TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

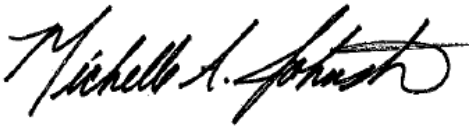
ANALYTICAL REPORT

Job Number: 280-76331-2

Job Description: Fort Wingate, New Mexico

For:
Sundance Consulting, Inc
6700 Jefferson Blvd NE
Albuquerque, NM 87109

Attention: JohnDavid Nance



Approved for release.
Michelle A Johnston
Project Manager II
11/28/2015 11:49 AM

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11/28/2015

cc: Elizabeth Farias
Jim Lockhart
Ben Moayyad
Mr. Doug Scott

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE
Client: Sundance Consulting, Inc.
Project: Fort Wingate, New Mexico
Report Number: 280-76331-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

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

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receipt

Six samples were received on 11/4/2015 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 10 coolers at receipt time were 0.2ºC, 0.3ºC, 0.4ºC, 0.4ºC, 0.4ºC, 0.5ºC, 0.5ºC, 0.9ºC, 1.4ºC and 3.5ºC.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-76331-1 & 280-76331-3).

No other anomalies were encountered during sample receipt.

GC/MS Semivolatiles - 8270D

Samples TMW43102015 (280-76331-3), DTW43102015 (280-76331-4), TMW45102015 (280-76331-5), TMW40D102015 (280-76331-7), TMW14A102015 (280-76331-9) and SMW011102015 (280-76331-10) were analyzed for semivolatile organic compounds (GC-MS) in accordance with SW-846 8270D. The samples were prepared on 11/06/2015 and analyzed on 11/16/2015.

Please note the Caprolactam data are reported under separate cover, as the laboratory does not hold DOD ELAP certification for this compound. The laboratory does not maintain quarterly QC requirements for precision, accuracy and detections.

Reporting limits and method detection limits have been adjusted accordingly for the initial volumes extracted.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Instrument ID: SMS_D Analysis Batch Number: 304451

Lab Sample ID: STD120 280-304451/8 IC Client Sample ID:

Date Analyzed: 11/14/15 10:44 Lab File ID: D13299.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.17	Split Peak	kiekeld	11/17/15 09:13

Lab Sample ID: STD160 280-304451/9 IC Client Sample ID:

Date Analyzed: 11/14/15 11:11 Lab File ID: D13300.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.18	Split Peak	kiekeld	11/17/15 09:15
Indeno[1,2,3-cd]pyrene	19.94	Shouldering	kiekeld	11/17/15 09:15

Lab Sample ID: STD200 280-304451/10 IC Client Sample ID:

Date Analyzed: 11/14/15 11:38 Lab File ID: D13301.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.20	Split Peak	kiekeld	11/17/15 09:16
Indeno[1,2,3-cd]pyrene	19.94	Shouldering	kiekeld	11/17/15 09:16

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Instrument ID: SMS_D Analysis Batch Number: 304460

Lab Sample ID: LCS 280-302909/2-A Client Sample ID:

Date Analyzed: 11/16/15 18:21 Lab File ID: D13347.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.15	Split Peak	kiekeld	11/17/15 09:47

Lab Sample ID: 280-76331-3 MS Client Sample ID: TMW43102015MS MS

Date Analyzed: 11/16/15 20:10 Lab File ID: D13351.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.15	Split Peak	kiekeld	11/17/15 09:50

Lab Sample ID: 280-76331-3 MSD Client Sample ID: TMW43102015MSD MSD

Date Analyzed: 11/16/15 20:38 Lab File ID: D13352.D GC Column: Vf-5MS (30.25 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	6.15	Split Peak	kiekeld	11/17/15 09:45

SAMPLE SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-76331-3	TMW43102015	Water	11/03/2015 0950	11/04/2015 0935
280-76331-3MS	TMW43102015MS	Water	11/03/2015 0950	11/04/2015 0935
280-76331-3MSD	TMW43102015MSD	Water	11/03/2015 0950	11/04/2015 0935
280-76331-4	DTW43102015	Water	11/03/2015 0950	11/04/2015 0935
280-76331-5	TMW45102015	Water	11/03/2015 1250	11/04/2015 0935
280-76331-7	TMW40D102015	Water	11/03/2015 0900	11/04/2015 0935
280-76331-9	TMW14A102015	Water	11/03/2015 1200	11/04/2015 0935
280-76331-10	SMW011102015	Water	11/03/2015 0910	11/04/2015 0935

EXECUTIVE SUMMARY - Detections

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method

No Detections

METHOD SUMMARY

Client: Sundance Consulting, Inc Job Number: 280-76331-2

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270D	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270D	
Liquid-Liquid Extraction (Continuous)	TAL DEN		SW846 3520C

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Method	Analyst	Analyst ID
SW846 8270D	Kiekel, Daniel C	DCK

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Client Sample ID: **TMW43102015**

Lab Sample ID: 280-76331-3
Client Matrix: Water

Date Sampled: 11/03/2015 0950
Date Received: 11/04/2015 0935

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Prep Method:	3520C	Prep Batch:	280-302909	Lab File ID:	D13350.D
Dilution:	1.0			Initial Weight/Volume:	1016.3 mL
Analysis Date:	11/16/2015 1943			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	88		42 - 131
2-Fluorobiphenyl	84		48 - 120
2-Fluorophenol (Surr)	82		41 - 120
Nitrobenzene-d5 (Surr)	86		42 - 120
Phenol-d5 (Surr)	83		45 - 124
Terphenyl-d14 (Surr)	52		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Client Sample ID: **DTW43102015**

Lab Sample ID: 280-76331-4
Client Matrix: Water

Date Sampled: 11/03/2015 0950
Date Received: 11/04/2015 0935

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Prep Method:	3520C	Prep Batch:	280-302909	Lab File ID:	D13353.D
Dilution:	1.0			Initial Weight/Volume:	998.5 mL
Analysis Date:	11/16/2015 2105			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	86		42 - 131
2-Fluorobiphenyl	78		48 - 120
2-Fluorophenol (Surr)	81		41 - 120
Nitrobenzene-d5 (Surr)	79		42 - 120
Phenol-d5 (Surr)	82		45 - 124
Terphenyl-d14 (Surr)	65		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Client Sample ID: **TMW45102015**

Lab Sample ID: 280-76331-5
Client Matrix: Water

Date Sampled: 11/03/2015 1250
Date Received: 11/04/2015 0935

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Prep Method:	3520C	Prep Batch:	280-302909	Lab File ID:	D13354.D
Dilution:	1.0			Initial Weight/Volume:	950.6 mL
Analysis Date:	11/16/2015 2132			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.6	U	2.6	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	91		42 - 131
2-Fluorobiphenyl	84		48 - 120
2-Fluorophenol (Surr)	87		41 - 120
Nitrobenzene-d5 (Surr)	86		42 - 120
Phenol-d5 (Surr)	90		45 - 124
Terphenyl-d14 (Surr)	77		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Client Sample ID: **TMW40D102015**

Lab Sample ID: 280-76331-7
Client Matrix: Water

Date Sampled: 11/03/2015 0900
Date Received: 11/04/2015 0935

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Prep Method:	3520C	Prep Batch:	280-302909	Lab File ID:	D13355.D
Dilution:	1.0			Initial Weight/Volume:	981.9 mL
Analysis Date:	11/16/2015 2200			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	97		42 - 131
2-Fluorobiphenyl	88		48 - 120
2-Fluorophenol (Surr)	88		41 - 120
Nitrobenzene-d5 (Surr)	89		42 - 120
Phenol-d5 (Surr)	92		45 - 124
Terphenyl-d14 (Surr)	83		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Client Sample ID: **TMW14A102015**

Lab Sample ID: 280-76331-9
Client Matrix: Water

Date Sampled: 11/03/2015 1200
Date Received: 11/04/2015 0935

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Prep Method:	3520C	Prep Batch:	280-302909	Lab File ID:	D13356.D
Dilution:	1.0			Initial Weight/Volume:	981.9 mL
Analysis Date:	11/16/2015 2227			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.5	U	2.5	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	91		42 - 131
2-Fluorobiphenyl	82		48 - 120
2-Fluorophenol (Surr)	89		41 - 120
Nitrobenzene-d5 (Surr)	84		42 - 120
Phenol-d5 (Surr)	91		45 - 124
Terphenyl-d14 (Surr)	79		20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Client Sample ID: **SMW011102015**

Lab Sample ID: 280-76331-10
Client Matrix: Water

Date Sampled: 11/03/2015 0910
Date Received: 11/04/2015 0935

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Prep Method:	3520C	Prep Batch:	280-302909	Lab File ID:	D13357.D
Dilution:	1.0			Initial Weight/Volume:	962.7 mL
Analysis Date:	11/16/2015 2254			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Caprolactam	2.6	U	2.6	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	93		42 - 131
2-Fluorobiphenyl	89		48 - 120
2-Fluorophenol (Surr)	86		41 - 120
Nitrobenzene-d5 (Surr)	93		42 - 120
Phenol-d5 (Surr)	92		45 - 124
Terphenyl-d14 (Surr)	80		20 - 130

Client: Sundance Consulting, Inc Job Number: 280-76331-2

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
280-76331-3	TMW43102015	82	83	86	84	88	52
280-76331-4	DTW43102015	81	82	79	78	86	65
280-76331-5	TMW45102015	87	90	86	84	91	77
280-76331-7	TMW40D102015	88	92	89	88	97	83
280-76331-9	TMW14A102015	89	91	84	82	91	79
280-76331-10	SMW011102015	86	92	93	89	93	80
MB 280-302909/1-A		86	84	88	79	89	79
LCS 280-302909/2-A		88	90	87	83	92	83
280-76331-3 MS	TMW43102015MS MS	90	93	89	85	91	79
280-76331-3 MSD	TMW43102015MSD MSD	87	88	85	83	90	73

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	41-120
PHL = Phenol-d5 (Surr)	45-124
NBZ = Nitrobenzene-d5 (Surr)	42-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	42-131
TPH = Terphenyl-d14 (Surr)	20-130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Method Blank - Batch: 280-302909

Method: 8270D
Preparation: 3520C

Lab Sample ID:	MB 280-302909/1-A	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Client Matrix:	Water	Prep Batch:	280-302909	Lab File ID:	D13346.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/16/2015 1754	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Caprolactam	2.5	U	2.5	5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	89	42 - 131
2-Fluorobiphenyl	79	48 - 120
2-Fluorophenol (Surr)	86	41 - 120
Nitrobenzene-d5 (Surr)	88	42 - 120
Phenol-d5 (Surr)	84	45 - 124
Terphenyl-d14 (Surr)	79	20 - 130

Lab Control Sample - Batch: 280-302909

Method: 8270D
Preparation: 3520C

Lab Sample ID:	LCS 280-302909/2-A	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Client Matrix:	Water	Prep Batch:	280-302909	Lab File ID:	D13347.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	11/16/2015 1821	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Caprolactam	80.0	74.5	93	46 - 143	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	92	42 - 131
2-Fluorobiphenyl	83	48 - 120
2-Fluorophenol (Surr)	88	41 - 120
Nitrobenzene-d5 (Surr)	87	42 - 120
Phenol-d5 (Surr)	90	45 - 124
Terphenyl-d14 (Surr)	83	20 - 130

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-302909

Method: 8270D
Preparation: 3520C

MS Lab Sample ID:	280-76331-3	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Client Matrix:	Water	Prep Batch:	280-302909	Lab File ID:	D13351.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1010.2 mL
Analysis Date:	11/16/2015 2010			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-76331-3	Analysis Batch:	280-304460	Instrument ID:	SMS_D
Client Matrix:	Water	Prep Batch:	280-302909	Lab File ID:	D13352.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1053.9 mL
Analysis Date:	11/16/2015 2038			Final Weight/Volume:	1 mL
Prep Date:	11/06/2015 1515			Injection Volume:	0.5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Caprolactam	94	91	46 - 143	8	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	91	90	42 - 131
2-Fluorobiphenyl	85	83	48 - 120
2-Fluorophenol (Surr)	90	87	41 - 120
Nitrobenzene-d5 (Surr)	89	85	42 - 120
Phenol-d5 (Surr)	93	88	45 - 124
Terphenyl-d14 (Surr)	79	73	20 - 130

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-302909

Method: 8270D
Preparation: 3520C

MS Lab Sample ID:	280-76331-3	Units:	ug/L	MSD Lab Sample ID:	280-76331-3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	11/16/2015 2010			Analysis Date:	11/16/2015 2038
Prep Date:	11/06/2015 1515			Prep Date:	11/06/2015 1515
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Caprolactam	2.5	U	79.2	75.9	74.8	69.0

DATA REPORTING QUALIFIERS

Client: Sundance Consulting, Inc Job Number: 280-76331-2

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Indicates the analyte was analyzed for but not detected.

Client: Sundance Consulting, Inc Job Number: 280-76331-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-302909					
LCS 280-302909/2-A	Lab Control Sample	T	Water	3520C	
MB 280-302909/1-A	Method Blank	T	Water	3520C	
280-76331-3	TMW43102015	T	Water	3520C	
280-76331-3MS	Matrix Spike	T	Water	3520C	
280-76331-3MSD	Matrix Spike Duplicate	T	Water	3520C	
280-76331-4	DTW43102015	T	Water	3520C	
280-76331-5	TMW45102015	T	Water	3520C	
280-76331-7	TMW40D102015	T	Water	3520C	
280-76331-9	TMW14A102015	T	Water	3520C	
280-76331-10	SMW011102015	T	Water	3520C	
Analysis Batch:280-304460					
LCS 280-302909/2-A	Lab Control Sample	T	Water	8270D	280-302909
MB 280-302909/1-A	Method Blank	T	Water	8270D	280-302909
280-76331-3	TMW43102015	T	Water	8270D	280-302909
280-76331-3MS	Matrix Spike	T	Water	8270D	280-302909
280-76331-3MSD	Matrix Spike Duplicate	T	Water	8270D	280-302909
280-76331-4	DTW43102015	T	Water	8270D	280-302909
280-76331-5	TMW45102015	T	Water	8270D	280-302909
280-76331-7	TMW40D102015	T	Water	8270D	280-302909
280-76331-9	TMW14A102015	T	Water	8270D	280-302909
280-76331-10	SMW011102015	T	Water	8270D	280-302909

Report Basis
T = Total

Client: Sundance Consulting, Inc Job Number: 280-76331-2

Laboratory Chronicle

Lab ID: 280-76331-3 **Client ID: TMW43102015**

Sample Date/Time: 11/03/2015 09:50 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-D-3-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-D-3-A		280-304460	280-302909	11/16/2015 19:43	1	TAL DEN	DCK

Lab ID: 280-76331-3 **Client ID: TMW43102015MS**

Sample Date/Time: 11/03/2015 09:50 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-B-3-A MS		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-B-3-A MS		280-304460	280-302909	11/16/2015 20:10	1	TAL DEN	DCK

Lab ID: 280-76331-3 **Client ID: TMW43102015MSD**

Sample Date/Time: 11/03/2015 09:50 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-A-3-A MSD		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-A-3-A MSD		280-304460	280-302909	11/16/2015 20:38	1	TAL DEN	DCK

Lab ID: 280-76331-4 **Client ID: DTW43102015**

Sample Date/Time: 11/03/2015 09:50 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-B-4-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-B-4-A		280-304460	280-302909	11/16/2015 21:05	1	TAL DEN	DCK

Lab ID: 280-76331-5 **Client ID: TMW45102015**

Sample Date/Time: 11/03/2015 12:50 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-C-5-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-C-5-A		280-304460	280-302909	11/16/2015 21:32	1	TAL DEN	DCK

Lab ID: 280-76331-7 **Client ID: TMW40D102015**

Sample Date/Time: 11/03/2015 09:00 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-A-7-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-A-7-A		280-304460	280-302909	11/16/2015 22:00	1	TAL DEN	DCK

Client: Sundance Consulting, Inc Job Number: 280-76331-2

Laboratory Chronicle

Lab ID: 280-76331-9 **Client ID: TMW14A102015**

Sample Date/Time: 11/03/2015 12:00 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-A-9-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-A-9-A		280-304460	280-302909	11/16/2015 22:27	1	TAL DEN	DCK

Lab ID: 280-76331-10 **Client ID: SMW011102015**

Sample Date/Time: 11/03/2015 09:10 Received Date/Time: 11/04/2015 09:35

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	280-76331-B-10-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	280-76331-B-10-A		280-304460	280-302909	11/16/2015 22:54	1	TAL DEN	DCK

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	MB 280-302909/1-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	MB 280-302909/1-A		280-304460	280-302909	11/16/2015 17:54	1	TAL DEN	DCK

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3520C	LCS 280-302909/2-A		280-304460	280-302909	11/06/2015 15:15	1	TAL DEN	JRA
A:8270D	LCS 280-302909/2-A		280-304460	280-302909	11/16/2015 18:21	1	TAL DEN	DCK

Lab References:
TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8270_LCS_Main_00026	08/31/16	09/25/15	P&T Methanol, Lot MethanolP&T_001122	500 mL	MS-569729_00035	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00036	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00037	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00038	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00039	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00044	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00045	5 mL	1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569729_00046	5 mL	1,1'-Biphenyl	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Hexadecane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							n-Decane	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							n-Octadecane	80 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
					MS-569731_00015	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					MS-569731_00016	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					MS-569731_00017	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
					MS-569731_00018	5 mL	Benzoic acid	80 ug/mL
							Indene	80 ug/mL
.MS-569729_00035	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00036	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00037	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00038	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00039	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00044	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00045	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569729_00046	12/31/16		Restek, Lot A0111934		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Hexadecane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							n-Decane	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							n-Octadecane	1000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
.MS-569731_00015	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00016	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00017	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
.MS-569731_00018	08/31/16		Restek, Lot A0108988		(Purchased Reagent)		Benzoic acid	2000 ug/mL
							Indene	2000 ug/mL
8270_LCS_Supp_00136	11/13/15	11/06/15	P&T Methanol, Lot MethanolP&T_00124	50 mL	MS-569730_00023	2 mL	3,3'-Dichlorobenzidine	80 ug/mL
							Benzidine	80 ug/mL
					MS-569732_00023	2 mL	Atrazine	80 ug/mL
							Benzaldehyde	80 ug/mL
							Caprolactam	80 ug/mL
.MS-569730_00023	11/06/16		Restek, Lot A0112567		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
							Benzidine	2000 ug/mL
.MS-569732_00023	08/28/16		Restek, Lot A0108989		(Purchased Reagent)		Atrazine	2000 ug/mL
							Benzaldehyde	2000 ug/mL
							Caprolactam	2000 ug/mL
8270Surrogate_00086	10/16/16	10/16/15	ACETONE, Lot Acetone_000137	1000 mL	8270SurStkHL_00117	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00118	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00131	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
					8270SurStkHL_00133	5 mL	2,4,6 - Tribromophenol	100 ug/mL
							2,4,6-Tribromophenol (Surr)	100 ug/mL
							2-Fluorobiphenyl	100 ug/mL
							2-Fluorophenol (Surr)	100 ug/mL
							Nitrobenzene-d5 (Surr)	100 ug/mL
							Phenol-d5 (Surr)	100 ug/mL
							Phenol-d6	100 ug/mL
							Terphenyl-d14 (Surr)	100 ug/mL
.8270SurStkHL_00117	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00118	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00131	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
.8270SurStkHL_00133	05/31/19		Restek, Lot A0103615		(Purchased Reagent)		2,4,6 - Tribromophenol	5000 ug/mL
							2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Phenol-d6	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
MS-FAMSSV_100_00013	12/08/15	03/13/15	Methylene Chloride, Lot 87975	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA004_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	10 uL	Benzoic acid	8 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Tribromophenol (Surr)	4 ug/mL
							2-Fluorobiphenyl	4 ug/mL
							2-Fluorophenol (Surr)	4 ug/mL
							Nitrobenzene-d5 (Surr)	4 ug/mL
							Phenol-d5 (Surr)	4 ug/mL
							Terphenyl-d14 (Surr)	4 ug/mL
							Famphur	4 ug/mL
							1,1'-Biphenyl	4 ug/mL
							1,2,4,5-Tetrachlorobenzene	4 ug/mL
							1,2,4-Trichlorobenzene	4 ug/mL
							1,2-Dichlorobenzene	4 ug/mL
							1,2-Diphenylhydrazine	4.0439 ug/mL
							1,3-Dichlorobenzene	4 ug/mL
							1,3-Dinitrobenzene	4 ug/mL
							1,4-Dichlorobenzene	4 ug/mL
							1,4-Dioxane	4 ug/mL
							1-Methylnaphthalene	4 ug/mL
							2,2'-oxybis[1-chloropropane]	4 ug/mL
							2,3,4,6-Tetrachlorophenol	4 ug/mL
							2,4,5-Trichlorophenol	4 ug/mL
							2,4,6-Trichlorophenol	4 ug/mL
							2,4-Dichlorophenol	4 ug/mL
							2,4-Dimethylphenol	4 ug/mL
							2,4-Dinitrophenol	8 ug/mL
							2,4-Dinitrotoluene	4 ug/mL
							2,6-Dichlorophenol	4 ug/mL
							2,6-Dinitrotoluene	4 ug/mL
							2-Chloronaphthalene	4 ug/mL
							2-Chlorophenol	4 ug/mL
							2-Methylnaphthalene	4 ug/mL
							2-Methylphenol	4 ug/mL
							2-Nitroaniline	4 ug/mL
							2-Nitrophenol	4 ug/mL
							3 & 4 Methylphenol	4 ug/mL
							3-Methylphenol	4 ug/mL
							3-Nitroaniline	4 ug/mL
							4,6-Dinitro-2-methylphenol	8 ug/mL
							4-Bromophenyl phenyl ether	4 ug/mL
							4-Chloro-3-methylphenol	4 ug/mL
							4-Chloroaniline	4 ug/mL
							4-Chlorophenyl phenyl ether	4 ug/mL
							4-Methylphenol	4 ug/mL
							4-Nitroaniline	4 ug/mL
							4-Nitrophenol	8 ug/mL
							Acenaphthene	4 ug/mL
							Acenaphthylene	4 ug/mL
							Acetophenone	4 ug/mL
							Aniline	4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	4 ug/mL
							Azobenzene	4 ug/mL
							Benzo[a]anthracene	4 ug/mL
							Benzo[a]pyrene	4 ug/mL
							Benzo[b]fluoranthene	4 ug/mL
							Benzo[g,h,i]perylene	4 ug/mL
							Benzo[k]fluoranthene	4 ug/mL
							Benzyl alcohol	4 ug/mL
							Bis(2-chloroethoxy)methane	4 ug/mL
							Bis(2-chloroethyl)ether	4 ug/mL
							Bis(2-ethylhexyl) phthalate	4 ug/mL
							Butyl benzyl phthalate	4 ug/mL
							Carbazole	4 ug/mL
							Chrysene	4 ug/mL
							Di-n-butyl phthalate	4 ug/mL
							Di-n-octyl phthalate	4 ug/mL
							Dibenz(a,h)anthracene	4 ug/mL
							Dibenzofuran	4 ug/mL
							Diethyl phthalate	4 ug/mL
							Dimethyl phthalate	4 ug/mL
							Fluoranthene	4 ug/mL
							Fluorene	4 ug/mL
							Hexachlorobenzene	4 ug/mL
							Hexachlorobutadiene	4 ug/mL
							Hexachlorocyclopentadiene	4 ug/mL
							Hexachloroethane	4 ug/mL
							Indeno[1,2,3-cd]pyrene	4 ug/mL
							Isophorone	4 ug/mL
							N-Nitrosodi-n-propylamine	4 ug/mL
							N-Nitrosodimethylamine	4 ug/mL
							N-Nitrosodiphenylamine	8 ug/mL
							Naphthalene	4 ug/mL
							Nitrobenzene	4 ug/mL
							Pentachlorophenol	8 ug/mL
							Phenanthrene	4 ug/mL
							Phenol	4 ug/mL
							Pyrene	4 ug/mL
							Pyridine	4 ug/mL
							3,3'-Dichlorobenzidine	4 ug/mL
							Caprolactam	4 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732_HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MS-HSLA010_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	25 uL	Benzoic acid	20 ug/mL
							2,4,6-Tribromophenol (Surr)	10 ug/mL
							2-Fluorobiphenyl	10 ug/mL
							2-Fluorophenol (Surr)	10 ug/mL
							Nitrobenzene-d5 (Surr)	10 ug/mL
							Phenol-d5 (Surr)	10 ug/mL
							Terphenyl-d14 (Surr)	10 ug/mL
							Famphur	10 ug/mL
							1,1'-Biphenyl	10 ug/mL
							1,2,4,5-Tetrachlorobenzene	10 ug/mL
							1,2,4-Trichlorobenzene	10 ug/mL
							1,2-Dichlorobenzene	10 ug/mL
							1,2-Diphenylhydrazine	10.1097 ug/mL
							1,3-Dichlorobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							1,4-Dichlorobenzene	10 ug/mL
							1,4-Dioxane	10 ug/mL
							1-Methylnaphthalene	10 ug/mL
							2,2'-oxybis[1-chloropropane]	10 ug/mL
							2,3,4,6-Tetrachlorophenol	10 ug/mL
							2,4,5-Trichlorophenol	10 ug/mL
							2,4,6-Trichlorophenol	10 ug/mL
							2,4-Dichlorophenol	10 ug/mL
							2,4-Dimethylphenol	10 ug/mL
							2,4-Dinitrophenol	20 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dichlorophenol	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Chloronaphthalene	10 ug/mL
							2-Chlorophenol	10 ug/mL
							2-Methylnaphthalene	10 ug/mL
							2-Methylphenol	10 ug/mL
							2-Nitroaniline	10 ug/mL
							2-Nitrophenol	10 ug/mL
							3 & 4 Methylphenol	10 ug/mL
							3-Methylphenol	10 ug/mL
							3-Nitroaniline	10 ug/mL
							4,6-Dinitro-2-methylphenol	20 ug/mL
							4-Bromophenyl phenyl ether	10 ug/mL
							4-Chloro-3-methylphenol	10 ug/mL
							4-Chloroaniline	10 ug/mL
							4-Chlorophenyl phenyl ether	10 ug/mL
							4-Methylphenol	10 ug/mL
							4-Nitroaniline	10 ug/mL
							4-Nitrophenol	20 ug/mL
							Acenaphthene	10 ug/mL
							Acenaphthylene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	10 ug/mL
							Aniline	10 ug/mL
							Anthracene	10 ug/mL
							Azobenzene	10 ug/mL
							Benzo[a]anthracene	10 ug/mL
							Benzo[a]pyrene	10 ug/mL
							Benzo[b]fluoranthene	10 ug/mL
							Benzo[g,h,i]perylene	10 ug/mL
							Benzo[k]fluoranthene	10 ug/mL
							Benzyl alcohol	10 ug/mL
							Bis(2-chloroethoxy)methane	10 ug/mL
							Bis(2-chloroethyl)ether	10 ug/mL
							Bis(2-ethylhexyl) phthalate	10 ug/mL
							Butyl benzyl phthalate	10 ug/mL
							Carbazole	10 ug/mL
							Chrysene	10 ug/mL
							Di-n-butyl phthalate	10 ug/mL
							Di-n-octyl phthalate	10 ug/mL
							Dibenz(a,h)anthracene	10 ug/mL
							Dibenzofuran	10 ug/mL
							Diethyl phthalate	10 ug/mL
							Dimethyl phthalate	10 ug/mL
							Fluoranthene	10 ug/mL
							Fluorene	10 ug/mL
							Hexachlorobenzene	10 ug/mL
							Hexachlorobutadiene	10 ug/mL
							Hexachlorocyclopentadiene	10 ug/mL
							Hexachloroethane	10 ug/mL
							Indeno[1,2,3-cd]pyrene	10 ug/mL
							Isophorone	10 ug/mL
							N-Nitrosodi-n-propylamine	10 ug/mL
							N-Nitrosodimethylamine	10 ug/mL
							N-Nitrosodiphenylamine	20 ug/mL
							Naphthalene	10 ug/mL
							Nitrobenzene	10 ug/mL
							Pentachlorophenol	20 ug/mL
							Phenanthrene	10 ug/mL
							Phenol	10 ug/mL
							Pyrene	10 ug/mL
							Pyridine	10 ug/mL
							3,3'-Dichlorobenzidine	10 ug/mL
							Caprolactam	10 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA020_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	50 uL	Benzoic acid	40 ug/mL
							2,4,6-Tribromophenol (Surr)	20 ug/mL
							2-Fluorobiphenyl	20 ug/mL
							2-Fluorophenol (Surr)	20 ug/mL
							Nitrobenzene-d5 (Surr)	20 ug/mL
							Phenol-d5 (Surr)	20 ug/mL
							Terphenyl-d14 (Surr)	20 ug/mL
							Famphur	20 ug/mL
							1,1'-Biphenyl	20 ug/mL
							1,2,4,5-Tetrachlorobenzene	20 ug/mL
							1,2,4-Trichlorobenzene	20 ug/mL
							1,2-Dichlorobenzene	20 ug/mL
							1,2-Diphenylhydrazine	20.2195 ug/mL
							1,3-Dichlorobenzene	20 ug/mL
							1,3-Dinitrobenzene	20 ug/mL
							1,4-Dichlorobenzene	20 ug/mL
							1,4-Dioxane	20 ug/mL
							1-Methylnaphthalene	20 ug/mL
							2,2'-oxybis[1-chloropropane]	20 ug/mL
							2,3,4,6-Tetrachlorophenol	20 ug/mL
							2,4,5-Trichlorophenol	20 ug/mL
							2,4,6-Trichlorophenol	20 ug/mL
							2,4-Dichlorophenol	20 ug/mL
							2,4-Dimethylphenol	20 ug/mL
							2,4-Dinitrophenol	40 ug/mL
							2,4-Dinitrotoluene	20 ug/mL
							2,6-Dichlorophenol	20 ug/mL
							2,6-Dinitrotoluene	20 ug/mL
							2-Chloronaphthalene	20 ug/mL
							2-Chlorophenol	20 ug/mL
							2-Methylnaphthalene	20 ug/mL
							2-Methylphenol	20 ug/mL
							2-Nitroaniline	20 ug/mL
							2-Nitrophenol	20 ug/mL
							3 & 4 Methylphenol	20 ug/mL
							3-Methylphenol	20 ug/mL
							3-Nitroaniline	20 ug/mL
							4,6-Dinitro-2-methylphenol	40 ug/mL
							4-Bromophenyl phenyl ether	20 ug/mL
							4-Chloro-3-methylphenol	20 ug/mL
							4-Chloroaniline	20 ug/mL
							4-Chlorophenyl phenyl ether	20 ug/mL
							4-Methylphenol	20 ug/mL
							4-Nitroaniline	20 ug/mL
							4-Nitrophenol	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	20 ug/mL
							Acenaphthylene	20 ug/mL
							Acetophenone	20 ug/mL
							Aniline	20 ug/mL
							Anthracene	20 ug/mL
							Azobenzene	20 ug/mL
							Benzo[a]anthracene	20 ug/mL
							Benzo[a]pyrene	20 ug/mL
							Benzo[b]fluoranthene	20 ug/mL
							Benzo[g,h,i]perylene	20 ug/mL
							Benzo[k]fluoranthene	20 ug/mL
							Benzyl alcohol	20 ug/mL
							Bis(2-chloroethoxy)methane	20 ug/mL
							Bis(2-chloroethyl)ether	20 ug/mL
							Bis(2-ethylhexyl) phthalate	20 ug/mL
							Butyl benzyl phthalate	20 ug/mL
							Carbazole	20 ug/mL
							Chrysene	20 ug/mL
							Di-n-butyl phthalate	20 ug/mL
							Di-n-octyl phthalate	20 ug/mL
							Dibenz(a,h)anthracene	20 ug/mL
							Dibenzofuran	20 ug/mL
							Diethyl phthalate	20 ug/mL
							Dimethyl phthalate	20 ug/mL
							Fluoranthene	20 ug/mL
							Fluorene	20 ug/mL
							Hexachlorobenzene	20 ug/mL
							Hexachlorobutadiene	20 ug/mL
							Hexachlorocyclopentadiene	20 ug/mL
							Hexachloroethane	20 ug/mL
							Indeno[1,2,3-cd]pyrene	20 ug/mL
							Isophorone	20 ug/mL
							N-Nitrosodi-n-propylamine	20 ug/mL
							N-Nitrosodimethylamine	20 ug/mL
							N-Nitrosodiphenylamine	40 ug/mL
							Naphthalene	20 ug/mL
							Nitrobenzene	20 ug/mL
							Pentachlorophenol	40 ug/mL
							Phenanthrene	20 ug/mL
							Phenol	20 ug/mL
							Pyrene	20 ug/mL
							Pyridine	20 ug/mL
							3,3'-Dichlorobenzidine	20 ug/mL
							Caprolactam	20 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA050_00021	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	125 uL	Benzoic acid	100 ug/mL
							2,4,6-Tribromophenol (Surr)	50 ug/mL
							2-Fluorobiphenyl	50 ug/mL
							2-Fluorophenol (Surr)	50 ug/mL
							Nitrobenzene-d5 (Surr)	50 ug/mL
							Phenol-d5 (Surr)	50 ug/mL
							Terphenyl-d14 (Surr)	50 ug/mL
							Famphur	50 ug/mL
							1,1'-Biphenyl	50 ug/mL
							1,2,4,5-Tetrachlorobenzene	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Diphenylhydrazine	50.5487 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dinitrobenzene	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1,4-Dioxane	50 ug/mL
							1-Methylnaphthalene	50 ug/mL
							2,2'-oxybis[1-chloropropane]	50 ug/mL
							2,3,4,6-Tetrachlorophenol	50 ug/mL
							2,4,5-Trichlorophenol	50 ug/mL
							2,4,6-Trichlorophenol	50 ug/mL
							2,4-Dichlorophenol	50 ug/mL
							2,4-Dimethylphenol	50 ug/mL
							2,4-Dinitrophenol	100 ug/mL
							2,4-Dinitrotoluene	50 ug/mL
							2,6-Dichlorophenol	50 ug/mL
							2,6-Dinitrotoluene	50 ug/mL
							2-Chloronaphthalene	50 ug/mL
							2-Chlorophenol	50 ug/mL
							2-Methylnaphthalene	50 ug/mL
							2-Methylphenol	50 ug/mL
							2-Nitroaniline	50 ug/mL
							2-Nitrophenol	50 ug/mL
							3 & 4 Methylphenol	50 ug/mL
							3-Methylphenol	50 ug/mL
							3-Nitroaniline	50 ug/mL
							4,6-Dinitro-2-methylphenol	100 ug/mL
							4-Bromophenyl phenyl ether	50 ug/mL
							4-Chloro-3-methylphenol	50 ug/mL
							4-Chloroaniline	50 ug/mL
							4-Chlorophenyl phenyl ether	50 ug/mL
							4-Methylphenol	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	50 ug/mL
							4-Nitrophenol	100 ug/mL
							Acenaphthene	50 ug/mL
							Acenaphthylene	50 ug/mL
							Acetophenone	50 ug/mL
							Aniline	50 ug/mL
							Anthracene	50 ug/mL
							Azobenzene	50 ug/mL
							Benzo[a]anthracene	50 ug/mL
							Benzo[a]pyrene	50 ug/mL
							Benzo[b]fluoranthene	50 ug/mL
							Benzo[g,h,i]perylene	50 ug/mL
							Benzo[k]fluoranthene	50 ug/mL
							Benzyl alcohol	50 ug/mL
							Bis(2-chloroethoxy)methane	50 ug/mL
							Bis(2-chloroethyl)ether	50 ug/mL
							Bis(2-ethylhexyl) phthalate	50 ug/mL
							Butyl benzyl phthalate	50 ug/mL
							Carbazole	50 ug/mL
							Chrysene	50 ug/mL
							Di-n-butyl phthalate	50 ug/mL
							Di-n-octyl phthalate	50 ug/mL
							Dibenz(a,h)anthracene	50 ug/mL
							Dibenzofuran	50 ug/mL
							Diethyl phthalate	50 ug/mL
							Dimethyl phthalate	50 ug/mL
							Fluoranthene	50 ug/mL
							Fluorene	50 ug/mL
							Hexachlorobenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Hexachlorocyclopentadiene	50 ug/mL
							Hexachloroethane	50 ug/mL
							Indeno[1,2,3-cd]pyrene	50 ug/mL
							Isophorone	50 ug/mL
							N-Nitrosodi-n-propylamine	50 ug/mL
							N-Nitrosodimethylamine	50 ug/mL
							N-Nitrosodiphenylamine	100 ug/mL
							Naphthalene	50 ug/mL
							Nitrobenzene	50 ug/mL
							Pentachlorophenol	100 ug/mL
							Phenanthrene	50 ug/mL
							Phenol	50 ug/mL
							Pyrene	50 ug/mL
							Pyridine	50 ug/mL
							3,3'-Dichlorobenzidine	50 ug/mL
							Caprolactam	50 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA080_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	200 uL	Benzoic acid	160 ug/mL
							2,4,6-Tribromophenol (Surr)	80 ug/mL
							2-Fluorobiphenyl	80 ug/mL
							2-Fluorophenol (Surr)	80 ug/mL
							Nitrobenzene-d5 (Surr)	80 ug/mL
							Phenol-d5 (Surr)	80 ug/mL
							Terphenyl-d14 (Surr)	80 ug/mL
							Famphur	80 ug/mL
							1,1'-Biphenyl	80 ug/mL
							1,2,4,5-Tetrachlorobenzene	80 ug/mL
							1,2,4-Trichlorobenzene	80 ug/mL
							1,2-Dichlorobenzene	80 ug/mL
							1,2-Diphenylhydrazine	80.878 ug/mL
							1,3-Dichlorobenzene	80 ug/mL
							1,3-Dinitrobenzene	80 ug/mL
							1,4-Dichlorobenzene	80 ug/mL
							1,4-Dioxane	80 ug/mL
							1-Methylnaphthalene	80 ug/mL
							2,2'-oxybis[1-chloropropane]	80 ug/mL
							2,3,4,6-Tetrachlorophenol	80 ug/mL
							2,4,5-Trichlorophenol	80 ug/mL
							2,4,6-Trichlorophenol	80 ug/mL
							2,4-Dichlorophenol	80 ug/mL
							2,4-Dimethylphenol	80 ug/mL
							2,4-Dinitrophenol	160 ug/mL
							2,4-Dinitrotoluene	80 ug/mL
							2,6-Dichlorophenol	80 ug/mL
							2,6-Dinitrotoluene	80 ug/mL
							2-Chloronaphthalene	80 ug/mL
							2-Chlorophenol	80 ug/mL
							2-Methylnaphthalene	80 ug/mL
							2-Methylphenol	80 ug/mL
							2-Nitroaniline	80 ug/mL
							2-Nitrophenol	80 ug/mL
							3 & 4 Methylphenol	80 ug/mL
							3-Methylphenol	80 ug/mL
							3-Nitroaniline	80 ug/mL
							4,6-Dinitro-2-methylphenol	160 ug/mL
							4-Bromophenyl phenyl ether	80 ug/mL
							4-Chloro-3-methylphenol	80 ug/mL
							4-Chloroaniline	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	80 ug/mL
							4-Methylphenol	80 ug/mL
							4-Nitroaniline	80 ug/mL
							4-Nitrophenol	160 ug/mL
							Acenaphthene	80 ug/mL
							Acenaphthylene	80 ug/mL
							Acetophenone	80 ug/mL
							Aniline	80 ug/mL
							Anthracene	80 ug/mL
							Azobenzene	80 ug/mL
							Benzo[a]anthracene	80 ug/mL
							Benzo[a]pyrene	80 ug/mL
							Benzo[b]fluoranthene	80 ug/mL
							Benzo[g,h,i]perylene	80 ug/mL
							Benzo[k]fluoranthene	80 ug/mL
							Benzyl alcohol	80 ug/mL
							Bis(2-chloroethoxy)methane	80 ug/mL
							Bis(2-chloroethyl)ether	80 ug/mL
							Bis(2-ethylhexyl) phthalate	80 ug/mL
							Butyl benzyl phthalate	80 ug/mL
							Carbazole	80 ug/mL
							Chrysene	80 ug/mL
							Di-n-butyl phthalate	80 ug/mL
							Di-n-octyl phthalate	80 ug/mL
							Dibenz(a,h)anthracene	80 ug/mL
							Dibenzofuran	80 ug/mL
							Diethyl phthalate	80 ug/mL
							Dimethyl phthalate	80 ug/mL
							Fluoranthene	80 ug/mL
							Fluorene	80 ug/mL
							Hexachlorobenzene	80 ug/mL
							Hexachlorobutadiene	80 ug/mL
							Hexachlorocyclopentadiene	80 ug/mL
							Hexachloroethane	80 ug/mL
							Indeno[1,2,3-cd]pyrene	80 ug/mL
							Isophorone	80 ug/mL
							N-Nitrosodi-n-propylamine	80 ug/mL
							N-Nitrosodimethylamine	80 ug/mL
							N-Nitrosodiphenylamine	160 ug/mL
							Naphthalene	80 ug/mL
							Nitrobenzene	80 ug/mL
							Pentachlorophenol	160 ug/mL
							Phenanthrene	80 ug/mL
							Phenol	80 ug/mL
							Pyrene	80 ug/mL
							Pyridine	80 ug/mL
							3,3'-Dichlorobenzidine	80 ug/mL
							Caprolactam	80 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730 HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA120_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	300 uL	Benzoic acid	240 ug/mL
							2,4,6-Tribromophenol (Surr)	120 ug/mL
							2-Fluorobiphenyl	120 ug/mL
							2-Fluorophenol (Surr)	120 ug/mL
							Nitrobenzene-d5 (Surr)	120 ug/mL
							Phenol-d5 (Surr)	120 ug/mL
							Terphenyl-d14 (Surr)	120 ug/mL
							Famphur	120 ug/mL
							1,1'-Biphenyl	120 ug/mL
							1,2,4,5-Tetrachlorobenzene	120 ug/mL
							1,2,4-Trichlorobenzene	120 ug/mL
							1,2-Dichlorobenzene	120 ug/mL
							1,2-Diphenylhydrazine	121.317 ug/mL
							1,3-Dichlorobenzene	120 ug/mL
							1,3-Dinitrobenzene	120 ug/mL
							1,4-Dichlorobenzene	120 ug/mL
							1,4-Dioxane	120 ug/mL
							1-Methylnaphthalene	120 ug/mL
							2,2'-oxybis[1-chloropropane]	120 ug/mL
							2,3,4,6-Tetrachlorophenol	120 ug/mL
							2,4,5-Trichlorophenol	120 ug/mL
							2,4,6-Trichlorophenol	120 ug/mL
							2,4-Dichlorophenol	120 ug/mL
							2,4-Dimethylphenol	120 ug/mL
							2,4-Dinitrophenol	240 ug/mL
							2,4-Dinitrotoluene	120 ug/mL
							2,6-Dichlorophenol	120 ug/mL
							2,6-Dinitrotoluene	120 ug/mL
							2-Chloronaphthalene	120 ug/mL
							2-Chlorophenol	120 ug/mL
							2-Methylnaphthalene	120 ug/mL
							2-Methylphenol	120 ug/mL
							2-Nitroaniline	120 ug/mL
							2-Nitrophenol	120 ug/mL
							3 & 4 Methylphenol	120 ug/mL
							3-Methylphenol	120 ug/mL
							3-Nitroaniline	120 ug/mL
							4,6-Dinitro-2-methylphenol	240 ug/mL
							4-Bromophenyl phenyl ether	120 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	120 ug/mL
							4-Chloroaniline	120 ug/mL
							4-Chlorophenyl phenyl ether	120 ug/mL
							4-Methylphenol	120 ug/mL
							4-Nitroaniline	120 ug/mL
							4-Nitrophenol	240 ug/mL
							Acenaphthene	120 ug/mL
							Acenaphthylene	120 ug/mL
							Acetophenone	120 ug/mL
							Aniline	120 ug/mL
							Anthracene	120 ug/mL
							Azobenzene	120 ug/mL
							Benzo[a]anthracene	120 ug/mL
							Benzo[a]pyrene	120 ug/mL
							Benzo[b]fluoranthene	120 ug/mL
							Benzo[g,h,i]perylene	120 ug/mL
							Benzo[k]fluoranthene	120 ug/mL
							Benzyl alcohol	120 ug/mL
							Bis(2-chloroethoxy)methane	120 ug/mL
							Bis(2-chloroethyl)ether	120 ug/mL
							Bis(2-ethylhexyl) phthalate	120 ug/mL
							Butyl benzyl phthalate	120 ug/mL
							Carbazole	120 ug/mL
							Chrysene	120 ug/mL
							Di-n-butyl phthalate	120 ug/mL
							Di-n-octyl phthalate	120 ug/mL
							Dibenz(a,h)anthracene	120 ug/mL
							Dibenzofuran	120 ug/mL
							Diethyl phthalate	120 ug/mL
							Dimethyl phthalate	120 ug/mL
							Fluoranthene	120 ug/mL
							Fluorene	120 ug/mL
							Hexachlorobenzene	120 ug/mL
							Hexachlorobutadiene	120 ug/mL
							Hexachlorocyclopentadiene	120 ug/mL
							Hexachloroethane	120 ug/mL
							Indeno[1,2,3-cd]pyrene	120 ug/mL
							Isophorone	120 ug/mL
							N-Nitrosodi-n-propylamine	120 ug/mL
							N-Nitrosodimethylamine	120 ug/mL
							N-Nitrosodiphenylamine	240 ug/mL
							Naphthalene	120 ug/mL
							Nitrobenzene	120 ug/mL
							Pentachlorophenol	240 ug/mL
							Phenanthrene	120 ug/mL
							Phenol	120 ug/mL
							Pyrene	120 ug/mL
							Pyridine	120 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3,3'-Dichlorobenzidine	120 ug/mL
							Caprolactam	120 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA160_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	400 uL	Benzoic acid	320 ug/mL
							2,4,6-Tribromophenol (Surr)	160 ug/mL
							2-Fluorobiphenyl	160 ug/mL
							2-Fluorophenol (Surr)	160 ug/mL
							Nitrobenzene-d5 (Surr)	160 ug/mL
							Phenol-d5 (Surr)	160 ug/mL
							Terphenyl-d14 (Surr)	160 ug/mL
							Famphur	160 ug/mL
							1,1'-Biphenyl	160 ug/mL
							1,2,4,5-Tetrachlorobenzene	160 ug/mL
							1,2,4-Trichlorobenzene	160 ug/mL
							1,2-Dichlorobenzene	160 ug/mL
							1,2-Diphenylhydrazine	161.756 ug/mL
							1,3-Dichlorobenzene	160 ug/mL
							1,3-Dinitrobenzene	160 ug/mL
							1,4-Dichlorobenzene	160 ug/mL
							1,4-Dioxane	160 ug/mL
							1-Methylnaphthalene	160 ug/mL
							2,2'-oxybis[1-chloropropane]	160 ug/mL
							2,3,4,6-Tetrachlorophenol	160 ug/mL
							2,4,5-Trichlorophenol	160 ug/mL
							2,4,6-Trichlorophenol	160 ug/mL
							2,4-Dichlorophenol	160 ug/mL
							2,4-Dimethylphenol	160 ug/mL
							2,4-Dinitrophenol	320 ug/mL
							2,4-Dinitrotoluene	160 ug/mL
							2,6-Dichlorophenol	160 ug/mL
							2,6-Dinitrotoluene	160 ug/mL
							2-Chloronaphthalene	160 ug/mL
							2-Chlorophenol	160 ug/mL
							2-Methylnaphthalene	160 ug/mL
							2-Methylphenol	160 ug/mL
							2-Nitroaniline	160 ug/mL
							2-Nitrophenol	160 ug/mL
							3 & 4 Methylphenol	160 ug/mL
							3-Methylphenol	160 ug/mL
							3-Nitroaniline	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	320 ug/mL
							4-Bromophenyl phenyl ether	160 ug/mL
							4-Chloro-3-methylphenol	160 ug/mL
							4-Chloroaniline	160 ug/mL
							4-Chlorophenyl phenyl ether	160 ug/mL
							4-Methylphenol	160 ug/mL
							4-Nitroaniline	160 ug/mL
							4-Nitrophenol	320 ug/mL
							Acenaphthene	160 ug/mL
							Acenaphthylene	160 ug/mL
							Acetophenone	160 ug/mL
							Aniline	160 ug/mL
							Anthracene	160 ug/mL
							Azobenzene	160 ug/mL
							Benzo[a]anthracene	160 ug/mL
							Benzo[a]pyrene	160 ug/mL
							Benzo[b]fluoranthene	160 ug/mL
							Benzo[g,h,i]perylene	160 ug/mL
							Benzo[k]fluoranthene	160 ug/mL
							Benzyl alcohol	160 ug/mL
							Bis(2-chloroethoxy)methane	160 ug/mL
							Bis(2-chloroethyl)ether	160 ug/mL
							Bis(2-ethylhexyl) phthalate	160 ug/mL
							Butyl benzyl phthalate	160 ug/mL
							Carbazole	160 ug/mL
							Chrysene	160 ug/mL
							Di-n-butyl phthalate	160 ug/mL
							Di-n-octyl phthalate	160 ug/mL
							Dibenz(a,h)anthracene	160 ug/mL
							Dibenzofuran	160 ug/mL
							Diethyl phthalate	160 ug/mL
							Dimethyl phthalate	160 ug/mL
							Fluoranthene	160 ug/mL
							Fluorene	160 ug/mL
							Hexachlorobenzene	160 ug/mL
							Hexachlorobutadiene	160 ug/mL
							Hexachlorocyclopentadiene	160 ug/mL
							Hexachloroethane	160 ug/mL
							Indeno[1,2,3-cd]pyrene	160 ug/mL
							Isophorone	160 ug/mL
							N-Nitrosodi-n-propylamine	160 ug/mL
							N-Nitrosodimethylamine	160 ug/mL
							N-Nitrosodiphenylamine	320 ug/mL
							Naphthalene	160 ug/mL
							Nitrobenzene	160 ug/mL
							Pentachlorophenol	320 ug/mL
							Phenanthrene	160 ug/mL
							Phenol	160 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	160 ug/mL
							Pyridine	160 ug/mL
							3,3'-Dichlorobenzidine	160 ug/mL
							Caprolactam	160 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732 HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19	Restek, Lot A0107273			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLA200_00020	11/20/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLA_STK_00017	500 uL	Benzoic acid	400 ug/mL
							2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
							Famphur	200 ug/mL
							1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
							3,3'-Dichlorobenzidine	200 ug/mL
							Caprolactam	200 ug/mL
					MS-IS_00008	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-HSLA_STK_00017	11/20/15	09/01/15	Methylene Chloride, Lot 108136	10 mL	MS-567674_00048	1 mL	Benzoic acid	400 ug/mL
					MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-568023_00010	1 mL	Famphur	200 ug/mL
					MS-569729_00025	2 mL	1,1'-Biphenyl	200 ug/mL
							1,2,4,5-Tetrachlorobenzene	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Diphenylhydrazine	202.195 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dinitrobenzene	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	200 ug/mL
							1-Methylnaphthalene	200 ug/mL
							2,2'-oxybis[1-chloropropane]	200 ug/mL
							2,3,4,6-Tetrachlorophenol	200 ug/mL
							2,4,5-Trichlorophenol	200 ug/mL
							2,4,6-Trichlorophenol	200 ug/mL
							2,4-Dichlorophenol	200 ug/mL
							2,4-Dimethylphenol	200 ug/mL
							2,4-Dinitrophenol	400 ug/mL
							2,4-Dinitrotoluene	200 ug/mL
							2,6-Dichlorophenol	200 ug/mL
							2,6-Dinitrotoluene	200 ug/mL
							2-Chloronaphthalene	200 ug/mL
							2-Chlorophenol	200 ug/mL
							2-Methylnaphthalene	200 ug/mL
							2-Methylphenol	200 ug/mL
							2-Nitroaniline	200 ug/mL
							2-Nitrophenol	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3 & 4 Methylphenol	200 ug/mL
							3-Methylphenol	200 ug/mL
							3-Nitroaniline	200 ug/mL
							4,6-Dinitro-2-methylphenol	400 ug/mL
							4-Bromophenyl phenyl ether	200 ug/mL
							4-Chloro-3-methylphenol	200 ug/mL
							4-Chloroaniline	200 ug/mL
							4-Chlorophenyl phenyl ether	200 ug/mL
							4-Methylphenol	200 ug/mL
							4-Nitroaniline	200 ug/mL
							4-Nitrophenol	400 ug/mL
							Acenaphthene	200 ug/mL
							Acenaphthylene	200 ug/mL
							Acetophenone	200 ug/mL
							Aniline	200 ug/mL
							Anthracene	200 ug/mL
							Azobenzene	200 ug/mL
							Benzo[a]anthracene	200 ug/mL
							Benzo[a]pyrene	200 ug/mL
							Benzo[b]fluoranthene	200 ug/mL
							Benzo[g,h,i]perylene	200 ug/mL
							Benzo[k]fluoranthene	200 ug/mL
							Benzyl alcohol	200 ug/mL
							Bis(2-chloroethoxy)methane	200 ug/mL
							Bis(2-chloroethyl)ether	200 ug/mL
							Bis(2-ethylhexyl) phthalate	200 ug/mL
							Butyl benzyl phthalate	200 ug/mL
							Carbazole	200 ug/mL
							Chrysene	200 ug/mL
							Di-n-butyl phthalate	200 ug/mL
							Di-n-octyl phthalate	200 ug/mL
							Dibenz(a,h)anthracene	200 ug/mL
							Dibenzofuran	200 ug/mL
							Diethyl phthalate	200 ug/mL
							Dimethyl phthalate	200 ug/mL
							Fluoranthene	200 ug/mL
							Fluorene	200 ug/mL
							Hexachlorobenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexachlorocyclopentadiene	200 ug/mL
							Hexachloroethane	200 ug/mL
							Indeno[1,2,3-cd]pyrene	200 ug/mL
							Isophorone	200 ug/mL
							N-Nitrosodi-n-propylamine	200 ug/mL
							N-Nitrosodimethylamine	200 ug/mL
							N-Nitrosodiphenylamine	400 ug/mL
							Naphthalene	200 ug/mL
							Nitrobenzene	200 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentachlorophenol	400 ug/mL
							Phenanthrene	200 ug/mL
							Phenol	200 ug/mL
							Pyrene	200 ug/mL
							Pyridine	200 ug/mL
					MS-569730_HSL_00001	1 mL	3,3'-Dichlorobenzidine	200 ug/mL
					MS-569731_00013	1 mL	Benzoic acid	400 ug/mL
					MS-569732_HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567674_00048	02/29/16		Restek, Lot A093441		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-567685_00001	11/20/15		Restek, Lot A092712		(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-568023_00010	12/31/16		Restek, Lot A0107887		(Purchased Reagent)		Famphur	2000 ug/mL
..MS-569729_00025	09/30/16		Restek, Lot A0109703		(Purchased Reagent)		1,1'-Biphenyl	1000 ug/mL
							1,2,4,5-Tetrachlorobenzene	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Diphenylhydrazine	1010.97 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							1,4-Dioxane	1000 ug/mL
							1-Methylnaphthalene	1000 ug/mL
							2,2'-oxybis[1-chloropropane]	1000 ug/mL
							2,3,4,6-Tetrachlorophenol	1000 ug/mL
							2,4,5-Trichlorophenol	1000 ug/mL
							2,4,6-Trichlorophenol	1000 ug/mL
							2,4-Dichlorophenol	1000 ug/mL
							2,4-Dimethylphenol	1000 ug/mL
							2,4-Dinitrophenol	2000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dichlorophenol	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Chloronaphthalene	1000 ug/mL
							2-Chlorophenol	1000 ug/mL
							2-Methylnaphthalene	1000 ug/mL
							2-Methylphenol	1000 ug/mL
							2-Nitroaniline	1000 ug/mL
							2-Nitrophenol	1000 ug/mL
							3 & 4 Methylphenol	1000 ug/mL
							3-Methylphenol	1000 ug/mL
							3-Nitroaniline	1000 ug/mL
							4,6-Dinitro-2-methylphenol	2000 ug/mL
							4-Bromophenyl phenyl ether	1000 ug/mL
							4-Chloro-3-methylphenol	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chloroaniline	1000 ug/mL
							4-Chlorophenyl phenyl ether	1000 ug/mL
							4-Methylphenol	1000 ug/mL
							4-Nitroaniline	1000 ug/mL
							4-Nitrophenol	2000 ug/mL
							Acenaphthene	1000 ug/mL
							Acenaphthylene	1000 ug/mL
							Acetophenone	1000 ug/mL
							Aniline	1000 ug/mL
							Anthracene	1000 ug/mL
							Azobenzene	1000 ug/mL
							Benzo[a]anthracene	1000 ug/mL
							Benzo[a]pyrene	1000 ug/mL
							Benzo[b]fluoranthene	1000 ug/mL
							Benzo[g,h,i]perylene	1000 ug/mL
							Benzo[k]fluoranthene	1000 ug/mL
							Benzyl alcohol	1000 ug/mL
							Bis(2-chloroethoxy)methane	1000 ug/mL
							Bis(2-chloroethyl)ether	1000 ug/mL
							Bis(2-ethylhexyl) phthalate	1000 ug/mL
							Butyl benzyl phthalate	1000 ug/mL
							Carbazole	1000 ug/mL
							Chrysene	1000 ug/mL
							Di-n-butyl phthalate	1000 ug/mL
							Di-n-octyl phthalate	1000 ug/mL
							Dibenz(a,h)anthracene	1000 ug/mL
							Dibenzofuran	1000 ug/mL
							Diethyl phthalate	1000 ug/mL
							Dimethyl phthalate	1000 ug/mL
							Fluoranthene	1000 ug/mL
							Fluorene	1000 ug/mL
							Hexachlorobenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Hexachlorocyclopentadiene	1000 ug/mL
							Hexachloroethane	1000 ug/mL
							Indeno[1,2,3-cd]pyrene	1000 ug/mL
							Isophorone	1000 ug/mL
							N-Nitrosodi-n-propylamine	1000 ug/mL
							N-Nitrosodimethylamine	1000 ug/mL
							N-Nitrosodiphenylamine	2000 ug/mL
							Naphthalene	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							Pentachlorophenol	2000 ug/mL
							Phenanthrene	1000 ug/mL
							Phenol	1000 ug/mL
							Pyrene	1000 ug/mL
							Pyridine	1000 ug/mL
..MS-569730 HSL_00001	07/31/16		Restek, Lot A0108709		(Purchased Reagent)		3,3'-Dichlorobenzidine	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MS-569731_00013	07/31/16		Restek, Lot A0107943		(Purchased Reagent)		Benzoic acid	2000 ug/mL
..MS-569732_HSL_00001	08/31/16		Restek, Lot A0108989		(Purchased Reagent)		Caprolactam	2000 ug/mL
.MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00018	11/30/19		Restek, Lot A0107273		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLACCV080_00048	11/20/15	05/16/15	Methylene Chloride, Lot 91740	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MS-HSLACCV080_00048	11/20/15	05/16/15	Methylene Chloride, Lot 91740	0.5 mL	MS-HSLA_STK_00015	200 uL	2,4,6-Tribromophenol (Surr)	80 ug/mL
							2-Fluorobiphenyl	80 ug/mL
							2-Fluorophenol (Surr)	80 ug/mL
							Nitrobenzene-d5 (Surr)	80 ug/mL
							Phenol-d5 (Surr)	80 ug/mL
							Terphenyl-d14 (Surr)	80 ug/mL
							Caprolactam	80 ug/mL
.MS-HSLA_STK_00015	11/20/15	04/30/15	Methylene Chloride, Lot 87975	10 mL	MS-567685_00001	0.4 mL	2,4,6-Tribromophenol (Surr)	200 ug/mL
							2-Fluorobiphenyl	200 ug/mL
							2-Fluorophenol (Surr)	200 ug/mL
							Nitrobenzene-d5 (Surr)	200 ug/mL
							Phenol-d5 (Surr)	200 ug/mL
							Terphenyl-d14 (Surr)	200 ug/mL
					MS-569732 HSL_00001	1 mL	Caprolactam	200 ug/mL
..MS-567685_00001	11/20/15	Restek, Lot A092712			(Purchased Reagent)		2,4,6-Tribromophenol (Surr)	5000 ug/mL
							2-Fluorobiphenyl	5000 ug/mL
							2-Fluorophenol (Surr)	5000 ug/mL
							Nitrobenzene-d5 (Surr)	5000 ug/mL
							Phenol-d5 (Surr)	5000 ug/mL
							Terphenyl-d14 (Surr)	5000 ug/mL
..MS-569732 HSL_00001	08/31/16	Restek, Lot A0108989			(Purchased Reagent)		Caprolactam	2000 ug/mL
MS-HSLB1B3SSV_00028	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18	Restek, Lot A093676			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLB2SSV_00025	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-IS_00007	50 uL	1,4-Dichlorobenzene-d4	40 ug/mL
							Acenaphthene-d10	40 ug/mL
							Chrysene-d12	40 ug/mL
							Naphthalene-d8	40 ug/mL
							Perylene-d12	40 ug/mL
							Phenanthrene-d10	40 ug/mL
.MS-IS_00007	12/08/15	12/08/14	Methylene Chloride, Lot 71006	250 mL	MS-567684_00016	35 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
					MS-567684_00017	15 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
..MS-567684_00016	02/28/18		Restek, Lot A093676		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
..MS-567684_00017	12/31/17		Restek, Lot A092546		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL
MS-HSLB2SSV_00025	12/08/15	10/06/15	Methylene Chloride, Lot 108136	0.5 mL	MS-HSLB2_STK_00005	250 uL	Caprolactam	100 ug/mL
.MS-HSLB2_STK_00005	04/30/16	04/30/15	Methylene Chloride, Lot 87975	10 mL	MS-569732SEC_00001	1 mL	Caprolactam	200 ug/mL
..MS-569732SEC_00001	06/30/16		Restek, Lot A0108042		(Purchased Reagent)		Caprolactam	2000 ug/mL
MS-IS_00008	08/06/16	08/06/15	Methylene Chloride, Lot 91740	200 mL	MS-567684_00018	40 mL	1,4-Dichlorobenzene-d4	400 ug/mL
							Acenaphthene-d10	400 ug/mL
							Chrysene-d12	400 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene-d8	400 ug/mL
							Perylene-d12	400 ug/mL
							Phenanthrene-d10	400 ug/mL
.MS-567684_00018	11/30/19	Restek, Lot A0107273			(Purchased Reagent)		1,4-Dichlorobenzene-d4	2000 ug/mL
							Acenaphthene-d10	2000 ug/mL
							Chrysene-d12	2000 ug/mL
							Naphthalene-d8	2000 ug/mL
							Perylene-d12	2000 ug/mL
							Phenanthrene-d10	2000 ug/mL

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Reagent ID: 8270Surrogate_00086

		Expiration Date:	10/16/2016
Description:	8270 Surrogate 100ug/ml	Laboratory:	TestAmerica Denver
No. of Bottles:	4	Prepared By:	Stevenson, Michael D
Storage Location:	North Prep	Solvent:	ACETONE
Reagent Volume:	1000.000 mL	Solvent Lot:	Acetone_000137
Creation Date:	10/16/2015		
Open Date:			
Container(s):	3554524, 3554525, 3554526, 3554527		
Comment:	Take 20mL of 8270SurHL and dilute to 1000mL in acetone. One year expiration date. Split into 4x250mL bottles. Requires solvent exchange to MeCl2 prior to submission for verification.		

Standards fridge.

Reagent Analyte Information

Merlz cyst_00243 Pip N @ 1/ml

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
2,4,6 - Tribromophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00117	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00118	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Reagent ID: 8270Surrogate_00086

		Expiration Date:	10/16/2016
Description:	8270 Surrogate 100ug/ml	Laboratory:	TestAmerica Denver
No. of Bottles:	4	Prepared By:	Stevenson, Michael D
Storage Location:	North Prep	Solvent:	ACETONE
Reagent Volume:	1000.000 mL	Solvent Lot:	Acetone_000137
Creation Date:	10/16/2015		
Open Date:			
Container(s):	3554524, 3554525, 3554526, 3554527		
Comment:	Take 20mL of 8270SurHL and dilute to 1000mL in acetone. One year expiration date. Split into 4x250mL bottles. Requires solvent exchange to MeCl2 prior to submission for verification.		

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
2-Fluorobiphenyl	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00131	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6 - Tribromophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2,4,6-Tribromophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorobiphenyl	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
2-Fluorophenol	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Nitrobenzene-d5	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d5	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Phenol-d6	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL
Terphenyl-d14	8270SurStkHL_00133	05/31/2019	5000.00000	ug/mL	100.00000	ug/mL

Source Reagents

Reagent	Description	Type	Expiration	Vendor	Vendor Lot #	Vendor Cat Lot #	Volume Used	Volume Units
8270SurStkHL_00117	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_00118	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_00131	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL
8270SurStkHL_00133	5000 ug/ml of each compound	ASTD	05/31/19	Restek	A0103615	567685	5.00000	mL

Report Date: 23-Oct-2015 07:15:39 Chrom Revision: 2.2 08-Oct-2015 07:17:48

Preliminary Report

TestAmerica Denver

Recovery Report

Data File:	\\ChromNA\Denver\ChromData\SMS_G6\20151022-40647.b\G6_20682.D				
Lims ID:	8270Surrogate_00086	Lab Sample ID:	Client 280-300564/34-A		
Client ID:					
Sample Type:	Client				
Inject. Date:	22-Oct-2015 14:57:30	ALS Bottle#:	7	Worklist Smp#:	34
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Sample Info:	8270Surrogate_00086				
Operator ID:	KIEKELD	Instrument ID:	SMS_G6		
Method:	\\ChromNA\Denver\ChromData\SMS_G6\20151022-40647.b\SMSG6_8270C.m				
Limit Group:	MSSV - 8270C_625				
Method Label:	8270C / 625				
Last Update:	23-Oct-2015 05:57:29	Calib Date:	15-Oct-2015 13:43:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Denver\ChromData\SMS_G6\20151015-40387.b\G6_20552.D				
Column 1 :	VF-5ms (0.50 mm)		Det: MS SCAN		
Process Host:	XAWRK028				

Compound	Amount Added	Amount Recovered	% Rec.
$ 7 2-Fluorophenol	100.0	90.7	90.71
$ 8 Phenol-d5	100.0	88.8	88.85
$ 9 Nitrobenzene-d5	100.0	87.1	87.10
$ 11 2-Fluorobiphenyl	100.0	89.4	89.43
$ 12 2,4,6-Tribromophenol	100.0	90.5	90.49
$ 13 Terphenyl-d14	100.0	81.8	81.82

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Certificate of Analysis

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568727 **Lot No.:** A0103685

Description : 8270 List 2/ Std #8 Dibenz(a,j)acridine

8270 List 2/ Std #8 Dibenz(a,j)acridine 2,000 µg/ml, Methylene Chloride, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2017 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibenz(a,j)acridine	2,014.0 µg/mL	+/- 11.9625	µg/mL	Gravimetric
	CAS # 224-42-0 (Lot ER081407-01)		+/- 89.5165	µg/mL	Unstressed
	Purity 99%		+/- 98.3442	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

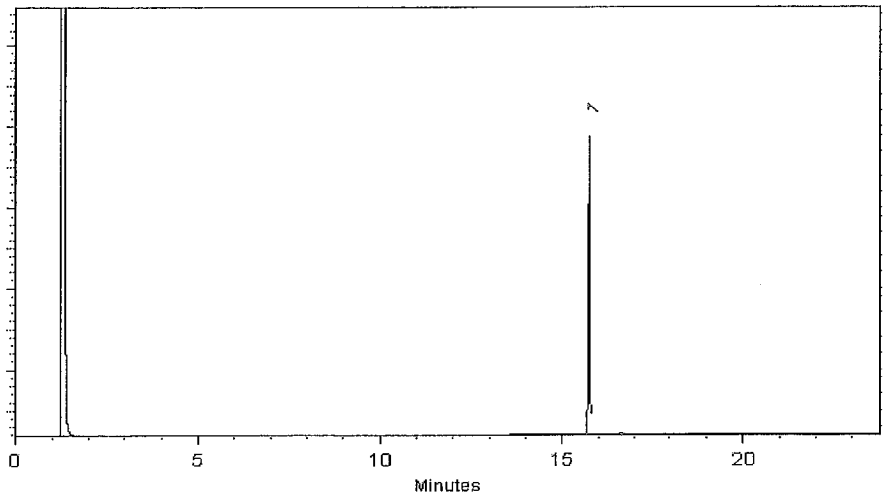
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kendra Swope - Mix Technician

Date Mixed: 30-May-2014 **Balance:** 1128342313

Jodi E. Breon - QA Analyst

Date Passed: 04-Jun-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Certificate #3222.01

Certificate of Analysis

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol		5,003.5 µg/mL	+/- 29.0892 µg/mL		Gravimetric
	CAS # 367-12-4	(Lot STBC5591V)		+/- 124.6713 µg/mL		Unstressed
	Purity 99%			+/- 156.7818 µg/mL		Stressed
2	Phenol-d5		5,002.9 µg/mL	+/- 29.0860 µg/mL		Gravimetric
	CAS # 4165-62-2	(Lot M387P4)		+/- 124.6575 µg/mL		Unstressed
	Purity 99%			+/- 156.7644 µg/mL		Stressed
3	Nitrobenzene-d5		5,001.4 µg/mL	+/- 29.0773 µg/mL		Gravimetric
	CAS # 4165-60-0	(Lot PR-20474)		+/- 124.6201 µg/mL		Unstressed
	Purity 99%			+/- 156.7174 µg/mL		Stressed
4	2-Fluorobiphenyl		5,004.4 µg/mL	+/- 29.0947 µg/mL		Gravimetric
	CAS # 321-60-8	(Lot E11Y047)		+/- 124.6949 µg/mL		Unstressed
	Purity 99%			+/- 156.8114 µg/mL		Stressed
5	2,4,6-Tribromophenol		5,003.9 µg/mL	+/- 29.0914 µg/mL		Gravimetric
	CAS # 118-79-6	(Lot 29699MJV)		+/- 124.6805 µg/mL		Unstressed
	Purity 99%			+/- 156.7934 µg/mL		Stressed
6	p-Terphenyl-d14		5,007.1 µg/mL	+/- 29.1100 µg/mL		Gravimetric
	CAS # 1718-51-0	(Lot PR-20577)		+/- 124.7604 µg/mL		Unstressed
	Purity 99%			+/- 156.8938 µg/mL		Stressed

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol	5,003.5 µg/mL	+/- 29.0892 µg/mL	Gravimetric
	CAS # 367-12-4 (Lot STBC5591V)		+/- 124.6713 µg/mL	Unstressed
	Purity 99%		+/- 156.7818 µg/mL	Stressed
2	Phenol-d5	5,002.9 µg/mL	+/- 29.0860 µg/mL	Gravimetric
	CAS # 4165-62-2 (Lot M387P4)		+/- 124.6575 µg/mL	Unstressed
	Purity 99%		+/- 156.7644 µg/mL	Stressed
3	Nitrobenzene-d5	5,001.4 µg/mL	+/- 29.0773 µg/mL	Gravimetric
	CAS # 4165-60-0 (Lot PR-20474)		+/- 124.6201 µg/mL	Unstressed
	Purity 99%		+/- 156.7174 µg/mL	Stressed
4	2-Fluorobiphenyl	5,004.4 µg/mL	+/- 29.0947 µg/mL	Gravimetric
	CAS # 321-60-8 (Lot E11Y047)		+/- 124.6949 µg/mL	Unstressed
	Purity 99%		+/- 156.8114 µg/mL	Stressed
5	2,4,6-Tribromophenol	5,003.9 µg/mL	+/- 29.0914 µg/mL	Gravimetric
	CAS # 118-79-6 (Lot 29699MJV)		+/- 124.6805 µg/mL	Unstressed
	Purity 99%		+/- 156.7934 µg/mL	Stressed
6	p-Terphenyl-d14	5,007.1 µg/mL	+/- 29.1100 µg/mL	Gravimetric
	CAS # 1718-51-0 (Lot PR-20577)		+/- 124.7604 µg/mL	Unstressed
	Purity 99%		+/- 156.8938 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

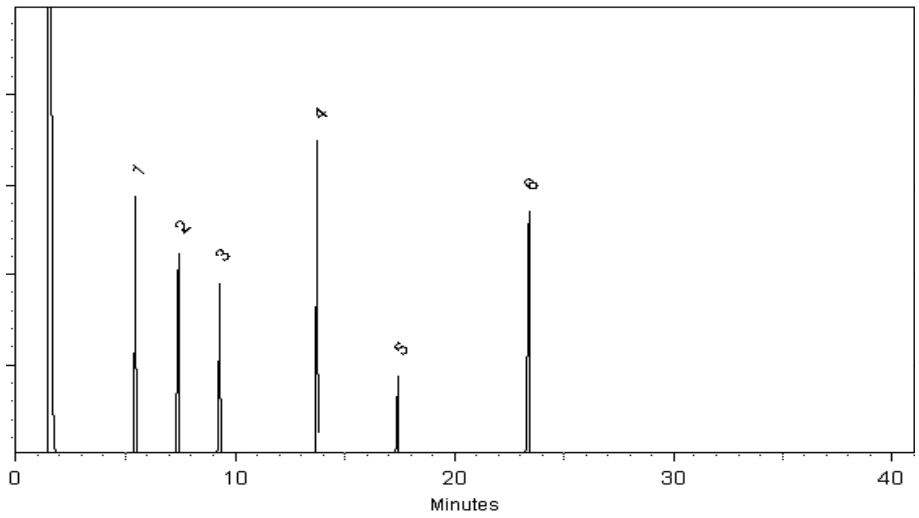
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham
Cheryl Graham - Mix Technician

Date Mixed: 27-May-2014 **Balance:** 1128342313

Jennifer L Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 23-Jun-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 **Lot No.:** A0103615

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : May 31, 2019 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBC5591V) **Purity** 99%	5,003.5 µg/mL	+/- 29.0892 µg/mL +/- 124.6713 µg/mL +/- 156.7818 µg/mL	Gravimetric Unstressed Stressed
2	Phenol-d5 **CAS #** 4165-62-2 (Lot M387P4) **Purity** 99%	5,002.9 µg/mL	+/- 29.0860 µg/mL +/- 124.6575 µg/mL +/- 156.7644 µg/mL	Gravimetric Unstressed Stressed
3	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-20474) **Purity** 99%	5,001.4 µg/mL	+/- 29.0773 µg/mL +/- 124.6201 µg/mL +/- 156.7174 µg/mL	Gravimetric Unstressed Stressed
4	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot E11Y047) **Purity** 99%	5,004.4 µg/mL	+/- 29.0947 µg/mL +/- 124.6949 µg/mL +/- 156.8114 µg/mL	Gravimetric Unstressed Stressed
5	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot 29699MJV) **Purity** 99%	5,003.9 µg/mL	+/- 29.0914 µg/mL +/- 124.6805 µg/mL +/- 156.7934 µg/mL	Gravimetric Unstressed Stressed
6	p-Terphenyl-d14 **CAS #** 1718-51-0 (Lot PR-20577) **Purity** 99%	5,007.1 µg/mL	+/- 29.1100 µg/mL +/- 124.7604 µg/mL +/- 156.8938 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

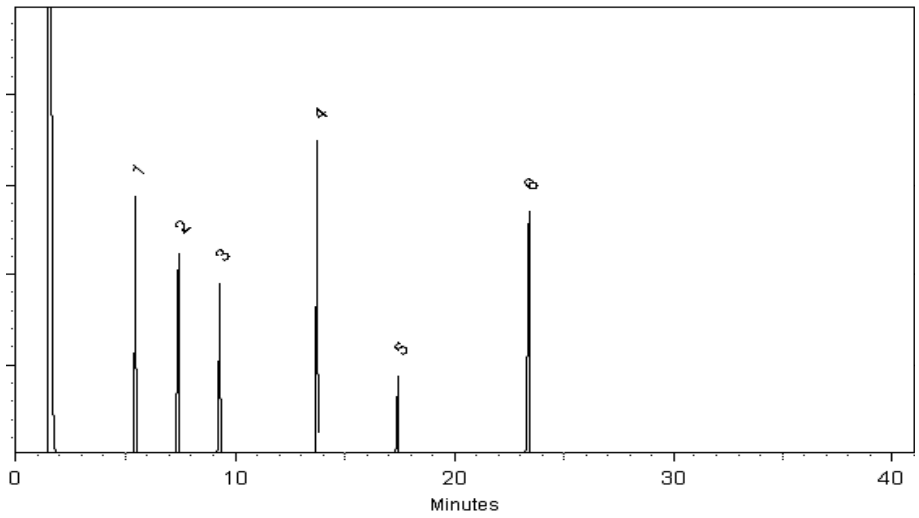
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 27-May-2014 **Balance:** 1128342313

Jennifer L. Pollino - QC Analyst

Date Passed: 23-Jun-2014

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Analytical Reference Materials

8270 List 1 / Std #3 Benzoic Acid

Catalog # 567674.sec

Lot # A093654 & A093441

110 Benner Circle Bellefonte, PA 16823-8812
(814) 353-1300

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RAW MATERIAL TEST INFORMATION AVAILABLE UPON REQUEST

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FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567674.sec **Lot No.:** A093654

Description : 8270 List 1 / Std #3 Benzoic Acid

8270 List 1 / Std #3 Benzoic Acid 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2016 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzoic acid	2,000.0 µg/mL	+/- 11.6284	µg/mL	Gravimetric
	CAS # 65-85-0.SEC		+/- 96.5270	µg/mL	Unstressed
	Purity 97%		+/- 96.6098	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

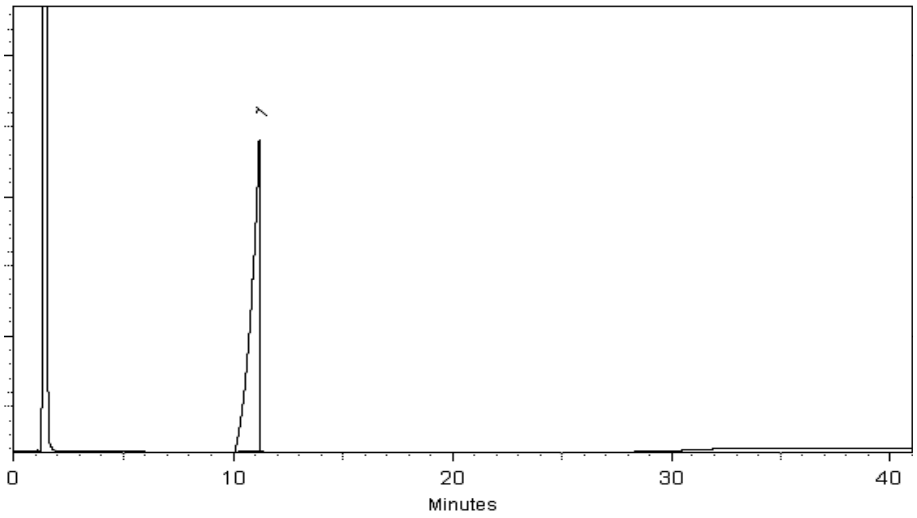
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon - QA Analyst

Date Passed: 22-Feb-2013 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Chemical Standard Batch Sheet
Lot #: A093654

Catalog #: 567674.sec	**Target:** 2000 ug/mL	
Description: 8270 List 1 / Std #3 Benzoic Acid		
Solvent: Methylene Chloride	**Solvent Lot:** 126244	**Final Volume:** 1,000 ml

Made by: Mary Ellen Wood	**Date:** 2/19/2013 3:12:24PM		
Tested by: Jennifer Pollino	**Date:** 2/21/2013 11:48:51AM		
Pass	**By:** Jodi Breon	**Date:** 2/22/2013 12:34:09PM	
Packaged by: Alexandria Pavkovich / Alexandria Pavkov	**Date:** 2/21/2013 8:30:06AM	**No. Units:** 161	**Pkg Size:** 5 mL
Balance Used: BEDEARMBALPC2 XP205	**Serial #:** 1128353505		

Compound	CAS	Storage Location	Lot #	Purity	Target Conc(ug/mL)	Target	Actual	Calc Conc(ug/mL)
Benzoic acid	65-85-0.SEC	RS063	QD3UO	0.97	2,000.00	2,061.86 mg	2,061.90 mg	2,000.0

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567674 **Lot No.:** A093441

Description : 8270 List 1 / Std #3 Benzoic Acid

8270 List 1 / Std #3 Benzoic Acid 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2016 **Storage:** 10°C or colder

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzoic acid	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 65-85-0		+/- 96.5249	µg/mL	Unstressed
	Purity 99%		+/- 96.6077	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

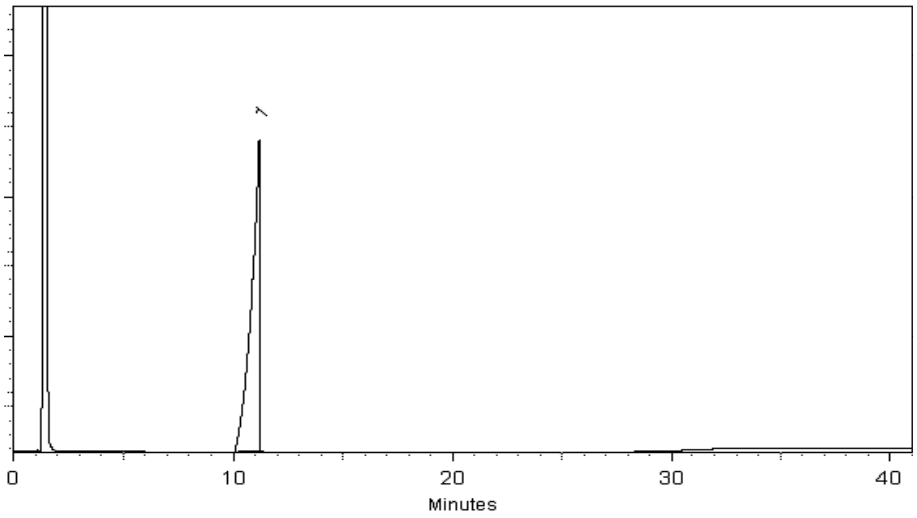
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Jodi E. Breon - QA Analyst

Date Passed: 22-Feb-2013 **Balance:** 1128342313

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date of the unopened ampul stored at the recommended storage condition is the last day of the month listed in the expiration date field.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31840, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Chemical Standard Batch Sheet
Lot #: A093441

Catalog #: 567674	**Target:** 2000 ug/mL	
Description: 8270 List 1 / Std #3 Benzoic Acid		
Solvent: Methylene Chloride	**Solvent Lot:** 127438	**Final Volume:** 4,000 ml

Made by: Matt Hepfer	**Date:** 2/7/2013 1:17:18PM		
Tested by: Jodi Breon	**Date:** 2/8/2013 3:42:28PM		
Pass	**By:** Jodi Breon	**Date:** 2/22/2013 12:33:55PM	
Packaged by: Kendra Swope / Alexandria Pavkovich	**Date:** 2/8/2013 10:02:22AM	**No. Units:** 615	**Pkg Size:** 5 mL
Balance Used: BEDEARMBALPC1 XP205	**Serial #:** 1128342313		

Compound	CAS	Storage Location	Lot #	Purity	Target Conc(ug/mL)	Target	Actual	Calc Conc(ug/mL)
Benzoic acid	65-85-0	R0472	MKBG9391V	0.99	2,000.00	8,000.00 mg	8,000.00 mg	2,000.0

QA Report: 8270 List 1/ Std. #3 Benzoic Acid (Cat.#567674)

	Runs of Lot # A093441						Runs of Lot # A093654							
COMPONENT	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	Run #1	Run #2	Run #3	AVG	STD DEV	% RSD	%D MEAN	**P/F**
Benzoic acid	5123644	5100875	5144322	5122947	21732	0.42	5288104	5295526	5370045	5317892	45318	0.85	-3.81	PASS

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 – 00016 **Lot No.:** A093676

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : February 2018 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 3855-82-1		+/- 92.7158	µg/mL	Unstressed
	Purity 99%		+/- 101.3766	µg/mL	Stressed
2	Naphthalene-d8	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 1146-65-2		+/- 92.7158	µg/mL	Unstressed
	Purity 99%		+/- 101.3766	µg/mL	Stressed
3	Acenaphthene-d10	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 15067-26-2		+/- 92.7163	µg/mL	Unstressed
	Purity 97%		+/- 101.3771	µg/mL	Stressed
4	Phenanthrene-d10	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 1517-22-2		+/- 92.7158	µg/mL	Unstressed
	Purity 99%		+/- 101.3766	µg/mL	Stressed
5	Chrysene-d12	2,000.0 µg/mL	+/- 11.6281	µg/mL	Gravimetric
	CAS # 1719-03-5		+/- 92.7150	µg/mL	Unstressed
	Purity 98%		+/- 101.3758	µg/mL	Stressed
6	Perylene-d12	2,000.0 µg/mL	+/- 11.6282	µg/mL	Gravimetric
	CAS # 1520-96-3		+/- 92.7158	µg/mL	Unstressed
	Purity 99%		+/- 101.3766	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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Certificate of Composition

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567684 – 00017 **Lot No.:** A092546

Description : 8270 SV Internal Standard Mix

8270 SV Internal Standard Mix 2000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : December 2017 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 **Purity** 97%	2,000.1 µg/mL	+/- 11.7379 +/- 92.7360 +/- 101.3962	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 **Purity** 98%	2,000.2 µg/mL	+/- 11.7382 +/- 92.7378 +/- 101.3983	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 **Purity** 99%	2,000.0 µg/mL	+/- 11.7371 +/- 92.7295 +/- 101.3892	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

MS-
3043056
ID: MS-567684_00018
Exp: 11/30/19 Prpd: DCK
RES 8270 Internal Std Mix

Catalog No. : 567684 **Lot No.:** A0107273

Description : 8270 Internal Standard

8270 Internal Standard 2,000µg/mL, Methylene Chloride, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2019 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4		2,017.6	µg/mL	+/- 11.7305	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)			+/- 89.6430	µg/mL	Unstressed
	Purity 99%				+/- 98.4895	µg/mL	Stressed
2	Naphthalene-d8		2,003.8	µg/mL	+/- 11.6503	µg/mL	Gravimetric
	CAS # 1146-65-2	(Lot PR-20449)			+/- 89.0299	µg/mL	Unstressed
	Purity 99%				+/- 97.8158	µg/mL	Stressed
3	Acenaphthene-d10		2,016.8	µg/mL	+/- 11.7260	µg/mL	Gravimetric
	CAS # 15067-26-2	(Lot PR-21070)			+/- 89.6085	µg/mL	Unstressed
	Purity 97%				+/- 98.4516	µg/mL	Stressed
4	Phenanthrene-d10		2,013.6	µg/mL	+/- 11.7072	µg/mL	Gravimetric
	CAS # 1517-22-2	(Lot PR-23065)			+/- 89.4653	µg/mL	Unstressed
	Purity 99%				+/- 98.2942	µg/mL	Stressed
5	Chrysene-d12		2,011.8	µg/mL	+/- 11.6968	µg/mL	Gravimetric
	CAS # 1719-03-5	(Lot PR-25081)			+/- 89.3853	µg/mL	Unstressed
	Purity 99%				+/- 98.2063	µg/mL	Stressed
6	Perylene-d12		2,017.8	µg/mL	+/- 11.7317	µg/mL	Gravimetric
	CAS # 1520-96-3	(Lot PR-24113)			+/- 89.6519	µg/mL	Unstressed
	Purity 99%				+/- 98.4992	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

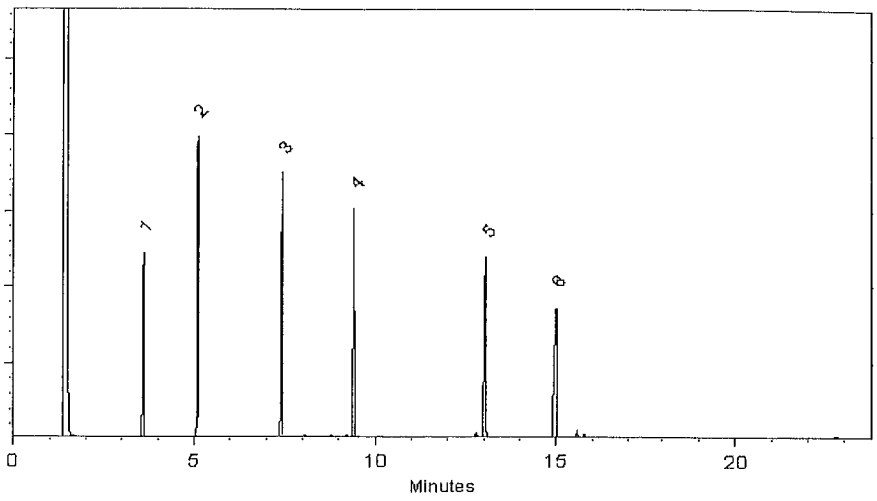
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 17-Nov-2014 **Balance:** 1128342313

Jennifer L. Pollino - QC Analyst

Date Passed: 19-Nov-2014

Manufactured under Restek's ISO 9001:2008
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Certificate of Composition

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 567685 - 00001 **Lot No.:** A092712

Description : 8270 Surrogate Standard

8270 Surrogate Standard 5000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 2018 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 367-12-4		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
2	Phenol-d5	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 4165-62-2		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
3	Nitrobenzene-d5	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 4165-60-0		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
4	2-Fluorobiphenyl	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 321-60-8		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
5	2,4,6-Tribromophenol	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 118-79-6		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed
6	p-Terphenyl-d14	5,000.0 µg/mL	+/- 29.2761	µg/mL	Gravimetric
	CAS # 1718-51-0		+/- 132.9947	µg/mL	Unstressed
	Purity 99%		+/- 163.4399	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

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Gravimetric Certificate

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3049651
ID: MS-568023_00010
Exp: 12/31/16 Prpd: DCK
RES HSLA Famphur 2000ug/m

Catalog No. : 568023 **Lot No.:** A0107887

Description : 8270 Famphur Standard

8270 Famphur Standard 2,000 µg/ml, Methylene Chloride, 1 ml/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Component #	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Famphur		2,000.0 µg/mL		+/- 20.1475	µg/mL	Gravimetric
	CAS # 52-85-7	(Lot 2451100)			+/- 73.8678	µg/mL	Unstressed
	Purity 99%				+/- 73.8702	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Michael J Maye

Date Mixed: 18-Dec-2014 **Balance:** 1128353505

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3223427
ID: MS-569729_00025
Exp: 09/30/16 Prpd: DCK
RES HSLA Mega Mix 1000ug/

Catalog No. : 569729 **Lot No.:** A0109703

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.8	µg/mL	+/- 5.8246	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF2002V)			+/- 10.9684	µg/mL	Unstressed
	Purity 99%				+/- 18.6042	µg/mL	Stressed
2	Pyridine		1,004.7	µg/mL	+/- 5.8414	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)			+/- 11.0002	µg/mL	Unstressed
	Purity 99%				+/- 18.6581	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,000.0	µg/mL	+/- 5.8141	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)			+/- 10.9487	µg/mL	Unstressed
	Purity 99%				+/- 18.5708	µg/mL	Stressed
4	Aniline		1,000.9	µg/mL	+/- 5.8193	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)			+/- 10.9586	µg/mL	Unstressed
	Purity 99%				+/- 18.5875	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,001.9	µg/mL	+/- 5.8251	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)			+/- 10.9695	µg/mL	Unstressed
	Purity 99%				+/- 18.6061	µg/mL	Stressed
6	2-Chlorophenol		1,001.4	µg/mL	+/- 5.8222	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)			+/- 10.9640	µg/mL	Unstressed
	Purity 99%				+/- 18.5968	µg/mL	Stressed
7	Phenol		1,000.3	µg/mL	+/- 5.8158	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBC6998V)			+/- 10.9520	µg/mL	Unstressed
	Purity 99%				+/- 18.5764	µg/mL	Stressed

8	n-Decane (C10)		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBL3891V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,001.4	µg/mL	+/-	5.8222	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot 68996CMV)			+/-	10.9640	µg/mL	Unstressed
	Purity 99%				+/-	18.5968	µg/mL	Stressed
12	Benzyl alcohol		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,000.8	µg/mL	+/-	5.8187	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	10.9575	µg/mL	Unstressed
	Purity 99%				+/-	18.5856	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,002.9	µg/mL	+/-	5.8309	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	10.9804	µg/mL	Unstressed
	Purity 99%				+/-	18.6246	µg/mL	Stressed
15	Hexachloroethane		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
16	Acetophenone		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,001.8	µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	10.9684	µg/mL	Unstressed
	Purity 99%				+/-	18.6042	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		501.2	µg/mL	+/-	2.9208	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.4911	µg/mL	Unstressed
	Purity 99%				+/-	9.3098	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		500.2	µg/mL	+/-	2.9149	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4801	µg/mL	Unstressed
	Purity 99%				+/-	9.2912	µg/mL	Stressed
20	Nitrobenzene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBB0246V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
21	Isophorone		1,001.1	µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9607	µg/mL	Unstressed
	Purity 99%				+/-	18.5912	µg/mL	Stressed
22	2-Nitrophenol		1,003.1	µg/mL	+/-	5.8321	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	10.9826	µg/mL	Unstressed
	Purity 99%				+/-	18.6284	µg/mL	Stressed
23	2,4-Dimethylphenol		1,003.0	µg/mL	+/-	5.8315	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9815	µg/mL	Unstressed
	Purity 99%				+/-	18.6265	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,002.1	µg/mL	+/-	5.8263	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9717	µg/mL	Unstressed
	Purity 99%				+/-	18.6098	µg/mL	Stressed
25	2,4-Dichlorophenol		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
27	Naphthalene		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
28	2,6-Dichlorophenol		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
29	4-Chloroaniline		1,000.3	µg/mL	+/-	5.8157	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9518	µg/mL	Unstressed
	Purity 98%				+/-	18.5761	µg/mL	Stressed
30	Hexachlorobutadiene		1,002.1	µg/mL	+/-	5.8260	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9711	µg/mL	Unstressed
	Purity 98%				+/-	18.6089	µg/mL	Stressed
31	2-Methylnaphthalene		1,000.2	µg/mL	+/-	5.8154	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9512	µg/mL	Unstressed
	Purity 96%				+/-	18.5749	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
33	1-Methylnaphthalene		990.0	µg/mL	+/-	5.7692	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.8463	µg/mL	Unstressed
	Purity 99%				+/-	18.3892	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
36	2,4,6-Trichlorophenol		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,002.2	µg/mL	+/-	5.8269	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	10.9728	µg/mL	Unstressed
	Purity 99%				+/-	18.6116	µg/mL	Stressed
38	2-Chloronaphthalene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot FIJ01)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
39	Biphenyl		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed

40	2-Nitroaniline		1,003.4 µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)		+/-	10.9859	µg/mL	Unstressed
	Purity 99%			+/-	18.6339	µg/mL	Stressed
41	Acenaphthylene		1,003.3 µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)		+/-	10.9848	µg/mL	Unstressed
	Purity 99%			+/-	18.6321	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,001.2 µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)		+/-	10.9618	µg/mL	Unstressed
	Purity 99%			+/-	18.5931	µg/mL	Stressed
43	Dimethylphthalate		1,000.5 µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)		+/-	10.9542	µg/mL	Unstressed
	Purity 99%			+/-	18.5801	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.9 µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)		+/-	10.9586	µg/mL	Unstressed
	Purity 99%			+/-	18.5875	µg/mL	Stressed
45	Acenaphthene		1,003.3 µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBH3748V)		+/-	10.9848	µg/mL	Unstressed
	Purity 99%			+/-	18.6321	µg/mL	Stressed
46	2,4-Dinitrophenol		2,000.1 µg/mL	+/-	11.6288	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)		+/-	21.8985	µg/mL	Unstressed
	Purity 99%			+/-	37.1434	µg/mL	Stressed
47	Dibenzofuran		1,003.0 µg/mL	+/-	5.8315	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)		+/-	10.9815	µg/mL	Unstressed
	Purity 99%			+/-	18.6265	µg/mL	Stressed
48	3-Nitroaniline		1,000.8 µg/mL	+/-	5.8190	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)		+/-	10.9580	µg/mL	Unstressed
	Purity 97%			+/-	18.5865	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,001.8 µg/mL	+/-	5.8246	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)		+/-	10.9684	µg/mL	Unstressed
	Purity 99%			+/-	18.6042	µg/mL	Stressed
50	4-Nitrophenol		2,003.4 µg/mL	+/-	11.6479	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)		+/-	21.9346	µg/mL	Unstressed
	Purity 99%			+/-	37.2047	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,003.5 µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot FN10221307)		+/-	10.9870	µg/mL	Unstressed
	Purity 99%			+/-	18.6358	µg/mL	Stressed
52	Fluorene		999.6 µg/mL	+/-	5.8118	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)		+/-	10.9443	µg/mL	Unstressed
	Purity 98%			+/-	18.5634	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,000.1 µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)		+/-	10.9498	µg/mL	Unstressed
	Purity 99%			+/-	18.5726	µg/mL	Stressed
54	n-Hexadecane (C16)		1,003.0 µg/mL	+/-	5.8315	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBD4570V)		+/-	10.9815	µg/mL	Unstressed
	Purity 99%			+/-	18.6265	µg/mL	Stressed
55	Diethylphthalate		1,001.1 µg/mL	+/-	5.8205	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)		+/-	10.9607	µg/mL	Unstressed
	Purity 99%			+/-	18.5912	µg/mL	Stressed

56	Azobenzene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
57	Diphenylamine		1,701.0	µg/mL	+/-	9.8898	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.6237	µg/mL	Unstressed
	Purity 99%				+/-	31.5889	µg/mL	Stressed
58	4-Nitroaniline		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,000.8	µg/mL	+/-	11.6328	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC06195V)			+/-	21.9062	µg/mL	Unstressed
	Purity 99%				+/-	37.1564	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		999.5	µg/mL	+/-	5.8112	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	10.9432	µg/mL	Unstressed
	Purity 98%				+/-	18.5615	µg/mL	Stressed
61	Hexachlorobenzene		1,002.7	µg/mL	+/-	5.8300	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LC04221V)			+/-	10.9787	µg/mL	Unstressed
	Purity 98%				+/-	18.6216	µg/mL	Stressed
62	Pentachlorophenol		2,006.0	µg/mL	+/-	11.6631	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9631	µg/mL	Unstressed
	Purity 99%				+/-	37.2530	µg/mL	Stressed
63	Phenanthrene		1,001.9	µg/mL	+/-	5.8249	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	10.9690	µg/mL	Unstressed
	Purity 98%				+/-	18.6052	µg/mL	Stressed
64	n-Octadecane (C18)		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
65	Anthracene		1,001.2	µg/mL	+/-	5.8211	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBR2268V)			+/-	10.9618	µg/mL	Unstressed
	Purity 99%				+/-	18.5931	µg/mL	Stressed
66	Carbazole		1,002.9	µg/mL	+/-	5.8311	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9808	µg/mL	Unstressed
	Purity 98%				+/-	18.6252	µg/mL	Stressed
67	Di-n-butylphthalate		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
68	Fluoranthene		999.8	µg/mL	+/-	5.8129	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9465	µg/mL	Unstressed
	Purity 98%				+/-	18.5670	µg/mL	Stressed
69	Pyrene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBL6786V)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9509	µg/mL	Unstressed
	Purity 99%				+/-	18.5745	µg/mL	Stressed
71	Benz(a)anthracene		1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9487	µg/mL	Unstressed
	Purity 99%				+/-	18.5708	µg/mL	Stressed

72	Chrysene		1,004.7	µg/mL	+/- 5.8414	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/- 11.0002	µg/mL	Unstressed
	Purity 99%				+/- 18.6581	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,002.2	µg/mL	+/- 5.8269	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/- 10.9728	µg/mL	Unstressed
	Purity 99%				+/- 18.6116	µg/mL	Stressed
74	Di-n-octyl phthalate		1,001.9	µg/mL	+/- 5.8251	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/- 10.9695	µg/mL	Unstressed
	Purity 99%				+/- 18.6061	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,001.3	µg/mL	+/- 5.8216	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/- 10.9629	µg/mL	Unstressed
	Purity 99%				+/- 18.5949	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,000.5	µg/mL	+/- 5.8170	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/- 10.9542	µg/mL	Unstressed
	Purity 99%				+/- 18.5801	µg/mL	Stressed
77	Benzo(a)pyrene		1,002.5	µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/- 10.9761	µg/mL	Unstressed
	Purity 99%				+/- 18.6172	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,003.3	µg/mL	+/- 5.8333	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/- 10.9848	µg/mL	Unstressed
	Purity 99%				+/- 18.6321	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,000.7	µg/mL	+/- 5.8182	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/- 10.9564	µg/mL	Unstressed
	Purity 99%				+/- 18.5838	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.0	µg/mL	+/- 5.8199	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/- 10.9596	µg/mL	Unstressed
	Purity 99%				+/- 18.5894	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

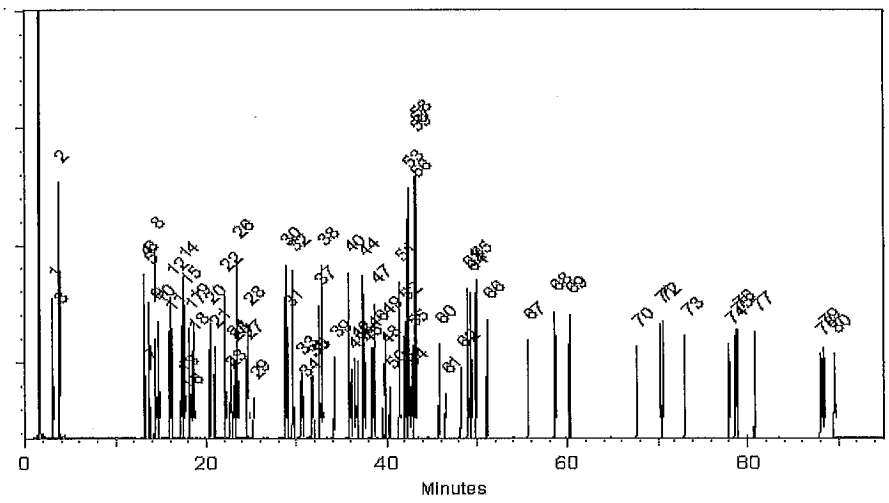
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kendra Swope - Mix Technician

Date Mixed: 16-Mar-2015 **Balance:** B442140311

Tyler Brown - QA Analyst

Date Passed: 23-Mar-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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Certificate of Analysis

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

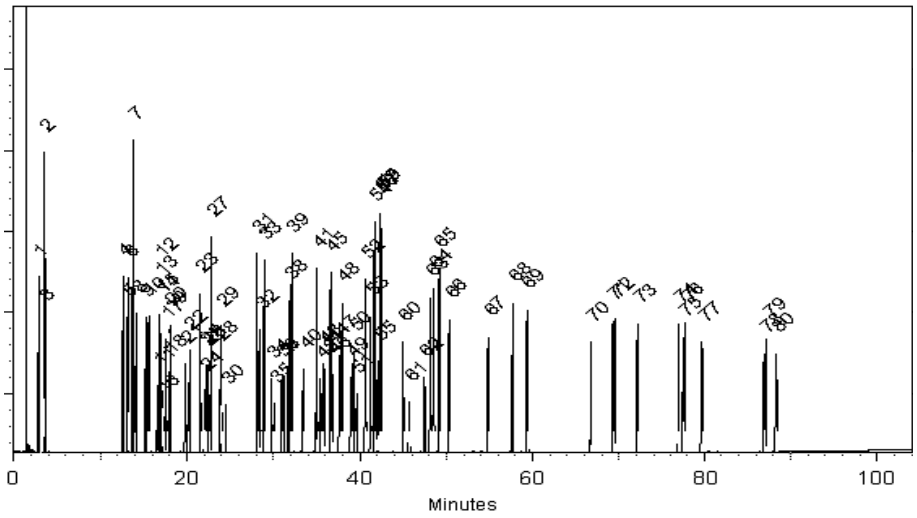
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

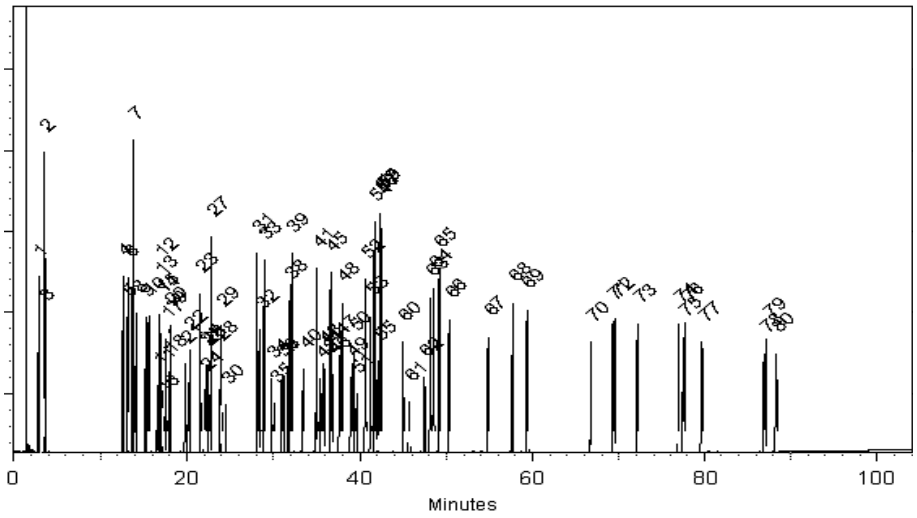
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

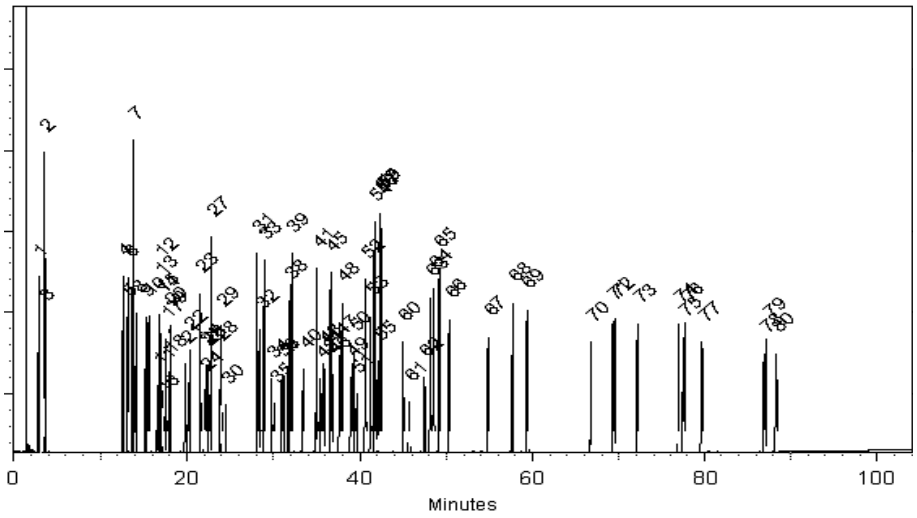
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

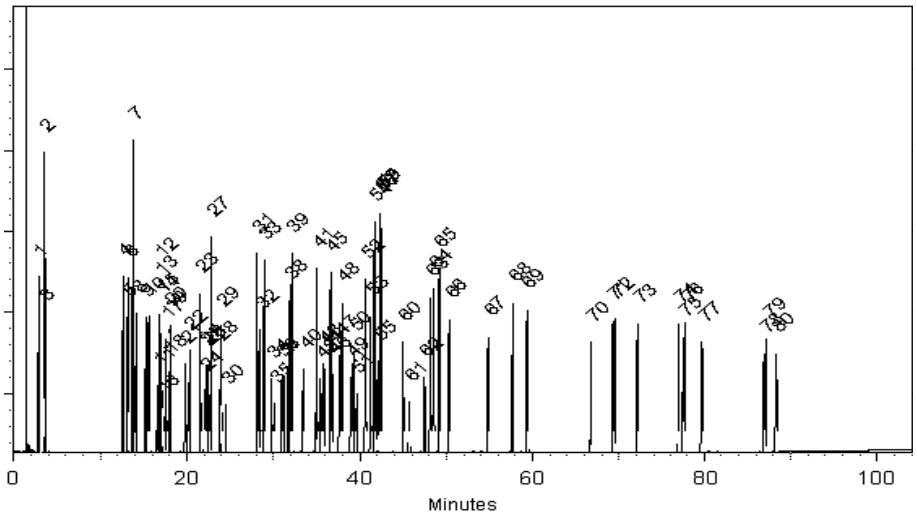
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dioxane	1,001.1 µg/mL	+/- 5.8205 µg/mL	Gravimetric
	CAS # 123-91-1 (Lot SHBF7514V)		+/- 10.9607 µg/mL	Unstressed
	Purity 99%		+/- 18.5912 µg/mL	Stressed
2	Pyridine	1,006.2 µg/mL	+/- 5.8501 µg/mL	Gravimetric
	CAS # 110-86-1 (Lot SHBC7174V)		+/- 11.0166 µg/mL	Unstressed
	Purity 99%		+/- 18.6859 µg/mL	Stressed
3	N-Nitrosodimethylamine	1,009.0 µg/mL	+/- 5.8664 µg/mL	Gravimetric
	CAS # 62-75-9 (Lot 3498100)		+/- 11.0472 µg/mL	Unstressed
	Purity 99%		+/- 18.7379 µg/mL	Stressed
4	Aniline	1,009.1 µg/mL	+/- 5.8670 µg/mL	Gravimetric
	CAS # 62-53-3 (Lot K22Z462)		+/- 11.0483 µg/mL	Unstressed
	Purity 99%		+/- 18.7398 µg/mL	Stressed
5	Bis(2-chloroethyl)ether	1,005.3 µg/mL	+/- 5.8449 µg/mL	Gravimetric
	CAS # 111-44-4 (Lot 45296HKV)		+/- 11.0067 µg/mL	Unstressed
	Purity 99%		+/- 18.6692 µg/mL	Stressed
6	2-Chlorophenol	1,002.5 µg/mL	+/- 5.8286 µg/mL	Gravimetric
	CAS # 95-57-8 (Lot MKBD3900V)		+/- 10.9761 µg/mL	Unstressed
	Purity 99%		+/- 18.6172 µg/mL	Stressed
7	Phenol	1,004.4 µg/mL	+/- 5.8397 µg/mL	Gravimetric
	CAS # 108-95-2 (Lot SHBF1351V)		+/- 10.9969 µg/mL	Unstressed
	Purity 99%		+/- 18.6525 µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

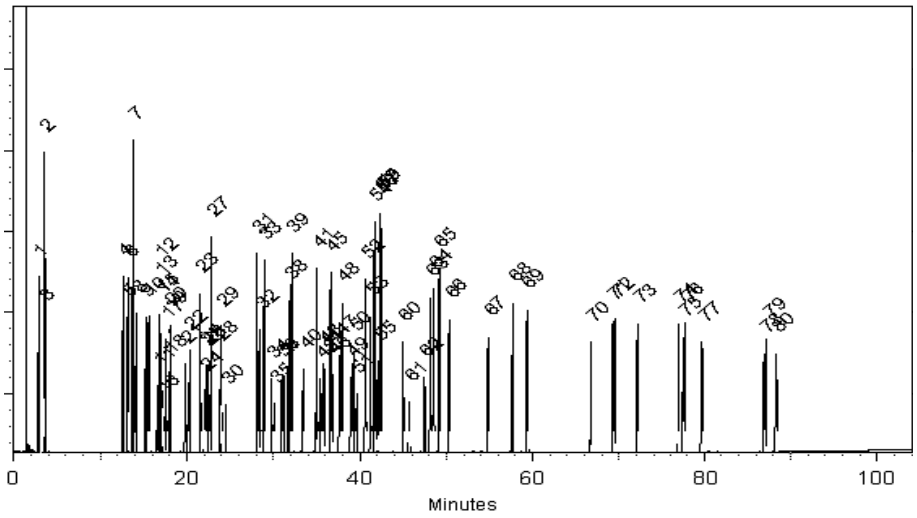
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

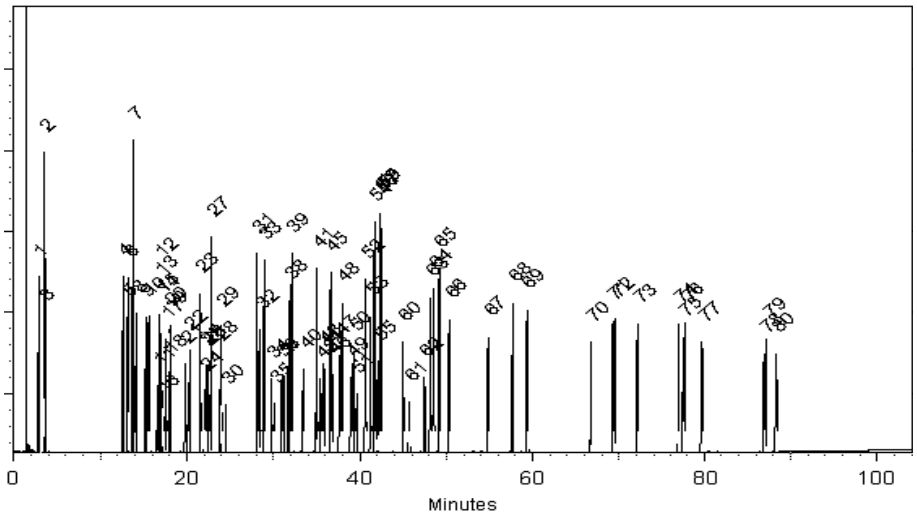
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

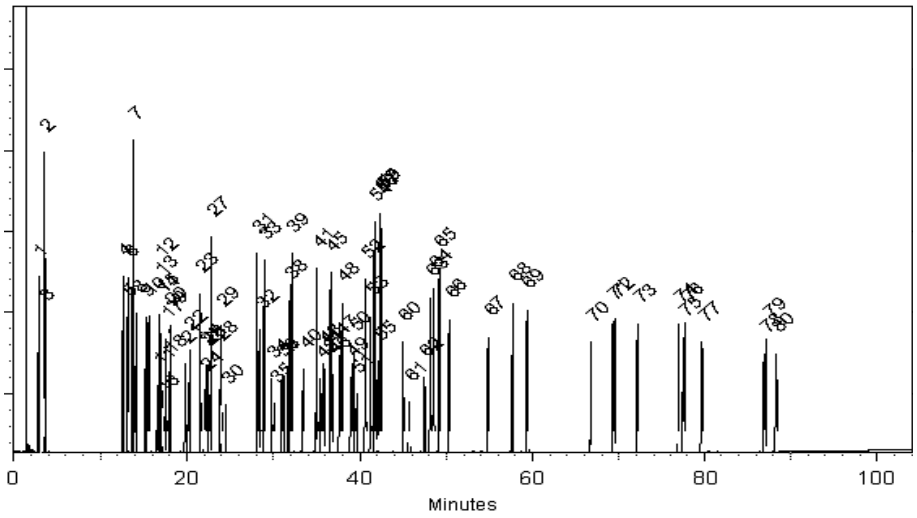
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569729 **Lot No.:** A0111934

Description : 8270 List 1 / Std #1 MegaMix (2015)

8270 List 1 / Std #1 MegaMix (2015) 500-2000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : December 31, 2016 **Storage:** 10°C or colder

Handling: Carcinogen/reproductive toxin. Photosensitive. Sonicate.

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dioxane		1,001.1 µg/mL	+/- 5.8205	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBF7514V)		+/- 10.9607	µg/mL	Unstressed
	Purity 99%			+/- 18.5912	µg/mL	Stressed
2	Pyridine		1,006.2 µg/mL	+/- 5.8501	µg/mL	Gravimetric
	CAS # 110-86-1	(Lot SHBC7174V)		+/- 11.0166	µg/mL	Unstressed
	Purity 99%			+/- 18.6859	µg/mL	Stressed
3	N-Nitrosodimethylamine		1,009.0 µg/mL	+/- 5.8664	µg/mL	Gravimetric
	CAS # 62-75-9	(Lot 3498100)		+/- 11.0472	µg/mL	Unstressed
	Purity 99%			+/- 18.7379	µg/mL	Stressed
4	Aniline		1,009.1 µg/mL	+/- 5.8670	µg/mL	Gravimetric
	CAS # 62-53-3	(Lot K22Z462)		+/- 11.0483	µg/mL	Unstressed
	Purity 99%			+/- 18.7398	µg/mL	Stressed
5	Bis(2-chloroethyl)ether		1,005.3 µg/mL	+/- 5.8449	µg/mL	Gravimetric
	CAS # 111-44-4	(Lot 45296HKV)		+/- 11.0067	µg/mL	Unstressed
	Purity 99%			+/- 18.6692	µg/mL	Stressed
6	2-Chlorophenol		1,002.5 µg/mL	+/- 5.8286	µg/mL	Gravimetric
	CAS # 95-57-8	(Lot MKBD3900V)		+/- 10.9761	µg/mL	Unstressed
	Purity 99%			+/- 18.6172	µg/mL	Stressed
7	Phenol		1,004.4 µg/mL	+/- 5.8397	µg/mL	Gravimetric
	CAS # 108-95-2	(Lot SHBF1351V)		+/- 10.9969	µg/mL	Unstressed
	Purity 99%			+/- 18.6525	µg/mL	Stressed

8	n-Decane (C10)		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 124-18-5	(Lot SHBF1587V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
9	1,4-Dichlorobenzene		1,007.0	µg/mL	+/-	5.8548	µg/mL	Gravimetric
	CAS # 106-46-7	(Lot MKBS1350V)			+/-	11.0253	µg/mL	Unstressed
	Purity 99%				+/-	18.7008	µg/mL	Stressed
10	1,3-Dichlorobenzene		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 541-73-1	(Lot BCBC1891V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed
11	1,2-Dichlorobenzene		1,004.1	µg/mL	+/-	5.8379	µg/mL	Gravimetric
	CAS # 95-50-1	(Lot SHBD7331V)			+/-	10.9936	µg/mL	Unstressed
	Purity 99%				+/-	18.6469	µg/mL	Stressed
12	Benzyl alcohol		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 100-51-6	(Lot SHBC1850V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
13	2,2'-oxybis(1-chloropropane)		1,009.0	µg/mL	+/-	5.8664	µg/mL	Gravimetric
	CAS # 108-60-1	(Lot 2-KMW-57-8)			+/-	11.0472	µg/mL	Unstressed
	Purity 99%				+/-	18.7379	µg/mL	Stressed
14	2-Methylphenol (o-cresol)		1,005.9	µg/mL	+/-	5.8484	µg/mL	Gravimetric
	CAS # 95-48-7	(Lot SHBC1479V)			+/-	11.0133	µg/mL	Unstressed
	Purity 99%				+/-	18.6804	µg/mL	Stressed
15	Hexachloroethane		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 67-72-1	(Lot 4H3SF)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
16	Acetophenone		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 98-86-2	(Lot MKBR7156V)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
17	N-Nitroso-di-n-propylamine		1,007.7	µg/mL	+/-	5.8589	µg/mL	Gravimetric
	CAS # 621-64-7	(Lot OPAGF)			+/-	11.0330	µg/mL	Unstressed
	Purity 99%				+/-	18.7138	µg/mL	Stressed
18	4-Methylphenol (p-cresol)		502.3	µg/mL	+/-	2.9272	µg/mL	Gravimetric
	CAS # 106-44-5	(Lot 49396APV)			+/-	5.5031	µg/mL	Unstressed
	Purity 99%				+/-	9.3302	µg/mL	Stressed
19	3-Methylphenol (m-cresol)		501.0	µg/mL	+/-	2.9196	µg/mL	Gravimetric
	CAS # 108-39-4	(Lot SHBD0627V)			+/-	5.4889	µg/mL	Unstressed
	Purity 99%				+/-	9.3061	µg/mL	Stressed
20	Nitrobenzene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBF2348V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
21	Isophorone		1,003.5	µg/mL	+/-	5.8344	µg/mL	Gravimetric
	CAS # 78-59-1	(Lot MKBG2442V)			+/-	10.9870	µg/mL	Unstressed
	Purity 99%				+/-	18.6358	µg/mL	Stressed
22	2-Nitrophenol		1,006.3	µg/mL	+/-	5.8507	µg/mL	Gravimetric
	CAS # 88-75-5	(Lot BCBH7602V)			+/-	11.0177	µg/mL	Unstressed
	Purity 99%				+/-	18.6878	µg/mL	Stressed
23	2,4-Dimethylphenol		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 105-67-9	(Lot 10165155)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

24	Bis(2-chloroethoxy)methane		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 111-91-1	(Lot 2238100)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
25	2,4-Dichlorophenol		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-83-2	(Lot BCBH1617V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
26	1,2,4-Trichlorobenzene		999.9	µg/mL	+/-	5.8135	µg/mL	Gravimetric
	CAS # 120-82-1	(Lot SHBC5541V)			+/-	10.9475	µg/mL	Unstressed
	Purity 98%				+/-	18.5688	µg/mL	Stressed
27	Naphthalene		1,006.6	µg/mL	+/-	5.8525	µg/mL	Gravimetric
	CAS # 91-20-3	(Lot MKBH4351V)			+/-	11.0210	µg/mL	Unstressed
	Purity 99%				+/-	18.6934	µg/mL	Stressed
28	2,6-Dichlorophenol		1,000.4	µg/mL	+/-	5.8164	µg/mL	Gravimetric
	CAS # 87-65-0	(Lot MKBN2776V)			+/-	10.9531	µg/mL	Unstressed
	Purity 99%				+/-	18.5782	µg/mL	Stressed
29	4-Chloroaniline		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 106-47-8	(Lot 12528PH)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed
30	Hexachlorobutadiene		1,001.2	µg/mL	+/-	5.8209	µg/mL	Gravimetric
	CAS # 87-68-3	(Lot J31X013)			+/-	10.9615	µg/mL	Unstressed
	Purity 98%				+/-	18.5925	µg/mL	Stressed
31	2-Methylnaphthalene		999.3	µg/mL	+/-	5.8098	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot 19399MJV)			+/-	10.9406	µg/mL	Unstressed
	Purity 96%				+/-	18.5571	µg/mL	Stressed
32	4-Chloro-3-methylphenol		1,002.5	µg/mL	+/-	5.8286	µg/mL	Gravimetric
	CAS # 59-50-7	(Lot STBC0769V)			+/-	10.9761	µg/mL	Unstressed
	Purity 99%				+/-	18.6172	µg/mL	Stressed
33	1-Methylnaphthalene		1,001.7	µg/mL	+/-	5.8240	µg/mL	Gravimetric
	CAS # 90-12-0	(Lot 525000-10)			+/-	10.9673	µg/mL	Unstressed
	Purity 99%				+/-	18.6024	µg/mL	Stressed
34	1,2,4,5-Tetrachlorobenzene		1,002.3	µg/mL	+/-	5.8275	µg/mL	Gravimetric
	CAS # 95-94-3	(Lot 06024AIV)			+/-	10.9739	µg/mL	Unstressed
	Purity 99%				+/-	18.6135	µg/mL	Stressed
35	Hexachlorocyclopentadiene		1,008.9	µg/mL	+/-	5.8658	µg/mL	Gravimetric
	CAS # 77-47-4	(Lot 3691100)			+/-	11.0461	µg/mL	Unstressed
	Purity 99%				+/-	18.7361	µg/mL	Stressed
36	2,4,6-Trichlorophenol		1,000.4	µg/mL	+/-	5.8163	µg/mL	Gravimetric
	CAS # 88-06-2	(Lot MKBL4698V)			+/-	10.9529	µg/mL	Unstressed
	Purity 98%				+/-	18.5779	µg/mL	Stressed
37	2,4,5-Trichlorophenol		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 95-95-4	(Lot FHM01)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
38	2-Chloronaphthalene		1,001.5	µg/mL	+/-	5.8228	µg/mL	Gravimetric
	CAS # 91-58-7	(Lot AJ2UI-TE)			+/-	10.9651	µg/mL	Unstressed
	Purity 99%				+/-	18.5986	µg/mL	Stressed
39	Biphenyl		1,002.0	µg/mL	+/-	5.8257	µg/mL	Gravimetric
	CAS # 92-52-4	(Lot 1277976)			+/-	10.9706	µg/mL	Unstressed
	Purity 99%				+/-	18.6079	µg/mL	Stressed

40	2-Nitroaniline		1,008.4	µg/mL	+/-	5.8629	µg/mL	Gravimetric
	CAS # 88-74-4	(Lot MKBK7597V)			+/-	11.0407	µg/mL	Unstressed
	Purity 99%				+/-	18.7268	µg/mL	Stressed
41	Acenaphthylene		1,003.4	µg/mL	+/-	5.8339	µg/mL	Gravimetric
	CAS # 208-96-8	(Lot ER030707-01)			+/-	10.9859	µg/mL	Unstressed
	Purity 99%				+/-	18.6339	µg/mL	Stressed
42	1,3-Dinitrobenzene		1,000.3	µg/mL	+/-	5.8158	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBB1436V)			+/-	10.9520	µg/mL	Unstressed
	Purity 99%				+/-	18.5764	µg/mL	Stressed
43	Dimethylphthalate		1,002.6	µg/mL	+/-	5.8292	µg/mL	Gravimetric
	CAS # 131-11-3	(Lot 10117699)			+/-	10.9772	µg/mL	Unstressed
	Purity 99%				+/-	18.6191	µg/mL	Stressed
44	2,6-Dinitrotoluene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 606-20-2	(Lot 1437483V)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
45	Acenaphthene		1,001.6	µg/mL	+/-	5.8234	µg/mL	Gravimetric
	CAS # 83-32-9	(Lot MKBP0384V)			+/-	10.9662	µg/mL	Unstressed
	Purity 99%				+/-	18.6005	µg/mL	Stressed
46	2,4-Dinitrophenol		2,001.6	µg/mL	+/-	11.6375	µg/mL	Gravimetric
	CAS # 51-28-5	(Lot STBD8351V)			+/-	21.9149	µg/mL	Unstressed
	Purity 99%				+/-	37.1713	µg/mL	Stressed
47	Dibenzofuran		1,000.5	µg/mL	+/-	5.8170	µg/mL	Gravimetric
	CAS # 132-64-9	(Lot MKBH8392V)			+/-	10.9542	µg/mL	Unstressed
	Purity 99%				+/-	18.5801	µg/mL	Stressed
48	3-Nitroaniline		1,002.7	µg/mL	+/-	5.8297	µg/mL	Gravimetric
	CAS # 99-09-2	(Lot MKBH5131V)			+/-	10.9781	µg/mL	Unstressed
	Purity 97%				+/-	18.6207	µg/mL	Stressed
49	2,4-Dinitrotoluene		1,002.7	µg/mL	+/-	5.8298	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)			+/-	10.9783	µg/mL	Unstressed
	Purity 99%				+/-	18.6209	µg/mL	Stressed
50	4-Nitrophenol		2,003.0	µg/mL	+/-	11.6456	µg/mL	Gravimetric
	CAS # 100-02-7	(Lot MKBK1842V)			+/-	21.9302	µg/mL	Unstressed
	Purity 99%				+/-	37.1973	µg/mL	Stressed
51	2,3,4,6-Tetrachlorophenol		1,000.2	µg/mL	+/-	5.8152	µg/mL	Gravimetric
	CAS # 58-90-2	(Lot B15W0428)			+/-	10.9508	µg/mL	Unstressed
	Purity 98%				+/-	18.5743	µg/mL	Stressed
52	Fluorene		996.0	µg/mL	+/-	5.7907	µg/mL	Gravimetric
	CAS # 86-73-7	(Lot 10174662)			+/-	10.9046	µg/mL	Unstressed
	Purity 98%				+/-	18.4960	µg/mL	Stressed
53	4-Chlorophenyl phenyl ether		1,003.3	µg/mL	+/-	5.8333	µg/mL	Gravimetric
	CAS # 7005-72-3	(Lot MKBS2248V)			+/-	10.9848	µg/mL	Unstressed
	Purity 99%				+/-	18.6321	µg/mL	Stressed
54	n-Hexadecane (C16)		1,005.6	µg/mL	+/-	5.8466	µg/mL	Gravimetric
	CAS # 544-76-3	(Lot SHBG1026V)			+/-	11.0100	µg/mL	Unstressed
	Purity 99%				+/-	18.6748	µg/mL	Stressed
55	Diethylphthalate		1,004.9	µg/mL	+/-	5.8426	µg/mL	Gravimetric
	CAS # 84-66-2	(Lot MKBJ3578V)			+/-	11.0023	µg/mL	Unstressed
	Purity 99%				+/-	18.6618	µg/mL	Stressed

56	Azobenzene		1,007.5	µg/mL	+/-	5.8577	µg/mL	Gravimetric
	CAS # 103-33-3	(Lot MKBS2559V)			+/-	11.0308	µg/mL	Unstressed
	Purity 99%				+/-	18.7101	µg/mL	Stressed
57	Diphenylamine		1,708.5	µg/mL	+/-	9.9334	µg/mL	Gravimetric
	CAS # 122-39-4	(Lot MKBN8295V)			+/-	18.7059	µg/mL	Unstressed
	Purity 99%				+/-	31.7282	µg/mL	Stressed
58	4-Nitroaniline		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 100-01-6	(Lot BCBG4702V)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
59	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol)		2,007.9	µg/mL	+/-	11.6741	µg/mL	Gravimetric
	CAS # 534-52-1	(Lot LC12394V)			+/-	21.9839	µg/mL	Unstressed
	Purity 99%				+/-	37.2883	µg/mL	Stressed
60	4-Bromophenyl phenyl ether		1,009.7	µg/mL	+/-	5.8704	µg/mL	Gravimetric
	CAS # 101-55-3	(Lot STBB9729V)			+/-	11.0548	µg/mL	Unstressed
	Purity 98%				+/-	18.7508	µg/mL	Stressed
61	Hexachlorobenzene		1,002.5	µg/mL	+/-	5.8289	µg/mL	Gravimetric
	CAS # 118-74-1	(Lot LB98981V)			+/-	10.9765	µg/mL	Unstressed
	Purity 98%				+/-	18.6180	µg/mL	Stressed
62	Pentachlorophenol		2,005.1	µg/mL	+/-	11.6578	µg/mL	Gravimetric
	CAS # 87-86-5	(Lot 150212JLM)			+/-	21.9532	µg/mL	Unstressed
	Purity 99%				+/-	37.2363	µg/mL	Stressed
63	Phenanthrene		1,006.1	µg/mL	+/-	5.8494	µg/mL	Gravimetric
	CAS # 85-01-8	(Lot MKBQ8219V)			+/-	11.0151	µg/mL	Unstressed
	Purity 98%				+/-	18.6835	µg/mL	Stressed
64	n-Octadecane (C18)		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 593-45-3	(Lot OGCDK)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
65	Anthracene		1,000.9	µg/mL	+/-	5.8193	µg/mL	Gravimetric
	CAS # 120-12-7	(Lot MKBK5208V)			+/-	10.9586	µg/mL	Unstressed
	Purity 99%				+/-	18.5875	µg/mL	Stressed
66	Carbazole		1,003.4	µg/mL	+/-	5.8340	µg/mL	Gravimetric
	CAS # 86-74-8	(Lot S42950-417)			+/-	10.9862	µg/mL	Unstressed
	Purity 98%				+/-	18.6343	µg/mL	Stressed
67	Di-n-butylphthalate		1,005.8	µg/mL	+/-	5.8478	µg/mL	Gravimetric
	CAS # 84-74-2	(Lot MKBL8501V)			+/-	11.0122	µg/mL	Unstressed
	Purity 99%				+/-	18.6785	µg/mL	Stressed
68	Fluoranthene		996.1	µg/mL	+/-	5.7912	µg/mL	Gravimetric
	CAS # 206-44-0	(Lot MKBQ6360V)			+/-	10.9057	µg/mL	Unstressed
	Purity 98%				+/-	18.4978	µg/mL	Stressed
69	Pyrene		1,000.6	µg/mL	+/-	5.8175	µg/mL	Gravimetric
	CAS # 129-00-0	(Lot BCBJ0984V)			+/-	10.9550	µg/mL	Unstressed
	Purity 98%				+/-	18.5816	µg/mL	Stressed
70	Benzyl butyl phthalate		1,000.7	µg/mL	+/-	5.8182	µg/mL	Gravimetric
	CAS # 85-68-7	(Lot 03027HV)			+/-	10.9564	µg/mL	Unstressed
	Purity 99%				+/-	18.5838	µg/mL	Stressed
71	Benz(a)anthracene		1,003.6	µg/mL	+/-	5.8350	µg/mL	Gravimetric
	CAS # 56-55-3	(Lot ER031412-01)			+/-	10.9881	µg/mL	Unstressed
	Purity 99%				+/-	18.6376	µg/mL	Stressed

72	Chrysene		1,000.1	µg/mL	+/-	5.8147	µg/mL	Gravimetric
	CAS # 218-01-9	(Lot PR121912-01)			+/-	10.9498	µg/mL	Unstressed
	Purity 99%				+/-	18.5726	µg/mL	Stressed
73	Bis(2-ethylhexyl)phthalate		1,008.5	µg/mL	+/-	5.8635	µg/mL	Gravimetric
	CAS # 117-81-7	(Lot MKBK2695V)			+/-	11.0418	µg/mL	Unstressed
	Purity 99%				+/-	18.7286	µg/mL	Stressed
74	Di-n-octyl phthalate		1,007.8	µg/mL	+/-	5.8594	µg/mL	Gravimetric
	CAS # 117-84-0	(Lot 3589500)			+/-	11.0341	µg/mL	Unstressed
	Purity 99%				+/-	18.7156	µg/mL	Stressed
75	Benzo(b)fluoranthene		1,005.4	µg/mL	+/-	5.8455	µg/mL	Gravimetric
	CAS # 205-99-2	(Lot ER03101401)			+/-	11.0078	µg/mL	Unstressed
	Purity 99%				+/-	18.6711	µg/mL	Stressed
76	Benzo(k)fluoranthene		1,006.0	µg/mL	+/-	5.8490	µg/mL	Gravimetric
	CAS # 207-08-9	(Lot 012012k)			+/-	11.0144	µg/mL	Unstressed
	Purity 99%				+/-	18.6822	µg/mL	Stressed
77	Benzo(a)pyrene		1,006.1	µg/mL	+/-	5.8496	µg/mL	Gravimetric
	CAS # 50-32-8	(Lot ER071309-02)			+/-	11.0155	µg/mL	Unstressed
	Purity 99%				+/-	18.6841	µg/mL	Stressed
78	Indeno(1,2,3-cd)pyrene		1,002.8	µg/mL	+/-	5.8304	µg/mL	Gravimetric
	CAS # 193-39-5	(Lot ER082107-02)			+/-	10.9794	µg/mL	Unstressed
	Purity 99%				+/-	18.6228	µg/mL	Stressed
79	Dibenz(a,h)anthracene		1,008.0	µg/mL	+/-	5.8606	µg/mL	Gravimetric
	CAS # 53-70-3	(Lot ER032211-01)			+/-	11.0363	µg/mL	Unstressed
	Purity 99%				+/-	18.7193	µg/mL	Stressed
80	Benzo(g,h,i)perylene		1,001.3	µg/mL	+/-	5.8216	µg/mL	Gravimetric
	CAS # 191-24-2	(Lot ER020708-08)			+/-	10.9629	µg/mL	Unstressed
	Purity 99%				+/-	18.5949	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Specific Reference Material Notes:

N-nitrosodiphenylamine 2000 ug/mL equivalent when used for GC analysis. Actual formulation is diphenylamine 1710 ug/mL.
N-Nitrosodiphenylamine is prone to breakdown in the injection port and will be converted to diphenylamine.
N-Nitrosodiphenylamine is also a reactive species that can initiate premature decomposition of other compounds in the mix. For these reasons diphenylamine is used in the preparation of this mixture. When comparing the response of this compound to mixtures manufactured using N-nitrosodiphenylamine, a difference in response will be observed.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

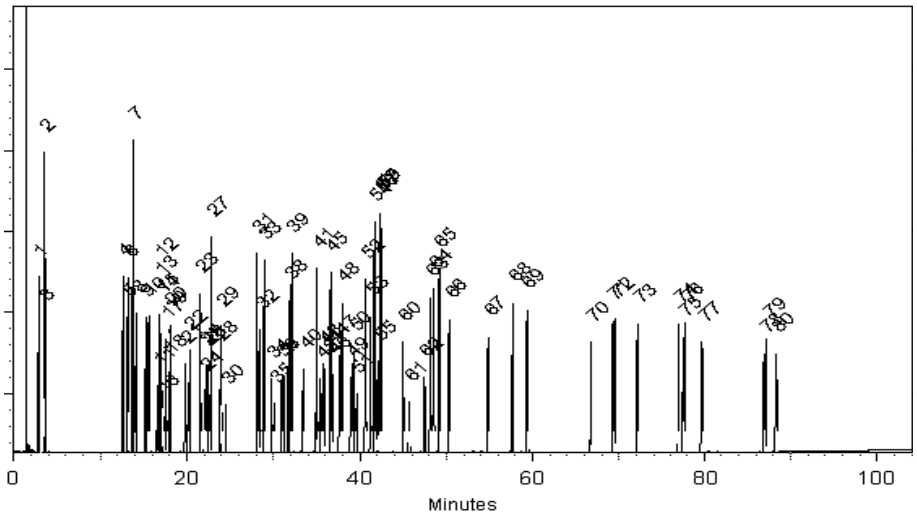
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
35°C (hold 3 min.) to 330°C
@ 3°C/min. (hold 3 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Rebecca Sawyer

Date Mixed: 22-Jun-2015 **Balance:** 1128360905

Jodi E. Breon

Jodi E. Breon - QA Analyst

Date Passed: 26-Jun-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3223477
ID: MS-569730 HSL_00001
Exp: 07/31/16 Prpd: DCK
HSLA Amine Mix (2015) 200

3223479
ID: MS-569730 AFC_00001
Exp: 07/31/16 Prpd: DCK
HSLA Amine Mix (2015) 200

Catalog No. : 569730 **Lot No.:** A0108709

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : July 31, 2016 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine	2,006.6 µg/mL	+/- 11.6665	µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 141208JLM)		+/- 21.9697	µg/mL	Unstressed
	Purity 99%		+/- 37.2641	µg/mL	Stressed
2	3,3'-Dichlorobenzidine	2,001.0 µg/mL	+/- 11.6340	µg/mL	Gravimetric
	CAS # 91-94-1 (Lot 141205JLM)		+/- 21.9083	µg/mL	Unstressed
	Purity 99%		+/- 37.1601	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569730 **Lot No.:** A0112567

Description : 8270 List 1 / Std #9

8270 List 1 / Std #9 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 10 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2017 **Storage:** 10°C or colder

Handling: Contains carcinogen/reproductive toxin.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzidine	2,001.0 µg/mL	+/- 11.6337	µg/mL	Gravimetric
	CAS # 92-87-5 (Lot 150701JLMB)		+/- 21.9078	µg/mL	Unstressed
	Purity 99%		+/- 37.1592	µg/mL	Stressed
2	3,3'-Dichlorobenzidine	2,001.5 µg/mL	+/- 11.6369	µg/mL	Gravimetric
	CAS # 91-94-1 (Lot 150701JLMA)		+/- 21.9138	µg/mL	Unstressed
	Purity 99%		+/- 37.1694	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3231000
ID: MS-569731_00013
Exp: 07/31/16 Prpd: DCK
HSLA Benzoic Acid (2015)

Catalog No. : 569731 **Lot No.:** A0107943

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene	2,001.4 µg/mL	+/- 11.6363	µg/mL	Gravimetric
	CAS # 95-13-6 (Lot MKBP3098V)		+/- 22.5687	µg/mL	Unstressed
	Purity 99%		+/- 25.9700	µg/mL	Stressed
2	Benzoic acid	2,005.8 µg/mL	+/- 11.6619	µg/mL	Gravimetric
	CAS # 65-85-0 (Lot MKBL6689V)		+/- 22.6183	µg/mL	Unstressed
	Purity 99%		+/- 26.0271	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4 µg/mL	+/- 11.6363 µg/mL +/- 22.5687 µg/mL +/- 25.9700 µg/mL		Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1 µg/mL	+/- 11.6288 µg/mL +/- 22.5540 µg/mL +/- 25.9531 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4	µg/mL	+/- 11.6363 +/- 22.5687 +/- 25.9700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1	µg/mL	+/- 11.6288 +/- 22.5540 +/- 25.9531	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4	µg/mL	+/- 11.6363 +/- 22.5687 +/- 25.9700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1	µg/mL	+/- 11.6288 +/- 22.5540 +/- 25.9531	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 569731 **Lot No.:** A0108988

Description : 8270 List 1 / Std #10

8270 List 1 / Std #10 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Indene **CAS #** 95-13-6 **Purity** 99%	(Lot MKBP3098V)	2,001.4	µg/mL	+/- 11.6363 +/- 22.5687 +/- 25.9700	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Benzoic acid **CAS #** 65-85-0 **Purity** 99%	(Lot MKBL6689V)	2,000.1	µg/mL	+/- 11.6288 +/- 22.5540 +/- 25.9531	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

3230998
ID: MS-569732 HSL_00001
Exp: 08/31/16 Prpd: DCK
8270 List 1/ Std 11 (2015

Catalog No. : 569732 **Lot No.:** A0108989

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde	2,011.6 µg/mL	+/- 11.6956 µg/mL	Gravimetric
	CAS # 100-52-7 (Lot SHBD3510V)		+/- 64.4832 µg/mL	Unstressed
	Purity 99%		+/- 74.9592 µg/mL	Stressed
2	epsilon-Caprolactam	2,009.2 µg/mL	+/- 11.6817 µg/mL	Gravimetric
	CAS # 105-60-2 (Lot I16X016)		+/- 64.4062 µg/mL	Unstressed
	Purity 99%		+/- 74.8697 µg/mL	Stressed
3	Atrazine	2,001.6 µg/mL	+/- 11.6372 µg/mL	Gravimetric
	CAS # 1912-24-9 (Lot TZ8ED)		+/- 64.1611 µg/mL	Unstressed
	Purity 98%		+/- 74.5847 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732 **Lot No.:** A0108989

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : August 31, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Benzaldehyde		2,011.6 µg/mL	+/- 11.6956	µg/mL	Gravimetric
	CAS # 100-52-7	(Lot SHBD3510V)		+/- 64.4832	µg/mL	Unstressed
	Purity 99%			+/- 74.9592	µg/mL	Stressed
2	epsilon-Caprolactam		2,009.2 µg/mL	+/- 11.6817	µg/mL	Gravimetric
	CAS # 105-60-2	(Lot I16X016)		+/- 64.4062	µg/mL	Unstressed
	Purity 99%			+/- 74.8697	µg/mL	Stressed
3	Atrazine		2,001.6 µg/mL	+/- 11.6372	µg/mL	Gravimetric
	CAS # 1912-24-9	(Lot TZ8ED)		+/- 64.1611	µg/mL	Unstressed
	Purity 98%			+/- 74.5847	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

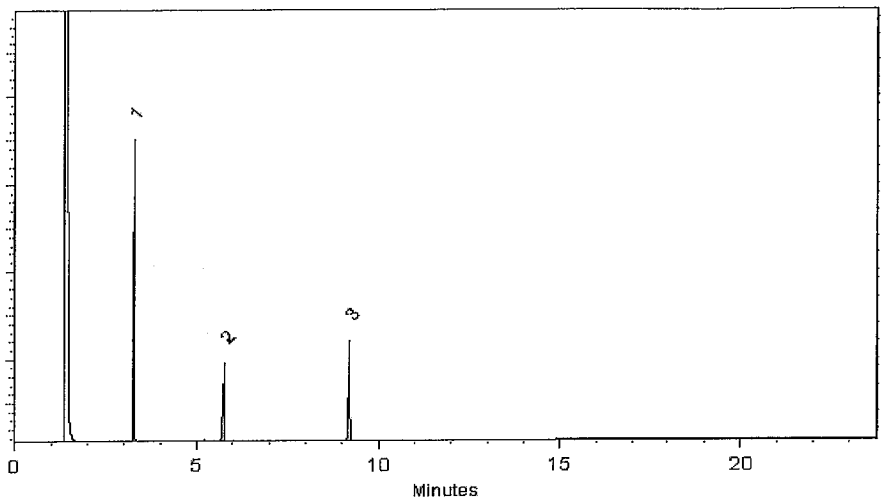
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician

Date Mixed: 10-Feb-2015 **Balance:** 1128360905

Jennifer L. Pollino - QC Analyst

Date Passed: 12-Feb-2015

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Samples should be transferred into deactivated vials for handling and storage. Restek supplies deactivated vials along with most standards packed in 2 mL ampules. Due to space constraints, Restek does not supply vials for larger volume ampules. Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions. Restek will also deactivate larger volume vials from our inventory as a custom ordered item. Contact your Restek sales or customer service representative for details.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569732.sec **Lot No.:** A0108042

3231454
ID: MS-569732SEC_00001
Exp: 06/30/16 Prpd: DCK
RES 8270 List 1 / Std# 11

Description : 8270 List 1 / Std #11

8270 List 1 / Std #11 2,000 ug/ml, Methylene Chloride, 5 ml/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2016 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Benzaldehyde	2,002.0 µg/mL	+/- 11.6398 µg/mL	Gravimetric
	CAS # 100-52-7.SEC (Lot E7DWH)		+/- 64.1754 µg/mL	Unstressed
	Purity 99% Remove		+/- 74.6014 µg/mL	Stressed
2	epsilon-Caprolactam	2,001.2 µg/mL	+/- 11.6351 µg/mL	Gravimetric
	CAS # 105-60-2.SEC (Lot BLJTB)		+/- 64.1498 µg/mL	Unstressed
	Purity 99%		+/- 74.5716 µg/mL	Stressed
3	Atrazine	2,000.2 µg/mL	+/- 11.6293 µg/mL	Gravimetric
	CAS # 1912-24-9.SEC (Lot 2887600)		+/- 64.1177 µg/mL	Unstressed
	Purity 99%		+/- 74.5344 µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Certification Summary

Client: Sundance Consulting, Inc
Project/Site: Fort Wingate, New Mexico

TestAmerica Job ID: 280-76331-2

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAP	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Illinois	NELAP	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAP	7	E-10166
TestAmerica Denver	Louisiana	NELAP	6	02096
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Minnesota	NELAP	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAP	1	205310
TestAmerica Denver	New Jersey	NELAP	2	CO004
TestAmerica Denver	New York	NELAP	2	11964
TestAmerica Denver	North Carolina (WW/SW)	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAP	10	4025
TestAmerica Denver	Pennsylvania	NELAP	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002001
TestAmerica Denver	Texas	NELAP	6	T104704183-15-11
TestAmerica Denver	USDA	Federal		P330-13-00202
TestAmerica Denver	Utah	NELAP	8	CO00026
TestAmerica Denver	Virginia	NELAP	3	460232
TestAmerica Denver	Washington	State Program	10	C583
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	2907.01

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8270D

Semivolatile Organic Compounds (GC/MS) by Method 8270D

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Matrix: Water Level: Low

GC Column (1): Vf-5MS (30. ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
TMW43102015	280-76331-3	82	83	86	84	88	52
DTW43102015	280-76331-4	81	82	79	78	86	65
TMW45102015	280-76331-5	87	90	86	84	91	77
TMW40D102015	280-76331-7	88	92	89	88	97	83
TMW14A102015	280-76331-9	89	91	84	82	91	79
SMW011102015	280-76331-10	86	92	93	89	93	80
	MB 280-302909/1-A	86	84	88	79	89	79
	LCS 280-302909/2-A	88	90	87	83	92	83
TMW43102015MS MS	280-76331-3 MS	90	93	89	85	91	79
TMW43102015MSD MSD	280-76331-3 MSD	87	88	85	83	90	73

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	41-120
PHL = Phenol-d5 (Surr)	45-124
NBZ = Nitrobenzene-d5 (Surr)	42-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	42-131
TPH = Terphenyl-d14 (Surr)	20-130

Column to be used to flag recovery values

FORM II 8270D

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Matrix: Water Level: Low Lab File ID: D13347.D

Lab ID: LCS 280-302909/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Caprolactam	80.0	74.5	93	46-143	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Matrix: Water Level: Low Lab File ID: D13351.D

Lab ID: 280-76331-3 MS Client ID: TMW43102015MS MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Caprolactam	79.2	2.5 U	74.8	94	46-143	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Matrix: Water Level: Low Lab File ID: D13352.D

Lab ID: 280-76331-3 MSD Client ID: TMW43102015MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Caprolactam	75.9	69.0	91	8	30	46-143	

Column to be used to flag recovery and RPD values

FORM III 8270D

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab File ID: D13346.D Lab Sample ID: MB 280-302909/1-A

Matrix: Water Date Extracted: 11/06/2015 15:15

Instrument ID: SMS_D Date Analyzed: 11/16/2015 17:54

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-302909/2-A	D13347.D	11/16/2015 18:21
TMW43102015	280-76331-3	D13350.D	11/16/2015 19:43
TMW43102015MS MS	280-76331-3 MS	D13351.D	11/16/2015 20:10
TMW43102015MSD MSD	280-76331-3 MSD	D13352.D	11/16/2015 20:38
DTW43102015	280-76331-4	D13353.D	11/16/2015 21:05
TMW45102015	280-76331-5	D13354.D	11/16/2015 21:32
TMW40D102015	280-76331-7	D13355.D	11/16/2015 22:00
TMW14A102015	280-76331-9	D13356.D	11/16/2015 22:27
SMW011102015	280-76331-10	D13357.D	11/16/2015 22:54

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab File ID: D13293.D DFTPP Injection Date: 11/14/2015

Instrument ID: SMS_D DFTPP Injection Time: 08:15

Analysis Batch No.: 304451

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	44.0	
68	Less than 2% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	54.0	
70	Less than 2% of mass 69	0.3	(0.6)1
127	10-80% of Base Peak	52.2	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.7	
275	10-60% of Base Peak	19.0	
365	Greater than 1% of mass 198	2.2	
441	present but less than 24% of mass 442	8.7	(15.1)2
442	Greater than 50% of mass 198	57.2	
443	15-24% of mass 442	11.2	(19.6)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICIS 280-304451/3	D13294.D	11/14/2015	08:27
	STD004 280-304451/4	D13295.D	11/14/2015	08:56
	STD010 280-304451/5	D13296.D	11/14/2015	09:23
	STD020 280-304451/6	D13297.D	11/14/2015	09:50
	STD050 280-304451/7	D13298.D	11/14/2015	10:17
	STD120 280-304451/8	D13299.D	11/14/2015	10:44
	STD160 280-304451/9	D13300.D	11/14/2015	11:11
	STD200 280-304451/10	D13301.D	11/14/2015	11:38
	ICV 280-304451/11	D13302.D	11/14/2015	12:06
	ICV 280-304451/12	D13303.D	11/14/2015	12:33
	ICV 280-304451/13	D13304.D	11/14/2015	13:00

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab File ID: D13341.D DFTPP Injection Date: 11/16/2015

Instrument ID: SMS_D DFTPP Injection Time: 16:02

Analysis Batch No.: 304460

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	41.9	
68	Less than 2% of mass 69	0.0	(0.0)1
69	Mass 69 Relative abundance	52.2	
70	Less than 2% of mass 69	0.3	(0.5)1
127	10-80% of Base Peak	49.1	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.8	
275	10-60% of Base Peak	18.4	
365	Greater than 1% of mass 198	2.3	
441	present but less than 24% of mass 442	8.4	(15.4)2
442	Greater than 50% of mass 198	54.4	
443	15-24% of mass 442	10.8	(19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-304460/3	D13342.D	11/16/2015	16:13
	MB 280-302909/1-A	D13346.D	11/16/2015	17:54
	LCS 280-302909/2-A	D13347.D	11/16/2015	18:21
TMW43102015	280-76331-3	D13350.D	11/16/2015	19:43
TMW43102015MS MS	280-76331-3 MS	D13351.D	11/16/2015	20:10
TMW43102015MSD MSD	280-76331-3 MSD	D13352.D	11/16/2015	20:38
DTW43102015	280-76331-4	D13353.D	11/16/2015	21:05
TMW45102015	280-76331-5	D13354.D	11/16/2015	21:32
TMW40D102015	280-76331-7	D13355.D	11/16/2015	22:00
TMW14A102015	280-76331-9	D13356.D	11/16/2015	22:27
SMW011102015	280-76331-10	D13357.D	11/16/2015	22:54

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Sample No.: ICIS 280-304451/3 Date Analyzed: 11/14/2015 08:27

Instrument ID: SMS_D GC Column: Vf-5MS (30.25) ID: 0.25(mm)

Lab File ID (Standard): D13294.D Heated Purge: (Y/N) N

Calibration ID: 24440

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		207090	4.52	792353	5.76	500679	7.51
UPPER LIMIT		414180	5.02	1584706	6.26	1001358	8.01
LOWER LIMIT		103545	4.02	396177	5.26	250340	7.01
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-304451/11		207619	4.52	794597	5.76	504212	7.51
ICV 280-304451/12		195547	4.52	732730	5.76	470191	7.50
ICV 280-304451/13		268776	4.52	1010825	5.76	654332	7.50
CCV 280-304460/3		201202	4.53	775371	5.77	498428	7.52
MB 280-302909/1-A		200391	4.53	763077	5.77	505988	7.51
LCS 280-302909/2-A		204437	4.53	805551	5.76	535644	7.52
280-76331-3	TMW43102015	195033	4.53	744110	5.77	484091	7.51
280-76331-3 MS	TMW43102015MS MS	203547	4.53	800221	5.77	526135	7.52
280-76331-3 MSD	TMW43102015MSD MSD	202931	4.53	798584	5.77	516009	7.52
280-76331-4	DTW43102015	204009	4.53	796041	5.76	531927	7.52
280-76331-5	TMW45102015	208676	4.53	813317	5.76	531320	7.51
280-76331-7	TMW40D102015	202910	4.53	793367	5.76	516857	7.52
280-76331-9	TMW14A102015	204210	4.53	797843	5.76	516388	7.52
280-76331-10	SMW011102015	215733	4.53	810650	5.76	536949	7.52

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Sample No.: ICIS 280-304451/3 Date Analyzed: 11/14/2015 08:27

Instrument ID: SMS_D GC Column: Vf-5MS (30.25) ID: 0.25(mm)

Lab File ID (Standard): D13294.D Heated Purge: (Y/N) N

Calibration ID: 24440

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		872188	8.99	835505	12.95	768083	16.80
UPPER LIMIT		1744376	9.49	1671010	13.45	1536166	17.30
LOWER LIMIT		436094	8.49	417753	12.45	384042	16.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-304451/11		892855	8.99	848547	12.95	785790	16.80
ICV 280-304451/12		839156	8.99	811474	12.94	788929	16.80
ICV 280-304451/13		1153524	8.99	1290029	12.94	1183125	16.80
CCV 280-304460/3		884774	9.01	830684	12.98	734081	16.85
MB 280-302909/1-A		925993	9.00	937150	12.97	893386	16.84
LCS 280-302909/2-A		948099	9.01	897576	12.98	810018	16.84
280-76331-3	TMW43102015	875651	9.00	858294	12.96	806801	16.83
280-76331-3 MS	TMW43102015MS MS	933349	9.01	888604	12.98	803365	16.84
280-76331-3 MSD	TMW43102015MSD MSD	925421	9.01	885482	12.98	814366	16.84
280-76331-4	DTW43102015	961982	9.01	936850	12.97	847576	16.84
280-76331-5	TMW45102015	946340	9.00	925656	12.97	826871	16.84
280-76331-7	TMW40D102015	953071	9.01	924851	12.97	828931	16.84
280-76331-9	TMW14A102015	943523	9.01	921813	12.96	845845	16.84
280-76331-10	SMW011102015	978966	9.01	946282	12.96	865547	16.84

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: TMW43102015 | Lab Sample ID: 280-76331-3

Matrix: Water | Lab File ID: D13350.D

Analysis Method: 8270D | Date Collected: 11/03/2015 09:50

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 1016.3(mL) | Date Analyzed: 11/16/2015 19:43

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	4.9	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	88		42-131
321-60-8	2-Fluorobiphenyl	84		48-120
367-12-4	2-Fluorophenol (Surr)	82		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	86		42-120
4165-62-2	Phenol-d5 (Surr)	83		45-124
1718-51-0	Terphenyl-d14 (Surr)	52		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13350.D
Lims ID: 280-76331-D-3-A Lab Sample ID: 280-76331-3
Client ID: TMW43102015
Sample Type: Client
Inject. Date: 16-Nov-2015 19:43:30 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-D-3-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:48:36

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.531	4.531	0.000	96	195033	40.0	
*	2 Naphthalene-d8	136	5.765	5.765	0.000	100	744110	40.0	
*	3 Acenaphthene-d10	164	7.512	7.517	-0.005	90	484091	40.0	
*	4 Phenanthrene-d10	188	9.002	9.007	-0.005	97	875651	40.0	
*	5 Chrysene-d12	240	12.961	12.982	-0.021	98	858294	40.0	
*	6 Perylene-d12	264	16.834	16.850	-0.016	97	806801	40.0	
$	7 2-Fluorophenol	112	3.329	3.329	0.000	93	604169	81.8	
$	8 Phenol-d5	99	4.173	4.173	0.000	98	821057	82.7	
$	9 Nitrobenzene-d5	82	5.049	5.049	0.000	87	768519	85.9	
$	10 2-Fluorobiphenyl	172	6.828	6.833	-0.005	99	1316209	83.8	
$	11 2,4,6-Tribromophenol	330	8.303	8.307	-0.004	91	161580	87.6	
$	12 Terphenyl-d14	244	10.909	10.914	-0.005	99	946020	52.2	
	13 1,4-Dioxane	88		1.870				ND	
	14 N-Nitrosodimethylamine	74		2.111				ND	
	15 Pyridine	79		2.164				ND	
	16 2-Picoline	93		2.749				ND	
	17 N-Nitrosomethylethylamine	88		2.829				ND	
	18 Methyl methanesulfonate	80		3.064				ND	
	19 N-Nitrosodiethylamine	102		3.374				ND	
	20 Ethyl methanesulfonate	79		3.598				ND	
	21 Pentachlorophenol_T	266		3.696				ND	
	22 Pentachloroethane	117		4.010				ND	
	23 Benzaldehyde	106		4.349				ND	
	24 Phenol	94		4.183				ND	
	25 Aniline	93		4.210				ND	
	26 Bis(2-chloroethyl)ether	93		4.258				ND	
	27 2-Chlorophenol	128		4.338				ND	
	28 N-Nitrosopyrrolidine	100		4.544				ND	
	29 N-Nitrosomorpholine	116	4.531	4.571	-0.040	41	9105		NC
	30 2-Toluidine	106		4.587				ND	
	31 1,3-Dichlorobenzene	146		4.483				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
32 1,4-Dichlorobenzene	146		4.547				ND	
33 N-Nitrosopiperidine	114		4.827				ND	
34 Benzyl alcohol	108		4.648				ND	
35 1,2-Dichlorobenzene	146		4.696				ND	
36 2-Methylphenol	108		4.755				ND	
37 Benzidine_T	184		4.791				ND	
38 2,2'-oxybis[1-chloropropan	45		4.776				ND	
39 o,o',o''-Triethylphosphoro	198		4.998				ND	
40 3 & 4 Methylphenol	108		4.905				ND	
41 3-Methylphenol	108		4.905				ND	
42 4-Methylphenol	108		4.905				ND	
43 N-Nitrosodi-n-propylamine	70		4.899				ND	
44 Acetophenone	105		4.905				ND	
45 alpha,alpha-Dimethyl phene	58		5.148				ND	
46 Hexachloroethane	117		5.027				ND	
47 Nitrobenzene	77		5.070				ND	
48 2,6-Dichlorophenol	162		5.845				ND	
49 Hexachloropropene	213		5.367				ND	
50 Isophorone	82		5.300				ND	
51 2,4-Dimethylphenol	107		5.417				ND	
52 2-Nitrophenol	139		5.385				ND	
53 N-Nitrosodi-n-butylamine	84		5.580				ND	
54 p-Phenylene diamine	108	5.765	5.634	0.131	48	79834		NC
55 Bis(2-chloroethoxy)methane	93		5.498				ND	
56 Benzoic acid	105		5.551				ND	
57 Safrole, Total	162		5.778				ND	
58 2,4-Dichlorophenol	162		5.626				ND	
59 1,2,4-Trichlorobenzene	180		5.711				ND	
60 Naphthalene	128		5.786				ND	
61 4-Chloroaniline	127		5.829				ND	
62 Isosafrole Peak 1	162		6.024				ND	
63 Hexachlorobutadiene	225		5.920				ND	
64 Isosafrole Peak 2	104		6.211				ND	
65 1-Chloronaphthalene	162		6.307				ND	
66 Caprolactam	55		6.165				ND	
67 1,4-Naphthoquinone	158		6.435				ND	
68 4-Chloro-3-methylphenol	107		6.310				ND	
69 1,4-Dinitrobenzene	168		6.483				ND	
70 2-Methylnaphthalene	142		6.470				ND	
71 1-Methylnaphthalene	142		6.571				ND	
72 Hexachlorocyclopentadiene	237		6.646				ND	
73 1,2,4,5-Tetrachlorobenzene	216		6.646				ND	
74 Pentachlorobenzene	250		6.889				ND	
75 2,4,6-Trichlorophenol	196		6.753				ND	
76 2,4,5-Trichlorophenol	196		6.796				ND	
77 1-Naphthylamine	143		7.001				ND	
78 2-Naphthylamine	143		7.066				ND	
79 1,1'-Biphenyl	154		6.935				ND	
80 Thionazin	97		7.140				ND	
81 2-Chloronaphthalene	162		6.961				ND	
82 N-Nitro-o-toluidine	152		7.226				ND	
83 2-Nitroaniline	65		7.047				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
84 Diphenylamine	169		7.295				ND	
85 Sulfotepp	97		7.375				ND	
86 Dimethyl phthalate	163		7.228				ND	
87 1,3-Dinitrobenzene	168		7.250				ND	
88 2,6-Dinitrotoluene	165		7.282				ND	
89 Diallate Peak 1	86	7.512	7.509	0.003	42	1962		NC
90 Phorate	121		7.520				ND	
91 1,3,5-Trinitrobenzene	213		7.520				ND	
92 Phenacetin	108		7.541				ND	
93 Acenaphthylene	152		7.378				ND	
94 Diallate Peak 2	86		7.589				ND	
95 3-Nitroaniline	138		7.458				ND	
96 Dimethoate	87		7.691				ND	
97 Acenaphthene	153		7.549				ND	
98 2,4-Dinitrophenol	184		7.565				ND	
99 4-Nitrophenol	109		7.634				ND	
100 4-Aminobiphenyl	169		7.840				ND	
101 Pronamide	173		7.845				ND	
102 Pentachloronitrobenzene	237		7.851				ND	
103 2,4-Dinitrotoluene	165		7.693				ND	
104 Dibenzofuran	168		7.725				ND	
105 Disulfoton	88		7.958				ND	
106 Dinoseb	211		7.968				ND	
107 2,3,4,6-Tetrachlorophenol	232		7.848				ND	
108 Diethyl phthalate	149		7.934				ND	
109 4-Chlorophenyl phenyl ethe	204		8.056				ND	
110 Fluorene	166		8.067				ND	
111 Methyl parathion	109		8.289				ND	
112 4-Nitroaniline	138		8.072				ND	
113 4,6-Dinitro-2-methylphenol	198		8.110				ND	
114 N-Nitrosodiphenylamine	169		8.174				ND	
115 Azobenzene	77		8.217				ND	
116 1,2-Diphenylhydrazine	77		8.217				ND	
117 Ethyl Parathion	109		8.636				ND	
118 4-Bromophenyl phenyl ether	248		8.543				ND	
119 4-Nitroquinoline-1-oxide	190		8.748				ND	
120 Methapyrilene	97		8.748				ND	
121 Hexachlorobenzene	284		8.639				ND	
122 Pentachlorophenol	266		8.826				ND	
123 Isodrin	193		9.010				ND	
124 Phenanthrene	178		9.034				ND	
125 Anthracene	178		9.082				ND	
126 Carbazole	167		9.237				ND	
127 Benzidine	184		9.493				ND	
128 Aramite Peak 1	185		9.560				ND	
129 Aramite Peak 2	185		9.667				ND	
130 Di-n-butyl phthalate	149		9.574				ND	
131 p-Dimethylamino azobenzene	120		9.865				ND	
132 Chlorobenzilate	251		9.902				ND	
133 3,3'-Dimethylbenzidine	212		10.442				ND	
134 Fluoranthene	202		10.370				ND	
135 2-Acetylaminofluorene	181		10.933				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
136 Pyrene	202		10.690				ND	
137 4,4'-Methylene bis(2-chlor	231		11.564				ND	
138 Famphur	218		11.662				ND	
139 Butyl benzyl phthalate	149		11.780				ND	
140 3,3'-Dichlorobenzidine	252		12.912				ND	
141 Benzo[a]anthracene	228		12.955				ND	
142 Bis(2-ethylhexyl) phthalat	149		13.131				ND	
143 Chrysene	228		13.041				ND	
144 7,12-Dimethylbenz(a)anthra	256		14.438				ND	
145 Di-n-octyl phthalate	149		14.905				ND	
146 3-Methylcholanthrene	268		16.564				ND	
147 Benzo[b]fluoranthene	252		15.776				ND	
148 Benzo[k]fluoranthene	252		15.856				ND	
149 Benzo[a]pyrene	252		16.689				ND	
150 Dibenz[a,j]acridine	279		18.535				ND	
151 Indeno[1,2,3-cd]pyrene	276		19.948				ND	
152 Dibenz(a,h)anthracene	278		20.044				ND	
153 Benzo[g,h,i]perylene	276		20.680				ND	
S 160 Aramite, Total	185		15.047				ND	
S 161 Isosafrole	162		15.047				ND	
S 162 Diallate	86		15.047				ND	
154 Total Cresols	1		0.000				ND	
155 Tetraethyl Pyrophosphate (	1		0.000				ND	
157 4,4'-DDD	235		5.230				ND	
158 4,4'-DDE	246		4.941				ND	
159 4,4'-DDT	235		5.445				ND	
S 163 Methyl Phenols,Total	1		0.000				ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

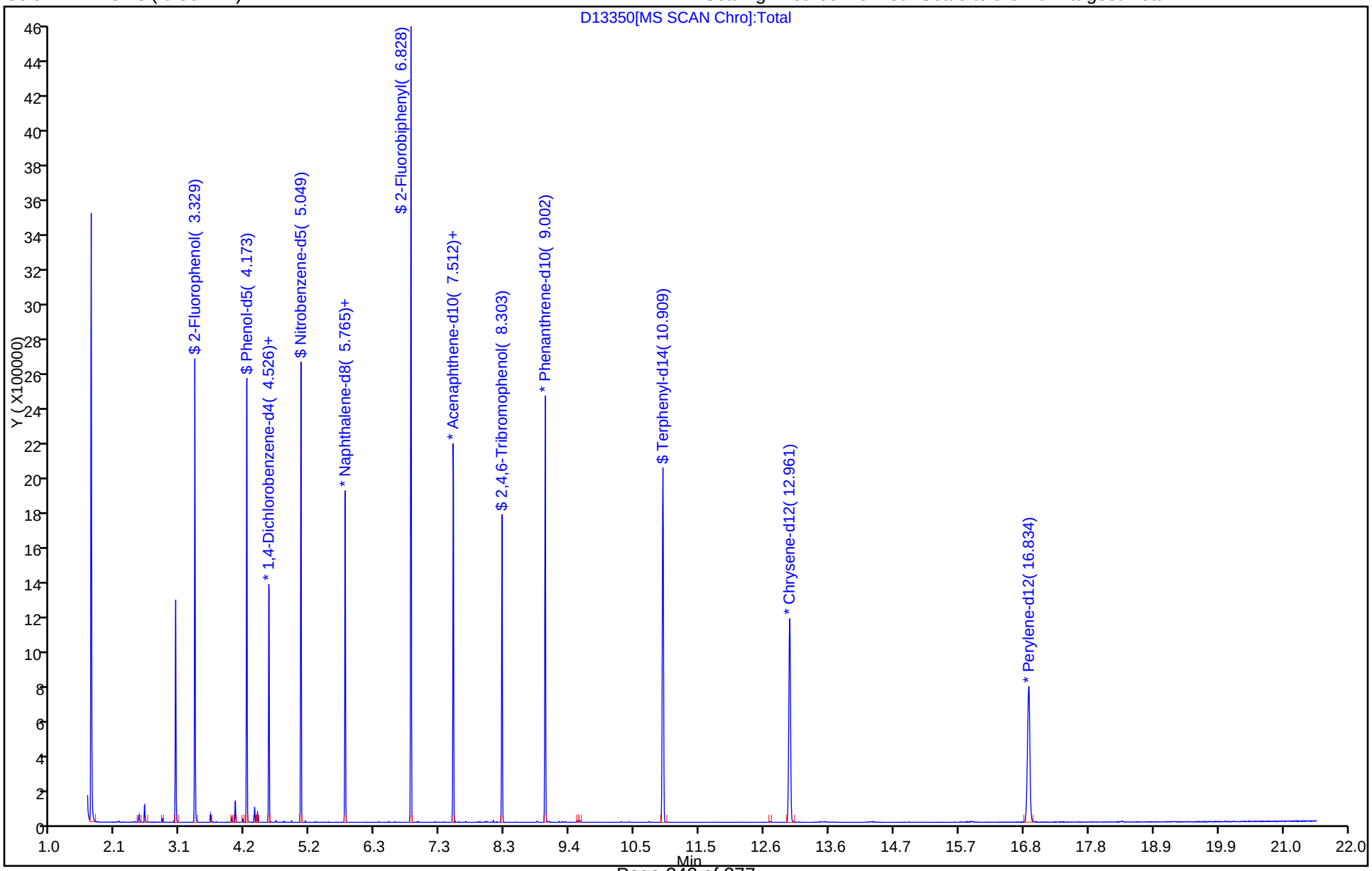
Report Date: 17-Nov-2015 10:23:34 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13350.D

Injection Date:	16-Nov-2015 19:43:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-D-3-A	Lab Sample ID:	280-76331-3	Worklist Smp#:	11
Client ID:	TMW43102015				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: DTW43102015 | Lab Sample ID: 280-76331-4

Matrix: Water | Lab File ID: D13353.D

Analysis Method: 8270D | Date Collected: 11/03/2015 09:50

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 998.5(mL) | Date Analyzed: 11/16/2015 21:05

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	86		42-131
321-60-8	2-Fluorobiphenyl	78		48-120
367-12-4	2-Fluorophenol (Surr)	81		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	79		42-120
4165-62-2	Phenol-d5 (Surr)	82		45-124
1718-51-0	Terphenyl-d14 (Surr)	65		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13353.D
Lims ID: 280-76331-B-4-A Lab Sample ID: 280-76331-4
Client ID: DTW43102015
Sample Type: Client
Inject. Date: 16-Nov-2015 21:05:30 ALS Bottle#: 13 Worklist Smp#: 14
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-B-4-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:44:38

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.530	4.531	-0.001	97	204009	40.0	
*	2 Naphthalene-d8	136	5.764	5.765	-0.001	99	796041	40.0	
*	3 Acenaphthene-d10	164	7.516	7.517	-0.001	90	531927	40.0	
*	4 Phenanthrene-d10	188	9.006	9.007	-0.001	97	961982	40.0	
*	5 Chrysene-d12	240	12.965	12.982	-0.017	98	936850	40.0	
*	6 Perylene-d12	264	16.838	16.850	-0.012	98	847576	40.0	
$	7 2-Fluorophenol	112	3.333	3.329	0.004	92	628544	81.3	
$	8 Phenol-d5	99	4.172	4.173	-0.001	98	852666	82.1	
$	9 Nitrobenzene-d5	82	5.048	5.049	-0.001	87	759774	79.4	
$	10 2-Fluorobiphenyl	172	6.832	6.833	-0.001	99	1339278	77.6	
$	11 2,4,6-Tribromophenol	330	8.306	8.307	-0.001	91	174879	86.3	
$	12 Terphenyl-d14	244	10.913	10.914	-0.001	99	1285993	65.0	
	66 Caprolactam	55		6.165				ND	

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

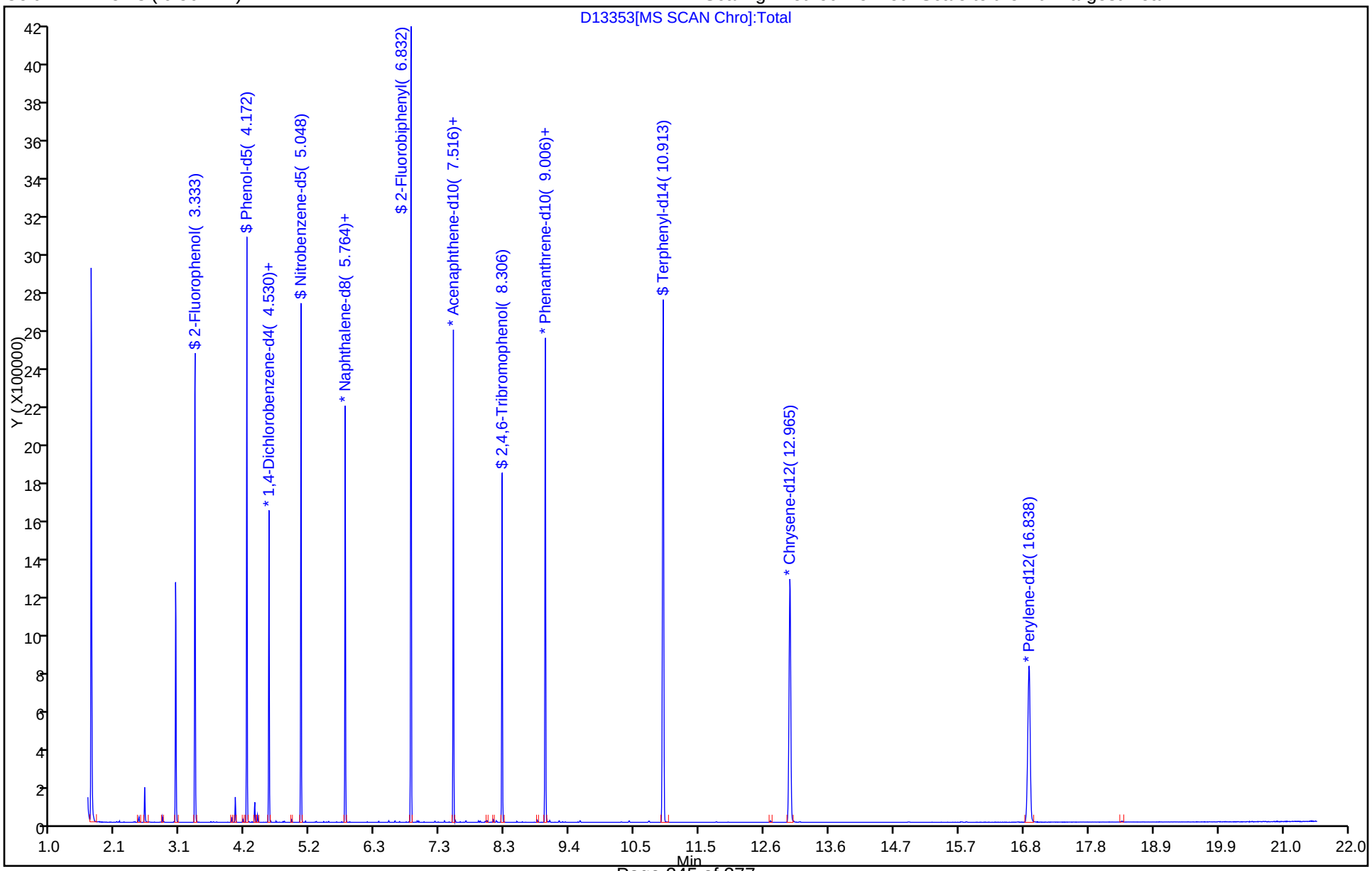
Report Date: 17-Nov-2015 10:23:40 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13353.D

Injection Date:	16-Nov-2015 21:05:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-B-4-A	Lab Sample ID:	280-76331-4	Worklist Smp#:	14
Client ID:	DTW43102015				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: TMW45102015 | Lab Sample ID: 280-76331-5

Matrix: Water | Lab File ID: D13354.D

Analysis Method: 8270D | Date Collected: 11/03/2015 12:50

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 950.6(mL) | Date Analyzed: 11/16/2015 21:32

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.6	U	5.3	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	91		42-131
321-60-8	2-Fluorobiphenyl	84		48-120
367-12-4	2-Fluorophenol (Surr)	87		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	86		42-120
4165-62-2	Phenol-d5 (Surr)	90		45-124
1718-51-0	Terphenyl-d14 (Surr)	77		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13354.D
Lims ID: 280-76331-C-5-A Lab Sample ID: 280-76331-5
Client ID: TMW45102015
Sample Type: Client
Inject. Date: 16-Nov-2015 21:32:30 ALS Bottle#: 14 Worklist Smp#: 15
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-C-5-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:51:04

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.528	4.531	-0.003	96	208676	40.0	
*	2 Naphthalene-d8	136	5.762	5.765	-0.003	100	813317	40.0	
*	3 Acenaphthene-d10	164	7.514	7.517	-0.003	90	531320	40.0	
*	4 Phenanthrene-d10	188	9.004	9.007	-0.003	97	946340	40.0	
*	5 Chrysene-d12	240	12.968	12.982	-0.014	98	925656	40.0	
*	6 Perylene-d12	264	16.841	16.850	-0.009	97	826871	40.0	
$	7 2-Fluorophenol	112	3.331	3.329	0.002	92	686812	86.9	
$	8 Phenol-d5	99	4.170	4.173	-0.003	98	955377	89.9	
$	9 Nitrobenzene-d5	82	5.051	5.049	0.002	87	845350	86.4	
$	10 2-Fluorobiphenyl	172	6.830	6.833	-0.003	99	1454146	84.4	
$	11 2,4,6-Tribromophenol	330	8.305	8.307	-0.002	92	184246	91.0	
$	12 Terphenyl-d14	244	10.912	10.914	-0.002	99	1505204	77.0	
	66 Caprolactam	55		6.165				ND	

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

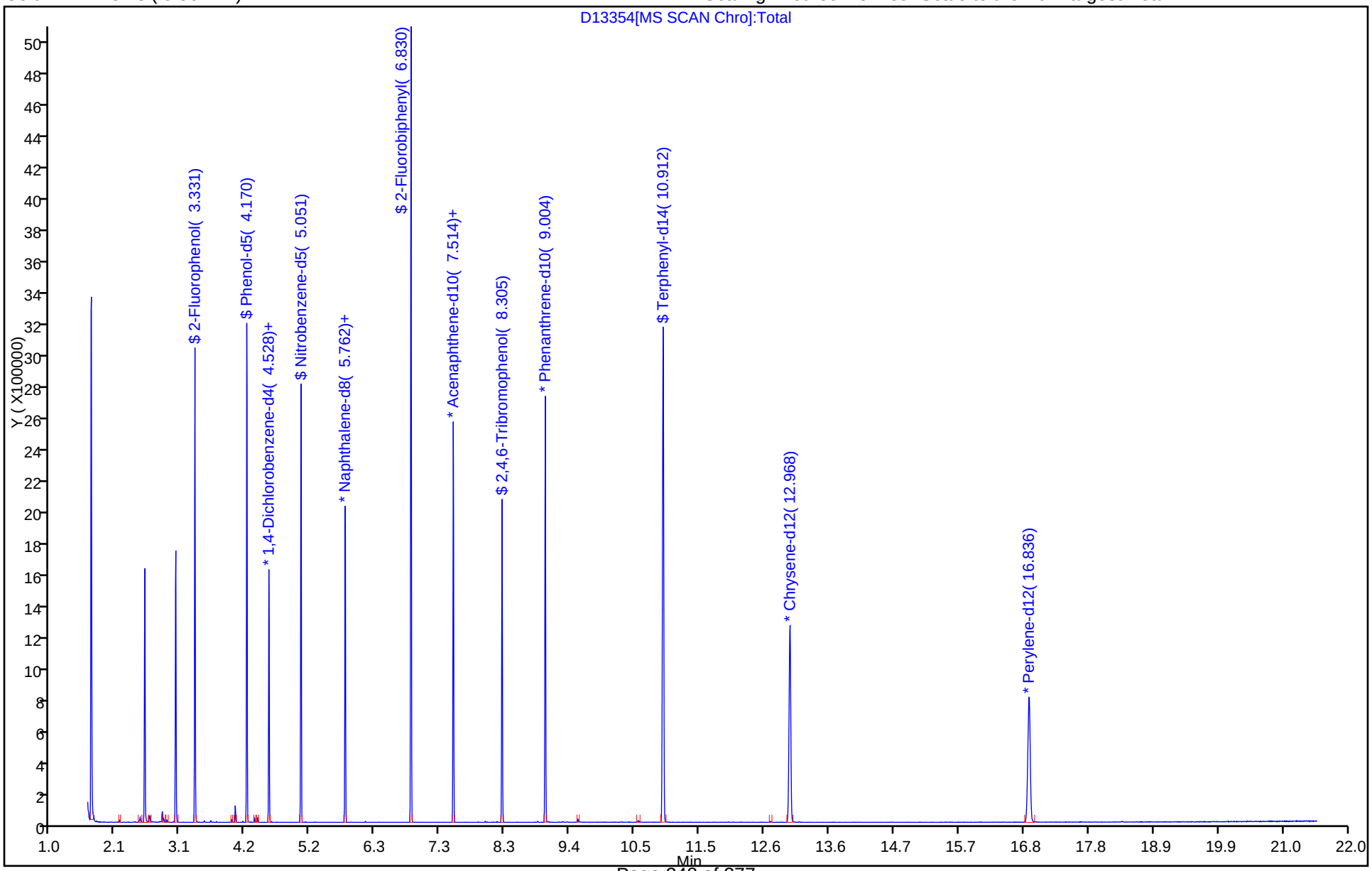
Report Date: 17-Nov-2015 10:23:42 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13354.D

Injection Date:	16-Nov-2015 21:32:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-C-5-A	Lab Sample ID:	280-76331-5	Worklist Smp#:	15
Client ID:	TMW45102015				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: TMW40D102015 | Lab Sample ID: 280-76331-7

Matrix: Water | Lab File ID: D13355.D

Analysis Method: 8270D | Date Collected: 11/03/2015 09:00

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 981.9(mL) | Date Analyzed: 11/16/2015 22:00

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.1	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	97		42-131
321-60-8	2-Fluorobiphenyl	88		48-120
367-12-4	2-Fluorophenol (Surr)	88		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	89		42-120
4165-62-2	Phenol-d5 (Surr)	92		45-124
1718-51-0	Terphenyl-d14 (Surr)	83		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13355.D
Lims ID: 280-76331-A-7-A Lab Sample ID: 280-76331-7
Client ID: TMW40D102015
Sample Type: Client
Inject. Date: 16-Nov-2015 22:00:30 ALS Bottle#: 15 Worklist Smp#: 16
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-A-7-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:51:17

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
*	1 1,4-Dichlorobenzene-d4	152	4.530	4.531	-0.001	97	202910	40.0	
*	2 Naphthalene-d8	136	5.764	5.765	-0.001	99	793367	40.0	
*	3 Acenaphthene-d10	164	7.516	7.517	-0.001	90	516857	40.0	
*	4 Phenanthrene-d10	188	9.006	9.007	-0.001	97	953071	40.0	
*	5 Chrysene-d12	240	12.965	12.982	-0.017	98	924851	40.0	
*	6 Perylene-d12	264	16.838	16.850	-0.012	97	828931	40.0	
$	7 2-Fluorophenol	112	3.328	3.329	-0.001	93	676340	88.0	
$	8 Phenol-d5	99	4.172	4.173	-0.001	98	947061	91.7	
$	9 Nitrobenzene-d5	82	5.048	5.049	-0.001	87	847009	88.8	
$	10 2-Fluorobiphenyl	172	6.832	6.833	-0.001	99	1467237	87.5	
$	11 2,4,6-Tribromophenol	330	8.307	8.307	0.000	93	191997	97.5	
$	12 Terphenyl-d14	244	10.914	10.914	0.000	100	1612175	82.5	
	66 Caprolactam	55		6.165				ND	

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

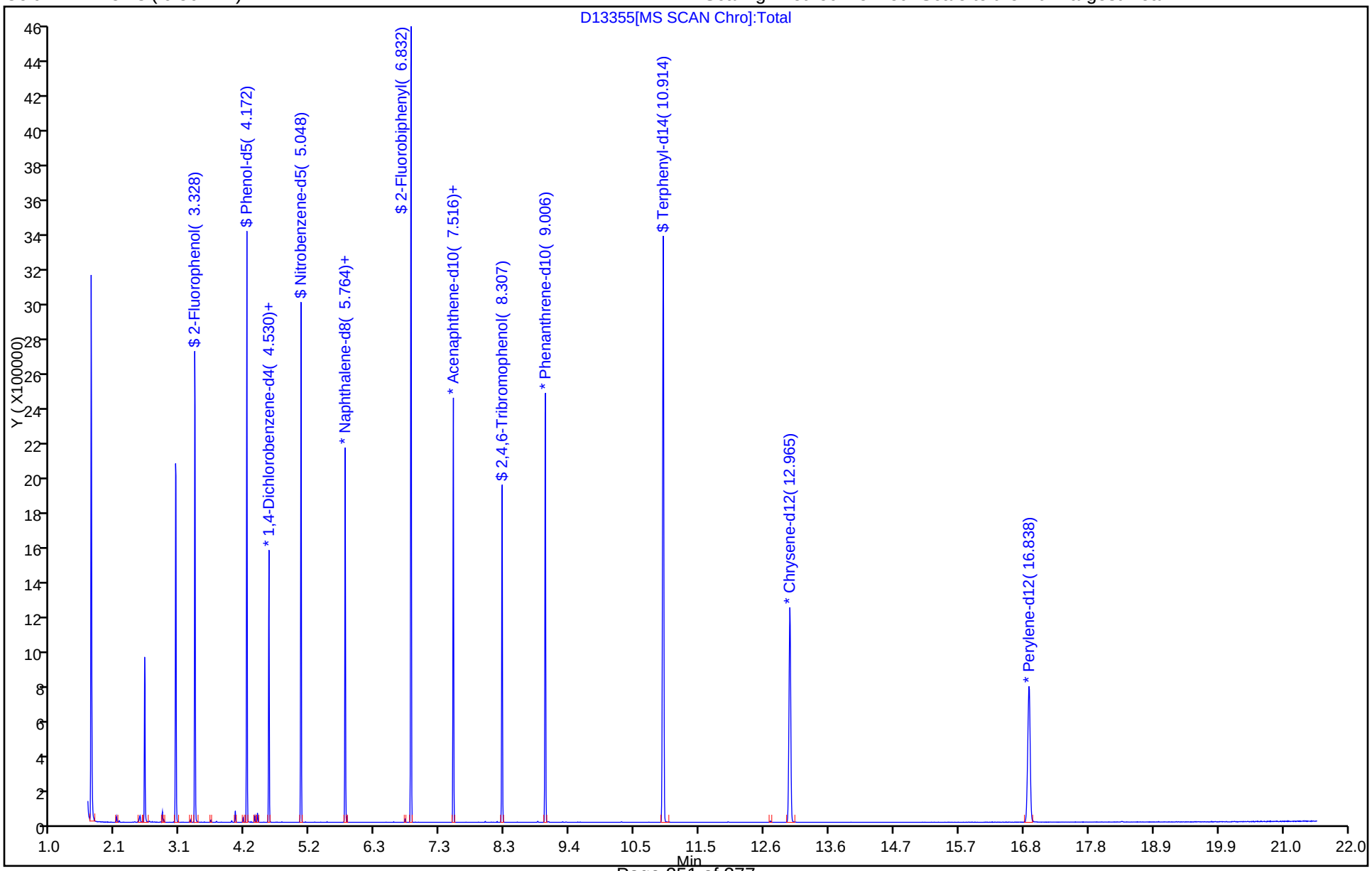
Report Date: 17-Nov-2015 10:23:43 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13355.D

Injection Date:	16-Nov-2015 22:00:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-A-7-A	Lab Sample ID:	280-76331-7	Worklist Smp#:	16
Client ID:	TMW40D102015				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: TMW14A102015 | Lab Sample ID: 280-76331-9

Matrix: Water | Lab File ID: D13356.D

Analysis Method: 8270D | Date Collected: 11/03/2015 12:00

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 981.9(mL) | Date Analyzed: 11/16/2015 22:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.1	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	91		42-131
321-60-8	2-Fluorobiphenyl	82		48-120
367-12-4	2-Fluorophenol (Surr)	89		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	84		42-120
4165-62-2	Phenol-d5 (Surr)	91		45-124
1718-51-0	Terphenyl-d14 (Surr)	79		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13356.D
Lims ID: 280-76331-A-9-A Lab Sample ID: 280-76331-9
Client ID: TMW14A102015
Sample Type: Client
Inject. Date: 16-Nov-2015 22:27:30 ALS Bottle#: 16 Worklist Smp#: 17
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-A-9-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:51:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.528	4.531	-0.003	97	204210	40.0	
* 2 Naphthalene-d8	136	5.762	5.765	-0.003	100	797843	40.0	
* 3 Acenaphthene-d10	164	7.515	7.517	-0.002	90	516388	40.0	
* 4 Phenanthrene-d10	188	9.005	9.007	-0.002	97	943523	40.0	
* 5 Chrysene-d12	240	12.964	12.982	-0.018	98	921813	40.0	
* 6 Perylene-d12	264	16.837	16.850	-0.013	97	845845	40.0	
$ 7 2-Fluorophenol	112	3.332	3.329	0.003	92	688122	88.9	
$ 8 Phenol-d5	99	4.170	4.173	-0.003	98	942387	90.7	
$ 9 Nitrobenzene-d5	82	5.046	5.049	-0.003	87	810359	84.5	
$ 10 2-Fluorobiphenyl	172	6.831	6.833	-0.002	99	1380636	82.4	
$ 11 2,4,6-Tribromophenol	330	8.305	8.307	-0.002	91	178483	90.7	
$ 12 Terphenyl-d14	244	10.912	10.914	-0.002	99	1534383	78.8	
66 Caprolactam	55		6.165				ND	

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

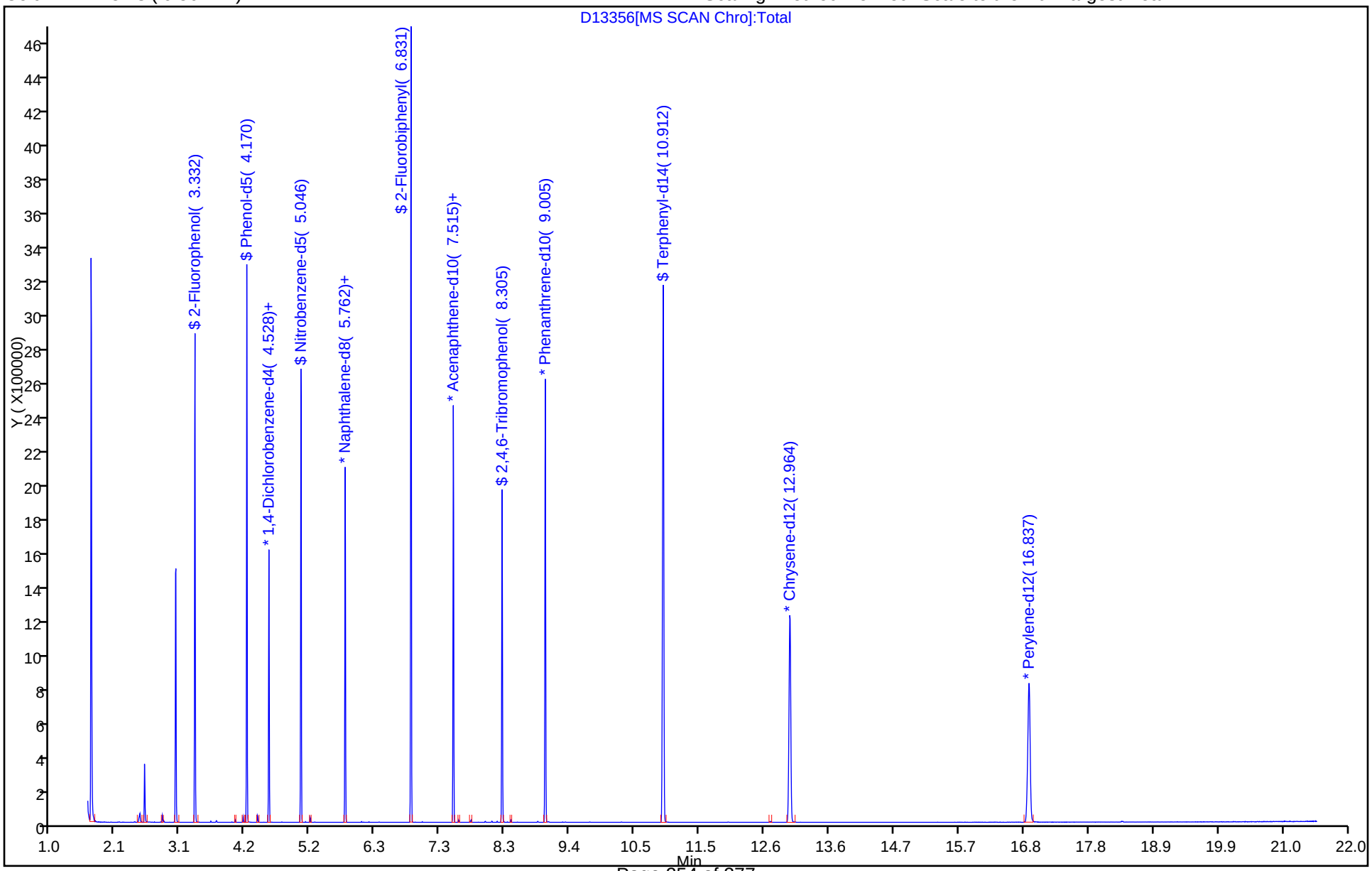
Report Date: 17-Nov-2015 10:23:45 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13356.D

Injection Date:	16-Nov-2015 22:27:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-A-9-A	Lab Sample ID:	280-76331-9	Worklist Smp#:	17
Client ID:	TMW14A102015				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: SMW011102015 | Lab Sample ID: 280-76331-10

Matrix: Water | Lab File ID: D13357.D

Analysis Method: 8270D | Date Collected: 11/03/2015 09:10

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 962.7(mL) | Date Analyzed: 11/16/2015 22:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.6	U	5.2	2.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	93		42-131
321-60-8	2-Fluorobiphenyl	89		48-120
367-12-4	2-Fluorophenol (Surr)	86		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	93		42-120
4165-62-2	Phenol-d5 (Surr)	92		45-124
1718-51-0	Terphenyl-d14 (Surr)	80		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13357.D
Lims ID: 280-76331-B-10-A Lab Sample ID: 280-76331-10
Client ID: SMW011102015
Sample Type: Client
Inject. Date: 16-Nov-2015 22:54:30 ALS Bottle#: 17 Worklist Smp#: 18
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-B-10-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:51:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.529	4.531	-0.002	96	215733	40.0	
* 2 Naphthalene-d8	136	5.763	5.765	-0.002	100	810650	40.0	
* 3 Acenaphthene-d10	164	7.515	7.517	-0.002	90	536949	40.0	
* 4 Phenanthrene-d10	188	9.005	9.007	-0.002	97	978966	40.0	
* 5 Chrysene-d12	240	12.964	12.982	-0.018	98	946282	40.0	
* 6 Perylene-d12	264	16.837	16.850	-0.013	97	865547	40.0	
$ 7 2-Fluorophenol	112	3.332	3.329	0.003	92	703382	86.0	
$ 8 Phenol-d5	99	4.171	4.173	-0.002	98	1009761	91.9	
$ 9 Nitrobenzene-d5	82	5.047	5.049	-0.002	87	906318	93.0	
$ 10 2-Fluorobiphenyl	172	6.831	6.833	-0.002	99	1549619	89.0	
$ 11 2,4,6-Tribromophenol	330	8.306	8.307	-0.001	92	189480	92.6	
$ 12 Terphenyl-d14	244	10.913	10.914	-0.001	99	1589518	79.5	
66 Caprolactam	55		6.165				ND	

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

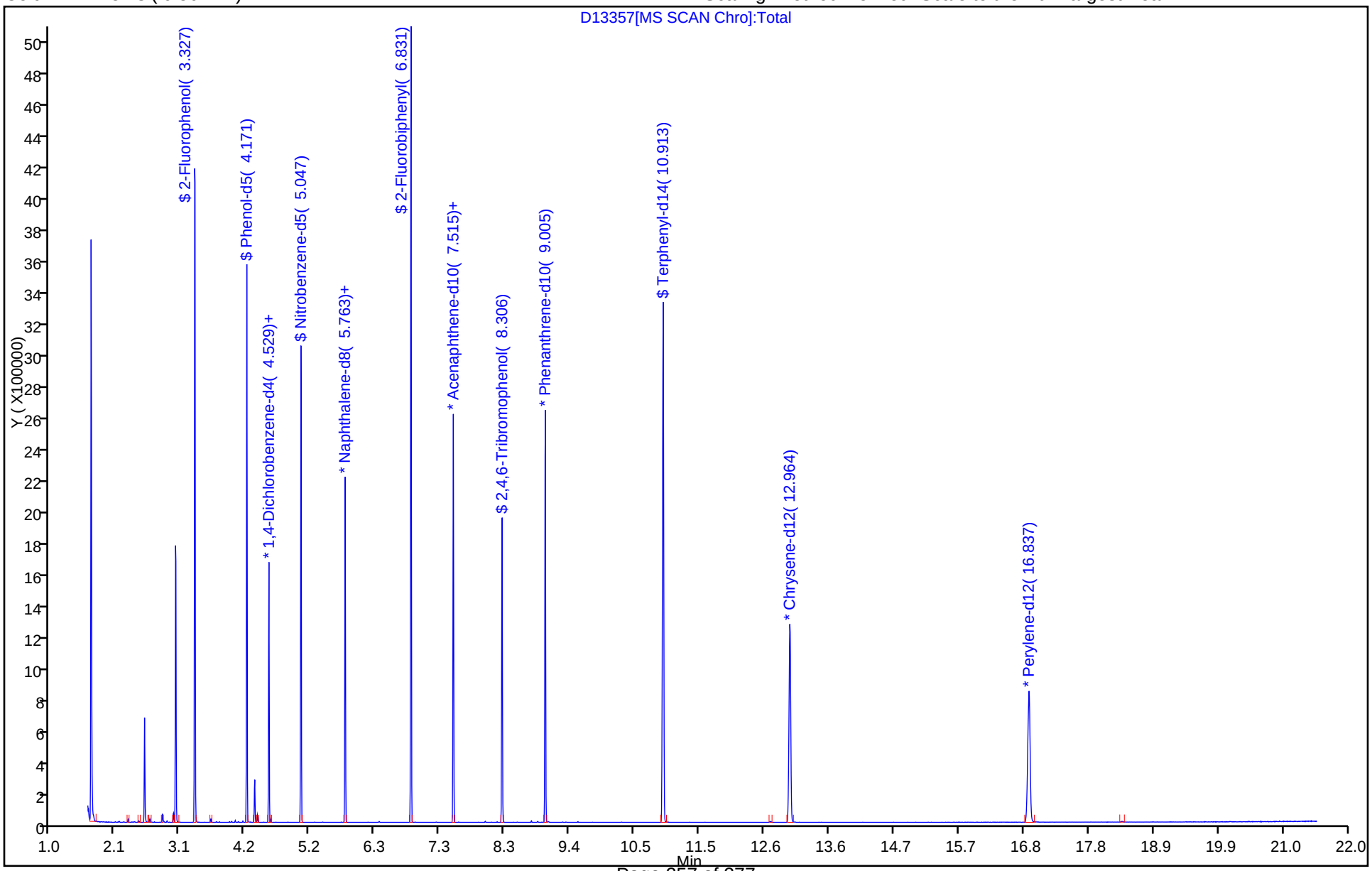
Report Date: 17-Nov-2015 10:23:48 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13357.D

Injection Date:	16-Nov-2015 22:54:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-B-10-A	Lab Sample ID:	280-76331-10	Worklist Smp#:	18
Client ID:	SMW011102015				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-304451/4	D13295.D
Level 2	STD010 280-304451/5	D13296.D
Level 3	STD020 280-304451/6	D13297.D
Level 4	STD050 280-304451/7	D13298.D
Level 5	ICIS 280-304451/3	D13294.D
Level 6	STD120 280-304451/8	D13299.D
Level 7	STD160 280-304451/9	D13300.D
Level 8	STD200 280-304451/10	D13301.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	0.8428 0.6963	0.7344 0.6765	0.7362 0.6662	0.7227	0.7277	Ave		0.7253				7.5		20.0			
N-Nitrosodimethylamine	1.1403 1.1214	1.1321 1.1101	1.1534 1.0954	1.1494	1.1792	Ave		1.1352				2.3		20.0			
Pyridine	2.0357 1.9657	1.9880 1.9314	1.9805 1.8926	2.0106	2.0435	Ave		1.9810				2.6		20.0			
Phenol	2.2487 2.0612	2.1846 2.0054	2.1666 1.9438	2.1520	2.1611	Ave		2.1154			0.8000	4.8		20.0			
Aniline	2.6878 2.6556	2.8026 2.5218	2.7622 2.5536	2.7662	2.7755	Ave		2.6907				4.0		20.0			
Bis(2-chloroethyl)ether	1.7486 1.4577	1.6604 1.3567	1.6423 1.2905	1.5964	1.5710	Ave		1.5405			0.7000	10.3		20.0			
2-Chlorophenol	1.5332 1.4114	1.4838 1.3480	1.5021 1.3126	1.5098	1.5037	Ave		1.4506			0.8000	5.7		20.0			
1,3-Dichlorobenzene	1.6367 1.4587	1.5881 1.3790	1.5966 1.3336	1.5601	1.5599	Ave		1.5141				7.3		20.0			
1,4-Dichlorobenzene	1.7094 1.4595	1.6642 1.3874	1.6262 1.3214	1.5674	1.5779	Ave		1.5392				8.9		20.0			
Benzyl alcohol	1.1180 1.0962	1.1086 1.0640	1.1292 1.0433	1.1387	1.1316	Ave		1.1037				3.1		20.0			
1,2-Dichlorobenzene	1.6597 1.4211	1.5833 1.3540	1.5399 1.2958	1.5434	1.5114	Ave		1.4886				8.2		20.0			
2-Methylphenol	1.6354 1.5108	1.5915 1.4369	1.5819 1.4083	1.5868	1.5768	Ave		1.5410			0.7000	5.3		20.0			
bis (2-chloroisopropyl) ether	2.0271 1.6810	1.9237 1.5554	1.8877 1.4715	1.8564	1.8178	Ave		1.7776			0.0100	10.8		20.0			
N-Nitrosodi-n-propylamine	1.2559 1.0616	1.2524 0.9751	1.2167 0.9386	1.1914	1.1460	Ave		1.1297			0.5000	11.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Acetophenone	2.3988 1.8327	2.2758 1.6845	2.2482 1.5890	2.1134	2.0334	Ave		2.0220			0.0100	14.5		20.0			
3 & 4 Methylphenol	1.7197 1.3601	1.6487 1.2371	1.6423 1.1713	1.5612	1.5162	Ave		1.4821				13.7		20.0			
3-Methylphenol	1.7197 1.3601	1.6487 1.2371	1.6423 1.1713	1.5612	1.5162	Ave		1.4821				13.7		20.0			
4-Methylphenol	1.7197 1.3601	1.6487 1.2371	1.6423 1.1713	1.5612	1.5162	Ave		1.4821			0.6000	13.7		20.0			
Hexachloroethane	0.6417 0.5980	0.6365 0.5842	0.6451 0.5595	0.6525	0.6388	Ave		0.6196			0.3000	5.5		20.0			
Nitrobenzene	0.5002 0.4501	0.4768 0.4289	0.4785 0.4268	0.4830	0.4750	Ave		0.4649				5.7		20.0			
Isophorone	0.9206 0.8337	0.9027 0.8030	0.8771 0.7985	0.8923	0.8804	Ave		0.8635			0.4000	5.3		20.0			
2-Nitrophenol	0.1926 0.2021	0.1943 0.1959	0.2054 0.1939	0.2117	0.2079	Ave		0.2005			0.1000	3.6		20.0			
2,4-Dimethylphenol	0.4343 0.3921	0.4250 0.3712	0.4200 0.3666	0.4223	0.4096	Ave		0.4051			0.2000	6.3		20.0			
Bis(2-chloroethoxy)methane	0.5417 0.4785	0.5333 0.4586	0.5219 0.4514	0.5171	0.5035	Ave		0.5008			0.3000	6.8		20.0			
Benzoic acid	+++++ 0.3511	0.2642 0.3444	0.2873 0.3461	0.3442	0.3366	Lin2	-1.893	0.3522							0.9990		0.9900
2,4-Dichlorophenol	0.3412 0.3076	0.3221 0.2938	0.3214 0.2866	0.3264	0.3232	Ave		0.3153			0.2000	5.7		20.0			
1,2,4-Trichlorobenzene	0.3795 0.3331	0.3750 0.3176	0.3667 0.3075	0.3589	0.3533	Ave		0.3489				7.7		20.0			
Naphthalene	1.2197 1.0149	1.1726 0.9338	1.1464 0.9085	1.1196	1.0849	Ave		1.0750			0.7000	10.5		20.0			
4-Chloroaniline	0.4881 0.4815	0.5179 0.4474	0.5143 0.4365	0.5108	0.5084	Ave		0.4881			0.0100	6.4		20.0			
2,6-Dichlorophenol	0.3417 0.3026	0.3266 0.2870	0.3231 0.2776	0.3246	0.3208	Ave		0.3130				7.0		20.0			
Hexachlorobutadiene	0.2089 0.1795	0.2064 0.1703	0.1934 0.1658	0.1918	0.1897	Ave		0.1882			0.0100	8.3		20.0			
Caprolactam	0.1821 0.1886	0.1828 0.1845	0.1847 0.1929	0.1969	0.1950	Ave		0.1884				3.1		20.0			
4-Chloro-3-methylphenol	0.3650 0.3459	0.3657 0.3262	0.3685 0.3222	0.3661	0.3614	Ave		0.3526			0.2000	5.4		20.0			
2-Methylnaphthalene	0.8511 0.6907	0.8132 0.6406	0.7882 0.6180	0.7767	0.7522	Ave		0.7413			0.4000	11.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1-Methylnaphthalene	0.7407 0.6261	0.7153 0.5799	0.7013 0.5586	0.6910	0.6694	Ave		0.6603				9.9		20.0			
Hexachlorocyclopentadiene	0.2133 0.2877	0.2450 0.2798	0.2720 0.2731	0.2976	0.3085	Ave		0.2721			0.0500	11.2		20.0			
1,2,4,5-Tetrachlorobenzene	0.3895 0.3110	0.3707 0.2862	0.3623 0.2749	0.3478	0.3351	Ave		0.3347			0.0100	12.2		20.0			
2,4,6-Trichlorophenol	0.3765 0.3441	0.3835 0.3284	0.3775 0.3140	0.3800	0.3730	Ave		0.3596			0.2000	7.5		20.0			
2,4,5-Trichlorophenol	0.4042 0.3926	0.3907 0.3852	0.4021 0.3725	0.4104	0.4125	Ave		0.3963			0.2000	3.4		20.0			
1,1'-Biphenyl	1.5853 1.2636	1.4573 1.1859	1.4377 1.1252	1.4082	1.3759	Ave		1.3549				11.3		20.0			
2-Chloronaphthalene	1.1870 1.0061	1.1343 0.9568	1.1155 0.9290	1.0978	1.0800	Ave		1.0633			0.8000	8.5		20.0			
2-Nitroaniline	0.3960 0.3920	0.3913 0.3822	0.3913 0.3710	0.4076	0.4089	Ave		0.3925			0.0100	3.2		20.0			
Dimethyl phthalate	1.3089 1.1386	1.2614 1.0897	1.2595 1.0594	1.2451	1.2193	Ave		1.1977			0.0100	7.5		20.0			
1,3-Dinitrobenzene	0.1846 0.2247	0.2005 0.2205	0.2158 0.2187	0.2301	0.2282	Ave		0.2154				7.2		20.0			
2,6-Dinitrotoluene	0.3181 0.2997	0.3017 0.2916	0.3102 0.2822	0.3147	0.3191	Ave		0.3046			0.2000	4.3		20.0			
Acenaphthylene	1.9215 1.6905	1.8826 1.5956	1.8975 1.5291	1.8565	1.8262	Ave		1.7749			0.9000	8.4		20.0			
3-Nitroaniline	0.3579 0.3641	0.3752 0.3551	0.3743 0.3476	0.3752	0.3809	Ave		0.3663			0.0100	3.2		20.0			
Acenaphthene	1.2252 0.9608	1.1613 0.9018	1.1341 0.8641	1.0736	1.0459	Ave		1.0459			0.9000	12.3		20.0			
2,4-Dinitrophenol	+++++ 0.1977	0.1311 0.1919	0.1597 0.1860	0.1909	0.1979	Ave		0.1793			0.0100	13.9		20.0			
4-Nitrophenol	0.1695 0.1852	0.1874 0.1837	0.1890 0.1759	0.1957	0.1971	Ave		0.1854			0.0100	5.0		20.0			
2,4-Dinitrotoluene	0.4135 0.4043	0.4109 0.3899	0.4180 0.3780	0.4230	0.4221	Ave		0.4075			0.2000	3.9		20.0			
Dibenzofuran	1.7907 1.4998	1.7024 1.4095	1.6857 1.3536	1.6410	1.5919	Ave		1.5843			0.8000	9.6		20.0			
2,3,4,6-Tetrachlorophenol	0.2879 0.3185	0.3035 0.3036	0.3099 0.2952	0.3301	0.3307	Ave		0.3099			0.0100	5.0		20.0			
Diethyl phthalate	1.3348 1.1499	1.2954 1.0785	1.2798 1.0186	1.2430	1.2344	Ave		1.2043			0.0100	9.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
4-Chlorophenyl phenyl ether	0.6958 0.5639	0.6297 0.5409	0.6354 0.5174	0.6218	0.6095	Ave		0.6018			0.4000	9.6		20.0			
Fluorene	1.4738 1.1598	1.3944 1.0896	1.3667 1.0426	1.2951	1.2516	Ave		1.2592			0.9000	12.1		20.0			
4-Nitroaniline	0.3816 0.3556	0.3594 0.3516	0.3699 0.3494	0.3667	0.3702	Ave		0.3630			0.0100	3.0		20.0			
4,6-Dinitro-2-methylphenol	+++++ 0.1476	0.1251 0.1411	0.1393 0.1394	0.1493	0.1503	Lin2	-0.406	0.1476			0.0100				0.9980		0.9900
N-Nitrosodiphenylamine	0.5980 0.4706	0.5702 0.4275	0.5641 0.4118	0.5296	0.5090	Ave		0.5101			0.0100	13.4		20.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.5839 1.3965	1.5184 1.3334	1.5375 1.2899	1.5099	1.4927	Ave		1.4578				7.2		20.0			
Azobenzene	1.6013 1.4118	1.5350 1.3481	1.5544 1.3040	1.5265	1.5090	Ave		1.4738				7.2		20.0			
4-Bromophenyl phenyl ether	0.2197 0.2036	0.2121 0.1934	0.2162 0.1871	0.2131	0.2099	Ave		0.2069			0.1000	5.5		20.0			
Hexachlorobenzene	0.2304 0.1984	0.2136 0.1861	0.2157 0.1805	0.2086	0.2048	Ave		0.2048			0.1000	7.9		20.0			
Pentachlorophenol	+++++ 0.1224	0.0976 0.1168	0.1048 0.1163	0.1210	0.1249	Lin2	-0.516	0.1223			0.0500				0.9980		0.9900
Phenanthrene	1.2628 1.0076	1.1608 0.9371	1.1543 0.9020	1.0996	1.0811	Ave		1.0757			0.7000	11.3		20.0			
Anthracene	1.2300 1.0340	1.1708 0.9637	1.1599 0.9168	1.1337	1.0983	Ave		1.0884			0.7000	9.9		20.0			
Carbazole	1.2105 1.0113	1.1489 0.9408	1.1327 0.9092	1.0993	1.0817	Ave		1.0668			0.0100	9.8		20.0			
Di-n-butyl phthalate	1.2562 1.1451	1.2461 1.0721	1.2583 1.0201	1.2347	1.2139	Ave		1.1808			0.0100	7.8		20.0			
Fluoranthene	1.3124 1.1647	1.2431 1.0920	1.2656 1.0706	1.2432	1.2257	Ave		1.2022			0.6000	7.1		20.0			
Pyrene	1.3858 1.2697	1.3596 1.2413	1.3344 1.2108	1.3371	1.3361	Ave		1.3093			0.6000	4.7		20.0			
Famphur	0.4576 0.3999	0.4637 0.3827	0.4588 0.3535	0.4451	0.4338	Ave		0.4244				9.6		20.0			
Butyl benzyl phthalate	0.5442 0.5850	0.5718 0.5936	0.5747 0.5749	0.6033	0.6105	Ave		0.5823			0.0100	3.6		20.0			
3,3'-Dichlorobenzidine	0.4474 0.4269	0.3959 0.4144	0.4105 0.3945	0.4398	0.4513	Ave		0.4226			0.0100	5.3		20.0			
Benzo[a]anthracene	1.3861 1.2519	1.3005 1.2328	1.2663 1.2222	1.2876	1.2970	Ave		1.2806			0.8000	4.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Chrysene	1.3055 1.2046	1.2389 1.1854	1.2360 1.1648	1.2367	1.2340	Ave		1.2258			0.7000	3.5		20.0			
Bis(2-ethylhexyl) phthalate	0.8380 0.7985	0.7631 0.8153	0.7719 0.7978	0.8130	0.8397	Ave		0.8047			0.0100	3.5		20.0			
Di-n-octyl phthalate	1.2936 1.4332	1.2625 1.4546	1.3186 1.4380	1.4201	1.4854	Ave		1.3883			0.0100	6.0		20.0			
Benzo[b]fluoranthene	1.2469 1.2611	1.2191 1.2751	1.2339 1.2604	1.2844	1.3199	Ave		1.2626			0.7000	2.5		20.0			
Benzo[k]fluoranthene	1.2757 1.2501	1.2726 1.1901	1.2879 1.1645	1.3068	1.3199	Ave		1.2585			0.7000	4.4		20.0			
Benzo[a]pyrene	1.1462 1.1252	1.1341 1.1059	1.1236 1.0970	1.1651	1.1926	Ave		1.1362			0.7000	2.8		20.0			
Indeno[1,2,3-cd]pyrene	1.0101 1.0316	0.9601 1.0411	0.9672 1.0796	0.9959	1.0367	Ave		1.0153			0.5000	4.0		20.0			
Dibenz(a,h)anthracene	1.0382 1.0760	1.0285 1.0351	1.0013 1.0520	1.0606	1.1011	Ave		1.0491			0.4000	2.9		20.0			
Benzo[g,h,i]perylene	1.1179 1.1216	1.0777 1.1109	1.0919 1.1133	1.1265	1.1735	Ave		1.1167			0.5000	2.5		20.0			
2-Fluorophenol (Surr)	1.6544 1.4899	1.5292 1.4393	1.5196 1.3822	1.5530	1.5579	Ave		1.5157				5.4		20.0			
Phenol-d5 (Surr)	2.1527 1.9983	2.1062 1.9240	2.0734 1.8692	2.0859	2.0798	Ave		2.0362				4.8		20.0			
Nitrobenzene-d5 (Surr)	0.5160 0.4708	0.4922 0.4556	0.4850 0.4505	0.4879	0.4896	Ave		0.4810				4.4		20.0			
2-Fluorobiphenyl	1.4844 1.2105	1.3923 1.1462	1.3790 1.1064	1.3421	1.3202	Ave		1.2976				10.1		20.0			
2,4,6-Tribromophenol (Surr)	0.1452 0.1531	0.1482 0.1517	0.1562 0.1482	0.1589	0.1581	Ave		0.1524				3.3		20.0			
Terphenyl-d14 (Surr)	0.9137 0.8167	0.8778 0.8033	0.8501 0.7823	0.8616	0.8539	Ave		0.8449				5.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD004 280-304451/4	D13295.D
Level 2	STD010 280-304451/5	D13296.D
Level 3	STD020 280-304451/6	D13297.D
Level 4	STD050 280-304451/7	D13298.D
Level 5	ICIS 280-304451/3	D13294.D
Level 6	STD120 280-304451/8	D13299.D
Level 7	STD160 280-304451/9	D13300.D
Level 8	STD200 280-304451/10	D13301.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,4-Dioxane	DCB	Ave	18310 429919	39596 589155	77087 703766	195705	301404	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodimethylamine	DCB	Ave	24774 692357	61036 966808	120777 1157216	311257	488421	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyridine	DCB	Ave	44229 1213589	107184 1682038	207392 1999325	544493	846382	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol	DCB	Ave	48855 1272578	117780 1746492	226871 2053459	582795	895072	4.00 120	10.0 160	20.0 200	50.0	80.0
Aniline	DCB	Ave	58395 1639573	151099 2196168	289244 2697675	749108	1149574	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethyl)ether	DCB	Ave	37991 900006	89519 1181523	171975 1363299	432323	650663	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chlorophenol	DCB	Ave	33311 871414	79996 1173910	157289 1386659	408866	622821	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dichlorobenzene	DCB	Ave	35559 900567	85619 1200922	167185 1408847	422485	646068	4.00 120	10.0 160	20.0 200	50.0	80.0
1,4-Dichlorobenzene	DCB	Ave	37138 901117	89724 1208275	170290 1395925	424457	653518	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzyl alcohol	DCB	Ave	24290 676784	59767 926646	118246 1102145	308376	468674	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2-Dichlorobenzene	DCB	Ave	36058 877375	85361 1179178	161251 1368898	417978	626004	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylphenol	DCB	Ave	35530 932748	85806 1251379	165647 1487765	429715	653092	4.00 120	10.0 160	20.0 200	50.0	80.0
bis (2-chloroisopropyl) ether	DCB	Ave	44042 1037873	103718 1354557	197670 1554488	502723	752879	4.00 120	10.0 160	20.0 200	50.0	80.0
N-Nitrosodi-n-propylamine	DCB	Ave	27287 655439	67524 849208	127403 991518	322635	474661	4.00 120	10.0 160	20.0 200	50.0	80.0
Acetophenone	DCB	Ave	52116 1131518	122697 1467041	235417 1678636	572335	842181	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3 & 4 Methylphenol	DCB	Ave	37363 839740	88891 1077350	171977 1237383	422787	627976	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Methylphenol	DCB	Ave	37363 839740	88891 1077350	171977 1237383	422787	627976	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Methylphenol	DCB	Ave	37363 839740	88891 1077350	171977 1237383	422787	627976	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachloroethane	DCB	Ave	13942 369187	34318 508795	67554 591081	176711	264595	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene	NPT	Ave	40967 1068601	97739 1444767	191418 1725651	498829	752808	4.00 120	10.0 160	20.0 200	50.0	80.0
Isophorone	NPT	Ave	75400 1979340	185057 2705239	350878 3228887	921477	1395218	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitrophenol	NPT	Ave	15777 479803	39842 659918	82164 784099	218608	329463	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dimethylphenol	NPT	Ave	35570 931036	87121 1250429	167992 1482206	436062	649094	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-chloroethoxy)methane	NPT	Ave	44368 1136179	109327 1545100	208766 1825345	533953	797972	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzoic acid	NPT	Lin2	+++++ 1667324	108321 2320763	229816 2798953	710790	1066790	+++++ 240	20.0 320	40.0 400	100	160
2,4-Dichlorophenol	NPT	Ave	27945 730275	66036 989822	128556 1158715	337076	512100	4.00 120	10.0 160	20.0 200	50.0	80.0
1,2,4-Trichlorobenzene	NPT	Ave	31084 790916	76870 1069813	146701 1243352	370634	559798	4.00 120	10.0 160	20.0 200	50.0	80.0
Naphthalene	NPT	Ave	99898 2409566	240389 3145819	458585 3673763	1156147	1719293	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloroaniline	NPT	Ave	39976 1143140	106173 1507198	205714 1764973	527450	805598	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dichlorophenol	NPT	Ave	27990 718321	66951 967009	129240 1122531	335168	508372	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobutadiene	NPT	Ave	17111 426113	42314 573670	77367 670268	198109	300597	4.00 120	10.0 160	20.0 200	50.0	80.0
Caprolactam	NPT	Ave	14912 447696	37482 621446	73881 780069	203284	308987	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chloro-3-methylphenol	NPT	Ave	29895 821314	74977 1098805	147394 1302849	378041	572655	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Methylnaphthalene	NPT	Ave	69712 1639848	166709 2157986	315319 2498818	802055	1192036	4.00 120	10.0 160	20.0 200	50.0	80.0
1-Methylnaphthalene	NPT	Ave	60671 1486484	146641 1953505	280536 2258828	713550	1060794	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorocyclopentadiene	ANT	Ave	11080 436414	32517 590840	69690 695766	198083	308885	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4,5-Tetrachlorobenzene	NPT	Ave	31905 738463	75995 964126	144942 1111801	359165	530976	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Trichlorophenol	ANT	Ave	19564 521854	50906 693366	96697 800083	252921	373508	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,5-Trichlorophenol	ANT	Ave	21000 595523	51857 813265	103016 949099	273140	413039	4.00 120	10.0 160	20.0 200	50.0	80.0
1,1'-Biphenyl	ANT	Ave	82368 1916541	193442 2504014	368299 2866989	937272	1377773	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Chloronaphthalene	ANT	Ave	61672 1525979	150565 2020205	285743 2367146	730665	1081436	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Nitroaniline	ANT	Ave	20574 594551	51938 806969	100228 945373	271266	409408	4.00 120	10.0 160	20.0 200	50.0	80.0
Dimethyl phthalate	ANT	Ave	68005 1726915	167438 2300784	322641 2699558	828716	1220956	4.00 120	10.0 160	20.0 200	50.0	80.0
1,3-Dinitrobenzene	ANT	Ave	9589 340770	26614 465489	55286 557185	153140	228500	4.00 120	10.0 160	20.0 200	50.0	80.0
2,6-Dinitrotoluene	ANT	Ave	16525 454527	40044 615748	79454 719017	209435	319574	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthylene	ANT	Ave	99838 2564045	249891 3369122	486088 3896191	1235685	1828663	4.00 120	10.0 160	20.0 200	50.0	80.0
3-Nitroaniline	ANT	Ave	18594 552310	49809 749840	95874 885600	249756	381407	4.00 120	10.0 160	20.0 200	50.0	80.0
Acenaphthene	ANT	Ave	63659 1457208	154147 1904181	290522 2201826	714617	1047347	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4-Dinitrophenol	ANT	Ave	+++++ 599606	34792 810168	81834 947772	254141	396406	+++++ 240	20.0 320	40.0 400	100	160
4-Nitrophenol	ANT	Ave	17614 561820	49747 775821	96831 896361	260551	394712	8.00 240	20.0 320	40.0 400	100	160
2,4-Dinitrotoluene	ANT	Ave	21485 613277	54543 823251	107069 963112	281521	422681	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenzofuran	ANT	Ave	93042 2274795	225977 2976003	431812 3449119	1092256	1594102	4.00 120	10.0 160	20.0 200	50.0	80.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	14959 483103	40282 640957	79394 752124	219733	331113	4.00 120	10.0 160	20.0 200	50.0	80.0
Diethyl phthalate	ANT	Ave	69352 1744049	171948 2277202	327848 2595537	827308	1236097	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Chlorophenyl phenyl ether	ANT	Ave	36151 855352	83585 1142120	162781 1318326	413836	610334	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluorene	ANT	Ave	76572 1759105	185088 2300631	350097 2656619	862037	1253250	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Nitroaniline	ANT	Ave	19825 539393	47706 742399	94753 890305	244054	370739	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4,6-Dinitro-2-methylphenol	PHN	Lin2	+++++ 766258	58388 1036854	123619 1222306	347354	524262	+++++ 240	20.0 320	40.0 400	100	160
N-Nitrosodiphenylamine	PHN	Ave	108486 2443557	266165 3140790	500745 3610433	1231758	1775717	8.00 240	20.0 320	40.0 400	100	160
1,2-Diphenylhydrazine(as Azobenzene)	ANT	Ave	83199 2141329	203760 2846388	398181 3322765	1016039	1511087	4.04 121	10.1 162	20.2 202	50.5	80.9
Azobenzene	ANT	Ave	83199 2141329	203760 2846388	398181 3322765	1016039	1511087	4.00 120	10.0 160	20.0 200	50.0	80.0
4-Bromophenyl phenyl ether	PHN	Ave	19931 528606	49497 710316	95953 820080	247856	366188	4.00 120	10.0 160	20.0 200	50.0	80.0
Hexachlorobenzene	PHN	Ave	20897 514949	49860 683501	95761 791112	242638	357301	4.00 120	10.0 160	20.0 200	50.0	80.0
Pentachlorophenol	PHN	Lin2	+++++ 635637	45535 858389	93014 1019419	281430	435776	+++++ 240	20.0 320	40.0 400	100	160
Phenanthrene	PHN	Ave	114546 2615687	270919 3442279	512356 3954113	1278840	1885788	4.00 120	10.0 160	20.0 200	50.0	80.0
Anthracene	PHN	Ave	111571 2684187	273261 3539803	514858 4018991	1318530	1915827	4.00 120	10.0 160	20.0 200	50.0	80.0
Carbazole	PHN	Ave	109800 2625258	268132 3455891	502771 3985572	1278540	1886831	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-butyl phthalate	PHN	Ave	113951 2972709	290818 3938020	558499 4471675	1435989	2117475	4.00 120	10.0 160	20.0 200	50.0	80.0
Fluoranthene	PHN	Ave	119042 3023450	290132 4011027	561738 4693015	1445909	2138098	4.00 120	10.0 160	20.0 200	50.0	80.0
Pyrene	CRY	Ave	123291 3146915	306077 4230564	588926 4912484	1492433	2232659	4.00 120	10.0 160	20.0 200	50.0	80.0
Famphur	CRY	Ave	40707 991137	104399 1304370	202496 1434157	496868	724813	4.00 120	10.0 160	20.0 200	50.0	80.0
Butyl benzyl phthalate	CRY	Ave	48414 1450009	128724 2022980	253661 2332479	673463	1020113	4.00 120	10.0 160	20.0 200	50.0	80.0
3,3'-Dichlorobenzidine	CRY	Ave	39801 1058121	89136 1412337	181186 1600423	490944	754065	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]anthracene	CRY	Ave	123320 3102751	292771 4201783	558900 4958579	1437211	2167256	4.00 120	10.0 160	20.0 200	50.0	80.0
Chrysene	CRY	Ave	116150 2985642	278905 4040261	545523 4725711	1380461	2062102	4.00 120	10.0 160	20.0 200	50.0	80.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	74551 1979010	171801 2778878	340701 3236906	907503	1403179	4.00 120	10.0 160	20.0 200	50.0	80.0
Di-n-octyl phthalate	CRY	Ave	115086 3552079	284223 4957832	581961 5834302	1585111	2482114	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[b]fluoranthene	PRY	Ave	105315 2934013	253158 4142519	501596 4941904	1320338	2027512	4.00 120	10.0 160	20.0 200	50.0	80.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-76331-2 Analy Batch No.: 304451

SDG No.:

Instrument ID: SMS_D GC Column: Vf-5MS (30. ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/14/2015 08:27 Calibration End Date: 11/14/2015 11:38 Calibration ID: 24440

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzo[k]fluoranthene	PRY	Ave	107744 2908368	264260 3866328	523521 4566066	1343442	2027598	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[a]pyrene	PRY	Ave	96807 2617710	235513 3592590	456745 4301169	1197772	1832040	4.00 120	10.0 160	20.0 200	50.0	80.0
Indeno[1,2,3-cd]pyrene	CRY	Ave	89865 2556722	216135 3548466	426867 4380160	1111659	1732373	4.00 120	10.0 160	20.0 200	50.0	80.0
Dibenz(a,h)anthracene	PRY	Ave	87685 2503372	213569 3362881	407030 4124624	1090304	1691414	4.00 120	10.0 160	20.0 200	50.0	80.0
Benzo[g,h,i]perylene	PRY	Ave	94419 2609391	223788 3609019	443877 4365155	1158063	1802686	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorophenol (Surr)	DCB	Ave	35944 919881	82446 1253451	159128 1460183	420572	645242	4.00 120	10.0 160	20.0 200	50.0	80.0
Phenol-d5 (Surr)	DCB	Ave	46771 1233740	113557 1675616	217116 1974612	564887	861396	4.00 120	10.0 160	20.0 200	50.0	80.0
Nitrobenzene-d5 (Surr)	NPT	Ave	42264 1117835	100912 1534706	194013 1821493	503876	775907	4.00 120	10.0 160	20.0 200	50.0	80.0
2-Fluorobiphenyl	ANT	Ave	77125 1835934	184811 2420223	353249 2819323	893275	1322012	4.00 120	10.0 160	20.0 200	50.0	80.0
2,4,6-Tribromophenol (Surr)	ANT	Ave	7543 232177	19675 320272	40006 377651	105759	158284	4.00 120	10.0 160	20.0 200	50.0	80.0
Terphenyl-d14 (Surr)	CRY	Ave	81286 2024214	197607 2737865	375210 3173762	961705	1426819	4.00 120	10.0 160	20.0 200	50.0	80.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13294.D
Lims ID: ICIS HSL
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 14-Nov-2015 08:27:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICIS HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:36 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:06:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.521	4.521	0.000	96	207090	40.0	40.0	
* 2 Naphthalene-d8	136	5.760	5.760	0.000	100	792353	40.0	40.0	
* 3 Acenaphthene-d10	164	7.507	7.507	0.000	91	500679	40.0	40.0	
* 4 Phenanthrene-d10	188	8.992	8.992	0.000	97	872188	40.0	40.0	
* 5 Chrysene-d12	240	12.951	12.951	0.000	98	835505	40.0	40.0	
* 6 Perylene-d12	264	16.802	16.802	0.000	97	768083	40.0	40.0	
$ 7 2-Fluorophenol	112	3.319	3.319	0.000	92	645242	80.0	82.2	
$ 8 Phenol-d5	99	4.168	4.168	0.000	98	861396	80.0	81.7	
$ 9 Nitrobenzene-d5	82	5.044	5.044	0.000	86	775907	80.0	81.4	
$ 10 2-Fluorobiphenyl	172	6.823	6.823	0.000	99	1322012	80.0	81.4	
$ 11 2,4,6-Tribromophenol	330	8.298	8.298	0.000	92	158284	80.0	83.0	
$ 12 Terphenyl-d14	244	10.894	10.894	0.000	99	1426819	80.0	80.8	
13 1,4-Dioxane	88	1.866	1.866	0.000	91	301404	80.0	80.3	
14 N-Nitrosodimethylamine	74	2.106	2.106	0.000	92	488421	80.0	83.1	
15 Pyridine	79	2.160	2.160	0.000	97	846382	80.0	82.5	
24 Phenol	94	4.179	4.179	0.000	97	895072	80.0	81.7	
25 Aniline	93	4.206	4.206	0.000	99	1149574	80.0	82.5	
26 Bis(2-chloroethyl)ether	93	4.248	4.248	0.000	97	650663	80.0	81.6	
27 2-Chlorophenol	128	4.328	4.328	0.000	97	622821	80.0	82.9	
31 1,3-Dichlorobenzene	146	4.473	4.473	0.000	96	646068	80.0	82.4	
32 1,4-Dichlorobenzene	146	4.537	4.537	0.000	92	653518	80.0	82.0	
34 Benzyl alcohol	108	4.638	4.638	0.000	94	468674	80.0	82.0	
35 1,2-Dichlorobenzene	146	4.692	4.692	0.000	95	626004	80.0	81.2	
36 2-Methylphenol	108	4.750	4.750	0.000	93	653092	80.0	81.9	
38 2,2'-oxybis[1-chloropropan	45	4.772	4.772	0.000	92	752879	80.0	81.8	
40 3 & 4 Methylphenol	108	4.895	4.895	0.000	78	627976	80.0	81.8	
41 3-Methylphenol	108	4.895	4.895	0.000	73	627976	80.0	81.8	
42 4-Methylphenol	108	4.895	4.895	0.000	69	627976	80.0	81.8	
43 N-Nitrosodi-n-propylamine	70	4.895	4.895	0.000	83	474661	80.0	81.2	
44 Acetophenone	105	4.895	4.895	0.000	87	842181	80.0	80.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.018	5.018	0.000	95	264595	80.0	82.5	
47 Nitrobenzene	77	5.060	5.060	0.000	86	752808	80.0	81.7	
48 2,6-Dichlorophenol	162	5.835	5.835	0.000	97	508372	80.0	82.0	
50 Isophorone	82	5.295	5.295	0.000	99	1395218	80.0	81.6	
51 2,4-Dimethylphenol	107	5.413	5.413	0.000	95	649094	80.0	80.9	
52 2-Nitrophenol	139	5.376	5.376	0.000	97	329463	80.0	83.0	
55 Bis(2-chloroethoxy)methane	93	5.493	5.493	0.000	98	797972	80.0	80.4	
56 Benzoic acid	105	5.546	5.546	0.000	78	1066790	160.0	158.3	
58 2,4-Dichlorophenol	162	5.616	5.616	0.000	96	512100	80.0	82.0	
59 1,2,4-Trichlorobenzene	180	5.701	5.701	0.000	93	559798	80.0	81.0	
60 Naphthalene	128	5.782	5.782	0.000	97	1719293	80.0	80.7	
61 4-Chloroaniline	127	5.819	5.819	0.000	96	805598	80.0	83.3	
63 Hexachlorobutadiene	225	5.910	5.910	0.000	96	300597	80.0	80.6	
66 Caprolactam	55	6.161	6.161	0.000	84	308987	80.0	82.8	
68 4-Chloro-3-methylphenol	107	6.305	6.305	0.000	96	572655	80.0	82.0	
70 2-Methylnaphthalene	142	6.465	6.465	0.000	93	1192036	80.0	81.2	
71 1-Methylnaphthalene	142	6.561	6.561	0.000	94	1060794	80.0	81.1	
72 Hexachlorocyclopentadiene	237	6.636	6.636	0.000	96	308885	80.0	90.7	
73 1,2,4,5-Tetrachlorobenzene	216	6.636	6.636	0.000	97	530976	80.0	80.1	
75 2,4,6-Trichlorophenol	196	6.743	6.743	0.000	95	373508	80.0	83.0	
76 2,4,5-Trichlorophenol	196	6.786	6.786	0.000	95	413039	80.0	83.3	
79 1,1'-Biphenyl	154	6.925	6.925	0.000	95	1377773	80.0	81.2	
81 2-Chloronaphthalene	162	6.951	6.951	0.000	96	1081436	80.0	81.3	
83 2-Nitroaniline	65	7.037	7.037	0.000	82	409408	80.0	83.3	
86 Dimethyl phthalate	163	7.213	7.213	0.000	98	1220956	80.0	81.4	
87 1,3-Dinitrobenzene	168	7.240	7.240	0.000	86	228500	80.0	84.8	
88 2,6-Dinitrotoluene	165	7.272	7.272	0.000	96	319574	80.0	83.8	
93 Acenaphthylene	152	7.368	7.368	0.000	99	1828663	80.0	82.3	
95 3-Nitroaniline	138	7.443	7.443	0.000	95	381407	80.0	83.2	
97 Acenaphthene	153	7.539	7.539	0.000	94	1047347	80.0	80.0	
98 2,4-Dinitrophenol	184	7.550	7.550	0.000	84	396406	160.0	176.6	
99 4-Nitrophenol	109	7.625	7.625	0.000	94	394712	160.0	170.1	
103 2,4-Dinitrotoluene	165	7.678	7.678	0.000	92	422681	80.0	82.9	
104 Dibenzofuran	168	7.710	7.710	0.000	98	1594102	80.0	80.4	
107 2,3,4,6-Tetrachlorophenol	232	7.838	7.838	0.000	72	331113	80.0	85.4	
108 Diethyl phthalate	149	7.918	7.918	0.000	98	1236097	80.0	82.0	
109 4-Chlorophenyl phenyl ethe	204	8.041	8.041	0.000	92	610334	80.0	81.0	
110 Fluorene	166	8.057	8.057	0.000	94	1253250	80.0	79.5	
112 4-Nitroaniline	138	8.063	8.063	0.000	87	370739	80.0	81.6	
113 4,6-Dinitro-2-methylphenol	198	8.100	8.100	0.000	86	524262	160.0	165.7	
114 N-Nitrosodiphenylamine	169	8.159	8.159	0.000	61	1775717	160.0	159.6	
115 Azobenzene	77	8.202	8.202	0.000	97	1511087	80.0	81.9	
116 1,2-Diphenylhydrazine	77	8.202	8.202	0.000	97	1511087	80.9	82.8	
118 4-Bromophenyl phenyl ether	248	8.533	8.533	0.000	67	366188	80.0	81.2	
121 Hexachlorobenzene	284	8.624	8.624	0.000	94	357301	80.0	80.0	
122 Pentachlorophenol	266	8.811	8.811	0.000	92	435776	160.0	167.7	
124 Phenanthrene	178	9.019	9.019	0.000	98	1885788	80.0	80.4	
125 Anthracene	178	9.072	9.072	0.000	98	1915827	80.0	80.7	
126 Carbazole	167	9.222	9.222	0.000	95	1886831	80.0	81.1	
130 Di-n-butyl phthalate	149	9.558	9.558	0.000	100	2117475	80.0	82.2	
134 Fluoranthene	202	10.349	10.349	0.000	99	2138098	80.0	81.6	
136 Pyrene	202	10.670	10.670	0.000	97	2232659	80.0	81.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.636	11.636	0.000	98	724813	80.0	81.8	
139 Butyl benzyl phthalate	149	11.754	11.754	0.000	97	1020113	80.0	83.9	
140 3,3'-Dichlorobenzidine	252	12.881	12.881	0.000	74	754065	80.0	85.4	
141 Benzo[a]anthracene	228	12.929	12.929	0.000	99	2167256	80.0	81.0	
142 Bis(2-ethylhexyl) phthalat	149	13.100	13.100	0.000	98	1403179	80.0	83.5	
143 Chrysene	228	13.009	13.009	0.000	98	2062102	80.0	80.5	
145 Di-n-octyl phthalate	149	14.863	14.863	0.000	99	2482114	80.0	85.6	
147 Benzo[b]fluoranthene	252	15.739	15.739	0.000	98	2027512	80.0	83.6	
148 Benzo[k]fluoranthene	252	15.814	15.814	0.000	99	2027598	80.0	83.9	
149 Benzo[a]pyrene	252	16.509	16.509	0.000	85	1832040	80.0	84.0	
151 Indeno[1,2,3-cd]pyrene	276	19.901	19.901	0.000	99	1732373	80.0	81.7	
152 Dibenz(a,h)anthracene	278	19.992	19.992	0.000	93	1691414	80.0	84.0	
153 Benzo[g,h,i]perylene	276	20.633	20.633	0.000	98	1802686	80.0	84.1	

Reagents:

MS-HSLA080_00020 Amount Added: 200.00 Units: uL

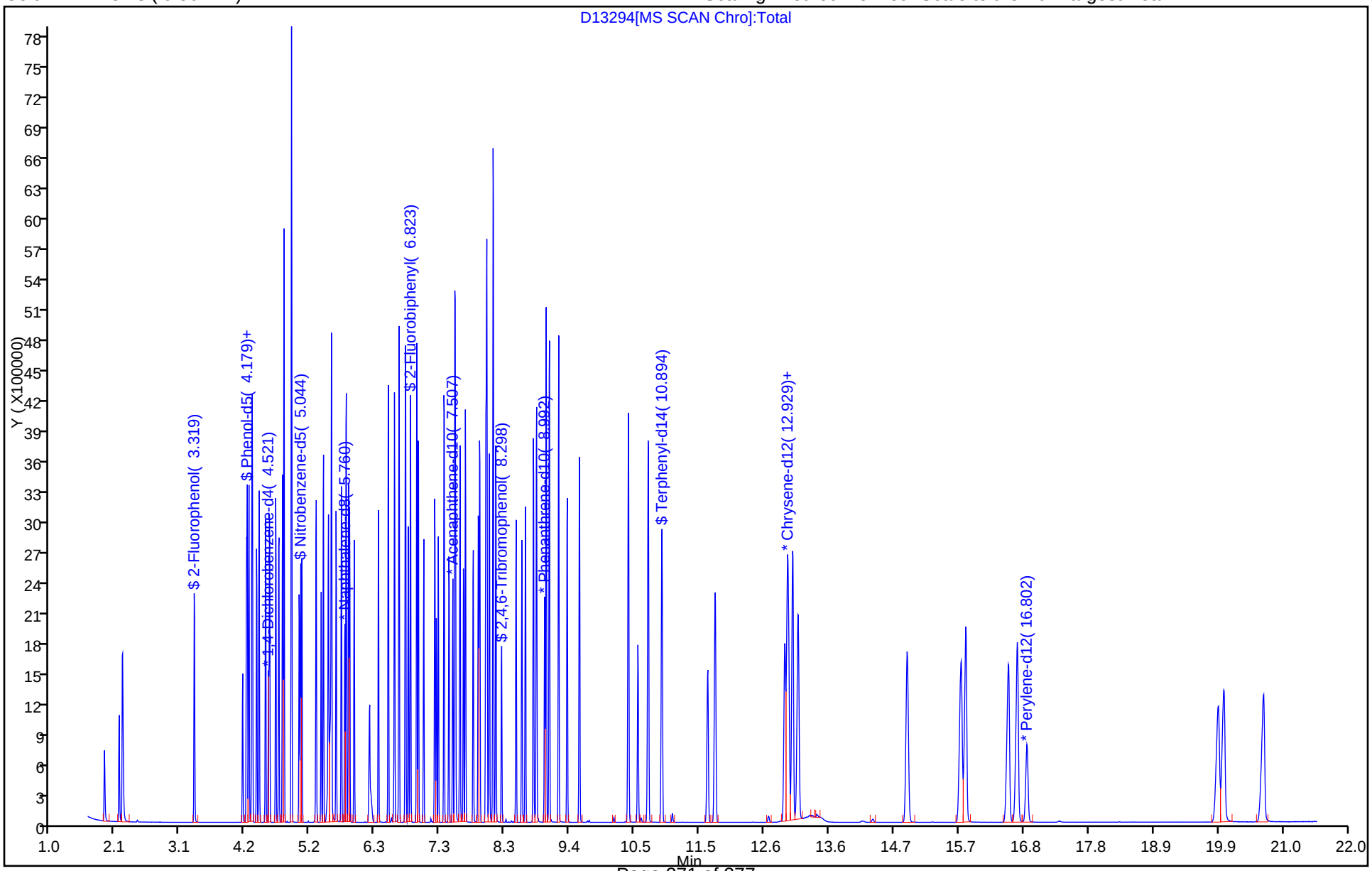
Report Date: 17-Nov-2015 09:25:37 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13294.D

Injection Date:	14-Nov-2015 08:27:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	ICIS HSL			Worklist Smp#:	3
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13295.D
Lims ID: STD004 HSL
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-Nov-2015 08:56:30 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD004 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:39 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:08:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.520	4.521	-0.001	96	217262	40.0	40.0	
* 2 Naphthalene-d8	136	5.754	5.760	-0.006	100	819058	40.0	40.0	
* 3 Acenaphthene-d10	164	7.507	7.507	0.000	90	519572	40.0	40.0	
* 4 Phenanthrene-d10	188	8.992	8.992	0.000	97	907089	40.0	40.0	
* 5 Chrysene-d12	240	12.934	12.951	-0.017	98	889668	40.0	40.0	
* 6 Perylene-d12	264	16.797	16.802	-0.005	97	844614	40.0	40.0	
$ 7 2-Fluorophenol	112	3.318	3.319	-0.001	91	35944	4.00	4.37	
$ 8 Phenol-d5	99	4.162	4.168	-0.006	97	46771	4.00	4.23	
$ 9 Nitrobenzene-d5	82	5.038	5.044	-0.006	86	42264	4.00	4.29	
$ 10 2-Fluorobiphenyl	172	6.817	6.823	-0.006	99	77125	4.00	4.58	
$ 11 2,4,6-Tribromophenol	330	8.292	8.298	-0.006	83	7543	4.00	3.81	
$ 12 Terphenyl-d14	244	10.888	10.894	-0.006	98	81286	4.00	4.33	
13 1,4-Dioxane	88	1.865	1.866	-0.001	90	18310	4.00	4.65	
14 N-Nitrosodimethylamine	74	2.100	2.106	-0.006	94	24774	4.00	4.02	
15 Pyridine	79	2.159	2.160	-0.001	97	44229	4.00	4.11	
24 Phenol	94	4.173	4.179	-0.006	97	48855	4.00	4.25	
25 Aniline	93	4.200	4.206	-0.006	98	58395	4.00	4.00	
26 Bis(2-chloroethyl)ether	93	4.248	4.248	0.000	97	37991	4.00	4.54	
27 2-Chlorophenol	128	4.328	4.328	0.000	97	33311	4.00	4.23	
31 1,3-Dichlorobenzene	146	4.472	4.473	-0.001	96	35559	4.00	4.32	
32 1,4-Dichlorobenzene	146	4.536	4.537	-0.001	93	37138	4.00	4.44	
34 Benzyl alcohol	108	4.632	4.638	-0.006	94	24290	4.00	4.05	
35 1,2-Dichlorobenzene	146	4.686	4.692	-0.006	96	36058	4.00	4.46	
36 2-Methylphenol	108	4.745	4.750	-0.005	92	35530	4.00	4.24	
38 2,2'-oxybis[1-chloropropan	45	4.766	4.772	-0.006	94	44042	4.00	4.56	
40 3 & 4 Methylphenol	108	4.889	4.895	-0.006	72	37363	4.00	4.64	
41 3-Methylphenol	108	4.889	4.895	-0.006	68	37363	4.00	4.64	
42 4-Methylphenol	108	4.889	4.895	-0.006	64	37363	4.00	4.64	
43 N-Nitrosodi-n-propylamine	70	4.884	4.895	-0.011	86	27287	4.00	4.45	
44 Acetophenone	105	4.889	4.895	-0.006	88	52116	4.00	4.75	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.017	5.018	-0.001	91	13942	4.00	4.14	
47 Nitrobenzene	77	5.055	5.060	-0.005	86	40967	4.00	4.30	
48 2,6-Dichlorophenol	162	5.834	5.835	-0.001	97	27990	4.00	4.37	
50 Isophorone	82	5.284	5.295	-0.011	98	75400	4.00	4.26	
51 2,4-Dimethylphenol	107	5.407	5.413	-0.006	95	35570	4.00	4.29	
52 2-Nitrophenol	139	5.375	5.376	-0.001	95	15777	4.00	3.84	
55 Bis(2-chloroethoxy)methane	93	5.487	5.493	-0.006	98	44368	4.00	4.33	
56 Benzoic acid	105	5.461	5.546	-0.085	86	39012	8.00	10.8	
58 2,4-Dichlorophenol	162	5.615	5.616	-0.001	94	27945	4.00	4.33	
59 1,2,4-Trichlorobenzene	180	5.701	5.701	0.000	93	31084	4.00	4.35	
60 Naphthalene	128	5.776	5.782	-0.006	97	99898	4.00	4.54	
61 4-Chloroaniline	127	5.813	5.819	-0.006	96	39976	4.00	4.00	
63 Hexachlorobutadiene	225	5.909	5.910	-0.001	94	17111	4.00	4.44	
66 Caprolactam	55	6.112	6.161	-0.049	83	14912	4.00	3.87	
68 4-Chloro-3-methylphenol	107	6.294	6.305	-0.011	96	29895	4.00	4.14	
70 2-Methylnaphthalene	142	6.460	6.465	-0.005	93	69712	4.00	4.59	
71 1-Methylnaphthalene	142	6.561	6.561	0.000	93	60671	4.00	4.49	
72 Hexachlorocyclopentadiene	237	6.630	6.636	-0.006	92	11080	4.00	3.13	
73 1,2,4,5-Tetrachlorobenzene	216	6.636	6.636	0.000	96	31905	4.00	4.66	
75 2,4,6-Trichlorophenol	196	6.743	6.743	0.000	93	19564	4.00	4.19	
76 2,4,5-Trichlorophenol	196	6.780	6.786	-0.006	95	21000	4.00	4.08	
79 1,1'-Biphenyl	154	6.919	6.925	-0.006	94	82368	4.00	4.68	
81 2-Chloronaphthalene	162	6.946	6.951	-0.005	96	61672	4.00	4.47	
83 2-Nitroaniline	65	7.031	7.037	-0.006	80	20574	4.00	4.04	
86 Dimethyl phthalate	163	7.207	7.213	-0.006	98	68005	4.00	4.37	
87 1,3-Dinitrobenzene	168	7.234	7.240	-0.006	85	9589	4.00	3.43	
88 2,6-Dinitrotoluene	165	7.266	7.272	-0.006	94	16525	4.00	4.18	
93 Acenaphthylene	152	7.362	7.368	-0.006	99	99838	4.00	4.33	
95 3-Nitroaniline	138	7.437	7.443	-0.006	75	18594	4.00	3.91	
97 Acenaphthene	153	7.533	7.539	-0.006	94	63659	4.00	4.69	
98 2,4-Dinitrophenol	184	7.544	7.550	-0.006	81	9987	8.00	4.29	
99 4-Nitrophenol	109	7.613	7.625	-0.012	93	17614	8.00	7.31	
103 2,4-Dinitrotoluene	165	7.672	7.678	-0.006	92	21485	4.00	4.06	
104 Dibenzofuran	168	7.704	7.710	-0.006	98	93042	4.00	4.52	
107 2,3,4,6-Tetrachlorophenol	232	7.832	7.838	-0.006	71	14959	4.00	3.72	
108 Diethyl phthalate	149	7.913	7.918	-0.005	98	69352	4.00	4.43	
109 4-Chlorophenyl phenyl ethe	204	8.035	8.041	-0.006	91	36151	4.00	4.62	
110 Fluorene	166	8.051	8.057	-0.006	95	76572	4.00	4.68	
112 4-Nitroaniline	138	8.041	8.063	-0.022	84	19825	4.00	4.20	
113 4,6-Dinitro-2-methylphenol	198	8.089	8.100	-0.011	84	19088	8.00	8.46	
114 N-Nitrosodiphenylamine	169	8.153	8.159	-0.006	62	108486	8.00	9.38	
115 Azobenzene	77	8.196	8.202	-0.006	97	83199	4.00	4.35	
116 1,2-Diphenylhydrazine	77	8.196	8.202	-0.006	97	83199	4.04	4.39	
118 4-Bromophenyl phenyl ether	248	8.527	8.533	-0.006	65	19931	4.00	4.25	
121 Hexachlorobenzene	284	8.623	8.624	-0.001	93	20897	4.00	4.50	
122 Pentachlorophenol	266	8.810	8.811	0.000	90	14054	8.00	9.29	
124 Phenanthrene	178	9.013	9.019	-0.006	97	114546	4.00	4.70	
125 Anthracene	178	9.066	9.072	-0.006	97	111571	4.00	4.52	
126 Carbazole	167	9.216	9.222	-0.006	95	109800	4.00	4.54	
130 Di-n-butyl phthalate	149	9.553	9.558	-0.005	100	113951	4.00	4.26	
134 Fluoranthene	202	10.343	10.349	-0.006	98	119042	4.00	4.37	
136 Pyrene	202	10.664	10.670	-0.006	97	123291	4.00	4.23	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.625	11.636	-0.011	96	40707	4.00	4.31	
139 Butyl benzyl phthalate	149	11.748	11.754	-0.006	95	48414	4.00	3.74	
140 3,3'-Dichlorobenzidine	252	12.865	12.881	-0.016	73	39801	4.00	4.23	
141 Benzo[a]anthracene	228	12.913	12.929	-0.016	99	123320	4.00	4.33	
142 Bis(2-ethylhexyl) phthalat	149	13.094	13.100	-0.006	97	74551	4.00	4.17	
143 Chrysene	228	12.993	13.009	-0.016	97	116150	4.00	4.26	
145 Di-n-octyl phthalate	149	14.857	14.863	-0.006	99	115086	4.00	3.73	
147 Benzo[b]fluoranthene	252	15.712	15.739	-0.027	98	105315	4.00	3.95	
148 Benzo[k]fluoranthene	252	15.782	15.814	-0.032	98	107744	4.00	4.05	
149 Benzo[a]pyrene	252	16.471	16.509	-0.038	78	96807	4.00	4.04	
151 Indeno[1,2,3-cd]pyrene	276	19.858	19.901	-0.043	97	89865	4.00	3.98	
152 Dibenz(a,h)anthracene	278	19.959	19.992	-0.033	93	87685	4.00	3.96	
153 Benzo[g,h,i]perylene	276	20.579	20.633	-0.054	97	94419	4.00	4.00	

Reagents:

MS-HSLA004_00020 Amount Added: 200.00 Units: uL

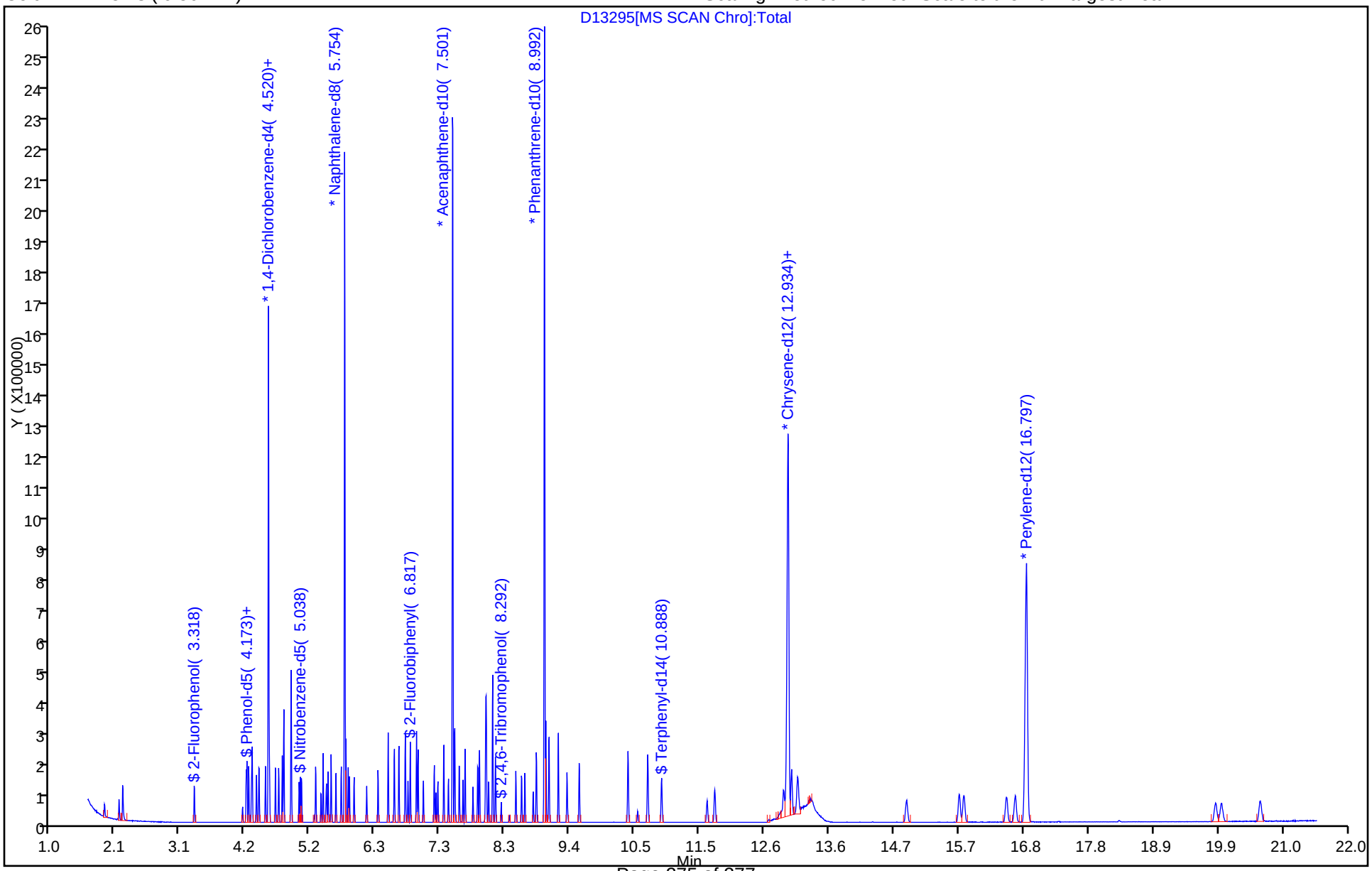
Report Date: 17-Nov-2015 09:25:40 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13295.D

Injection Date:	14-Nov-2015 08:56:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD004 HSL			Worklist Smp#:	4
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13296.D
Lims ID: STD010 HSL
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-Nov-2015 09:23:30 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD010 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:41 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:10:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.522	4.521	0.001	97	215658	40.0	40.0	
* 2 Naphthalene-d8	136	5.756	5.760	-0.004	99	820018	40.0	40.0	
* 3 Acenaphthene-d10	164	7.503	7.507	-0.004	90	530962	40.0	40.0	
* 4 Phenanthrene-d10	188	8.993	8.992	0.001	97	933550	40.0	40.0	
* 5 Chrysene-d12	240	12.936	12.951	-0.015	98	900490	40.0	40.0	
* 6 Perylene-d12	264	16.793	16.802	-0.009	97	830632	40.0	40.0	
$ 7 2-Fluorophenol	112	3.320	3.319	0.001	92	82446	10.0	10.1	
$ 8 Phenol-d5	99	4.164	4.168	-0.004	98	113557	10.0	10.3	
$ 9 Nitrobenzene-d5	82	5.040	5.044	-0.004	87	100912	10.0	10.2	
$ 10 2-Fluorobiphenyl	172	6.819	6.823	-0.004	99	184811	10.0	10.7	
$ 11 2,4,6-Tribromophenol	330	8.293	8.298	-0.005	90	19675	10.0	9.72	
$ 12 Terphenyl-d14	244	10.884	10.894	-0.010	99	197607	10.0	10.4	
13 1,4-Dioxane	88	1.867	1.866	0.001	92	39596	10.0	10.1	
14 N-Nitrosodimethylamine	74	2.102	2.106	-0.004	93	61036	10.0	9.97	
15 Pyridine	79	2.161	2.160	0.001	97	107184	10.0	10.0	
24 Phenol	94	4.175	4.179	-0.004	97	117780	10.0	10.3	
25 Aniline	93	4.201	4.206	-0.005	99	151099	10.0	10.4	
26 Bis(2-chloroethyl)ether	93	4.244	4.248	-0.004	99	89519	10.0	10.8	
27 2-Chlorophenol	128	4.330	4.328	0.002	97	79996	10.0	10.2	
31 1,3-Dichlorobenzene	146	4.474	4.473	0.001	96	85619	10.0	10.5	
32 1,4-Dichlorobenzene	146	4.538	4.537	0.001	94	89724	10.0	10.8	
34 Benzyl alcohol	108	4.634	4.638	-0.004	93	59767	10.0	10.0	
35 1,2-Dichlorobenzene	146	4.687	4.692	-0.005	96	85361	10.0	10.6	
36 2-Methylphenol	108	4.746	4.750	-0.004	91	85806	10.0	10.3	
38 2,2'-oxybis[1-chloropropan	45	4.768	4.772	-0.004	94	103718	10.0	10.8	
40 3 & 4 Methylphenol	108	4.890	4.895	-0.005	73	88891	10.0	11.1	
41 3-Methylphenol	108	4.890	4.895	-0.005	71	88891	10.0	11.1	
42 4-Methylphenol	108	4.890	4.895	-0.005	67	88891	10.0	11.1	
43 N-Nitrosodi-n-propylamine	70	4.885	4.895	-0.010	86	67524	10.0	11.1	
44 Acetophenone	105	4.890	4.895	-0.005	87	122697	10.0	11.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.019	5.018	0.001	96	34318	10.0	10.3	
47 Nitrobenzene	77	5.056	5.060	-0.004	85	97739	10.0	10.3	
48 2,6-Dichlorophenol	162	5.831	5.835	-0.004	97	66951	10.0	10.4	
50 Isophorone	82	5.286	5.295	-0.009	99	185057	10.0	10.5	
51 2,4-Dimethylphenol	107	5.409	5.413	-0.004	95	87121	10.0	10.5	
52 2-Nitrophenol	139	5.371	5.376	-0.005	97	39842	10.0	9.69	
55 Bis(2-chloroethoxy)methane	93	5.489	5.493	-0.004	97	109327	10.0	10.6	
56 Benzoic acid	105	5.473	5.546	-0.073	88	108321	20.0	20.4	
58 2,4-Dichlorophenol	162	5.612	5.616	-0.004	94	66036	10.0	10.2	
59 1,2,4-Trichlorobenzene	180	5.702	5.701	0.001	93	76870	10.0	10.7	
60 Naphthalene	128	5.777	5.782	-0.005	97	240389	10.0	10.9	
61 4-Chloroaniline	127	5.815	5.819	-0.004	96	106173	10.0	10.6	
63 Hexachlorobutadiene	225	5.911	5.910	0.001	96	42314	10.0	11.0	
66 Caprolactam	55	6.114	6.161	-0.047	83	37482	10.0	9.70	
68 4-Chloro-3-methylphenol	107	6.295	6.305	-0.010	96	74977	10.0	10.4	
70 2-Methylnaphthalene	142	6.461	6.465	-0.004	93	166709	10.0	11.0	
71 1-Methylnaphthalene	142	6.557	6.561	-0.004	94	146641	10.0	10.8	
72 Hexachlorocyclopentadiene	237	6.632	6.636	-0.004	94	32517	10.0	9.00	
73 1,2,4,5-Tetrachlorobenzene	216	6.637	6.636	0.001	97	75995	10.0	11.1	
75 2,4,6-Trichlorophenol	196	6.739	6.743	-0.004	95	50906	10.0	10.7	
76 2,4,5-Trichlorophenol	196	6.782	6.786	-0.004	94	51857	10.0	9.86	
79 1,1'-Biphenyl	154	6.920	6.925	-0.005	95	193442	10.0	10.8	
81 2-Chloronaphthalene	162	6.947	6.951	-0.004	96	150565	10.0	10.7	
83 2-Nitroaniline	65	7.027	7.037	-0.010	83	51938	10.0	9.97	
86 Dimethyl phthalate	163	7.209	7.213	-0.004	98	167438	10.0	10.5	
87 1,3-Dinitrobenzene	168	7.236	7.240	-0.004	85	26614	10.0	9.31	
88 2,6-Dinitrotoluene	165	7.268	7.272	-0.004	95	40044	10.0	9.90	
93 Acenaphthylene	152	7.359	7.368	-0.010	99	249891	10.0	10.6	
95 3-Nitroaniline	138	7.433	7.443	-0.010	95	49809	10.0	10.2	
97 Acenaphthene	153	7.535	7.539	-0.004	94	154147	10.0	11.1	
98 2,4-Dinitrophenol	184	7.545	7.550	-0.005	83	34792	20.0	14.6	
99 4-Nitrophenol	109	7.610	7.625	-0.015	93	49747	20.0	20.2	
103 2,4-Dinitrotoluene	165	7.674	7.678	-0.004	91	54543	10.0	10.1	
104 Dibenzofuran	168	7.706	7.710	-0.004	98	225977	10.0	10.7	
107 2,3,4,6-Tetrachlorophenol	232	7.834	7.838	-0.004	72	40282	10.0	9.79	
108 Diethyl phthalate	149	7.909	7.918	-0.009	97	171948	10.0	10.8	
109 4-Chlorophenyl phenyl ethe	204	8.037	8.041	-0.004	92	83585	10.0	10.5	
110 Fluorene	166	8.048	8.057	-0.009	95	185088	10.0	11.1	
112 4-Nitroaniline	138	8.042	8.063	-0.021	84	47706	10.0	9.90	
113 4,6-Dinitro-2-methylphenol	198	8.085	8.100	-0.015	86	58388	20.0	19.7	
114 N-Nitrosodiphenylamine	169	8.149	8.159	-0.010	61	266165	20.0	22.4	
115 Azobenzene	77	8.197	8.202	-0.005	97	203760	10.0	10.4	
116 1,2-Diphenylhydrazine	77	8.197	8.202	-0.005	98	203760	10.1	10.5	
118 4-Bromophenyl phenyl ether	248	8.528	8.533	-0.005	67	49497	10.0	10.3	
121 Hexachlorobenzene	284	8.619	8.624	-0.005	94	49860	10.0	10.4	
122 Pentachlorophenol	266	8.806	8.811	-0.004	92	45535	20.0	20.2	
124 Phenanthrene	178	9.015	9.019	-0.004	97	270919	10.0	10.8	
125 Anthracene	178	9.063	9.072	-0.009	97	273261	10.0	10.8	
126 Carbazole	167	9.218	9.222	-0.004	95	268132	10.0	10.8	
130 Di-n-butyl phthalate	149	9.554	9.558	-0.004	100	290818	10.0	10.6	
134 Fluoranthene	202	10.345	10.349	-0.004	98	290132	10.0	10.3	
136 Pyrene	202	10.665	10.670	-0.005	97	306077	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.627	11.636	-0.009	97	104399	10.0	10.9	
139 Butyl benzyl phthalate	149	11.744	11.754	-0.010	97	128724	10.0	9.82	
140 3,3'-Dichlorobenzidine	252	12.866	12.881	-0.015	74	89136	10.0	9.37	
141 Benzo[a]anthracene	228	12.909	12.929	-0.020	98	292771	10.0	10.2	
142 Bis(2-ethylhexyl) phthalat	149	13.096	13.100	-0.004	98	171801	10.0	9.48	
143 Chrysene	228	12.994	13.009	-0.015	98	278905	10.0	10.1	
145 Di-n-octyl phthalate	149	14.854	14.863	-0.009	99	284223	10.0	9.09	
147 Benzo[b]fluoranthene	252	15.708	15.739	-0.031	98	253158	10.0	9.66	
148 Benzo[k]fluoranthene	252	15.783	15.814	-0.031	99	264260	10.0	10.1	
149 Benzo[a]pyrene	252	16.472	16.509	-0.037	79	235513	10.0	9.98	
151 Indeno[1,2,3-cd]pyrene	276	19.864	19.901	-0.037	98	216135	10.0	9.46	
152 Dibenz(a,h)anthracene	278	19.955	19.992	-0.037	93	213569	10.0	9.80	
153 Benzo[g,h,i]perylene	276	20.586	20.633	-0.047	98	223788	10.0	9.65	

Reagents:

MS-HSLA010_00020 Amount Added: 200.00 Units: uL

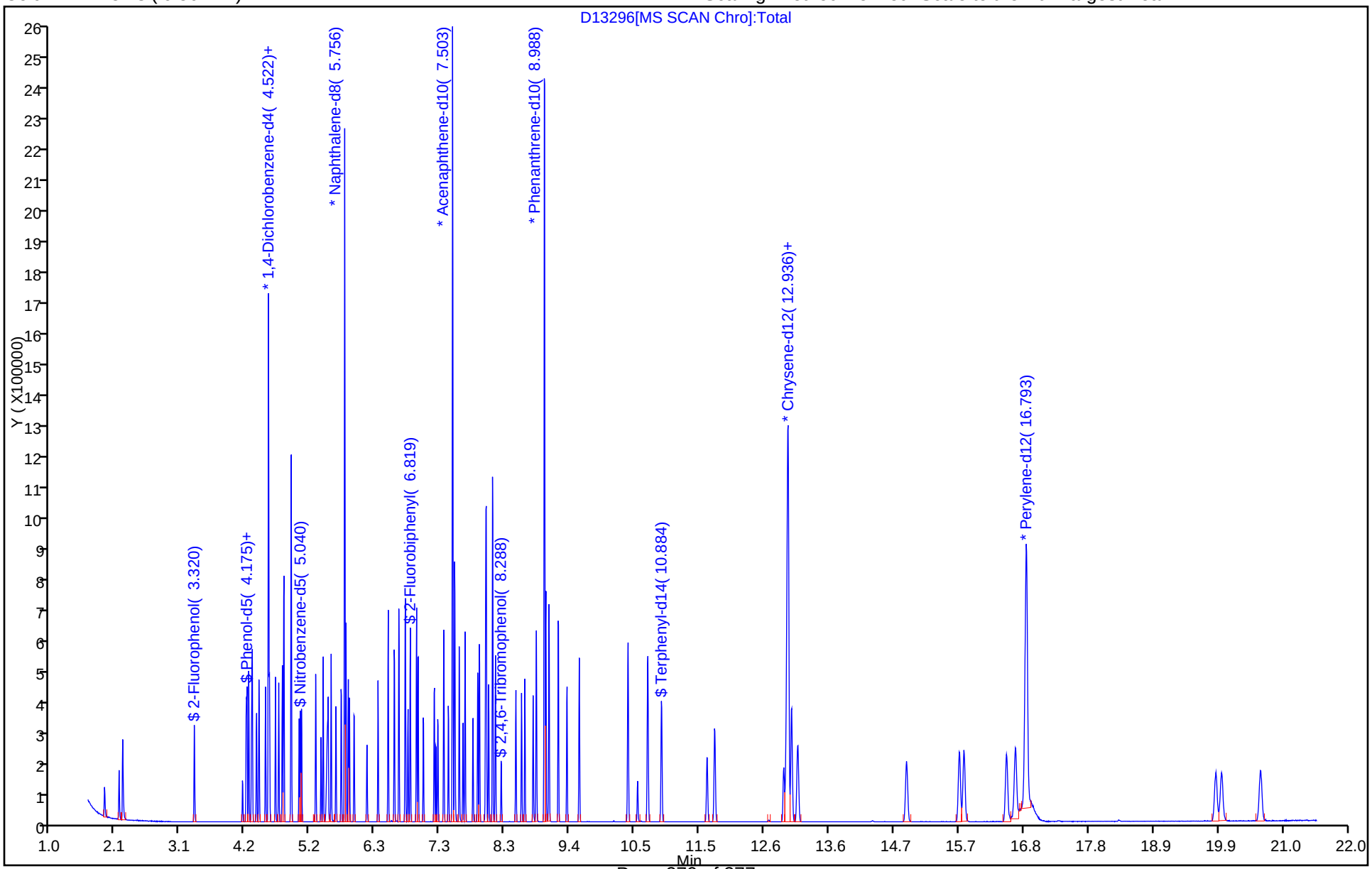
Report Date: 17-Nov-2015 09:25:42 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13296.D

Injection Date:	14-Nov-2015 09:23:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD010 HSL			Worklist Smp#:	5
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13297.D
Lims ID: STD020 HSL
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-Nov-2015 09:50:30 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD020 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:45 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:11:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.525	4.521	0.004	96	209430	40.0	40.0	
* 2 Naphthalene-d8	136	5.759	5.760	-0.001	100	800052	40.0	40.0	
* 3 Acenaphthene-d10	164	7.506	7.507	-0.001	91	512333	40.0	40.0	
* 4 Phenanthrene-d10	188	8.991	8.992	-0.001	97	887734	40.0	40.0	
* 5 Chrysene-d12	240	12.939	12.951	-0.012	98	882712	40.0	40.0	
* 6 Perylene-d12	264	16.796	16.802	-0.006	97	813009	40.0	40.0	
$ 7 2-Fluorophenol	112	3.323	3.319	0.004	92	159128	20.0	20.1	
$ 8 Phenol-d5	99	4.161	4.168	-0.007	98	217116	20.0	20.4	
$ 9 Nitrobenzene-d5	82	5.038	5.044	-0.006	86	194013	20.0	20.2	
$ 10 2-Fluorobiphenyl	172	6.817	6.823	-0.007	99	353249	20.0	21.3	
$ 11 2,4,6-Tribromophenol	330	8.291	8.298	-0.007	91	40006	20.0	20.5	
$ 12 Terphenyl-d14	244	10.887	10.894	-0.007	98	375210	20.0	20.1	
13 1,4-Dioxane	88	1.864	1.866	-0.002	91	77087	20.0	20.3	
14 N-Nitrosodimethylamine	74	2.099	2.106	-0.007	91	120777	20.0	20.3	
15 Pyridine	79	2.158	2.160	-0.002	97	207392	20.0	20.0	
24 Phenol	94	4.172	4.179	-0.007	98	226871	20.0	20.5	
25 Aniline	93	4.204	4.206	-0.002	99	289244	20.0	20.5	
26 Bis(2-chloroethyl)ether	93	4.247	4.248	-0.001	98	171975	20.0	21.3	
27 2-Chlorophenol	128	4.327	4.328	-0.001	96	157289	20.0	20.7	
31 1,3-Dichlorobenzene	146	4.471	4.473	-0.002	97	167185	20.0	21.1	
32 1,4-Dichlorobenzene	146	4.541	4.537	0.004	94	170290	20.0	21.1	
34 Benzyl alcohol	108	4.637	4.638	-0.001	93	118246	20.0	20.5	
35 1,2-Dichlorobenzene	146	4.690	4.692	-0.002	95	161251	20.0	20.7	
36 2-Methylphenol	108	4.744	4.750	-0.006	94	165647	20.0	20.5	
38 2,2'-oxybis[1-chloropropan	45	4.770	4.772	-0.002	92	197670	20.0	21.2	
40 3 & 4 Methylphenol	108	4.893	4.895	-0.002	72	171977	20.0	22.2	
41 3-Methylphenol	108	4.893	4.895	-0.002	72	171977	20.0	22.2	
42 4-Methylphenol	108	4.893	4.895	-0.002	68	171977	20.0	22.2	
43 N-Nitrosodi-n-propylamine	70	4.888	4.895	-0.007	85	127403	20.0	21.5	
44 Acetophenone	105	4.893	4.895	-0.002	89	235417	20.0	22.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.016	5.018	-0.002	95	67554	20.0	20.8	
47 Nitrobenzene	77	5.059	5.060	-0.001	85	191418	20.0	20.6	
48 2,6-Dichlorophenol	162	5.834	5.835	-0.001	97	129240	20.0	20.6	
50 Isophorone	82	5.289	5.295	-0.006	99	350878	20.0	20.3	
51 2,4-Dimethylphenol	107	5.406	5.413	-0.007	96	167992	20.0	20.7	
52 2-Nitrophenol	139	5.374	5.376	-0.002	95	82164	20.0	20.5	
55 Bis(2-chloroethoxy)methane	93	5.486	5.493	-0.007	98	208766	20.0	20.8	
56 Benzoic acid	105	5.492	5.546	-0.054	61	229816	40.0	38.0	
58 2,4-Dichlorophenol	162	5.615	5.616	-0.001	94	128556	20.0	20.4	
59 1,2,4-Trichlorobenzene	180	5.700	5.701	-0.001	93	146701	20.0	21.0	
60 Naphthalene	128	5.775	5.782	-0.007	97	458585	20.0	21.3	
61 4-Chloroaniline	127	5.812	5.819	-0.007	96	205714	20.0	21.1	
63 Hexachlorobutadiene	225	5.908	5.910	-0.002	96	77367	20.0	20.6	
66 Caprolactam	55	6.122	6.161	-0.039	84	73881	20.0	19.6	
68 4-Chloro-3-methylphenol	107	6.298	6.305	-0.007	96	147394	20.0	20.9	
70 2-Methylnaphthalene	142	6.459	6.465	-0.006	94	315319	20.0	21.3	
71 1-Methylnaphthalene	142	6.560	6.561	-0.001	94	280536	20.0	21.2	
72 Hexachlorocyclopentadiene	237	6.635	6.636	-0.001	96	69690	20.0	20.0	
73 1,2,4,5-Tetrachlorobenzene	216	6.635	6.636	-0.001	97	144942	20.0	21.7	
75 2,4,6-Trichlorophenol	196	6.742	6.743	-0.001	95	96697	20.0	21.0	
76 2,4,5-Trichlorophenol	196	6.784	6.786	-0.002	94	103016	20.0	20.3	
79 1,1'-Biphenyl	154	6.918	6.925	-0.007	95	368299	20.0	21.2	
81 2-Chloronaphthalene	162	6.945	6.951	-0.006	96	285743	20.0	21.0	
83 2-Nitroaniline	65	7.030	7.037	-0.007	82	100228	20.0	19.9	
86 Dimethyl phthalate	163	7.206	7.213	-0.007	98	322641	20.0	21.0	
87 1,3-Dinitrobenzene	168	7.233	7.240	-0.007	86	55286	20.0	20.0	
88 2,6-Dinitrotoluene	165	7.265	7.272	-0.007	96	79454	20.0	20.4	
93 Acenaphthylene	152	7.361	7.368	-0.007	99	486088	20.0	21.4	
95 3-Nitroaniline	138	7.436	7.443	-0.007	94	95874	20.0	20.4	
97 Acenaphthene	153	7.538	7.539	-0.001	93	290522	20.0	21.7	
98 2,4-Dinitrophenol	184	7.543	7.550	-0.007	81	81834	40.0	35.6	
99 4-Nitrophenol	109	7.612	7.625	-0.013	94	96831	40.0	40.8	
103 2,4-Dinitrotoluene	165	7.671	7.678	-0.007	92	107069	20.0	20.5	
104 Dibenzofuran	168	7.709	7.710	-0.001	98	431812	20.0	21.3	
107 2,3,4,6-Tetrachlorophenol	232	7.832	7.838	-0.006	73	79394	20.0	20.0	
108 Diethyl phthalate	149	7.912	7.918	-0.006	98	327848	20.0	21.3	
109 4-Chlorophenyl phenyl ethe	204	8.040	8.041	-0.001	92	162781	20.0	21.1	
110 Fluorene	166	8.051	8.057	-0.006	94	350097	20.0	21.7	
112 4-Nitroaniline	138	8.045	8.063	-0.018	84	94753	20.0	20.4	
113 4,6-Dinitro-2-methylphenol	198	8.088	8.100	-0.012	85	123619	40.0	40.5	
114 N-Nitrosodiphenylamine	169	8.152	8.159	-0.007	61	500745	40.0	44.2	
115 Azobenzene	77	8.200	8.202	-0.002	97	398181	20.0	21.1	
116 1,2-Diphenylhydrazine	77	8.200	8.202	-0.002	97	398181	20.2	21.3	
118 4-Bromophenyl phenyl ether	248	8.526	8.533	-0.007	67	95953	20.0	20.9	
121 Hexachlorobenzene	284	8.622	8.624	-0.002	94	95761	20.0	21.1	
122 Pentachlorophenol	266	8.809	8.811	-0.001	92	93014	40.0	38.5	
124 Phenanthrene	178	9.012	9.019	-0.007	98	512356	20.0	21.5	
125 Anthracene	178	9.066	9.072	-0.006	98	514858	20.0	21.3	
126 Carbazole	167	9.215	9.222	-0.007	95	502771	20.0	21.2	
130 Di-n-butyl phthalate	149	9.552	9.558	-0.006	100	558499	20.0	21.3	
134 Fluoranthene	202	10.342	10.349	-0.007	98	561738	20.0	21.1	
136 Pyrene	202	10.663	10.670	-0.007	97	588926	20.0	20.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.624	11.636	-0.012	98	202496	20.0	21.6	
139 Butyl benzyl phthalate	149	11.747	11.754	-0.007	96	253661	20.0	19.7	
140 3,3'-Dichlorobenzidine	252	12.869	12.881	-0.012	74	181186	20.0	19.4	
141 Benzo[a]anthracene	228	12.912	12.929	-0.017	99	558900	20.0	19.8	
142 Bis(2-ethylhexyl) phthalat	149	13.094	13.100	-0.006	98	340701	20.0	19.2	
143 Chrysene	228	12.992	13.009	-0.017	98	545523	20.0	20.2	
145 Di-n-octyl phthalate	149	14.856	14.863	-0.007	99	581961	20.0	19.0	
147 Benzo[b]fluoranthene	252	15.711	15.739	-0.028	98	501596	20.0	19.5	
148 Benzo[k]fluoranthene	252	15.791	15.814	-0.023	99	523521	20.0	20.5	
149 Benzo[a]pyrene	252	16.480	16.509	-0.029	79	456745	20.0	19.8	
151 Indeno[1,2,3-cd]pyrene	276	19.873	19.901	-0.028	99	426867	20.0	19.1	
152 Dibenz(a,h)anthracene	278	19.958	19.992	-0.034	93	407030	20.0	19.1	
153 Benzo[g,h,i]perylene	276	20.599	20.633	-0.034	98	443877	20.0	19.6	

Reagents:

MS-HSLA020_00020 Amount Added: 200.00 Units: uL

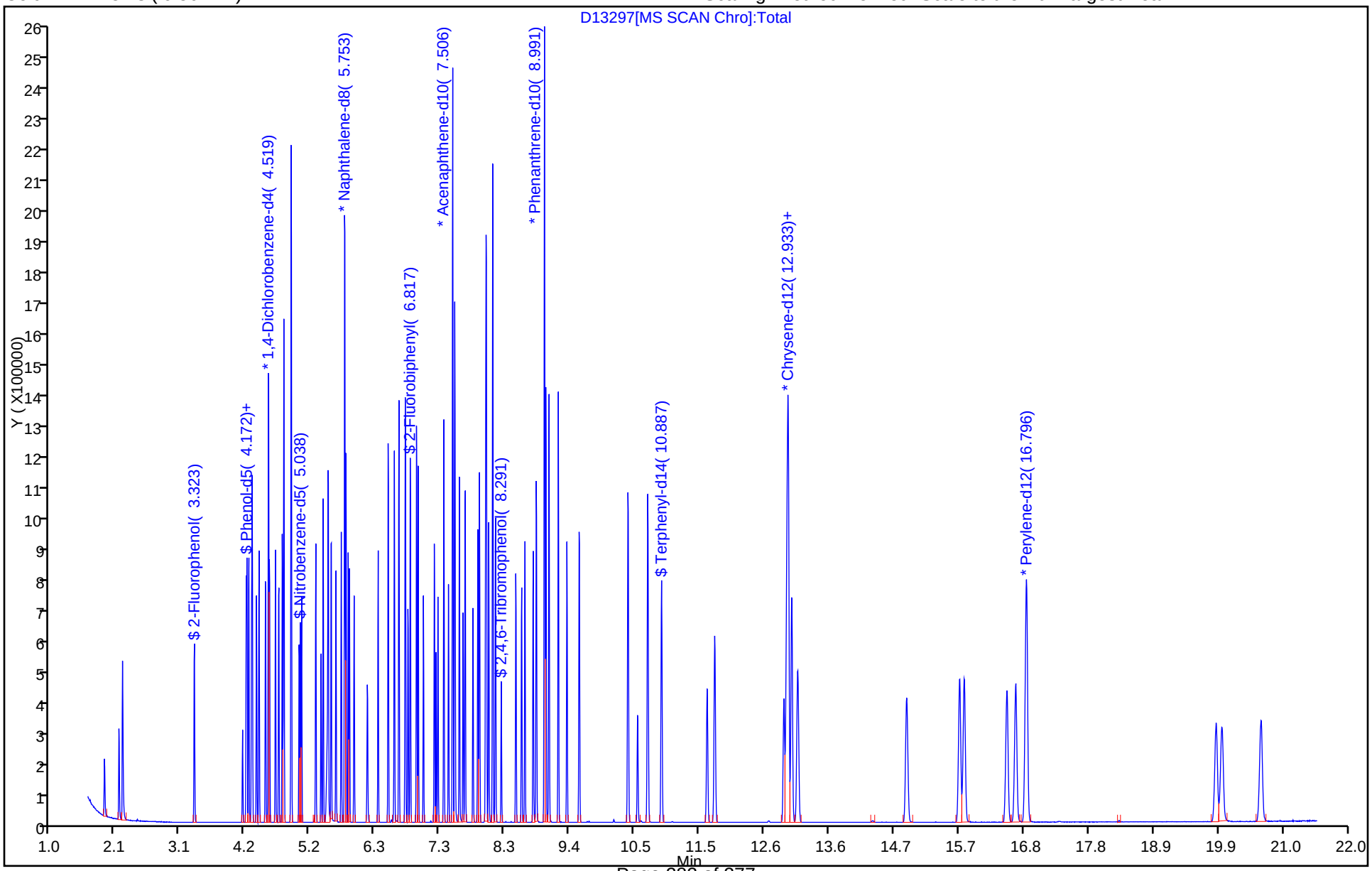
Report Date: 17-Nov-2015 09:25:45 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13297.D

Injection Date:	14-Nov-2015 09:50:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD020 HSL			Worklist Smp#:	6
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13298.D
Lims ID: STD050 HSL
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-Nov-2015 10:17:30 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD050 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:47 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:12:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.521	4.521	0.000	96	216648	40.0	40.0	
* 2 Naphthalene-d8	136	5.755	5.760	-0.005	99	826134	40.0	40.0	
* 3 Acenaphthene-d10	164	7.507	7.507	0.000	90	532477	40.0	40.0	
* 4 Phenanthrene-d10	188	8.993	8.992	0.001	97	930418	40.0	40.0	
* 5 Chrysene-d12	240	12.946	12.951	-0.005	98	892966	40.0	40.0	
* 6 Perylene-d12	264	16.803	16.802	0.001	97	822405	40.0	40.0	
$ 7 2-Fluorophenol	112	3.325	3.319	0.006	92	420572	50.0	51.2	
$ 8 Phenol-d5	99	4.163	4.168	-0.005	98	564887	50.0	51.2	
$ 9 Nitrobenzene-d5	82	5.045	5.044	0.001	87	503876	50.0	50.7	
$ 10 2-Fluorobiphenyl	172	6.818	6.823	-0.005	99	893275	50.0	51.7	
$ 11 2,4,6-Tribromophenol	330	8.293	8.298	-0.005	90	105759	50.0	52.1	
$ 12 Terphenyl-d14	244	10.889	10.894	-0.005	99	961705	50.0	51.0	
13 1,4-Dioxane	88	1.866	1.866	0.000	92	195705	50.0	49.8	
14 N-Nitrosodimethylamine	74	2.107	2.106	0.001	92	311257	50.0	50.6	
15 Pyridine	79	2.160	2.160	0.000	97	544493	50.0	50.7	
24 Phenol	94	4.179	4.179	0.000	98	582795	50.0	50.9	
25 Aniline	93	4.206	4.206	0.000	99	749108	50.0	51.4	
26 Bis(2-chloroethyl)ether	93	4.249	4.248	0.001	98	432323	50.0	51.8	
27 2-Chlorophenol	128	4.329	4.328	0.001	97	408866	50.0	52.0	
31 1,3-Dichlorobenzene	146	4.473	4.473	0.000	97	422485	50.0	51.5	
32 1,4-Dichlorobenzene	146	4.537	4.537	0.000	92	424457	50.0	50.9	
34 Benzyl alcohol	108	4.639	4.638	0.001	94	308376	50.0	51.6	
35 1,2-Dichlorobenzene	146	4.692	4.692	0.000	96	417978	50.0	51.8	
36 2-Methylphenol	108	4.751	4.750	0.001	93	429715	50.0	51.5	
38 2,2'-oxybis[1-chloropropan	45	4.772	4.772	0.000	92	502723	50.0	52.2	
40 3 & 4 Methylphenol	108	4.895	4.895	0.000	69	422787	50.0	52.7	
41 3-Methylphenol	108	4.895	4.895	0.000	72	422787	50.0	52.7	
42 4-Methylphenol	108	4.895	4.895	0.000	68	422787	50.0	52.7	
43 N-Nitrosodi-n-propylamine	70	4.890	4.895	-0.005	84	322635	50.0	52.7	
44 Acetophenone	105	4.895	4.895	0.000	87	572335	50.0	52.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.018	5.018	0.000	96	176711	50.0	52.7	
47 Nitrobenzene	77	5.061	5.060	0.001	85	498829	50.0	52.0	
48 2,6-Dichlorophenol	162	5.835	5.835	0.000	97	335168	50.0	51.8	
50 Isophorone	82	5.291	5.295	-0.005	99	921477	50.0	51.7	
51 2,4-Dimethylphenol	107	5.408	5.413	-0.005	96	436062	50.0	52.1	
52 2-Nitrophenol	139	5.376	5.376	0.000	96	218608	50.0	52.8	
55 Bis(2-chloroethoxy)methane	93	5.488	5.493	-0.005	99	533953	50.0	51.6	
56 Benzoic acid	105	5.526	5.546	-0.020	88	710790	100.0	103.1	
58 2,4-Dichlorophenol	162	5.616	5.616	0.000	95	337076	50.0	51.8	
59 1,2,4-Trichlorobenzene	180	5.702	5.701	0.001	93	370634	50.0	51.4	
60 Naphthalene	128	5.777	5.782	-0.005	98	1156147	50.0	52.1	
61 4-Chloroaniline	127	5.819	5.819	0.000	96	527450	50.0	52.3	
63 Hexachlorobutadiene	225	5.910	5.910	0.000	97	198109	50.0	51.0	
66 Caprolactam	55	6.145	6.161	-0.016	83	203284	50.0	52.2	
68 4-Chloro-3-methylphenol	107	6.300	6.305	-0.005	96	378041	50.0	51.9	
70 2-Methylnaphthalene	142	6.460	6.465	-0.005	93	802055	50.0	52.4	
71 1-Methylnaphthalene	142	6.562	6.561	0.001	94	713550	50.0	52.3	
72 Hexachlorocyclopentadiene	237	6.631	6.636	-0.005	95	198083	50.0	54.7	
73 1,2,4,5-Tetrachlorobenzene	216	6.637	6.636	0.001	97	359165	50.0	52.0	
75 2,4,6-Trichlorophenol	196	6.744	6.743	0.001	94	252921	50.0	52.8	
76 2,4,5-Trichlorophenol	196	6.786	6.786	0.000	95	273140	50.0	51.8	
79 1,1'-Biphenyl	154	6.920	6.925	-0.005	95	937272	50.0	52.0	
81 2-Chloronaphthalene	162	6.947	6.951	-0.004	96	730665	50.0	51.6	
83 2-Nitroaniline	65	7.032	7.037	-0.005	82	271266	50.0	51.9	
86 Dimethyl phthalate	163	7.214	7.213	0.001	98	828716	50.0	52.0	
87 1,3-Dinitrobenzene	168	7.240	7.240	0.000	88	153140	50.0	53.4	
88 2,6-Dinitrotoluene	165	7.272	7.272	0.000	96	209435	50.0	51.6	
93 Acenaphthylene	152	7.363	7.368	-0.005	99	1235685	50.0	52.3	
95 3-Nitroaniline	138	7.443	7.443	0.000	95	249756	50.0	51.2	
97 Acenaphthene	153	7.540	7.539	0.001	95	714617	50.0	51.3	
98 2,4-Dinitrophenol	184	7.550	7.550	0.000	85	254141	100.0	106.5	
99 4-Nitrophenol	109	7.620	7.625	-0.005	93	260551	100.0	105.5	
103 2,4-Dinitrotoluene	165	7.678	7.678	0.000	92	281521	50.0	51.9	
104 Dibenzofuran	168	7.710	7.710	0.000	98	1092256	50.0	51.8	
107 2,3,4,6-Tetrachlorophenol	232	7.833	7.838	-0.005	72	219733	50.0	53.3	
108 Diethyl phthalate	149	7.919	7.918	0.001	98	827308	50.0	51.6	
109 4-Chlorophenyl phenyl ethe	204	8.042	8.041	0.001	91	413836	50.0	51.7	
110 Fluorene	166	8.052	8.057	-0.005	95	862037	50.0	51.4	
112 4-Nitroaniline	138	8.058	8.063	-0.005	86	244054	50.0	50.5	
113 4,6-Dinitro-2-methylphenol	198	8.095	8.100	-0.005	85	347354	100.0	103.9	
114 N-Nitrosodiphenylamine	169	8.159	8.159	0.000	61	1231758	100.0	103.8	
115 Azobenzene	77	8.202	8.202	0.000	97	1016039	50.0	51.8	
116 1,2-Diphenylhydrazine	77	8.202	8.202	0.000	97	1016039	50.5	52.4	
118 4-Bromophenyl phenyl ether	248	8.533	8.533	0.000	67	247856	50.0	51.5	
121 Hexachlorobenzene	284	8.624	8.624	0.000	94	242638	50.0	50.9	
122 Pentachlorophenol	266	8.811	8.811	0.001	92	281430	100.0	103.2	
124 Phenanthrene	178	9.019	9.019	0.000	98	1278840	50.0	51.1	
125 Anthracene	178	9.067	9.072	-0.005	98	1318530	50.0	52.1	
126 Carbazole	167	9.217	9.222	-0.005	95	1278540	50.0	51.5	
130 Di-n-butyl phthalate	149	9.554	9.558	-0.004	100	1435989	50.0	52.3	
134 Fluoranthene	202	10.349	10.349	0.000	98	1445909	50.0	51.7	
136 Pyrene	202	10.670	10.670	0.000	97	1492433	50.0	51.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.632	11.636	-0.004	98	496868	50.0	52.4	
139 Butyl benzyl phthalate	149	11.749	11.754	-0.005	97	673463	50.0	51.8	
140 3,3'-Dichlorobenzidine	252	12.876	12.881	-0.005	74	490944	50.0	52.0	
141 Benzo[a]anthracene	228	12.924	12.929	-0.005	98	1437211	50.0	50.3	
142 Bis(2-ethylhexyl) phthalat	149	13.095	13.100	-0.005	98	907503	50.0	50.5	
143 Chrysene	228	13.005	13.009	-0.004	98	1380461	50.0	50.4	
145 Di-n-octyl phthalate	149	14.864	14.863	0.001	99	1585111	50.0	51.1	
147 Benzo[b]fluoranthene	252	15.724	15.739	-0.015	98	1320338	50.0	50.9	
148 Benzo[k]fluoranthene	252	15.804	15.814	-0.010	99	1343442	50.0	51.9	
149 Benzo[a]pyrene	252	16.493	16.509	-0.016	79	1197772	50.0	51.3	
151 Indeno[1,2,3-cd]pyrene	276	19.885	19.901	-0.016	98	1111659	50.0	49.0	
152 Dibenz(a,h)anthracene	278	19.981	19.992	-0.011	93	1090304	50.0	50.5	
153 Benzo[g,h,i]perylene	276	20.617	20.633	-0.016	98	1158063	50.0	50.4	

Reagents:

MS-HSLA050_00021 Amount Added: 200.00 Units: uL

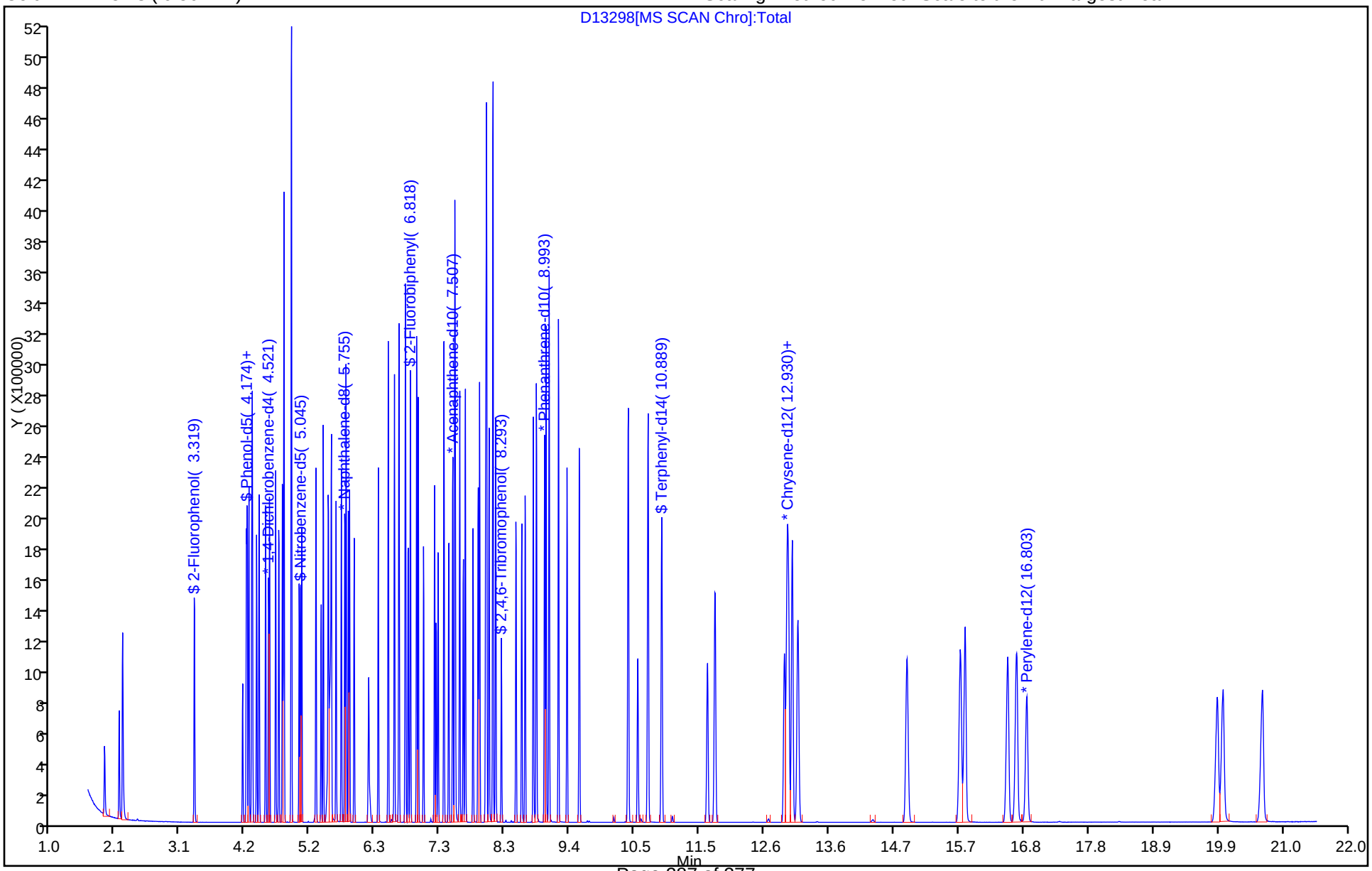
Report Date: 17-Nov-2015 09:25:48 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13298.D

Injection Date:	14-Nov-2015 10:17:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD050 HSL			Worklist Smp#:	7
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13299.D
Lims ID: STD120 HSL
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-Nov-2015 10:44:30 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD120 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:49 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:13:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.524	4.521	0.003	96	205799	40.0	40.0	
* 2 Naphthalene-d8	136	5.758	5.760	-0.002	99	791404	40.0	40.0	
* 3 Acenaphthene-d10	164	7.510	7.507	0.003	91	505578	40.0	40.0	
* 4 Phenanthrene-d10	188	8.995	8.992	0.003	97	865315	40.0	40.0	
* 5 Chrysene-d12	240	12.953	12.951	0.002	98	826161	40.0	40.0	
* 6 Perylene-d12	264	16.805	16.802	0.003	97	775498	40.0	40.0	
$ 7 2-Fluorophenol	112	3.322	3.319	0.003	92	919881	120.0	118.0	
$ 8 Phenol-d5	99	4.171	4.168	0.003	98	1233740	120.0	117.8	
$ 9 Nitrobenzene-d5	82	5.047	5.044	0.003	87	1117835	120.0	117.5	
$ 10 2-Fluorobiphenyl	172	6.826	6.823	0.003	99	1835934	120.0	111.9	
$ 11 2,4,6-Tribromophenol	330	8.300	8.298	0.002	93	232177	120.0	120.5	
$ 12 Terphenyl-d14	244	10.897	10.894	0.003	99	2024214	120.0	116.0	
13 1,4-Dioxane	88	1.863	1.866	-0.003	92	429919	120.0	115.2	
14 N-Nitrosodimethylamine	74	2.109	2.106	0.003	92	692357	120.0	118.5	
15 Pyridine	79	2.157	2.160	-0.003	97	1213589	120.0	119.1	
24 Phenol	94	4.182	4.179	0.003	98	1272578	120.0	116.9	
25 Aniline	93	4.208	4.206	0.002	99	1639573	120.0	118.4	
26 Bis(2-chloroethyl)ether	93	4.256	4.248	0.008	96	900006	120.0	113.6	
27 2-Chlorophenol	128	4.331	4.328	0.003	97	871414	120.0	116.8	
31 1,3-Dichlorobenzene	146	4.475	4.473	0.002	97	900567	120.0	115.6	
32 1,4-Dichlorobenzene	146	4.540	4.537	0.003	92	901117	120.0	113.8	
34 Benzyl alcohol	108	4.641	4.638	0.003	94	676784	120.0	119.2	
35 1,2-Dichlorobenzene	146	4.689	4.692	-0.003	95	877375	120.0	114.6	
36 2-Methylphenol	108	4.753	4.750	0.003	93	932748	120.0	117.6	
38 2,2'-oxybis[1-chloropropan	45	4.775	4.772	0.003	92	1037873	120.0	113.5	
40 3 & 4 Methylphenol	108	4.903	4.895	0.008	78	839740	120.0	110.1	
41 3-Methylphenol	108	4.903	4.895	0.008	76	839740	120.0	110.1	
42 4-Methylphenol	108	4.903	4.895	0.008	71	839740	120.0	110.1	
43 N-Nitrosodi-n-propylamine	70	4.897	4.895	0.002	81	655439	120.0	112.8	
44 Acetophenone	105	4.897	4.895	0.002	85	1131518	120.0	108.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.020	5.018	0.002	94	369187	120.0	115.8	
47 Nitrobenzene	77	5.068	5.060	0.008	85	1068601	120.0	116.2	
48 2,6-Dichlorophenol	162	5.838	5.835	0.003	97	718321	120.0	116.0	
50 Isophorone	82	5.298	5.295	0.003	99	1979340	120.0	115.9	
51 2,4-Dimethylphenol	107	5.416	5.413	0.003	96	931036	120.0	116.2	
52 2-Nitrophenol	139	5.378	5.376	0.002	97	479803	120.0	121.0	
55 Bis(2-chloroethoxy)methane	93	5.496	5.493	0.003	98	1136179	120.0	114.7	
56 Benzoic acid	105	5.571	5.546	0.025	87	1667324	240.0	244.7	
58 2,4-Dichlorophenol	162	5.619	5.616	0.003	96	730275	120.0	117.1	
59 1,2,4-Trichlorobenzene	180	5.704	5.701	0.003	93	790916	120.0	114.6	
60 Naphthalene	128	5.784	5.782	0.002	97	2409566	120.0	113.3	
61 4-Chloroaniline	127	5.822	5.819	0.003	95	1143140	120.0	118.4	
63 Hexachlorobutadiene	225	5.912	5.910	0.002	95	426113	120.0	114.4	
66 Caprolactam	55	6.174	6.161	0.013	84	447696	120.0	120.1	M
68 4-Chloro-3-methylphenol	107	6.308	6.305	0.003	96	821314	120.0	117.7	
70 2-Methylnaphthalene	142	6.463	6.465	-0.002	93	1639848	120.0	111.8	
71 1-Methylnaphthalene	142	6.564	6.561	0.003	94	1486484	120.0	113.8	
72 Hexachlorocyclopentadiene	237	6.634	6.636	-0.002	95	436414	120.0	126.9	
73 1,2,4,5-Tetrachlorobenzene	216	6.639	6.636	0.003	97	738463	120.0	111.5	
75 2,4,6-Trichlorophenol	196	6.746	6.743	0.003	94	521854	120.0	114.8	
76 2,4,5-Trichlorophenol	196	6.789	6.786	0.003	95	595523	120.0	118.9	
79 1,1'-Biphenyl	154	6.927	6.925	0.002	95	1916541	120.0	111.9	
81 2-Chloronaphthalene	162	6.949	6.951	-0.002	97	1525979	120.0	113.5	
83 2-Nitroaniline	65	7.040	7.037	0.003	82	594551	120.0	119.8	
86 Dimethyl phthalate	163	7.221	7.213	0.008	98	1726915	120.0	114.1	
87 1,3-Dinitrobenzene	168	7.243	7.240	0.003	88	340770	120.0	125.2	
88 2,6-Dinitrotoluene	165	7.275	7.272	0.003	95	454527	120.0	118.0	
93 Acenaphthylene	152	7.366	7.368	-0.002	99	2564045	120.0	114.3	
95 3-Nitroaniline	138	7.451	7.443	0.008	95	552310	120.0	119.3	
97 Acenaphthene	153	7.542	7.539	0.003	95	1457208	120.0	110.2	
98 2,4-Dinitrophenol	184	7.558	7.550	0.008	83	599606	240.0	264.6	
99 4-Nitrophenol	109	7.633	7.625	0.008	93	561820	240.0	239.7	
103 2,4-Dinitrotoluene	165	7.686	7.678	0.008	92	613277	120.0	119.1	
104 Dibenzofuran	168	7.713	7.710	0.003	98	2274795	120.0	113.6	
107 2,3,4,6-Tetrachlorophenol	232	7.841	7.838	0.003	72	483103	120.0	123.3	
108 Diethyl phthalate	149	7.921	7.918	0.003	98	1744049	120.0	114.6	
109 4-Chlorophenyl phenyl ethe	204	8.044	8.041	0.003	91	855352	120.0	112.5	
110 Fluorene	166	8.055	8.057	-0.002	94	1759105	120.0	110.5	
112 4-Nitroaniline	138	8.071	8.063	0.008	84	539393	120.0	117.5	
113 4,6-Dinitro-2-methylphenol	198	8.108	8.100	0.008	89	766258	240.0	242.7	
114 N-Nitrosodiphenylamine	169	8.167	8.159	0.008	62	2443557	240.0	221.4	
115 Azobenzene	77	8.204	8.202	0.002	97	2141329	120.0	115.0	
116 1,2-Diphenylhydrazine	77	8.204	8.202	0.002	97	2141329	121.3	116.2	
118 4-Bromophenyl phenyl ether	248	8.535	8.533	0.002	66	528606	120.0	118.1	
121 Hexachlorobenzene	284	8.626	8.624	0.002	94	514949	120.0	116.3	
122 Pentachlorophenol	266	8.813	8.811	0.003	93	635637	240.0	244.5	
124 Phenanthrene	178	9.022	9.019	0.003	98	2615687	120.0	112.4	
125 Anthracene	178	9.075	9.072	0.003	98	2684187	120.0	114.0	
126 Carbazole	167	9.225	9.222	0.003	95	2625258	120.0	113.8	
130 Di-n-butyl phthalate	149	9.561	9.558	0.003	100	2972709	120.0	116.4	
134 Fluoranthene	202	10.352	10.349	0.003	99	3023450	120.0	116.3	
136 Pyrene	202	10.678	10.670	0.008	97	3146915	120.0	116.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.639	11.636	0.003	97	991137	120.0	113.1	
139 Butyl benzyl phthalate	149	11.757	11.754	0.003	97	1450009	120.0	120.6	
140 3,3'-Dichlorobenzidine	252	12.889	12.881	0.008	74	1058121	120.0	121.2	
141 Benzo[a]anthracene	228	12.932	12.929	0.003	99	3102751	120.0	117.3	
142 Bis(2-ethylhexyl) phthalat	149	13.098	13.100	-0.002	98	1979010	120.0	119.1	
143 Chrysene	228	13.018	13.009	0.009	98	2985642	120.0	117.9	
145 Di-n-octyl phthalate	149	14.871	14.863	0.008	99	3552079	120.0	123.9	
147 Benzo[b]fluoranthene	252	15.747	15.739	0.008	98	2934013	120.0	119.9	
148 Benzo[k]fluoranthene	252	15.827	15.814	0.013	99	2908368	120.0	119.2	
149 Benzo[a]pyrene	252	16.517	16.509	0.008	79	2617710	120.0	118.8	
151 Indeno[1,2,3-cd]pyrene	276	19.920	19.901	0.019	99	2556722	120.0	121.9	
152 Dibenz(a,h)anthracene	278	20.010	19.992	0.018	93	2503372	120.0	123.1	
153 Benzo[g,h,i]perylene	276	20.651	20.633	0.018	98	2609391	120.0	120.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA120_00020 Amount Added: 200.00 Units: uL

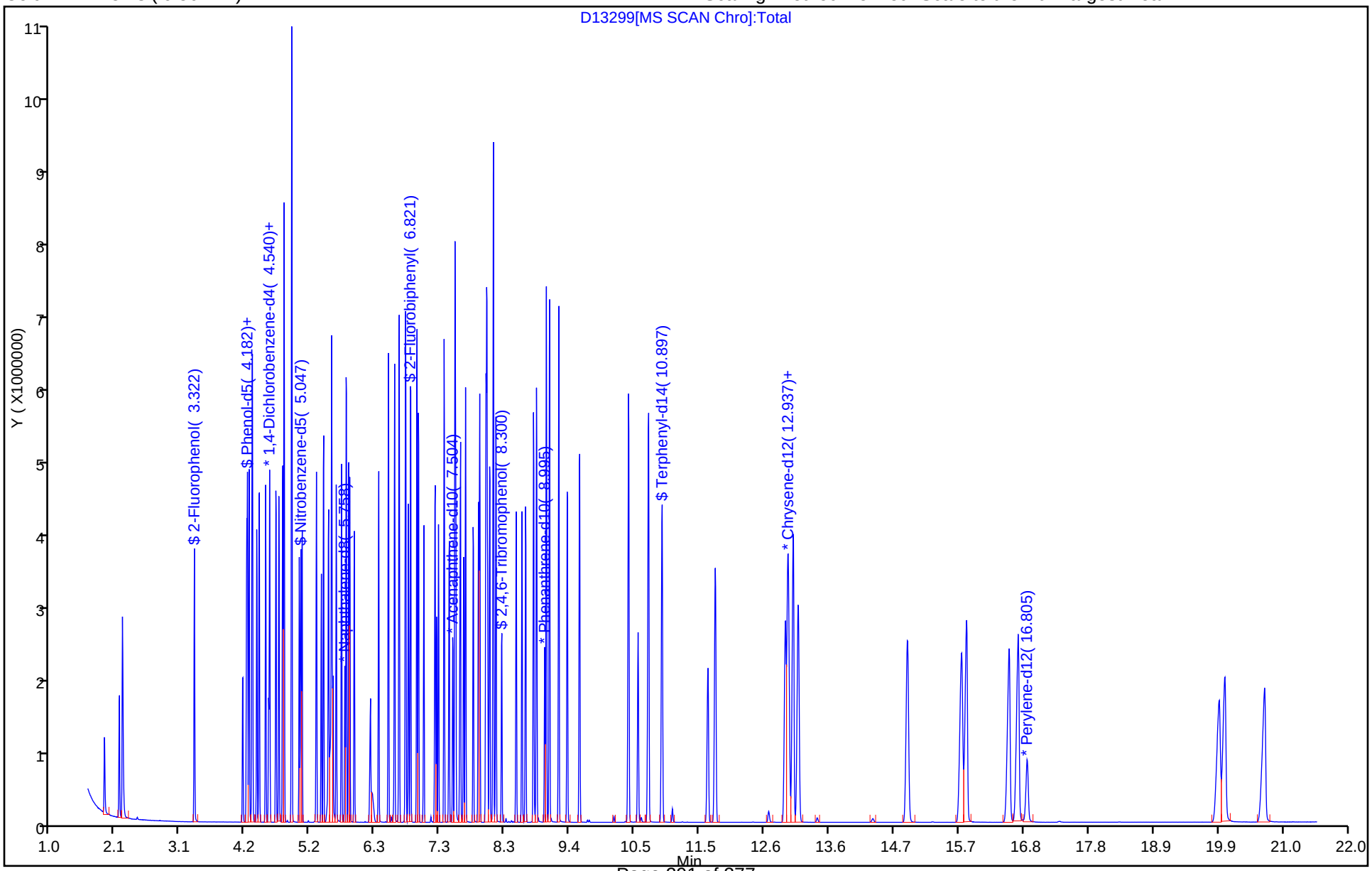
Report Date: 17-Nov-2015 09:25:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13299.D

Injection Date:	14-Nov-2015 10:44:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD120 HSL			Worklist Smp#:	8
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

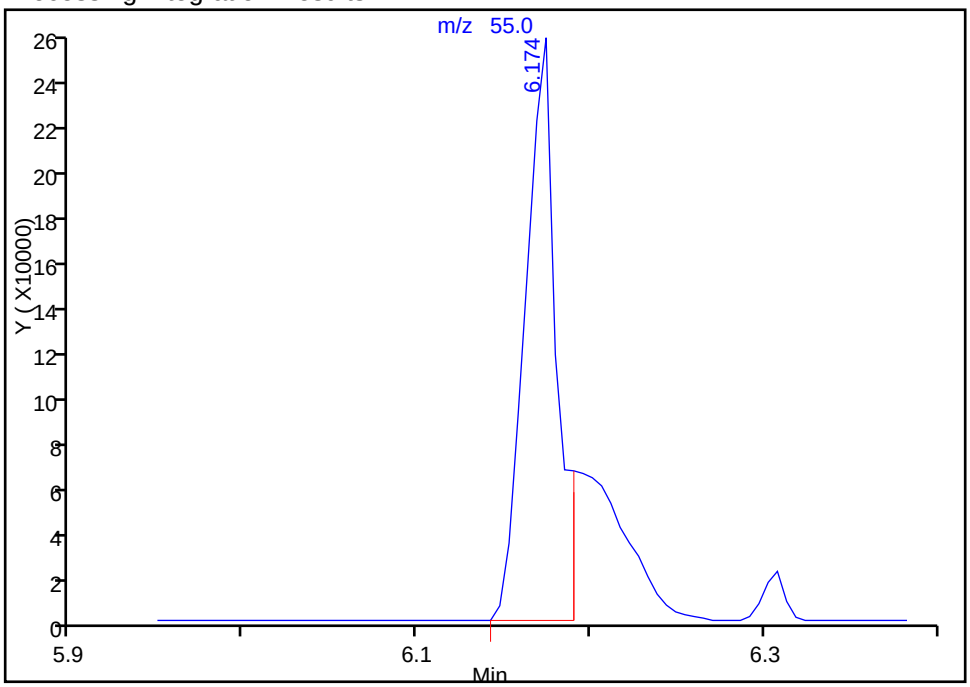
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13299.D
Injection Date: 14-Nov-2015 10:44:30 Instrument ID: SMS_D
Lims ID: STD120 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

66 Caprolactam, CAS: 105-60-2

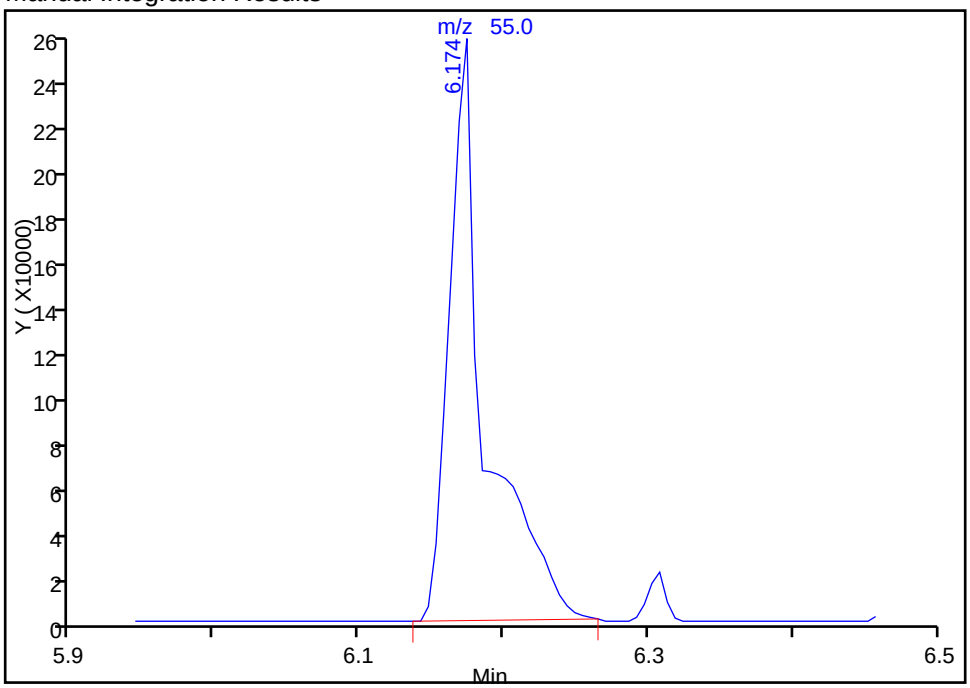
Processing Integration Results

RT: 6.17
Area: 326529
Amount: 101.2080
Amount Units: ug/ml



Manual Integration Results

RT: 6.17
Area: 447696
Amount: 120.0926
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:13:52
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13300.D
Lims ID: STD160 HSL
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-Nov-2015 11:11:30 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD160 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:52 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:15:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.523	4.521	0.002	97	217721	40.0	40.0	
* 2 Naphthalene-d8	136	5.762	5.760	0.002	100	842224	40.0	40.0	
* 3 Acenaphthene-d10	164	7.509	7.507	0.002	90	527863	40.0	40.0	
* 4 Phenanthrene-d10	188	8.994	8.992	0.002	97	918299	40.0	40.0	
* 5 Chrysene-d12	240	12.964	12.951	0.013	98	852068	40.0	40.0	
* 6 Perylene-d12	264	16.815	16.802	0.013	97	812178	40.0	40.0	
$ 7 2-Fluorophenol	112	3.321	3.319	0.002	92	1253451	160.0	151.9	
$ 8 Phenol-d5	99	4.170	4.168	0.002	98	1675616	160.0	151.2	
$ 9 Nitrobenzene-d5	82	5.052	5.044	0.008	86	1534706	160.0	151.5	
$ 10 2-Fluorobiphenyl	172	6.825	6.823	0.002	99	2420223	160.0	141.3	
$ 11 2,4,6-Tribromophenol	330	8.305	8.298	0.007	93	320272	160.0	159.2	
$ 12 Terphenyl-d14	244	10.896	10.894	0.002	99	2737865	160.0	152.1	
13 1,4-Dioxane	88	1.868	1.866	0.002	91	589155	160.0	149.2	
14 N-Nitrosodimethylamine	74	2.108	2.106	0.002	92	966808	160.0	156.5	
15 Pyridine	79	2.156	2.160	-0.004	97	1682038	160.0	156.0	
24 Phenol	94	4.186	4.179	0.007	97	1746492	160.0	151.7	
25 Aniline	93	4.213	4.206	0.007	98	2196168	160.0	150.0	
26 Bis(2-chloroethyl)ether	93	4.256	4.248	0.008	95	1181523	160.0	140.9	
27 2-Chlorophenol	128	4.336	4.328	0.008	97	1173910	160.0	148.7	
31 1,3-Dichlorobenzene	146	4.480	4.473	0.007	96	1200922	160.0	145.7	
32 1,4-Dichlorobenzene	146	4.544	4.537	0.007	92	1208275	160.0	144.2	
34 Benzyl alcohol	108	4.646	4.638	0.008	94	926646	160.0	154.2	
35 1,2-Dichlorobenzene	146	4.694	4.692	0.002	95	1179178	160.0	145.5	
36 2-Methylphenol	108	4.753	4.750	0.003	94	1251379	160.0	149.2	
38 2,2'-oxybis[1-chloropropan	45	4.774	4.772	0.002	95	1354557	160.0	140.0	
40 3 & 4 Methylphenol	108	4.902	4.895	0.007	76	1077350	160.0	133.5	
41 3-Methylphenol	108	4.902	4.895	0.007	76	1077350	160.0	133.5	
42 4-Methylphenol	108	4.902	4.895	0.007	71	1077350	160.0	133.5	
43 N-Nitrosodi-n-propylamine	70	4.902	4.895	0.007	82	849208	160.0	138.1	
44 Acetophenone	105	4.902	4.895	0.007	82	1467041	160.0	133.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.020	5.018	0.002	96	508795	160.0	150.9	
47 Nitrobenzene	77	5.068	5.060	0.008	86	1444767	160.0	147.6	
48 2,6-Dichlorophenol	162	5.843	5.835	0.008	96	967009	160.0	146.7	
50 Isophorone	82	5.303	5.295	0.008	99	2705239	160.0	148.8	
51 2,4-Dimethylphenol	107	5.415	5.413	0.002	97	1250429	160.0	146.6	
52 2-Nitrophenol	139	5.378	5.376	0.002	97	659918	160.0	156.3	
55 Bis(2-chloroethoxy)methane	93	5.495	5.493	0.002	99	1545100	160.0	146.5	
56 Benzoic acid	105	5.591	5.546	0.045	88	2320763	320.0	318.4	
58 2,4-Dichlorophenol	162	5.624	5.616	0.008	95	989822	160.0	149.1	
59 1,2,4-Trichlorobenzene	180	5.704	5.701	0.003	93	1069813	160.0	145.6	
60 Naphthalene	128	5.784	5.782	0.002	98	3145819	160.0	139.0	
61 4-Chloroaniline	127	5.827	5.819	0.007	95	1507198	160.0	146.7	
63 Hexachlorobutadiene	225	5.912	5.910	0.002	96	573670	160.0	144.8	
66 Caprolactam	55	6.184	6.161	0.023	84	621446	160.0	156.6	M
68 4-Chloro-3-methylphenol	107	6.313	6.305	0.008	96	1098805	160.0	148.0	
70 2-Methylnaphthalene	142	6.468	6.465	0.003	93	2157986	160.0	138.3	
71 1-Methylnaphthalene	142	6.564	6.561	0.003	94	1953505	160.0	140.5	
72 Hexachlorocyclopentadiene	237	6.639	6.636	0.002	96	590840	160.0	164.5	
73 1,2,4,5-Tetrachlorobenzene	216	6.644	6.636	0.008	97	964126	160.0	136.8	
75 2,4,6-Trichlorophenol	196	6.751	6.743	0.008	94	693366	160.0	146.1	
76 2,4,5-Trichlorophenol	196	6.793	6.786	0.007	95	813265	160.0	155.5	
79 1,1'-Biphenyl	154	6.927	6.925	0.002	96	2504014	160.0	140.0	
81 2-Chloronaphthalene	162	6.954	6.951	0.003	96	2020205	160.0	144.0	
83 2-Nitroaniline	65	7.045	7.037	0.007	81	806969	160.0	155.8	
86 Dimethyl phthalate	163	7.226	7.213	0.013	98	2300784	160.0	145.6	
87 1,3-Dinitrobenzene	168	7.248	7.240	0.008	87	465489	160.0	163.8	
88 2,6-Dinitrotoluene	165	7.280	7.272	0.008	96	615748	160.0	153.2	
93 Acenaphthylene	152	7.370	7.368	0.002	99	3369122	160.0	143.8	
95 3-Nitroaniline	138	7.456	7.443	0.013	95	749840	160.0	155.1	
97 Acenaphthene	153	7.547	7.539	0.008	95	1904181	160.0	138.0	
98 2,4-Dinitrophenol	184	7.563	7.550	0.013	83	810168	320.0	342.4	
99 4-Nitrophenol	109	7.637	7.625	0.012	94	775821	320.0	317.0	
103 2,4-Dinitrotoluene	165	7.691	7.678	0.013	92	823251	160.0	153.1	
104 Dibenzofuran	168	7.718	7.710	0.008	98	2976003	160.0	142.3	
107 2,3,4,6-Tetrachlorophenol	232	7.840	7.838	0.002	72	640957	160.0	156.7	
108 Diethyl phthalate	149	7.926	7.918	0.008	98	2277202	160.0	143.3	
109 4-Chlorophenyl phenyl ethe	204	8.043	8.041	0.002	92	1142120	160.0	143.8	
110 Fluorene	166	8.060	8.057	0.003	95	2300631	160.0	138.5	
112 4-Nitroaniline	138	8.081	8.063	0.018	83	742399	160.0	155.0	
113 4,6-Dinitro-2-methylphenol	198	8.113	8.100	0.013	85	1036854	320.0	308.8	
114 N-Nitrosodiphenylamine	169	8.172	8.159	0.013	62	3140790	320.0	268.2	
115 Azobenzene	77	8.209	8.202	0.007	98	2846388	160.0	146.4	
116 1,2-Diphenylhydrazine	77	8.209	8.202	0.007	98	2846388	161.8	148.0	
118 4-Bromophenyl phenyl ether	248	8.535	8.533	0.002	66	710316	160.0	149.6	
121 Hexachlorobenzene	284	8.631	8.624	0.007	95	683501	160.0	145.4	
122 Pentachlorophenol	266	8.818	8.811	0.008	93	858389	320.0	310.0	
124 Phenanthrene	178	9.026	9.019	0.007	98	3442279	160.0	139.4	
125 Anthracene	178	9.075	9.072	0.003	98	3539803	160.0	141.7	
126 Carbazole	167	9.229	9.222	0.007	95	3455891	160.0	141.1	
130 Di-n-butyl phthalate	149	9.561	9.558	0.003	100	3938020	160.0	145.3	
134 Fluoranthene	202	10.357	10.349	0.008	99	4011027	160.0	145.3	
136 Pyrene	202	10.683	10.670	0.012	97	4230564	160.0	151.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.644	11.636	0.008	98	1304370	160.0	144.3	
139 Butyl benzyl phthalate	149	11.762	11.754	0.008	97	2022980	160.0	163.1	
140 3,3'-Dichlorobenzidine	252	12.899	12.881	0.018	74	1412337	160.0	156.9	
141 Benzo[a]anthracene	228	12.942	12.929	0.013	99	4201783	160.0	154.0	
142 Bis(2-ethylhexyl) phthalat	149	13.102	13.100	0.002	98	2778878	160.0	162.1	
143 Chrysene	228	13.028	13.009	0.019	98	4040261	160.0	154.7	
145 Di-n-octyl phthalate	149	14.871	14.863	0.008	99	4957832	160.0	167.7	
147 Benzo[b]fluoranthene	252	15.752	15.739	0.013	98	4142519	160.0	161.6	
148 Benzo[k]fluoranthene	252	15.843	15.814	0.029	99	3866328	160.0	151.3	
149 Benzo[a]pyrene	252	16.527	16.509	0.018	79	3592590	160.0	155.7	
151 Indeno[1,2,3-cd]pyrene	276	19.935	19.901	0.034	99	3548466	160.0	164.1	M
152 Dibenz(a,h)anthracene	278	20.031	19.992	0.039	93	3362881	160.0	157.9	
153 Benzo[g,h,i]perylene	276	20.678	20.633	0.045	98	3609019	160.0	159.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA160_00020 Amount Added: 200.00 Units: uL

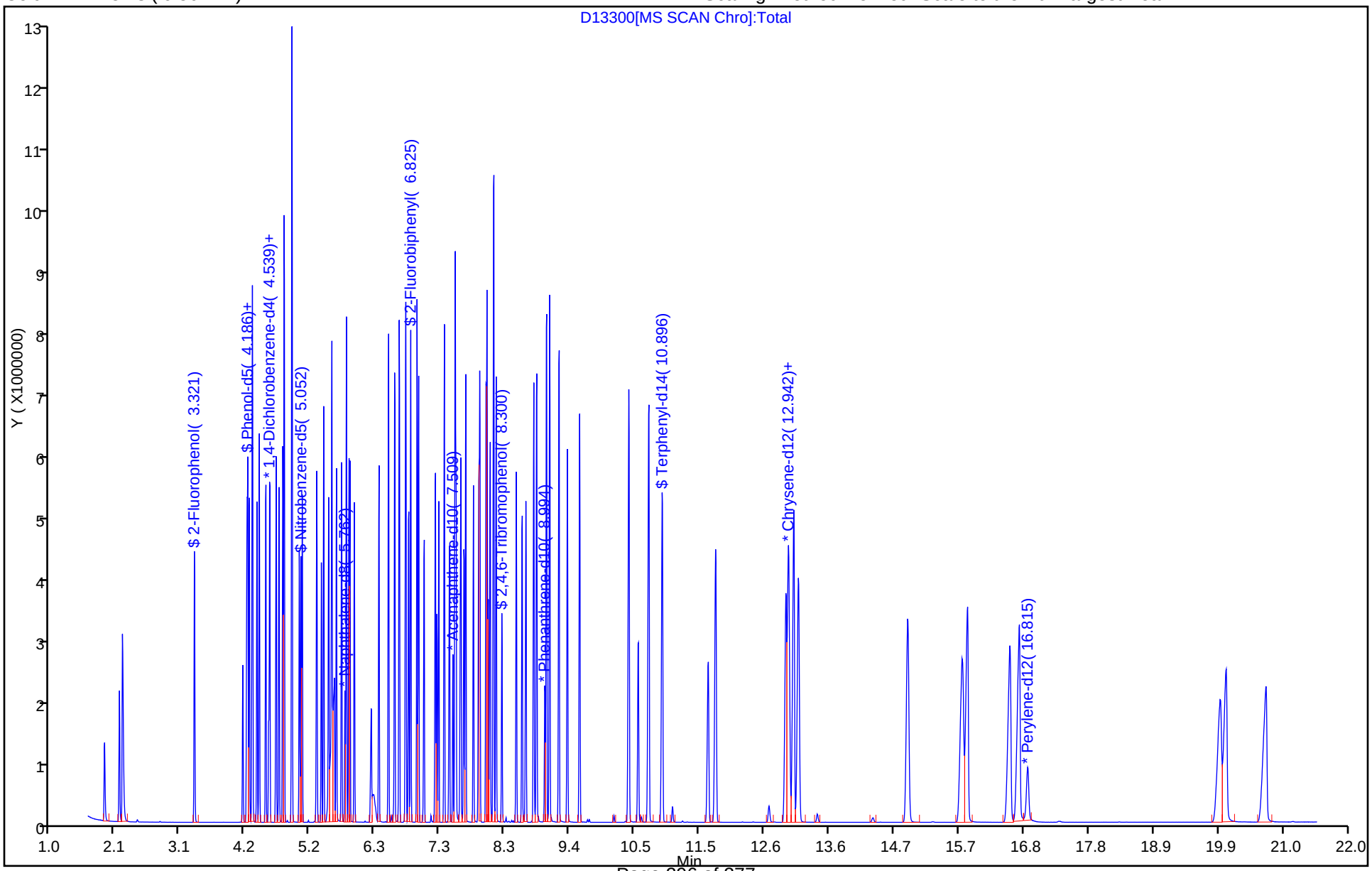
Report Date: 17-Nov-2015 09:25:53 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13300.D

Injection Date:	14-Nov-2015 11:11:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD160 HSL			Worklist Smp#:	9
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

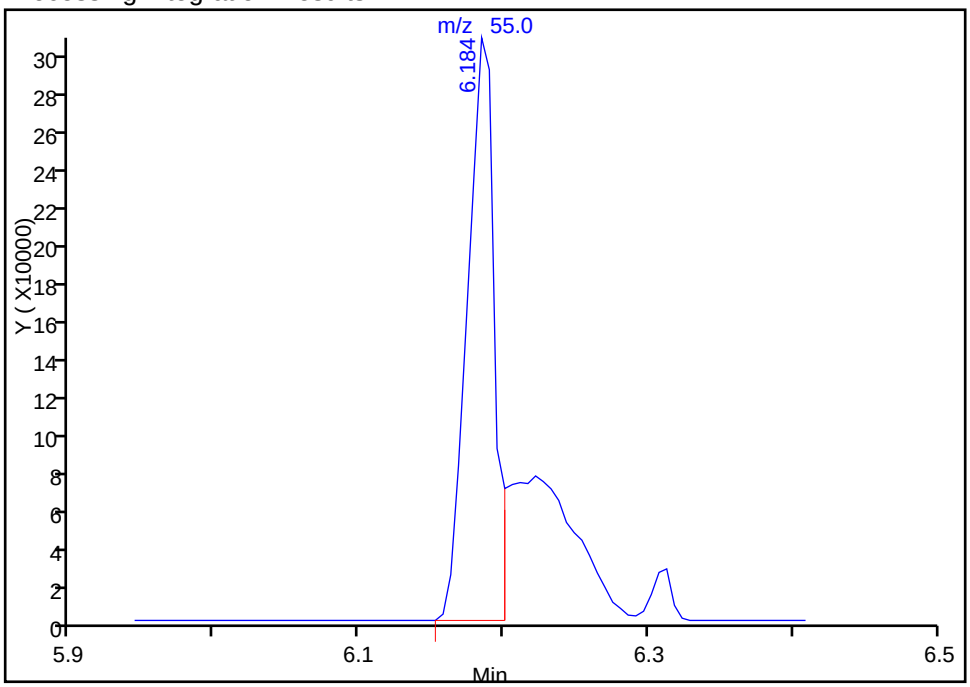
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13300.D
Injection Date: 14-Nov-2015 11:11:30 Instrument ID: SMS_D
Lims ID: STD160 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

66 Caprolactam, CAS: 105-60-2

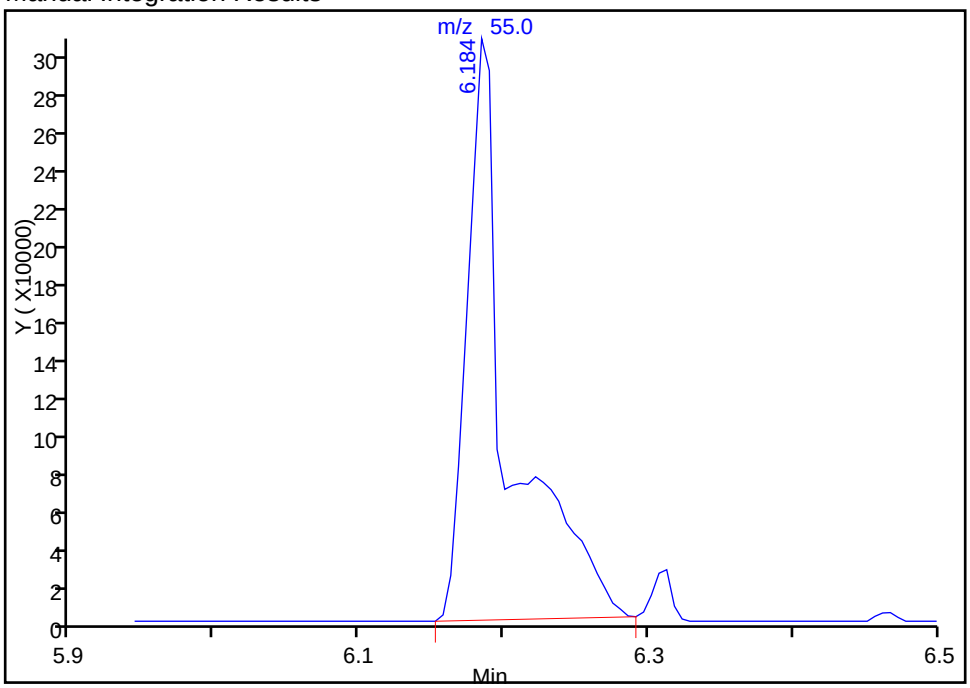
Processing Integration Results

RT: 6.18
Area: 398359
Amount: 111.6535
Amount Units: ug/ml



Manual Integration Results

RT: 6.18
Area: 621446
Amount: 156.6416
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:15:17
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

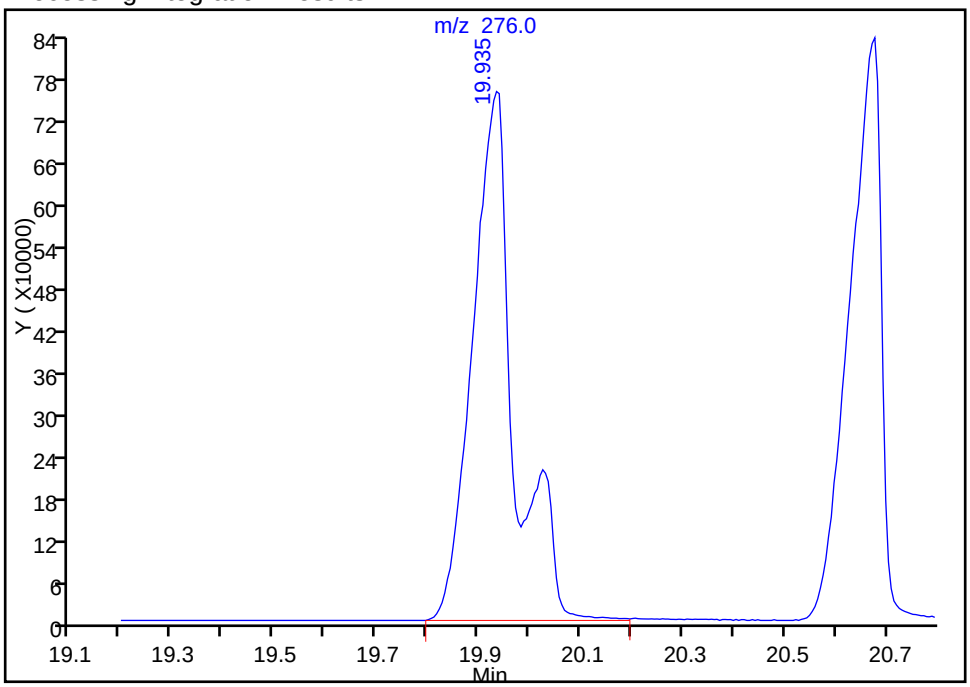
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13300.D
Injection Date: 14-Nov-2015 11:11:30 Instrument ID: SMS_D
Lims ID: STD160 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

151 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

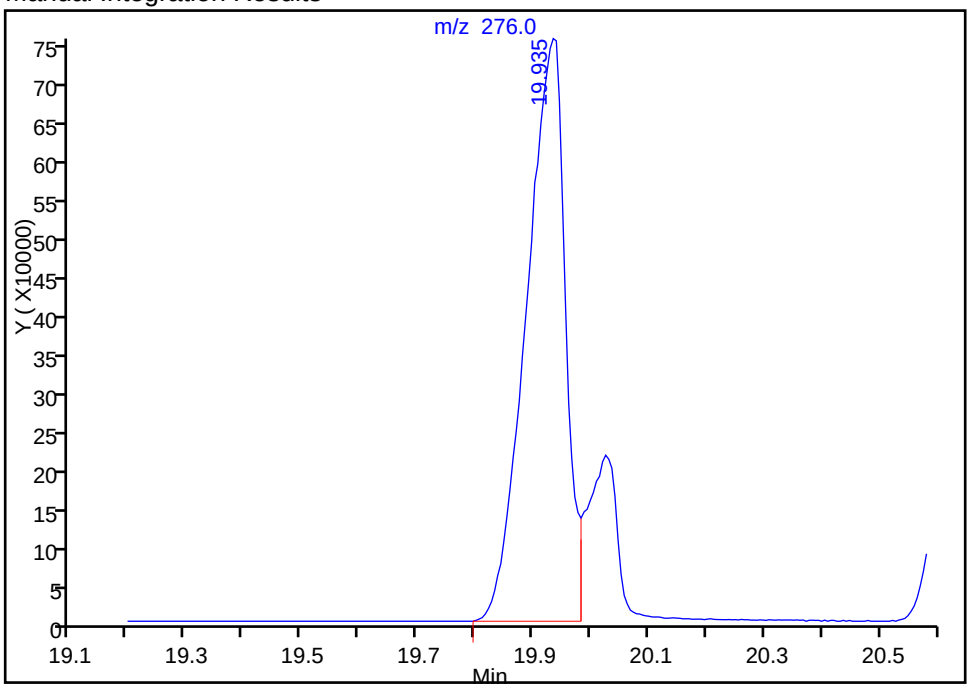
Processing Integration Results

RT: 19.94
Area: 4295713
Amount: 192.6876
Amount Units: ug/ml



Manual Integration Results

RT: 19.94
Area: 3548466
Amount: 164.0727
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:15:17
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D
Lims ID: STD200 HSL
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-Nov-2015 11:38:30 ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: STD200 HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:54 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:16:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.524	4.521	0.003	96	211283	40.0	40.0	
* 2 Naphthalene-d8	136	5.764	5.760	0.004	99	808732	40.0	40.0	
* 3 Acenaphthene-d10	164	7.510	7.507	0.003	91	509618	40.0	40.0	
* 4 Phenanthrene-d10	188	9.001	8.992	0.009	97	876726	40.0	40.0	
* 5 Chrysene-d12	240	12.965	12.951	0.014	98	811423	40.0	40.0	
* 6 Perylene-d12	264	16.822	16.802	0.020	97	784184	40.0	40.0	
$ 7 2-Fluorophenol	112	3.322	3.319	0.003	93	1460183	200.0	182.4	
$ 8 Phenol-d5	99	4.177	4.168	0.009	98	1974612	200.0	183.6	
$ 9 Nitrobenzene-d5	82	5.053	5.044	0.009	87	1821493	200.0	187.3	
$ 10 2-Fluorobiphenyl	172	6.827	6.823	0.004	99	2819323	200.0	170.5	
$ 11 2,4,6-Tribromophenol	330	8.306	8.298	0.008	93	377651	200.0	194.5	
$ 12 Terphenyl-d14	244	10.903	10.894	0.009	99	3173762	200.0	185.2	
13 1,4-Dioxane	88	1.864	1.866	-0.002	91	703766	200.0	183.7	
14 N-Nitrosodimethylamine	74	2.109	2.106	0.003	92	1157216	200.0	193.0	
15 Pyridine	79	2.158	2.160	-0.002	98	1999325	200.0	191.1	
24 Phenol	94	4.188	4.179	0.009	98	2053459	200.0	183.8	
25 Aniline	93	4.214	4.206	0.008	98	2697675	200.0	189.8	
26 Bis(2-chloroethyl)ether	93	4.257	4.248	0.009	95	1363299	200.0	167.5	
27 2-Chlorophenol	128	4.337	4.328	0.009	97	1386659	200.0	181.0	
31 1,3-Dichlorobenzene	146	4.476	4.473	0.003	96	1408847	200.0	176.2	
32 1,4-Dichlorobenzene	146	4.540	4.537	0.003	91	1395925	200.0	171.7	
34 Benzyl alcohol	108	4.647	4.638	0.009	94	1102145	200.0	189.1	
35 1,2-Dichlorobenzene	146	4.695	4.692	0.003	95	1368898	200.0	174.1	
36 2-Methylphenol	108	4.754	4.750	0.004	94	1487765	200.0	182.8	
38 2,2'-oxybis[1-chloropropan	45	4.775	4.772	0.003	94	1554488	200.0	165.6	
40 3 & 4 Methylphenol	108	4.909	4.895	0.014	81	1237383	200.0	158.1	
41 3-Methylphenol	108	4.909	4.895	0.014	91	1237383	200.0	158.1	
42 4-Methylphenol	108	4.909	4.895	0.014	87	1237383	200.0	158.1	
43 N-Nitrosodi-n-propylamine	70	4.903	4.895	0.008	68	991518	200.0	166.2	
44 Acetophenone	105	4.903	4.895	0.008	94	1678636	200.0	157.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.021	5.018	0.003	94	591081	200.0	180.6	
47 Nitrobenzene	77	5.069	5.060	0.009	86	1725651	200.0	183.6	
48 2,6-Dichlorophenol	162	5.844	5.835	0.009	96	1122531	200.0	177.4	
50 Isophorone	82	5.304	5.295	0.009	99	3228887	200.0	184.9	
51 2,4-Dimethylphenol	107	5.416	5.413	0.003	97	1482206	200.0	181.0	
52 2-Nitrophenol	139	5.379	5.376	0.003	97	784099	200.0	193.4	
55 Bis(2-chloroethoxy)methane	93	5.496	5.493	0.003	99	1825345	200.0	180.3	
56 Benzoic acid	105	5.603	5.546	0.057	89	2798953	400.0	398.5	
58 2,4-Dichlorophenol	162	5.625	5.616	0.009	95	1158715	200.0	181.8	
59 1,2,4-Trichlorobenzene	180	5.705	5.701	0.004	93	1243352	200.0	176.2	
60 Naphthalene	128	5.785	5.782	0.003	98	3673763	200.0	169.0	
61 4-Chloroaniline	127	5.828	5.819	0.009	95	1764973	200.0	178.9	
63 Hexachlorobutadiene	225	5.913	5.910	0.003	95	670268	200.0	176.1	
66 Caprolactam	55	6.196	6.161	0.035	84	780069	200.0	204.8	M
68 4-Chloro-3-methylphenol	107	6.314	6.305	0.009	96	1302849	200.0	182.7	
70 2-Methylnaphthalene	142	6.469	6.465	0.004	93	2498818	200.0	166.7	
71 1-Methylnaphthalene	142	6.565	6.561	0.004	94	2258828	200.0	169.2	
72 Hexachlorocyclopentadiene	237	6.640	6.636	0.004	96	695766	200.0	200.7	
73 1,2,4,5-Tetrachlorobenzene	216	6.645	6.636	0.009	97	1111801	200.0	164.3	
75 2,4,6-Trichlorophenol	196	6.752	6.743	0.009	94	800083	200.0	174.6	
76 2,4,5-Trichlorophenol	196	6.795	6.786	0.009	95	949099	200.0	188.0	
79 1,1'-Biphenyl	154	6.928	6.925	0.003	96	2866989	200.0	166.1	
81 2-Chloronaphthalene	162	6.955	6.951	0.004	97	2367146	200.0	174.7	
83 2-Nitroaniline	65	7.046	7.037	0.009	82	945373	200.0	189.0	
86 Dimethyl phthalate	163	7.227	7.213	0.014	98	2699558	200.0	176.9	
87 1,3-Dinitrobenzene	168	7.254	7.240	0.014	88	557185	200.0	203.1	
88 2,6-Dinitrotoluene	165	7.286	7.272	0.014	96	719017	200.0	185.3	
93 Acenaphthylene	152	7.371	7.368	0.003	99	3896191	200.0	172.3	
95 3-Nitroaniline	138	7.457	7.443	0.014	94	885600	200.0	189.8	
97 Acenaphthene	153	7.548	7.539	0.009	95	2201826	200.0	165.2	
98 2,4-Dinitrophenol	184	7.564	7.550	0.014	83	947772	400.0	414.9	
99 4-Nitrophenol	109	7.644	7.625	0.019	94	896361	400.0	379.4	
103 2,4-Dinitrotoluene	165	7.692	7.678	0.014	92	963112	200.0	185.5	
104 Dibenzofuran	168	7.719	7.710	0.009	98	3449119	200.0	170.9	
107 2,3,4,6-Tetrachlorophenol	232	7.842	7.838	0.004	72	752124	200.0	190.5	
108 Diethyl phthalate	149	7.932	7.918	0.014	98	2595537	200.0	169.2	
109 4-Chlorophenyl phenyl ethe	204	8.045	8.041	0.004	92	1318326	200.0	171.9	
110 Fluorene	166	8.061	8.057	0.004	94	2656619	200.0	165.6	
112 4-Nitroaniline	138	8.087	8.063	0.024	85	890305	200.0	192.5	
113 4,6-Dinitro-2-methylphenol	198	8.119	8.100	0.019	88	1222306	400.0	380.6	
114 N-Nitrosodiphenylamine	169	8.173	8.159	0.014	62	3610433	400.0	322.9	
115 Azobenzene	77	8.210	8.202	0.008	98	3322765	200.0	177.0	
116 1,2-Diphenylhydrazine	77	8.210	8.202	0.008	98	3322765	202.2	178.9	
118 4-Bromophenyl phenyl ether	248	8.536	8.533	0.003	66	820080	200.0	180.8	
121 Hexachlorobenzene	284	8.632	8.624	0.008	96	791112	200.0	176.3	
122 Pentachlorophenol	266	8.819	8.811	0.009	94	1019419	400.0	384.6	
124 Phenanthrene	178	9.028	9.019	0.009	98	3954113	200.0	167.7	
125 Anthracene	178	9.076	9.072	0.004	98	4018991	200.0	168.5	
126 Carbazole	167	9.231	9.222	0.009	95	3985572	200.0	170.5	
130 Di-n-butyl phthalate	149	9.562	9.558	0.004	100	4471675	200.0	172.8	
134 Fluoranthene	202	10.358	10.349	0.009	99	4693015	200.0	178.1	
136 Pyrene	202	10.684	10.670	0.014	96	4912484	200.0	185.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.645	11.636	0.009	98	1434157	200.0	166.6	
139 Butyl benzyl phthalate	149	11.763	11.754	0.009	97	2332479	200.0	197.5	
140 3,3'-Dichlorobenzidine	252	12.906	12.881	0.025	74	1600423	200.0	186.7	
141 Benzo[a]anthracene	228	12.943	12.929	0.014	99	4958579	200.0	190.9	
142 Bis(2-ethylhexyl) phthalat	149	13.104	13.100	0.004	98	3236906	200.0	198.3	
143 Chrysene	228	13.034	13.009	0.025	98	4725711	200.0	190.1	
145 Di-n-octyl phthalate	149	14.877	14.863	0.014	99	5834302	200.0	207.2	
147 Benzo[b]fluoranthene	252	15.764	15.739	0.025	98	4941904	200.0	199.7	
148 Benzo[k]fluoranthene	252	15.849	15.814	0.035	99	4566066	200.0	185.1	
149 Benzo[a]pyrene	252	16.539	16.509	0.030	80	4301169	200.0	193.1	
151 Indeno[1,2,3-cd]pyrene	276	19.942	19.901	0.041	99	4380160	200.0	212.7	M
152 Dibenz(a,h)anthracene	278	20.043	19.992	0.051	93	4124624	200.0	200.5	
153 Benzo[g,h,i]perylene	276	20.684	20.633	0.051	98	4365155	200.0	199.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MS-HSLA200_00020 Amount Added: 200.00 Units: uL

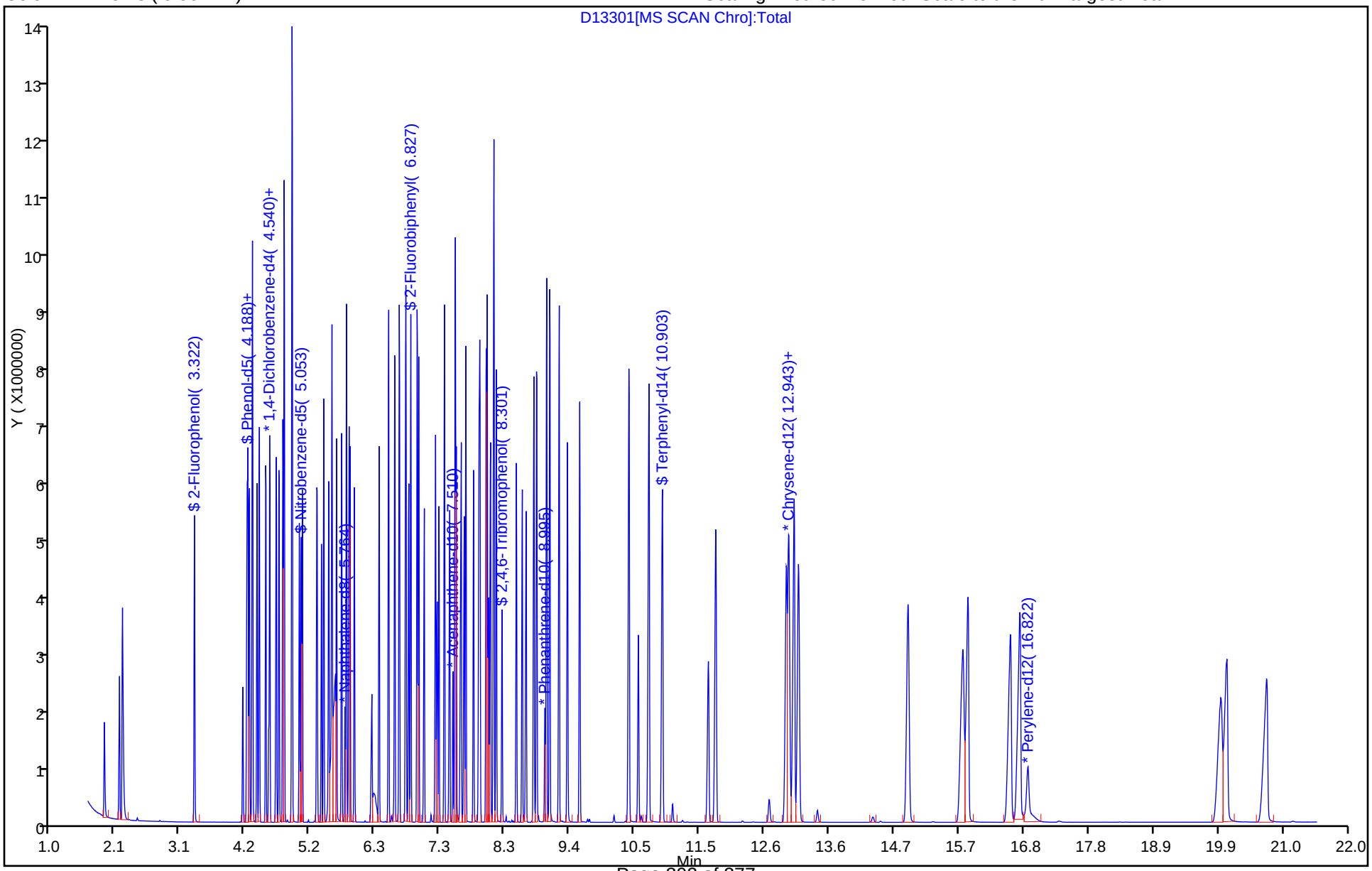
Report Date: 17-Nov-2015 09:25:55 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Injection Date:	14-Nov-2015 11:38:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	STD200 HSL			Worklist Smp#:	10
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

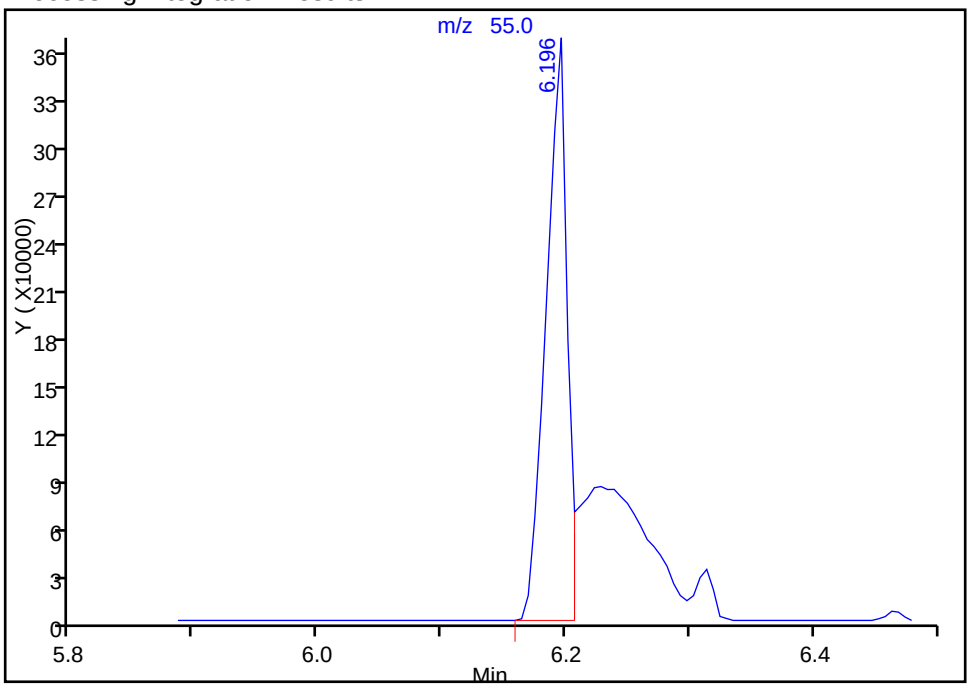
TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D				
Injection Date:	14-Nov-2015 11:38:30	Instrument ID:	SMS_D		
Lims ID:	STD200 HSL				
Client ID:					
Operator ID:	KIEKELD	ALS Bottle#:	9	Worklist Smp#:	10
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		
Column:	VF-5ms (0.50 mm)	Detector	MS SCAN		

66 Caprolactam, CAS: 105-60-2

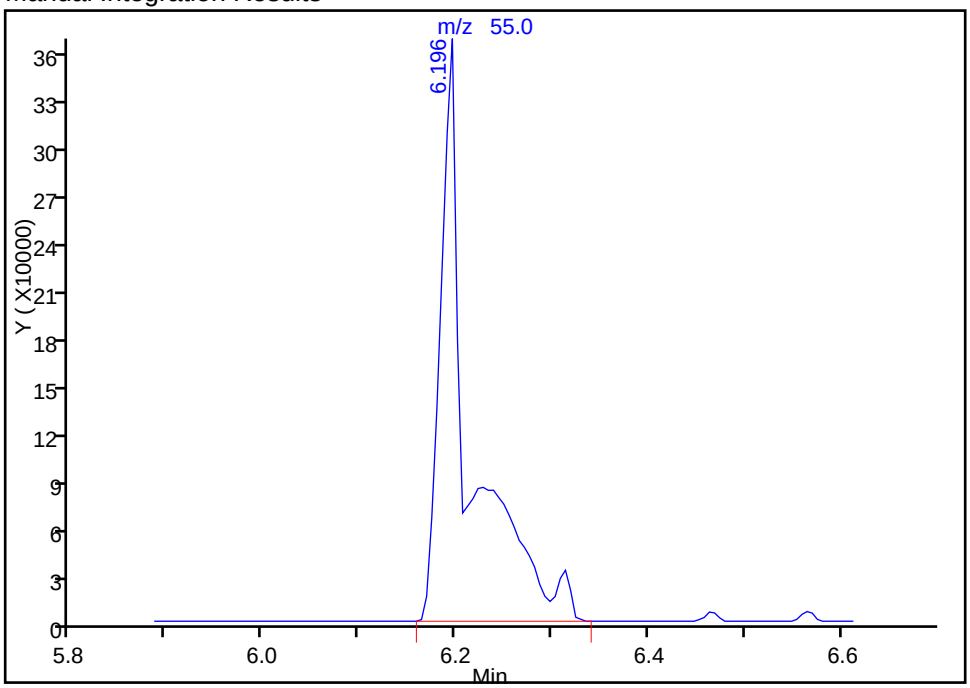
Processing Integration Results

RT: 6.20
Area: 434064
Amount: 120.7984
Amount Units: ug/ml



Manual Integration Results

RT: 6.20
Area: 780069
Amount: 204.7669
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:16:56
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

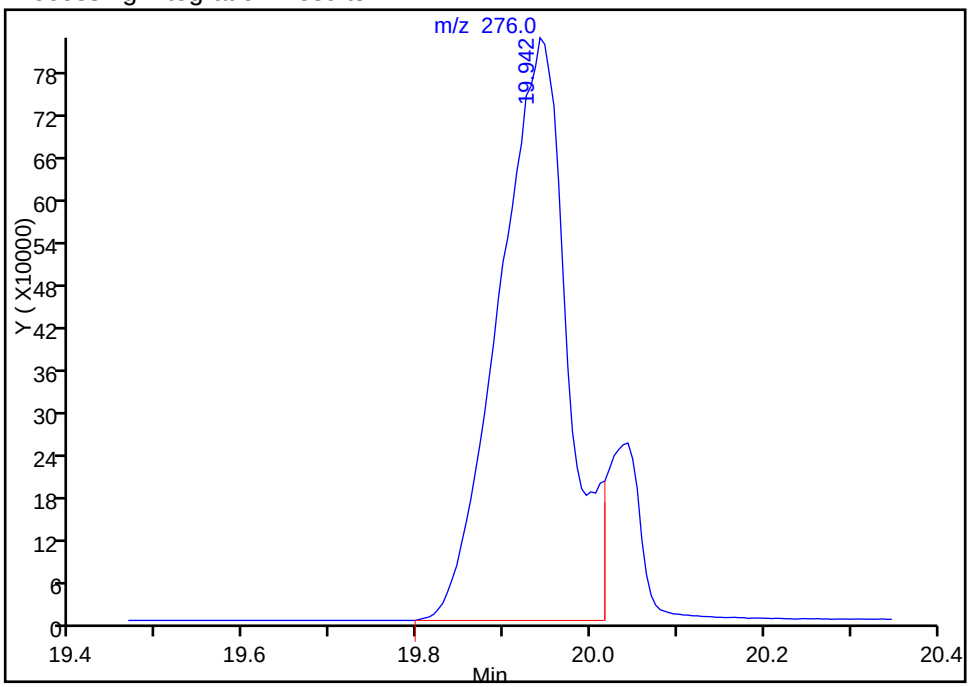
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D
Injection Date: 14-Nov-2015 11:38:30 Instrument ID: SMS_D
Lims ID: STD200 HSL
Client ID:
Operator ID: KIEKELD ALS Bottle#: 9 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

151 Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

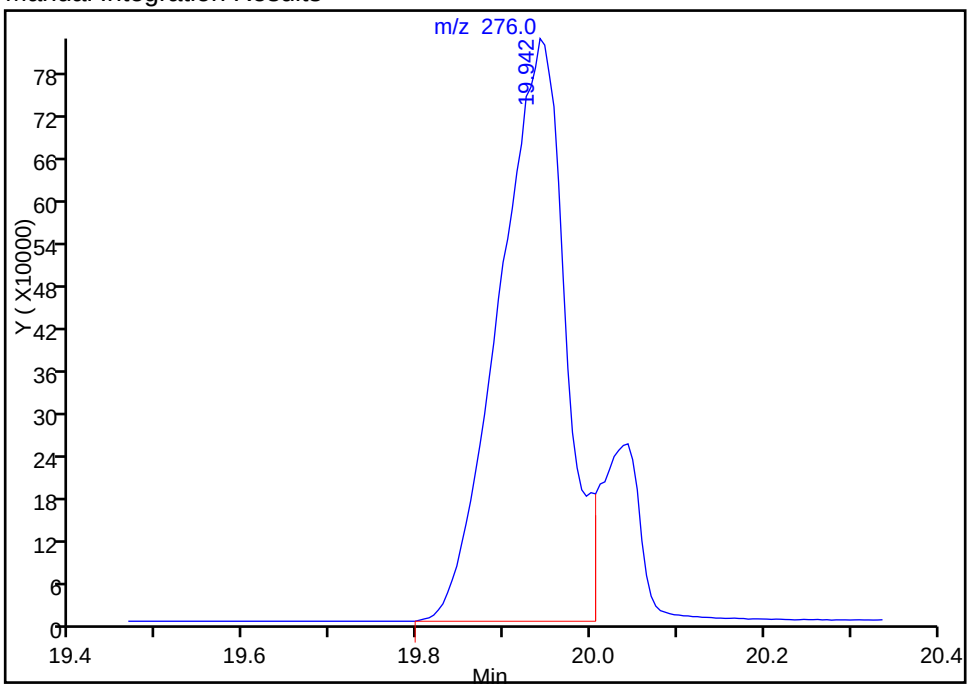
Processing Integration Results

RT: 19.94
Area: 4505847
Amount: 217.9445
Amount Units: ug/ml



Manual Integration Results

RT: 19.94
Area: 4380160
Amount: 212.6732
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:16:56
Audit Action: Split an Integrated Peak
Audit Reason: Shouldering

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: ICV 280-304451/11 Calibration Date: 11/14/2015 12:06

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13302.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7253	0.6736		92.9	100	-7.1	30.0
N-Nitrosodimethylamine	Ave	1.135	0.9468		83.4	100	-16.6	30.0
Pyridine	Ave	1.981	1.887		95.3	100	-4.8	30.0
Phenol	Ave	2.115	2.043	0.8000	96.6	100	-3.4	30.0
Aniline	Ave	2.691	2.494		92.7	100	-7.3	30.0
Bis(2-chloroethyl)ether	Ave	1.540	1.435	0.7000	93.2	100	-6.8	30.0
2-Chlorophenol	Ave	1.451	1.383	0.8000	95.3	100	-4.7	30.0
1,3-Dichlorobenzene	Ave	1.514	1.427		94.3	100	-5.7	30.0
1,4-Dichlorobenzene	Ave	1.539	1.463		95.1	100	-4.9	30.0
Benzyl alcohol	Ave	1.104	1.069		96.8	100	-3.2	30.0
1,2-Dichlorobenzene	Ave	1.489	1.392		93.5	100	-6.5	30.0
2-Methylphenol	Ave	1.541	1.480	0.7000	96.1	100	-3.9	30.0
bis (2-chloroisopropyl) ether	Ave	1.778	1.693	0.0100	95.2	100	-4.8	30.0
3 & 4 Methylphenol	Ave	1.482	1.359		91.7	100	-8.3	30.0
3-Methylphenol	Ave	1.482	1.359		91.7	100	-8.3	30.0
4-Methylphenol	Ave	1.482	1.359	0.6000	91.7	100	-8.3	30.0
Acetophenone	Ave	2.022	1.827	0.0100	90.4	100	-9.6	30.0
N-Nitrosodi-n-propylamine	Ave	1.130	1.060	0.5000	93.8	100	-6.2	30.0
Hexachloroethane	Ave	0.6196	0.6036	0.3000	97.4	100	-2.6	30.0
Nitrobenzene	Ave	0.4649	0.4435		95.4	100	-4.6	30.0
Isophorone	Ave	0.8635	0.8241	0.4000	95.4	100	-4.6	30.0
2-Nitrophenol	Ave	0.2005	0.1973	0.1000	98.4	100	-1.6	30.0
2,4-Dimethylphenol	Ave	0.4051	0.3775	0.2000	93.2	100	-6.8	30.0
Bis(2-chloroethoxy)methane	Ave	0.5008	0.4743	0.3000	94.7	100	-5.3	30.0
Benzoic acid	Lin2		0.3399		198	200	-0.8	30.0
2,4-Dichlorophenol	Ave	0.3153	0.3029	0.2000	96.1	100	-3.9	30.0
1,2,4-Trichlorobenzene	Ave	0.3489	0.3274		93.8	100	-6.2	30.0
Naphthalene	Ave	1.075	1.003	0.7000	93.3	100	-6.7	30.0
4-Chloroaniline	Ave	0.4881	0.4571	0.0100	93.7	100	-6.3	30.0
2,6-Dichlorophenol	Ave	0.3130	0.2990		95.5	100	-4.5	30.0
Hexachlorobutadiene	Ave	0.1882	0.1789	0.0100	95.0	100	-5.0	30.0
4-Chloro-3-methylphenol	Ave	0.3526	0.3388	0.2000	96.1	100	-3.9	30.0
2-Methylnaphthalene	Ave	0.7413	0.6717	0.4000	90.6	100	-9.4	30.0
1-Methylnaphthalene	Ave	0.6603	0.6388		96.7	100	-3.3	30.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3347	0.3117	0.0100	93.1	100	-6.9	30.0
Hexachlorocyclopentadiene	Ave	0.2721	0.2820	0.0500	104	100	3.6	30.0
2,4,6-Trichlorophenol	Ave	0.3596	0.3499	0.2000	97.3	100	-2.7	30.0
2,4,5-Trichlorophenol	Ave	0.3963	0.3975	0.2000	100	100	0.3	30.0
1,1'-Biphenyl	Ave	1.355	1.286		94.9	100	-5.1	30.0
2-Chloronaphthalene	Ave	1.063	1.017	0.8000	95.6	100	-4.4	30.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: ICV 280-304451/11 Calibration Date: 11/14/2015 12:06

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13302.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Nitroaniline	Ave	0.3925	0.3865	0.0100	98.5	100	-1.5	30.0
Dimethyl phthalate	Ave	1.198	1.159	0.0100	96.7	100	-3.3	30.0
1,3-Dinitrobenzene	Ave	0.2154	0.2217		103	100	2.9	30.0
2,6-Dinitrotoluene	Ave	0.3046	0.2994	0.2000	98.3	100	-1.7	30.0
Acenaphthylene	Ave	1.775	1.641	0.9000	92.4	100	-7.6	30.0
3-Nitroaniline	Ave	0.3663	0.3501	0.0100	95.6	100	-4.4	30.0
Acenaphthene	Ave	1.046	0.9842	0.9000	94.1	100	-5.9	30.0
2,4-Dinitrophenol	Ave	0.1793	0.1953	0.0100	218	200	8.9	30.0
4-Nitrophenol	Ave	0.1854	0.1866	0.0100	201	200	0.6	30.0
2,4-Dinitrotoluene	Ave	0.4075	0.4026	0.2000	98.8	100	-1.2	30.0
Dibenzofuran	Ave	1.584	1.480	0.8000	93.4	100	-6.6	30.0
2,3,4,6-Tetrachlorophenol	Ave	0.3099	0.3121	0.0100	101	100	0.7	30.0
Diethyl phthalate	Ave	1.204	1.172	0.0100	97.3	100	-2.7	30.0
4-Chlorophenyl phenyl ether	Ave	0.6018	0.5717	0.4000	95.0	100	-5.0	30.0
Fluorene	Ave	1.259	1.181	0.9000	93.8	100	-6.2	30.0
4-Nitroaniline	Ave	0.3630	0.3280	0.0100	90.3	100	-9.7	30.0
4,6-Dinitro-2-methylphenol	Lin2		0.1452	0.0100	200	200	-0.2	30.0
N-Nitrosodiphenylamine	Ave	0.5101	0.4665	0.0100	183	200	-8.5	30.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.458	1.455		101	101	-0.2	30.0
Azobenzene	Ave	1.474	1.471		99.8	100	-0.2	30.0
4-Bromophenyl phenyl ether	Ave	0.2069	0.1971	0.1000	95.3	100	-4.7	30.0
Hexachlorobenzene	Ave	0.2048	0.1946	0.1000	95.0	100	-5.0	30.0
Pentachlorophenol	Lin2		0.1243	0.0500	207	200	3.7	30.0
Phenanthrene	Ave	1.076	0.9837	0.7000	91.4	100	-8.6	30.0
Anthracene	Ave	1.088	1.028	0.7000	94.4	100	-5.6	30.0
Carbazole	Ave	1.067	1.003	0.0100	94.0	100	-6.0	30.0
Di-n-butyl phthalate	Ave	1.181	1.144	0.0100	96.9	100	-3.1	30.0
Fluoranthene	Ave	1.202	1.160	0.6000	96.5	100	-3.5	30.0
Pyrene	Ave	1.309	1.262	0.6000	96.4	100	-3.6	30.0
Butyl benzyl phthalate	Ave	0.5823	0.5866	0.0100	101	100	0.7	30.0
Benzo[a]anthracene	Ave	1.281	1.246	0.8000	97.3	100	-2.7	30.0
Chrysene	Ave	1.226	1.197	0.7000	97.7	100	-2.3	30.0
Bis(2-ethylhexyl) phthalate	Ave	0.8047	0.7999	0.0100	99.4	100	-0.6	30.0
Di-n-octyl phthalate	Ave	1.388	1.452	0.0100	105	100	4.6	30.0
Benzo[b]fluoranthene	Ave	1.263	1.249	0.7000	98.9	100	-1.1	30.0
Benzo[k]fluoranthene	Ave	1.258	1.217	0.7000	96.7	100	-3.3	30.0
Benzo[a]pyrene	Ave	1.136	1.150	0.7000	101	100	1.2	30.0
Indeno[1,2,3-cd]pyrene	Ave	1.015	0.9683	0.5000	95.4	100	-4.6	30.0
Dibenz(a,h)anthracene	Ave	1.049	1.050	0.4000	100	100	0.1	30.0
Benzo[g,h,i]perylene	Ave	1.117	1.091	0.5000	97.7	100	-2.3	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13302.D
Lims ID: ICV HSL 1
Client ID:
Sample Type: ICV
Inject. Date: 14-Nov-2015 12:06:30 ALS Bottle#: 10 Worklist Smp#: 11
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICV HSL 1
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:54 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:20:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.522	4.521	0.001	96	207619	40.0	40.0	
* 2 Naphthalene-d8	136	5.761	5.760	0.001	100	794597	40.0	40.0	
* 3 Acenaphthene-d10	164	7.508	7.507	0.001	91	504212	40.0	40.0	
* 4 Phenanthrene-d10	188	8.993	8.992	0.001	97	892855	40.0	40.0	
* 5 Chrysene-d12	240	12.952	12.951	0.001	98	848547	40.0	40.0	
* 6 Perylene-d12	264	16.803	16.802	0.001	97	785790	40.0	40.0	
13 1,4-Dioxane	88	1.861	1.866	-0.005	92	349646	100.0	92.9	
14 N-Nitrosodimethylamine	74	2.102	2.106	-0.004	92	491451	100.0	83.4	
15 Pyridine	79	2.155	2.160	-0.005	97	979398	100.0	95.3	
24 Phenol	94	4.180	4.179	0.001	97	1060505	100.0	96.6	
25 Aniline	93	4.207	4.206	0.001	99	1294564	100.0	92.7	
26 Bis(2-chloroethyl)ether	93	4.249	4.248	0.001	97	744985	100.0	93.2	
27 2-Chlorophenol	128	4.330	4.328	0.002	97	717612	100.0	95.3	
31 1,3-Dichlorobenzene	146	4.474	4.473	0.001	96	740858	100.0	94.3	
32 1,4-Dichlorobenzene	146	4.538	4.537	0.001	92	759494	100.0	95.1	
34 Benzyl alcohol	108	4.639	4.638	0.001	93	554692	100.0	96.8	
35 1,2-Dichlorobenzene	146	4.693	4.692	0.001	95	722664	100.0	93.5	
36 2-Methylphenol	108	4.752	4.750	0.002	94	768414	100.0	96.1	
38 2,2'-oxybis[1-chloropropan	45	4.773	4.772	0.001	92	878737	100.0	95.2	
40 3 & 4 Methylphenol	108	4.896	4.895	0.001	79	705296	100.0	91.7	
41 3-Methylphenol	108	4.896	4.895	0.001	75	705296	100.0	91.7	
42 4-Methylphenol	108	4.896	4.895	0.001	71	705296	100.0	91.7	
43 N-Nitrosodi-n-propylamine	70	4.896	4.895	0.001	82	550149	100.0	93.8	
44 Acetophenone	105	4.896	4.895	0.001	87	948521	100.0	90.4	
46 Hexachloroethane	117	5.019	5.018	0.001	96	313317	100.0	97.4	
47 Nitrobenzene	77	5.061	5.060	0.001	86	881037	100.0	95.4	
48 2,6-Dichlorophenol	162	5.836	5.835	0.001	96	593907	100.0	95.5	
50 Isophorone	82	5.296	5.295	0.001	99	1636994	100.0	95.4	
51 2,4-Dimethylphenol	107	5.414	5.413	0.001	96	749968	100.0	93.2	
52 2-Nitrophenol	139	5.377	5.376	0.001	97	391992	100.0	98.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
55 Bis(2-chloroethoxy)methane	93	5.494	5.493	0.001	98	942202	100.0	94.7	
56 Benzoic acid	105	5.558	5.546	0.012	89	1350244	200.0	198.4	
58 2,4-Dichlorophenol	162	5.617	5.616	0.001	95	601704	100.0	96.1	
59 1,2,4-Trichlorobenzene	180	5.702	5.701	0.001	93	650386	100.0	93.8	
60 Naphthalene	128	5.783	5.782	0.001	97	1991930	100.0	93.3	
61 4-Chloroaniline	127	5.820	5.819	0.001	95	908065	100.0	93.7	
63 Hexachlorobutadiene	225	5.911	5.910	0.001	96	355306	100.0	95.0	
68 4-Chloro-3-methylphenol	107	6.301	6.305	-0.004	96	672979	100.0	96.1	
70 2-Methylnaphthalene	142	6.461	6.465	-0.004	93	1334278	100.0	90.6	
71 1-Methylnaphthalene	142	6.563	6.561	0.002	94	1269001	100.0	96.7	
72 Hexachlorocyclopentadiene	237	6.637	6.636	0.001	95	355486	100.0	103.6	
73 1,2,4,5-Tetrachlorobenzene	216	6.637	6.636	0.001	97	619165	100.0	93.1	
75 2,4,6-Trichlorophenol	196	6.744	6.743	0.001	94	441089	100.0	97.3	
76 2,4,5-Trichlorophenol	196	6.782	6.786	-0.004	95	501022	100.0	100.3	
79 1,1'-Biphenyl	154	6.926	6.925	0.001	95	1621523	100.0	94.9	
81 2-Chloronaphthalene	162	6.953	6.951	0.002	96	1281592	100.0	95.6	
83 2-Nitroaniline	65	7.038	7.037	0.001	83	487139	100.0	98.5	
86 Dimethyl phthalate	163	7.220	7.213	0.007	98	1460658	100.0	96.7	
87 1,3-Dinitrobenzene	168	7.246	7.240	0.006	88	279399	100.0	102.9	
88 2,6-Dinitrotoluene	165	7.273	7.272	0.001	95	377366	100.0	98.3	
93 Acenaphthylene	152	7.364	7.368	-0.004	99	2067948	100.0	92.4	
95 3-Nitroaniline	138	7.449	7.443	0.006	95	441311	100.0	95.6	
97 Acenaphthene	153	7.540	7.539	0.001	95	1240606	100.0	94.1	
98 2,4-Dinitrophenol	184	7.556	7.550	0.006	85	492453	200.0	217.9	
99 4-Nitrophenol	109	7.626	7.625	0.001	94	470488	200.0	201.3	
103 2,4-Dinitrotoluene	165	7.684	7.678	0.006	92	507501	100.0	98.8	
104 Dibenzofuran	168	7.711	7.710	0.001	98	1865431	100.0	93.4	
107 2,3,4,6-Tetrachlorophenol	232	7.839	7.838	0.001	73	393384	100.0	100.7	
108 Diethyl phthalate	149	7.925	7.918	0.007	98	1477050	100.0	97.3	
109 4-Chlorophenyl phenyl ethe	204	8.042	8.041	0.001	92	720586	100.0	95.0	
110 Fluorene	166	8.058	8.057	0.001	94	1489095	100.0	93.8	
112 4-Nitroaniline	138	8.064	8.063	0.001	85	413468	100.0	90.3	
113 4,6-Dinitro-2-methylphenol	198	8.101	8.100	0.001	86	648315	200.0	199.5	
114 N-Nitrosodiphenylamine	169	8.165	8.159	0.006	62	2082706	200.0	182.9	
115 Azobenzene	77	8.203	8.202	0.001	97	1853760	100.0	99.8	
116 1,2-Diphenylhydrazine	77	8.203	8.202	0.001	97	1853760	101.1	100.9	
118 4-Bromophenyl phenyl ether	248	8.534	8.533	0.001	67	439968	100.0	95.3	
121 Hexachlorobenzene	284	8.625	8.624	0.001	94	434288	100.0	95.0	
122 Pentachlorophenol	266	8.812	8.811	0.002	93	554791	200.0	207.5	
124 Phenanthrene	178	9.020	9.019	0.001	98	2195706	100.0	91.4	
125 Anthracene	178	9.073	9.072	0.001	98	2293964	100.0	94.4	
126 Carbazole	167	9.223	9.222	0.001	95	2239276	100.0	94.0	
130 Di-n-butyl phthalate	149	9.560	9.558	0.002	100	2553995	100.0	96.9	
134 Fluoranthene	202	10.355	10.349	0.006	99	2588327	100.0	96.5	
136 Pyrene	202	10.676	10.670	0.006	96	2676752	100.0	96.4	
139 Butyl benzyl phthalate	149	11.755	11.754	0.001	97	1244415	100.0	100.7	
141 Benzo[a]anthracene	228	12.930	12.929	0.001	99	2643997	100.0	97.3	
142 Bis(2-ethylhexyl) phthalat	149	13.096	13.100	-0.004	98	1696840	100.0	99.4	
143 Chrysene	228	13.016	13.009	0.007	98	2539793	100.0	97.7	
145 Di-n-octyl phthalate	149	14.864	14.863	0.001	99	3080360	100.0	104.6	
147 Benzo[b]fluoranthene	252	15.740	15.739	0.001	98	2453601	100.0	98.9	
148 Benzo[k]fluoranthene	252	15.820	15.814	0.006	99	2389821	100.0	96.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
149 Benzo[a]pyrene	252	16.510	16.509	0.001	79	2258950	100.0	101.2	
151 Indeno[1,2,3-cd]pyrene	276	19.907	19.901	0.006	98	2054014	100.0	95.4	
152 Dibenz(a,h)anthracene	278	19.998	19.992	0.006	93	2063474	100.0	100.1	
153 Benzo[g,h,i]perylene	276	20.644	20.633	0.011	98	2144154	100.0	97.7	

Reagents:

MS-HSLB1B3SSV_00028 Amount Added: 200.00 Units: uL

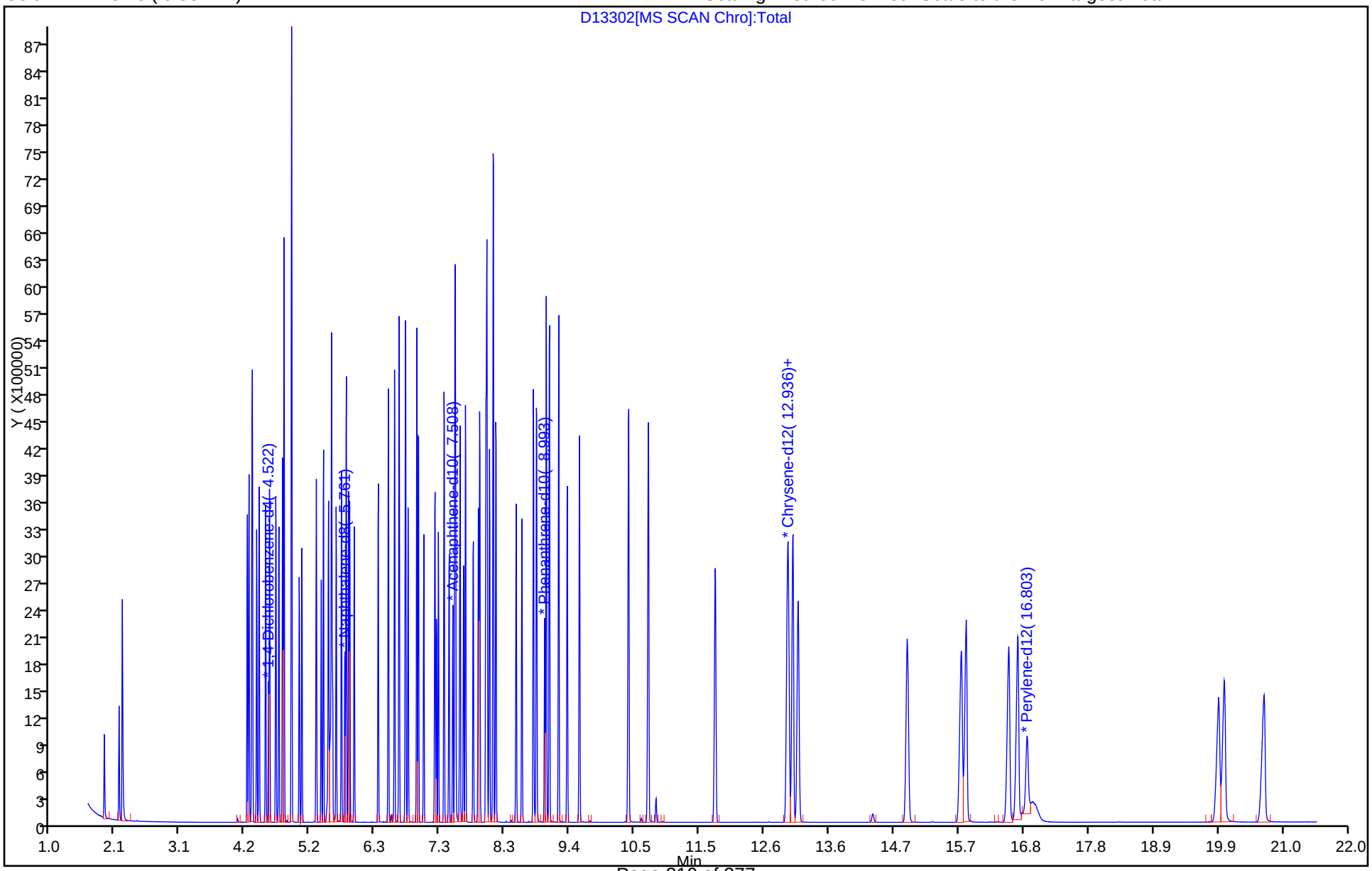
Report Date: 17-Nov-2015 09:25:57 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13302.D

Injection Date:	14-Nov-2015 12:06:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	ICV HSL 1			Worklist Smp#:	11
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: ICV 280-304451/12 Calibration Date: 11/14/2015 12:33

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13303.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Caprolactam	Ave	0.1884	0.1713		90.9	100	-9.1	30.0
3,3'-Dichlorobenzidine	Ave	0.4226	0.4343	0.0100	103	100	2.8	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13303.D
Lims ID: ICV HSL 2
Client ID:
Sample Type: ICV
Inject. Date: 14-Nov-2015 12:33:30 ALS Bottle#: 11 Worklist Smp#: 12
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICV HSL 2
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:54 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:21:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.521	4.521	0.000	96	195547	40.0	40.0	
* 2 Naphthalene-d8	136	5.755	5.760	-0.005	100	732730	40.0	40.0	
* 3 Acenaphthene-d10	164	7.502	7.507	-0.005	90	470191	40.0	40.0	
* 4 Phenanthrene-d10	188	8.992	8.992	0.000	97	839156	40.0	40.0	
* 5 Chrysene-d12	240	12.935	12.951	-0.016	98	811474	40.0	40.0	
* 6 Perylene-d12	264	16.797	16.802	-0.005	97	788929	40.0	40.0	
66 Caprolactam	55	6.129	6.161	-0.032	84	313856	100.0	90.9	
140 3,3'-Dichlorobenzidine	252	12.876	12.881	-0.005	74	880977	100.0	102.8	

Reagents:

MS-HSLB2SSV_00025 Amount Added: 200.00 Units: uL

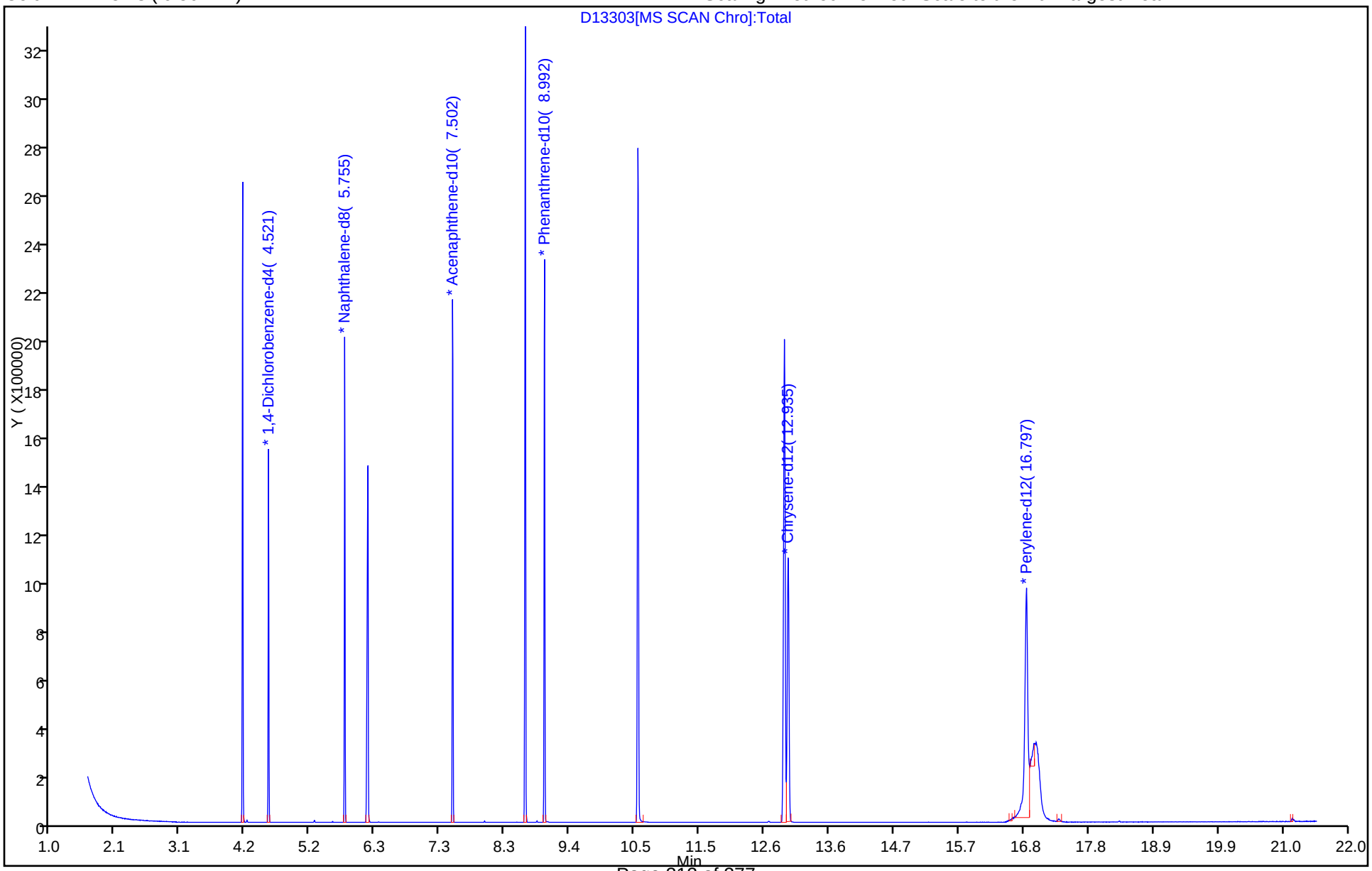
Report Date: 17-Nov-2015 09:25:59 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13303.D

Injection Date:	14-Nov-2015 12:33:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	ICV HSL 2			Worklist Smp#:	12
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: ICV 280-304451/13 Calibration Date: 11/14/2015 13:00

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13304.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Famphur	Ave	0.4244	0.4151		97.8	100	-2.2	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13304.D
Lims ID: ICV FAM
Client ID:
Sample Type: ICV
Inject. Date: 14-Nov-2015 13:00:30 ALS Bottle#: 12 Worklist Smp#: 13
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: ICV FAM
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist:

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:54 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:22:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.522	4.521	0.001	97	268776	40.0	40.0	
* 2 Naphthalene-d8	136	5.756	5.760	-0.004	100	1010825	40.0	40.0	
* 3 Acenaphthene-d10	164	7.502	7.507	-0.005	90	654332	40.0	40.0	
* 4 Phenanthrene-d10	188	8.993	8.992	0.001	97	1153524	40.0	40.0	
* 5 Chrysene-d12	240	12.941	12.951	-0.010	97	1290029	40.0	40.0	
* 6 Perylene-d12	264	16.798	16.802	-0.004	97	1183125	40.0	40.0	
138 Famphur	218	11.637	11.636	0.001	98	1338680	100.0	97.8	

Reagents:

MS-FAMSSV_100_00013 Amount Added: 200.00 Units: uL

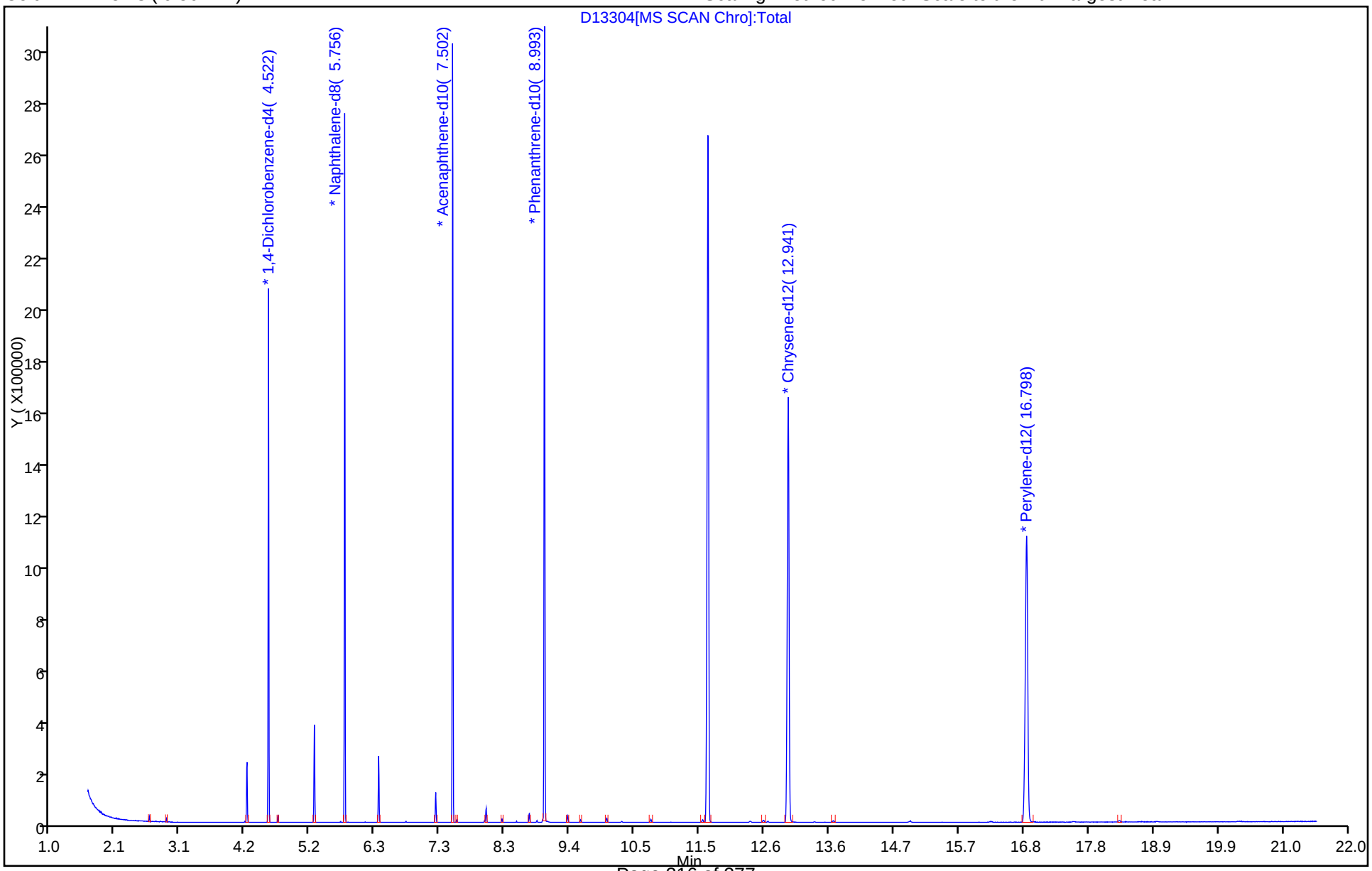
Report Date: 17-Nov-2015 09:26:01 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13304.D

Injection Date:	14-Nov-2015 13:00:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	ICV FAM			Worklist Smp#:	13
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: CCV 280-304460/3 Calibration Date: 11/16/2015 16:13

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13342.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	0.7253	0.6739		74.3	80.0	-7.1	20.0
N-Nitrosodimethylamine	Ave	1.135	1.099		77.4	80.0	-3.2	20.0
Pyridine	Ave	1.981	1.936		78.2	80.0	-2.3	20.0
Phenol	Ave	2.115	2.074	0.8000	78.4	80.0	-1.9	20.0
Aniline	Ave	2.691	2.673		79.5	80.0	-0.7	20.0
Bis(2-chloroethyl)ether	Ave	1.540	1.563	0.7000	81.2	80.0	1.5	20.0
2-Chlorophenol	Ave	1.451	1.431	0.8000	78.9	80.0	-1.3	20.0
1,3-Dichlorobenzene	Ave	1.514	1.504		79.5	80.0	-0.7	20.0
1,4-Dichlorobenzene	Ave	1.539	1.537		79.9	80.0	-0.1	20.0
Benzyl alcohol	Ave	1.104	1.096		79.5	80.0	-0.7	20.0
1,2-Dichlorobenzene	Ave	1.489	1.471		79.0	80.0	-1.2	20.0
2-Methylphenol	Ave	1.541	1.535	0.7000	79.7	80.0	-0.4	20.0
bis (2-chloroisopropyl) ether	Ave	1.778	1.788	0.0100	80.5	80.0	0.6	20.0
N-Nitrosodi-n-propylamine	Ave	1.130	1.160	0.5000	82.1	80.0	2.7	20.0
3 & 4 Methylphenol	Ave	1.482	1.495		80.7	80.0	0.9	20.0
3-Methylphenol	Ave	1.482	1.495		80.7	80.0	0.9	20.0
4-Methylphenol	Ave	1.482	1.495	0.6000	80.7	80.0	0.9	20.0
Acetophenone	Ave	2.022	2.022	0.0100	80.0	80.0	0.0	20.0
Hexachloroethane	Ave	0.6196	0.6322	0.3000	81.6	80.0	2.0	20.0
Nitrobenzene	Ave	0.4649	0.4599		79.1	80.0	-1.1	20.0
Isophorone	Ave	0.8635	0.8692	0.4000	80.5	80.0	0.7	20.0
2-Nitrophenol	Ave	0.2005	0.2032	0.1000	81.1	80.0	1.3	20.0
2,4-Dimethylphenol	Ave	0.4051	0.4098	0.2000	80.9	80.0	1.1	20.0
Bis(2-chloroethoxy)methane	Ave	0.5008	0.5014	0.3000	80.1	80.0	0.1	20.0
Benzoic acid	Lin2		0.3362		158	160	-1.2	20.0
2,4-Dichlorophenol	Ave	0.3153	0.3153	0.2000	80.0	80.0	0.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3489	0.3458		79.3	80.0	-0.9	20.0
Naphthalene	Ave	1.075	1.071	0.7000	79.7	80.0	-0.3	20.0
4-Chloroaniline	Ave	0.4881	0.4964	0.0100	81.4	80.0	1.7	20.0
2,6-Dichlorophenol	Ave	0.3130	0.3174		81.1	80.0	1.4	20.0
Hexachlorobutadiene	Ave	0.1882	0.1885	0.0100	80.1	80.0	0.1	20.0
Caprolactam	Ave	0.1884	0.1878		79.7	80.0	-0.3	20.0
4-Chloro-3-methylphenol	Ave	0.3526	0.3600	0.2000	81.7	80.0	2.1	20.0
2-Methylnaphthalene	Ave	0.7413	0.7673	0.4000	82.8	80.0	3.5	20.0
1-Methylnaphthalene	Ave	0.6603	0.6701		81.2	80.0	1.5	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.3347	0.3376	0.0100	80.7	80.0	0.9	20.0
Hexachlorocyclopentadiene	Ave	0.2721	0.3010	0.0500	88.5	80.0	10.6	20.0
2,4,6-Trichlorophenol	Ave	0.3596	0.3753	0.2000	83.5	80.0	4.4	20.0
2,4,5-Trichlorophenol	Ave	0.3963	0.4076	0.2000	82.3	80.0	2.9	20.0
1,1'-Biphenyl	Ave	1.355	1.360		80.3	80.0	0.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: CCV 280-304460/3 Calibration Date: 11/16/2015 16:13

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13342.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloronaphthalene	Ave	1.063	1.067	0.8000	80.3	80.0	0.3	20.0
2-Nitroaniline	Ave	0.3925	0.4009	0.0100	81.7	80.0	2.1	20.0
Dimethyl phthalate	Ave	1.198	1.226	0.0100	81.9	80.0	2.4	20.0
1,3-Dinitrobenzene	Ave	0.2154	0.2286		84.9	80.0	6.1	20.0
2,6-Dinitrotoluene	Ave	0.3046	0.3080	0.2000	80.9	80.0	1.1	20.0
Acenaphthylene	Ave	1.775	1.802	0.9000	81.2	80.0	1.5	20.0
3-Nitroaniline	Ave	0.3663	0.3746	0.0100	81.8	80.0	2.3	20.0
Acenaphthene	Ave	1.046	1.052	0.9000	80.5	80.0	0.6	20.0
2,4-Dinitrophenol	Ave	0.1793	0.1996	0.0100	178	160	11.3	20.0
4-Nitrophenol	Ave	0.1854	0.1955	0.0100	169	160	5.4	20.0
2,4-Dinitrotoluene	Ave	0.4075	0.4193	0.2000	82.3	80.0	2.9	20.0
Dibenzofuran	Ave	1.584	1.585	0.8000	80.0	80.0	0.0	20.0
2,3,4,6-Tetrachlorophenol	Ave	0.3099	0.3367	0.0100	86.9	80.0	8.7	20.0
Diethyl phthalate	Ave	1.204	1.254	0.0100	83.3	80.0	4.1	20.0
4-Chlorophenyl phenyl ether	Ave	0.6018	0.6146	0.4000	81.7	80.0	2.1	20.0
Fluorene	Ave	1.259	1.268	0.9000	80.5	80.0	0.7	20.0
4-Nitroaniline	Ave	0.3630	0.3637	0.0100	80.1	80.0	0.2	20.0
4,6-Dinitro-2-methylphenol	Lin2		0.1502	0.0100	166	160	3.5	20.0
N-Nitrosodiphenylamine	Ave	0.5101	0.5109	0.0100	160	160	0.2	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.458	1.500		83.2	80.9	2.9	20.0
Azobenzene	Ave	1.474	1.516		82.3	80.0	2.9	20.0
4-Bromophenyl phenyl ether	Ave	0.2069	0.2127	0.1000	82.2	80.0	2.8	20.0
Hexachlorobenzene	Ave	0.2048	0.2046	0.1000	79.9	80.0	-0.0	20.0
Pentachlorophenol	Lin2		0.1252	0.0500	168	160	5.1	20.0
Phenanthrene	Ave	1.076	1.075	0.7000	79.9	80.0	-0.1	20.0
Anthracene	Ave	1.088	1.088	0.7000	80.0	80.0	0.0	20.0
Carbazole	Ave	1.067	1.062	0.0100	79.6	80.0	-0.5	20.0
Di-n-butyl phthalate	Ave	1.181	1.242	0.0100	84.2	80.0	5.2	20.0
Fluoranthene	Ave	1.202	1.220	0.6000	81.2	80.0	1.5	20.0
Pyrene	Ave	1.309	1.343	0.6000	82.1	80.0	2.6	20.0
Famphur	Ave	0.4244	0.4526		85.3	80.0	6.6	20.0
Butyl benzyl phthalate	Ave	0.5823	0.6157	0.0100	84.6	80.0	5.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4226	0.4263	0.0100	80.7	80.0	0.9	20.0
Benzo[a]anthracene	Ave	1.281	1.286	0.8000	80.4	80.0	0.5	20.0
Chrysene	Ave	1.226	1.212	0.7000	79.1	80.0	-1.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	0.8047	0.8542	0.0100	84.9	80.0	6.2	20.0
Di-n-octyl phthalate	Ave	1.388	1.496	0.0100	86.2	80.0	7.7	20.0
Benzo[b]fluoranthene	Ave	1.263	1.334	0.7000	84.5	80.0	5.6	20.0
Benzo[k]fluoranthene	Ave	1.258	1.302	0.7000	82.8	80.0	3.5	20.0
Benzo[a]pyrene	Ave	1.136	1.268	0.7000	89.2	80.0	11.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Lab Sample ID: CCV 280-304460/3 Calibration Date: 11/16/2015 16:13

Instrument ID: SMS_D Calib Start Date: 11/14/2015 08:27

GC Column: Vf-5MS (30.25) ID: 0.25(mm) Calib End Date: 11/14/2015 11:38

Lab File ID: D13342.D Conc. Units: ug/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Indeno[1,2,3-cd]pyrene	Ave	1.015	0.9624	0.5000	75.8	80.0	-5.2	20.0
Dibenz(a,h)anthracene	Ave	1.049	1.070	0.4000	81.6	80.0	2.0	20.0
Benzo[g,h,i]perylene	Ave	1.117	1.129	0.5000	80.9	80.0	1.1	20.0
2-Fluorophenol (Surr)	Ave	1.516	1.490		78.7	80.0	-1.7	20.0
Phenol-d5 (Surr)	Ave	2.036	1.998		78.5	80.0	-1.9	20.0
Nitrobenzene-d5 (Surr)	Ave	0.4810	0.4833		80.4	80.0	0.5	20.0
2-Fluorobiphenyl	Ave	1.298	1.321		81.4	80.0	1.8	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1524	0.1600		84.0	80.0	5.0	20.0
Terphenyl-d14 (Surr)	Ave	0.8449	0.8669		82.1	80.0	2.6	20.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13342.D
Lims ID: CCV HSL
Client ID:
Sample Type: CCV
Inject. Date: 16-Nov-2015 16:13:30 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: CCV HSL
Operator ID: KIEKELD Instrument ID: SMS_D
Sublist: chrom-SMS_D_8270D*sub7

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:43:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.531	4.531	0.000	96	201202	40.0	40.0	
* 2 Naphthalene-d8	136	5.765	5.765	0.000	99	775371	40.0	40.0	
* 3 Acenaphthene-d10	164	7.517	7.517	0.000	90	498428	40.0	40.0	
* 4 Phenanthrene-d10	188	9.007	9.007	0.000	97	884774	40.0	40.0	
* 5 Chrysene-d12	240	12.982	12.982	0.000	98	830684	40.0	40.0	
* 6 Perylene-d12	264	16.850	16.850	0.000	98	734081	40.0	40.0	
$ 7 2-Fluorophenol	112	3.329	3.329	0.000	92	599725	80.0	78.7	
$ 8 Phenol-d5	99	4.173	4.173	0.000	98	804096	80.0	78.5	
$ 9 Nitrobenzene-d5	82	5.049	5.049	0.000	86	749508	80.0	80.4	
$ 10 2-Fluorobiphenyl	172	6.833	6.833	0.000	99	1316476	80.0	81.4	
$ 11 2,4,6-Tribromophenol	330	8.307	8.307	0.000	91	159525	80.0	84.0	
$ 12 Terphenyl-d14	244	10.914	10.914	0.000	99	1440221	80.0	82.1	
13 1,4-Dioxane	88	1.870	1.870	0.000	92	271184	80.0	74.3	
14 N-Nitrosodimethylamine	74	2.111	2.111	0.000	92	442131	80.0	77.4	
15 Pyridine	79	2.164	2.164	0.000	97	779200	80.0	78.2	
24 Phenol	94	4.183	4.183	0.000	98	834728	80.0	78.4	
25 Aniline	93	4.210	4.210	0.000	99	1075657	80.0	79.5	
26 Bis(2-chloroethyl)ether	93	4.258	4.258	0.000	98	629096	80.0	81.2	
27 2-Chlorophenol	128	4.338	4.338	0.000	97	575885	80.0	78.9	
31 1,3-Dichlorobenzene	146	4.483	4.483	0.000	96	605211	80.0	79.5	
32 1,4-Dichlorobenzene	146	4.547	4.547	0.000	93	618531	80.0	79.9	
34 Benzyl alcohol	108	4.648	4.648	0.000	93	441126	80.0	79.5	
35 1,2-Dichlorobenzene	146	4.696	4.696	0.000	96	591823	80.0	79.0	
36 2-Methylphenol	108	4.755	4.755	0.000	93	617878	80.0	79.7	
38 2,2'-oxybis[1-chloropropan	45	4.776	4.776	0.000	94	719645	80.0	80.5	
40 3 & 4 Methylphenol	108	4.905	4.905	0.000	76	601670	80.0	80.7	
41 3-Methylphenol	108	4.905	4.905	0.000	73	601670	80.0	80.7	
42 4-Methylphenol	108	4.905	4.905	0.000	68	601670	80.0	80.7	
43 N-Nitrosodi-n-propylamine	70	4.899	4.899	0.000	82	466815	80.0	82.1	
44 Acetophenone	105	4.905	4.905	0.000	87	813809	80.0	80.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.027	5.027	0.000	95	254387	80.0	81.6	
47 Nitrobenzene	77	5.070	5.070	0.000	85	713145	80.0	79.1	
48 2,6-Dichlorophenol	162	5.845	5.845	0.000	97	492266	80.0	81.1	
50 Isophorone	82	5.300	5.300	0.000	99	1347914	80.0	80.5	
51 2,4-Dimethylphenol	107	5.417	5.417	0.000	96	635421	80.0	80.9	
52 2-Nitrophenol	139	5.385	5.385	0.000	97	315040	80.0	81.1	
55 Bis(2-chloroethoxy)methane	93	5.498	5.498	0.000	99	777534	80.0	80.1	
56 Benzoic acid	105	5.551	5.551	0.000	77	1042634	160.0	158.1	
58 2,4-Dichlorophenol	162	5.626	5.626	0.000	95	489000	80.0	80.0	
59 1,2,4-Trichlorobenzene	180	5.711	5.711	0.000	93	536236	80.0	79.3	
60 Naphthalene	128	5.786	5.786	0.000	98	1661482	80.0	79.7	
61 4-Chloroaniline	127	5.829	5.829	0.000	96	769716	80.0	81.4	
63 Hexachlorobutadiene	225	5.920	5.920	0.000	96	292260	80.0	80.1	
66 Caprolactam	55	6.165	6.165	0.000	84	291207	80.0	79.7	
68 4-Chloro-3-methylphenol	107	6.310	6.310	0.000	96	558229	80.0	81.7	
70 2-Methylnaphthalene	142	6.470	6.470	0.000	94	1189865	80.0	82.8	
71 1-Methylnaphthalene	142	6.571	6.571	0.000	95	1039181	80.0	81.2	
72 Hexachlorocyclopentadiene	237	6.646	6.646	0.000	96	300055	80.0	88.5	
73 1,2,4,5-Tetrachlorobenzene	216	6.646	6.646	0.000	97	523524	80.0	80.7	
75 2,4,6-Trichlorophenol	196	6.753	6.753	0.000	94	374163	80.0	83.5	
76 2,4,5-Trichlorophenol	196	6.796	6.796	0.000	95	406334	80.0	82.3	
79 1,1'-Biphenyl	154	6.935	6.935	0.000	95	1355510	80.0	80.3	
81 2-Chloronaphthalene	162	6.961	6.961	0.000	96	1063456	80.0	80.3	
83 2-Nitroaniline	65	7.047	7.047	0.000	82	399677	80.0	81.7	
86 Dimethyl phthalate	163	7.228	7.228	0.000	98	1222284	80.0	81.9	
87 1,3-Dinitrobenzene	168	7.250	7.250	0.000	87	227890	80.0	84.9	
88 2,6-Dinitrotoluene	165	7.282	7.282	0.000	96	306985	80.0	80.9	
93 Acenaphthylene	152	7.378	7.378	0.000	99	1795955	80.0	81.2	
95 3-Nitroaniline	138	7.458	7.458	0.000	95	373463	80.0	81.8	
97 Acenaphthene	153	7.549	7.549	0.000	95	1048828	80.0	80.5	
98 2,4-Dinitrophenol	184	7.565	7.565	0.000	83	397938	160.0	178.1	
99 4-Nitrophenol	109	7.634	7.634	0.000	94	389742	160.0	168.7	
103 2,4-Dinitrotoluene	165	7.693	7.693	0.000	92	417950	80.0	82.3	
104 Dibenzofuran	168	7.725	7.725	0.000	98	1579706	80.0	80.0	
107 2,3,4,6-Tetrachlorophenol	232	7.848	7.848	0.000	72	335672	80.0	86.9	
108 Diethyl phthalate	149	7.934	7.934	0.000	98	1249963	80.0	83.3	
109 4-Chlorophenyl phenyl ethe	204	8.056	8.056	0.000	90	612619	80.0	81.7	
110 Fluorene	166	8.067	8.067	0.000	95	1263581	80.0	80.5	
112 4-Nitroaniline	138	8.072	8.072	0.000	84	362568	80.0	80.1	
113 4,6-Dinitro-2-methylphenol	198	8.110	8.110	0.000	86	531588	160.0	165.6	
114 N-Nitrosodiphenylamine	169	8.174	8.174	0.000	62	1808118	160.0	160.3	
115 Azobenzene	77	8.217	8.217	0.000	97	1511519	80.0	82.3	
116 1,2-Diphenylhydrazine	77	8.217	8.217	0.000	97	1511519	80.9	83.2	
118 4-Bromophenyl phenyl ether	248	8.543	8.543	0.000	66	376351	80.0	82.2	
121 Hexachlorobenzene	284	8.639	8.639	0.000	94	362097	80.0	79.9	
122 Pentachlorophenol	266	8.826	8.826	0.000	93	443191	160.0	168.1	
124 Phenanthrene	178	9.034	9.034	0.000	98	1901426	80.0	79.9	
125 Anthracene	178	9.082	9.082	0.000	98	1926072	80.0	80.0	
126 Carbazole	167	9.237	9.237	0.000	95	1878711	80.0	79.6	
130 Di-n-butyl phthalate	149	9.574	9.574	0.000	100	2197929	80.0	84.2	
134 Fluoranthene	202	10.370	10.370	0.000	98	2158588	80.0	81.2	
136 Pyrene	202	10.690	10.690	0.000	97	2231454	80.0	82.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
138 Famphur	218	11.662	11.662	0.000	98	751920	80.0	85.3	
139 Butyl benzyl phthalate	149	11.780	11.780	0.000	97	1022896	80.0	84.6	
140 3,3'-Dichlorobenzidine	252	12.912	12.912	0.000	75	708301	80.0	80.7	
141 Benzo[a]anthracene	228	12.955	12.955	0.000	98	2137259	80.0	80.4	
142 Bis(2-ethylhexyl) phthalat	149	13.131	13.131	0.000	98	1419103	80.0	84.9	
143 Chrysene	228	13.041	13.041	0.000	98	2013645	80.0	79.1	
145 Di-n-octyl phthalate	149	14.905	14.905	0.000	99	2484850	80.0	86.2	
147 Benzo[b]fluoranthene	252	15.776	15.776	0.000	98	1958054	80.0	84.5	
148 Benzo[k]fluoranthene	252	15.856	15.856	0.000	99	1911983	80.0	82.8	
149 Benzo[a]pyrene	252	16.689	16.689	0.000	80	1860935	80.0	89.2	
151 Indeno[1,2,3-cd]pyrene	276	19.948	19.948	0.000	99	1598870	80.0	75.8	
152 Dibenz(a,h)anthracene	278	20.044	20.044	0.000	93	1571478	80.0	81.6	
153 Benzo[g,h,i]perylene	276	20.680	20.680	0.000	98	1658207	80.0	80.9	

Reagents:

MS-HSLACCV080_00048 Amount Added: 200.00 Units: uL

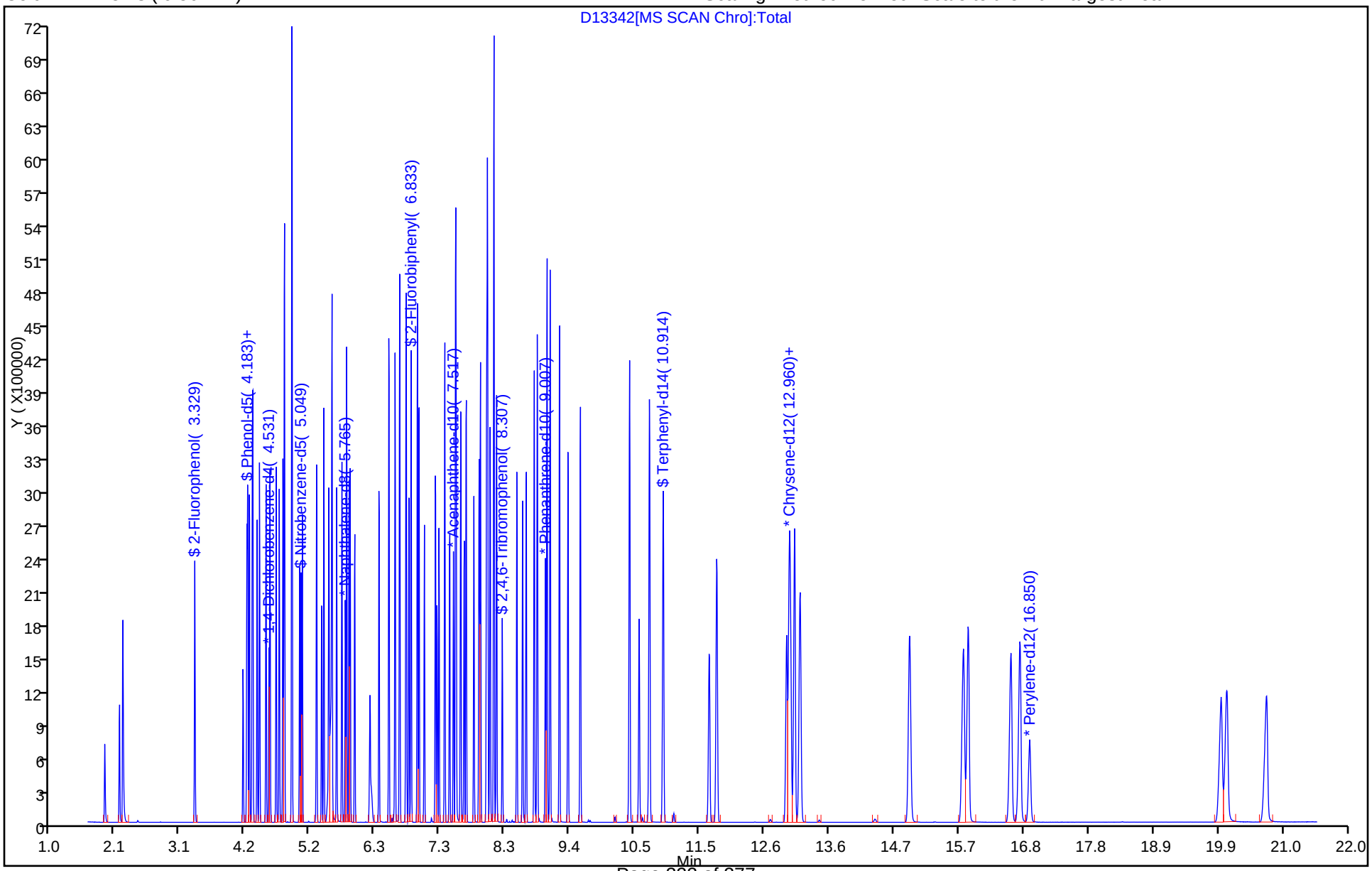
Report Date: 17-Nov-2015 10:23:30 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13342.D

Injection Date:	16-Nov-2015 16:13:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	CCV HSL			Worklist Smp#:	3
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13293.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 14-Nov-2015 08:15:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 09:25:33 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:02:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
21 Pentachlorophenol_T	266	3.675	3.675	0.000	90	72260	NR	NR	
37 Benzidine_T	184	4.752	4.752	0.000	100	635566	NR	NR	
156 DFTPP									
157 4,4'-DDD	235	5.175	5.175	0.000	95	5040	NR	NR	
158 4,4'-DDE	246		4.941				ND	ND	
159 4,4'-DDT	235	5.387	5.387	0.000	98	250624	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

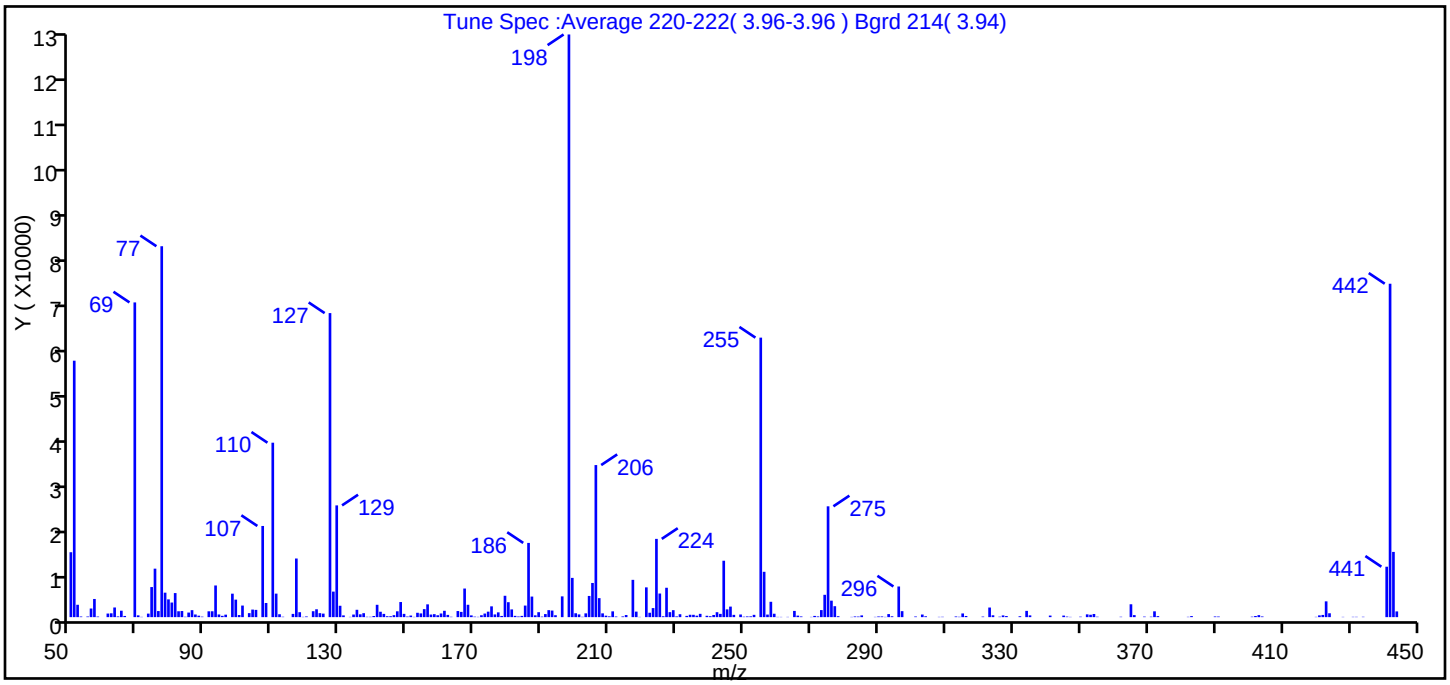
MS-DFTPP_00040 Amount Added: 200.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13293.D
Injection Date: 14-Nov-2015 08:15:30 Instrument ID: SMS_D
Lims ID: DFTPP
Client ID:
Operator ID: KIEKELD ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Tune Method: DFTPP Method 8270

156 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	44.0
68	<2% of mass 69	0.0 (0.0)
69	Present	54.0
70	<2% of mass 69	0.3 (0.6)
127	40-60% of mass 198	52.2
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.7
275	10-30% of mass 198	19.0
365	>1% of mass 198	2.2
441	Present but less than mass 443	8.7 (77.3)
442	>40% of mass 198	57.2
443	17-23% of mass 442	11.2 (19.6)

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13293.D\SMS_D_8270D.rslt\spectra.d
Injection Date: 14-Nov-2015 08:15:30
Spectrum: Tune Spec :Average 220-222(3.96-3.96) Bgrd 214(3.94)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 266

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	13420	133.00	53	203.00	783	284.00	118
51.00	53016	134.00	538	204.00	4381	285.00	360
52.00	2557	135.00	1521	205.00	7062	289.00	56
53.00	131	136.00	587	206.00	31440	290.00	137
55.00	128	137.00	819	207.00	3928	291.00	141
56.00	1786	138.00	76	208.00	782	292.00	52
57.00	3756	139.00	71	209.00	302	293.00	632
58.00	123	140.00	232	210.00	162	294.00	175
61.00	743	141.00	2552	211.00	1199	296.00	6337
62.00	794	142.00	1117	212.00	127	297.00	1237
63.00	1997	143.00	673	214.00	149	301.00	134
64.00	148	144.00	189	215.00	436	303.00	540
65.00	1330	145.00	189	217.00	7711	304.00	177
66.00	246	146.00	409	218.00	1143	308.00	57
69.00	65064	147.00	1208	219.00	51	309.00	72
70.00	370	148.00	3123	221.00	6155	313.00	141
71.00	56	149.00	677	222.00	907	314.00	74
73.00	730	150.00	123	223.00	1871	315.00	765
74.00	6220	151.00	328	224.00	16180	316.00	239
75.00	10023	152.00	53	225.00	4884	321.00	115
76.00	1259	153.00	902	226.00	177	323.00	1987
77.00	76680	154.00	775	227.00	6075	324.00	382
78.00	5059	155.00	1656	228.00	1032	326.00	92
79.00	3675	156.00	2646	229.00	1439	327.00	359
80.00	3019	157.00	536	230.00	149	328.00	227
81.00	4976	158.00	616	231.00	604	332.00	184
82.00	1217	159.00	390	233.00	260	334.00	1295
83.00	1263	160.00	758	234.00	490	335.00	365
84.00	78	161.00	1315	235.00	482	341.00	325
85.00	945	162.00	466	236.00	304	345.00	324
86.00	1443	163.00	77	237.00	681	346.00	116
87.00	551	165.00	1261	239.00	281	347.00	52
88.00	301	166.00	1086	240.00	192	350.00	96

Report Date: 17-Nov-2015 09:25:34 Chrom Revision: 2.2 08-Oct-2015 07:17:48
Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13293.D\SMS_D_8270D.rslt\spectra.d
Injection Date: 14-Nov-2015 08:15:30
Spectrum: Tune Spec :Average 220-222(3.96-3.96) Bgrd 214(3.94)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 266

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	102	167.00	5914	241.00	449	352.00	576
91.00	1207	168.00	2557	242.00	1021	353.00	495
92.00	1215	169.00	360	243.00	675	354.00	651
93.00	6546	170.00	100	244.00	11662	355.00	87
94.00	553	171.00	59	245.00	1610	362.00	80
95.00	269	172.00	393	246.00	2180	365.00	2661
96.00	513	173.00	740	247.00	473	366.00	418
98.00	4852	174.00	1134	249.00	548	369.00	110
99.00	3620	175.00	2233	250.00	90	371.00	96
100.00	434	176.00	563	251.00	146	372.00	1203
101.00	2395	177.00	988	252.00	160	373.00	208
103.00	828	178.00	248	253.00	476	382.00	67
104.00	1563	179.00	4417	255.00	57784	383.00	218
105.00	1501	180.00	3090	256.00	9375	390.00	138
107.00	18848	181.00	1598	257.00	531	391.00	123
108.00	2926	182.00	266	258.00	3175	401.00	97
110.00	36064	183.00	134	259.00	704	402.00	234
111.00	4861	184.00	260	260.00	52	403.00	412
112.00	600	185.00	2393	261.00	50	404.00	140
113.00	83	186.00	15345	263.00	53	420.00	59
116.00	672	187.00	4254	265.00	1287	421.00	365
117.00	12122	188.00	375	266.00	314	422.00	455
118.00	1022	189.00	1021	267.00	142	423.00	3266
119.00	57	190.00	108	270.00	52	424.00	801
120.00	141	191.00	635	271.00	255	428.00	55
122.00	1225	192.00	1444	272.00	145	431.00	65
123.00	1626	193.00	1361	273.00	1458	432.00	66
124.00	826	194.00	396	274.00	4617	434.00	75
125.00	729	196.00	4294	275.00	22912	441.00	10425
127.00	62856	198.00	120456	276.00	3406	442.00	68928
128.00	5279	199.00	8115	277.00	2263	443.00	13486
129.00	23104	200.00	802	278.00	192	444.00	1186
130.00	2353	201.00	565	282.00	52		
131.00	361	202.00	69	283.00	142		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
89.00	102	167.00	5914	241.00	449	352.00	576
91.00	1207	168.00	2557	242.00	1021	353.00	495
92.00	1215	169.00	360	243.00	675	354.00	651
93.00	6546	170.00	100	244.00	11662	355.00	87
94.00	553	171.00	59	245.00	1610	362.00	80
95.00	269	172.00	393	246.00	2180	365.00	2661
96.00	513	173.00	740	247.00	473	366.00	418
98.00	4852	174.00	1134	249.00	548	369.00	110
99.00	3620	175.00	2233	250.00	90	371.00	96
100.00	434	176.00	563	251.00	146	372.00	1203
101.00	2395	177.00	988	252.00	160	373.00	208
103.00	828	178.00	248	253.00	476	382.00	67
104.00	1563	179.00	4417	255.00	57784	383.00	218
105.00	1501	180.00	3090	256.00	9375	390.00	138
107.00	18848	181.00	1598	257.00	531	391.00	123
108.00	2926	182.00	266	258.00	3175	401.00	97
110.00	36064	183.00	134	259.00	704	402.00	234
111.00	4861	184.00	260	260.00	52	403.00	412
112.00	600	185.00	2393	261.00	50	404.00	140
113.00	83	186.00	15345	263.00	53	420.00	59
116.00	672	187.00	4254	265.00	1287	421.00	365
117.00	12122	188.00	375	266.00	314	422.00	455
118.00	1022	189.00	1021	267.00	142	423.00	3266
119.00	57	190.00	108	270.00	52	424.00	801
120.00	141	191.00	635	271.00	255	428.00	55
122.00	1225	192.00	1444	272.00	145	431.00	65
123.00	1626	193.00	1361	273.00	1458	432.00	66
124.00	826	194.00	396	274.00	4617	434.00	75
125.00	729	196.00	4294	275.00	22912	441.00	10425
127.00	62856	198.00	120456	276.00	3406	442.00	68928
128.00	5279	199.00	8115	277.00	2263	443.00	13486
129.00	23104	200.00	802	278.00	192	444.00	1186
130.00	2353	201.00	565	282.00	52		
131.00	361	202.00	69	283.00	142		

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13341.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 16-Nov-2015 16:02:30 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:28 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:39:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
21 Pentachlorophenol_T	266	3.696	3.696	0.000	90	80300	NR	NR	
37 Benzidine_T	184	4.791	4.791	0.000	100	734716	NR	NR	
156 DFTPP									
157 4,4'-DDD	235	5.230	5.230	0.000	94	6027	NR	NR	
158 4,4'-DDE	246		4.941				ND	ND	
159 4,4'-DDT	235	5.445	5.445	0.000	98	283171	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

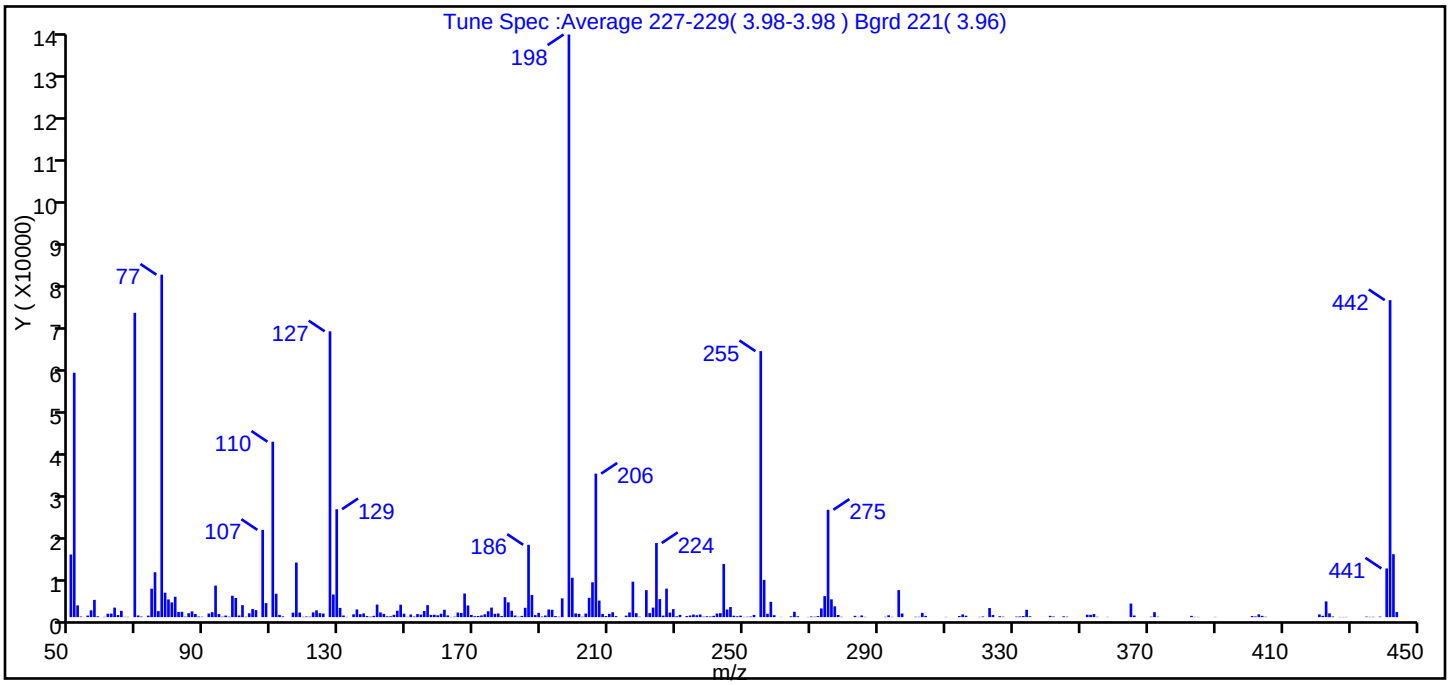
MS-DFTPP_00040 Amount Added: 200.00 Units: uL

MS Tune Report

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13341.D
Injection Date: 16-Nov-2015 16:02:30 Instrument ID: SMS_D
Lims ID: DFTPP
Client ID:
Operator ID: KIEKELD ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Tune Method: DFTPP Method 8270

156 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	41.9
68	<2% of mass 69	0.0 (0.0)
69	Present	52.2
70	<2% of mass 69	0.3 (0.5)
127	40-60% of mass 198	49.1
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.8
275	10-30% of mass 198	18.4
365	>1% of mass 198	2.3
441	Present but less than mass 443	8.4 (77.4)
442	>40% of mass 198	54.4
443	17-23% of mass 442	10.8 (19.9)

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13341.D\SMS_D_8270D.rslt\spectra.d
Injection Date: 16-Nov-2015 16:02:30
Spectrum: Tune Spec :Average 227-229(3.98-3.98) Bgrd 221(3.96)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	14644	129.00	25232	200.00	873	279.00	77
51.00	57128	130.00	2158	201.00	779	283.00	312
52.00	2748	131.00	385	202.00	87	284.00	55
53.00	137	132.00	58	203.00	837	285.00	397
55.00	364	134.00	664	204.00	4512	286.00	67
56.00	1595	135.00	1807	205.00	8147	292.00	81
57.00	4037	136.00	700	206.00	33544	293.00	422
58.00	191	137.00	856	207.00	3870	294.00	70
60.00	77	138.00	255	208.00	759	296.00	6320
61.00	812	139.00	105	209.00	251	297.00	842
62.00	832	140.00	312	210.00	770	301.00	94
63.00	2230	141.00	2936	211.00	1147	302.00	76
64.00	486	142.00	1101	212.00	238	303.00	1009
65.00	1476	143.00	769	215.00	353	304.00	296
66.00	73	144.00	202	216.00	1097	310.00	57
67.00	79	145.00	204	217.00	8285	314.00	261
69.00	71136	146.00	549	218.00	929	315.00	641
70.00	388	147.00	1504	219.00	99	316.00	333
71.00	131	148.00	2915	221.00	6313	320.00	62
73.00	350	149.00	809	222.00	945	321.00	152
74.00	6645	150.00	66	223.00	2230	323.00	2134
75.00	10491	151.00	615	224.00	17320	324.00	492
76.00	1410	152.00	142	225.00	4219	326.00	207
77.00	80048	153.00	715	226.00	359	327.00	111
78.00	5715	154.00	606	227.00	6664	331.00	133
79.00	4136	155.00	1431	228.00	1055	332.00	171
80.00	3449	156.00	2812	229.00	1881	333.00	256
81.00	4769	157.00	525	230.00	197	334.00	1724
82.00	1207	158.00	557	231.00	531	335.00	207
83.00	1256	159.00	431	233.00	251	341.00	301
84.00	108	160.00	799	234.00	397	342.00	145
85.00	918	161.00	1726	235.00	609	345.00	195
86.00	1352	162.00	405	236.00	446	346.00	106

Report Date: 17-Nov-2015 10:23:28 Chrom Revision: 2.2 08-Oct-2015 07:17:48
Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13341.D\SMS_D_8270D.rslt\spectra.d
Injection Date: 16-Nov-2015 16:02:30
Spectrum: Tune Spec :Average 227-229(3.98-3.98) Bgrd 221(3.96)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	738	163.00	53	237.00	623	352.00	570
88.00	154	164.00	109	238.00	105	353.00	535
89.00	90	165.00	1066	239.00	213	354.00	723
91.00	844	166.00	977	240.00	146	355.00	83
92.00	1169	167.00	5520	241.00	318	358.00	63
93.00	7378	168.00	2734	242.00	856	365.00	3177
94.00	741	169.00	511	243.00	931	366.00	372
95.00	103	170.00	217	244.00	12439	371.00	108
96.00	370	171.00	274	245.00	1781	372.00	1167
97.00	119	172.00	397	246.00	2361	373.00	96
98.00	5004	173.00	663	247.00	334	383.00	297
99.00	4489	174.00	1372	248.00	199	384.00	61
100.00	386	175.00	2228	249.00	354	385.00	52
101.00	2807	176.00	769	250.00	56	390.00	57
102.00	96	177.00	852	251.00	95	401.00	255
103.00	898	178.00	253	252.00	138	402.00	158
104.00	1888	179.00	4665	253.00	512	403.00	654
105.00	1641	180.00	3450	255.00	62176	404.00	306
107.00	20400	181.00	1498	256.00	8708	405.00	79
108.00	3283	182.00	378	257.00	778	421.00	639
110.00	41008	183.00	93	258.00	3585	422.00	308
111.00	5480	184.00	293	259.00	456	423.00	3689
112.00	529	185.00	2186	261.00	54	424.00	886
113.00	178	186.00	16904	264.00	194	425.00	160
116.00	1047	187.00	5184	265.00	1258	427.00	50
117.00	12766	188.00	471	266.00	204	428.00	52
118.00	1085	189.00	1009	269.00	52	429.00	58
119.00	84	190.00	143	270.00	160	435.00	125
120.00	154	191.00	380	271.00	92	436.00	64
121.00	107	192.00	1794	272.00	254	437.00	78
122.00	1116	193.00	1713	273.00	2032	439.00	128
123.00	1591	194.00	259	274.00	4912	441.00	11378
124.00	929	195.00	98	275.00	25096	442.00	74096
125.00	839	196.00	4387	276.00	4168	443.00	14709

Report Date: 17-Nov-2015 10:23:28 Chrom Revision: 2.2 08-Oct-2015 07:17:48
Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13341.D\SMS_D_8270D.rslt\spectra.d
Injection Date: 16-Nov-2015 16:02:30
Spectrum: Tune Spec :Average 227-229(3.98-3.98) Bgrd 221(3.96)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
127.00	66808	198.00	136192	277.00	2522	444.00	1188
128.00	5288	199.00	9206	278.00	500		

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-302909/1-A

Matrix: Water | Lab File ID: D13346.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 1000(mL) | Date Analyzed: 11/16/2015 17:54

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	2.5	U	5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	89		42-131
321-60-8	2-Fluorobiphenyl	79		48-120
367-12-4	2-Fluorophenol (Surr)	86		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	88		42-120
4165-62-2	Phenol-d5 (Surr)	84		45-124
1718-51-0	Terphenyl-d14 (Surr)	79		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13346.D
Lims ID: MB 280-302909/1-A
Client ID:
Sample Type: MB
Inject. Date: 16-Nov-2015 17:54:30 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: MB280-302909_1-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:46:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.532	4.531	0.001	96	200391	40.0	40.0	
* 2 Naphthalene-d8	136	5.766	5.765	0.001	99	763077	40.0	40.0	
* 3 Acenaphthene-d10	164	7.512	7.517	-0.005	91	505988	40.0	40.0	
* 4 Phenanthrene-d10	188	9.003	9.007	-0.004	97	925993	40.0	40.0	
* 5 Chrysene-d12	240	12.967	12.982	-0.015	98	937150	40.0	40.0	
* 6 Perylene-d12	264	16.840	16.850	-0.010	97	893386	40.0	40.0	
$ 7 2-Fluorophenol	112	3.330	3.329	0.001	92	653741	100.0	86.1	
$ 8 Phenol-d5	99	4.168	4.173	-0.005	98	856444	100.0	84.0	
$ 9 Nitrobenzene-d5	82	5.050	5.049	0.001	87	804817	100.0	87.7	
$ 10 2-Fluorobiphenyl	172	6.829	6.833	-0.004	99	1296398	100.0	79.0	
$ 11 2,4,6-Tribromophenol	330	8.303	8.307	-0.004	92	171373	100.0	88.9	
$ 12 Terphenyl-d14	244	10.915	10.914	0.001	99	1570079	100.0	79.3	
13 1,4-Dioxane	88		1.870					ND	
14 N-Nitrosodimethylamine	74		2.111					ND	
15 Pyridine	79		2.164					ND	
16 2-Picoline	93		2.749					ND	
17 N-Nitrosomethylethylamine	88		2.829					ND	
18 Methyl methanesulfonate	80		3.064					ND	
19 N-Nitrosodiethylamine	102		3.374					ND	
20 Ethyl methanesulfonate	79		3.598					ND	
21 Pentachlorophenol_T	266		3.696					ND	
22 Pentachloroethane	117		4.010					ND	
23 Benzaldehyde	106		4.349					ND	
24 Phenol	94		4.183					ND	
25 Aniline	93		4.210					ND	
26 Bis(2-chloroethyl)ether	93		4.258					ND	
27 2-Chlorophenol	128		4.338					ND	
28 N-Nitrosopyrrolidine	100		4.544					ND	
29 N-Nitrosomorpholine	116	4.532	4.571	-0.039	42	9616			NC
30 2-Toluidine	106		4.587					ND	
31 1,3-Dichlorobenzene	146		4.483					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 1,4-Dichlorobenzene	146		4.547					ND	
33 N-Nitrosopiperidine	114		4.827					ND	
34 Benzyl alcohol	108		4.648					ND	
35 1,2-Dichlorobenzene	146		4.696					ND	
36 2-Methylphenol	108		4.755					ND	
37 Benzidine_T	184		4.791					ND	
38 2,2'-oxybis[1-chloropropan	45		4.776					ND	
39 o,o',o''-Triethylphosphoro	198		4.998					ND	
40 3 & 4 Methylphenol	108		4.905					ND	
41 3-Methylphenol	108		4.905					ND	
42 4-Methylphenol	108		4.905					ND	
43 N-Nitrosodi-n-propylamine	70		4.899					ND	
44 Acetophenone	105		4.905					ND	
45 alpha,alpha-Dimethyl phene	58		5.148					ND	
46 Hexachloroethane	117		5.027					ND	
47 Nitrobenzene	77		5.070					ND	
48 2,6-Dichlorophenol	162		5.845					ND	
49 Hexachloropropene	213		5.367					ND	
50 Isophorone	82		5.300					ND	
51 2,4-Dimethylphenol	107		5.417					ND	
52 2-Nitrophenol	139		5.385					ND	
53 N-Nitrosodi-n-butylamine	84		5.580					ND	
54 p-Phenylene diamine	108	5.766	5.634	0.132	48	80331			NC
55 Bis(2-chloroethoxy)methane	93		5.498					ND	
56 Benzoic acid	105		5.551					ND	
57 Safrole, Total	162		5.778					ND	
58 2,4-Dichlorophenol	162		5.626					ND	
59 1,2,4-Trichlorobenzene	180		5.711					ND	
60 Naphthalene	128		5.786					ND	
61 4-Chloroaniline	127		5.829					ND	
62 Isosafrole Peak 1	162		6.024					ND	
63 Hexachlorobutadiene	225		5.920					ND	
64 Isosafrole Peak 2	104		6.211					ND	
65 1-Chloronaphthalene	162		6.307					ND	
66 Caprolactam	55		6.165					ND	
67 1,4-Naphthoquinone	158		6.435					ND	
68 4-Chloro-3-methylphenol	107		6.310					ND	
69 1,4-Dinitrobenzene	168		6.483					ND	
70 2-Methylnaphthalene	142		6.470					ND	
71 1-Methylnaphthalene	142		6.571					ND	
72 Hexachlorocyclopentadiene	237		6.646					ND	
73 1,2,4,5-Tetrachlorobenzene	216		6.646					ND	
74 Pentachlorobenzene	250		6.889					ND	
75 2,4,6-Trichlorophenol	196		6.753					ND	
76 2,4,5-Trichlorophenol	196		6.796					ND	
77 1-Naphthylamine	143		7.001					ND	
78 2-Naphthylamine	143		7.066					ND	
79 1,1'-Biphenyl	154		6.935					ND	
80 Thionazin	97		7.140					ND	
81 2-Chloronaphthalene	162		6.961					ND	
82 N-Nitro-o-toluidine	152		7.226					ND	
83 2-Nitroaniline	65		7.047					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Diphenylamine	169		7.295					ND	
85 Sulfotepp	97		7.375					ND	
86 Dimethyl phthalate	163		7.228					ND	
87 1,3-Dinitrobenzene	168		7.250					ND	
88 2,6-Dinitrotoluene	165		7.282					ND	
89 Diallate Peak 1	86	7.518	7.509	0.009	1	1728			NC
90 Phorate	121		7.520					ND	
91 1,3,5-Trinitrobenzene	213		7.520					ND	
92 Phenacetin	108		7.541					ND	
93 Acenaphthylene	152		7.378					ND	
94 Diallate Peak 2	86		7.589					ND	
95 3-Nitroaniline	138		7.458					ND	
96 Dimethoate	87		7.691					ND	
97 Acenaphthene	153		7.549					ND	
98 2,4-Dinitrophenol	184		7.565					ND	
99 4-Nitrophenol	109		7.634					ND	
100 4-Aminobiphenyl	169		7.840					ND	
101 Pronamide	173		7.845					ND	
102 Pentachloronitrobenzene	237		7.851					ND	
103 2,4-Dinitrotoluene	165		7.693					ND	
104 Dibenzofuran	168		7.725					ND	
105 Disulfoton	88		7.958					ND	
106 Dinoseb	211		7.968					ND	
107 2,3,4,6-Tetrachlorophenol	232		7.848					ND	
108 Diethyl phthalate	149		7.934					ND	
109 4-Chlorophenyl phenyl ethe	204		8.056					ND	
110 Fluorene	166		8.067					ND	
111 Methyl parathion	109		8.289					ND	
112 4-Nitroaniline	138		8.072					ND	
113 4,6-Dinitro-2-methylphenol	198		8.110					ND	
114 N-Nitrosodiphenylamine	169		8.174					ND	
115 Azobenzene	77		8.217					ND	
116 1,2-Diphenylhydrazine	77		8.217					ND	
117 Ethyl Parathion	109		8.636					ND	
118 4-Bromophenyl phenyl ether	248		8.543					ND	
119 4-Nitroquinoline-1-oxide	190		8.748					ND	
120 Methapyrilene	97		8.748					ND	
121 Hexachlorobenzene	284		8.639					ND	
122 Pentachlorophenol	266		8.826					ND	
123 Isodrin	193		9.010					ND	
124 Phenanthrene	178		9.034					ND	
125 Anthracene	178		9.082					ND	
126 Carbazole	167		9.237					ND	
127 Benzidine	184		9.493					ND	
128 Aramite Peak 1	185		9.560					ND	
129 Aramite Peak 2	185		9.667					ND	
130 Di-n-butyl phthalate	149		9.574					ND	
131 p-Dimethylamino azobenzene	120		9.865					ND	
132 Chlorobenzilate	251		9.902					ND	
133 3,3'-Dimethylbenzidine	212		10.442					ND	
134 Fluoranthene	202		10.370					ND	
135 2-Acetylaminofluorene	181		10.933					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Pyrene	202		10.690					ND	
137 4,4'-Methylene bis(2-chlor	231		11.564					ND	
138 Famphur	218		11.662					ND	
139 Butyl benzyl phthalate	149		11.780					ND	
140 3,3'-Dichlorobenzidine	252		12.912					ND	
141 Benzo[a]anthracene	228		12.955					ND	
142 Bis(2-ethylhexyl) phthalat	149		13.131					ND	
143 Chrysene	228		13.041					ND	
144 7,12-Dimethylbenz(a)anthra	256		14.438					ND	
145 Di-n-octyl phthalate	149		14.905					ND	
146 3-Methylcholanthrene	268		16.564					ND	
147 Benzo[b]fluoranthene	252		15.776					ND	
148 Benzo[k]fluoranthene	252		15.856					ND	
149 Benzo[a]pyrene	252		16.689					ND	
150 Dibenz[a,j]acridine	279		18.535					ND	
151 Indeno[1,2,3-cd]pyrene	276		19.948					ND	
152 Dibenz(a,h)anthracene	278		20.044					ND	
153 Benzo[g,h,i]perylene	276		20.680					ND	
S 160 Aramite, Total	185		15.047					ND	
S 161 Isosafrole	162		15.047					ND	
S 162 Diallate	86		15.047					ND	
154 Total Cresols	1		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDD	235		5.230					ND	
158 4,4'-DDE	246		4.941					ND	
159 4,4'-DDT	235		5.445					ND	
S 163 Methyl Phenols,Total	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

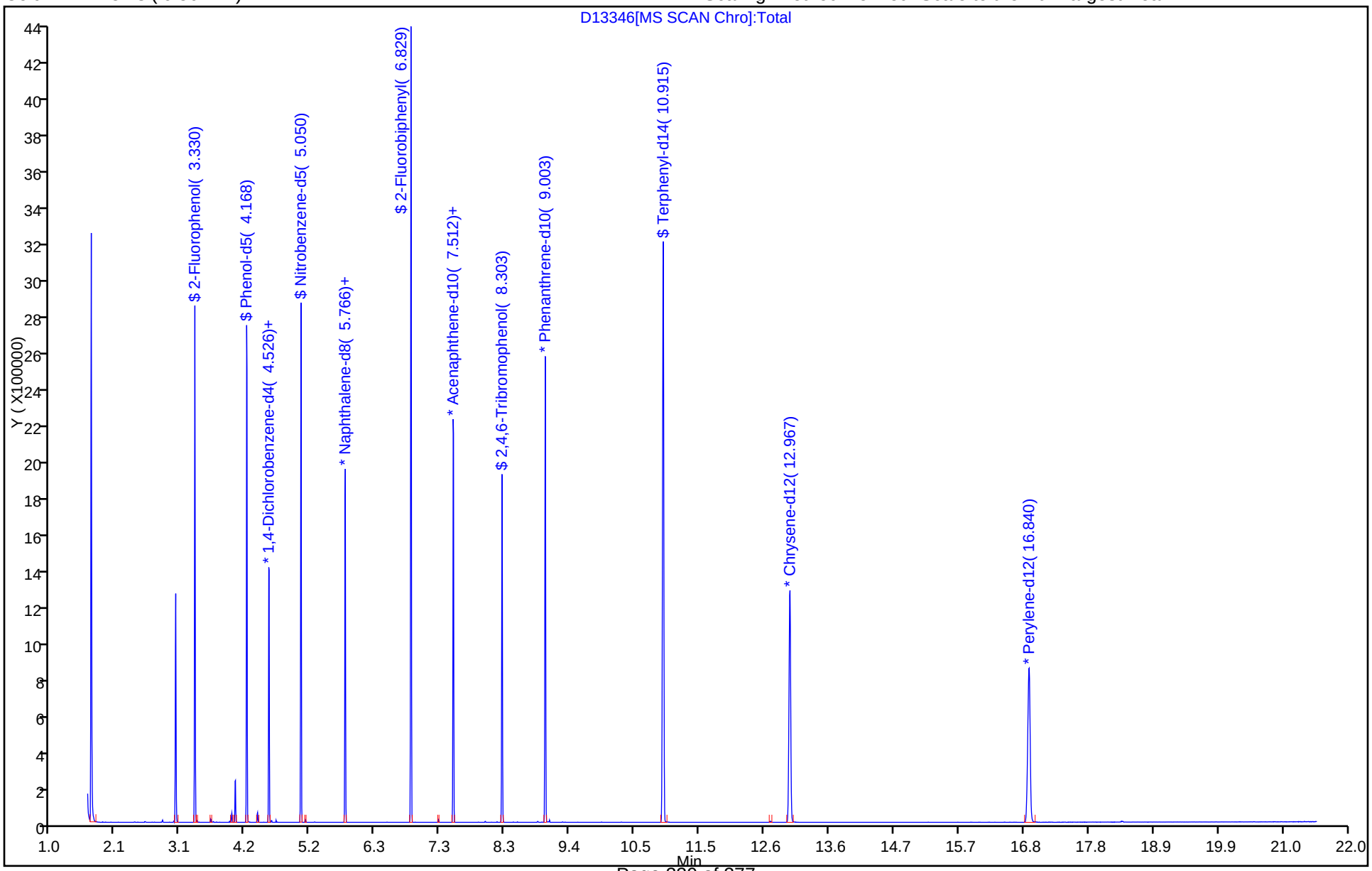
Report Date: 17-Nov-2015 10:23:32 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13346.D

Injection Date:	16-Nov-2015 17:54:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	MB 280-302909/1-A			Worklist Smp#:	9
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-302909/2-A

Matrix: Water | Lab File ID: D13347.D

Analysis Method: 8270D | Date Collected:

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 1000(mL) | Date Analyzed: 11/16/2015 18:21

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	74.5		5.0	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	92		42-131
321-60-8	2-Fluorobiphenyl	83		48-120
367-12-4	2-Fluorophenol (Surr)	88		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	87		42-120
4165-62-2	Phenol-d5 (Surr)	90		45-124
1718-51-0	Terphenyl-d14 (Surr)	83		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13347.D
Lims ID: LCS 280-302909/2-A
Client ID:
Sample Type: LCS
Inject. Date: 16-Nov-2015 18:21:30 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: LCS280-302909_2-A
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:47:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.529	4.531	-0.002	96	204437	40.0	40.0	
* 2 Naphthalene-d8	136	5.763	5.765	-0.002	99	805551	40.0	40.0	
* 3 Acenaphthene-d10	164	7.515	7.517	-0.002	91	535644	40.0	40.0	
* 4 Phenanthrene-d10	188	9.006	9.007	-0.001	97	948099	40.0	40.0	
* 5 Chrysene-d12	240	12.975	12.982	-0.007	98	897576	40.0	40.0	
* 6 Perylene-d12	264	16.837	16.850	-0.013	97	810018	40.0	40.0	
$ 7 2-Fluorophenol	112	3.332	3.329	0.003	92	681254	100.0	87.9	
$ 8 Phenol-d5	99	4.176	4.173	0.003	97	934188	100.0	89.8	
$ 9 Nitrobenzene-d5	82	5.052	5.049	0.003	86	846808	100.0	87.4	
$ 10 2-Fluorobiphenyl	172	6.831	6.833	-0.002	99	1436444	100.0	82.7	
$ 11 2,4,6-Tribromophenol	330	8.311	8.307	0.004	92	187481	100.0	91.8	
$ 12 Terphenyl-d14	244	10.913	10.914	-0.001	99	1582375	100.0	83.5	
13 1,4-Dioxane	88	1.869	1.870	-0.001	91	227510	80.0	61.4	
14 N-Nitrosodimethylamine	74	2.109	2.111	-0.002	91	424925	80.0	73.2	
15 Pyridine	79	2.157	2.164	-0.007	98	621404	80.0	61.4	
23 Benzaldehyde	106		4.349				ND	ND	
24 Phenol	94	4.187	4.183	0.004	97	795671	80.0	73.6	
25 Aniline	93	4.214	4.210	0.004	99	811702	80.0	59.0	
26 Bis(2-chloroethyl)ether	93	4.256	4.258	-0.002	98	608722	80.0	77.3	
27 2-Chlorophenol	128	4.337	4.338	-0.001	97	547991	80.0	73.9	
31 1,3-Dichlorobenzene	146	4.481	4.483	-0.002	97	460540	80.0	59.5	
32 1,4-Dichlorobenzene	146	4.545	4.547	-0.002	92	469416	80.0	59.7	
34 Benzyl alcohol	108	4.646	4.648	-0.002	94	433309	80.0	76.8	
35 1,2-Dichlorobenzene	146	4.695	4.696	-0.001	96	459083	80.0	60.3	
36 2-Methylphenol	108	4.759	4.755	0.004	94	576716	80.0	73.2	
38 2,2'-oxybis[1-chloropropan	45	4.775	4.776	-0.001	93	680849	80.0	74.9	
40 3 & 4 Methylphenol	108	4.903	4.905	-0.002	75	574243	80.0	75.8	
41 3-Methylphenol	108	4.903	4.905	-0.002	74	574243	80.0	75.8	
42 4-Methylphenol	108	4.903	4.905	-0.002	70	574243	80.0	75.8	
43 N-Nitrosodi-n-propylamine	70	4.898	4.899	-0.001	85	441826	80.0	76.5	
44 Acetophenone	105	4.903	4.905	-0.002	87	763342	80.0	73.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
46 Hexachloroethane	117	5.026	5.027	-0.001	95	179891	80.0	56.8	
47 Nitrobenzene	77	5.068	5.070	-0.002	86	670849	80.0	71.7	
48 2,6-Dichlorophenol	162	5.843	5.845	-0.002	96	461294	80.0	73.2	
50 Isophorone	82	5.298	5.300	-0.002	99	1246808	80.0	71.7	
51 2,4-Dimethylphenol	107	5.416	5.417	-0.001	97	520633	80.0	63.8	
52 2-Nitrophenol	139	5.384	5.385	-0.001	97	295350	80.0	73.2	
55 Bis(2-chloroethoxy)methane	93	5.496	5.498	-0.002	99	750903	80.0	74.5	
56 Benzoic acid	105	5.517	5.551	-0.034	88	463221	80.0	70.7	
58 2,4-Dichlorophenol	162	5.624	5.626	-0.002	95	469218	80.0	73.9	
59 1,2,4-Trichlorobenzene	180	5.710	5.711	-0.001	93	429531	80.0	61.1	
60 Naphthalene	128	5.784	5.786	-0.002	98	1428751	80.0	66.0	
61 4-Chloroaniline	127	5.827	5.829	-0.002	96	470665	80.0	47.9	
63 Hexachlorobutadiene	225	5.918	5.920	-0.002	97	212421	80.0	56.0	
66 Caprolactam	55	6.153	6.165	-0.012	84	282863	80.0	74.5	M
68 4-Chloro-3-methylphenol	107	6.313	6.310	0.003	96	538925	80.0	75.9	
70 2-Methylnaphthalene	142	6.473	6.470	0.003	94	1023751	80.0	68.6	
71 1-Methylnaphthalene	142	6.570	6.571	-0.001	94	951588	80.0	71.6	
72 Hexachlorocyclopentadiene	237	6.644	6.646	-0.002	97	56698	80.0	15.6	
73 1,2,4,5-Tetrachlorobenzene	216	6.644	6.646	-0.002	96	472671	80.0	70.1	
75 2,4,6-Trichlorophenol	196	6.751	6.753	-0.002	94	372649	80.0	77.4	
76 2,4,5-Trichlorophenol	196	6.794	6.796	-0.002	95	396372	80.0	74.7	
79 1,1'-Biphenyl	154	6.933	6.935	-0.002	95	1241883	80.0	68.4	
81 2-Chloronaphthalene	162	6.960	6.961	-0.001	96	955777	80.0	67.1	
83 2-Nitroaniline	65	7.045	7.047	-0.002	81	384751	80.0	73.2	
86 Dimethyl phthalate	163	7.227	7.228	-0.001	98	1188295	80.0	74.1	
87 1,3-Dinitrobenzene	168	7.253	7.250	0.003	88	219224	80.0	76.0	
88 2,6-Dinitrotoluene	165	7.280	7.282	-0.002	96	300664	80.0	73.7	
93 Acenaphthylene	152	7.376	7.378	-0.002	99	1642207	80.0	69.1	
95 3-Nitroaniline	138	7.451	7.458	-0.007	94	245257	80.0	50.0	
97 Acenaphthene	153	7.547	7.549	-0.002	95	970481	80.0	69.3	
98 2,4-Dinitrophenol	184	7.563	7.565	-0.002	86	384073	160.0	160.0	
99 4-Nitrophenol	109	7.633	7.634	-0.001	94	366705	160.0	147.7	
103 2,4-Dinitrotoluene	165	7.691	7.693	-0.002	92	405327	80.0	74.3	
104 Dibenzofuran	168	7.724	7.725	-0.001	98	1498514	80.0	70.6	
107 2,3,4,6-Tetrachlorophenol	232	7.846	7.848	-0.002	72	324866	80.0	78.3	
108 Diethyl phthalate	149	7.932	7.934	-0.002	98	1223707	80.0	75.9	
109 4-Chlorophenyl phenyl ethe	204	8.049	8.056	-0.007	94	575224	80.0	71.4	
110 Fluorene	166	8.065	8.067	-0.002	95	1196102	80.0	70.9	
112 4-Nitroaniline	138	8.071	8.072	-0.001	84	338062	80.0	69.5	
113 4,6-Dinitro-2-methylphenol	198	8.108	8.110	-0.002	85	509827	160.0	148.5	
114 N-Nitrosodiphenylamine	169	8.172	8.174	-0.002	61	1703061	160.0	140.9	
115 Azobenzene	77	8.215	8.217	-0.002	97	1445149	80.0	73.2	
116 1,2-Diphenylhydrazine	77	8.215	8.217	-0.002	97	1445149	80.9	74.0	
118 4-Bromophenyl phenyl ether	248	8.541	8.543	-0.002	67	348624	80.0	71.1	
121 Hexachlorobenzene	284	8.637	8.639	-0.002	94	342655	80.0	70.6	
122 Pentachlorophenol	266	8.824	8.826	-0.002	92	421107	160.0	149.5	
124 Phenanthrene	178	9.032	9.034	-0.002	98	1816576	80.0	71.2	
125 Anthracene	178	9.080	9.082	-0.002	98	1803213	80.0	69.9	
126 Carbazole	167	9.235	9.237	-0.002	95	1815797	80.0	71.8	
127 Benzidine	184		9.493				ND	ND	
130 Di-n-butyl phthalate	149	9.572	9.574	-0.002	100	2121272	80.0	75.8	
134 Fluoranthene	202	10.368	10.370	-0.002	98	2025398	80.0	71.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Pyrene	202	10.688	10.690	-0.002	97	2151229	80.0	73.2	
139 Butyl benzyl phthalate	149	11.778	11.780	-0.002	97	972768	80.0	74.5	
140 3,3'-Dichlorobenzidine	252	12.905	12.912	-0.007	74	544599	80.0	57.4	
141 Benzo[a]anthracene	228	12.948	12.955	-0.007	99	2020547	80.0	70.3	
142 Bis(2-ethylhexyl) phthalat	149	13.124	13.131	-0.007	98	1367671	80.0	75.7	
143 Chrysene	228	13.034	13.041	-0.007	98	1918890	80.0	69.8	
145 Di-n-octyl phthalate	149	14.893	14.905	-0.012	99	2419349	80.0	77.7	
147 Benzo[b]fluoranthene	252	15.769	15.776	-0.007	98	1830721	80.0	71.6	
148 Benzo[k]fluoranthene	252	15.844	15.856	-0.012	99	1867441	80.0	73.3	
149 Benzo[a]pyrene	252	16.677	16.689	-0.012	78	1724654	80.0	75.0	
151 Indeno[1,2,3-cd]pyrene	276	19.936	19.948	-0.012	99	1499443	80.0	65.8	
152 Dibenz(a,h)anthracene	278	20.032	20.044	-0.012	94	1486102	80.0	70.0	
153 Benzo[g,h,i]perylene	276	20.673	20.680	-0.007	98	1573405	80.0	69.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

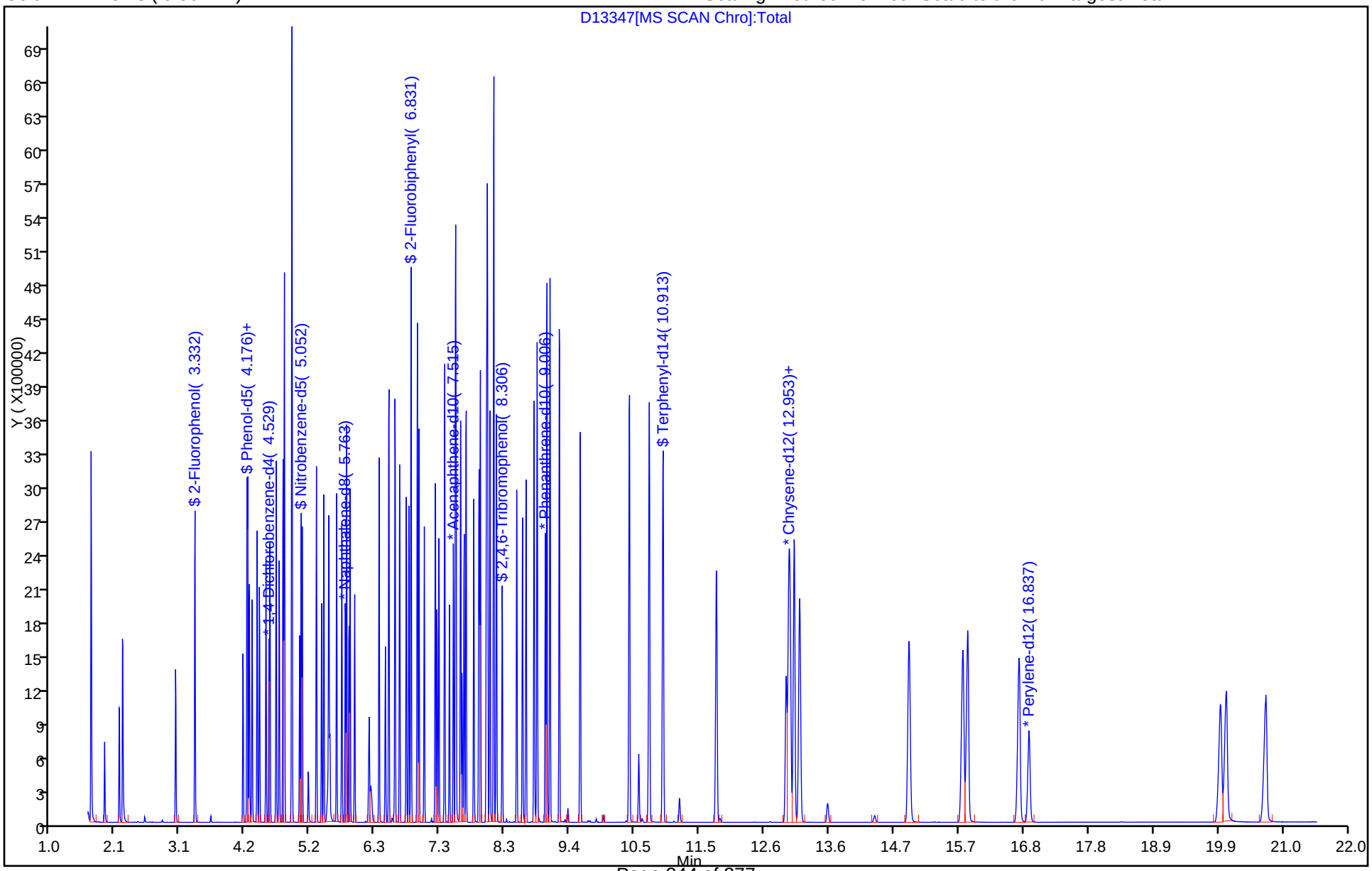
Report Date: 17-Nov-2015 10:23:33 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13347.D

Injection Date:	16-Nov-2015 18:21:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	LCS 280-302909/2-A			Worklist Smp#:	10
Client ID:					
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

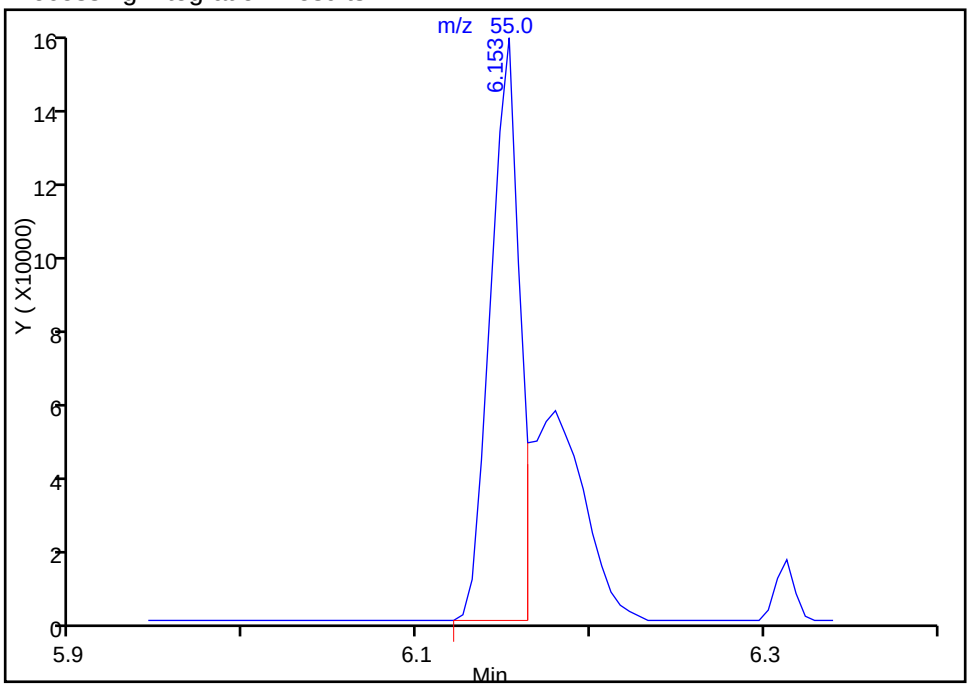
TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13347.D
Injection Date: 16-Nov-2015 18:21:30 Instrument ID: SMS_D
Lims ID: LCS 280-302909/2-A
Client ID:
Operator ID: KIEKELD ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Method: SMS_D_8270D Limit Group: MSSV - 8270D
Column: VF-5ms (0.50 mm) Detector MS SCAN

66 Caprolactam, CAS: 105-60-2

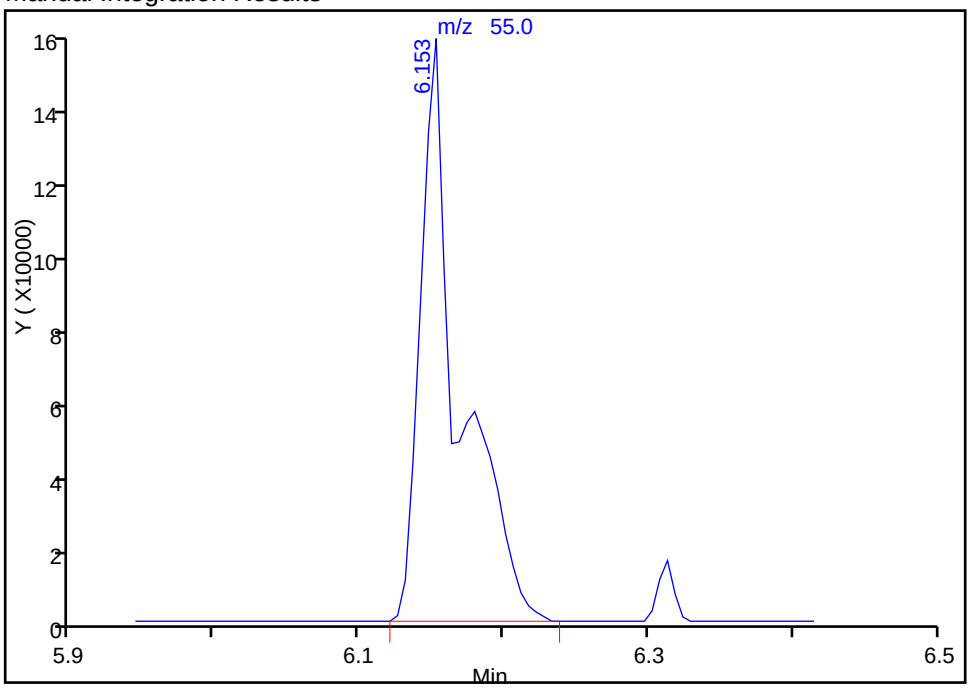
Processing Integration Results

RT: 6.15
Area: 177445
Amount: 46.762966
Amount Units: ug/ml



Manual Integration Results

RT: 6.15
Area: 282863
Amount: 74.544297
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:47:54
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: TMW43102015MS MS | Lab Sample ID: 280-76331-3 MS

Matrix: Water | Lab File ID: D13351.D

Analysis Method: 8270D | Date Collected: 11/03/2015 09:50

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 1010.2(mL) | Date Analyzed: 11/16/2015 20:10

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	74.8		4.9	2.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	91		42-131
321-60-8	2-Fluorobiphenyl	85		48-120
367-12-4	2-Fluorophenol (Surr)	90		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	89		42-120
4165-62-2	Phenol-d5 (Surr)	93		45-124
1718-51-0	Terphenyl-d14 (Surr)	79		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13351.D
Lims ID: 280-76331-B-3-A MS
Client ID: TMW43102015MS
Sample Type: MS
Inject. Date: 16-Nov-2015 20:10:30 ALS Bottle#: 11 Worklist Smp#: 12
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-B-3-AMS
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:50:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.532	4.531	0.001	96	203547	40.0	40.0	
* 2 Naphthalene-d8	136	5.766	5.765	0.001	99	800221	40.0	40.0	
* 3 Acenaphthene-d10	164	7.518	7.517	0.001	91	526135	40.0	40.0	
* 4 Phenanthrene-d10	188	9.009	9.007	0.002	97	933349	40.0	40.0	
* 5 Chrysene-d12	240	12.978	12.982	-0.004	98	888604	40.0	40.0	
* 6 Perylene-d12	264	16.840	16.850	-0.010	98	803365	40.0	40.0	
$ 7 2-Fluorophenol	112	3.330	3.329	0.001	92	693511	100.0	89.9	
$ 8 Phenol-d5	99	4.174	4.173	0.001	98	959499	100.0	92.6	
$ 9 Nitrobenzene-d5	82	5.050	5.049	0.001	86	855208	100.0	88.9	
$ 10 2-Fluorobiphenyl	172	6.829	6.833	-0.004	99	1458448	100.0	85.4	
$ 11 2,4,6-Tribromophenol	330	8.309	8.307	0.002	92	183437	100.0	91.5	
$ 12 Terphenyl-d14	244	10.910	10.914	-0.004	99	1480539	100.0	78.9	
13 1,4-Dioxane	88	1.866	1.870	-0.004	92	232185	80.0	62.9	
14 N-Nitrosodimethylamine	74	2.107	2.111	-0.004	92	423987	80.0	73.4	
15 Pyridine	79	2.160	2.164	-0.004	97	621177	80.0	61.6	
16 2-Picoline	93		2.749					ND	
17 N-Nitrosomethylethylamine	88		2.829					ND	
18 Methyl methanesulfonate	80		3.064					ND	
19 N-Nitrosodiethylamine	102		3.374					ND	
20 Ethyl methanesulfonate	79		3.598					ND	
21 Pentachlorophenol_T	266		3.696					ND	
22 Pentachloroethane	117		4.010					ND	
23 Benzaldehyde	106		4.349				ND	ND	
24 Phenol	94	4.190	4.183	0.007	98	809248	80.0	75.2	
25 Aniline	93	4.211	4.210	0.001	99	772701	80.0	56.4	
26 Bis(2-chloroethyl)ether	93	4.259	4.258	0.001	97	625413	80.0	79.8	
27 2-Chlorophenol	128	4.340	4.338	0.002	97	554707	80.0	75.1	
28 N-Nitrosopyrrolidine	100		4.544					ND	
29 N-Nitrosomorpholine	116		4.571					ND	
30 2-Toluidine	106		4.587					ND	
31 1,3-Dichlorobenzene	146	4.484	4.483	0.001	97	506945	80.0	65.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 1,4-Dichlorobenzene	146	4.548	4.547	0.001	92	521623	80.0	66.6	
33 N-Nitrosopiperidine	114		4.827					ND	
34 Benzyl alcohol	108	4.649	4.648	0.001	94	433019	80.0	77.1	
35 1,2-Dichlorobenzene	146	4.697	4.696	0.001	95	506498	80.0	66.9	
36 2-Methylphenol	108	4.756	4.755	0.001	94	577232	80.0	73.6	
37 Benzidine_T	184		4.791					ND	
38 2,2'-oxybis[1-chloropropan	45	4.778	4.776	0.002	95	697227	80.0	77.1	
39 o,o',o''-Triethylphosphoro	198		4.998					ND	
40 3 & 4 Methylphenol	108	4.906	4.905	0.001	76	578705	80.0	76.7	
41 3-Methylphenol	108	4.906	4.905	0.001	78	578705	80.0	76.7	
42 4-Methylphenol	108	4.906	4.905	0.001	73	578705	80.0	76.7	
43 N-Nitrosodi-n-propylamine	70	4.900	4.899	0.001	82	451115	80.0	78.5	
44 Acetophenone	105	4.900	4.905	-0.005	84	775372	80.0	75.4	
45 alpha,alpha-Dimethyl phene	58		5.148					ND	
46 Hexachloroethane	117	5.023	5.027	-0.004	96	195005	80.0	61.9	
47 Nitrobenzene	77	5.071	5.070	0.001	85	847447	80.0	91.1	
48 2,6-Dichlorophenol	162	5.846	5.845	0.001	97	462898	80.0	73.9	
49 Hexachloropropene	213		5.367					ND	
50 Isophorone	82	5.296	5.300	-0.004	99	1249918	80.0	72.4	
51 2,4-Dimethylphenol	107	5.419	5.417	0.002	95	467698	80.0	57.7	
52 2-Nitrophenol	139	5.381	5.385	-0.004	97	298687	80.0	74.5	
53 N-Nitrosodi-n-butylamine	84		5.580					ND	
54 p-Phenylene diamine	108		5.634					ND	
55 Bis(2-chloroethoxy)methane	93	5.499	5.498	0.001	98	755492	80.0	75.4	
56 Benzoic acid	105	5.520	5.551	-0.031	89	477451	80.0	73.1	
57 Safrole, Total	162		5.778					ND	
58 2,4-Dichlorophenol	162	5.627	5.626	0.001	95	466108	80.0	73.9	
59 1,2,4-Trichlorobenzene	180	5.712	5.711	0.001	93	462807	80.0	66.3	
60 Naphthalene	128	5.787	5.786	0.001	97	1521050	80.0	70.7	
61 4-Chloroaniline	127	5.825	5.829	-0.004	96	461333	80.0	47.2	
62 Isosafrole Peak 1	162		6.024					ND	
63 Hexachlorobutadiene	225	5.915	5.920	-0.005	96	227635	80.0	60.5	
64 Isosafrole Peak 2	104		6.211					ND	
65 1-Chloronaphthalene	162		6.307					ND	
66 Caprolactam	55	6.151	6.165	-0.014	84	284844	80.0	75.6	M
67 1,4-Naphthoquinone	158		6.435					ND	
68 4-Chloro-3-methylphenol	107	6.311	6.310	0.001	96	533357	80.0	75.6	
69 1,4-Dinitrobenzene	168		6.483					ND	
70 2-Methylnaphthalene	142	6.471	6.470	0.001	93	1042704	80.0	70.3	
71 1-Methylnaphthalene	142	6.573	6.571	0.002	95	971855	80.0	73.6	
72 Hexachlorocyclopentadiene	237	6.642	6.646	-0.004	97	76229	80.0	21.3	
73 1,2,4,5-Tetrachlorobenzene	216	6.647	6.646	0.001	97	470053	80.0	70.2	
74 Pentachlorobenzene	250		6.889					ND	
75 2,4,6-Trichlorophenol	196	6.754	6.753	0.001	93	365844	80.0	77.3	
76 2,4,5-Trichlorophenol	196	6.797	6.796	0.001	94	384843	80.0	73.8	
77 1-Naphthylamine	143		7.001					ND	
78 2-Naphthylamine	143		7.066					ND	
79 1,1'-Biphenyl	154	6.930	6.935	-0.005	95	1253693	80.0	70.3	
80 Thionazin	97		7.140					ND	
81 2-Chloronaphthalene	162	6.957	6.961	-0.004	96	950929	80.0	68.0	
82 N-Nitro-o-toluidine	152		7.226					ND	
83 2-Nitroaniline	65	7.048	7.047	0.001	82	357721	80.0	69.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Diphenylamine	169		7.295					ND	
85 Sulfotepp	97		7.375					ND	
86 Dimethyl phthalate	163	7.224	7.228	-0.004	98	1155082	80.0	73.3	
87 1,3-Dinitrobenzene	168	7.251	7.250	0.001	87	217247	80.0	76.7	
88 2,6-Dinitrotoluene	165	7.283	7.282	0.001	95	292369	80.0	73.0	
89 Diallate Peak 1	86		7.509					ND	
90 Phorate	121		7.520					ND	
91 1,3,5-Trinitrobenzene	213		7.520					ND	
92 Phenacetin	108		7.541					ND	
93 Acenaphthylene	152	7.374	7.378	-0.004	99	1626914	80.0	69.7	
94 Diallate Peak 2	86		7.589					ND	
95 3-Nitroaniline	138	7.454	7.458	-0.004	95	203926	80.0	42.3	
96 Dimethoate	87		7.691					ND	
97 Acenaphthene	153	7.550	7.549	0.001	94	952224	80.0	69.2	
98 2,4-Dinitrophenol	184	7.561	7.565	-0.004	85	378285	160.0	160.4	
99 4-Nitrophenol	109	7.636	7.634	0.002	93	367745	160.0	150.8	
100 4-Aminobiphenyl	169		7.840					ND	
101 Pronamide	173		7.845					ND	
102 Pentachloronitrobenzene	237		7.851					ND	
103 2,4-Dinitrotoluene	165	7.689	7.693	-0.004	92	396128	80.0	73.9	
104 Dibenzofuran	168	7.721	7.725	-0.004	98	1453141	80.0	69.7	
105 Disulfoton	88		7.958					ND	
106 Dinoseb	211		7.968					ND	
107 2,3,4,6-Tetrachlorophenol	232	7.849	7.848	0.001	72	322349	80.0	79.1	
108 Diethyl phthalate	149	7.929	7.934	-0.005	98	1189827	80.0	75.1	
109 4-Chlorophenyl phenyl ethe	204	8.052	8.056	-0.004	92	560896	80.0	70.9	
110 Fluorene	166	8.063	8.067	-0.004	94	1164821	80.0	70.3	
111 Methyl parathion	109		8.289					ND	
112 4-Nitroaniline	138	8.068	8.072	-0.004	85	215698	80.0	45.2	
113 4,6-Dinitro-2-methylphenol	198	8.111	8.110	0.001	87	498004	160.0	147.4	
114 N-Nitrosodiphenylamine	169	8.170	8.174	-0.004	61	1591739	160.0	133.7	
115 Azobenzene	77	8.213	8.217	-0.004	97	1408462	80.0	72.7	
116 1,2-Diphenylhydrazine	77	8.213	8.217	-0.004	97	1408462	80.9	73.5	
117 Ethyl Parathion	109		8.636					ND	
118 4-Bromophenyl phenyl ether	248	8.544	8.543	0.001	67	345155	80.0	71.5	
119 4-Nitroquinoline-1-oxide	190		8.748					ND	
120 Methapyrilene	97		8.748					ND	
121 Hexachlorobenzene	284	8.635	8.639	-0.004	94	332327	80.0	69.6	
122 Pentachlorophenol	266	8.827	8.826	0.001	92	417234	160.0	150.5	
123 Isodrin	193		9.010					ND	
124 Phenanthrene	178	9.030	9.034	-0.004	98	1763006	80.0	70.2	
125 Anthracene	178	9.083	9.082	0.001	98	1753139	80.0	69.0	
126 Carbazole	167	9.233	9.237	-0.004	95	1799972	80.0	72.3	
127 Benzidine	184		9.493				ND	ND	
128 Aramite Peak 1	185		9.560					ND	
129 Aramite Peak 2	185		9.667					ND	
130 Di-n-butyl phthalate	149	9.570	9.574	-0.004	100	2066351	80.0	75.0	
131 p-Dimethylamino azobenzene	120		9.865					ND	
132 Chlorobenzilate	251		9.902					ND	
133 3,3'-Dimethylbenzidine	212		10.442					ND	
134 Fluoranthene	202	10.365	10.370	-0.005	98	2020834	80.0	72.0	
135 2-Acetylaminofluorene	181		10.933					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Pyrene	202	10.691	10.690	0.001	97	2158460	80.0	74.2	
137 4,4'-Methylene bis(2-chlor	231		11.564					ND	
138 Famphur	218		11.662					ND	
139 Butyl benzyl phthalate	149	11.781	11.780	0.001	97	975845	80.0	75.4	
140 3,3'-Dichlorobenzidine	252	12.903	12.912	-0.009	73	78050	80.0	8.31	
141 Benzo[a]anthracene	228	12.951	12.955	-0.004	99	2027822	80.0	71.3	
142 Bis(2-ethylhexyl) phthalat	149	13.127	13.131	-0.004	98	1366425	80.0	76.4	
143 Chrysene	228	13.037	13.041	-0.004	98	1923742	80.0	70.6	
144 7,12-Dimethylbenz(a)anthra	256		14.438					ND	
145 Di-n-octyl phthalate	149	14.901	14.905	-0.004	99	2430564	80.0	78.8	
146 3-Methylcholanthrene	268		16.564					ND	
147 Benzo[b]fluoranthene	252	15.772	15.776	-0.004	98	1839950	80.0	72.6	
148 Benzo[k]fluoranthene	252	15.847	15.856	-0.010	99	1871208	80.0	74.0	
149 Benzo[a]pyrene	252	16.680	16.689	-0.009	78	1728674	80.0	75.8	
150 Dibenz[a,j]acridine	279		18.535					ND	
151 Indeno[1,2,3-cd]pyrene	276	19.939	19.948	-0.009	98	1521411	80.0	67.5	
152 Dibenz(a,h)anthracene	278	20.035	20.044	-0.009	93	1510008	80.0	71.7	
153 Benzo[g,h,i]perylene	276	20.670	20.680	-0.010	98	1577307	80.0	70.3	
S 160 Aramite, Total	185		15.047					ND	
S 161 Isosafrole	162		15.047					ND	
S 162 Diallate	86		15.047					ND	
154 Total Cresols	1		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDD	235		5.230					ND	
158 4,4'-DDE	246		4.941					ND	
159 4,4'-DDT	235		5.445					ND	
S 163 Methyl Phenols,Total	1		0.000					ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

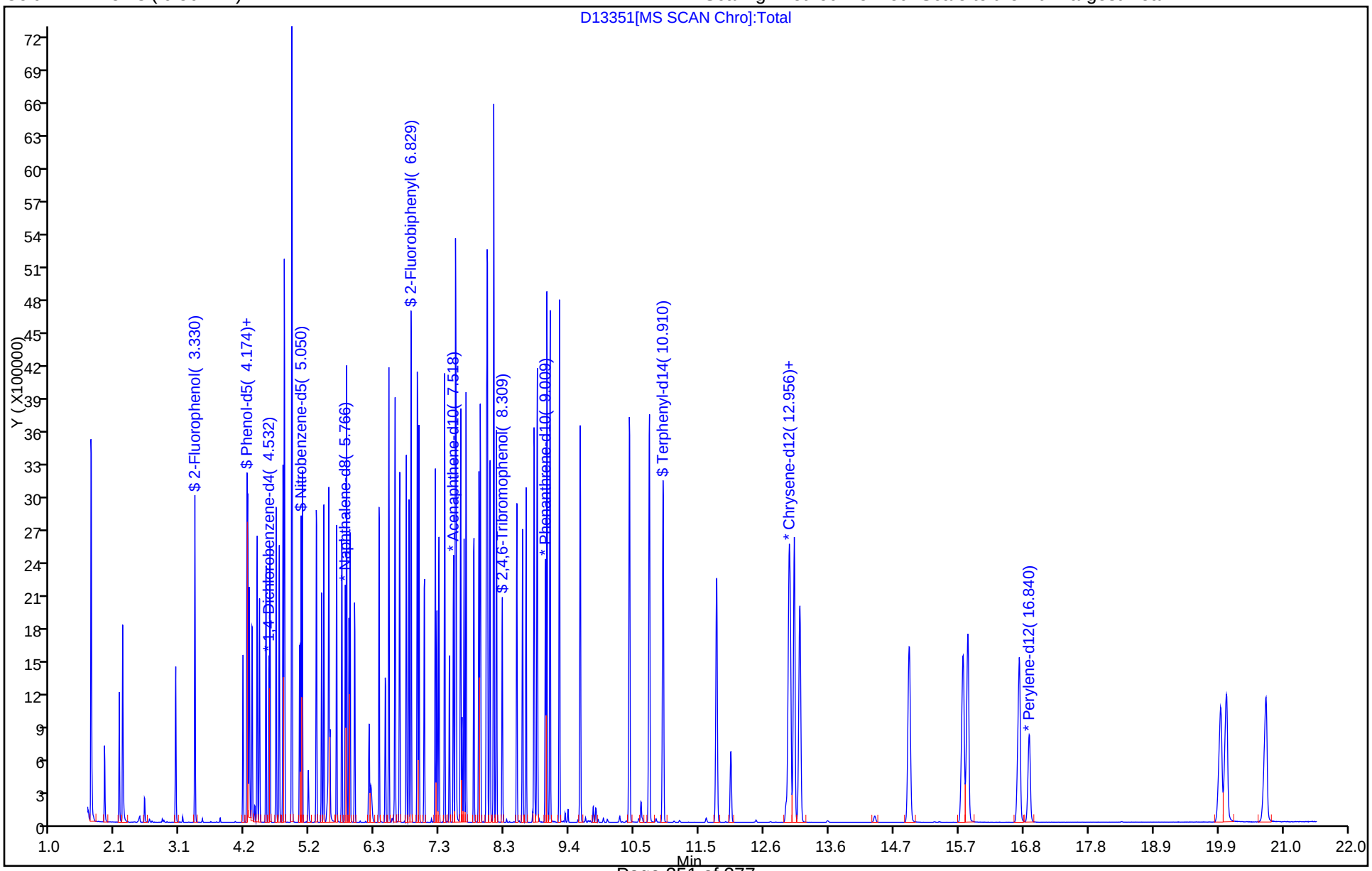
Report Date: 17-Nov-2015 10:23:36 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13351.D

Injection Date:	16-Nov-2015 20:10:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-B-3-A MS			Worklist Smp#:	12
Client ID:	TMW43102015MS				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

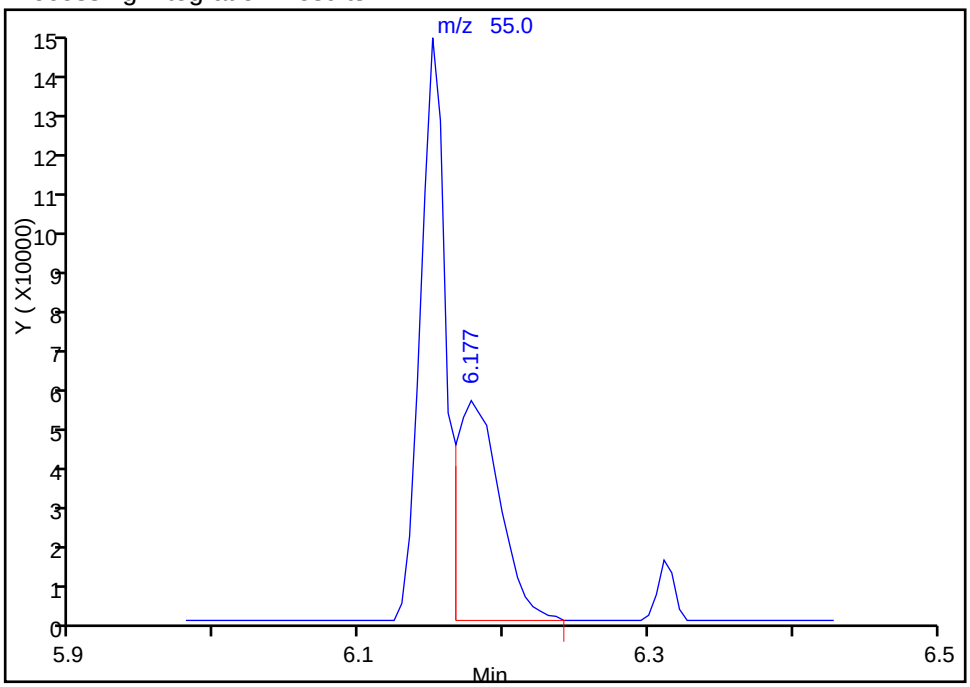
TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13351.D				
Injection Date:	16-Nov-2015 20:10:30	Instrument ID:	SMS_D		
Lims ID:	280-76331-B-3-A MS				
Client ID:	TMW43102015MS				
Operator ID:	KIEKELD	ALS Bottle#:	11	Worklist Smp#:	12
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		
Column:	VF-5ms (0.50 mm)	Detector	MS SCAN		

66 Caprolactam, CAS: 105-60-2

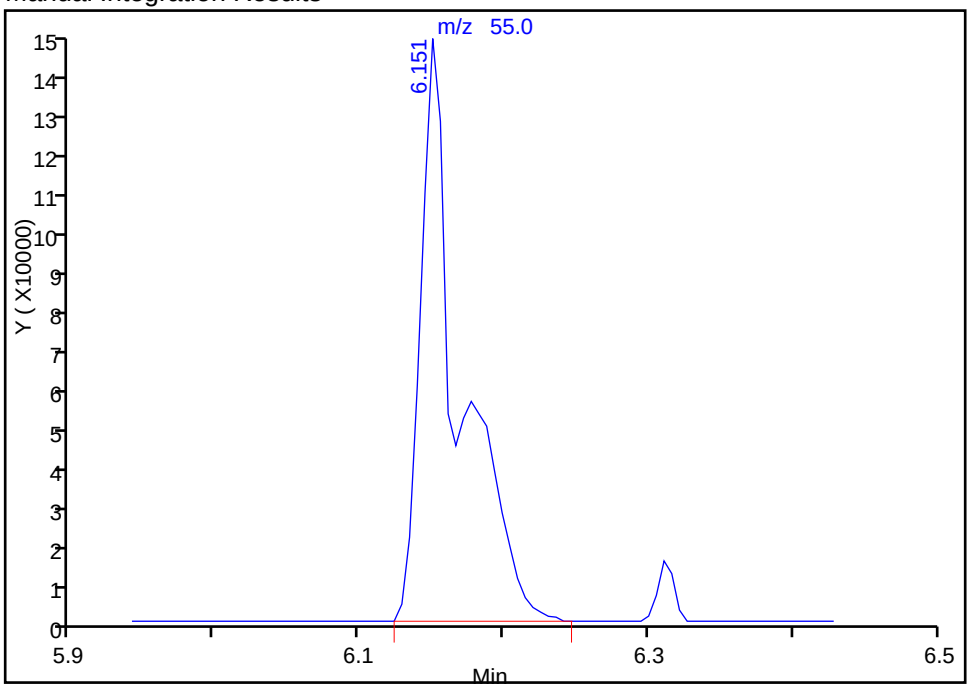
Processing Integration Results

RT: 6.18
Area: 117097
Amount: 31.064699
Amount Units: ug/ml



Manual Integration Results

RT: 6.15
Area: 284844
Amount: 75.566352
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:50:16
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-76331-2

SDG No.:

Client Sample ID: TMW43102015MSD MSD | Lab Sample ID: 280-76331-3 MSD

Matrix: Water | Lab File ID: D13352.D

Analysis Method: 8270D | Date Collected: 11/03/2015 09:50

Extract. Method: 3520C | Date Extracted: 11/06/2015 15:15

Sample wt/vol: 1053.9(mL) | Date Analyzed: 11/16/2015 20:38

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 0.5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 304460 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
105-60-2	Caprolactam	69.0		4.7	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
118-79-6	2,4,6-Tribromophenol (Surr)	90		42-131
321-60-8	2-Fluorobiphenyl	83		48-120
367-12-4	2-Fluorophenol (Surr)	87		41-120
4165-60-0	Nitrobenzene-d5 (Surr)	85		42-120
4165-62-2	Phenol-d5 (Surr)	88		45-124
1718-51-0	Terphenyl-d14 (Surr)	73		20-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13352.D
Lims ID: 280-76331-A-3-A MSD
Client ID: TMW43102015MSD
Sample Type: MSD
Inject. Date: 16-Nov-2015 20:38:30 ALS Bottle#: 12 Worklist Smp#: 13
Injection Vol: 0.5 ul Dil. Factor: 1.0000
Sample Info: 280-76331-A-3-AMSD
Operator ID: KIEKELD Instrument ID: SMS_D

Method: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\SMS_D_8270D.m
Limit Group: MSSV - 8270D
Method Label: 8270D
Last Update: 17-Nov-2015 10:23:29 Calib Date: 14-Nov-2015 11:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41571.b\D13301.D

Column 1 : VF-5ms (0.50 mm) Det: MS SCAN
Process Host: XAWRK019

First Level Reviewer: kiekeld Date: 17-Nov-2015 09:45:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 1 1,4-Dichlorobenzene-d4	152	4.532	4.531	0.001	96	202931	40.0	40.0	
* 2 Naphthalene-d8	136	5.766	5.765	0.001	100	798584	40.0	40.0	
* 3 Acenaphthene-d10	164	7.519	7.517	0.002	91	516009	40.0	40.0	
* 4 Phenanthrene-d10	188	9.009	9.007	0.002	97	925421	40.0	40.0	
* 5 Chrysene-d12	240	12.978	12.982	-0.004	98	885482	40.0	40.0	
* 6 Perylene-d12	264	16.841	16.850	-0.009	97	814366	40.0	40.0	
$ 7 2-Fluorophenol	112	3.330	3.329	0.001	92	672491	100.0	87.5	
$ 8 Phenol-d5	99	4.174	4.173	0.001	98	911339	100.0	88.2	
$ 9 Nitrobenzene-d5	82	5.051	5.049	0.002	86	817582	100.0	85.1	
$ 10 2-Fluorobiphenyl	172	6.829	6.833	-0.004	99	1386385	100.0	82.8	
$ 11 2,4,6-Tribromophenol	330	8.309	8.307	0.002	92	176450	100.0	89.7	
$ 12 Terphenyl-d14	244	10.911	10.914	-0.003	99	1368022	100.0	73.1	
13 1,4-Dioxane	88	1.867	1.870	-0.003	92	229356	80.0	62.3	
14 N-Nitrosodimethylamine	74	2.107	2.111	-0.004	91	417767	80.0	72.5	
15 Pyridine	79	2.160	2.164	-0.004	97	587285	80.0	58.4	
16 2-Picoline	93		2.749					ND	
17 N-Nitrosomethylethylamine	88		2.829					ND	
18 Methyl methanesulfonate	80		3.064					ND	
19 N-Nitrosodiethylamine	102		3.374					ND	
20 Ethyl methanesulfonate	79		3.598					ND	
21 Pentachlorophenol_T	266		3.696					ND	
22 Pentachloroethane	117		4.010					ND	
23 Benzaldehyde	106		4.349				ND	ND	
24 Phenol	94	4.185	4.183	0.002	98	777939	80.0	72.5	
25 Aniline	93	4.212	4.210	0.002	99	809353	80.0	59.3	
26 Bis(2-chloroethyl)ether	93	4.260	4.258	0.002	97	596591	80.0	76.3	
27 2-Chlorophenol	128	4.340	4.338	0.002	97	536270	80.0	72.9	
28 N-Nitrosopyrrolidine	100		4.544					ND	
29 N-Nitrosomorpholine	116		4.571					ND	
30 2-Toluidine	106		4.587					ND	
31 1,3-Dichlorobenzene	146	4.484	4.483	0.001	96	457046	80.0	59.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 1,4-Dichlorobenzene	146	4.548	4.547	0.001	92	474519	80.0	60.8	
33 N-Nitrosopiperidine	114		4.827					ND	
34 Benzyl alcohol	108	4.645	4.648	-0.003	94	422155	80.0	75.4	
35 1,2-Dichlorobenzene	146	4.698	4.696	0.002	96	467392	80.0	61.9	
36 2-Methylphenol	108	4.757	4.755	0.002	94	561950	80.0	71.9	
37 Benzidine_T	184		4.791					ND	
38 2,2'-oxybis[1-chloropropan	45	4.778	4.776	0.002	94	659243	80.0	73.1	
39 o,o',o''-Triethylphosphoro	198		4.998					ND	
40 3 & 4 Methylphenol	108	4.901	4.905	-0.004	76	558430	80.0	74.3	
41 3-Methylphenol	108	4.901	4.905	-0.004	74	558430	80.0	74.3	
42 4-Methylphenol	108	4.901	4.905	-0.004	70	558430	80.0	74.3	
43 N-Nitrosodi-n-propylamine	70	4.901	4.899	0.002	82	435413	80.0	76.0	
44 Acetophenone	105	4.901	4.905	-0.004	85	750033	80.0	73.1	
45 alpha,alpha-Dimethyl phene	58		5.148					ND	
46 Hexachloroethane	117	5.024	5.027	-0.003	96	174299	80.0	55.5	
47 Nitrobenzene	77	5.072	5.070	0.002	85	823794	80.0	88.8	
48 2,6-Dichlorophenol	162	5.847	5.845	0.002	97	450166	80.0	72.0	
49 Hexachloropropene	213		5.367					ND	
50 Isophorone	82	5.296	5.300	-0.004	99	1197703	80.0	69.5	
51 2,4-Dimethylphenol	107	5.419	5.417	0.002	96	459849	80.0	56.9	
52 2-Nitrophenol	139	5.382	5.385	-0.003	97	291069	80.0	72.7	
53 N-Nitrosodi-n-butylamine	84		5.580					ND	
54 p-Phenylene diamine	108		5.634					ND	
55 Bis(2-chloroethoxy)methane	93	5.499	5.498	0.001	98	720513	80.0	72.1	
56 Benzoic acid	105	5.521	5.551	-0.030	87	474052	80.0	72.8	
57 Safrole, Total	162		5.778					ND	
58 2,4-Dichlorophenol	162	5.627	5.626	0.001	95	453156	80.0	72.0	
59 1,2,4-Trichlorobenzene	180	5.708	5.711	-0.003	94	423601	80.0	60.8	
60 Naphthalene	128	5.788	5.786	0.002	97	1445092	80.0	67.3	
61 4-Chloroaniline	127	5.825	5.829	-0.004	96	510400	80.0	52.4	
62 Isosafrole Peak 1	162		6.024					ND	
63 Hexachlorobutadiene	225	5.916	5.920	-0.004	95	201834	80.0	53.7	
64 Isosafrole Peak 2	104		6.211					ND	
65 1-Chloronaphthalene	162		6.307					ND	
66 Caprolactam	55	6.151	6.165	-0.014	83	273391	80.0	72.7	M
67 1,4-Naphthoquinone	158		6.435					ND	
68 4-Chloro-3-methylphenol	107	6.311	6.310	0.001	96	518215	80.0	73.6	
69 1,4-Dinitrobenzene	168		6.483					ND	
70 2-Methylnaphthalene	142	6.472	6.470	0.002	93	1000109	80.0	67.6	
71 1-Methylnaphthalene	142	6.573	6.571	0.002	94	923683	80.0	70.1	
72 Hexachlorocyclopentadiene	237	6.643	6.646	-0.004	97	73537	80.0	20.9	
73 1,2,4,5-Tetrachlorobenzene	216	6.648	6.646	0.002	97	450729	80.0	67.5	
74 Pentachlorobenzene	250		6.889					ND	
75 2,4,6-Trichlorophenol	196	6.755	6.753	0.002	93	351644	80.0	75.8	
76 2,4,5-Trichlorophenol	196	6.797	6.796	0.001	95	379125	80.0	74.2	
77 1-Naphthylamine	143		7.001					ND	
78 2-Naphthylamine	143		7.066					ND	
79 1,1'-Biphenyl	154	6.931	6.935	-0.004	95	1188260	80.0	68.0	
80 Thionazin	97		7.140					ND	
81 2-Chloronaphthalene	162	6.958	6.961	-0.003	97	904805	80.0	66.0	
82 N-Nitro-o-toluidine	152		7.226					ND	
83 2-Nitroaniline	65	7.043	7.047	-0.004	82	350831	80.0	69.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
84 Diphenylamine	169		7.295					ND	
85 Sulfotepp	97		7.375					ND	
86 Dimethyl phthalate	163	7.225	7.228	-0.003	98	1115611	80.0	72.2	
87 1,3-Dinitrobenzene	168	7.251	7.250	0.001	87	208005	80.0	74.9	
88 2,6-Dinitrotoluene	165	7.284	7.282	0.002	95	280205	80.0	71.3	
89 Diallate Peak 1	86		7.509					ND	
90 Phorate	121		7.520					ND	
91 1,3,5-Trinitrobenzene	213		7.520					ND	
92 Phenacetin	108		7.541					ND	
93 Acenaphthylene	152	7.374	7.378	-0.004	99	1546880	80.0	67.6	
94 Diallate Peak 2	86		7.589					ND	
95 3-Nitroaniline	138	7.454	7.458	-0.004	95	219647	80.0	46.5	
96 Dimethoate	87		7.691					ND	
97 Acenaphthene	153	7.551	7.549	0.002	93	919841	80.0	68.2	
98 2,4-Dinitrophenol	184	7.561	7.565	-0.004	85	375725	160.0	162.4	
99 4-Nitrophenol	109	7.636	7.634	0.002	93	352571	160.0	147.4	
100 4-Aminobiphenyl	169		7.840					ND	
101 Pronamide	173		7.845					ND	
102 Pentachloronitrobenzene	237		7.851					ND	
103 2,4-Dinitrotoluene	165	7.690	7.693	-0.003	92	383733	80.0	73.0	
104 Dibenzofuran	168	7.722	7.725	-0.003	98	1406178	80.0	68.8	
105 Disulfoton	88		7.958					ND	
106 Dinoseb	211		7.968					ND	
107 2,3,4,6-Tetrachlorophenol	232	7.850	7.848	0.002	72	309670	80.0	77.5	
108 Diethyl phthalate	149	7.930	7.934	-0.004	98	1142052	80.0	73.5	
109 4-Chlorophenyl phenyl ethe	204	8.053	8.056	-0.003	92	551029	80.0	71.0	
110 Fluorene	166	8.064	8.067	-0.004	95	1140718	80.0	70.2	
111 Methyl parathion	109		8.289					ND	
112 4-Nitroaniline	138	8.069	8.072	-0.003	85	223537	80.0	47.7	
113 4,6-Dinitro-2-methylphenol	198	8.112	8.110	0.002	88	483586	160.0	144.4	
114 N-Nitrosodiphenylamine	169	8.170	8.174	-0.004	61	1557064	160.0	131.9	
115 Azobenzene	77	8.213	8.217	-0.004	97	1372574	80.0	72.2	
116 1,2-Diphenylhydrazine	77	8.213	8.217	-0.004	97	1372574	80.9	73.0	
117 Ethyl Parathion	109		8.636					ND	
118 4-Bromophenyl phenyl ether	248	8.544	8.543	0.001	67	327510	80.0	68.4	
119 4-Nitroquinoline-1-oxide	190		8.748					ND	
120 Methapyrilene	97		8.748					ND	
121 Hexachlorobenzene	284	8.635	8.639	-0.004	94	328680	80.0	69.4	
122 Pentachlorophenol	266	8.827	8.826	0.001	93	402817	160.0	146.6	
123 Isodrin	193		9.010					ND	
124 Phenanthrene	178	9.030	9.034	-0.004	98	1716512	80.0	69.0	
125 Anthracene	178	9.084	9.082	0.002	98	1669475	80.0	66.3	
126 Carbazole	167	9.233	9.237	-0.004	95	1733910	80.0	70.3	
127 Benzidine	184		9.493				ND	ND	
128 Aramite Peak 1	185		9.560					ND	
129 Aramite Peak 2	185		9.667					ND	
130 Di-n-butyl phthalate	149	9.570	9.574	-0.004	100	1970913	80.0	72.1	
131 p-Dimethylamino azobenzene	120		9.865					ND	
132 Chlorobenzilate	251		9.902					ND	
133 3,3'-Dimethylbenzidine	212		10.442					ND	
134 Fluoranthene	202	10.366	10.370	-0.004	98	1958627	80.0	70.4	
135 2-Acetylaminofluorene	181		10.933					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
136 Pyrene	202	10.692	10.690	0.002	97	2037664	80.0	70.3	
137 4,4'-Methylene bis(2-chlor	231		11.564					ND	
138 Famphur	218		11.662					ND	
139 Butyl benzyl phthalate	149	11.776	11.780	-0.004	97	917562	80.0	71.2	
140 3,3'-Dichlorobenzidine	252	12.898	12.912	-0.014	73	74581	80.0	7.97	
141 Benzo[a]anthracene	228	12.952	12.955	-0.003	99	1940045	80.0	68.4	
142 Bis(2-ethylhexyl) phthalat	149	13.123	13.131	-0.009	98	1277399	80.0	71.7	
143 Chrysene	228	13.037	13.041	-0.004	98	1842990	80.0	67.9	
144 7,12-Dimethylbenz(a)anthra	256		14.438					ND	
145 Di-n-octyl phthalate	149	14.896	14.905	-0.009	99	2297220	80.0	74.8	
146 3-Methylcholanthrene	268		16.564					ND	
147 Benzo[b]fluoranthene	252	15.772	15.776	-0.004	97	1784784	80.0	69.4	
148 Benzo[k]fluoranthene	252	15.847	15.856	-0.009	99	1806227	80.0	70.5	
149 Benzo[a]pyrene	252	16.680	16.689	-0.009	78	1676119	80.0	72.5	
150 Dibenz[a,j]acridine	279		18.535					ND	
151 Indeno[1,2,3-cd]pyrene	276	19.944	19.948	-0.004	99	1452583	80.0	64.6	
152 Dibenz(a,h)anthracene	278	20.035	20.044	-0.009	93	1442264	80.0	67.5	
153 Benzo[g,h,i]perylene	276	20.676	20.680	-0.004	99	1549390	80.0	68.2	
S 160 Aramite, Total	185		15.047					ND	
S 161 Isosafrole	162		15.047					ND	
S 162 Diallate	86		15.047					ND	
154 Total Cresols	1		0.000					ND	
155 Tetraethyl Pyrophosphate (	1		0.000					ND	
157 4,4'-DDD	235		5.230					ND	
158 4,4'-DDE	246		4.941					ND	
159 4,4'-DDT	235		5.445					ND	
S 163 Methyl Phenols,Total	1		0.000					ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MS-IS_00008 Amount Added: 20.00 Units: uL Run Reagent

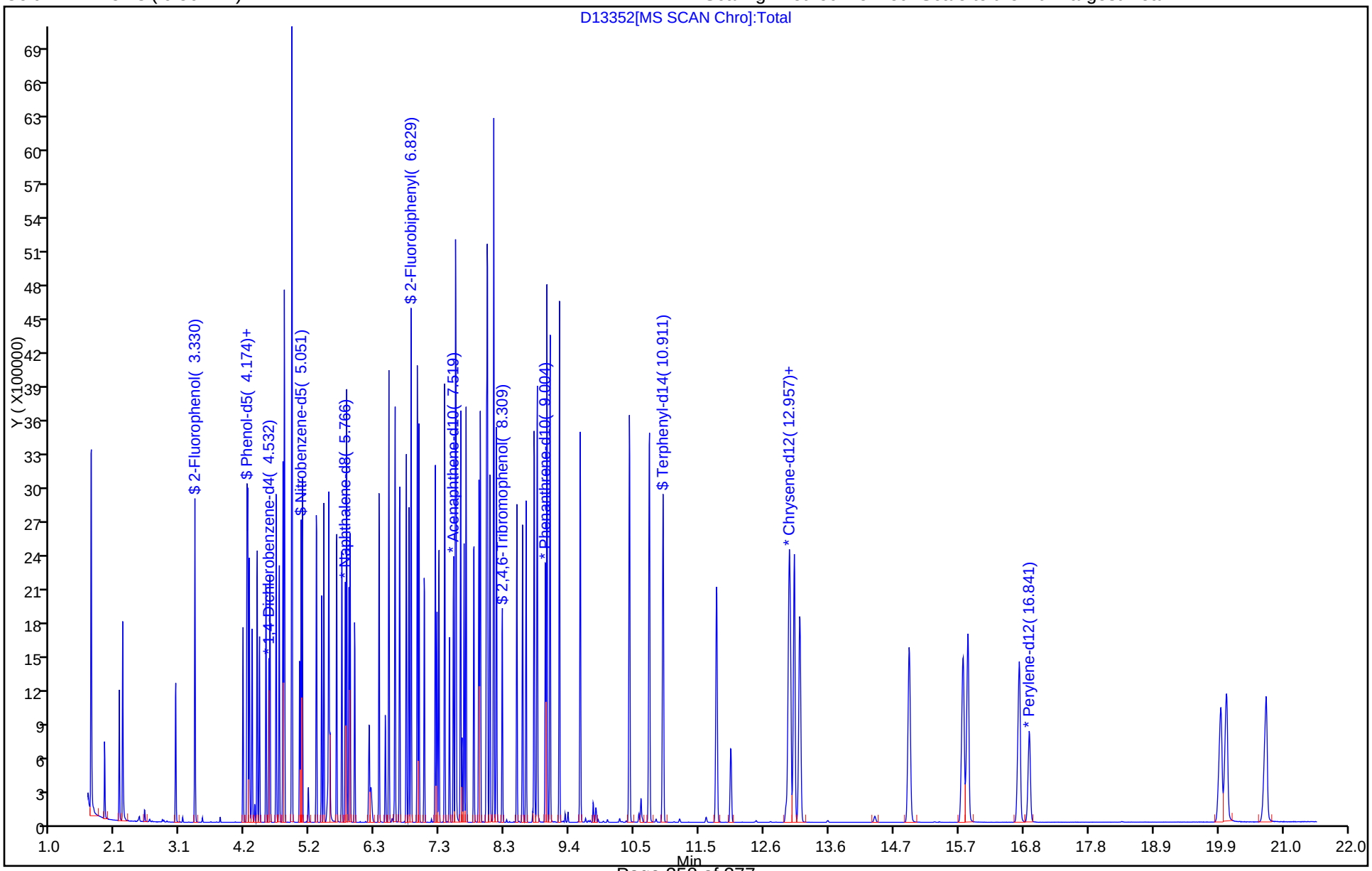
Report Date: 17-Nov-2015 10:23:38 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Denver

Data File: \\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13352.D

Injection Date:	16-Nov-2015 20:38:30	Instrument ID:	SMS_D	Operator ID:	KIEKELD
Lims ID:	280-76331-A-3-A MSD			Worklist Smp#:	13
Client ID:	TMW43102015MSD				
Injection Vol:	0.5 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		

Column: VF-5ms (0.50 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

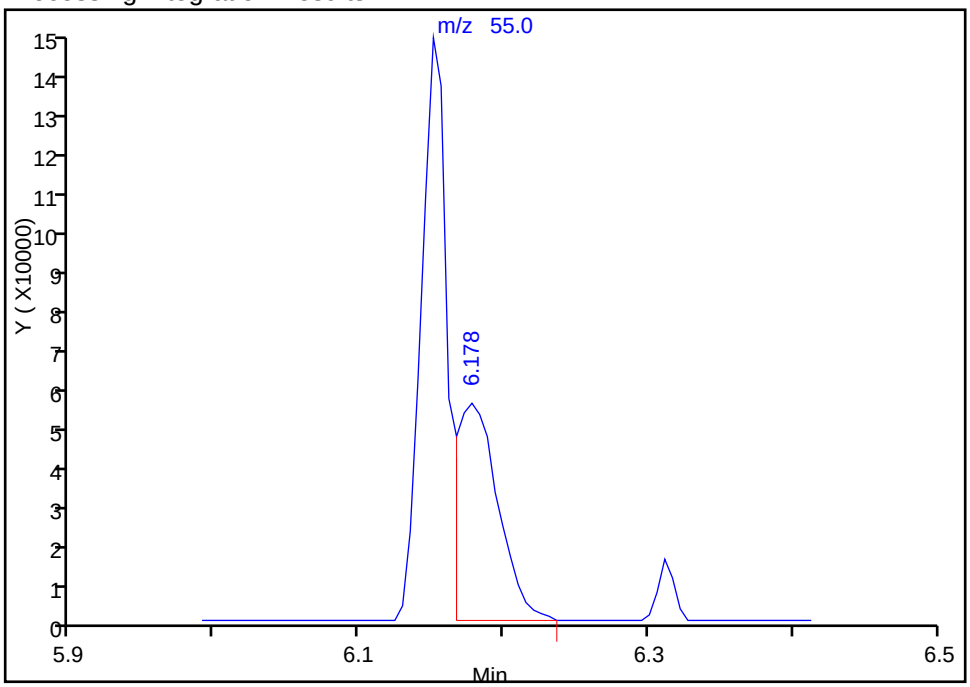
TestAmerica Denver

Data File:	\\ChromNA\Denver\ChromData\SMS_D\20151117-41575.b\D13352.D				
Injection Date:	16-Nov-2015 20:38:30	Instrument ID:	SMS_D		
Lims ID:	280-76331-A-3-A MSD				
Client ID:	TMW43102015MSD				
Operator ID:	KIEKELD	ALS Bottle#:	12	Worklist Smp#:	13
Injection Vol:	0.5 ul	Dil. Factor:	1.0000		
Method:	SMS_D_8270D	Limit Group:	MSSV - 8270D		
Column:	VF-5ms (0.50 mm)	Detector	MS SCAN		

66 Caprolactam, CAS: 105-60-2

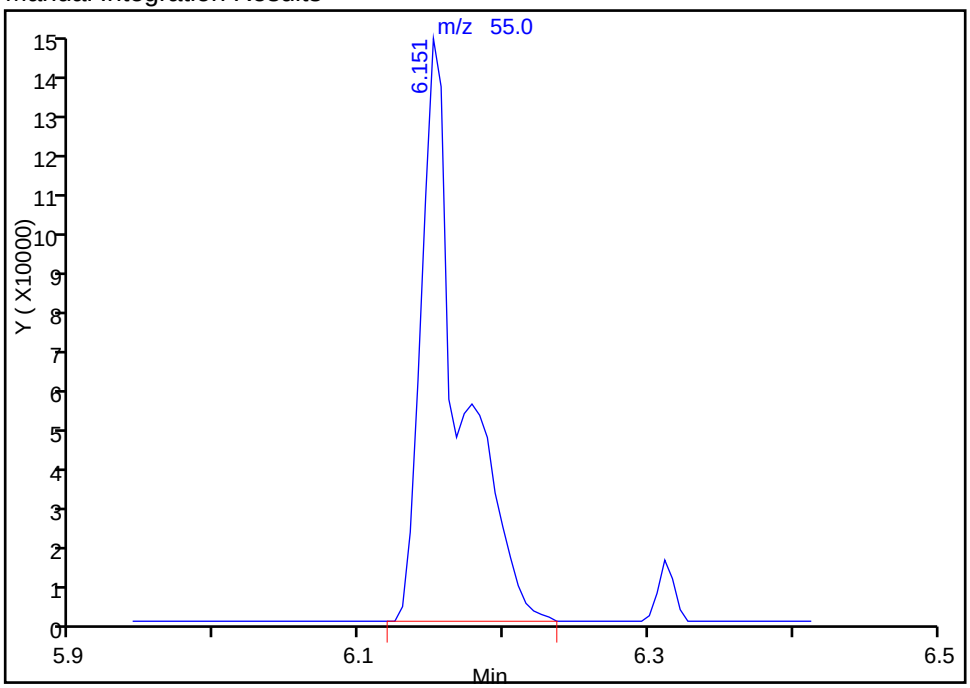
Processing Integration Results

RT: 6.18
Area: 107195
Amount: 28.496088
Amount Units: ug/ml



Manual Integration Results

RT: 6.15
Area: 273391
Amount: 72.676655
Amount Units: ug/ml



Reviewer: kiekeld, 17-Nov-2015 09:45:58
Audit Action: Manually Integrated
Audit Reason: Split Peak

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Instrument ID: SMS_D Start Date: 11/14/2015 08:15

Analysis Batch Number: 304451 End Date: 11/14/2015 13:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 280-304451/2		11/14/2015 08:15	1	D13293.D	Vf-5MS (30.25) 0.25(mm)
ICIS 280-304451/3		11/14/2015 08:27	1	D13294.D	Vf-5MS (30.25) 0.25(mm)
STD004 280-304451/4 IC		11/14/2015 08:56	1	D13295.D	Vf-5MS (30.25) 0.25(mm)
STD010 280-304451/5 IC		11/14/2015 09:23	1	D13296.D	Vf-5MS (30.25) 0.25(mm)
STD020 280-304451/6 IC		11/14/2015 09:50	1	D13297.D	Vf-5MS (30.25) 0.25(mm)
STD050 280-304451/7 IC		11/14/2015 10:17	1	D13298.D	Vf-5MS (30.25) 0.25(mm)
STD120 280-304451/8 IC		11/14/2015 10:44	1	D13299.D	Vf-5MS (30.25) 0.25(mm)
STD160 280-304451/9 IC		11/14/2015 11:11	1	D13300.D	Vf-5MS (30.25) 0.25(mm)
STD200 280-304451/10 IC		11/14/2015 11:38	1	D13301.D	Vf-5MS (30.25) 0.25(mm)
ICV 280-304451/11		11/14/2015 12:06	1	D13302.D	Vf-5MS (30.25) 0.25(mm)
ICV 280-304451/12		11/14/2015 12:33	1	D13303.D	Vf-5MS (30.25) 0.25(mm)
ICV 280-304451/13		11/14/2015 13:00	1	D13304.D	Vf-5MS (30.25) 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Instrument ID: SMS_D Start Date: 11/16/2015 00:16

Analysis Batch Number: 304460 End Date: 11/17/2015 01:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		11/16/2015 00:16	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/16/2015 00:43	1		Vf-5MS (30.25) 0.25(mm)
DFTPP 280-304460/2		11/16/2015 16:02	1	D13341.D	Vf-5MS (30.25) 0.25(mm)
CCV 280-304460/3		11/16/2015 16:13	1	D13342.D	Vf-5MS (30.25) 0.25(mm)
MB 280-302909/1-A		11/16/2015 17:54	1	D13346.D	Vf-5MS (30.25) 0.25(mm)
LCS 280-302909/2-A		11/16/2015 18:21	1	D13347.D	Vf-5MS (30.25) 0.25(mm)
280-76331-3	TMW43102015	11/16/2015 19:43	1	D13350.D	Vf-5MS (30.25) 0.25(mm)
280-76331-3 MS	TMW43102015MS MS	11/16/2015 20:10	1	D13351.D	Vf-5MS (30.25) 0.25(mm)
280-76331-3 MSD	TMW43102015MSD MSD	11/16/2015 20:38	1	D13352.D	Vf-5MS (30.25) 0.25(mm)
280-76331-4	DTW43102015	11/16/2015 21:05	1	D13353.D	Vf-5MS (30.25) 0.25(mm)
280-76331-5	TMW45102015	11/16/2015 21:32	1	D13354.D	Vf-5MS (30.25) 0.25(mm)
280-76331-7	TMW40D102015	11/16/2015 22:00	1	D13355.D	Vf-5MS (30.25) 0.25(mm)
280-76331-9	TMW14A102015	11/16/2015 22:27	1	D13356.D	Vf-5MS (30.25) 0.25(mm)
280-76331-10	SMW011102015	11/16/2015 22:54	1	D13357.D	Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/16/2015 23:21	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/16/2015 23:49	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/17/2015 01:10	1		Vf-5MS (30.25) 0.25(mm)
ZZZZZ		11/17/2015 01:38	1		Vf-5MS (30.25) 0.25(mm)

TestAmerica-*Denver*

D - 111415 - HSL - 8270D

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

GC/MS Semivolatile Initial Calibration Data Review Checklist

LIMS Batch Number: 304451	Worklist: 41571	ICIS/ICIV Line # 3	2nd Day ICV Line # NA	Instrument ID: D
Analyst/1st Reviewer: DJL Date: 11/7/15	Method (circle): 625 8270C (8270D)		Circle: (Full Scan) SIM BP LLSIM	
QC Type (circle): ~~Standard~~ ~~DOD Q4~~ DoD Q5 QAPP_____ Other_____			DJL 11/7/15	

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
A. Tune/Calibration Verification					
1. Did DFTPP meet tune criteria? If SIM, did the PFTBA Tune check meet ion ratio criteria?	✓			✓	
2. Are the Benzidine and PCP tailing ≤ 2? (8270D/DoD) Benzidine tailing ≤3 and PCP tailing ≤5? (8270C)	✓			✓	
3. Is the DDT degradation ≤ 20%	✓			✓	
4. Were all standards injected within 12 hr of DFTPP? (or 24 hrs for 625)?	✓			✓	
5. Were ≥ 5 levels of each compound and surrogate analyzed?	✓			✓	
6. At least 6 consecutive points used for quadratic curves?			✓	NA	
7. Was low level standard at or below RL?	✓			✓	
8. If calibration points removed, were reasons for removal documented? Did sufficient calibration points remain? (removal from middle of curve not allowed)	✓			✓	(e.g.; some points <RL removed)
9. Does the low level standard have enough sensitivity to produce at least 5-10 scans across the peak, and all secondary ions are present?	✓			✓	
10. Do the average RFs meet minimum RF requirements? (625 – not method defined) (8270C-SPCCs ≥0.05) (8270D- all cmpds have min RFs defined in method/SOP)	✓			✓	
10. Did the calibration %RSD meet method requirements? (625: ≤35% all cmpds) (8270C: ≤30% for CCCs & ≤15% for all other cmpds/ surrogates) (8270D: ≤20% for all cmpds/surrogates)	✓			✓	
11. Was a linear or quadratic regression fit used for analytes that exceeded the %RSD requirements?	✓			✓	
12. If regression fit used, r^2 ≥0.990?	✓			✓	
13. Does the low point of a linear regression fit meet the ±30% read-back criteria? (8270D)	✓			✓	
14. For quadratic – evaluate curve fitting errors: Does each point fall within criteria when 'read-back' against the curve? (TA requirement – CA-Q-S-005; recommended limits ±30% low point & ±20% all other points) (Chrom Report - Details of Calibration per Analyte)			✓	NA	
15. Is the concentration intercept <|RL| for each cmpd? ("X" intercept in Chrom)	✓			✓	
16. Were manual integrations performed correctly and properly documented (Dated, initialed and reason given) for all calibration points? 2nd review of all MIs required	✓			✓	
17. Was the high point checked for detector saturation?	✓			✓	
18. Do the relative retention times for each analyte in each standard agree within +/-0.06 units (abs RT +/-0.5 min)	✓			✓	
19. Benzo(b & k)fluoranthene: height of the valley between must be less than 50% of the average of the two peak heights?	✓			✓	

Panida R.
11-19-15

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable?
20. Elution order checked Isomeric pairs and coeluters?					Chrom: View/Documents/Methods/Isomers)
• aniline / bis(2-chloroethyl)ether	✓			✓	
• N-nitrosodiphenylamine/diphenylamine			✓		
• 1,3- , 1,4- , 1,2-dichlorobenzene	✓				
• benzyl alcohol / 2-methylphenol / 3/4-methylphenol	✓				
• 2,4-dimethylphenol / 3,5-dimethylphenol	✓				
• 2 & 1 - methylnaphthalene	✓				
• 2,4,6- and 2,4,5-trichlorophenol	✓				
• phenanthrene / anthracene	✓				
• fluoranthene / pyrene	✓				
• benzo(a)anthracene / chrysene	✓				
• bis(2-ethylhexyl)/di-n-octyl phthalate	✓				
• benzo(b)fluoranthene / benzo(k)fluoranthene	✓				
• indeno(1,2,3-cd)pyrene / benzo(g,h,i)perylene	✓				
• safrole/1-chloronaphthalene			✓		
• 1-/2-naphthylamine			✓		
• 1- and 2-chloronaphthalene			✓		
• 2,4,6- and 2,4,5-tribromophenol			✓		
• Benzo(e)pyrene / benzo(a)pyrene	✓				
21. Was the ICV within required criteria? 625 = QCS method defined/Table6 8270C = ±35% or ±55% of expected for poor performers; 8270D = ±20%, poor performers <50% DoD = ±20% QAPP/Other _____	✓			✓	
22. If any criteria from items above were not met, was NCM generated?			✓	NA	NCM #:
23. Were manual integrations for ICV performed correctly and properly documented? (dated, initialed and reason given; 2nd review of all MIs required)	✓			✓	
24. Are all files and QC linked and processed correctly?	✓		✓	✓	☐ Files linked properly to calibration levels? ☐ All points are in the most recent active calibration event? [Calibration Events –'Fix ICAL linkage' if needed] ☐ Runs linked to DFTPP? [QC links] ☐ Checklist & run log scanned, attached & assigned properly?
25. Is the ICAL locked in TALS and Chrom?	✓			✓	

Comments: _____

DW 11/17/15

2nd Reviewer: _____ **Review Date:** 11/17/15

Panida R.
11-19-15

Directory: C:\HPCHEM\1\DATA\111415.B

Injection Log

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	D13292.D	1.	PRIMER		14 Nov 2015 07:52
2	1	D13293.D	1.	DFTPP		14 Nov 2015 08:15
3	2	D13294.D	1.	ICIS HSL	304041	14 Nov 2015 08:27
4	3	D13295.D	1.	STD004 HSL	41471	14 Nov 2015 08:56
5	4	D13296.D	1.	STD010 HSL		14 Nov 2015 09:23
6	5	D13297.D	1.	STD020 HSL		14 Nov 2015 09:50
7	6	D13298.D	1.	STD050 HSL		14 Nov 2015 10:17
8	7	D13299.D	1.	STD120 HSL		14 Nov 2015 10:44
9	8	D13300.D	1.	STD160 HSL	Good	14 Nov 2015 11:11
10	9	D13301.D	1.	STD200 HSL		14 Nov 2015 11:38
11	10	D13302.D	1.	ICV HSL 1		14 Nov 2015 12:06
12	11	D13303.D	1.	ICV HSL 2		14 Nov 2015 12:33
13	12	D13304.D	1.	ICV FAM		14 Nov 2015 13:00
14	1	D13306.D	1.	DFTPP		14 Nov 2015 14:05
15	2	D13307.D	1.	CCV HSL	304064	14 Nov 2015 14:16
16	3	D13308.D	1.	CCV AFC	41473	14 Nov 2015 14:43
17	4	D13309.D	1.	CCV AP9		14 Nov 2015 15:10
18	5	D13310.D	1.	CCV BZHD		14 Nov 2015 15:37
19	6	D13311.D	1.	MB 280-302325_1-A		14 Nov 2015 16:00
20	7	D13312.D	1.	LCS 280-302325_2-A		14 Nov 2015 16:28
21	8	D13313.D	1.	280-75930-B-8-A		14 Nov 2015 16:55
22	9	D13314.D	1.	280-75930-B-9-A		14 Nov 2015 17:22
23	10	D13315.D	1.	280-75930-B-10-A		14 Nov 2015 17:49
24	11	D13316.D	1.	280-75930-B-11-A		14 Nov 2015 18:16
25	12	D13317.D	1.	280-75930-A-12-B		14 Nov 2015 18:44
26	13	D13318.D	1.	280-75930-A-13-B		14 Nov 2015 19:11
27	14	D13319.D	1.	280-75930-B-14-A		14 Nov 2015 19:38
28	15	D13320.D	1.	280-75930-B-15-A		14 Nov 2015 20:05
29	16	D13321.D	1.	280-75930-A-16-B		14 Nov 2015 20:32
30	17	D13322.D	1.	280-75930-F-17-A		14 Nov 2015 20:59
31	18	D13323.D	1.	280-75930-F-17-B MS		14 Nov 2015 21:26
32	19	D13324.D	1.	280-75930-F-17-C MSD		14 Nov 2015 21:53
33	20	D13325.D	1.	280-75930-A-18-B		14 Nov 2015 22:20
34	21	D13326.D	1.	280-75930-A-19-B		14 Nov 2015 22:47
35	22	D13327.D	1.	280-75930-A-20-B		14 Nov 2015 23:14
36	23	D13328.D	1.	280-75930-A-21-B		14 Nov 2015 23:41
37	24	D13329.D	1.	280-75930-B-22-A		14 Nov 2015 00:08
38	25	D13330.D	1.	280-75930-B-23-A		14 Nov 2015 00:35
39	26	D13331.D	1.	280-75999-A-2-C		15 Nov 2015 01:02
40	27	D13332.D	1.	280-75999-A-3-C		15 Nov 2015 01:29
41	98	D13333.D	1.	RINSE		15 Nov 2015 01:56
42	99	D13334.D	1.	RINSE		15 Nov 2015 02:23
43	100	D13335.D	1.	RINSE		15 Nov 2015 02:50
44	98	D13336.D	1.	RINSE		15 Nov 2015 03:17
45	99	D13337.D	1.	RINSE		15 Nov 2015 03:43
46	100	D13338.D	1.	RINSE		15 Nov 2015 04:10

11/16/15

Dilution Solvent Lot #: NA **Pipette ID:** SV20/SV103 **Method(s) Performed:** 8270_DOD

Daily Maintenance: Check box if maintenance was performed. No mark indicates the item was not changed.

Changed Septum ☑ Changed Liner ☐ Changed Seal ☑ Changed Ferrule ☑ Clipped Column ☐

Panida R. 11-19-15

TestAmerica *Denver*

D-111615

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

GC/MS Semivolatile Data Review Checklist-CCV and Tune

LIMS Batch Number: 304324	Worklist #: 41548	Instrument ID: D
Analyst/1st Reviewer: Dal Date: 11/16/15	Method (circle): 625 (8270C) (8270D)	Circle: (Full Scan) SIM BP LL SIM
QC Type (circle): (Standard) DOD Q4 (DoD Q5) QAPP_____		Other_____

Review Items	Yes	No	NA	2nd Rev	If No, why is data reportable? (List NCM #)
A. Tune/Calibration Verification					
1. Did DFTPP meet tune criteria? If SIM, did the PFTBA Tune check meet ion ratio criteria?	✓			✓	
2. Are the Benzidine and PCP tailing ≤ 2? (8270D/DoD), Benzidine tailing ≤3 and PCP tailing ≤5? (8270C)	✓			✓	
3. Is the DDT degradation ≤ 20%	✓			✓	
4. Were all standards injected within 12 hr of DFTPP? (or 24 hrs for 625)?	✓			✓	
5. Was the correct ICAL used for quantitation? Date & instrument ID verified? (Check both Chrom and TALS)	✓			✓	
6. Do the RFs meet method minimum criteria? (8270D/625) Are the RFs for SPCCs ≥0.050? (8270C)	✓			✓	
7. Is the %D (difference or drift) **8270C**: ≤20% for all CCCs? all other analytes within 35%, or 55% (poor performers) **8270D**: %D ≤ 20% for all analytes, at least 80% of compounds meet criteria?	✓			✓	(8270C: %D high, samples ND?) (8270D: <20% of cmpds fail criteria & for failed cmpds RL std verifies sensitivity for NDs?) List Compounds outside criteria:
8. For any compound > 20% D (low), was RL standard analyzed and detected? (8270D)			✓	NA	
9. NOTE: For any compounds > 20% D (high or low), detects will be flagged as "EST" & narrated. (8270D)			✓	NA	□ Must be done in consultation with client.
10. Are the internal standard responses within limits? (between -50% and +100% of the mid-level ICAL standard)	✓			✓	
11. Are the internal standard retention times within method limits? (±30 sec of ICAL mid pt for 8270C/D)	✓			✓	
12. Benzo(b & k)fluoranthene: height of the valley between must be less than 50% of the average of the two peak heights?	✓			✓	
13. Elution order checked Isomeric pairs and coeluters?					(Chrom: View/Documents/Methods/Isomers)
• aniline / bis(2-chloroethyl)ether	✓			✓	
• N-nitrosodiphenylamine/diphenylamine			✓	NA	
• 1,3- , 1,4- , 1,2-dichlorobenzene	✓			✓	
• benzyl alcohol / 2-methylphenol / 3/4-methylphenol	✓			✓	
• 2 & 1 – methylnaphthalene	✓			✓	
• 2,4-dimethylphenol / 3,5-dimethylphenol	✓			✓	
• 2,4,6- and 2,4,5-trichlorophenol	✓			✓	
• phenanthrene / anthracene	✓			✓	

Panida R.
11-19-15

A. Tune/Calibration Verification (cont.)					
Review Items	**Yes**	**No**	**NA**	**2nd Rev**	**If No, why is data reportable? (List NCM #)**
• fluoranthene / pyrene	✓			✓	
• benzo(a)anthracene / chrysene	✓			✓	
• benzo(e)pyrene/benzo(a)pyrene	✓			✓	
• bis(2-ethylhexyl)/di-n-octyl phthalate	✓			✓	
• benzo(b)fluoranthene / benzo(k)fluoranthene	✓			✓	
• indeno(1,2,3-cd)pyrene / benzo(g,h,i)perylene	✓			✓	
• safrole/1-chloronaphthalene	✓			✓	
• 1-/2-naphthylamine	✓			✓	
• 1 and 2-chloronaphthalene			✓	M	
• 2,4,6 and 2,4,5-tribromophenol			✓		
14. If any criteria from items above were not met, was a NCM generated?			✓		
15. Were manual integrations performed correctly and properly documented? (dated, initialed and reason given) 2nd review of all MIs required	✓			✓	

Comments: DW 11/7/15

2nd Reviewer: Alex Hoefler **Review Date:** 11/17/15

Panida R.
11-9-15

Directory: C:\HPCHEM\1\DATA\111615.B

Injection Log

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	D13339.D	1.	PRIMER	304324	16 Nov 2015 15:26
2	1	D13340.D	1.	DFTPP	41548	16 Nov 2015 15:50
3	1	D13341.D	1.	DFTPP		16 Nov 2015 16:02
4	2	D13342.D	1.	CCV HSL		16 Nov 2015 16:13
5	3	D13343.D	1.	CCV AFC		16 Nov 2015 16:41
6	4	D13344.D	1.	CCV AP9		16 Nov 2015 17:04
7	5	D13345.D	1.	CCV BZHD		16 Nov 2015 17:31
8	6	D13346.D	1.	MB280-302909_1-A		16 Nov 2015 17:54
9	7	D13347.D	1.	LCS280-302909_2-A		16 Nov 2015 18:21
10	8	D13348.D	1.	280-75999-A-4-C		16 Nov 2015 18:48
11	9	D13349.D	1.	280-75999-A-5-C		16 Nov 2015 19:16
12	10	D13350.D	1.	280-76331-D-3-A		16 Nov 2015 19:43
13	11	D13351.D	1.	280-76331-B-3-AMS		16 Nov 2015 20:10
14	12	D13352.D	1.	280-76331-A-3-AMSD		16 Nov 2015 20:38
15	13	D13353.D	1.	280-76331-B-4-A		16 Nov 2015 21:05
16	14	D13354.D	1.	280-76331-C-5-A		16 Nov 2015 21:32
17	15	D13355.D	1.	280-76331-A-7-A		16 Nov 2015 22:00
18	16	D13356.D	1.	280-76331-A-9-A		16 Nov 2015 22:27
19	17	D13357.D	1.	280-76331-B-10-A		16 Nov 2015 22:54
20	18	D13358.D	1.	280-76405-A-7-A		16 Nov 2015 23:21
21	19	D13359.D	1.	280-76405-D-8-A		16 Nov 2015 23:49
22	20	D13360.D	1.	280-76405-A-11-A		16 Nov 2015 00:16
23	21	D13361.D	1.	280-76405-A-12-A		16 Nov 2015 00:43
24	22	D13362.D	1.	280-76405-D-13-A		17 Nov 2015 01:10
25	23	D13363.D	1.	280-76309-F-1-A		17 Nov 2015 01:38
26	24	D13364.D	1.	CCVC AFC		17 Nov 2015 02:05
27	25	D13365.D	1.	CCVC BZHD		17 Nov 2015 02:32
28	26	D13366.D	1.	CCVC AP9		17 Nov 2015 02:59
29	27	D13367.D	1.	CCVC HSL		17 Nov 2015 03:26
30	98	D13368.D	1.	RINSE		17 Nov 2015 03:53
31	99	D13369.D	1.	RINSE		17 Nov 2015 04:21
32	100	D13370.D	1.	RINSE		17 Nov 2015 04:48
33	98	D13371.D	1.	RINSE		17 Nov 2015 05:15
34	99	D13372.D	1.	RINSE		17 Nov 2015 05:42
35	100	D13373.D	1.	RINSE		17 Nov 2015 06:09

11/7/15

Dilution Solvent Lot #: N/A **Pipette ID:** SV-20/SV-23 **Method(s) Performed:** 8270D_DOD5

Daily Maintenance: Check box if maintenance was performed. No mark indicates the item was not changed.

Changed Septum ☑ **Changed Liner** ☑ **Changed Seal** ☑ **Changed Ferrule** ☑ **Clipped Column** ☑

Panida R.
11-19-15

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Batch Number: 302909 Batch Start Date: 11/06/15 15:15 Batch Analyst: Arko, John R

Batch Method: 3520C Batch End Date: 11/09/15 21:03

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH
MB 280-302909/1		3520C, 8270D		7			1000 mL	1 mL	7
LCS 280-302909/2		3520C, 8270D		7			1000 mL	1 mL	7
280-76331-D-3	TMW43102015	3520C, 8270D	T	7	1520.5 g	504.2 g	1016.3 mL	1 mL	7
280-76331-B-3 MS	TMW43102015MS	3520C, 8270D	T	7	1513.7 g	503.5 g	1010.2 mL	1 mL	7
280-76331-A-3 MSD	TMW43102015MSD	3520C, 8270D	T	7	1557.7 g	503.8 g	1053.9 mL	1 mL	7
280-76331-B-4	DTW43102015	3520C, 8270D	T	7	1501.8 g	503.3 g	998.5 mL	1 mL	7
280-76331-C-5	TMW45102015	3520C, 8270D	T	7	1453.3 g	502.7 g	950.6 mL	1 mL	7
280-76331-A-7	TMW40D102015	3520C, 8270D	T	7	1484.5 g	502.6 g	981.9 mL	1 mL	7
280-76331-A-9	TMW14A102015	3520C, 8270D	T	7	1486.1 g	504.2 g	981.9 mL	1 mL	7
280-76331-B-10	SMW011102015	3520C, 8270D	T	7	1464.9 g	502.2 g	962.7 mL	1 mL	7

Lab Sample ID	Client Sample ID	Method Chain	Basis	FirstAdjustpH	SecondAdjustpH	8270_LCS_Main 00026	8270_LCS_Supp 00136	8270Surrogate 00086	AnalysisComment
MB 280-302909/1		3520C, 8270D		1-2	11-12			1 mL	share batch QC with batch 303282
LCS 280-302909/2		3520C, 8270D		1-2	11-12	1 mL	1 mL	1 mL	share batch QC with batch 303282
280-76331-D-3	TMW43102015	3520C, 8270D	T	1-2	11-12			1 mL	same as batch 303282
280-76331-B-3 MS	TMW43102015MS	3520C, 8270D	T	1-2	11-12	1 mL	1 mL	1 mL	same as batch 303282
280-76331-A-3 MSD	TMW43102015MSD	3520C, 8270D	T	1-2	11-12	1 mL	1 mL	1 mL	same as batch 303282
280-76331-B-4	DTW43102015	3520C, 8270D	T	1-2	11-12			1 mL	same as batch 303282
280-76331-C-5	TMW45102015	3520C, 8270D	T	1-2	11-12			1 mL	same as batch 303282
280-76331-A-7	TMW40D102015	3520C, 8270D	T	1-2	11-12			1 mL	same as batch 303282
280-76331-A-9	TMW14A102015	3520C, 8270D	T	1-2	11-12			1 mL	same as batch 303282
280-76331-B-10	SMW011102015	3520C, 8270D	T	1-2	11-12			1 mL	same as batch 303282

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-76331-2

SDG No.:

Batch Number: 302909 Batch Start Date: 11/06/15 15:15 Batch Analyst: Arko, John R

Batch Method: 3520C Batch End Date: 11/09/15 21:03

Batch Notes	
Acid used for pH adjustment	1:1 H2SO4
Acid used for pH adjust Lot #	1:1 H2SO4_00044
Balance ID	24350888
Base used for pH adjustment	10N_NaOH
Base used for pH adjust Lot #	10N_NaOH_00072
Batch Comment	DV-OP-0008/7 H2O:N. Elga
Person's name who did the concentration	DW/EJ
Time the first extraction ended 24hr	11/07/15 @ 0947
Time the first extraction started 24 hr	11/06/15 @ 1538
Na2SO4 Lot Number	0000112615_00006
NaCl Lot #	147425
Oven, Bath or Block Temperature 1	See Above Celsius
Prep Solvent Lot #	MeCl2_Cycl_00247/248
Prep Solvent Name	MeCl2
Prep Solvent Volume Used	300 mL
Person's name who did the prep	John Arko- Pipette: N
Person's name who witnessed reagent drop	Reviewer: BMS
Time the second extraction ended 24hr	11/08/15 @ 0645
Time the second extraction started 24hr	11/07/15 @ 1051
Sufficient volume for MS/MSD?	YES
Uncorrected Temperature	84 Celsius
Water Bath ID	A
Water Bath Temperature	84 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
phone 303-736-0100 fax 303-431-7171

Chain of Custody Record

280-76331 Chain of Custody

America
IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Nance	Site Contact: John Nance 505 321 7260	Date: 11/3/15	COC No: FWDAOCT15-06
John Nance	Tel: 505 835 7660	Lab Contact: Michelle Johnston	Carrier: Federal Express	1 of 1 COCs
6700 Jefferson Street NE Suite C3	Analysis Turnaround Time			Job No.
Albuquerque, NM 87109	Calendar (C) or Work Days (W) W			
505 835 7660 PHONE	TAT if different from Below 15			SDG No.
	2 weeks			
Project Name: Fort Wingate	1 week			
Site: Fort Wingate, New Mexico	2 days			
P O #	1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Explosives 8330B	Nitrate 9056	Perchlorate 6860	TAL Metal6010C/6020A/7470A Total	TAL Metal6010C/6020A/7470A Diss.	Organochlorine Pesticides 8081A	Volatile Organic Compounds 8260C	Semivolatile Organics 8270D	ORO 8015C C24-C36	TPH-DRO 8015C C10-C28	TPH-GRO 8015C C6-C10	TCLP VOCs 1311/8260B	EDB 8011	TCLP SVOCs 1311/8270D	Metals 6010C/6020A dissolved	TCLP Pesticides 1311/8081A	TCLP Herbicides 1311/8151A	pH 9045C	Ignitibility 1010	Sample Specific Notes:
TB-10-102015	11/3/2015	08:00	Grab	GW	1	N							1													Trip Blank
TB-11-102015	11/3/2015	08:05	Grab	GW	1	N											1									Trip Blank
TMW43102015	11/3/2015	09:50	Grab	GW	13	Y	2	1	1	1	1	2	3	2												
DTW43102015	11/3/2015	09:50	Grab	GW	13	Y	2	1	1	1	1	2	3	2												
TMW43102015MS	11/3/2015	09:50	Grab	GW	13	Y	2	1	1	1	1	2	3	2												
TMW43102015MSD	11/3/2015	09:50	Grab	GW	13	Y	2	1	1	1	1	2	3	2												
TMW45102015	11/3/2015	12:50	Grab	GW	13	Y	2	1	1	1	1	2	3	2												
MW22S102015	11/3/2015	07:41	Grab	GW	1	Y										1										Partial. Well dry
TMW40D102015	11/3/2015	09:00	Grab	GW	13	Y	2	1	1	1	1	2	3	2												
TMW17102015	11/3/2015	10:20	Grab	GW	7	Y		1	1	1	1		3													
TMW14A102015	11/3/2015	12:00	Grab	GW	10	Y	2	1		1	1		3	2												
SMW01102015	11/3/2015	09:10	Grab	GW	11	Y	2	1	1	1	1		3	2												
TMW34102015	11/3/2015	11:30	Grab	GW	15	Y		1	1	1	1		3			2	3		3							
DTW34102015	11/3/2015	11:30	Grab	GW	15	Y		1	1	1	1		3			2	3		3							
TMW02102015	11/3/2015	13:40	Grab	GW	9	Y	2	1	1	1	1		3													

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [X] Unknown

Sample Disposal
[ ] Return To Client [X] Disposal By Lab [X] Archive For 60 days after invoice

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
L. Hill	CH2M HILL	11/3/15 16:00	Mayra Soto		11/04/15 935
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

IR 7 to 0.0 11/04/15 Transfer by MS 0.5, 0.4, 0.2, 0.4, 0.5, 3.5, 0.9, 1.4, 0.3, 0.4

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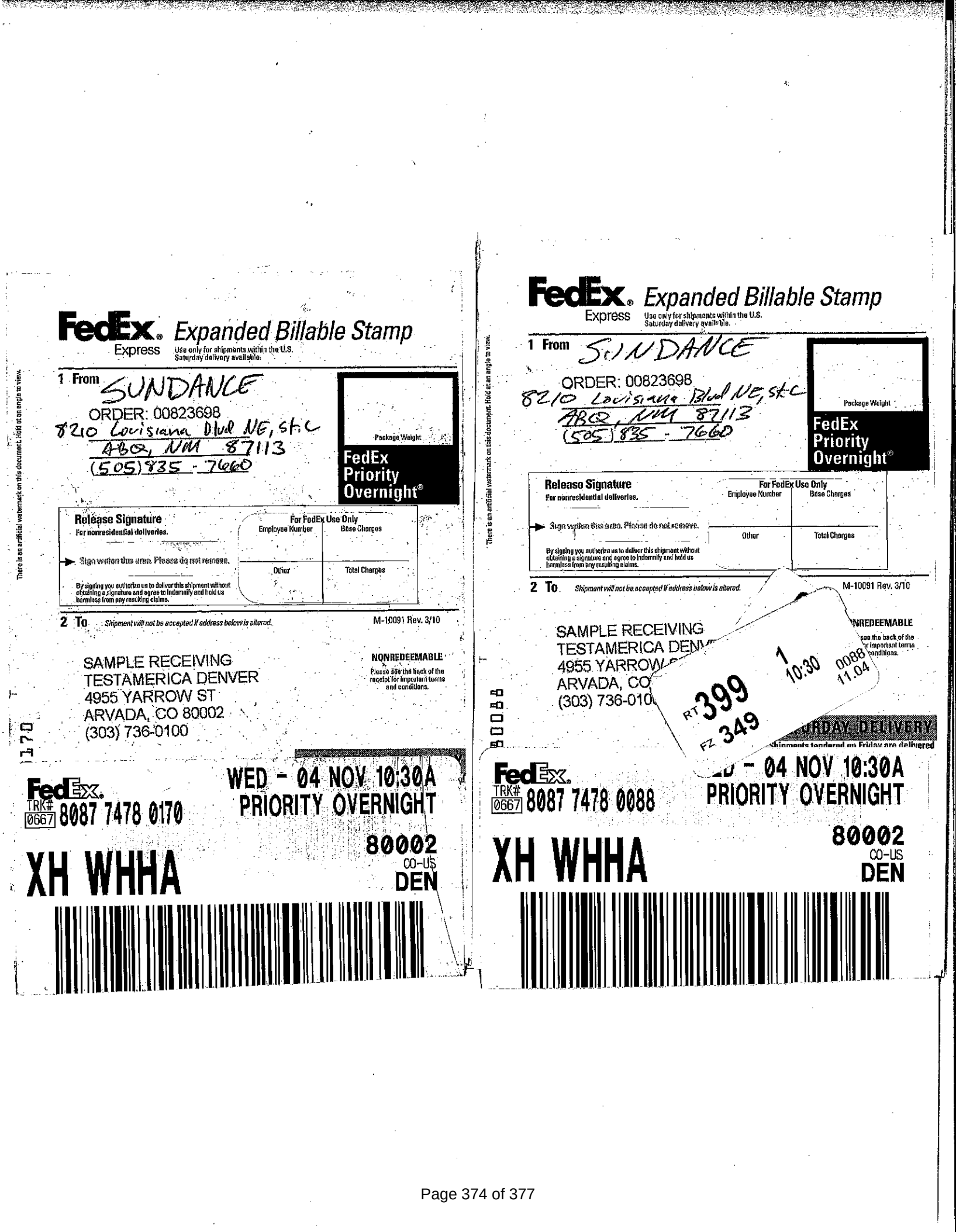
FID 789936 03NOV16 GUPA 639C2/3F56/31D0



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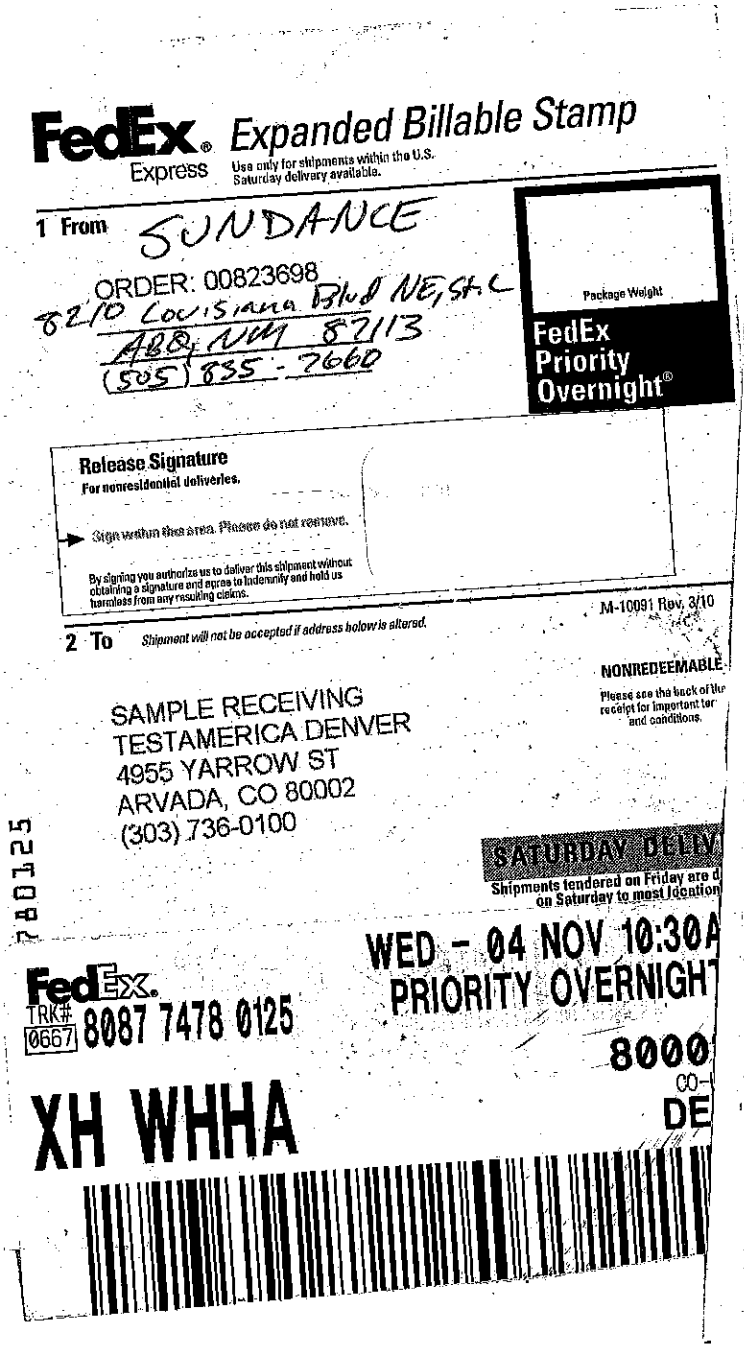

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Login Sample Receipt Checklist

Client: Sundance Consulting, Inc

Job Number: 280-76331-2

Login Number: 76331
List Number: 1
Creator: Soto, Mayra A

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Not requested on COC.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	