

Risk Management Plan
New Hope Cleaners and Tailors
DSCA ID No. 92-0016
3901 Capital Boulevard
Tarrymore Square Shopping Center
Raleigh, Wake County
North Carolina Dry-Cleaning
Solvent Cleanup Act Program

H&H Job No. DS0-50G

February 1, 2012



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**Risk Management Plan
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1.0 INTRODUCTION

Hart & Hickman, PC (H&H) has prepared this Risk Management Plan (RMP) to address dry-cleaning solvent contamination associated with the former New Hope Cleaners and Tailors facility (DSCA Site #92-0016) on behalf of the North Carolina Dry-Cleaning Solvent Cleanup Act (DSCA) Program. The former New Hope Cleaners and Tailors site (the “site”) is located at 3901 Capital Boulevard in the Tarrymore Square Shopping Center in Raleigh, Wake County, North Carolina. The site location is shown on the attached Figure 1, and the site map is provided as Figure 2. This RMP is intended to comply with the requirements of DSCA (N.C.G.S. 143-215.104A *et seqs*) and promulgated rules and follows the outline provided in the DSCA Program’s risk-based corrective action (RBCA) guidance.

2.0 OBJECTIVES OF RMP

H&H completed assessment activities at the site which indicate that tetrachloroethylene (PCE) groundwater impacts exist on the site property at levels exceeding the Title 15A NCAC 2L .0202 Groundwater Standards (2L Standards). H&H performed a Tier 1 and Tier 2 risk assessment and completed DSCA’s Indoor Air Risk Calculator to evaluate the cumulative site-wide risk under both industrial and residential land use scenarios. The results of the Tier 1 and Tier 2 risk assessments and Indoor Air Risk Calculator indicate that site-wide risks do not exceed target risk levels. However, the evaluation was based on site-specific land use conditions that require an RMP. As such, the objective of this RMP is to ensure that those site-specific land use conditions remain valid in the future.

3.0 SUMMARY OF APPROVED RISK ASSESSMENT REPORT

H&H submitted a Tier 1 and 2 Risk Assessment Report dated August 19, 2011 to the DSCA Program documenting a risk assessment evaluation of contamination at the site. The Tier 1 and 2 risk assessment evaluation included the development of an exposure model that included a single on-site exposure unit. The model accounted for potential exposure pathways within the on-site exposure unit. Although the zoning of the site is not expected to change in the future, a future residential land use scenario was evaluated to minimize potential land use restrictions on the property. Specifically, the exposure model consisted of the following complete exposure pathways:

- On-Site Resident –Future Conditions – Subsurface Soil – Indoor Inhalation of Vapor Emissions
- On-Site Resident –Future Conditions – Subsurface Soil – Outdoor Inhalation of Vapor Emissions
- On-Site Resident –Future Conditions – Groundwater (First Encountered Zone – Indoor Inhalation of Vapor Emissions
- On-Site Resident –Future Conditions – Groundwater (First Encountered Zone – Outdoor Inhalation of Vapor Emissions
- On-Site Non-Residential Worker – Current and Future Conditions – Subsurface Soil – Indoor Inhalation of Vapor Emissions
- On-Site Non-Residential Worker – Current and Future Conditions – Subsurface Soil – Outdoor Inhalation of Vapor Emissions
- On-Site Non-Residential Worker – Current and Future Conditions – Groundwater (First Encountered Zone – Indoor Inhalation of Vapor Emissions
- On-Site Non-Residential Worker – Current and Future Conditions – Groundwater (First Encountered Zone – Outdoor Inhalation of Vapor Emissions
- On-Site Construction Worker – Soil Up to Depth of Construction – Combined Pathway
- On-Site Construction Worker – Groundwater (First Encountered Zone) - Outdoor Inhalation of Vapor Emissions

In addition to these pathways, H&H evaluated the protection of groundwater use pathway. For this pathway, the soil and groundwater source areas were determined and RCs of compounds detected in the source areas were calculated. A hypothetical point-of-exposure (POE) for the nearest possible future location of a water supply well was identified approximately 225 ft and 220 ft north/northeast and downgradient of the soil source area and groundwater source area, respectively. An apparent groundwater divide exists at the site with groundwater flow to both the north/northeast and to the southwest. To be conservative, the POE was located to the north/northeast, because the southwestern property boundary is located further from the source area than the selected POE. There were no exceedances of Tier 1 RBSLs by the soil or groundwater source area RCs.

The nearest surface water bodies are a pond and tributary of Marsh Creek located approximately 450 ft northwest (cross-gradient), a pond and tributary of Marsh Creek located approximately 900 ft southwest (downgradient), and a pond and tributary of Marsh Creek located approximately 2,300 ft east (cross-gradient) of the soil and groundwater source areas. There are no other surface water bodies located within a one-half mile radius of the site. The PCE plume has been defined and is limited to the area within approximately 100 ft of the former New Hope Cleaners and Tailors tenant space. Thus, the protection of surface water pathway is not complete and was not included in the risk assessment evaluation.

As part of the Tier 1 evaluation, site-specific representative concentrations (RCs) of detected contaminants in soil and groundwater were calculated for each complete exposure pathway listed above and compared with Tier 1 Risk-Based Screening Levels (RBSLs) established by the DSCA Program. There were no exceedances of Tier 1 RBSLs identified.

To evaluate the indoor air inhalation pathway, H&H completed DSCA's Indoor Air Risk Calculator to evaluate the cumulative risk for both an industrial worker and a resident based on an indoor air sample collected from inside the former dry-cleaning facility in November 2009.

The calculated indoor air cumulative risk values were 2.76×10^{-7} for an industrial worker and 1.41×10^{-6} for a resident. The risk calculators are attached as Appendix A.

To incorporate the indoor air risk from the risk calculators into the site-wide risk evaluation, H&H completed a Tier 2 risk assessment. The Tier 2 was run without any indoor air pathways included. The cumulative risk from the Tier 2 risk assessment and the cumulative risk for indoor air from the risk calculator were then added together to arrive at the site-wide cumulative risk. The site-wide cumulative risk levels were determined to be less than DSCA's allowable risk levels ($<1 \times 10^{-5}$ Cumulative Individual Excess Lifetime Cancer Risk and <1 Cumulative Hazard Index) under both industrial and residential land use scenarios for all receptors.

Based on the results of the Tier 1 and 2 evaluations and the Indoor Air Risk Calculator, H&H concluded that the release at the subject site does not pose an unacceptable risk and recommended site closure in accordance with the DSCA Program's risk-based rules.

4.0 RAP COMPONENTS

4.1 Summary of Prior Assessment

New Hope Cleaners and Tailors began dry-cleaning operations at the facility in September 1992. A Multimac dry-to-dry machine utilizing PCE operated at the site until 2002. A Stoddard dry-cleaning machine utilizing petroleum-based solvents was observed at the facility in August 2003. Dry-cleaning operations at the property ceased prior to April 2006. The site is located in a moderately populated area consisting primarily of commercial and residential properties. The site property is an approximately 24.55-acre parcel of land containing the Tarrymore Square Shopping Center. New Hope Cleaners and Tailors occupied tenant spaces 165-167 on the northwestern portion of the property.

In November 1994, a Phase II Subsurface Exploration/Sampling and Analyses report was prepared for the site property by GZA GeoEnvironmental, Inc. (GZA) on behalf of the property

owner. Six monitoring wells (MW-1 through MW-6) were installed across the property, with MW-1 located at the rear of the New Hope Cleaners and Tailors tenant space. Volatile organic compounds (VOCs) were not detected in any of the groundwater samples collected from the monitoring wells.

In February 1998, GZA prepared an Environmental Services letter report to update the previous Phase II report. GZA collected one groundwater sample from monitoring well MW-1 located behind the New Hope Cleaners and Tailors facility. PCE was detected in the groundwater sample collected from monitoring well MW-1 at a concentration of 2,100 µg/L, which exceeds the NC 2L standard of 0.7 µg/L.

The site was certified into the DSCA Program on May 17, 2002. MACTEC Engineering and Consulting, Inc. (MACTEC) conducted Prioritization Assessment (PA) activities at the site from April 2006 through June 2006. The PA activities included the installation and sampling of 6 soil borings (S-1 through S-6) and two Type II monitoring wells (MW-7 and MW-8). Concentrations of 1,1-dichloroethylene (1,1-DCE), benzene, chloroform, ethylbenzene, naphthalene, PCE, toluene, trichloroethylene (TCE), and/or total xylenes were detected in three soil borings (S-2, S-4, and S-5) at concentrations below their respective DSCA Tier 1 RBSLs. PCE was detected above the NC 2L standard in monitoring wells MW-1 (222 µg/L) and MW-7 (66.6 µg/L). No other constituents were detected in monitoring wells MW-1, MW-7 or MW-8 above NC 2L standards.

From June 2009 through August 2009, H&H completed assessment activities at the site including a passive soil gas survey, the collection of 21 soil samples from 11 temporary soil borings (S-7 through S-17), the installation of 4 monitoring wells (MW-9 through MW-12), and the collection of groundwater samples from 7 monitoring wells (MW-1, MW-7 through MW-12). H&H also updated the receptor survey covering a 1,500-ft radius. No dry-cleaning constituents were detected in the soil samples from soil borings S-7 through S-17. PCE was detected above the NC 2L standard in monitoring wells MW-1 (45 µg/L), MW-7 (16 µg/L), and

MW-10 (0.89 µg/L) and below the NC 2L standard in monitoring well MW-8 (0.69 µg/L). PCE was not detected in the remaining monitoring wells. No other constituents were detected in the monitoring wells at concentrations above NC 2L standards.

In October and November 2009, H&H completed a vapor intrusion assessment at the site which included the collection of one sub-slab vapor sample and one indoor air sample. PCE was detected in the sub-slab vapor sample at a concentration of 1,700 µg/m³. PCE was detected in the indoor air sample at a concentration of 0.58 µg/m³, which is below the EPA Regional Screening Level (RSL) for industrial/commercial air of 2.1 µg/m³. No other constituents were detected in the indoor air sample. Based on the sampling results, vapor intrusion did not appear to be a concern at the site.

From December 2009 until March 2011, H&H conducted groundwater monitoring activities to evaluate stability of the groundwater plume and installed two additional monitoring wells to complete delineation of the plume. Downgradient monitoring well MW-13 was installed in February 2010, and vertical delineation monitoring well MW-1D was installed in March 2011. Quarterly groundwater monitoring events were conducted in December 2009, March 2010, June 2010, September 2010, December 2010, and March 2011. PCE has been the only constituent detected in groundwater at concentrations above NC 2L standards. In March 2011, PCE was detected above the NC 2L standard in only two monitoring wells MW-1 (26 µg/L) and MW-7 (6.0 µg/L). The groundwater plume is delineated horizontally and vertically, and PCE groundwater concentrations at the site have been stable or decreasing over time.

4.2 Remedial Action

According to the DSCA Program's RBCA guidance, no remedial action is necessary if four site conditions are met: the dissolved plume is stable or decreasing; the maximum concentration within the exposure domain for every complete exposure pathway of any constituent of concern (COC) is less than ten times the RC of that COC; adequate assurance is provided that the land-use assumptions used in the DSCA Program's RBCA process are not violated for current or

future conditions; and, there are no ecological concerns at the site. The subject site's compliance with these four conditions confirms that the contaminant concentrations are not likely to pose an unacceptable risk either at present or in the future. Land-use restrictions (LURs) and no remedial action are recommended for the site. Each of these conditions and their applicability to the subject site are summarized below.

Condition 1: The dissolved plume is stable or decreasing.

Quarterly groundwater monitoring was conducted at the site to evaluate changes in groundwater concentrations over time. PCE is the only constituent that has been detected in groundwater at concentrations above 2L Standards. To evaluate plume stability, H&H prepared PCE concentration versus time and PCE concentration versus distance graphs for the site monitoring wells. As shown in the graphs in Appendix B, PCE concentrations at the site are stable or decreasing. Documentation of the plume stability evaluation, including a figure showing monitoring well locations, a table showing historical groundwater analytical data, a concentration versus distance graph, and concentration versus time graphs are included in Appendix B.

Condition 2: The maximum concentration within the exposure domain for every complete exposure pathway of any COC is less than ten times the RC of that COC.

H&H calculated representative concentrations of COCs for each complete exposure pathway during the Tier 1 Risk Assessment evaluations. The maximum concentration of each COC was less than ten times the respective RC.

Condition 3: Adequate assurance is provided that the land-use assumptions used in the DSCA Program's RBCA process are not violated for current or future conditions.

The risk assessment conducted by H&H for the site assumed that groundwater from the site property will not be utilized in the future. As discussed in Section 6.0, LURs will be implemented for the site property to ensure that this assumption remains valid.

Condition 4: There are no ecological concerns at the site.

H&H completed a Level 1 Ecological Risk Assessment for the site in accordance with the DSCA Program's RBCA guidance. The results of the evaluation indicate that the release does not pose an unacceptable ecological risk. The completed Level 1 Ecological Risk Assessment Checklists A and B are included in Appendix C.

The site's compliance with the four above-referenced conditions indicates that the contaminant concentrations are not likely to pose an unacceptable risk either at present or in the future, and the appropriate remedial action is to implement LURs on the site property.

5.0 DATA COLLECTED DURING RMP IMPLEMENTATION

No further sampling or other data collection activities are proposed for the site. As such, this section is not applicable.

6.0 LAND-USE RESTRICTIONS

The risk assessment for the site was based on the assumption that groundwater from the site property will not be utilized in the future. LURs will be implemented for the site property to ensure that this land-use condition is maintained and monitored until LURs are no longer required for the site. A Notice of Dry-Cleaning Solvent Remediation (NDCSR) was prepared for the site to comply with the LUR requirement. The NDCSR is included in Appendix D. A plat showing the locations and types of dry-cleaning solvent contamination on the property is included as an exhibit to the NDCSR. The locations of dry-cleaning solvent contamination are where contaminants have been detected above unrestricted use standards. As discussed in Section 4.1 and 4.2, PCE is the primary COC for the site.

7.0 LONG-TERM STEWARDSHIP PLAN

The NDCSR contains a clause requiring the owner of the site to submit a notarized “Annual DSCA Land-Use Restrictions Certification” to NCDENR on an annual basis certifying that the NDCSR remains recorded with the Register of Deeds and that the land-use conditions have not changed. An example of such a notice is included in Appendix E. Documents relating to this site will be maintained by NCDENR and made available for public access.

8.0 RMP IMPLEMENTATION SCHEDULE

Since potential exposure to impacts at the site will be managed through the NDCSR and LURs, no additional site remedial activities are required to implement the RMP. A 30-day public comment period will be held to allow the community an opportunity to comment on the proposed strategy. Appendix F includes example documents used to announce the public comment period in the local newspaper and to inform local officials, nearby property owners, and interested parties. Upon completion of the public comment period and final approval of the RMP, the NDCSR will be filed with the Wake County Register of Deeds and will complete the RMP schedule.

9.0 CRITERIA FOR DEMONSTRATION OF RMP SUCCESS

The RMP will be successfully implemented once the required LURs have been executed and recorded with the Wake County Register of Deeds. The NDCSR may, at the request of the property owner, be canceled by NCDENR after risk to public health and the environment associated with the dry-cleaning solvent contamination and any other contaminants included in the dry-cleaning solvent assessment and remediation agreement has been eliminated. If NCDENR is notified of a change in site conditions, per the notification requirements detailed in the NDCSR, the RMP will be reviewed to determine if the new site conditions have impacted the requirements set forth in the NDCSR and LURs, and if changes are required. Enforcement of

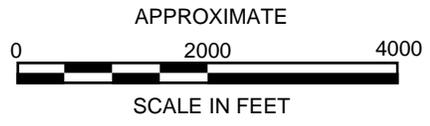
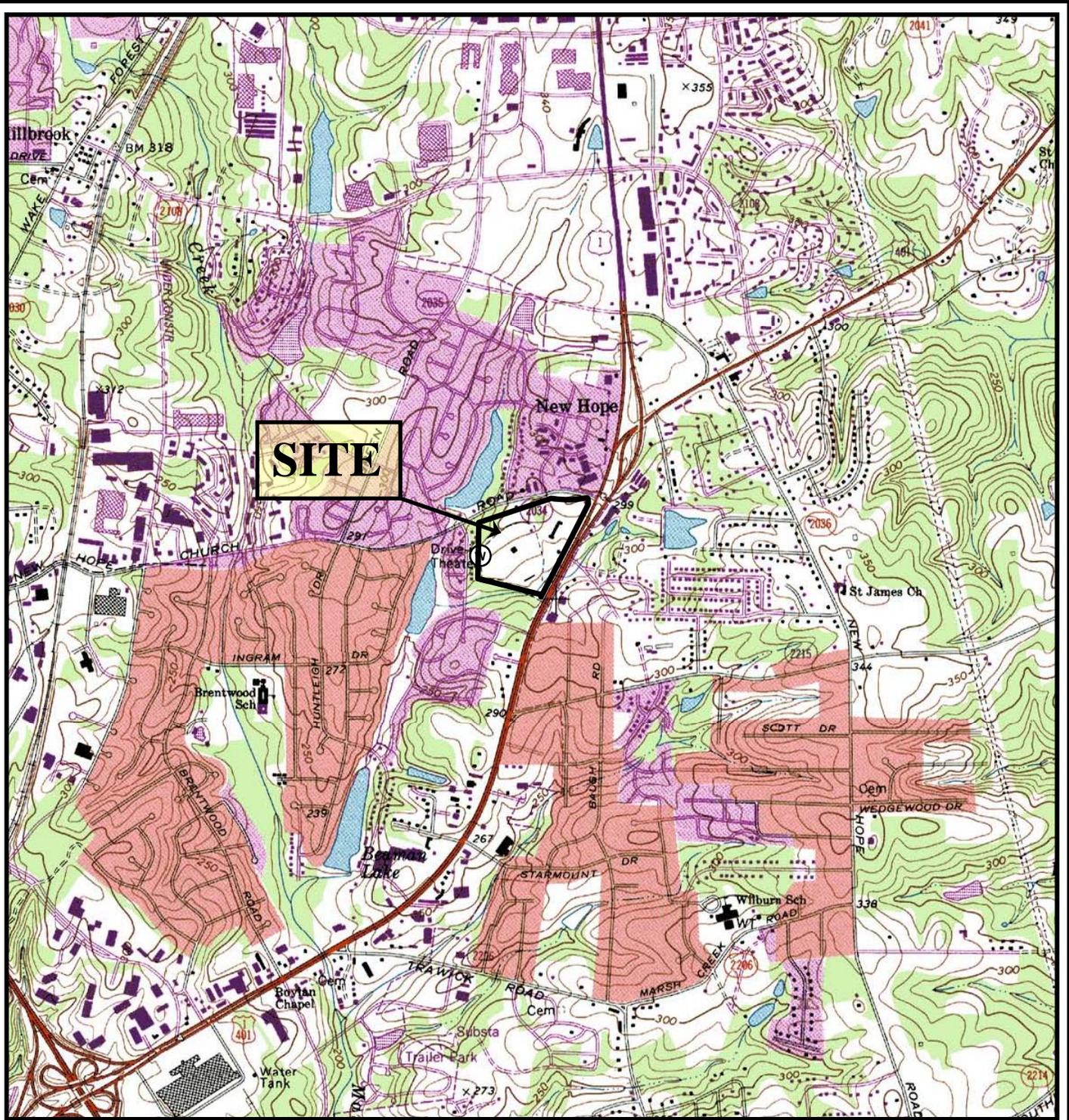
the RMP will be maintained through receipt of the “Annual DSCA Land-Use Restrictions Certification” from the property owner as part of the NDCSR and LUR requirements.

10.0 CONTINGENCY PLAN IF RMP FAILS

As discussed above, unless the DSCA Program is notified of a change in land-use conditions at the site, per the notification requirements detailed in this plan, the LURs specified in the NDCSR will remain in effect. Pursuant to N.C.G.S. 143-215.104K, if any of the LURs set out in the NDCSR are violated, the owner of the site property at the time the LURs are violated, the owner’s successors and assigns, and the owner’s agents who direct or contract for alteration of the site in violation of the LURs, shall be held liable for the remediation of all contaminants to unrestricted use standards.

11.0 CONCLUSIONS AND RECOMMENDATIONS

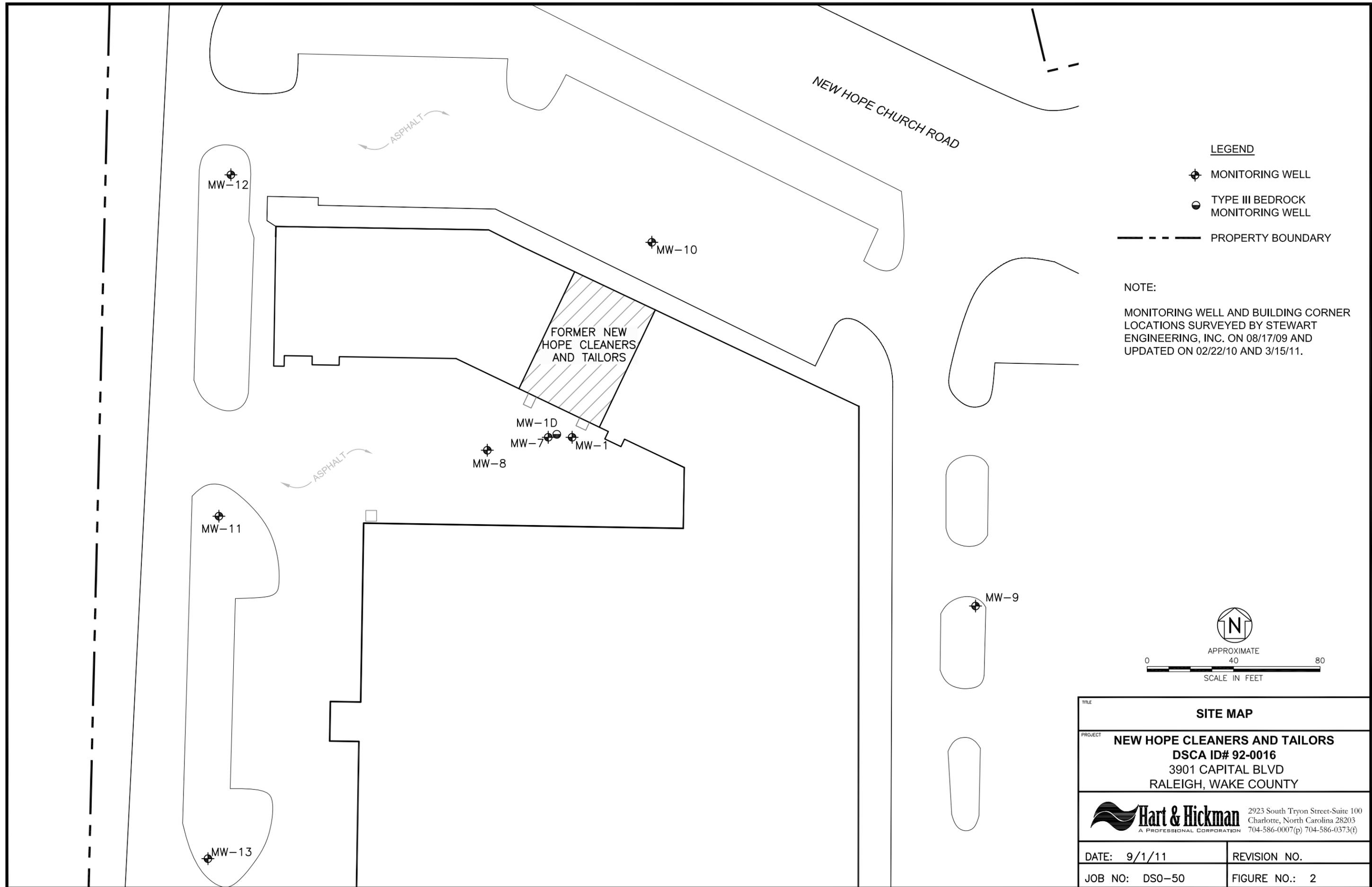
H&H has prepared this RMP for the site on behalf of the DSCA Program. The risk assessment results indicated that contaminant concentrations at the site do not pose an unacceptable risk. Groundwater concentrations detected at the site appear to be stable or decreasing. This RMP specifies that the NDCSR and LUR requirements provide notification that the land-use conditions observed during the risk assessment evaluation remain valid in the future. Based on the documentation contained in this report, H&H recommends issuance of a “No Further Action” letter.



U.S.G.S. QUADRANGLE MAP
RALEIGH EAST, NC 1987

QUADRANGLE
 7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	SITE LOCATION MAP		
PROJECT	NEW HOPE CLEANERS AND TAILORS DSCA ID# 92-0016 3901 CAPITAL BLVD RALEIGH, WAKE COUNTY		
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f)			
DATE:	06-01-10	REVISION NO:	0
JOB NO:	DS0-50	FIGURE NO:	1



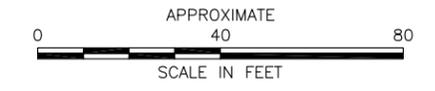
LEGEND

- ⊕ MONITORING WELL
- TYPE III BEDROCK MONITORING WELL

--- PROPERTY BOUNDARY

NOTE:

MONITORING WELL AND BUILDING CORNER LOCATIONS SURVEYED BY STEWART ENGINEERING, INC. ON 08/17/09 AND UPDATED ON 02/22/10 AND 3/15/11.



TITLE SITE MAP	
PROJECT NEW HOPE CLEANERS AND TAILORS DSCA ID# 92-0016 3901 CAPITAL BLVD RALEIGH, WAKE COUNTY	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f)	
DATE: 9/1/11	REVISION NO.
JOB NO: DS0-50	FIGURE NO.: 2

Appendix A

DSCA Indoor Air Risk Calculator

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

DSCA ID No: 92-0016

Name/Address of DSCA Site:

New Hope Cleaners and Tailors/3901 Capital Blvd, Raleigh, Wake County

Name/Address of Sampling Location: Mady Nail Supply/3901 Capital Blvd, Suite 165, Raleigh

Sampling Date: 11/2/2009

Sample ID: Ambient

Cumulative Risk Calculation for Indoor Air Pathway (Residential)												
	Tetrachloroethene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE	1,2-Dichloroethane				
Maximum Concentration Detected ($\mu\text{g}/\text{m}^3$)	0.58											
EPA Regional Screening Level (RSL) for Residential Air (carcinogenic target risk = $1\text{E-}06$) $\mu\text{g}/\text{m}^3$	0.41	1.2	0.16	0.31	0.97	0.072	9.4	0.094				
Ratio = Max Concentration \div EPA RSL	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00				

CUMULATIVE RISK (sum of ratios $\times 10^6$)	1.41E-06
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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	0.58											
EPA Regional Screening Level (RSL) for Residential Air [noncancer Hazard Index (HI)=1] $\mu\text{g}/\text{m}^3$	280	10	100	63	31	5200	1000	100	3.1	3100	7.3	
Ratio = Max Concentration \div EPA RSL	0.0021	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)	0.0021
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Notes:

- RSLs available at: http://www.epa.gov/req3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm
- Trans-1,2-DCE, toluene and xylenes were not included in the cumulative risk calculation since they currently have no carcinogenic EPA RSLs.
- 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 2: Cumulative Risk for Industrial Worker

DSCA ID No: 92-0016

Name/Address of DSCA Site:

New Hope Cleaners and Tailors/3901 Capital Blvd, Raleigh, Wake County

Name/Address of Sampling Location: Mady Nail Supply/3901 Capital Blvd, Suite 165, Raleigh

Sampling Date: 11/2/2009

Sample ID: Ambient

Cumulative Risk Calculation for Indoor Air Pathway (Industrial)													
	Tetrachloroethylene	Trichloroethylene	Vinyl Chloride	Benzene	Ethylbenzene	Naphthalene	MTBE	1,2-Dichloroethane					
Maximum Concentration Detected ($\mu\text{g}/\text{m}^3$)	0.58												
EPA Regional Screening Level (RSL) for Industrial Air (carcinogenic target risk = $1\text{E-}06$) $\mu\text{g}/\text{m}^3$	2.1	6.1	2.8	1.6	4.9	0.36	47	0.47					
Ratio = Max Concentration \div EPA RSL	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00					

CUMULATIVE RISK (sum of ratios x 10^6)	2.76E-07
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Cumulative Hazard Index (HI) Calculation for Indoor Air Pathway (Industrial)													
	Tetrachloroethylene	Trichloroethylene	Vinyl Chloride	trans - 1,2 -DCE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE	1,2-Dichloroethane		
Maximum Concentration Detected	0.58												
EPA Regional Screening Level (RSL) for Industrial Air [noncancer Hazard Index (HI)=1] $\mu\text{g}/\text{m}^3$	1200	44	440	260	130	22000	4400	440	13	13000	31		
Ratio = Max Concentration \div EPA RSL	0.0005	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)	0.0005
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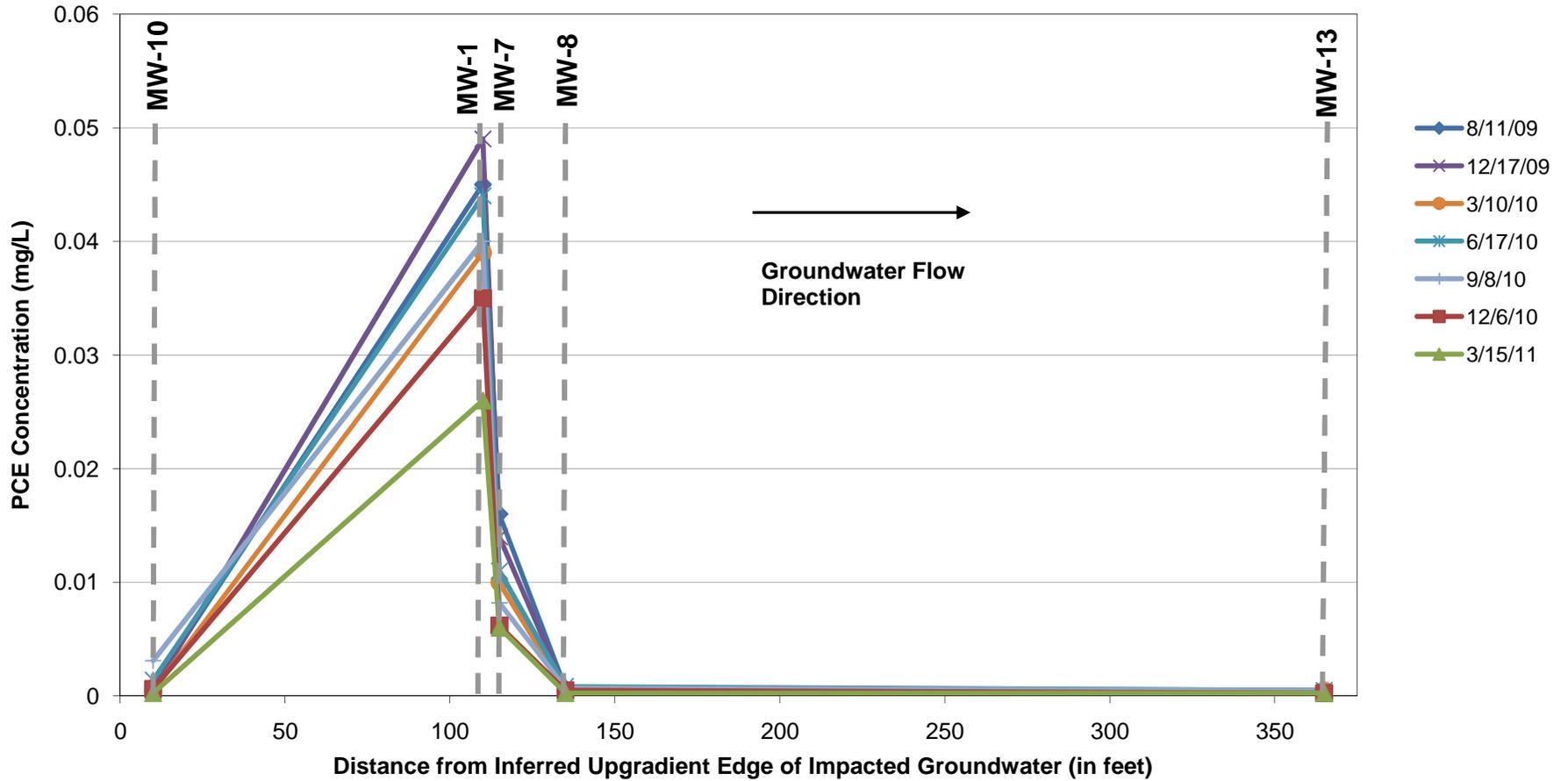
Notes:

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

Appendix B

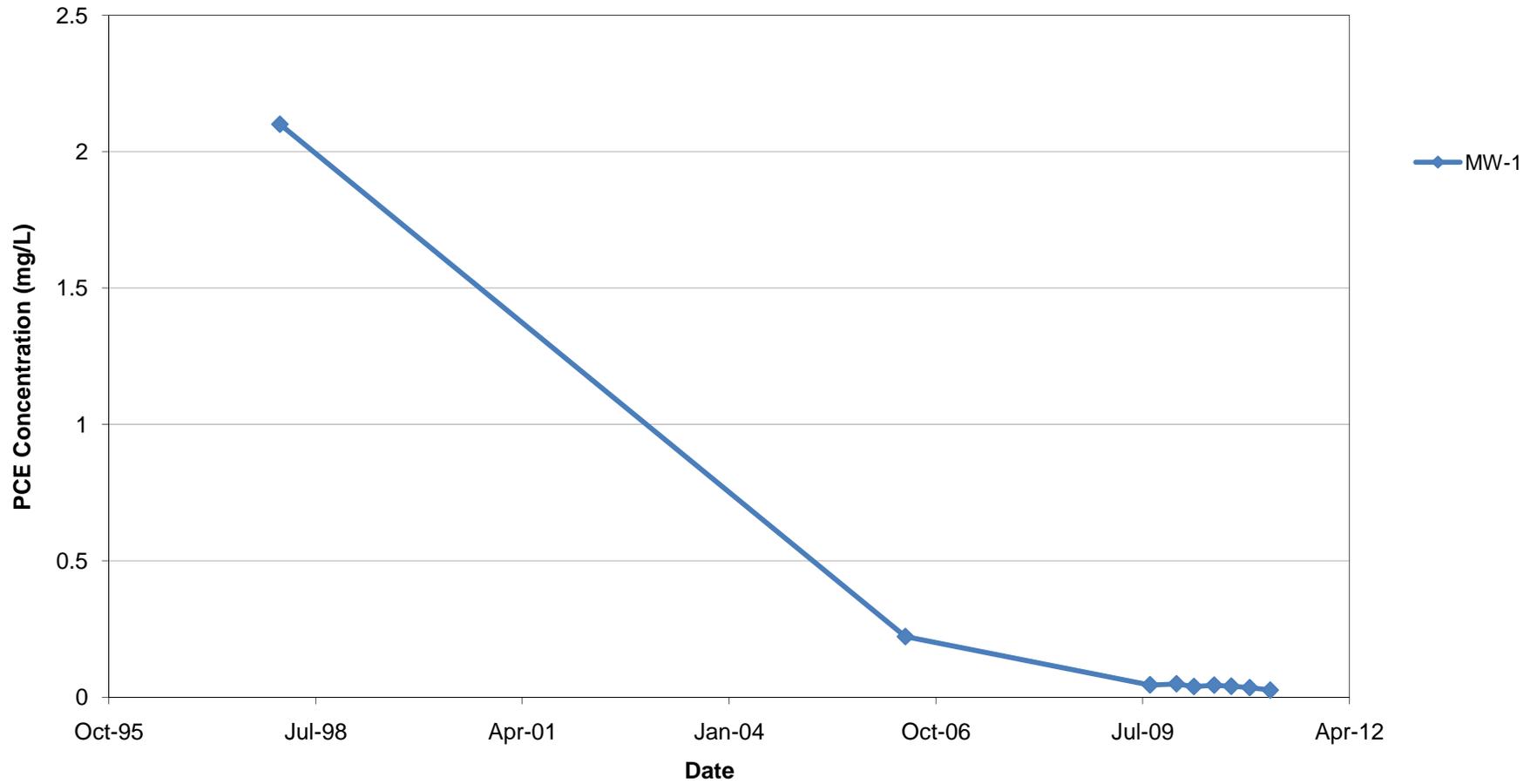
Documentation of Plume Stability Evaluation

PCE Concentration vs. Distance
New Hope Cleaners and Tailors, Raleigh, Wake County
DSCA ID: 92-0016

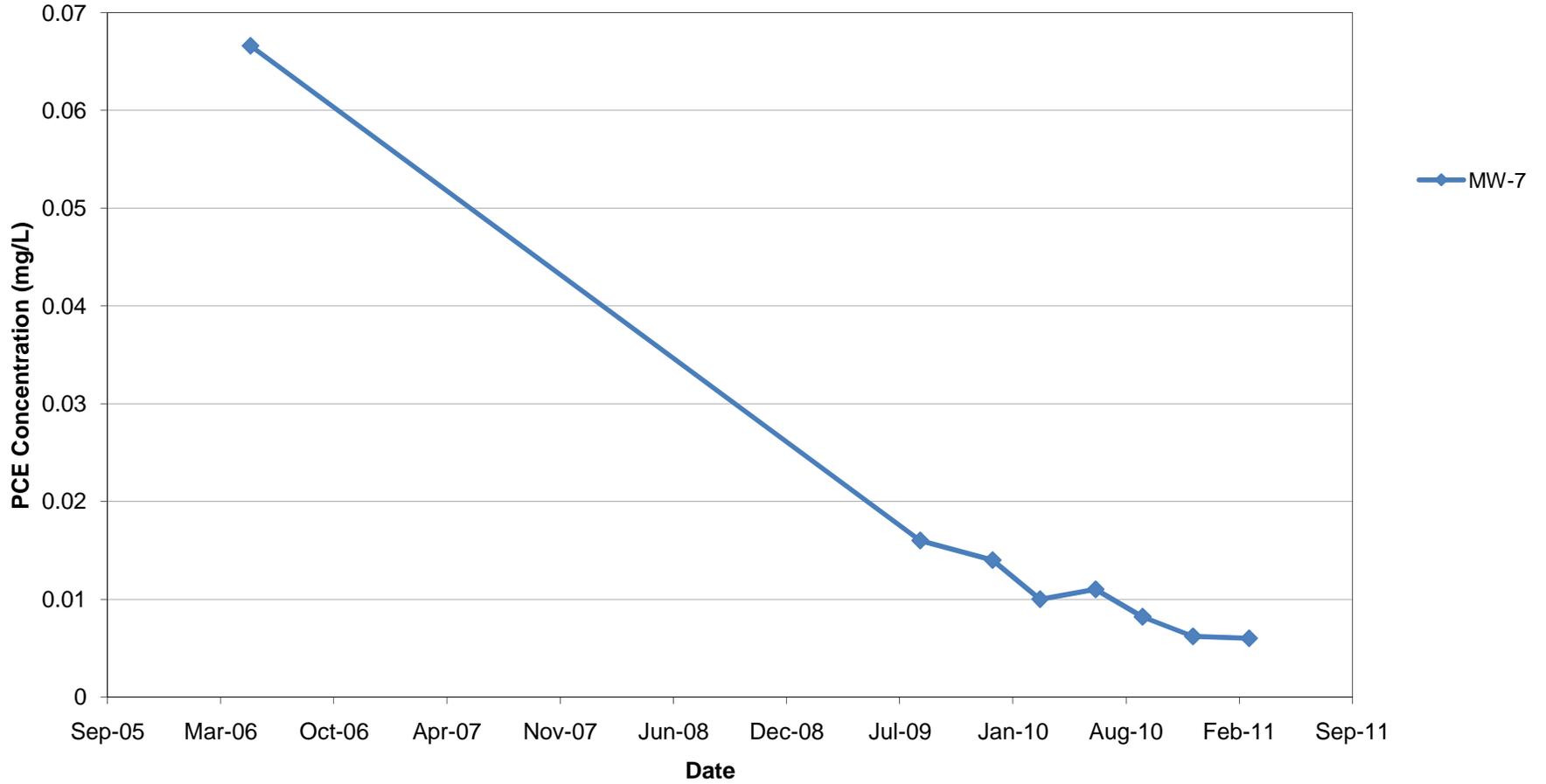


Note: Non-detect values are graphed as half the laboratory method detection limit.

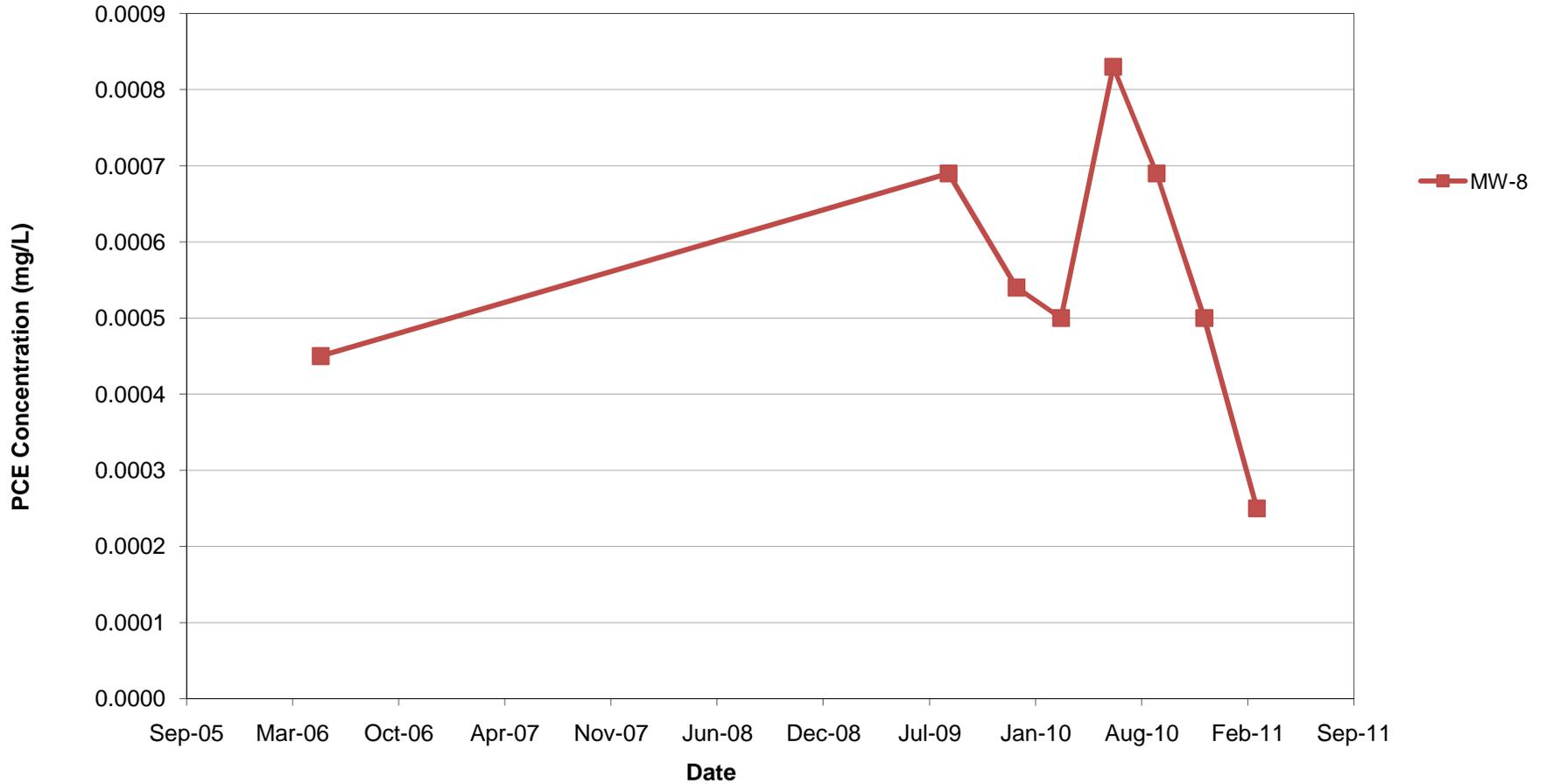
PCE Concentration vs. Time
MW-1
New Hope Cleaners and Tailors, Raleigh, Wake County
DSCA ID: 92-0016



PCE Concentration vs. Time
MW-7
New Hope Cleaners and Tailors, Raleigh, Wake County
DSCA ID: 92-001

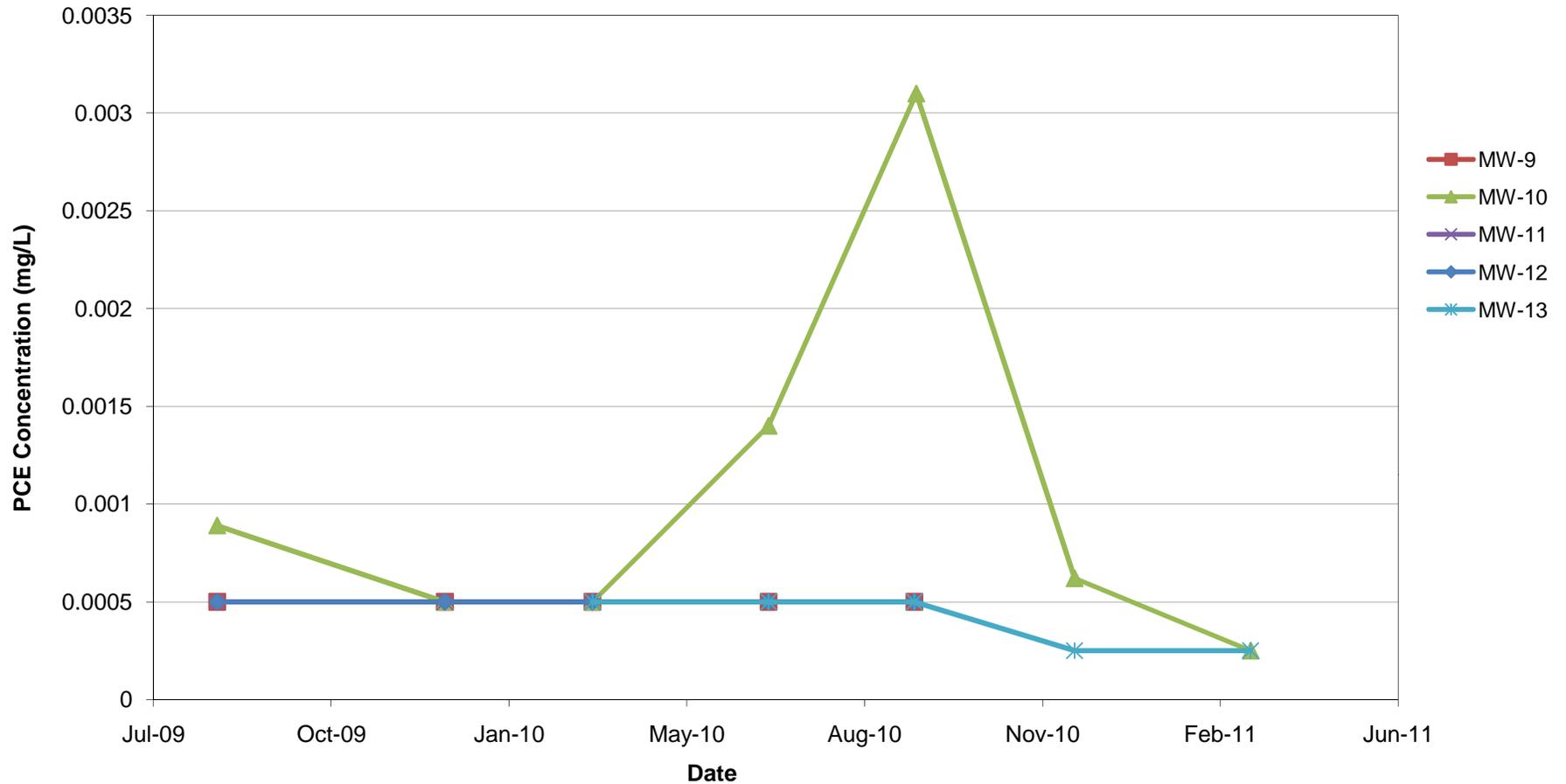


PCE Concentration vs. Time
MW-8
New Hope Cleaners and Tailors, Raleigh, Wake County
DSCA ID: 92-001



Note: Non-detect values are graphed as half the laboratory reporting limit.

PCE Concentration vs. Time
MW-9, MW-10, MW-11, MW-12, and MW-13
New Hope Cleaners and Tailors, Raleigh, Wake County
DSCA ID: 92-0016



Note: Non-detect values are graphed as half the laboratory reporting limit.

Table 5: Analytical Data for Groundwater

DSCA ID No.: 92-0016

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	1,1,1-Trichloroethane	1,1,1,2-Tetrachloroethane	1,1,2-Trichloroethane	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)
		[mg/L]																			
MW-1	2/2/98	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	NA	<0.001	<0.001	NA	NA	NA	NA	2.1	NA	<0.001	<0.001	<0.001	NA
	5/16/06	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	NA	<0.000	<0.0008	<0.000	<0.000	<0.000	<0.000	0.222	<0.000	<0.000	<0.000	<0.000	<0.0006
	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.0011	<0.001	<0.001	<0.001	<0.001	0.045	<0.001	<0.002	<0.002	<0.002	<0.003
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00095	<0.001	<0.001	<0.001	<0.001	0.049	<0.001	<0.002	<0.002	<0.002	<0.003
	3/11/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00071	<0.001	<0.001	<0.001	<0.001	0.039	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00079	<0.001	<0.001	<0.001	<0.001	0.044	<0.001	<0.002	<0.002	<0.002	<0.003
	9/8/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00065J	<0.001	<0.001	<0.001	<0.001	0.040	<0.001	<0.002	<0.002	<0.002	<0.003
	12/6/10	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	0.00054J	<0.0010	<0.0010	<0.0010	<0.0010	0.035	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030
3/15/11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.026	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030	
MW-1D	3/15/11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030
MW-7	5/16/06	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	NA	<0.000	<0.0004	<0.000	<0.000	<0.000	<0.000	0.0666	<0.000	<0.000	<0.000	<0.000	<0.0003
	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00071J	<0.001	<0.001	<0.001	<0.001	0.016	<0.001	<0.002	<0.002	<0.002	<0.003
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00052J	<0.001	<0.001	<0.001	<0.001	0.014	<0.001	<0.002	<0.002	<0.002	<0.003
	3/11/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00055J	<0.001	<0.001	<0.001	<0.001	0.010	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.011	<0.001	<0.002	<0.002	<0.002	<0.003
	9/8/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.0082	<0.001	<0.002	<0.002	<0.002	<0.003
	12/6/10	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0062	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030
	3/15/11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0060	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030
MW-8	5/16/06	<0.000	<0.000	<0.004	<0.000	<0.000	<0.000	<0.000	NA	<0.000	<0.0004	<0.000	<0.000	<0.000	<0.000	<0.000	0.0009J	<0.000	<0.000	<0.000	<0.0003
	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.00069J	<0.001	<0.002	<0.002	<0.002	<0.003
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.00054J	<0.001	<0.002	<0.002	<0.002	<0.003
	3/11/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.00083J	<0.001	<0.002	<0.002	<0.002	<0.003
	9/7/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.00069J	<0.001	<0.002	<0.002	<0.002	<0.003
	12/6/10	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.00050	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030
	3/15/11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0020	<0.0020	<0.0020	<0.0030

Table 5: Analytical Data for Groundwater

DSCA ID No.: 92-0016

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	1,1,1-Trichloroethane	1,1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	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)	
		[mg/L]																				
MW-9	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003	
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003	
	3/10/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	9/7/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
MW-10	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.00089J	<0.001	<0.002	<0.002	<0.002	<0.003	
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003	
	3/10/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	0.0014	<0.001	<0.002	<0.002	<0.002	<0.002	<0.003
	9/8/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00071J	<0.001	<0.001	<0.001	<0.001	0.0031	<0.001	<0.002	<0.002	<0.002	<0.002	<0.003
	12/6/10	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.00062	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0030
3/15/11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0030	
MW-11	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.00085J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003	
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003	
	3/10/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	9/7/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
MW-12	8/11/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	0.0022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	12/17/09	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	3/10/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	9/7/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
MW-13	3/10/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	6/17/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	9/7/10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NA	<0.002	<0.0010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.003
	12/6/10	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0030
	3/15/11	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	<0.0020	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.00050	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0030
NC 2L Standards	0.2	0.0002	NE	0.006	0.007	0.0004	0.001	5x10 ⁻⁵	0.0003	0.07	0.07	0.6	0.02	0.006	0.0007	0.6	0.1	0.003	3x10 ⁻⁵	0.5		

- Notes:
1. Bold values exceed 2L Standard.
 2. "J" flag denotes estimated concentration below laboratory reporting limit and above method detection limit.
 3. NA denotes not analyzed. NE denotes not established.

Table 5(1): Analytical Data for Groundwater (User Specified Chemicals)

ADT 5(1)

DSCA ID No.: 92-0016

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	Acetone																		
			[mg/L]																	
MW-1	2/2/98	NA																		
	5/16/06	<0.002																		
	8/11/09	<0.010																		
	12/17/09	<0.010																		
	3/11/10	<0.010																		
	6/17/10	<0.010																		
	9/8/10	<0.010																		
	12/6/10	<0.010																		
MW-1D	3/15/11	<0.010																		
MW-7	5/16/06	<0.001																		
	8/11/09	<0.010																		
	12/17/09	<0.010																		
	3/11/10	<0.010																		
	6/17/10	<0.010																		
	9/8/10	<0.010																		
	12/6/10	<0.010																		
	3/15/11	<0.010																		
MW-8	5/16/06	<0.001																		
	8/11/09	<0.010																		
	12/17/09	<0.010																		
	3/11/10	<0.010																		
	6/17/10	<0.010																		
	9/7/10	<0.010																		
	12/6/10	<0.010																		
	3/15/11	<0.010																		

Table 5(1): Analytical Data for Groundwater (User Specified Chemicals)

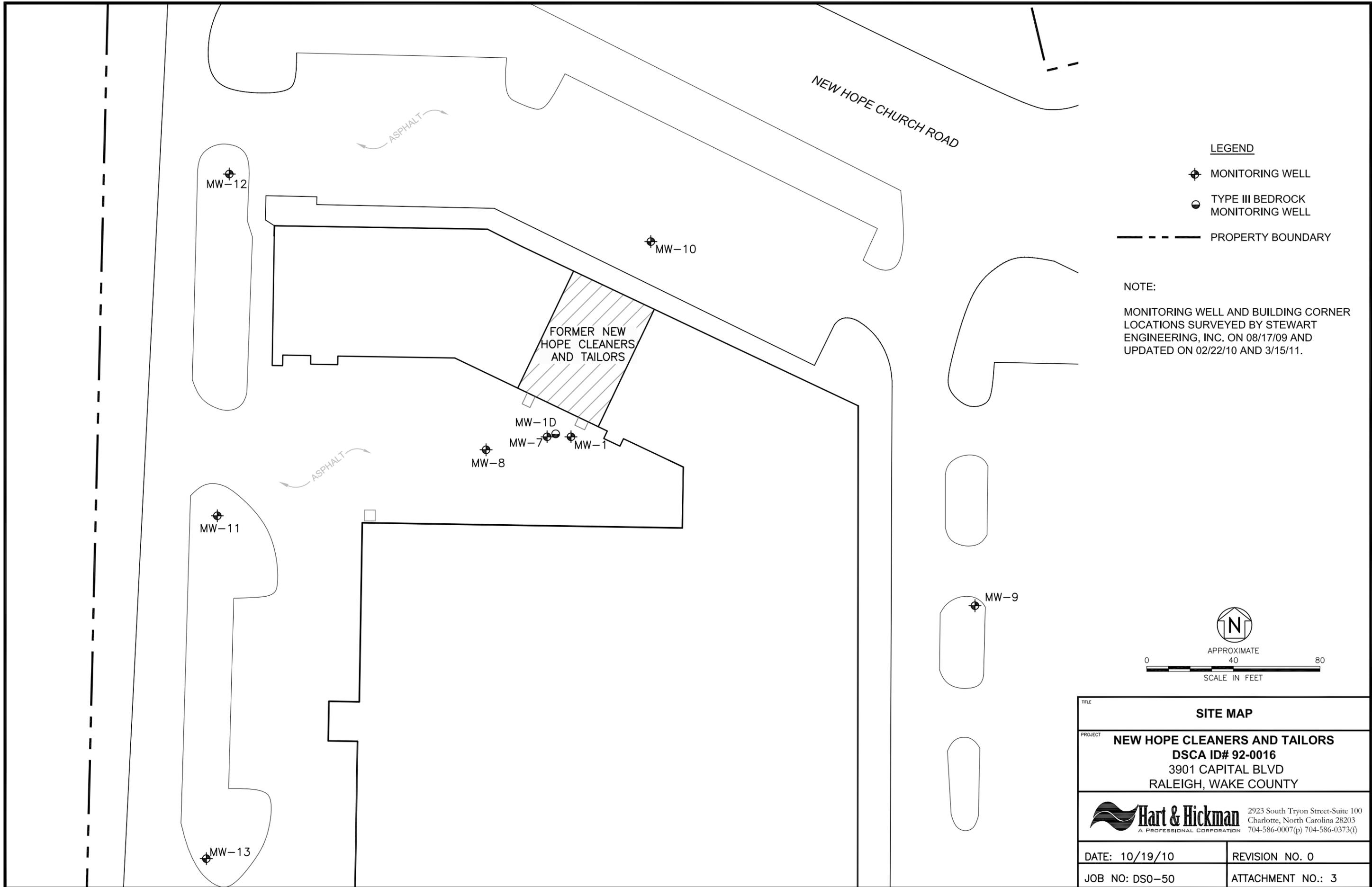
ADT 5(1)

DSCA ID No.: 92-0016

Groundwater Sampling Point	Sampling Date (mm/dd/yy)	Acetone																		
		[mg/L]																		
MW-9	8/11/09	<0.010																		
	12/17/09	<0.010																		
	3/10/10	<0.010																		
	6/17/10	<0.010																		
	9/7/10	<0.010																		
MW-10	8/11/09	0.0053J																		
	12/17/09	<0.010																		
	3/10/10	<0.010																		
	6/17/10	<0.010																		
	9/8/10	<0.010																		
	12/6/10	<0.010																		
	3/15/11	<0.010																		
MW-11	8/11/09	<0.010																		
	12/17/09	<0.010																		
	3/10/10	<0.010																		
	6/17/10	<0.010																		
	9/7/10	<0.010																		
MW-12	8/11/09	<0.010																		
	12/17/09	<0.010																		
	3/10/10	<0.010																		
	6/17/10	<0.010																		
	9/7/10	<0.010																		
MW-13	3/10/10	<0.010																		
	6/17/10	<0.010																		
	9/7/10	<0.010																		
	12/6/10	<0.010																		
	3/15/11	<0.010																		
NC 2L Standards	6																			

Notes:
 1. Bold values exceed 2L Standard.
 2. "J" flag denotes estimated concentration below laboratory reporting limit and above method detection limit.
 3. NA denotes not analyzed. NE denotes not established.

S:\AAA-Master Projects\DSCA - DSO\DSO-50 New Hope Cleaners\Figures\DC320016_20110418_GWMonFigures.dwg, ATT 3 SITE MAP, 4/20/2011 10:21:08 AM,



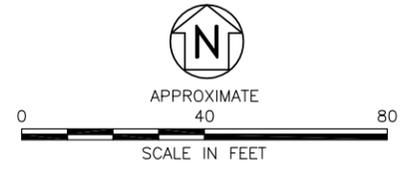
LEGEND

- ⊕ MONITORING WELL
- TYPE III BEDROCK MONITORING WELL

--- PROPERTY BOUNDARY

NOTE:

MONITORING WELL AND BUILDING CORNER LOCATIONS SURVEYED BY STEWART ENGINEERING, INC. ON 08/17/09 AND UPDATED ON 02/22/10 AND 3/15/11.



TITLE SITE MAP	
PROJECT NEW HOPE CLEANERS AND TAILORS DSCA ID# 92-0016 3901 CAPITAL BLVD RALEIGH, WAKE COUNTY	
 Hart & Hickman <small>A PROFESSIONAL CORPORATION</small>	
<small>2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f)</small>	
DATE: 10/19/10	REVISION NO. 0
JOB NO: DSO-50	ATTACHMENT NO.: 3

Appendix C

Level 1 Ecological Risk Assessment Checklists

Ecological Risk Assessment – Level 1
Checklist A – Potential Receptors and Habitat

Site / Location: New Hope Cleaners And Tailors, 3901 Capital Blvd, Tarrymore Square Shopping Center, Raleigh, Wake County, NC
H&H Project No.: DS0-50
DSCA Site ID: 92-0016

1. Are there navigable water bodies or tributaries to a navigable water body on or within a one-half mile radius of the site?

Yes, a pond and tributary of Marsh Creek is located approximately 450 feet northwest of the site. A pond and tributary of Marsh Creek is located approximately 900 feet southwest of the site. A pond and tributary of Marsh Creek was identified on the topographic map and the US Fish and Wildlife Services (USFWS) National Wetlands Inventory approximately 2,300 feet east of the site. Marsh Creek discharges into Crabtree Creek and ultimately the Neuse River.

2. Are there any water bodies anywhere on or within one-half mile of the site?

Yes, a pond and tributary of Marsh Creek is located approximately 450 feet northwest of the site. A pond and tributary of Marsh Creek is located approximately 900 feet southwest of the site. A pond and tributary of Marsh Creek was identified on the topographic map and the USFWS National Wetlands Inventory approximately 2,300 feet east of the site.

3. Are there any wetland¹ areas such as marshes or swamps on or within one-half mile of the site?

Yes, the ponds identified in #2 above are also identified as PUHHh wetlands. These wetlands are described as palustrine system, unconsolidated bottom class, permanently flooded, and diked/impounded wetlands. These wetlands were identified on the USFWS National Wetlands Inventory.

4. Are there any sensitive environmental areas² on or within one-half mile of the site?

Yes, wetlands are located 450 feet northwest, 900 feet southwest, and 2,300 feet east of the site.

5. Are there any areas on or within one-half mile of the site owned or used by local tribes?

No, the Native American Consultation Database and the US Department of the Interior's on-line National Atlas do not identify any areas within a one-half mile radius of the site owned or used by local tribes.

6. Are there any habitat, foraging area, or refuge by rare, threatened, endangered, candidate and/or proposed species (plants and animals), or any otherwise protected species on or within one-half mile of the site?

¹ Wetlands are defined in 40 CFR 232.2 as "areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions." The sources to make the determination whether or not wetland areas are present may include, but not limited to, national wetland inventory available at <http://nwi.fws.gov>, federal or state agency, and USGS topographic maps.

² Areas that provide unique and often protected habitat for wildlife species. These areas typically used during critical life stages such as breeding, hatching, rearing or young and overwintering. Refer to Attachment 1 for examples of sensitive environments.

Yes, the NC Natural Heritage Program indicates the Star-Nosed Mole (*Condylura cristata*) has been identified within two miles of the site. The US Fish and Wildlife Service Critical Habitat Mapper did not identify any critical habitat on or within one-half mile of the site.

7. Are there any breeding, roosting, or feeding areas used by migratory species on or within one-half mile of the site?

No, none identified on or within one-half mile of the site.

8. Are there any ecologically³, recreationally, or commercially important species on or within one-half mile of the site?

No, none identified on or within one-half mile of the site.

9. Are there any threatened and/or endangered species (plant or animal) on or within one-half mile of the site?

Yes, the NC Natural Heritage Program indicates the Star-Nosed Mole (*Condylura cristata*) has been identified within two miles of the site. The US Fish and Wildlife Service Critical Habitat Mapper did not identify any threatened and/or endangered species on or within one-half mile of the site.

If the answer is “Yes” to any of the above questions, then complete Level 1 Ecological Risk Assessment, Checklist B for Potential Exposure Pathways.

³ Ecologically important species include populations of species which provide a critical food resource for higher organisms. Ecologically important species include pest and opportunistic species that populate an area if they serve as a food source for other species, but do not include domesticated animals or plants/animals whose existence is maintained by continuous human interventions.

**Level 1 Ecological Risk Assessment
Checklist B for Potential Exposure Pathways**

- A. Can chemicals associated with the site leach, dissolve, or otherwise migrate to groundwater?

Yes. Tetrachloroethylene (PCE) has been detected in groundwater at the site. The PCE plume has been defined and is limited to the area within approximately 100 feet of the former New Hope Cleaners and Tailors tenant space.

- B. Are chemicals associated with the site mobile in groundwater?

Yes. Chemical mobility is primarily influenced by the chemical solubility and soil-water partition coefficient. Based on these values, PCE is classified as moderately mobile (Fetter, 1988).

- C. Does groundwater from the site discharge to ecological receptor habitat?

Possibly. The primary ecological receptor habitats associated with the site are ponds and tributaries of Marsh Creek located 450 feet northwest and 900 feet southwest of the site. Groundwater at the site flows southwest/north; however, the PCE plume is limited to the area within approximately 100 feet of the former New Hope Cleaners and Tailors tenant space.

Question 1. Could chemicals associated with the site reach ecological receptors through groundwater?

Unlikely. As discussed above, groundwater at the site flows southwest/north, toward the ponds and tributaries of Marsh Creek. However, the PCE plume is limited to the area within approximately 100 feet of the former New Hope Cleaners and Tailors tenant space.

- 1A. Are chemicals present in surface soils on the site?

No. Neither PCE nor other chemicals have been detected in surface soil samples collected at the site.

- 1B. Can chemicals be leached from or be transported by erosion of surface soils on the site?

No. Neither PCE nor other chemicals have been detected in surface soil samples collected at the site.

Question 2. Could chemicals associated with the site reach ecological receptors through runoff or erosion?

No. Neither PCE nor other chemicals have been detected in surface soil samples collected at the site. PCE has historically been detected in a subsurface soil sample, but the impacted soil is beneath the asphalt parking area.

- 2A. Are chemicals present in surface soil or on the surface of the ground?

No. Neither PCE nor other chemicals have been detected in surface soil samples collected at the site.

2B. Are potential ecological receptors on the site?

No. Ecological receptors are not located on the site.

Question 3. Could chemicals associated with the site reach ecological receptors through direct contact?

Unlikely. Groundwater at the site flows southwest/north, toward the ponds and tributaries of Marsh Creek. However, the PCE plume is limited to the area within approximately 100 feet of the former New Hope Cleaners and Tailors tenant space. In addition, neither PCE nor other chemicals have been detected in surface soil samples collected at the site.

3A. Are chemicals on the site volatile?

Yes. PCE is a volatile compound.

3B. Could chemicals on the site be transported in air as dust or particulate matter?

No. Impacted soils are at least 6 feet below ground surface (bgs) and beneath the asphalt parking area.

Question 4. Could chemicals associated with the site reach ecological receptors through inhalation of volatilized chemicals or adhere chemicals to dust in ambient air or in subsurface burrows?

No. Impacted soils are beneath the asphalt parking area and building slab.

4A. Is Non-Aqueous Phase Liquids (NAPL) present at the site?

No. NAPL has not been encountered at the site.

4B. Is NAPL migrating?

No. NAPL has not been encountered at the site.

4C. Could NAPL discharge occur where ecological receptors are found?

No. NAPL has not been encountered at the site.

Question 5. Could chemicals associated with the site reach ecological receptors through migration of NAPL?

No. NAPL has not been encountered at the site.

5A. Are chemicals present in surface and shallow subsurface soils or on the surface of the ground?

No. Impacted soils are at least 6 feet bgs and beneath the asphalt parking area and building slab.

5B. Are chemicals found in soil on the site taken up by plants growing on the site?

No. Impacted soils are at least 6 feet bgs and beneath the asphalt parking area and building slab.

5C. Do potential ecological receptors on or near the site feed on plants (e.g., grasses, shrubs, forbs, trees, etc.) found on the site?

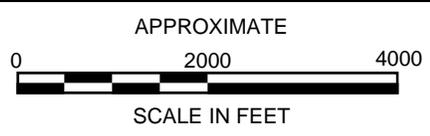
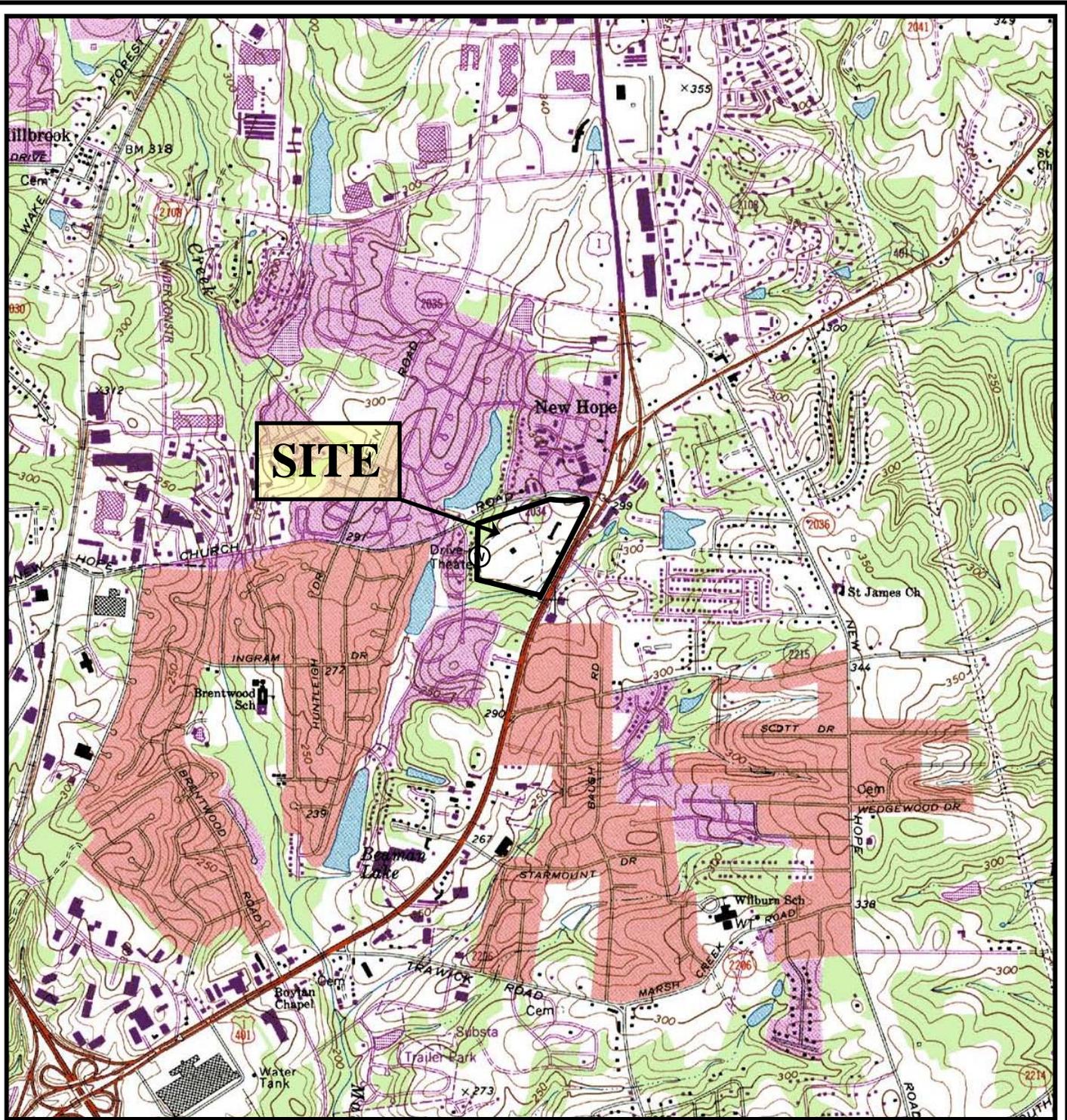
Yes. It is possible that wildlife feed on the site's vegetation.

5D. Do chemicals found on the site bioaccumulate?

No. Based on published references (U.S. Agency for Toxic Substances and Disease Registry, 1997), PCE does not significantly bioaccumulate.

Question 6. Could chemicals associated with the site reach ecological receptors through direct ingestion of soil, plants, animals, or contaminants?

Unlikely. Groundwater at the site flows southwest/north, toward the ponds and tributaries of Marsh Creek. However, the PCE plume is limited to the area within approximately 100 feet of the former New Hope Cleaners and Tailors tenant space. In addition, neither PCE nor other chemicals have been detected in surface soil samples collected at the site. Impacted subsurface soils are beneath the asphalt parking area and building slab.



U.S.G.S. QUADRANGLE MAP
RALEIGH EAST, NC 1987

QUADRANGLE
 7.5 MINUTE SERIES (TOPOGRAPHIC)

TITLE	SITE LOCATION MAP	
PROJECT	NEW HOPE CLEANERS AND TAILORS DSCA ID# 92-0016 3901 CAPITAL BLVD RALEIGH, WAKE COUNTY	
 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007 (p) 704-586-0373 (f)		
DATE:	10-19-10	REVISION NO: 0
JOB NO:	DS0-50	FIGURE NO: 1



U.S. Fish and Wildlife Service National Wetlands Inventory

New Hope Cleaners and Tailors

Apr 7, 2011



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

Status

- Digital
- Scan
- Non-Digital
- No Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

U.S. Fish & Wildlife Service

Endangered Species, Threatened Species, Federal Species of Concern, and Candidate Species,

Wake County, North Carolina



Updated: 09-22-2010

Common Name	Scientific name	Federal Status	Record Status
Vertebrate:			
American eel	<i>Anguilla rostrata</i>	FSC	Current
Bachman's sparrow	<i>Aimophila aestivalis</i>	FSC	Historic
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGPA	Current
Carolina darter	<i>Etheostoma collis lepidinon</i>	FSC	Probable/potential
Carolina madtom	<i>Noturus furiosus</i>	FSC	Current
Pinewoods shiner	<i>Lythrurus matutinus</i>	FSC	Current
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Current
Roanoke bass	<i>Ambloplites cavifrons</i>	FSC	Current
Southeastern myotis	<i>Myotis austroriparius</i>	FSC	Historic
Southern hognose snake	<i>Heterodon simus</i>	FSC	Obscure
Invertebrate:			
Atlantic pigtoe	<i>Fusconaia masoni</i>	FSC	Current
Diana fritillary (butterfly)	<i>Speyeria diana</i>	FSC	Current
Dwarf wedgemussel	<i>Alasmidonta heterodon</i>	E	Current
Green floater	<i>Lasmigona subviridis</i>	FSC	Current
Yellow lance	<i>Elliptio lanceolata</i>	FSC	Current
Vascular Plant:			
Bog spicebush	<i>Lindera subcoriacea</i>	FSC	Current
Grassleaf arrowhead	<i>Sagittaria weatherbiana</i>	FSC	Historic
Michaux's sumac	<i>Rhus michauxii</i>	E	Current
Sweet pinesap	<i>Monotropsis odorata</i>	FSC	Historic
Virginia least trillium	<i>Trillium pusillum</i> var.	FSC	Current

virginianum

Nonvascular Plant:

Lichen:

Definitions of Federal Status Codes:

E = endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."

T = threatened. A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

C = candidate. A taxon under consideration for official listing for which there is sufficient information to support listing. (Formerly "C1" candidate species.)

BGPA = Bald and Golden Eagle Protection Act. See below.

FSC = federal species of concern. A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "C2" candidate species.

T(S/A) = threatened due to similarity of appearance. A taxon that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation. See below.

EXP = experimental population. A taxon listed as experimental (either essential or nonessential).

Experimental, nonessential populations of endangered species (e.g., red wolf) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

P = proposed. Taxa proposed for official listing as endangered or threatened will be noted as "PE" or "PT", respectively.

Bald and Golden Eagle Protection Act (BGPA):

In the July 9, 2007 Federal Register(72:37346-37372), the bald eagle was declared recovered, and removed (de-listed) from the Federal List of Threatened and Endangered wildlife. This delisting took effect August 8,2007. After delisting, the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d) becomes the primary law protecting bald eagles. The Eagle Act prohibits take of bald and golden eagles and provides a statutory definition of "take" that includes "disturb". The USFWS has developed National Bald Eagle Management Guidelines to provide guidance to land managers, landowners, and others as to how to avoid disturbing bald eagles. For mor information, visit <http://www.fws.gov/migratorybirds/baldeagle.htm>

Threatened due to similarity of appearance(T(S/A)):

In the November 4, 1997 Federal Register (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land management activities by private landowners in North Carolina, part of the southern population of the species. In addition to its official status as T(S/A), the U.S. Fish and Wildlife Service considers the southern population of the bog turtle as a Federal species of concern due to habitat loss.

Definitions of Record Status:

Current - the species has been observed in the county within the last 50 years.

Historic - the species was last observed in the county more than 50 years ago.

Obscure - the date and/or location of observation is uncertain.

Incidental/migrant - the species was observed outside of its normal range or habitat.

Probable/potential - the species is considered likely to occur in this county based on the proximity of known records (in adjacent counties), the presence of potentially suitable habitat, or both.

Appendix D

Notice of Dry-Cleaning Solvent Remediation

NOTICE OF DRY-CLEANING SOLVENT REMEDIATION

Property Owner: Gateway Buchanan, Inc.

Recorded in Book _____, Page _____

Associated plat recorded in Plat Book _____, Page _____

This documentary component of a Notice of Dry-Cleaning Solvent Remediation (hereinafter "Notice") is hereby recorded on this ____ day of _____, 20____ by Gateway Buchanan, Inc. (hereinafter "Property Owner"). The survey plat component of the Notice is being recorded concurrently with this documentary component. The real property (hereinafter "Property") which is the subject of this Notice is located at 3901 Capital Boulevard, Raleigh, Wake County, North Carolina, Parcel Identification Number (PIN) 1725390187.

The Property is contaminated with dry-cleaning solvent, as defined in North Carolina General Statutes (hereinafter "N.C.G.S."), Section (hereinafter "§") 143-215.104B(b)(9) and other contaminants. This Notice has been approved by the North Carolina Department of Environment and Natural Resources, or its successor in function (hereinafter "DENR") under the authority of the Dry-Cleaning Solvent Cleanup Act of 1997, as amended, N.C.G.S. § 143-215.104A *et seq.* (hereinafter "DSCA"), and is required to be filed in the Register of Deeds' Office in the county or counties in which the land is located, pursuant to NCGS § 143-215.104M.

Groundwater at the Property is contaminated with dry-cleaning solvents associated with dry-cleaning operations at the New Hope Cleaners and Tailors (DSCA Site 92-0016) located at 3901 Capital Boulevard, Raleigh, in the Tarrymore Square Shopping Center. Dry-cleaning operations were conducted on the Property from approximately 1992 to 2006.

Pursuant to N.C.G.S. § 143-215.104M, this Notice is being filed in order to reduce or eliminate the danger to public health or the environment posed by the Property. Attached hereto as **Exhibit A** is a reduction, to 8 1/2" x 11", of the survey plat component of the Notice required by N.C.G.S. § 143-215.104M. The survey plat has been prepared and certified by a professional land surveyor and meets the requirements of G.S. 47-30, and contains the following information required by N.C.G.S. § 143-215.104M:

- (1) A description of the location and dimensions of the areas of potential environmental concern with respect to permanently surveyed benchmarks; and
- (2) The type, location and quantity of regulated dry-cleaning solvent contamination and other contaminants known to exist on the Property.

Attached hereto as **Exhibit B**, is a legal description of the Property that would be sufficient as a description in an instrument of conveyance.

Pursuant to NCGS § 143-215.104M, a certified copy of this Notice must be filed within 15 days of receipt of DENR's approval of the Notice or the effective date of the dry-cleaning solvent remediation agreement, whichever is later. Pursuant to NCGS § 143-215.104M, the copy of the Notice certified by DENR must be recorded in the grantor index under the names of the owners of the land.

LAND-USE RESTRICTIONS

NCGS § 143-215.104M requires that the Notice identify any restrictions on the current and future use of the Property that are necessary or useful to maintain the level of protection appropriate for the designated current or future use of the Property and that are designated in the dry-cleaning remediation agreement. The restrictions shall remain in force in perpetuity unless canceled by the Secretary of DENR, or his/her designee, after the hazards have been eliminated, pursuant to NCGS §143-215.104M. Those restrictions are hereby imposed on the Property, and are as follows:

- 1. Without prior written approval from DENR, the Property shall not be used for:**
 - a. child care centers; elementary, middle or high schools; or elder care facilities. Exceptions to this restriction include use of the Property for technical or adult educational institutions; technical training centers; or tutorial institutions; or**
 - b. mining or extraction of coal, oil, gas or any mineral or non-mineral substances.**
- 2. No activities that encounter, expose, remove or use groundwater (for example, installation of water supply wells, fountains, ponds, lakes or swimming pools that use groundwater, or construction or excavation activities that encounter or expose groundwater) may occur on the Property without prior approval of DENR.**
- 3. No activities that cause or create a vapor intrusion risk (for example, construction of sub-grade structures that encounter contaminated soil or construction that places building users in close proximity to contaminated groundwater) may occur on the Property without prior approval of DENR.**
- 4. In January of each year, on or before January 31st, the owner of any portion of the Property shall submit a notarized Annual DSCA Land-Use Restrictions**

Certification to DENR certifying that this Notice remains recorded at the Register of Deeds' office, and that the Land-Use Restrictions are being complied with.

- 5. No person conducting environmental assessment or remediation at the Property or involved in determining compliance with applicable land-use restrictions, at the direction of, or pursuant to a permit or order issued by DENR may be denied access to the Property for the purpose of conducting such activities.**
- 6. The owner of any portion of the Property shall cause the instrument of any sale, lease, grant, or other transfer of any interest in the property to include a provision expressly requiring the lessee, grantee, or transferee to comply with this Notice. The failure to include such a provision shall not affect the validity or applicability of any land-use restriction in this Notice.**

EASEMENT (RIGHT OF ENTRY)

The property owner grants and conveys to DENR, its agents, contractors, and employees, and any person performing pollution remediation activities under the direction of DENR, access at reasonable times and under reasonable security requirements to the Property to determine and monitor compliance with the land-use restrictions set forth in this Notice. Such investigations and actions are necessary by DENR to ensure that use, occupancy, and activities of and at the Property are consistent with the land-use restrictions and to ensure that the structural integrity and continued effectiveness of any engineering controls (if appropriate) described in the Notice are maintained. Whenever possible, at least 48 hours advance notice will be given to the Property Owner prior to entry. Advance notice may not always be possible due to conditions such as response time to complaints and emergency situations.

REPRESENTATIONS AND WARRANTIES

The Property Owner hereby represents and warrants to the other signatories hereto:

- i) that the Property Owner is the sole owner of the Property; **or** that the Property Owner has provided to DENR the names of all other persons that own an interest in or hold an encumbrance on the Property and have notified such persons of the Property Owner's intention to enter into this Notice;
- ii) that the Property Owner has the power and authority to enter into this Notice, to grant the rights and interests herein provided and to carry out all obligations hereunder; and
- iii) that this Notice will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which the Property Owner is a party or by which the Property Owner may be bound or affected.

ENFORCEMENT

The above land-use restrictions shall be enforceable without regard to lack of privity of estate or contract, lack of benefit to particular land, or lack of any property interest in particular land. The land-use restrictions shall be enforced by any owner of the Property. The land-use restrictions may also be enforced by DENR through the remedies provided in NCGS § 143-215.104P or by means of a civil action; by any unit of local government having jurisdiction over any part of the Property; and by any person eligible for liability protection under the DSCA who will lose liability protection if the restrictions are violated. Any attempt to cancel any or all of this Declaration without the approval of the Secretary of DENR (or its successor in function), or his/her delegate, shall be subject to enforcement by DENR to the full extent of the law. Failure by any party required-or authorized to enforce any of the above restrictions shall in no event be deemed a waiver of the right to do so thereafter as to the same violation or as to one occurring prior or subsequent thereto.

If a land-use restriction set out in this Notice required under NCGS § 143-215.104.M is violated, the owner of the Property at the time the land-use restriction is violated, the owner's successors and assigns, and the owner's agents who direct or contract for alteration of the contamination site in violation of a land-use restriction shall be liable for remediation of all contaminants to unrestricted use standards.

FUTURE SALES, LEASES, CONVEYANCES AND TRANSFERS

When any portion of the Property is sold, leased, conveyed or transferred, pursuant to NCGS § 143-215.104M the deed or other instrument of transfer shall contain in the description section, in no smaller type than that used in the body of the deed or instrument, a statement that the Property has been contaminated with dry-cleaning solvent and, if appropriate, cleaned up under the DSCA.

The Property Owner shall notify DENR at least fourteen (14) calendar days before the effective date of any conveyance, grant, gift, or other transfer, whole or in part, of the Owner's interest in the property, but such notification requirement does not apply with regard to the Property Owner's execution of a lease of any portion of the Property. This Notice shall include the name, business address and phone number of the transferee and the expected date of transfer.

PROPERTY OWNER SIGNATURE

IN WITNESS WHEREOF, Property Owner has caused this instrument to be duly executed this ___ day of _____, 20__.

Gateway Buchanan, Inc.

By:

Name of contact

STATE OF _____
COUNTY OF _____

I, _____, a Notary Public of the county and state aforesaid, certify that _____ personally came before me this day and acknowledged that he/she is the Secretary of Gateway Buchanan, Inc., a California 501(c)(25) corporation, and that by authority duly given and as the act of the corporation, the foregoing Notice of Dry-Cleaning Solvent Remediation was signed in its name by him/her.

WITNESS my hand and official stamp or seal, this ___ day of _____, 20__.

Name typed or printed
Notary Public

My Commission expires: _____
[Stamp/Seal]

APPROVAL AND CERTIFICATION

The foregoing Notice of Dry-Cleaning Solvent Remediation is hereby approved and certified.

North Carolina Department of Environment and Natural Resources

By: _____
Jack Butler, Chief
Superfund Section
Division of Waste Management

Date

LIMITED POWER OF ATTORNEY

I _____ “Property Owner”, do hereby grant a limited power of attorney to DENR and to DENR’s independent contractors, as follows:

DENR and DENR’s independent contractors shall have the limited power of attorney to record this Notice, including its documentary and survey plat components, in accordance with N.C.G.S. § 143-215.104M on my “Property Owner” behalf. This limited power of attorney shall terminate upon completion of the recordation of the Notice.

Signature of Property Owner _____

Dated this ____ day of _____, 20__.

STATE OF _____
COUNTY OF _____

I, _____, a Notary Public, do hereby certify that _____ personally appeared before me this day and signed this “Limited Power of Attorney”.

WITNESS my hand and official stamp or seal, this ____ day of _____, 20__.

Name typed or printed
Notary Public

My Commission expires: _____
[Stamp/Seal]

EXHIBIT A
REDUCTION OF SURVEY PLAT

EXHIBIT B
PROPERTY LEGAL DESCRIPTION

All that tract or parcel of land lying and being in Wake County, North Carolina, and being more particularly described as follows:

TRACT 1 (Northerly Tract):

BEGINNING at a found concrete right-of-way monument in the westerly right-of-way of U.S. Highway No. 1 & 401, the northeasterly corner of that so called "Raleigh Associates Northerly Tract" lying north of New Hope Church Road Extension as shown on that Recombination Map and Right-of-Way Dedication plat of record in Book of Maps 1987, Page 1472, WCR (Wake County Registry) and being the same tract identified as "Raleigh Associates Northerly Tract" described in Trustee's Deed to Tarrymore Square Associates of record in Deed Book 4907, Page 830, WCR; thence along said right-of-way South 27° 37' 13" West 301.64 feet to a found 1/2" diameter iron pipe; thence continuing along said right-of-way South 27° 16' 24" West 8.32 feet to a found 1/2" diameter iron pipe; thence departing said right-of-way South 75° 40' 37" West 47.05 feet to a found 1/2" diameter pipe in the northerly right-of-way of New Hope Church Road Extension as dedicated in Book of Maps 1987, Page 1472, WCR; thence along said right-of-way North 56° 14' 00" West 92.98 feet to a found 1/2" diameter pipe, a point of curvature; thence continuing along said right-of-way with a circular curve to the left having a radius of 2081.93 feet for an arc distance of 234.43 feet, with chord bearing North 59° 27' 33" West for 234.31 feet to a P.K. nail in asphalt drive entry, a point of non-tangency; thence continuing along said right-of-way North 66° 10' 10" West 180.88 feet to a found 1/2" diameter pipe; thence continuing along said right-of-way North 64° 39' 39" West 572.78 feet to a found 1/2" diameter pipe; thence continuing along said right-of-way North 73° 58' 46" West 23.02 feet to a found 1/2" diameter pipe, a point of curvature; thence with a circular curve to the right having a radius of 25.00 feet, for an arc distance of 58.20 feet, with chord bearing North 07° 17' 01" West for 45.92 feet to a found 1/2" diameter iron pipe, a point of tangency in the southeasterly right-of-way of New Hope Church Road; thence along said right-of-way North 59° 24' 45" East 132.97 feet to a found 1/2" diameter iron pipe; thence continuing along said right-of-way North 72° 18' 12" East 110.00 feet to a found 1/2" diameter iron pipe in the westerly line of that Mary K. Branch Moore tract, now or formerly described in Deed Book 1654, Page 343, WCR; thence departing said right-of-way with Moore's westerly line South 12° 19' 44" East 232.34 feet to a found 1/2" diameter iron pipe; thence with Moore's southerly line North 81° 09' 21" East 272.59 feet to a found 1/2" diameter iron pipe, the common southerly corner of said Moore tract and that New Hope Center Associates tract, now or formerly, described in Deed Book 3243, Page 497, WCR; thence with New Hope Center Associates' southerly line South 89° 00' 46" East 331.22 feet to a found 1/2" diameter iron pipe; thence continuing with said line South 61° 59' 39" East 351.15 feet to the POINT OF BEGINNING and containing 5.87 acres or 255,640 square feet, more or less, as shown on that ALTA/ACSM Land Title Survey of Tarrymore Square prepared by Harold A. Smith, Registered Land Surveyor, dated February 7, 1994, last revised September 19, 1994, and signed by Harold A. Smith, NCRLS No. 3345, to which reference is made.

TRACT 2 (Southerly Tract):

COMMENCING at a found concrete right-of-way monument in the westerly right-of-way of U.S. Highway No. 1 & 401, the northeasterly corner of that so called "Raleigh Associates Northerly Tract" lying north of New Hope Church Road Extension as shown on that Recombination Map and Right-of-Way Dedication plat of record in Book of Maps 1987, Page 1472, WCR (Wake County Registry) and being the same tract identified as "Raleigh Associates Northerly Tract" described in Trustee's Deed to Tarrymore Square Associates of record in Deed Book 4907, Page 830, WCR; thence along said right-of-way South 27° 37' 13" West 301.64 feet to a found 1/2" diameter iron pipe; thence continuing along said right-of-way South 27° 16' 24" West passing a found 1/2" diameter iron pipe at 8.32 feet and continuing an additional 121.80 feet for a total distance of 130.12 feet to a found P.K. nail at the intersection of said westerly right-of-way with the southerly right-of-way of New Hope Church Road Extension, the northeasterly corner of that so called "Raleigh Associates Southerly Tract" lying south of New Hope Church Road Extension as shown on that Recombination Map and Right-of-Way Dedication Plat of record in Book of Maps 1987, Page 1472, WCR, and being the same tract identified as "Raleigh Associates Southerly Tract" described in Trustee's Deed to Tarrymore Square Associates of record in Deed Book 4907, Page 830, WCR, the POINT OF BEGINNING; thence along the

westerly right-of-way of U.S. Highway No. 1 & 401 South 27° 16' 24" West 344.48 feet to a found 1/2" diameter iron pipe; thence continuing along said right-of-way South 27° 26' 21" West 358.64 feet to a found 1/2" diameter iron pipe in the northerly line of Lot 28R, Harold A. Bagwell Property, as recorded in Book of Maps 1988, Page 1138, WCR; thence departing said right-of-way and with the northerly lines of Lots 28R and 30R of said plat, North 63° 14' 32" West 615.94 feet to a found 1/2" diameter iron pipe and angle point in the northerly line of the remainder of that John R. Adams Tract, now or formerly, described in Deed Book 4477, Page 272, WCR; thence with Adams' northerly line North 88° 56' 26" West 97.08 feet to a found 1/2" diameter iron pipe; thence continuing with Adams' northerly line South 83° 35' 34" West 219.78 feet to a found 1/2" diameter iron pipe in the easterly line of Lot 79, Brentwood Today Phase Three Plat of record in Book of Maps 1978, Page 670, WCR; thence with the easterly line of Brentwood Today Phase Three, Phase Two (Book of Maps 1978, Page 573, WCR) and Phase One (Book of Maps 1978, Page 312, WCR) North 01° 02' 17" East 903.47 feet to a found 1/2" diameter iron pipe in the southerly right-of-way of New Hope Church Road Extension, as dedicated in Book of Maps 1987, Page 1472, WCR, a non-tangent point of curvature; thence along said right-of-way with a circular curve to the right having a radius of 285.00 feet, for an arc distance of 190.58 feet, with chord bearing South 83° 48' 58" East for 187.05 feet to a found 1/2" diameter pipe, a point of tangency; thence continuing along with said right-of-way South 64° 39' 39" East 681.82 feet to a found 1/2" iron pipe, a point of curvature; thence continuing along said right-of-way with a circular curve to the right having a radius of 1995.93 feet for an arc distance of 293.57 feet, with chord bearing South 60° 26' 49" East for 293.31 feet to a found P.K. nail, a point of tangency; thence continuing along said right of way South 56° 14' 00" East 138.18 feet to the POINT OF BEGINNING and containing 19.53 acres or 850,879 square feet, more or less, as shown on that ALTA/ACSM Land Title Survey of Tarrymore Square prepared by Harold A. Smith, Registered Land Surveyor, dated February 7, 1994, last revised September 19, 1994, and signed by Harold A. Smith, NCRLS No. 3345, to which reference is made.

TOGETHER WITH the nonexclusive easements rights as follows:

(a) Storm drainage easement created by Deed of Easement dated March 16, 1989, by and between Raleigh Associates, a Georgia general partnership, and Harold G. Bagwell and wife, Ann H. Bagwell, recorded in Book 4456, Page 860, Wake County Registry of Deeds;

(b) Rights of access for purposes of maintaining certain "slope rights" as created by that certain Slope and Construction Easement Agreement between J.R. Adams and wife, Judith Dawn Adams, and Raleigh Associates, dated August 17, 1987, and recorded in Book 4102, Page 102, Wake County Registry of Deeds.

LESS AND EXCEPT the land conveyed or to be conveyed to the North Carolina Department of Transportation by Deed dated September 7, 1994, more particularly described as follows: Beginning at an eastern property corner, said eastern property corner also being located on the existing western right of way boundary of US-1 (Capital Boulevard) and the existing southern right of way boundary of SR-2034 (New Hope Church Road); thence, a southwesterly direction along and with an eastern property line, said eastern property line also being the existing western right of way boundary of US-1 (Capital Boulevard) to a point located northwesterly of and normal to Survey Station 89+16, Survey Line L; thence, a northwesterly direction in a straight line to a point on a northern property line of the undersigned, said northern property line also being the existing southern right of way boundary of SR-2034 (New Hope Church Road), and said point located southeasterly of an normal to Survey Station 13+97, Survey Line Y10; thence, a southeasterly direction along and with said northern property line to the point of Beginning. For title see North Carolina Special Warranty Deed from J. Leo Barry, et al., Trustees of Net Realty Holding Trust to Heritage Realty Limited Partnership dated July 9, 1999 and recorded with the Wake County Register of Deeds in Book 8357, Page 2721.

The above-described property was conveyed to Heritage SPE LLC by deed recorded in Book 8695, Page 895, Wake County Registry.

Appendix E

Example Annual DSCA Land-Use Restrictions Certification

Site Name: New Hope Cleaners and Tailors
Site Address: 3901 Capital Blvd, Raleigh, Wake County, NC
DSCA ID No: DSCA Site # 92-0016

ANNUAL CERTIFICIATION of LAND-USE RESTRICTIONS

Pursuant to Condition #5 in the Notice of Dry-Cleaning Solvent Remediation (Notice) signed by Gateway Buchanan, Inc. and recorded in Deed Book ____, Page ____ on _____ at the Wake County Register of Deeds Office, Gateway Buchanan, Inc. hereby certifies, as an owner of at least part of the property that is the subject of the Notice, that the Notice remains recorded at the Wake County Register of Deeds office and the land-use restrictions therein are being complied with.

Duly executed this ____ day of _____, 20__.

Gateway Buchanan, Inc.

By: _____
Name typed or printed:

STATE OF _____
COUNTY OF _____

I, _____, a Notary Public of the county and state aforesaid, certify that _____ personally came before me this day and acknowledged that he/she is the Secretary of Gateway Buchanan, Inc., a California 501(c)(25) corporation, and that by authority duly given and as the act of the corporation, the foregoing certification was signed in its name by him/her.

WITNESS my hand and official stamp or seal, this ____ day of _____, 20__.

Name typed or printed:
Notary Public

My Commission expires: _____
[Stamp/Seal]

Appendix F

Example Documents Announcing Public Comment Period

**Notice of Intent to Remediate a
Dry-Cleaning Solvent Facility or Abandoned Site**



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

<Date>

<name>, <City Manager/County Health Director>
<address>
<city>, NC <zip>

Subj: Remediation of Dry-Cleaning Solvent Contamination
DSCA Site # 92-0016
New Hope Cleaners and Tailors, 3901 Capital Boulevard, Raleigh

Dear <name>:

The Dry-Cleaning Solvent Cleanup Act of 1997 (DSCA), North Carolina General Statutes (N.C.G.S.) Sections 143-215.104A through 143-215.104U, provides for the assessment and remediation of properties that may have been or were contaminated by chlorinated solvents. To satisfy the requirements of N.C.G.S. 143-215.104L, this letter serves as the **Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site** (NOI) approved by the North Carolina Department of Environment and Natural Resources (DENR).

The NOI must provide, to the extent known, a legal description of the location of the DSCA Site, a map showing the location of the DSCA Site, a description of the contaminants involved and their concentrations in the media of the DSCA Site, a description of the intended future use of the DSCA Site, any proposed investigation and remediation, and a proposed Notice of Dry-Cleaning Solvent Remediation (NDCSR) prepared in accordance with N.C.G.S. Section 143-215.104M. The required components of the NOI are included in the attached Risk Management Plan, and are available on our website at www.ncdscs.org, under "Public Notices" during the public comment period.

The DSCA Program is providing a copy of the NOI to all local governments having jurisdiction over the DSCA Site. A 30-day public comment period is being held from <date>, until <date>. Written comments may be submitted to DENR no later than <date>. Written requests for a public meeting may be submitted to DENR no later than <date>. All such comments and requests should be sent to:

Jay King, DSCA Remediation Unit
Division of Waste Management, NC DENR
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Remediation of Dry-Cleaning Solvent Contamination
DSCA Site # 92-0016
New Hope Cleaners and Tailors, 3901 Capital Boulevard, Raleigh
Page 2

<Date>

A Summary of the NOI is being published in The News & Observer, copies are being sent to owners of property within and contiguous with the area of contamination, and a copy of the Summary will be conspicuously posted at the Site during the public comment period.

If you have any questions, please feel free to contact me at (919) 707-8367

Sincerely,

Jay King, Project Manager
DSCA Remediation Unit
Jay.King@ncdenr.gov

Attachments: Risk Management Plan

Cc: DSCA Site # 92-0016 File

Summary of the Notice of Intent

Public Notice

SUMMARY OF NOTICE OF INTENT TO REMEDIATE A DRY-CLEANING SOLVENT FACILITY OR ABANDONED SITE

New Hope Cleaners and Tailors
DSCA Site # 92-0016

Pursuant to N.C.G.S. §143-215.104L, on behalf of Gateway Buchanan Inc., the North Carolina Department of Environment and Natural Resources' (DENR's) private contractor has prepared a Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site (NOI). The purpose of this Summary of the NOI is to notify the community of the proposed remedy for the contamination site and invite comment on the proposed remedy.

New Hope Cleaners and Tailors formerly conducted dry-cleaning operations at the Tarrymore Square Shopping Center at 3901 Capital Boulevard, in Raleigh, North Carolina. The property is currently occupied by Mady Nail Supply. Dry-cleaning solvent contamination in soil and/or ground water has been identified at the following parcel(s):

3901 Capital Boulevard, in Raleigh; Parcel No. 1725390187

An investigation of the extent of contamination has been completed. A risk assessment of the contaminated property concluded that the contamination poses no unacceptable risks at Mady Nail Supply. A Risk Management Plan has been prepared which proposes instituting land-use restrictions to control current and future site risks at the affected property.

The elements of the complete NOI are included in the Risk Management Plan (RMP) which is available online at www.ncdsca.org, under "Public Notices".

The public comment period begins _____, 20__, and ends _____, 20__.

Comments must be in writing and submitted to DENR no later than _____, 20__.
Written requests for a public meeting may be submitted to DENR no later than _____, 20__.
Requests for additional information should be directed to Jay King at (919) 707-8367.
All comments and requests should be sent to:

Jay King, DSCA Remediation Unit
Division of Waste Management, NC DENR
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Letter to Owners of Property Contiguous to the Contamination Site



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

<Date>

<property owner>
<address>
<city, state, zip>

Subj: Dry-Cleaning Solvent Contamination
3901 Capital Boulevard, Raleigh, NC

Dear <property owner>:

The Dry-Cleaning Solvent Clean-up Act (DSCA) Program has completed an assessment of the dry-cleaning solvent contamination associated with New Hope Cleaners and Tailors at 3901 Capital Boulevard in Raleigh. The property is currently occupied by Mady Nail Supply.) The DSCA Program has prepared a remedial strategy to address the site contamination, and in accordance with our program's statutes, the community has an opportunity to review and comment on the proposed strategy. You are receiving this letter because your property is adjacent to the area contaminated with dry-cleaning solvents.

The attached Summary of the Notice of Intent to Remediate a Dry-Cleaning Solvent Facility or Abandoned Site (NOI) provides a brief description of the proposed remedy, a web link to the complete NOI, and the dates and procedures for commenting on the proposed remedy. If you do not have access to the internet, we ask that you contact us to request a hard copy of the complete NOI.

If you have questions, please contact me at (919) 707-8367, or Pete Doorn at (919) 707-8369.

Sincerely,

Jay King, Project Manager
DSCA Remediation Unit
Jay.King@ncdenr.gov

Attachments: Summary of the NOI

Cc: DSCA Site # 92-0016 File