Certificate of Analytical Results 4669

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3025E**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4669-001**	Date Collected: **Aug-15-03 13:50**	Date Received: **Aug-20-03 09:24**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-20-03 12:49 Analyst: MVRR01 Date Prep: Aug-20-03 10:10 Tech: MVRR01

Seq Number: 17827

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	0.56	1.0	0.29	ug/L	J	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4669

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3025E**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4669-001**	Date Collected: **Aug-15-03 13:50**	Date Received: **Aug-20-03 09:24**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-20-03 12:49 Analyst: MVRR01 Date Prep: Aug-20-03 10:10 Tech: MVRR01

Seq Number: 17827

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	0.51	2.0	0.30	ug/L	JB	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	0.48	1.0	0.38	ug/L	J	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4669

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16171 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **16171 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-20-03 11:48 Analyst: MVRR01 Date Prep: Aug-20-03 10:10 Tech: MVRR01
Seq Number: 17827

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4669

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16171 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16171 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-20-03 11:48 Analyst: MVRR01 Date Prep: Aug-20-03 10:10 Tech: MVRR01

Seq Number: 17827

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	0.42	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 08/23/03 18:42

Project ID: 774645

Work Order #: 4669

Lab Batch #: 17827 **Sample:** 16171 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.3	10.0	113	69-132	
Bromofluorobenzene	9.67	10.0	97	84-117	
Toluene-D8	9.63	10.0	96	86-116	

Lab Batch #: 17827 **Sample:** 4669-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	13.6	10.0	136	66-150	
Bromofluorobenzene	10.2	10.0	102	81-120	
Toluene-D8	10.0	10.0	100	83-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4680

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 4 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The sample was received at 2°C.

Brian G Burns — *August 21, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *August 21, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

August 23, 2003
Raghu Tadimalla — Date
Project Manager

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NELAP Accredited Certificate #-E87429 - Effective 7/01/03, Expires 6/30/04

Certificate of Analytical Results 4680

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3025F** Matrix: **WATER** % Moisture:
Lab Sample Id: **4680-001** Date Collected: **Aug-19-03 15:00** Date Received: **Aug-21-03 09:25**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-21-03 12:17 Analyst: MVRR01 Date Prep: Aug-21-03 10:14 Tech: MVRR01
Seq Number: 17850

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4680

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3025F**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4680-001**	Date Collected: **Aug-19-03 15:00**	Date Received: **Aug-21-03 09:25**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-21-03 12:17 Analyst: MVRR01 Date Prep: Aug-21-03 10:14 Tech: MVRR01

Seq Number: 17850

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	1.6	2.0	0.30	ug/L	JB	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	5.6	1.0	0.38	ug/L		1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4680

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16194 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16194 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-21-03 11:17 Analyst: MVRR01 Date Prep: Aug-21-03 10:14 Tech: MVRR01

Seq Number: 17850

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4680

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16194 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16194 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-21-03 11:17 Analyst: MVRR01 Date Prep: Aug-21-03 10:14 Tech: MVRR01

Seq Number: 17850

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	0.33	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 08/23/03 18:42

Work Order #: 4680

Project ID: 774645

Lab Batch #: 17850 **Sample:** 16194 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.2	10.0	112	69-132	
Bromofluorobenzene	9.41	10.0	94	84-117	
Toluene-D8	9.31	10.0	93	86-116	

Lab Batch #: 17850 **Sample:** 4680-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	12.2	10.0	122	66-150	
Bromofluorobenzene	9.31	10.0	93	81-120	
Toluene-D8	9.42	10.0	94	83-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4306

Client Project: Fort McClellan/ 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 5 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 4°C.

Brian G Burns — *June 23, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *June 24, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

June 25, 2003
Raghu Tadimalla — Date
Project Manager

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Analytical Report for :

Shaw Environmental & Infrastructure, Inc.

Project Name : Fort McClellan

Project Number: 774645

Project Manager: Duane Nielsen

Lab. Work Order # : 4306

June 25, 2003

ACCURA Analytical Laboratory, Inc. - 6017 Financial Drive - Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

Summary of Analytical Results

Client ID: **SM3027A**
Sample Depth:

Sample ID **4306-001**
Matrix: WATER

Date Collected: 06/20/2003 13:15
Date Received: 06/23/2003 13:45

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 06/24/03
Prep Time: 06:57

Analyst: Venkat Mudium
Date Analyzed: 06/24/03
Time Analyzed: 09:22

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	2.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **SM3027A**
Sample Depth:

Sample ID **4306-001**
Matrix: WATER

Date Collected: 06/20/2003 13:15
Date Received: 06/23/2003 13:45

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 06/24/03
Prep Time: 06:57

Analyst: Venkat Mudium
Date Analyzed: 06/24/03
Time Analyzed: 09:22

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	2.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	<R.L.	2.0	ug/L	U
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15683 BLK** Sample ID **15683 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 06/24/03 Date Analyzed: 06/24/03
Prep Time: 06:57 Time Analyzed: 07:53

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	1.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15683 BLK** Sample ID **15683 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 06/24/03 Date Analyzed: 06/24/03
Prep Time: 06:57 Time Analyzed: 07:53

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	1.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	0.47	1.0	ug/L	J
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 06/25/03 15:04

Project ID: 774645

Work Order #: 4306

Lab Batch #: 16978 **Sample:** 15683 BKS / BKS **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15683 BKS

SURROGATE RECOVERY STUDY

VOCs (25ml Purge) by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.97	10.0	100	70-131	
Bromofluorobenzene	10.5	10.0	105	80-125	
Toluene-D8	10.5	10.0	105	84-120	

Lab Batch #: 16978 **Sample:** 15683 BLK / BLK **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15683 BLK

SURROGATE RECOVERY STUDY

VOCs (25ml Purge) by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.93	10.0	99	70-131	
Bromofluorobenzene	10.8	10.0	108	80-125	
Toluene-D8	10.8	10.0	108	84-120	

Lab Batch #: 16978 **Sample:** 15683 BSD / BSD **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15683 BSD

SURROGATE RECOVERY STUDY

VOCs (25ml Purge) by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	10.2	10.0	102	70-131	
Bromofluorobenzene	10.7	10.0	107	80-125	
Toluene-D8	10.9	10.0	109	84-120	

Lab Batch #: 16978 **Sample:** 4306-001 / SMP **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** SM3027A

SURROGATE RECOVERY STUDY

VOCs (25ml Purge) by SW8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	10.9	10.0	109	58-146	
Bromofluorobenzene	10.1	10.0	101	74-124	
Toluene-D8	10.1	10.0	101	81-118	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

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FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4318

Client Project: Fort McClellan/ 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 5 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 4°C.

Brian G Burns — *June 24, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *June 25, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

June 25, 2003
Raghu Tadimalla — Date
Project Manager

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Analytical Report for :

Shaw Environmental & Infrastructure, Inc.

Project Name : Fort McClellan

Project Number: 774645

Project Manager: Duane Nielsen

Lab. Work Order # : 4318

June 25, 2003

ACCURA Analytical Laboratory, Inc. - 6017 Financial Drive - Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

Summary of Analytical Results

Client ID: **SM3027B**
Sample Depth:

Sample ID **4318-001**
Matrix: WATER

Date Collected: 06/23/2003 10:26
Date Received: 06/24/2003 13:50

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 06/25/03
Prep Time: 06:41

Analyst: Venkat Mudium
Date Analyzed: 06/25/03
Time Analyzed: 09:00

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	2.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **SM3027B**
Sample Depth:

Sample ID **4318-001**
Matrix: WATER

Date Collected: 06/23/2003 10:26
Date Received: 06/24/2003 13:50

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 06/25/03
Prep Time: 06:41

Analyst: Venkat Mudium
Date Analyzed: 06/25/03
Time Analyzed: 09:00

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	2.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	<R.L.	2.0	ug/L	U
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	5.6	1.0	ug/L	
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15699 BLK** Sample ID **15699 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 06/25/03 Date Analyzed: 06/25/03
Prep Time: 06:41 Time Analyzed: 07:36

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	1.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15699 BLK**
Sample Depth:

Sample ID **15699 BLK**
Matrix: WATER

Date Collected:
Date Received:

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 06/25/03
Prep Time: 06:41

Analyst: Venkat Mudium
Date Analyzed: 06/25/03
Time Analyzed: 07:36

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	1.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	0.39	1.0	ug/L	J
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 06/25/03 15:04

Project ID: 774645

Work Order #: 4318

Lab Batch #: 16992 **Sample:** 15699 BKS / BKS **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15699 BKS

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.43	10.0	94	70-131	
Bromofluorobenzene	10.1	10.0	101	80-125	
Toluene-D8	10.3	10.0	103	84-120	

Lab Batch #: 16992 **Sample:** 15699 BLK / BLK **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15699 BLK

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.39	10.0	94	70-131	
Bromofluorobenzene	10.5	10.0	105	80-125	
Toluene-D8	10.5	10.0	105	84-120	

Lab Batch #: 16992 **Sample:** 15699 BSD / BSD **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15699 BSD

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.46	10.0	95	70-131	
Bromofluorobenzene	10.1	10.0	101	80-125	
Toluene-D8	10.3	10.0	103	84-120	

Lab Batch #: 16992 **Sample:** 4318-001 / SMP **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** SM3027B

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.82	10.0	98	58-146	
Bromofluorobenzene	9.98	10.0	100	74-124	
Toluene-D8	10.1	10.0	101	81-118	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

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SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4327

Client Project: Fort McClellan/ 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 5 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 4°C.

Brian G Burns — *June 25, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *June 26, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

June 26, 2003
Raghu Tadimalla — Date
Project Manager

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Analytical Report for :

Shaw Environmental & Infrastructure, Inc.

Project Name : Fort McClellan

Project Number: 774645

Project Manager: Duane Nielsen

Lab. Work Order # : 4327

June 26, 2003

ACCURA Analytical Laboratory, Inc. - 6017 Financial Drive - Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

Summary of Analytical Results

Client ID: **SM3027C** | Sample ID **4327-001** | Date Collected: 06/24/2003 16:15
Sample Depth: | Matrix: WATER | Date Received: 06/25/2003 12:15

Analytical Method: SW8260LL | Prep Chemist: Venkat Mudium | Analyst: Debra Trinidad
Prep Method: SW5030B | Prep Date: 06/25/03 | Date Analyzed: 06/25/03
Prep Time: 06:41 | Time Analyzed: 16:29

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	2.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **SM3027C**
Sample Depth:

Sample ID **4327-001**
Matrix: WATER

Date Collected: 06/24/2003 16:15
Date Received: 06/25/2003 12:15

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 06/25/03
Prep Time: 06:41

Analyst: Debra Trinidad
Date Analyzed: 06/25/03
Time Analyzed: 16:29

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	2.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	<R.L.	2.0	ug/L	U
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	3.2	1.0	ug/L	
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15699 BLK** Sample ID **15699 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 06/25/03 Date Analyzed: 06/25/03
Prep Time: 06:41 Time Analyzed: 07:36

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	1.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15699 BLK** Sample ID **15699 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 06/25/03 Date Analyzed: 06/25/03
Prep Time: 06:41 Time Analyzed: 07:36

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	1.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	0.39	1.0	ug/L	J
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 06/26/03 14:59

Project ID: 774645

Work Order #: 4327

Lab Batch #: 16992 **Sample:** 15699 BKS / BKS **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15699 BKS

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.43	10.0	94	70-131	
Bromofluorobenzene	10.1	10.0	101	80-125	
Toluene-D8	10.3	10.0	103	84-120	

Lab Batch #: 16992 **Sample:** 15699 BLK / BLK **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15699 BLK

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.39	10.0	94	70-131	
Bromofluorobenzene	10.5	10.0	105	80-125	
Toluene-D8	10.5	10.0	105	84-120	

Lab Batch #: 16992 **Sample:** 15699 BSD / BSD **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15699 BSD

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.46	10.0	95	70-131	
Bromofluorobenzene	10.1	10.0	101	80-125	
Toluene-D8	10.3	10.0	103	84-120	

Lab Batch #: 16992 **Sample:** 4327-001 / SMP **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** SM3027C

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	10.2	10.0	102	58-146	
Bromofluorobenzene	9.26	10.0	93	74-124	
Toluene-D8	9.34	10.0	93	81-118	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

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FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4357

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 5 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 4°C.

Brian G Burns — *June 30, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *July 01, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

July 1, 2003
Raghu Tadimalla — Date
Project Manager

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Analytical Report for :

Shaw Environmental & Infrastructure, Inc.

Project Name : Fort McClellan

Project Number: 774645

Project Manager: Duane Nielsen

Lab. Work Order # : 4357

July 1, 2003

ACCURA Analytical Laboratory, Inc. - 6017 Financial Drive - Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

Summary of Analytical Results

Client ID: SM3027D
Sample Depth:

Sample ID 4357-001
Matrix: WATER

Date Collected: 06/27/2003 12:55
Date Received: 06/30/2003 15:45

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 07/01/03
Prep Time: 10:05

Analyst: Venkat Mudium
Date Analyzed: 07/01/03
Time Analyzed: 11:54

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	2.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	0.39	1.0	ug/L	J
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: SM3027D
Sample Depth:

Sample ID 4357-001
Matrix: WATER

Date Collected: 06/27/2003 12:55
Date Received: 06/30/2003 15:45

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 07/01/03
Prep Time: 10:05

Analyst: Venkat Mudium
Date Analyzed: 07/01/03
Time Analyzed: 11:54

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	2.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	1.4	2.0	ug/L	JB
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: 15777 BLK
Sample Depth:

Sample ID 15777 BLK
Matrix: WATER

Date Collected:
Date Received:

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 07/01/03
Prep Time: 10:05

Analyst: Venkat Mudium
Date Analyzed: 07/01/03
Time Analyzed: 11:00

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	1.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: 15777 BLK
Sample Depth:

Sample ID 15777 BLK
Matrix: WATER

Date Collected:
Date Received:

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 07/01/03
Prep Time: 10:05

Analyst: Venkat Mudium
Date Analyzed: 07/01/03
Time Analyzed: 11:00

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	1.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	0.44	1.0	ug/L	J
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 07/01/03 14:05

Project ID: 774645

Work Order #: 4357

Lab Batch #: 17055 **Sample:** 15777 BKS / BKS **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15777 BKS

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.76	10.0	98	70-131	
Bromofluorobenzene	10.4	10.0	104	80-125	
Toluene-D8	10.5	10.0	105	84-120	

Lab Batch #: 17055 **Sample:** 15777 BLK / BLK **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15777 BLK

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.81	10.0	98	70-131	
Bromofluorobenzene	11.6	10.0	116	80-125	
Toluene-D8	11.1	10.0	111	84-120	

Lab Batch #: 17055 **Sample:** 4357-001 / SMP **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** SM3027D

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.55	10.0	96	58-146	
Bromofluorobenzene	9.65	10.0	97	74-124	
Toluene-D8	9.81	10.0	98	81-118	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

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SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4386

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 5 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The sample was received at 2°C.

Brian G Burns — *July 7, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *July 08, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

Raghu Tadimalla — *July 8, 2003*
Raghu Tadimalla — Date
Project Manager

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Analytical Report for :

Shaw Environmental & Infrastructure, Inc.

Project Name : Fort McClellan

Project Number: 774645

Project Manager: Duane Nielsen

Lab. Work Order # : 4386

July 8, 2003

ACCURA Analytical Laboratory, Inc. - 6017 Financial Drive - Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

Summary of Analytical Results

Client ID: **SM3027E** | Sample ID **4386-001** | Date Collected: 07/03/2003 11:10
Sample Depth: | Matrix: WATER | Date Received: 07/07/2003 13:10

Analytical Method: SW8260LL | Prep Chemist: Venkat Mudium | Analyst: Venkat Mudium
Prep Method: SW5030B | Prep Date: 07/08/03 | Date Analyzed: 07/08/03
Prep Time: 09:55 | Time Analyzed: 11:57

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	2.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **SM3027E**
Sample Depth:

Sample ID **4386-001**
Matrix: WATER

Date Collected: 07/03/2003 11:10
Date Received: 07/07/2003 13:10

Analytical Method: SW8260LL
Prep Method: SW5030B

Prep Chemist: Venkat Mudium
Prep Date: 07/08/03
Prep Time: 09:55

Analyst: Venkat Mudium
Date Analyzed: 07/08/03
Time Analyzed: 11:57

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	2.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	0.48	2.0	ug/L	J
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	1.3	1.0	ug/L	
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15826 BLK** Sample ID **15826 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 07/08/03 Date Analyzed: 07/08/03
Prep Time: 09:55 Time Analyzed: 10:55

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
1,1,1,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,1-Trichloroethane	<R.L.	1.0	ug/L	U
1,1,2,2-Tetrachloroethane	<R.L.	1.0	ug/L	U
1,1,2-Trichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethane	<R.L.	1.0	ug/L	U
1,1-Dichloroethene	<R.L.	1.0	ug/L	U
1,1-Dichloropropene	<R.L.	1.0	ug/L	U
1,2,3-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,3-Trichloropropane	<R.L.	1.0	ug/L	U
1,2,4-Trichlorobenzene	<R.L.	1.0	ug/L	U
1,2,4-Trimethylbenzene	<R.L.	1.0	ug/L	U
1,2-Dibromo-3-Chloropropane	<R.L.	1.0	ug/L	U
1,2-Dibromoethane	<R.L.	1.0	ug/L	U
1,2-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,2-Dichloroethane	<R.L.	1.0	ug/L	U
1,2-Dichloropropane	<R.L.	1.0	ug/L	U
1,3,5-trimethylbenzene	<R.L.	1.0	ug/L	U
1,3-Dichlorobenzene	<R.L.	1.0	ug/L	U
1,3-Dichloropropane	<R.L.	1.0	ug/L	U
1,4-Dichlorobenzene	<R.L.	1.0	ug/L	U
2,2-Dichloropropane	<R.L.	1.0	ug/L	U
2-Butanone	<R.L.	10	ug/L	U
2-Chlorotoluene	<R.L.	1.0	ug/L	U
2-Hexanone	<R.L.	10	ug/L	U
4-Chlorotoluene	<R.L.	1.0	ug/L	U
4-Methyl-2-Pentanone	<R.L.	10	ug/L	U
Acetone	<R.L.	10	ug/L	U
Benzene	<R.L.	1.0	ug/L	U
Bromobenzene	<R.L.	1.0	ug/L	U
Bromochloromethane	<R.L.	1.0	ug/L	U
Bromodichloromethane	<R.L.	1.0	ug/L	U
Bromoform	<R.L.	1.0	ug/L	U
Bromomethane	<R.L.	1.0	ug/L	U
Carbon Disulfide	<R.L.	1.0	ug/L	U
Carbon Tetrachloride	<R.L.	1.0	ug/L	U
Chlorobenzene	<R.L.	1.0	ug/L	U
Chloroethane	<R.L.	1.0	ug/L	U
Chloroform	<R.L.	1.0	ug/L	U
Chloromethane	<R.L.	1.0	ug/L	U

Summary of Analytical Results

Client ID: **15826 BLK** Sample ID **15826 BLK** Date Collected:
Sample Depth: Matrix: WATER Date Received:

Analytical Method: SW8260LL Prep Chemist: Venkat Mudium Analyst: Venkat Mudium
Prep Method: SW5030B Prep Date: 07/08/03 Date Analyzed: 07/08/03
Prep Time: 09:55 Time Analyzed: 10:55

VOCs (25ml Purge) by SW8260B	Result	Rep Limit	Units	Qualifier
cis-1,2-Dichloroethene	<R.L.	1.0	ug/L	U
cis-1,3-Dichloropropene	<R.L.	1.0	ug/L	U
Dibromochloromethane	<R.L.	1.0	ug/L	U
Dibromomethane	<R.L.	1.0	ug/L	U
Dichlorodifluoromethane	<R.L.	1.0	ug/L	U
Ethylbenzene	<R.L.	1.0	ug/L	U
Hexachlorobutadiene	<R.L.	1.0	ug/L	U
Isopropylbenzene	<R.L.	1.0	ug/L	U
m,p-Xylene	<R.L.	1.0	ug/L	U
Methyl tert-butyl ether	<R.L.	1.0	ug/L	U
Methylene Chloride	<R.L.	1.0	ug/L	U
Naphthalene	<R.L.	1.0	ug/L	U
n-Butylbenzene	<R.L.	1.0	ug/L	U
n-Propylbenzene	<R.L.	1.0	ug/L	U
o-Xylene	<R.L.	1.0	ug/L	U
Isopropyltoluene	<R.L.	1.0	ug/L	U
Sec-Butylbenzene	<R.L.	1.0	ug/L	U
Styrene	<R.L.	1.0	ug/L	U
tert-Butylbenzene	<R.L.	1.0	ug/L	U
Tetrachloroethylene	<R.L.	1.0	ug/L	U
Toluene	<R.L.	1.0	ug/L	U
trans-1,2-dichloroethene	<R.L.	1.0	ug/L	U
trans-1,3-dichloropropene	<R.L.	1.0	ug/L	U
Trichloroethene	<R.L.	1.0	ug/L	U
Trichlorofluoromethane	<R.L.	1.0	ug/L	U
Vinyl Chloride	<R.L.	1.0	ug/L	U

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 07/08/03 16:34

Project ID: 774645

Work Order #: 4386

Lab Batch #: 17131 **Sample:** 15826 BKS / BKS **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15826 BKS

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	12.2	10.0	122	70-131	
Bromofluorobenzene	10.5	10.0	105	80-125	
Toluene-D8	10.1	10.0	101	84-120	

Lab Batch #: 17131 **Sample:** 15826 BLK / BLK **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** 15826 BLK

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.3	10.0	113	70-131	
Bromofluorobenzene	10.6	10.0	106	80-125	
Toluene-D8	10.3	10.0	103	84-120	

Lab Batch #: 17131 **Sample:** 4386-001 / SMP **Batch:** 1 **Matrix:** WATER

Units: ug/L **Client-Id:** SM3027E

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.9	10.0	119	58-146	
Bromofluorobenzene	10.7	10.0	107	74-124	
Toluene-D8	10.8	10.0	108	81-118	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4598

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 4 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The sample was received at 3°C.

Brian G Burns — *August 8, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *August 11, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

August 23, 2003
Raghu Tadimalla — Date
Project Manager

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Certificate of Analytical Results 4598

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3027F** Matrix: **WATER** % Moisture:
Lab Sample Id: **4598-001** Date Collected: **Aug-07-03 12:05** Date Received: **Aug-08-03 10:00**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-08-03 13:23 Analyst: MVRR01 Date Prep: Aug-08-03 11:30 Tech: MVRR01
Seq Number: 17594

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	0.43	1.0	0.39	ug/L	J	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	0.38	1.0	0.31	ug/L	J	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	1.6	1.0	0.29	ug/L		1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4598

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3027F**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4598-001**	Date Collected: **Aug-07-03 12:05**	Date Received: **Aug-08-03 10:00**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-08-03 13:23 Analyst: MVRR01 Date Prep: Aug-08-03 11:30 Tech: MVRR01

Seq Number: 17594

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	0.71	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	0.72	1.0	0.38	ug/L	J	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	0.56	1.0	0.34	ug/L	J	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4598

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16081 BLK** Matrix: **WATER** % Moisture:
Lab Sample Id: **16081 BLK** Date Collected: Date Received:
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-08-03 12:23 Analyst: MVRR01 Date Prep: Aug-08-03 11:30 Tech: MVRR01
Seq Number: 17594

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4598

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16081 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16081 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-08-03 12:23 Analyst: MVRR01 Date Prep: Aug-08-03 11:30 Tech: MVRR01

Seq Number: 17594

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 08/23/03 18:42

Work Order #: 4598

Project ID: 774645

Lab Batch #: 17594 **Sample:** 16081 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.4	10.0	114	69-132	
Bromofluorobenzene	9.51	10.0	95	84-117	
Toluene-D8	9.54	10.0	95	86-116	

Lab Batch #: 17594 **Sample:** 4598-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.8	10.0	118	66-150	
Bromofluorobenzene	9.58	10.0	96	81-120	
Toluene-D8	9.56	10.0	96	83-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4614

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 4 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The sample was received at 4°C.

Brian G Burns — *August 13, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *August 13, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

August 23, 2003
Raghu Tadimalla — Date
Project Manager

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Certificate of Analytical Results 4614

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3027G** Matrix: **WATER** % Moisture:
Lab Sample Id: **4614-001** Date Collected: **Aug-12-03 16:50** Date Received: **Aug-13-03 09:43**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-13-03 12:20 Analyst: MVRR01 Date Prep: Aug-13-03 09:55 Tech: MVRR01
Seq Number: 17701

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	0.57	1.0	0.31	ug/L	J	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	2.1	1.0	0.29	ug/L		1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4614

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3027G**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4614-001**	Date Collected: **Aug-12-03 16:50**	Date Received: **Aug-13-03 09:43**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-13-03 12:20 Analyst: MVRR01 Date Prep: Aug-13-03 09:55 Tech: MVRR01

Seq Number: 17701

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	1.3	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	1.4	1.0	0.38	ug/L		1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	0.55	1.0	0.34	ug/L	J	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4614

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16126 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16126 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-13-03 11:21 Analyst: MVRR01 Date Prep: Aug-13-03 09:55 Tech: MVRR01

Seq Number: 17701

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.%

Certificate of Analytical Results 4614

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16126 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16126 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Aug-13-03 11:21 Analyst: MVRR01 Date Prep: Aug-13-03 09:55 Tech: MVRR01

Seq Number: 17701

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 08/23/03 18:42

Work Order #: 4614

Project ID: 774645

Lab Batch #: 17701 **Sample:** 16126 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	10.8	10.0	108	69-132	
Bromofluorobenzene	9.55	10.0	96	84-117	
Toluene-D8	9.58	10.0	96	86-116	

Lab Batch #: 17701 **Sample:** 4614-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	12.3	10.0	123	66-150	
Bromofluorobenzene	10.3	10.0	103	81-120	
Toluene-D8	10.6	10.0	106	83-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800
FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4844

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 2-page case narrative, 12 report pages, and 2 QC surrogate recovery pages.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 2°C.

Brian G Burns — *September 12, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

2. The following surrogates were outside the Laboratory derived control limit due to possible matrix interference, as indicated by the "Z" qualifier:

   VOC-SW-846-8260B
   Bromofluorobenzene - SM3028B, SM3028E

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3. The response of one internal standard was outside the method specified limit for the following samples due to possible matrix interference:

   VOC-SW-846-8260B
   SM3028B, SM3028E - Bromofluorobenzene.

   The surrogate listed above was affected by the internal standards, and the results for that surrogate should be considered estimated.

Venkat R. Mudium
Venkat R. Mudium
VOC Analyst

September 12, 2003
Date

These case narrative notations have been reviewed by:

Raghu Tadimalla
Project Manager

September 27, 2003
Date

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Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028A**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-001**	Date Collected: **Sep-09-03 15:20**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 14:07 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028A**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-001**	Date Collected: **Sep-09-03 15:20**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 14:07 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	1.3	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	4.6	1.0	0.38	ug/L		1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028B** Matrix: **WATER** % Moisture:
Lab Sample Id: **4844-002** Date Collected: **Sep-10-03 10:40** Date Received: **Sep-12-03 09:20**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 16:13 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01
Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028B**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-002**	Date Collected: **Sep-10-03 10:40**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 16:13 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	0.86	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028C** Matrix: **WATER** % Moisture:
Lab Sample Id: **4844-003** Date Collected: **Sep-10-03 15:05** Date Received: **Sep-12-03 09:20**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 14:57 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01
Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028C**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-003**	Date Collected: **Sep-10-03 15:05**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 14:57 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	1.3	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	0.51	1.0	0.38	ug/L	J	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028D**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-004**	Date Collected: **Sep-11-03 09:46**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 15:23 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028D**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-004**	Date Collected: **Sep-11-03 09:46**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 15:23 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	1.2	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028E** Matrix: **WATER** % Moisture:
Lab Sample Id: **4844-005** Date Collected: **Sep-11-03 13:15** Date Received: **Sep-12-03 09:20**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 15:48 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01
Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028E**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4844-005**	Date Collected: **Sep-11-03 13:15**	Date Received: **Sep-12-03 09:20**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 15:48 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	1.9	2.0	0.30	ug/L	J	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Version: 1.001

Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16452 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16452 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 11:55 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Certificate of Analytical Results 4844

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16452 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16452 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-12-03 11:55 Analyst: MVRR01 Date Prep: Sep-12-03 10:57 Tech: MVRR01

Seq Number: 18341

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.001

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 09/27/03 21:33

Work Order #: 4844

Project ID: 774645

Lab Batch #: 18341 **Sample:** 16452 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	7.80	10.0	78	69-132	
Bromofluorobenzene	10.8	10.0	108	84-117	
Toluene-D8	10.2	10.0	102	86-116	

Lab Batch #: 18341 **Sample:** 4844-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.17	10.0	92	66-150	
Bromofluorobenzene	11.3	10.0	113	81-120	
Toluene-D8	10.3	10.0	103	83-117	

Lab Batch #: 18341 **Sample:** 4844-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	10.2	10.0	102	66-150	
Bromofluorobenzene	14.3	10.0	143	81-120	Z
Toluene-D8	10.9	10.0	109	83-117	

Lab Batch #: 18341 **Sample:** 4844-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.85	10.0	99	66-150	
Bromofluorobenzene	11.7	10.0	117	81-120	
Toluene-D8	10.5	10.0	105	83-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 09/27/03 21:33

Work Order #: 4844

Project ID: 774645

Lab Batch #: 18341 **Sample:** 4844-004 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	8.52	10.0	85	66-150	
Bromofluorobenzene	11.3	10.0	113	81-120	
Toluene-D8	11.3	10.0	113	83-117	

Lab Batch #: 18341 **Sample:** 4844-005 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	11.9	10.0	119	66-150	
Bromofluorobenzene	16.6	10.0	166	81-120	Z
Toluene-D8	11.1	10.0	111	83-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

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FL Certification #E87429 LA Certification #04079 NC Certification #483
SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4847

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 4 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 2°C.

Brian G Burns — *September 15, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *September 15, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

September 27, 2003
Raghu Tadimalla — Date
Project Manager

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Certificate of Analytical Results 4847

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028F** Matrix: **WATER** % Moisture:
Lab Sample Id: **4847-001** Date Collected: **Sep-12-03 08:35** Date Received: **Sep-13-03 10:05**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-15-03 14:24 Analyst: MVRR01 Date Prep: Sep-15-03 11:52 Tech: MVRR01
Seq Number: 18381

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Version: 1.000

Certificate of Analytical Results 4847

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028F**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4847-001**	Date Collected: **Sep-12-03 08:35**	Date Received: **Sep-13-03 10:05**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-15-03 14:24 Analyst: MVRR01 Date Prep: Sep-15-03 11:52 Tech: MVRR01

Seq Number: 18381

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	0.52	1.0	0.38	ug/L	J	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.000

Certificate of Analytical Results 4847

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16476 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16476 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-15-03 12:55 Analyst: MVRR01 Date Prep: Sep-15-03 11:52 Tech: MVRR01

Seq Number: 18381

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.000

Certificate of Analytical Results 4847

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16476 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16476 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-15-03 12:55 Analyst: MVRR01 Date Prep: Sep-15-03 11:52 Tech: MVRR01

Seq Number: 18381

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.000

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 09/27/03 22:00

Work Order #: 4847

Project ID: 774645

Lab Batch #: 18381 **Sample:** 16476 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.35	10.0	94	69-132	
Bromofluorobenzene	11.3	10.0	113	84-117	
Toluene-D8	10.8	10.0	108	86-116	

Lab Batch #: 18381 **Sample:** 4847-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.50	10.0	95	66-150	
Bromofluorobenzene	10.7	10.0	107	81-120	
Toluene-D8	10.3	10.0	103	83-117	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

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SC Certification #98015 USACE-MRD Approved

Case Narrative

AAL Work Order # 4870

Client Project: Fort McClellan / 774645

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1-page case narrative, 8 report pages, and 1 QC surrogate recovery page.

The following items were noted concerning this work order:

Receiving Notations:

1. The samples were received at 2°C.

Brian G Burns — *September 16, 2003*
Brian Burns — Date
Receiving

VOC Notations:

1. The pH of the water samples was <2.0 prior to the VOC analysis.

Venkat R. Mudium — *September 16, 2003*
Venkat R. Mudium — Date
VOC Analyst

These case narrative notations have been reviewed by:

September 27, 2003
Raghu Tadimalla — Date
Project Manager

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Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028G**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4870-001**	Date Collected: **Sep-12-03 14:35**	Date Received: **Sep-16-03 11:55**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 16:55 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028G**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4870-001**	Date Collected: **Sep-12-03 14:35**	Date Received: **Sep-16-03 11:55**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 16:55 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028H**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4870-002**	Date Collected: **Sep-15-03 14:05**	Date Received: **Sep-16-03 11:55**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 17:20 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	0.47	1.0	0.31	ug/L	J	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028H**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4870-002**	Date Collected: **Sep-15-03 14:05**	Date Received: **Sep-16-03 11:55**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 17:20 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	1.3	1.0	0.38	ug/L		1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028I** Matrix: **WATER** % Moisture:
Lab Sample Id: **4870-003** Date Collected: **Sep-16-03 11:01** Date Received: **Sep-16-03 11:55**
Sample Depth:

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 17:44 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01
Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	0.81	1.0	0.31	ug/L	J	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

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Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **SM3028I**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **4870-003**	Date Collected: **Sep-16-03 11:01**	Date Received: **Sep-16-03 11:55**
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 17:44 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	2.8	1.0	0.38	ug/L		1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

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Version: 1.001

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Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16490 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16490 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 15:29 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
1,1,1,2-Tetrachloroethane	630-20-6	BRL	1.0	0.30	ug/L	U	1
1,1,1-Trichloroethane	71-55-6	BRL	1.0	0.33	ug/L	U	1
1,1,2,2-Tetrachloroethane	79-34-5	BRL	1.0	0.39	ug/L	U	1
1,1,2-Trichloroethane	79-00-5	BRL	1.0	0.27	ug/L	U	1
1,1-Dichloroethane	75-34-3	BRL	1.0	0.31	ug/L	U	1
1,1-Dichloroethene	75-35-4	BRL	1.0	0.37	ug/L	U	1
1,1-Dichloropropene	563-58-6	BRL	1.0	0.31	ug/L	U	1
1,2,3-Trichlorobenzene	87-61-6	BRL	1.0	0.43	ug/L	U	1
1,2,3-Trichloropropane	96-18-4	BRL	1.0	0.36	ug/L	U	1
1,2,4-Trichlorobenzene	120-82-1	BRL	1.0	0.39	ug/L	U	1
1,2,4-Trimethylbenzene	95-63-6	BRL	1.0	0.50	ug/L	U	1
1,2-Dibromo-3-Chloropropane	96-12-8	BRL	2.0	0.49	ug/L	U	1
1,2-Dibromoethane (EDB)	106-93-4	BRL	1.0	0.29	ug/L	U	1
1,2-Dichlorobenzene	95-50-1	BRL	1.0	0.40	ug/L	U	1
1,2-Dichloroethane	107-06-2	BRL	1.0	0.30	ug/L	U	1
1,2-Dichloropropane	78-87-5	BRL	1.0	0.29	ug/L	U	1
1,3,5-trimethylbenzene	108-67-8	BRL	1.0	0.43	ug/L	U	1
1,3-Dichlorobenzene	541-73-1	BRL	1.0	0.38	ug/L	U	1
1,3-Dichloropropane	142-28-9	BRL	1.0	0.30	ug/L	U	1
1,4-Dichlorobenzene	106-46-7	BRL	1.0	0.43	ug/L	U	1
2,2-Dichloropropane	594-20-7	BRL	1.0	0.32	ug/L	U	1
2-Butanone	78-93-3	BRL	10	0.60	ug/L	U	1
2-Chlorotoluene	95-49-8	BRL	1.0	0.39	ug/L	U	1
2-Hexanone	591-78-6	BRL	10	0.20	ug/L	U	1
4-Chlorotoluene	106-43-4	BRL	1.0	0.38	ug/L	U	1
4-Methyl-2-Pentanone	108-10-1	BRL	10	0.10	ug/L	U	1
Acetone	67-64-1	BRL	10	1.3	ug/L	U	1
Benzene	71-43-2	BRL	1.0	0.31	ug/L	U	1
Bromobenzene	108-86-1	BRL	1.0	0.37	ug/L	U	1
Bromochloromethane	74-97-5	BRL	1.0	0.22	ug/L	U	1
Bromodichloromethane	75-27-4	BRL	1.0	0.31	ug/L	U	1
Bromoform	75-25-2	BRL	1.0	0.28	ug/L	U	1
Bromomethane	74-83-9	BRL	1.0	0.60	ug/L	U	1
Carbon Disulfide	75-15-0	BRL	1.0	0.90	ug/L	U	1
Carbon Tetrachloride	56-23-5	BRL	1.0	0.32	ug/L	U	1
Chlorobenzene	108-90-7	BRL	1.0	0.32	ug/L	U	1
Chloroethane	75-00-3	BRL	1.0	0.30	ug/L	U	1
Chloroform	67-66-3	BRL	1.0	0.29	ug/L	U	1
Chloromethane	74-87-3	BRL	1.0	0.30	ug/L	U	1
cis-1,2-Dichloroethene	156-59-2	BRL	1.0	0.31	ug/L	U	1
cis-1,3-Dichloropropene	10061-01-5	BRL	1.0	0.25	ug/L	U	1
Dibromochloromethane	124-48-1	BRL	1.0	0.23	ug/L	U	1
Dibromomethane	74-95-3	BRL	1.0	0.41	ug/L	U	1
Dichlorodifluoromethane	75-71-8	BRL	1.0	0.27	ug/L	U	1
Ethylbenzene	100-41-4	BRL	1.0	0.42	ug/L	U	1

*

Version: 1.001

Certificate of Analytical Results 4870

Shaw Environmental & Infrastructure, Inc., Knoxville, TN

Fort McClellan

Sample Id: **16490 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **16490 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: VOCs (25ml Purge) by SW8260B Prep Method: SW5030B

Date Analyzed: Sep-16-03 15:29 Analyst: MVRR01 Date Prep: Sep-16-03 14:22 Tech: MVRR01

Seq Number: 18417

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Hexachlorobutadiene	87-68-3	BRL	1.0	0.56	ug/L	U	1
Isopropylbenzene	98-82-8	BRL	1.0	0.43	ug/L	U	1
m,p-Xylene	136777-61-2	BRL	2.0	0.83	ug/L	U	1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.29	ug/L	U	1
Methylene Chloride	75-09-2	BRL	2.0	0.30	ug/L	U	1
Naphthalene	91-20-3	BRL	1.0	0.22	ug/L	U	1
n-Butylbenzene	104-51-8	BRL	1.0	0.40	ug/L	U	1
n-Propylbenzene	103-65-1	BRL	1.0	0.44	ug/L	U	1
o-Xylene	95-47-6	BRL	1.0	0.34	ug/L	U	1
Isopropyltoluene	99-87-6	BRL	1.0	0.48	ug/L	U	1
Sec-Butylbenzene	135-98-8	BRL	1.0	0.46	ug/L	U	1
Styrene	100-42-5	BRL	1.0	0.33	ug/L	U	1
tert-Butylbenzene	98-06-6	BRL	1.0	0.45	ug/L	U	1
Tetrachloroethylene	127-18-4	BRL	1.0	0.35	ug/L	U	1
Toluene	108-88-3	BRL	1.0	0.38	ug/L	U	1
trans-1,2-dichloroethene	156-60-5	BRL	1.0	0.33	ug/L	U	1
trans-1,3-dichloropropene	10061-02-6	BRL	1.0	0.43	ug/L	U	1
Trichloroethene	79-01-6	BRL	1.0	0.34	ug/L	U	1
Trichlorofluoromethane	75-69-4	BRL	1.0	0.29	ug/L	U	1
Vinyl Chloride	75-01-4	BRL	1.0	0.30	ug/L	U	1

*

Version: 1.001

Form 2 - Surrogate Recoveries

Project Name: Fort McClellan

Report Date: 09/27/03 22:03

Work Order #: 4870

Project ID: 774645

Lab Batch #: 18417 **Sample:** 16490 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	8.22	10.0	82	69-132	
Bromofluorobenzene	10.1	10.0	101	84-117	
Toluene-D8	9.96	10.0	100	86-116	

Lab Batch #: 18417 **Sample:** 4870-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.66	10.0	97	66-150	
Bromofluorobenzene	9.43	10.0	94	81-120	
Toluene-D8	9.22	10.0	92	83-117	

Lab Batch #: 18417 **Sample:** 4870-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	9.69	10.0	97	66-150	
Bromofluorobenzene	10.4	10.0	104	81-120	
Toluene-D8	10.3	10.0	103	83-117	

Lab Batch #: 18417 **Sample:** 4870-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

VOCs (25ml Purge) by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	10.3	10.0	103	66-150	
Bromofluorobenzene	11.3	10.0	113	81-120	
Toluene-D8	10.4	10.0	104	83-117	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.
Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.%

DRUM

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

	Location Code:	RNG-203-DR01		
	Associated Site:	RNG-203		
	Sample No:	RG4001		
	Sample Date:	06-AUG-02		
User Test Group	*Sample Depth:*	0 - 0		
Lab Method				
Parameter	*Units*	*Result*	*Qual*	*VQual*
CA BREAKDOWN				
SW8321				
Diisopropylmethylphosphonic Acid	mg/kg	.15	U	UJ
Dimethylmethylphosphonic Acid	mg/kg	.15	U	U
Ethylmethylphosponic Acid	mg/kg	.15	U	UJ
Isopropylmethylphosphonic Acid	mg/kg	.3	U	UJ
Methylphosphonic Acid	mg/kg	1.5	U	UJ
Thiodiglycol	mg/kg	.15	U	U
CL HERBICIDE				
SW8151A				
2,2-Dichloropropanoic Acid	mg/kg	.2	U	U
2,4,5-T	mg/kg	.1	U	U
2,4,5-TP	mg/kg	.1	U	U
2,4-D	mg/kg	.1	U	U
2,4-DB	mg/kg	.2	U	U
Dicamba	mg/kg	.2	U	U
Dichloroprop	mg/kg	.5		
Dinoseb	mg/kg	.048	J	J
MCPA	mg/kg	11	J	J
MCPP	mg/kg	20	U	U
CL PESTICIDES				
SW8081A				
4,4'-DDD	mg/kg	.12	U	U
4,4'-DDE	mg/kg	.12	U	U
4,4'-DDT	mg/kg	.12	U	U
Aldrin	mg/kg	.06	U	U
Dieldrin	mg/kg	.12	U	U
Endosulfan I	mg/kg	.06	U	U
Endosulfan II	mg/kg	.12	U	U
Endosulfan sulfate	mg/kg	.12	U	U
Endrin	mg/kg	.12	U	U
Endrin aldehyde	mg/kg	.12	U	U

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

	Location Code:	RNG-203-DR01		
	Associated Site:	RNG-203		
	Sample No:	RG4001		
	Sample Date:	06-AUG-02		
User Test Group	*Sample Depth:*	0 - 0		
Lab Method				
Parameter	*Units*	*Result*	*Qual*	*VQual*
CL PESTICIDES				
SW8081A				
Endrin ketone	mg/kg	.12	U	U
Heptachlor	mg/kg	.06	U	U
Heptachlor epoxide	mg/kg	.06	U	U
Methoxychlor	mg/kg	.6	U	U
Toxaphene	mg/kg	1.2	U	U
alpha-BHC	mg/kg	.06	U	U
alpha-Chlordane	mg/kg	.06	U	U
beta-BHC	mg/kg	.06	U	U
delta-BHC	mg/kg	.06	U	U
gamma-BHC (Lindane)	mg/kg	.06	U	U
gamma-Chlordane	mg/kg	.06	U	U
METALS				
SW6010B				
Aluminum	mg/kg	106		
Antimony	mg/kg	10	U	U
Arsenic	mg/kg	.697	J	J
Barium	mg/kg	5.22		
Beryllium	mg/kg	1	U	U
Cadmium	mg/kg	1	U	U
Calcium	mg/kg	4830		
Chromium	mg/kg	5.87		
Cobalt	mg/kg	1.07	J	J
Copper	mg/kg	176		
Iron	mg/kg	16000		
Lead	mg/kg	6.09		
Magnesium	mg/kg	620		
Manganese	mg/kg	53.5		
Nickel	mg/kg	6.41		
Potassium	mg/kg	3400		
Selenium	mg/kg	.962	J	J

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

Location Code:	RNG-203-DR01			
Associated Site:	RNG-203			
Sample No:	RG4001			
Sample Date:	06-AUG-02			
Sample Depth:	0 - 0			
User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
METALS				
SW6010B				
Silver	mg/kg	2	U	U
Sodium	mg/kg	428		
Thallium	mg/kg	2	U	U
Vanadium	mg/kg	2	U	U
Zinc	mg/kg	18.7		
SW7471A				
Mercury	mg/kg	.107		
NITROAROMATICS				
SW8330				
1,3,5-Trinitrobenzene	mg/kg	.4	U	U
1,3-Dinitrobenzene	mg/kg	1.4		
2,4,6-Trinitrotoluene	mg/kg	.4	U	U
2,4-Dinitrotoluene	mg/kg	.4	U	U
2,6-Dinitrotoluene	mg/kg	.4	U	U
2-Amino-4,6-dinitrotoluene	mg/kg	.4	U	U
2-Nitrotoluene	mg/kg	.4	U	U
3-Nitrotoluene	mg/kg	.4	U	U
4-Amino-2,6-dinitrotoluene	mg/kg	.4	U	U
HMX	mg/kg	.4	U	U
Nitrobenzene	mg/kg	8.6	P	J
RDX	mg/kg	.4	U	U
Tetryl	mg/kg	.4	U	U
p-Nitrotoluene	mg/kg	.4	U	U
OP PESTICIDES				
SW8141A				
Azinphosmethyl	mg/kg	.5	U	U
Bolstar	mg/kg	.5	U	U
Chlorpyrifos	mg/kg	1	U	U
Coumaphos	mg/kg	.5	U	U

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

	Location Code:	RNG-203-DR01		
	Associated Site:	RNG-203		
	Sample No:	RG4001		
	Sample Date:	06-AUG-02		
User Test Group	*Sample Depth:*	0 - 0		
Lab Method				
Parameter	*Units*	*Result*	*Qual*	*VQual*
OP PESTICIDES				
SW8141A				
Demeton	mg/kg	.5	U	U
Diazinon	mg/kg	.5	U	U
Dichlorvos	mg/kg	1	U	UJ
Dimethoate	mg/kg	1	U	UJ
Disulfoton	mg/kg	.5	U	U
Ethoprop	mg/kg	.5	U	U
Famphur	mg/kg	1	U	U
Fensulfothion	mg/kg	1	U	U
Fenthion	mg/kg	.5	U	U
Malathion	mg/kg	.5	U	U
Merphos	mg/kg	.5	U	U
Methyl Parathion	mg/kg	.5	U	U
Mevinphos	mg/kg	.5	U	U
Naled	mg/kg	.5	U	UJ
Parathion	mg/kg	.5	U	U
Phorate	mg/kg	.5	U	U
Ronnel	mg/kg	.5	U	U
Stirophos	mg/kg	.5	U	U
Sulfotep	mg/kg	.5	U	U
Thionazin	mg/kg	.5	U	U
Tokuthion	mg/kg	.5	U	U
Trichloronate	mg/kg	.5	U	U
ORTHOSULFUR				
SW8270CWM				
1,4-Dithiane	mg/kg	9.9	U	U
1,4-Oxathiane	mg/kg	9.9	U	U
p-Chlorophenylmethylsulfone	mg/kg	9.9	U	U
p-Chlorophenylmethylsulfoxide	mg/kg	9.9	U	U

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Location Code:	RNG-203-DR01			
Associated Site:	RNG-203			
Sample No:	RG4001			
Sample Date:	06-AUG-02			
Sample Depth:	0 - 0			
User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
PEST/PCB				
SW8082				
Aroclor 1016	mg/kg	1.2	U	U
Aroclor 1221	mg/kg	1.2	U	U
Aroclor 1232	mg/kg	1.2	U	U
Aroclor 1242	mg/kg	1.2	U	U
Aroclor 1248	mg/kg	1.2	U	U
Aroclor 1254	mg/kg	1.2	U	U
Aroclor 1260	mg/kg	1.2	U	U
SEMIVOLATILES				
SW8270C				
1,2,4-Trichlorobenzene	mg/kg	9.9	U	U
1,2-Dichlorobenzene	mg/kg	9.9	U	U
1,3-Dichlorobenzene	mg/kg	9.9	U	U
1,4-Dichlorobenzene	mg/kg	9.9	U	U
2,4,5-Trichlorophenol	mg/kg	9.9	U	U
2,4,6-Trichlorophenol	mg/kg	19	U	U
2,4-Dichlorophenol	mg/kg	9.9	U	U
2,4-Dimethylphenol	mg/kg	9.9	U	U
2,4-Dinitrophenol	mg/kg	19	U	U
2,4-Dinitrotoluene	mg/kg	9.9	U	U
2,6-Dinitrotoluene	mg/kg	9.9	U	U
2-Chloronaphthalene	mg/kg	9.9	U	U
2-Chlorophenol	mg/kg	9.9	U	U
2-Methylnaphthalene	mg/kg	9.9	U	U
2-Methylphenol	mg/kg	3.8	J	J
2-Nitroaniline	mg/kg	19	U	U
2-Nitrophenol	mg/kg	9.9	U	U
3,3'-Dichlorobenzidine	mg/kg	19	U	U
3-Nitroaniline	mg/kg	19	U	U
4,6-Dinitro-2-methylphenol	mg/kg	19	U	U
4-Bromophenyl phenyl ether	mg/kg	9.9	U	U

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

	Location Code:	RNG-203-DR01		
	Associated Site:	RNG-203		
	Sample No:	RG4001		
	Sample Date:	06-AUG-02		
User Test Group	*Sample Depth:*	0 - 0		
Lab Method				
Parameter	*Units*	*Result*	*Qual*	*VQual*
SEMIVOLATILES				
SW8270C				
4-Chloro-3-methylphenol	mg/kg	9.9	U	U
4-Chloroaniline	mg/kg	9.9	U	U
4-Chlorophenyl phenyl ether	mg/kg	9.9	U	U
4-Methylphenol	mg/kg	8	J	J
4-Nitroaniline	mg/kg	9.9	U	U
4-Nitrophenol	mg/kg	19	U	U
Acenaphthene	mg/kg	9.9	U	U
Acenaphthylene	mg/kg	9.9	U	U
Anthracene	mg/kg	9.9	U	U
Benzo(a)anthracene	mg/kg	9.9	U	U
Benzo(a)pyrene	mg/kg	9.9	U	U
Benzo(b)fluoranthene	mg/kg	9.9	U	U
Benzo(ghi)perylene	mg/kg	9.9	U	U
Benzo(k)fluoranthene	mg/kg	9.9	U	U
Bis(2-Chloroethoxy)methane	mg/kg	9.9	U	U
Bis(2-Chloroethyl)ether	mg/kg	9.9	U	U
Bis(2-Chloroisopropyl)ether	mg/kg	9.9	U	U
Bis(2-Ethylhexyl)phthalate	mg/kg	9.9	U	U
Butyl benzyl phthalate	mg/kg	9.9	U	U
Carbazole	mg/kg	9.9	U	U
Chrysene	mg/kg	9.9	U	U
Di-n-butyl phthalate	mg/kg	9.9	U	U
Di-n-octyl phthalate	mg/kg	9.9	U	U
Dibenz(a,h)anthracene	mg/kg	9.9	U	U
Dibenzofuran	mg/kg	9.9	U	U
Diethyl phthalate	mg/kg	9.9	U	U
Dimethyl phthalate	mg/kg	9.9	U	U
Fluoranthene	mg/kg	9.9	U	U
Fluorene	mg/kg	9.9	U	U
Hexachlorobenzene	mg/kg	9.9	U	U
Hexachlorobutadiene	mg/kg	9.9	U	U

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Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

	Location Code:	RNG-203-DR01		
	Associated Site:	RNG-203		
	Sample No:	RG4001		
	Sample Date:	06-AUG-02		
User Test Group	*Sample Depth:*	0 - 0		
Lab Method				
Parameter	*Units*	*Result*	*Qual*	*VQual*
SEMIVOLATILES				
SW8270C				
Hexachlorocyclopentadiene	mg/kg	9.9	U	U
Hexachloroethane	mg/kg	9.9	U	U
Indeno(1,2,3-cd)pyrene	mg/kg	9.9	U	U
Isophorone	mg/kg	9.9	U	U
N-Nitroso-di-n-propylamine	mg/kg	9.9	U	U
N-Nitrosodiphenylamine	mg/kg	9.9	U	U
Naphthalene	mg/kg	9.9	U	U
Nitrobenzene	mg/kg	9.9	U	U
Pentachlorophenol	mg/kg	19	U	U
Phenanthrene	mg/kg	9.9	U	U
Phenol	mg/kg	800		
Pyrene	mg/kg	9.9	U	U
VOLATILES				
SW8260B				
1,1,1,2-Tetrachloroethane	mg/kg	.25	U	U
1,1,1-Trichloroethane	mg/kg	.25	U	U
1,1,2,2-Tetrachloroethane	mg/kg	.25	U	U
1,1,2-Trichloroethane	mg/kg	.25	U	U
1,1-Dichloroethane	mg/kg	.25	U	U
1,1-Dichloroethene	mg/kg	.25	U	U
1,1-Dichloropropene	mg/kg	.25	U	U
1,2,3-Trichlorobenzene	mg/kg	.25	U	U
1,2,3-Trichloropropane	mg/kg	.25	U	U
1,2,4-Trichlorobenzene	mg/kg	.25	U	U
1,2,4-Trimethylbenzene	mg/kg	.25	U	U
1,2-Dibromo-3-Chloropropane	mg/kg	.5	U	U
1,2-Dibromoethane	mg/kg	.25	U	U
1,2-Dichlorobenzene	mg/kg	.25	U	U
1,2-Dichloroethane	mg/kg	.25	U	U
1,2-Dichloropropane	mg/kg	.25	U	U

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

Location Code:	RNG-203-DR01			
Associated Site:	RNG-203			
Sample No:	RG4001			
Sample Date:	06-AUG-02			
Sample Depth:	0 - 0			
User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
VOLATILES				
SW8260B				
1,2-Dimethylbenzene	mg/kg	.25	U	U
1,3,5-Trimethylbenzene	mg/kg	.25	U	U
1,3-Dichlorobenzene	mg/kg	.25	U	U
1,3-Dichloropropane	mg/kg	.25	U	U
1,4-Dichlorobenzene	mg/kg	.25	U	U
2-Butanone	mg/kg	1.9		
2-Hexanone	mg/kg	1	U	U
4-Methyl-2-pentanone	mg/kg	1	U	U
Acetone	mg/kg	2		J
Benzene	mg/kg	.25	U	U
Bromobenzene	mg/kg	.25	U	U
Bromochloromethane	mg/kg	.25	U	U
Bromodichloromethane	mg/kg	.25	U	U
Bromoform	mg/kg	.25	U	U
Bromomethane	mg/kg	.25	U	U
Carbon disulfide	mg/kg	.25	U	U
Carbon tetrachloride	mg/kg	.25	U	U
Chlorobenzene	mg/kg	.25	U	U
Chloroethane	mg/kg	.5	U	U
Chloroform	mg/kg	.25	U	U
Chloromethane	mg/kg	.25	U	U
Cis-1,2-Dichloroethene	mg/kg	.25	U	U
Cis-1,3-Dichloropropene	mg/kg	.25	U	U
Cumene	mg/kg	.25	U	U
Dibromochloromethane	mg/kg	.25	U	U
Dibromomethane	mg/kg	.25	U	U
Dichlorodifluoromethane	mg/kg	.5	U	UJ
Ethylbenzene	mg/kg	.25	U	U
Hexachlorobutadiene	mg/kg	.25	U	U
Methylene chloride	mg/kg	.5	U	U
N-Butylbenzene	mg/kg	.25	U	U

Summary of Validated Drum Sample Data
Former Agent Training Area, Range K (Parcel 203)
Fort McClellan, Calhoun County, Alabama

Report Date: 01/28/04

Location Code:	RNG-203-DR01			
Associated Site:	RNG-203			
Sample No:	RG4001			
Sample Date:	06-AUG-02			
Sample Depth:	0 - 0			
User Test Group / Lab Method / Parameter	*Units*	*Result*	*Qual*	*VQual*
VOLATILES				
SW8260B				
N-Propylbenzene	mg/kg	.25	U	U
Naphthalene	mg/kg	.5	U	U
Styrene	mg/kg	.25	U	U
Tetrachloroethene	mg/kg	.25	U	U
Toluene	mg/kg	.25	U	U
Trans-1,2-Dichloroethene	mg/kg	.25	U	U
Trans-1,3-Dichloropropene	mg/kg	.25	U	U
Trichloroethene	mg/kg	.25	U	U
Trichlorofluoromethane	mg/kg	.25	U	U
Vinyl chloride	mg/kg	.25	U	U
m,p-Xylenes	mg/kg	.5	U	U
o-Chlorotoluene	mg/kg	.25	U	U
p-Chlorotoluene	mg/kg	.25	U	U
p-Cymene	mg/kg	.25	U	U
sec-Butylbenzene	mg/kg	.25	U	U
sec-Dichloropropane	mg/kg	.25	U	U
tert-Butylbenzene	mg/kg	.25	U	U