

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins Air Toxics, Inc.
PROJECT NAME : Bridgeton Landfill
PROJECT NO. : PO# 3ESP400007
AAC PROJECT NO. : 150482
REPORT DATE : 5/6/2015

On May 4, 2015, Atmospheric Analysis & Consulting, Inc. received two (2) 1.4-Liter Silonite Canisters for TRS analysis by ASTM D-5504. Upon receipt, each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure (mmHg)
U1 (151979)	150482-78830	1495.0
D1 (151980)	150482-78831	1488.3

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.

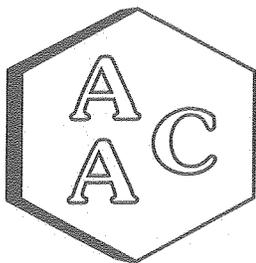
I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

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


Marcus Hueppe
Laboratory Director

This report consists of 6 pages.





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

Total Reduced Sulfur Compounds Analysis by ASTM D-5504

CLIENT Eurofins Air Toxics, Inc.
PROJECT NO. 150482

SAMPLING DATE 04/28/15
ANALYSIS DATE 05/05/15

Client ID	U1 (151979)
AAC ID	150482-78830
Canister Dil. Factor	2.42
Analyte	Result
Hydrogen Sulfide	< 0.024 ppmv
Carbonyl Sulfide	< 0.024 ppmv
Sulfur Dioxide	< 0.024 ppmv
Carbon Disulfide	< 0.024 ppmv
Total Inorganic Sulfur	< 0.024 ppmv

Methyl Mercaptan	< 0.024 ppmv
Ethyl Mercaptan	< 0.024 ppmv
Isopropyl Mercaptan	< 0.024 ppmv
sec-Butyl Mercaptan	< 0.024 ppmv
tert-Butyl Mercaptan	< 0.024 ppmv
n-Propyl Mercaptan	< 0.024 ppmv
iso-Butyl Mercaptan	< 0.024 ppmv
n-Butyl Mercaptan	< 0.024 ppmv
n-Pentyl Mercaptan	< 0.024 ppmv
n-Hexyl Mercaptan	< 0.024 ppmv
n-Heptyl Mercaptan	< 0.024 ppmv
n-Octyl Mercaptan	< 0.024 ppmv
Total Mercaptans	< 0.024 ppmv

Thiophene	< 0.024 ppmv
Tetrahydrothiophene	< 0.024 ppmv
2-Methylthiophene	< 0.024 ppmv
3-Methylthiophene	< 0.024 ppmv
2,5-Dimethyl Thiophene	< 0.024 ppmv
2-Ethyl Thiophene	< 0.024 ppmv
2-Propyl Thiophene	< 0.024 ppmv
2-Butyl Thiophene	< 0.024 ppmv
Total Thiophenes	< 0.024 ppmv

Dimethyl Sulfide	< 0.024 ppmv
Methylethylsulfide	< 0.024 ppmv
Diethyl Sulfide	< 0.024 ppmv
Total Organic Sulfides	< 0.024 ppmv

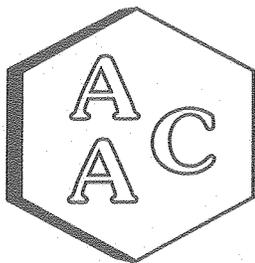
Dimethyl Disulfide	< 0.024 ppmv
Diethyl disulfide	< 0.024 ppmv
Total Organic Disulfides	< 0.024 ppmv

Total Unidentified Sulfur	< 0.024 ppmv
Total Reduced Sulfur	< 0.024 ppmv

All compound's concentrations expressed in terms of H₂S
Total Reduced Sulfur (TRS) does not include COS and SO₂


Marcus Hueppe
Laboratory Director





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LABORATORY ANALYSIS REPORT

Total Reduced Sulfur Compounds Analysis by ASTM D-5504

CLIENT Eurofins Air Toxics, Inc.
PROJECT NO. 150482

SAMPLING DATE 04/28/15
ANALYSIS DATE 05/05/15

Client ID	D1 (151979)
AAC ID	150482-78831
Canister Dil. Factor	2.29
Analyte	Result
Hydrogen Sulfide	< 0.023 ppmv
Carbonyl Sulfide	< 0.023 ppmv
Sulfur Dioxide	< 0.023 ppmv
Carbon Disulfide	< 0.023 ppmv
Total Inorganic Sulfur	< 0.023 ppmv

Methyl Mercaptan	< 0.023 ppmv
Ethyl Mercaptan	< 0.023 ppmv
Isopropyl Mercaptan	< 0.023 ppmv
sec-Butyl Mercaptan	< 0.023 ppmv
tert-Butyl Mercaptan	< 0.023 ppmv
n-Propyl Mercaptan	< 0.023 ppmv
iso-Butyl Mercaptan	< 0.023 ppmv
n-Butyl Mercaptan	< 0.023 ppmv
n-Pentyl Mercaptan	< 0.023 ppmv
n-Hexyl Mercaptan	< 0.023 ppmv
n-Heptyl Mercaptan	< 0.023 ppmv
n-Octyl Mercaptan	< 0.023 ppmv
Total Mercaptans	< 0.023 ppmv

Thiophene	< 0.023 ppmv
Tetrahydrothiophene	< 0.023 ppmv
2-Methylthiophene	< 0.023 ppmv
3-Methylthiophene	< 0.023 ppmv
2,5-Dimethyl Thiophene	< 0.023 ppmv
2-Ethyl Thiophene	< 0.023 ppmv
2-Propyl Thiophene	< 0.023 ppmv
2-Butyl Thiophene	< 0.023 ppmv
Total Thiophenes	< 0.023 ppmv

Dimethyl Sulfide	< 0.023 ppmv
Methylethylsulfide	< 0.023 ppmv
Diethyl Sulfide	< 0.023 ppmv
Total Organic Sulfides	< 0.023 ppmv

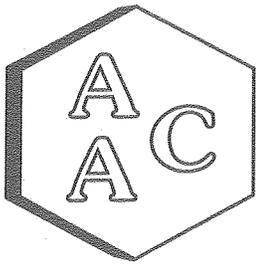
Dimethyl Disulfide	< 0.023 ppmv
Diethyl disulfide	< 0.023 ppmv
Total Organic Disulfides	< 0.023 ppmv

Total Unidentified Sulfur	< 0.023 ppmv
Total Reduced Sulfur	< 0.023 ppmv

*All compound's concentrations expressed in terms of H₂S
Total Reduced Sulfur (TRS) does not include COS and SO₂*


Marcus Hueppe
Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report ASTM D-5504

Date Analyzed: 5/5/2015
Analyst: ZB

Instrument ID: SCD#10
Calb. Date: 5/4/2015

Opening Calibration Verification Standard

	Resp. (area)	Result (ppbV)	% Rec *	% RPD ****
Initial	4604	512	102.3	NA
Duplicate	4632	515	102.9	0.6
Triplicate	4598	511	102.2	0.1

Method Blank

Analyte	Result
H2S	ND

Duplicate Analysis

Sample ID 150485-78834 x100

Analyte	Sample Result	Duplicate Result	Mean	% RPD ***
H2S	118677.9	117914.9	118296.4	0.6

Matrix Spike & Duplicate

Sample ID 150485-78834 x500

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H2S	236.6	250.0	489.7	514.9	100.6	105.8	5.0

Closing Calibration Verification Standard

Analyte	Std. Conc.	Result (ppbV)	% Rec **
H2S	500.0	496.1	99.2

* Must be 95-105%

** Must be 90-110%

*** Must be < 10%

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

Marcus Hueppe
Laboratory Director



Nitrogen Canister Pressurization M-006

Eurofins, Air Toxics, Inc

Logbook# 2705

*Manifold Certification (required every 24 hours and prior to sample pressurization):

Manifold Cert ID	Initials	Canister #	Cert. File #	SIM prv	SIM	Low Level	QUAD
M-048-15-570	AV	3439	10-02-2014	AV	AV	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

*Or indicate logbook page # with cert. information applicable to samples below: 2A

Temperature Check → Temp: 25.0°C Date: 5/15 Time: 1329 Initials: AV

Required per 20 samples

**Manifold must be purged for ≥ 2 minutes between each sample.

Date	Time**	Initials	Sample/Standard ID	Method Name	Canister #	Initial Pressure	Final Pressure (psi)
5/1/14	1230	AV	-1504525-01A	TO-15	33928	5.076	5 psi
	1338		-03A		901	6.076	5 psi
	1440		-03A		28237	5.576	5 psi
	1444		-04A		33895	4.576	5 psi
	1448		1504544-01A	TO-15	24485	2.5	5 psi
	1457		-02A		34421	4.576	5 psi
	1401		-03A		22509	3.076	5 psi
	1402		-04A		11824	4.076	5 psi
	1409		-05A		86015	3.076	5 psi
	1413		-06A		34027	3.076	5 psi
5/1/15	1550	AV	1509005-01A	ATMOSPHERIC	1181	5.114	15 psi
	1558		-02A		1168	3.544	15 psi
5/1/15	1610	AV	1504575-01A	TO-15	34032	0.114	5 psi
	1615		-02A		5670	0.114	5 psi
5/1/15	1628	AV	1504574-01A	TO-15	31136	4.114	15 psi
	1633		-02A		37361	6.114	15 psi
	1639		-03A		24109	5.114	15 psi

DF=242
DF=229
BSW
5/12/15

