Voluntary Remediation Plan Application Form and Checklist

VRP APPLICANT INFORMATION					
COMPANY NAME	JNV Investments Group				
CONTACT PERSON/TITLE	Mr. Lachman G. Vaswani				
ADDRESS	2910 Mountain Industrial Boulevard, Tucker, GA 30084				
PHONE	(770) 493-6515	**FAX**	(770) 493-6539	**E-MAIL**	lvaswani@aol.com

GEORGIA CERTIFIED PROFESSIONAL GEOLOGIST OR PROFESSIONAL ENGINEER OVERSEEING CLEANUP					
NAME	Andrew T. Benoit			**GA PE/PG NUMBER**	1487
COMPANY	Environmental Consulting & Technology, Inc.				
ADDRESS	6410 Southpoint Boulevard, Suite 120, Jacksonville, FL 32216				
PHONE	(904) 296-0544	**FAX**	(904) 296-2473	**E-MAIL**	tbenoit@ectinc.com

APPLICANT'S CERTIFICATION

In order to be considered a qualifying property for the VRP:

(1) The property must have a release of regulated substances into the environment;
(2) The property shall not be:
- (A) Listed on the federal National Priorities List pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601.
- (B) Currently undergoing response activities required by an order of the regional administrator of the federal Environmental Protection Agency; or
- (C) A facility required to have a permit under Code Section 12-8-66.

(3) Qualifying the property under this part would not violate the terms and conditions under which the division operates and administers remedial programs by delegation or similar authorization from the United States Environmental Protection Agency.
(4) Any lien filed under subsection (e) of Code Section 12-8-96 or subsection (b) of Code Section 12-13-12 against the property shall be satisfied or settled and released by the director pursuant to Code Section 12-8-94 or Code Section 12-13-6.

In order to be considered a participant under the VRP:
- (1) The participant must be the property owner of the voluntary remediation property or have express permission to enter another's property to perform corrective action.
- (2) The participant must not be in violation of any order, judgment, statute, rule, or regulation subject to the enforcement authority of the director.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify that this property is eligible for the Voluntary Remediation Program (VRP) as defined in Code Section 12-8-105 and I am eligible as a participant as defined in Code Section 12-8-106.

APPLICANT'S SIGNATURE	L Vaswani		
APPLICANT'S NAME/TITLE (PRINT)	**Lachman G. Vaswani**	**DATE**	3/12/10

Mail completed Voluntary Remediation Plan Application Form and Checklist, Voluntary Remediation Plan, and $5,000 Application Fee to:

Georgia Hazardous Sites Response Program
VRP Coordinator, Suite 1462
2 Martin Luther King Jr. Drive, SE
Atlanta, GA 30334

QUALIFYING PROPERTY INFORMATION –PROPERTY #1			
TAX PARCEL ID	15 224 03 005	PROPERTY SIZE (ACRES)	7.58 acres
PROPERTY ADDRESS	4800 Redan Road		
CITY	Stone Mountain	COUNTY	Dekalb
LATITUDE	33 45’ 41.0” N	LONGITUDE	84 11’ 42.1” W
PROPERTY OWNER(S)	Lachman G. Vaswani and Manju L. Vaswani	PHONE #	(770) 493-6515
MAILING ADDRESS	2910 Mountain Industrial Boulevard		
CITY	Tucker	STATE/ZIP	GA, 30084
QUALIFYING PROPERTY INFORMATION –PROPERTY #2			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
LATITUDE		LONGITUDE	
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIP	
QUALIFYING PROPERTY INFORMATION –PROPERTY #3			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
LATITUDE		LONGITUDE	
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIP	
QUALIFYING PROPERTY INFORMATION –PROPERTY #4			
TAX PARCEL ID		PROPERTY SIZE (ACRES)	
PROPERTY ADDRESS			
CITY		COUNTY	
LATITUDE		LONGITUDE	
PROPERTY OWNER(S)		PHONE #	
MAILING ADDRESS			
CITY		STATE/ZIP	

Please add additional sheets as necessary to include all qualifying properties.

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
1	**$5,000 APPLICATION FEE** IN THE FORM OF A CHECK PAYABLE TO THE GEORGIA DEPARTMENT OF NATURAL RESOURCES.	**Attached to VRP Application**	
2	**WARRANTY DEED(S)** FOR EACH QUALIFYING PROPERTY(IES).	**Appendix VI**	
3	**TAX PLAT** OR OTHER FIGURE INCLUDING QUALIFYING PROPERTY(IES) BOUNDARIES, ABUTTING PROPERTIES, AND TAX PARCEL IDENTIFICATION NUMBERS.	**Figure 3**	
4	**ONE (1) PAPER COPY AND TWO (2) COMPACT DISC (CD) COPIES** OF THE VOLUNTARY REMEDIATION PLAN IN A SEARCHABLE PORTABLE DOCUMENT FORMAT (PDF).	**Included**	
a	**TABLE OF REGULATED SUBSTANCES RELEASED** AT THE QUALIFYING PROPERTY.	**Tables 1-2**	
b	**TABLE OF SITE DELINEATION CONCENTRATION** FOR EACH REGULATED SUBSTANCE ALONG WITH A REFERENCE TO THE SPECIFIC DELINEATION CRITERIA USED [i.e. 12-8-108(1)(A), 12-8-108(1)(B), 12-8-108(1)(C), 12-8-108(1)(D), OR 12-8-108(1)(E) FOR EACH REGULATED SUBSTANCE. CALCULATIONS FOR 12-8-108(1)(E) MUST BE INCLUDED TO DEMONSTRATE OTHER CRITERIA DO NOT EXCEED 12-8-108(1)(E)].	**Soil – Table 1; Groundwater – Table 2; RRS Calculations Appendix V**	
i	**SITE DELINEATION MAP** OF MINIMUM SCALE OF 1"= 200' AND VERTICAL CROSS-SECTIONS SHOWING DELINEATION OF REGULATED SUBSTANCES TO SITE DELINEATION CONCENTRATIONS HORIZONTALLY AND VERTICALLY, INCLUDING PROPERTY BOUNDARIES. SITE DELINEATION MAY NOT BE EXTRAPOLATED.	**Site delineation has not been completed**	
c	**TABLE OF CLEANUP STANDARDS** FOR EACH REGULATED SUBSTANCE AND EACH MEDIA LISTED BELOW ALONG WITH A REFERENCE TO THE SPECIFIC CLEANUP STANDARD USED [i.e. DEFAULT TYPE 1 RRS, SITE SPECIFIC TYPE 2 RRS, DEFAULT TYPE 3 RRS, SITE SPECIFIC TYPE 4 RRS, OR TYPE 5 RRS]. COMPLETE CALCULATIONS MUST BE PROVIDED FOR EACH REGULATED SUBSTANCE IN EACH MEDIA.	**Section 1.1; Table 1**	
i	**SOURCE**	**Section 1.3**	
ii	**SOIL** (SOIL HORIZONS MUST BE SPECIFIED WHERE DEPTH-SPECIFIC SOIL CRITERIA ARE APPLIED)	**Sections 1.5 & 1.5.2; Table 1**	
iii	**GROUNDWATER** IF THE APPLICANT IS REQUESTING REMOVAL FROM THE HAZARDOUS SITE INVENTORY PURSUANT TO 12-8-107(g)(2), A NOTATION TO THAT EFFECT MUST BE INCLUDED IN THE TABLE.		
iv	**VAPOR INTRUSION** (PLEASE REFER TO THE FOLLOWING LINK: http://www.epa.gov/epawaste/hazard/correctiveaction/eis/vapor/complete.pdf)	**Section 3.3**	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
v	**SURFACE WATER** (INCLUDING ECOLOGICAL RISK ASSESSMENT (http://www.gaepd.org/Documents/hsraguideCSRRRS.html - Ecological))	**Will be addressed at a later date if necessary**	
d	**CURRENT STATUS** OF QUALIFYING PROPERTY(IES)	**Active Retail Center**	
i	**NARRATIVE AND TABULAR SUMMARY** OF ALL PERTINENT FIELD DATA AND THE RESULTS OF ALL FINAL LAB ANALYSES THAT ARE SUPPORTED BY SUFFICIENT QA/QC CONTROL DATA TO VALIDATE THE RESULTS. (NOTE: MOST RECENT GROUNDWATER DATA MUST HAVE BEEN COLLECTED WITHIN 6 MONTHS OF RECEIPT OF APPLICATION.)	**Sections 1.1 – 1.5.2**	
ii	**MAPS AND VERTICAL CROSS-SECTIONS** OF APPROPRIATE SCALE DEPICTING CONCENTRATIONS FOR ALL REGULATED SUBSTANCES SUPERIMPOSED UPON SITE STRATIGRAPHIC FEATURES AND MONITORING WELLS. POINT OF DEMONSTRATION (POD) WELL MUST BE INCLUDED, IF APPLICABLE.	**Cross-Sections maps of the soil and Groundwater will be provided when delineation is complete**	
iii	**DESCRIPTION OF ANY HUMAN OR ENVIRONMENTAL RECEPTORS** WHO MAY HAVE BEEN OR COULD POTENTIALLY BE EXPOSED TO A RELEASE AT THE SITE.	**No receptors; Site listed for On-site Exposure Pathway**	
e	**MAP** (MINIMUM SCALE OF 1" = 200') OR LESS DEPICTING THE POTENTIOMETRIC SURFACE OF GROUNDWATER. POD WELL MUST BE INCLUDED, IF APPLICABLE.	**Figure 10**	
f	**FIGURE OF GROUNDWATER USAGE** (DRINKING, IRRIGATION, ETC.) **AND SURFACE WATER** (RECREATIONAL, FISHING, ETC.) WITHIN THE AREA OF THE RELEASE AND 1,000' DOWNGRADIENT.	**Figure 11**	
g	**ENUMERATE AND DESCRIBE ACTIONS** PLANNED TO BRING THE QUALIFYING PROPERTY(IES) INTO COMPLIANCE WITH THE CLEANUP STANDARDS SPECIFIED IN 4.c. ABOVE. **IF UTILIZING REPRESENTATIVE CONCENTRATIONS,** DOCUMENTATION REGARDING THE EXPOSURE UNIT, EXPOSURE DURATION, EXPOSURE POINT CONCENTRATION, ETC. MUST BE INCLUDED.	**Sections 4.1 – 4.6**	
h	**MODEL** FOR POINT OF EXPOSURE: APPLICANT MUST EITHER PROVIDE A COPY OF THE MODEL OR LICENSE FOR USE, OR PURCHASING INFORMATION (PURCHASE OF A MODEL WILL BE BILLED TO THE APPLICANT BY EPD) ALONG WITH A TABLE OF ALL INPUT AND OUTPUT PARAMETERS AND SUPPORTING DOCUMENTATION. A SENSITIVITY ANALYSIS MUST ALSO BE INCLUDED.	**Section 4.6; Modeling will be provided at a later date**	
i	**MILESTONE SCHEDULE** INLCUDING SEMI-ANNUAL REPORTING AND SUBMITTAL OF A FINAL COMPLIANCE STATUS REPORT. GANTT CHART FORMAT PREFERRED.	**Section 5.3.2**	
j	**COST ESTIMATE** FOR IMPLEMENTING THE CORRECTIVE ACTION AND ANY CONTINUING ACTIONS SPECIFED IN THE VOLUNTARY REMEDIATION PLAN.	**Section 5.3.3**	

ITEM #	DESCRIPTION OF REQUIREMENT	Location in VRP (i.e. pg., Table #, Figure #, etc.)	For EPD Comment Only (leave Blank)
k	**SIGNED AND SEALED PE/PG CERTIFICATION** AND SUPPORTING DOCUMENTATION: "I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances. Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." Andrew T. Benoit #1487 — Printed Name and GA PE/PG Number 3/12/10 — Date Andrew T Benoit — Signature and Stamp		

Voluntary Remediation Application
(HSI # 10884)

Professional Dry Cleaners
4800 Redan Road,
Stone Mountain, Georgia

February 2010

PREFACE

Environmental Consulting & Technology, Inc. (ECT) has prepared this Voluntary Remediation Program (VRP) Application for the Professional Dry Cleaners (Subject Site) Hazardous Site Inventory (HSI) site number 10884 located in the Redan Village Shopping Center in Stone Mountain, Dekalb County, Georgia. This application is submitted on behalf of JNV Investments Group (JNV) and Mr. and Mrs. Lachman Vaswani the current property owner. This application is based in part on data resulting from prior investigations conducted at the subject site and ECT's September 2009 investigation. The Site is comprised of tax parcel I.D. 15 224 03 005.

This VRP Application is prepared to address volatile organic compounds (VOCs) in subject site soils and groundwater that exceed the applicable Risk Reduction Standards (RSS) as required by Article 3 of Chapter 8 of Title 12 of the Official Code of Georgia Annotated. The Subject Site was listed on the Hazardous Site Inventory in December 2007 due to On-site Exposure Pathway. Based on review of historical environmental investigations, as well as more recent investigations conducted by ECT, the primary chemicals of interest are tetrachloroethene (PCE) in soil and PCE and its degradation product trichloroethene (TCE) in groundwater.

Several investigations have been performed at the Site since 2000 to identify the source and extent of soil and groundwater contaminants. In 2009, ECT was contracted by JNV to conduct investigations at the site and evaluate alternative remedial options. Based on the history and site conditions, ECT proposes excavation and disposal of all site soils that exceed Type 4 RRS and delineation and numerical modeling of VOCs impacted groundwater to illustrate that no human or environmental receptors will be impacted by this release.

This VRP Application relies on reports and data from past activities at the Subject Site and the information contained in those reports, and are not based on any first hand observations by JNV or ECT. By submitting this report, JNV makes no admission of fact or law of any kind regarding liability in connection with contamination at the facility or surrounding properties.

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Voluntary Remediation Application

(HSI # 10884)

Professional Dry Cleaners
4800 Redan Road,
Stone Mountain, Georgia

February 2010

1.0 INTRODUCTION

Environmental Consulting & Technology, Inc. (ECT) has prepared this Voluntary Remediation Program (VRP) Application for the Professional Dry Cleaners (Subject Site) Hazardous Site Inventory (HSI) site number 10884 located in the Redan Village Shopping Center in Stone Mountain, Dekalb County, Georgia. This application is submitted on behalf of JNV Investments Group (JNV) and Mr. and Mrs. Lachman Vaswani the current property owner. This application is based in part on data resulting from prior investigations conducted at the subject site and ECT's September 2009 investigation. The Site is comprised of tax parcel I.D. 15 224 03 005.

This VRP Application is prepared to address volatile organic compounds (VOCs) in subject site soils and groundwater that exceed the applicable Risk Reduction Standards (RSS) as required by Article 3 of Chapter 8 of Title 12 of the Official Code of Georgia Annotated. No receptors were identified downgradient of the Subject Site in a Supplemental Release Notification submitted to Georgia EDP by GLE Associates in November 2007. The Subject Site was listed on the Hazardous Site Inventory in December 2007 due to On-site Exposure Pathway. Based on review of historical environmental investigations, as well as more recent investigations conducted by ECT, the primary chemicals of interest are tetrachloroethene (PCE) in soil and PCE and its degradation product trichloroethene (TCE) in groundwater.

Several investigations have been performed at the Site since 2000 to identify the source and extent of soil and groundwater contaminants. In 2009, ECT was contracted by JNV to conduct investigations at the site and evaluate alternative remedial options. Based on the history and site conditions, ECT proposes excavation and disposal of all site soils that exceed Type 4 RRS and delineation and numerical modeling of VOC impacted groundwater to illustrate that no human or environmental receptors will be impacted by this release.

1.1 Purpose

This VRP Application has been prepared in order to provide for voluntary and timely investigation and remediation of VOC impacted soil and groundwater at the Subject Site. The goals of the remedial approach will be to remove contaminant concentrations in soil that exceed their respective Type 4 RRS and conduct numerical groundwater modeling to illustrate that no human or environmental receptors will be impacted by this release.

1.2 Site Description

The Subject Site is located at 4800 Redan Road in the City of Stone Mountain, Dekalb County, Georgia. The subject property is described as a single parcel encompassing approximately 7.58 acres listed in the Dekalb County, Georgia tax registry as Parcel 15 224 03 005. The property is currently improved with one single story block construction buildings used for retail/commercial shopping and referred to as Redan Village Shopping Center. The property is currently owned and operated by JNV Investments Group (JNV). The shopping center is bordered by residences to the north and east and retail stores to the south and west. Its general location is shown of Figure 1. The Professional Dry Cleaners has been located in the western most tenant space in the main building on the property since the mid 1990s. The dry cleaner and adjacent properties are illustrated on Figures 2 and 3. The dry cleaner used a 55-gallon steel drum for storing spent filters from the on-site dry cleaning machine immediately north the Professional Dry Cleaners tenant space.

1.3 Source Description

This section of the report provides a description of each known source which is suspected to have contributed to a release as required. The facility has operated as a dry cleaner utilizing PCE since it began operation. Based on historical operations at the site, areas were investigated where solvents were stored or handled and where spent solvents and filters may have been staged or disposed. The suspected source areas of the PCE, based on historical subsurface investigation results, include: soil beneath the former dry cleaner and soil in the vicinity of the area where spent filters were staged (immediately north of the tenant space).

1.4 Site History

Since 2000, several environmental investigations have been conducted at the subject site by several consultants. A brief summary of the dates, investigations, reports, and consultants is included below.

Sailors Engineering, October 2000

- Prepared a Phase II environmental investigation - October 1997

Aerostar Environmental Services, Inc., July 2007

- Prepared a Phase I environmental investigation – July 2007
- Prepared a Phase II environmental investigation – July 2007

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GLE Associates, October 2007

- Conducted soil and groundwater sampling – October 2007
- Submitted Release Notification to Georgia EPD

ECT, 2009

- Advanced soil borings in and around the dry cleaners for delineating the VOCs in soil and groundwater;
- Installed shallow rock monitoring wells to horizontally delineate VOCs in groundwater;
- Evaluated remedial technologies and prepare a VRP Application.

ECT's soil and groundwater results and evaluation of remedial technologies are discussed in further detail below.

1.5 Previous Soil and Groundwater Sampling

Initial environmental investigations started at the site in October 2000 when a previous consultant conducted a Phase II ESA at the former Professional Cleaners. This investigation included the installation of two temporary monitoring wells and two soil borings by hand auger. The monitoring wells (TMW-1 and TMW-2) were advanced in the front and rear of the cleaners for groundwater sampling. One soil boring was advanced inside the cleaners adjacent to the machine (HA-1), and the other boring outside adjacent to the back door (HA-2) where waste tetrachloroethylene (PCE) solvent drums where stored. Groundwater samples were collected from each well and analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260B. Soils samples were collected from 2 feet below ground surface (ft-bgs) and analyzed for VOCs as well. Analytical results for the groundwater samples collected from TW-1 and TW-2

indicated the presence of PCE at 67 micrograms per liter (ug/L) and 1,920 ug/L, respectively. Analytical results for the soil samples collected from HA-2 indicated the presence of PCE at 633 micrograms per kilogram (ug/kg), trichloroethylene (TCE) at 0.232 ug/kg, and cis-1,2 dichloroethylene (DCE) at 0.006 mg/kg. Based on the presence of the VOCs in the groundwater and soil, a Hazardous Site Response Program Release Notification was submitted to GA EPD in November 2000 detailing the investigation. Additionally, a receptor survey was conducted as part of the notification. Two water wells were identified from one to two miles of the site and the nearest residential structure at 300 feet to 1,000 feet from the edge of the plume. Based on the criteria from the receptor survey and the Phase II investigation the groundwater and on-site pathway score was below the GA EPD threshold for listing the site on the Hazardous Site Inventory (HSI). GA EPD issued a No HSI Listing Letter on February 8, 2001.

In July 2007, a phase I environmental assessment was conducted on the subject site by Aerostar Environmental Services, Inc. of Atlanta, Georgia (Aerostar) as part of a potential real estate transaction. Based on the information obtained in the report, the consultant recommended a subsurface investigation for off-site and on-site recognized environmental concerns (RECs). The offsite concerns included a gasoline station, a dry cleaning facility, and an auto repair facility. The on-site concern identified was the former dry cleaning operation, Professional Cleaners.

Based on the recommendations of the Phase I ESA, Aerostar was contracted to perform a Limited Phase II ESA. On July 20, 2007, Aerostar collected a groundwater sample from temporary monitoring well TW-2. The sample was analyzed for PCE, TCE, 1,1-dichloroethene, cis-DCE, trans-DCE, and vinyl chloride (VC) with analytical results indicating PCE at 5,600 ug/L, TCE at 320 ug/L, and cis-DCE at 69 ug/L. Additionally, the dry cleaning equipment was inspected during the site visit for compliance. Based on the results of the groundwater sampling, Aerostar stated that an additional release of dry cleaning solvent may have occurred and additional assessment activities may be warranted to delineate the dissolved chlorinate solves in the groundwater. Aerostar also stated that the dry cleaning equipment was in compliance.

Based on the results of the Aerostar Limited Phase II ESA, GLE Associates of Atlanta, Georgia was contracted to perform an additional subsurface investigation and a Hazardous Site Response Program Release Notification for the subject site. On October 12 and 15, 2007, GLE advanced 31 direct push soil borings from 2 ft-bgs to 29 ft-bgs and collected select soil samples for laboratory analysis of dry PCE and breakdown constituents. Additionally, a groundwater sample was collected from TW-2 to confirm the previously identified groundwater contamination level at the site. Based on the PCE concentrations identified in the soil samples above the HSRA notification concentrations, and the confirmation of the PCE and breakdown

constituent sin the groundwater, a PCE release to the soil and PCE, TCE, and cis-DCE release to groundwater was reported to the Georgia EPD on November 13, 2007. On December 27, 2007, GA EPD listed the site on the HSI.

Based on the listing of the site, GLE proposed to perform additional soil assessment to determine the magnitude ad extent of soil contamination at the site. The first phase proposed fifteen (15) soil borings to bedrock refusal collecting up to 10 soil samples for laboratory analysis. The second phase included an unidentified number of borings (based on the first phase) with a maximum of eight (8) soil samples collected for laboratory analysis. Based on the soil sample results from the two investigations, GLE proposed to prepare a remedial strategy.

On November 12, 2008, GLE submitted a request to GA EPD to provide the property owner with site specific clean-up levels for PCE in soil. GLE proposed a clean-up level of 0.1 mg/Kg PCE be the established clean-up level established for this property.

1.5.1 September 9, 2009 Groundwater Sampling

In September 2009, ECT installed three monitoring wells for horizontal delineation of groundwater contaminants. Well installation procedures followed US EPA Region 4 SESD guidance. The borings were installed utilizing a CME-75 drill rig and air compressor advancing a four-inch diameter air rotary hammer. MW-4 was advanced to 39 ft-bgs and MW-5 and MW-6 to 44 ft-bgs. During drilling, soil and bedrock cuttings were recovered from the borings and drummed for disposal. After boring completion, a two-inch diameter PVC monitoring well was placed in each boring. The well for MW-4 was constructed with a 19 foot of solid 2-inch PVC riser and 25 feet of 0.01 inch slotted screen. Eight-inch well vaults were secured to the top of each boring with 1½ foot by 1½ foot concrete well pads for protection. After completion of the construction of the new wells, the wells were surveyed for top of casing elevations to assess the groundwater flow at the site. The well elevations were set relative with an arbitrary elevation of 100 feet at MW-1.

Prior to sampling the monitoring wells, all wells were gauged for the presence of groundwater. The groundwater elevations were used to assess the groundwater flow direction at the site. Due to the wells being installed in bedrock, water levels appear to have been influenced and a potentiometric map and groundwater gradient could not be accurately be assessed. The elevations are shown on Table 3 and Figure 9. Note, during previous investigations conducted by other consultants, three wells, MW-1 through MW-3 were installed and subsequently gauged and determined to be dry. During the September 2009 gauging event, groundwater was present in all wells. The previously installed wells, MW-1 through MW-3, and the three newly installed monitoring wells, MW-4 through MW-6, were developed utilizing a submersible

pump. Based on the previous consultants boring logs and ECT's observation during the installation of MW-4 through MW-6, all wells were installed in competent bedrock. During development of the wells, the pump rate exceeded the recharge rate for each well. The wells were pumped until dry several times until the turbidity of each well was minimized. Development volumes for each well were as follows: MW-1 (15 gallons), MW-2 (12 gallons), MW-3 (10 gallons), MW-4 (15 gallons), MW-5 (5 gallons), and MW-6 (10 gallons).

After monitoring well development and groundwater gauging, all monitoring wells were sampled. Monitoring well TW-2 was purged and sampled utilizing a peristaltic pump with monitoring wells MW-1 through MW-6 being purged and sampled utilizing a bladder pump. All well purging and sampling was conducted following US EPA Region 4 SESD sampling procedures. The collected groundwater samples were submitted for laboratory analysis of VOCs by 8260B. One sample, MW-6 was also submitted for analysis of PAHs by EPA Method 8270B. The groundwater sample collected from MW-2 was collected for PAHs, but held pending PAH analysis of the soil sample collected from SB-37. No PAHs were detected in the SB-37 soil samples; therefore, the groundwater sample from MW-2 was not analyzed for PAHs.

Analytical results for the groundwater samples collected indicated the presence of PCE in TW-2, MW-2, MW-3, MW-4, and MW-6. Additional constituents detected from groundwater samples collected in September 2009 include TCE, cis-DCE, and VC. No PAHs were detected in the sample collected from MW-6. A summary of the analytical results is included in Table 2 and on Figures 7 and 8. Analytical laboratory reports are provided in Appendix IV.

1.5.2 September 9, 2009 Soil Sampling

On September 9, 2009, ECT installed nine soil borings to a maximum depth of 10 ft-bgs utilizing direct push technology on the exterior of the Professional Cleaners and three soil borings by hand auger in the interior of the drycleaners. Soil sampling was conducted following US EPA Region 4 Science and Ecosystem Support Division's (SESD) sampling procedures. Soil samples were collected at depths of 2 ft-bgs, 7 ft-bgs, and 10 ft-bgs where accessible. Note, competent bedrock refusal was encountered during the advancement of these borings as shallow as 2 ft-bgs.

Exterior Borings

On September 9, 2009, nine soil borings (SB-35 through SB-39 and MW-4 through MW-6) were advanced by direct push technology on the exterior of the dry cleaners. Soil samples were collected at the predetermined depths utilizing a macrocore sampling tube with a sterile acetate liner following SESD sampling procedures. The soil sample lithology was noted and the sample split for field screening and laboratory analysis. Soil samples collected were field

screened for VOCs using a Photo Ionization detector (PID). The collected soil samples were submitted for laboratory analysis of VOCs by EPA Method 8260B.

During field screening, no significant VOC detections were identified with the PID, with all concentrations being below 10 parts per million (ppm). Laboratory results indicated the presence of PCE above laboratory detection limits in all samples except MW-4 at 2 ft-bgs, MW-5 at 7 ft-bgs, and MW-6 at 10 ft-bgs. The soil laboratory results are included in Table 1 of the Tables Appendix, (Appendix 1). Additionally, the laboratory results relative to the boring location are included in Figures 5 through 7of the Figures Appendix (Appendix 2). PCE concentrations were highest in the immediate area adjacent to the back door of the dry cleaners and downgradient. Elevated concentrations were detected at all three depths (5 ft-bgs, 7 ft-bgs, and 10 ft-bgs). The suspected source area for the PCE appears to be immediately adjacent to the back door where PCE drums have historically been stored. All Soil Laboratory Reports are included in the Appendix IV.

Interior Soil Borings

On September 9, 2009, three additional soil borings were advanced indoors utilizing a hand auger (SB-32 through SB-34). The borings were advanced by hand auger following SESD sampling procedures. Borings SB-32, SB-33, and SB-34 were advanced to refusal depths of 2 ft-bgs, 8 ft-bgs, and 5 ft-bgs, respectively. The samples were collected from SB-32 and SB-34 at 2 ft-bgs and SB-33 at 2 ft-bgs and 7 ft-bgs. The samples were lithologically described, and split for field screening and laboratory analysis. Soil samples were field screened for VOCs with a PID. The collected soil samples were submitted for laboratory analysis of VOCs by EPA Method 8260B. Additionally, the soil samples collected from SB-37 were analyzed for polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270B.

During field screening, no significant VOC detections were identified with the PID, with all concentrations being below 10 ppm. Laboratory results indicated the presence of PCE above laboratory detection limits in all samples collected. The laboratory results are included in Table 1. Additionally, the laboratory results relative to the boring location are included in Figures 4 through 6. Based on the shallow refusal indoors, only shallow samples could be collected. Accordingly, only horizontal delineation of the shallow soil profile was evaluated. Based on the results of the soil sampling, it appears that slightly elevated PCE concentrations were detected in the front of the dry cleaner and adjacent to the dry cleaning machine. No PAHs were detected in the samples collected from SB-37. All Soil Laboratory Reports are included in the Appendix IV.

2.0 SUBJECT SITE ENVIRONMENTAL SETTING

Site geology has been investigated extensively at the Subject Site and was assessed during ECTs investigation. Geologically, this site resides in the Piedmont Physiographic Province of the United States, which is characterized by Precambrian to early Paleozoic (700 million to 500 million year old) crystalline metamorphic rock. The local geology in the area of the site consists of hard but fractured bedrock overlain by approximately 15 feet of unconsolidated, highly weathered sediments and soils.

The local bedrock is composed of a slightly metamorphic granite related to the Stone Mountain Complex, and a highly metamorphic mica schist that contains biotite and muscovite minerals. Both bedrock types are variably fractured.

The metamorphic bedrock is overlain by a variable thickness of sediment and soil. Thicknesses can vary but are estimated to between 12 to 18 feet in the area of the site. The unconsolidated sediment is a weathered saprolite composed of red silty sands to silty clays. Clay mineralogy is variable but the dominant clay type can be kaolin. The water table is found at approximately 25-30 feet below grade, within the fractured bedrock.

3.0 RISK ASSESSMENT

This section presents a summary of RRS and applicability to the site and surrounding properties. RRS were calculated for both soil and groundwater using the methods provided in 391-3-19-.07 of the HSRA Rules. The proposed RRS for soil and groundwater were calculated prior to ECT's September 2009 investigation and have not been approved by Georgia EPD at the time of this submittal. The calculated RRS values for soil and groundwater were compared to concentration data from samples collected at the Subject Site in order to determine current compliance with RRS. RRS calculations were not performed for VOC constituents that were not detected above Release Notification Concentrations and substances not regulated under HSRA. Based on the current and expected use of the site, non-residential, site specific Type 4 RRS are the accepted clean-up criteria. A discussion of the RRS for soil and groundwater for the Subject Site is provided below to.

3.1 Risk Reduction Standards for Soil

PCE was the only COC detected in soil samples above its respective HSRA Notification Concentration. The detected VOC concentrations in the soil were compared to Type 4 RRS as shown on Table 1. Based on the current soil concentration data for the Subject Site, PCE was detected above its respective Type 4 RRS in three soil samples (SB-15 at 10'bls, SB-20 at 2' bls, and SB-37 at 2'bls). All concentrations exceeding the Type 4 RRSs are in bold included on Table 1. Soil sampling locations are shown in Figures 4 through 6**.**

Calculations for Type 3 and Type 4 RRSs for PCE, TCE, trans-DCE, cis-DCE, and VC in soil were performed for comparison of the laboratory detected concentrations. The respective Type 3 and 4 RRSs are shown at the bottom of Table 1. A review of the laboratory results for all soil investigations indicate that PCE was detected in three samples exceeding the calculated Type 4 RRSs (1,680 ug/kg). The exceedances were found in the samples collected from SB-15 at 10 ft-bgs (7,700 ug/kg), SB-20 at 2 ft-bgs (3,500 ug/kg), and SB-37 at 2 ft-bgs (1,700 ug/kg). Based on the presence the elevated PCE in soil, it appears that a PCE release has occurred in the vicinity of the back door of the dry cleaning facility. No PCE breakdown constituents exceeding their respective Type 4 RRS were detected in any of the samples collected. Based on the concentrations detected, it appears that horizontal delineation of all PCE and breakdown constituents to below Type 4 RRSs has been achieved.

In addition to the comparison of the laboratory results to RRSs, the results were compared to background concentrations, which would be laboratory detection limits. A review of the PCE and breakdown detections indicates that PCE had been delineated north, east, and south of the suspected source area at the dry cleaner. One sample, SB-10 collected at 2 ft-bgs, indicated the presence of trace PCE concentrations southeast of the suspected source area. Samples west of the site at the property boundary also indicated that PCE was present above laboratory detection limits at 2 ft-bgs and 5 ft-bgs from SB-13. PCE results are shown on Figures 5 through 7. TCE and cis-DCE concentrations were delineated to the east, south, and west of the suspected source area to below laboratory detection limits. The soil sample collected during the installation of MW-2 (SS-2) at 2 ft-bgs indicated the presence of TCE and cis-DCE at 8 ug/kg and 3.4 ug/kg; therefore, delineation to background was not complete to the north of the suspected source area. Note, that the previous consultant did not submit the perimeter samples for analysis of PCE breakdown constituents only PCE. Trans-DCE and VC have not been detected in soil above laboratory detection limits at the site; therefore are delineated to background levels.

Based on the PCE concentrations detected in soil in the immediate area north of the building on the subject site does not appear to be in compliance with the Type 4 RRS. Laboratory results for soil samples collected from all other site borings horizontally delineate PCE to below Type 4 RRS in all directions of the suspected source area.

3.2 Risk Reduction Standards for Groundwater

COCs detected in groundwater samples above HSRA Notification Concentrations include PCE and TCE. The detected VOC concentrations in groundwater were compared to Type 4 RRS with concentrations exceeding the RRSs in bold as shown on Table 2. Groundwater sampling locations are shown in Figures 7 and 8. Specific data concerning the delineation of groundwater is discussed below.

Calculations for Type 1/3 and Type 4 RRSs for PCE, TCE, trans-DCE, cis-DCE, and VC in groundwater were performed for comparison of the laboratory detected concentrations. The respective Type 1/3 and 4 RRSs are shown at the bottom of Table 2. A review of the laboratory results for the groundwater investigations indicate that PCE was detected in all samples except MW-1 and MW-5 above 5 ug/L, the calculated Type 4 RRS and laboratory detection limits. MW-1 and MW-5 are located northwest and west of the suspected source area. TCE was detected above laboratory detection limits in three wells, TW-2, MW-3 and MW-4. TCE was detected in TW-2 during three different events and exceeded Type 4 RRSs (34.5ug/L) for each. TCE concentrations detected in MW-3 and MW-4 were below Type 4 RRSs. VC was detected in one sample, MW-2, at the laboratory detection limit (2 ug/L), but below the calculated Type 4 RRSs (18.2ug/L). Cis-DCE was detected in TW-2 during three sampling events and MW-1 through MW-4 during the September 2009 sampling event. All cis-DCE concentrations detected

were below the calculated Type 4 RRSs (1,020 ug/L). Trans-DCE was not detected above laboratory detection limits in any of the groundwater samples collected at the subject site. Groundwater concentrations are shown in Table 2 and on Figures 1 through 3. Based on the concentrations detected, it appears that horizontal delineation of all PCE to below Type 4 RRS and laboratory detection limits to the west has been achieved. TCE, cis-DCE, and VC have been delineated to below Type 4 RRS and laboratory detection limits to the south, east, and west. No wells have been installed to assess the deeper aquifer at the site; therefore, vertical delineation has not been achieved.

Based on the investigation results for the most recent sampling events conducted at the site by ECT in September 2009, horizontal and vertical delineation of PCE and TCE to below Type 4 RRS in groundwater is incomplete as shown on Figures 7 and 8.

3.3 Vapor Intrusion

Prior to remediation activities, ECT will conduct activities such as modeling or collection of site specific data to determine if the subsurface contamination identified on the Subject Site poses a threat for vapor intrusion exposure pathways and an unacceptable risk to human health. These activities will be done following the guidance provided in EPA's document *"Draft Guidance for Evaluating the Vapor Intrusion from Indoor Pathways from Soils and Groundwater (Subsurface Vapor Intrusion Guidance)."* Data from these activities will be utilized to properly address any site specific issues and will be provided to Georgia EPD in the VRP Application Addendum.

4.0 REMEDIAL DESIGN

4.1 General Scope of Corrective Action

The implementation of the corrective action program will consist of the following components:

(a) Source area remediation by excavation
- TCLP sampling for VOCs and RCRA Metals,
- Submittal of results to landfill for disposal approval,
- Soil excavation,
- Confirmation soil sampling,
- Backfill with clean soil,

(b) Groundwater Delineation and Modeling
- Vertical and horizontal delineation of groundwater contamination
- Numerical Modeling of VOC impacted groundwater
- Routine Groundwater sampling

4.2 Corrective Action Objectives

The corrective action objectives for the site is limited to those substances/constituents present in the groundwater and soil, attributable to suspected releases from the release of PCE that are present at concentrations above Type 4 RRS. The specific constituents are addressed by this VRP Application are: PCE and TCE.

4.3 Professional Dry Cleaners Corrective Action Approach

Prior sections of this document provided a brief historical overview of the Professional Dry Cleaners contaminant concentrations and a review of the selected remedial technologies. This section provides the specific corrective action approaches that will be utilized at the Professional Dry Cleaners, excavation and groundwater modeling. Additionally, details of the implementation of these technologies including permitting, excavation, sampling, and Health and Safety are included in the sections below.

4.4 Permitting

All necessary local permits required for the excavation will be obtained prior to performing the work.

4.5 Excavation

Chlorinated VOC impacted soil has been identified in a source area immediately north of the building on the subject site. ECT proposes to excavate the VOC impacted soils in this source area as shown on Figure 10. Prior to excavation of soils, all monitoring wells in the area will be properly abandoned following Georgia Water Well Standards. Additionally, utilities such as power, drainage, water, and sewer may have to be temporarily disconnected and rerouted around the excavation area. Disconnection and handling of these utilities will be done at the direction of the respective utility company.

Once the necessary utilities have been addressed, sheet piling may be installed along the southern side of the excavation area nearest the building to protect the foundation of the building. The sheet piling will be located along the entire southern wall of the excavation area (approximately 20 feet). The sheet piles will be constructed of steel approximately ½ inches thick, 1 ½ feet wide, and 15 feet long. Specifications for the sheet pilings were provided by the company that will install the sheet pilings. Additionally, if the sheet piling is necessary a Georgia Professional Engineer will certify that the sheet pilings will be sufficient to protect the foundation of the building and keep the western wall of the excavation area from caving in.

After the sheeting pilings are properly installed, excavation of soil down to bedrock will begin (approximately 10-12 feet below land surface). Based on previous sampling events, soil in the excavation area contains PCE above its applicable RRS. The estimated dimensions of the excavation area are 45 feet x 20 feet to a depth of 12 feet. These dimension equate to approximately 400 cubic yards of impacted soil. The VOC impacted soil will be removed from the excavation area using an excavator and will be live loaded in dump trucks that will transport the soil to an approved off-site facility. It is anticipated that the impacted soil will be removed and disposed of at Eagle Point Landfill in Ball Ground, Georgia. As previously discussed, soil samples will be collected from this area and analyzed for TCLP VOCs and RCRA Metals prior to the disposal of any soil. Laboratory results will be provided to the landfill with a profile for acceptance. If inclement weather occurs during excavation activities, real time decisions to continue or cease excavation activities will be made by the Site Manager based on site conditions and safety considerations

ECT will collect soil samples for verification of removal of impacted soils above the applicable RRS. The soil sampling regime will be discussed in further detail in the Performance Monitoring Plan Section below. In general, soil samples will be collected for VOC analysis on the walls of the excavation every 25 linear foot at a depth of 8 ft.

Once confirmation samples have been collected from the excavation area, backfill activities will begin. Backfill from an off-site source will be utilized. Prior to accepting soil from the off-site source, ECT will collect a sample for VOC analysis from the area of the borrow pit that will supply the backfill. The backfill will be transported to the site via dump trucks and dumped directly into the excavation area. ECT will selectively screen all backfill material for signs of contamination (staining or odors). The excavator will then be used to compact the backfill in 2 foot lifts. If additional compaction is warranted due to future site uses, a remote controlled compactor will be utilized. Any utilities disconnected prior to excavation activities will be properly reconnected to ensure it function properly. Once the excavation area has been completely backfilled, the excavation area and surrounding disturbed areas will be finished with the appropriate material (asphalt, curbing, or vegetation).

4.6 Groundwater Modeling

After excavation and groundwater delineation activities have been completed, ECT will conduct numerical groundwater modeling using an Environmental Protection Agency (EPA) approved groundwater model. This model will estimate the likely extent of the dissolved VOCs impact in groundwater. The data generated during the numerical groundwater modeling will be compared to a map showing potential receptors to demonstrate that no human or environmental receptors will be impacted by the dissolved VOCs from this release. Specifics concerning the type of numerical groundwater model that will be used will be provided in the VRP Application Addendum.

5.0 PERFORMANCE MONITORING PLAN

As the remediation plan is implemented, the remediation process will be monitored continually to confirm that the specific remedial action is a success or failure. This determination can be made in a defensible way only through an adequately designed performance monitoring and assessment process, which includes a clear definition of success. The performance monitoring and assessment process must provide information that is compatible with the agreed upon regulatory framework. In this case, success is defined as obtaining concentrations of PCE below the RRS in soil.

5.1 Excavation

During historical investigations, several soil and groundwater samples have been collected in the source area. The results for the investigations will serve as a base line to determine the success of the remediation. During the excavation, confirmation soil samples will be field screened for VOCs with a PID at various depths and in various locations on the perimeter of the excavation to determine if significant concentrations are present beyond the proposed excavation area. Additionally, after the removal of the soil, soil samples will be collected at a depth (8 ft) every 25 linear ft of the excavation side walls of the excavation. Soil samples will be analyzed for VOCs by 8260B. It is expected that bedrock will be encountered in the bottom of the excavation; therefore, confirmation soil samples will not be collected. If bedrock is not encountered, confirmation soil samples will be collected on a 10 foot grid pattern. Based on the baseline concentrations, elevated VOC readings by field screening are not expected on the excavation walls after source removal. After verification that soil concentrations are below Type 4 RRS, clean soil will be placed back into the excavation.

5.2 Health and Safety

5.2.1 Excavation

Prior to the initiation of on-site activities, a Health & Safety plan will be created for this project. Additionally, the Health & Safety Plan will be provided to each subcontractor for comments and approval.

5.3 Reporting

5.3.1 VRP Application Addendum

Remediation will commence upon approval of this VRP Application by the Georgia EPD. At the completion of the implementation of the Corrective Actions, Performance Monitoring Plan, and horizontal and vertical delineation of VOC impacted groundwater, the data will be reviewed and summarized in a report to GA EPD. The report will provide data collected during the excavation, performance monitoring period, and groundwater delineation and modeling.

5.3.2 Milestone Schedule

The tentative schedule for implementation of corrective action is shown below**.**

Tentative Milestone Schedule

Date	**Task**
March 15, 2010	Submittal of VRP Application
May 4-14, 2010	Excavation & Site Restoration
June 8-11, 2010	Horizontal & Vertical Delineation of VOC Impact Groundwater
July, 2010	Complete Groundwater Numerical Modeling of VOC Impacted Groundwater
September, 2010	Submittal of VRP Application Addendum

5.3.3 Correction Action Cost Estimates

Cost estimates to conduct the corrective actions discussed previously in this report (excavation and groundwater modeling) are provided below.

Cost Estimate for Excavation of Soil Exceeding Type 4 RRS

Scope of Work			**Proposed Price**
Characterization and approvals			
	6 hours		$500
Pre-project Reporting			
	H&S/work plan prep		$1,500
Baseline Sampling			
	Laboratory (VOCs-7)		$750
	Laboratory (MNA-7)		$2,200
	Equipment		$200
	Sampling labor (10 hours)		$800
Sheet Piling			
	Design (report & PE) *If Necessary will be additional cost*		
	Contractor *If Necessary will be additional cost*		
Soil Remediation, backfill, and restoration			
	Contractor coordination/scheduling		$3,500
	Soil Removal contractor		$9,500
	Soil Disposal		
	400 yards/500 tons @ $30 per ton-T&D		$15,000
	Backfill soil		
	520 yards @ $10 per yard		$5,200
	Site Restoration (asphalt and curbing)		$5,000
	Sampling and Oversight		$9,200
	Soil sampling & Lab Analytical (15 x $160)		$2,650
	Project Oversight & Management (P.E., etc)		$3,500
Estimated Costs			**$59,500.00**

Cost Estimate for Delineation and Modeling of Groundwater

Installation of Shallow Rock Wells (3)		
	Drilling	$14,000
	Oversight	$2,400
	Soil Disposal	$1,500
Installation of Deep Rock Well		
	Drilling	$6,700
	Oversight	$2,400
	Soil Disposal	$500
Groundwater Sampling		
	Equipment	$750
	Laboratory (VOCs-10)	$1,200
	Labor	$2,400
Numerical Groundwater Modeling		
	Labor	$10,000
Estimated Costs		**$41,850.00**

GROUNDWATER SCIENTIST STATEMENT

I certify under penalty of law that this report and all attachments were prepared under my direction in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Based on my review of the findings of this report with respect of Risk Reduction Standards of the Rules for Hazardous Site Response, Chapter 391-3-19-.07, I have determined that this property ins not in compliance with Type 1 Risk Reduction Standards for soil or groundwater.

Signed:_____ Date:_____

Andrew T. Benoit
Georgia Registration No. 1487

APPENDIX I

TABLES

Professional Cleaners
4800 Redan Road
Stone Mountain, Georgia
HSI# 10884

Table 2: Groundwater Analytical Results

Well Number	Date Sampled	cis-DCE (μg/L)	PCE (μg/L)	trans-DCE (μg/L)	TCE (μg/L)	VC (μg/L)
TW-1	10/17/2000	<5	**67**	<5	<5	<2
TW-2	10/17/2000	<5	**1,920**	<5	<5	<2
	7/20/2007	69	**5,600**	<5	**320**	<2
	10/13/2007	53	**3,200**	<5	**200**	<2
	9/10/2009	81	**1,900**	<5	**140**	<2
MW-1	9/10/09	17	<5	<5	<5	<2
MW-2	9/10/09	290	**94**	<5	<5	2
MW-3	9/10/09	110	**340**	<5	18	<2
MW-4	9/12/09	5.6	**210**	<5	5.4	<2
MW-5	9/11/09	<5	<5	<5	<5	<2
MW-6	9/11/09	<5	**41**	<5	<5	<2
Type 1/3 RRS		5	5	100	5	2
Type 4 RRS		1,020	5	161	34.5	18.2

Notes:
μg/L = micrograms per liter

Professional Cleaners
4800 Redan Road
Stone Mountain, Georgia
HSI# 10884

Table 1: Soil Analytical Results

Boring Number	Depth (ft)	Date Sampled	PCE (μg/kg)	TCE (μg/kg)	cis-DCE (μg/kg)	trans-DCE (μg/kg)	VC (μg/kg)
HA-1	2	10/12/00	633	232	6	<5	<10
HA-2	2	10/17/00	<5	<5	<5	<5	<10
SS-1 (MW-1)	2	10/12/07	53	<4.2	<4.2	<4.2	<8.4
SS-2 (MW-2)	2	10/12/07	400	8	3.4	<3.2	<6.4
SS-3 (MW-3)	6	10/12/07	13	<3.2	<3.2	<3.2	<6.5
SB-4	2	2/25/08	12				
	10	2/25/08	<3.5				
SB-5	2	2/25/08	18				
SB-6	2	2/25/08	<3.4				
	10	2/25/08	<3.3				
SB-7	2	2/25/08	5.2				
	10	2/25/08	<4				
	25	2/25/08	14				
SS-8	2	2/25/08	<3.6				
	5	2/25/08	6.6				
SB-9	2	2/25/08	<3.2				
	10	2/25/08	12				
SB-10	2	3/10/08	8.4				
	10	3/10/08	<4.3				
SB-11	2	3/10/08	<3.0				
	10	3/10/08	<3.4				
SB-12	2	3/10/08	9.4				
	10	3/10/08	12				
	25	3/10/08	4				
SB-13	2	3/10/08	77				
	5	3/10/08	49				
SB-14	2	3/10/08	3.2				
	5	3/10/08	<3.4				
SB-15	2	3/10/08	440				
	5	3/10/08	1,100				
	10	3/10/08	**7,700**				
SB-16	2	3/10/08	<3.1				
	10	3/10/08	<5.3				
SB-17	2	3/10/08	7.5				
	10	3/10/08	<3.4				
SB-18	2	3/10/08	<3.2				
SB-19	2	3/10/08	49				
	10	3/10/08	<4.2				
SB-20	2	5/14/08	**3,500**				
	7	5/14/08	6				
SB-21	2	5/14/08	590				
	8.5	5/14/08	4.8				

Not Analyzed

Boring Number	Depth (ft)	Date Sampled	PCE (μg/kg)	TCE (μg/kg)	cis-DCE (μg/kg)	trans-DCE (μg/kg)	VC (μg/kg)
SB-22	2	5/14/08	710	**Not Analyzed**			
	10	5/14/08	13				
SB-23	2	5/14/08	240				
	10	5/14/08	360				
SB-24	2	5/14/08	<3.4				
	10	5/14/08	9.2				
SB-25	2	5/14/08	<3.0				
	10	5/14/08	<3.9				
SB-26	2	5/14/08	<3.8				
	10	5/14/08	<3.8				
SB-27	2	5/14/08	<3.8				
	10	5/14/08	<3.6				
SB-28	2	5/14/08	<3.4				
SB-29	1.5	5/14/08	280				
SB-30	2	5/14/08	8.9				
	5	5/14/08	690				
SB-31	2	5/14/08	11				
	5	5/14/08	560				
MW-4	2	9/9/09	<3.8	<3.8	<3.8	<3.8	<7.7
MW-5	2	9/9/09	17	<3.9	<3.9	<3.9	<7.9
	7	9/9/09	<3.9	<3.9	<3.9	<3.9	<7.8
MW-6	2	9/9/09	160	<6.5	<6.5	<6.5	<13
	7	9/9/09	220	<6.8	<6.8	<6.8	<14
	10	9/9/09	<9.2	<9.2	<9.2	<9.2	<18
SB-32	2	9/9/09	130	<7.9	<7.9	<7.9	<16
SB-33	2	9/9/09	110	<6.8	<6.8	<6.8	<14
	7	9/9/09	240	<6.9	<6.9	<6.9	<14
SB-34	2	9/9/09	31	6.9	<6.0	<6.0	<12
SB-35	2	9/9/09	310	110	230	<6.4	<13
	7	9/9/09	230	300	180	<6.3	<13
	10	9/9/09	940	61	170	<6.6	<13
SB-36	2	9/9/09	380	4	<3.2	<3.2	<6.4
	7	9/9/09	200	9.6	5.4	<3.4	<6.9
SB-37	2	9/9/09	**1,700**	940	220	<6.1	<12
	7	9/9/09	900	480	530	<6.3	<13
SB-38	2	9/9/09	88	65	120	<3.6	<7.1
	7	9/9/09	260	70	180	<3.9	<7.8
	10	9/9/09	48	32	44	<2.6	<5.2
SB-39	2	9/9/09	450	9	<4.1	<4.1	<8.2
	7	9/9/09	31	<4.1	<4.1	<4.1	<8.1
	10	9/9/09	30	<3.8	<3.8	<3.8	<7.6
Type 3 RRS			500	500	530	10,000	200
Type 4 RRS			1,680	11,584	343,392	54,219	4,957

Notes:

μg/kg = micrograms per kilogram

Professional Cleaners
4800 Redan Road
Stone Mountain, Georgia
HSI# 10884

Table 3: Groundwater Elevations

	Date Measured	Top of casing Elev. (ft)	Depth of Screen Interval (ft)	Water Depth (ft)	Corrected Groundwater Elevation (ft)
TMW-2	9/12/2009	102.03	10-33	27.84	74.19
MW-1	9/12/2009	100.00	20-40	38.01	61.99
MW-2	9/12/2009	100.40	18-38	35.42	64.98
MW-3	9/12/2009	100.75	15-45	33.14	67.61
MW-4	9/12/2009	100.87	19-39	26.78	74.09
MW-5	9/12/2009	102.77	19-44	21.29	81.48
MW-6	9/12/2009	102.57	19-44	25.62	76.95

Note:
Elevation at MW-1 arbitrarily set at 100 ft.

APPENDIX II

FIGURES

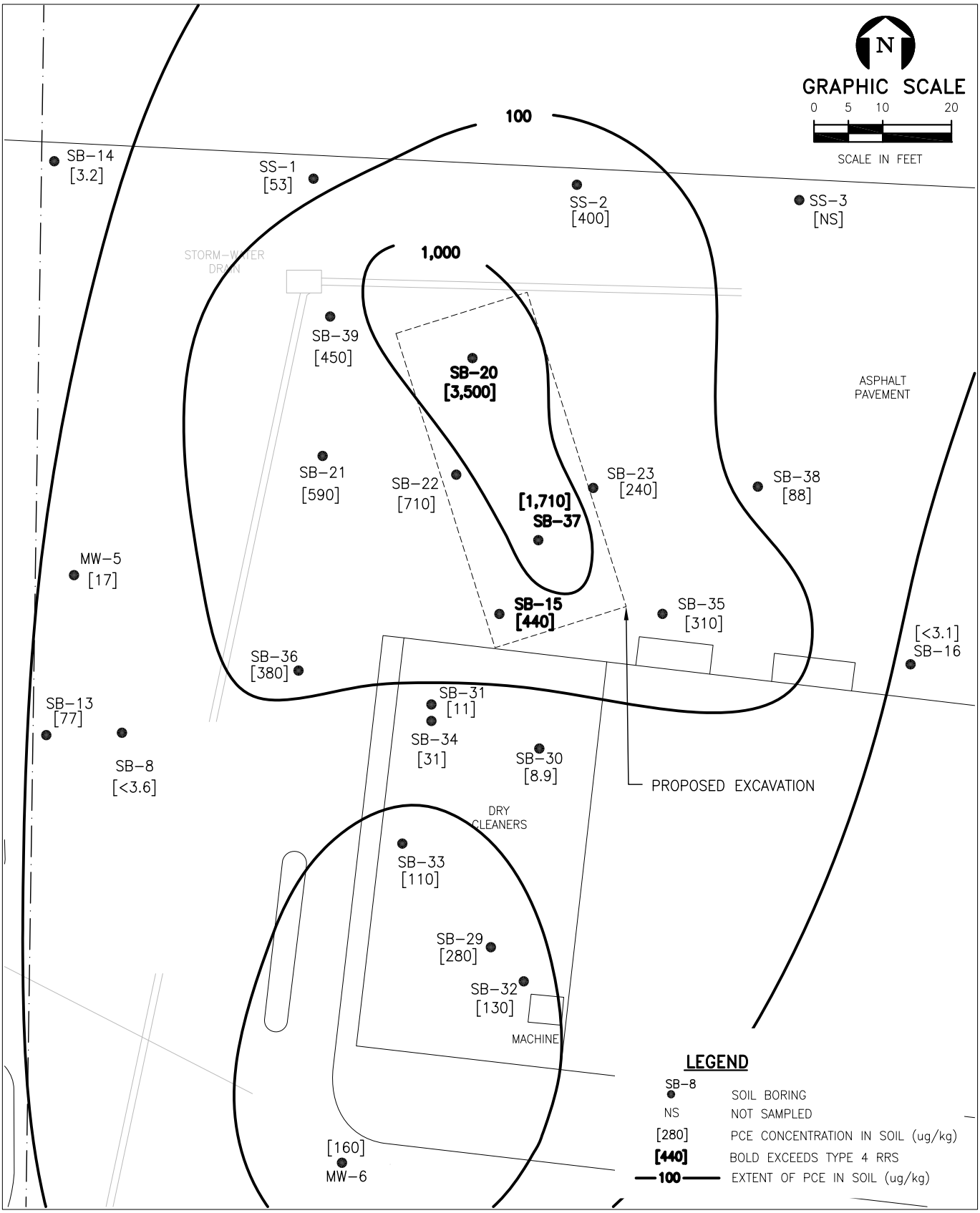

FIGURE 10.
PCE IN SOIL (0-3ft) & PROPOSED EXCAVATION AREA
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

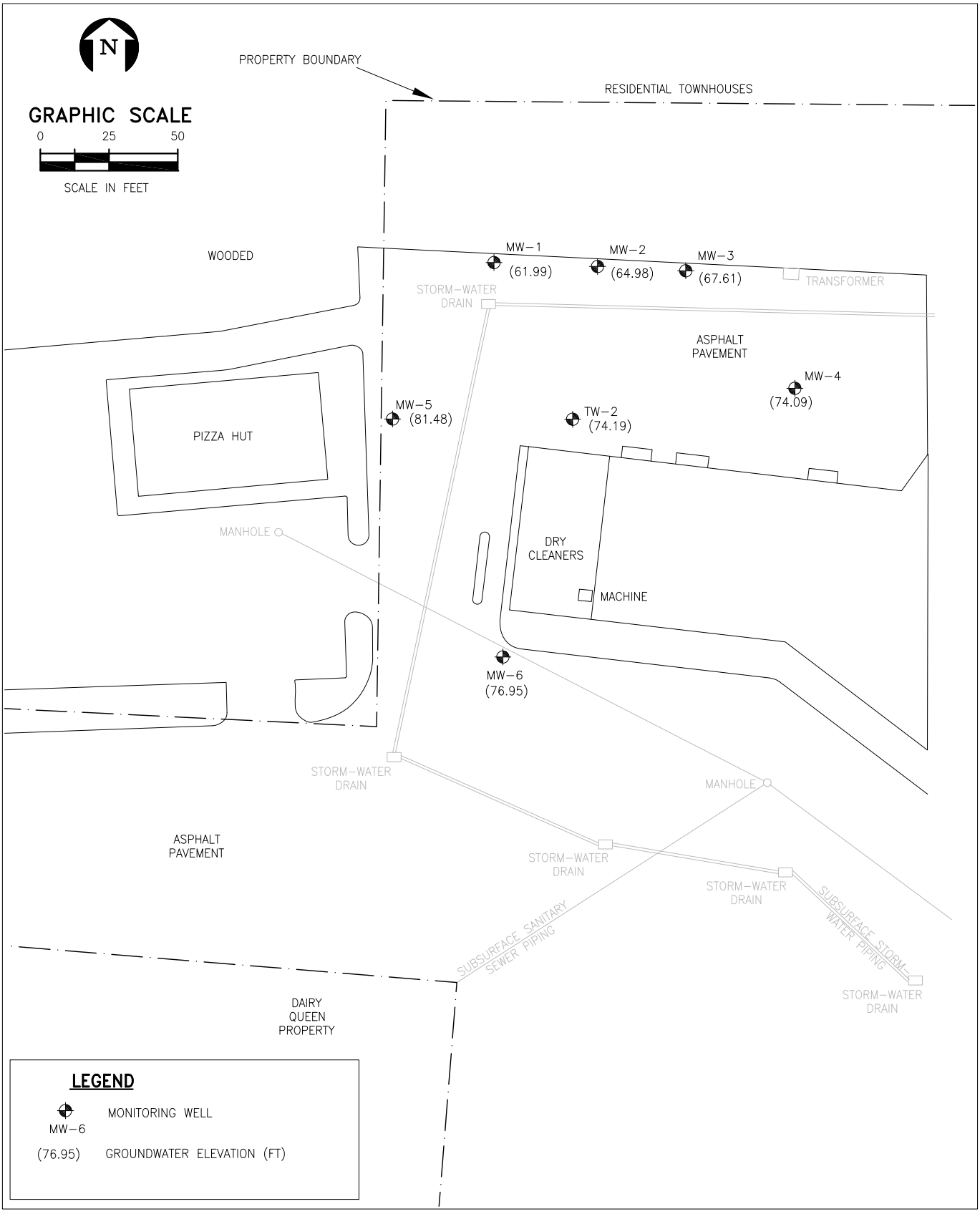

FIGURE 9.
POTENTIOMETRIC MAP (09/10/09)
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

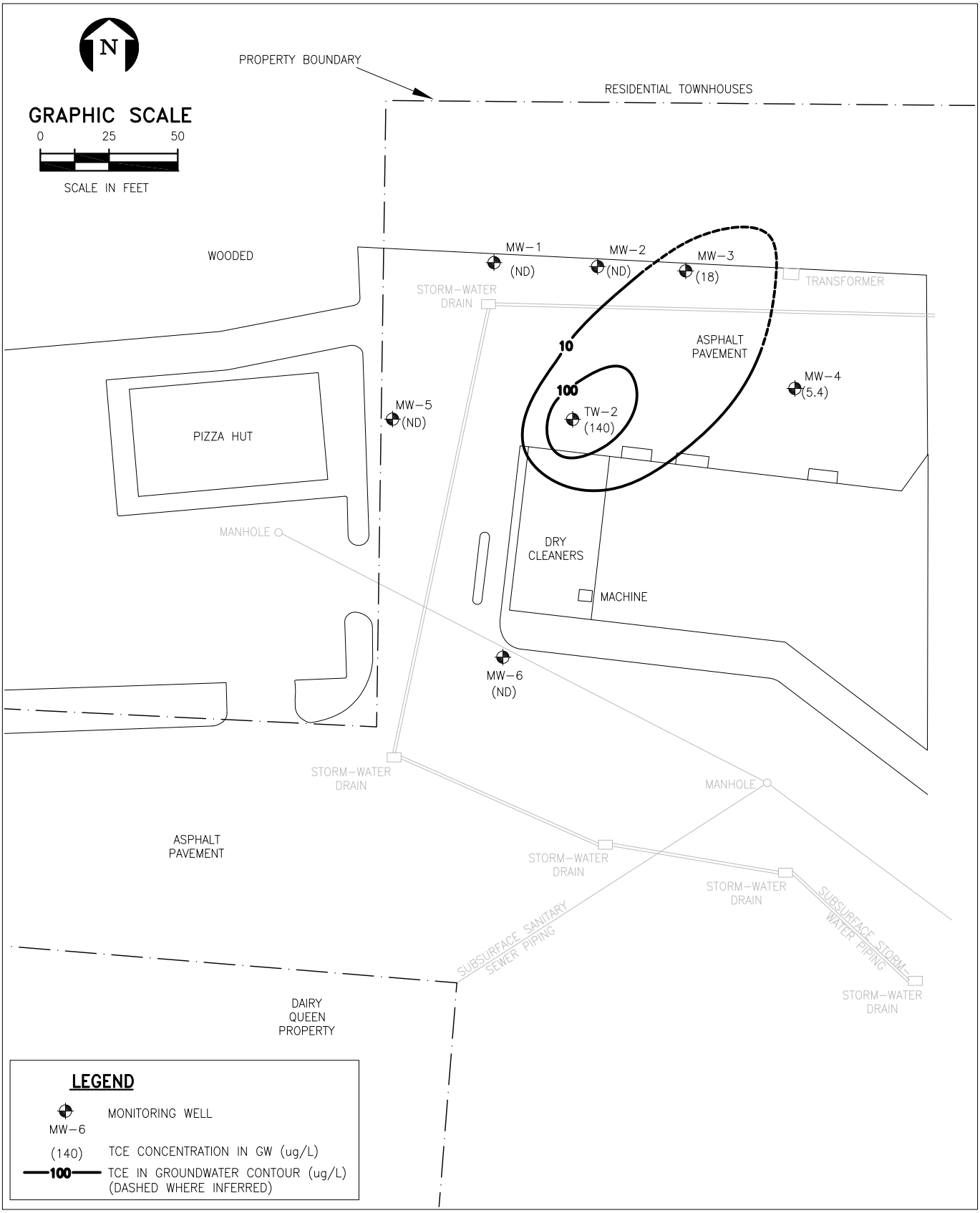

FIGURE 8.
TCE GROUNDWATER
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

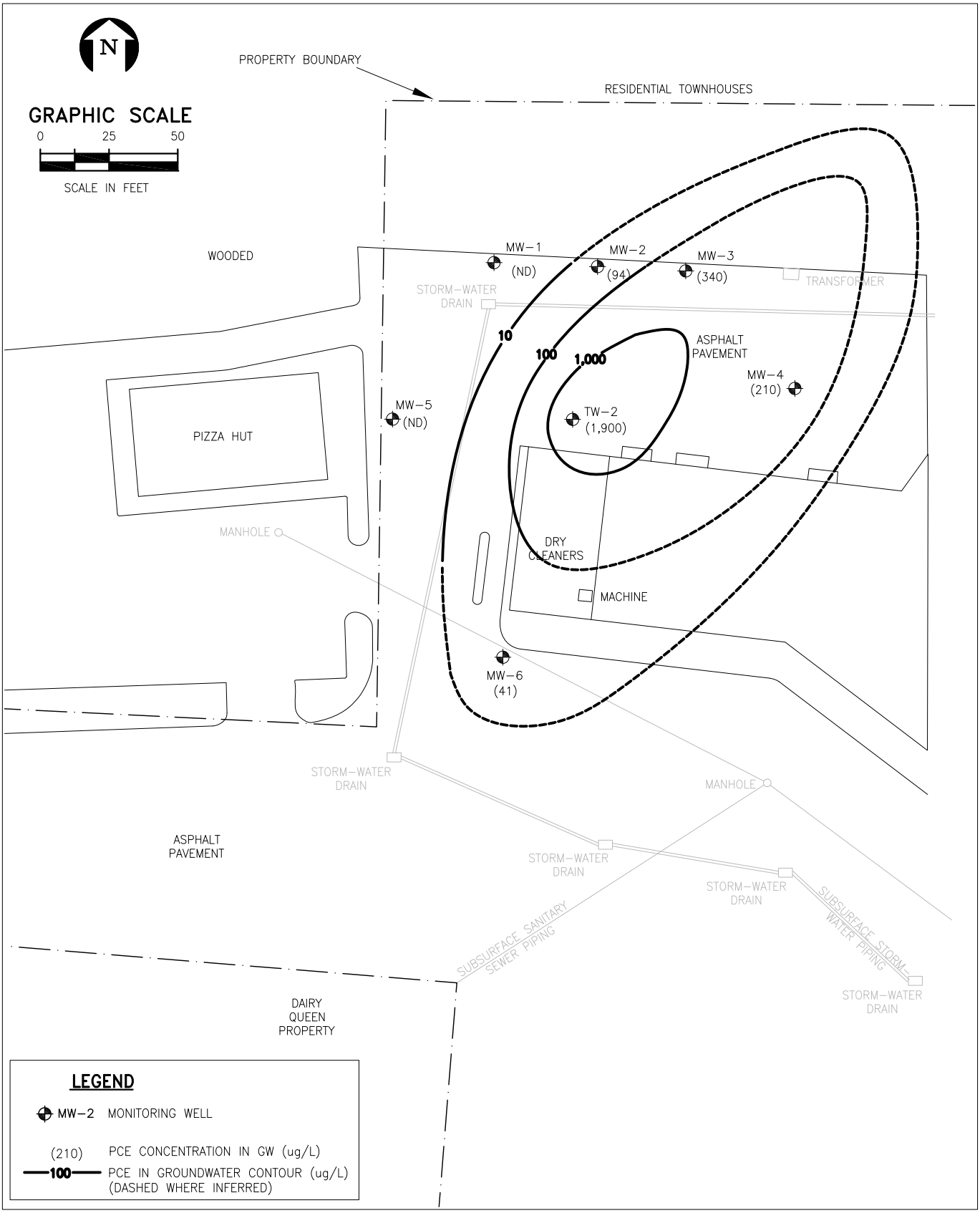

FIGURE 7.
PCE GROUNDWATER
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

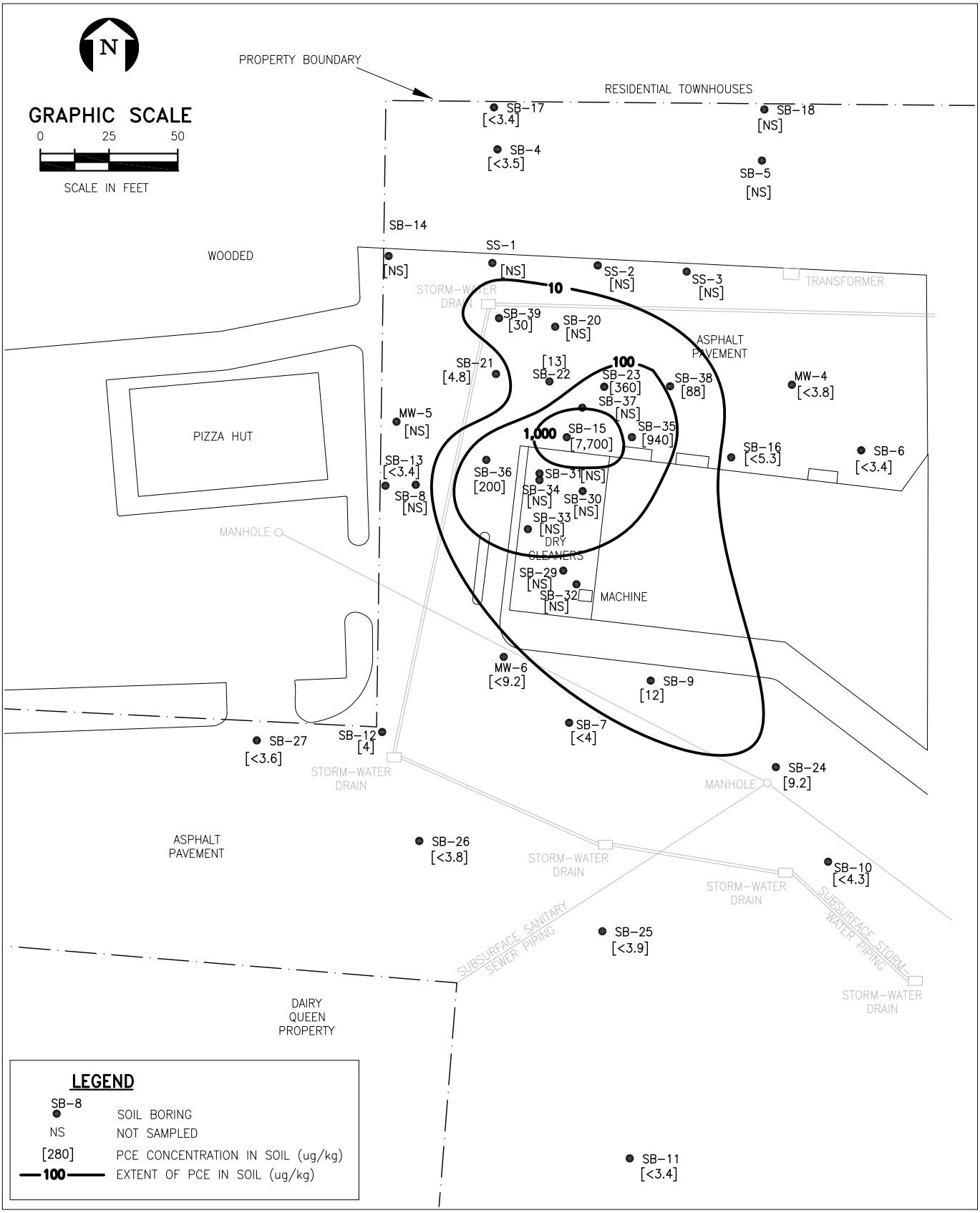

FIGURE 6.
PCE IN SOIL (8.5-10 ft)
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

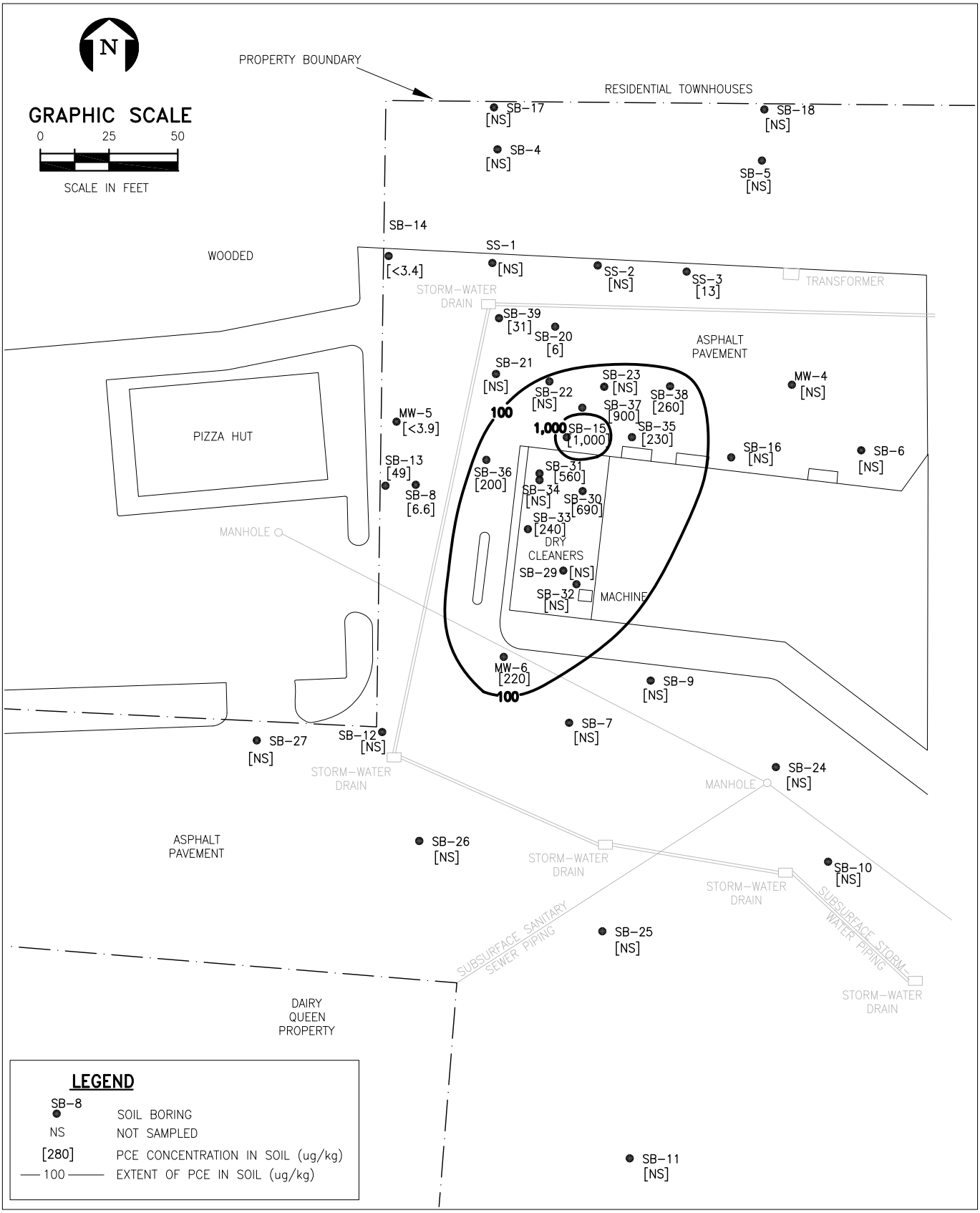

FIGURE 5.
PCE IN SOIL (5-7ft)
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

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Environmental Consulting & Technology, Inc.

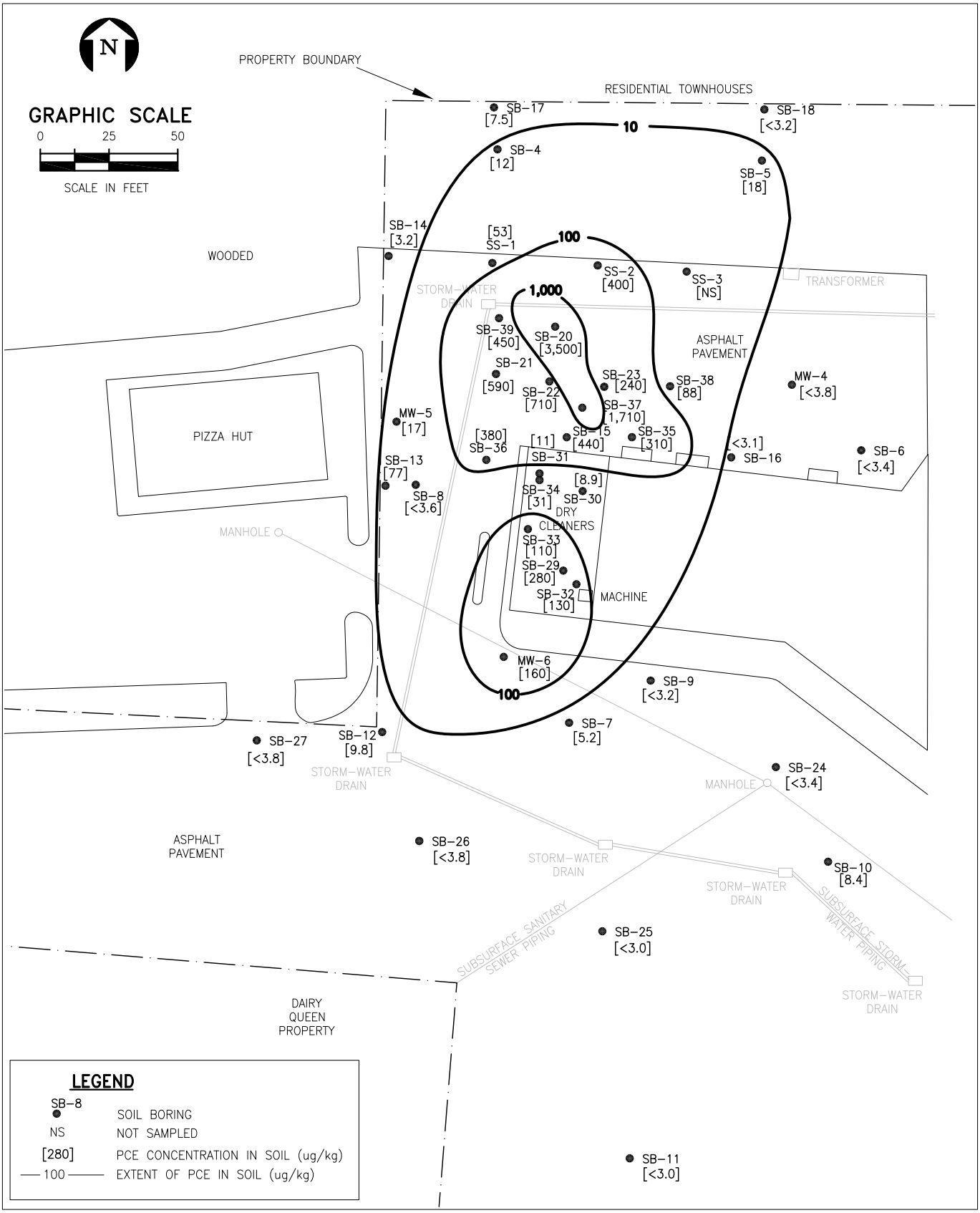

FIGURE 4.
PCE IN SOIL (0-3ft)
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

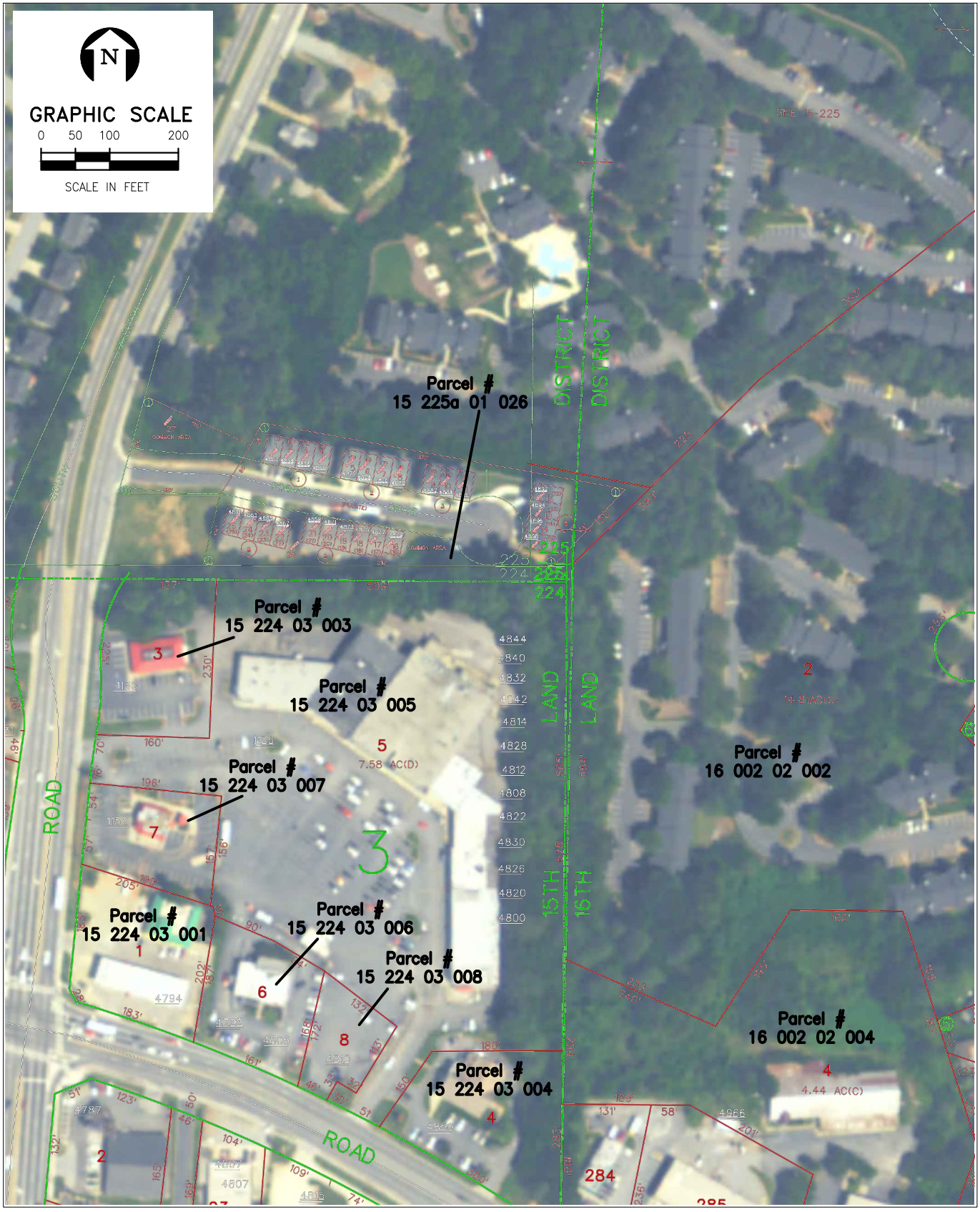

FIGURE 3.
QUALIFYING AND ADJACENT PROPERTIES
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source:Dekalb County, 2010; ECT, 2010.

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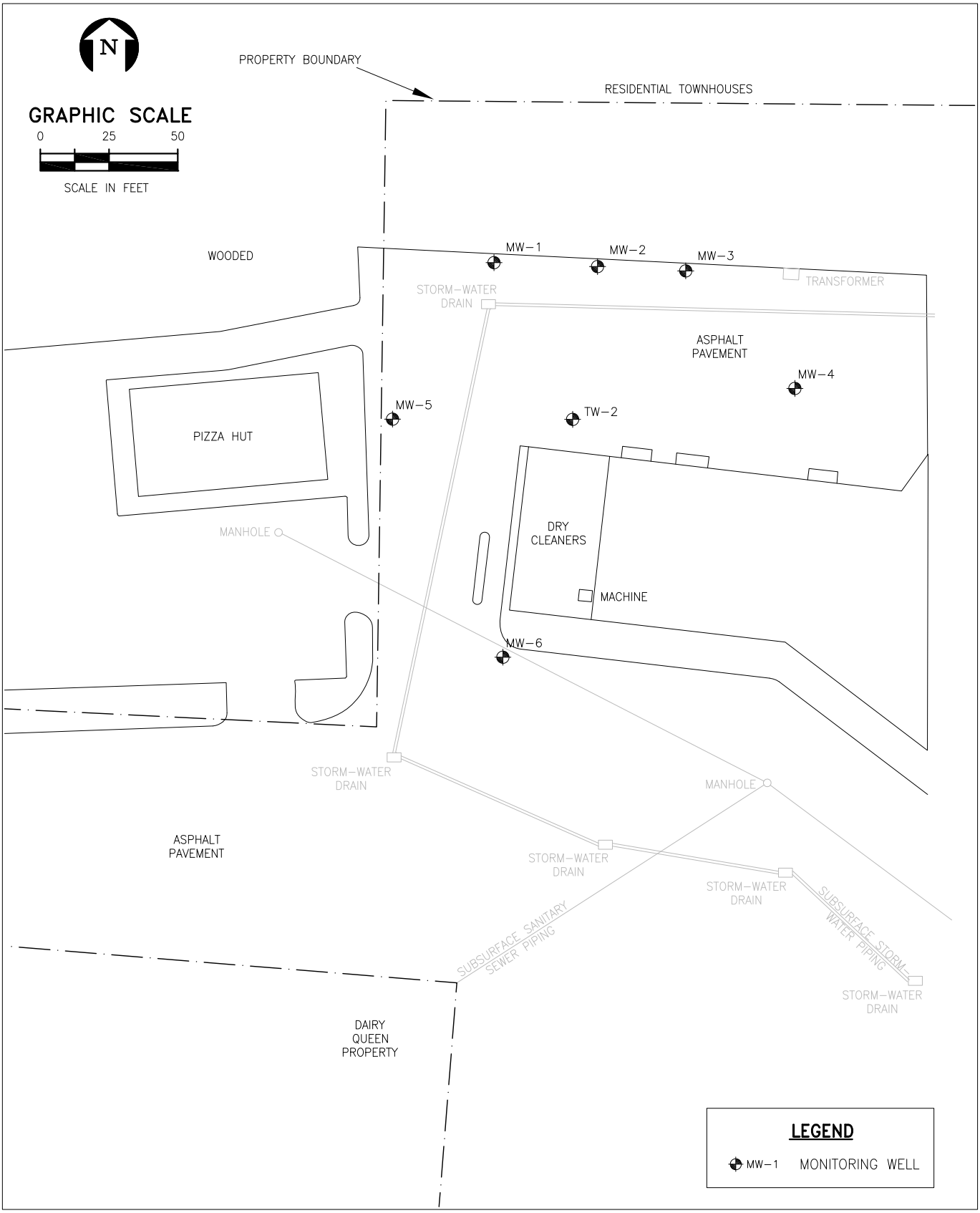

FIGURE 2.
SITE LAYOUT
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source: ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

M:\Prop\Matt T\location.dwg

Mar 11, 2010 - 11:38am by ndenahan

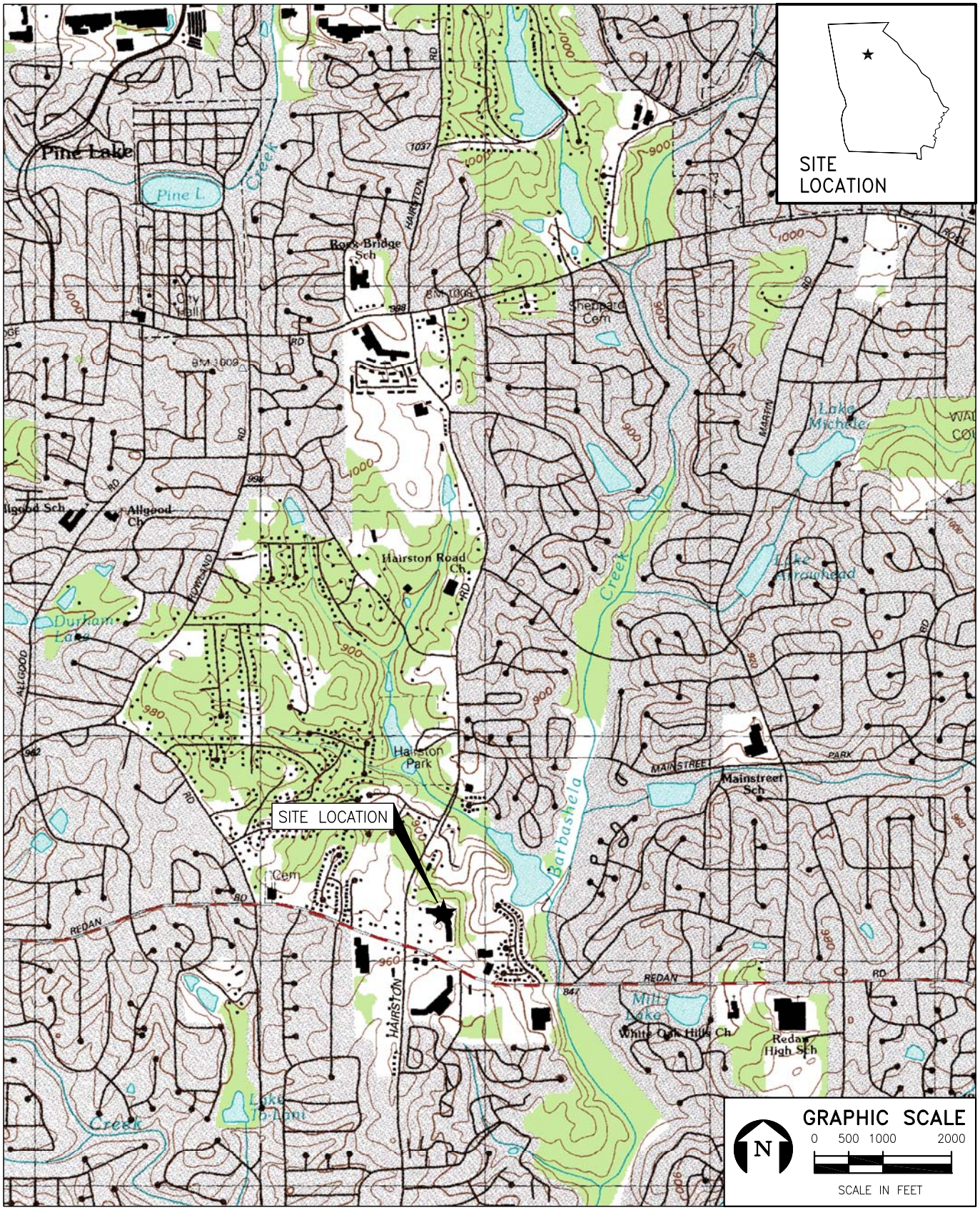

FIGURE 1.
SITE LOCATION MAP FOR
PROFESSIONAL CLEANERS
4800 READAN RD STONE MOUNTAIN GA
Sources: USGS Quads: Stone Mountain, GA, 1997; ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

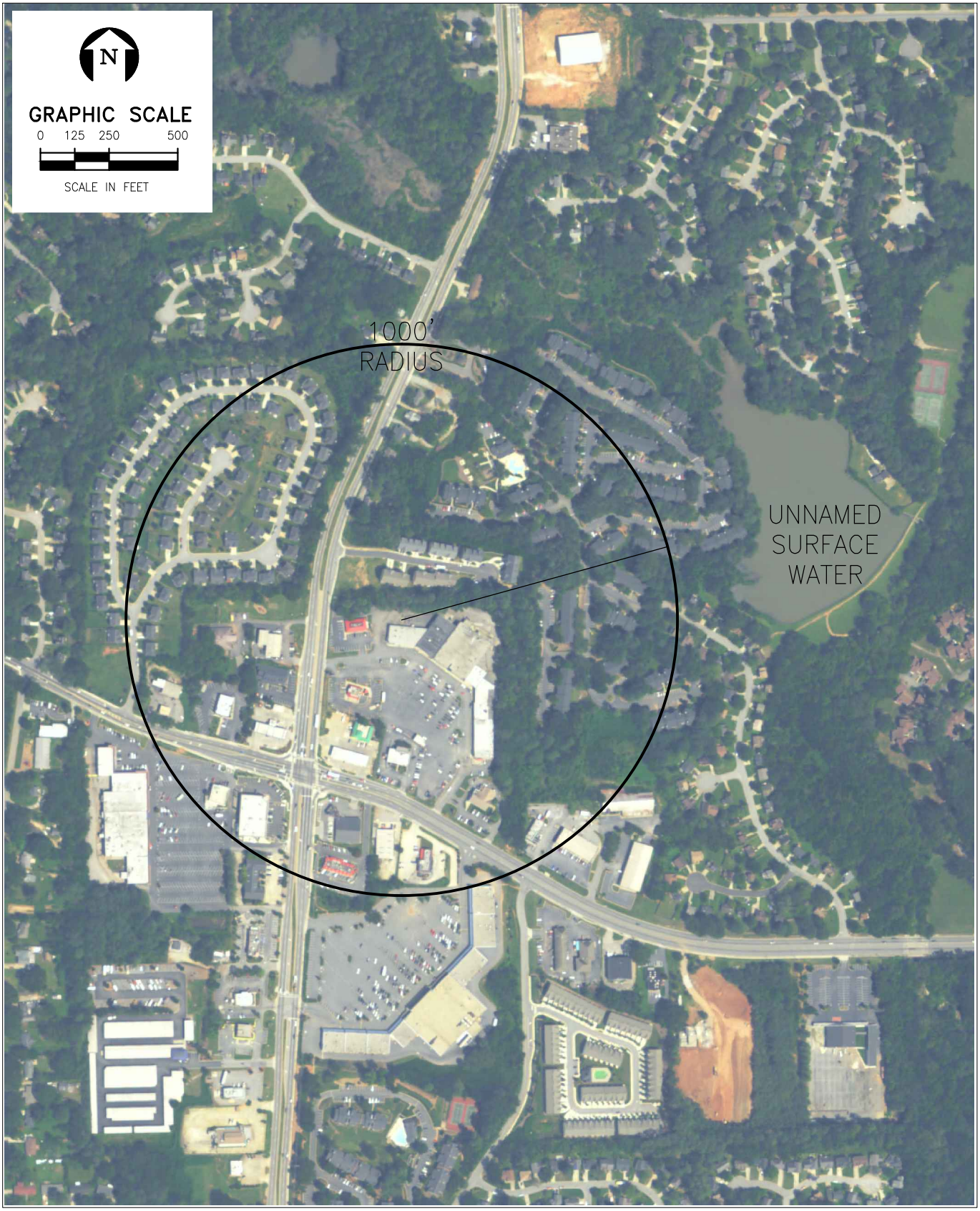

FIGURE 11.
GROUNDWATER AND SURFACEWATER USAGE
PROFESSIONAL CLEANERS
4800 REDAN ROAD STONE MOUNTAIN, GA
Source:NRCS, 2009; ECT, 2010.

ECT
Environmental Consulting & Technology, Inc.

APPENDIX III

GEORGIA EPD CALL IN LETTER DATED SEPTEMBER 15, 2009

Georgia Department of Natural Resources
2 Martin Luther King, Jr. Drive, SE, Suite 1462 East, Atlanta, Georgia 30334
Chris Clark, Commissioner
Environmental Protection Division
Carol A. Couch, Ph.D., Director
Hazardous Waste Management Branch
404-657-8600

September 15, 2009

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

JNV Investments Group
c/o Ms. Marian Dykes, CEO
2910 Stone Mountain Industrial Boulevard
Tucker, GA 30084-3095

Re: JNV Investments Group (*f.k.a.* Professional Cleaners)
Compliance Status Report Call-in
4800 (*a.k.a.* 4808) Redan Road
Stone Mountain, DeKalb County, Georgia
HSI No. 10884

Dear Ms. Dykes:

As a responsible party for the above referenced site, Section 391-3-19-.06(3)(a) of the Rules for Hazardous Site Response (Rules) requires that you submit a compliance status report and a compliance status certification that documents the current status of the site with regard to the risk reduction standards of Section 391-3-19-.07 of the Rules. A copy of those Rules is available at www.gaepd.org.

Section 391-3-19-.06(3)(a) of the Rules provides that the compliance status report and compliance status certification shall be submitted in accordance with a schedule to be determined by the Director. The Georgia Environmental Protection Division (EPD) requests that you submit the compliance status report and certification for the above referenced site by March 15, 2010. We are also requesting that all documents more than 25 pages in length be submitted as one paper copy, and two compact disc copies in Portable Document Format (PDF). Please find enclosed more information concerning the required format for compact disc copies of documents.

In lieu of submitting a compliance status report March 15, 2010 that meets all of the requirements set forth in Section 391-3-19-.06(3) of the Rules, you have the option to first perform corrective action to bring the site into compliance with the risk reduction standards and then submit a final compliance status report during or following completion of corrective action. If you would like to pursue this option, please schedule a meeting with us by November 16, 2009 to discuss the submittal of a corrective action plan that would be submitted by March 15, 2010. The corrective action plan would have to:

- Describe the actions that will be taken to bring the site into compliance with the risk reduction standards and a schedule for implementation and completion of corrective action;
- Provide a description of all sources of releases of regulated substances as required by Section 391-3-19-.06(3)(b)(1) of the Rules;
- Define the extent of regulated substances in impacted media that exceed the risk reduction standards as provided for in Section 391-3-19-.06(3) of the Rules. Delineation of releases to background levels would not be necessary until submittal of the compliance status report;

- Describe any human or environmental receptors who may have been or could be potentially exposed to a release;
- Describe all properties which are part of the site including the address and location of the properties, its legal description, and the property owner's name, address, and telephone number;
- Include a summary of any previous actions taken to eliminate, control, or minimize any potential risk at the site; and
- Describe actions that will be taken to complete a compliance status report and a schedule for submittal.

Please be informed that under Section 391-3-19-.06(6)(c) of the Rules, the Director may designate this site as having a known release needing corrective action if you fail to submit the compliance status report or corrective action plan as requested by this letter. Please send us your written reply by November 16, 2009 and state whether you intend to submit the compliance status report or the corrective action plan by the date requested. If you do not intend to submit the compliance status report or the corrective action plan by the date requested, please state your basis for that decision. This site may also be designated as needing corrective action if you fail to respond by November 16, 2009, or if you respond by November 16, 2009 but fail to agree to submit the compliance status report or the corrective action plan by March 15, 2010.

If you believe the EPD has incorrectly identified you as a responsible party at this site, please provide sufficient documentation to support that claim, such as documentation that you did not own the property, did not operate a business at the property, or a copy of a report documenting the property was investigated and sampled to demonstrate there were no releases at the time you sold or vacated the property. In addition, I am also requesting that you help us identify any other persons or parties whom you believe to be a responsible party, to describe the nature of their relationship with the site, and to provide evidence of that relationship. EPD's effectiveness in expanding the pool of responsible parties will depend on our ability to communicate with those parties; therefore, your assistance in obtaining current mailing addresses and phone numbers for appropriate contact persons is requested. We encourage responsible parties to collaborate to expedite and simplify the investigation and cleanup of this site. Therefore, a list of parties that have been sent a CSR call-in letter by EPD for HSI Site 10884 is attached.

If you have any questions or comments, please contact Ms. Carolyn L. Daniels at 404-657-8600.

Sincerely,

Antonia S. Beavers

Antonia S. Beavers
Acting Unit Coordinator
Hazardous Sites Response Program

Enclosures: Document Submittal Format
List of Parties Sent a CSR Call-In Letter

File: HSI Site Number 10884
S:\RDRIVE\DANIELSC\SITES\HSRA\#10884 [JNV Inv. Grp (f.k.a. Professional Cleaners)]\CSR Call In\Call-In Letter JNV Investments Group.doc

Hazardous Sites Response Program
Document Submittal Format

All documents more than 25 pages in length shall be submitted as one paper copy and two compact disc (CD) copies with the documents in searchable (i.e., tagged) Portable Document Format (PDF). A signed certification page must be included in the CD copies. The certification page states that the electronic copy is complete, identical to the paper copy, and virus free.

All documents currently in electronic format should be converted into the searchable PDF format. All documents not available electronically and pages that contain signatures, initials, or other information not in the electronic copy should be scanned into a searchable PDF format including the signed certification page. Scanning should be at 200 dpi with any documents requiring color being scanned in color.

The document should be broken down into multiple searchable PDF files along the following guidelines with the file name referenced in the table of content.

Table of Contents
Signature / Certification pages
Main body of document
Each Attachment (Appendices, Tables, Figures, Reports, etc.)

The CDs shall be enclosed in a jewel case. The CD shall be labeled with the following information written on the CD in indelible ink or affixed to the CD with an adhesive CD label.

Site Name
Site Address
HSI Number
City
County
Document Name
Document Date

List of Parties Sent a CSR Call-In Letter
for
JNV Investments Group (*f.k.a.* Professional Cleaners)
Stone Mountain, DeKalb County, Georgia Dept. of Natural Resources
HSI No. 10884

JNV Investments Group
c/o Marian Dykes, CEO
2910 Mountain Industrial Boulevard
Tucker, GA 30084-3012

Lachman G. (Cliff) Vaswani
775 Wesley Oak Road NW
Atlanta, GA 30328-4738

Manju L. Vaswani
775 Wesley Oak Road NW
Atlanta, GA 30328-4738

Redan Properties, LLC
c/o Chandrakant I. Patel
2041 Kinderton Manor Dr.
Duluth, GA 30097-5968

Redan Village, L.P.
c/o Shiv R. Aggarwal or Braham R. Aggarwal
4422 Northeast Expressway, Suite A
Doraville, GA 30340-3402

Redan Village, L.P.
c/o Shiv R. Aggarwal
4277 Memorial Drive, Suite E
Decatur, GA 30032-1200

Redan Village, L.P.
c/o Braham R. Aggarwal
7636 Apple Tree Circle
Orlando, FL 32819

V.F. Redan Associates, L.P.
c/o Michael G. Wasserman
100 Galleria Parkway SE, Suite 600
Atlanta, GA 30339-5947

VF Redan Associates, L.P.
c/o Mark A. Parker
Vlass-Fotos Group, Ltd
2 Ravinia Dr., Suite 1570
Atlanta, GA 30339-5947

Vlass-Fotos Group, Ltd
c/o Robert G. Holt
100 Galleria Parkway SE, Suite 600
Atlanta, GA 30339-5947

Vlass-Fotos Group, Ltd
c/o Michael B. Vlass
3491 Buckhead Loop NE, Apt. 1703
Atlanta, GA 30326-1524

Redan Limited
c/o Walter B. Silber
1950 Sawtelle Boulevard, Suite 215
Los Angeles, CA 90025-7014

Redan Limited
c/o Walter B. Silber
5629 Oso Avenue
Woodland Hills, GA 91367-5525

Professional Cleaners
c/o Deepak Bhakta
4808 Redan Road
Stone Mountain, GA 30088

APPENDIX IV

SOIL AND GROUNDWATER ANALYTICAL RESULTS
ECT'S SEPTEMBER 2009 INVESTIGATION

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

September 22, 2009

Matt Tramell
ECT
6410 Southpoint Parkway
Suite 120
Jacksonville, FL 32216

TEL: (904) 296-0544
FAX (904) 296-2473

RE: Prof. Cleaners

Order No.: 0909A10

Dear Matt Tramell:

Analytical Environmental Services, Inc. received 8 samples on 9/14/2009 1:40:00 PM for the analyses presented in the following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/09-06/30/10.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full and contains 19 total pages (including cover letter).

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Mirzeta Kararic
for James Forrest
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 0909A10

Date: 9/14 Page 1 of 1

COMPANY: ECT, Inc.	ADDRESS: 6410 Southpoint Pkwy Ste 120 Jacksonville, FL 32216
PHONE: 904-296-0544	FAX: (904) 296-2473
SAMPLED BY: Kenneth Moore	SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOCs 8260	PAHs 8270	REMARKS	No # of Containers
1	TW-2	9/10	12:10	✓		GW	✓			2
2	MW-1	9/10	13:05	✓		GW	✓			2
3	MW-2	9/10	14:46	✓		GW	✓	✓	Hold PAHs	3
4	MW-3	9/10	16:35	✓		GW	✓			2
5	MW-6	9/11	10:40	✓		GW	✓	✓		3
6	MW-5	9/11	12:35	✓		GW	✓			2
7	MW-4	9/12	11:05	✓		GW	✓			2
8	Trip blank					W	✓			2
9										
10										
11										
12										
13										
14										

PRESERVATION (See codes)

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: Kth Mon	9/14 8:00	1: 9/14/09 1:12	
2: 9/14/09 1:40		2: Enclosed	13:40 9/14
3:		3:	Courier

PROJECT INFORMATION

PROJECT NAME: Pro. Cleaners

PROJECT #: 090667

SITE ADDRESS: Tucker, GA

SEND REPORT TO: Matt Trammell

INVOICE TO: (IF DIFFERENT FROM ABOVE)

QUOTE #: PO#:

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER

RECEIPT

Total # of Containers: 16

Turnaround Time Request

- ✓ Standard 5 Business Days
- 2 Business Day Rush
- Next Business Day Rush
- Same Day Rush **(auth req.)**
- Other

STATE PROGRAM (if any):

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client ECT Work Order Number 0909A10

Checklist completed by M.J 9/14/09
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.2c Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by M.J

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-001

Client Sample ID: TW-2
Collection Date: 9/10/2009 12:10:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
2-Butanone	BRL	50		ug/L	118578	1	9/15/2009 10:27 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
Acetone	BRL	50		ug/L	118578	1	9/15/2009 10:27 PM
Benzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Chloroethane	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Chloromethane	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
cis-1,2-Dichloroethene	81	5.0		ug/L	118578	1	9/15/2009 10:27 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Freon-113	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/15/2009 10:27 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-001

Client Sample ID: TW-2
Collection Date: 9/10/2009 12:10:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Styrene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Tetrachloroethene	1900	100		ug/L	118578	20	9/17/2009 2:15 PM
Toluene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Trichloroethene	140	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/15/2009 10:27 PM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/15/2009 10:27 PM
Surr: 4-Bromofluorobenzene	102	61.3-128		%REC	118578	1	9/15/2009 10:27 PM
Surr: 4-Bromofluorobenzene	92.1	61.3-128		%REC	118578	20	9/17/2009 2:15 PM
Surr: Dibromofluoromethane	99.8	67.8-130		%REC	118578	20	9/17/2009 2:15 PM
Surr: Dibromofluoromethane	111	67.8-130		%REC	118578	1	9/15/2009 10:27 PM
Surr: Toluene-d8	96.2	70.6-121		%REC	118578	20	9/17/2009 2:15 PM
Surr: Toluene-d8	97.6	70.6-121		%REC	118578	1	9/15/2009 10:27 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-002

Client Sample ID: MW-1
Collection Date: 9/10/2009 1:05:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
2-Butanone	BRL	50		ug/L	118578	1	9/17/2009 6:32 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
Acetone	BRL	50		ug/L	118578	1	9/17/2009 6:32 PM
Benzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Chloroethane	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Chloromethane	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
cis-1,2-Dichloroethene	17	5.0		ug/L	118578	1	9/17/2009 6:32 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Freon-113	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/17/2009 6:32 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-002

Client Sample ID: MW-1
Collection Date: 9/10/2009 1:05:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Styrene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Tetrachloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Toluene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Trichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/17/2009 6:32 PM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/17/2009 6:32 PM
Surr: 4-Bromofluorobenzene	89.8	61.3-128		%REC	118578	1	9/17/2009 6:32 PM
Surr: Dibromofluoromethane	102	67.8-130		%REC	118578	1	9/17/2009 6:32 PM
Surr: Toluene-d8	96.8	70.6-121		%REC	118578	1	9/17/2009 6:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-003

Client Sample ID: MW-2
Collection Date: 9/10/2009 2:46:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
2-Butanone	BRL	50		ug/L	118578	1	9/15/2009 11:26 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
Acetone	BRL	50		ug/L	118578	1	9/15/2009 11:26 PM
Benzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Chloroethane	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Chloromethane	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
cis-1,2-Dichloroethene	290	50		ug/L	118578	10	9/17/2009 5:35 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Freon-113	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/15/2009 11:26 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-003

Client Sample ID: MW-2
Collection Date: 9/10/2009 2:46:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Styrene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Tetrachloroethene	94	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Toluene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Trichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:26 PM
Vinyl chloride	2.0	2.0		ug/L	118578	1	9/15/2009 11:26 PM
Surr: 4-Bromofluorobenzene	100	61.3-128		%REC	118578	1	9/15/2009 11:26 PM
Surr: 4-Bromofluorobenzene	92.5	61.3-128		%REC	118578	10	9/17/2009 5:35 PM
Surr: Dibromofluoromethane	114	67.8-130		%REC	118578	1	9/15/2009 11:26 PM
Surr: Dibromofluoromethane	100	67.8-130		%REC	118578	10	9/17/2009 5:35 PM
Surr: Toluene-d8	95.9	70.6-121		%REC	118578	10	9/17/2009 5:35 PM
Surr: Toluene-d8	99.4	70.6-121		%REC	118578	1	9/15/2009 11:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-004

Client Sample ID: MW-3
Collection Date: 9/10/2009 4:35:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
2-Butanone	BRL	50		ug/L	118578	1	9/15/2009 11:55 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
Acetone	BRL	50		ug/L	118578	1	9/15/2009 11:55 PM
Benzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Chloroethane	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Chloromethane	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
cis-1,2-Dichloroethene	110	5.0		ug/L	118578	1	9/15/2009 11:55 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Freon-113	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/15/2009 11:55 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-004

Client Sample ID: MW-3
Collection Date: 9/10/2009 4:35:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Styrene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Tetrachloroethene	340	50		ug/L	118578	10	9/17/2009 6:04 PM
Toluene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Trichloroethene	18	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/15/2009 11:55 PM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/15/2009 11:55 PM
Surr: 4-Bromofluorobenzene	104	61.3-128		%REC	118578	1	9/15/2009 11:55 PM
Surr: 4-Bromofluorobenzene	89.5	61.3-128		%REC	118578	10	9/17/2009 6:04 PM
Surr: Dibromofluoromethane	98.9	67.8-130		%REC	118578	10	9/17/2009 6:04 PM
Surr: Dibromofluoromethane	115	67.8-130		%REC	118578	1	9/15/2009 11:55 PM
Surr: Toluene-d8	95.1	70.6-121		%REC	118578	10	9/17/2009 6:04 PM
Surr: Toluene-d8	101	70.6-121		%REC	118578	1	9/15/2009 11:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-005

Client Sample ID: MW-6
Collection Date: 9/11/2009 10:40:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
POLYAROMATIC HYDROCARBONS SW8270D					(SW3535A)		Analyst: NE
Naphthalene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Acenaphthylene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
1-Methylnaphthalene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
2-Methylnaphthalene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Acenaphthene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Fluorene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Phenanthrene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Anthracene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Fluoranthene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Pyrene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Benz(a)anthracene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Chrysene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Benzo(b)fluoranthene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Benzo(k)fluoranthene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Benzo(a)pyrene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Dibenz(a,h)anthracene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Benzo(g,h,i)perylene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Indeno(1,2,3-cd)pyrene	BRL	10		ug/L	118568	1	9/17/2009 5:37 PM
Surr: Nitrobenzene-d5	65.4	25.9-124		%REC	118568	1	9/17/2009 5:37 PM
Surr: 2-Fluorobiphenyl	62.9	42.2-116		%REC	118568	1	9/17/2009 5:37 PM
Surr: 4-Terphenyl-d14	77.3	56.7-143		%REC	118568	1	9/17/2009 5:37 PM
TCL VOLATILE ORGANICS SW8260B					(SW5030B)		Analyst: GKK
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
2-Butanone	BRL	50		ug/L	118578	1	9/16/2009 12:23 AM
2-Hexanone	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
Acetone	BRL	50		ug/L	118578	1	9/16/2009 12:23 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-005

Client Sample ID: MW-6
Collection Date: 9/11/2009 10:40:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
Benzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Bromoform	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Bromomethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Chloroethane	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
Chloroform	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Chloromethane	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
cis-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Freon-113	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
m,p-Xylene	BRL	10		ug/L	118578	1	9/16/2009 12:23 AM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
o-Xylene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Styrene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Tetrachloroethene	41	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Toluene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Trichloroethene	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/16/2009 12:23 AM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/16/2009 12:23 AM
Surr: 4-Bromofluorobenzene	102	61.3-128		%REC	118578	1	9/16/2009 12:23 AM
Surr: Dibromofluoromethane	112	67.8-130		%REC	118578	1	9/16/2009 12:23 AM
Surr: Toluene-d8	97.6	70.6-121		%REC	118578	1	9/16/2009 12:23 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-006

Client Sample ID: MW-5
Collection Date: 9/11/2009 12:35:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
2-Butanone	BRL	50		ug/L	118578	1	9/17/2009 10:22 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
Acetone	BRL	50		ug/L	118578	1	9/17/2009 10:22 PM
Benzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Chloroethane	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Chloromethane	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
cis-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Freon-113	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/17/2009 10:22 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-006

Client Sample ID: MW-5
Collection Date: 9/11/2009 12:35:00 PM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Styrene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Tetrachloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Toluene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Trichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/17/2009 10:22 PM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/17/2009 10:22 PM
Surr: 4-Bromofluorobenzene	92.1	61.3-128		%REC	118578	1	9/17/2009 10:22 PM
Surr: Dibromofluoromethane	93.2	67.8-130		%REC	118578	1	9/17/2009 10:22 PM
Surr: Toluene-d8	91.5	70.6-121		%REC	118578	1	9/17/2009 10:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-007

Client Sample ID: MW-4
Collection Date: 9/12/2009 11:05:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
2-Butanone	BRL	50		ug/L	118578	1	9/17/2009 9:54 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
Acetone	BRL	50		ug/L	118578	1	9/17/2009 9:54 PM
Benzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Chloroethane	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Chloromethane	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
cis-1,2-Dichloroethene	5.6	5.0		ug/L	118578	1	9/17/2009 9:54 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Freon-113	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/17/2009 9:54 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-007

Client Sample ID: MW-4
Collection Date: 9/12/2009 11:05:00 AM
Matrix: GROUNDWATER

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Styrene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Tetrachloroethene	210	50		ug/L	118578	10	9/18/2009 11:32 AM
Toluene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Trichloroethene	5.4	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/17/2009 9:54 PM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/17/2009 9:54 PM
Surr: 4-Bromofluorobenzene	91.4	61.3-128		%REC	118578	1	9/17/2009 9:54 PM
Surr: 4-Bromofluorobenzene	91.3	61.3-128		%REC	118578	10	9/18/2009 11:32 AM
Surr: Dibromofluoromethane	102	67.8-130		%REC	118578	10	9/18/2009 11:32 AM
Surr: Dibromofluoromethane	90.4	67.8-130		%REC	118578	1	9/17/2009 9:54 PM
Surr: Toluene-d8	96.2	70.6-121		%REC	118578	10	9/18/2009 11:32 AM
Surr: Toluene-d8	89.9	70.6-121		%REC	118578	1	9/17/2009 9:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-008

Client Sample ID: TRIP BLANK
Collection Date: 9/14/2009
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
1,1,1-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,1,2-Trichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,1-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,1-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,2-Dibromoethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,2-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,2-Dichloroethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,2-Dichloropropane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,3-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
1,4-Dichlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
2-Butanone	BRL	50		ug/L	118578	1	9/15/2009 9:30 PM
2-Hexanone	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
4-Methyl-2-pentanone	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
Acetone	BRL	50		ug/L	118578	1	9/15/2009 9:30 PM
Benzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Bromodichloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Bromoform	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Bromomethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Carbon disulfide	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Carbon tetrachloride	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Chlorobenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Chloroethane	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
Chloroform	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Chloromethane	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
cis-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
cis-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Cyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Dibromochloromethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Dichlorodifluoromethane	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
Ethylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Freon-113	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
Isopropylbenzene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
m,p-Xylene	BRL	10		ug/L	118578	1	9/15/2009 9:30 PM
Methyl acetate	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Methyl tert-butyl ether	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Methylcyclohexane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Methylene chloride	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

Analytical Environmental Services, Inc.

Date: *18-Sep-09*

CLIENT: ECT
Project: Pro. Cleaners
Lab ID: 0909A10-008

Client Sample ID: TRIP BLANK
Collection Date: 9/14/2009
Matrix: AQUEOUS

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**		Analyst: **GKK**
o-Xylene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Styrene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Tetrachloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Toluene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
trans-1,2-Dichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
trans-1,3-Dichloropropene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Trichloroethene	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Trichlorofluoromethane	BRL	5.0		ug/L	118578	1	9/15/2009 9:30 PM
Vinyl chloride	BRL	2.0		ug/L	118578	1	9/15/2009 9:30 PM
Surr: 4-Bromofluorobenzene	100	61.3-128		%REC	118578	1	9/15/2009 9:30 PM
Surr: Dibromofluoromethane	114	67.8-130		%REC	118578	1	9/15/2009 9:30 PM
Surr: Toluene-d8	99.9	70.6-121		%REC	118578	1	9/15/2009 9:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	E	Estimated (Value above quantitation range)
BRL	Below Reporting Limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See Case Narrative
N	Analyte not NELAC certified	NC	Not Confirmed
B	Analyte detected in the associated Method Blank	<	Less than Result value
>	Greater than Result value		

APPENDIX V

SOIL AND GROUNDWATER RRS CALCULATIONS

TABLE 3 - A

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Constituent	CAS No.	Site Constituent Data: Soil Detection Frequency	Site Constituent Data: Soil Max. Reported Concentration (mg/kg)	Soil Notification Limits (HSRA App.I) (mg/kg)	Soil Notification Limits (HSRA App.I) Notes	Calculation of Highest of Type 3 and 4 Groundwater Criteria (To Model Leaching to GW) Criteria (9)(d)1. Type 3 GW Criteria From Table 1 Append. III (mg/l)	Type 4 GW Criteria From Table 4 - A (mg/l)	Highest of Type 3 or 4 (mg/l)	HSRA Criteria (9)(d)1 Soil Concent. to Achieve GW Criteria (cal. - EPA SSL) Eq. 10 or 14 SSL (mg/kg)	RAGS B Non-Cancer Based Eq. 7 (mg/kg)	RAGS B Cancer Based EQ. 6 (mg/kg)	HSRA Criteria (9)(d)2 Lowest of RAGSB Eq. 6 and 7 (9)(d)(2)(i,ii,and iii) (mg/kg)	HSRA Criteria (9)(d)2 Surface Soil to Meet HSRA (9)(d)1 if that is more stringent than (9)(d)2
cis-1,2 Dichloroethylene	156-59-2	2/5	0.006	0.53	None	None	1.02E+00	1.02E+00	3.43E+02	2.04E+04	NC	2.04E+04	3.43E+02
trans-1,2-Dichloroethylene	156-60-5	0/5	DL	0.53	None	0.1	1.61E-01	1.61E-01	5.42E+01	1.99E+02	NC	1.99E+02	5.42E+01
Tetrachloroethylene	127-18-4	37/62	7.7	0.18	None	0.005	3.83E-03	5.00E-03	1.68E+00	1.05E+03	1.64E+01	1.64E+01	1.68E+00
Trichloroethylene	79-01-6	2/5	0.232	0.13	None	0.005	3.45E-02	3.45E-02	1.16E+01	NC	7.53E+01	7.53E+01	1.16E+01
Vinyl Chloride	75-01-4	0/5	DL	0.04	None	0.002	1.82E-02	1.82E-02	6.12E+00	7.79E+01	4.96E+00	4.96E+00	4.96E+00

Notes:
Calculations are detailed in Tables 4-B through 4-G
NA = Not available (none in available databases) or not appropriate (I.e., most metals are not volatile at environmental temperatures)
NC = Not calculated (either not appropriate, or there were missing values, I.e., no molecular dffusivity values for most metals).
NS = Not sampled
NL = Not listed
ND = Not determined
BDL = Below detection Limit
Shaded Cells - Not referenced - I.e., lead criteria for lead only.

Type 4 Soil Criteria:
Boxed Column of Cells = Identified Criteria for "any point above uppermost groundwater zone" and for "surface soil".

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11-Jun-09

TABLE 3-B

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

SSL Calculations
Soil Concentrations to Achieve Type 4 Groundwater RRS (For All Soil Depths)
No Dilution and with 20X Dilution (See Note 1)
Equation 10, EPA SSL Guidance

		Soil Screening - EPA 1996 Guidance - Equation 10										Calculated SSL		Mass Limit Calculations - EPA 1996 Equation 14						
Constituent	CAS No.	**CW Criterion (9)(d)1** GW Standard Table 3-A (mg/l) Health Based	**Koc** Look-up *(cm3/g)*	**foc** default *(unitless)* **0.0200**	**Kd** Koc x foc or lookup *(cm3/g)*	**θw** default *(unitless)* **0.3**	**θa** n-θw *(unitless)* **1.34E-01**	**ρb** default *(kg/l)* **1.5**	**n** 1-(ρb/ρs) *(unitless)* **4.34E-01**	**ρs** default *(kg/l)* **2.65**	**H** Look-up *(dimensionless)*	**EPA SSL Eq. 10 Criteria (9)(d)1** for soil *(mg/kg)*	**With DAF Correction See Note 1** DAF **20**	CW with Dilution **CW-DAF** DAF **20**	Soil Infiltration **I** Default *(m/yr)* **0.18**	Exposure Duration **ED** Default *(yr)* **70**	Source Depth **ds** (Site Data) *(m)* **0.5**	**Mass-limit SSL MLSSL Eq. 14** *(mg/kg)*	**SSL Value for Risk Calculations** *(mg/kg)*	
cis-1,2 Dichloroethylene	156-59-2	1.02E+00	3.55E+01	0.02	7.10E-01	3.00E-01	1.34E-01	1.50E+00	4.34E-01	2.65E+00	1.67E-01	9.45E-01	1.89E+01	2.04E+01	0.18	70	0.5	3.43E+02	3.43E+02	Mass Limit SSL
trans-1,2-Dichloroethyle	156-60-5	1.61E-01	5.25E+01	0.02	1.05E+00	3.00E-01	1.34E-01	1.50E+00	4.34E-01	2.65E+00	3.85E-01	2.07E-01	4.15E+00	3.23E+00	0.18	70	0.5	5.42E+01	5.42E+01	Mass Limit SSL
Tetrachloroethylene	127-18-4	5.00E-03	1.55E+02	0.02	3.10E+00	3.00E-01	1.34E-01	1.50E+00	4.34E-01	2.65E+00	7.54E-01	1.68E-02	3.37E-01	1.00E-01	0.18	70	0.5	1.68E+00	1.68E+00	Mass Limit SSL
Trichloroethylene	79-01-6	3.45E-02	1.66E+02	0.02	3.32E+00	3.00E-01	1.34E-01	1.50E+00	4.34E-01	2.65E+00	4.22E-01	1.23E-01	2.45E+00	6.90E-01	0.18	70	0.5	1.16E+01	1.16E+01	Mass Limit SSL
Xylenes (Total)	1330-20-7	1.82E-02	1.86E+01	0.02	3.72E-01	3.00E-01	1.34E-01	1.50E+00	4.34E-01	2.65E+00	1.11E+00	1.22E-02	2.45E-01	3.65E-01	0.18	70	0.5	6.12E+00	6.12E+00	Mass Limit SSL

Notes:

Organic Carbon Partition) and H (Henry's Law Constant are from Table 4-D
SSL Calculations - See Eq. B1 Table 3-F
MLSSL Calculations - See Eq. B2 Table 3-F

Note 1: As noted in EPA 1996 SSL Guidance at Eq. 11, a default Dilution Factor of 20 (for an 0.5-acre source) is suggested to accomodate dilution absent site-specific parameters. Since the source material is located under a building and a well is unlikely near the source area, this is a very conservative assumption. Likewise, in calculating the Mass-Limit values. the DAF is applied as a default by multiplying the DAF by the target leachate concentration (see Eq. 14 of guidance).

Parameters and Values - See defaults for Equations 10 and 14, EPA Soil Screening Guidance, July 1996 (Second Edition).

CW	Target soil leachate concentration (highest of Type 3 and 4 GW RRS calculated for Criteria (9)(d)1. (mg/l)
Koc	Soil-water partition coefficient - from Tables in EPA SSL Guidance or other EPA sources (l/kg) (See Table 4-D)
Kd	Soil organic carbon-water partition coefficient (l/kg)
foc	Fraction organic carbon in soil (g/g) - 0.002 (0.2%) default in guidance (0.02 per RAGSB and HSRA Table 3 (g/g)
θw	water-filled soil porosity - 0.3 default in guidance (EPA 1996 Eq. 10) (l(w)/l(s))
θa	air-filled soil porosity (n- θw) (l(a)/l(s))
ρb	dry soil bulk density (default of 1.5) (kg/l)
n	soil porosity (1-(ρb/ρs)) (l(p)/l(s))
ρs	soil particle density (default 2.65 kg/l)
H	Henry's Law Constant from Tables in EPA SSL Guidance or other EPA sources (See Table 4-D)
I	Infiltration Rate (m/yr) (default 0.18)
d(s)	Depth of Source (based on site data - max depth of PCE/TCE (AES Report August 2006) (5 feet, 1.5 m)
ED	Exposure duration (years) (default 70 years)

TABLE 3-C

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Calculation of Risk-Based Type 4 Criteria for Soil per RAGS B Equations 6 and 7
(Surface Soil Only - Human Exposure)

							Soil Type 4 RRS (9)(d)2(i) AND (ii)							
Constituent	**Volatilization Factor** VF *(from Table 2-C)* *(m3/kg)*	**1/VF** Calculation Term *(for Zero)* *Correction)* *(1/(m3/kg))*	**Chronic Ref. Doses** ***Table 3-E*** *RfDo* Oral *(mg/kg-day)*	*RfDi* Inhalation *(mg/kg-day)*	**Calculated Terms for RAGS B Equation 7** *1/RfDo* *1/(mg/kg-day)*	*1/RfDi* *1/(mg/kg-day)*	**Non-Cancer Based** EPA RAGS B Equation 7 *(mg/kg)*	**Cancer Weight-of-Evidence** *Target Haz Risk*		**Cancer Slope Factors** ***Table 3-E*** *SFo* Oral *(mg/kg-day-1)*	*SFi* Inhalation *(mg/kg-day-1)*	**Calculated Terms for RAGS B Equation 6** SFo Oral *(mg/kg-day-1)*	SFi Inhalation *(mg/kg-day-1)*	**Cancer Based** EPA RAGS B Equation 6 *(mg/kg)*
cis-1,2 Dichloroethylene	2.82E+03	3.54E-04	0.01	NA	1.000E+02	0.000E+00	2.04E+04	D	1.0E-05	NA	NA	0.00E+00	0.00E+00	NC
trans-1,2-Dichloroethylene	2.28E+03	4.39E-04	0.02	0.0171429	5.000E+01	5.833E+01	1.99E+02	NR	1.0E-05	NA	NA	0.00E+00	0.00E+00	NC
Tetrachloroethylene	2.81E+03	3.56E-04	0.01	0.0771429	1.000E+02	1.296E+01	1.05E+03	NA	1.0E-05	0.54	0.02065	5.40E-01	2.07E-02	1.64E+01
Trichloroethylene	3.75E+03	2.67E-04	NA	NA	0.000E+00	0.000E+00	NC	Not on IRIS	1.0E-05	0.013	0.007	1.30E-02	7.00E-03	7.53E+01
Vinyl Chloride	5.34E+02	1.87E-03	0.72	0.0285714	1.389E+00	3.500E+01	7.79E+01	A	1.0E-05	0.003	0.0154	3.00E-03	1.54E-02	4.96E+00

Notes
Example Calculations in TABLE 2-E
Non-cancer Based Soil Concentrations Calculated per Equation 7 of RAGS B. See Equation B1 in Table 2 - E
Cancer Based Soil Concentrations Calculated per Equation 6 of RAGS B. See Equation B2 in Table 2 - E

Terms and units HRSA Appendix III, Table 3 and RAGS B

Chemical Concentration	C	mg/l	***
Target Hazard Index	THI	unitless	1
Target Risk	TR	unitless	1.00E-05
Oral Reference Dose	RfDo	mg/kg-Day	chem. spec.
Inhalation Reference Dose	RfDi	mg/kg-Day	chem. spec.
Oral Slope Factor	Sfo	mg/kg-Day-1	chem. spec.
Inhalation Slope Factor	SFi	mg/kg-Day-1	chem. spec.
Adult Body Weight	BW	kg	70
Averating Time (nc)	ATnc	yr	25
Averating Time (c)	ATc	yr	70
Exposure Freg.	EF	Days/yr	250
Exposure Duration	ED	years	25
Intake Rate - Air	IRa	m3/Day	20
Intake Rate - Soil	IRsoil	mg/day	50
Soil-air volatilization factor	VF	m3/kg	calculated - chem-specific
particle emission factor	PEF	m3/kg	4.63E+09 Default

Note - Csat Ignored - assumed that constituents not present at saturation.

TABLE 3-D

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Calculation of Soil-to-Air Volatilization Factor - (VF) - RAGS B Eq. 8

VF - Soil to Air Volatilization
Equation from Table 3 - HSRA

Constituent	Calculate Factor α										Mixing Geometry Constant	Soil to Air Volatilization
	Di(a)	**E**	**D(ei)**	**p(s)**	**H**	**K(oc)**	**f(oc)**	**K(d)**	**K(as)**	**α**	*(LSxVxDH)/A*	**VF**
	(cm2/sec)	*(unitless)*	*(cm2/sec)*	*(unitless)*	*(dimensionless,*	*(cm3/g)*	*(unitless)*	*(cm3/g)*	(g soil/cm3 air)	(cm2/sec)	*((m3/sec)/cm2)*	*(m3/kg)*
	lookup	**default**	**calulated-Eq.1**	**default**	**lookup**	**lookup**	**default**	**calulated-Eq.2**	**calulated-Eq.3**	**calulated-Eq.4**	**calulated-Eq.5**	**calulated-Eq.6**
		0.35		**2.65**			**0.02**	***(lookup metals)***			**9.975E-06**	*(Table 3-HSRA)*
												RAGSB Eq. 8
cis-1,2 Dichloroethylene	7.36E-02	3.50E-01	5.205E-02	2.65	1.67E-01	3.55E+01	0.02	7.10E-01	2.35E-01	2.37E-03	9.975E-06	2.825E+03
trans-1,2-Dichloroethylene	7.07E-02	3.50E-01	5.000E-02	2.65	3.85E-01	5.25E+01	0.02	1.05E+00	3.67E-01	3.47E-03	9.975E-06	2.280E+03
Tetrachloroethylene	7.20E-02	3.50E-01	5.092E-02	2.65	7.54E-01	1.55E+02	0.02	3.10E+00	2.43E-01	2.40E-03	9.975E-06	2.806E+03
Trichloroethylene	7.90E-02	3.50E-01	5.587E-02	2.65	4.22E-01	1.66E+02	0.02	3.32E+00	1.27E-01	1.41E-03	9.975E-06	3.748E+03
Vinyl Chloride	1.06E-01	3.50E-01	7.496E-02	2.65	1.11E+00	1.86E+01	0.02	3.72E-01	2.98E+00	2.83E-02	9.975E-06	5.337E+02

See Notes for Table 2-C

TABLE 3-E

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Toxicology Data

Constituent	Chronic Reference Doses (EPA Reg. III RBC Table)		Cancer Slope Factors (EPA Reg. III RBC Table)		Cancer Weight-of Evidence	RFC	IURF
	Oral	Inhalation	Oral	Inhalation			
	mg/kg-day		mg/kg-day-1				
cis-1,2 Dichloroethylene	1.00E-02	NA	NA	NA	D	NA	NA
trans-1,2-Dichloroethylene	2.00E-02	1.71E-02	NA	NA	NR	0.06	NA
Tetrachloroethylene	1.00E-02	7.71E-02	5.40E-01	2.07E-02	NA	0.27	5.9E-06
Trichloroethylene	NA	NA	1.30E-02	7.00E-03	Not on IRIS	NA	2.0E-06
Vinyl Chloride	7.20E-01	2.86E-02	3.00E-03	1.54E-02	A	1.0E-01	4.4E-06

Health Criteria (Non-carcinogenic Reference Doses and Cancer Slope Factors) are obtained from the US EPA Regional screening table revised April 2009.
Cancer Weight of Evidence from US EPA IRIS Database as of May, 2007
NA = Not applicable or no value available
NR = Not reported or not evaluated

TABLE 3 - F

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR SOIL - Rev. February 2005
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009
Equations and Calculations - Based on Trichloroethylene

TABLE 4 - B

Calculation of Soil Screening Levels per EPA SSL Guidance, Equations 10 and 14

Eq. B1 - Calculate SSL (SSL Eq. 10)

$$SSL = C_w \left[K_d + \left(\frac{\theta_w + (\theta_a H')}{P_b} \right) \right] = (trichloroethylene)\ 0.005 \times \left[3.32 + \left(\frac{0.3 + (0.134 \times 0.422)}{1.5} \right) \right]$$

Eq. B2 - Calculate MLSSL (SSL Eq. 14)

$$ML - SSL = \frac{C_w \times I \times ED}{P_b \times d_s} = (trichloroethylene)\ \frac{0.005 \times 0.18 \times 70}{1.5\ x\ 1.5}$$

TABLE 2 - A

HSRA TYPE 3 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Soil Criterion .07(8)(d)

Constituent	CAS No.	Site Constituent Data		Soil Notification Limits		Type 1 **and** Type 3 GW Criteria *(from Table 1 Appendix III)*	***Type 3 RRS for All Soils Above Groundwater Zone - Criterion .07(8)(d)(1) - (mg/kg)***						***Type 3 RRS for Surface Soils Criterion - .07(8)(d)(2) - (mg/kg)***				
							Criterion .07(8)(d)(1)(i) *(Type 1 Soil Criterion7(6)(c))*									**Type 3 Criteria All Soils**	**Type 3 Criteria Surface Soils**	
		Detection Frequency	Max. Reported Concentration mg/Kg	(HSRA App.I) (mg/kg)	Notes	(mg/l)	*(i) App. 1*	*(ii) Type 1&3 GW x 100*	*(iii) TCLP*	*Highest Type 1 Soil Value*	Remaining .07(8)(d) Criteria (d)(1)(ii) Table 2 App. III	(d)(1)(iii) Lead	Highest (8)(d)(1) Criterion	Non-Cancer EQ. 7 (NC=Not Cal.)	Cancer EQ. 6	Lowest of RAGS B Eq. 6 and 7	Lowest of (8)(d) Criteria	Basis
cis-1,2 Dichloroethylene	156-59-2	2/5	0.006	0.53	None	None	0.53	NA	ND	0.53	These criteria apply to metals and are not relevant here		5.30E-01	2.04E+04	NC	2.04E+04	5.30E-01	GW Leaching
trans-1,2-Dichloroethylene	156-60-5	0/5	DL	0.53	None	0.1	0.53	10	ND	10			1.00E+01	1.99E+02	NC	1.99E+02	1.00E+01	GW Leaching
Tetrachloroethylene	127-18-4	37/62	7.7	0.18	None	0.005	0.18	0.5	ND	0.5			5.00E-01	1.05E+03	1.64E+01	1.64E+01	5.00E-01	GW Leaching
Trichloroethylene	79-01-6	2/5	0.232	0.13	None	0.005	0.13	0.5	ND	0.5			5.00E-01	NC	7.53E+01	7.53E+01	5.00E-01	GW Leaching
Vinyl Chloride	75-01-4	0/5	DL	0.04	None	0.002	0.04	0.2	ND	0.2			2.00E-01	7.79E+01	4.96E+00	4.96E+00	2.00E-01	GW Leaching

Notes:
Calculations are detailed in Tables 2-B through 2-E
NA = Not available (none in available databases) or not appropriate (I.e., most metals are not volatile at environmental temperatures)
NC = Not calculated (either not appropriate, or there were missing values, I.e., no molecular dffusivity values for most metals).
NS = Not sampled
NL = Not listed
ND = Not determined
BDl = Below detection Limit
Shaded Cells - Not referenced - I.e., lead criteria for lead only, criteria for metals only, etc.

Type 3 Soil Criteria:
Boxed Columns of Cells = Identified Criteria for "any point above uppermost groundwater zone" and for "surface soil".

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TABLE 2-B

HSRA TYPE 3 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Calculation of Risk-Based Type 3 Criteria for Soil per RAGS B Equations 6 and 7

			Calculation of Non-Cancer Based Type 3 RRS - (8)(d)2(i)					**Calculation of Cancer Based Type 3 RRS - (8)(d)2(ii)**						
Constituent	**Volatilization Factor** VF *(from Table 2-C)* *(m3/kg)*	**1/VF** Calculation Term *(for Zero)* *Correction)* *(1/(m3/kg))*	**Chronic Ref. Doses** ***Table 2-D*** *RfDo* Oral *(mg/kg-day)*	*RfDi* Inhalation *(mg/kg-day)*	**Calculated Terms for RAGS B Equation 7** *1/RfDo* *1/(mg/kg-day)*	*1/RfDi* *1/(mg/kg-day)*	**Non-Cancer Based** EPA RAGS B Equation 7 *(mg/kg)*	**Cancer Weight-of-Evidence**	*Target Haz Risk*	**Cancer Slope Factors** ***Table 2-D*** *SFo* Oral *(mg/kg-day-1)*	*SFi* Inhalation *(mg/kg-day-1)*	**Calculated Terms for RAGS B Equation 6** SFo Oral *(mg/kg-day-1)*	SFi Inhalation *(mg/kg-day-1)*	**Cancer Based** EPA RAGS B Equation 6 *(mg/kg)*
cis-1,2 Dichloroethylene	2.82E+03	3.54E-04	0.01	NA	1.000E+02	0.000E+00	2.04E+04	D	1.0E-05	NA	NA	0.00E+00	0.00E+00	NC
trans-1,2-Dichloroethylene	2.28E+03	4.39E-04	0.02	0.01714286	5.000E+01	5.833E+01	1.99E+02	NR	1.0E-05	NA	NA	0.00E+00	0.00E+00	NC
Tetrachloroethylene	2.81E+03	3.56E-04	0.01	0.07714286	1.000E+02	1.296E+01	1.05E+03	NA	1.0E-05	0.54	0.02065	5.40E-01	2.07E-02	1.64E+01
Trichloroethylene	3.75E+03	2.67E-04	NA	NA	0.000E+00	0.000E+00	NC	Not on IRIS	1.0E-05	0.013	0.007	1.30E-02	7.00E-03	7.53E+01
Vinyl Chloride	5.34E+02	1.87E-03	0.72	0.02857143	1.389E+00	3.500E+01	7.79E+01	A	1.0E-05	0.003	0.0154	3.00E-03	1.54E-02	4.96E+00

Non-cancer Based Soil Concentrations Calculated per Equation 7 of RAGS B. See Equation B1 in Table 2 - E
Cancer Based Soil Concentrations Calculated per Equation 6 of RAGS B. See Equation B2 in Table 2 - E

Terms and units EPA RAGS B Equations, HSRA Appendix III, Table 3 Default Values

Chemical Concentration	C	mg/l	***	
Target Hazard Index	THI	unitless	1	
Target Risk	TR	unitless	1.00E-05	1.00E-04
Oral Reference Dose	RfDo	mg/kg-Day	chem. spec.	
Inhalation Reference Dose	RfDi	mg/kg-Day	chem. spec.	
Oral Slope Factor	Sfo	mg/kg-Day-1	chem. spec.	
Inhalation Slope Factor	SFi	mg/kg-Day-1	chem. spec.	
Adult Body Weight	BW	kg	70	
Averating Time (nc)	ATnc	yr	25	
Averating Time (c)	ATc	yr	70	
Exposure Freg.	EF	Days/yr	250	
Exposure Duration	ED	years	25	
Intake Rate - Air	IRa	m3/Day	20	
Intake Rate - Soil	IRsoil	mg/day	50	
Soil-air volatilization factor	VF	m3/kg	calculated - chem-specific	
particle emission factor	PEF	m3/kg	4.63E+09	Default

TABLE 2-C

HSRA TYPE 3 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Calculation of Soil-to-Air Volatilization Factor - (VF) - RAGS B Eq. 8

VF - Soil to Air Volatilization
Equation from Appendix III, Table 3 - HSRA

Constituent	Calculate Factor α										Mixing Geometry Constant	Soil to Air Volatilization
	Di(a)	E	D(ei)	p(s)	H	K(oc)	f(oc)	K(d)	K(as)	α	*(LSxVxDH)/A*	VF
	(cm2/sec)	*(unitless)*	*(cm2/sec)*	*(unitless)*	*(dimensionless)*	*(cm3/g)*	*(unitless)*	*(cm3/g)*	(g soil/cm3 air)	(cm2/sec)	*((m3/sec)/cm2)*	*(m3/kg)*
	lookup	**default**	**calulated-Eq.1**	**default**	**lookup**	**lookup**	**default**	**calulated-Eq.2**	**calulated-Eq.3**	**calulated-Eq.4**	**calulated-Eq.5**	**calulated-Eq.6**
		0.35		**2.65**			**0.02**				**9.975E-06**	*(Table 3-HSRA)*
												RAGSB Eq. 8
cis-1,2 Dichloroethylene	7.36E-02	3.50E-01	5.205E-02	2.65	1.67E-01	3.55E+01	0.02	7.10E-01	2.35E-01	2.37E-03	9.975E-06	2.825E+03
trans-1,2-Dichloroethylene	7.07E-02	3.50E-01	5.000E-02	2.65	3.85E-01	5.25E+01	0.02	1.05E+00	3.67E-01	3.47E-03	9.975E-06	2.280E+03
Tetrachloroethylene	7.20E-02	3.50E-01	5.092E-02	2.65	7.54E-01	1.55E+02	0.02	3.10E+00	2.43E-01	2.40E-03	9.975E-06	2.806E+03
Trichloroethylene	7.90E-02	3.50E-01	5.587E-02	2.65	4.22E-01	1.66E+02	0.02	3.32E+00	1.27E-01	1.41E-03	9.975E-06	3.748E+03
Vinyl Chloride	1.06E-01	3.50E-01	7.496E-02	2.65	1.11E+00	1.86E+01	0.02	3.72E-01	2.98E+00	2.83E-02	9.975E-06	5.337E+02

Notes:

NA = Not available (none in available databases) or not appropriate (I.e., most metals are not volatile at environmental temperatures)
NC = Not calculated (either not appropriate, or there were missing values, I.e., no molecular diffusivity values for most metals).
Shaded Cells - Not referenced - I.e., K(oc) values were not referenced for metals - K(d) values were looked up, not calculated for metals.
Di(a) molecular diffusivity in air (cm2/sec) - Look up in Table Exhibit C-1, US EPA Soil Screening Guidance Supplement 2002.
E total soil porosity (unitless - default value from Appendix III, Table 3, GA 391-1-19
D(ei) - effective diffusivity (cm2/sec) - calculated as D(ia) x E power 0.33 - see Equation C1
p(s) - density of soil solids (g/cm3) - default from Appendix iii, Table 3, GA 391-1-19
H - Henry's Law Constant (unitless) - Look up in Table Exhibit C-1, US EPA Soil Screening Guidance Supplement 2002.
K(oc) - organic carbon partition coefficient (cm3/g) - Look up in Table Exhibit C-1, US EPA Soil Screening Guidance Supplement 2002.
K(d) - soil-water partition coefficient (cm3/g) - calculated as K(oc) x F(oc) - see Equation C2. Values for metals looked up in Table C-4 of US EPA Soil Screening Guidance (lead from RAIS Database).
K(as) - soil-air partition coefficient - Calculated as H/K(d) - see Equation C3.
α - Chemical-specific Diffusion Constant calculated from diffusivity values and soil porosity and density - see Equation C4
Mixing Constant - "Site Specific" Mixing Geometry" Constant based on a box model mixing zone and default parameters - see Equation C5
VF - Soil-to-Air Volatilization Factor - calculated per Eq. 8 in RAGS B and equation for Table 3, Appendix III, GA 391-3-19 - See Equation C6

Terms and Units From EPA SSL and RAGS B and HSRA Appendix III, Table 3

molecular diffusivity	Di	cw2/s	chem.specific	Look up - EPA SSL guidance
total soil porosity	E		0.35	
effective diffusivity	Dei	cm2/s	calculated	Di x E power 0.33
density of soil solids	ρs	g/cm3	2.65	
Henry's Law Constant	H	dimensionless	chem.specific	Look up - EPA SSL guidance or other US EPA Guidance
Organic Carbon partition	Koc	cm3/g	chem.specific	Look up - EPA SSL guidance or other US EPA Guidance
soil organic carbon content	foc		0.02	
soil-water partition	Kd	cm3/g	chem.specific	Look up - EPA SSL guidance or calculate - Koc x foc
soil/air partition coefficient	Kas	gsoil/cm3air	calculated	(H/Kd)
α		cw2/s	calculated	(Die x E)/(E+((ρs)(1-E))/Kas)
length of side of contam. area	LS	meters	45	
wind speed-mixing zone	V	m/s	2.25	
diffusion height	DH	meters	2	
area of contamination	A	cm2	2.03E+07	
pi	π		3.14	
exposure interval	T	sec	7.90E+08	

TABLE 2 - D

HSRA TYPE 3 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Toxicology Data

Constituent	Chronic Reference Doses (EPA Reg. III RBC Table)		Cancer Slope Factors (EPA Reg. III RBC Table)		RFC	IURF
	Oral	Inhalation	Oral	Inhalation		
	mg/kg-day		mg/kg-day-1			
cis-1,2 Dichloroethylene	1.00E-02	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	2.00E-02	1.71E-02	NA	NA	0.06	NA
Tetrachloroethylene	1.00E-02	7.71E-02	5.40E-01	2.07E-02	0.27	5.9E-06
Trichloroethylene	NA	NA	1.30E-02	7.00E-03	NA	2.0E-06
Vinyl Chloride	7.20E-01	2.86E-02	3.00E-03	1.54E-02	1.0E-01	4.4E-06

Health Criteria (Non-carcinogenic Reference Doses and Cancer Slope Factors) are obtained from the US EPA Regional screening table revised April 2009.
Cancer Weight of Evidence from US EPA IRIS Database as of May, 2007
NA = Not applicable or no value available
NR = Not reported or not evaluated

TABLE 2 - E

HSRA TYPE 3 RISK REDUCTION STANDARDS FOR SOIL
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Equations and Calculations - Based on Trichloroethylene

TABLE 2 - B

Calculation of Risk-Based Type 3 Criteria for Soil per RAGS B Equations 6 and 7

Eq. B1 - Calculate Non-Carcinogenic RBC
RAGS 7 - Non-Cancer Based

$$NC = (trichloroethylene)\frac{1\ x\ 70\ x\ 25\ x\ 365}{25\ x\ 250\ x\left[\left((3333)\ x\ 0.000001\ x\ 50\right)+\left((100)\ x\ 20\ x\left((0.000267)+\frac{1}{4.63\ x\ 10^{9}}\right)\right)\right]}$$

Eq. B2 - Calculate Carcinogenic RBC
RAGS 6 - Cancer Based

$$C = (trichloroethylene)\frac{0.00001\times\ 70\times\ 70\times\ 365}{250\times\ 25\times\left(0.4\times\ 0.000001\times\ 50\right)+\left(0.4\times\ 20\times\left[0.000267+\left(\frac{1}{4.63\times 10^{9}}\right)\right]\right)}$$

TABLE 2 C

Calculation of Soil-to-Air Volatilization Factor - (VF) - RAGS B Eq. 8

Eq. C1 - Calculate D(ei)

$$D_{(ei)} = D_{(i)}\ x\ E^{(0.33)} = (trichloroethylene)\ 0.079\ x\ 0.35^{0.33} = 0.05587$$

Eq. C2 - Calculate K(d)

$$K_{(d)} = K_{(oc)}\ x\ F_{(oc)} = (trichloroethylene)\ 166\ x\ 0.02 = 3.32$$

Eq. C3 - Calculate K(as)

$$K_{(as)} = \frac{H}{K_{(d)}} = (trichloroethylene)\ \frac{0422}{3.32} = 0.127$$

Eq. C4 - Calculate α

$$\alpha = \frac{(D_{(ei)}\ x\ E)}{E + (p_{(s)})(1-E)/K_{(as)}} = (trichloroethylene\ \frac{0.05587\ x\ 0.35}{0.35 + (2.65\ x\ (1-0.35)/0.127)} = 0.00141$$

Eq. C5 - Mixing Geometry Constant

$$Mixing\ Constant = \frac{LS\ x\ V\ x\ DH}{A} = (Constant)\ \frac{45\ m\ x\ 2.25\ m/s\ x 2\ m}{20{,}250{,}000 cm^{2}} = 9.976E-6\ m^{3}/kg$$

Eq. C6 - Calculate VF

$$VF = Mix.GeomConstant\ x\ \frac{(\pi\ x\ \alpha\ x\ T)^{1/2}}{(2\ x\ D_{(ei)}\ x\ E\ x\ K_{(as)}\ x\ 10^{-3}\ kg/g)} = (trichloroethylene)\ 9.976E-6\ x\ \frac{(3.14\ x\ 0.00141\ x\ 7.9\ x\ 10^{8})^{1/2}}{2\ x\ 0.05587\ x\ 0.35\ x\ 0.127\ x\ 0.001} = 3748$$

Table 1

SUMMARY OF SOIL EXCEEDANCES AND RISK REDUCTION STANDARDS
FORMER PROFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Results Reported in mg/Kg - Dry Weight

Constituent	CAS No.	Frequency of Detection *(See Note 1)*	Maximum Detection	GA HSRA RRS Table 1 Concentration *(GA 391-3-19-Appendix)*	Number of Detections: Above Table 1	Number of Detections: 2 Times Greater Than Table 1	Calculated Risk Reduction Standards: Type 3 *(See Table 2-A)*	Calculated Risk Reduction Standards: Type 4 *(See Table 3-A)* all	Calculated Risk Reduction Standards: Type 4 *(See Table 3-A)* surface	Highest RRS (Type 3 or 4) *(mg/Kg)*
cis-1,2 Dichloroethylene	156-59-2	2	0.006	0.53	0	0	5.30E-01	3.43E+02	3.43E+02	**3.43E+02**
trans-1,2-Dichloroethylene	156-60-5	0	DL	0.53	0	0	1.00E+01	5.42E+01	5.42E+01	**5.42E+01**
Tetrachloroethylene	127-18-4	37	7.7	0.18	13	11	5.00E-01	1.68E+00	1.68E+00	**1.68E+00**
Trichloroethylene	79-01-6	2	0.232	0.13	1	0	5.00E-01	1.16E+01	1.16E+01	**1.16E+01**
Vinyl Chloride	75-01-4	0	DL	0.04	0	0	2.00E-01	6.12E+00	4.96E+00	**4.96E+00 (surface)**

Source: GA Rules 391-3-19-.01 to 391-3-19-Appendix. Version Downloaded 29 August 2006 Georgia Department of Natural Resources.

Note: Number of times constituent was detected in total of 22 sample analyses
NC = Not Calculated or Not Calculable

Date Printed
11-Jun-09

TABLE 4 - A

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR GROUNDWATER
FORMER PROFFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Constituent	CAS No.	Site Constituent Data (Water)		Type 4 GW Criteria - Calculated Criteria (9)(c)1 and 2 (mg/l)			Type 4 GW Criteria - Look Up - (9)(c) (mg/l)				Type 4 Groundwater Criteria (*Calculated or Look-up **only if no calculated values***)	
		Detection Frequency	Max. Reported Conc. (mg/l)	NonCancer-Based (Eq. 2 RAGS B)	Cancer-Based (Eq. 1 RAGS B)	Lowest Value (Eq. 1 & 2 - RAGS B)	Table 1-III-HSRA	Background	PQL	Highest of Non-Calc.	(mg/l)	Basis
cis-1,2 Dichloroethylene	156-59-2	02/05	6.9E-02	1.02E+00	NC	1.02E+00	0.005	0	0.005	0.005	1.02E+00	Risk-based
trans-1,2-Dichloroethylene	156-60-5	0/5	DL	1.61E-01	NC	1.61E-01	0.005	0	0.005	0.005	1.61E-01	Risk-based
Tetrachloroethylene	127-18-4	05/05	5.6E+00	4.45E-01	3.83E-03	3.83E-03	0.005	0	0.005	0.005	3.83E-03	Risk-based
Trichloroethylene	79-01-6	02/05	3.2E-01	NC	3.45E-02	3.45E-02	0.005	0	0.005	0.005	3.45E-02	Risk-based
Vinyl Chloride	75-1-4	0/5	DL	2.91E-01	1.82E-02	1.82E-02	0.002	0	0.01	0.01	1.82E-02	Risk-based

Notes:
Calculations are detailed in Tables 4-B through 4-D.
NA = Not available (none in available databases) or not appropriate (I.e., most metals are not volatile at environmental temperatures)
NC = Not calculated (either not appropriate, or there were missing values, I.e., no molecular dffusivity values for most metals).
NS = Not sampled
NL = Not listed
ND = Not determined
BDL = Below detection Limit
Shaded Cells - Not referenced
PQLs assume Test Method 8240

Type 4 Groundwater Criteria:
Boxed Column of Cells = Identified Criteria.

Date Printed
11-Jun-09

TABLE 4 - B

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR GROUNDWATER
FORMER PROFFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Calculation of Risk-Based Type 4 Criteria for Groundwater per RAGS B Equations 1 and 2

Constituent	CAS No.	Calculation of Non-Cancer Based Type 4 RRS - (9)(c)(1)							Calculation of Cancer Based Type 4 RRS - (9)(c)(2)				
		Chronic Ref. Doses *Table 4-C*		Calculated Terms for RAGS B Equation 2		Non-Cancer Based	Cancer Weight-of-Evidence		Cancer Slope Factors *Table 4-C*		Calculated Terms for RAGS B Equation 1		Cancer Based
		RfDo Oral	*RfDi* Inhalation	*1/RfDo*	*1/RfDi*	EPA RAGS B Equation 2		*Target Haz Risk*	*SFo* Oral	*SFi* Inhalation	SFo Oral	SFi Inhalation	EPA RAGS B Equation 1
		(mg/kg-day)		*1/(mg/kg-day)*		*(mg/kg)*			*(mg/kg-day-1)*		*(mg/kg-day-1)*		*(mg/kg)*
cis-1,2 Dichloroethylene	156-59-2	1.00E-02	NA	100.000	0.000	1.022E+00	NA	1.0E-05	NA	NA	0.00E+00	0.00E+00	NC
trans-1,2-Dichloroethylene	156-60-5	2.00E-02	1.71E-02	50.000	58.333	1.614E-01	NA	1.0E-05	NA	NA	0.00E+00	0.00E+00	NC
Tetrachloroethylene	127-18-4	1.00E-02	7.71E-02	100.000	12.963	4.451E-01	NA	1.0E-05	5.40E-01	2.07E-02	5.40E-01	2.07E-02	3.83E-03
Trichloroethylene	79-01-6	NA	NA	0.000	0.000	NC	Not on IRIS	1.0E-05	1.30E-02	7.00E-03	1.30E-02	7.00E-03	3.45E-02
Vinyl Chloride	75-1-4	7.20E-01	2.86E-02	1.389	35.000	2.908E-01	A	1.0E-05	3.00E-03	1.54E-02	3.00E-03	1.54E-02	1.82E-02

Non-cancer Based Soil Concentrations Calculated per Equation 2 of RAGS B. See Equation B1 in Table 4 - D
Cancer Based Soil Concentrations Calculated per Equation 1 of RAGS B. See Equation B2 in Table 4 - D

Terms and Units (HSRA Table 3)

Chemical Concentration	C	mg/l	***
Target Hazard Index	THI	unitless	1
Target Risk	TR	unitless	1.00E-05
Oral Reference Dose	RfDo	mg/kg-Day	chem. spec.
Inhalation Reference Dose	RfDi	mg/kg-Day	chem. spec.
Oral Slope Factor	SFo	mg/kg-day-1	chem. spec.
Inhalation Slope Factor	SFi	mg/kg-day-1	chem. spec.
Adult Body Weight	BW	kg	70
Averaging Time (nc)	ATnc	yr	25
Averaging Time (c)	ATc	yr	70
Exposure Freq.	EF	Days/yr	250
Exposure Duration	ED	years	25
Intake Rate - Air	IRa	m3/Day	20
Intake Rate - Water	IRw	l/Day	1
Volatilization Factor	K	l/m3	0.5

Notes:
Type 4 RRS does not specify carcinogenic risk of 1E-4 for Class "C" Carcinogens.
NA = Not available (none in available databases) or not appropriate (I.e., constituent may not be a carcinogen or may not have systemic toxicity)
NC = Not calculated (either not appropriate, or there were missing values)
ND = Not determined
Shaded Cells - Not referenced

TABLE 4 - C

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR GROUNDWATER
FORMER PROFFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Toxicology Data

Constituent	Chronic Reference Doses (EPA Reg. III RBC Table)		Cancer Slope Factors (EPA Reg. III RBC Table)		Cancer Weight-of Evidence	RFC	IURF
	Oral	Inhalation	Oral	Inhalation			
	mg/kg-day		mg/kg-day-1				
cis-1,2 Dichloroethylene	1.00E-02	NA	NA	NA	D	NA	NA
trans-1,2-Dichloroethylene	2.00E-02	1.71E-02	NA	NA	NR	0.06	NA
Tetrachloroethylene	1.00E-02	7.71E-02	5.40E-01	2.07E-02	NA	0.27	5.9E-06
Trichloroethylene	NA	NA	1.30E-02	7.00E-03	Not on IRIS	NA	2.0E-06
Vinyl Chloride	7.20E-01	2.86E-02	3.00E-03	1.54E-02	A	1.0E-01	4.4E-06

Health Criteria (Non-carcinogenic Reference Doses and Cancer Slope Factors) are obtained from the US EPA Regional screening table revised April 2009.
Cancer Weight of Evidence from US EPA IRIS Database as ofMay, 2007
NA = Not applicable or no value available
NR = Not reported or not evaluated

TABLE 4 - D

HSRA TYPE 4 RISK REDUCTION STANDARDS FOR GROUNDWATER
FORMER PROFFESSIONAL CLEANERS
STONE MOUNTAIN, GEORGIA
Per GA HSRA 391-3-19-.07(9)(c)
May 2009

Equations and Calculations - Based on Trichloroethylene

TABLE 3 - B

Calculation of Risk-Based Type 4 Criteria for Water per RAGS B Equations 1 and 2

Eq. B1 - Calculate Non-Carcinogenic RBC
RAGS 2

$$NC = (trichloroethylene)\frac{1 \times 70 \times 25 \times 365}{250 \times 25 \times [(100 \times 0.5 \times 20) + (3333 \times 1)]}$$

Eq. B2 - Calculate Carcinogenic RBC
RAGS 1

$$C = (trichloroethylene)\frac{0.00001 \; x \; 70 \; x \; 365}{25 \; x \; 250 \; x \; [(0.4 \; x \; 0.5 \; x \; 20) + (0.4 \; x \; 1)]}$$

APPENDIX VI

WARRENTY DEED FOR QUALIFYING PROPERY

RECORD AND RETURN TO:
L. Lee Dailey
Lipscomb, Johnson, Sleister,
Dailey & Smith, LLP
112 North Main Street
Cumming, Georgia 30040

Deed Book 15495 Pg 32
Filed and Recorded Oct-23-2003 12:30pm
2003-0209516
Real Estate Transfer Tax $3,815.00

Linda Carter

Linda Carter
Clerk of Superior Court Dekalb Cty. Ga.

STATE OF GEORGIA

File No. 03-531

COUNTY OF FORSYTH

LIMITED WARRANTY DEED

THIS INDENTURE made this 20th day of October, in the year of our Lord Two Thousand Three, between **REDAN PROPERTIES, LLC,** a Georgia limited liability company, hereinafter called Grantor, and **LACHMAN G. VASWANI** and **MANJU L. VASWANI**, of the State of Georgia and County of Gwinnett, hereinafter collectively called Grantee, the words "Grantor" and "Grantee" to include their respective heirs, successors and assigns where the context requires or permits.

WITNESSETH:

That Grantor, for and in consideration of the sum of TEN DOLLARS ($10.00) and other good and valuable consideration, in hand paid at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold, aliened, conveyed and confirmed, and by these presents does grant, bargain, sell, alien, convey and confirm unto the said Grantee, the real property described in Exhibit A attached hereto and forming a part hereof.

This conveyance and the warranty of title contained herein are made subject to

the following:

Rights of tenants, as tenants only, under unrecorded leases.

TO HAVE AND TO HOLD the said tract or parcel of land, with all and singular the rights, members and appurtenances thereto, to the same being, belonging, or in anywise appertaining, to the only proper use, benefit and behoof of the said Grantee forever in FEE SIMPLE.

AND THE SAID Grantor will warrant and forever defend the right and title to the above described property unto the said Grantee against the claims of all persons whomsoever claiming by, through or under Grantor, except as set forth above.

IN WITNESS WHEREOF, the Grantor has signed and sealed this deed, the day and year above written.

Signed, sealed and delivered in the presence of:

Unofficial Witness

Notary Public

(Seal)

NIDA B. POOLE NOTARY PUBLIC FORSYTH COUNTY GEORGIA MY COMMISSION EXPIRES OCT. 29 2004

My commission expires:

REDAN PROPERTIES, LLC

By: Chandrakant I. Patel

its Manager

EXHIBIT A

ALL THAT TRACT OR PARCEL OF LAND lying and being in Land Lot 224 of the 15th District, DeKalb County, Georgia, and being more particularly described as follows:

BEGINNING at an iron pin computed at the point of intersection of Land Lot 2 of the 16th District and Land Lots 224 and 225 of the 15th District of DeKalb County, Georgia and running southerly along the land lot line dividing Land Lot 2 of the 16th District and Land Lot 224 of the 15th District south 00° 34' 40" west a distance of 675.73 feet to an iron pin placed; thence leaving the land lot line and running south 89° 43' 23" west a distance of 180.82 feet to a rebar found; running thence south 31° 25' 50" west a distance of 149.93 feet to a rebar found (bent) on the northeasterly right of way line of Redan Road (having a variable right of way); running thence northwesterly along the northeasterly right of way line of Redan Road the following six (6) courses and distances: (1) north 58° 23' 49" west a distance of 10.85 feet to a right of way monument; (2) north 31° 28' 29" east a distance of 17.00 feet to a point; (3) north 58° 23' 49" west a distance of 13.90 feet to a point; (4) south 31° 28' 29" west a distance of 17.00 feet to a point; (5) north 58° 23' 49" west a distance of 26.23 feet to a rebar found; and (6) along the arc of a curve to the left (said arc having a radius of 1,117.45 feet and being subtended by a chord bearing north 59° 33' 01" west a distance of 30.88 feet) an arc distance of 30.88 feet to a rebar found; thence leaving the northeasterly right of way line of Redan Road and running north 28° 59' 30" east a distance of 33.60 feet to a nail set; running thence south 58° 34' 58" east a distance of 32.30 feet to an X found; running thence north 31° 27' 58" east a distance of 113.38 feet to an iron pin placed; running thence north 52° 33' 33" west a distance of 132.27 feet to a nail found; running thence north 52° 35' 25" west a distance of 93.97 feet to a rebar found; running thence north 72° 47' 23" west a distance of 90.06 feet to an iron pin placed; running thence north 07° 36' 50" east a distance of 15.65 feet to a pipe found (bent); running thence north 04° 37' 54" east a distance of 156.84 feet to a rebar found; running thence north 85° 21' 01" west a distance of 199.05 feet to an iron pin placed on the existing easterly right of way of South Hairston Road; running thence northeasterly along the easterly right of way of South Hairston Road the following two (2) courses and distances: (1) north 03° 23' 41" east a distance of 15.57 feet to a point, and (2) north 06° 59' 15" east a distance of 70.67 feet to an iron pin placed; thence leaving the existing easterly right of way line of South Hairston Road and running south 87° 03' 26" east a distance of 159.66 feet to an iron pin placed; running thence north 01° 01' 49" east a distance of 230.11 feet to a rebar found on the north line of Land Lot 224 (being the south land lot line of Land Lot 225); running thence along said land lot line south 89° 13' 58" east a distance of 509.08 feet to an iron pin placed at the intersection of Land Lots 224 and 225 of the 15th District

and Land Lot 2 of the 16th District at the POINT OF BEGINNING; said tract shown as containing 7.58 acres on that certain survey entitled "ALTA/ACSM Land Title Above Ground Survey Prepared for: Redan Properties, LLC, a Georgia limited liability company; Column Financial, Inc., its successors and/or assigns, Lawyers Title Insurance Corporation," prepared by Solar Land Surveying Company, bearing the seal and certification of John W., Stanzilis, Jr., Georgia Registered Land Surveyor No. 2109, dated June 13, 2001.

TOGETHER with the easements and obligations appurtenant to the above-described land created and established under the following instruments:

(a) Reciprocal Easement Agreement by and between Eugene M. Howerdd, Jr. & Timothy J. Connolly and Howerdd and Connolly, Inc. & LNC Land Sales, Inc., d/b/a Howcon Land Company, a Joint Venture, dated October 17, 1973, filed October 22, 1973, and recorded in Deed Book 3087, Page 364, Records of DeKalb County, Georgia;

(b) Reciprocal Declaration of Easements by and between First Union National Bank of Georgia and Southern Federal Savings & Loan Association dated December 27, 1989, filed December 29, 1989, and recorded in Deed Book 6606, Page 246, aforesaid records; and

(c) Reciprocal Easement Agreement by and between Southern Federal Savings & Loan Association of Georgia and HRA Ltd., dated December 27, 1989, filed March 11, 1991, and recorded in Deed Book 6906, Page 519, aforesaid records; as modified by that certain Joinder Agreement executed by VF Redan Associates, L.P., dated May 21, 1990, and recorded in Deed Book 6961, Page 2, aforesaid records.