NCDENR
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Dexter R. Matthews
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

May 8, 2012

Aberdeen Florist & Garden Center
500 S. Sandhills Blvd
Aberdeen, NC 28315
Attn: Janet Peele

RE: Water Supply Well Sampling Results – Aberdeen Florist (NONCD0002857)
500 S Sandhills Blvd – Well ID AF-1
Aberdeen, NC 28315

Dear Ms. Peele:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on April 17, 2012. The sample was submitted for laboratory analyses for Volatile Organic Compounds (VOCs). VOCs were detected in the water sample as shown on the attached sheets.

Because VOCs were detected in the water sample, a Health Risk Evaluation (HRE) of the water supply was performed by our toxicologist. The HRE, which is enclosed, compares the concentration of detected contaminants to acceptable concentrations and provides a recommendation for acceptable uses of the water.

In accordance with the residential property disclosure act, it is your responsibility to disclose this contamination as part of the property sale. You should also notify all current and future tenants of your property of the contamination detected in your well.

If you have any questions regarding the Health Risk Evaluation, please contact Hanna Assefa at (919) 707-8351 or me at (919) 707-8353.

Sincerely,

Vincent Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
Superfund Section

Enclosure

CC: Moore County Health Department

May 08, 2012

MEMORANDUM

TO: Vince Antrilli
Inactive Hazardous Sites Branch
Superfund Section

FROM: Hanna Assefa, Industrial Hygiene Consultant
Inactive Hazardous Sites Branch
Superfund Section

RE: Health Risk Evaluation
Aberdeen Florist Site
500 S. Sandhills Rd.
Aberdeen, Moore County
NONCD 0002857

A water sample was collected from the subject well on April 16, 2012. Tetrachloroethene was detected at a concentration that exceeded its applicable standards. The standards used to determine if the water is suitable for drinking and cooking are the federal drinking water standards (USEPA MCL), or where there is no MCL, the North Carolina Groundwater Quality Standard (NC 2L). If there is no USEPA MCL or health based North Carolina 2L available a health –based concentration is calculated.

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. **Therefore, based on this evaluation the water from this well should not be used for drinking and cooking the water from this well can be used for all other purposes listed above.** The table below compares the detected contaminant concentrations with the applicable standards:

Well ID	Contaminant	Concentration (µg/L)	US EPA MCL (µg/L)	NC 2L (µg/L)	Calculated Health-based Concentration (µg/L)
ND18019-003	Carbon tetrachloride	0.99	5	**	**
	Tetrachloroethene	6.3	5	**	**

** Not Applicable
µg/L= Micrograms of contaminant per liter of water.

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **AF-1**
Date Sampled: **04/17/2012 1115**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/27/2012 1022	AAC		83538

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	**56-23-5**	**8260B**	**0.99**		**0.50**	**ug/L**	**1**
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**6.4**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **AF-1**
Date Sampled: **04/17/2012 1115**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/27/2012 1022	AAC		83538

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
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H = Out of holding time
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Aberdeen Florist - NONCD000xxxx

Well Address	Sample Date	Sample By	Well ID#	PCE 2L= 0 7 MCL= 5 RAL= 100	TCE 2L= 3 MCL= 5 RAL= 8	1,4-Dioxane 2L= 3 MCL= RAL= 611	Chloroform 2L= 70 MCL= 80 RAL= 100	1,1-DCA 2L= 6 MCL= RAL= 242	1,2-DCA 2L= 0 4 MCL= RAL=	1,1-DCE 2L= 7 MCL= 7 RAL= 7	cis-1,1-DCE 2L= 6 MCL= RAL= 242	Carbon Tetrachloride 2L= 0 3 MCL= 5 RAL=	HRE Sent	Comments
500 S Sandhills Rd (Aberdeen Florist)	[redacted]	BAF	AF-1	[redacted]								0.99		

Notes
All units in ug/l (ppb)
Above MDL Limit =
Above 2L Limit =
Above MCL Limit =
Above RAL =
Chloroform Below 2L =
HRE Sent =
*=Sample collected after filter system
(T) or (t) = Total

[redacted]
[redacted]
[redacted]
BOLD
[redacted]

1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
Chloromethane (AKA - Methyl Chloride)
PCE = Tetrachloroethene
TCE = Trichloroethene

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

NCDENR - DWM - DSCA
401 Oberlin Rd
Suite 210
Raleigh, NC 27605
Attention: Vincent Antrilli

Project Name: **Rogers Rd - Aberdeen Florist**

Project Number: **NONCD0002857**

Lot Number: **ND18019**

Date Completed: **05/01/2012**

N. Saikaly

Nisreen Saikaly
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

Case Narrative
NCDENR - DWM - DSCA
Lot Number: ND18019

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Compounds

Trip blank sample -001 has a detection for Toluene The associated sample results were non-detect, therefore the results were reported and no corrective action was required.

SHEALY ENVIRONMENTAL SERVICES, INC.

Sample Summary
NCDENR - DWM - DSCA
Lot Number: ND18019

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Trip Blank	Aqueous	04/17/2012	04/18/2012
002	RR-1	Aqueous	04/17/2012 0915	04/18/2012
003	AF-1	Aqueous	04/17/2012 1115	04/18/2012

(3 samples)

Executive Summary
NCDENR - DWM - DSCA
Lot Number: ND18019

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	Trip Blank	Aqueous	Toluene	8260B	0.67		ug/L	6
003	AF-1	Aqueous	Carbon tetrachloride	8260B	0.99		ug/L	12
003	AF-1	Aqueous	Tetrachloroethene	8260B	6.4		ug/L	12

(3 detections)

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **04/17/2012**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso)	1	04/26/2012 1605	DLB		83483

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND		3.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	40-170

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* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **04/17/2012**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/30/2012 1504	AAC		83643

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0 50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0 50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0 50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	**108-88-3**	**8260B**	**0.67**		**0.50**	**ug/L**	**1**
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **Trip Blank**
Date Sampled: **04/17/2012**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-001**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/30/2012 1504	AAC		83643

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **RR-1**
Date Sampled: **04/17/2012 0915**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/27/2012 0958	AAC		83538

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		0.50	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0 50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		0.50	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		0.50	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		0.50	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		0.50	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **RR-1**
Date Sampled: **04/17/2012 0915**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/27/2012 0958	AAC		83538

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		100	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Organochlorine Pesticides by GC

Client: **NCDENR - DWM - DSCA**
Description: **RR-1**
Date Sampled: **04/17/2012 0915**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8081B	1	04/28/2012 0037	NCM	04/19/2012 1055	82877

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aldrin	309-00-2	8081B	ND		0.026	ug/L	1
alpha-BHC	319-84-6	8081B	ND		0.026	ug/L	1
beta-BHC	319-85-7	8081B	ND		0 026	ug/L	1
delta-BHC	319-86-8	8081B	ND		0.026	ug/L	1
gamma-BHC (Lindane)	58-89-9	8081B	ND		0.026	ug/L	1
alpha-Chlordane	5103-71-9	8081B	ND		0.026	ug/L	1
gamma-Chlordane	5103-74-2	8081B	ND		0.026	ug/L	1
4,4'-DDD	72-54-8	8081B	ND		0.026	ug/L	1
4,4'-DDE	72-55-9	8081B	ND		0.026	ug/L	1
4,4'-DDT	50-29-3	8081B	ND		0 026	ug/L	1
Dieldrin	60-57-1	8081B	ND		0.026	ug/L	1
Endosulfan I	959-98-8	8081B	ND		0.026	ug/L	1
Endosulfan II	33213-65-9	8081B	ND		0.026	ug/L	1
Endosulfan sulfate	1031-07-8	8081B	ND		0.026	ug/L	1
Endrin	72-20-8	8081B	ND		0.026	ug/L	1
Endrin aldehyde	7421-93-4	8081B	ND		0.026	ug/L	1
Endrin ketone	53494-70-5	8081B	ND		0.026	ug/L	1
Heptachlor	76-44-8	8081B	ND		0.026	ug/L	1
Heptachlor epoxide	1024-57-3	8081B	ND		0.026	ug/L	1
Methoxychlor	72-43-5	8081B	ND		0.10	ug/L	1
Toxaphene	8001-35-2	8081B	ND		0.26	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Decachlorobiphenyl		97	20-131
Tetrachloro-m-xylene		96	26-132

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
* = Reportable result (only when report all runs)
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria

Volatile Organic Compounds by GC/MS (SIM with isotope dilution)

Client: **NCDENR - DWM - DSCA**
Description: **AF-1**
Date Sampled: **04/17/2012 1115**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B (SIM iso.)	1	04/27/2012 1153	DLB		83557

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	123-91-1	8260B (SIM iso.)	ND		3.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		135	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

H = Out of holding time
N = Recovery is out of criteria

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Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **AF-1**
Date Sampled: **04/17/2012 1115**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/27/2012 1022	AAC		83538

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		10	ug/L	1
Benzene	71-43-2	8260B	ND		0.50	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		0.50	ug/L	1
Bromoform	75-25-2	8260B	ND		0.50	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		0.50	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		0.50	ug/L	1
Carbon tetrachloride	**56-23-5**	**8260B**	**0.99**		**0.50**	**ug/L**	**1**
Chlorobenzene	108-90-7	8260B	ND		0.50	ug/L	1
Chloroethane	75-00-3	8260B	ND		0.50	ug/L	1
Chloroform	67-66-3	8260B	ND		0.50	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		0.50	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		0.50	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		0.50	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		0.50	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		0.50	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		0.50	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		0.50	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		0.50	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		0.50	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		0.50	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		0.50	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		0.50	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		0.50	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		0.50	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		0.50	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		0.50	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0 50	ug/L	1
2-Hexanone	591-78-6	8260B	ND		0.50	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	ug/L	1
Methyl acetate	79-20-9	8260B	ND		0.50	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		0.50	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		10	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		0.50	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		0.50	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**6.4**		**0.50**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		0.50	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		0.50	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		0.50	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		0.50	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **AF-1**
Date Sampled: **04/17/2012 1115**
Date Received: **04/18/2012**

Laboratory ID: **ND18019-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	04/27/2012 1022	AAC		83538

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Trichloroethene	79-01-6	8260B	ND		0.50	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		0.50	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		0.50	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		112	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)
H = Out of holding time
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

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QC Summary

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: NQ83483-001
Batch: 83483
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	ug/L	04/26/2012 1041

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		109	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: NQ83483-002
Batch: 83483
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	48		1	96	43-173	04/26/2012 0933

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		86	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCSD

Sample ID: NQ83483-003
Batch: 83483
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,4-Dioxane	50	46		1	93	3.6	43-173	20	04/26/2012 0956

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		73	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ83538-001
Batch: 83538
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	04/27/2012 0908
Benzene	ND		1	0.50	ug/L	04/27/2012 0908
Bromodichloromethane	ND		1	0.50	ug/L	04/27/2012 0908
Bromoform	ND		1	0.50	ug/L	04/27/2012 0908
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	04/27/2012 0908
2-Butanone (MEK)	ND		1	10	ug/L	04/27/2012 0908
Carbon disulfide	ND		1	0 50	ug/L	04/27/2012 0908
Carbon tetrachloride	ND		1	0.50	ug/L	04/27/2012 0908
Chlorobenzene	ND		1	0.50	ug/L	04/27/2012 0908
Chloroethane	ND		1	0.50	ug/L	04/27/2012 0908
Chloroform	ND		1	0.50	ug/L	04/27/2012 0908
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	04/27/2012 0908
Cyclohexane	ND		1	0.50	ug/L	04/27/2012 0908
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	04/27/2012 0908
Dibromochloromethane	ND		1	0.50	ug/L	04/27/2012 0908
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	04/27/2012 0908
1,2-Dichlorobenzene	ND		1	0.50	ug/L	04/27/2012 0908
1,3-Dichlorobenzene	ND		1	0.50	ug/L	04/27/2012 0908
1,4-Dichlorobenzene	ND		1	0.50	ug/L	04/27/2012 0908
Dichlorodifluoromethane	ND		1	0.50	ug/L	04/27/2012 0908
1,2-Dichloroethane	ND		1	0.50	ug/L	04/27/2012 0908
1,1-Dichloroethane	ND		1	0.50	ug/L	04/27/2012 0908
1,1-Dichloroethene	ND		1	0.50	ug/L	04/27/2012 0908
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	04/27/2012 0908
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	04/27/2012 0908
1,2-Dichloropropane	ND		1	0.50	ug/L	04/27/2012 0908
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	04/27/2012 0908
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	04/27/2012 0908
Ethylbenzene	ND		1	0.50	ug/L	04/27/2012 0908
2-Hexanone	ND		1	10	ug/L	04/27/2012 0908
Isopropylbenzene	ND		1	0.50	ug/L	04/27/2012 0908
Methyl acetate	ND		1	1.0	ug/L	04/27/2012 0908
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	04/27/2012 0908
4-Methyl-2-pentanone	ND		1	10	ug/L	04/27/2012 0908
Methylcyclohexane	ND		1	5.0	ug/L	04/27/2012 0908
Methylene chloride	ND		1	0.50	ug/L	04/27/2012 0908
Styrene	ND		1	0.50	ug/L	04/27/2012 0908
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	04/27/2012 0908
Tetrachloroethene	ND		1	0.50	ug/L	04/27/2012 0908
Toluene	ND		1	0.50	ug/L	04/27/2012 0908
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	04/27/2012 0908
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	04/27/2012 0908
1,1,2-Trichloroethane	ND		1	0.50	ug/L	04/27/2012 0908
1,1,1-Trichloroethane	ND		1	0.50	ug/L	04/27/2012 0908

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ83538-001
Batch: 83538
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	04/27/2012 0908
Trichlorofluoromethane	ND		1	0.50	ug/L	04/27/2012 0908
Vinyl chloride	ND		1	0.50	ug/L	04/27/2012 0908
Xylenes (total)	ND		1	0.50	ug/L	04/27/2012 0908

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ83538-002
Batch: 83538
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	118	46-153	04/27/2012 0735
Benzene	50	50		1	101	70-130	04/27/2012 0735
Bromodichloromethane	50	54		1	108	70-130	04/27/2012 0735
Bromoform	50	53		1	107	70-130	04/27/2012 0735
Bromomethane (Methyl bromide)	50	44		1	87	60-140	04/27/2012 0735
2-Butanone (MEK)	100	110		1	105	60-140	04/27/2012 0735
Carbon disulfide	50	59		1	119	60-140	04/27/2012 0735
Carbon tetrachloride	50	54		1	107	70-130	04/27/2012 0735
Chlorobenzene	50	50		1	100	70-130	04/27/2012 0735
Chloroethane	50	45		1	91	42-163	04/27/2012 0735
Chloroform	50	53		1	107	70-130	04/27/2012 0735
Chloromethane (Methyl chloride)	50	49		1	98	20-158	04/27/2012 0735
Cyclohexane	50	54		1	107	70-130	04/27/2012 0735
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	101	70-130	04/27/2012 0735
Dibromochloromethane	50	51		1	103	70-130	04/27/2012 0735
1,2-Dibromoethane (EDB)	50	57		1	114	70-130	04/27/2012 0735
1,2-Dichlorobenzene	50	52		1	104	70-130	04/27/2012 0735
1,3-Dichlorobenzene	50	52		1	104	70-130	04/27/2012 0735
1,4-Dichlorobenzene	50	51		1	102	70-130	04/27/2012 0735
Dichlorodifluoromethane	50	39		1	79	60-140	04/27/2012 0735
1,2-Dichloroethane	50	50		1	100	70-130	04/27/2012 0735
1,1-Dichloroethane	50	49		1	99	70-130	04/27/2012 0735
1,1-Dichloroethene	50	52		1	104	70-130	04/27/2012 0735
cis-1,2-Dichloroethene	50	51		1	103	70-130	04/27/2012 0735
trans-1,2-Dichloroethene	50	52		1	104	70-130	04/27/2012 0735
1,2-Dichloropropane	50	52		1	103	70-130	04/27/2012 0735
trans-1,3-Dichloropropene	50	54		1	108	70-130	04/27/2012 0735
cis-1,3-Dichloropropene	50	55		1	111	70-130	04/27/2012 0735
Ethylbenzene	50	53		1	106	70-130	04/27/2012 0735
2-Hexanone	100	120		1	118	60-140	04/27/2012 0735
Isopropylbenzene	50	55		1	110	70-130	04/27/2012 0735
Methyl acetate	50	52		1	103	15-128	04/27/2012 0735
Methyl tertiary butyl ether (MTBE)	50	55		1	110	70-130	04/27/2012 0735
4-Methyl-2-pentanone	100	120		1	120	60-140	04/27/2012 0735
Methylcyclohexane	50	56		1	112	70-130	04/27/2012 0735
Methylene chloride	50	51		1	101	70-130	04/27/2012 0735
Styrene	50	54		1	107	70-130	04/27/2012 0735
1,1,2,2-Tetrachloroethane	50	59		1	119	70-130	04/27/2012 0735
Tetrachloroethene	50	51		1	102	70-130	04/27/2012 0735
Toluene	50	50		1	100	70-130	04/27/2012 0735
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	04/27/2012 0735
1,2,4-Trichlorobenzene	50	49		1	99	70-130	04/27/2012 0735
1,1,2-Trichloroethane	50	54		1	108	70-130	04/27/2012 0735
1,1,1-Trichloroethane	50	54		1	108	70-130	04/27/2012 0735

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ83538-002
Batch: 83538
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	51		1	102	70-130	04/27/2012 0735
Trichlorofluoromethane	50	45		1	90	60-140	04/27/2012 0735
Vinyl chloride	50	46		1	93	60-140	04/27/2012 0735
Xylenes (total)	100	110		1	109	70-130	04/27/2012 0735

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ83538-003
Batch: 83538
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	119	1.4	46-153	20	04/27/2012 0758
Benzene	50	51		1	102	0.86	70-130	20	04/27/2012 0758
Bromodichloromethane	50	57		1	114	5.5	70-130	20	04/27/2012 0758
Bromoform	50	55		1	110	3.0	70-130	20	04/27/2012 0758
Bromomethane (Methyl bromide)	50	50		1	100	14	60-140	20	04/27/2012 0758
2-Butanone (MEK)	100	100		1	104	1.4	60-140	20	04/27/2012 0758
Carbon disulfide	50	64		1	128	7.9	60-140	20	04/27/2012 0758
Carbon tetrachloride	50	55		1	109	1.6	70-130	20	04/27/2012 0758
Chlorobenzene	50	50		1	101	0.13	70-130	20	04/27/2012 0758
Chloroethane	50	51		1	102	12	42-163	20	04/27/2012 0758
Chloroform	50	56		1	112	4.9	70-130	20	04/27/2012 0758
Chloromethane (Methyl chloride)	50	54		1	108	10	20-158	20	04/27/2012 0758
Cyclohexane	50	53		1	107	0.19	70-130	20	04/27/2012 0758
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	4.9	70-130	20	04/27/2012 0758
Dibromochloromethane	50	50		1	100	2.5	70-130	20	04/27/2012 0758
1,2-Dibromoethane (EDB)	50	55		1	109	4.2	70-130	20	04/27/2012 0758
1,2-Dichlorobenzene	50	51		1	101	2.6	70-130	20	04/27/2012 0758
1,3-Dichlorobenzene	50	53		1	107	2.6	70-130	20	04/27/2012 0758
1,4-Dichlorobenzene	50	50		1	100	1.4	70-130	20	04/27/2012 0758
Dichlorodifluoromethane	50	43		1	85	8.3	60-140	20	04/27/2012 0758
1,2-Dichloroethane	50	51		1	102	2.2	70-130	20	04/27/2012 0758
1,1-Dichloroethane	50	54		1	108	8.8	70-130	20	04/27/2012 0758
1,1-Dichloroethene	50	56		1	113	8.6	70-130	20	04/27/2012 0758
cis-1,2-Dichloroethene	50	56		1	112	8.3	70-130	20	04/27/2012 0758
trans-1,2-Dichloroethene	50	56		1	112	7.9	70-130	20	04/27/2012 0758
1,2-Dichloropropane	50	53		1	105	1.9	70-130	20	04/27/2012 0758
trans-1,3-Dichloropropene	50	52		1	104	4.0	70-130	20	04/27/2012 0758
cis-1,3-Dichloropropene	50	54		1	108	2.5	70-130	20	04/27/2012 0758
Ethylbenzene	50	53		1	106	0.055	70-130	20	04/27/2012 0758
2-Hexanone	100	110		1	110	6.6	60-140	20	04/27/2012 0758
Isopropylbenzene	50	56		1	112	1.6	70-130	20	04/27/2012 0758
Methyl acetate	50	53		1	105	1.5	15-128	20	04/27/2012 0758
Methyl tertiary butyl ether (MTBE)	50	58		1	117	6.2	70-130	20	04/27/2012 0758
4-Methyl-2-pentanone	100	110		1	115	4.4	60-140	20	04/27/2012 0758
Methylcyclohexane	50	57		1	113	0.98	70-130	20	04/27/2012 0758
Methylene chloride	50	55		1	110	8.1	70-130	20	04/27/2012 0758
Styrene	50	56		1	111	3.3	70-130	20	04/27/2012 0758
1,1,2,2-Tetrachloroethane	50	57		1	114	4.6	70-130	20	04/27/2012 0758
Tetrachloroethene	50	51		1	102	0.11	70-130	20	04/27/2012 0758
Toluene	50	50		1	100	0.17	70-130	20	04/27/2012 0758
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	117	9.9	70-130	20	04/27/2012 0758
1,2,4-Trichlorobenzene	50	49		1	97	1.8	70-130	20	04/27/2012 0758
1,1,2-Trichloroethane	50	52		1	105	2.9	70-130	20	04/27/2012 0758
1,1,1-Trichloroethane	50	55		1	110	2.2	70-130	20	04/27/2012 0758

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ83538-003
Batch: 83538
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	51		1	103	1.1	70-130	20	04/27/2012 0758
Trichlorofluoromethane	50	50		1	99	9.6	60-140	20	04/27/2012 0758
Vinyl chloride	50	50		1	100	7 6	60-140	20	04/27/2012 0758
Xylenes (total)	100	110		1	112	2.4	70-130	20	04/27/2012 0758

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - MB

Sample ID: NQ83557-001
Batch: 83557
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
1,4-Dioxane	ND		1	3.0	ug/L	04/27/2012 1014

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		116	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCS

Sample ID: NQ83557-002
Batch: 83557
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,4-Dioxane	50	48		1	96	43-173	04/27/2012 0928

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS (SIM with isotope dilution) - LCSD

Sample ID: NQ83557-003
Batch: 83557
Analytical Method: 8260B (SIM iso.)

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,4-Dioxane	50	44		1	88	8.0	43-173	20	04/27/2012 0951

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	40-170

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ83643-001
Batch: 83643
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	04/30/2012 0943
Benzene	ND		1	0.50	ug/L	04/30/2012 0943
Bromodichloromethane	ND		1	0.50	ug/L	04/30/2012 0943
Bromoform	ND		1	0.50	ug/L	04/30/2012 0943
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	04/30/2012 0943
2-Butanone (MEK)	ND		1	10	ug/L	04/30/2012 0943
Carbon disulfide	ND		1	0.50	ug/L	04/30/2012 0943
Carbon tetrachloride	ND		1	0.50	ug/L	04/30/2012 0943
Chlorobenzene	ND		1	0.50	ug/L	04/30/2012 0943
Chloroethane	ND		1	0.50	ug/L	04/30/2012 0943
Chloroform	ND		1	0.50	ug/L	04/30/2012 0943
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	04/30/2012 0943
Cyclohexane	ND		1	0.50	ug/L	04/30/2012 0943
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	04/30/2012 0943
Dibromochloromethane	ND		1	0 50	ug/L	04/30/2012 0943
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	04/30/2012 0943
1,2-Dichlorobenzene	ND		1	0.50	ug/L	04/30/2012 0943
1,3-Dichlorobenzene	ND		1	0.50	ug/L	04/30/2012 0943
1,4-Dichlorobenzene	ND		1	0.50	ug/L	04/30/2012 0943
Dichlorodifluoromethane	ND		1	0.50	ug/L	04/30/2012 0943
1,2-Dichloroethane	ND		1	0.50	ug/L	04/30/2012 0943
1,1-Dichloroethane	ND		1	0.50	ug/L	04/30/2012 0943
1,1-Dichloroethene	ND		1	0.50	ug/L	04/30/2012 0943
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	04/30/2012 0943
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	04/30/2012 0943
1,2-Dichloropropane	ND		1	0.50	ug/L	04/30/2012 0943
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	04/30/2012 0943
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	04/30/2012 0943
Ethylbenzene	ND		1	0.50	ug/L	04/30/2012 0943
2-Hexanone	ND		1	10	ug/L	04/30/2012 0943
Isopropylbenzene	ND		1	0.50	ug/L	04/30/2012 0943
Methyl acetate	ND		1	1.0	ug/L	04/30/2012 0943
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	04/30/2012 0943
4-Methyl-2-pentanone	ND		1	10	ug/L	04/30/2012 0943
Methylcyclohexane	ND		1	5.0	ug/L	04/30/2012 0943
Methylene chloride	ND		1	0.50	ug/L	04/30/2012 0943
Styrene	ND		1	0.50	ug/L	04/30/2012 0943
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	04/30/2012 0943
Tetrachloroethene	ND		1	0.50	ug/L	04/30/2012 0943
Toluene	ND		1	0.50	ug/L	04/30/2012 0943
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	04/30/2012 0943
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	04/30/2012 0943
1,1,2-Trichloroethane	ND		1	0 50	ug/L	04/30/2012 0943
1,1,1-Trichloroethane	ND		1	0.50	ug/L	04/30/2012 0943

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: NQ83643-001
Batch: 83643
Analytical Method: 8260B
Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Trichloroethene	ND		1	0.50	ug/L	04/30/2012 0943
Trichlorofluoromethane	ND		1	0.50	ug/L	04/30/2012 0943
Vinyl chloride	ND		1	0.50	ug/L	04/30/2012 0943
Xylenes (total)	ND		1	0.50	ug/L	04/30/2012 0943

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		99	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ83643-002
Batch: 83643
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	125	46-153	04/30/2012 0811
Benzene	50	54		1	108	70-130	04/30/2012 0811
Bromodichloromethane	50	59		1	119	70-130	04/30/2012 0811
Bromoform	50	55		1	110	70-130	04/30/2012 0811
Bromomethane (Methyl bromide)	50	52		1	104	60-140	04/30/2012 0811
2-Butanone (MEK)	100	110		1	112	60-140	04/30/2012 0811
Carbon disulfide	50	71	N	1	142	60-140	04/30/2012 0811
Carbon tetrachloride	50	59		1	118	70-130	04/30/2012 0811
Chlorobenzene	50	53		1	105	70-130	04/30/2012 0811
Chloroethane	50	55		1	111	42-163	04/30/2012 0811
Chloroform	50	60		1	119	70-130	04/30/2012 0811
Chloromethane (Methyl chloride)	50	52		1	105	20-158	04/30/2012 0811
Cyclohexane	50	59		1	119	70-130	04/30/2012 0811
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	70-130	04/30/2012 0811
Dibromochloromethane	50	55		1	111	70-130	04/30/2012 0811
1,2-Dibromoethane (EDB)	50	58		1	117	70-130	04/30/2012 0811
1,2-Dichlorobenzene	50	54		1	108	70-130	04/30/2012 0811
1,3-Dichlorobenzene	50	54		1	109	70-130	04/30/2012 0811
1,4-Dichlorobenzene	50	53		1	107	70-130	04/30/2012 0811
Dichlorodifluoromethane	50	43		1	87	60-140	04/30/2012 0811
1,2-Dichloroethane	50	53		1	106	70-130	04/30/2012 0811
1,1-Dichloroethane	50	58		1	116	70-130	04/30/2012 0811
1,1-Dichloroethene	50	62		1	124	70-130	04/30/2012 0811
cis-1,2-Dichloroethene	50	60		1	120	70-130	04/30/2012 0811
trans-1,2-Dichloroethene	50	61		1	122	70-130	04/30/2012 0811
1,2-Dichloropropane	50	56		1	111	70-130	04/30/2012 0811
trans-1,3-Dichloropropene	50	58		1	115	70-130	04/30/2012 0811
cis-1,3-Dichloropropene	50	61		1	122	70-130	04/30/2012 0811
Ethylbenzene	50	56		1	111	70-130	04/30/2012 0811
2-Hexanone	100	120		1	116	60-140	04/30/2012 0811
Isopropylbenzene	50	58		1	117	70-130	04/30/2012 0811
Methyl acetate	50	56		1	112	15-128	04/30/2012 0811
Methyl tertiary butyl ether (MTBE)	50	61		1	122	70-130	04/30/2012 0811
4-Methyl-2-pentanone	100	120		1	122	60-140	04/30/2012 0811
Methylcyclohexane	50	61		1	121	70-130	04/30/2012 0811
Methylene chloride	50	59		1	118	70-130	04/30/2012 0811
Styrene	50	56		1	111	70-130	04/30/2012 0811
1,1,2,2-Tetrachloroethane	50	60		1	119	70-130	04/30/2012 0811
Tetrachloroethene	50	54		1	108	70-130	04/30/2012 0811
Toluene	50	54		1	109	70-130	04/30/2012 0811
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	64		1	129	70-130	04/30/2012 0811
1,2,4-Trichlorobenzene	50	51		1	102	70-130	04/30/2012 0811
1,1,2-Trichloroethane	50	56		1	112	70-130	04/30/2012 0811
1,1,1-Trichloroethane	50	59		1	117	70-130	04/30/2012 0811

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: NQ83643-002
Batch: 83643
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	55		1	111	70-130	04/30/2012 0811
Trichlorofluoromethane	50	53		1	107	60-140	04/30/2012 0811
Vinyl chloride	50	50		1	101	60-140	04/30/2012 0811
Xylenes (total)	100	110		1	114	70-130	04/30/2012 0811

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		101	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ83643-003
Batch: 83643
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	120		1	122	2.5	46-153	20	04/30/2012 0834
Benzene	50	54		1	108	0.24	70-130	20	04/30/2012 0834
Bromodichloromethane	50	58		1	116	1 9	70-130	20	04/30/2012 0834
Bromoform	50	55		1	109	1.1	70-130	20	04/30/2012 0834
Bromomethane (Methyl bromide)	50	53		1	105	1.5	60-140	20	04/30/2012 0834
2-Butanone (MEK)	100	100		1	104	7.7	60-140	20	04/30/2012 0834
Carbon disulfide	50	73	N	1	145	1 9	60-140	20	04/30/2012 0834
Carbon tetrachloride	50	60		1	120	1.4	70-130	20	04/30/2012 0834
Chlorobenzene	50	53		1	106	0.20	70-130	20	04/30/2012 0834
Chloroethane	50	55		1	110	0.75	42-163	20	04/30/2012 0834
Chloroform	50	60		1	121	1.1	70-130	20	04/30/2012 0834
Chloromethane (Methyl chloride)	50	51		1	102	2.3	20-158	20	04/30/2012 0834
Cyclohexane	50	60		1	121	1.4	70-130	20	04/30/2012 0834
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	97	2.4	70-130	20	04/30/2012 0834
Dibromochloromethane	50	54		1	109	2.1	70-130	20	04/30/2012 0834
1,2-Dibromoethane (EDB)	50	57		1	113	3.0	70-130	20	04/30/2012 0834
1,2-Dichlorobenzene	50	54		1	107	0.59	70-130	20	04/30/2012 0834
1,3-Dichlorobenzene	50	54		1	107	1.3	70-130	20	04/30/2012 0834
1,4-Dichlorobenzene	50	53		1	106	0 80	70-130	20	04/30/2012 0834
Dichlorodifluoromethane	50	46		1	92	6.4	60-140	20	04/30/2012 0834
1,2-Dichloroethane	50	51		1	103	3.1	70-130	20	04/30/2012 0834
1,1-Dichloroethane	50	58		1	117	0.84	70-130	20	04/30/2012 0834
1,1-Dichloroethene	50	64		1	127	2.8	70-130	20	04/30/2012 0834
cis-1,2-Dichloroethene	50	61		1	122	1 8	70-130	20	04/30/2012 0834
trans-1,2-Dichloroethene	50	62		1	123	1.5	70-130	20	04/30/2012 0834
1,2-Dichloropropane	50	55		1	109	1.9	70-130	20	04/30/2012 0834
trans-1,3-Dichloropropene	50	55		1	109	5.4	70-130	20	04/30/2012 0834
cis-1,3-Dichloropropene	50	59		1	118	3.4	70-130	20	04/30/2012 0834
Ethylbenzene	50	56		1	112	0.44	70-130	20	04/30/2012 0834
2-Hexanone	100	110		1	108	7.4	60-140	20	04/30/2012 0834
Isopropylbenzene	50	57		1	114	2.2	70-130	20	04/30/2012 0834
Methyl acetate	50	54		1	107	4.1	15-128	20	04/30/2012 0834
Methyl tertiary butyl ether (MTBE)	50	62		1	123	0.58	70-130	20	04/30/2012 0834
4-Methyl-2-pentanone	100	120		1	115	6.0	60-140	20	04/30/2012 0834
Methylcyclohexane	50	62		1	124	2.4	70-130	20	04/30/2012 0834
Methylene chloride	50	60		1	119	1.4	70-130	20	04/30/2012 0834
Styrene	50	55		1	111	0.61	70-130	20	04/30/2012 0834
1,1,2,2-Tetrachloroethane	50	57		1	113	5.0	70-130	20	04/30/2012 0834
Tetrachloroethene	50	54		1	108	0.65	70-130	20	04/30/2012 0834
Toluene	50	53		1	107	1.8	70-130	20	04/30/2012 0834
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	66	N	1	132	2.4	70-130	20	04/30/2012 0834
1,2,4-Trichlorobenzene	50	51		1	102	0.12	70-130	20	04/30/2012 0834
1,1,2-Trichloroethane	50	55		1	109	2.3	70-130	20	04/30/2012 0834
1,1,1-Trichloroethane	50	59		1	119	1.4	70-130	20	04/30/2012 0834

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: NQ83643-003 **Matrix:** Aqueous
Batch: 83643 **Prep Method:** 5030B
Analytical Method: 8260B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	56		1	112	1.1	70-130	20	04/30/2012 0834
Trichlorofluoromethane	50	55		1	110	3.1	60-140	20	04/30/2012 0834
Vinyl chloride	50	50		1	100	1.1	60-140	20	04/30/2012 0834
Xylenes (total)	100	110		1	114	0.41	70-130	20	04/30/2012 0834

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		98	70-130

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Organochlorine Pesticides by GC - MB

Sample ID: NQ82877-001
Batch: 82877
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 04/19/2012 1055

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
4,4'-DDD	ND		1	0.025	ug/L	04/27/2012 2357
4,4'-DDE	ND		1	0.025	ug/L	04/27/2012 2357
4,4'-DDT	ND		1	0.025	ug/L	04/27/2012 2357
Aldrin	ND		1	0.025	ug/L	04/27/2012 2357
alpha-BHC	ND		1	0.025	ug/L	04/27/2012 2357
alpha-Chlordane	ND		1	0.025	ug/L	04/27/2012 2357
beta-BHC	ND		1	0.025	ug/L	04/27/2012 2357
delta-BHC	ND		1	0.025	ug/L	04/27/2012 2357
Dieldrin	ND		1	0.025	ug/L	04/27/2012 2357
Endosulfan I	ND		1	0.025	ug/L	04/27/2012 2357
Endosulfan II	ND		1	0.025	ug/L	04/27/2012 2357
Endosulfan sulfate	ND		1	0.025	ug/L	04/27/2012 2357
Endrin	ND		1	0.025	ug/L	04/27/2012 2357
Endrin aldehyde	ND		1	0.025	ug/L	04/27/2012 2357
Endrin ketone	ND		1	0.025	ug/L	04/27/2012 2357
gamma-BHC (Lindane)	ND		1	0.025	ug/L	04/27/2012 2357
gamma-Chlordane	ND		1	0.025	ug/L	04/27/2012 2357
Heptachlor	ND		1	0.025	ug/L	04/27/2012 2357
Heptachlor epoxide	ND		1	0.025	ug/L	04/27/2012 2357
Methoxychlor	ND		1	0.10	ug/L	04/27/2012 2357
Toxaphene	ND		1	0.25	ug/L	04/27/2012 2357

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		76	20-131
Tetrachloro-m-xylene		96	26-132

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Organochlorine Pesticides by GC - LCS

Sample ID: NQ82877-002 **Matrix:** Aqueous
Batch: 82877 **Prep Method:** 3520C
Analytical Method: 8081B **Prep Date:** 04/19/2012 1055

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
4,4'-DDD	0.50	0.58		1	116	70-130	04/28/2012 0017
4,4'-DDE	0.50	0.59		1	117	70-130	04/28/2012 0017
4,4'-DDT	0 50	0 55		1	110	70-130	04/28/2012 0017
Aldrin	0.50	0.62		1	125	70-130	04/28/2012 0017
alpha-BHC	0.50	0.57		1	115	70-130	04/28/2012 0017
beta-BHC	0.50	0.58		1	117	70-130	04/28/2012 0017
delta-BHC	0.50	0.57		1	114	70-130	04/28/2012 0017
Dieldrin	0.50	0.59		1	118	70-130	04/28/2012 0017
Endosulfan I	0.50	0.56		1	112	70-130	04/28/2012 0017
Endosulfan II	0.50	0.56		1	112	70-130	04/28/2012 0017
Endosulfan sulfate	0.50	0.54		1	109	70-130	04/28/2012 0017
Endrin	0.50	0.63		1	127	70-130	04/28/2012 0017
Endrin aldehyde	0.50	0 52		1	103	70-130	04/28/2012 0017
gamma-BHC (Lindane)	0.50	0.62		1	125	70-130	04/28/2012 0017
gamma-Chlordane	0.50	0.64		1	128	70-130	04/28/2012 0017
Heptachlor	0 50	0.58		1	115	70-130	04/28/2012 0017
Heptachlor epoxide	0.50	0.56		1	112	70-130	04/28/2012 0017
Methoxychlor	0.50	0.53		1	107	70-130	04/28/2012 0017

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		66	20-131
Tetrachloro-m-xylene		100	26-132

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Organochlorine Pesticides by GC - MS

Sample ID: ND18019-002MS
Batch: 82877
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 04/19/2012 1055

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aldrin	ND	1.0	1.2		1	124	70-130	04/28/2012 0057
alpha-BHC	ND	1.0	1.1		1	113	70-130	04/28/2012 0057
beta-BHC	ND	1.0	1.2		1	117	70-130	04/28/2012 0057
delta-BHC	ND	1.0	1.1		1	115	70-130	04/28/2012 0057
gamma-BHC (Lindane)	ND	1.0	1.2		1	124	70-130	04/28/2012 0057
gamma-Chlordane	ND	1.0	1.3		1	129	70-130	04/28/2012 0057
4,4'-DDD	ND	1.0	1.2		1	117	70-130	04/28/2012 0057
4,4'-DDE	ND	1.0	1.2		1	118	70-130	04/28/2012 0057
4,4'-DDT	ND	1.0	1.1		1	110	70-130	04/28/2012 0057
Dieldrin	ND	1.0	1.2		1	119	70-130	04/28/2012 0057
Endosulfan I	ND	1.0	1 1		1	113	70-130	04/28/2012 0057
Endosulfan II	ND	1.0	1.1		1	111	70-130	04/28/2012 0057
Endosulfan sulfate	ND	1.0	1.1		1	110	70-130	04/28/2012 0057
Endrin	ND	1.0	1 3		1	127	70-130	04/28/2012 0057
Endrin aldehyde	ND	1.0	1.1		1	106	70-130	04/28/2012 0057
Heptachlor	ND	1.0	1.1		1	113	70-130	04/28/2012 0057
Heptachlor epoxide	ND	1.0	1.1		1	112	70-130	04/28/2012 0057
Methoxychlor	ND	1.0	1.1		1	107	70-130	04/28/2012 0057

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		90	20-131
Tetrachloro-m-xylene		97	26-132

PQL = Practical quantitation limit
ND = Not detected at or above the PQL
P = The RPD between two GC columns exceeds 40%
J = Estimated result < PQL and ≥ MDL
N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Organochlorine Pesticides by GC - MSD

Sample ID: ND18019-002MD
Batch: 82877
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 04/19/2012 1055

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Aldrin	ND	1.0	1 2		1	122	0.18	70-130	30	04/28/2012 0117
alpha-BHC	ND	1.0	1.1		1	112	0.82	70-130	30	04/28/2012 0117
beta-BHC	ND	1.0	1.2		1	117	2.4	70-130	30	04/28/2012 0117
delta-BHC	ND	1.0	1.2		1	115	2.0	70-130	30	04/28/2012 0117
gamma-BHC (Lindane)	ND	1.0	1.3		1	124	1.7	70-130	30	04/28/2012 0117
gamma-Chlordane	ND	1.0	1.3		1	129	1.8	70-130	30	04/28/2012 0117
4,4'-DDD	ND	1.0	1.2		1	116	1.2	70-130	30	04/28/2012 0117
4,4'-DDE	ND	1.0	1.2		1	118	1 8	70-130	30	04/28/2012 0117
4,4'-DDT	ND	1.0	1 1		1	111	2.2	70-130	30	04/28/2012 0117
Dieldrin	ND	1.0	1.2		1	118	1.8	70-130	30	04/28/2012 0117
Endosulfan I	ND	1.0	1.1		1	112	1 7	70-130	30	04/28/2012 0117
Endosulfan II	ND	1.0	1.1		1	111	1.7	70-130	30	04/28/2012 0117
Endosulfan sulfate	ND	1.0	1.1		1	111	2.2	70-130	30	04/28/2012 0117
Endrin	ND	1.0	1.2		1	120	4.1	70-130	30	04/28/2012 0117
Endrin aldehyde	ND	1.0	1.1		1	107	3.1	70-130	30	04/28/2012 0117
Heptachlor	ND	1.0	1.2		1	113	2.1	70-130	30	04/28/2012 0117
Heptachlor epoxide	ND	1.0	1.1		1	112	1.5	70-130	30	04/28/2012 0117
Methoxychlor	ND	1.0	1.1		1	105	0.78	70-130	30	04/28/2012 0117

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		103	20-131
Tetrachloro-m-xylene		92	26-132

PQL = Practical quantitation limit
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N - Recovery is out of criteria
+ - RPD is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172

Chain of Custody Record

Number 11300

NEDENA - Dunn

217 W. Jones St

Raleigh NC 27603

Vincent Antrillo

919-707-4353

Analysis

VOCs

Tip Blank

RR-1

AF-1

Vincent Antrillo Jr

Fedex

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: FA-QA-A1e
Revision Number: 6

Page 1 of 1
Replaces Date: 7/20/11
effective Date: 7/20/11

Sample Receipt Checklist (SRC)

Client: NC DENR, DWM Cooler Inspected by/date: [illegible] 4/18/12 Lot #: LD182

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other

Yes ☑	No ☐		1. Were custody seals present on the cooler?
Yes ☐	No ☐		2. If custody seals were present, were they intact and unbroken?

Cooler ID/temperature upon receipt: 5.7 °C / °C / °C / °C
Method: ☑ Temperature Blank ☐ Against Bottles
Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None

If response is No (or Yes for 14, 15, 16), an explanation/resolution must be provided.

Yes ☐	No ☐	NA ☒	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by: SRC, phone, note (circle one), other: _____ (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☒	No ☐	NA ☐	4. Is the commercial courier's packing slip attached to this form?
Yes ☐	No ☒		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☐	5a. Were samples relinquished by client to commercial courier?
Yes ☒	No ☐		6. Were sample IDs listed?
Yes ☒	No ☐		7. Was collection date & time listed?
Yes ☒	No ☐		8. Were tests to be performed listed on the COC?
Yes ☒	No ☐		9. Did all samples arrive in the proper containers for each test?
Yes ☒	No ☐		10. Did all container label information (ID, date, time) agree with COC?
Yes ☒	No ☐		11. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☒	No ☐		12. Was adequate sample volume available?
Yes ☒	No ☐		13. Were all samples received within the holding time or <8 hours, whichever comes first?
Yes ☐	No ☒		14. Were any samples containers missing?
Yes ☐	No ☒		15. Were there any excess samples not listed on COC?
Yes ☒	No ☐	NA ☐	16. Were bubbles present >"pea-size" (1/4" or 6 mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☒	17. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☒	18. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☒	19. Were all applicable NH3/TKN/cyanide/phenol/BNA/pest/PCB/herb (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☒	NA ☐	20. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☒	21. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4, HNO3, HCl, NaOH) with the SR # number(s).

Sample(s) #'s 2 were received with bubbles >6 mm in diameter.

Sample(s) _____ were received with TRC >0.2 mg/L for NH3, TKN, cyanide, BNA, pest, PCB, herb.

Corrective Action taken, if necessary:

Was client notified: Yes ☐ No ☐ Did client respond? Yes ☐ No ☐
SESI employee: _____ Date of response: _____
Comments: _____

SITE HEALTH AND SAFETY PLAN

A. General Information

Site Name Aberdeen Florist ID # NONCD0002857

500 S. Sandhills Rd, Aberdeen, Moore County, NC

Proposed Date of Investigation 4/17/12 to 5/17/12

Date of Briefing 4/12/12

Date of Debriefing 5/17/12

Nature of Visit (check one):

On-Site Reconnaissance	
Off-Site Reconnaissance	
Sampling	X
Sampling Overview	
Remediation Overview	

Health Department Official Contacted James Shackelton

Date of Contact 4/12/12

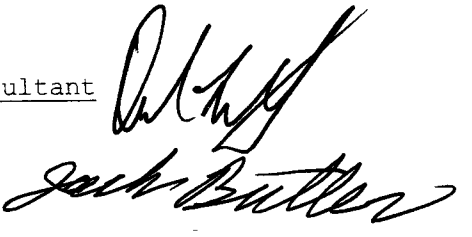
Site Investigation Team: All site personnel have read the Site Health and Safety Plan and are familiar with its provisions.

Personnel	Responsibilities	Signature
Team 1 Vince Antrilli	team leader, sampling	
Team 1 Larry Rose	sampling	

Plan Preparation:

Prepared By: David Lilley, Industrial Hygiene Consultant

Reviewed By: Jack Butler, Superfund Section Chief



B. SITE/WASTE CHARACTERISTICS

Waste Type(s) __X__ Liquid _____ Solid _____ Sludge ____ Gas __X__ Vapor
Characteristics _____ Corrosive _____ Ignitable _____ Radioactive
__X__ Volatile __X__ Toxic _____ Reactive _____ Other

List Known or Suspected Hazards (physical, chemical biological or radioactive) on Site and their toxicological effects. Also, if known, list chemical amounts

HAZARD	WARNING PROPERTIES	EXPOSURE LIMIT
Tetrachloroethene	Odor Threshold (OT) = 1 ppm	25 ppm

UNDERGROUND UTILITIES CHECKLIST

Utility Location	Locator/Contact Person	Phone #	Date of
Power			
Telephone			
Gas			
Water			
Sewer			

Call made by:

ID # NONCD0002857

Facility Description: Size unknown Buildings unknown

Disposal Methods Being Investigated Unknown

Unusual Features on Site (dike integrity, power lines, terrain, etc.):
None known

History of the Site: Detection made while sampling in conjunction with UST site on south side of US 1.

C. HAZARD EVALUATION

The site can be toured in level D protection. Chemically resistant, steel toed work boots will be worn if the potential for surface soil contamination exists.

D. WORK PLAN INSTRUCTION

Map or Sketch Attached? yes
Perimeter Identified? no
Command Post Identified? no
Zones of Contamination Identified? no
Personal Protective Equipment/Level of Protection: _____C __X__D

Modifications Wear goggles, face shield, and PVC gloves while preparing acid preserved samples, goggles and PVC gloves while collecting acid preserved samples. Avoid breathing acid vapors.

ID # NONCD0002857

Surveillance Equipment:

_____ HNU	_____ Detector Tubes and Pumps
_____ OVA	_____ 02 Meter
_____ Explosimeter	_____ Radiation Monitor

Decontamination Procedures

_____Level C Respirator wash, respirator removal, suit wash (if nneeded), suit removal, boot wash, boot removal and glove removal.

___X___Level D Boot wash and rinse and boot removal, suit removal, glove and goggle removal.

Modifications Dispose of trash properly, on-site if possible.

Work Schedule/Visit Objectives The purpose of this visit is to determine if the site poses a threat to the public health or environment because of releases of contaminants to soil, surface water, groundwater, or air. Sampling may consist of groundwater sampling.

EMERGENCY PRECAUTIONS

Route of Exposure	First Aid
Eyes	irrigate immediately
Skin	soap and water wash
Inhalation	fresh air and artificial respiration
Ingestion	get medical attention immediately

ID # NONCD0002857

Location of Nearest Phone: nearby residences

Hospital (Address and Phone Number)

Moore Regional Hospital, P.O. Box 3000, Pinehurst, NC (919) 295-7944

Emergency Transportation Systems (Phone Numbers)

Fire 911

Ambulance 911

Rescue Squad 911

Emergency Route to Hospital see next page

PREVAILING WEATHER CONDITIONS AND FORECAST

EQUIPMENT CHECKLIST

___	Air purifying respirator	X	First Aid Kit
___	Cartridges for respirator	X	3 gal. Deionized H20
X	Eye Wash Unit	X	Rain suit
___	HNU	X	Gloves (PE/PVC/nitrile/cloth)
___	OVA	X	Boots/Boot Covers
___	Explosimeter	X	Coveralls (tyvek/saranex)
___	Radiation Monitor	X	Eye Protection (goggles/shield)
X	Decontamination Materials	X	Hard Hat

STATE POISON CONTROL CENTER
1-800-848-6946

North Carolina OSHA
1-800-LABOR-NC

Please submit the Air Monitoring and Injury Report Form.

mapquest

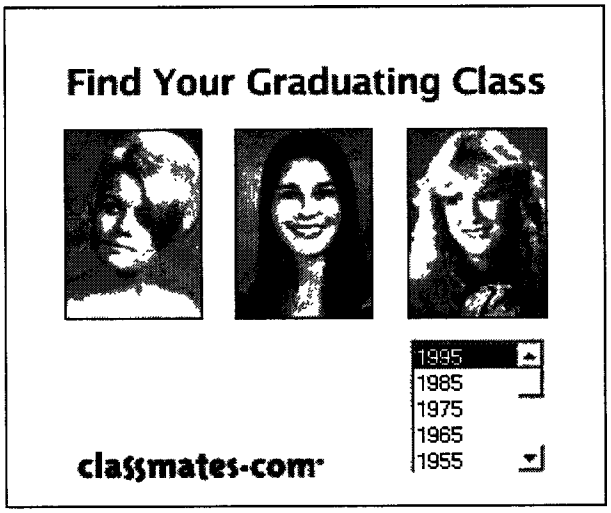
Trip to:

155 Memorial Dr

Pinehurst, NC 28374-8710

6.96 miles / 11 minutes

Notes

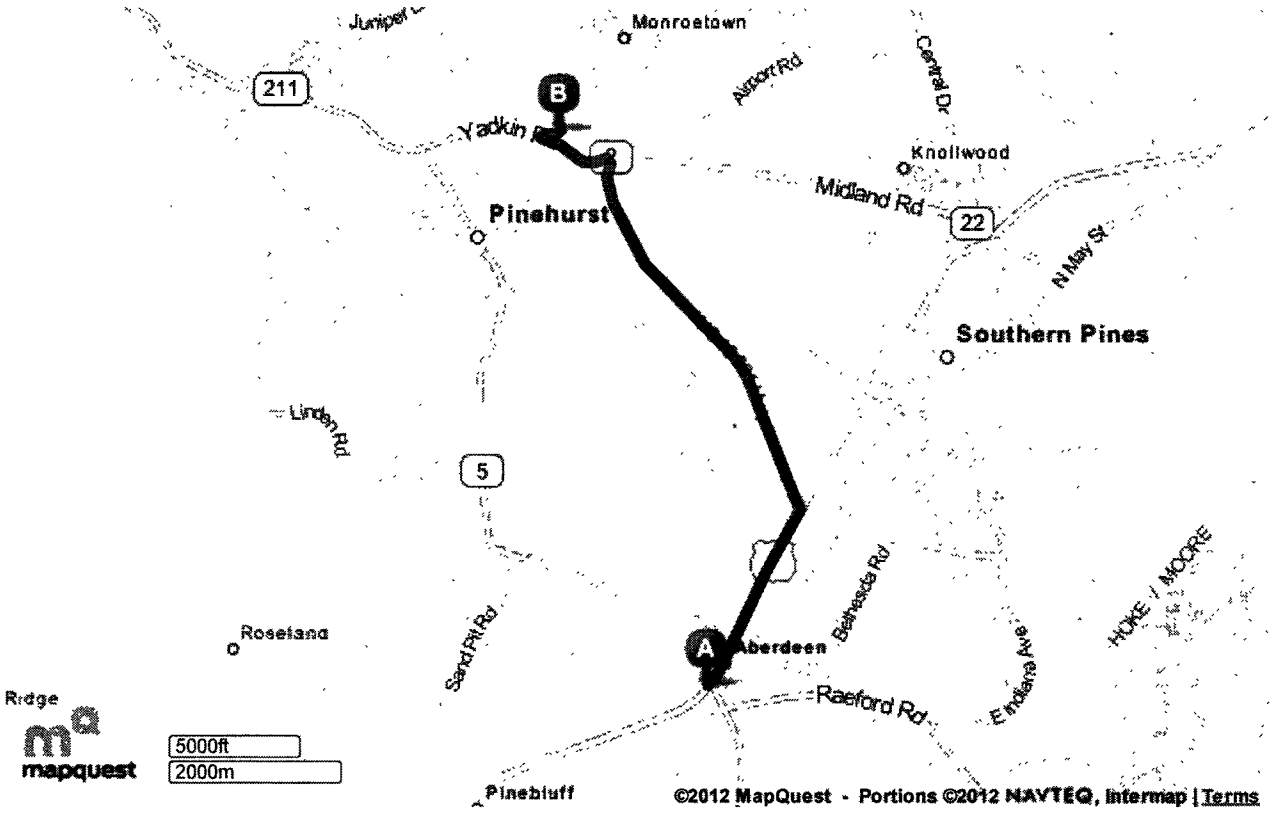


500 S Sandhills Blvd, Aberdeen, NC 28315-1831

1. Start out going **northeast** on **S Sandhills Blvd / US-1** toward **US-15 / US-501 / NC-211**. Map	**1.9 Mi** *1.9 Mi Total*
2. Turn **left** onto **US 15 501 Hwy / US-15 N / US-501 N / NC-211 N**. Map *US 15 501 Hwy is 0.1 miles past Magnolia Dr* *Steve Jones Honda is on the corner* *If you are on N Sandhills Blvd and reach Johnson St you've gone about 0.1 miles too far*	**0.04 Mi** *2.0 Mi Total*
3. Stay **straight** to go onto **US 15 501 Hwy / US-15 N / US-501 N / NC-211 N**. Continue to follow **US-15 N / US-501 N / NC-211 N**. Map	**3.9 Mi** *5.9 Mi Total*
4. Enter next roundabout and take the 3rd exit onto **NC-211 / Yadkin Rd**. Map	**0.9 Mi** *6.7 Mi Total*
5. Turn **right** onto **Memorial Dr**. Map *If you reach Gun Club Dr you've gone about 0.2 miles too far*	**0.2 Mi** *7.0 Mi Total*
6. **155 MEMORIAL DR** is on the **right**. Map *If you reach First Village Dr you've gone a little too far*	

155 Memorial Dr, Pinehurst, NC 28374-8710

Total Travel Estimate: **6.96 miles - about 11 minutes**



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HAZARDOUS SUBSTANCE INFORMATION FORM

Chemical Name: Perchloroethylene

I. PHYSICAL/CHEMICAL PROPERTIES

Reference

Chemical Formula C2 C14 1

Natural Physical State at 25oC liquid 2

Vapor Pressure 14 mm Hg at 20oC 2

Melting Point -2 oF/oC Boiling Point 250 oF/oC 2

Flash Point (open or closed cup) N/A oC/oF 2

Solubility - H_2O 0.015% 2
Other misc with alcohol, ether, chloroform, benzene 1

Physical Features: (odor, color, etc.) colorless liquid with an odor like ether or chloroform IP=9.32 eV (2) OVA Relative Response = 70%

II. TOXICOLOGICAL DATA

Standards: 25 ppm(3)TLV 100 ppm(4)PEL suspect human carcinogen (2)IDLH

Routes of Exposure: Inhalation, Ingestion, Skin and/or Eye Contact (2)

Acute/Chronic Symptoms: Irritation of eyes, nose, and throat, nausea, flushed face and neck, vertigo, dizziness, incoordination, headache, carcinogen (2)

First Aid: Inhalation: artificial respiration; Ingestion: get medical attention immediately; Eye contact: irrigate immediately; Skin contact: soap and water wash immediately.

Chemical Name: Perchloroethylene

III. HAZARDOUS CHARACTERISTICS

		Reference
A.	Combustibility Yes __ No X Toxic by-products	2
B.	Flammability LEL none UEL none	2

C. Reactivity Hazard Incompatible with strong oxidizers, chemically active metals, such as barium, lithium, and beryllium & barium; caustic soda; sodium hydroxide, potash (2)

D. Corrosivity Hazard yes/no pH:

Neutralizing agent:

E. Radioactive Hazard Exposure Rate

Background	yes/no
Alpha particles	yes/no
Beta particles	yes/no
Gamma radiation	yes/no

IV. REFERENCES

1. The Merck Index, 11th Edition, 1989
2. NIOSH Pocket Guide to Chemical Hazards, 1990
3. Threshold Limit Values and Biological Exposure Indices for 2007 ACGIH.
4. 29 CFR 1910.1000, NC PEL

CORVEL

WC Authorization | Physician's Report | Pharmacy Guide

MAILING ADDRESS. P O. Box 77880, Charlotte, NC 28271
800-365-5998 www corvel com

EMPLOYER: Please complete the top section and give to the injured employee to take with them to their authorized treating physician. If you already have transitional duty job descriptions available, please attach a copy for the treating physician's review.

Name of Employee: **Last:**	**First:**
Date of Injury:	
Name of Employer:	
Employer Signature:	Treating Physician:

EMPLOYEE: Please take this form with you to an authorized treating physician. Please have the physician complete the middle section and return this immediately to your employer. The bottom section is for you to show the pharmacist should you need to have any prescriptions filled as prescribed by your authorized treating physician for this work related injury.

AUTHORIZED PHYSICIAN, PLEASE COMPLETE

Diagnosis: _____

A post accident drug test (check one) ( ) **has** been completed ( ) **has not** been completed

In accordance with this patient's physical capability, check all that apply:

( ) May resume work immediately, no restriction.
( ) May resume work immediately with the following restrictions:
- ( ) Sedentary work (sitting, occasional walking, standing, lifting less than 10 pounds)
- ( ) Light work (lifting less than 20 pounds)
- ( ) Medium work (lifting less than 50 pounds)
- ( ) Heavy work (lifting less than 100 pounds)
- ( ) Normal shift
- ( ) Limited hours: ____ hrs, _____hrs, _____hrs per day
- ( ) Other: _____

( ) Repetitive Motion Restrictions (specific to hand/arm injuries):

Frequency	Left	Right
No Use		
Occasional <33% of time		
Frequent 34-66% of time		
Regular 67-100% of time		

( ) Patient may return to work at full duty on (date) _____
( ) Patient has a return appointment on (date) _____at (time) _____

Please indicate any referrals that are required: _____

Physician's Signature	Date	Physician's Name (type or print)

Physician Offices – Be sure to contact CorVel's Claim Department at 800-365-5998 for authorization for the referral.

PHARMACIST: Please use the Injured Worker's **SSN and Date of Injury (SSN+MMDDYYYY)** as their 17 digit Identification Number when entering information to process an online claim to CorVel on behalf of Department of Environmental and Natural Resources injured employees. Pharmacies can contact the **CorVel Customer Service at 800-563-8438 or CVS/Caremark Pharmacy Help Desk at 877-876-7216,** for assistance with claims processing.

DO NOT CHARGE THE PATIENT FOR THE PRESCRIPTION.

CHAIN NAME	CHAIN NAME	CHAIN NAME	CHAIN NAME
Bi-Lo Pharmacy	Horizon Pharmacy	Revco drugs	VIX Pharmacy
Bi-Mart	HyVee Drugtown	Rite-Aid drugs	Walgreen's
Brooks Drugs	J & J Pharmacy	RX Discount Pharmacy	Wal-Mart Pharmacy
Brookshire Brothers	Joel & Jerry's	Sack-n-Save	Wegman Pharmacy
Cub Pharmacy	Kash N Karry	Sav-A-Lot	Winn-Dixie
CVS Drugs	Kerr Drugs	Sams Club Pharmacy	
Drug Emporium	K-mart phcy	Save Mart	
Eckerds(all others)	Long's Phcy	Stop N Shop	
Franck's Pharmacy	Medicine Shoppe	Super D	
Fred Meyer	Medistat Phcy	Super Valu	
Fred's Pharmacy	Milner-Rushing Drugs	Super X (HSI)	
Giant Pharmacy	Pathmark Pharmacy	Tom Thumb Phcy	
Goodings	Perry Drg Str	Tops Pharmacy	
Hannaford Food &	Phar-Mor	Tri Daly Drugs	

Group Number: RXFFWC311
CCRx BIN: 004336
PCN: ADV Rev. 6/10
Dept. of Environ. & Natural Res.

CORVEL

*** All participating pharmacies have not been included on this list. Please have your pharmacy call regarding any questions/ authorizations 800-563-8438.**

Google

Directions to 500 S Sandhills Blvd, Aberdeen, NC 28315
84.5 mi – about **1 hour 52 mins**

A 217 W Jones St, Raleigh, NC 27603

	1. Head **east** on **W Jones St** toward **N McDowell St** About 1 min	go 0.1 mi total 0.1 mi
↱	2. Turn right at the 2nd cross street onto **N Salisbury St** About 4 mins	go 0.9 mi total 1.1 mi
	3. Continue onto **S Wilmington St** About 7 mins	go 2.9 mi total 4.0 mi
401	4. Continue straight onto **US-401 S/Fayetteville Rd** Continue to follow US-401 S About 30 mins	go 26.7 mi total 30.8 mi
↱	5. Turn right onto **N Main St** About 2 mins	go 1.5 mi total 32.2 mi
↱	6. Turn right onto **W Harnett St**	go 397 ft total 32.3 mi
↰	7. Take the 1st left onto **S 8th St**	go 404 ft total 32.4 mi
421	8. Take the 1st right onto **US-421 N/W Front St** Continue to follow US-421 N About 7 mins	go 6.1 mi total 38.5 mi
↰	9. Turn left onto **Community Rd** About 2 mins	go 0.4 mi total 38.9 mi
↱	10. Turn right onto **Old US Hwy 421** About 1 min	go 0.3 mi total 39.2 mi
↰	11. Take the 1st left onto **Rogers Rd** About 1 min	go 0.3 mi total 39.5 mi
		Total: **39.5 mi** – about **56 mins**

B Rogers Rd, Lillington, NC 27546 — total 0.0 mi

	12. Head **north** on **Rogers Rd** toward **Old US Hwy 421**	go 0.3 mi total 0.3 mi
↰	13. Turn left onto **Old US Hwy 421** About 2 mins	go 0.7 mi total 0.9 mi
↱	14. Take the 3rd right onto **Mamers Rd**	go 0.2 mi total 1.1 mi
421	15. Turn left onto **US-421 N** About 15 mins	go 12.4 mi total 13.5 mi
78	16. Turn left onto **N Carolina 78 W/E Main St** Continue to follow N Carolina 78 W About 7 mins	go 4.6 mi total 18.1 mi

About 31 mins

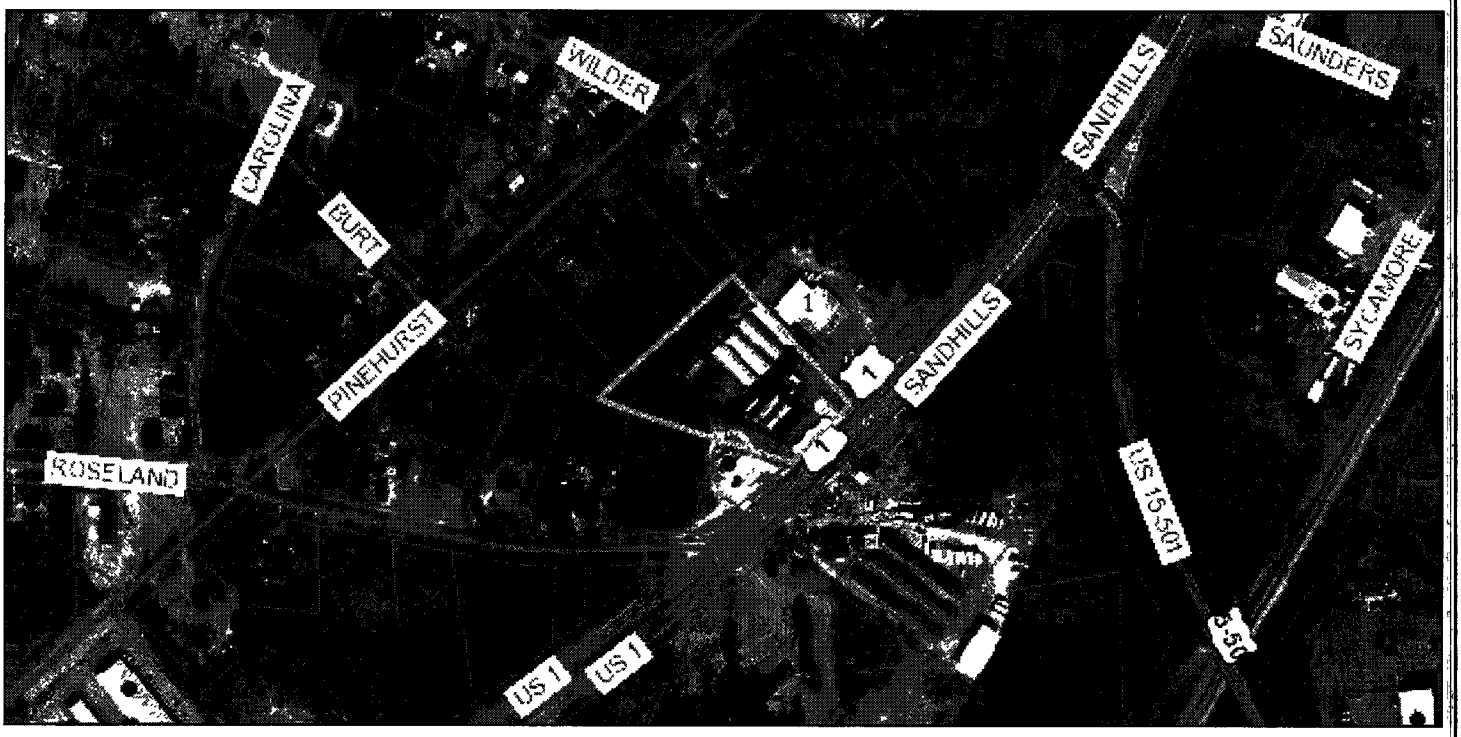
Total: **45.0 mi** – about **56 mins**

500 S Sandhills Blvd, Aberdeen, NC 28315

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2012 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.



Parcels

LRK:	53808	PIN:	857017013649	Total Value:	218530
Owners Name:	ROBERTSON, JANET O	Deed Book:	983	Deed Page:	419
NBHD:	943	New Field:	0	Name:	C/O JANET O PEELE
Township:	09	Prop Description:	LOT 88 90-93 PART LOT 94 95	Stamp Value:	0
Build Value:	73680	Land Value:	144850	Trans Date:	3/1/1994 12:00 AM
Class:	CA	ADDRESS:	PO BOX 366	City:	ABERDEEN
State:	NC	Zip:	28315	Calculated Acres:	1.985
City Code:	AB	Fire District:			

1:407 feet

SAUNDERS
WILDER
CAROLINA
EURT
PINEHURST
SANDHILLS
SANDHILLS
ROSELAND
US 1
US 1
US 15 501
TARRELL
SYCAMORE
PURNEL
SAUNDE
609
503
600
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SAUNDERS
WILDER
CAROLINA
BURT
PINEHURST
SANDHILLS
SANDHILLS
ROSELAND
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US 1
US 15-501
TARBELL
SYCAMORE
PURNELL
SAUNDER
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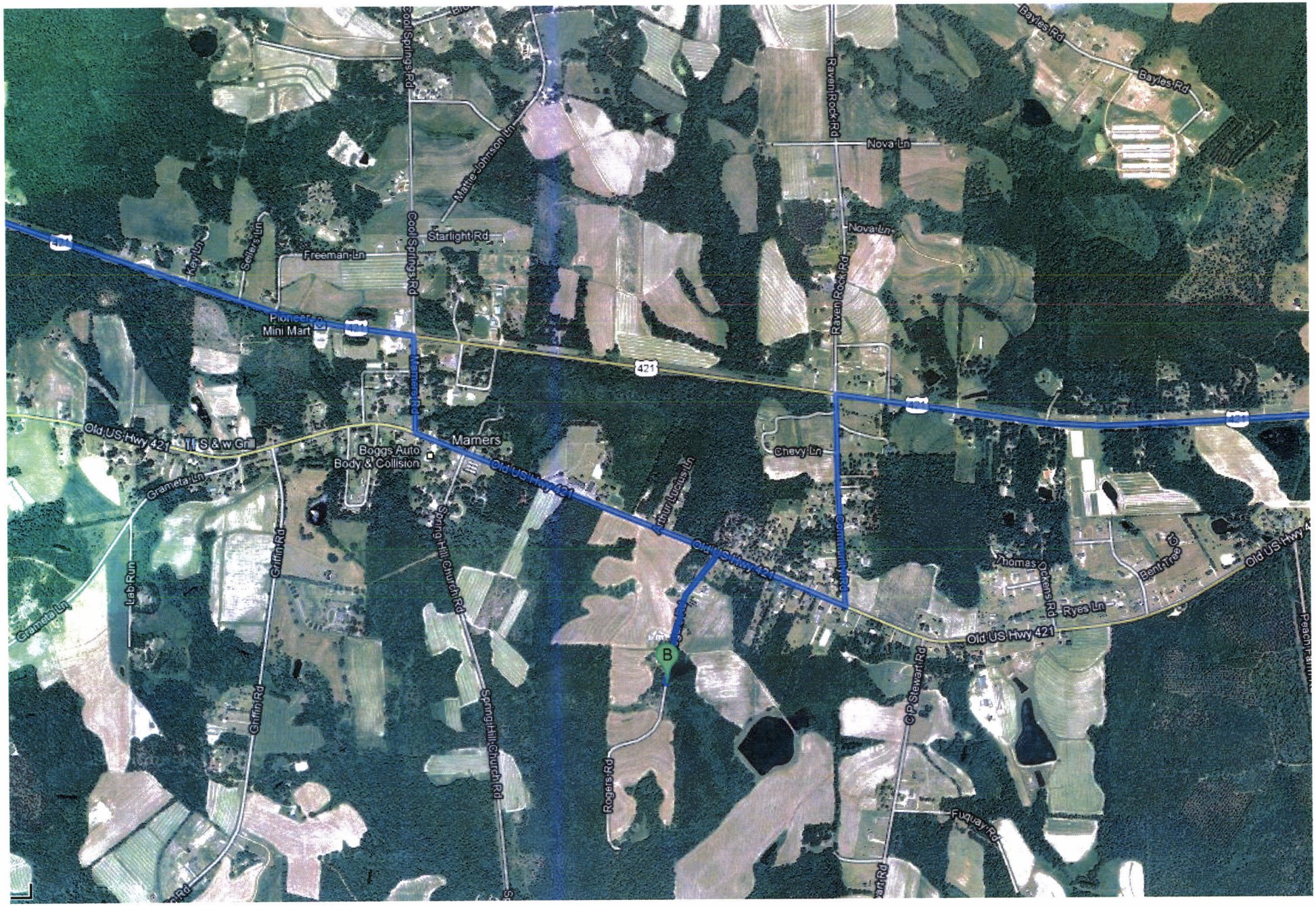
W Cornelius Harnett Blvd
Pine State St
N Main St
Food Lion
Mary Kenyon Pkwy
Riverside Hills Dr
Ridge Run
S River Rd
Parker Ln
E Corn
Oak St
Plum St
Pine St E
W Duncan St
W Edgar St
8th St
S Main St
Fair St
N 14th St
S River Rd
W Garden St
S 10th St
S 1st St
E Duncan St
Hillside Dr
N 16th St
W Harnett St
N 13th St
W Front St
S 9th St
Dogwood Ln
Michigan Dr
Barnes Ave
Short St
Lakeside Dr
W Ivy St
S 12th St
S 13th St
Old US Hwy 421
Lillington
S 11th St
S 8th St
E Front St
E Ivy St
S 2nd St
S 3rd St
N 3rd St
W James St
W Lofton St
1000 ft
200 m


Baylies Rd
Raven Rock Rd
Nova Ln
Cool Spring Rd
Mattie Johnson Ln
Starlight Rd
Freeman Ln
Key Ln
Sellers Ln
Pioneer
Mini Mart
421
Old US Hwy 421
Mamers
Boggs Auto
Body & Collision
Chevy Ln
Grameta Ln
Griffin Rd
Spring Hill Church Rd
Lee Run
Thomas Ockens Rd
Ryes Ln
Old US Hwy 421
B
O P Stewart Rd
Rogers Rd
Fuquay Rd

Lee County High School
S Horner Blvd
Martin St
W Garden St
W McArthur St
Woodland Ave
Elm St
Birch St
Jefferson St
Lee Ave
W Courtland Dr
Golason Blvd
Primrose Ln
Chaffin St
Hughes St
Olde Mill Dr
Harkey St
Harkey Rd
Woodland Ave
W Globe St
Louise St
Dalrymple St
Buchanan St
E Globe St
E Main St
Broadway Rd
Nash St
Rice Rd
Gobolink Rd
Rosser Rd
J R Industrial Dr
Dogwood St
Grimm St
W Humber St
W Raleigh St
E Raleigh St
Fayetteville St
Watson Ave
Kendale Shopping Center
E Williams St
School St
Sumac St
Bailes Dr
Sommers St
S Academy St
Cameron Dr
Judd St
Shawnee Dr
Cemetery Rd
Kendale Dr
W Williams St
Industrial Dr
Lee Ave
E Seawell St
Cornell Dr
Watson Ave
Ashby Rd
Firethorn Ln
Lemon Springs Rd
W Frazier Dr
Pand St
Keith Dr
W Seawell St
June Dr
Hal Siler Dr
Wilson Rd
Willow Ridge Dr
Brenda St
Blumont Dr
Meade St
Trulove St
87
421
42

Antrilli, Vincent

From: Robbins, Susanne
Sent: Thursday, April 05, 2012 12:41 PM
To: Antrilli, Vincent
Subject: Aberdeen Florist
Attachments: AberdeenFlorist.pdf

Hi Vince,
Here's the site information concerning the water supply well you indicated you could help us out with. Thanks.

Aberdeen Florist & Garden Center
500 S. Sandhills Blvd.
Aberdeen, Moore County, NC
NONCD0002857

Janet Peele, owner/operator, 910-944-7826

Janet can be reached at the number above and is very helpful. I have spoken with her concerning performing some additional sampling and she has stated she will allow any sampling that needs to be performed.

I have attached Keith's 4/13/2010 memo that gives a nice summary of the site. The WSW is still used for watering the plants in the greenhouse. The source of PCE detected in 2001 at a concentration of 22.3 ug/L is unknown.

Let me know if you need any additional information.
Sue

Sue Robbins, Hydrogeologist
IHSB, Superfund Section
NC Division of Waste Management
Wilmington Regional Office
(910) 796-7411

E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

MEMORANDUM

DATE: April 13, 2010

IN FILE

TO: File

FROM: Keith Snavely, Hydrogeologist
Inactive Hazardous Sites Branch
Superfund Section

RE: US 1-15/501 Aberdeen RKS
Aberdeen, Moore County
NCN 000 407 188

I have reviewed the site information of this file to determine if we, the Inactive Hazardous Sites Branch (Branch), want to make this site a priority by sending the owners of several properties that define this site, site assessment request letters and site assessment orders. Originally, when contamination was found at this site several properties were investigated. However, one of the main reasons the site was assigned as a priority was because a water supply well at the Aberdeen Florist and Garden Center on US 1(Sandhills Blvd.) was found to contain 22.3 micrograms per liter (ug/l) of tetrachloroethene (PCE). The well is now only being used to water plants at the florist. Based on the owner of the florist, no sources of PCE have been found for this property. However, no soil or groundwater investigation has been conducted at this property other than sampling the well.

Additional possible source areas were later reviewed and investigated by the NC Superfund Section in 2001 and are located west of the florist and south across US 1. The property located west of the florist and on the same side of US 1 was an abandoned restaurant that was suspected to have previously been a gas station/service station because of the signs at the building and signs that showed a parts washer once existed behind the restaurant building. No soil or groundwater investigation has been conducted on this property.

Other properties south and across US 1 are the former B& S Auto and a property owned by Mr. Joseph Ussery. The B & S property was investigated by the Superfund Section in 2001. The Superfund section found some metals in soil on site above background but well below Branch soil remediation goals and containers of trash and empty drums stored near the B & S Auto shop building.

The Ussery property was formerly owned by the City of Aberdeen first as a construction debris landfill from 1958-1973 and later as the Aberdeen Public Works Garage. In 1993, the Public Works Garage removed two- 2000 gallon gasoline USTs from its property and installed 5 monitoring wells and completed a comprehensive site assessment of the UST removal. Some BETX contaminated soil with suspected low concentrations exist below

a building and could not be removed. The contaminated soil (other than remaining amounts under structures) was excavated and removed from the site and the groundwater was found to contain BETX constituents below groundwater and the site was given a no further action by the UST Section. The property was purchased by Mr. Joseph Ussery in 1999 and in 2001, the NC Superfund section conducted an assessment of this site by sampling two existing groundwater monitoring wells and sampling soil and surface water and sediment from the adjacent Aberdeen Creek. Lead was found in the surface water at 44 ug/l (the standard for lead in surface water is 25 ug/l) and one of the monitoring wells thought to be MW-5) from the 1993 UST assessment was sampled for volatiles by US EPA Method 8260. The well was found to contain 15.5 ug/l of PCE. The other well (suspected to be MW-3) close to B & S Auto property was found to be clean.

In addition to the Superfund Section Investigations by the Site Evaluation and Removal Branch, an assessment of the location of the landfill was conducted by Marshall Miller and Associates under a Landfill contract with the Branch's landfill unit. The landfill was confirmed to be located on the Ussery Property and historical documents from property transfers indicate the landfill was approximately 1.0 acre and consisted of construction debris waste such as concrete and piping. This type of material was also present on the ground surface when the SERB Branch of the Superfund Section conducted its investigation in 2001. Based on the site ranking program to prioritize landfill sites under the landfill contract, this landfill had a very low score and will therefore be considered a very low priority and may not be addressed for another 5 to 10 years due to the large number of sites that are being evaluated for landfill assessment.

At this time, based on the distance of the water supply well at the Florists being over 500 feet from the Ussery property (where the well with 15.5 ug/l was found) and the suspected groundwater flow to be in opposite directions for these two properties, we have recorded these properties as two separate site. However, to confirm this, we may (when funding becomes available in the Orphan contract) conduct a soil and groundwater investigation on the Florist and Ussery properties to determine if the groundwater plume(s) are indeed separate. If after those investigations are complete and the plumes are found to be connected and the sites are a priority for remedial action(s), we will discuss any future assessment/remedial actions with our Landfill unit and the property owners.

NCDENR

North Carolina Department of Environment and Natural Resources

Division of Waste Management

Dexter R. Matthews, Director | Beverly Eaves Purdue, Governor | Dee Freeman, Secretary

MEMORANDUM

Date: April 24, 2012

To: File

From: Vince Antrilli
Raleigh Regional Office
Inactive Hazardous Sites Branch

Re: Aberdeen Florist – Sampling Trip Summary
NONCD 000 2857

- Larry Rose and I visited the site on April 17, 2012 to perform well sampling in the area. We sampled the addresses list below:
  500 S Sandhills Rd
- Observed low pH levels that dropped over 25 minutes (3.04 to 0.72). The meter was recalibrated and levels still read low (2.64 to 2.10).
- The samples collected were sent to Shealy Lab on April 17, 2012.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone 919-707-8200
An Equal Opportunity / Affirmative Action Employer – Printed on Dual Purpose Recycled Paper

One NorthCarolina Naturally

Well Log Sheet

Site Name: Aberdeen Florist

Site Id #: NoNCD 000 2857

Owner Name: Janet Peele

Well Address: 500 S. Sandhills Blvd

Well ID #: AF-1

Coordinates: _____ N

_____ E

Weather

Temp: 78

Wind: —

Percip: clear

Date: _____

Sample Team: Antrilli & Rose

Comments (well construction, etc.) _____

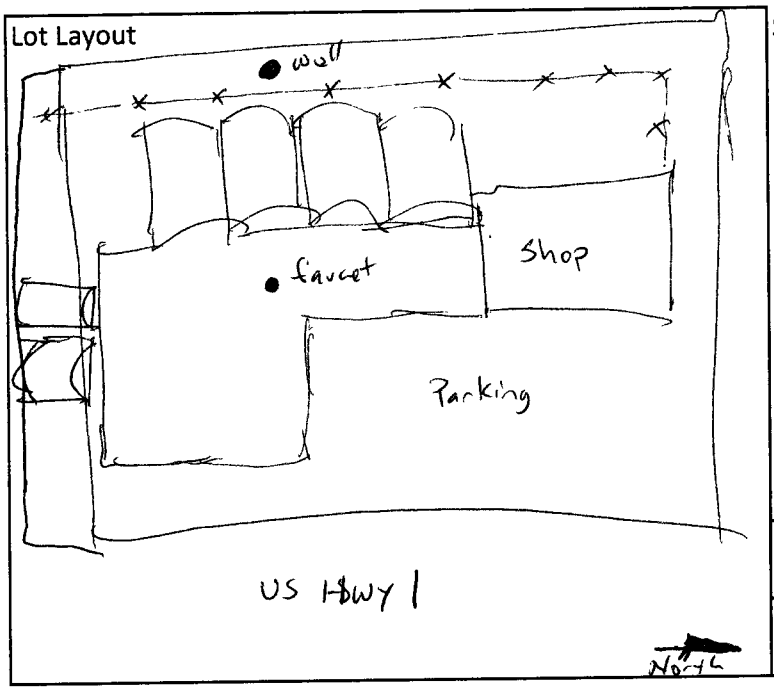
Time Interval	5 Min	10 Min	15 Min	20 Min	25 Min
Temp (°C)	19.3	18.7	19.3	19.0	18.7
pH	3.04	2.16	1.23	0.72	0.98
S.C.	47.3	51.3	51.4	53.1	55.4
Turbidity	1.23	1.06	1.14	—	

Recalibrated meter to 4 std 2.65 2.10

Time Sample Collected: 11:15

Water Condition (turbodity, color, odor): clear odorless

Lot Layout



Samples Collected:

- ✓ VOCs (3 - 40ml vials)
- ✓ 1,4 Dioxane (3 - 40ml vials)
- ____ SVOCs/PCBs (1 - 2L Amber bottle)
- ____ Metals (1 - 1L HDPE bottle)
- ____ Dioxin (1 - 1L bottle)
- ____ Pest./Herb. (1 - 2L Amber bottle)

Comments: Sample from faucet in open plant display area

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 11300

Client: NCDENR-DWM	Report to Contact: Vincent Antrilli	Sampler (Printed Name): Vincent Antrilli	Quote No.
Address: 217 W. Jones St.	Telephone No. / Fax No. / Email: 919-707-8353	Waybill No.	Page ___ of ___
City: Raleigh / State: NC / Zip Code: 27603	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: Rogers Rd / Aberdeen Florist			
Project Number: TBD / NONCD 0002857	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: VOC's	1,4 Dioxane 3PP	Pesticides	Number of Containers	Bottle (See Instructions on back)	Preservative	Lot No.	Remarks / Cooler ID
									8	5	2					
									A	A	I					
									5	5	1					
Trip Blank	4-17-12								2	2						
RR-1		9:15		✓					3		2					
AF-1		11:15		✓					3	3						

Turn Around Time Required (Prior lab approval required for expedited TAT)
☐ Standard ☐ Rush (Please Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify)

Possible Hazard Identification
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

	Date	Time
1. Relinquished by / Sampler: Vincent Antrilli Jr	4-17-12	3:00
2. Relinquished by		
3. Relinquished by		
4. Relinquished by		

	Date	Time
1. Received by		
2. Received by		
3. Received by		
4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

Instructions

Please complete as many fields possible. Contact your lab Project Manager with any questions reagrding Chain of Custody completion.

Bottle Types (Insert letter code for bottle type submitted)

A - 40ml Vial Clear

B - 40ml Vial Amber

C - 125ml Plastic

D - 250ml Plastic

E - 250ml Amber

F - 500ml Plastic

G - 500ml Amber

H - 1L Plastic

I - 1L Amber

J - 1L Widemouth

K - 2L Plastic

L - 2 oz. jar

M - 4 oz. jar

N - 9 oz jar

O - 100ml sterile

Well Log Sheet

Site Name: Rogers Rd

Site Id #:

Owner Name: Janice Burtner

Well Address: Box 421 Mamers

Well ID #: RR-1

Weather

Temp:

Wind:

Percip:

Date: 4-17-12

Coordinates: N

E

Sample Team: Antrilli & Rose

Comments (well construction, etc.)

Time Interval	5 Min	10 Min	15 Min	20 Min	25 Min
Temp (°C)	16.6				
pH	5.05				
S.C.	101				
Turbidity	1.60				

Time Sample Collected: 9:15

Water Condition (turbodity, color, odor): clear, odorless

Lot Layout

Samples Collected:

- ✓ VOCs (3 - 40ml vials)
- ___ 1,4 Dioxane (3 - 40ml vials)
- ___ SVOCs/PCBs (1 - 2L Amber bottle)
- ___ Metals (1 - 1L HDPE bottle)
- ___ Dioxin (1 - 1L bottle)
- ✓ Pest./Herb. (1 - 2L Amber bottle)

Comments: Sample from well