MEMORANDUM

TO: Billy Meyer

FROM: Laura Powers, P.E.
C. Chan Bryant, P.E.

DATE: February 1, 2013

PROJECT: BB&T Site, DSCA ID32-0013
1103 W Club Blvd
Durham, NC

SUBJECT: Post Excavation Monthly Update

Withers & Ravenel (W&R) has completed additional post excavation groundwater, soil gas, and indoor air monitoring events at the subject site. The results of the monitoring events are summarized in the following paragraphs.

Groundwater Sampling

On January 3, 2013, W&R sampled seven groundwater monitoring wells including five existing wells (MW-4R, MW-4I, MW-14I, MW-16S, and MW-16I) and the two wells (MW-22S and MW-22I) installed within the footprint of the excavation. Prior to sampling, each well was gauged for depth to water, and purged using low-flow methods. Samples were sent to ESC Laboratories in Mt. Juilet, Tennessee for analysis of volatile organic compounds (VOCs) by EPA Method 8260. According to analytical results, PCE was detected in all sampled monitoring wells, except intermediate well MW-16I, at concentrations that exceed the NC Groundwater Standard of 0.0007 mg/L. To date, PCE concentrations identified both on-site and off-site correspond to concentrations identified in historical sampling events. As part of the conceptual site model, it assumed that areas of DNAPL (liquid phase PCE) are present in the subsurface. All of these areas were not likely removed during the excavation and other areas may exist in the aquifer, which has not been addressed by the injection. If any of these DNAPL areas exist, they will continue to dissolve from a liquid to aqueous phase and reductions in monitoring wells may not be immediately evident. However as the DNAPL areas continue to dissolve the concentrations of PCE should continue to decrease over time. PCE daughter products cis-1,2-dichloroethylene (DCE) and trichloroethylene (TCE) were also detected in monitoring well MW-22I at elevated levels over historical on-site results.

Analytical results also indicated that 2-Butanone (MEK) was detected in shallow source area well MW-22S. The presence of this transient catabolite, in conjunction with observed elevated groundwater concentrations of PCE daughter products, cis-1,2-DCE and TCE, and concentrations of methane in soil vapor, offers evidence that microbial organisms are

active in the aquifer. Thus, the presence of this compound (MEK) in groundwater is evidence that the DARAMEND (a controlled-release carbon and zero valent iron substrate) placed in the floor of the excavation is promoting the breakdown of PCE in groundwater in the source area. The presence of MEK is expected to decrease as the subsurface becomes more reducing as a result of DARAMEND oxidation in the subsurface. The resulting PCE daughter products are also expected to decrease as the subsurface becomes more reducing as a result of DARAMEND reacting in the subsurface. In general, PCE degradation increases as the subsurface becomes more reducing as these conditions are more favorable for the microorganisms responsible for PCE degradation. The presence of MEK and methane gas are strong indicators of a microbially active subsurface and strong reducing environement. Strongly reducing environment's are by nature "anoxic" (depleted of dissolved oxygen).

Soil Gas Sampling

On January 8, 2013, W&R returned to the subject site to complete a second post excavation soil vapor sampling event. The eight soil vapor wells (SV-8S, SV-8I, SV-18S, SV-19S, SV-20S, SV-29S, SV-55S, and SV-55I) were purged prior to gathering field measurements. Field measurements were taken from each soil vapor sampling point, the on-site excavation vent exhaust pipe, and from the exhaust of the Sub-Slab Depressurization (SSD) system operating on the adjacent Triangle Family Church property. Field measurements included total volatile organic compounds (VOCs) measured using a MiniRAE 2000 photo ionization detector (PID), and methane, carbon dioxide, and oxygen measured using a GEM2000 multi-gas meter. Soil vapor samples were then collected from each well using a 1-Liter Summa canister using a flow rate less than 200 cc per minute.

Recorded field measurements indicated that VOCs were detected in all monitored soil vapor wells with the highest concentrations being detected in on-site soil vapor wells SV-8S (1,833 ppm), SV-8I (2,222ppm), SV-55S (295 ppm), and SV-55I (442 ppm). Methane was also detected in all the sampled soil vapor wells (**Figure 3**). Methane detections in off-site wells ranged from 0.3% by volume in soil vapor well SV-29S to 1.3% by volume in well SV-20S. Methane detections in on-site wells ranged from 0.8% by volume in SV-8s to 4.1% by volume in SV-55S. It should be noted that none of the methane concentrations detected in the soil vapor points exceed methane's acceptable concentrations. Methane concentrations of 11.0% by volume were detected in vapors from the passive excavation exhaust vent; however, these concentrations of methane are exhausted to the atmosphere through the stack installed on the source property where they dissipate immediately into the atmosphere. Monitoring conducted at ground level in the immediate vicinity of the exhaust vent did not detect any concentrations of methane. See **Table 3** for a summary of field measurements.

According to analytical results, PCE was detected in all sampled soil vapor wells (**Figure 2**). The on-source property's soil vapor PCE concentrations ranged from 1,600 mg/m^3 (SV-8S) to 39,000 mg/m^3 (SV-8I). The off-source properties' soil vapor PCE concentrations ranged from 2.6 mg/m^3 (SV-19S) to 210 mg/m^3 (SV-20S) for the adjacent 1421 Dollar Avenue property and from 81 mg/m^3 (SV-18S) to 810 mg/m^3 (SV-29S) for the adjacent 1419 Dollar Avenue property. The PCE daughter product TCE was also detected in soil vapor points SV-55S (4.1 mg/m^3) and SV-55I (9.6 mg/m^3) which represents an increase

over the previous sampling event in which no PCE daughter products were detected in these soil vapor points. TCE was not detected in any of the other soil vapor points sampled. All concentrations detected exceed the DSCA Program's soil gas screening levels. See **Table 3** for a summary of soil vapor analytical results.

Indoor Air Sampling

Radiello samplers were deployed in the residences located at 1419 and 1421 Dollar Avenue on November 6, 2012. These samplers were recovered and submitted for analysis of targeted compounds to Air Toxics Ltd in Folsom, California on December 5, 2012. Analytical results for these samples indicate that PCE was detected in the basements of 1419 and 1421 Dollar Avenue residences at a concentration of 7.0 and 11.0 ug/m^3, respectively. Analytical results are summarized in **Table 5** and **Table 6**. According to the attached DSCA Risk Calculator worksheets for Resident, these concentrations do not exceed target risk limit for carcinogenic risk (1.0E-05) or the non-carcinogenic hazard index (1.0). The DSCA Risk Calculators are included in the **Attachment A**. Although concentrations of TCE were detected in soil vapor points adjacent to the residences, TCE was not detected in collected indoor air samples. Radiello samplers were deployed again in the two residences on January 2, 2013. These samplers will be collected for analysis on February 1, 2013.

Two indoor air ambient air samples were collected from the Triangle Family Church (1414 Watts Street) on January 13, 2013. The 3-hour indoor (1414-Front and 1414-Rear) samples were collected using 6-Liter Summa canisters during the church's Sunday service from 9:30 am until 12:30 pm. The samples were submitted to ESC Laboratories in Mt. Juilet, Tennessee for analysis of volatile organic compounds (VOCs) by method TO-15. The HVAC system was not utilized during the sampling event and the front door to the building was kept open during the sampling event.

According to analytical results, PCE was detected in the indoor air sample from the front of the building (1414-Front) and the sanctuary (1414-Rear) at concentrations of 61 and 180 µg/m^3, respectively (**Figure 3**). The analytical results are summarized in **Table 4**. A cumulative risk of 7.1 $x10^{-7}$ and a hazard index of 0.07 was calculated based on a residential exposure unit with 10.5-hours per week exposure time, which is typical of a Triangle Family Church parishioner. The risk calculation is included in the **Attachment A**.

Due to the detection of methane in the adjacent soil vapor well (SV-55S), a GEM2000 multi-gas meter was utilized to monitor for concentrations of carbon dioxide and methane within the Triangle Family Church during the soil vapor sampling event. No detectable concentrations of carbon dioxide or methane were detected inside the church or in the outside ambient air. Relatively low concentrations of methane (1.0%) were detected in the effluent of the sub-slab depressurization currently operating in the building.

Upcoming Sampling Events

Groundwater, soil vapor, and indoor air monitoring will continue as scheduled over the next six months until remediation activities resume at the site with injection of EHC in the groundwater source area. W&R will also continue screening for methane in soil vapor,

indoor air, and out door ambient air at the subject site and adjacent properties on a monthly basis to ensure methane levels do not exceed acceptable standards. Additional sampling will be performed should screening results exceed the acceptable standards. The current schedule is provided in **Attachment B.** All proposed dates for sampling are subject to minor delays from wet weather. Project updates with sampling results will be provided to the public after each sampling event.

ATTACHMENTS

TABLES

Table 1: Groundwater Elevation Data **ADT 1**

DSCA ID No.: 32-0013

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	TOC Elevation [feet]	Depth to Water [feet bgs]	Groundwater Elevation [feet]	Depth to NAPL [feet bgs]	NAPL Thickness [feet]	Corrected* Groundwater Elevation [feet]
MW-1R	5/30/2007	374.67	20.27	354.40	N/A	N/A	354.40
	1/9/2008		26.63	348.04	N/A	N/A	348.04
	2/24/2009		24.85	349.82	N/A	N/A	349.82
	5/15/2009		22.51	352.16	N/A	N/A	352.16
	8/4/2009		23.86	350.81	N/A	N/A	350.81
	11/25/2009		26.96	347.71	N/A	N/A	347.71
	5/17/2012		24.25	350.42	N/A	N/A	350.42
MW-1I	11/9/2009	374.70	25.77	348.93	N/A	N/A	348.93
	11/25/2009		25.53	349.17	N/A	N/A	349.17
	5/17/2012		23.74	350.96	N/A	N/A	350.96
MW-1D	1/8/2008	374.69	24.17	350.52	N/A	N/A	350.52
	2/24/2009		23.69	351.00	N/A	N/A	351.00
	5/15/2009		23.55	351.14	N/A	N/A	351.14
	8/4/2009		23.64	351.05	N/A	N/A	351.05
	11/25/2009		23.99	350.70	N/A	N/A	350.70
	5/17/2012		23.88	350.81	N/A	N/A	350.81
MW-2R	5/30/2007	373.63	15.69	357.94	N/A	N/A	357.94
	1/9/2008		18.65	354.98	N/A	N/A	354.98
	2/24/2009		18.50	355.13	N/A	N/A	355.13
	5/15/2009		16.98	356.65	N/A	N/A	356.65
	8/4/2009		17.14	356.49	N/A	N/A	356.49
	11/25/2009		18.11	355.52	N/A	N/A	355.52
	5/17/2012		18.44	355.19	N/A	N/A	355.19
MW-3R	5/31/2007	373.48	17.78	355.70	N/A	N/A	355.70
	1/9/2008		20.47	353.01	N/A	N/A	353.01
	2/24/2009		20.52	352.96	N/A	N/A	352.96
	5/15/2009		19.07	354.41	N/A	N/A	354.41
	8/4/2009		19.37	354.11	N/A	N/A	354.11
	11/25/2009		19.45	354.03	N/A	N/A	354.03
	5/17/2012		20.27	353.21	N/A	N/A	353.21
MW-3I	11/9/2009	373.08	20.65	352.43	N/A	N/A	352.43
	11/25/2009		19.98	353.10	N/A	N/A	353.10
	5/17/2012		20.54	352.54	N/A	N/A	352.54
	1/23/2013		22.00	351.08	N/A	N/A	351.08
MW-4R	5/31/2007	375.24	20.79	354.45	N/A	N/A	354.45
	1/9/2008		27.27	347.97	N/A	N/A	347.97
	2/24/2009		25.40	349.84	N/A	N/A	349.84
	5/15/2009		23.26	351.98	N/A	N/A	351.98
	8/4/2009		24.55	350.69	N/A	N/A	350.69
	11/25/2009		27.56	347.68	N/A	N/A	347.68
	1/3/2013		28.45	346.79	N/A	N/A	346.79
MW-4I	11/9/2009	375.13	26.46	348.67	N/A	N/A	348.67
	11/25/2009		25.94	349.19	N/A	N/A	349.19
	1/3/2013		27.47	347.66	N/A	N/A	347.66
	1/23/2013		25.86	349.27	N/A	N/A	349.27
MW-5R	5/31/2007	373.93	17.00	356.93	N/A	N/A	356.93
	1/9/2008		19.83	354.10	N/A	N/A	354.10
	2/24/2009		19.86	354.07	N/A	N/A	354.07
	5/15/2009		18.24	355.69	N/A	N/A	355.69
	8/4/2009		18.57	355.36	N/A	N/A	355.36
	11/25/2009		18.97	354.96	N/A	N/A	354.96
MW-5D	1/9/2008	373.90	20.41	353.49	N/A	N/A	353.49
	2/24/2009		20.21	353.69	N/A	N/A	353.69
	5/15/2009		18.80	355.10	N/A	N/A	355.10
	8/4/2009		19.02	354.88	N/A	N/A	354.88
	11/25/2009		19.95	353.95	N/A	N/A	353.95

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MW-6	1/9/2008	375.06	19.80	355.26	N/A	N/A	355.26
	2/24/2009		19.25	355.81	N/A	N/A	355.81
	5/15/2009		17.70	357.36	N/A	N/A	357.36
	8/4/2009		18.77	356.29	N/A	N/A	356.29
	11/25/2009		19.60	355.46	N/A	N/A	355.46
	1/23/2013		21.57	353.49	N/A	N/A	353.49
MW-7	1/16/2008	380.47	31.81	348.66	N/A	N/A	348.66
	2/24/2009		30.02	350.45	N/A	N/A	350.45
	5/15/2009		28.29	352.18	N/A	N/A	352.18
	8/4/2009		29.30	351.17	N/A	N/A	351.17
	11/25/2009		31.59	348.88	N/A	N/A	348.88
MW-8	1/9/2008	383.64	32.60	351.04	N/A	N/A	351.04
	2/24/2009		33.20	350.44	N/A	N/A	350.44
	5/15/2009		29.89	353.75	N/A	N/A	353.75
	8/4/2009		29.89	353.75	N/A	N/A	353.75
	11/25/2009		32.48	351.16	N/A	N/A	351.16
MW-9	1/9/2008	372.10	27.48	344.62	N/A	N/A	344.62
	2/24/2009		28.01	344.09	N/A	N/A	344.09
	5/15/2009		24.77	347.33	N/A	N/A	347.33
	8/4/2009		17.23	354.87	N/A	N/A	354.87
	11/25/2009		26.87	345.23	N/A	N/A	345.23
MW-10	9/3/2008	372.13	15.24	356.89	N/A	N/A	356.89
	2/24/2009		15.60	356.53	N/A	N/A	356.53
	5/15/2009		14.14	357.99	N/A	N/A	357.99
	8/4/2009		14.14	357.99	N/A	N/A	357.99
	11/25/2009		14.92	357.21	N/A	N/A	357.21
	5/17/2012		15.60	356.53	N/A	N/A	356.53
	1/23/2013		17.25	354.88	N/A	N/A	354.88
MW-11	9/3/2008	369.76	19.96	349.80	N/A	N/A	349.80
	2/24/2009		19.71	350.05	N/A	N/A	350.05
	5/15/2009		18.70	351.06	N/A	N/A	351.06
	8/4/2009		19.88	349.88	N/A	N/A	349.88
	11/25/2009		19.27	350.49	N/A	N/A	350.49
	1/23/2013		21.17	348.59	N/A	N/A	348.59
MW-12	9/3/2008	370.52	20.88	349.64	N/A	N/A	349.64
	2/24/2009		20.12	350.40	N/A	N/A	350.40
	5/15/2009		18.79	351.73	N/A	N/A	351.73
	8/4/2009		19.75	350.77	N/A	N/A	350.77
	11/25/2009		20.85	349.67	N/A	N/A	349.67
	1/23/2013		21.96	348.56	N/A	N/A	348.56
MW-13	9/3/2008	366.31	17.37	348.94	N/A	N/A	348.94
	2/24/2009		16.84	349.47	N/A	N/A	349.47
	5/15/2009		15.66	350.65	N/A	N/A	350.65
	8/4/2009		16.21	350.10	N/A	N/A	350.10
	11/25/2009		17.03	349.28	N/A	N/A	349.28
MW-14S	11/9/2009	381.33	38.08	343.25	N/A	N/A	343.25
	5/17/2012		31.49	349.84	N/A	N/A	349.84
	1/3/2013		34.72	346.61	N/A	N/A	346.61
MW-14I	11/9/2009	381.35	37.07	344.28	N/A	N/A	344.28
	5/17/2012		31.48	349.87	N/A	N/A	349.87
	1/3/2013		33.73	347.62	N/A	N/A	347.62
MW-15S	11/9/2009	375.43	28.48	346.95	N/A	N/A	346.95
MW-15I	11/9/2009	375.55	25.87	349.68	N/A	N/A	349.68
	1/23/2013		28.68	346.87	N/A	N/A	346.87
MW-16S	11/10/2009	382.41					
	5/17/2012		34.46	347.95	N/A	N/A	347.95
	1/3/2013		35.81	346.60	N/A	N/A	346.60
MW-16I	11/10/2009	382.48	35.15	347.33	N/A	N/A	347.33
	5/17/2012		35.15	347.33	N/A	N/A	347.33
	1/3/2013		35.78	346.70	N/A	N/A	346.70
	1/23/2013		35.10	347.38	N/A	N/A	347.38

Table 1: Groundwater Elevation Data **ADT 1**

DSCA ID No.: 32-0013

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	TOC Elevation [feet]	Depth to Water [feet bgs]	Groundwater Elevation [feet]	Depth to NAPL [feet bgs]	NAPL Thickness [feet]	Corrected* Groundwater Elevation [feet]
MW-17S	11/25/2009	384.02	36.33	347.69	N/A	N/A	347.69
MW-17I	11/25/2009	384.06	35.76	348.30	N/A	N/A	348.30
MW-18	11/25/2009	376.13	28.83	347.30	N/A	N/A	347.30
	5/17/2012		26.32	349.81	N/A	N/A	349.81
MW-19	11/25/2009	374.47	19.45	355.02	N/A	N/A	355.02
	1/23/2013		20.96	353.51	N/A	N/A	353.51
MW-20S	1/24/2010	379.33	22.47	356.86	N/A	N/A	356.86
MW-20I	1/24/2010	379.40	23.14	356.26	N/A	N/A	356.26
MW-22S	1/3/2013	373.03	23.93	349.10	N/A	N/A	349.1
	1/23/2013		22.35	350.68	N/A	N/A	350.68
MW-22I	1/3/2013	373.33	22.70	350.63	N/A	N/A	350.63
	1/23/2013		22.72	350.61	N/A	N/A	350.61

Table 2: Analytical Data for Groundwater **ADT 2**

DSCA ID No.: 32-0013

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethanae	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane (EDC)	Benzene	Benzo(a)pyrene	Carbon tetrachloride	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)	2-Butanone (MEK)	Acetone
		[mg/L]																					
DW-1	11/19/93	BDL	BDL	**0.039**	BDL	BDL	BDL	BDL	BDL	BDL	**0.0034**	BDL	BDL	BDL	BDL	**0.68**	BDL	BDL	**0.0044**	BDL	BDL	BDL	BDL
RW-1	11/19/93	BDL	BDL	**0.0009**	BDL	BDL	BDL	BDL	BDL	BDL	**0.0016**	BDL	BDL	BDL	BDL	**0.51**	BDL	BDL	**0.0022**	BDL	BDL	BDL	BDL
MW-1	10/14/93	BDL	BDL	**0.083**	BDL	BDL	**0.0026**	BDL	BDL	BDL	**0.0053**	BDL	BDL	BDL	BDL	**5.5**	BDL	BDL	**0.01**	BDL	BDL	BDL	BDL
MW-1R	5/30/07	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NT	<0.25	<1.2	<0.25	<0.25	<0.25	<1.2	**42**	<1.2	<0.25	<0.25	<0.25	<0.75	<2.5	<12
	1/9/08	<0.001	<0.001	<0.001	<0.001	**0.0015**	<0.001	<0.001	NT	<0.001	**0.0092**	**0.0049**	<0.001	<0.001	<0.005	**130**	**0.0054**	<0.001	**0.044**	<0.001	**0.0036**	<0.01	<0.05
	2/24/09	<1	<1	<1	<1	<1	<1	<1	NT	<1	<5	<1	<1	<1	<5	**110**	<5	<1	<1	<1	<3	<10	<50
	5/15/09	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	NT	<0.5	<2.5	<0.5	<0.5	<0.5	<2.5	**96**	<2.5	<0.5	<0.5	<0.5	<1.5	<5.0	<25
	8/4/09	<0.001	**0.0020**	**0.0163**	<0.001	<0.001	<0.001	<0.001	NT	<0.001	**0.0066**	**0.0044**	**0.0012**	<0.001	**0.0051**	**69**	**0.046**	<0.001	**0.0173**	<0.001	**0.0024**	<0.005	<0.025
	5/17/12	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	**0**	<0.05	<0.25	<0.05	<0.05	<0.05	<0.25	**18**	<0.25	<0.05	<0.05	<0.05	<0.15	<0.01	<0.05
MW-1I	11/10/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.224**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/17/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	**0**	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.035**	<0.005	<0.001	**0.0011**	<0.001	<0.003	<0.01	<0.05
MW-1D	1/8/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	**0.038**	<0.001	<0.001	<0.001	<0.005	**0.0019**	<0.001	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	2/24/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.017**	<0.001	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.022**	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<.05
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	BDL	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0013**	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.025
MW-2	10/14/93	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.001**	BDL	BDL	BDL	BDL	**0.63**	BDL	BDL	**0.0013**	BDL	BDL	BDL	BDL
	7/1/04	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.022**	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-2R	5/30/07	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NT	<0.25	<1.2	<0.25	<0.25	<0.25	<1.2	**0.005**	<1.2	<0.25	<0.25	<0.25	<0.75	<2.5	<12
	1/9/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	**0.0034**	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	<.05
	5/17/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.011**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-3	10/14/93	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.095**	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-3R	5/31/07	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NT	<0.25	<1.2	<0.25	<0.25	<0.25	<1.2	<0.001	<1.2	<0.25	<0.25	<0.25	<0.75	<2.5	<12
	1/8/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	**0.063**	<0.001	<0.001	<0.001	<0.001	<0.002	<0.01	<0.001
	2/24/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.019**	<0.001	<0.001	<0.001	<0.001	<0.003	<0.005	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.018**	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.05
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.0166**	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.025
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.019**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-3I	11/10/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.1761**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	**0.0019**	<0.001	**1.8**	<0.005	**0.093**	<0.005	<0.001	**0.0012**	<0.001	<0.003	<0.01	<0.05
MW-4	11/19/93	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**0.3**	BDL	BDL	**0.0012**	BDL	BDL	BDL	BDL
MW-4R	5/31/07	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NT	<0.25	<1.2	<0.25	<0.25	<0.25	<1.2	**0.51**	<1.2	<0.25	<0.25	<0.25	<0.75	<2.5	<12
	1/8/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	**0.31**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
	2/24/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.25**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.005	<0.001
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.19**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.005	<0.001
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	**0.203**	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.025
	5/17/12	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	NT	<0.005	<0.025	<0.005	<0.005	<0.005	<0.025	**0.73**	<0.025	<0.005	<0.005	<0.005	<0.015	<0.01	<0.05
	1/3/13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.2**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
MW-4I	11/10/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.0492**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/17/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.02**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	1/3/13	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.018**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-5R	5/31/07	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NT	<0.25	<1.2	<0.25	<0.25	<0.25	<1.2	**8**	<1.2	<0.25	<0.25	<0.25	<0.75	<2.5	<12
	1/8/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	**0.0085**	<0.001	<0.001	<0.001	<0.005	**64**	<0.001	<0.001	**0.06**	<0.001	**0.0037**	<0.001	<0.001
	2/24/09	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	NT	<0.5	<2.5	<0.5	<0.5	<0.5	<2.5	**78**	<2.5	<0.5	<0.5	<0.5	<1.5	<5.0	<25
	9/16/09	NT	NT	NT	NT	<0.1	NT	<0.1	NT	NT	NT	<0.1	<0.1	NT	NT	**42**	<0.1	<0.1	**0.031**	<0.1	<0.1	NT	NT
	5/18/12	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	NT	<0.25	<1.2	<0.25	<0.25	<0.25	<1.2	**44**	<1.2	<0.25	<0.25	<0.25	<0.75	<0.01	<0.05

Note: J= Concentration below method detection limit
NT = Not Tested

Table 5: Analytical Data for Groundwater **ADT 5**

DSCA ID No.: 32-0013

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethanae	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichloroethane (EDC)	Benzene	Benzo(a)pyrene	Carbon tetrachloride	Chloroform	cis-1,2-Dichloroethylene	Ethylbenzene	Methyl tert-butyl ether (MTBE)	Naphthalene	Tetrachloroethylene	Toluene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride	Xylenes (total)	2-Butanone (MEK)	Acetone
		[mg/L]																					
MW-5D	1/8/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	**0.0074**	<0.001	<0.001	<0.001	<0.005	**0.17**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
	9/16/09	NT	NT	NT	NT	<0.001	NT	<0.001	NT	NT	NT	<0.001	<0.001	NT	NT	**0.0773**	<0.001	<0.001	**0.00026**	<0.001	<0.001	NT	NT
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.066**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-6	1/8/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
	2/24/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.018**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.001
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.025
MW-7	1/16/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
	2/24/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0046**	NT	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	**0.0069**	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.025
MW-8	1/9/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
MW-9	1/9/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0019**	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	<0.05
MW-10	9/3/08	**0.0064**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.05	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	**0.25**	**0.046**	<0.001	**0.2**	<0.01	<0.05
	2/24/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.11**	NT	<0.01	<0.05	**0.01**	**0.059**	**0.26**	<0.05	<0.01	<0.05	<0.01	<0.01	<0.01	**0.063**	<0.05	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	**0.049**	NT	<0.001	<0.005	<0.001	**0.17**	<0.001	**0.019**	<0.001	**0.013**	<0.001	<0.001	<0.001	**0.1**	<0.01	**0.210**
	8/4/09	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.012**	NT	<0.002	<0.002	<0.002	**0.282**	**0.0234**	**0.0743**	<0.002	**0.0102**	<0.002	<0.002	<0.002	**0.264**	**0.1410**	<0.025
	5/17/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	**0.0026**	NT	<0.001	<0.005	<0.001	**0.021**	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	**0.022**	**<0.01**	<0.05
MW-11	9/3/08	<0.001	<0.001	<0.001	<0.001	**0.0026**	<0.001	<0.001	NT	<0.001	<0.05	**0.83**	<0.001	**0.023**	<0.005	**0.047**	<0.005	**0.0093**	**0.16**	**0.02**	<0.003	<0.01	<0.05
	2/24/09	<0.001	<0.001	<0.001	<0.001	**0.001**	<0.001	<0.001	NT	<0.001	<0.005	**0.38**	<0.001	**0.012**	<0.005	**0.051**	<0.005	**0.0058**	**0.15**	**0.01**	<0.003	<0.005	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	**0.0012**	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	**0.017**	<0.005	**0.052**	<0.005	**0.0085**	**0.017**	<0.001	**0.0078**	<0.01	<0.001
	8/4/09	<0.001	<0.001	<0.001	<0.001	**0.0012**	<0.001	<0.001	NT	<0.001	<0.005	**0.739**	<0.001	**0.0185**	<0.001	**0.0587**	<0.001	**0.009**	**0.224**	**0.0113**	<0.002	<0.005	<0.025
MW-12	9/3/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	**0.0031**	NT	<0.001	<0.05	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	**0.0011**	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.01	<0.001
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.01	<0.025
MW-13	9/3/08	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.05	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	2/24/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	5/15/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.01	<0.05
	8/4/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.005	<0.05
MW-14S	11/10/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.023**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	1/3/13	DRY																					
MW-14I	11/9/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	1/3/13	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.0015**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-15S	11/9/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**7.05**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW-15I	11/9/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.00835**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MW-16S	11/10/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.0706**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.083**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	1/3/13	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	**0.096**	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-16I	11/10/09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NT	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/18/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
	1/3/12	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-17S	11/25/09	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	NT	<0.001	**0.017**	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-17I	11/25/09	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	NT	<0.001	**0.017**	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-18	11/25/09	<0.025	<0.025	<0.025	<0.01	<0.025	<0.025	<0.025	NT	<0.025	<0.12	<0.025	<0.025	<0.025	<0.12	**0.72**	<0.12	<0.025	<0.025	<0.025	<0.075	<0.25	<1.2
	5/18/12	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	NT	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	**0.79**	<0.05	<0.01	<0.01	<0.01	<0.03	<0.01	<0.05
MW-19	11/25/09	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-20S	1/28/10	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-20I	1/28/10	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	NT	<0.001	**0.0052**	<0.001	<0.001	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.003	<0.01	<0.05
MW-22S	1/3/13	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	NT	<0.001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001	**0.077**	<0.001	<0.001	**0.0065**	<0.003	**5.70**	**0.54**
	1/9/13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NT	<0.05	<0.05	**0.056**	<0.05	<0.05	<0.05	**0.37**	**0.34**	<0.05	<0.05	<0.05	<0.15	**6.9**	<2.5
MW-22I	1/3/13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NT	<0.05	<0.05	**2.8**	<0.05	<0.05	<0.05	**67**	<0.005	<0.001	**1.4**	<0.001	<0.003	**1.3**	<0.005
	1/9/13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**4.1**	<0.5	<0.5	<0.5	**70**	<0.5	<0.5	<0.5	<0.5	<1.5	<5.0	<25

Note: J= Concentration below method detection limit
NT = Not Tested

Table 3: Soil Vapor Point Field Measurements						ADT 3
DSCA ID No.: 32-0013						
Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	Total Volatile Organic Compounds (VOC)	Methane	Carbon Dioxide	Oxygen
			ppm	%	%	%
SV-8S	5.00	11/27/12	427	0.1	1.7	20.0
		1/8/13	1833	0.8	2.2	18.7
SV-8I	17.00	11/27/12	>9,999	0.0	2.5	18.8
		1/8/13	2222	1.3	2.8	18.3
SV-18S	5.00	11/27/12	22.3	0.0	2.5	19.2
		1/8/13	51.1	0.4	0.0	21.5
SV-19S	5.00	11/27/12	2.25	0.0	10.8	11.5
		1/8/13	4.50	0.6	9.1	13.3
SV-20D	20.00	1/8/13	11.10	0.4	7.6	15.2
SV-20S	5.00	11/27/12	75.5	0.0	6.3	16.1
		1/8/13	15.0	1.3	5.0	16.9
SV-29S	5.00	11/27/12	344	0.0	1.9	19.9
		1/8/13	96.3	0.3	2.0	19.8
SV-55S	5.00	11/27/12	430	0.2	0.2	21.1
		1/8/13	295	4.1	3.0	14.7
SV-55I	17.00	11/27/12	12	4.1	0.6	12.4
		1/8/13	442	3.6	2.0	12.1
Vent Exhaust Pipe		11/27/12	38.0	12.5	11.1	9.7
		1/8/13	173	11.0	9.3	10.6
TFC SSD System Effluent		11/27/12	2.4	0.1	0.0	21.0
		1/8/13	159	1.0	0.0	21.1

Table 4: Analytical Data for Soil Gas **ADT 4**

DSCA ID No.: 32-0013

Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	cis-1,2-Dichloroethylene	Tetrachloroethylene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride
			(mg/m^3)				
SV-5	5	5/29/2009	< 3.17	**1898.30**	< 3.171	< 4.30	< 2.04
		5/16/2012	< 1.5853	**2440.67**	< 1.585	2.15	1.02
SV-6	5	5/29/2009	< 7.93	**19.66**	< 7.926	< 10.7	< 5.11
SV-7	5	5/29/2009	< 6.34	**3,050**	< 6.341	< 8.59	< 4.09
SV-8S	5	5/29/2009	< 6.34	**2,580**	< 6.341	< 8.59	< 4.09
		5/16/2012	< 0.0634	**88**	< 0.063	< 0.0859	< 0.0409
		11/27/2012	< 7.93	**1000**	< 7.93	**12**	< 5.11
		1/8/2013	< 1.82	**1600**	< 1.82	< 2.14	< 1.02
SV-8I	17	11/27/2012	< 63.4	**9500**	< 63.4	< 85.7	< 40.9
		1/8/2013	< 36.3	**39000**	< 36.3	< 42.9	< 20.4
SV-17	5	7/29/2009	< 0.0306	**28.8**	< 0.030	< 0.0411	< 0.0196
		5/16/2012	< 0.0317	**56.3**	< 0.032	< 0.0430	< 0.0204
SV-18	5	9/10/2009	< 0.0016	**105**	< 0.0016	**0.0113**	< 0.001
		11/17/2009	< 0.0717	**21.42**	< 0.138	< 0.097	< 0.0452
		5/17/2012	< 1.5853	**2372.87**	< 1.585	< 2.15	< 1.02
		11/27/2012	< 0.0634	**57**	< 0.0634	< 0.0857	< 0.0409
		1/8/2013	< 0.0363	**81**	< 0.0363	< 0.0429	< 0.0204
SV-19	5	9/10/2009	< 0.0147	**3.93**	< 0.0147	< 0.0176	< 0.0083
		5/16/2012	< 0.0016	**2.10**	< 0.0147	< 0.0176	< 0.0083
		11/27/2012	< 0.00634	**2.1**	< 0.00634	< 0.00857	< 0.00409
		1/8/2013	< 0.00182	**2.6**	< 0.00182	< 0.00214	< 0.00102
SV-20S	8	11/17/2009	< 0.0694	**257**	< 0.133	< 0.0940	< 0.0437
		5/16/2012	< 0.0634	**136**	< 0.063	< 0.0859	0.0409
		11/27/2012	< 0.0634	**120**	< 0.0634	< 0.0857	< 0.0409
		1/8/2013	< 0.0726	**210**	< 0.0726	**0.1**	< 0.0409
SV-20D	20	11/17/2009	< 0.0717	**0.786**	< 0.138	< 0.0972	< 0.0452
		5/16/2012	0.0634	**196.610**	0.063	0.0859	0.0409
SV-21S	8	11/17/2009	< 0.0694	**79.3**	< 0.133	< 0.0940	< 0.0437
		5/16/2012	< 0.0159	**39**	< 0.016	< 0.0215	0.0102
SV-21D	20	11/17/2009	< 0.0115	**19.5**	< 0.022	< 0.0156	< 0.0074
		5/16/2012	< 0.0634	**136**	< 0.063	< 0.0859	< 0.0409
SV-25S		5/16/2012	< 0.0016	**0.0183**	< 0.002	< 0.0021	< 0.0010
SV-25D		5/16/2012	< 0.0016	**0.4610**	< 0.002	< 0.0021	< 0.0010
SV-27S	8	12/7/2009	< 0.0229	**413**	< 0.0229	**0.0602 J**	< 0.0671
		5/16/2012	< 1.5853	**2169**	< 1.5853	< 2.1487	< 2.7119
SV-27D	20	12/7/2009	< 0.0334	**290**	< 0.0334	**0.115 J**	< 0.0976
		5/16/2012	< 6.3411	**67796**	< 6.3411	< 8.595	< 10.8474
SV-28D	20	1/7/2010	< 0.000183	**0.0123**	< 0.000183	**0.0004 J**	< 0.000534
		5/16/2012	< 0.006341	**17.6271**	< 0.006341	< 0.008595	< 0.010847
SV-29S	8	11/17/2009	< 0.0694	**2,190**	< 0.133	< 0.0940	< 0.116
		5/17/2012	< 1.5853	**2,169**	< 1.585	< 2.1487	< 2.712
		11/27/2012	< 0.634	**610**	< 0.634	< 0.857	< 0.409
		1/8/2013	< 0.726	**810**	< 0.726	< 0.857	< 0.409
SV-29D	20	11/17/2009	< 2.22	**1,460**	< 4.280	< 3.0027	< 3.72
		5/17/2012	< 6.34	**1,460**	< 6.341	< 8.5946	< 10.85
SV-36S	8	1/8/2010	< 0.00428	**463**	< 0.00428	**0.0272** J	< 0.0125
		5/17/2012	< 0.63411	**1220**	< 0.63411	< 0.8595	< 1.0847
SV-36D	20	1/8/2010	**0.0156 J**	**303**	**0.013911 J**	**0.0741 J**	< 0.0126
		5/17/2012	< 0.63411	**1017**	< 0.63411	< 0.8595	< 1.0847

Table 4: Analytical Data for Soil Gas **ADT 4**

DSCA ID No.: 32-0013

Sample ID	Depth [feet bgs]	Sampling Date (mm/dd/yy)	cis-1,2-Dichloroethylene	Tetrachloroethylene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl chloride
			(mg/m^3)				
SV-43S	8	1/8/2010	**0.000606 J**	**1.87**	**0.000480 J**	**0.000725 J**	**0.001206 J**
		5/16/2012	< 0.015853	**50.85**	< 0.015853	< 0.021487	< 0.010221
SV-43D	20	1/8/2010	< 0.000173	**0.00111 J**	< 0.000173	< 0.000356	**0.00764**
		5/16/2012	< 0.006341	**45**	< 0.006341	< 0.008595	< 0.00409
SV-49S	8	1/7/2010	**0.0198**	**0.0237**	**0.00185 J**	**0.00816**	**0.119**
		5/16/2012	< 0.0016	**0.0353**	< 0.00159	**0.00489**	**< 0.001**
SV-49D	14.5	1/7/2010	< 0.0002	**0.000485 J**	**0.000193 J**	< 0.000371	< 0.000198
		5/16/2012	< 0.0016	**0.0258**	< 0.00159	**0.00645**	< 0.001
SV-50	7.5	1/7/2010	< 0.00460	**0.00963 J**	< 0.00460	< 0.00951	< 0.00506
		5/16/2012	< 0.0634	**4.881**	< 0.063	< 0.0859	< 0.0409
SV-55S	5	11/27/2012	< 0.634	**1200**	< 0.634	< 0.857	< 0.409
		1/8/2013	< 1.820	**2500**	< 1.820	**4.1**	< 1.02
SV-55I	17	11/27/2012	< 6.34	**6800**	< 6.34	< 8.57	< 4.09
		1/8/2013	< 7.26	**6200**	< 7.26	**9.6**	< 4.09
BV-1 (upwind)	NA	1/8/2010	< 0.000182	**0.000519 J**	**0.000260 J**	< 0.000411	**0.000221 J**

Notes:

Samples collected prior to 2012 were reported in ppb per laboratory analysis; the above mg/m^3 concentrations were calculated via the following formula: mg/m3 = ppbv * .001 / (substance molecular weight / 24.46)

BOLD = Value above laboratory detection limit.

NA = Not Analyzed

NS = Not Sampled

J = Indicates an analytical result between MDL and the LOQ. A J flag indicates that the laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.

* = Data are erroneous; replaced defective/leaking probe shutoff valve on 3/2/10.

No sample was removed from probes SV-53S and SV-53D due to failure of probe (no sample could be removed - both probes were attempted and vacuum remained unchanged start to finish of duration)

Table 5: Analytical Data for Indoor Air (1419 Dollar St) **ADT 5**

DSCA ID No.: 32-0013

Sample ID	Sampling Date (mm/dd/yy)	Sampling Type	Sampling Durration	cis-1,2-Dichloroethylene ($\mu g/m^3$)	Tetrachloroethylene ($\mu g/m^3$)	trans-1,2-Dichloroethylene ($\mu g/m^3$)	Trichloroethylene ($\mu g/m^3$)	Vinyl chloride ($\mu g/m^3$)
1419-UP (first floor)	11/10/2009	Summa	24 hour	**3.73**	**16.3**	< 5.15	**7.52**	< 1.74
	11/16/2009	Summa	24 hour	**0.27**	**9.15**	< 0.04	**0.07 J**	< 0.015
	11/24/2009	Summa	24 hour	**4.36**	**21.69**	< 5.15	**5.91**	< 1.738
	12/28/2009	Summa	24 hour	< 0.04	**3.13**	< 0.0749	**0.193 J**	< 0.0141
	3/30/2010	Summa	24 hour	**0.511**	**2.71**	< 0.0324	**0.0501**	< 0.0123
	1/7/2011	Summa	24 hour	< 0.0790	**4.800**	< 0.079	< 0.11	< 0.051
	1/7/2011	Radiello	24 hour	< 1.700	**5.20**	< 1.700	< 1.00	< 2.70
	2/14/2011 to 3/14/2011	Radiello	30 days	< 0.060	**3.1**	< 0.060	< 0.036	< 0.096
	3/17/2011 to 4/14/2011	Radiello	28 days	< 0.060	**4.8**	< 0.060	< 0.036	< 0.096
	9/1/2011 to 10/5/2011	Radiello	1 month	< 0.049	**5.8**	< 0.049	< 0.029	< 0.079
	1/13/2012 to 2/13/2012	Radiello	1 month	< 0.060	**6.7**	< 0.060	< 0.036	< 0.096
	5/16/2012	Summa	24 hour	< 0.079	**17.0**	< 0.079	< 0.11	< 0.051
	4/18/2012 to 5/21/2012	Radiello	1 month	< 0.051	**5.4**	< 0.051	< 0.030	< 0.082
	11/6/12 to 12/5/12	Radiello	1 month	< 0.077	**6.0**	< 0.080	< 0.035	< 0.110
1419-DOWN (basement)	11/10/2009	Summa	24 hour	< 55.09	**54.24 J**	< 106.21	**63.39 J**	< 35.006
	11/16/2009	Summa	24 hour	**0.162**	**8.47**	< 0.0346	**0.0460 J**	< 0.014
	11/24/2009	Summa	24 hour	**4.4**	**18**	< 5.15	**5.9**	< 1.7
	12/28/2009	Summa	24 hour	< 0.030	**1.78**	< 0.030	**0.021 J**	< 0.0114
	3/30/2010	Summa	24 hour	< 0.0347	**2.83**	< 0.0347	**0.0219 J**	< 0.0132
	1/7/2011	Summa	24 hour	< 0.0790	**5.200**	< 0.079	< 0.11	< 0.051
	1/7/2011	Radiello	24 hour	< 1.70	**5.70**	< 1.70	< 1.00	< 2.70
	2/14/2011 to 3/14/2011	Radiello	30 days	< 0.060	**6.6**	< 0.060	< 0.036	< 0.096
	3/17/2011 to 4/14/2011	Radiello	28 days	< 0.060	**8.6**	< 0.060	< 0.036	< 0.096
	9/1/2011 to 10/5/2011	Radiello	1 month	< 0.049	**12.0**	< 0.049	< 0.029	< 0.079
	1/13/2012 to 2/13/2012	Radiello	1 month	< 0.060	**5.1**	< 0.060	< 0.036	< 0.096
	5/16/2012	Summa	24 hour	< 0.079	**12.0**	< 0.079	< 0.11	< 0.051
	4/18/2012 to 5/21/2012	Radiello	1 month	< 0.051	**10.0**	< 0.051	< 0.030	< 0.082
	11/6/12 to 12/5/12	Radiello	1 month	< 0.077	**7.3**	< 0.080	< 0.035	< 0.110

Table 5: Analytical Data for Indoor Air (1419 Dollar St) **ADT 5**

DSCA ID No.: 32-0013

Sample ID	Sampling Date (mm/dd/yy)	Sampling Type	Sampling Durration	cis-1,2-Dichloroethylene ($\mu g/m^3$)	Tetrachloroethylene ($\mu g/m^3$)	trans-1,2-Dichloroethylene ($\mu g/m^3$)	Trichloroethylene ($\mu g/m^3$)	Vinyl chloride ($\mu g/m^3$)
1419-SUMP	3/30/2010	Summa	24 hour	< 0.0310	**0.581**	< 0.0310	**0.0318 J**	< 0.0142
BG-1419 Dollar	3/30/2010	Summa	24 hour	< 0.0332	**0.369**	< 0.0332	**0.0198 J**	< 0.0126
	1/7/2011	Summa	24 hour	< 0.0790	**1.000**	< 0.079	< 0.11	< 0.051
	1/7/2011	Radiello	24 hour	< 1.700	< 1.00	< 1.700	< 1.00	< 2.70
	2/14/2011 to 3/14/2011	Radiello	30 days	< 0.0600	**0.35**	< 0.0600	< 0.0360	< 0.0960
	3/17/2011 to 4/14/2011	Radiello	28 days	< 0.0600	**0.42**	< 0.0600	< 0.0360	< 0.0960
	11/6/12 to 12/5/12	Radiello	1 month	< 0.077	**1.2**	< 0.080	< 0.035	< 0.110

NOTES:

BOLD = Analyte above detection limit.

NA = Not Analyzed

(Radiello Sampling) Only Tetrachloroethylene and Trichloroethylene are quantified numbers. According to AirToxics, values for all other comounds are both "Estimated" or J-flagged, and "Non-Detects" because Radiello has not published sampling rates for these compounds; as such, the sampling rate for chloroform and a variation of Grahams Law were used to generate the values for these three compounds shown above.

J = Estimated concentration above adjusted method detection limit and below the adjusted reporting limit.

BG = Background Sample (and location)

Table 6: Analytical Data for Indoor Air (1421 Dollar St) **ADT 6**

DSCA ID No.: 32-0013

Sample ID	Sampling Date (mm/dd/yy)	Sampling Type	Sampling Durration	cis-1,2-Dichloroethylene ($\mu g/m^3$)	Tetrachloroethylene ($\mu g/m^3$)	trans-1,2-Dichloroethylene ($\mu g/m^3$)	Trichloroethylene ($\mu g/m^3$)	Vinyl chloride ($\mu g/m^3$)
1421-UP (first floor)	10/6/2009	Summa	24 hour	< 1.10	**4.70**	< 1.10	1.50	< 1.865
	11/10/2009	Summa	24 hour	< 2.93	**6.24**	< 5.55	**8.59**	< 1.865
	11/16/2009	Summa	24 hour	**0.14**	**2.23**	< 0.03	**0.04 J**	< 0.0126
	11/24/2009	Summa	24 hour	**4.76**	**10.85**	< 5.15	**8.06**	< 1.738
	12/28/2009	Summa	24 hour	< 0.034	**0.64**	< 0.03	**0.03 J**	**0.017 J**
	1/13/2010	Summa	24 hour	< 0.029	**0.98**	< 0.029	**0.033 J**	< 0.0110
	3/2/2010	Summa	24 hour	< 0.0296	**0.564**	< 0.0296	**0.0125 J**	< 0.0113
	6/3/2010	Summa	24 hour	< 0.0352	**1.07**	< 0.0352	**0.0302 J**	< 0.0134
	1/7/2011	Summa	24 hour	< 0.0790	**2.200**	< 0.079	< 0.11	< 0.051
	1/7/2011	Radiello	24 hour	< 1.700	**2.30**	< 1.700	< 1.00	< 2.70
	9/1/2011 to 10/5/2011	Radiello	1 month	< 0.0490	**3.7**	< 0.0490	< 0.0290	< 0.0790
	1/13/2012 to 2/13/2012	Radiello	1 month	< 0.0600	**1.1**	< 0.0600	< 0.0360	< 0.0960
	5/16/2012	Summa	24 hour	**0.75**	**2.5**	< 0.079	< 0.11	< 0.051
	4/20/2012 to 5/21/2012	Radiello	1 month	< 0.054	**1.6**	< 0.054	< 0.032	< 0.087
	11/6/12 to 12/5/12	Radiello	1 month	< 0.077	6.7	< 0.080	< 0.035	< 0.110
1421-DOWN (basement)	10/6/2009	Summa	24 hour	< 21.7	**86.40**	< 21.70	**18.9 J**	< 13.900
	11/10/2009	Summa	24 hour	< 2.8	**9.49**	< 5.15	< 3.8	< 1.738
	11/16/2009	Summa	24 hour	**0.07**	**3.32**	< 0.03	**0.0430 J**	< 0.013
	11/24/2009	Summa	24 hour	**3.84**	**11.53**	< 5.15	**7.0**	< 1.738
	12/28/2009	Summa	24 hour	< 0.033	**0.71**	< 0.033	**0.0215 J**	**0.0154 J**
	1/13/2010	Summa	24 hour	< 0.0298	**1.32**	< 0.030	**0.0327 J**	< 0.0113
	3/2/2010	Summa	24 hour	< 0.0279	**0.929**	< 0.0279	**0.0119 J**	< 0.0106
	6/3/2010	Summa	24 hour	< 0.0348	**2.44**	< 0.0348	**0.0184 J**	< 0.0132
	1/7/2011	Summa	24 hour	< 0.0790	**2.900**	< 0.079	< 0.11	< 0.051
	1/7/2011	Radiello	24 hour	< 1.700	**3.50**	< 1.700	< 1.00	< 2.70
	9/1/2011 to 10/5/2011	Radiello	1 month	< 0.0490	**7.0**	< 0.0490	< 0.0290	< 0.0790
	1/13/2012 to 2/13/2012	Radiello	1 month	< 0.0600	**1.9**	< 0.0600	< 0.0360	< 0.0960
	5/16/2012	Summa	24 hour	**0.21**	**5.6**	< 0.079	< 0.11	< 0.051
	4/20/2012 to 5/21/2012	Radiello	1 month	< 0.054	**4.3**	< 0.054	< 0.032	< 0.087
	11/6/12 to 12/5/12	Radiello	1 month	< 0.077	**11**	< 0.080	< 0.035	< 0.110
BG-1421 Dollar	3/2/2010	Summa	24 hour	< 0.0269	**0.649**	< 0.0269	**0.0119 J**	< 0.0102

NOTES:

BOLD = Analyte above detection limit.

NA = Not Analyzed

J = Estimated concentration above adjusted method detection limit and below the adjusted reporting limit.

(Radiello Sampling) Only Tetrachloroethylene and Trichloroethylene are quantified numbers. According to AirToxics, values for all other comounds are both "Estimated" or J-flagged, and "Non-Detects" because Radiello has not published sampling rates for these compounds; as such, the sampling rate for chloroform and a variation of Grahams Law were used to generate the values for these three compounds shown above.

BG = Background Sample (and location)

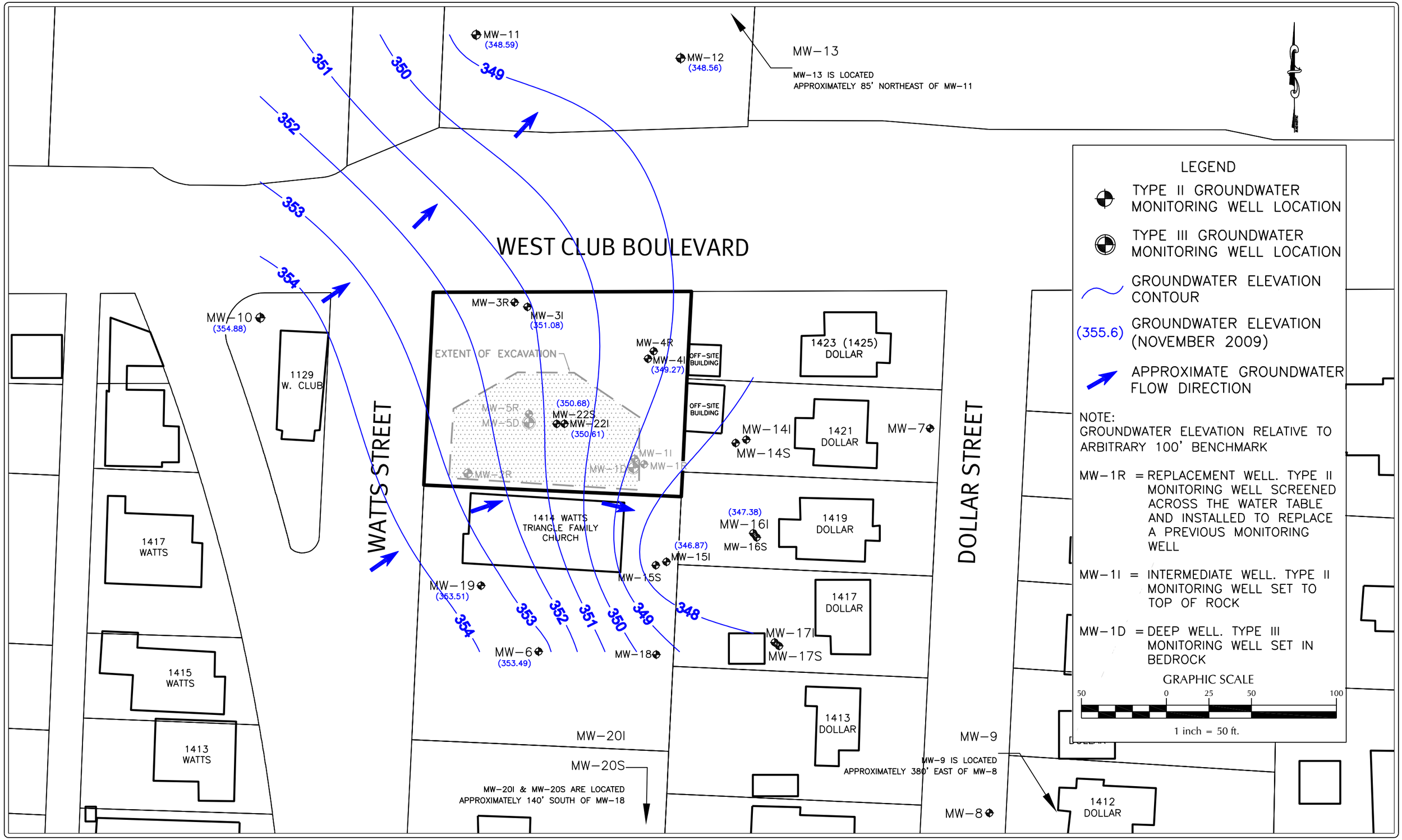
Table 7: Analytical Data for Indoor Air - 1414 Watts St. **ADT 7**

DSCA ID No.: 32-0013

Sample ID	Sampling Date (mm/dd/yy)	Sampling Type	Sampling Durration	cis-1,2-Dichloroethylene ($\mu g/m^3$)	Tetrachloroethylene ($\mu g/m^3$)	trans-1,2-Dichloroethylene ($\mu g/m^3$)	Trichloroethylene ($\mu g/m^3$)	Vinyl chloride ($\mu g/m^3$)
IA-5 (South End Sanctuary) 1414 Watts	7/29/2009	Summa	3 hour	< 33.5	**814**	< 33.5	< 45.4	< 21.6
1414-Front (North End Meeting Room) 1414 Watts	7/16/2009	Summa	1 hour	< 3.17	**508**	< 3.17	< 4.30	< 2.044
	7/29/2009	Summa	3 hour	< 31.90	**692**	< 31.9	< 43.2	< 20.6
	3/15/2010	Summa	6 hour	< 0.0336	**163**	< 95.5	**0.0892**	< 0.0128
	3/16/2010	Sub-Slab Depressurization System Installed						
	4/9/2010	Summa	6 hour	< 0.0336	**213**	< 0.0336	**0.0785**	< 0.0128
	5/7/2010	Summa	6 hour	< 0.0305	**90**	**0.105**	**0.0741**	< 0.0116
	5/7/2010 to 5/14/2010	Radiello	7 day	< 0.24 J	**89**	< 0.24 J	< 0.15	< 0.383 J
	3/10/2011 to 3/17/2011	Radiello	7 day	< 0.15	**19**	< 0.15	< 0.091	< 0.240
	7/11/2011 to 8/12/2011	Radiello	30 day	< 0.05	**100**	< 0.05	< 0.031	< 0.084
	9/25/2011	Summa	3 hour	**1.7**	**55**	**0.24**	**1.3**	< 0.051
	1/29/2012	Summa	3 hour	**0.48**	**28**	< 0.079	**0.42**	< 0.051
	4/22/2012	Summa	3 hour	**1.80**	**5.4**	< 0.079	< 0.11	< 0.051
	11/11/2012	Summa	3 hour	< 0.079	**320**	< 0.079	< 0.11	< 0.051
	1/13/2013	Summa	3 hour	< 0.079	**61**	< 0.079	< 0.11	< 0.051
1414-Rear (West End Sanctuary)	7/29/2009	Summa	3 hour	< 34.9	**841**	< 34.9	< 47.3	< 22.5
	12/8/2009	Summa	6 hour	< 0.2	**99**	< 0.2	< 0.395	< 0.21
	3/15/2010	Summa	6 hour	< 0.0345	**181**	< 0.0345	**0.0870**	< 0.0131
	3/16/2010	Sub-Slab Depressurization System Installed						
	4/9/2010	Summa	6 hour	< 0.0348	**143**	< 0.0348	**0.0403 J**	< 0.0132
	5/7/2010	Summa	6 hour	< 0.0344	**104**	**0.0979**	**0.0714**	< 0.0131
	5/7/2010 to 5/14/2010	Radiello	7 day	< 0.24 J	**120**	< 0.24 J	< 0.15	< 0.38 J
	3/10/2011 to 3/17/2011	Radiello	7 day	< 0.15	**30**	< 0.15	< 0.091	< 0.24
	7/11/2011 to 8/12/2011	Radiello	30 day	< 0.052	**110**	< 0.052	< 0.031	< 0.084
	9/25/2011	Summa	3 hour	**1.4**	**95**	< 0.079	**0.17**	< 0.051
	1/29/2012	Summa	3 hour	**2.6**	**81**	< 0.079	< 0.11	< 0.051
	4/22/2012	Summa	3 hour	**1.2**	**25**	< 0.079	< 0.11	< 0.051
	11/11/2012	Summa	3 hour	< 0.079	**190**	< 0.079	< 0.11	< 0.051
	1/13/2013	Summa	3 hour	< 0.079	**180**	< 0.079	< 0.11	< 0.051
1414-Chase (Beneath Building) 1414 Watts	3/10/2011 to 3/17/2011	Radiello	7 day	< 0.15	**31**	< 0.15	< 0.091	< 0.24
BG-1414 (Mech Room)	5/7/2010	Summa	6 hour	< 0.0338	**2.12**	< 0.0338	**0.0162 J**	< 0.0129
	5/7/2010 to 5/14/2010	Radiello	7 day	< 0.24 J	**2.1**	< 0.24 J	< 0.15	< 0.38 J
1414-Background	3/10/2011 to 3/17/2011	Radiello	7 day	< 0.15	**0.36**	< 0.15	< 0.091	< 0.24
	11/11/2012	Summa	3 hour	< 0.079	**0.38**	< 0.079	< 0.11	< 0.051

NOTES:
BOLD = Analyte above detection limit.
NA = Not Analyzed
J = Estimated concentration above adjusted method detection limit and below the adjusted reporting limit.
BG = Background Sample (and location)

FIGURES



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Revisions			
No.	Description	Date	By

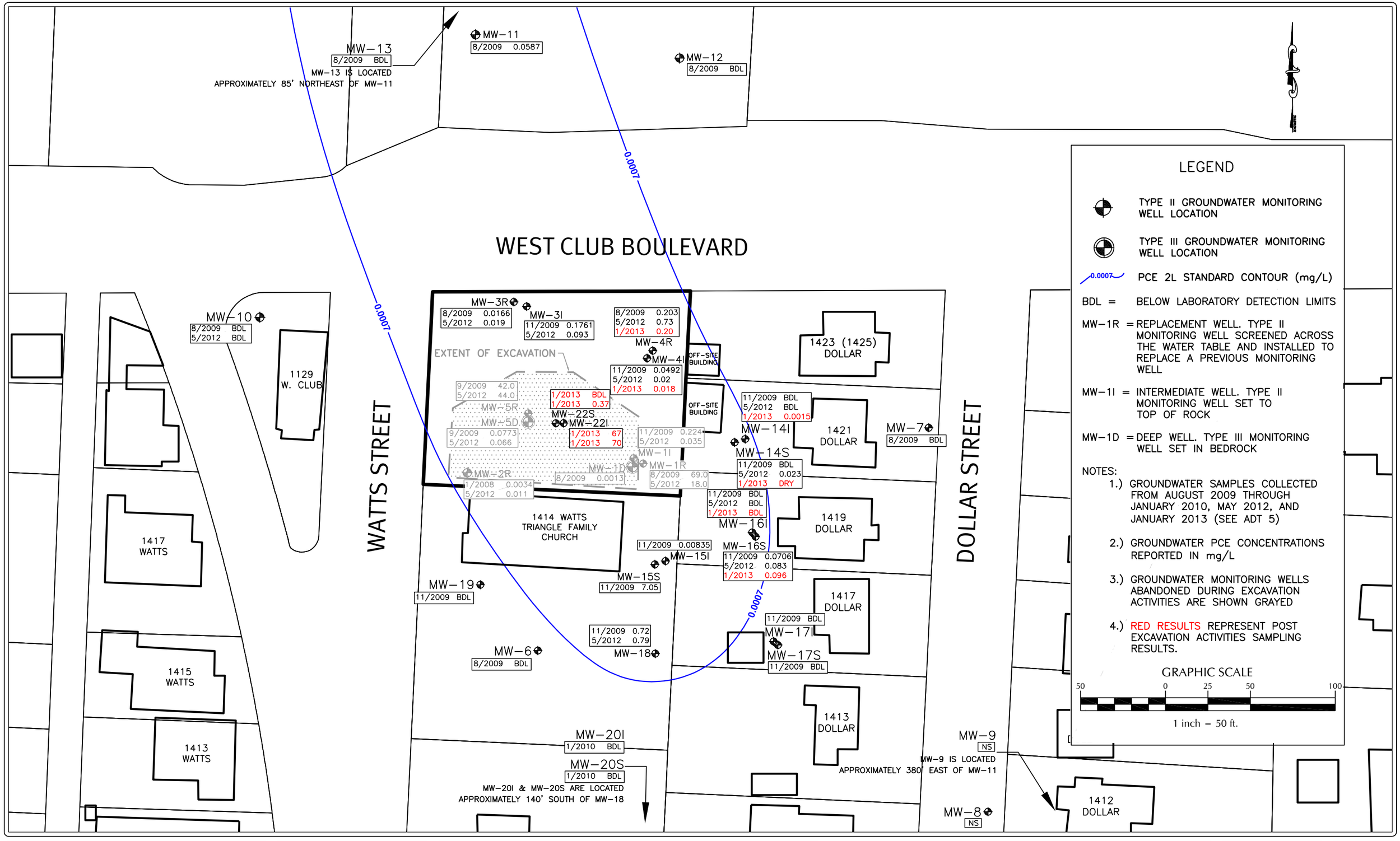
BB&T SITE, DSCA ID 32-0013
1103 WEST CLUB BLVD
DURHAM, NORTH CAROLINA

GROUNDWATER GRADIENT MAP
JANUARY 2013

Drawn By	Scale
WRP	1"=50'
Checked By	Date
LP	1/23/13

Job No.	
206496.32	
APPENDIX:	1

S:\AUTOCAD\BLOCKS\ENVIRONMENTAL TITLE\ENV-TITLE-11X17L.DWG ---- JOHNSON, CHRISTOPHER 1:0.4297



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Revisions

No.	Description	Date	By

BB&T SITE, DSCA ID 32-0013
1103 WEST CLUB BLVD
DURHAM, NORTH CAROLINA

GROUNDWATER PCE ISOCONCENTRATION MAP:
AUGUST 2009 - MAY 2012

Drawn By	Scale
WRP	1"=50'
Checked By	Date
LP	1/18/13

Job No. 206496.32
APPENDIX: 2

S:\AUTOCAD\BLOCKS\ENVIRONMENTAL TITLE\ENV-TITLE-11X17L.DWG ---- JOHNSON, CHRISTOPHER 1:0.4297

WATTS STREET

SV–11

SV–14

SV–17

EXTENT OF EXCAVATION

SV–16

NO METHANE WAS DETECTED IN AMBIENT AIR AT GROUND LEVEL ON THE SUBJECT SITE

SV–15

SOIL VAPOR VENT A

SOIL VAPOR VENT B

SOIL VAPOR VENT C

SOIL VAPOR VENT D

PASSIVE EXCAVATION VENT STACK

11/27/12	12.5%
1/8/13	11.0%

SV–55S

11/27/12	0.2%
1/8/13	4.1%

SV–55I

11/27/12	4.1%
1/8/13	3.6%

SV–8S

11/27/12	0.1%
1/8/13	0.8%

SV–8I

11/27/12	0.0%
1/8/13	1.3%

1414 WATTS TRIANGLE FAMILY CHURCH

SSD SYSTEM EXHAUST FAN

11/27/12	0.1%
1/8/13	1.0%

NO METHANE WAS DETECTED IN THE INDOOR AIR WITHIN THE CHURCH

SV–27S&D

SV–28D

OFF–SITE BUILDING

OFF–SITE BUILDING

SV–43S&D

SV–42S&D

1423 (1425) DOLLAR

SV–22

SV–22

SV–21S&D

SV–25S&D

SV–19

11/27/12	0.0%
1/8/13	0.6%

1421 DOLLAR

SV–20S

11/27/12	0.0%
1/8/13	1.3%

SV–20D

1/8/13	0.4%

SV–23

SV–31

SV–26S&D

SV–29S

11/27/12	0.0%
1/8/13	0.3%

SV–18

11/27/12	0.0%
1/8/13	0.4%

1419 DOLLAR

SV–30S&D

SV–33

SV–32

SV–36S&D

SV–35S&D

1417 DOLLAR

SV–34S&D

LEGEND

SV SOIL VAPOR SAMPLE LOCATION

NOTES:

1.) METHANE FIELD READINGS WERE MEASURED USING A GEM 2000 MULTI GAS METER

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

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No.	Description	Date	By

BB&T SITE, DSCA ID 32–0013
1103 WEST CLUB BLVD
DURHAM, NORTH CAROLINA

METHANE FIELD MEASURMENTS

Drawn By	WRP
Checked By	LP
Scale	1"=40'
Date	1/20/13
Job No.	2060496.32
Sheet No.	3

S:\AUTOCAD\BLOCKS\ENVIRONMENTAL TITLE\ENV-TITLE-11X17L.DWG ---- JOHNSON, CHRISTOPHER 1:0.4297

WATTS STREET

SV SV-11
7/29/09 0.40

SV SV-14
4/30/09 227

SV SV-17
7/29/09 28.8
5/16/12 56.3

EXTENT OF EXCAVATION

SV SV-16
4/30/09 205

SV SV-13
4/30/09 1,378

SV SV-12
4/30/09 29,177

SV SV-15
4/30/09 1,027

SV SV-10
7/29/09 7.19

SOIL VAPOR VENT A

SOIL VAPOR VENT B

SOIL VAPOR VENT C

SOIL VAPOR VENT D

SV SV-1
4/30/09 8.81

SV SV-9
7/29/09 7.42

PASSIVE EXCAVATION VENT STACK

SV SV-3
4/30/09 197

SV SV-2
4/30/09 3,460

SV SV-4
5/29/09 57.0

SV SV-5
5/29/09 1,898
5/16/12 2,441

SV SV-6
5/29/09 19.7

SV SV-7
4/30/09 3,050

SV SV-8S
5/29/09 2,580
5/16/12 88
11/27/12 1,000
1/8/13 1,600

SV SV-8I
11/27/12 9,500
1/8/13 39,000

SV SV-55S
11/27/12 1,200
1/8/13 2,500

SV SV-55I
11/27/12 6,800
1/8/13 6,200

1414 WATTS TRIANGLE FAMILY CHURCH

SV SV-28D
1/7/10 0.0123
5/16/12 17.62

OFF-SITE BUILDING

SV SV-43S
1/8/10 1.87
5/16/12 50.9

SV SV-43D
1/8/10 0.0011 J
5/16/12 45

SV SV-42S
4/30/09 0.0021

SV SV-42D
4/30/09 0.0020

1423 (1425) DOLLAR

OFF-SITE BUILDING

SV SV-21S
11/17/09 0.069
5/16/12 0.016

SV SV-21D
11/17/09 0.012
5/16/12 0.063

SV SV-22
NOT SAMPLED

SV SV-22
NOT SAMPLED

SV SV-25S
5/16/12 0.018

SV SV-25D
5/16/12 0.46

SV SV-19
9/10/09 3.93
5/16/12 2.10
11/27/12 2.1
1/8/13 2.6

1421 DOLLAR

SV SV-20S
11/17/09 257
5/16/12 136
11/27/12 120
1/8/13 210

SV SV-20D
11/17/09 0.79
5/16/12 196

SV SV-23
NOT SAMPLED

SV SV-31
NOT SAMPLED

SV SV-26S&D
NOT SAMPLED

SV SV-29S
11/17/09 2,190
5/17/12 2,169
11/27/12 610
1/8/13 810

SV SV-29D
11/17/09 1,460
5/17/12 1,460

SV SV-18
9/10/09 105
11/17/09 21.4
5/17/12 2,372
11/27/12 57
1/8/13 81

1419 DOLLAR

SV SV-27S
12/7/09 413
5/16/12 2,169

SV SV-27D
12/7/09 290
5/16/12 67,796

SV SV-30S
11/17/09 317

SV SV-30D
11/17/09 569

SV SV-33
11/17/09 39.5

SV SV-32
NOT SAMPLED

SV SV-36S
1/8/10 463
5/17/12 1,220

SV SV-36D
1/8/10 303
5/17/12 1,017

SV SV-35S
12/7/09 8.99

SV SV-35D
12/7/09 28.2

1417 DOLLAR

SV SV-34S
12/7/09 0.62

SV SV-34D
12/7/09 0.031

LEGEND

SV SOIL VAPOR SAMPLE LOCATION

NOTES:
1.) ALL PCE RESULTS ARE REPORTED IN mg/m^3
2.) SOIL VAPOR WELLS DESTROYED DURING EXCAVATION ACTIVITIES ARE SHOWN GRAYED
3.) RED RESULTS REPRESENT POST EXCAVATION ACTIVITIES SAMPLING EVENTS

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

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No.	Description	Date	By

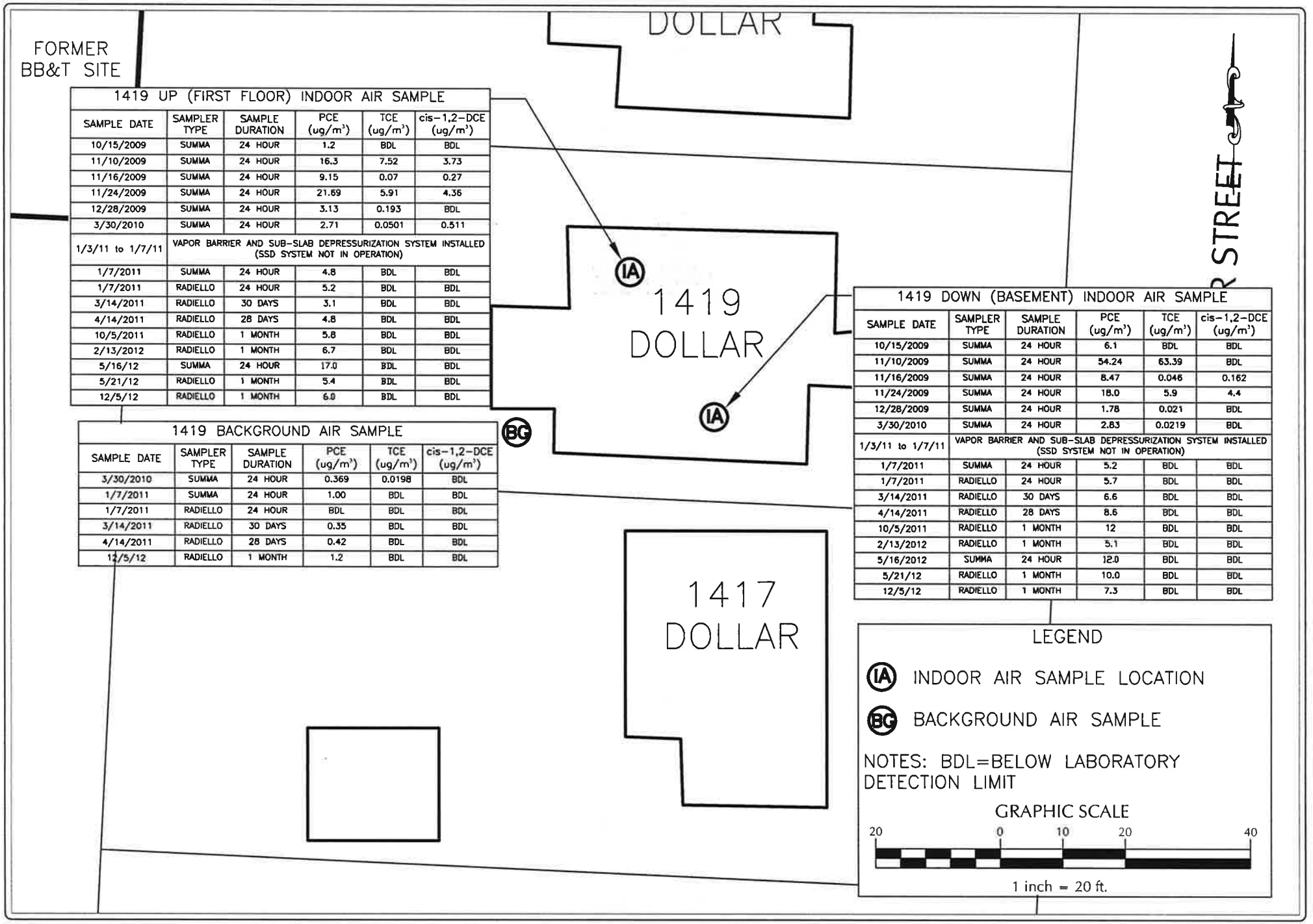
BB&T SITE, DSCA ID 32-0013
1103 WEST CLUB BLVD
DURHAM, NORTH CAROLINA

HISTORICAL SOIL VAPOR PCE RESULTS MAP

Drawn By	Scale
WRP	1"=20'
Checked By	Date
LP	1/17/13

Job No. 2060496.32
Sheet No. 4

S:\AUTOCAD\BLOCKS\ENVIRONMENTAL TITLE\ENV-TITLE-11X17L.DWG ---- JOHNSON, CHRISTOPHER 1:0.4297



1419 UP (FIRST FLOOR) INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
10/15/2009	SUMMA	24 HOUR	1.2	BDL	BDL
11/10/2009	SUMMA	24 HOUR	16.3	7.52	3.73
11/16/2009	SUMMA	24 HOUR	9.15	0.07	0.27
11/24/2009	SUMMA	24 HOUR	21.69	5.91	4.36
12/28/2009	SUMMA	24 HOUR	3.13	0.193	BDL
3/30/2010	SUMMA	24 HOUR	2.71	0.0501	0.511
1/3/11 to 1/7/11	VAPOR BARRIER AND SUB-SLAB DEPRESSURIZATION SYSTEM INSTALLED (SSD SYSTEM NOT IN OPERATION)				
1/7/2011	SUMMA	24 HOUR	4.8	BDL	BDL
1/7/2011	RADIELLO	24 HOUR	5.2	BDL	BDL
3/14/2011	RADIELLO	30 DAYS	3.1	BDL	BDL
4/14/2011	RADIELLO	28 DAYS	4.8	BDL	BDL
10/5/2011	RADIELLO	1 MONTH	5.8	BDL	BDL
2/13/2012	RADIELLO	1 MONTH	6.7	BDL	BDL
5/16/12	SUMMA	24 HOUR	17.0	BDL	BDL
5/21/12	RADIELLO	1 MONTH	5.4	BDL	BDL
12/5/12	RADIELLO	1 MONTH	6.0	BDL	BDL

1419 BACKGROUND AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
3/30/2010	SUMMA	24 HOUR	0.369	0.0198	BDL
1/7/2011	SUMMA	24 HOUR	1.00	BDL	BDL
1/7/2011	RADIELLO	24 HOUR	BDL	BDL	BDL
3/14/2011	RADIELLO	30 DAYS	0.35	BDL	BDL
4/14/2011	RADIELLO	28 DAYS	0.42	BDL	BDL
12/5/12	RADIELLO	1 MONTH	1.2	BDL	BDL

1419 DOWN (BASEMENT) INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
10/15/2009	SUMMA	24 HOUR	6.1	BDL	BDL
11/10/2009	SUMMA	24 HOUR	54.24	63.39	BDL
11/16/2009	SUMMA	24 HOUR	8.47	0.046	0.162
11/24/2009	SUMMA	24 HOUR	18.0	5.9	4.4
12/28/2009	SUMMA	24 HOUR	1.78	0.021	BDL
3/30/2010	SUMMA	24 HOUR	2.83	0.0219	BDL
1/3/11 to 1/7/11	VAPOR BARRIER AND SUB-SLAB DEPRESSURIZATION SYSTEM INSTALLED (SSD SYSTEM NOT IN OPERATION)				
1/7/2011	SUMMA	24 HOUR	5.2	BDL	BDL
1/7/2011	RADIELLO	24 HOUR	5.7	BDL	BDL
3/14/2011	RADIELLO	30 DAYS	6.6	BDL	BDL
4/14/2011	RADIELLO	28 DAYS	8.6	BDL	BDL
10/5/2011	RADIELLO	1 MONTH	12	BDL	BDL
2/13/2012	RADIELLO	1 MONTH	5.1	BDL	BDL
5/16/2012	SUMMA	24 HOUR	12.0	BDL	BDL
5/21/12	RADIELLO	1 MONTH	10.0	BDL	BDL
12/5/12	RADIELLO	1 MONTH	7.3	BDL	BDL

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Revisions

No.	Description	Date

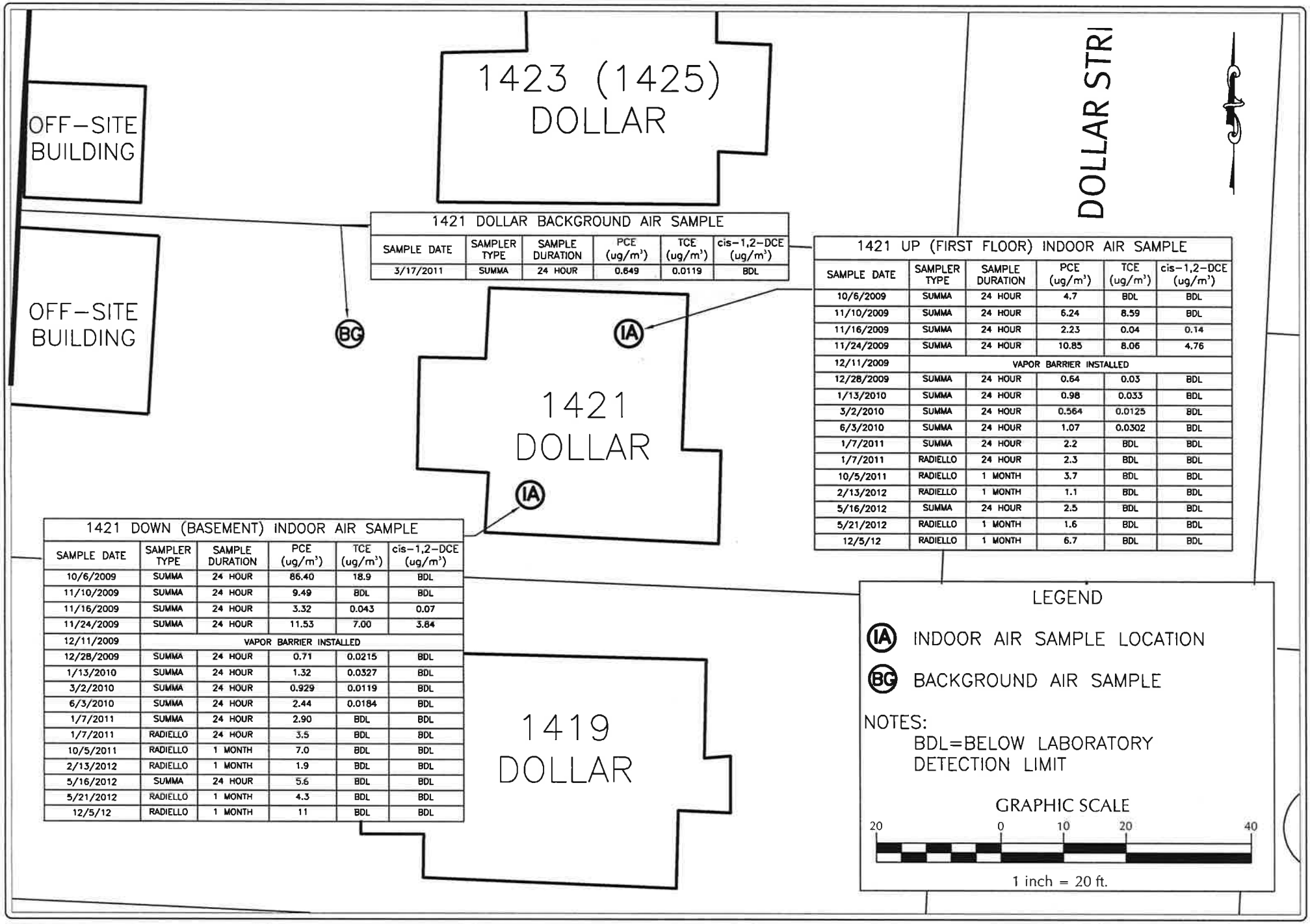
FORMER BB&T SITE
1103 WEST CLUB BLVD
DURHAM, NORTH CARLOINA

1419 DOLLAR
INDOOR AIR RESULTS

Drawn By	Scale
WRP	1"=20'
Checked By	Date
LP	12/21//12

Job No. 2060496.32
Sheet No. 5

K:\06\06-0490\060496.32-DSCA #32-0013 FORMER BB&T\CAD\FORMER BB&T 2011 BASEMAP (CURRENT 1-21-13).DWG 1/21/2013 4:22 PM PERRY, ROSS 1:1



1421 DOLLAR BACKGROUND AIR SAMPLE					
SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
3/17/2011	SUMMA	24 HOUR	0.649	0.0119	BDL

1421 UP (FIRST FLOOR) INDOOR AIR SAMPLE					
SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
10/6/2009	SUMMA	24 HOUR	4.7	BDL	BDL
11/10/2009	SUMMA	24 HOUR	6.24	8.59	BDL
11/16/2009	SUMMA	24 HOUR	2.23	0.04	0.14
11/24/2009	SUMMA	24 HOUR	10.85	8.06	4.76
12/11/2009	VAPOR BARRIER INSTALLED				
12/28/2009	SUMMA	24 HOUR	0.64	0.03	BDL
1/13/2010	SUMMA	24 HOUR	0.98	0.033	BDL
3/2/2010	SUMMA	24 HOUR	0.564	0.0125	BDL
6/3/2010	SUMMA	24 HOUR	1.07	0.0302	BDL
1/7/2011	SUMMA	24 HOUR	2.2	BDL	BDL
1/7/2011	RADIELLO	24 HOUR	2.3	BDL	BDL
10/5/2011	RADIELLO	1 MONTH	3.7	BDL	BDL
2/13/2012	RADIELLO	1 MONTH	1.1	BDL	BDL
5/16/2012	SUMMA	24 HOUR	2.5	BDL	BDL
5/21/2012	RADIELLO	1 MONTH	1.6	BDL	BDL
12/5/12	RADIELLO	1 MONTH	6.7	BDL	BDL

1421 DOWN (BASEMENT) INDOOR AIR SAMPLE					
SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
10/6/2009	SUMMA	24 HOUR	86.40	18.9	BDL
11/10/2009	SUMMA	24 HOUR	9.49	BDL	BDL
11/16/2009	SUMMA	24 HOUR	3.32	0.043	0.07
11/24/2009	SUMMA	24 HOUR	11.53	7.00	3.84
12/11/2009	VAPOR BARRIER INSTALLED				
12/28/2009	SUMMA	24 HOUR	0.71	0.0215	BDL
1/13/2010	SUMMA	24 HOUR	1.32	0.0327	BDL
3/2/2010	SUMMA	24 HOUR	0.929	0.0119	BDL
6/3/2010	SUMMA	24 HOUR	2.44	0.0184	BDL
1/7/2011	SUMMA	24 HOUR	2.90	BDL	BDL
1/7/2011	RADIELLO	24 HOUR	3.5	BDL	BDL
10/5/2011	RADIELLO	1 MONTH	7.0	BDL	BDL
2/13/2012	RADIELLO	1 MONTH	1.9	BDL	BDL
5/16/2012	SUMMA	24 HOUR	5.6	BDL	BDL
5/21/2012	RADIELLO	1 MONTH	4.3	BDL	BDL
12/5/12	RADIELLO	1 MONTH	11	BDL	BDL

LEGEND

(IA) INDOOR AIR SAMPLE LOCATION

(BG) BACKGROUND AIR SAMPLE

NOTES:
BDL=BELOW LABORATORY DETECTION LIMIT

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

WITHERS & RAVENEL
ENGINEERS | PLANNERS | SURVEYORS

Revisions

No.	Description	Date

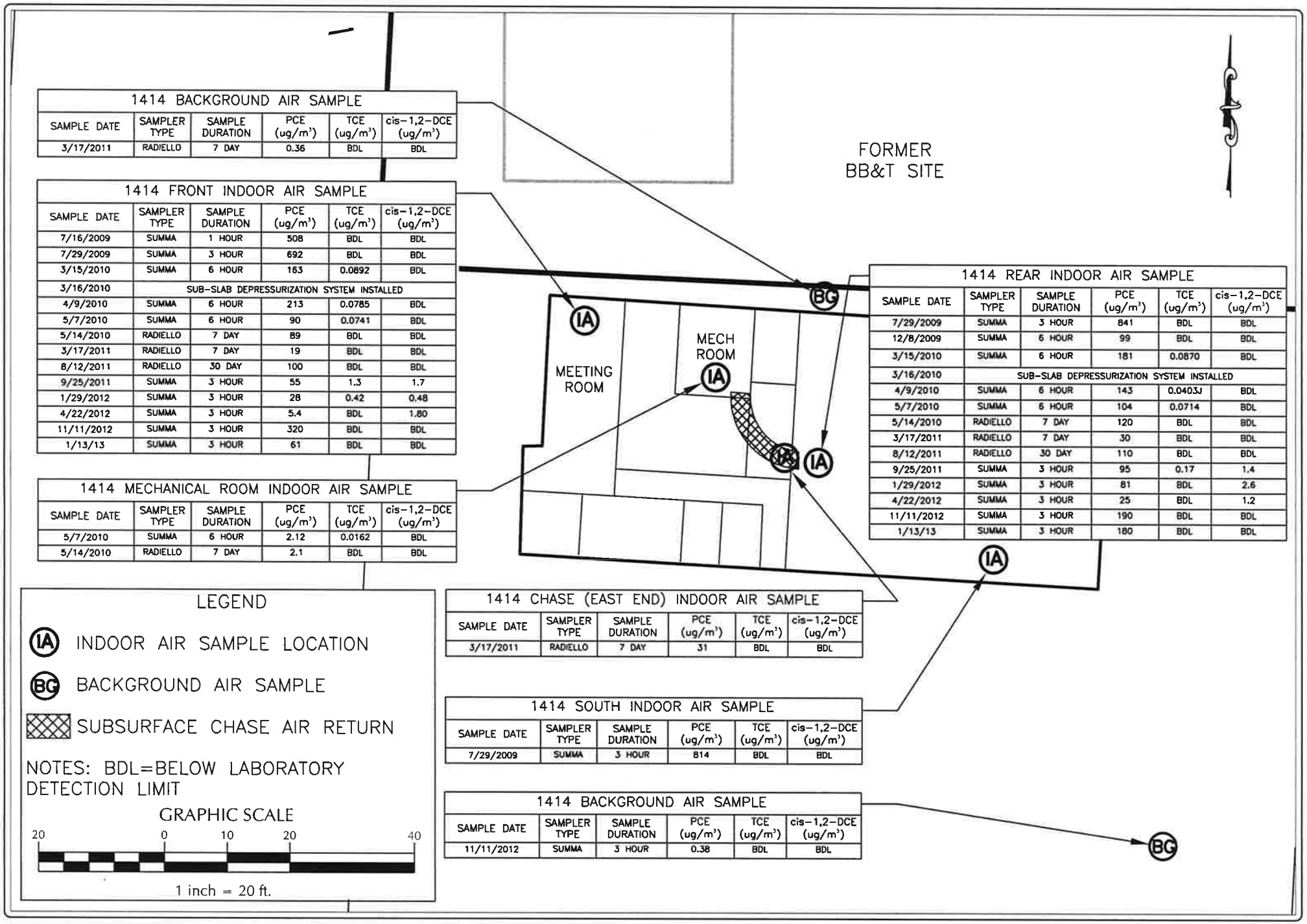
FORMER BB&T SITE
1103 WEST CLUB BLVD
DURHAM, NORTH CARLOINA

1421 DOLLAR
INDOOR AIR RESULTS

Drawn By	Scale
WRP	1"=20'
Checked By	Date
LP	12/21/12

Job No. 2060496.32
Sheet No. 6

K:\06\06-0490\060496.32-DSCA #32-0013 FORMER BB&T\CAD\FORMER BB&T 2011 BASEMAP (CURRENT 1-21-13).DWG 1/21/2013 4:25 PM PERRY, ROSS 1:1



1414 BACKGROUND AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
3/17/2011	RADIELLO	7 DAY	0.36	BDL	BDL

1414 FRONT INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
7/16/2009	SUMMA	1 HOUR	508	BDL	BDL
7/29/2009	SUMMA	3 HOUR	692	BDL	BDL
3/15/2010	SUMMA	6 HOUR	163	0.0892	BDL
3/16/2010	SUB-SLAB DEPRESSURIZATION SYSTEM INSTALLED				
4/9/2010	SUMMA	6 HOUR	213	0.0785	BDL
5/7/2010	SUMMA	6 HOUR	90	0.0741	BDL
5/14/2010	RADIELLO	7 DAY	89	BDL	BDL
3/17/2011	RADIELLO	7 DAY	19	BDL	BDL
8/12/2011	RADIELLO	30 DAY	100	BDL	BDL
9/25/2011	SUMMA	3 HOUR	55	1.3	1.7
1/29/2012	SUMMA	3 HOUR	28	0.42	0.48
4/22/2012	SUMMA	3 HOUR	5.4	BDL	1.80
11/11/2012	SUMMA	3 HOUR	320	BDL	BDL
1/13/13	SUMMA	3 HOUR	61	BDL	BDL

1414 MECHANICAL ROOM INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
5/7/2010	SUMMA	6 HOUR	2.12	0.0162	BDL
5/14/2010	RADIELLO	7 DAY	2.1	BDL	BDL

1414 REAR INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
7/29/2009	SUMMA	3 HOUR	841	BDL	BDL
12/8/2009	SUMMA	6 HOUR	99	BDL	BDL
3/15/2010	SUMMA	6 HOUR	181	0.0870	BDL
3/16/2010	SUB-SLAB DEPRESSURIZATION SYSTEM INSTALLED				
4/9/2010	SUMMA	6 HOUR	143	0.0403J	BDL
5/7/2010	SUMMA	6 HOUR	104	0.0714	BDL
5/14/2010	RADIELLO	7 DAY	120	BDL	BDL
3/17/2011	RADIELLO	7 DAY	30	BDL	BDL
8/12/2011	RADIELLO	30 DAY	110	BDL	BDL
9/25/2011	SUMMA	3 HOUR	95	0.17	1.4
1/29/2012	SUMMA	3 HOUR	81	BDL	2.6
4/22/2012	SUMMA	3 HOUR	25	BDL	1.2
11/11/2012	SUMMA	3 HOUR	190	BDL	BDL
1/13/13	SUMMA	3 HOUR	180	BDL	BDL

1414 CHASE (EAST END) INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
3/17/2011	RADIELLO	7 DAY	31	BDL	BDL

1414 SOUTH INDOOR AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
7/29/2009	SUMMA	3 HOUR	814	BDL	BDL

1414 BACKGROUND AIR SAMPLE

SAMPLE DATE	SAMPLER TYPE	SAMPLE DURATION	PCE (ug/m³)	TCE (ug/m³)	cis-1,2-DCE (ug/m³)
11/11/2012	SUMMA	3 HOUR	0.38	BDL	BDL

LEGEND

(IA) INDOOR AIR SAMPLE LOCATION

(BG) BACKGROUND AIR SAMPLE

SUBSURFACE CHASE AIR RETURN

NOTES: BDL=BELOW LABORATORY DETECTION LIMIT

GRAPHIC SCALE

20 0 10 20 40

1 inch = 20 ft.

WITHERS & RAVENEL
ENGINEERS | PLANNERS | SURVEYORS

Revisions

No.	Description	Date

FORMER BB&T SITE
1103 WEST CLUB BLVD
DURHAM, NORTH CARLOINA

1414 WATTS
INDOOR AIR SAMPLE LOCATIONS MAP

Drawn By	Scale
WRP	1"=20'
Checked By	Date
LP	11/18/12

Job No. 2060496.32
Sheet No. 7

K:\06\06-0490\060496.32-DSCA #32-0013 FORMER BB&T\CAD\FORMER BB&T 2011 BASEMAP (CURRENT 1-21-13).DWG 1/22/2013 3:34 PM PERRY, ROSS 1:1

ATTACHMENT A
DSCA Indoor Inhalation Risk Calculations

DSCA Indoor Air Risk Calculator - Table 1: Cumulative Risk for Resident

DSCA ID No: 32-0013 **Name/Address of DSCA Site:** Former BB&T Site / 1103 West Club Blvd., Durham, NC

Name/Address of Sampling Location: 1419 Dollar St., Durham, NC **Sampling Date:** 12/5/2012 **Sample ID:** 1419 Down

Cumulative Risk Calculation for Indoor Air Pathway (Residential)														
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE	1,2-Dichloroethane						
Maximum Concentration Detected (µg/m^3)	7.3													
EPA Regional Screening Level (RSL) for Residential Air (carcinogenic target risk = 1E-06) µg/m^3	9.36	0.43	0.16	0.31	0.97	0.072	9.4	0.094						
Ratio = Max Concentration ÷ EPA RSL	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

CUMULATIVE RISK (sum of ratios x 10^{-6})	7.80E-07

Cumulative Hazard Index (HI) Calculation for Indoor Air Pathway (Residential)														
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	trans - 1,2 -DCE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1,2-Dichloroethane			
Maximum Concentration Detected (µg/m3)	7.3													
EPA Regional Screening Level (RSL) for Residential Air [noncancer Hazard Index (HI)=1] µg/m3	41.7	2.1	100	63	31	5200	1000	100	3.1	3100	7.3			
Ratio = Max Concentration ÷ EPA RSL	0.1751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			

CUMULATIVE HI (sum of ratios)	0.18

Notes:

1. RSLs available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
2. Trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.
3. Cis-1,2-DCE was not included in cumulative risk or HI calculation since there are currently no EPA RSLs.

DSCA Indoor Air Risk Calculator - Table 1: Cumulative Risk for Resident

DSCA ID No: 32-0013 **Name/Address of DSCA Site:** Former BB&T Site / 1103 West Club Blvd., Durham, NC

Name/Address of Sampling Location: 1421 Dollar St., Durham, NC **Sampling Date:** 12/5/2012 **Sample ID:** 1421 Down

Cumulative Risk Calculation for Indoor Air Pathway (Residential)	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE	1,2-Dichlorethane						
Maximum Concentration Detected (µg/m^3)	11													
EPA Regional Screening Level (RSL) for Residential Air (carcinogenic target risk = 1E-06) µg/m^3	9.36	0.43	0.16	0.31	0.97	0.072	9.4	0.094						
Ratio = Max Concentration ÷ EPA RSL	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

CUMULATIVE RISK (sum of ratios x 10^{-6})	1.18E-06

Cumulative Hazard Index (HI) Calculation for Indoor Air Pathway (Residential)	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	trans - 1,2 -DCE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1,2-Dichloroethane			
Maximum Concentration Detected (µg/m3)	11													
EPA Regional Screening Level (RSL) for Residential Air [noncancer Hazard Index (HI)=1] µg/m3	41.7	2.1	100	63	31	5200	1000	100	3.1	3100	7.3			
Ratio = Max Concentration ÷ EPA RSL	0.2638	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			

CUMULATIVE HI (sum of ratios)	0.26

Notes:

1. RSLs available at: http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
2. Trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.
3. Cis-1,2-DCE was not included in cumulative risk or HI calculation since there are currently no EPA RSLs.

BB&T Site, DSCA ID 32-0013

Sample Location: Triangle Family Church / 1414 Watts Street, Durham, NC
Sample Date: 4/22/2012
Sample ID: 1414 - Back

Resident Indoor Air Risk Sample Calculations

Averaging Time (AT)=	70 yrs	=	6.13E+05 hrs
Exposure Frequency (EF)=	208 days/yr		
Exposure Duration (ED)=	30 yrs		
Exposure Time (ET)=	1.5 hrs/day		*Based on hours per week exposure time (estimated average time for a typical parishioner of the Triangle Family Church)*

	PCE
Inhalation Unit Risk (IUR)=	2.60E-07 $(\mu g/m^3)^{-1}$
Indoor Air Concentration (IA)=	180 $\mu g/m^3$
Reference Concentration (R*f*C)=	40 $\mu g/m^3$
Exposure Concentration (EC) =	2.75 $\mu g/m^3$

$$EC = \frac{IA \times ET \times EF \times ED}{AT}$$

Carcinogenic Risk		**Total IELCR**
Individual Excess Lifetime Cancer Risk (IELCR) =	7.1E-07	**7.1E-07**

IELCR = EC x IUR

Non Carcinogenic Risk		**Total HQ**
Hazard Quotient (HQ) =	0.0687	**6.9E-02**

HQ = EC / RfC

* IUR and R*f*C obtained from the EPA "Regional Screening Level (RSL) Industrial Air Supporting Table November 2011".

ATTACHMENT B
Remediation Schedule

~ January 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Holiday	2	3	4	5
			1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave			
			Sample Groundwater Monitoring		Sample Soil Vapor Monitoring Wells & Vapor Vents	
6	7	8	9	10	11	12
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St						
13	14	15	16	17	18	19
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
20	21	22	23	24	25	26
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
27	28	29	30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt updates regularly for any changes in the schedule.	
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
				Monthly Update		

~ February 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 Conduct Field Screeing for Methane Concentrations	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28 Monthly Update	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt updates regularly for any changes in the schedule.	

~ March 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 Conduct Field Screeing for Methane Concentrations	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29 Monthly Update	30
31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt updates regularly for any changes in the schedule.					

~ April 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4 Conduct Field Screeing for Methane Concentrations	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30 Monthly Update	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt updates regularly for any changes in the schedule.			

~ May 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt updates regularly for any changes in the schedule.			1	2	3 Conduct Field Screeing for Methane Concentrations	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31 Monthly Update	

~ June 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St	1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave					
	Sample Groundwater Monitoring		Sample Soil Vapor Monitoring Wells			
9	10	11	12	13	14	15
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
16	17	18	19	20	21	22
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
23	24	25	26	27	28	29
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
					Monthly Update	
30	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.					

~ July 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4 Holiday	5	6
7	8	9	10	11	12	13
	Inject Adventus EHC					
14	15	16	17	18	19	20
	Inject Adventus EHC					
21	22	23	24	25	26	27
	Inject Adventus EHC					
28	29	30	31 Monthly Update	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.		

~ August 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.				1	2	3
4	5	6	7	8	9	10
11	12 Sample Groundwater & Soil Vapor Monitoring Wells	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30 Monthly Update	31

~ September 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Holiday - Memorial Day	3 1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave; Sample Groundwater & Soil Vapor Monitoring Wells	4	5	6	7
8	9	10	11	12	13	14
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave; 3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St						
15	16	17	18	19	20	21
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
22	23	24	25	26	27	28
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
29; 30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave	30 Monthly Update	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.				

~ October 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
		Sample Groundwater & Soil Vapor Monitoring Wells				
		30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave				
6	7	8	9	10	11	12
30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St						
13	14	15	16	17	18	19
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
20	21	22	23	24	25	26
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
27	28	29	30	31	Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.	
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
				Monthly Update		

~ November 2013 ~

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Notes: Schedule tentative and subject to change. Please check http://portal.ncdenr.org/web/wm/dsca/bbt_updates regularly for any changes in the schedule.					1 30 Day Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave	2
3 3 Hour Summa Canister Indoor Air Sampling at 1414 Watts St	4	5	6	7	8	9
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
10	11	12	13	14	15	16
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
17	18	19	20	21	22	23
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
24	25	26	27	28 Holiday	29	30
1 Month Radiello Indoor Air Sampling at 1419 & 1421 Dollar Ave						
					Monthly Update	