

June 16, 2009

Mr. David Dorian
On-Scene Coordinator
U.S. Environmental Protection Agency Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Subject: Vapor Sampling Letter Report, Revision 2
Mills Gap
Asheville, Buncombe County, North Carolina
Contract No. EP-W-05-053
Technical Direction Document (TDD) No.: TNA-05-001-0043

Dear Mr. Dorian:

The T N & Associates, Inc. (TN&A) Superfund Technical Assessment and Response Team (START), has prepared this letter report detailing vapor sampling activities conducted at the Mills Gap site (the site) in support of the U.S. Environmental Protection Agency (EPA). START's role was to support the EPA Environmental Response Team (ERT) with sampling activities. All activities and procedures described in this document were conducted in accordance with the EPA Region 4 Science and Ecosystems Support Division (SESD) *Field Branches Quality System and Technical Procedures* (FBQSTP).

TN&A was tasked under EPA START Contract Number (No.) EP-W-05-053, TDD No. TNA-05-001-0043 to provide support of vapor sampling activities conducted at residential properties surrounding the site in Asheville, Buncombe County, North Carolina. START was also tasked to document on-site conditions with written logbook notes and digital photographs. This letter report summarizes support activities conducted by START and includes a vapor sample results map as Attachment A, a table of sample locations as Attachment B, an analytical report as Attachment C, a photograph log as Attachment D, and the logbook notes as Attachment E.

Site Background

The site is located off of Mills Gap Road, approximately 1 mile east of Skyland, in Asheville, Buncombe County, North Carolina. A Time-Critical Removal Action is currently being conducted at the site under an Administrative Order on Consent (AOC) (January 2004) between EPA, CTS, Inc. (CTS), and Mills Gap Road Associates (MGRA). Trichloroethylene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and petroleum hydrocarbon contamination have been previously identified in surface water near the site. Previous studies have indicated that local groundwater contamination is associated with site contamination.

The 9 acre fenced property represents the core industrial portion of the original 54 acre CTS holding. The remaining 46 acres have been sold and redeveloped into residential properties. The only remaining structure on the site is a large single-story building formerly used for manufacturing of electronic components utilized in automotive parts and hearing aids. The geographic coordinates of the center of the site are 35° 29' 36" North latitude and 82° 30' 22" West longitude. The area surrounding the property is mixed industrial and residential. Residences are located within 100 yards of the former industrial complex.

In 1952, IRC, Inc. (IRC) purchased the land and constructed the building, which was used to house the former electroplating operations. In 1959, IRC sold the site to CTS. Until 1986, CTS manufactured electronic components and conducted electroplating operations at the site. The chemical compound TCE was employed by both IRC and CTS to clean and/or degrease metal parts prior to electroplating. The current owner, MGRA, purchased the property in 1987, and operation of the current Soil Vapor Extraction System is the only process on site.

EPA emergency response program first responded to the site following a citizen complaint in July 1999 to the North Carolina Department of Environment and Natural Resources (NCDENR). The citizen complaint was in regards to the contaminated drinking water in the spring adjacent to the southeast of the site. Following several investigations to identify the source of, and the mitigation of the immediate threat posed by TCE, 1,1,1-TCA, and petroleum hydrocarbon contamination in surface water near the site and local groundwater, EPA entered into an AOC with the identified Potentially Responsible Parties (PRP) (MGRA and CTS) in January 2004. The AOC requires the PRP to (1) mitigate the source of contamination in the vadose zone (soil above groundwater), (2) assess potable wells potentially impacted by releases from the site and which have access to an alternate potable water supply, and (3) evaluate the feasibility of capturing water discharging from the contaminated springs.

From November 2007 to August 2008, several investigations have been conducted at the site under the direction of NCDENR and EPA including potable water well sampling events, a subsurface soil investigation, a soil gas survey, and a vapor pathway study. Additionally, surface water samples were collected from several springs located near the site. On December 10–13, 2007 the ERT Response, Engineering and Analytical Contractor (REAC) collected 10 sub-slab air samples and 12 passive air (Summa[®]) samples at residential properties. All 10 sub-slab and 12 passive air samples analytical results were below the Removal Action Level (RAL) of 23 parts per billion by volume (ppbv) for TCE. An additional 18 soil gas “slam-bar” samples were collected by REAC at or near the site. Three of the soil gas samples had TCE detections above the RAL ranging from 41 ppbv to 460 ppbv. The Trace Atmospheric Gas Analyzer (TAGA) bus was also utilized to perform real time mobile air monitoring and the results ranged from non-detect to 21 ppbv of TCE. A total of 40 air samples were collected during this vapor study. The OSC concluded based on the elevated soil gas sample results that it was necessary for follow up sampling to be conducted. Follow up sampling was needed in order to reassess if any residents were being exposed above the RAL for TCE. Secondly, follow up sampling was needed to try and determine if the source of the elevated ambient air results was the contaminated springs.

Field Activities

From August 4 through August 7, 2008, START provided support for the vapor sampling activities performed by the REAC under the direction of the EPA ERT and the EPA On-Scene Coordinator (OSC). An attempt was made to contact residents the week prior to field activities to obtain access to their properties to conduct vapor sampling activities. A total of 21 passive air samples were collected using Summa[®] canisters from off-site residential properties as follows: 13 samples were collected outdoors as ambient air samples, five samples were collected in the crawlspaces of residences, two samples were collected in the breathing zone of indoor air of residences, and one soil gas sample was collected in the crawlspace of a residence. Six residences in all were sampled: one residence had one indoor air sample, one crawlspace air sample, one soil gas sample, and one outdoor ambient air sample collected; four residences each had one crawlspace air sample and one outdoor ambient air sample collected, and one other residence had one indoor air sample and one outdoor ambient air sample collected.

Analytical Results

Passive air samples were submitted to a REAC specified laboratory for volatile organic compound (VOC) analysis by modified REAC Standard Operating Procedure (SOP) method 1814.

Based on REAC's analytical report, TCE was detected in 13 passive air samples. TCE concentrations ranged from 0.0708 parts per billion by volume (ppbv) to 277 ppbv. Twelve of the samples were below the RAL of 23 ppbv and ranged from non detect to 1.60 ppbv. Sample (MG25-AMB1) with the TCE detection of 277 ppbv was located in the ravine next to the contaminated spring inside the fenced area. An exposure sample (MG25-AMB2) was collected at the fence line between one residence and the contaminated spring and that sample had a detection well below the RAL. Cis-1,2-Dichloroethene (DCE) was detected in six passive air samples and vinyl chloride was detected in one passive air sample. DCE concentrations ranged from 0.0841 ppbv to 90.9 ppbv. These results were included in this report as a means of comparison. REAC's analytical report is included as Attachment C.

Conclusion

TN&A was tasked under EPA START Contract Number (No.) EP-W-05-053, TDD No. TNA-05-001-0043 to provide support and documentation of vapor sampling activities conducted at residential properties surrounding the site in Asheville, Buncombe County, North Carolina. Vapor sampling activities were completed by ERT REAC and considered complete for the current scope of work. Based on the results of this vapor study, the EPA has concluded that the TCE detected in ambient air samples is related to the contaminated springs and it appears that surface water is the source of the contamination. Future on-site activities will be determined by EPA.

If you have any questions or comments regarding this letter report or require any additional information please feel free to contact me or Greg Kowalski, START Program Manager, at 678-355-5550.

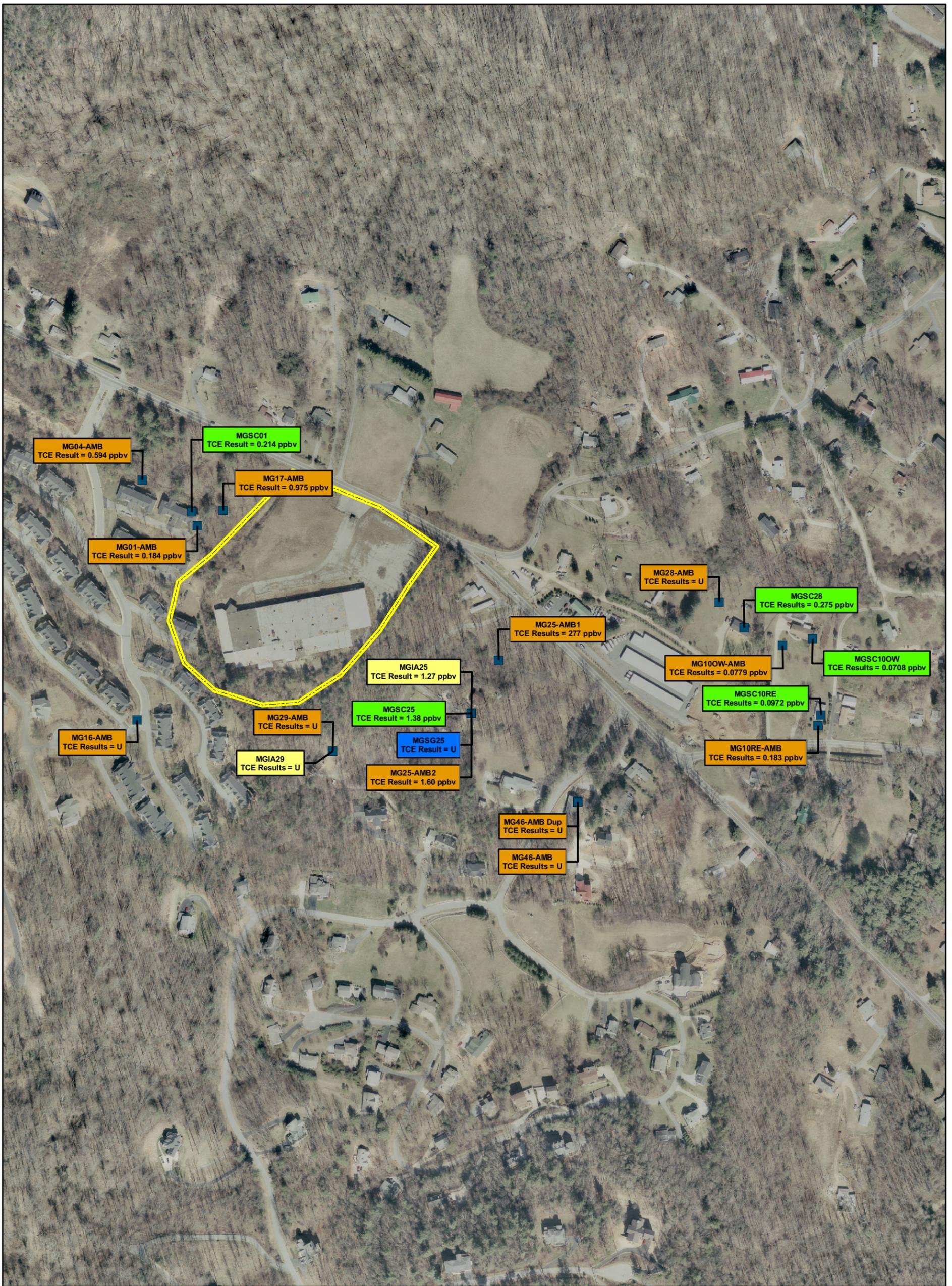
Sincerely,



Ryan Stubbs
START Environmental Scientist
T N & Associates, Inc.

cc: Katrina Jones, EPA Project Officer
Darryl Walker, EPA Project Officer
Greg Kowalski, START Program Manager
START File

ATTACHMENT A
(2 pages)



2006 Aerial Imagery Provided by Buncombe County GIS

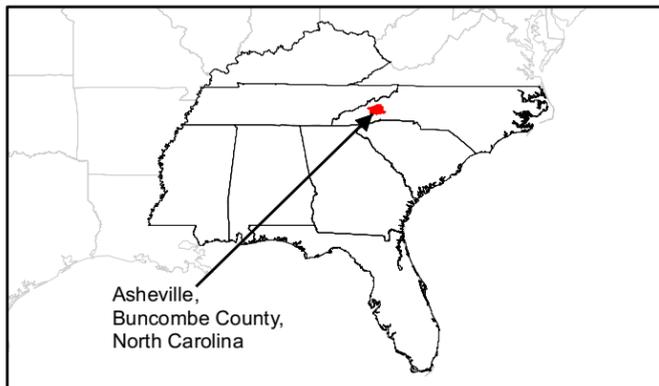
Disclaimer: This map is intended for visual orientation use only. In no way is this map to be used for precise locational use.

Legend

- Sample Location
- Site Location
- MGSC25 = CRAWL SPACE SUMMA CANISTER SAMPLE
- MG25-AMB2 = AMBIENT SUMMA CANISTER SAMPLE
- MGSG25 = SOIL GAS SAMPLE
- MGIA25 = SUMMA CANISTER INDOOR AIR SAMPLE

NOTES:
 AMB = Ambient
 Dup = Duplicate
 IA = Indoor Air
 MG = Mills Gap
 ppbv = Parts per billion by volume
 SC = Summa Canister
 SG = Soil Gas
 TCE = Trichloroethylene
 U = Non detect

0 350 700 Feet



United States Environmental Protection Agency

MILLS GAP
 ASHEVILLE, BUNCOMBE COUNTY, NORTH CAROLINA
 TDD No. TNA-05-001-0043

August 2008 Soil Vapor Sampling Results

TNT & Associates, Inc.
 EPA Region 4 START
 in association with Shaw E&I and Aerostar

ATTACHMENT B
(2 pages)

TABLE 1
SUMMA[®] CANISTER SAMPLE LOCATIONS
MILLS GAP

Sample Location ID	Latitude	Longitude	Location
MGSC01	35.493668	-82.507783	108 Silk Tree Lane
MG01-AMB	35.49355	-82.50772	108 Silk Tree Lane
MG04-AMB	35.49393	-82.50832	Near 102 Silk Tree Lane
MGSC10OW	35.49276	-82.50117	10 Concord Road (Owner's)
MG10OW-AMB	35.492696	-82.501485	10 Concord Road (Owner's)
MG10RE-AMB	35.492009	-82.501077	10 Concord Road (Renter's)
MGSC10RE	35.492101	-82.501051	10 Concord Road (Renter's)
MG16-AMB	35.49185	-82.50828	Southside Village gazebo
MG17-AMB	35.49369	-82.50745	Spring near 108 Silk Tree Lane
MG25-AMB1	35.49248	-82.50448	Spring near 275 Mills Gap Rd.
MG25-AMB2	35.49201	-82.50475	275 Mills Gap Road
MGSC25	35.49201	-82.50475	275 Mills Gap Road
MGSG25	35.49201	-82.50475	275 Mills Gap Road
MGIA25	35.49201	-82.50475	275 Mills Gap Road
MGSC28	35.492835	-82.501897	28 Clove Bud Court
MG28-AMB	35.49305	-82.50217	28 Clove Bud Court
MGIA29	35.49164	-82.50620	277 Mills Gap Road
MG29-AMB	35.49164	-82.50620	277 Mills Gap Road
MG46-AMB	35.49127	-82.50359	Busbee Community Center
MG46-AMB Dup	35.49127	-82.50359	Busbee Community Center

Notes:

- MGIA - Mills Gap Indoor Air
- MGSC - Mills Gap Summa[®] Canister
- MGSG - Mills Gap Soil Gas
- AMB - Ambient
- Dup - Duplicate
- ID - Identification
- RE - Renter
- OW - Owner

ATTACHMENT C
(25 pages)

ANALYTICAL REPORT

Prepared by
LOCKHEED MARTIN, Inc.

Mills Gap Road
Asheville, North Carolina

September 2008

EPA Work Assignment No. 0-296
LOCKHEED MARTIN Work Order EAC0296
EPA Contract No. EP-C-04-032

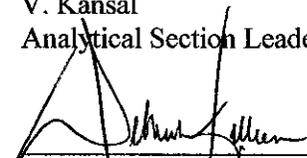
Submitted to
G. Powell
EPA-ERT

 9/4/08

Date

V. Kansal
Analytical Section Leader

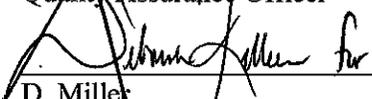
Analysis by:
REAC

 9/4/08

Date

D. Killeen
Quality Assurance Officer

Prepared by:
R. Varsolona

 9/4/08

Date

D. Miller
Program Manager

Reviewed by:
J. Soroka

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Chains of Custody

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The appendix will be furnished on request

Introduction

REAC, in response to WA# 0-296, provided analytical support for environmental samples collected from Mills Gap Road located in Asheville, North Carolina, as described in the following table. The support also included QA/QC, data review and preparation of an analytical report containing analytical and QA/QC results.

The samples were treated with the procedures consistent with those specified in REAC SOP# 1008.

COC #	Number of Samples	Sampling Start Date	Date Received	Matrix	Analysis/Method	Laboratory	Data Package
0-296-08/07/08-0011	2	8/708	8/8/08	Air	VOC/ REAC SOP 1814	REAC ¹	T 255
0-296-08/07/08-0012	2						
0-296-08/07/08-0013	2						
0-296-08/07/08-0014	2						
0-296-08/07/08-0015	2						
0-296-08/07/08-0016	2						
0-296-08/07/08-0017	2						
0-296-08/07/08-0018	2						
0-296-08/07/08-0019	2						
0-296-08/07/08-0020	1						
	1			Soil Gas			
0-296-08/07/08-0021	1	Trip Blank					

¹ REAC is NELAC certified for VOC in air

Case Narrative

The laboratory reported the data to three significant figures. Any other representation of the data is the responsibility of the user. All data validation flags have been inserted into the results tables. The laboratory did not report results less than the RL. At the request of the Work Assignment Manager, seventeen chlorinated compounds were analyzed and validated.

VOC in Air Package T 255

High non-target interferences in sample 4534 interfered with the analysis of the sample at the standard volume. The sample was analyzed at reduced volume resulting in higher RLs.

Trichlorofluoromethane was found in all samples except the trip blank. For samples 4517, 4518, 4520, 4522, 4523, 4524, 4525, 4526, 4529 and 4530 a second apparent trichlorofluoromethane peak was observed. The

laboratory reported the first peak as trichlorofluoromethane because its retention time matched the retention time in the corresponding calibration standard.

The data were examined and found to be acceptable.

Summary of Abbreviations

BFB	Bromofluorobenzene
C	Centigrade
CLP	Contract Laboratory Program
COC	Chain of Custody
conc	concentration
cont	continued
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
D	(Surrogate Table) value is from a diluted sample and was not calculated
Dioxin	Polychlorinated dibenzo-p-dioxins (PCDD) and Polychlorinated dibenzofurans (PCDF)
DFTPP	Decafluorotriphenylphosphine
EMPC	Estimated maximum possible concentration
GC/MS	Gas Chromatography/ Mass Spectrometry
IS	Internal Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MDA	Minimum Detectable Activity
MS (BS)	Matrix Spike (Blank Spike)
MSD (BSD)	Matrix Spike Duplicate (Blank Spike Duplicate)
MW	Molecular Weight
NA	Not Applicable or Not Available
NAD	Normalized Absolute Difference
NC	Not Calculated
NR	Not Requested/Not Reported
NS	Not Spiked
% D	Percent Difference
% REC	Percent Recovery
SOP	Standard Operating Procedure
ppbv	parts per billion by volume
ppm	parts per million
pptv	parts per trillion by volume
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
QL	Quantitation Limit
REAC	Response Engineering and Analytical Contract
RL	Reporting Limit
RPD	Relative Percent Difference
RSD	Relative Standard Deviation
SIM	Selected Ion Monitoring
Sur	Surrogate
TIC	Tentatively Identified Compound
TCLP	Toxicity Characteristic Leaching Procedure
VOC	Volatile Organic Compound
*	Value exceeds the acceptable QC limits.

m ³	cubic meter	g	gram	kg	kilogram	L	liter
µg	microgram	µL	microliter	mg	milligram	mL	milliliter
ng	nanogram	pg	picogram	pCi	picocurie	s	sigma

Data Validation Flags

J	Value is estimated	R	Value is unusable
J+	Value is estimated high (metals only)	U	Not detected
J-	Value is estimated low (metals only)	UJ	Not detected and RL is estimated

Rev. 02/05/08

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 3 of 3

Sample Number Sample Location Analyte	Method Blank 081408-1		4530 MG10RE-AMB		4531 MGSC10RE		4532 MG46-AMB		4533 MG46-AMB Dup	
	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Chloromethane	U	0.0667	0.548	0.0667	0.492	0.0667	U	0.0667	U	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	U	0.0667	0.146	0.0667	0.229	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroform	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Carbon Tetrachloride	U	0.0667	0.0775	0.0667	0.0856	0.0667	U	0.0667	U	0.0667
Trichloroethene	U	0.0667	0.183	0.0667	0.0972	0.0667	U	0.0667	U	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location Analyte	4534 MGSG25	
	Results ppbv	RL ppbv
Chloromethane	U	2.00
Vinyl Chloride	U	2.00
Chloroethane	U	2.00
Trichlorofluoromethane	U	2.00
1,1-Dichloroethene	U	2.00
Methylene Chloride	U	2.00
trans-1,2-Dichloroethene	U	2.00
1,1-Dichloroethane	U	2.00
cis-1,2-Dichloroethene	U	2.00
Chloroform	20.2	2.00
1,2-Dichloroethane	U	2.00
1,1,1-Trichloroethane	U	2.00
Carbon Tetrachloride	U	2.00
Trichloroethene	U	2.00
1,1,2-Trichloroethane	U	2.00
Tetrachloroethene	U	2.00
1,1,2,2-Tetrachloroethane	U	2.00

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 2 of 3

Sample Number Sample Location Analyte	4523 MGSC25		4524 MGIA25		4525 MG17-AMB		4526 MGSC10OW		4527 MG10OW-AMB	
	Results	RL	Results	RL	Results	RL	Results	RL	Results	RL
	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
Chloromethane	0.729	0.0667	1.18	0.0667	0.690	0.0667	0.490	0.0667	0.564	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	0.399	0.0667	0.359	0.0667	0.181	0.0667	0.446	0.0667	0.288	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	0.0740	0.0667	0.143	0.0667	0.847	0.0667	U	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	0.386	0.0667	0.377	0.0667	0.0841	0.0667	U	0.0667	U	0.0667
Chloroform	0.124	0.0667	0.128	0.0667	U	0.0667	0.194	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	0.0954	0.0667	0.0850	0.0667	U	0.0667	U	0.0667	U	0.0667
Carbon Tetrachloride	0.0865	0.0667	0.0865	0.0667	0.0858	0.0667	0.0989	0.0667	0.0927	0.0667
Trichloroethene	1.38	0.0667	1.27	0.0667	0.975	0.0667	0.0708	0.0667	0.0779	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location Analyte	4528 MGSC28		4529 MG28-AMB	
	Results	RL	Results	RL
	ppbv	ppbv	ppbv	ppbv
Chloromethane	0.640	0.0667	0.735	0.0667
Vinyl Chloride	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667
Trichlorofluoromethane	0.249	0.0667	0.229	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	0.147	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667
Chloroform	U	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667
Carbon Tetrachloride	0.0978	0.0667	0.0987	0.0667
Trichloroethene	0.275	0.0667	U	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667

Table 1.1a Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 1 of 3

Sample Number Sample Location	Method Blank 081308-1		4535 Trip Blank		4515 MGSC01		4516 MG01-AMB		4517 MG04-AMB	
	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Chloromethane	U	0.0667	U	0.0667	0.658	0.0667	0.633	0.0667	0.696	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	U	0.0667	U	0.0667	0.257	0.0667	0.241	0.0667	0.215	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Methylene Chloride	U	0.0667	U	0.0667	0.137	0.0667	U	0.0667	U	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	0.103	0.0667
Chloroform	U	0.0667	U	0.0667	0.0806	0.0667	U	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Carbon Tetrachloride	U	0.0667	U	0.0667	0.0941	0.0667	0.0951	0.0667	0.0958	0.0667
Trichloroethene	U	0.0667	U	0.0667	0.214	0.0667	0.184	0.0667	0.594	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1a(cont.) Results of the Analysis for VOC (ppbv) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location	4518 MG16-AMB		4519 MG1A29		4520 MG29-AMB		4521 MG25-AMB1		4522 MG25-AMB2	
	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Chloromethane	0.749	0.0667	0.776	0.0667	0.684	0.0667	0.564	0.0667	0.675	0.0667
Vinyl Chloride	U	0.0667	U	0.0667	U	0.0667	0.270	0.0667	U	0.0667
Chloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Trichlorofluoromethane	0.125	0.0667	0.571	0.0667	0.205	0.0667	0.272	0.0667	0.151	0.0667
1,1-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	1.12	0.0667	U	0.0667
Methylene Chloride	0.157	0.0667	0.205	0.0667	0.169	0.0667	0.141	0.0667	0.191	0.0667
trans-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	1.43	0.0667	U	0.0667
1,1-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
cis-1,2-Dichloroethene	U	0.0667	U	0.0667	U	0.0667	90.9	1.00	0.578	0.0667
Chloroform	U	0.0667	0.267	0.0667	U	0.0667	0.132	0.0667	U	0.0667
1,2-Dichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,1-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	3.53	0.0667	0.0994	0.0667
Carbon Tetrachloride	0.0968	0.0667	0.0895	0.0667	0.0940	0.0667	0.103	0.0667	0.0918	0.0667
Trichloroethene	U	0.0667	U	0.0667	U	0.0667	277	1.00	1.60	0.0667
1,1,2-Trichloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
Tetrachloroethene	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667
1,1,2,2-Tetrachloroethane	U	0.0667	U	0.0667	U	0.0667	U	0.0667	U	0.0667

Table 1.1b Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 1 of 3

Sample Number Sample Location	Method Blank 081308-1		4535 Trip Blank		4515 MGSC01		4516 MG01-AMB		4517 MG04-AMB	
	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Analyte										
Chloromethane	U	0.138	U	0.138	1.36	0.138	1.31	0.138	1.44	0.138
Vinyl Chloride	U	0.171								
Chloroethane	U	0.176								
Trichlorofluoromethane	U	0.375	U	0.375	1.44	0.375	1.35	0.375	1.21	0.375
1,1-Dichloroethene	U	0.264								
Methylene Chloride	U	0.232	U	0.232	0.476	0.232	U	0.232	U	0.232
trans-1,2-Dichloroethene	U	0.264								
1,1-Dichloroethane	U	0.270								
cis-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	U	0.264	0.408	0.264
Chloroform	U	0.326	U	0.326	0.394	0.326	U	0.326	U	0.326
1,2-Dichloroethane	U	0.270								
1,1,1-Trichloroethane	U	0.364								
Carbon Tetrachloride	U	0.420	U	0.420	0.592	0.420	0.598	0.420	0.603	0.420
Trichloroethene	U	0.358	U	0.358	1.15	0.358	0.989	0.358	3.19	0.358
1,1,2-Trichloroethane	U	0.364								
Tetrachloroethene	U	0.452								
1,1,2,2-Tetrachloroethane	U	0.458								

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location	4518 MG16-AMB		4519 MG1A29		4520 MG29-AMB		4521 MG25-AMB1		4522 MG25-AMB2	
	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Analyte										
Chloromethane	1.55	0.138	1.60	0.138	1.41	0.138	1.16	0.138	1.39	0.138
Vinyl Chloride	U	0.171	U	0.171	U	0.171	0.690	0.171	U	0.171
Chloroethane	U	0.176								
Trichlorofluoromethane	0.702	0.375	3.21	0.375	1.15	0.375	1.53	0.375	0.848	0.375
1,1-Dichloroethene	U	0.264	U	0.264	U	0.264	4.44	0.264	U	0.264
Methylene Chloride	0.545	0.232	0.712	0.232	0.587	0.232	0.490	0.232	0.663	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	5.67	0.264	U	0.264
1,1-Dichloroethane	U	0.270								
cis-1,2-Dichloroethene	U	0.264	U	0.264	U	0.264	360	3.96	2.29	0.264
Chloroform	U	0.326	1.30	0.326	U	0.326	0.645	0.326	U	0.326
1,2-Dichloroethane	U	0.270								
1,1,1-Trichloroethane	U	0.364	U	0.364	U	0.364	19.3	0.364	0.542	0.364
Carbon Tetrachloride	0.609	0.420	0.563	0.420	0.591	0.420	0.648	0.420	0.578	0.420
Trichloroethene	U	0.358	U	0.358	U	0.358	1490	5.37	8.60	0.358
1,1,2-Trichloroethane	U	0.364								
Tetrachloroethene	U	0.452								
1,1,2,2-Tetrachloroethane	U	0.458								

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 2 of 3

Sample Number Sample Location	4523 MGSC25		4524 MGIA25		4525 MG17-AMB		4526 MGSC10OW		4527 MG10OW-AMB	
	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Analyte										
Chloromethane	1.51	0.138	2.44	0.138	1.42	0.138	1.01	0.138	1.16	0.138
Vinyl Chloride	U	0.171								
Chloroethane	U	0.176								
Trichlorofluoromethane	2.24	0.375	2.02	0.375	1.02	0.375	2.51	0.375	1.62	0.375
1,1-Dichloroethene	U	0.264								
Methylene Chloride	U	0.232	0.257	0.232	0.497	0.232	2.94	0.232	U	0.232
trans-1,2-Dichloroethene	U	0.264								
1,1-Dichloroethane	U	0.270								
cis-1,2-Dichloroethene	1.53	0.264	1.49	0.264	0.333	0.264	U	0.264	U	0.264
Chloroform	0.605	0.326	0.625	0.326	U	0.326	0.947	0.326	U	0.326
1,2-Dichloroethane	U	0.270								
1,1,1-Trichloroethane	0.521	0.364	0.464	0.364	U	0.364	U	0.364	U	0.364
Carbon Tetrachloride	0.544	0.420	0.544	0.420	0.540	0.420	0.622	0.420	0.583	0.420
Trichloroethene	7.42	0.358	6.82	0.358	5.24	0.358	0.380	0.358	0.419	0.358
1,1,2-Trichloroethane	U	0.364								
Tetrachloroethene	U	0.452								
1,1,2,2-Tetrachloroethane	U	0.458								

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number Sample Location	4528 MGSC28		4529 MG28-AMB	
	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Analyte				
Chloromethane	1.32	0.138	1.52	0.138
Vinyl Chloride	U	0.171	U	0.171
Chloroethane	U	0.176	U	0.176
Trichlorofluoromethane	1.40	0.375	1.29	0.375
1,1-Dichloroethene	U	0.264	U	0.264
Methylene Chloride	U	0.232	0.511	0.232
trans-1,2-Dichloroethene	U	0.264	U	0.264
1,1-Dichloroethane	U	0.270	U	0.270
cis-1,2-Dichloroethene	U	0.264	U	0.264
Chloroform	U	0.326	U	0.326
1,2-Dichloroethane	U	0.270	U	0.270
1,1,1-Trichloroethane	U	0.364	U	0.364
Carbon Tetrachloride	0.615	0.420	0.621	0.420
Trichloroethene	1.48	0.358	U	0.358
1,1,2-Trichloroethane	U	0.364	U	0.364
Tetrachloroethene	U	0.452	U	0.452
1,1,2,2-Tetrachloroethane	U	0.458	U	0.458

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Page 3 of 3

Sample Number	Method Blank		4530		4531		4532		4533	
Sample Location	081408-1		MG10RE-AMB		MGSC10RE		MG46-AMB		MG46-AMB Dup	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Chloromethane	U	0.138	1.13	0.138	1.02	0.138	U	0.138	U	0.138
Vinyl Chloride	U	0.171								
Chloroethane	U	0.176								
Trichlorofluoromethane	U	0.375	0.820	0.375	1.29	0.375	U	0.375	U	0.375
1,1-Dichloroethene	U	0.264								
Methylene Chloride	U	0.232								
trans-1,2-Dichloroethene	U	0.264								
1,1-Dichloroethane	U	0.270								
cis-1,2-Dichloroethene	U	0.264								
Chloroform	U	0.326								
1,2-Dichloroethane	U	0.270								
1,1,1-Trichloroethane	U	0.364								
Carbon Tetrachloride	U	0.420	0.488	0.420	0.539	0.420	U	0.420	U	0.420
Trichloroethene	U	0.358	0.983	0.358	0.522	0.358	U	0.358	U	0.358
1,1,2-Trichloroethane	U	0.364								
Tetrachloroethene	U	0.452								
1,1,2,2-Tetrachloroethane	U	0.458								

Table 1.1b(cont.) Results of the Analysis for VOC ($\mu\text{g}/\text{m}^3$) in Air
WA# 0-296 Mills Gap Road

Method REAC SOP#1814

Sample Number	4534	
Sample Location	MGSG25	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Chloromethane	U	4.13
Vinyl Chloride	U	5.11
Chloroethane	U	5.28
Trichlorofluoromethane	U	11.2
1,1-Dichloroethene	U	7.93
Methylene Chloride	U	6.95
trans-1,2-Dichloroethene	U	7.93
1,1-Dichloroethane	U	8.09
cis-1,2-Dichloroethene	U	7.93
Chloroform	98.6	9.77
1,2-Dichloroethane	U	8.09
1,1,1-Trichloroethane	U	10.9
Carbon Tetrachloride	U	12.6
Trichloroethene	U	10.7
1,1,2-Trichloroethane	U	10.9
Tetrachloroethene	U	13.6
1,1,2,2-Tetrachloroethane	U	13.7

Table 2.1 Results of the LCS Analysis for VOC in Air
WA# 0-296 Mills Gap Road

Page 1 of 1

LCS: AT 139

Analyte	Spike Amount ppbv	Recovered Amount ppbv	% Recovery	QC Limits % Recovery
Chloromethane	1.03	0.929	90	70-130
Vinyl Chloride	1.03	0.969	94	70-130
Chloroethane	1.05	0.973	93	70-130
Trichlorofluoromethane	1.06	1.03	97	70-130
1,1-Dichloroethene	1.05	0.934	89	70-130
Methylene Chloride	1.05	0.899	86	70-130
trans-1,2-Dichloroethene	1.05	0.771	73	70-130
1,1-Dichloroethane	1.05	0.827	79	70-130
cis-1,2-Dichloroethene	1.05	0.786	75	70-130
Chloroform	1.02	0.788	77	70-130
1,2-Dichloroethane	1.05	0.789	75	70-130
1,1,1-Trichloroethane	1.05	0.878	84	70-130
Carbon Tetrachloride	1.04	0.874	84	70-130
Trichloroethene	1.04	0.884	85	70-130
1,1,2-Trichloroethane	1.03	0.818	79	70-130
Tetrachloroethene	1.04	0.816	78	70-130
1,1,2,2-Tetrachloroethane	1.01	0.924	92	70-130

LCS: AT 141

Analyte	Spike Amount ppbv	Recovered Amount ppbv	% Recovery	QC Limits % Recovery
Chloromethane	1.03	1.16	112	70-130
Vinyl Chloride	1.03	1.21	118	70-130
Chloroethane	1.05	1.28	122	70-130
Trichlorofluoromethane	1.06	1.29	121	70-130
1,1-Dichloroethene	1.05	1.17	111	70-130
Methylene Chloride	1.05	1.12	107	70-130
trans-1,2-Dichloroethene	1.05	0.750	71	70-130
1,1-Dichloroethane	1.05	0.823	78	70-130
cis-1,2-Dichloroethene	1.05	0.762	73	70-130
Chloroform	1.02	0.770	76	70-130
1,2-Dichloroethane	1.05	0.767	73	70-130
1,1,1-Trichloroethane	1.05	0.908	87	70-130
Carbon Tetrachloride	1.04	0.897	86	70-130
Trichloroethene	1.04	0.915	88	70-130
1,1,2-Trichloroethane	1.03	0.864	84	70-130
Tetrachloroethene	1.04	0.827	79	70-130
1,1,2,2-Tetrachloroethane	1.01	1.05	104	70-130

Table 2.2 Results of the Duplicate Analysis for VOC in Air
WA# 0-296 Mills Gap Road

Page 1 of 1

Sample: 4516

Analyte	Sample Results	Duplicate Results	RPD	QC Limit
	ppbv	ppbv		RPD
Chloromethane	0.633	0.651	3	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	0.241	0.212	13	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	U	0.147	NC	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	0.0951	0.0997	5	25
Trichloroethene	0.184	0.181	2	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethane	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

Sample: 4528

Analyte	Sample Results	Duplicate Results	RPD	QC Limit
	ppbv	ppbv		RPD
Chloromethane	0.640	0.650	2	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	0.249	0.266	7	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	U	U	NC	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	0.0978	0.0959	2	25
Trichloroethene	0.275	0.277	1	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethane	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

Sample: 4533

Analyte	Sample Results	Duplicate Results	RPD	QC Limit
	ppbv	ppbv		RPD
Chloromethane	U	U	NC	25
Vinyl Chloride	U	U	NC	25
Chloroethane	U	U	NC	25
Trichlorofluoromethane	U	U	NC	25
1,1-Dichloroethene	U	U	NC	25
Methylene Chloride	U	U	NC	25
trans-1,2-Dichloroethene	U	U	NC	25
1,1-Dichloroethane	U	U	NC	25
cis-1,2-Dichloroethene	U	U	NC	25
Chloroform	U	U	NC	25
1,2-Dichloroethane	U	U	NC	25
1,1,1-Trichloroethane	U	U	NC	25
Carbon Tetrachloride	U	U	NC	25
Trichloroethene	U	U	NC	25
1,1,2-Trichloroethane	U	U	NC	25
Tetrachloroethane	U	U	NC	25
1,1,2,2-Tetrachloroethane	U	U	NC	25

ATTACHMENT D
(6 pages)



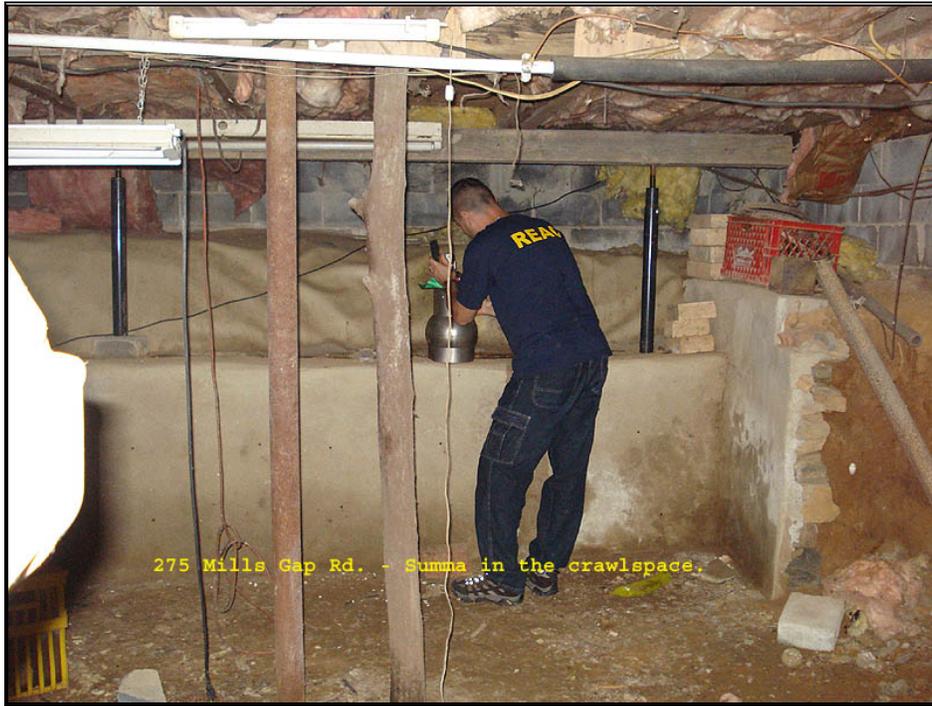
Official Photograph No. 1

Site Name: Mills Gap **Date:** August 5, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of household chemicals containerized prior to vapor sampling.



Official Photograph No. 2

Site Name: Mills Gap **Date:** August 6, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of indoor air sample collected at 275 Mills Gap Road.



Official Photograph No. 3

Site Name: Mills Gap **Date:** August 6, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of sample being collected in the crawlspace at 275 Mills Gap Road.



Official Photograph No. 4

Site Name: Mills Gap **Date:** August 6, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of REAC setting up an ambient air sample at 275 Mills Gap Road.



Official Photograph No. 5

Site Name: Mills Gap **Date:** August 7, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of a soil gas sample being collected at 275 Mills Gap Road.



Official Photograph No. 6

Site Name: Mills Gap **Date:** August 5, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of household chemicals containerized at 277 Mills Gap Road prior to vapor sampling.



Official Photograph No. 9

Site Name: Mills Gap **Date:** August 6, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of REAC setting up ambient air samples at the Busbee Community Center.



Official Photograph No. 10

Site Name: Mills Gap **Date:** August 6, 2008
Location: Asheville, Buncombe County, NC **TDD No:** TNA-05-001-0043
Photographer: Ryan Stubbs, START
Subject: View of an ambient air sample being set up at the Southside Village.

ATTACHMENT E
(11 pages)

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Location Marietta, GA Date 07/30/08

Project / Client Mills Gap / EPA R4

Prep for vapor samples

- 1430 START Stubbs spoke to Mr. Frady at 6 Clove Bud Court on the phone and asked if we could conduct vapor sampling in his home. Mr. Frady said he would be around next week and we are welcome to conduct testing in his home. RS
- 1435 START called Mr. Dockins at 28 Clove Bud Court. Phone number supplied (828)654-6374 is not in service. RS
- 1450 START left a message for The Robinsons at 10 Concord Road. RS
- 1453 START left ~~at~~ ^{RS} a message for the reuter's at 10 Concord Road. RS
- 1455 START spoke to Laura Ness at 108 Silk Tree Lane. She said we are fine to sample in their home on Tuesday 08/05.

Location Marietta, GA Date 07/30/08¹³³

Project / Client Mills Gap / EPA R4

Prep for vapor sampling

- 1505 START spoke to Deann Hudson. She said her husband will be home + she will make sure Tuesday (08/05) is okay with him. RS
- 1510 START left a message for Larry Rice Jr at 277 Mills Gap Road. RS
- 1515 START called the reuter's at 261 Mills Gap Road at (828)-684-3428 + that phone number is no longer in service.
- 1525 Spoke to CSC + informed him of the progress with contacting residents for next week's vapor sampling.

N. Pluff

Location Marietta, GA Date 07/31/08
 Project / Client Mills Gap / EPA R4

1045 START Stubbs spoke to Elisha Owens at 10 Concord Road (The rented house that fronts on Concord) and she said she will be around next Tuesday (08/05) + we are permitted to conduct vapor sampling.

Location Marietta, GA Date 08/04/08
 Project / Client Mills Gap / EPA R4
 Mobilizing to Asheville, NC

0730 START at Enterprise to obtain rental vehicle.
 0830 START at office prepping + loading to mobilize.
 1000 START mobilizing to Asheville, NC.
 1430 START arrived in Asheville, NC.

Location Asheville, NC Date 08/05/08
 Project / Client Mills Gap / EPA R4
 Vapor Sampling prep

- 0830 START Stubbs, ERT - Greg Powell, + OSC - David Dorian met to go over game plan for the vapor sampling. REAC Danielle McCall + Cody Volker. Dave Mukanis - ERT also attended meeting. _____ PS
- 1055 START, REAC, ERT + OSC arrived at 102 Silk Tree Lane (The Hudson's) to visually clear their home. We will be collecting at Summa canister outside of the home.
- 1125 START left a voicemail with Dot Rice at (828) 329-8779.
- 1130 START left a voicemail for Larry Rice Jr. at (828) 650-6593.
- 1140 OSC spoke to the Ness's at 108 Silk Tree Lane + they agree to having vapor sampling done again in their crawlspace.
- 1315 START, REAC, Dave Mukanis at 275 Mills Gap Road (Terry Rice) waiting to clear the home.

Location Asheville, NC Date 08/05/08 137
 Project / Client Mills Gap / EPA R4
 Vapor sampling prep

- 1315 Steven Ball - OSC is now apart of the group as well. Going through Terry Rice's home clearing of household products that possible have TCE in them. Terry does smoke. The AC + fans will be left on as that is the way Terry normally lives. As household products have been placed in a airtight tote. _____ VRS
- List of items removed:
- Glidden ultra-hide wallcovering adhesive (5-gal.)
 - 10 oz. spray paint cans
 - Can of CRC Brakleen
 - Tube of Acrylic latex caulk plus silicone
 - Can of insulating foam sealant
 - 1-gt. can of Z-Spar Captain's Varnish
 - Pergo glue

Location Asheville, NC Date 08/05/07
 Project / Client Mills Gap / EPA R4

1400 Crawlspace at Terry's (275 Mills Gap Road) was clear.

- 1405 Items of note in the garage at Terry's.
- PVC cement & primer
 - Silicone caulk
 - Starting fluid
 - Spray enamel
 - Varnish remover
 - Minimax wood finish
 - Thompson Water seal
 - RainX
 - Engine Enamel
 - Marvel Mystery Oil
 - WD-40
 - All the following items containerized.

R. Slub

Location Asheville NC Date 08/05/08 139
 Project / Client Mills Gap
Vapor Sampling prep

1425 START, OSCs Dorian & Ball, REAC arrived at 277 Mills Gap (Larry Rice Jr's) to clear their home before vapor sampling.

- Items found under the front porch & outside include:
- Tuff Stuff foam cleaner
 - High heat spray paint
 - Minimax wood finish
 - Easy-OFF Heavy Duty oven cleaner
 - Interior satin enamel paint
 - The above items were containerized

1435 Larry Rice Jr. arrived while we were already placing items in containers.

1445 Items inside the living area found:

- Wasp & hornet killer
- Greased lightening cleaner

Location Asheville, NC Date 08/05/08
 Project / Client Mills Gap / EPA R4
Vapor sampling prep

- 1445 Items continued:
 - Spray adhesive
 - Minwax wood finish
 - Hot shot bug killer
 - Furniture polish, WD-40
 * Larry Jr. said he sprayed his sliding door track in his living with WD-40.
- 1530 START + REAC (Danielle + Cody) scoped out location for a summa canister at the Entrance to Hidden Valley (Sursey Run + Mills Gap Road). RS
- 1600 START done with field activities for the day

N. Stubbs

Location Asheville, NC Date 08/06/08 141
 Project / Client Mills Gap / EPA R4
Vapor Sampling

- Weather: 72° F + partly cloudy
- 0800 START Stubbs, OSCs - Dorian + Steven Ball, REAC - Danielle McCall, Cody Volker met to go over today's gameplan
- 0830 START, OSCs + REAC arrived at the Southside Village. RS
- 0900 REAC setting up an ambient summa outside 108 Silk Tree Lane + a summa in their crawlspace.
- 0910 REAC setting up an ambient summa behind 102 Silk Tree Lane. RS
- 0915 REAC setup ambient summa at the gazebo up high in the ~~sides~~ RS Southside village.
- 0925 START Stubbs received verbal agreement from Mrs. Robinson at 10 Concord Road to vapor sample in their crawlspace. RS

N. Stubbs

142

Location

Asheville, NC

Date

08/06/08

Project / Client

Mills Gap / EPA R4

Vapor sampling

- 0930 START spoke to Elish Owens (Renter at 10 Concord Road) and she gave verbal permission to vapor sample in her crawlspace.
- 0935 (828) 654-0374 - Walter Dockins START spoke with Walter Dockins + he gave verbal permission to set a summa canister in his crawlspace, just call ahead so he can put his dogs up.
- 0945 START + REAC at Terry Rice's 275 Mills Gap Road to set up summa canisters.
- 0955 REAC set up a summa in the breathing zone in the family room at Terry's
- 1000 REAC started a summa in the crawlspace at Terry's.
- 1005 REAC setup a summa on the fence behind Terry's (ambient)
- 1010 REAC setup a summa inside Larry Rice Jr's (277 Mills Gap).

N. Stube

Location

Asheville, NC

Date

08/06/08

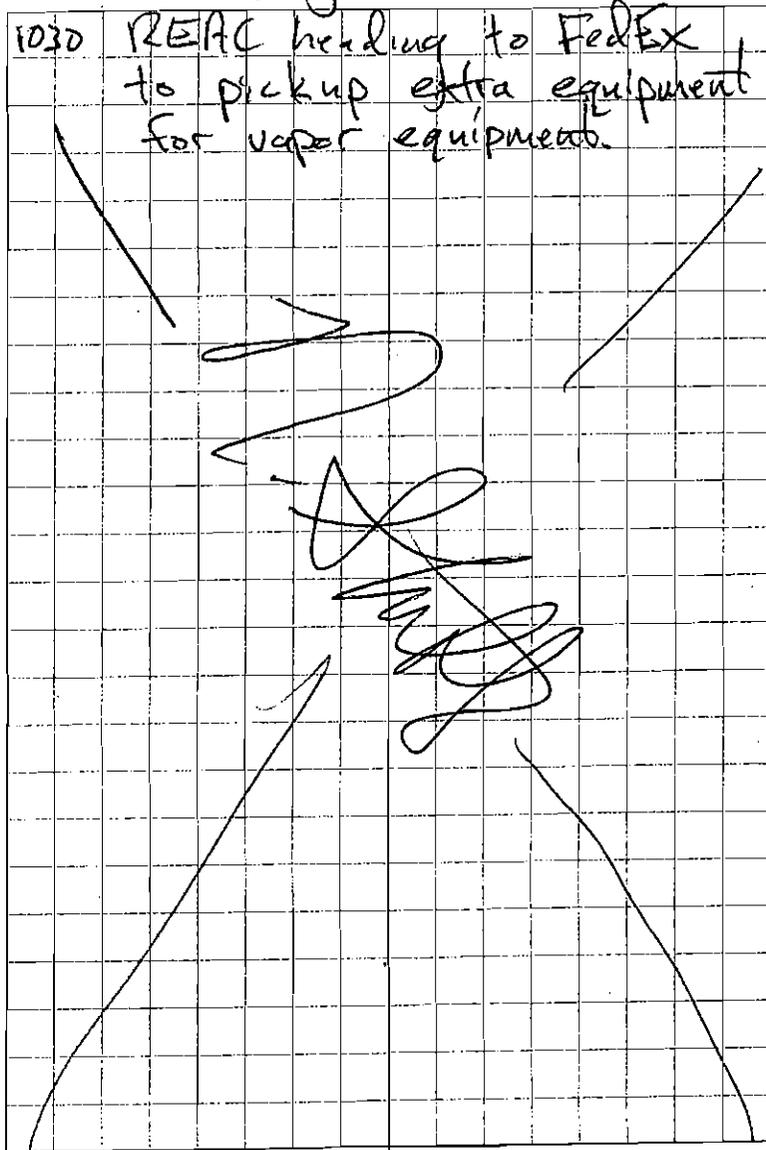
143

Project / Client

Mills Gap / EPA R4

Vapor Sampling

- 1030 REAC heading to FedEx to pickup extra equipment for vapor equipment.



144

Location Asheville, NC Date 08/06/08

Project / Client Mills Gap / EPA R4

Vapor sampling

1150 REAC started a summa near a spring in the fenced area on the Rice property.

1225 REAC started an ambient summa near the spring near 108 Silk Tree Lane, at the Southside Village.

1340 START, OSCs + REAC at 10 Concord Road (The Robinson's). — RS

1355 Started the summa in the crawspace at The Robinson's. — RS

1410 REAC started an ambient summa located in a tree in front of the Robinson's house. — RS

1415 REAC started a summa at Walter Dockins (28 Clove Bud Court). Also ~~set~~ ^{RS} One summa in his crawspace + an ambient in a tree in his backyard.

[Signature]

Location

Asheville, NC Date 08/06/08 145

Project / Client Mills Gap / EPA R4

Vapor sampling

1430 REAC started a summa in the crawspace at 10 Concord Road (Elisha Owens - The Renters)

1440 REAC starting an ambient summa in the tree out front 10 Concord Road (The Renters)

1500 REAC started an ambient summa at the Busbee Community Center + a duplicate summa was started as well. — RS

1510 START, OSCs + REAC arrived at 275 Mills Gap Road (Terry Rice's). — RS

1520 REAC installing soil gas port in Terry's crawspace.

1600 START, OSCs + REAC done with field operations for today.

[Signature]

Location _____ Date _____

Project / Client _____

Logbook notes
continued in
Volume 2.

[Handwritten signature]

The manufacturers of "Rite in the Rain" all-weather writing products are grateful to the numerous environmental experts who have contributed to the development of this book. Should you have any additions, improvements or corrections for future publications of this field book or have suggestions for other environmental field book formats, we welcome your input.

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Common Field Data Error Codes

Error codes are used to explain common mistakes and are written above or close to the mistake.

Commonly used error codes include:

- RE Recording Error
- CE Calculation Error
- TE Transcription Error
- SE Spelling Error
- CL Changed for Clarity
- DC Original Sample Description
Changed After Further Evaluation
- WO Write Over
- NI Not Initialed and Dated at Time of Entry
- OB Not Recorded at the Time of Initial Observation

Note: Error code should be circled, dated, and initialed when recorded.

Hazard Classifications

- Class 1 Explosives
- Class 2 Gas
- Class 3 Flammable Liquid
- Class 4 Flammable Solids (Potential spontaneous combustion, or emission of flammable gases when in contact with water)
- Class 5 Oxidizing Substances and Organic Peroxides
- Class 6 Toxic (poisonous) and infectious substances
- Class 7 Radioactive material
- Class 8 Corrosives
- Class 9 Miscellaneous dangerous goods

Container type abbreviations (for sampling guidelines)

- BR - Boston Round • ABR - Amber Boston Round • AJ - Amber Jug •
- AWM - Amber Wide Mouth • Poly - Polyethylene Bottles • BOD - Bottle •
- CWM - Clear Wide Mouth

Location Asheville, NCDate 12/13/07Project / Client Mills GAP

- 163 Collected sample MS-SB-08 from
interval 7-10. Collected sandy/white/
light material on top of clay/brown material.
- 170 Start processing samples to slip through RedGo.

[Signature]
12/13/07

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Naren Bedon

Location _____

Date _____

Project / Client _____

Logbook notes
after this page
are a continuation
from Volume I.

[Signature]

24
Location Asheville, NC Date 08/07/08
Mills Gap / EPA R4
Vapor Sampling

- Weather: 67°F & partly cloudy
- 0800 START Stubbs, REAC - Dusselle
McCall, OSC-RS + Cody Volker,
OSCs - David Dorian + Steve
Ball + Dave Makunis of ERT
met. _____ RS
- 0927 REAC stopped Summa canister
at 277 Mills Gap Road
(Terry RS Larry Rice Jr's).
- 0940 At 275 Mills Gap Road
(Terry Rice's) to collect
Summa + collect soil gas
sample. The soil gas sample
will be collected before
24 hours in order to
not inconvenience the
property owner any further.
- 0955 REAC collected soil gas
sample in the crawlspace
at Terry Rice's. Photo taken
of this process. _____ RS
- 1100 START headed to check out
at hotel as field work will
be completed today.
A. Stubbs

25
Location Mills Gap Date 08/07/08
Project: Client EPA R4
Vapor Sampling

- 1210 REAC stopped ambient
Summa ambient sample
in the Southside Village at
the spring near 108 Silk
Tree Lane.
- 1430 All Summas have been
collected. START demobilizing
- 1830 START arrived back in
Marietta, GA.
- 