

TestAmerica, Incorporated

ANALYTICAL REPORT

Kevin Wildman
HULL & ASSOC. (Dublin)
6130 Wilcox Rd.
Dublin, OH 43016

10/09/2002

Job Number: 02.19557

Enclosed is the analytical report for the following samples submitted to the Dayton Division of TestAmerica, Inc. for analysis:

<u>Sample Number</u>	<u>Sample Description</u>	<u>Date Taken</u>	<u>Date Received</u>
792104	SBI014:G1:P092502:412	09/25/2002	09/26/2002
792105	SBI014:G2:P092502:412	09/25/2002	09/26/2002

TestAmerica, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

Reproduction of this analytical report is permitted only in its entirety.

Enclosure


Approved By

TestAmerica, Incorporated

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ANALYTICAL REPORT

Kevin Wildman
 HULL & ASSOC. (Dublin)
 6130 Wilcox Rd.
 Dublin, OH 43016

10/09/2002

Job Number: 02.19557

Client Project ID: South Bend Indiana SBI014

SAMPLE NO. **SAMPLE DESCRIPTION** **DATE/TIME TAKEN**
 792104 SBI014:G1:P092502:412 09/25/2002 10:00

	Result	Units	Reporting		Date Analyzed	Time Analyzed	Prep Batch	Run Batch	Anal.	
			Limit	Flag					Init.	Method Reference
Prep, BNA Non-Aq	SW 3580		Complete		10/02/2002		1191		mhg	
Prep, PCB(8082) Waste Dilution	SW 3580		Complete		10/01/2002		132	Complete	mhg	
BASE NEUT. COMPS. Non-aqueous										
Acenaphthene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Acenaphthylene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Anthracene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Benzo(a)anthracene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Benzo(b)fluoranthene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Benzo(k)fluoranthene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Benzo(a)pyrene	<248	mg/Kg	<248		10/04/2002		1191	1920	jcs	SW 8270C
Benzyl alcohol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Benzyl butyl phthalate	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Bis(2-chloroethyl)ether	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Bis(2-chloroethoxy)methane	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Bis(2-ethylhexyl)phthalate	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2,2'-oxybis(1-Chloropropane)	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
4-Bromophenyl phenyl ether	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
4-Chloroaniline	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2-Chloronaphthalene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Chrysene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Dibenzo(a,h)anthracene	<248	mg/Kg	<248		10/04/2002		1191	1920	jcs	SW 8270C
Dibenzofuran	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
1,3-Dichlorobenzene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
1,2-Dichlorobenzene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
1,4-Dichlorobenzene	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
3,3'-Dichlorobenzidine	<990	mg/Kg	<990		10/04/2002		1191	1920	jcs	SW 8270C

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Client Project ID: South Bend Indiana SBI014

SAMPLE NO. **SAMPLE DESCRIPTION** **DATE/TIME TAKEN**
 792104 SBI014:G1:P092502:412 09/25/2002 10:00

	Result	Units	Reporting		Date Analyzed	Time Analyzed	Prep Batch	Run Batch	Anal.	
			Limit	Flag					Init.	Method Reference
Diethyl phthalate	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Dimethyl phthalate	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
2,4-Dinitrotoluene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
2,6-Dinitrotoluene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Di-n-octylphthalate	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Fluoranthene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Fluorene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Hexachlorobenzene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Hexachloro-1,3-butadiene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Hexachlorocyclopentadiene	<990	mg/Kg	<990		10/04/2002		1191 1920	jcs	SW 8270C	
Hexachloroethane	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Indeno(1,2,3-cd)pyrene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Isophorone	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Naphthalene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Nitrobenzene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
N-Nitrosodi-n-propylamine	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Phenanthrene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Pyrene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
1,2,4-Trichlorobenzene	<495	mg/Kg	<495		10/04/2002		1191 1920	jcs	SW 8270C	
Surrogate: d5-Nitrobenzene	dl	%	28-120	note	10/04/2002		1191 1920	jcs	SW 8270C	
Surrogate: 2-Fluorobiphenyl	dl	%	20-115		10/04/2002		1191 1920	jcs	SW 8270C	
Surrogate: d14-Terphenyl	dl	%	18-137		10/04/2002		1191 1920	jcs	SW 8270C	

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10/09/2002

Job Number: 02.19557

Client Project ID: South Bend Indiana SBI014

SAMPLE NO. **SAMPLE DESCRIPTION** **DATE/TIME TAKEN**
792104 SBI014:G1:P092502:412 09/25/2002 10:00

	Result	Units	Reporting		Date Analyzed	Time Analyzed	Prep Batch	Run Batch	Anal.	
			Limit	Flag					Init.	Method Reference
ACID COMPOUNDS - 8270 Non-aq										
Benzoic Acid	<2,480	mg/Kg	<2,480		10/04/2002		1191	1920	jcs	SW 8270C
4-Chloro-3-methylphenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2-Chlorophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2,4-Dichlorophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2,4-Dimethylphenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2-Methyl-4,6-dinitrophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2-Methylphenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
meta & para-Methylphenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2-Nitrophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Pentachlorophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Phenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2,4,5-Trichlorophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
2,4,6-Trichlorophenol	<495	mg/Kg	<495		10/04/2002		1191	1920	jcs	SW 8270C
Surrogate: d6-Phenol	dl	%	24-113		10/04/2002		1191	1920	jcs	SW 8270C
Surrogate: 2-Fluorophenol	dl	%	25-127		10/04/2002		1191	1920	jcs	SW 8270C
Surrogate: Tribromophenol	dl	%	19-122		10/04/2002		1191	1920	jcs	SW 8270C
PCBs, Waste Dilution										
Aroclor 1016	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Aroclor 1221	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Aroclor 1232	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Aroclor 1242	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Aroclor 1248	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Aroclor 1254	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Aroclor 1260	<1.0	mg/Kg	<1.0		10/02/2002		132	244	mrp	SW 8082
Surrogate: TCX/DCB	139/129	%	40-160		10/02/2002		132	244	mrp	SW 8082

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10/09/2002

Job Number: 02.19557

Client Project ID: South Bend Indiana SBI014

SAMPLE NO. 792105 **SAMPLE DESCRIPTION** SBI014:G2:P092502:412 **DATE/TIME TAKEN** 09/25/2002 10:30

	Result	Units	Reporting		Date Analyzed	Time Analyzed	Prep Batch	Run Batch	Anal.	
			Limit	Flag					Init.	Method Reference
Prep, Base Neutral	L/L 625		Complete		10/01/2002		1493		mfs	
Prep, Acid Extractable	L/L 625		Complete		10/01/2002		1493		mfs	
Prep, PCBs Aqueous 8082	SW 3520		Complete		09/27/2002		206		mfs	
BASE NEUTRAL COMP. (AQ) 8270										
Acenaphthene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Acenaphthylene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Anthracene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Benzo(a)anthracene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Benzo(b)fluoranthene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Benzo(k)fluoranthene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Benzo(a)pyrene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Benzyl alcohol	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Benzyl butyl phthalate	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
bis(2-Chloroethyl)ether	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
bis(2-Chloroethoxy)methane	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
bis(2-Ethylhexyl)phthalate	0.648	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
2,2'-oxybis(1-Chloropropane)	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
4-Bromophenyl phenyl ether	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
4-Chloroaniline	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
2-Chloronaphthalene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Chrysene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Dibenzo(a,h)anthracene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
Dibenzofuran	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
1,2-Dichlorobenzene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
1,3-Dichlorobenzene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C
1,4-Dichlorobenzene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jrj	SW 8270C

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10/09/2002

Job Number: 02.19557

Client Project ID: South Bend Indiana SBI014

SAMPLE NO. 792105 **SAMPLE DESCRIPTION** SBI014:G2:P092502:412 **DATE/TIME TAKEN** 09/25/2002 10:30

	Result	Units	Reporting Limit	Flag	Date Analyzed	Time Analyzed	Prep Batch	Run Batch	Anal. Init.	Method	Reference
3,3'-Dichlorobenzidine	<2.50	mg/L	<2.50		10/03/2002		1493	3158	jr	SW	8270C
Diethyl phthalate	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Dimethyl phthalate	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
2,4-Dinitrotoluene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
2,6-Dinitrotoluene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Di-n-octylphthalate	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Fluoranthene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Fluorene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Hexachlorobenzene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Hexachloro-1,3-butadiene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Hexachlorocyclopentadiene	<1.00	mg/L	<1.00		10/03/2002		1493	3158	jr	SW	8270C
Hexachloroethane	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Indeno(1,2,3-cd)pyrene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Isophorone	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Naphthalene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Nitrobenzene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
N-Nitrosodi-n-propylamine	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Phenanthrene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Pyrene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
1,2,4-Trichlorobenzene	<0.500	mg/L	<0.500		10/03/2002		1493	3158	jr	SW	8270C
Surrogate: d5-Nitrobenzene	dl	%	35-124		10/03/2002		1493	3158	jr	SW	8270C
Surrogate: 2-Fluorobiphenyl	dl	%	43-134		10/03/2002		1493	3158	jr	SW	8270C
Surrogate: d14-Terphenyl	dl	%	34-149	Note	10/03/2002		1493	3158	jr	SW	8270C

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10/09/2002

Job Number: 02.19557

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SAMPLE NO. **SAMPLE DESCRIPTION** **DATE/TIME TAKEN**
 792105 SBI014:G2:P092502:412 09/25/2002 10:30

	Result	Units	Reporting		Date Analyzed	Time Analyzed	Prep Batch	Run Batch	Anal.	
			Limit	Flag					Init.	Method Reference
ACID COMPOUNDS (AQ) 8270										
Benzoic acid	<2.50	mg/L	<2.50		10/03/2002		1493 3158		jrj	SW 8270C
4-Chloro-3-methylphenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2-Chlorophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2,4-Dichlorophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2,4-Dimethylphenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2-Methyl-4,6-dinitrophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2-Methylphenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
meta & para-Methylphenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2-Nitrophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
Pentachlorophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
Phenol	2.30	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2,4,5-Trichlorophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
2,4,6-Trichlorophenol	<0.500	mg/L	<0.500		10/03/2002		1493 3158		jrj	SW 8270C
Surrogate: d6-Phenol	dl	%	10-149		10/03/2002		1493 3158		jrj	SW 8270C
Surrogate: 2-Fluorophenol	dl	%	21-145		10/03/2002		1493 3158		jrj	SW 8270C
Surrogate: Tribromophenol	dl	%	21-146	Note	10/03/2002		1493 3158		jrj	SW 8270C
PCB's M 8082. Aqueous										
Aroclor 1016	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Aroclor 1221	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Aroclor 1232	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Aroclor 1242	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Aroclor 1248	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Aroclor 1254	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Aroclor 1260	<0.010	mg/L	<0.010		10/02/2002		206 293		mrj	SW 8082
Surrogate:DCB/TCX	DL/DL	%	40-160	Note	10/02/2002		206 293		mrj	SW 8082

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QUALITY CONTROL FLAG DEFINITIONS

Job Number: 02.19557

(*) Indicates an out-of-control QC. The analytical data was reported based on other supporting quality control information.

(Note) Indicates to review the notes and comments section of the analytical report as there is additional information concerning this analytical result.

(MS) Indicates that the Matrix Spike (MS) was out of statistical advisory limits.

(MSD) Indicates that the Matrix Spike Duplicate (MSD) was out of statistical advisory limits.

(RPD) Indicates that the Relative Percent Difference (RPD) for the MS/MSD pair was outside of statistical advisory limits.

(SS) Indicates that the MS and MSD were out of statistical advisory limits.

(SSR) Indicates that the MS, MSD and RPD were out of statistical advisory limits.

(MSR) Indicates that the MS and RPD were out of statistical advisory limits.

(MSDR) Indicates that the MSD and RPD were out of statistical advisory limits.

(DL) Indicates that the MS and MSD were diluted out and the percent recoveries of the spikes could not be calculated.

(LS) Indicates that statistical accuracy and precision data is not available for spike concentrations which are $< 1/4$ of the sample amount. Care should be used in interpreting this data.

(J) Indicates estimated concentration due to internal standard areas or surrogate recoveries outside of control limits. A sample matrix effect is usually indicated.

(DW) Indicates Dry Weight.

Analytical Reporting Limits

The reporting limits listed for non-aqueous samples in the analytical report section are Practical Quantitation Limits (PQLs). These PQLs are based upon a typical standard weight used for a non-aqueous sample. The reporting limit for a sample may be different from the PQL listed depending upon the actual weight of sample used, the samples moisture content and any dilutions used during the analysis.

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NOTES AND COMMENTS

TestAmerica Job Number: 02.19557

Sample Number: 792105

Analysis: PCB's 8082

Elevated reporting limit is due to severe matrix interference. Appropriate clean-up procedures were attempted prior to dilution. Surrogates designated "DL" were diluted below the reporting limit.

Sample Number: 792105

Analysis: 8270 BNA

3,3'-Dichlorobenzidine failed low in both the sample batch's LCS and LCS Duplicate. The sample is past its hold time, so it cannot be re-prepped.

The sample could not be concentrated to 1 mL and was then diluted ten fold to avoid viscosity and matrix interference. All surrogates were diluted out (dl). Internal standard responses for d12-Chrysene and d12-Perylene were below their recommended levels, so the hit for bis(2-Ethylhexyl)phthalate should be considered a high estimate.

Sample Number: 792104

Analysis: 8270 BNA (waste dilution procedure)

A ten-fold dilution was necessary to reduce chromatographic interferences. Reporting limits are elevated accordingly.

The surrogate compounds were diluted below their reporting limits.

