05	-
1,3,5-Trimethylbenzene	0.001	0.04	0.05	150
VOC SPECIAL	**VOC SPECIAL REQUEST WATER**		**VOC SPECIAL REQUEST SOIL**	
1,2,3-Trichloropropene	By Quotation	0.01	By Quotation	45
Diethyl Ether	By Quotation	0.8	By Quotation	3000
Freon 113	By Quotation	100	By Quotation	450000
n-nonane	By Quotation	0.001	By Quotation	4.5
1,3-Dibromobenzene	-	-	By Quotation	6
1,4-Dibromobenzene	-	-	By Quotation	150
1,1,2-Trichloropropane	-	-	By Quotation	80
Isopropanol	-	-	By Quotation	30000
2-Butanol	-	-	By Quotation	30000

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PHENOLICS

PHENOLICS	BC CHLORINATED PHENOLS WATER PHEN-CL-FULL-VA		BC CHLORINATED PHENOLS SOIL PHEN-CL-FULL-VA	
Parameters	**ALS LOR mg/L**	**CSR Schedule 3.2 mg/L**	**ALS LOR ug/g**	**CSR Schedule 3.1 ug/g**
pH	0.1 pH		0.1 pH	
2-Chlorophenol	0.00005	0.0001	0.02	0.3
3-Chlorophenol	0.00005	0.0001	0.02	0.3
4-Chlorophenol	0.00005	0.0001	0.02	0.3
2,3-Dichlorophenol	0.00005	0.0003	0.02	Sum of Dichlorophenols = 100 ug/g
2,4 & 2,5-Dichlorophenol	0.00005	0.0003	0.02	
2,6-Dichlorophenol	0.00005	0.0003	0.02	
3,4-Dichlorophenol	0.00005	0.0003	0.02	
3,5-Dichlorophenol	0.00005	0.0003	0.02	
2,3,4-Trichlorophenol	0.0001	0.002	0.02	
2,3,5-Trichlorophenol	0.0001	0.002	0.02	0.3
2,3,6-Trichlorophenol	0.0001	0.002	0.02	
2,4,5-Trichlorophenol	0.0001	0.002	0.02	0.3
2,4,6-Trichlorophenol	0.0001	0.002	0.02	
3,4,5-Trichlorophenol	0.0001	0.001	0.02	0.3
2,3,4,5-Tetrachlorophenol	0.0002	0.001	0.02	0.5
2,3,4,6-Tetrachlorophenol	0.0001	0.001	0.02	0.5
2,3,5,6-Tetrachlorophenol	0.0002	0.001	0.02	0.3
Pentachlorophenol	0.0001	0.001	0.02	0.1
4-Chloro-3-methylphenol	0.0005	0.4	0.02	0.4
	BC NON-CHLORINATED PHENOLS WATER PHEN-NONCL-VA		**NON-CHLORINATED PHENOLS WATER PHEN-NONCL-VA**	
2,4-Dimethylphenol	0.0005	0.08	0.02	0.1
2-Methylphenol (o-cresol)	0.0005	0.2	0.02	0.1
3-Methylphenol (m-cresol)	0.0005	0.2	0.02	0.1
4-Methylphenol (p-cresol)	0.0005	0.2	0.02	0.1
Phenol	0.001	1	0.02	7.5
PHENOLICS	**BC HYDROXYPHENOLS WATER HPHEN-SF-MS-VA**		**BC HYDROXYPHENOLS SOIL**	
Catechol	0.005	2		-
Hydroquinone	0.005	0.0025	By Quotation	100
Resorcinol	0.005	0.15		-
PHENOLICS	**BC NITROPHENOLS WATER NPHEN-SF-ECD-VA**		**BC NITROPHENOLS SOIL NPHEN-SOX-ECD-VA**	
2,4-Dinitrophenol	0.001	0.008	0.05	0.1
2-Methyl-4,6-Dinitrophenol	0.001	0.001	0.05	-
2-Nitrophenol	0.001	-	0.05	0.1
4-Nitrophenol	0.001	-	0.05	0.1

2,6 Dimethyl phenol and 3,4 Dimethyl phenol by quotation.

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SOIL VAPOUR

SOIL VAPOUR	ALS LOR ug	ALS LOR ug/m3 (BASED ON 3.0L SAMPLE COLLECTION VOLUME)	CSR STANDARD * ug/m3	BC VOC + VPHv	BC BTEX + VPHv	BC DRY CLEANING	BC FUELS
Benzene	0.004	1.3	1.5	X	X		X
Bromodichloromethane	0.0025	0.8	40	X			
Bromoform	0.015	5.0	9	X			
Carbon Tetrachloride	0.0015	0.5	1.5	X		X	
Chlorobenzene	0.0025	0.8	10	X			
Chloroethane	0.05	16.7	10000	X		X	
Chloroform	0.0025	0.8	100	X		X	
Chloromethane	0.015	5.0	90	X			
cis-1,2-Dichloroethylene	0.005	1.7	60	X		X	
cis-1,3-Dichloropropylene	0.0025	0.8	2.5	X			
Decane (nC10)	0.025	8.3	2500	X	X		X
Dibromochloromethane	0.025	8.3	40	X			
1,2-Dichlorobenzene	0.015	5.0	200	X			
1,3-Dichlorobenzene	0.005	1.7	60	X			
1,4-Dichlorobenzene	0.005	1.7	80	X			
1,1-Dichloroethane	0.0025	0.8	500	X		X	
1,2-Dichloroethane	0.001	0.3	7	X		X	
1,1-Dichloroethylene	0.003	1.0	200	X		X	
Dichloromethane	0.03	10.0	600	X		X	
1,2-Dichloropropane	0.0015	0.5	4	X			
Ethylbenzene	0.0025	0.8	1000	X	X		X
meta- & para-Xylene	0.005	1.7	100	X	X		X
Methyl t-butyl ether (MTBE)	0.025	8.3	3000	X	X		X
n-Hexane (nC6)	0.025	8.3	700	X	X		X
ortho-Xylene	0.0025	0.8	100	X	X		X
Styrene	0.0025	0.8	1000	X	X		X
1,1,1,2-Tetrachloroethane	0.004	1.3	1.5	X			
1,1,2,2-Tetrachloroethane	0.0025	0.8	40	X			
Tetrachloroethylene	0.03	10.0	40	X		X	
Toluene	0.02	6.7	5000	X	X		X
trans-1,2-Dichloroethylene	0.005	1.7	60	X		X	
trans-1,3-Dichloropropylene	0.005	1.7	2.5	X		X	
1,1,1-Trichloroethane	0.0025	0.8	5000	X		X	
1,1,2-Trichloroethane	0.0015	0.5	0.5	X			
Trichloroethylene	0.0015	0.5	2	X		X	
Trichlorofluoromethane	0.025	8.3	700	X			
Vinyl Chloride	0.003	1.0	1	X		X	
Xylenes	0.006	2.0	100	X	X		X
Naphthalene	0.009	3.0	3				X
1,2-Dibromoethane	0.0025	0.8	0.5				X
1,2-Dichloroethane	0.001	0.3	7				X
1,3-Butadiene	0.006	2.0	2				X
Cumene	0.0025	0.8	400				X
Methylcyclohexane	0.025	8.3	1500				X
1,2,4-Trimethylbenzene	0.015	5.0	7				X
1,3,5-Trimethylbenzene	0.005	1.7	3.5				X
VHv (C6-C13)	3	1000	1000	X	X		X
VPHv (C6-C13)	3	1000	1000	X	X		X

SOIL VAPOUR CONTINUED

ADDITIONAL VOCs	ALS LOR ug	ALS LOR ug/m3 (BASED ON 3.0L SAMPLE COLLECTION VOLUME)	CSR STANDARD * ug/m3	BC MISC 1 VOCs	BC MISC 2 VOCs
Bromobenzene	0.0025	0.8	60	X	
Bromochloromethane	0.015	5.0	-	X	
Bromomethane	0.015	5.0	5	X	
n-Butylbenzene	0.02	6.7	-	X	
sec-Butylbenzene	0.02	6.7	-	X	
tert-Butylbenzene	0.0025	0.8	-	X	
2-Chlorotoluene	0.0025	0.8	40	X	
4-Chlorotoluene	0.005	1.7	-	X	
Dibromomethane	0.0025	0.8	4	X	
1,2-Dibromo-3-chloropropane	0.001	0.3	1	X	
Dichlorodifluoromethane	0.025	8.3	100	X	
1,3-Dichloropropane	0.0025	0.8	1	X	
2,2-Dichloropropane	0.025	8.3	-	X	
1,1-Dichloropropylene	0.0025	0.8	-	X	
Hexachlorobutadiene	0.02	6.7	1	X	
n-Propylbenzene	0.005	1.7	-	X	
4-Isopropyltoluene	0.015	5.0	-	X	
1,2,3-Trichlorobenzene	0.025	8.3	-	X	
1,2,4-Trichlorobenzene	0.01	3.3	7	X	
1,2,3-Trichloropropane	0.0025	0.8	0.5	X	
Acetone	0.06	20.0	2000		X
1,1-Biphenyl	0.025	8.3	-		X
2-Butanone (MEK)	0.025	8.3	5000		X
Carbon Disulfide	0.05	16.7	700		X
2-Chlorophenol	0.03	10.0	10		X
Cyclohexane	0.025	8.3	-		X
Ethyl acetate	0.1	33.3	70		X
2-Hexanone (MBK)	0.025	8.3	-		X
Isopropanol	0.025	8.3	-		X
4-Methyl-2-pentanone (MIBK)	0.025	8.3	3000		X
1,1,2-Trichloro-1,2,2-trifluoroethane	0.025	8.3	300		X

**Based on attenuation factor = 1*