

Atmospheric Analysis & Consulting, Inc.

CLIENT : SWAPE
PROJECT NAME : Bridgeton Sanitary Landfill Quality Assessment
AAC PROJECT NO. : 130783
REPORT DATE : 06/26/2013

On June 24, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) Six-Liter Summa Canisters for Total Reduced Sulfur analysis by ASTM D-5504. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:


Client ID	Lab No.	Return Pressure (mmHgA)
U-1 W1 Canister	130783-63876	519.3
U-2 V Canister	130783-63877	654.1
D-1 W5 Canister	130783-63878	602.4
D-2 IN Canister	130783-63879	563.7

ASTM D-5504 Analysis - Up to a 1 mL aliquot of sample is injected into the GC/SCD for analysis following ASTM D-5504 as specified in the SOW.

No problems were encountered during receiving, preparation, and/ or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# AACI-ASTM D-5504.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

If you have any questions or require further explanation of data results, please contact the undersigned.


Marcus Hueppe
Laboratory Director

This report consists of 32 pages.





SAMPLE RECEIPT / LOG-IN REPORT

AAC Project 130783

Received By: J. Zachman

<u>Sample Receipt Date</u>	<u>Project Desc</u>	<u>Clients ID</u>	<u>Matrix</u>	<u>Sampling Date/Time</u>	<u>Sampled By</u>	<u>Sample #</u>	<u>Analysis Requested</u>
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 W1 Canister	Summa Canister	6/18/2013	Client	63876	TO15 ASTM D5504
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 V Canister	Summa Canister	6/18/2013	Client	63877	TO15 ASTM D5504
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 W5 Canister	Summa Canister	6/18/2013	Client	63878	TO15 ASTM D5504
6/24/2013 1100	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 IN Canister	Summa Canister	6/18/2013	Client	63879	TO15 ASTM D5504

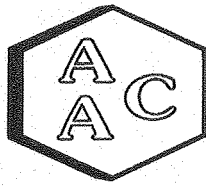
TURN AROUND TIME: Normal (10days)

Lab Due Date: 7/1/2013

Total Samples: 4

REMARKS:

Client returned 4 x Summa canisters + 4 x Flows. "Standard TAT for all analyses. If possible deliver report within 2 weeks. Provide Level IV QC package for all analyses."



CANISTER PRESSURE LOG

Client: Soil Water Air Protection Ent Project No.: 130783
Date: 6/24/2013

Canister #	Sample #	Initial Pressure	Final Pressure
624	63876	519.3	1028.2
765	63877	654.1	1020.0
771	63878	602.4	1015.5
751	63879	563.7	1020.0

ARC# 130783

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011 Date: June 18th Page 1 of 1

Project Manager: PAUL ROSENFIELD, PH.D. Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: John Blank Sampler Signature: *John Blank*

LAB ID	SAMPLE ID NUMBER	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Special Instructions / Conditions of Receipt
63876	U-1 W1	Canister	18-Jun	4 Hr	X	X												Canister # 624 694
63877	U-2 V	Canister	18-Jun	4 Hr	X	X												Canister # 765 709
63828	D-1 W5	Canister	18-Jun	4 Hr	X	X												Canister # 771 805
63879	D-2 IN	Canister	18-Jun	4 Hr	X	X												Canister # 751 698
																		Flow #

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks. QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By: John Blank Date: 6/18/2013 Time: 12 Noon Received By: *John Blank* Date: *6/24/13* Time: *11:00*

Relinquished By: *John Blank* Date: Date: Time: Time: Received By: *John Blank* Date: *6/24/13* Time: *11:00*

SOIL / WATER / AIR PROTECTION ENTERPRISE

Atmospheric Analysis and Consulting Inc.

Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **U-1 W1** **Canister # 624** **Flow Control # 694**

AAC Batch ID: 130783 AAC Sample ID: 63867

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 14:05** Stop Date/Time: **June 18, 2013 – 18:05**

Start Temp/Pressure*: **30 C / 30.05 psi** Stop Temp/Pressure*: **32 C / 29.95 psi**

Initial Can Pressure**: **- 30** Final Can Pressure**: **- 10**

* Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)

Comments: _____



John Blank

Sampler Name (Print)

June 18th, 2013

Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter Sampling Period: 4 – Hour

Canister Serial No.: 624 Flow Controller Serial No: 694

Initial Pressure: 4.7 Certified Flow Rate: 18.0

Return Pressure: 519.3 Certified By/Date: [Signature] 6/3/2013

Final Pressure: 1028.2 Flow Rate upon Return: 17.7 mL/min

Date Shipped From Lab: 5/23/2013 Shipped By: [Signature]

Date Returned to Lab: 6/24/13 Received By: [Signature]

Flow Controller Certification File ID: 1609/05301312

Canister Certification File ID: 1609/0521320

Certification Type: SIM SCAN NJLL PAMS Other

[Signature] 6/26/13
Chemist Signature/Date

[Signature] 6/27/13
Lab Manager Signature/Date

Sampler is required to fill out all highlighted sections during sampling.

All remaining sections will be completed upon return by the laboratory.

Atmospheric Analysis and Consulting Inc.

Canister Sampling Field Data Sheet

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **U-2 V** **Canister # 765** **Flow Control # 709**

AAC Batch ID: 130783 AAC Sample ID: 63877

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 14:40** Stop Date/Time: **June 18, 2013 – 18:40**

Start Temp/Pressure*: **30 C / 30.05 psi** Stop Temp/Pressure*: **32 C / 29.95 psi**

Initial Can Pressure**: **- 30** Final Can Pressure**: **- 3**

* Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)

Comments: _____



John Blank

Sampler Name (Print)

June 18th, 2013

Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter

Sampling Period: 4 – Hour

Canister Serial No.: **765**

Flow Controller Serial No: **709**

Initial Pressure: 4.4

Certified Flow Rate: 18.0

Return Pressure: 654.1

Certified By/Date: JP 6/3/2013

Final Pressure: 1020.0

Flow Rate upon Return: 20.7 nl/min

Date Shipped From Lab: 5/23/2013

Shipped By: JP

Date Returned to Lab: 6/24/13

Received By: WJF

Flow Controller Certification File ID: 4503/05301312

Canister Certification File ID: M503/05211321

Certification Type: SIM _____ SCAN NJLL _____ PAMS _____ Other _____

JP 6/26/13
Chemist Signature/Date

WJF 6/27/13
Lab Manager Signature/Date

**Sampler is required to fill out all highlighted sections during sampling.
All remaining sections will be completed upon return by the laboratory.**

**Atmospheric Analysis and Consulting Inc.
Canister Sampling Field Data Sheet**

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **D- 1 W5** Canister # **771** Flow Control # **805**

AAC Batch ID: 130783 AAC Sample ID: 63878

SAMPLING INFORMATION

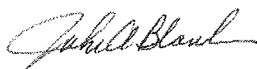
Start Date/Time: **June 18, 2013 – 14:55** Stop Date/Time: **June 18, 2013 – 18:55**

Start Temp/Pressure*: **30 C / 30.05 psi** Stop Temp/Pressure*: **32 C / 29.95 psi**

Initial Can Pressure**: **- 30** Final Can Pressure**: **- 8**

** Ambient Barometric Reading where sample is being taken (C / inHg) ** Flow Controller Gauge Reading (inHg)*

Comments: _____



John Blank
Sampler Name (Print)

June 18th, 2013
Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter

Sampling Period: 4 – Hour

Canister Serial No.: 771

Flow Controller Serial No: 805

Initial Pressure: 4.5

Certified Flow Rate: 18.0

Return Pressure: 602.4

Certified By/Date: JP 6/3/2013

Final Pressure: 1015.5

Flow Rate upon Return: 26.5 ml/min

Date Shipped From Lab: 5/23/2013

Shipped By: JP

Date Returned to Lab: 6/24/13

Received By: WJ

Flow Controller Certification File ID: MS03/053/1320

Canister Certification File ID: MS03/052/1322

Certification Type: SIM _____ SCAN NJLL _____ PAMS _____ Other _____


Chemist Signature/Date


Lab Manager Signature/Date

Sampler is required to fill out all highlighted sections during sampling.

Atmospheric Analysis and Consulting Inc.

Canister Sampling Field Data Sheet

All remaining sections will be completed upon return by the laboratory.

GENERAL INFORMATION

Project Name and/or ID No.: **Bridgeton Sanitary Landfill**

Site Address and/or ID No.: **13570 St Charles Rock Rd, Bridgeton, MO 63044**

Sample Name and/or ID No.: **D- 2 IN** **Canister # 751** **Flow Control # 698**

AAC Batch ID: 130783 AAC Sample ID: 63879

SAMPLING INFORMATION

Start Date/Time: **June 18, 2013 – 15:05** Stop Date/Time: **June 18, 2013 – 19:05**

Start Temp/Pressure*: 30 C / 30.05 psi Stop Temp/Pressure*: 32 C / 29.95 psi

Initial Can Pressure**: - 30 Final Can Pressure**: - 8

* Ambient Barometric Reading where sample is being taken (C/inHg) ** Flow Controller Gauge Reading (inHg)

Comments: _____

John Blank
John Blank
Sampler Name (Print)

June 18th, 2013
John Blank
Sampler Signature/Date

LABORATORY INFORMATION

Canister Size: 6 – Liter

Sampling Period: 4 – Hour

Canister Serial No.: **751**

Flow Controller Serial No: **698**

Initial Pressure: 4.4

Certified Flow Rate: 18.0

Return Pressure: 563.7

Certified By/Date: JA 5/17/2013

Final Pressure: 1020.0

Flow Rate upon Return: 20.0 ml/min

Date Shipped From Lab: 5/23/2013

Shipped By: JA

Date Returned to Lab: 6/24/13

Received By: WJH

Flow Controller Certification File ID: 14503/05141322

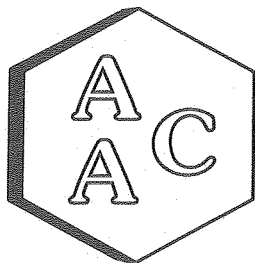
Canister Certification File ID: 14503/05211326

Certification Type: SIM _____ SCAN NJLL _____ PAMS _____ Other _____

John Blank
Chemist Signature/Date

WJH
Lab Manager Signature/Date

Results



Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : SWAPE
PROJECT NO. : 130783
MATRIX : AIR
UNITS : ppbV

SAMPLING DATE : 06/18/2013
RECEIVING DATE : 06/24/2013
ANALYSIS DATE : 06/25/2013
REPORT DATE : 06/26/2013

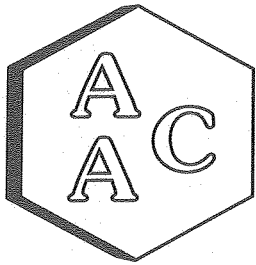
Sulfur Compounds by ASTM D-5504

Client ID	U-1 W1 Canister	U-2 V Canister	D-1 W5 Canister	D-2 IN Canister
AAC ID	130783-63876	130783-63877	130783-63878	130783-63879
Canister Dil. Fac.	1.98	1.56	1.69	1.81
Analyte	Result	Result	Result	Result
Hydrogen Sulfide	< 19.8	< 15.6	< 16.9	< 18.1
Carbonyl Sulfide	< 19.8	< 15.6	< 16.9	< 18.1
Sulfur Dioxide	< 19.8	< 15.6	< 16.9	< 18.1
Methyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
Ethyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
Dimethyl Sulfide	< 19.8	< 15.6	< 16.9	< 18.1
Carbon Disulfide	< 9.9	< 7.8	< 8.4	< 9.0
Isopropyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
tert-Butyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
n-Propyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
Methylethylsulfide	< 19.8	< 15.6	< 16.9	< 18.1
sec-Butyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
Thiophene	< 19.8	< 15.6	< 16.9	< 18.1
iso-Butyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
Diethyl Sulfide	< 19.8	< 15.6	< 16.9	< 18.1
n-Butyl Mercaptan	< 19.8	< 15.6	< 16.9	< 18.1
Dimethyl Disulfide	< 9.9	< 7.8	< 8.4	< 9.0
2-Methylthiophene	< 19.8	< 15.6	< 16.9	< 18.1
3-Methylthiophene	< 19.8	< 15.6	< 16.9	< 18.1
Tetrahydrothiophene	< 19.8	< 15.6	< 16.9	< 18.1
Bromothiophene	< 19.8	< 15.6	< 16.9	< 18.1
Thiophenol	< 19.8	< 15.6	< 16.9	< 18.1
Diethyl disulfide	< 9.9	< 7.8	< 8.4	< 9.0
Total Unidentified Sulfur	< 19.8	< 15.6	< 16.9	< 18.1

All unidentified sulfur compound's concentrations expressed in terms of μS
Sample Quantitation Limit (SQL) is equal to the Quantitation Limit x Canister Dil. Fac. x Analysis Dil. Fac.


Marcus Hueppe
Laboratory Director





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : SWAPE
 PROJECT NO. : 130783
 MATRIX : AIR
 UNITS : ug/m³

SAMPLING DATE : 06/18/2013
 RECEIVING DATE : 06/24/2013
 ANALYSIS DATE : 06/25/2013
 REPORT DATE : 06/26/2013

Sulfur Compounds by ASTM D-5504

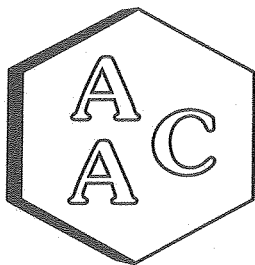
Client ID	U-1 W1 Canister	U-2 V Canister	D-1 W5 Canister	D-2 IN Canister
AAC ID	130783-63876	130783-63877	130783-63878	130783-63879
Canister Dil. Fac.	1.98	1.56	1.69	1.81
Analyte	Result	Result	Result	Result
Hydrogen Sulfide	< 27.6	< 21.7	< 23.5	< 25.2
Carbonyl Sulfide	< 48.6	< 38.3	< 41.4	< 44.5
Sulfur Dioxide	< 51.9	< 40.9	< 44.2	< 47.4
Methyl Mercaptan	< 39.0	< 30.7	< 33.2	< 35.6
Ethyl Mercaptan	< 50.3	< 39.6	< 42.8	< 46.0
Dimethyl Sulfide	< 50.3	< 39.6	< 42.8	< 46.0
Carbon Disulfide	< 30.8	< 24.3	< 26.2	< 28.2
Isopropyl Mercaptan	< 61.7	< 48.6	< 52.5	< 56.4
tert-Butyl Mercaptan	< 73.0	< 57.5	< 62.2	< 66.7
n-Propyl Mercaptan	< 61.7	< 48.6	< 52.5	< 56.4
Methylethylsulfide	< 61.7	< 48.6	< 52.5	< 56.4
sec-Butyl Mercaptan	< 73.0	< 57.5	< 62.2	< 66.7
Thiophene	< 68.1	< 53.7	< 58.0	< 62.3
iso-Butyl Mercaptan	< 73.0	< 57.5	< 62.2	< 66.7
Diethyl Sulfide	< 73.0	< 57.5	< 62.2	< 66.7
n-Butyl Mercaptan	< 73.0	< 57.5	< 62.2	< 66.7
Dimethyl Disulfide	< 38.1	< 30.0	< 32.5	< 34.9
2-Methylthiophene	< 79.5	< 62.6	< 67.7	< 72.6
3-Methylthiophene	< 79.5	< 62.6	< 67.7	< 72.6
Tetrahydrothiophene	< 71.4	< 56.2	< 60.8	< 65.3
Bromothiophene	< 132	< 104	< 112	< 121
Thiophenol	< 89.2	< 70.3	< 76.0	< 81.5
Diethyl disulfide	< 49.5	< 39.0	< 42.1	< 45.2
Total Unidentified Sulfur	< 27.6	< 21.7	< 23.5	< 25.2

All unidentified sulfur compound's concentrations expressed in terms of IIS
 Sample Quantitation Limit (SQL) is equal to the Quantitation Limit x Canister Dil. Fac. x Analysis Dil. Fac.


 Marcus Hueppe
 Laboratory Director



QA/QC Summary



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report ASTM D-5504

Date Analyzed: 06/25/13
Analyst: DH

Instrument ID: SCD#10
Calb. Date: 5/14/2013

Opening Calibration Verification Standard

	Resp. (area)	Result (ppbV)	% Rec *	% RPD ****
Initial	16435	487	97.5	NA
Duplicate	16382	486	97.2	0.3
Triplicate	16594	492	98.4	1.0

Method Blank

Analyte	Result
H2S	ND

Matrix Spike & Duplicate

Sample ID 130783-63876

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H2S	0	250	238	230	95.0	92.1	3.1

Duplicate Analysis

Sample ID 130783-63876

Analyte	Sample Result	Duplicate Result	Mean	% RPD ***
H2S	0	0	0	0.0

Closing Calibration Verification Standard

Analyte	Std. Conc.	Result	%Recovery **
H2S	500	495.6	99.1

* Must be 95-105%

** Must be 90-110%

*** Must be < 10%

**** must be < 5% RPD from Initial result.



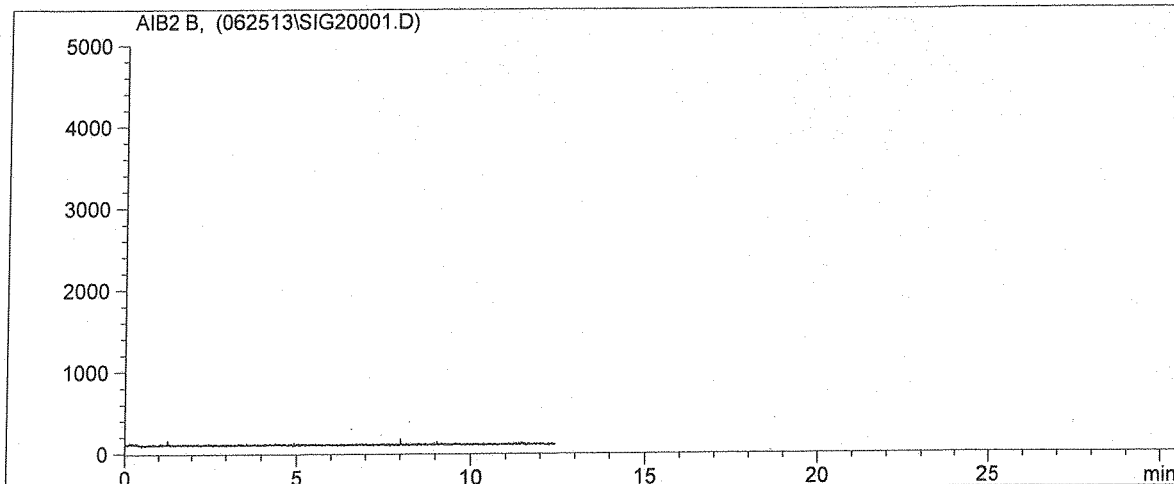
 Marcus Hueppe
 Laboratory Director



Raw Data

=====
Customized Report: D5504

Injection Date : 6/25/2013 6:17:35 AM Seq. Line : 1
Sample Name : System Blank Inj. Vol. : Manually
Multiplier : 1.00
Dilution : 1.00
Acq Operator : DH
Acq. Instrument : GC/SCD #10
Acq. Method : ASTM5504.M
Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

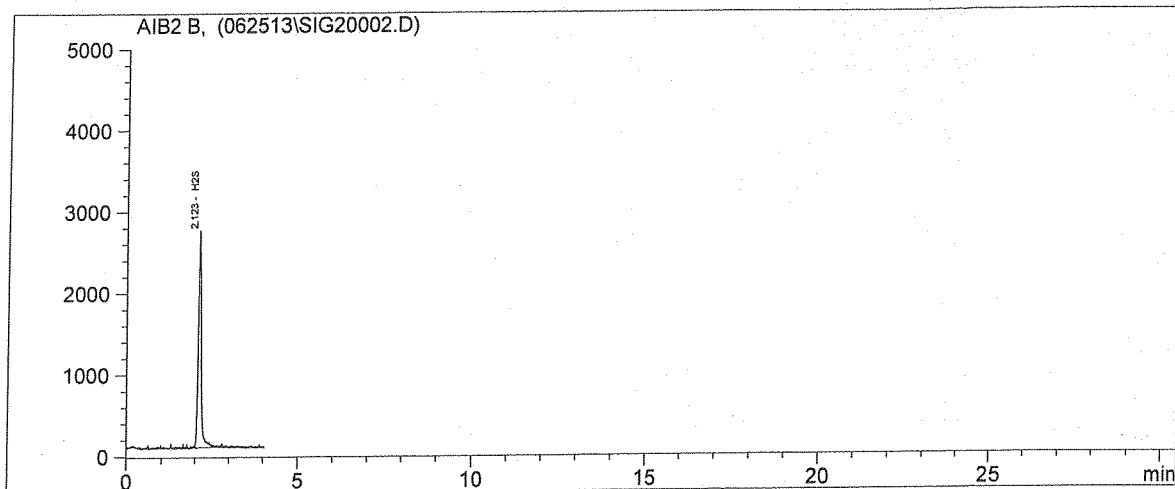
Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 0.000

*** End of Report ***

Customized Report: D5504

Injection Date : 6/25/2013 6:34:35 AM Seq. Line : 2
 Sample Name : CCV 500ppbV SS0677 ->Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

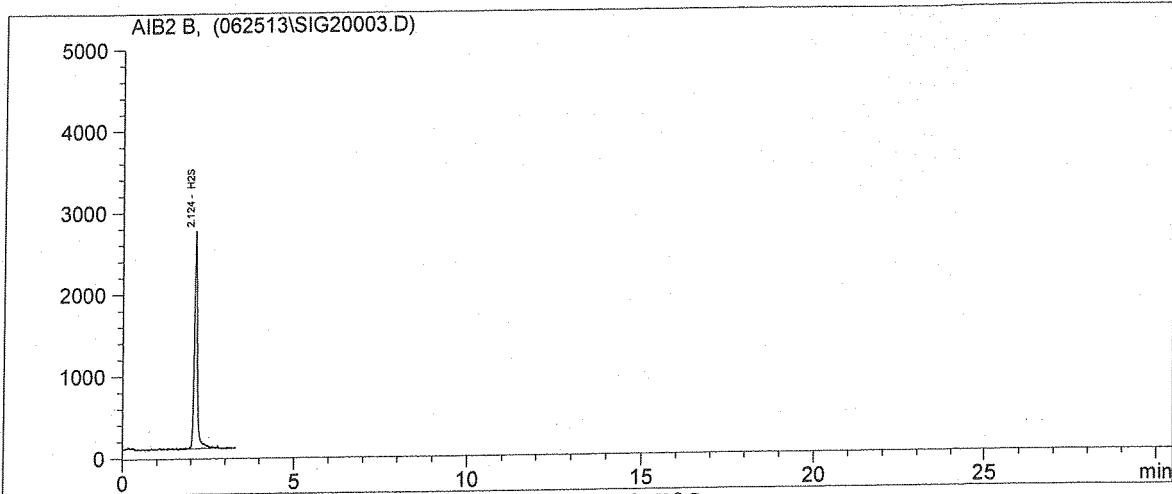
Ret Time [min]	Area	Amount [ppbV]	Name
2.123	16435	487.448	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 487.448

*** End of Report ***

Customized Report: D5504

Injection Date : 6/25/2013 6:39:17 AM Seq. Line : 3
 Sample Name : CCV 500ppbV dp SS0677 ->Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

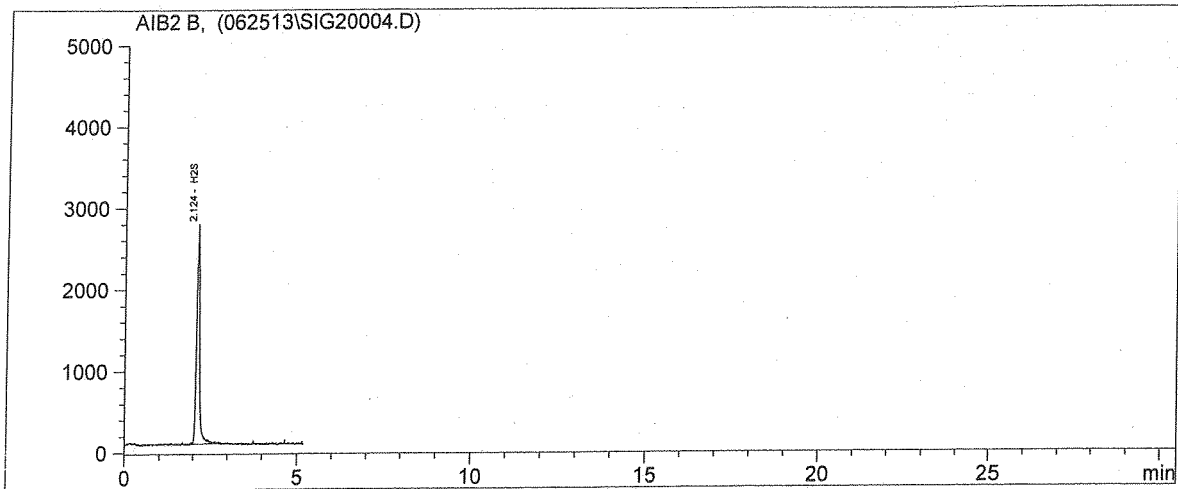
Ret Time [min]	Area	Amount [ppbV]	Name
2.124	16382	485.868	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 485.868

*** End of Report ***

Customized Report: D5504

Injection Date : 6/25/2013 6:43:29 AM Seq. Line : 4
Sample Name : CCV 500ppbV tp SS0677 ->Inj. Vol. : Manually
Multiplier : 1.00
Dilution : 1.00
Acq Operator : DH
Acq. Instrument : GC/SCD #10
Acq. Method : ASTM5504.M
Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

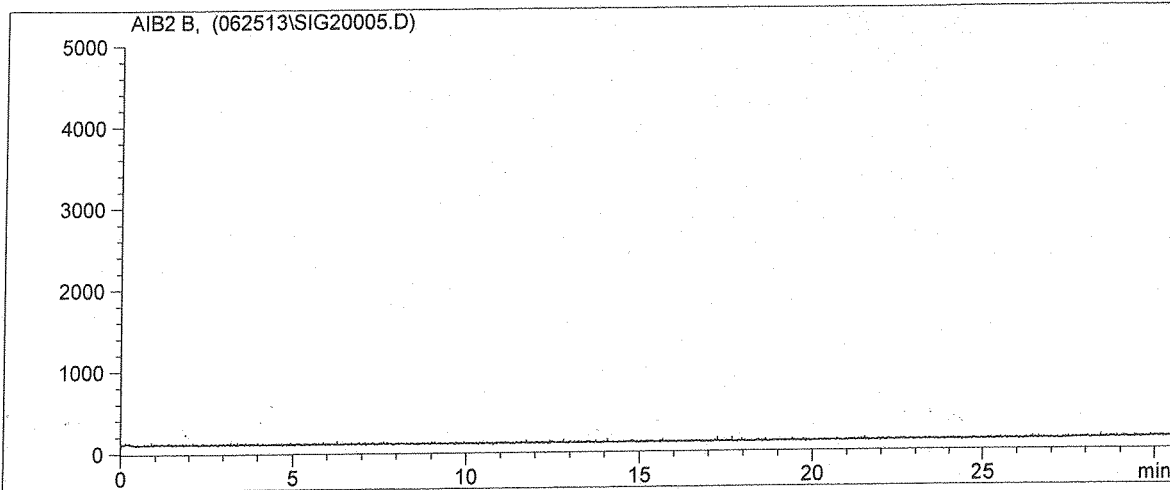
Ret Time [min]	Area	Amount [ppbV]	Name
2.124	16594	492.164	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 492.164

*** End of Report ***

Customized Report: D5504

Injection Date : 6/25/2013 6:49:29 AM Seq. Line : 5
 Sample Name : Method Blank Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

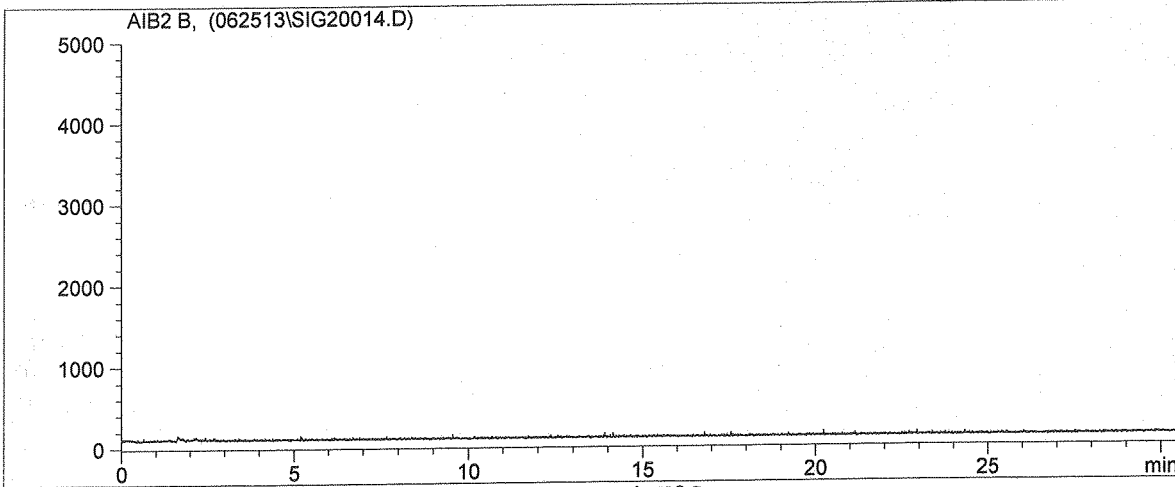
Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 0.000

*** End of Report ***

Customized Report: D5504

Injection Date : 6/25/2013 11:21:58 AM Seq. Line : 14
 Sample Name : 130783-63876 Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 0.000

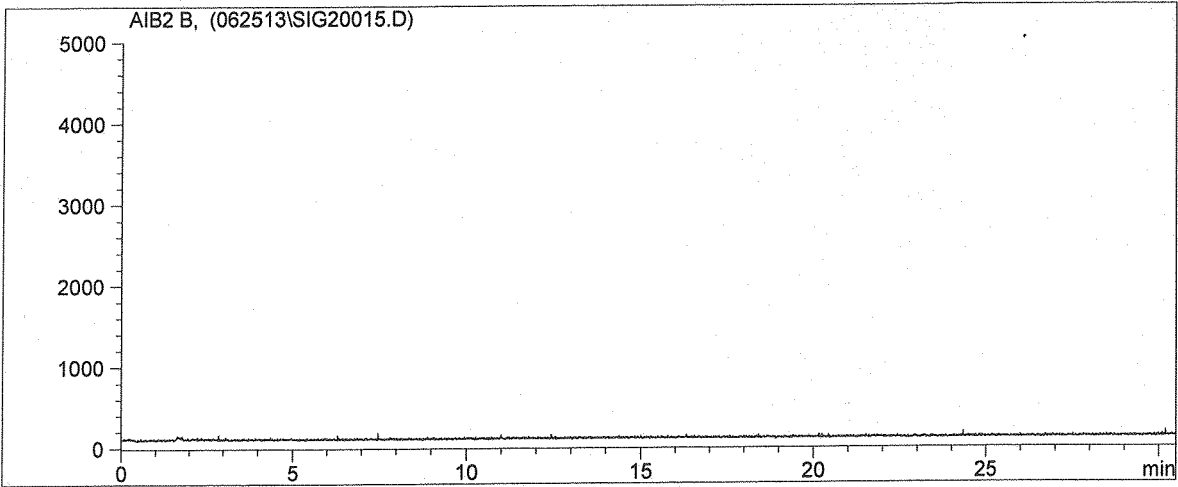
*** End of Report ***

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Customized Report: D5504

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Injection Date  : 6/25/2013 12:07:47 PM           Seq. Line  : 15
Sample Name    : 130783-63876           dp      ->Inj. Vol. : Manually
Multiplier    : 1.00
Dilution      : 1.00
Acq Operator   : DH
Acq. Instrument : GC/SCD #10
Acq. Method    : ASTM5504.M
Analysis Method : C:\HPCHEM\1\METHODS\D051413.M
    
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Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 0.000

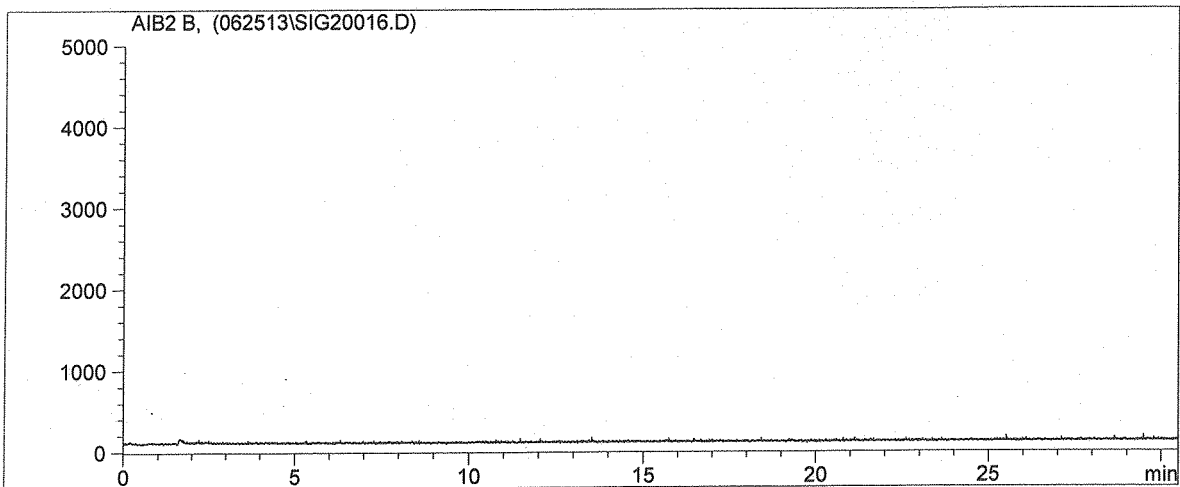
*** End of Report ***

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06/25/13

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Customized Report: D5504

Injection Date : 6/25/2013 12:45:30 PM	Seq. Line : 16
Sample Name : 130783-63877	Inj. Vol. : Manually
Multiplier : 1.00	
Dilution : 1.00	
Acq Operator : DH	
Acq. Instrument : GC/SCD #10	
Acq. Method : ASTM5504.M	
Analysis Method : C:\HPCHEM\1\METHODS\D051413.M	



Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

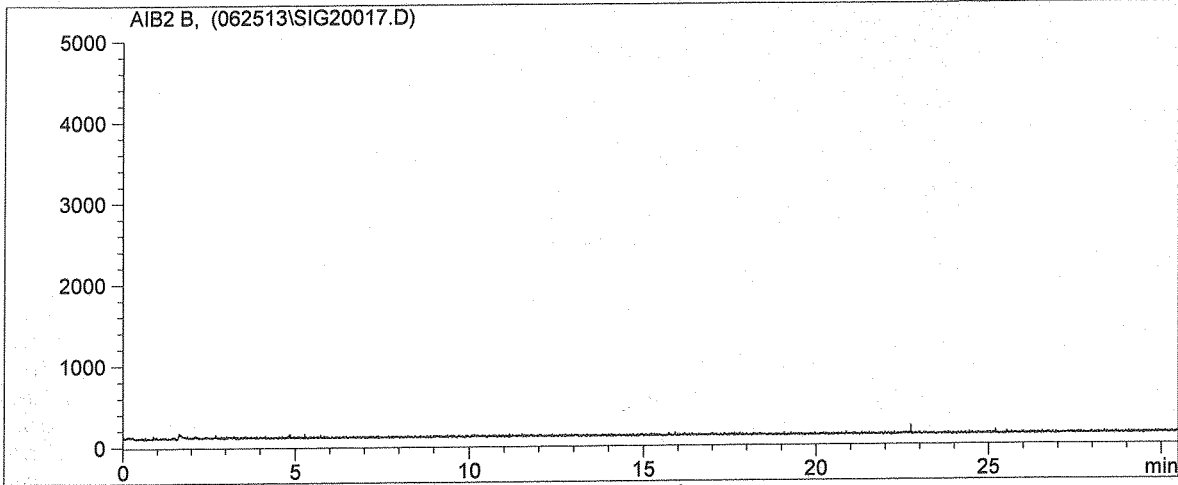
Totals: 0.000

*** End of Report ***

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Customized Report: D5504

Injection Date : 6/25/2013 1:20:39 PM Seq. Line : 17
Sample Name : 130783-63877 dp ->Inj. Vol. : Manually
Multiplier : 1.00
Dilution : 1.00
Acq Operator : DH
Acq. Instrument : GC/SCD #10
Acq. Method : ASTM5504.M
Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

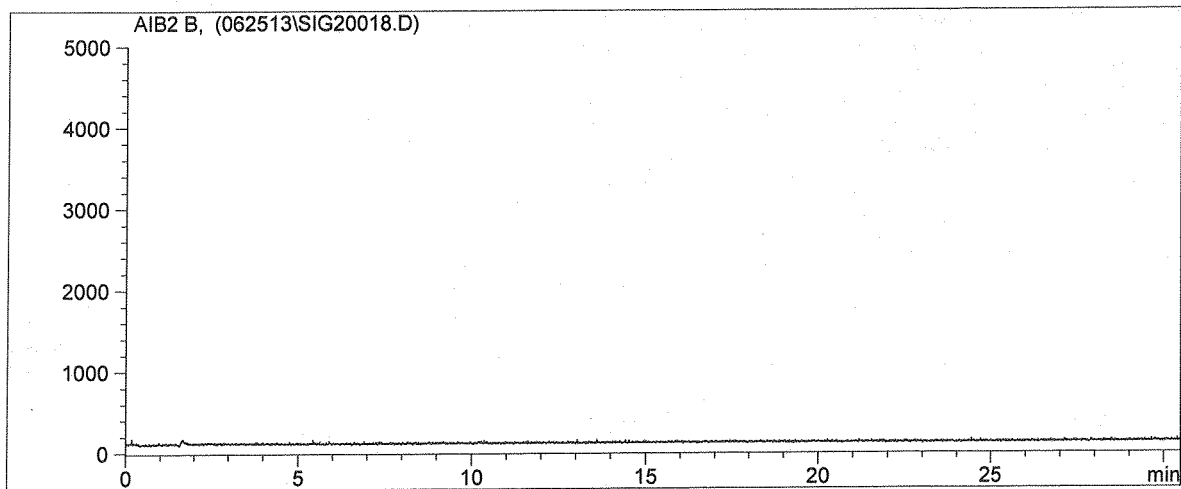
Totals: 0.000

*** End of Report ***

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6/25/13

Customized Report: D5504

Injection Date : 6/25/2013 1:56:03 PM Seq. Line : 18
 Sample Name : 130783-63878 Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

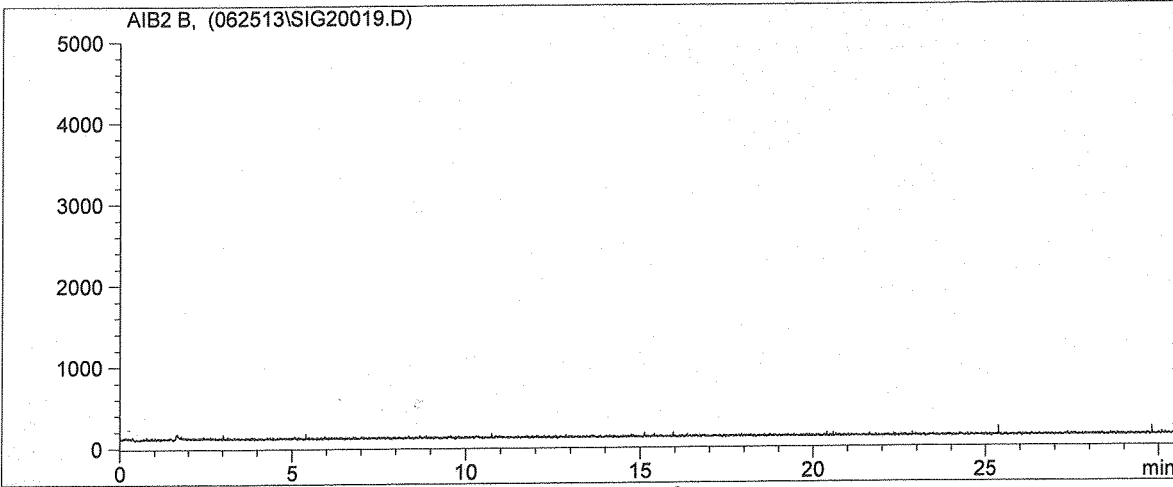
Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 0.000

*** End of Report ***

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 Customized Report: D5504

Injection Date : 6/25/2013 2:31:10 PM Seq. Line : 19
 Sample Name : 130783-63878 dp ->Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

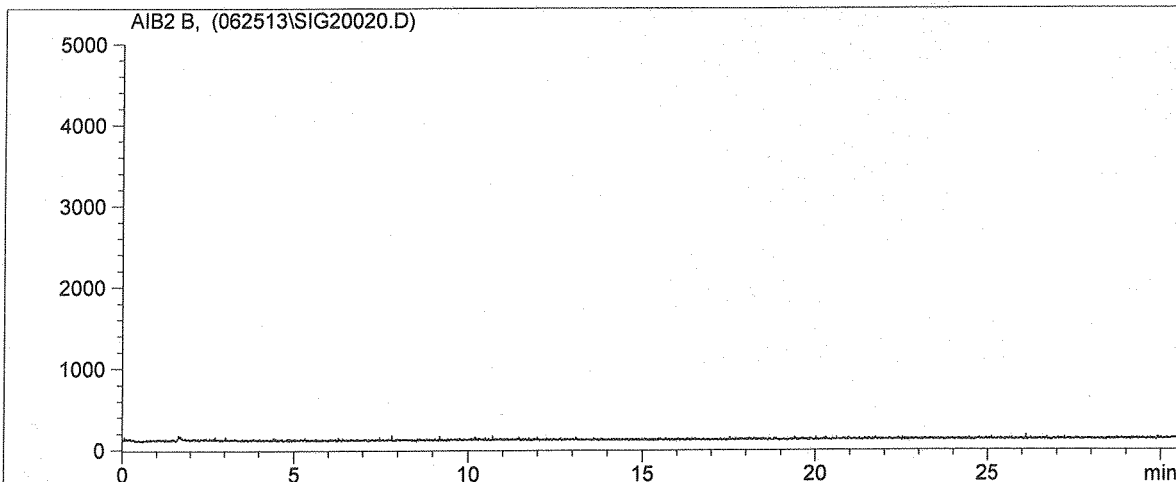
Totals: 0.000

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 *** End of Report ***

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Customized Report: D5504

Injection Date : 6/25/2013 3:05:41 PM Seq. Line : 20
 Sample Name : 130783-63879 Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
0.000	0	0.000	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

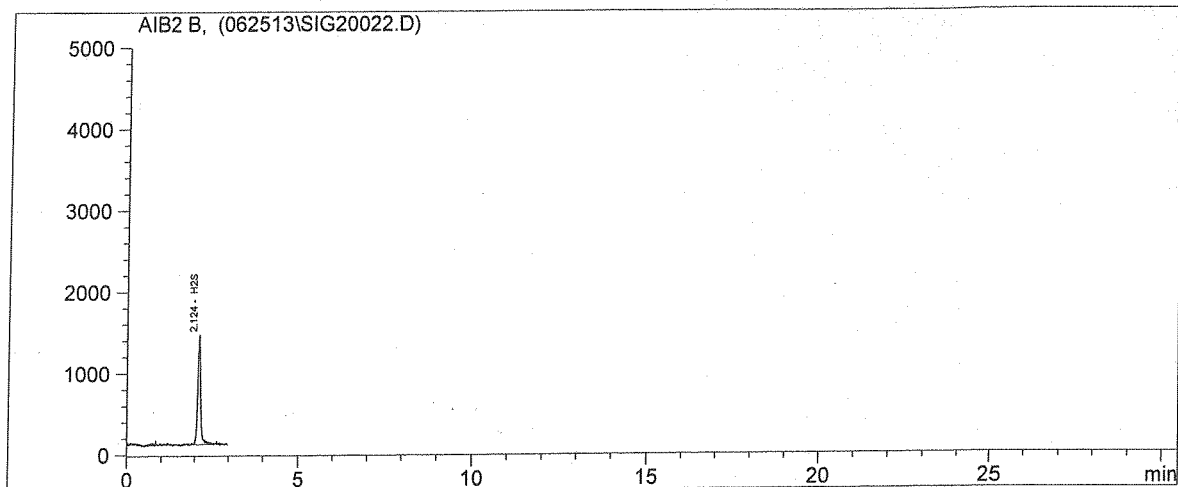
Totals: 0.000

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 6/25/13

Customized Report: D5504

Injection Date : 6/25/2013 4:44:20 PM Seq. Line : 22
Sample Name : MS 63879 x2 SS0677 ->Inj. Vol. : Manually
Multiplier : 1.00
Dilution : 1.00
Acq Operator : DH
Acq. Instrument : GC/SCD #10
Acq. Method : ASTM5504.M
Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

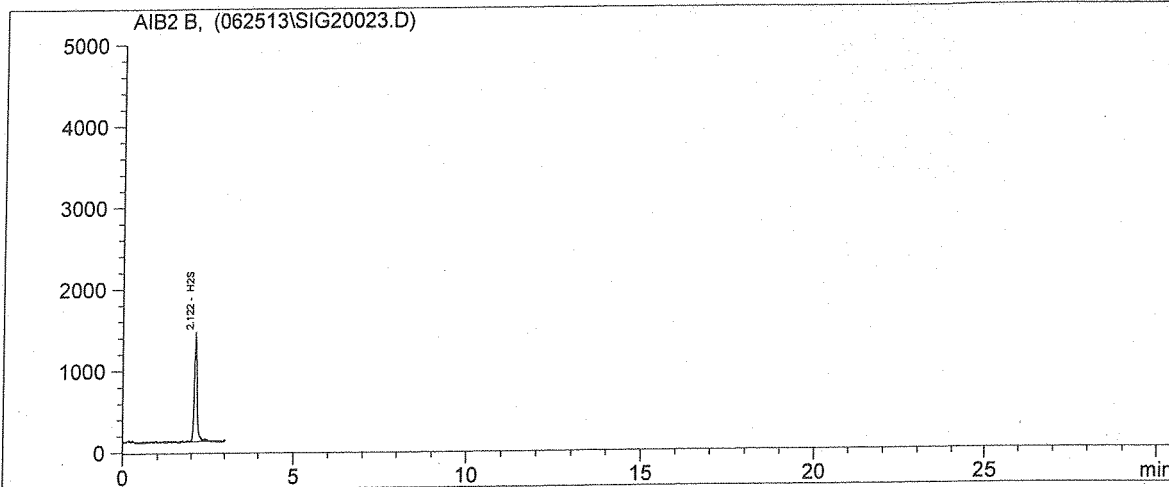
Ret Time [min]	Area	Amount [ppbV]	Name
2.124	8011	237.585	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 237.585

*** End of Report ***

Customized Report: D5504

Injection Date : 6/25/2013 4:48:09 PM Seq. Line : 23
 Sample Name : MSD 63879 x2 SS0677 ->Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

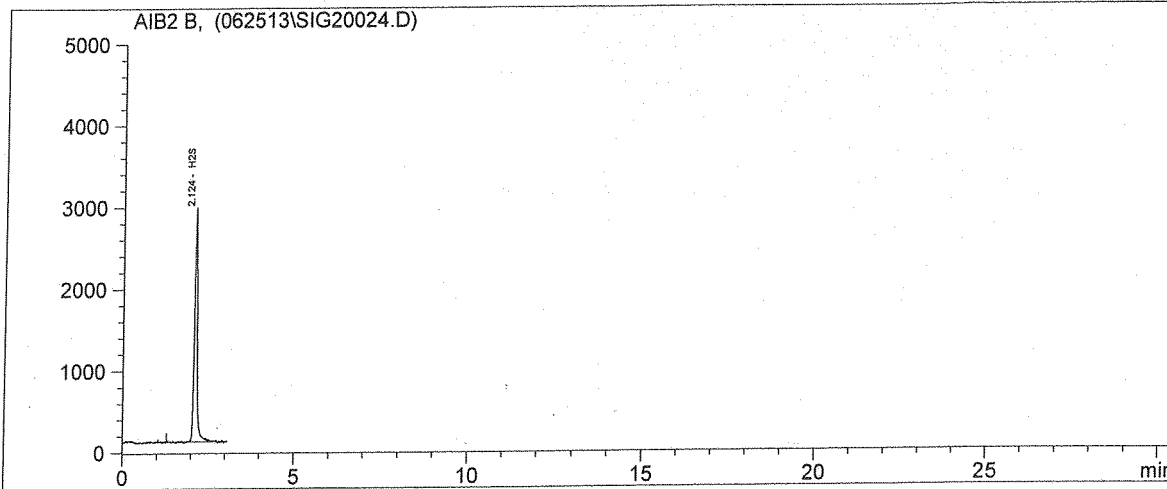
Ret Time [min]	Area	Amount [ppbV]	Name
2.122	7765	230.309	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 230.309

*** End of Report ***

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 Customized Report: D5504

Injection Date : 6/25/2013 4:51:57 PM Seq. Line : 24
 Sample Name : CCV 500ppbV SS0677 ->Inj. Vol. : Manually
 Multiplier : 1.00
 Dilution : 1.00
 Acq Operator : DH
 Acq. Instrument : GC/SCD #10
 Acq. Method : ASTM5504.M
 Analysis Method : C:\HPCHEM\1\METHODS\D051413.M



Uncalibrated Peaks : using compound H2S

Ret Time [min]	Area	Amount [ppbV]	Name
2.124	16710	495.598	H2S
0.000	0	0.000	COS
0.000	0	0.000	Methyl Mercaptan
0.000	0	0.000	Ethyl Mercaptan
0.000	0	0.000	Dimethyl Sulfide
0.000	0	0.000	Carbon Disulfide
0.000	0	0.000	Iso-propyl Mercaptan
0.000	0	0.000	Tert-butyl Mercaptan
0.000	0	0.000	N-propyl Mercaptan
0.000	0	0.000	Ethyl Methyl Sulfide
0.000	0	0.000	Sec-butyl Mercaptan
0.000	0	0.000	Thiophene
0.000	0	0.000	Iso-butyl Mercaptan
0.000	0	0.000	Diethyl Sulfide
0.000	0	0.000	N-butyl Mercaptan
0.000	0	0.000	Dimethyl Disulfide
0.000	0	0.000	2-Methylthiophene
0.000	0	0.000	3-Methylthiophene
0.000	0	0.000	Tetrahydrothiophene
0.000	0	0.000	n-Pentyl Mercaptan
0.000	0	0.000	2-Ethylthiophene
0.000	0	0.000	2,5-Dimethylthiophene
0.000	0	0.000	Diethyl Disulfide
0.000	0	0.000	n-Hexyl Mercaptan
0.000	0	0.000	2-Propylthiophene
0.000	0	0.000	Dimethyl Trisulfide
0.000	0	0.000	n-Heptyl Mercaptan
0.000	0	0.000	2-Butylthiophene
0.000	0	0.000	Dipropyl Disulfide
0.000	0	0.000	n-Octyl Mercaptan
0.000	0	0.000	Dipropyl Trisulfide

Totals: 495.598

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 *** End of Report ***

Calibration Summary

SCAQMD 307.91 / ASTM D-5504 INITIAL CALIBRATION SUMMARY

Analysis Date: 5/14/2013

Analyst: DH/MH

Units: ppbv

CALIBRATION CURVE RAW DATA:

Standard Concentration (ppbv)	Retention time (min)	Response (Area)	RPD from initial result (< 5%)	Std Deviation	Standard Concentration	Mean Response (Area)	Calculated Concentration (From Mean)	Mean % Recovery (+/- 5%)
0.0	0.00	0						
0.0	0.00	0	0.0	0	0.0	0	0.0	0.0
0.0	0.00	0	0.0					
25.0	2.096	836						
25.0	2.094	855	2.2	12	25.0	842	25.0	99.9
25.0	2.093	834	0.2					
100.0	2.091	3222						
100.0	2.090	3374	4.6	82	100.0	3316	98.4	98.4
100.0	2.091	3353	4.0					
500.0	2.091	17233						
500.0	2.090	17453	1.3	272	500.0	17486	518.6	103.7
500.0	2.089	17773	3.1					
2500.0	2.087	85533						
2500.0	2.088	83551	2.3	1182	2500.0	84170	2496.3	99.9
2500.0	2.087	83425	2.5					

Avg: Ret: 2.091


Calibration Verification Check Standards:

Check Standard Concentration: 500 ppbv

	Resp. (area)	Result (ppbv)	% Rec *	% RPD
Initial	17273	512.3	102.5	NA
Duplicate	17117	507.7	101.5	0.9
Triplicate	17378	515.4	103.1	0.6

* All CVs must have +/- 5 % Recovery and < 5% RPD from Initial result.

Linear Slope: X = Y/
R2 value: 0.9999 Must be > 0.990

Laboratory Director (signature/date)
 5/14/13

SCAQMD 307.91/ASTM D-5504 INITIAL CALIBRATION SUMMARY

Area (mean) vs. Conc. (theor)

$Y = 33.7172X$
 $R^2 = 0.9999$

