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

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

October 14, 2011

Mr. Gordon Haught
109 Atkinson St.
Hamlet, NC 28345

RE: Water Supply Well Sampling Results – Atkinson St (NONCD0002867)
109 Atkinson St
Hamlet, NC 28345

Dear Mr. Haught:

Please find attached the Sample Analytical Results for a water sample collected from your well located at the address referenced above, on September 27, 2011. 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) 508-8445 or me at (919) 508-8573. Our office is moving so after October 24th my new phone number will be (919) 707-8353.

Sincerely,

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

Enclosure

CC: Richmond County Health Department

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-508-8400 \ FAX: 919-715-4061 \ Internet: www.wastenotnc.org

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One NorthCarolina Naturally

October 13, 2011

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
Gordon Haught Well
109 Atkinson Street.
Hamlet, Rockingham County

Pre and post filter water samples were collected from the subject well on September 27, 2011. All contaminants detected in the pre-filter sample are at concentrations that exceed acceptable standards. No contaminants were detected in the samples collected post-filter. 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 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 post filter can be used for drinking cooking and all other residential purposes listed above.** The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant	Pre-filter Sample Concentrations ug/l	Post - Filter Sample ug/l	Sample at Kitchen Sink ug/l	USE PA MCL ug/l	15A NCAC 2L ug/l
MI27004-001 MI27004-002 MI27004-003	1,4 Dioxane	5.2	ND	ND	*	3
	1,1-Dichloroethene	9.3	ND	ND	7	**

Shaded Area Indicates Exceedance
*Not Available
**Not Applicable

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary
NCDENR - DWM - DSCA
Lot Number: MI27004

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	A-1	Aqueous	1,4-Dioxane	8260B (SIM	5.2		ug/L	7
002	A-1	Aqueous	Chloromethane (Methyl chloride)	8260B	1.3		ug/L	8
002	A-1	Aqueous	1,1-Dichloroethane	8260B	1.2		ug/L	8
002	A-1	Aqueous	1,1-Dichloroethene	8260B	9.3		ug/L	8
002	A-1	Aqueous	Aluminum	6010C	0.90		mg/L	11
002	A-1	Aqueous	Barium	6010C	0.044		mg/L	11
002	A-1	Aqueous	Copper	6010C	0.0065		mg/L	11
002	A-1	Aqueous	Lead	6010C	0.011		mg/L	11
002	A-1	Aqueous	Manganese	6010C	0.047		mg/L	11
003	A-2	Aqueous	Aluminum	6010C	1.1		mg/L	16
003	A-2	Aqueous	Barium	6010C	0.075		mg/L	16
003	A-2	Aqueous	Copper	6010C	0.010		mg/L	16
003	A-2	Aqueous	Manganese	6010C	0.064		mg/L	16
003	A-2	Aqueous	Zinc	6010C	0.041		mg/L	16
004	A-3	Aqueous	Chloromethane (Methyl chloride)	8260B	1.5		ug/L	18
004	A-3	Aqueous	Aluminum	6010C	0.43		mg/L	20
004	A-3	Aqueous	Barium	6010C	0.066		mg/L	20
004	A-3	Aqueous	Copper	6010C	0.014		mg/L	20
004	A-3	Aqueous	Iron	6010C	0.23		mg/L	20
004	A-3	Aqueous	Lead	6010C	0.015		mg/L	20
004	A-3	Aqueous	Manganese	6010C	0.063		mg/L	20
004	A-3	Aqueous	Zinc	6010C	0.75		mg/L	20

(22 detections)

A-1 : Pre-Filter

A-2 : Post-Filter

A-3 : Post-Filter (Kitchen)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1745	BM		68621

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**	**1.3**		**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**	**1.2**		**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**	**9.3**		**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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1745	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		91	70-130
Toluene-d8		98	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%
N = Recovery is out of criteria
H = Out of holding time
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Organochlorine Pesticides by GC

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8081B	1	10/07/2011 1918	SJA	09/28/2011 1515	68589

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aldrin	309-00-2	8081B	ND		0.027	ug/L	1
alpha-BHC	319-84-6	8081B	ND		0.027	ug/L	1
beta-BHC	319-85-7	8081B	ND		0.027	ug/L	1
delta-BHC	319-86-8	8081B	ND		0.027	ug/L	1
gamma-BHC (Lindane)	58-89-9	8081B	ND		0.027	ug/L	1
alpha-Chlordane	5103-71-9	8081B	ND		0.027	ug/L	1
gamma-Chlordane	5103-74-2	8081B	ND		0.027	ug/L	1
4,4'-DDD	72-54-8	8081B	ND		0.027	ug/L	1
4,4'-DDE	72-55-9	8081B	ND		0.027	ug/L	1
4,4'-DDT	50-29-3	8081B	ND		0.027	ug/L	1
Dieldrin	60-57-1	8081B	ND		0.027	ug/L	1
Endosulfan I	959-98-8	8081B	ND		0.027	ug/L	1
Endosulfan II	33213-65-9	8081B	ND		0.027	ug/L	1
Endosulfan sulfate	1031-07-8	8081B	ND		0.027	ug/L	1
Endrin	72-20-8	8081B	ND		0.027	ug/L	1
Endrin aldehyde	7421-93-4	8081B	ND		0.027	ug/L	1
Endrin ketone	53494-70-5	8081B	ND		0.027	ug/L	1
Heptachlor	76-44-8	8081B	ND		0.027	ug/L	1
Heptachlor epoxide	1024-57-3	8081B	ND		0.027	ug/L	1
Methoxychlor	72-43-5	8081B	ND		0.11	ug/L	1
Toxaphene	8001-35-2	8081B	ND		0.27	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Decachlorobiphenyl		72	20-131
Tetrachloro-m-xylene		77	26-132

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TAL Metals

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	10/06/2011 2059	COH	10/06/2011 1707	69148
1	3005A	6010C	1	09/28/2011 2334	KJC	09/28/2011 1715	68609

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aluminum	**7429-90-5**	**6010C**	**0.90**		**0.20**	**mg/L**	**1**
Arsenic	7440-38-2	6010C	ND		0.010	mg/L	1
Barium	**7440-39-3**	**6010C**	**0.044**		**0.025**	**mg/L**	**1**
Cadmium	7440-43-9	6010C	ND		0.0020	mg/L	1
Chromium	7440-47-3	6010C	ND		0.0050	mg/L	1
Copper	**7440-50-8**	**6010C**	**0.0065**		**0.0050**	**mg/L**	**1**
Iron	7439-89-6	6010C	ND		0.10	mg/L	1
Lead	**7439-92-1**	**6010C**	**0.011**		**0.010**	**mg/L**	**1**
Magnesium	7439-95-4	6010C	ND		5.0	mg/L	1
Manganese	**7439-96-5**	**6010C**	**0.047**		**0.015**	**mg/L**	**1**
Mercury	7439-97-6	7470A	ND		0.00010	mg/L	1
Nickel	7440-02-0	6010C	ND		0.040	mg/L	1
Silver	7440-22-4	6010C	ND		0.0050	mg/L	1
Zinc	7440-66-6	6010C	ND		0.020	mg/L	1

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

Client: **NCDENR - DWM - DSCA**
Description: **A-2**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/07/2011 1514	LBS		69335

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		92	40-170

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N = Recovery is out of criteria
H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-003**
Description: **A-2**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1806	BM		68621

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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **A-2**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1806	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		94	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		98	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%
N = Recovery is out of criteria
H = Out of holding time

Organochlorine Pesticides by GC

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-003**
Description: **A-2**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8081B	1	10/07/2011 2017	SJA	09/28/2011 1515	68589

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aldrin	309-00-2	8081B	ND		0.027	ug/L	1
alpha-BHC	319-84-6	8081B	ND		0.027	ug/L	1
beta-BHC	319-85-7	8081B	ND		0.027	ug/L	1
delta-BHC	319-86-8	8081B	ND		0.027	ug/L	1
gamma-BHC (Lindane)	58-89-9	8081B	ND		0.027	ug/L	1
alpha-Chlordane	5103-71-9	8081B	ND		0.027	ug/L	1
gamma-Chlordane	5103-74-2	8081B	ND		0.027	ug/L	1
4,4'-DDD	72-54-8	8081B	ND		0.027	ug/L	1
4,4'-DDE	72-55-9	8081B	ND		0.027	ug/L	1
4,4'-DDT	50-29-3	8081B	ND		0.027	ug/L	1
Dieldrin	60-57-1	8081B	ND		0.027	ug/L	1
Endosulfan I	959-98-8	8081B	ND		0.027	ug/L	1
Endosulfan II	33213-65-9	8081B	ND		0.027	ug/L	1
Endosulfan sulfate	1031-07-8	8081B	ND		0.027	ug/L	1
Endrin	72-20-8	8081B	ND		0.027	ug/L	1
Endrin aldehyde	7421-93-4	8081B	ND		0.027	ug/L	1
Endrin ketone	53494-70-5	8081B	ND		0.027	ug/L	1
Heptachlor	76-44-8	8081B	ND		0.027	ug/L	1
Heptachlor epoxide	1024-57-3	8081B	ND		0.027	ug/L	1
Methoxychlor	72-43-5	8081B	ND		0.11	ug/L	1
Toxaphene	8001-35-2	8081B	ND		0.27	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Decachlorobiphenyl		35	20-131
Tetrachloro-m-xylene		71	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
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time

TAL Metals

Client: **NCDENR - DWM - DSCA**
Description: **A-2**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	10/06/2011 2109	COH	10/06/2011 1707	69148
1	3005A	6010C	1	09/28/2011 2358	KJC	09/28/2011 1715	68609

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aluminum	**7429-90-5**	**6010C**	**1.1**		**0.20**	**mg/L**	**1**
Arsenic	7440-38-2	6010C	ND		0.010	mg/L	1
Barium	**7440-39-3**	**6010C**	**0.075**		**0.025**	**mg/L**	**1**
Cadmium	7440-43-9	6010C	ND		0.0020	mg/L	1
Chromium	7440-47-3	6010C	ND		0.0050	mg/L	1
Copper	**7440-50-8**	**6010C**	**0.010**		**0.0050**	**mg/L**	**1**
Iron	7439-89-6	6010C	ND		0.10	mg/L	1
Lead	7439-92-1	6010C	ND		0.010	mg/L	1
Magnesium	7439-95-4	6010C	ND		5.0	mg/L	1
Manganese	**7439-96-5**	**6010C**	**0.064**		**0.015**	**mg/L**	**1**
Mercury	7439-97-6	7470A	ND		0.00010	mg/L	1
Nickel	7440-02-0	6010C	ND		0.040	mg/L	1
Silver	7440-22-4	6010C	ND		0.0050	mg/L	1
Zinc	**7440-66-6**	**6010C**	**0.041**		**0.020**	**mg/L**	**1**

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

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

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/07/2011 1535	LBS		69335

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		99	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
N = Recovery is out of criteria
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1828	BM		68621

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**	**1.5**		**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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1828	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		92	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		97	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%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

TAL Metals

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	10/06/2011 2120	COH	10/06/2011 1707	69148
1	3005A	6010C	1	09/29/2011 0009	KJC	09/28/2011 1715	68609

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aluminum	**7429-90-5**	**6010C**	**0.43**		**0.20**	**mg/L**	**1**
Arsenic	7440-38-2	6010C	ND		0.010	mg/L	1
Barium	**7440-39-3**	**6010C**	**0.066**		**0.025**	**mg/L**	**1**
Cadmium	7440-43-9	6010C	ND		0.0020	mg/L	1
Chromium	7440-47-3	6010C	ND		0.0050	mg/L	1
Copper	**7440-50-8**	**6010C**	**0.014**		**0.0050**	**mg/L**	**1**
Iron	**7439-89-6**	**6010C**	**0.23**		**0.10**	**mg/L**	**1**
Lead	**7439-92-1**	**6010C**	**0.015**		**0.010**	**mg/L**	**1**
Magnesium	7439-95-4	6010C	ND		5.0	mg/L	1
Manganese	**7439-96-5**	**6010C**	**0.063**		**0.015**	**mg/L**	**1**
Mercury	7439-97-6	7470A	ND		0.00010	mg/L	1
Nickel	7440-02-0	6010C	ND		0.040	mg/L	1
Silver	7440-22-4	6010C	ND		0.0050	mg/L	1
Zinc	**7440-66-6**	**6010C**	**0.75**		**0.020**	**mg/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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

October 13, 2011

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
Gordon Haught Well
109 Atkinson Street.
Hamlet, Rockingham County

Pre and post filter water samples were collected from the subject well on September 27, 2011. All contaminants detected in the pre-filter sample are at concentrations that exceed acceptable standards. No contaminants were detected in the samples collected post-filter. 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 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 post filter can be used for drinking cooking and all other residential purposes listed above.** The table below compares the detected contaminant concentrations with the applicable standards:

Sample #	Contaminant	Pre-filter Sample Concentrations ug/l	Post - Filter Sample ug/l	Sample at Kitchen Sink ug/l	USE PA MCL ug/l	15A NCAC 2L ug/l
MI27004-001 MI27004-002 MI27004-003	1,4 Dioxane	5.2	ND	ND	*	3
	1,1-Dichloroethene	9.3	ND	ND	7	**

Shaded Area Indicates Exceedance
*Not Available
**Not Applicable

October 13, 2011

MEMORANDUM

TO: Hanna Assefa, Industrial Hygienist
Superfund Section, IHSB

FROM: Vince Antrilli
Superfund Section, Inactive Hazardous Sites Branch (IHSB)

RE: Health Risk Evaluation Request
Atkinson St Site
Hamlet, Richmond County
NONCD 000 2867

Please find attached a copy of the laboratory analytical results for one water supply well sample. This sample was collected from a water supply well located at 109 Atkinson St. This sample was collected on September 27, 2011. Because this sample was collected from a water supply well, the IHSB requests a health risk evaluation and a recommendation for the continued use of this well. This information will be provided to the well user. The following table summarizes the detected compounds and the corresponding concentrations.

A-1 was collected from a faucet before the water flows through a filter system.
A-2 was collected from a faucet just after the water flows through a filter system.
A-3 was collected from a kitchen faucet also after the water flows through the filter system.

Well ID	Compound	Concentration (µg/L)	US EPA MCL (µg/L)	NC 2L (µg/L)
A-1	1,4 Dioxane	5.2		3
A-1	1,1 Dichloroethene	9.3	7	7
A-2	1,4 Dioxane	ND		3
A-2	1,1 Dichloroethene	ND	7	7
A-3	1,4 Dioxane	ND		3
A-3	1,1 Dichloroethene	ND	7	7

If you have any questions, please contact me at 508-8573.

Attachment

SHEALY ENVIRONMENTAL SERVICES, INC.

Executive Summary
NCDENR - DWM - DSCA
Lot Number: MI27004

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	A-1	Aqueous	1,4-Dioxane	8260B (SIM	5.2		ug/L	7
002	A-1	Aqueous	Chloromethane (Methyl chloride)	8260B	1.3		ug/L	8
002	A-1	Aqueous	1,1-Dichloroethane	8260B	1.2		ug/L	8
002	A-1	Aqueous	1,1-Dichloroethene	8260B	9.3		ug/L	8
002	A-1	Aqueous	Aluminum	6010C	0.90		mg/L	11
002	A-1	Aqueous	Barium	6010C	0.044		mg/L	11
002	A-1	Aqueous	Copper	6010C	0.0065		mg/L	11
002	A-1	Aqueous	Lead	6010C	0.011		mg/L	11
002	A-1	Aqueous	Manganese	6010C	0.047		mg/L	11
003	A-2	Aqueous	Aluminum	6010C	1.1		mg/L	16
003	A-2	Aqueous	Barium	6010C	0.075		mg/L	16
003	A-2	Aqueous	Copper	6010C	0.010		mg/L	16
003	A-2	Aqueous	Manganese	6010C	0.064		mg/L	16
003	A-2	Aqueous	Zinc	6010C	0.041		mg/L	16
004	A-3	Aqueous	Chloromethane (Methyl chloride)	8260B	1.5		ug/L	18
004	A-3	Aqueous	Aluminum	6010C	0.43		mg/L	20
004	A-3	Aqueous	Barium	6010C	0.066		mg/L	20
004	A-3	Aqueous	Copper	6010C	0.014		mg/L	20
004	A-3	Aqueous	Iron	6010C	0.23		mg/L	20
004	A-3	Aqueous	Lead	6010C	0.015		mg/L	20
004	A-3	Aqueous	Manganese	6010C	0.063		mg/L	20
004	A-3	Aqueous	Zinc	6010C	0.75		mg/L	20

(22 detections)

A-1 : Pre-Filter

A-2 : Post-Filter

A-3 : Post-Filter (Kitchen)

Atkinson St - NONCD0002867

Well Address	Sample Date	Sample By	Well ID#	PCE 2L= 1 MCL= 5 RAL= 12	TCE 2L= 3 MCL= 5 RAL= 300	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	Chloromethane 2L= 3 MCL= RAL= 563	Copper 2L= 1000 MCL= 1000 RAL= 1300	Aluminum 2L= MCL= RAL=	Barium 2L= 700 MCL= 2000 RAL=	Lead 2L= 15 MCL= 15 RAL= 15	Manganese 2L= 50 MCL= 50 RAL= 2070	Zinc 2L= 1000 MCL= 5000 RAL= 25000	Iron 2L= 300 MCL= 300 RAL= 60500	HRE Sent	Comments
109 Atkinson St	**9/10/2010**	SME	WSW-1							**7.1**											
(Haught) - [Prefilter]	**9/27/2011**	BAF	WSW-1			**9.2**				**9.3**											
109 Atkinson St		BAF	WSW-1																		
(Haught) - [Post filter]																					
109 Atkinson St		BAF	WSW-1																		
(Haught) - [Post filter kitchen]																					
115 Atkinson St		SME	WSW-2																		
(Jernigan)																					
112 Ashley St		SME	WSW-3																		
(Butler)																					

Notes
All units in ug/l (ppb)
Above MDL Limit =
Above 2L Limit = **BOLD**
Above MCL Limit =
Above RAL = **BOLD**
Chloroform Below 2L = NOT BOLD
HRE Sent =
*=Sample collected after filter system
(T) or (t) = Total

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

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

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

Project Name: **Atkinson St.**

Project Number: **NONCD0002867**

Lot Number: **MI27004**

Date Completed: **10/10/2011**

N. Saikaly

Nisreen Saikaly
Project Manager

This report shall not be reproduced, except in its entirety, without the written approval of Shealy Environmental Services, Inc.

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: MI27004

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.

Shealy is not NELAC certified for Phosphorus by 365.1 but is certified in SC and NC.

Shealy is not NELAC certified for VPH, but is certified for VPH in NC.

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

Volatile Organic Compounds

The LCS recovery for Methyl acetate exceeded method control limits in batch 68621; however, all other QA/QC criteria for the LCS were within acceptance criteria and method control limits. 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: MI27004

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Trip Blank	Aqueous	09/26/2011	09/27/2011
002	A-1	Aqueous	09/26/2011 1050	09/27/2011
003	A-2	Aqueous	09/26/2011 1130	09/27/2011
004	A-3	Aqueous	09/26/2011 1145	09/27/2011

(4 samples)

Executive Summary
NCDENR - DWM - DSCA
Lot Number: MI27004

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	A-1	Aqueous	1,4-Dioxane	8260B (SIM	5.2		ug/L	7
002	A-1	Aqueous	Chloromethane (Methyl chloride)	8260B	1.3		ug/L	8
002	A-1	Aqueous	1,1-Dichloroethane	8260B	1.2		ug/L	8
002	A-1	Aqueous	1,1-Dichloroethene	8260B	9.3		ug/L	8
002	A-1	Aqueous	Aluminum	6010C	0.90		mg/L	11
002	A-1	Aqueous	Barium	6010C	0.044		mg/L	11
002	A-1	Aqueous	Copper	6010C	0.0065		mg/L	11
002	A-1	Aqueous	Lead	6010C	0.011		mg/L	11
002	A-1	Aqueous	Manganese	6010C	0.047		mg/L	11
003	A-2	Aqueous	Aluminum	6010C	1.1		mg/L	16
003	A-2	Aqueous	Barium	6010C	0.075		mg/L	16
003	A-2	Aqueous	Copper	6010C	0.010		mg/L	16
003	A-2	Aqueous	Manganese	6010C	0.064		mg/L	16
003	A-2	Aqueous	Zinc	6010C	0.041		mg/L	16
004	A-3	Aqueous	Chloromethane (Methyl chloride)	8260B	1.5		ug/L	18
004	A-3	Aqueous	Aluminum	6010C	0.43		mg/L	20
004	A-3	Aqueous	Barium	6010C	0.066		mg/L	20
004	A-3	Aqueous	Copper	6010C	0.014		mg/L	20
004	A-3	Aqueous	Iron	6010C	0.23		mg/L	20
004	A-3	Aqueous	Lead	6010C	0.015		mg/L	20
004	A-3	Aqueous	Manganese	6010C	0.063		mg/L	20
004	A-3	Aqueous	Zinc	6010C	0.75		mg/L	20

(22 detections)

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-001**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **09/26/2011**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1723	BM		68621

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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-001**
Description: **Trip Blank**
Matrix: **Aqueous**
Date Sampled: **09/26/2011**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1723	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		94	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		98	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%
N = Recovery is out of criteria
H = Out of holding time

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

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-002**
Description: **A-1**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/07/2011 1453	LBS		69335

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,4-Dioxane	**123-91-1**	**8260B (SIM iso.)**	**5.2**		**3.0**	**ug/L**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		82	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
N = Recovery is out of criteria
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1745	BM		68621

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**	**1.3**		**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**	**1.2**		**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**	**9.3**		**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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-002**
Description: **A-1**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1745	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		91	70-130
Toluene-d8		98	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%
N = Recovery is out of criteria
H = Out of holding time

Organochlorine Pesticides by GC

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8081B	1	10/07/2011 1918	SJA	09/28/2011 1515	68589

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aldrin	309-00-2	8081B	ND		0.027	ug/L	1
alpha-BHC	319-84-6	8081B	ND		0.027	ug/L	1
beta-BHC	319-85-7	8081B	ND		0.027	ug/L	1
delta-BHC	319-86-8	8081B	ND		0.027	ug/L	1
gamma-BHC (Lindane)	58-89-9	8081B	ND		0.027	ug/L	1
alpha-Chlordane	5103-71-9	8081B	ND		0.027	ug/L	1
gamma-Chlordane	5103-74-2	8081B	ND		0.027	ug/L	1
4,4'-DDD	72-54-8	8081B	ND		0.027	ug/L	1
4,4'-DDE	72-55-9	8081B	ND		0.027	ug/L	1
4,4'-DDT	50-29-3	8081B	ND		0.027	ug/L	1
Dieldrin	60-57-1	8081B	ND		0.027	ug/L	1
Endosulfan I	959-98-8	8081B	ND		0.027	ug/L	1
Endosulfan II	33213-65-9	8081B	ND		0.027	ug/L	1
Endosulfan sulfate	1031-07-8	8081B	ND		0.027	ug/L	1
Endrin	72-20-8	8081B	ND		0.027	ug/L	1
Endrin aldehyde	7421-93-4	8081B	ND		0.027	ug/L	1
Endrin ketone	53494-70-5	8081B	ND		0.027	ug/L	1
Heptachlor	76-44-8	8081B	ND		0.027	ug/L	1
Heptachlor epoxide	1024-57-3	8081B	ND		0.027	ug/L	1
Methoxychlor	72-43-5	8081B	ND		0.11	ug/L	1
Toxaphene	8001-35-2	8081B	ND		0.27	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Decachlorobiphenyl		72	20-131
Tetrachloro-m-xylene		77	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
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
H = Out of holding time

TAL Metals

Client: **NCDENR - DWM - DSCA**
Description: **A-1**
Date Sampled: **09/26/2011 1050**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-002**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	10/06/2011 2059	COH	10/06/2011 1707	69148
1	3005A	6010C	1	09/28/2011 2334	KJC	09/28/2011 1715	68609

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aluminum	**7429-90-5**	**6010C**	**0.90**		**0.20**	**mg/L**	**1**
Arsenic	7440-38-2	6010C	ND		0.010	mg/L	1
Barium	**7440-39-3**	**6010C**	**0.044**		**0.025**	**mg/L**	**1**
Cadmium	7440-43-9	6010C	ND		0.0020	mg/L	1
Chromium	7440-47-3	6010C	ND		0.0050	mg/L	1
Copper	**7440-50-8**	**6010C**	**0.0065**		**0.0050**	**mg/L**	**1**
Iron	7439-89-6	6010C	ND		0.10	mg/L	1
Lead	**7439-92-1**	**6010C**	**0.011**		**0.010**	**mg/L**	**1**
Magnesium	7439-95-4	6010C	ND		5.0	mg/L	1
Manganese	**7439-96-5**	**6010C**	**0.047**		**0.015**	**mg/L**	**1**
Mercury	7439-97-6	7470A	ND		0.00010	mg/L	1
Nickel	7440-02-0	6010C	ND		0.040	mg/L	1
Silver	7440-22-4	6010C	ND		0.0050	mg/L	1
Zinc	7440-66-6	6010C	ND		0.020	mg/L	1

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

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

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-003**
Description: **A-2**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/07/2011 1514	LBS		69335

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		92	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%
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Description: **A-2**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Laboratory ID: **MI27004-003**
Matrix: **Aqueous**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1806	BM		68621

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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-003**
Description: **A-2**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1806	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		94	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		98	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%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Organochlorine Pesticides by GC

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-003**
Description: **A-2**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8081B	1	10/07/2011 2017	SJA	09/28/2011 1515	68589

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aldrin	309-00-2	8081B	ND		0.027	ug/L	1
alpha-BHC	319-84-6	8081B	ND		0.027	ug/L	1
beta-BHC	319-85-7	8081B	ND		0.027	ug/L	1
delta-BHC	319-86-8	8081B	ND		0.027	ug/L	1
gamma-BHC (Lindane)	58-89-9	8081B	ND		0.027	ug/L	1
alpha-Chlordane	5103-71-9	8081B	ND		0.027	ug/L	1
gamma-Chlordane	5103-74-2	8081B	ND		0.027	ug/L	1
4,4'-DDD	72-54-8	8081B	ND		0.027	ug/L	1
4,4'-DDE	72-55-9	8081B	ND		0.027	ug/L	1
4,4'-DDT	50-29-3	8081B	ND		0.027	ug/L	1
Dieldrin	60-57-1	8081B	ND		0.027	ug/L	1
Endosulfan I	959-98-8	8081B	ND		0.027	ug/L	1
Endosulfan II	33213-65-9	8081B	ND		0.027	ug/L	1
Endosulfan sulfate	1031-07-8	8081B	ND		0.027	ug/L	1
Endrin	72-20-8	8081B	ND		0.027	ug/L	1
Endrin aldehyde	7421-93-4	8081B	ND		0.027	ug/L	1
Endrin ketone	53494-70-5	8081B	ND		0.027	ug/L	1
Heptachlor	76-44-8	8081B	ND		0.027	ug/L	1
Heptachlor epoxide	1024-57-3	8081B	ND		0.027	ug/L	1
Methoxychlor	72-43-5	8081B	ND		0.11	ug/L	1
Toxaphene	8001-35-2	8081B	ND		0.27	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Decachlorobiphenyl		35	20-131
Tetrachloro-m-xylene		71	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
N = Recovery is out of criteria
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
H = Out of holding time

TAL Metals

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-003**
Description: **A-2**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1130**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	10/06/2011 2109	COH	10/06/2011 1707	69148
1	3005A	6010C	1	09/28/2011 2358	KJC	09/28/2011 1715	68609

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aluminum	**7429-90-5**	**6010C**	**1.1**		**0.20**	**mg/L**	**1**
Arsenic	7440-38-2	6010C	ND		0.010	mg/L	1
Barium	**7440-39-3**	**6010C**	**0.075**		**0.025**	**mg/L**	**1**
Cadmium	7440-43-9	6010C	ND		0.0020	mg/L	1
Chromium	7440-47-3	6010C	ND		0.0050	mg/L	1
Copper	**7440-50-8**	**6010C**	**0.010**		**0.0050**	**mg/L**	**1**
Iron	7439-89-6	6010C	ND		0.10	mg/L	1
Lead	7439-92-1	6010C	ND		0.010	mg/L	1
Magnesium	7439-95-4	6010C	ND		5.0	mg/L	1
Manganese	**7439-96-5**	**6010C**	**0.064**		**0.015**	**mg/L**	**1**
Mercury	7439-97-6	7470A	ND		0.00010	mg/L	1
Nickel	7440-02-0	6010C	ND		0.040	mg/L	1
Silver	7440-22-4	6010C	ND		0.0050	mg/L	1
Zinc	**7440-66-6**	**6010C**	**0.041**		**0.020**	**mg/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%
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

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

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B (SIM iso.)	1	10/07/2011 1535	LBS		69335

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		99	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%
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1828	BM		68621

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**	**1.5**		**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
1,4-Dioxane	123-91-1	8260B	ND		5.0	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

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
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Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
N = Recovery is out of criteria
H = Out of holding time

Volatile Organic Compounds by GC/MS

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	09/28/2011 1828	BM		68621

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		0.50	ug/L	1
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		92	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		97	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%
N = Recovery is out of criteria
H = Out of holding time
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

TAL Metals

Client: **NCDENR - DWM - DSCA**
Laboratory ID: **MI27004-004**
Description: **A-3**
Matrix: **Aqueous**
Date Sampled: **09/26/2011 1145**
Date Received: **09/27/2011**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	10/06/2011 2120	COH	10/06/2011 1707	69148
1	3005A	6010C	1	09/29/2011 0009	KJC	09/28/2011 1715	68609

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Aluminum	**7429-90-5**	**6010C**	**0.43**		**0.20**	**mg/L**	**1**
Arsenic	7440-38-2	6010C	ND		0.010	mg/L	1
Barium	**7440-39-3**	**6010C**	**0.066**		**0.025**	**mg/L**	**1**
Cadmium	7440-43-9	6010C	ND		0.0020	mg/L	1
Chromium	7440-47-3	6010C	ND		0.0050	mg/L	1
Copper	**7440-50-8**	**6010C**	**0.014**		**0.0050**	**mg/L**	**1**
Iron	**7439-89-6**	**6010C**	**0.23**		**0.10**	**mg/L**	**1**
Lead	**7439-92-1**	**6010C**	**0.015**		**0.010**	**mg/L**	**1**
Magnesium	7439-95-4	6010C	ND		5.0	mg/L	1
Manganese	**7439-96-5**	**6010C**	**0.063**		**0.015**	**mg/L**	**1**
Mercury	7439-97-6	7470A	ND		0.00010	mg/L	1
Nickel	7440-02-0	6010C	ND		0.040	mg/L	1
Silver	7440-22-4	6010C	ND		0.0050	mg/L	1
Zinc	**7440-66-6**	**6010C**	**0.75**		**0.020**	**mg/L**	**1**

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

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: MQ68621-001
Batch: 68621
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Acetone	ND		1	10	ug/L	09/28/2011 1039
Benzene	ND		1	0.50	ug/L	09/28/2011 1039
Bromodichloromethane	ND		1	0.50	ug/L	09/28/2011 1039
Bromoform	ND		1	0.50	ug/L	09/28/2011 1039
Bromomethane (Methyl bromide)	ND		1	0.50	ug/L	09/28/2011 1039
2-Butanone (MEK)	ND		1	10	ug/L	09/28/2011 1039
Carbon disulfide	ND		1	0.50	ug/L	09/28/2011 1039
Carbon tetrachloride	ND		1	0.50	ug/L	09/28/2011 1039
Chlorobenzene	ND		1	0.50	ug/L	09/28/2011 1039
Chloroethane	ND		1	0.50	ug/L	09/28/2011 1039
Chloroform	ND		1	0.50	ug/L	09/28/2011 1039
Chloromethane (Methyl chloride)	ND		1	0.50	ug/L	09/28/2011 1039
Cyclohexane	ND		1	0.50	ug/L	09/28/2011 1039
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	0.50	ug/L	09/28/2011 1039
Dibromochloromethane	ND		1	0.50	ug/L	09/28/2011 1039
1,2-Dibromoethane (EDB)	ND		1	0.50	ug/L	09/28/2011 1039
1,4-Dichlorobenzene	ND		1	0.50	ug/L	09/28/2011 1039
1,3-Dichlorobenzene	ND		1	0.50	ug/L	09/28/2011 1039
1,2-Dichlorobenzene	ND		1	0.50	ug/L	09/28/2011 1039
Dichlorodifluoromethane	ND		1	0.50	ug/L	09/28/2011 1039
1,2-Dichloroethane	ND		1	0.50	ug/L	09/28/2011 1039
1,1-Dichloroethane	ND		1	0.50	ug/L	09/28/2011 1039
trans-1,2-Dichloroethene	ND		1	0.50	ug/L	09/28/2011 1039
cis-1,2-Dichloroethene	ND		1	0.50	ug/L	09/28/2011 1039
1,1-Dichloroethene	ND		1	0.50	ug/L	09/28/2011 1039
1,2-Dichloropropane	ND		1	0.50	ug/L	09/28/2011 1039
trans-1,3-Dichloropropene	ND		1	0.50	ug/L	09/28/2011 1039
cis-1,3-Dichloropropene	ND		1	0.50	ug/L	09/28/2011 1039
1,4-Dioxane	ND		1	5.0	ug/L	09/28/2011 1039
Ethylbenzene	ND		1	0.50	ug/L	09/28/2011 1039
2-Hexanone	ND		1	10	ug/L	09/28/2011 1039
Isopropylbenzene	ND		1	0.50	ug/L	09/28/2011 1039
Methyl acetate	ND		1	1.0	ug/L	09/28/2011 1039
Methyl tertiary butyl ether (MTBE)	ND		1	0.50	ug/L	09/28/2011 1039
4-Methyl-2-pentanone	ND		1	10	ug/L	09/28/2011 1039
Methylcyclohexane	ND		1	5.0	ug/L	09/28/2011 1039
Methylene chloride	ND		1	0.50	ug/L	09/28/2011 1039
Styrene	ND		1	0.50	ug/L	09/28/2011 1039
1,1,2,2-Tetrachloroethane	ND		1	0.50	ug/L	09/28/2011 1039
Tetrachloroethene	ND		1	0.50	ug/L	09/28/2011 1039
Toluene	ND		1	0.50	ug/L	09/28/2011 1039
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	0.50	ug/L	09/28/2011 1039
1,2,4-Trichlorobenzene	ND		1	0.50	ug/L	09/28/2011 1039
1,1,2-Trichloroethane	ND		1	0.50	ug/L	09/28/2011 1039

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: MQ68621-001
Batch: 68621
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
1,1,1-Trichloroethane	ND		1	0.50	ug/L	09/28/2011 1039
Trichloroethene	ND		1	0.50	ug/L	09/28/2011 1039
Trichlorofluoromethane	ND		1	0.50	ug/L	09/28/2011 1039
Vinyl chloride	ND		1	0.50	ug/L	09/28/2011 1039
Xylenes (total)	ND		1	0.50	ug/L	09/28/2011 1039

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		102	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

Volatile Organic Compounds by GC/MS - LCS

Sample ID: MQ68621-002
Batch: 68621
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	110		1	107	46-153	09/28/2011 0935
Benzene	50	54		1	108	70-130	09/28/2011 0935
Bromodichloromethane	50	51		1	102	70-130	09/28/2011 0935
Bromoform	50	43		1	85	70-130	09/28/2011 0935
Bromomethane (Methyl bromide)	50	54		1	108	60-140	09/28/2011 0935
2-Butanone (MEK)	100	99		1	99	60-140	09/28/2011 0935
Carbon disulfide	50	52		1	105	60-140	09/28/2011 0935
Carbon tetrachloride	50	56		1	111	70-130	09/28/2011 0935
Chlorobenzene	50	48		1	96	70-130	09/28/2011 0935
Chloroethane	50	45		1	89	42-163	09/28/2011 0935
Chloroform	50	50		1	100	70-130	09/28/2011 0935
Chloromethane (Methyl chloride)	50	57		1	114	20-158	09/28/2011 0935
Cyclohexane	50	60		1	119	70-130	09/28/2011 0935
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	09/28/2011 0935
Dibromochloromethane	50	43		1	87	70-130	09/28/2011 0935
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	09/28/2011 0935
1,4-Dichlorobenzene	50	47		1	93	70-130	09/28/2011 0935
1,3-Dichlorobenzene	50	48		1	96	70-130	09/28/2011 0935
1,2-Dichlorobenzene	50	48		1	96	70-130	09/28/2011 0935
Dichlorodifluoromethane	50	57		1	115	60-140	09/28/2011 0935
1,2-Dichloroethane	50	53		1	107	70-130	09/28/2011 0935
1,1-Dichloroethane	50	54		1	108	70-130	09/28/2011 0935
trans-1,2-Dichloroethene	50	51		1	102	70-130	09/28/2011 0935
cis-1,2-Dichloroethene	50	50		1	101	70-130	09/28/2011 0935
1,1-Dichloroethene	50	53		1	107	70-130	09/28/2011 0935
1,2-Dichloropropane	50	51		1	101	70-130	09/28/2011 0935
trans-1,3-Dichloropropene	50	49		1	99	70-130	09/28/2011 0935
cis-1,3-Dichloropropene	50	52		1	104	70-130	09/28/2011 0935
1,4-Dioxane	500	670		1	134	43-173	09/28/2011 0935
Ethylbenzene	50	49		1	97	70-130	09/28/2011 0935
2-Hexanone	100	110		1	109	60-140	09/28/2011 0935
Isopropylbenzene	50	46		1	92	70-130	09/28/2011 0935
Methyl acetate	50	87	N	1	174	15-128	09/28/2011 0935
Methyl tertiary butyl ether (MTBE)	50	54		1	109	70-130	09/28/2011 0935
4-Methyl-2-pentanone	100	110		1	114	60-140	09/28/2011 0935
Methylcyclohexane	50	55		1	110	70-130	09/28/2011 0935
Methylene chloride	50	51		1	102	70-130	09/28/2011 0935
Styrene	50	51		1	102	70-130	09/28/2011 0935
1,1,2,2-Tetrachloroethane	50	47		1	95	70-130	09/28/2011 0935
Tetrachloroethene	50	52		1	104	70-130	09/28/2011 0935
Toluene	50	50		1	99	70-130	09/28/2011 0935
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	110	70-130	09/28/2011 0935
1,2,4-Trichlorobenzene	50	50		1	99	70-130	09/28/2011 0935
1,1,2-Trichloroethane	50	47		1	94	70-130	09/28/2011 0935

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: MQ68621-002
Batch: 68621
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1,1-Trichloroethane	50	53		1	106	70-130	09/28/2011 0935
Trichloroethene	50	53		1	106	70-130	09/28/2011 0935
Trichlorofluoromethane	50	52		1	104	60-140	09/28/2011 0935
Vinyl chloride	50	60		1	120	60-140	09/28/2011 0935
Xylenes (total)	100	98		1	98	70-130	09/28/2011 0935

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		105	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 (SIM with isotope dilution) - MB

Sample ID: MQ69335-001
Batch: 69335
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	10/07/2011 1359

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	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: MQ69335-002
Batch: 69335
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	97	43-173	10/07/2011 1154

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		75	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: MQ69335-003 **Matrix:** Aqueous
Batch: 69335 **Prep Method:** 5030B
Analytical Method: 8260B (SIM iso.)

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,4-Dioxane	50	50		1	99	2.6	43-173	20	10/07/2011 1236

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	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

Organochlorine Pesticides by GC - MB

Sample ID: MQ68589-001
Batch: 68589
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 09/28/2011 1515

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
4,4'-DDD	ND		1	0.025	ug/L	10/04/2011 1337
4,4'-DDE	ND		1	0.025	ug/L	10/04/2011 1337
4,4'-DDT	ND		1	0.025	ug/L	10/04/2011 1337
Aldrin	ND		1	0.025	ug/L	10/04/2011 1337
alpha-BHC	ND		1	0.025	ug/L	10/04/2011 1337
alpha-Chlordane	ND		1	0.025	ug/L	10/04/2011 1337
beta-BHC	ND		1	0.025	ug/L	10/04/2011 1337
delta-BHC	ND		1	0.025	ug/L	10/04/2011 1337
Dieldrin	ND		1	0.025	ug/L	10/04/2011 1337
Endosulfan I	ND		1	0.025	ug/L	10/04/2011 1337
Endosulfan II	ND		1	0.025	ug/L	10/04/2011 1337
Endosulfan sulfate	ND		1	0.025	ug/L	10/04/2011 1337
Endrin	ND		1	0.025	ug/L	10/04/2011 1337
Endrin aldehyde	ND		1	0.025	ug/L	10/04/2011 1337
Endrin ketone	ND		1	0.025	ug/L	10/04/2011 1337
gamma-BHC (Lindane)	ND		1	0.025	ug/L	10/04/2011 1337
gamma-Chlordane	ND		1	0.025	ug/L	10/04/2011 1337
Heptachlor	ND		1	0.025	ug/L	10/04/2011 1337
Heptachlor epoxide	ND		1	0.025	ug/L	10/04/2011 1337
Methoxychlor	ND		1	0.10	ug/L	10/04/2011 1337
Toxaphene	ND		1	0.25	ug/L	10/04/2011 1337

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		90	20-131
Tetrachloro-m-xylene		71	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: MQ68589-002
Batch: 68589
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 09/28/2011 1515

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
4,4'-DDD	0.50	0.52		1	103	70-130	10/04/2011 1357
4,4'-DDE	0.50	0.51		1	102	70-130	10/04/2011 1357
4,4'-DDT	0.50	0.50		1	100	70-130	10/04/2011 1357
Aldrin	0.50	0.48		1	96	70-130	10/04/2011 1357
alpha-BHC	0.50	0.47		1	93	70-130	10/04/2011 1357
beta-BHC	0.50	0.50		1	99	70-130	10/04/2011 1357
delta-BHC	0.50	0.47		1	95	70-130	10/04/2011 1357
Dieldrin	0.50	0.51		1	103	70-130	10/04/2011 1357
Endosulfan I	0.50	0.47		1	94	70-130	10/04/2011 1357
Endosulfan II	0.50	0.51		1	102	70-130	10/04/2011 1357
Endosulfan sulfate	0.50	0.56		1	113	70-130	10/04/2011 1357
Endrin	0.50	0.55		1	111	70-130	10/04/2011 1357
Endrin aldehyde	0.50	0.42		1	85	70-130	10/04/2011 1357
gamma-BHC (Lindane)	0.50	0.48		1	96	70-130	10/04/2011 1357
gamma-Chlordane	0.50	0.52		1	105	70-130	10/04/2011 1357
Heptachlor	0.50	0.44		1	88	70-130	10/04/2011 1357
Heptachlor epoxide	0.50	0.49		1	97	70-130	10/04/2011 1357
Methoxychlor	0.50	0.53		1	105	70-130	10/04/2011 1357

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		93	20-131
Tetrachloro-m-xylene		77	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: MI27004-002MS
Batch: 68589
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 09/28/2011 1515

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aldrin	ND	1.1	0.93		1	83	70-130	10/07/2011 1938
alpha-BHC	ND	1.1	0.96		1	86	70-130	10/07/2011 1938
beta-BHC	ND	1.1	1.1		1	98	70-130	10/07/2011 1938
delta-BHC	ND	1.1	1.0		1	94	70-130	10/07/2011 1938
gamma-BHC (Lindane)	ND	1.1	0.96		1	87	70-130	10/07/2011 1938
gamma-Chlordane	ND	1.1	1.0		1	94	70-130	10/07/2011 1938
4,4'-DDD	ND	1.1	1.0		1	93	70-130	10/07/2011 1938
4,4'-DDE	ND	1.1	1.0		1	92	70-130	10/07/2011 1938
4,4'-DDT	ND	1.1	1.2		1	104	70-130	10/07/2011 1938
Dieldrin	ND	1.1	1.0		1	93	70-130	10/07/2011 1938
Endosulfan I	ND	1.1	1.3		1	114	70-130	10/07/2011 1938
Endosulfan II	ND	1.1	1.1		1	95	70-130	10/07/2011 1938
Endosulfan sulfate	ND	1.1	1.0		1	92	70-130	10/07/2011 1938
Endrin	ND	1.1	1.1		1	99	70-130	10/07/2011 1938
Endrin aldehyde	ND	1.1	0.98		1	88	70-130	10/07/2011 1938
Heptachlor	ND	1.1	0.87		1	78	70-130	10/07/2011 1938
Heptachlor epoxide	ND	1.1	1.0		1	91	70-130	10/07/2011 1938
Methoxychlor	ND	1.1	1.2		1	107	70-130	10/07/2011 1938

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		80	20-131
Tetrachloro-m-xylene		70	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: MI27004-002MD
Batch: 68589
Analytical Method: 8081B

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 09/28/2011 1515

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	0.82		1	82	12	70-130	30	10/07/2011 1957
alpha-BHC	ND	1.0	0.85		1	85	12	70-130	30	10/07/2011 1957
beta-BHC	ND	1.0	0.88		1	88	21	70-130	30	10/07/2011 1957
delta-BHC	ND	1.0	0.96		1	96	7.8	70-130	30	10/07/2011 1957
gamma-BHC (Lindane)	ND	1.0	0.86		1	86	12	70-130	30	10/07/2011 1957
gamma-Chlordane	ND	1.0	1.1		1	115	10	70-130	30	10/07/2011 1957
4,4'-DDD	ND	1.0	0.96		1	96	7.4	70-130	30	10/07/2011 1957
4,4'-DDE	ND	1.0	1.0		1	100	2.1	70-130	30	10/07/2011 1957
4,4'-DDT	ND	1.0	1.0		1	104	11	70-130	30	10/07/2011 1957
Dieldrin	ND	1.0	0.96		1	96	7.4	70-130	30	10/07/2011 1957
Endosulfan I	ND	1.0	1.0		1	101	22	70-130	30	10/07/2011 1957
Endosulfan II	ND	1.0	0.99		1	99	6.0	70-130	30	10/07/2011 1957
Endosulfan sulfate	ND	1.0	0.96		1	96	6.4	70-130	30	10/07/2011 1957
Endrin	ND	1.0	1.0		1	100	9.5	70-130	30	10/07/2011 1957
Endrin aldehyde	ND	1.0	0.91		1	91	7.7	70-130	30	10/07/2011 1957
Heptachlor	ND	1.0	0.77		1	77	12	70-130	30	10/07/2011 1957
Heptachlor epoxide	ND	1.0	0.89		1	89	12	70-130	30	10/07/2011 1957
Methoxychlor	ND	1.0	1.1		1	110	7.0	70-130	30	10/07/2011 1957

Surrogate	Q	% Rec	Acceptance Limit
Decachlorobiphenyl		77	20-131
Tetrachloro-m-xylene		70	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

TAL Metals - MB

Sample ID: MQ68609-001
Batch: 68609
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 09/28/2011 1715

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Aluminum	ND		1	0.20	mg/L	09/28/2011 2223
Arsenic	ND		1	0.010	mg/L	09/28/2011 2223
Barium	ND		1	0.025	mg/L	09/28/2011 2223
Cadmium	ND		1	0.0020	mg/L	09/28/2011 2223
Chromium	ND		1	0.0050	mg/L	09/28/2011 2223
Copper	ND		1	0.0050	mg/L	09/28/2011 2223
Iron	ND		1	0.10	mg/L	09/28/2011 2223
Lead	ND		1	0.010	mg/L	09/29/2011 1905
Magnesium	ND		1	5.0	mg/L	09/28/2011 2223
Manganese	ND		1	0.015	mg/L	09/28/2011 2223
Nickel	ND		1	0.040	mg/L	09/28/2011 2223
Silver	ND		1	0.0050	mg/L	09/28/2011 2223
Zinc	ND		1	0.020	mg/L	09/28/2011 2223

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

TAL Metals - LCS

Sample ID: MQ68609-002
Batch: 68609
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 09/28/2011 1715

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	20	21		1	103	80-120	09/28/2011 2229
Arsenic	0.40	0.40		1	100	80-120	09/28/2011 2229
Barium	2.0	2.0		1	102	80-120	09/28/2011 2229
Cadmium	0.40	0.42		1	104	80-120	09/28/2011 2229
Chromium	2.0	2.1		1	103	80-120	09/28/2011 2229
Copper	2.0	2.0		1	100	80-120	09/28/2011 2229
Iron	20	21		1	105	80-120	09/28/2011 2229
Lead	0.40	0.40		1	100	80-120	09/29/2011 1909
Magnesium	40	42		1	104	80-120	09/28/2011 2229
Manganese	2.0	2.1		1	103	80-120	09/28/2011 2229
Nickel	2.0	2.1		1	103	80-120	09/28/2011 2229
Silver	0.40	0.43		1	107	80-120	09/28/2011 2229
Zinc	2.0	2.1		1	105	80-120	09/28/2011 2229

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

TAL Metals - LCSD

Sample ID: MQ68609-003
Batch: 68609
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 09/28/2011 1715

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Aluminum	20	21		1	103	0.14	80-120	20	09/28/2011 2234
Arsenic	0.40	0.40		1	100	0.27	80-120	20	09/28/2011 2234
Barium	2.0	2.0		1	102	0.066	80-120	20	09/28/2011 2234
Cadmium	0.40	0.41		1	104	0.28	80-120	20	09/28/2011 2234
Chromium	2.0	2.0		1	102	0.42	80-120	20	09/28/2011 2234
Copper	2.0	2.0		1	100	0.13	80-120	20	09/28/2011 2234
Iron	20	21		1	105	0.013	80-120	20	09/28/2011 2234
Lead	0.40	0.42		1	105	4.0	80-120	20	09/29/2011 1913
Magnesium	40	42		1	104	0.26	80-120	20	09/28/2011 2234
Manganese	2.0	2.0		1	102	0.38	80-120	20	09/28/2011 2234
Nickel	2.0	2.1		1	103	0.27	80-120	20	09/28/2011 2234
Silver	0.40	0.43		1	107	0.030	80-120	20	09/28/2011 2234
Zinc	2.0	2.1		1	105	0.29	80-120	20	09/28/2011 2234

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

TAL Metals - MS

Sample ID: MI27004-002MS
Batch: 68609
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 09/28/2011 1715

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	0.90	20	21		1	98	75-125	09/28/2011 2340
Arsenic	ND	0.40	0.39		1	97	75-125	09/28/2011 2340
Barium	0.044	2.0	2.0		1	97	75-125	09/28/2011 2340
Cadmium	ND	0.40	0.39		1	99	75-125	09/28/2011 2340
Chromium	ND	2.0	1.9		1	97	75-125	09/28/2011 2340
Copper	0.0065	2.0	1.9		1	96	75-125	09/28/2011 2340
Iron	ND	20	20		1	100	75-125	09/28/2011 2340
Lead	0.011	0.40	0.37		1	90	75-125	09/28/2011 2340
Magnesium	ND	40	42		1	104	75-125	09/28/2011 2340
Manganese	0.047	2.0	2.0		1	97	75-125	09/28/2011 2340
Nickel	ND	2.0	2.0		1	98	75-125	09/28/2011 2340
Silver	ND	0.40	0.41		1	102	75-125	09/28/2011 2340
Zinc	ND	2.0	2.0		1	100	75-125	09/28/2011 2340

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

TAL Metals - MSD

Sample ID: MI27004-002MD
Batch: 68609
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 09/28/2011 1715

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Aluminum	0.90	20	21		1	100	1.3	75-125	20	09/28/2011 2346
Arsenic	ND	0.40	0.39		1	97	0.14	75-125	20	09/28/2011 2346
Barium	0.044	2.0	2.0		1	98	1.2	75-125	20	09/28/2011 2346
Cadmium	ND	0.40	0.40		1	99	0.79	75-125	20	09/28/2011 2346
Chromium	ND	2.0	2.0		1	98	0.94	75-125	20	09/28/2011 2346
Copper	0.0065	2.0	1.9		1	97	1.1	75-125	20	09/28/2011 2346
Iron	ND	20	20		1	102	1.3	75-125	20	09/28/2011 2346
Lead	0.011	0.40	0.37		1	91	1.4	75-125	20	09/28/2011 2346
Magnesium	ND	40	42		1	105	1.1	75-125	20	09/28/2011 2346
Manganese	0.047	2.0	2.0		1	98	0.92	75-125	20	09/28/2011 2346
Nickel	ND	2.0	2.0		1	99	0.98	75-125	20	09/28/2011 2346
Silver	ND	0.40	0.41		1	103	0.81	75-125	20	09/28/2011 2346
Zinc	ND	2.0	2.0		1	101	0.86	75-125	20	09/28/2011 2346

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

TAL Metals - MS

Sample ID: MI27004-003MS
Batch: 68609
Analytical Method: 6010C

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 09/28/2011 1715

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Aluminum	1.1	20	20		1	96	75-125	09/29/2011 0003
Arsenic	ND	0.40	0.38		1	94	75-125	09/29/2011 0003
Barium	0.075	2.0	2.0		1	95	75-125	09/29/2011 0003
Cadmium	ND	0.40	0.39		1	97	75-125	09/29/2011 0003
Chromium	ND	2.0	1.9		1	96	75-125	09/29/2011 0003
Copper	0.010	2.0	1.9		1	94	75-125	09/29/2011 0003
Iron	ND	20	20		1	99	75-125	09/29/2011 0003
Lead	ND	0.40	0.37		1	91	75-125	09/29/2011 0003
Magnesium	ND	40	41		1	103	75-125	09/29/2011 0003
Manganese	0.064	2.0	2.0		1	96	75-125	09/29/2011 0003
Nickel	ND	2.0	1.9		1	97	75-125	09/29/2011 0003
Silver	ND	0.40	0.40		1	100	75-125	09/29/2011 0003
Zinc	0.041	2.0	2.0		1	98	75-125	09/29/2011 0003

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

TAL Metals - MB

Sample ID: MQ69148-001
Batch: 69148
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 7470A
Prep Date: 10/06/2011 1707

Parameter	Result	Q	Dil	PQL	Units	Analysis Date
Mercury	ND		1	0.00010	mg/L	10/06/2011 2017

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

TAL Metals - LCS

Sample ID: MQ69148-002
Batch: 69148
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 7470A
Prep Date: 10/06/2011 1707

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	0.0020	0.0021		1	104	85-115	10/06/2011 2019

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

TAL Metals - LCSD

Sample ID: MQ69148-003
Batch: 69148
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 7470A
Prep Date: 10/06/2011 1707

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	0.0020	0.0020		1	100	3.9	85-115	20	10/06/2011 2022

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

TAL Metals - MS

Sample ID: MI27004-002MS
Batch: 69148
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 7470A
Prep Date: 10/06/2011 1707

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	ND	0.0020	0.0023		1	112	85-115	10/06/2011 2102

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

TAL Metals - MSD

Sample ID: MI27004-002MD
Batch: 69148
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 7470A
Prep Date: 10/06/2011 1707

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Mercury	ND	0.0020	0.0021		1	107	5.5	85-115	20	10/06/2011 2104

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

TAL Metals - MS

Sample ID: MI27004-003MS
Batch: 69148
Analytical Method: 7470A

Matrix: Aqueous
Prep Method: 7470A
Prep Date: 10/06/2011 1707

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Mercury	ND	0.0020	0.0021		1	105	85-115	10/06/2011 2112

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

SHEALY ENVIRONMENTAL SERVICES, INC.

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

Chain of Custody Record

Number 00966

Client: NCDENR-DWM	Report to Contact: Vincent Antrilli	Sampler (Printed Name): Vincent Antrilli	Quote No.
Address: 401 Oberlin Rd Ste 150	Telephone No. / Fax No. / Email: 919-508-8573	Waybill No.	Page of
City: Raleigh; State: NC; Zip Code: 27605	Preservative: 1. Ice; 2. NaOH/ZnA; 3. HPSO4; 4. HNO3; 5. HCl; 6. None		Number of Containers
Project Name: Atkinson St.			Bottle (See instructions on back)
			Preservative
Project Number: NONED 000 2867	P.O. Number		Lot No. M527004
Sample ID / Description (Continuous for each sample may be combined on one line)	Date / Time	Grab / Composite; Matrix: GW, DW, WW, S, Other	Remarks / Cooler ID

Sample ID / Description	Date	Time	Grab / Composite	GW	DW	WW	S	Other	VOCs	1,4 Dioxane SPL	Pesticides	Metals	Remarks / Cooler ID
Trip Blank	9-26-11								2	2	1	1	
A-1	↓	10:30		✓					3	3	2	1	
A-2		11:30		✓					3	3	2	1	
A-3	↓	11:45		✓					3	3	-	1	

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

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

QC Requirements (Specify):

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

	Date	Time		Date	Time
1. Relinquished by: Vincent Antrilli	9-26-11	5:00	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by: FedEx	9/27/11	0935	4. Laboratory Received by	9.27.11	0935

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

LAB USE ONLY: Received on Ice (Circle) ☐ Yes ☐ No Ice Pack; Receipt Temp 4.3 °C; Temp Blank ☐ Yes ☐ No

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc
Document Number: LAD4016
Revision Number: 8

Page 1 of 1
Replaces Date: 02/23/11
Effective Date: 05/06/11

Sample Receipt Checklist (SRC)

Client: NCDENR Cooler Inspected by/date: EC 9/27/11 Lot #: ME27064

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 4 / 3 °C / °C / °C / °C / °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 ½ the holding time or 48 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" (¼" or 6mm in diameter) in any VOA vials?
Yes ☑	No ☐	NA ☐	17. Were all metals/O&G/HFM/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?

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,HNO_3,HCL,NaOH) with the SR # (number)

Sample(s) _____ were received with bubbles >6 mm in diameter

Sample(s) _____ TKN/cyanide/BNA/pest/PCB/herb. _____

FedEx Tracking Number 863125960108

Corrective Action taken, if necessary:
Was client notified: Yes ☐ No ☐
SESI employee: _____
Comments: _____

Company _____ Address _____ Phone _____ State _____ ZIP _____

Your Internal Billing Reference _____

REMIT TO

Invoice

FIN: 57-0831507

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

Phone (803) 791-9700
Fax (803) 791-9111

Invoice Number	128689	Date	10/11/2011
Quote	12496	Customer Number	2182
Terms	Net 30 days	Project Manager	NMS

BILL TO:

NCDENR - DWM - DSCA
401 Oberlin Rd
Suite 210
Raleigh, NC 27605

Vincent Antrilli

Lot Number:MI27004
P.O. Number:
Project Number:NONCD0002867
Project Name:Atkinson St.
Sample Receipt Date09/27/2011

Quantity	Matrix	Description	Analytical Method	Unit Price	Extended Price
3	Aqueous	1,4-Dioxane (SIM with isotope dilution)	8260B (SIM iso.)	$70.00	$210.00
4	Aqueous	TCL VOCs + 1,4-Dioxane @ 5ppb (OLM04.3) XLL	8260B	$90.00	$360.00
2	Aqueous	TCL Pesticides	8081B	$65.00	$130.00
3	Aqueous	14 Haz Metals	6010C	$65.00	$195.00

Approved for Payment

Vincent Antrilli Jr
Bernard Allen Fund 2054

Invoice Total: $895.00

Please reference invoice number when remitting. Thank you.

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 00966

Client: NCDENR-DWM	Report to Contact: Vincent Antrilli	Sampler (Printed Name): Vincent Antrilli	Quote No.
Address: 401 Oberlin Rd Ste 150	Telephone No. / Fax No. / Email: 919-508-8573	Waybill No.	Page ___ of ___
City: Raleigh; State: NC; Zip Code: 27605	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: Atkinson St.			
Project Number: NONCD 000 2867	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: VOCs	1,4 Dioxane 3260	Pesticides	Metals									Remarks / Cooler ID
Number of Containers									11	11	4	3									
Bottle (See Instructions on back)									A	A	I	D									
Preservative									5	5	1	4									
Lot No.																					
Trip Blank	9-26-11								2	2	1	1									
A-1	↓	10:50		✓					3	3	2	1									
A-2	↓	11:30		✓					3	3	2	1									
A-3	↓	11:45		✓					3	3	1	1									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	QC Requirements (Specify)	Possible Hazard Identification
☐ Standard ☐ Rush (Please Specify)	☐ Return to Client ☐ Disposal by Lab		☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison ☐Unknown

1. Relinquished by / Sampler: Vincent Antrilli	Date: 9-26-11	Time: 5:00	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

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

NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | **Division of Waste Management** | Beverly Eaves Purdue, Governor
Dee Freeman, Secretary

MEMORANDUM

Date: Sept 27, 2011

To: File

From: Vince Antrilli
Raleigh Regional Office
Inactive Hazardous Sites Branch

Re: Atkinson St site
NONCD0002867

On September 26, 2011, Larry Rose and I collected water samples at 109Atkinson St as a follow up to complaints by the property owner of continued contamination and odors. In an effort to assure the property owner that everything was being taken care of by the filter system and to check that nothing was overlooked regarding contaminations, we collected sample before the water passed through the filter system, just after water passed through the filter system, and inside the residence. During the sample collection we did not experience any odors coming from the water except for a very slight odor from the hot water side. Mr Haught stated that he had recently had a new hot water heater installed.
Sample collections were sent to Shealy labs on Sept. 26, 2011.

Mr. Haught stated that he has had a problem with some plants outside the house and had the plants tested. He stated that he received a letter from the State of NC that said his plant was healthy and that the shriveling is most likely due to air contamination. Mr. Haught asked about air sampling. I told him that I would pass his information along.

WELL LOG SHEET

Site Name: Atkinson St ID Number: _____

Owner: Gordon Haught Address: 109 Atkinson St.

Sample Team: Antrilli, Rose Well #: A-1

Comments (well construction, etc): _____

Time interval	5 mins	10 mins	15 mins	____ mins	____ mins	____ mins
Temp (°C)	20.4	19.6	19.5			
pH	3.04	2.52	2.47			
S. C.	126.7	127	127.9			
Turbidity	0.48	0.43	0.43			

Sample Information

Sample Date: 9-26-11 Sample Time: 10:50

Sample Equipment: _____

Water Condition (turbidity, odor, etc.): clear, odorless

Samples Collected (✓):

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

Temp(°C): _____ pH: _____ SC(umhos): _____ DO(ppm): _____ Turb(NTUs): _____

Comments: Sample collected from upstream side of filter system. Water from well unfiltered.

WELL LOG SHEET

Site Name: _____ ID Number: _____

Owner: _____ Address: _____

Sample Team: _____ Well #: A-2

Comments (well construction, etc): _____

Time interval	____mins	____mins	____mins	____mins	____mins	____mins
Temp (°C)						
pH						
S. C.						
Turbidity						

N/A

Sample Information

Sample Date: 9-26-11 Sample Time: 11:30

Sample Equipment: _____

Water Condition (turbidity, odor, etc.): _____

Samples Collected (✓):

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

Temp(°C): _____ pH: _____ SC(umhos): _____ DO(ppm): _____ Turb(NTUs): _____

Comments: Sample collected from downstream side of filter. Well water after being filtered.

WELL LOG SHEET

Site Name: _____ ID Number: _____

Owner: _____ Address: _____

Sample Team: _____ Well #: A-3

Comments (well construction, etc): _____

	Cold water		Hot water			
Time interval	5 mins	10 mins	~~10~~ 5 mins	10 mins	____ mins	____ mins
Temp (°C)	23.1	22.2	43.9	48.2		
pH	3.66	3.82	5.41	5.59		
S. C.	113.1	109.0	106.7	104.0		
Turbidity						

Sample Information

Sample Date: _____ Sample Time: 11:45

Sample Equipment: _____

Water Condition (turbidity, odor, etc.): Cold water is clear & odorless, Hot water is clear

Samples Collected (✓):

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

Temp(°C): _____ pH: _____ SC(umhos): _____ DO(ppm): _____ Turb(NTUs): _____

Comments: sample from kitchen faucet. Cold water is clear

Antrilli, Vincent

From: Ed Woloszyn [EWoloszyn@smeinc.com]
Sent: Thursday, May 19, 2011 3:37 PM
To: Antrilli, Vincent
Cc: Jamie Honeycutt
Subject: RE: Gordon Haught well/filter
Attachments: image001.jpg

910-582-2689

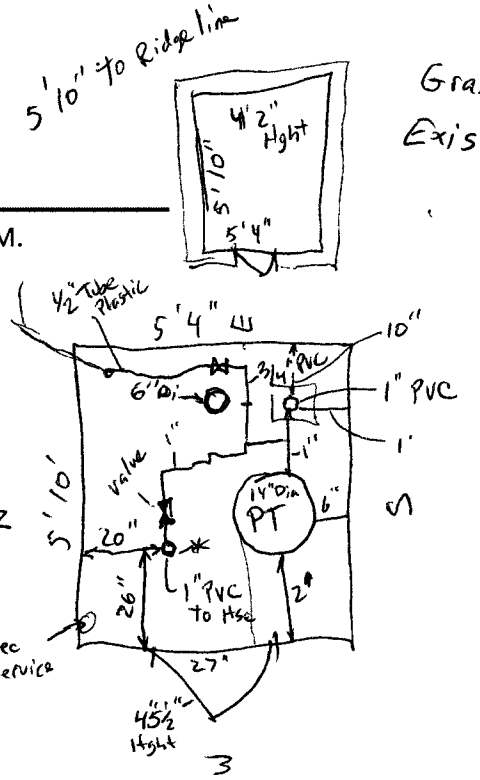
Next Friday 3rd of June
7th or 8th

Thank you, Vince.

Either myself or Jamie Honeycutt will be there to discuss the POE system.

Best regards,

Ed



* May have to cut out some of conc floor to work w/pipe

Edmund Woloszyn, Jr., R.E.M.
Senior Consultant

S&ME
ENGINEERING INTEGRITY.

S&ME, Inc.
3201 Spring Forest Road
Raleigh NC 27616 Map
Ph: 919-872-2660
Fax: 919-876-3958
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ewoloszyn@smeinc.com
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From: Antrilli, Vincent [mailto:vincent.antrilli@ncdenr.gov]
Sent: Thursday, May 19, 2011 3:26 PM
To: Ed Woloszyn; Penny Myers
Cc: Jamie Honeycutt
Subject: RE: Gordon Haught well/filter

Lets meet that the site 10:30am on Wednesday May 25th. We will determine an install date at the meeting.
Thank you,
Vince

Vince Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
NC Division of Waste Management

.401 Oberlin Road, Suite 150
Raleigh, NC 27605
919-508-8573 ph
Vincent.Antrilli@ncdenr.gov

From: Ed Woloszyn [mailto:EWoloszyn@smeinc.com]
Sent: Thursday, May 19, 2011 10:08 AM
To: Antrilli, Vincent
Cc: Jamie Honeycutt
Subject: RE: Gordon Haught well/filter

Good morning Vince,

I just spoke with Penny and she would feel more comfortable to meet on site prior to setting an installation day. May I suggest the following process regarding the POE system for the Haught's residence.

1. You and someone from S&ME visit with Mr. Haught and Penn next week (Tues, Weds, or Thurs) to get the following info.
    a. Where the POE system will be installed (power source is needed)
    b. The location of the current pressure tank
    c. The type and size of the piping from the well to the house
2. Schedule a day the following week to have the system installed.

Jamie Honeycutt from our Fayetteville office or myself will be available for the site visit. I am available anyone of those days.

Best regards,

Ed

Edmund Woloszyn, Jr., R.E.M.
Senior Consultant

S&ME
ENGINEERING INTEGRITY.

S&ME, Inc.
3201 Spring Forest Road
Raleigh NC 27616 Map
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ewoloszyn@smeinc.com
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From: Antrilli, Vincent [mailto:vincent.antrilli@ncdenr.gov]
Sent: Thursday, May 19, 2011 9:46 AM
To: Ed Woloszyn
Subject: FW: Gordon Haught well/filter

Ed,
Please contact Penny Myers with any question you have prior to the meeting onsite. As soon as you have a date and time, please also copy her so she can plan accordingly if she needs to be there.
Thanks,
Vince

Vince Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
NC Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, NC 27605
919-508-8573 ph
Vincent.Antrilli@ncdenr.gov

From: Penny Myers [mailto:penny@callfirstchoice.com]
Sent: Thursday, May 19, 2011 9:44 AM
To: Antrilli, Vincent
Subject: RE: Gordon Haught well/filter

I'm the best contact for now and can communicate between the contractor and my Dad. He has hearing difficulties. Please have them contact me at 910-409-9511.

Thank you very much!
Penny Myers

From: Antrilli, Vincent [mailto:vincent.antrilli@ncdenr.gov]
Sent: Thursday, May 19, 2011 9:08 AM
To: Penny Myers
Cc: Walch, John
Subject: RE: Gordon Haught well/filter
Importance: High

Good morning Ms. Myers,

The proposal from the contractor has been approved and he is going to try to schedule a pre-installation site visit for sometime next week. He has some questions about the existing plumbing and desired location for the system. Can Mr. Haught be contacted regarding this information or who is the best person the contractor should contact? Please forward the contact person information.

Thank you,
Vince Antrilli

Vince Antrilli, Jr.
Environmental Specialist

Inactive Hazardous Sites Branch
NC Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, NC 27605
919-508-8573 ph
Vincent.Antrilli@ncdenr.gov

From: Penny Myers [mailto:penny@callfirstchoice.com]
Sent: Tuesday, May 10, 2011 7:30 AM
To: Antrilli, Vincent
Subject: Gordon Haught well/filter

Hello,
Just checking in on the status of funding and installation of the filtering system for the tainted well located at my father's property. His name is Gordon Haught and the location is 109 Atkinson Rd Hamlet, NC 28345 in Richmond County.

Any information would be much appreciated.

Penny Myers
(910) 409-9511

March 24, 2011

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Inactive Hazardous Site Branch
Superfund Section
401 Oberlin Road – Suite 150
Raleigh, North Carolina 27605

Attention: Mr. Keith Snavely, P.G. Keith.Snavely@ncdenr.gov
Hydrogeologist

Reference: Fee Proposal for Point of Entry (POE) Drinking Water Treatment System
Woodleaf Road & Ridge PCE Site/Watson Residence
3150 Woodleaf Road, Salisbury (Rowan Co.), NC 28147
NCDENR Contract #N10005S
S&ME, Inc. Proposal No. P050-11V Revision 1.0

Dear Mr. Snavely:

S&ME, Inc. (S&ME) appreciates this opportunity to present this work plan and fee proposal to provide a point of entry (POE) drinking water treatment system for the Watson residence located at 3150 Woodleaf Road, Salisbury (Rowan County) North Carolina. S&ME is submitting this proposal following your request for a cost estimate for the design, installation and maintenance of a POE drinking water system dated March 1, 2011. This proposal presents our scope of services, a schedule for completing the services, and a fee estimate. All services will be provided under the North Carolina Department of Environment and Natural Resource (NCDENR) Contract #N10005S. NCDENR will issue a Task Authorization as notice to proceed with our services.

PROJECT INTRODUCTION

Based on the information provided in the March 1, 2011 email correspondence, the Watson residence currently is not connected to the City of Salisbury public water supply and therefore uses a potable well. This potable well is not located on the Watson's property. . The residence is located across Woodleaf Road from the Myers Brothers Gin Inc. facility which is a NCDENR – IHSB Branch site (NONCD0002110). Analytical laboratory data collected in May and June of 2010 concludes that the Watson's drinking water supply is impacted with tetracholoethene (PCE), trichloroethene (TCE) and chloroform. The source of the groundwater contaminants in not known. The IHSB branch has opted to provide the Watsons with a POE system on their drinking water supply rather than pay for the fees to connect the residence to the local municipal drinking water distribution system.

The following scope of services was developed to address IHSB's request for services.

SCOPE OF SERVICES

Point of Entry (POE) Drinking Water System

S&ME will contract Carbonair Environmental Systems (Carbonair) in Salem, Virginia to install a POE drinking water treatment system and arrange for the installation of the system at the Watson residence located at 3150 Woodleaf Road, Salisbury (Rowan County) North Carolina.

The POE system will be plumbed in directly to the residence's existing water supply piping outside of the home in location near an electrical power source and close to the water supply line that enters the residence.

The POE system is a packaged unit that will consist of the following components:

- (2) – 12" x 52" granular activated carbon (GAC) vessels.
- (1) – UV light unit.
- (1) – 5 micron filter house.
- (6) – 5 micron particle filters.
- (1) – Totalizing water flow meter.
- (1) – 4' x 4' insulated building with heater.
- Miscellaneous electrical and plumbing materials.

Approximately one week after installation and start-up of the POE system, S&ME will mobilize to the site to collect one water sample from the effluent of the system to verify the system's performance. The sample will be analyzed by an NCDENR-approved analytical laboratory for volatile organic compounds (VOCs) by US EPA method 8260B.

Additionally, S&ME will also arrange for preventative maintenance service (PM) of the POE system by Carbonair personnel to occur approximately twelve months following installation and start-up should the branch agree to this optional service. While this proposal only includes costs for one PM service site visit, the POE system should be serviced at least once every twelve months to ensure optimal system performance.

SCHEDULE

S&ME will coordinate with IHSB staff to visit the Watson residence within one week of receiving the authorization to proceed to assess the plumbing materials and available electrical supply. It is expected that one day on-site would be needed for the initial site assessment. Following the site assessment, S&ME will coordinate with IHSB and Carbonair personnel to mobilize to the site for installation and start-up of the POE system. It is expected that one day will be required to be on site for installation and start-up. Approximately one week after system start-up, S&ME will mobilize to the site to

collect one water sample for laboratory analysis. It is expected that one day will be needed for travel to the site and sample collection. Maintenance of the system by Carbonair personnel will take place every 12 months and will require one day on-site.

ASSOCIATED FEES

The services described herein will be provided on a time and materials basis in accordance with our contract fee schedule. The budget for the scope of services described in this proposal is **$8,227 (including PM service)** or **$6,847 (not including PM service).** The proposed fee is based on the attached itemized fee sheet (**Table 1**), which is in accordance with our contracted fee schedule.

AUTHORIZATION

It is our understanding that IHSB will authorize these services through a task authorization letter. Once in receipt of the authorization, S&ME will proceed with our services.

We trust that this revised work plan and fee proposal is responsive to your needs. S&ME welcomes the opportunity to assist IHSB. Please contact us at (919) 872-2660 if you have any questions or comments regarding this proposal.

Sincerely,
S&ME, Inc.

Whit Rawls, P.E.
Project Engineer

Edmund Woloszyn, Jr., R.E.M.
Senior Consultant

Attachments:
Table 1 Itemized Fees
Information on Carbonair Unit

Table 1
Itemized Fees
Woodleaf Road and Ridge PCE Site/Watson Residence
DENR Contract #N10005S
S&ME Proposal No. P50-11V Rev 1.0
March 24, 2011

Project Administration	**Units**		**Rates**		**Subtotal**	**Fee/Task**
Staff Professional	5	hrs @	$ 75.00	/hr	$ 375.00	**$ 417.50**
Clerical	1	hrs @	$ 42.50	/hr	$ 42.50	
Point of Entry (POE) Drinking Water Treatment System	**Units**		**Rates**		**Subtotal**	**Fee/Task**
Carbonair POE System	1	ea @	$ 5,750.00	/ea	$ 5,750.00	**$ 5,750.00**
FIELD SUPPORT AND ANALYSES	**Units**		**Rates**		**Subtotal**	**Fee/Task**
Technician	6	hr @	$ 60.00	/hr	$ 360.00	
Mileage (for Technician)	300	ea @	$ 0.55	/mile	$ 165.00	
Laboratory Costs						
VOCs by EPA 8260B	1	ea @	$ 77.00	/ea	$ 77.00	**$ 679.00**
VOCs by EPA 8260B Trip Blank	1	ea @	$ 77.00	/ea	$ 77.00	
Preventative Maintenance (PM) Service (Optional)	**Units**		**Rates**		**Subtotal**	**Fee/Task**
Annual PM service of POE System (by Carbonair personnel) *(PM service is strongly recommeneded)*	1	ea @	$ 1,380.00	/hr	$ 1,380.00	**$ 1,380.00**

Total Projected Fee (Including PM Service)	**$8,227**
Total Projected Fee (Without PM Service)	**$6,847**

CARBONAIR

Your Mobile Water Treatment Specialists

Customer:	S&ME, Raleigh, NC		
Site:	POE - Salisbury, NC		
Date:	3/3/11		
Design Basis:	Flow rate:	6	gpm
	Water temperature:	55	°F (assumed)
	Critical contaminant:	Chloroform	
	Influent concentration:	0.63	ppb
	Effluent criteria:	< 0.25	ppb (assumed for ND)
	Other contaminants present:		
	TCE	0.16	ppb
	PCE	11	ppb

Note: The influent concentrations are based on the maximum detected concentrations.

Recommendations: Liquid-Phase Carbon Adsorbers

Two PC1's in series, each with 90 lbs of carbon

- The lead vessel is predicted to require carbon change-out every 345,600 gallons.
- The lag vessel is placed on line as a back-up unit and should be always kept fresh.

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CARBONAIR

Your Mobile Water Treatment Specialists

Customer:	S&ME, Raleigh, NC		
Site:	POE - Salisbury, NC		
Date:	3/3/11		
Design Basis:	Flow rate:	6	gpm
	Water temperature:	55	°F (assumed)
	Critical contaminant:	Chloroform	
	Influent concentration:	0.63	ppb
	Effluent criteria:	< 0.25	ppb (assumed for ND)
	Other contaminants present:		
	TCE	0.16	ppb
	PCE	11	ppb

Note: The influent concentrations are based on the maximum detected concentrations.

Recommendations: Liquid-Phase Carbon Adsorbers

Two PC1's in series, each with 90 lbs of carbon

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LIQUID-PHASE CARBON ADSORPTION MODEL CALCULATIONS

CARBONAIR ENVIRONMENTAL SYSTEMS

CARBON ADSORBERS:	PC1
NO OF ADSORBERS IN SERIES:	1
TOTAL MASS OF CARBON (LBS):	90.000
FLOW RATE (GPM):	6.0000
HYDRAULIC LOADING (GPM/SQ.FT):	5.1837
EMPTY BED CONTACT TIME (MIN.):	4.0891
DESIGN COMPOUND:	CHLOROFORM
EXPECTED INFLUENT CONCENTRATION (PPB):	0.63000
MODEL INFLUENT CONCENTRATION (PPB):	0.70000
EFFLUENT CRITERIA (PPB):	0.25000
EFFECTIVE K-VALUE (%):	50.000

TIME(DAYS)	VOLUME TREATED(GAL)	EFF. CONC.(PPB)	
10.0	86400.	0.0000	
20.0	172800.	0.0386	
30.0	259200.	0.1071	
40.0	**345600.**	0.1828	← BREAKTHROUGH
50.0	432000.	0.2521	
60.0	518400.	0.3124	
70.0	604800.	0.3644	
80.0	691200.	0.4091	
90.0	777600.	0.4477	
100.0	864000.	0.4813	
110.0	950400.	0.5104	
120.0	1036800.	0.5358	
130.0	1123200.	0.5580	
140.0	1209600.	0.5772	
150.0	1296000.	0.5939	
160.0	1382400.	0.6084	
170.0	1468800.	0.6210	
180.0	1555200.	0.6320	
190.0	1641600.	0.6414	
200.0	1728000.	0.6496	
200.0	1728000.	0.6496	

Note: The model influent concentration results from the impact of the other background compounds, which is determined by using a competitive adsorption model

DISCLAIMER: ACTUAL RESULTS MAY VARY SIGNIFICANTLY FROM THE MODEL. THE MODEL IS BASED ON THE ASSUMPTIONS THAT THE FLOW RATE AND INFLUENT CONCENTRATION ARE CONSTANT, AND ONLY THE CONTAMINANTS PROVIDED TO CARBONAIR ARE PRESENT IN THE WATER. VARYING OPERATING CONDITIONS CAN HAVE ADVERSE EFFECTS ON CARBON ADSORPTIVE CAPACITY. THE PREDICTED BED LIFE IS NOT GUARANTEED.

Randolph Siwik & Penny Myers
P.O. Box 15495 Wilmington, NC 28408
Phone: (910) 409-9511 Fax. 866-898-9544
www.callfirstchoice.com

PROJECT BID

June 27, 2011

Vincent Antrilli, Jr
Bernard Allen Fund Administrator
401 Oberlin Rd, Suite 150
Raleigh, NC 27605

Dear Mr Antrilli:

We propose to furnish labor and materials for the following work at 109 Atkinson St, Hamlet NC.

Modify the existing well house height to allow placement and proper protection for the POE filter systems components. The existing roof, trusses, sheathing sidewalls and T-111 exterior walls will be removed. A 30" riser constructed of pressure treated 2x4 lumber will be installed and bolted to the existing wall structure. The roof, trusses, sheathing sidewalls and T-111 exterior walls will be reconstructed; where applicable and practical materials from the existing structure will be reused. The existing door entrance framing to the well house will be modified and increased in height to allow for easier access to the interior of the structure. A new door will be constructed (it is non-standard width and height). The exterior T-111 sheathing and door and framing of the well house will be primed and painted with an exterior paint similar in color to the existing paint color.

Our price for performing this work is $1290.00 which includes all labor, travel and materials costs. As soon as we have your approval, we will schedule the project for start up right away and expect to have it completed within two working days.

Sincerely,

Randolph Siwik and Penny Myers

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515
www.encolabs.com

Tuesday, August 23, 2011

S&ME, Inc. (SM001)

Attn: Ed Woloszyn

3201 Spring Forest Road

Raleigh, NC 27616

RE: Laboratory Results for
Project Number: 1054-10-2002, Project Name/Desc: Atkinson Street Contamination
ENCO Workorder: C109967

Dear Ed Woloszyn,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, August 10, 2011.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith

Chuck Smith

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 12

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: Effluent | Lab ID: C109967-01 | Sampled: 08/09/11 15:45 | Received: 08/10/11 11:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/23/11	08/12/11 09:32	8/12/2011 16:16

Client ID: Influent | Lab ID: C109967-02 | Sampled: 08/09/11 16:00 | Received: 08/10/11 11:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	08/23/11	08/12/11 09:32	8/12/2011 16:46

www.encolabs.com

SAMPLE DETECTION SUMMARY

Client ID: Influent Lab ID: G109967-02

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
1,1-Dichloroethane	1.2		0.080	1.0	ug/L	EPA 8260B	
1,1-Dichloroethene	9.4		0.60	1.0	ug/L	EPA 8260B	

www.encolabs.com

ANALYTICAL RESULTS

Description: Effluent
Matrix: Ground Water
Project: Atkinson Street Contamination

Lab Sample ID: C109967-01
Sampled: 08/09/11 15:45
Sampled By: Jamie T. Honeycutt

Received: 08/10/11 11:30
Work Order: C109967

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,1-Dichloroethane [75-34-3] ^	0.080	U	ug/L	1	0.080	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,1-Dichloroethene [75-35-4] ^	0.60	U	ug/L	1	0.60	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,1-Dichloropropene [563-58-6] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2,3-Trichlorobenzene [87-61-6] ^	0.51	U	ug/L	1	0.51	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.58	U	ug/L	1	0.58	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2,4-Trimethylbenzene [95-63-6] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,3,5-Trimethylbenzene [108-67-8] ^	0.067	U	ug/L	1	0.067	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.79	U	ug/L	1	0.79	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,3-Dichloropropane [142-28-9] ^	0.67	U	ug/L	1	0.67	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
2,2-Dichloropropane [594-20-7] ^	0.56	U	ug/L	1	0.56	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
2-Chloroethyl Vinyl Ether [110-75-8] ^	1.1	U	ug/L	1	1.1	5.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
2-Chlorotoluene [95-49-8] ^	0.071	U	ug/L	1	0.071	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
4-Chlorotoluene [106-43-4] ^	0.63	U	ug/L	1	0.63	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
4-Isopropyltoluene [99-87-6] ^	0.82	U	ug/L	1	0.82	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Bromobenzene [108-86-1] ^	0.61	U	ug/L	1	0.61	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.56	U	ug/L	1	0.56	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Hexachlorobutadiene [87-68-3] ^	0.88	U	ug/L	1	0.88	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	

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Description: Effluent
Matrix: Ground Water
Project: Atkinson Street Contamination

Lab Sample ID: C109967-01
Sampled: 08/09/11 15:45
Sampled By: Jamie T. Honeycutt

Received: 08/10/11 11:30
Work Order: C109967

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
Isopropylbenzene [98-82-8] ^	0.62	U	ug/L	1	0.62	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	1.4	U	ug/L	1	1.4	2.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Methyl-tert-Butyl Ether [1634-04-4] ^	0.58	U	ug/L	1	0.58	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Naphthalene [91-20-3] ^	0.46	U	ug/L	1	0.46	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
n-Butyl Benzene [104-51-8] ^	0.51	U	ug/L	1	0.51	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
n-Propyl Benzene [103-65-1] ^	0.093	U	ug/L	1	0.093	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
o-Xylene [95-47-6] ^	0.63	U	ug/L	1	0.63	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
sec-Butylbenzene [135-98-8] ^	0.84	U	ug/L	1	0.84	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
tert-Butylbenzene [98-06-6] ^	0.79	U	ug/L	1	0.79	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	1H12013	EPA 8260B	08/12/11 16:16	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*51*	*1*	*50.0*	*101 %*	*51-122*	*1H12013*	*EPA 8260B*	*08/12/11 16:16*	*JKG*	
Dibromofluoromethane	*45*	*1*	*50.0*	*90 %*	*68-117*	*1H12013*	*EPA 8260B*	*08/12/11 16:16*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*95 %*	*69-110*	*1H12013*	*EPA 8260B*	*08/12/11 16:16*	*JKG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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Description: Influent
Matrix: Ground Water
Project: Atkinson Street Contamination

Lab Sample ID: C109967-02
Sampled: 08/09/11 16:00
Sampled By: Jamie T. Honeycutt

Received: 08/10/11 11:30
Work Order: C109967

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.90	U	ug/L	1	0.90	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.65	U	ug/L	1	0.65	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.75	U	ug/L	1	0.75	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,1-Dichloroethane [75-34-3] ^	**1.2**		ug/L	1	0.080	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,1-Dichloroethene [75-35-4] ^	**9.4**		ug/L	1	0.60	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,1-Dichloropropene [563-58-6] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2,3-Trichlorobenzene [87-61-6] ^	0.51	U	ug/L	1	0.51	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.58	U	ug/L	1	0.58	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2,4-Trimethylbenzene [95-63-6] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.11	U	ug/L	1	0.11	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2-Dichloroethane [107-06-2] ^	0.47	U	ug/L	1	0.47	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,2-Dichloropropane [78-87-5] ^	0.59	U	ug/L	1	0.59	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,3,5-Trimethylbenzene [108-67-8] ^	0.067	U	ug/L	1	0.067	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.79	U	ug/L	1	0.79	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,3-Dichloropropane [142-28-9] ^	0.67	U	ug/L	1	0.67	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.79	U	ug/L	1	0.79	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
2,2-Dichloropropane [594-20-7] ^	0.56	U	ug/L	1	0.56	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
2-Chloroethyl Vinyl Ether [110-75-8] ^	1.1	U	ug/L	1	1.1	5.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
2-Chlorotoluene [95-49-8] ^	0.071	U	ug/L	1	0.071	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
4-Chlorotoluene [106-43-4] ^	0.63	U	ug/L	1	0.63	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
4-Isopropyltoluene [99-87-6] ^	0.82	U	ug/L	1	0.82	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Benzene [71-43-2] ^	0.68	U	ug/L	1	0.68	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Bromobenzene [108-86-1] ^	0.61	U	ug/L	1	0.61	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Bromochloromethane [74-97-5] ^	0.87	U	ug/L	1	0.87	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Bromodichloromethane [75-27-4] ^	0.75	U	ug/L	1	0.75	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Bromoform [75-25-2] ^	0.68	U	ug/L	1	0.68	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Bromomethane [74-83-9] ^	0.58	U	ug/L	1	0.58	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Carbon tetrachloride [56-23-5] ^	0.69	U	ug/L	1	0.69	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Chlorobenzene [108-90-7] ^	0.74	U	ug/L	1	0.74	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Chloroethane [75-00-3] ^	0.75	U	ug/L	1	0.75	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Chloroform [67-66-3] ^	0.70	U	ug/L	1	0.70	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Chloromethane [74-87-3] ^	0.55	U	ug/L	1	0.55	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.075	U	ug/L	1	0.075	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Dibromochloromethane [124-48-1] ^	0.63	U	ug/L	1	0.63	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Dibromomethane [74-95-3] ^	0.90	U	ug/L	1	0.90	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.56	U	ug/L	1	0.56	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Ethylbenzene [100-41-4] ^	0.62	U	ug/L	1	0.62	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Hexachlorobutadiene [87-68-3] ^	0.88	U	ug/L	1	0.88	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Isopropylbenzene [98-82-8] ^	0.62	U	ug/L	1	0.62	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
m,p-Xylenes [108-38-3/106-42-3] ^	1.4	U	ug/L	1	1.4	2.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Methylene chloride [75-09-2] ^	0.14	U	ug/L	1	0.14	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	

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Description: Influent
Matrix: Ground Water
Project: Atkinson Street Contamination

Lab Sample ID: C109967-02
Sampled: 08/09/11 16:00
Sampled By: Jamie T. Honeycutt

Received: 08/10/11 11:30
Work Order: C109967

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	Batch	Method	Analyzed	By	Notes
Methyl-tert-Butyl Ether [1634-04-4] ^	0.58	U	ug/L	1	0.58	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Naphthalene [91-20-3] ^	0.46	U	ug/L	1	0.46	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
n-Butyl Benzene [104-51-8] ^	0.51	U	ug/L	1	0.51	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
n-Propyl Benzene [103-65-1] ^	0.093	U	ug/L	1	0.093	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
o-Xylene [95-47-6] ^	0.63	U	ug/L	1	0.63	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
sec-Butylbenzene [135-98-8] ^	0.84	U	ug/L	1	0.84	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Styrene [100-42-5] ^	0.053	U	ug/L	1	0.053	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
tert-Butylbenzene [98-06-6] ^	0.79	U	ug/L	1	0.79	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Tetrachloroethene [127-18-4] ^	0.73	U	ug/L	1	0.73	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Toluene [108-88-3] ^	0.85	U	ug/L	1	0.85	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.12	U	ug/L	1	0.12	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.50	U	ug/L	1	0.50	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Trichloroethene [79-01-6] ^	0.72	U	ug/L	1	0.72	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Trichlorofluoromethane [75-69-4] ^	0.66	U	ug/L	1	0.66	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Vinyl chloride [75-01-4] ^	0.60	U	ug/L	1	0.60	1.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	
Xylenes (Total) [1330-20-7] ^	2.1	U	ug/L	1	2.1	3.0	1H12013	EPA 8260B	08/12/11 16:46	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*51*	*1*	*50.0*	*102 %*	*51-122*	*1H12013*	*EPA 8260B*	*08/12/11 16:46*	*JKG*	
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*68-117*	*1H12013*	*EPA 8260B*	*08/12/11 16:46*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*93 %*	*69-110*	*1H12013*	*EPA 8260B*	*08/12/11 16:46*	*JKG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H12013 - EPA 5030B_MS

Blank (1H12013-BLK1) Prepared: 08/12/2011 09:32 Analyzed: 08/12/2011 11:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.90	U	1.0	ug/L							
1,1,1-Trichloroethane	0.65	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.75	U	1.0	ug/L							
1,1,2-Trichloroethane	0.66	U	1.0	ug/L							
1,1-Dichloroethane	0.080	U	1.0	ug/L							
1,1-Dichloroethene	0.60	U	1.0	ug/L							
1,1-Dichloropropene	0.66	U	1.0	ug/L							
1,2,3-Trichlorobenzene	0.51	U	1.0	ug/L							
1,2,3-Trichloropropane	0.72	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.58	U	1.0	ug/L							
1,2,4-Trimethylbenzene	0.72	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.11	U	1.0	ug/L							
1,2-Dichloroethane	0.47	U	1.0	ug/L							
1,2-Dichloropropane	0.59	U	1.0	ug/L							
1,3,5-Trimethylbenzene	0.067	U	1.0	ug/L							
1,3-Dichlorobenzene	0.79	U	1.0	ug/L							
1,3-Dichloropropane	0.67	U	1.0	ug/L							
1,4-Dichlorobenzene	0.79	U	1.0	ug/L							
2,2-Dichloropropane	0.56	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Chloroethyl Vinyl Ether	1.1	U	5.0	ug/L							
2-Chlorotoluene	0.071	U	1.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
4-Chlorotoluene	0.63	U	1.0	ug/L							
4-Isopropyltoluene	0.82	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Benzene	0.68	U	1.0	ug/L							
Bromobenzene	0.61	U	1.0	ug/L							
Bromochloromethane	0.87	U	1.0	ug/L							
Bromodichloromethane	0.75	U	1.0	ug/L							
Bromoform	0.68	U	1.0	ug/L							
Bromomethane	0.58	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.69	U	1.0	ug/L							
Chlorobenzene	0.74	U	1.0	ug/L							
Chloroethane	0.75	U	1.0	ug/L							
Chloroform	0.70	U	1.0	ug/L							
Chloromethane	0.55	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.72	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.075	U	1.0	ug/L							
Dibromochloromethane	0.63	U	1.0	ug/L							
Dibromomethane	0.90	U	1.0	ug/L							
Dichlorodifluoromethane	0.56	U	1.0	ug/L							
Ethylbenzene	0.62	U	1.0	ug/L							
Hexachlorobutadiene	0.88	U	1.0	ug/L							
Isopropylbenzene	0.62	U	1.0	ug/L							

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H12013 - EPA 5030B_MS

Blank (1H12013-BLK1) Continued Prepared: 08/12/2011 09:32 Analyzed: 08/12/2011 11:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
m,p-Xylenes	1.4	U	2.0	ug/L							
Methylene chloride	0.14	U	1.0	ug/L							
Methyl-tert-Butyl Ether	0.58	U	1.0	ug/L							
Naphthalene	0.46	U	1.0	ug/L							
n-Butyl Benzene	0.51	U	1.0	ug/L							
n-Propyl Benzene	0.093	U	1.0	ug/L							
o-Xylene	0.63	U	1.0	ug/L							
sec-Butylbenzene	0.84	U	1.0	ug/L							
Styrene	0.053	U	1.0	ug/L							
tert-Butylbenzene	0.79	U	1.0	ug/L							
Tetrachloroethene	0.73	U	1.0	ug/L							
Toluene	0.85	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.12	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.50	U	1.0	ug/L							
Trichloroethene	0.72	U	1.0	ug/L							
Trichlorofluoromethane	0.66	U	1.0	ug/L							
Vinyl chloride	0.60	U	1.0	ug/L							
Xylenes (Total)	2.1	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*103*	*51-122*			
Surrogate: Dibromofluoromethane	*46*			*ug/L*	*50.0*		*92*	*68-117*			
Surrogate: Toluene-d8	*47*			*ug/L*	*50.0*		*95*	*69-110*			

LCS (1H12013-BS1) Prepared: 08/12/2011 09:32 Analyzed: 08/12/2011 12:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0		114	75-133			
Benzene	20		1.0	ug/L	20.0		98	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		102	83-117			
Toluene	22		1.0	ug/L	20.0		112	71-118			
Trichloroethene	20		1.0	ug/L	20.0		98	75-115			
Surrogate: 4-Bromofluorobenzene	*50*			*ug/L*	*50.0*		*100*	*51-122*			
Surrogate: Dibromofluoromethane	*45*			*ug/L*	*50.0*		*90*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*96*	*69-110*			

Matrix Spike (1H12013-MS1) Prepared: 08/12/2011 09:32 Analyzed: 08/12/2011 12:51

Source: C109020-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.60 U	109	75-133			
Benzene	19		1.0	ug/L	20.0	0.68 U	94	81-134			
Chlorobenzene	19		1.0	ug/L	20.0	0.74 U	97	83-117			
Toluene	22		1.0	ug/L	20.0	0.85 U	108	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.72 U	97	75-115			
Surrogate: 4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*102*	*51-122*			
Surrogate: Dibromofluoromethane	*44*			*ug/L*	*50.0*		*88*	*68-117*			
Surrogate: Toluene-d8	*47*			*ug/L*	*50.0*		*94*	*69-110*			

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1H12013 - EPA 5030B_MS

Matrix Spike Dup (1H12013-MSD1) Prepared: 08/12/2011 09:32 Analyzed: 08/12/2011 13:20

Source: C109020-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.60 U	109	75-133	0.05	20	
Benzene	19		1.0	ug/L	20.0	0.68 U	96	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.74 U	98	83-117	0.9	16	
Toluene	22		1.0	ug/L	20.0	0.85 U	110	71-118	2	17	
Trichloroethene	20		1.0	ug/L	20.0	0.72 U	98	75-115	0.7	18	
Surrogate: 4-Bromofluorobenzene	*51*			*ug/L*	*50.0*		*103*	*51-122*			
Surrogate: Dibromofluoromethane	*44*			*ug/L*	*50.0*		*87*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*96*	*69-110*			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr
Orlando, FL 32824
(407) 826 5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 211
Jacksonville, Fl 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467 3515

Page 1 of 1

Client Name	S-ME
Address	3201 Spring Forest Rd
City/ST/Zip	Raleigh NC 27616
Tel	919 872-2660
Fax	
Sampler(s) Name, Affiliation (Print)	Jamie T Honeycutt S-ME
Sampler(s) Signature	Jamie T Honeycutt
Project Number	
Project Name/Desc	Atkinson St.
PO # / Billing Info	
Reporting Contact	Ed Wolszyn
Billing Contact	
Facility # (if required)	

Requested Analyses: 8260

Preservation (See Codes) (Combine as necessary)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due __/__/__

Lab Workorder: C109967

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260										Sample Comments
	Effluent	8-9-11	3:45pm	Grab	GW	3	✓										
	Influent	8-9-11	4:00pm	Grab	GW	3	✓										

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: Jamie T Honeycutt	Date/Time: 8-9-11 6:15pm	Received By: Briana Gregory	Date/Time: 8/10/11 11:30
Comments		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.4°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix GW-Groundwater SO-Soil SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

ENCO www.encolabs.com

S&ME

May 10, 2011

North Carolina Department of Environment and Natural Resources
Division of Waste Management
Inactive Hazardous Site Branch
Superfund Section
401 Oberlin Road – Suite 150
Raleigh, North Carolina 27605

Attention: Mr. Keith Snavely, P.G. Keith.Snavely@ncdenr.gov
Hydrogeologist

Reference: Fee Proposal for Point of Entry (POE) Drinking Water Treatment System
Haught Residence
109 Atkinson Street, Hamble (Richmond Co.), NC
NCDENR Contract #N10005S
S&ME Project No. 1054-10-2002
S&ME, Inc. Proposal No. P107-11V

Dear Mr. Snavely:

S&ME, Inc. (S&ME) appreciates this opportunity to present this work plan and fee proposal to provide a point of entry (POE) drinking water treatment system for the Haught residence located at 109 Atkinson Street, Hamlet (Richmond County) North Carolina. S&ME is submitting this proposal following an email request from Mr. John Walch for a cost estimate for the design, installation and maintenance of a POE drinking water system dated May 10, 2011. This proposal presents our scope of services, a schedule for completing the services, and a fee estimate. All services will be provided under the North Carolina Department of Environment and Natural Resource (NCDENR) Contract #N10005S. NCDENR will issue a Task Authorization as notice to proceed with our services.

PROJECT INTRODUCTION

S&ME completed a groundwater and drinking water supply well assessment of the 109 Atkinson Street site on November 17, 2010 (S&ME Project No. 1054-10-2002). The report showed that the potable well servicing the Haught resident had elevated concentration chlorinated hydrocarbons above the North Carolina groundwater standards. Analytical laboratory data collected in September 2010 concludes that the Haught's drinking water supply is impacted with 1,1-dichloroethane (DCA) and 1,1-dichloroethene (DCE). The source of the groundwater contaminants in not known. The IHSB branch has opted to provide the Haughts with a POE system on their drinking water supply.

The following scope of services was developed to address IHSB's request for services.

SCOPE OF SERVICES

Point of Entry (POE) Drinking Water System

S&ME will contract Carbonair Environmental Systems (Carbonair) in Salem, Virginia to install a POE drinking water treatment system and arrange for the installation of the system at the Haught residence located at 109 Atkinson Street, Hamlet (Richmond County) North Carolina.

The POE system will be plumbed in directly to the residence's existing water supply piping outside of the home in location near an electrical power source and close to the water supply line that enters the residence.

The POE system is a packaged unit that will consist of the following components:

- (2) – 12" x 52" granular activated carbon (GAC) vessels.
- (1) – UV light unit.
- (1) – 5 micron filter house.
- (6) – 5 micron particle filters.
- (1) – Totalizing water flow meter.
- (1) – 4' x 4' insulated building with heater.
- Miscellaneous electrical and plumbing materials.

Approximately one week after installation and start-up of the POE system, S&ME will mobilize to the site to collect one water sample from the effluent of the system to verify the system's performance. The sample will be analyzed by an NCDENR-approved analytical laboratory for volatile organic compounds (VOCs) by US EPA method 8260B.

S&ME will also arrange for preventative maintenance service (PM) of the POE system by Carbonair personnel to occur approximately twelve months following installation and start-up should the branch agree to this optional service. While this proposal only includes costs for one PM service site visit, the POE system should be serviced at least once every twelve months to ensure optimal system performance.

SCHEDULE

S&ME will coordinate with IHSB staff to visit the Haught residence within one week of receiving the authorization to proceed to assess the plumbing materials and available electrical supply. It is expected that one day on-site would be needed for the initial site assessment. Following the site assessment, S&ME will coordinate with IHSB and Carbonair personnel to mobilize to the site for installation and start-up of the POE system. It is expected that one day will be required to be on site for installation and start-up. Approximately one week after system start-up, S&ME will mobilize to the site to collect one water sample for laboratory analysis. It is expected that one day will be needed for travel to the site and sample collection. Maintenance of the system by

Carbonair personnel will take place for the first 12-month service and will require one day on-site.

ASSOCIATED FEES

The services described herein will be provided on a time and materials basis in accordance with our contract fee schedule. The budget for the scope of services described in this proposal is **$9293 (including PM service)** or **$7,665.75 (not including PM service).** The proposed fee is based on the attached itemized fee sheet (**Table 1**), which is in accordance with our contracted fee schedule.

AUTHORIZATION

It is our understanding that IHSB will authorize these services through a task authorization letter. Once in receipt of the authorization, S&ME will proceed with our services.

We trust that this revised work plan and fee proposal is responsive to your needs. S&ME welcomes the opportunity to assist IHSB. Please contact us at (919) 872-2660 if you have any questions or comments regarding this proposal.

Sincerely,
S&ME, Inc.

Whit Rawls, P.E.
Project Engineer

Edmund Woloszyn, Jr., R.E.M.
Senior Consultant

cc: John Walch - IHSB

Attachments:
Table 1 Itemized Fees
Information on Carbonair Unit

Table 1
Itemized Fees
Haught Residence at 109 Atkinson Street
DENR Contract #N10005S
S&ME Proposal No. P107-11V
May 10, 2011

Project Administration	**Units**			**Rates**		**Subtotal**	**Fee/Task**
Staff Professional	6	hrs @	$	75.00	/hr	$ 450.00	**$ 535.00**
Clerical	2	hrs @	$	42.50	/hr	$ 85.00	
Point of Entry (POE) Drinking Water Treatment System	**Units**			**Rates**		**Subtotal**	**Fee/Task**
Carbonair POE System (cost plus 15% markup).	1	ea @	$	6,008.75	/ea	$ 6,008.75	**$ 6,008.75**
FIELD SUPPORT AND ANALYSES	**Units**			**Rates**		**Subtotal**	**Fee/Task**
Staff Professional	6	hrs @	$	75.00	/hr	$ 450.00	
Mileage (for Technician)	130	miles @	$	0.55	/mile	$ 71.50	
Laboratory Costs							**$ 675.50**
VOCs by EPA 8260B	1	ea @	$	77.00	/ea	$ 77.00	
VOCs by EPA 8260B Trip Blank	1	ea @	$	77.00	/ea	$ 77.00	
Letter Report	**Units**			**Rates**		**Subtotal**	**Fee/Task**
Project Professional	4	hrs @	$	101.00	/hr	$ 404.00	**$ 446.50**
Clerical	1	hrs @	$	42.50	/hr	$ 42.50	
Preventative Maintenance (PM) Service (Optional)	***Units***			***Rates***		***Subtotal***	***Fee/Task***
Annual PM service of POE System (by Carbonair personnel)	*1*	*ea @*	*$*	*1,627.25*	*/hr*	*$ 1,627.25*	***$ 1,627.25***

Total Projected Fee (Including PM Service)	**$9,293.00**
Total Projected Fee (Without PM Service)	**$7,665.75**

CARBONAIR

Your Mobile Water Treatment Specialists

Customer:	S&ME, Raleigh, NC		
Site:	The Haught Residence, Hamlet, NC		
Date:	5/10/11		
Design Basis:	Flow rate:	6	gpm
	Water temperature:	55	°F (assumed)
	Critical contaminant:	1,1-Dichloroethane	
	Influent concentration:	1.2	ppb
	Effluent criteria:	< 0.33	ppb (below detection limit)
	Other contaminants present:		
	1,1-Dichloroethene	7.1	ppb

Recommendations: Liquid-Phase Carbon Adsorbers

Two PC1's in series, each with 90 lbs of carbon

- The lead vessel is predicted to require carbon change-out every 146,880 gallons (see the modeling below).
- The lag vessel is placed on line as a back-up unit and should be always kept fresh.

NOTICE

THIS DOCUMENT AND ITS CONTENTS ARE PROPRIETARY TO CARBONAIR ENVIRONMENTAL SYSTEMS, AND MAY NOT BE COPIED, DISTRIBUTED OR USED BY ANYONE, IN WHOLE OR IN PART, WITHOUT THE EXPRESS AUTHORIZATION OF CARBONAIR.

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LIQUID-PHASE CARBON ADSORPTION MODEL CALCULATIONS

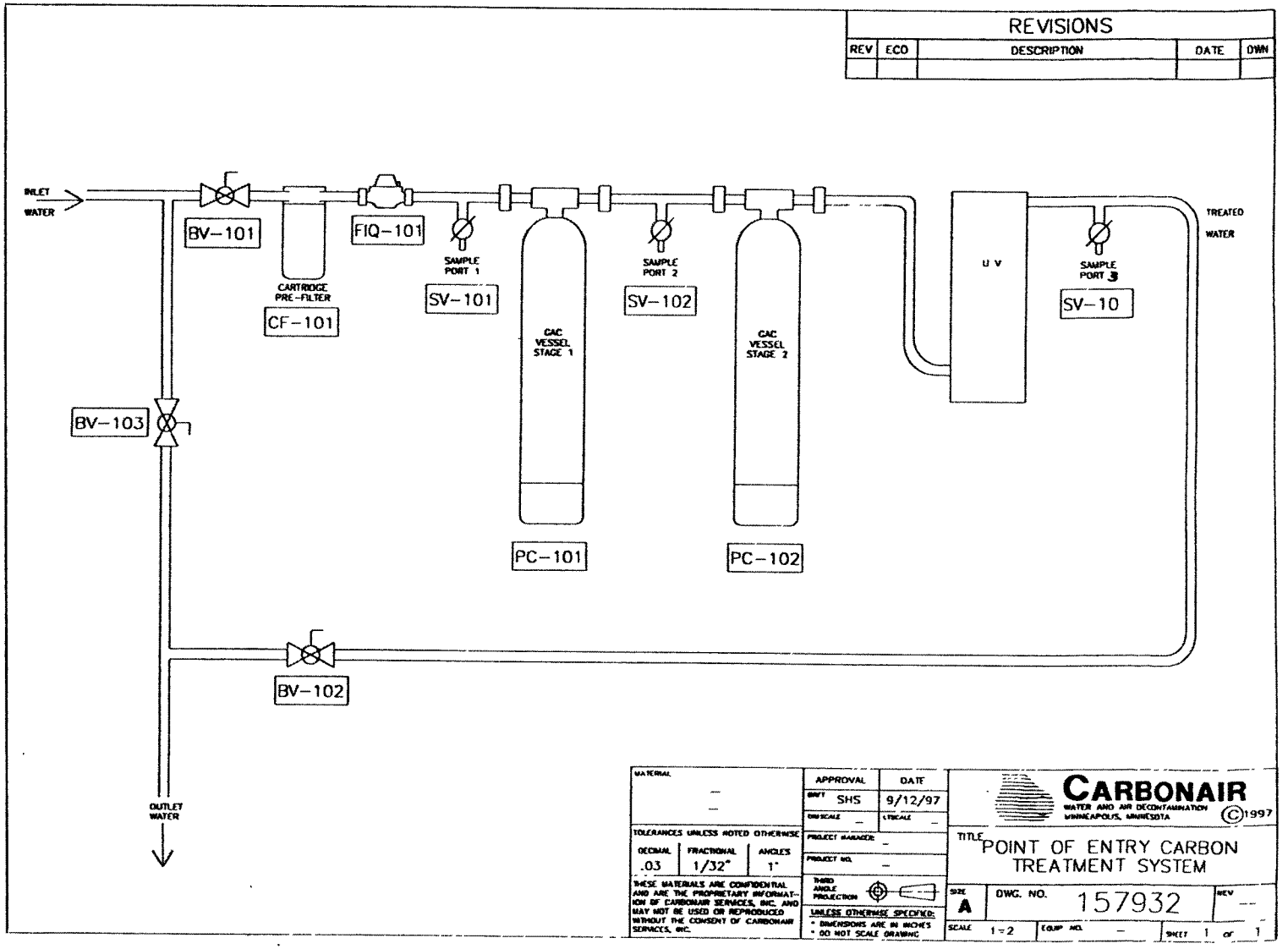
CARBONAIR ENVIRONMENTAL SYSTEMS

CARBON ADSORBERS:	PC1
NO OF ADSORBERS IN SERIES:	1
TOTAL MASS OF CARBON (LBS):	90.000
FLOW RATE (GPM):	6.0000
HYDRAULIC LOADING (GPM/SQ.FT):	5.1837
EMPTY BED CONTACT TIME (MIN.):	4.0891
DESIGN COMPOUND:	1,1-DCA
EXPECTED INFLUENT CONCENTRATION (PPB):	1.2000
MODEL INFLUENT CONCENTRATION (PPB):	2.3000
EFFLUENT CRITERIA (PPB):	0.33000
EFFECTIVE K-VALUE (%):	50.000

TIME(DAYS)	VOLUME TREATED(GAL)	EFF. CONC.(PPB)	
1.0	8640.	0.0000	
2.0	17280.	0.0000	
3.0	25920.	0.0000	
4.0	34560.	0.0000	
5.0	43200.	0.0000	
6.0	51840.	0.0000	
7.0	60480.	0.0146	
8.0	69120.	0.0240	
9.0	77760.	0.0376	
10.0	86400.	0.0558	
11.0	95040.	0.0792	
12.0	103680.	0.1077	
13.0	112320.	0.1408	
14.0	120960.	0.1784	
15.0	129600.	0.2193	
16.0	138240.	0.2629	
17.0	146880.	0.3085	← BREAKTHROUGH
18.0	155520.	0.3554	
19.0	164160.	0.4031	
20.0	172800.	0.4510	
20.0	172800.	0.4510	

Note: The model influent concentration results from the impact of the other background compounds, which is determined by using a competitive adsorption model

DISCLAIMER: ACTUAL RESULTS MAY VARY SIGNIFICANTLY FROM THE MODEL. THE MODEL IS BASED ON THE ASSUMPTIONS THAT THE FLOW RATE AND INFLUENT CONCENTRATION ARE CONSTANT, AND ONLY THE CONTAMINANTS PROVIDED TO CARBONAIR ARE PRESENT IN THE WATER. VARYING OPERATING CONDITIONS CAN HAVE ADVERSE EFFECTS ON CARBON ADSORPTIVE CAPACITY. THE PREDICTED BED LIFE IS NOT GUARANTEED.



REVISIONS				
REV	ECO	DESCRIPTION	DATE	DWN

MATERIAL — —	APPROVAL	DATE
	DRFT SHS	9/12/97
	DWG SCALE —	CTRCALE —
TOLERANCES UNLESS NOTED OTHERWISE	PROJECT MANAGER: —	
DECIMAL .03 / FRACTIONAL 1/32" / ANGLES 1°	PROJECT NO. —	
THESE MATERIALS ARE CONFIDENTIAL AND ARE THE PROPRIETARY INFORMATION OF CARBONAIR SERVICES, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT THE CONSENT OF CARBONAIR SERVICES, INC.	THIRD ANGLE PROJECTION	
	UNLESS OTHERWISE SPECIFIED: * DIMENSIONS ARE IN INCHES * DO NOT SCALE DRAWING	

CARBONAIR
WATER AND AIR DECONTAMINATION
MINNEAPOLIS, MINNESOTA
©1997

TITLE POINT OF ENTRY CARBON TREATMENT SYSTEM

SIZE	DWG. NO.	REV
A	157932	--
SCALE 1=2	EQUIP NO. —	SHEET 1 OF 1

NCDENR

North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director | Division of Waste Management | Beverly Eaves Purdue, Governor
Dee Freeman, Secretary

MEMORANDUM

Date: May 26, 2011

To: File

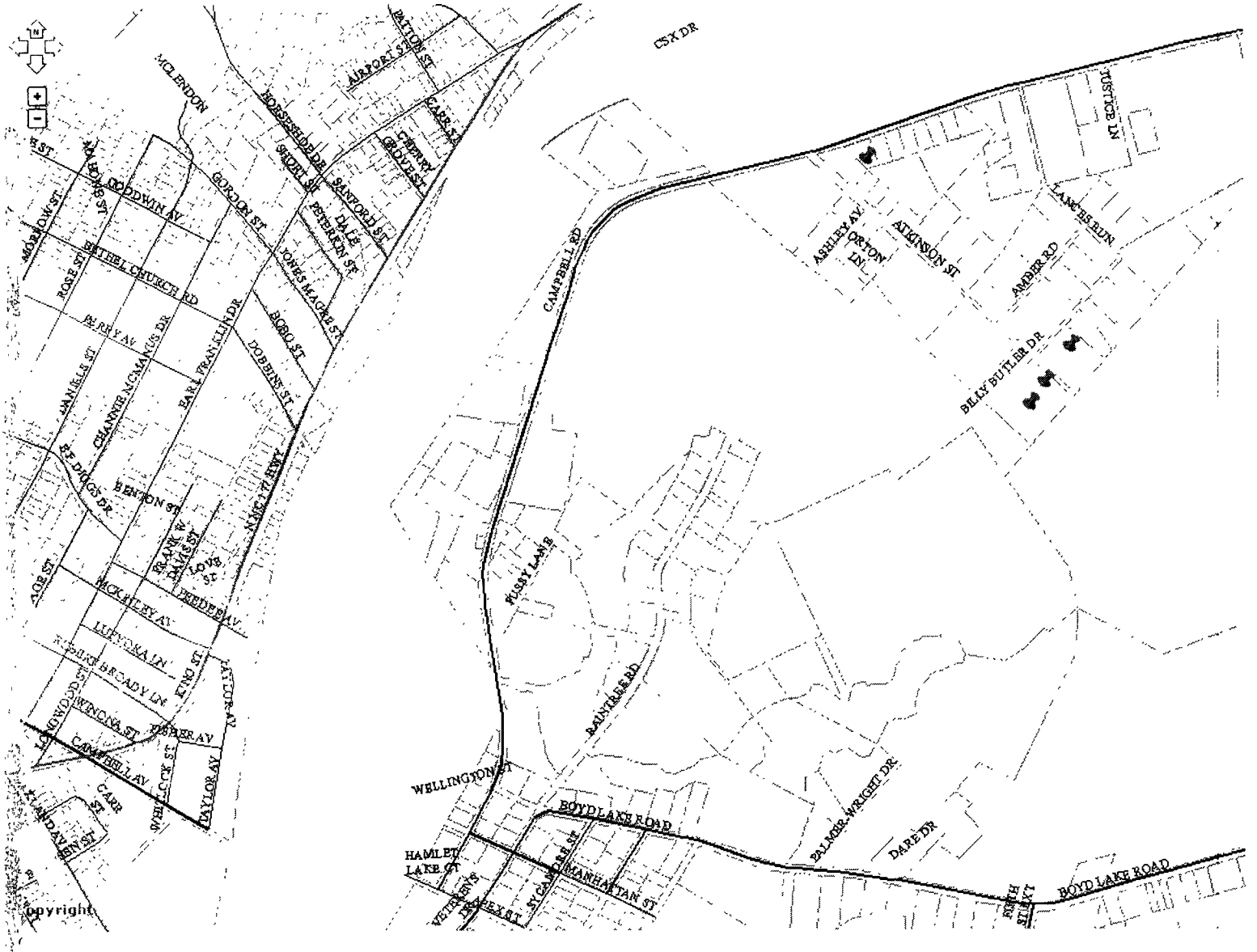
From: Vince Antrilli
Raleigh Regional Office
Inactive Hazardous Sites Branch

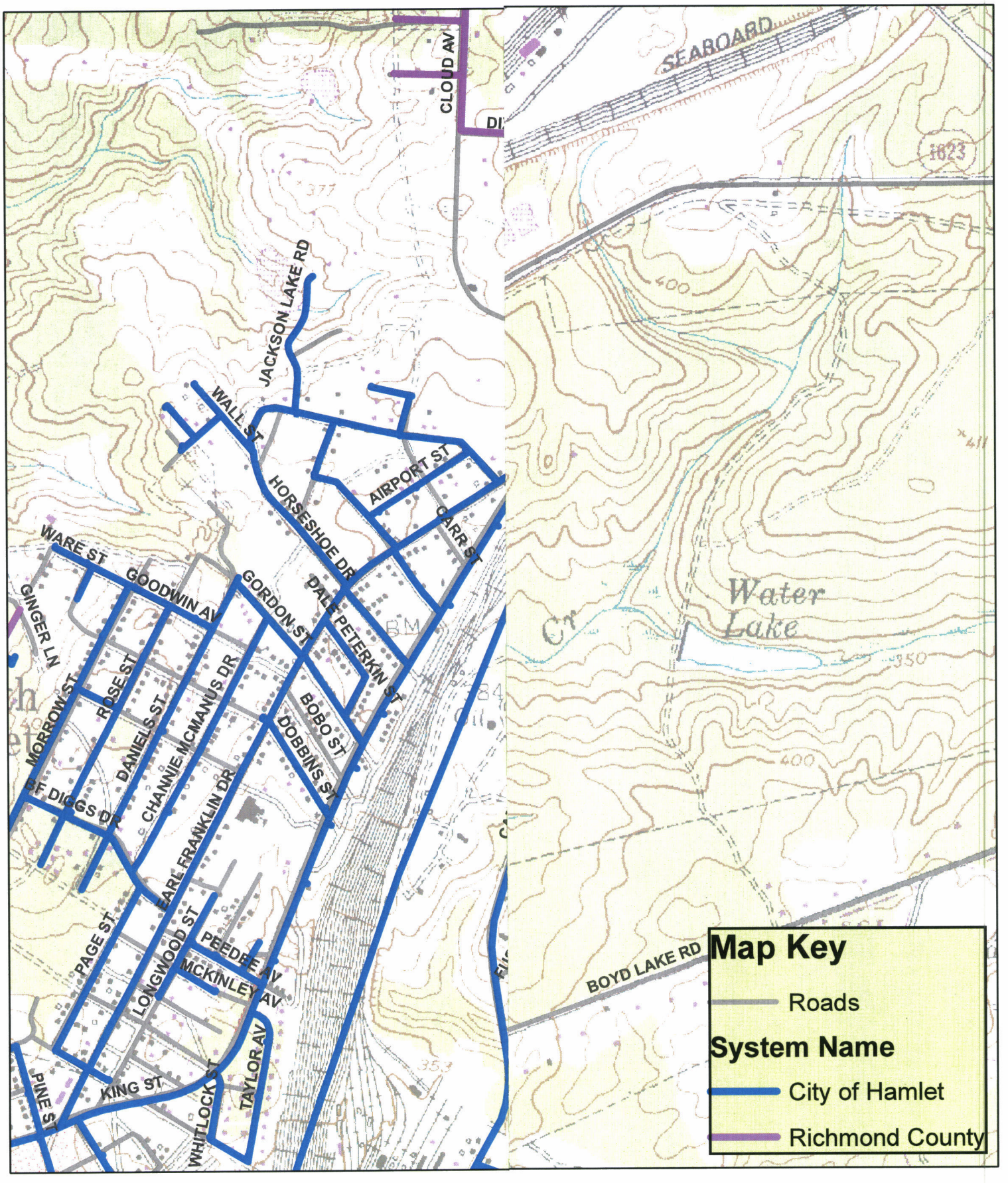
Re: Atkinson St site
NONCD0002867

On May 25th, 2011, Mr. Gordon Haught, Ms. Penny Myers owner of 109 Atkinson St, along with Mr. Jamie Honeycutt (S&ME), Larry Rose and I (Vince Antrilli) met on site to discuss the Point of Entry (POE) filter system to be installed on the water service supply from the onsite well. We observed a small well house near the southeast side of the site located between the driveway entrance and a chain link fence that encompasses the greater portion of the parcel. This structure houses the newer of two well locations and is the only one active. Also observed was the location of a well house on the southeast side of the site located inside the chain link fence (CLF) a distance approximately 30 ft northwest of the smaller well house. This building is a 4'2" concrete block structure with an a frame wood roof bolted to the concrete block wall. There is a poured concrete floor approximately 2" thick. This structure houses the old abandoned well location and the pressure tank. There is a 1" PVC pipe coming into the well house from the new well location and connected to the pressure tank. The 1" PVC pipe splits in two directions with a 1" PVC continuing toward the house with a 1" ball valve. It appears that the line reduces to possibly a 3/4" line as it goes underground through the concrete floor and continues t the residence. Going in a different direction the 1" PVC is reduced to a 3/4" PVC line and then is connected to a ¾" flexible plastic pipe running to an irrigation faucet located along the CLF on the east side of the site. Electric service enters the wells house in the nw corner. The Circuit Breaker for the well/well house is located on the nw side of the site and is mounted on a power pole on the property. It appears to be a 20 amp single pole breaker but it is unknown whether the service is 110 or 220 volt.

The scheduled date of installation is Friday June 3rd. Alternate dates are Tuesday June 7th or Wednesday June 8th in the event weather or contractor scheduling issues arise.

A complete scope of construction activities has been requested from S&ME (Jamie Honeycutt) along with specs and details of the well house modification, specs and details of all the filter system components, and a revised proposal incorporating the revised scope and adjusted pricing.


CSX DR
MCLENDON
AIRPORT ST
BATON ST
CARR ST
CEMETERY
GRUVER ST
HOBSPHOLDER
SANFORD ST
SHORT ST
DALE
PETERKIN ST
GORDON ST
JONES MACHE ST
BORO ST
DOBBINS ST
KING ST HWY
MORROW ST
ROSE ST
BETHEL CHURCH RD
PARK AV
EARL TRANSLUND DR
CHANDIE MCMAKES DR
DANIELS ST
BENTON ST
FRANK W
DAVIS ST
LOVE ST
FREDERICK
MACKALEY AV
LUCYONA LN
KING ST
TAYLOR AV
TUBER AV
CAMPBELL AV
CARR ST
WHEELOCK ST
CAMPBELL RD
FOSSY LANE
RAINTREE RD
WELLINGTON ST
BOYD LAKE ROAD
HAMLET
LAKE CT
MANHATTAN ST
PALMER-WRIGHT DR
DARE DR
ASHLEY AV
ORTON LN
ATKINSON ST
AMBER RD
LANCE'S RUN
JUSTICE LN
BILLY BUTLER DR
Copyright



Map Prepared by Richmond County GIS
No warranties of data accruacy given
November 2010

N
W E
S

Antrilli, Vincent

From: Brown, Dave
Sent: Tuesday, November 30, 2010 10:21 AM
To: Antrilli, Vincent
Cc: Snavely, Keith; Walch, John
Subject: RE: Richmond County Fox Rd Water Main extension
Attachments: DOC113010.pdf

The City Manager for Hamlet (I believe current) is

Ms. Marcell David or try 910-582-2651 to get the current manager. Keep in mind, I do not have the map that Keith Snavely is using or in other words, I do not know if this is planned work of the City of Hamlet or Richmond County. The site is not in the city limits.

Another helpful number is Mike Norton of the Richmond County Health Dept. His cell number is 910-417-5436. I think the health dept. number is 910-997-8320. He can put you in contact with county officials currently involved in the Fox Road Water Line.

Another very important number when dealing with issues concerning Gordon Haught is his daughter Penny Myers 910-409-9511. ANY communication, permission etc. must go through her as Mr. Haught has memory issues.

I have attached a scan of the affidavit for Gordon Haught which has been in place since November 2008. This is approximately when he started receiving bottled water.

Sampling data for the Gordon Haught PSW resides in three locations.

The Richmond County Health Dept. (Note, I think they gave Keith's' contractor - S&ME copies of all their data. I do not have it).

David Brown
APS sampling on 10/9/08 DCE=23.5 ug/L – State Health Lab
My initial sampling work at the Gordon Haught supply well to confirm APS results and then a sample approx. one year later.
11/14/08 DCE=11.0 ug/L – DWM Lab
12/8/09 DCE=10.0 ug/L – Pace analytical

Keith Snavely – includes work by orphan contractors, S&ME and Solutions IES.
S&ME
9/10/10 DCE=7.1 ug/L – ENCO Labs

Thanks, David

From: Antrilli, Vincent
Sent: Tuesday, November 30, 2010 8:15 AM
To: Brown, Dave
Subject: RE: Richmond County Fox Rd Water Main extension

Who are you talking to at the City of Hamlet Public Works? I'm heading out to the site on Friday, I'd like to set a meeting with Public Works to discuss the main extension proposed and other options.
If we need to do a POE system, it won't be interim.
Has the client been qualified for assistance (affidavit)? Please send me the sampling history and a copy of the affidavit (if we have yet).
Thanks,
Vince

From: Brown, Dave
Sent: Monday, November 29, 2010 4:24 PM
To: Antrilli, Vincent
Subject: RE: Richmond County Fox Rd Water Main extension

From what I can tell, the plans that Keith received indicates a water line that hasn't been built. It shows a line extending to Fussey lane along Campbell Road which is 1000 feet from G. Haught. We are trying to confirm or even when/if it will be built.

When I last approached this issue, Bernard Allen required local Govt. to pay a significant portion of construction. They (Hamlet) were not interested due to lack of funds.

In the interim a carbon filter might be the way to go for this location.

From: Antrilli, Vincent
Sent: Monday, November 29, 2010 4:14 PM
To: Brown, Dave
Subject: RE: Richmond County Fox Rd Water Main extension

As a matter of fact I do. What is the latest update on Atkinson St? Where are we with extending water service to the site?

From: Brown, Dave
Sent: Monday, November 29, 2010 4:11 PM
To: Antrilli, Vincent
Subject: RE: Richmond County Fox Rd Water Main extension

Sean should be able to provide information to Fox Road in the direction of Mary Chapel.

If you need any help with Atkinson St. let me know.

From: Antrilli, Vincent
Sent: Monday, November 29, 2010 12:57 PM
To: Boyles, Sean; Brown, Dave
Subject: Richmond County Fox Rd Water Main extension
Importance: High

Good afternoon Sean & Dave,
I am doing some work (contract and funding research) on the Richmond Water Main Extension project and I need to know if you have a list of contaminated wells and/or their files in the area of this project. The consultant has provided

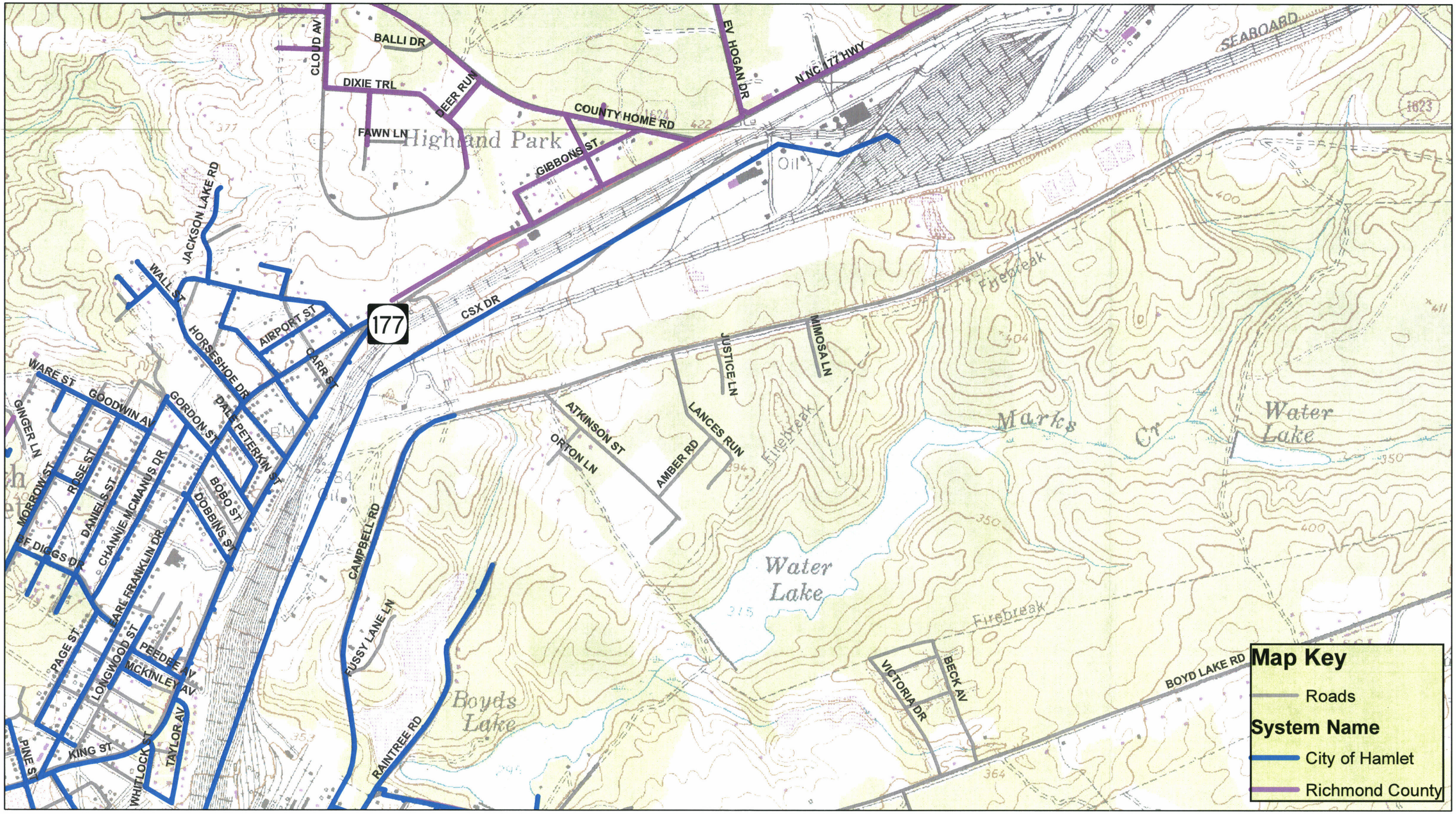
some information that they had in their files from DWQ but it is incomplete. I'm also cross referencing the information with the list of people receiving bottled water. Please email me whatever you can on this project.
Thanks,
Vince

Vince Antrilli, Jr.
Environmental Specialist
Inactive Hazardous Sites Branch
NC Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, NC 27605
919-508-8573 ph
Vincent.Antrilli@ncdenr.gov

Table 7
Water Supply Well Sample Analyses
Atkinson Street Site
109 Atkinson Street
Hamlet, North Carolina
S&ME Project No. 1054-10-2002

Analytical Method (e.g., VOC by EPA 601)			EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B
Contaminant of Concern										
Well ID	Sample ID	Date Collected (mm/dd/yy)	Acetone	2-Butanone	Chloroform	Chloromethane	1,1,-Dichloroethane	1,1-Dichloroethene 7.10	Trichloroethene	Naphthalene
Haught Residence	WSW-1	9/10/2010	<1.5	<1.0	<0.20	<0.30	**1.20**	7.10	<0.38	<0.39
Jernigan Residence	WSW-2	9/10/2010	<1.5	<1.0	<0.20	<0.34	<0.33	**0.70**	<0.38	<0.39
Butler Residence	WSW-3	9/10/2010	<1.5	<1.0	<0.20	<0.34	<0.33	**2.60**	<0.38	<0.39
Trip Blank	Trip Blank	9/10/2010	<1.5	<1.0	<0.20	<0.34	<0.33	<0.24	<0.38	<0.39
15A NCAC 2L Groundwater Standard (µg/l)			6,000	4,000	70	3	6	7	3	6
National Primary (or Secondary*) Drinking Water MCL			NL	NL	70	NL	NL	7	5	NL

Notes:
All sample analytical concentrations are reported in micrograms per liter (µg/l).
J = concentration detected above the method detection limit, but below the sample method reporting limit.
BOLD depicts constituents detected above the sample practical quantitation limit.
15A NCAC 2L Groundwater Standard (µg/l) amended January 1, 2010.
USEPA MCL = National Primary Drinking Water Regulations for Contaminants in Drinking Water checked 10/15/2010.
NL = Not Listed.
SHADED AND BOLD numbers indicate concentrations above NCAC 2L Groundwater Quality Standard.



Map Prepared by Richmond County GIS
No warranties of data accruacy given
November 2010

Maintenance & Upkeep

Water Lines
City of Hamlet and Richmond County

0 1,000 2,000 3,000 4,000 5,000 Feet

Annex Water

N W E S

LEGEND

- EXISTING MONITOR WELL LOCATION
- EXISTING SOIL BORING LOCATION
- CONSTITUENT CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L)

NOTE: REFER TO TABLE 7 FOR DETAILED SAMPLE DATA, SAMPLE DATES AND SAMPLE INTERVALS

GRAPHIC SCALE

50 0 25 50

(IN FEET)

IMAGE SOURCE NC ONEMAP, RICHMOND NC, DATED 2005

SCALE 1" = 80'	DATE NOV. 2010
PROJECT NUMBER 1054-10-2002	DRAWN BY BTR
DRAWING NUMBER B-1406	CHECKED BY

S&ME

WWW.SME.INC.COM

NC ENGINEER LICENSE #F-0176
3201 SPRING FOREST RD, RALEIGH, NC 27616

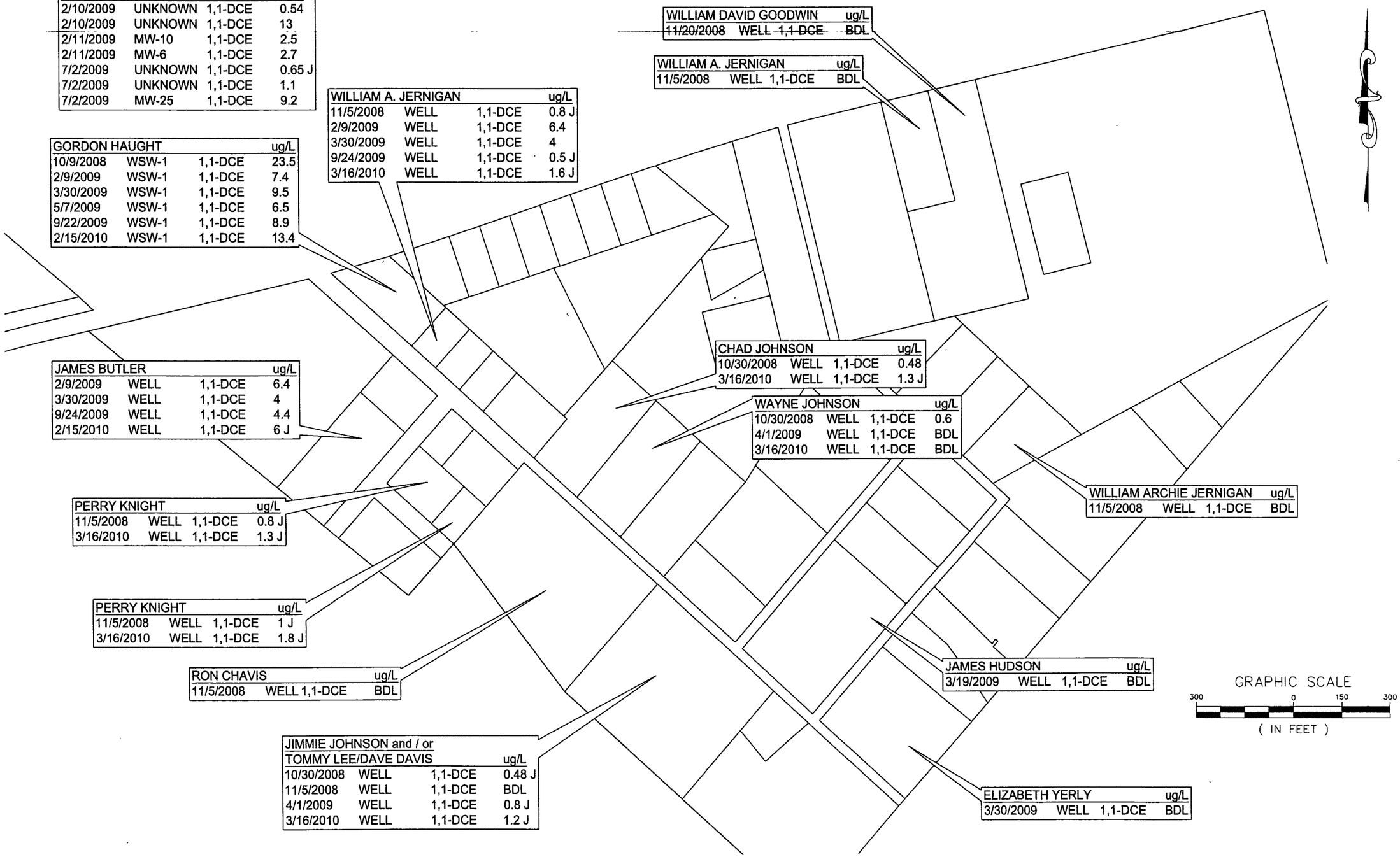
WATER SUPPLY WELL
GROUNDWATER CONSTITUENTS - SEPT. 2010

ATKINSON STREET CONTAMINATION SITE - 109 ATKINSON ST
HAMLET, NORTH CAROLINA

FIGURE NO

6

S:\PROJECTS\2 IHSB Orphan Priority Sites 2010\IHSB Contract Projects\1054-10 2002 Atkinson, Str. Hamlet, NC\D0961586\96\CAD\B1406.dwg, Layout1, 11/18/2010 8:26:48 AM, 1:1



CSX			ug/L
2/10/2009	UNKNOWN	1,1-DCE	0.54
2/10/2009	UNKNOWN	1,1-DCE	13
2/11/2009	MW-10	1,1-DCE	2.5
2/11/2009	MW-6	1,1-DCE	2.7
7/2/2009	UNKNOWN	1,1-DCE	0.65 J
7/2/2009	UNKNOWN	1,1-DCE	1.1
7/2/2009	MW-25	1,1-DCE	9.2

GORDON HAUGHT			ug/L
10/9/2008	WSW-1	1,1-DCE	23.5
2/9/2009	WSW-1	1,1-DCE	7.4
3/30/2009	WSW-1	1,1-DCE	9.5
5/7/2009	WSW-1	1,1-DCE	6.5
9/22/2009	WSW-1	1,1-DCE	8.9
2/15/2010	WSW-1	1,1-DCE	13.4

WILLIAM A. JERNIGAN			ug/L
11/5/2008	WELL	1,1-DCE	0.8 J
2/9/2009	WELL	1,1-DCE	6.4
3/30/2009	WELL	1,1-DCE	4
9/24/2009	WELL	1,1-DCE	0.5 J
3/16/2010	WELL	1,1-DCE	1.6 J

WILLIAM DAVID GOODWIN			ug/L
11/20/2008	WELL	1,1-DCE	BDL

WILLIAM A. JERNIGAN			ug/L
11/5/2008	WELL	1,1-DCE	BDL

JAMES BUTLER			ug/L
2/9/2009	WELL	1,1-DCE	6.4
3/30/2009	WELL	1,1-DCE	4
9/24/2009	WELL	1,1-DCE	4.4
2/15/2010	WELL	1,1-DCE	6 J

CHAD JOHNSON			ug/L
10/30/2008	WELL	1,1-DCE	0.48
3/16/2010	WELL	1,1-DCE	1.3 J

WAYNE JOHNSON			ug/L
10/30/2008	WELL	1,1-DCE	0.6
4/1/2009	WELL	1,1-DCE	BDL
3/16/2010	WELL	1,1-DCE	BDL

WILLIAM ARCHIE JERNIGAN			ug/L
11/5/2008	WELL	1,1-DCE	BDL

PERRY KNIGHT			ug/L
11/5/2008	WELL	1,1-DCE	0.8 J
3/16/2010	WELL	1,1-DCE	1.3 J

PERRY KNIGHT			ug/L
11/5/2008	WELL	1,1-DCE	1 J
3/16/2010	WELL	1,1-DCE	1.8 J

RON CHAVIS			ug/L
11/5/2008	WELL	1,1-DCE	BDL

JAMES HUDSON			ug/L
3/19/2009	WELL	1,1-DCE	BDL

JIMMIE JOHNSON and / or TOMMY LEE/DAVE DAVIS			ug/L
10/30/2008	WELL	1,1-DCE	0.48 J
11/5/2008	WELL	1,1-DCE	BDL
4/1/2009	WELL	1,1-DCE	0.8 J
3/16/2010	WELL	1,1-DCE	1.2 J

ELIZABETH YERLY			ug/L
3/30/2009	WELL	1,1-DCE	BDL

IMAGE SOURCE: NC ONEMAP, RICHMOND NC, DATED 2005

DATE: NOV. 2010
DRAWN BY: BTR
CHECKED BY:
SCALE: 1" = 300'
PROJECT NUMBER: 1054-10-2002
DRAWING NUMBER: B-1407

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NC ENGINEER LICENSE #F-0176
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HISTORICAL GROUNDWATER CONSTITUENTS

ATKINSON STREET CONTAMINATION SITE - 109 ATKINSON ST
HAMLET, NORTH CAROLINA

FIGURE NO.
7

S:\PROJECTS\2_IHSB Orphan Priority Sites 2010\IHSB Contract Projects\1054-10-2002 Atkinson_Str_Hamlet_NCD096158696\CAD\B1407.dwg, Layout1, 11/17/2010 2:56:47 PM, 1:1

Groundwater Quality Summary Table

PARCEL_ID	SITE_NAME	WELL_ID	CONSTITUENT	DATE_COLLECT	VALUE	Flags	REPORT_LIMIT	UNITS	Property No.	Street	Well Screen
749204712740	Gordon Haught	WSW-1	1,1-DCE	2/15/2010	13.4		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCA	2/15/2010	1.7	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Chloroform	2/15/2010	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	1,1-DCE	10/20/2009	<0.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCE	9/22/2009	8.9		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCA	9/22/2009	1.3	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Chloroform	9/22/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	1,1-DCE	9/16/2010	<0.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCE	5/7/2009	6.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCA	5/7/2009	1.4	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Chloroform	5/7/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	1,1-DCE	4/29/2009	<0.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCE	3/30/2009	9.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCA	3/30/2009	1.7	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Chloroform	3/30/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1.1.1-TCA	3/30/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,2.-DCA	3/30/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	1,1-DCE	3/25/2009	<0.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCE	2/9/2009	7.4		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Methylene Chloride	2/9/2009	1.3	J,C	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCA	2/9/2009	1.4	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Chloroform	2/9/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1.1.1-TCA	2/9/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,2.-DCA	2/9/2009	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	1,1-DCE	11/17/2008	<0.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	Ethylbenzene	11/17/2008	Trace		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	Styrene	11/17/2008	0.7	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Total Coliform	11/17/2008	Absent				109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Calcium	11/17/2008	1.9		0.01	mg/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Fluoride	11/17/2008	0.31		0.01	mg/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Hardness as CaCO3	11/17/2008	15		0.01	mg/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Magnesium	11/17/2008	2.4		0.01	mg/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Sodium	11/17/2008	6		0.01	mg/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Nitrate as N	11/17/2008	2.95		0.01	mg/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	pH	11/17/2008	3.9		0.1	Std Units	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCE	10/9/2008	23.5		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1-DCA	10/9/2008	3.6		0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	Chloroform	10/9/2008	0.8	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	WSW-1	1,1,1-TCA	10/9/2008	0.7	J	0.5	ug/L	109	Atkinson Street	79-89
749204712740	Gordon Haught	Trip Blank	1,1-DCE	10/8/2008	<0.5		0.5	ug/L	109	Atkinson Street	79-89
749204712434	James Butler	Well	1,1-DCE	2/15/2010	6	J	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCA	2/15/2010	0.6	J	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	1,1-DCE	10/1/2009	<0.5		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	Styrene	10/1/2009	Trace		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCE	9/24/2009	4.4		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCA	9/24/2009	0.5	J	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	1,1-DCE	9/16/2010	<0.5		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCE	3/30/2009	4		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	Methylene Chloride	3/30/2009	1.1	J,C	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCA	3/30/2009	0.6	J	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	Chloroform	3/30/2009	Trace		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,2.-DCA	3/30/2009	Trace		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	1,1-DCE	3/25/2009	<0.5		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCE	2/9/2009	6.4		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	Methylene Chloride	2/9/2009	1.7	J,C	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,1-DCA	2/9/2009	0.8	J	0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	Chloroform	2/9/2009	Trace		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Well	1,2.-DCA	2/9/2009	Trace		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	1,1-DCE	11/17/2008	<0.5		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	Ethylbenzene	11/17/2008	Trace		0.5	ug/L	112	Ashley Street	48-68
749204712434	James Butler	Trip Blank	Styrene	11/17/2008	0.7	J	0.5	ug/L	112	Ashley Street	48-68
749204713650	William A. Jernigan	Well	1,1-DCE	3/16/2010	1.6	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCA	3/16/2010	0.5	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Chloroform	3/16/2010	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,2-DCA	3/16/2010	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Trip Blank	1,1-DCE	3/5/2010	<0.5		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCE	9/24/2009	0.5	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCA	9/24/2009	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Tetrahydrofuran	9/24/2010	2.5		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Trip Blank	1,1-DCE	9/16/2010	<0.5		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCE	3/30/2009	4		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Methylene Chloride	3/30/2009	1.1	J,C	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCA	3/30/2009	0.6	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Chloroform	3/30/2009	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,2.-DCA	3/30/2009	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Trip Blank	1,1-DCE	3/25/2009	<0.5		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCE	2/9/2009	6.4		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Methylene Chloride	2/9/2009	1.7	J,C	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCA	2/9/2009	0.8	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Chloroform	2/9/2009	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,2.-DCA	2/9/2009	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCE	11/5/2008	0.8	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,1-DCA	11/5/2008	0.6	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Tetrahydrofuran	11/5/2008	1.9	J	0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	Chloroform	11/5/2008	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Well	1,2-DCA	11/5/2008	Trace		0.5	ug/L	115	Atkinson Street	66-86
749204713650	William A. Jernigan	Trip Blank	1,1-DCE	10/27/2008	<0.5		0.5	ug/L	115	Atkinson Street	66-86
749204828138	William A. Jernigan	Well	1,1-DCE	11/5/2008	<0.5		0.5	ug/L	410	Campbell Road	53-73 and 82-92
749204828138	William A. Jernigan	Trip Blank	1,1-DCE	10/29/2008	<0.5		0.5	ug/L	410	Campbell Road	53-73 and 82-92
749204911257	William Archie Jernigan	Well	1,1-DCE	11/5/2008	<0.5		0.5	ug/L	149	Lances Run	70-80
749204911257	William Archie Jernigan	Trip Blank	1,1-DCE	10/27/2008	<0.5		0.5	ug/L	149	Lances Run	70-80
749204920020	William David Goodwin	Well	1,1-DCE	11/20/2008	<0.5		0.5	ug/L	121	Justice Lane	70-80
749204920020	William David Goodwin	Trip Blank	1,1-DCE	11/17/2008	<0.5		0.5	ug/L	121	Justice Lane	70-80
749204714015	Perry Knight	Well	1,1-DCE	3/16/2010	1.8	J	0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Well	1,1-DCA	3/16/2010	0.9	J	0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Well	Chloroform	3/16/2010	Trace		0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Well	1,2-DCA	3/16/2010	Trace		0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Trip Blank	1,2-DCE	3/5/2010	<0.5		0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Trip Blank	MTBE	3/5/2010	Trace		0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Well	1,1-DCE	11/5/2008	1	J	0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Well	1,1-DCA	11/5/2008	1	J	0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Well	Chloroform	11/5/2008	Trace		0.5	ug/L	119	Orton Lane	52-72
749204714015	Perry Knight	Trip Blank	1,1-DCE	10/27/2010	<0.5		0.5	ug/L	119	Orton Lane	52-72
749204713104	Perry Knight	Well	1,1-DCE	3/16/2010	1.3	J	0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	1,1-DCA	3/16/2010	0.6	J	0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	Chloroform	3/16/2010	Trace		0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	1,2-DCA	3/16/2010	<0.5		0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Trip Blank	1,2-DCE	3/5/2010	<0.5		0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Trip Blank	MTBE	3/5/2010	Trace		0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	1,1-DCE	11/5/2008	0.8	J	0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	1,1-DCA	11/5/2008	0.8	J	0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	Tetrahydrofuran	11/5/2008	1.2		0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Well	Chloroform	11/5/2008	Trace		0.5	ug/L	113	Orton Lane	52-72
749204713104	Perry Knight	Trip Blank	1,1-DCE	10/27/2010	<0.5		0.5	ug/L	113	Orton Lane	52-72
749204816974	James Horne	Well	Chloroform	12/4/2008	0.7	J	0.5	ug/L	404	Campbell Road	70-90
749204816974	James Horne	Trip Blank	1,1-DCE	11/18/2008	<0.5		0.5	ug/L	404	Campbell Road	70-90
749204800478	Tommy Lee/Dave Davis	Well	1,1-DCE	11/5/2008	<0.5		0.5	ug/L	164	Atkinson Road	68-78

Groundwater Quality Summary Table

PARCEL_ID	SITE_NAME	WELL_ID	CONSTITUENT	DATE_COLLECT	VALUE	Flags	REPORT_LIMIT	UNITS	Property No.	Street	Well Screen
749204800478	Tommy Lee/Dave Davis	Well	MTBE	11/5/2008	Trace			0.5 ug/L	164	Atkinson Road	69-78
749204800478	Tommy Lee/Dave Davis	Well	Chloroform	11/5/2008	Trace			0.5 ug/L	164	Atkinson Road	68-78
749204807369	Elizabeth Yerly	Well	1,1-DCE	3/30/2009	<0.5			0.5 ug/L	211	Atkinson Street	70-80
749204807369	Elizabeth Yerly	Trip Blank	1,1-DCE	3/25/2009	<0.5			0.5 ug/L	211	Atkinson Street	70-80
749204805647	James Hudson	Well	1,1-DCE	3/19/2009	<0.5			0.5 ug/L	108	Amber Road	81-91
749204805647	James Hudson	Well	Chloroform	3/19/2009	Trace			0.5 ug/L	108	Amber Road	81-91
749204805647	James Hudson	Well	Toluene	3/19/2009	Trace			0.5 ug/L	109	Amber Road	81-91
749204707823	Ron Chavis	Well	1,1-DCE	11/5/2008	<0.5			0.5 ug/L	146	Atkinson Street	58-78
749204707823	Ron Chavis	Well	Chloroform	11/5/2008	0.5	J		0.5 ug/L	146	Atkinson Street	58-78
749204800478	Jimmie Johnson	Well	1,1-DCE	3/16/2010	1.2	J		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	1,1-DCA	3/16/2010	0.6	J		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	Chloroform	3/16/2010	Trace			0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Trip Blank	1,1-DCE	3/5/2010	<0.5			0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Trip Blank	MTBE	3/5/2010	Trace			0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	1,1-DCE	4/1/2009	0.8	J		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	Methylene Chloride	4/1/2009	1.6	J, C		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	1,1-DCA	4/1/2009	0.7	J		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Trip Blank	1,1-DCE	3/25/2009	<0.5			0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	1,1-DCE	10/30/2008	0.48	J		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	Methylene Chloride	10/30/2008	1.6	J, C		0.5 ug/L	107	Atkinson Street	74-94
749204800478	Jimmie Johnson	Well	1,1-DCA	10/30/2008	0.47	J		0.5 ug/L	107	Atkinson Street	74-94
749204718321	Chad Johnson	Well	1,1-DCE	3/16/2010	1.3	J		0.5 ug/L	141	Atkinson Street	74-94
749204718321	Chad Johnson	Well	1,1-DCA	3/16/2010	0.6	J		0.5 ug/L	141	Atkinson Street	74-94
749204718321	Chad Johnson	Well	Chloroform	3/16/2010	Trace			0.5 ug/L	141	Atkinson Street	74-94
749204718321	Chad Johnson	Trip Blank	MTBE	3/5/2010	Trace			0.5 ug/L	141	Atkinson Street	74-94
749204718321	Chad Johnson	Trip Blank	1,1-DCE	3/5/2010	<0.5			0.5 ug/L	141	Atkinson Street	74-94
749204718321	Chad Johnson	Well	1,1-DCE	10/30/2008	0.48			0.5 ug/L	141	Atkinson Street	74-94
749204718321	Chad Johnson	Well	1,1-DCA	10/30/2008	0.46			0.5 ug/L	141	Atkinson Street	74-94
749204719178	Wayne Johnson	Well	1,1-DCE	3/16/2010	<0.5			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Trip Blank	1,1-DCE	10/20/2009	<0.5			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Trip Blank	Ethylbenzene	10/20/2009	Trace			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Trip Blank	Styrene	10/20/2009	Trace			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Well	1,1-DCE	4/1/2009	<0.5			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Trip Blank	1,1 DCE	3/25/2009	<0.5			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Well	1,1-DCE	10/30/2008	0.6			0.5 ug/L	127	Atkinson Street	74-94
749204719178	Wayne Johnson	Well	1,1-DCA	10/30/2008	0.57			0.5 ug/L	127	Atkinson Street	74-94
	CSX	MW-6	1.1-DCE	2/11/2009	2.7			1 ug/L		Campbell Road	
	CSX	MW-6	1,1-DCA	2/11/2009	91			1 ug/L		Campbell Road	
	CSX	MW-6	cis-1,2-DCE	2/11/2009	17			1 ug/L		Campbell Road	
	CSX	MW-6	PCE	2/11/2009	1.7			1 ug/L		Campbell Road	
	CSX	MW-8	Benzene	2/11/2009	24			1 ug/L		Campbell Road	
	CSX	MW-8	2-Butanone	2/11/2009	1.4	J		1 ug/L		Campbell Road	
	CSX	MW-8	Ethylbenzene	2/11/2009	39			1 ug/L		Campbell Road	
	CSX	MW-8	Xylenes	2/11/2009	11			1 ug/L		Campbell Road	
	CSX	MW-8	chloroform	2/11/2009	1			1 ug/L		Campbell Road	
	CSX	MW-10	cis-1,2-DCE	2/11/2009	5			1 ug/L		Campbell Road	
	CSX	MW-10	1,1-DCA	2/11/2009	19	J		1 ug/L		Campbell Road	
	CSX	MW-10	1,1-DCE	2/11/2009	2.5			1 ug/L		Campbell Road	
	CSX	MW-10	PCE	2/11/2009	1.2			1 ug/L		Campbell Road	
	CSX	MW-10	1,1,1-TCA	2/11/2009	0.46	J		1 ug/L		Campbell Road	
	CSX	MW-10	TCE	2/11/2009	3.3			1 ug/L		Campbell Road	
	CSX	MW-12	Xylenes	2/11/2009	2.9			1 ug/L		Campbell Road	
	CSX	MW-14	1,1-DCA	2/10/2009	1.2			1 ug/L		Campbell Road	
	CSX	MW-14	1,1,1-TCA	2/10/2009	0.44	J		1 ug/L		Campbell Road	
	CSX	MW-15	cis-1,2-DCE	2/10/2009	21			1 ug/L		Campbell Road	
	CSX		1,1-DCA	2/10/2009	130	J		1 ug/L		Campbell Road	
	CSX		1,1-DCE	2/10/2009	13			1 ug/L		Campbell Road	
	CSX		Ethylbenzene	2/10/2009	16	J		1 ug/L		Campbell Road	
	CSX		PCE	2/10/2009	1.5	J		1 ug/L		Campbell Road	
	CSX		TCE	2/10/2009	1.7			1 ug/L		Campbell Road	
	CSX		Xylenes	2/10/2009	6.8			1 ug/L		Campbell Road	
	CSX	MW-16	cis-1,2-DCE	2/10/2009	0.97	J		1 ug/L		Campbell Road	
	CSX		1,1-DCA	2/10/2009	11	J		1 ug/L		Campbell Road	
	CSX		1,1-DCE	2/10/2009	0.54			1 ug/L		Campbell Road	
	CSX		PCE	2/10/2009	2.6			1 ug/L		Campbell Road	
	CSX	MW-17	cis-1,2-DCE	2/11/2009	0.35	J		1 ug/L		Campbell Road	
	CSX		1,1-DCA	2/11/2009	3.2			1 ug/L		Campbell Road	
	CSX	MW-21	1,1-DCA	7/2/2009	6.5	J		1 ug/L		Campbell Road	
	CSX		1,1-DCE	7/2/2009	0.65	J		1 ug/L		Campbell Road	
	CSX		PCE	7/2/2009	0.46	J		1 ug/L		Campbell Road	
	CSX		1,1,1-TCA	7/2/2009	0.85	J		1 ug/L		Campbell Road	
	CSX	MW-22	Chloroethane	7/2/2009	4.2			1 ug/L		Campbell Road	
	CSX		cis-1,2-DCE	7/2/2009	2.1	J		1 ug/L		Campbell Road	
	CSX		1,1-DCA	7/2/2009	14	J		1 ug/L		Campbell Road	
	CSX		1,1-DCE	7/2/2009	1.1			1 ug/L		Campbell Road	
	CSX		PCE	7/2/2009	0.35	J		1 ug/L		Campbell Road	
	CSX		1,1,1-TCA	7/2/2009	0.95			1 ug/L		Campbell Road	
	CSX	MW-23	acetone	7/2/2009	52			1 ug/L		Campbell Road	
	CSX		Benzene	7/2/2009	0.67	J		1 ug/L		Campbell Road	
	CSX		2-butanone	7/2/2009	6.3	J		1 ug/L		Campbell Road	
	CSX		Chloroform	7/2/2009	17			1 ug/L		Campbell Road	
	CSX		cis-1,2-DCE	7/2/2009	0.8	J		1 ug/L		Campbell Road	
	CSX		1,1-DCA	7/2/2009	1.4	J		1 ug/L		Campbell Road	
	CSX		Ethylbenzene	7/2/2009	0.73			1 ug/L		Campbell Road	
	CSX		Toluene	7/2/2009	3.4	J		1 ug/L		Campbell Road	
	CSX		Xylenes	7/2/2009	4.4			1 ug/L		Campbell Road	
	CSX	MW-25	1,1-DCE	7/2/2009	9.2			1 ug/L		Campbell Road	
	CSX	WWTP MW-7	Toluene	6/16/2009	0.57	J		1 ug/L		Campbell Road	