

## 5.2 Soil-Gas Findings

The laboratory analytical results indicate that several VOCs and Total Petroleum Hydrocarbons (TPH) were detected in samples. The detected concentrations were compared to the DEQ RBCs and the concentrations of 1,3-Butadiene in Sample SV1 (18.2 µg/m3) and SS2 (31.6 µg/m3) exceeded the Vapor Intrusion into Buildings RBCs for occupational receptors of 14 µg/m3; however, the duplicate sample for SS2 DUP (12.2 µg/m3) did not exceed the RBCs. A summary of the results for the soil vapor analysis is presented in Table 3. Only analytes that had a detection and have a corresponding RBC, are in the table below. The complete laboratory analytical report is included as Appendix B.

**Table 3 – Soil Vapor Sample Analytical Results**

	<i>SVI</i>	<i>SSI</i>	<i>SS2</i>	<i>SS2 Dup</i>	<i>SS3</i>	<i>SS4</i>	<i>RBC<sub>sv</sub></i> (Occupational)
Depth bsg (feet)	5'	Sub-Slab	Sub-Slab	Sub-Slab	Sub-Slab	Sub-Slab	-
	<b>Result</b> µg/m3	<b>Result</b> µg/m3	<b>Result</b> µg/m3	<b>Result</b> µg/m3	<b>Result</b> µg/m3	<b>Result</b> µg/m3	µg/m3
Benzene	30.7	1.10	36.1	19.9	1.62	0.735	52
1,3-Butadiene	18.2	ND	31.6	12.2	ND	0.394	14
Cyclohexane	28.4	1.02	2.66	1.40	2.60	5.44	880,000
Ethylbenzene	66.8	0.845	8.28	5.81	2.21	0.442	160
Dichlorofluoromethane	2.63	2.48	2.85	2.45	2.61	2.45	15,000
Heptane	53.6	1.05	8.22	4.02	2.73	1.53	58,000
n-Hexane	38.8	2.54	8.00	3.56	2.43	1.39	100,000
Isopropyl benzene (Cumene)	6.00	ND	4.65	3.56	ND	ND	58,000
Methylene Chloride	1.25	14.3	1.45	ND	1.58	0.736	41,000
Methyl Ethyl Ketone (2-Butanone)	70.8	5.34	108	104	4.57	4.36	730,000
2-Propanol	109	5,140	5,430	5,140	740	1,280	Leak Detection Compound
Styrene	1.02	0.651	5.53	5.32	1.05	ND	150,000
Tetrachloroethylene	3.80	9.84	2.18	3.45	0.910	ND	1,600
Toluene	315	5.35	50.1	30.4	34.1	3.33	730,000
1,2,4-Trimethybenzene	118	2.69	53.5	49.6	2.68	1.44	8,800
1,3,5-Trimethybenzene	8.78	0.707	25.0	21.5	0.879	0.486	8,800
Xylenes	377	4.35	35.5	26.1	9.14	2.98	15,000
TPH	2,230	309	8,140	6,320	321	334	40,000

ND = Analyte Not Detected at or above laboratory reporting limit (See Appendix A for reporting limits). All reporting limits are below the RBCs.

µg/m3 = microgram per meter cubed

18.2 = Exceeds Vapor Intrusion into Building RBC

RBC<sub>sv</sub> = Soil-Gas risk-based concentration for Vapor Intrusion into Buildings – Occupational & Residential Pathway. Only analytes with RBCs are listed above, for a complete list, see Appendix B.