APPENDIX B

CROSS-SECTIONAL VIEWS ILLUSTRATING BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL AND GROUNDWATER

Outside Air-30	3/15/2014
	-
1,1,1-Trichloroethane	0.022 J
1,2,4-Trimethylbenzene	0.27
1,3,5-Trimethylbenzene	0.087 J
1,4-Dichlorobenzene	0.023 J
Benzene	0.62
Carbon tetrachloride	0.45
Chloroform (Trichloromethane)	0.085 J
cis-1,2-Dichloroethene	0.098
Ethylbenzene	1.6
m&p-Xylenes	6.5
Methylene chloride	0.31
Naphthalene	0.14 J
o-Xylene	1.8
Styrene	0.16
Tetrachloroethene	0.13
Toluene	2.1
trans-1,2-Dichloroethene	0.012 J
Trichloroethene	0.17
Vinyl chloride	0.044

Outside Air-18P	3/18/2014
	-
1,1,1-Trichloroethane	0.027
1,2,4-Trimethylbenzene	0.16
1,4-Dichlorobenzene	0.030
Benzene	0.75
Ethylbenzene	1.1
m&p-Xylenes	4.0
o-Xylene	1.2
Styrene	0.13
Tetrachloroethene	0.16
Toluene	1.8
Trichloroethene	0.076

Outside Air-18	4/24/2013	3/14/2014
	-	-
1,1,1-Trichloroethane	0.032 J	0.021 J
1,2,4-Trimethylbenzene	0.81 J	0.22
1,3,5-Trimethylbenzene	0.83 U	0.062 J
1,4-Dichlorobenzene	0.022 J	0.023 J
Benzene	0.72	0.62
Carbon tetrachloride	0.48	0.48
Chloroform (Trichloromethane)	0.089 J	0.082 J
cis-1,2-Dichloroethene	0.042 U	0.027 J
Ethylbenzene	1.1	0.74
m&p-Xylenes	3.8	2.8
Methylene chloride	0.83 U	0.40
Naphthalene	0.077 J	0.10 J
o-Xylene	1.3	0.93
Styrene	0.83 U	0.17
Tetrachloroethene	0.14 J	0.18
Toluene	2.1	3.1
Trichloroethene	0.033 J	0.073
Vinyl chloride	0.042 U	0.012 J
Xylenes (total)	5.1	-

Indoor Air-29	3/14/2014
	-
1,1,1-Trichloroethane	0.047
1,2,4-Trichlorobenzene	0.020 J
1,2,4-Trimethylbenzene	0.82
1,3,5-Trimethylbenzene	0.25
1,4-Dichlorobenzene	0.054
Benzene	0.96(f)
Carbon tetrachloride	0.47(f)
Chloroform (Trichloromethane)	0.098 J
cis-1,2-Dichloroethene	0.030 J
Ethylbenzene	1.1
m&p-Xylenes	4.1
Methylene chloride	0.60
Naphthalene	0.32
o-Xylene	1.4
Styrene	0.39
Tetrachloroethene	0.55
Toluene	4.1
Trichloroethene	0.30
Vinyl chloride	0.042

Indoor Air-22	4/23/2013
	-
1,1,1-Trichloroethane	0.072
1,2,4-Trimethylbenzene	0.86
1,3,5-Trimethylbenzene	0.30 J
1,4-Dichlorobenzene	0.15 J
Benzene	0.67(f)
Carbon tetrachloride	0.46(f)
Chloroform (Trichloromethane)	0.14 J(f)
Ethylbenzene	0.94
m&p-Xylenes	3.2
Naphthalene	0.17
o-Xylene	1.2
Tetrachloroethene	0.36
Toluene	2.2
Trichloroethene	0.033 J
Vinyl chloride	0.066
Xylenes (total)	4.4

Indoor Air-18	4/22/2013	3/14/2014
	-	-
1,1,1-Trichloroethane	0.049	0.028 J
1,2,4-Trichlorobenzene	0.041 U	0.067
1,2,4-Trimethylbenzene	0.82	0.72
1,3,5-Trimethylbenzene	0.30 J	0.21
1,4-Dichlorobenzene	0.14 J	0.059
Benzene	0.43(f)	0.87(f)
Carbon tetrachloride	0.31	0.43(f)
Chloroform (Trichloromethane)	0.13 J(f)	0.10 J
cis-1,2-Dichloroethene	0.041 U	0.040
Ethylbenzene	1.4	1.0
m&p-Xylenes	5.3	3.9
Methylene chloride	0.82 U	0.41
Naphthalene	0.081 J	0.28
o-Xylene	1.6	1.3
Styrene	0.82 U	0.40
Tetrachloroethene	0.23	0.29
Toluene	1.2	2.9
Trichloroethene	0.054	0.099
Vinyl chloride	0.072	0.026 J
Xylenes (total)	6.9	-

Indoor Air-17	4/23/2013	3/14/2014
	-	-
1,1,1-Trichloroethane	0.089	0.064
1,1-Dichloroethene	0.010 J	0.035 U
1,2,4-Trimethylbenzene	1.3	1.1
1,3,5-Trimethylbenzene	0.40 J	0.35
1,4-Dichlorobenzene	0.054	0.061
Benzene	0.69(f)	1.1(f)
Carbon tetrachloride	0.51(f)	0.47(f)
Chloroform (Trichloromethane)	0.11 J	0.10 J
cis-1,2-Dichloroethene	0.038 U	0.033 J
Ethylbenzene	1.4	1.2
m&p-Xylenes	4.9	4.3
Methylene chloride	0.91 U	0.50
Naphthalene	0.62(a)	0.35
o-Xylene	1.7	1.5
Styrene	0.40 J	0.47
Tetrachloroethene	0.21	0.19
Toluene	4.9	4.8
trans-1,2-Dichloroethene	0.050	0.035 U
Trichloroethene	0.074	0.076
Vinyl chloride	0.095	0.049
Xylenes (total)	6.6	-

Indoor Air-30	3/15/2014
	-
1,1,1-Trichloroethane	0.058
1,2,4-Trimethylbenzene	1.0
1,3,5-Trimethylbenzene	0.28
1,4-Dichlorobenzene	0.024 J
Benzene	1.2(f)
Carbon tetrachloride	0.42
Chloroform (Trichloromethane)	0.096 J
cis-1,2-Dichloroethene	0.079
Ethylbenzene	1.8
m&p-Xylenes	7.4
Methylene chloride	0.32
Naphthalene	0.90(a)
o-Xylene	2.1
Styrene	0.22
Tetrachloroethene	0.16
Toluene	4.2
trans-1,2-Dichloroethene	0.011 J
Trichloroethene	2.6(f,g)
Vinyl chloride	0.040

Sub-Slab Probe-30	3/14/2014
	-
1,1,1-Trichloroethane	1.8
1,1-Dichloroethene	0.021 J
1,2,4-Trimethylbenzene	0.061 J
1,3,5-Trimethylbenzene	0.017 J
1,4-Dichlorobenzene	0.018 J
Benzene	0.20
Carbon tetrachloride	1.6
Chloroform (Trichloromethane)	2.1(h)
cis-1,2-Dichloroethene	0.0089 J
Ethylbenzene	0.067 J
m&p-Xylenes	0.27
Naphthalene	0.12 J
o-Xylene	0.11 J
Styrene	0.059 J
Tetrachloroethene	30
Toluene	0.12 J
Trichloroethene	100(c,d,h,i)

Sub-Slab Probe-17	4/22/2013	3/13/2014
	-	-
1,1,1-Trichloroethane	1.6	1.0
1,2,4-Trimethylbenzene	4.7 U	0.084 J
Carbon tetrachloride	1.6	1.2
Chloroform (Trichloromethane)	0.25 J	0.18 J
Ethylbenzene	0.045 J	0.081 J
m&p-Xylenes	0.15 J	0.23 J
Naphthalene	0.94 U	0.14 J
o-Xylene	0.050 J	0.098 J
Tetrachloroethene	0.70	1.0
Toluene	0.94 U	1.1
Trichloroethene	0.084 J	0.42
Xylenes (total)	0.2 J	-

Indoor Air-31	3/15/2014
	-
1,1,1-Trichloroethane	0.080
1,2,4-Trimethylbenzene	0.98
1,3,5-Trimethylbenzene	0.27
1,4-Dichlorobenzene	0.025 J
Benzene	1.1(f)
Carbon tetrachloride	0.43(f)
Chloroform (Trichloromethane)	0.10 J
cis-1,2-Dichloroethene	0.080
Ethylbenzene	1.8
m&p-Xylenes	6.7
Methylene chloride	0.60
Naphthalene	0.29
o-Xylene	2.0
Styrene	0.30
Tetrachloroethene	0.32
Toluene	4.4
trans-1,2-Dichloroethene	0.013 J
Trichloroethene	2.9(f,g)
Vinyl chloride	0.042

Indoor Air-19	4/23/2013	3/14/2014
	-	-
1,1,1-Trichloroethane	0.11	0.067
1,2,4-Trimethylbenzene	0.80	0.51
1,3,5-Trimethylbenzene	0.27 J	0.14 J
1,4-Dichlorobenzene	0.16	0.089
Benzene	0.67(f)	0.80(f)
Carbon tetrachloride	0.46(f)	0.48(f)
Chloroform (Trichloromethane)	0.18(f)	0.094 J
cis-1,2-Dichloroethene	0.039 U	0.040
Ethylbenzene	1.1	0.82
m&p-Xylenes	3.9	3.0
Methylene chloride	0.77 U	0.36
Naphthalene	0.095 J	0.17
o-Xylene	1.3	1.0
Styrene	0.23 J	0.24
Tetrachloroethene	0.60	0.20
Toluene	2.5	2.5
trans-1,2-Dichloroethene	0.017 J	0.011 J
Trichloroethene	0.045	0.13
Vinyl chloride	0.11	0.038
Xylenes (total)	5.2	-

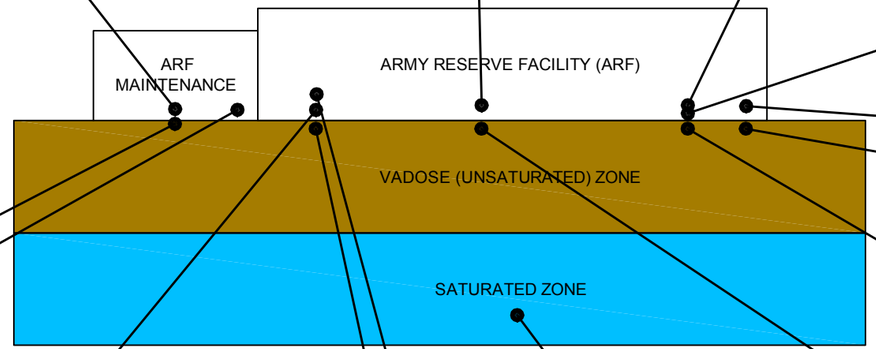
Sub-Slab Probe-19	4/22/2013	3/13/2014
	-	-
1,1,1-Trichloroethane	1.2	0.91
Carbon tetrachloride	6.5(h)	2.3
Chloroform (Trichloromethane)	0.79	0.35 J
Ethylbenzene	0.049 J	0.78 U
m&p-Xylenes	0.20	0.15 J
Naphthalene	0.057 J	0.19 J
o-Xylene	0.065 J	0.072 J
Tetrachloroethene	5.4	5.1
Toluene	0.27 J	2.6
Trichloroethene	0.23	0.45
Xylenes (total)	0.265 J	-

Indoor Air-19P	3/18/2014
	-
1,1,1-Trichloroethane	0.049
1,2,4-Trimethylbenzene	0.27
1,4-Dichlorobenzene	0.093
Benzene	0.64(f)
Ethylbenzene	1.0
m&p-Xylenes	3.8
o-Xylene	1.2
Styrene	0.15
Tetrachloroethene	0.16
Toluene	2.2
Trichloroethene	0.095

Groundwater-77C-25	7/16/2012 25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.50 U
Benzene	0.50 U
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.50 U
cis-1,2-Dichloroethene	3.4
Ethylbenzene	0.50 U
m&p-Xylenes	0.11 J
Methylene chloride	2.0 U
o-Xylene	0.50 U
Tetrachloroethene	0.64
Toluene	0.090 J
trans-1,2-Dichloroethene	0.26 J
Trichloroethene	2.3
Vinyl chloride	0.21 J

Sub-Slab Probe-29	3/13/2014
	-
1,1,1-Trichloroethane	0.60
1,1-Dichloroethene	0.010 J
1,2,4-Trimethylbenzene	0.097 J
1,3,5-Trimethylbenzene	0.035 J
1,4-Dichlorobenzene	0.036 J
Benzene	0.65
Carbon tetrachloride	2.0
Chloroform (Trichloromethane)	0.48
cis-1,2-Dichloroethene	0.033 J
Ethylbenzene	0.087 J
m&p-Xylenes	0.31
Methylene chloride	0.33
Naphthalene	0.096 J
o-Xylene	0.15 J
Styrene	0.093 J
Tetrachloroethene	3.4
Toluene	0.40
trans-1,2-Dichloroethene	0.016 J
Trichloroethene	0.37

Sub-Slab Probe-18	4/22/2013	3/13/2014
	-	-
1,1,1-Trichloroethane	0.19 J	0.16
1,2,4-Trimethylbenzene	4.0 U	0.029 J
1,4-Dichlorobenzene	0.20 U	0.014 J
Carbon tetrachloride	1.9	1.8
Chloroform (Trichloromethane)	0.54 J	0.49
Ethylbenzene	0.047 J	0.039 J
m&p-Xylenes	0.15 J	0.13 J
Naphthalene	0.81 U	0.087 J
o-Xylene	0.056 J	0.047 J
Tetrachloroethene	5.0	4.5
Toluene	0.81 U	1.5
trans-1,2-Dichloroethene	0.20 U	0.012 J
Trichloroethene	1.3	1.6
Xylenes (total)	0.206 J	-



NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 3)

NOTES:
- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.1

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER
ARMY RESERVE FACILITY
VAPOR INVESTIGATION
Occidental Chemical Corporation, Tacoma, Washington

PLANT NORTH

Indoor Air-8	4/24/2013	7/1/2013
	-	-
1,1,1-Trichloroethane	0.030 J/0.029 J	0.050 U
1,1-Dichloroethene	0.040/0.042	-
1,2,4-Trimethylbenzene	1.0/0.98	1.8
1,3,5-Trimethylbenzene	0.31 J/0.32 J	-
1,4-Dichlorobenzene	2.0(a)/1.9(a)	58 J(a)
Benzene	0.68(f)/0.76(f)	0.64(f)
Carbon tetrachloride	0.48(f)/0.44(f)	-
Chloroform (Trichloromethane)	0.26(f)/0.26(f)	-
Ethylbenzene	1.4/1.2	6.9(a)
m&p-Xylenes	4.3/3.7	29
Naphthalene	0.21/0.23	-
o-Xylene	1.8/1.3	9.5
Styrene	0.45 J/0.51 J	1.2
Tetrachloroethene	0.66/0.63	0.79
Toluene	3.2/3.9	3.1
trans-1,2-Dichloroethene	0.035 U/0.051	-
Trichloroethene	0.45/0.44	0.30
Vinyl chloride	0.0060 J/0.0057 J	-
Xylenes (total)	6.1/5	38.5

Outside Air-7B	7/1/2013
	-
1,2,4-Trimethylbenzene	0.71
1,4-Dichlorobenzene	0.61
Benzene	0.48
Ethylbenzene	4.8
m&p-Xylenes	21
o-Xylene	6.8
Styrene	0.52
Tetrachloroethene	0.082
Toluene	1.7
Xylenes (total)	27.8

Outside Air-7	4/24/2013
	-
1,1,1-Trichloroethane	0.028 J
1,2,4-Trimethylbenzene	1.2
1,3,5-Trimethylbenzene	0.38 J
1,4-Dichlorobenzene	0.038 J
Benzene	0.76
Carbon tetrachloride	0.47
Chloroform (Trichloromethane)	0.095 J
Ethylbenzene	0.77 J
m&p-Xylenes	2.3
Naphthalene	0.15 J
o-Xylene	0.89
Tetrachloroethene	0.13 J
Toluene	2.6
Trichloroethene	0.024 J
Xylenes (total)	3.19

Indoor Air-7	4/24/2013	7/1/2013
	-	-
1,1,1-Trichloroethane	0.032 J	0.050 U
1,1-Dichloroethene	0.022 J	-
1,2,4-Trimethylbenzene	4.7(g)	16(g)
1,3,5-Trimethylbenzene	1.5	-
1,4-Dichlorobenzene	0.14 J	1.3(a)
Benzene	0.71(f)	0.65(f)
Carbon tetrachloride	0.45(f)	-
Chloroform (Trichloromethane)	0.19(f)	-
Ethylbenzene	1.0	4.1
m&p-Xylenes	2.9	16
Naphthalene	0.16	-
o-Xylene	1.1	5.6
Styrene	0.35 J	1.9
Tetrachloroethene	4.1	6.9
Toluene	2.6	3.9
Trichloroethene	3.9(a,f,g)	3.1(a,f,g)
Vinyl chloride	0.0042 J	-
Xylenes (total)	4	21.6

Sub-Slab Probe-7	4/24/2013	6/25/2013
	-	-
1,1,1-Trichloroethane	1.2	1.6
1,1,2,2-Tetrachloroethane	0.039 U	0.037 J
1,1-Dichloroethene	0.012 J	0.019 J
1,4-Dichlorobenzene	0.035 J	0.063
Benzene	0.12 U	0.16
Carbon tetrachloride	0.14	0.14
Chloroform (Trichloromethane)	0.15 J	0.37
Ethylbenzene	0.043 J	0.12 J
Hexachlorobutadiene	0.026 J	0.039 U
m&p-Xylenes	0.13 J	0.34
Methylene chloride	0.78 U	0.37
Naphthalene	0.087 J	0.33
o-Xylene	0.035 J	0.17
Styrene	0.78 U	0.30 J
Tetrachloroethene	12	15
Toluene	0.26 J	0.34
trans-1,2-Dichloroethene	0.039 U	0.020 J
Trichloroethene	10(h,i)	14(h,i)
Vinyl chloride	0.039 U	0.0051 J
Xylenes (total)	0.165 J	0.51

BUILDING 326

VADOSE (UNSATURATED) ZONE

SATURATED ZONE

Indoor Air-28	7/1/2013
	-
1,2,4-Trimethylbenzene	10(g)
1,4-Dichlorobenzene	2.2(a)
Benzene	0.64(f)
Ethylbenzene	4.0
m&p-Xylenes	15
o-Xylene	5.0
Styrene	2.1
Tetrachloroethene	4.9
Toluene	4.0
Trichloroethene	2.0(f,g)
Xylenes (total)	20

Groundwater-34-25R	8/20/2012
	25 ft BGS
1,1,2,2-Tetrachloroethane	25 U
1,1-Dichloroethene	15 J
Benzene	25 U
Carbon tetrachloride	25 U
Chloroform (Trichloromethane)	25 U
cis-1,2-Dichloroethene	840
Ethylbenzene	25 U
m&p-Xylenes	25 U
Methylene chloride	11 J
o-Xylene	25 U
Tetrachloroethene	25 U
Toluene	25 U
trans-1,2-Dichloroethene	290
Trichloroethene	25 U
Vinyl chloride	56

NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 4)

NOTES:

- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.2

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER
BUILDING 326
VAPOR INVESTIGATION
Occidental Chemical Corporation, Tacoma, Washington

Indoor Air-10	4/19/2013	3/19/2014
	-	-
1,1,1-Trichloroethane	0.027 J	0.021 J
1,2,4-Trimethylbenzene	6.0(g)	9.4(g)
1,3,5-Trimethylbenzene	1.9	2.5
1,4-Dichlorobenzene	0.026 J	0.047
Benzene	0.82(f)	1.3(f)
Carbon tetrachloride	0.46(f)	0.46(f)
Chloroform (Trichloromethane)	0.12 J(f)	0.082 J
cis-1,2-Dichloroethene	0.042 U	0.022 J
Ethylbenzene	1.3	5.3(a)
m&p-Xylenes	5.4	18
Methylene chloride	0.84 U	0.49
Naphthalene	0.54(a)	0.34
o-Xylene	2.0	5.5
Styrene	6.1	1.6
Tetrachloroethene	0.12	0.32
Toluene	6.3	4.7
Trichloroethene	0.047	0.14
Vinyl chloride	0.042 U	0.049
Xylenes (total)	7.4	-

Indoor Air-39	3/19/2014
	-
1,1,1-Trichloroethane	0.021 J
1,2,4-Trimethylbenzene	7.0(g)
1,3,5-Trimethylbenzene	2.4
1,4-Dichlorobenzene	0.017 J
Benzene	0.95(f)
Carbon tetrachloride	0.39
Chloroform (Trichloromethane)	0.081 J
cis-1,2-Dichloroethene	0.017 J
Ethylbenzene	2.9
m&p-Xylenes	11
Methylene chloride	0.39
Naphthalene	0.24
o-Xylene	3.5
Styrene	1.6
Tetrachloroethene	0.20
Toluene	3.4
Trichloroethene	0.074
Vinyl chloride	0.019 J

Indoor Air-20	4/19/2013
	-
1,1,1-Trichloroethane	0.026 J
1,1,2-Trichloroethane	0.011 J
1,1-Dichloroethene	0.0049 J
1,2,4-Trimethylbenzene	16(g)
1,3,5-Trimethylbenzene	4.7
1,4-Dichlorobenzene	0.032 J
Benzene	0.99(f)
Carbon tetrachloride	0.45(f)
Chloroform (Trichloromethane)	0.11 J
cis-1,2-Dichloroethene	0.016 J
Ethylbenzene	4.3
m&p-Xylenes	18
Naphthalene	0.31
o-Xylene	6.1
Styrene	18
Tetrachloroethene	0.15
Toluene	13
trans-1,2-Dichloroethene	0.024 J
Trichloroethene	0.085
Vinyl chloride	0.0036 J
Xylenes (total)	24.1

Indoor Air-6	4/19/2013	3/19/2014
	-	-
1,1,1-Trichloroethane	0.025 J	0.023 J
1,2,4-Trimethylbenzene	53(b,g)	86(b,g)
1,3,5-Trimethylbenzene	17	28
1,4-Dichlorobenzene	0.036 U	0.026 J
Benzene	0.60(f)	1.0(f)
Carbon tetrachloride	0.35	0.46(f)
Chloroform (Trichloromethane)	0.11 J	0.085 J
cis-1,2-Dichloroethene	0.036 U	0.012 J
Ethylbenzene	3.0	6.1(a)
m&p-Xylenes	13	19
Methylene chloride	0.73 U	0.33
Naphthalene	0.17	0.56(a)
o-Xylene	7.6	9.5
Styrene	88	20
Tetrachloroethene	0.062	0.24
Toluene	8.3	3.3
Trichloroethene	0.040	0.087
Vinyl chloride	0.036 U	0.011 J
Xylenes (total)	20.6	-

Indoor Air-6P	3/19/2014
	-
1,1,1-Trichloroethane	0.020/0.019 J
1,2,4-Trimethylbenzene	8.5 J(g)/8.3 J(g)
1,4-Dichlorobenzene	0.037 J/0.034 J
Benzene	1.0(f)/0.97 J(f)
Ethylbenzene	5.6 J(a)/5.4 J(a)
m&p-Xylenes	14 J/14 J
o-Xylene	6.9 J/6.7 J
Styrene	25 J/24 J
Tetrachloroethene	0.29 J/0.28 J
Toluene	5.2 J/5.0 J
Trichloroethene	0.031/0.030 J

Indoor Air-37	3/19/2014
	-
1,1,1-Trichloroethane	0.021 J
1,2,4-Trimethylbenzene	340(b,g)
1,3,5-Trimethylbenzene	120
1,4-Dichlorobenzene	0.026 J
Benzene	1.2(f)
Carbon tetrachloride	0.46(f)
Chloroform (Trichloromethane)	0.085 J
cis-1,2-Dichloroethene	0.011 J
Ethylbenzene	21(a)
m&p-Xylenes	71
Methylene chloride	0.39
Naphthalene	3.8(a,g)
o-Xylene	44
Styrene	220
Tetrachloroethene	0.19
Toluene	6.4
Trichloroethene	0.059
Vinyl chloride	0.011 J

Indoor Air-38	3/19/2014
	-
1,2,4-Trimethylbenzene	730(b,g)
1,3,5-Trimethylbenzene	340
Benzene	1.3(f)
Carbon tetrachloride	0.17
Chloroform (Trichloromethane)	0.083 J
Ethylbenzene	36(a)
m&p-Xylenes	150
Naphthalene	19(a,b,g)
o-Xylene	90(g)
Styrene	1400(g)
Tetrachloroethene	0.35
Toluene	16
Trichloroethene	0.077 J

Outside Air-6P	3/19/2014
	-
1,1,1-Trichloroethane	0.022
1,2,4-Trimethylbenzene	0.44
1,4-Dichlorobenzene	0.038
Benzene	0.62
Ethylbenzene	1.1
m&p-Xylenes	4.1
o-Xylene	1.2
Styrene	2.7
Tetrachloroethene	0.15
Toluene	1.6
Trichloroethene	0.021

Sub-Slab Probe-10	4/18/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.030 J	0.030 J
1,2,4-Trimethylbenzene	0.74 U	0.049 J
1,3,5-Trimethylbenzene	0.74 U	0.016 J
1,4-Dichlorobenzene	0.037 U	0.024 J
Benzene	0.11 U	0.11 J
Carbon tetrachloride	0.34	0.32
Chloroform (Trichloromethane)	0.11 J	0.047 J
Ethylbenzene	0.043 J	0.081 J
Hexachlorobutadiene	0.26	0.039 U
m&p-Xylenes	0.14 J	0.23
Methylene chloride	0.74 U	0.24
Naphthalene	0.059 J	0.066 J
o-Xylene	0.079 J	0.093 J
Styrene	0.74 U	0.078 J
Tetrachloroethene	0.53	0.49
Toluene	0.20	0.42
Trichloroethene	0.14	0.080
Xylenes (total)	0.219 J	-

Outside Air-9	4/19/2013
	-
1,1,1-Trichloroethane	0.024 J
1,2,4-Trimethylbenzene	0.65 J
Benzene	0.40
Carbon tetrachloride	0.45
Chloroform (Trichloromethane)	0.075 J
Ethylbenzene	0.21
m&p-Xylenes	0.78
Naphthalene	0.047 J
o-Xylene	0.29 J
Styrene	0.64 J
Tetrachloroethene	0.082
Toluene	1.0
Trichloroethene	0.013 J
Xylenes (total)	1.07 J

Outside Air-6	3/19/2014
	-
1,1,1-Trichloroethane	0.020 J/0.021 J
1,1,2,2-Tetrachloroethane	0.039 J/0.039 U
1,2,4-Trimethylbenzene	5.1/6.0
1,3,5-Trimethylbenzene	1.7 J/2.1 J
1,4-Dichlorobenzene	0.034 J/0.025 J
Benzene	0.66/0.68
Carbon tetrachloride	0.47/0.47
Chloroform (Trichloromethane)	0.12 J/0.10 J
cis-1,2-Dichloroethene	0.057/0.037 J
Ethylbenzene	1.0/1.1
m&p-Xylenes	3.5/4.1
Methylene chloride	0.38/0.34
Naphthalene	0.13 J/0.19
o-Xylene	1.3/1.5
Styrene	1.7/1.9
Tetrachloroethene	0.42/0.37
Toluene	1.9/1.8
Trichloroethene	0.80/0.51

Indoor Air-20A	3/19/2014
	-
1,1,1-Trichloroethane	0.021 J
1,2,4-Trimethylbenzene	12(g)
1,3,5-Trimethylbenzene	3.4
1,4-Dichlorobenzene	0.046
Benzene	1.3(f)
Carbon tetrachloride	0.47(f)
Chloroform (Trichloromethane)	0.090 J
cis-1,2-Dichloroethene	0.040 J
Ethylbenzene	3.0
m&p-Xylenes	9.8
Methylene chloride	0.34
Naphthalene	1.7(a,g)
o-Xylene	3.7
Styrene	3.2
Tetrachloroethene	0.32
Toluene	4.5
Trichloroethene	0.14
Vinyl chloride	0.012 J

Indoor Air-9	4/19/2013	3/19/2014
	-	-
1,1,1-Trichloroethane	0.027 J	0.022 J
1,2,4-Trimethylbenzene	56(b,g)	70(b,g)
1,3,5-Trimethylbenzene	17	20
1,4-Dichlorobenzene	0.022 J	0.021 J
Benzene	0.95(f)	1.1(f)
Carbon tetrachloride	0.46(f)	0.47(f)
Chloroform (Trichloromethane)	0.15 U	0.082 J
cis-1,2-Dichloroethene	0.037 U	0.010 J
Ethylbenzene	3.4	12(a)
m&p-Xylenes	15	41
Methylene chloride	0.74 U	0.42
Naphthalene	0.24	0.94(a)
o-Xylene	7.8	20
Styrene	83	31
Tetrachloroethene	0.24	0.18
Toluene	8.2	3.4
Trichloroethene	0.052	0.066
Xylenes (total)	22.8	-

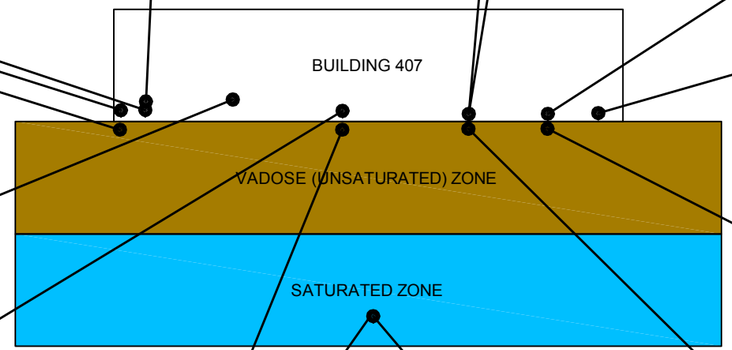
Sub-Slab Probe-9	4/18/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.88	0.79
1,1-Dichloroethene	0.0074 J	0.037 U
1,2,4-Trimethylbenzene	0.68 J	0.33
1,3,5-Trimethylbenzene	0.71 U	0.12 J
1,4-Dichlorobenzene	0.018 J	0.033 J
Benzene	0.11 U	0.32
Carbon tetrachloride	0.25	0.27
Chloroform (Trichloromethane)	0.028 J	0.034 J
Ethylbenzene	0.057 J	0.068 J
Hexachlorobutadiene	1.7(h)	0.037 U
m&p-Xylenes	0.21	0.25
Naphthalene	1.2	0.26
o-Xylene	0.097 J	0.11 J
Styrene	0.62 J	0.53
Tetrachloroethene	2.8	0.69
Toluene	0.33 J	0.19
Trichloroethene	0.15	0.022 J
Xylenes (total)	0.307 J	-

Groundwater-91C-25	7/18/2012
	25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.50 U
Benzene	0.50 U
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.080 J
cis-1,2-Dichloroethene	0.50 U
Ethylbenzene	0.080 J
m&p-Xylenes	0.24 J
Methylene chloride	2.0 U
o-Xylene	0.21 J
Tetrachloroethene	0.50 U
Toluene	0.17 J
trans-1,2-Dichloroethene	0.50 U
Trichloroethene	0.50 U
Vinyl chloride	0.40 J

Groundwater-85C-25	7/20/2012
	25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.50 U
Benzene	0.50 U
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.50 U
cis-1,2-Dichloroethene	0.78
Ethylbenzene	0.50 U
m&p-Xylenes	0.50 U
Methylene chloride	2.0 U
o-Xylene	0.50 U
Tetrachloroethene	0.50 U
Toluene	0.50 U
trans-1,2-Dichloroethene	0.50 U
Trichloroethene	0.50 U
Vinyl chloride	0.50 U

Sub-Slab Probe-6	4/18/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.35	0.32
1,1-Dichloroethene	0.0067 J	0.034 U
1,2,4-Trimethylbenzene	0.31 J	0.64
1,3,5-Trimethylbenzene	0.71 U	0.20
1,4-Dichlorobenzene	0.036 U	0.013 J
Benzene	0.11 U	0.11
Carbon tetrachloride	0.14 J	0.15
Chloroform (Trichloromethane)	0.011 J	0.0095 J
Ethylbenzene	0.044 J	0.080 J
Hexachlorobutadiene	0.34	0.034 U
m&p-Xylenes	0.15	0.16
Naphthalene	0.077 J	0.11 J
o-Xylene	0.068 J	0.084 J
Styrene	1.0	0.13 J
Tetrachloroethene	63	57
Toluene	0.44 J	0.14 U
Trichloroethene	0.31	0.10
Xylenes (total)	0.218 J	-

Sub-Slab Probe-37	3/18/2014
	-
1,1,1-Trichloroethane	4.1
1,1-Dichloroethene	0.060
1,2,4-Trimethylbenzene	32
1,3,5-Trimethylbenzene	8.6
1,4-Dichlorobenzene	0.19
Benzene	0.43
Carbon tetrachloride	0.16
Chloroform (Trichloromethane)	0.042 J
cis-1,2-Dichloroethene	0.0084 J
Ethylbenzene	1.3
m&p-Xylenes	3.3
Methylene chloride	2.9
Naphthalene	2.4
o-Xylene	1.6
Styrene	8.9
Tetrachloroethene	7.1
Toluene	6.1
trans-1,2-Dichloroethene	0.013 J
Trichloroethene	0.40



PLANT NORTH

NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 5)

NOTES:

- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.3

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER BUILDING 407 VAPOR INVESTIGATION

Occidental Chemical Corporation, Tacoma, Washington

PLANT NORTH

Indoor Air-11	4/26/2013	7/1/2013
	-	-
1,1,1-Trichloroethane	0.024 J	0.050 U
1,2,4-Trimethylbenzene	0.60 J	1.9
1,4-Dichlorobenzene	0.13 J	0.69
Benzene	0.63(f)	0.64(f)
Carbon tetrachloride	0.40	-
Chloroform (Trichloromethane)	0.082 J	-
cis-1,2-Dichloroethene	0.020 J	-
Ethylbenzene	1.7	14(a)
m&p-Xylenes	6.9	61 J
Naphthalene	0.23	-
o-Xylene	2.3	21 J
Styrene	0.34 J	2.0
Tetrachloroethene	0.18	0.37
Toluene	21	28 J
trans-1,2-Dichloroethene	0.034 J	-
Trichloroethene	0.10	0.12
Vinyl chloride	0.011 J	-
Xylenes (total)	9.2	82 J(g)

Outside Air-11B	4/26/2013
	-
1,1,1-Trichloroethane	0.025 J
1,2,4-Trimethylbenzene	0.42 J
1,4-Dichlorobenzene	0.15 J
Benzene	0.49
Carbon tetrachloride	0.45
Chloroform (Trichloromethane)	0.080 J
cis-1,2-Dichloroethene	0.054
Ethylbenzene	0.96
m&p-Xylenes	3.8
Naphthalene	0.056 J
o-Xylene	1.0
Tetrachloroethene	0.12 J
Toluene	5.9
Trichloroethene	0.068
Vinyl chloride	0.017 J
Xylenes (total)	4.8

Indoor Air-12	4/20/2013	7/1/2013
	-	-
1,1,1-Trichloroethane	0.032 J	0.050 U
1,2,4-Trimethylbenzene	1.3	1.6
1,3,5-Trimethylbenzene	0.39 J	-
1,4-Dichlorobenzene	5.4(a)	2.2(a)
Benzene	0.71(f)	0.61(f)
Carbon tetrachloride	0.44(f)	-
Chloroform (Trichloromethane)	0.096 J	-
Ethylbenzene	4.7	22 J(a)
m&p-Xylenes	20	89 J
Naphthalene	0.17 J	-
o-Xylene	5.0	32 J
Styrene	0.32 J	0.93
Tetrachloroethene	1.5	0.24
Toluene	55	8.4
Trichloroethene	0.34	0.049
Xylenes (total)	25	121 J(g)

Indoor Air-23	7/1/2013
	-
1,2,4-Trimethylbenzene	2.9
1,4-Dichlorobenzene	87 J(a)
Benzene	1.2(f)
Ethylbenzene	30 J(a)
m&p-Xylenes	100 J
o-Xylene	43 J
Styrene	1.3
Tetrachloroethene	0.43
Toluene	28 J
Trichloroethene	0.046
Xylenes (total)	143 J(g)

Indoor Air-27	7/1/2013
	-
1,2,4-Trimethylbenzene	2.1
1,4-Dichlorobenzene	26 J(a)
Benzene	0.78(f)
Ethylbenzene	26 J(a)
m&p-Xylenes	100 J
o-Xylene	40 J
Styrene	1.3
Tetrachloroethene	0.31
Toluene	11
Xylenes (total)	140 J(g)

BUILDING 532

VADOSE (UNSATURATED) ZONE

SATURATED ZONE

Sub-Slab Probe-11	4/25/2013	6/25/2013
	-	-
1,1,1-Trichloroethane	0.50	0.66
1,1-Dichloroethene	0.039 U	0.028 J
1,2,4-Trichlorobenzene	0.039 U	0.058
1,4-Dichlorobenzene	0.039 U	0.10
Benzene	0.12 U	0.13
Carbon tetrachloride	0.66	0.79
Chloroform (Trichloromethane)	0.049 J	0.15 J
cis-1,2-Dichloroethene	0.039 U	0.060
Ethylbenzene	0.027 J	0.13 J
m&p-Xylenes	0.087 J	0.42
Methylene chloride	0.77 U	0.13 J
Naphthalene	0.15 U	0.31
o-Xylene	0.030 J	0.25
Styrene	0.77 U	0.43 J
Tetrachloroethene	3.2	5.0
Toluene	1.2	0.33
trans-1,2-Dichloroethene	0.039 U	0.063
Trichloroethene	0.27	0.45
Vinyl chloride	0.039 U	0.018 J
Xylenes (total)	0.117 J	0.67

Sub-Slab Probe-12	4/19/2013	6/26/2013
	-	-
1,1,1-Trichloroethane	4.2	4.3
1,1-Dichloroethene	0.058	0.057
1,2,4-Trichlorobenzene	0.041 U	0.062
1,4-Dichlorobenzene	0.13 J	0.12
Benzene	0.12	0.10 J
Carbon tetrachloride	0.16	0.10
Chloroform (Trichloromethane)	0.070 J	0.12 J
cis-1,2-Dichloroethene	0.041 U	0.051
Ethylbenzene	0.34 J	0.12 J
Hexachlorobutadiene	0.89	0.020 J
m&p-Xylenes	1.4	0.33
Methylene chloride	0.82 U	0.17
Naphthalene	0.092 J	0.18
o-Xylene	0.40 J	0.18
Tetrachloroethene	27	30
Toluene	5.0	0.17
trans-1,2-Dichloroethene	0.041 U	0.053
Trichloroethene	0.37	0.30
Vinyl chloride	0.041 U	0.017 J
Xylenes (total)	1.8 J	0.51

Groundwater-61C-25	7/17/2012
	25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.51
Benzene	0.070 J
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.30 J
cis-1,2-Dichloroethene	2.3
Ethylbenzene	0.070 J
m&p-Xylenes	0.31 J
Methylene chloride	0.15 J
o-Xylene	0.19 J
Tetrachloroethene	0.56
Toluene	0.15 J
trans-1,2-Dichloroethene	0.24 J
Trichloroethene	5.9
Vinyl chloride	1.1

Groundwater-78C-25	7/19/2012
	25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.50 U
Benzene	0.50 U
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.50 U
cis-1,2-Dichloroethene	1.5
Ethylbenzene	0.070 J
m&p-Xylenes	0.12 J
Methylene chloride	2.0 U
o-Xylene	0.50 U
Tetrachloroethene	0.50 U
Toluene	0.49 J
trans-1,2-Dichloroethene	0.50 U
Trichloroethene	0.50 U
Vinyl chloride	2.4

Sub-Slab Probe-13	4/19/2013	6/26/2013
	-	-
1,1,1-Trichloroethane	24	23
1,1-Dichloroethene	0.31	0.29
1,4-Dichlorobenzene	0.046	0.066
Benzene	0.13 U	0.10 J
Carbon tetrachloride	0.064	0.062
Chloroform (Trichloromethane)	0.045 J	0.059 J
Ethylbenzene	0.078 J	0.11 J
Hexachlorobutadiene	0.022 J	0.036 U
m&p-Xylenes	0.33	0.43
Methylene chloride	0.86 UJ	0.035 J
Naphthalene	0.85	0.30
o-Xylene	0.087 J	0.28
Tetrachloroethene	20	27
Toluene	1.2	0.17
Trichloroethene	24(h,i)	27(h,i)
Xylenes (total)	0.417 J	0.71

Outside Air-11C	7/1/2013
	-
1,2,4-Trimethylbenzene	0.49
1,4-Dichlorobenzene	0.050
Benzene	0.58
Ethylbenzene	16 J
m&p-Xylenes	67 J
o-Xylene	23 J
Styrene	0.69
Tetrachloroethene	0.084
Toluene	1.7
Xylenes (total)	90 J

Indoor Air-13	4/20/2013	7/1/2013
	-	-
1,1,1-Trichloroethane	0.034 J	0.050 U
1,2,4-Trimethylbenzene	1.1	1.6
1,3,5-Trimethylbenzene	0.36 J	-
1,4-Dichlorobenzene	1.6(a)	2.2(a)
Benzene	0.74(f)	0.86(f)
Carbon tetrachloride	0.45(f)	-
Chloroform (Trichloromethane)	0.078 J	-
Ethylbenzene	5.1(a)	27 J(a)
m&p-Xylenes	22	100 J
Naphthalene	0.20	-
o-Xylene	5.6	40 J
Styrene	0.28 J	1.2
Tetrachloroethene	1.8	0.19
Toluene	59	19 J
Trichloroethene	0.86(f)	0.076
Xylenes (total)	27.6	140 J(g)

Outside Air-11	4/20/2013
	-
1,1,1-Trichloroethane	0.023 J/0.023 J
1,1,2-Trichloroethane	0.027 J/0.14 U
1,1-Dichloroethene	0.013 J/0.035 U
1,2,4-Trichlorobenzene	0.026 J/0.035 U
1,4-Dichlorobenzene	0.060 J/0.039 J
Benzene	0.29/0.34
Carbon tetrachloride	0.39/0.46
Chloroform (Trichloromethane)	0.083 J/0.071 J
cis-1,2-Dichloroethene	0.046 J/0.035 UJ
Ethylbenzene	0.22 J/0.26 J
m&p-Xylenes	0.86/0.99
Naphthalene	0.073 J/0.070 J
o-Xylene	0.27 J/0.31 J
Tetrachloroethene	0.16 J/0.062 J
Toluene	1.4/1.9
trans-1,2-Dichloroethene	0.043 J/0.035 UJ
Trichloroethene	0.085 J/0.023 J
Vinyl chloride	0.014 J/0.035 U
Xylenes (total)	1.13 J/1.3 J

NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 6)

NOTES:

- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.4

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER BUILDING 532 VAPOR INVESTIGATION

Occidental Chemical Corporation, Tacoma, Washington

Indoor Air-1	4/22/2013	7/1/2013	3/18/2014
	-	-	-
1,1,1-Trichloroethane	0.11/0.11	0.053	0.070/0.072
1,1-Dichloroethene	0.0070 J/0.0052 J	-	0.040 U/0.039 U
1,2,4-Trimethylbenzene	2.0/2.1	3.3(g)	1.6/1.4
1,3,5-Trimethylbenzene	0.56 J/0.59 J	-	0.54 J/0.40 J
1,4-Dichlorobenzene	0.055/0.053	0.045 U	0.093/0.093
Benzene	1.0(f)/0.99(f)	1.6(f)	0.85(f)/0.82(f)
Carbon tetrachloride	0.46(f)/0.47(f)	-	0.33 J/0.46 J(f)
Chloroform (Trichloromethane)	0.10 J/0.10 J	-	0.11 J/0.11 J
cis-1,2-Dichloroethene	0.038 U/0.036 U	-	0.15/0.18
Ethylbenzene	2.5/2.4	4.5	2.4/2.2
m&p-Xylenes	9.2/9.0	16	8.5/7.5
Methylene chloride	1.6 J/1.6 J	-	0.78/0.71
Naphthalene	0.41(a)/0.53(a)	-	0.39 J(a)/0.53 J(a)
o-Xylene	3.0/2.7	5.5	2.7/2.4
Styrene	0.34 J/0.36 J	1.2	0.35/0.28
Tetrachloroethene	1.1/1.1	1.1	26(f,g)/23(f,g)
Toluene	16/15	21 J	7.8/7.6
trans-1,2-Dichloroethene	0.038 U/0.036 U	-	0.027 J/0.026 J
Trichloroethene	7.3(a,f,g)/6.6(a,f,g)	1.5(f,g)	3.7(a,f,g)/3.4(a,f,g)
Vinyl chloride	0.038 U/0.036 U	-	0.18/0.17
Xylenes (total)	12.2/11.7	21.5	-

Outside Air-1B	7/1/2013
	-
1,2,4-Trimethylbenzene	0.35
Benzene	0.60
Ethylbenzene	0.50
m&p-Xylenes	1.8
o-Xylene	0.66
Styrene	0.43
Tetrachloroethene	0.070
Toluene	1.4
Trichloroethene	0.48
Xylenes (total)	2.46

Indoor Air-2P	3/18/2014
	-
1,1,1-Trichloroethane	0.034
1,2,4-Trimethylbenzene	0.97 J
1,4-Dichlorobenzene	0.030 J
Benzene	0.92(f)
Ethylbenzene	2.6 J
m&p-Xylenes	7.8 J
o-Xylene	2.6 J
Styrene	0.23 J
Tetrachloroethene	21 J(f,g)
Toluene	8.5 J
Trichloroethene	2.2(f,g)

Indoor Air-2	4/22/2013	7/1/2013	3/18/2014
	-	-	-
1,1,1-Trichloroethane	0.10	0.068	0.058
1,2,4-Trimethylbenzene	1.3	5.3(g)	2.3
1,3,5-Trimethylbenzene	0.48 J	-	0.76
1,4-Dichlorobenzene	0.022 J	0.086	0.030 J
Benzene	1.5(f)	1.7(a,f)	1.1(f)
Carbon tetrachloride	0.47(f)	-	0.45(f)
Chloroform (Trichloromethane)	0.099 J	-	0.22(f)
cis-1,2-Dichloroethene	0.040 U	-	0.14
Ethylbenzene	2.7	6.8(a)	3.1
m&p-Xylenes	9.5	25	11
Methylene chloride	1.3 UJ	-	0.81
Naphthalene	0.067 J	-	0.48(a)
o-Xylene	3.0	8.7	3.6
Styrene	0.26 J	1.1	0.26
Tetrachloroethene	0.95	1.4	55(a,f,g)
Toluene	22	29 J	11
trans-1,2-Dichloroethene	0.040 U	-	0.034 J
Trichloroethene	13(a,b,e,f,g)	1.9(f,g)	8.3(a,f,g)
Vinyl chloride	0.040 U	-	0.16
Xylenes (total)	12.5	33.7	-

Indoor Air-24	7/1/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.050 U	0.035
1,2,4-Trichlorobenzene	-	0.015 J
1,2,4-Trimethylbenzene	4.8(g)	1.2
1,3,5-Trimethylbenzene	-	0.39
1,4-Dichlorobenzene	0.074	0.028 J
Benzene	0.67(f)	0.87(f)
Carbon tetrachloride	-	0.42
Chloroform (Trichloromethane)	-	0.13 J(f)
cis-1,2-Dichloroethene	-	0.16
Ethylbenzene	5.0(a)	2.3
m&p-Xylenes	19	8.1
Methylene chloride	-	0.77
Naphthalene	-	0.31
o-Xylene	6.9	2.5
Styrene	1.0	0.26
Tetrachloroethene	1.1	27(f,g)
Toluene	10	6.6
trans-1,2-Dichloroethene	-	0.043
Trichloroethene	1.2(f,g)	0.56
Vinyl chloride	-	0.20
Xylenes (total)	25.9	-

Indoor Air-40B	3/18/2014
	-
1,1,1-Trichloroethane	0.031 J
1,2,4-Trimethylbenzene	1.5
1,3,5-Trimethylbenzene	0.51
1,4-Dichlorobenzene	0.031 J
Benzene	0.88(f)
Carbon tetrachloride	0.40
Chloroform (Trichloromethane)	0.11 J
cis-1,2-Dichloroethene	0.10
Ethylbenzene	6.5(a)
m&p-Xylenes	26
Methylene chloride	0.77
Naphthalene	0.31
o-Xylene	7.7
Styrene	0.50
Tetrachloroethene	25(f,g)
Toluene	9.2
trans-1,2-Dichloroethene	0.021 J
Trichloroethene	0.78(f)
Vinyl chloride	0.12

Indoor Air-32	3/18/2014
	-
1,1,1-Trichloroethane	0.024 J
1,2,4-Trimethylbenzene	0.93
1,3,5-Trimethylbenzene	0.32
1,4-Dichlorobenzene	0.028 J
Benzene	0.76(f)
Carbon tetrachloride	0.40
Chloroform (Trichloromethane)	0.082 J
cis-1,2-Dichloroethene	0.17
Ethylbenzene	5.2(a)
m&p-Xylenes	22
Methylene chloride	0.53
Naphthalene	0.28
o-Xylene	6.3
Styrene	0.99
Tetrachloroethene	17(f)
Toluene	4.6
trans-1,2-Dichloroethene	0.018 J
Trichloroethene	0.38
Vinyl chloride	0.16

Sub-Slab Probe-1	4/21/2013	6/29/2013	3/17/2014
	-	-	-
1,1,1-Trichloroethane	21	20	16
1,1-Dichloroethene	0.31	0.33	0.17
1,2,4-Trimethylbenzene	0.76 U	0.38 J	0.081 J
1,3,5-Trimethylbenzene	0.76 U	0.76 U	0.025 J
1,4-Dichlorobenzene	0.038 U	0.13	0.029 J
Benzene	0.20	0.33	0.16
Carbon tetrachloride	0.25	0.29	0.25
Chloroform (Trichloromethane)	0.52	0.43	0.39
cis-1,2-Dichloroethene	0.038 U	0.018 J	0.037 U
Ethylbenzene	0.11 J	0.22	0.11 J
m&p-Xylenes	0.38	0.91	0.34
Methylene chloride	0.76 UJ	0.082 J	0.15 U
Naphthalene	0.031 J	0.43	0.17
o-Xylene	0.12 J	0.45	0.11 J
Styrene	0.76 U	0.32 J	0.14 J
Tetrachloroethene	18	24	18
Toluene	0.62 J	0.69	0.37
Trichloroethene	0.48	0.13	0.064
Xylenes (total)	0.5 J	1.36	-

Sub-Slab Probe-2	4/21/2013	6/27/2013	3/17/2014
	-	-	-
1,1,1-Trichloroethane	0.59	0.35	0.37
1,1,2-Trichloroethane	0.0075 J	0.16 U	0.17 U
1,1-Dichloroethene	0.0068 J	0.0078 J	0.043 U
1,2,4-Trimethylbenzene	0.73 U	0.79 U	0.12 J
1,3,5-Trimethylbenzene	0.73 U	0.79 U	0.036 J
1,4-Dichlorobenzene	0.033 J	0.040 U	0.040 J
Benzene	0.11 U	0.069 J	0.059 J
Carbon tetrachloride	0.36	0.31	0.36
Chloroform (Trichloromethane)	0.046 J	0.070 J	0.062 J
cis-1,2-Dichloroethene	0.018 J	0.040 U	0.043 U
Ethylbenzene	0.060 J	0.37	0.086 J
Hexachlorobutadiene	0.026 J	0.040 U	0.043 U
m&p-Xylenes	0.20	1.5	0.30
Methylene chloride	0.73 UJ	0.034 J	0.17 U
Naphthalene	0.077 J	0.32	0.21
o-Xylene	0.066 J	0.51	0.11 J
Styrene	0.73 U	0.79 U	0.10 J
Tetrachloroethene	19	25	23
Toluene	0.39 J	0.40	0.24
Trichloroethene	4.5	0.40	0.30
Xylenes (total)	0.266 J	2.01	-

Sub-Slab Probe-24	3/17/2014
	-
1,1,1-Trichloroethane	3.8
1,1-Dichloroethene	0.041
1,2,4-Trimethylbenzene	0.035 J
1,4-Dichlorobenzene	0.013 J
Benzene	0.10 J
Carbon tetrachloride	2.2
Chloroform (Trichloromethane)	0.12 J
Ethylbenzene	0.034 J
m&p-Xylenes	0.13 J
Naphthalene	0.080 J
o-Xylene	0.047 J
Styrene	0.034 J
Tetrachloroethene	6.9
Trichloroethene	0.054

Groundwater-41C-25	7/16/2012 25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.50 U
Benzene	0.50 U
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.50 U
cis-1,2-Dichloroethene	0.11 J
Ethylbenzene	0.50 U
m&p-Xylenes	0.50 U
Methylene chloride	2.0 U
o-Xylene	0.50 U
Tetrachloroethene	0.50 U
Toluene	0.15 J
trans-1,2-Dichloroethene	0.50 U
Trichloroethene	0.50 U
Vinyl chloride	0.50 U

Indoor Air-34	3/18/2014
	-
1,1,1-Trichloroethane	0.045
1,2,4-Trimethylbenzene	1.3
1,3,5-Trimethylbenzene	0.42
1,4-Dichlorobenzene	0.020 J
Benzene	1.1(f)
Carbon tetrachloride	0.43(f)
Chloroform (Trichloromethane)	0.11 J
cis-1,2-Dichloroethene	0.21
Ethylbenzene	1.8
m&p-Xylenes	6.7
Methylene chloride	1.0
Naphthalene	0.24
o-Xylene	2.2
Styrene	0.22
Tetrachloroethene	38(f,g)
Toluene	6.6
trans-1,2-Dichloroethene	0.031 J
Trichloroethene	0.85(f)
Vinyl chloride	0.27

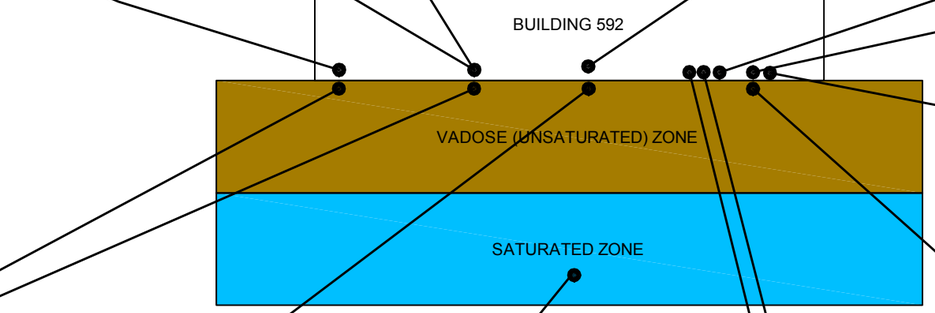
Indoor Air-33	3/18/2014
	-
1,1,1-Trichloroethane	0.030 J
1,1,2,2-Tetrachloroethane	0.041
1,2,4-Trimethylbenzene	1.1
1,3,5-Trimethylbenzene	0.38
1,4-Dichlorobenzene	0.020 J
Benzene	0.83(f)
Carbon tetrachloride	0.44(f)
Chloroform (Trichloromethane)	0.093 J
cis-1,2-Dichloroethene	0.17
Ethylbenzene	1.9
m&p-Xylenes	6.4
Methylene chloride	0.81
Naphthalene	0.39(a)
o-Xylene	2.0
Styrene	0.24
Tetrachloroethene	23(f,g)
Toluene	7.7
trans-1,2-Dichloroethene	0.028 J
Trichloroethene	0.88(f)
Vinyl chloride	0.20

Indoor Air-25	7/1/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.050 U	0.058
1,2,4-Trimethylbenzene	4.2(g)	0.90
1,3,5-Trimethylbenzene	-	0.31
1,4-Dichlorobenzene	0.070	0.026 J
Benzene	0.65(f)	0.83(f)
Carbon tetrachloride	-	0.47(f)
Chloroform (Trichloromethane)	-	0.11 J
cis-1,2-Dichloroethene	-	0.21
Ethylbenzene	4.8	1.7
m&p-Xylenes	18	6.0
Methylene chloride	-	2.2
Naphthalene	-	0.76(a)
o-Xylene	6.7	2.0
Styrene	1.0	0.37
Tetrachloroethene	1.9	55(a,f,g)
Toluene	29 J	6.6
trans-1,2-Dichloroethene	-	0.029 J
Trichloroethene	1.3(f,g)	1.8(f,g)
Vinyl chloride	-	0.25
Xylenes (total)	24.7	-

Outside Air-1	4/22/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.026 J	0.021 J
1,1,2-Trichloroethane	0.0084 J	0.16 U
1,2,4-Trimethylbenzene	0.28 J	0.29
1,3,5-Trimethylbenzene	0.71 U	0.085 J
1,4-Dichlorobenzene	0.027 J	0.014 J
Benzene	0.46	0.65
Carbon tetrachloride	0.50	0.46
Chloroform (Trichloromethane)	0.077 J	0.080 J
cis-1,2-Dichloroethene	0.021 J	0.21
Ethylbenzene	0.25 J	0.49
m&p-Xylenes	0.87	1.8
Methylene chloride	0.71 UJ	0.44
Naphthalene	0.11 J	0.081 J
o-Xylene	0.31 J	0.59
Styrene	0.71 U	0.092 J
Tetrachloroethene	0.13 J	0.41
Toluene	1.5	1.7
trans-1,2-Dichloroethene	0.035 U	0.019 J
Trichloroethene	0.38	0.25
Vinyl chloride	0.035 U	0.29
Xylenes (total)	1.18 J	-

Sub-Slab Probe-32	3/17/2014
	-
1,1,1-Trichloroethane	1.3
Benzene	0.11 J
Carbon tetrachloride	0.21 J
Chloroform (Trichloromethane)	0.095 J
m&p-Xylenes	0.16 J
Naphthalene	0.21 J
Tetrachloroethene	2000(c,d,h,i)
Trichloroethene	2.4

Outside Air-1P	3/18/2014
	-
1,2,4-Trimethylbenzene	0.30
1,4-Dichlorobenzene	0.038
Benzene	0.42
Ethylbenzene	1.4
m&p-Xylenes	5.5
o-Xylene	1.7
Styrene	0.17
Tetrachloroethene	0.26
Toluene	2.1
Trichloroethene	0.050



PLANT NORTH

NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

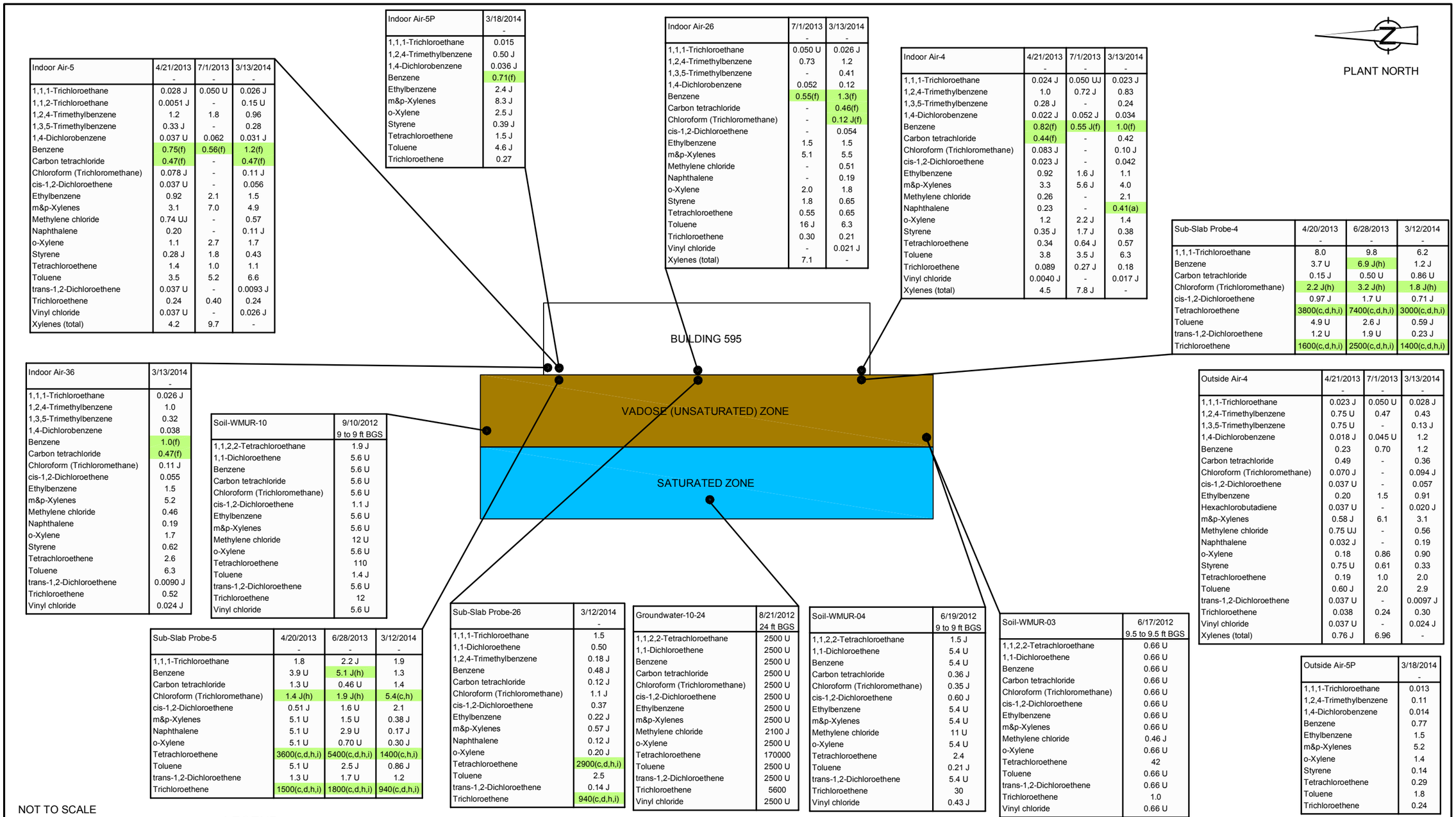
(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 7)

NOTES:
- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.5

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER BUILDING 592 VAPOR INVESTIGATION

Occidental Chemical Corporation, Tacoma, Washington



Indoor Air-5	4/21/2013	7/1/2013	3/13/2014
	-	-	-
1,1,1-Trichloroethane	0.028 J	0.050 U	0.026 J
1,1,2-Trichloroethane	0.0051 J	-	0.15 U
1,2,4-Trimethylbenzene	1.2	1.8	0.96
1,3,5-Trimethylbenzene	0.33 J	-	0.28
1,4-Dichlorobenzene	0.037 U	0.062	0.031 J
Benzene	0.75(f)	0.56(f)	1.2(f)
Carbon tetrachloride	0.47(f)	-	0.47(f)
Chloroform (Trichloromethane)	0.078 J	-	0.11 J
cis-1,2-Dichloroethene	0.037 U	-	0.056
Ethylbenzene	0.92	2.1	1.5
m&p-Xylenes	3.1	7.0	4.9
Methylene chloride	0.74 UJ	-	0.57
Naphthalene	0.20	-	0.11 J
o-Xylene	1.1	2.7	1.7
Styrene	0.28 J	1.8	0.43
Tetrachloroethene	1.4	1.0	1.1
Toluene	3.5	5.2	6.6
trans-1,2-Dichloroethene	0.037 U	-	0.0093 J
Trichloroethene	0.24	0.40	0.24
Vinyl chloride	0.037 U	-	0.026 J
Xylenes (total)	4.2	9.7	-

Indoor Air-5P	3/18/2014
	-
1,1,1-Trichloroethane	0.015
1,2,4-Trimethylbenzene	0.50 J
1,4-Dichlorobenzene	0.036 J
Benzene	0.71(f)
Ethylbenzene	2.4 J
m&p-Xylenes	8.3 J
o-Xylene	2.5 J
Styrene	0.39 J
Tetrachloroethene	1.5 J
Toluene	4.6 J
Trichloroethene	0.27

Indoor Air-26	7/1/2013	3/13/2014
	-	-
1,1,1-Trichloroethane	0.050 U	0.026 J
1,2,4-Trimethylbenzene	0.73	1.2
1,3,5-Trimethylbenzene	-	0.41
1,4-Dichlorobenzene	0.052	0.12
Benzene	0.55(f)	1.3(f)
Carbon tetrachloride	-	0.46(f)
Chloroform (Trichloromethane)	-	0.12 J(f)
cis-1,2-Dichloroethene	-	0.054
Ethylbenzene	1.5	1.5
m&p-Xylenes	5.1	5.5
Methylene chloride	-	0.51
Naphthalene	-	0.19
o-Xylene	2.0	1.8
Styrene	1.8	0.65
Tetrachloroethene	0.55	0.65
Toluene	16 J	6.3
Trichloroethene	0.30	0.21
Vinyl chloride	-	0.021 J
Xylenes (total)	7.1	-

Indoor Air-4	4/21/2013	7/1/2013	3/13/2014
	-	-	-
1,1,1-Trichloroethane	0.024 J	0.050 UJ	0.023 J
1,2,4-Trimethylbenzene	1.0	0.72 J	0.83
1,3,5-Trimethylbenzene	0.28 J	-	0.24
1,4-Dichlorobenzene	0.022 J	0.052 J	0.034
Benzene	0.82(f)	0.55 J(f)	1.0(f)
Carbon tetrachloride	0.44(f)	-	0.42
Chloroform (Trichloromethane)	0.083 J	-	0.10 J
cis-1,2-Dichloroethene	0.023 J	-	0.042
Ethylbenzene	0.92	1.6 J	1.1
m&p-Xylenes	3.3	5.6 J	4.0
Methylene chloride	0.26	-	2.1
Naphthalene	0.23	-	0.41(a)
o-Xylene	1.2	2.2 J	1.4
Styrene	0.35 J	1.7 J	0.38
Tetrachloroethene	0.34	0.64 J	0.57
Toluene	3.8	3.5 J	6.3
Trichloroethene	0.089	0.27 J	0.18
Vinyl chloride	0.0040 J	-	0.017 J
Xylenes (total)	4.5	7.8 J	-

Sub-Slab Probe-4	4/20/2013	6/28/2013	3/12/2014
	-	-	-
1,1,1-Trichloroethane	8.0	9.8	6.2
Benzene	3.7 U	6.9 J(h)	1.2 J
Carbon tetrachloride	0.15 J	0.50 U	0.86 U
Chloroform (Trichloromethane)	2.2 J(h)	3.2 J(h)	1.8 J(h)
cis-1,2-Dichloroethene	0.97 J	1.7 U	0.71 J
Tetrachloroethene	3800(c,d,h,i)	7400(c,d,h,i)	3000(c,d,h,i)
Toluene	4.9 U	2.6 J	0.59 J
trans-1,2-Dichloroethene	1.2 U	1.9 U	0.23 J
Trichloroethene	1600(c,d,h,i)	2500(c,d,h,i)	1400(c,d,h,i)

Indoor Air-36	3/13/2014
	-
1,1,1-Trichloroethane	0.026 J
1,2,4-Trimethylbenzene	1.0
1,3,5-Trimethylbenzene	0.32
1,4-Dichlorobenzene	0.038
Benzene	1.0(f)
Carbon tetrachloride	0.47(f)
Chloroform (Trichloromethane)	0.11 J
cis-1,2-Dichloroethene	0.055
Ethylbenzene	1.5
m&p-Xylenes	5.2
Methylene chloride	0.46
Naphthalene	0.19
o-Xylene	1.7
Styrene	0.62
Tetrachloroethene	2.6
Toluene	6.3
trans-1,2-Dichloroethene	0.0090 J
Trichloroethene	0.52
Vinyl chloride	0.024 J

Soil-WMUR-10	9/10/2012
	9 to 9 ft BGS
1,1,2,2-Tetrachloroethane	1.9 J
1,1-Dichloroethene	5.6 U
Benzene	5.6 U
Carbon tetrachloride	5.6 U
Chloroform (Trichloromethane)	5.6 U
cis-1,2-Dichloroethene	1.1 J
Ethylbenzene	5.6 U
m&p-Xylenes	5.6 U
Methylene chloride	12 U
o-Xylene	5.6 U
Tetrachloroethene	110
Toluene	1.4 J
trans-1,2-Dichloroethene	5.6 U
Trichloroethene	12
Vinyl chloride	5.6 U

Outside Air-4	4/21/2013	7/1/2013	3/13/2014
	-	-	-
1,1,1-Trichloroethane	0.023 J	0.050 U	0.028 J
1,2,4-Trimethylbenzene	0.75 U	0.47	0.43
1,3,5-Trimethylbenzene	0.75 U	-	0.13 J
1,4-Dichlorobenzene	0.018 J	0.045 U	1.2
Benzene	0.23	0.70	1.2
Carbon tetrachloride	0.49	-	0.36
Chloroform (Trichloromethane)	0.070 J	-	0.094 J
cis-1,2-Dichloroethene	0.037 U	-	0.057
Ethylbenzene	0.20	1.5	0.91
Hexachlorobutadiene	0.037 U	-	0.020 J
m&p-Xylenes	0.58 J	6.1	3.1
Methylene chloride	0.75 UJ	-	0.56
Naphthalene	0.032 J	-	0.19
o-Xylene	0.18	0.86	0.90
Styrene	0.75 U	0.61	0.33
Tetrachloroethene	0.19	1.0	2.0
Toluene	0.60 J	2.0	2.9
trans-1,2-Dichloroethene	0.037 U	-	0.0097 J
Trichloroethene	0.038	0.24	0.30
Vinyl chloride	0.037 U	-	0.024 J
Xylenes (total)	0.76 J	6.96	-

Outside Air-5P	3/18/2014
	-
1,1,1-Trichloroethane	0.013
1,2,4-Trimethylbenzene	0.11
1,4-Dichlorobenzene	0.014
Benzene	0.77
Ethylbenzene	1.5
m&p-Xylenes	5.2
o-Xylene	1.4
Styrene	0.14
Tetrachloroethene	0.29
Toluene	1.8
Trichloroethene	0.24

Sub-Slab Probe-5	4/20/2013	6/28/2013	3/12/2014
	-	-	-
1,1,1-Trichloroethane	1.8	2.2 J	1.9
Benzene	3.9 U	5.1 J(h)	1.3
Carbon tetrachloride	1.3 U	0.46 U	1.4
Chloroform (Trichloromethane)	1.4 J(h)	1.9 J(h)	5.4(c,h)
cis-1,2-Dichloroethene	0.51 J	1.6 U	2.1
m&p-Xylenes	5.1 U	1.5 U	0.38 J
Naphthalene	5.1 U	2.9 U	0.17 J
o-Xylene	5.1 U	0.70 U	0.30 J
Tetrachloroethene	3600(c,d,h,i)	5400(c,d,h,i)	1400(c,h,i)
Toluene	5.1 U	2.5 J	0.86 J
trans-1,2-Dichloroethene	1.3 U	1.7 U	1.2
Trichloroethene	1500(c,d,h,i)	1800(c,d,h,i)	940(c,d,h,i)

Sub-Slab Probe-26	3/12/2014
	-
1,1,1-Trichloroethane	1.5
1,1-Dichloroethene	0.50
1,2,4-Trimethylbenzene	0.18 J
Benzene	0.48 J
Carbon tetrachloride	0.12 J
Chloroform (Trichloromethane)	1.1 J
cis-1,2-Dichloroethene	0.37
Ethylbenzene	0.22 J
m&p-Xylenes	0.57 J
Naphthalene	0.12 J
o-Xylene	0.20 J
Tetrachloroethene	2900(c,d,h,i)
Toluene	2.5
trans-1,2-Dichloroethene	0.14 J
Trichloroethene	940(c,d,h,i)

Groundwater-10-24	8/21/2012
	24 ft BGS
1,1,2,2-Tetrachloroethane	2500 U
1,1-Dichloroethene	2500 U
Benzene	2500 U
Carbon tetrachloride	2500 U
Chloroform (Trichloromethane)	2500 U
cis-1,2-Dichloroethene	2500 U
Ethylbenzene	2500 U
m&p-Xylenes	2500 U
Methylene chloride	2100 J
o-Xylene	2500 U
Tetrachloroethene	170000
Toluene	2500 U
trans-1,2-Dichloroethene	2500 U
Trichloroethene	5600
Vinyl chloride	2500 U

Soil-WMUR-04	6/19/2012
	9 to 9 ft BGS
1,1,2,2-Tetrachloroethane	1.5 J
1,1-Dichloroethene	5.4 U
Benzene	5.4 U
Carbon tetrachloride	0.36 J
Chloroform (Trichloromethane)	0.35 J
cis-1,2-Dichloroethene	0.60 J
Ethylbenzene	5.4 U
m&p-Xylenes	5.4 U
Methylene chloride	11 U
o-Xylene	5.4 U
Tetrachloroethene	2.4
Toluene	0.21 J
trans-1,2-Dichloroethene	5.4 U
Trichloroethene	30
Vinyl chloride	0.43 J

Soil-WMUR-03	6/17/2012
	9.5 to 9.5 ft BGS
1,1,2,2-Tetrachloroethane	0.66 U
1,1-Dichloroethene	0.66 U
Benzene	0.66 U
Carbon tetrachloride	0.66 U
Chloroform (Trichloromethane)	0.66 U
cis-1,2-Dichloroethene	0.66 U
Ethylbenzene	0.66 U
m&p-Xylenes	0.66 U
Methylene chloride	0.46 J
o-Xylene	0.66 U
Tetrachloroethene	42
Toluene	0.66 U
trans-1,2-Dichloroethene	0.66 U
Trichloroethene	1.0
Vinyl chloride	0.66 U

NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 8)

NOTES:
- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL ANALYTICAL DATA REPORTED IN µg/kg.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.6

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER
BUILDING 595
VAPOR INVESTIGATION
Occidental Chemical Corporation, Tacoma, Washington

Outside Air-3	3/15/2014
	-
1,1,1-Trichloroethane	0.021 J
1,2,4-Trimethylbenzene	0.32
1,3,5-Trimethylbenzene	0.10 J
1,4-Dichlorobenzene	0.026 J
Benzene	0.67
Carbon tetrachloride	0.43
Chloroform (Trichloromethane)	0.086 J
cis-1,2-Dichloroethene	0.055
Ethylbenzene	4.2
m&p-Xylenes	17
Methylene chloride	0.39
Naphthalene	0.15 J
o-Xylene	4.9
Styrene	0.23
Tetrachloroethene	0.18
Toluene	2.0
Trichloroethene	0.20
Vinyl chloride	0.025 J

Outside Air-1	4/22/2013	3/18/2014
	-	-
1,1,1-Trichloroethane	0.026 J	0.021 J
1,1,2-Trichloroethane	0.0084 J	0.16 U
1,2,4-Trimethylbenzene	0.28 J	0.29
1,3,5-Trimethylbenzene	0.71 U	0.085 J
1,4-Dichlorobenzene	0.027 J	0.014 J
Benzene	0.46	0.65
Carbon tetrachloride	0.50	0.46
Chloroform (Trichloromethane)	0.077 J	0.080 J
cis-1,2-Dichloroethene	0.021 J	0.21
Ethylbenzene	0.25 J	0.49
m&p-Xylenes	0.87	1.8
Methylene chloride	0.71 UJ	0.44
Naphthalene	0.11 J	0.081 J
o-Xylene	0.31 J	0.59
Styrene	0.71 U	0.092 J
Tetrachloroethene	0.13 J	0.41
Toluene	1.5	1.7
trans-1,2-Dichloroethene	0.035 U	0.019 J
Trichloroethene	0.38	0.25
Vinyl chloride	0.035 U	0.29
Xylenes (total)	1.18 J	-

Indoor Air-3	4/22/2013	7/1/2013	3/15/2014
	-	-	-
1,1,1-Trichloroethane	0.34	0.34	0.65
1,2,4-Trimethylbenzene	1.0	2.2	1.2
1,3,5-Trimethylbenzene	0.30 J	-	0.37
1,4-Dichlorobenzene	0.18	1.1	0.34
Benzene	0.85(f)	1.3(f)	1.4(f)
Carbon tetrachloride	0.48(f)	-	0.47(f)
Chloroform (Trichloromethane)	0.27(f)	-	0.13 J(f)
cis-1,2-Dichloroethene	0.032 J	-	0.051
Ethylbenzene	2.6	8.4(a)	4.8
m&p-Xylenes	9.8	32 J	18
Methylene chloride	5.5 J	-	11
Naphthalene	0.37(a)	-	0.70(a)
o-Xylene	3.3	12	5.6
Styrene	0.29 J	1.8	0.55
Tetrachloroethene	2.9	3.0	1.2
Toluene	11	20 J	9.5
trans-1,2-Dichloroethene	0.025 J	-	0.053
Trichloroethene	6.6(a,f,g)	2.9(f,g)	2.8(f,g)
Vinyl chloride	0.0044 J	-	0.021 J
Xylenes (total)	13.1	44 J	-

Indoor Air-21	4/22/2013	7/1/2013	3/15/2014
	-	-	-
1,1,1-Trichloroethane	2.8	0.65	0.79
1,1-Dichloroethene	0.017 J	-	0.010 J
1,2,4-Trimethylbenzene	1.9	4.4(g)	1.2
1,3,5-Trimethylbenzene	0.52 J	-	0.35
1,4-Dichlorobenzene	2.7(a)	6.5(a)	0.73
Benzene	1.1(f)	0.82(f)	1.3(f)
Carbon tetrachloride	0.48(f)	-	0.46(f)
Chloroform (Trichloromethane)	0.088 J	-	0.085 J
cis-1,2-Dichloroethene	0.035 J	-	0.046
Ethylbenzene	2.2	9.9(a)	4.9
m&p-Xylenes	8.5	37 J	19
Methylene chloride	75 J	-	26
Naphthalene	0.46(a)	-	0.71(a)
o-Xylene	2.5	13	5.4
Styrene	0.46 J	2.2	0.48
Tetrachloroethene	12(f)	13(f)	2.6
Toluene	25	37 J	13
trans-1,2-Dichloroethene	0.14 J	-	0.13
Trichloroethene	19(a,b,e,f,g)	15 J(a,b,e,f,g)	7.1(a,f,g)
Vinyl chloride	0.0048 J	-	0.018 J
Xylenes (total)	11	50 J(g)	-

Indoor Air-21P	3/21/2014
	-
1,1,1-Trichloroethane	1.0 J
1,2,4-Trimethylbenzene	1.1 J
1,4-Dichlorobenzene	1.4 J(a)
Benzene	0.93 J(f)
Ethylbenzene	5.4 J(a)
m&p-Xylenes	13 J
o-Xylene	7.1 J
Styrene	0.40 J
Tetrachloroethene	2.1 J
Toluene	8.3 J
Trichloroethene	4.8 J(a,f,g)

Outside Air-3P	3/18/2014	3/21/2014
	-	-
1,1,1-Trichloroethane	0.020	0.026
1,2,4-Trimethylbenzene	0.17	0.15
1,4-Dichlorobenzene	0.026	0.044
Benzene	0.72	0.59
Ethylbenzene	1.4	1.8
m&p-Xylenes	5.1	6.5
o-Xylene	1.6	2.0
Styrene	0.19	0.23
Tetrachloroethene	0.21	0.22
Toluene	1.9	1.3
Trichloroethene	0.11	0.10

PLANT NORTH

BUILDING 596

VADOSE (UNSATURATED) ZONE

SATURATED ZONE

Sub-Slab Probe-3	4/21/2013	6/27/2013	3/14/2014
	-	-	-
1,1,1-Trichloroethane	0.70	0.74	0.45
1,1,2-Trichloroethane	0.0060 J	0.15 U	0.16 U
1,1-Dichloroethene	0.039 U	0.015 J	0.039 U
1,2,4-Trimethylbenzene	0.78 U	0.76 U	0.069 J
1,3,5-Trimethylbenzene	0.78 U	0.76 U	0.023 J
1,4-Dichlorobenzene	0.027 J	0.046	0.032 J
Benzene	0.18	0.54	0.12 U
Carbon tetrachloride	0.32	0.31	0.29
Chloroform (Trichloromethane)	0.041 J	0.079 J	0.046 J
cis-1,2-Dichloroethene	0.039 U	0.038 U	0.028 J
Ethylbenzene	0.081 J	0.53	0.037 J
Hexachlorobutadiene	0.097	0.038 U	0.039 U
m&p-Xylenes	0.31	1.8	0.15 J
Methylene chloride	0.78 UJ	0.59	0.16 U
Naphthalene	0.079 J	0.32	0.16
o-Xylene	0.12 J	0.70	0.054 J
Styrene	0.78 U	0.55 J	0.073 J
Tetrachloroethene	26	35	28
Toluene	0.34 J	2.5	0.098 J
Trichloroethene	0.26	0.15	0.077
Xylenes (total)	0.43 J	2.5	-

Indoor Air-35	3/15/2014
	-
1,1,1-Trichloroethane	0.097
1,2,4-Trimethylbenzene	0.47
1,3,5-Trimethylbenzene	0.13 J
1,4-Dichlorobenzene	0.052
Benzene	0.81(f)
Carbon tetrachloride	0.46(f)
Chloroform (Trichloromethane)	0.083 J
cis-1,2-Dichloroethene	0.042
Ethylbenzene	5.5(a)
m&p-Xylenes	21
Methylene chloride	2.6
Naphthalene	0.24
o-Xylene	6.1
Styrene	0.17
Tetrachloroethene	0.55
Toluene	3.4
trans-1,2-Dichloroethene	0.029 J
Trichloroethene	1.5(f,g)
Vinyl chloride	0.019 J

Groundwater-71-25	7/27/2012 25 ft BGS
1,1,2,2-Tetrachloroethane	0.50 U
1,1-Dichloroethene	0.50 U
Benzene	0.50 U
Carbon tetrachloride	0.50 U
Chloroform (Trichloromethane)	0.50 U
cis-1,2-Dichloroethene	0.12 J
Ethylbenzene	0.11 J
m&p-Xylenes	0.12 J
Methylene chloride	2.0 U
o-Xylene	0.50 U
Tetrachloroethene	0.50 U
Toluene	0.50 U
trans-1,2-Dichloroethene	0.50 U
Trichloroethene	0.50 U
Vinyl chloride	0.50 U

Sub-Slab Probe-35	3/14/2014
	-
1,1,1-Trichloroethane	3.3
1,1-Dichloroethene	0.036
1,2,4-Trimethylbenzene	0.043 J
1,4-Dichlorobenzene	0.024 J
Carbon tetrachloride	0.25
Chloroform (Trichloromethane)	2.6(h)
Ethylbenzene	0.073 J
m&p-Xylenes	0.26
Methylene chloride	0.18
Naphthalene	0.077 J
o-Xylene	0.084 J
Styrene	0.14
Tetrachloroethene	69
Toluene	0.52
Trichloroethene	0.13

NOT TO SCALE

LEGEND

Sub-Slab Probe-5	4/20/2013
	-
Tetrachloroethene	3600
Trichloroethene	1500

SAMPLE LOCATION
SAMPLE DATE
SAMPLE DEPTH
RESULT
PARAMETER

(a) EXCEEDS CRITERIA IDENTIFIED IN PARENTHESIS (SEE TABLE 9)

NOTES:

- AIR ANALYTICAL DATA REPORTED IN µg/m ^{3}
- GROUNDWATER ANALYTICAL DATA REPORTED IN µg/L.
- SOIL AND GROUNDWATER DATA REPRESENTED BY MOST RECENT, SHALLOWEST, AND NEARBY SAMPLES, WHERE AVAILABLE.

figure B.7

BUILDING SPECIFIC CONCENTRATIONS IN AIR, SOIL, AND GROUNDWATER BUILDING 596 VAPOR INVESTIGATION

Occidental Chemical Corporation, Tacoma, Washington