

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins
PROJECT NAME : MO DNR – Bridgeton Landfill
AAC PROJECT NO. : 170186
REPORT DATE : 2/14/2017


On February 10, 2017, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Silonite Canisters for TRS analysis by ASTM D-5504. Upon receipt, the sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure (mmHg)
D1 (170795)	170186-96812	645.7
U1 (170796)	170186-96813	626.4

All of the analyses mentioned above were performed in accordance with AAC's ISO/IEC 17025:2005 and NELAP approved Quality Assurance Plan. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aacalab.com.

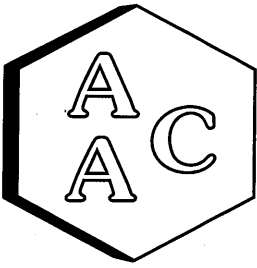
I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Laboratory Director or his/her designee, as verified by the following signature, has authorized release of the data contained in this hardcopy report.

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


Marcus Hueppe
Laboratory Director

This report consists of 4 pages.





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT

CLIENT : Eurofins
 PROJECT NO. : 170186
 MATRIX : AIR
 UNITS : ppmV

SAMPLING DATE : 02/08/2017
 RECEIVING DATE : 02/10/2017
 ANALYSIS DATE : 02/13/2017
 REPORT DATE : 02/14/2017

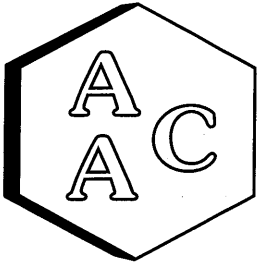
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

Client ID	D1 (170795)	U1 (170796)
AAC ID	170186-96812	170186-96813
Canister Dil. Fac.	1.4	1.5
Analyte	Result	Result
Hydrogen Sulfide	< 0.014	< 0.015
Carbonyl Sulfide	< 0.014	< 0.015
Sulfur Dioxide	< 0.014	< 0.015
Methyl Mercaptan	< 0.014	< 0.015
Ethyl Mercaptan	< 0.014	< 0.015
Dimethyl Sulfide	< 0.014	< 0.015
Carbon Disulfide	< 0.014	< 0.015
Isopropyl Mercaptan	< 0.014	< 0.015
tert-Butyl Mercaptan	< 0.014	< 0.015
n-Propyl Mercaptan	< 0.014	< 0.015
Methylethylsulfide	< 0.014	< 0.015
sec-Butyl Mercaptan	< 0.014	< 0.015
Thiophene	< 0.014	< 0.015
iso-Butyl Mercaptan	< 0.014	< 0.015
Diethyl Sulfide	< 0.014	< 0.015
n-Butyl Mercaptan	< 0.014	< 0.015
Dimethyl Disulfide	< 0.014	< 0.015
2-Methylthiophene	< 0.014	< 0.015
3-Methylthiophene	< 0.014	< 0.015
Tetrahydrothiophene	< 0.014	< 0.015
Bromothiophene	< 0.014	< 0.015
Thiophenol	< 0.014	< 0.015
Diethyl Disulfide	< 0.014	< 0.015
Total Unidentified Sulfur	< 0.014	< 0.015
Total Reduced Sulfurs	< 0.014	< 0.015

All unidentified compound's concentrations expressed in terms of H₂S (TRS does not include COS and SO₂)
 Sample Reporting Limit (SRL) is equal to Reporting Limit x Canister Dil. Fac. x Analysis Dil. Fac.

Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report ASTM D-5504

Date Analyzed: 2/13/2017
 Analyst: ZB
 Units: ppbV

Instrument ID: SCD#10
 Calb. Date: 1/30/2017

Opening Calibration Verification Standard

525.5 ppbV H₂S (SS0971)

H ₂ S	Resp. (area)	Result	% Rec *	% RPD ****
Initial	13779	515	97.9	0.7
Duplicate	13987	522	99.4	0.8
Triplicate	13864	518	98.5	0.1

549 ppbV MeSH (SS0988)

MeSH	Resp. (area)	Result	% Rec *	% RPD ****
Initial	13885	557	101.5	1.1
Duplicate	14124	567	103.2	0.6
Triplicate	14111	566	103.1	0.5

488.8 ppbV CS₂ (SS0972)

CS ₂	Resp. (area)	Result	% Rec *	% RPD ****
Initial	30823	513	104.9	0.3
Duplicate	30712	511	104.5	0.1
Triplicate	30671	510	104.4	0.2

Method Blank

Analyte	Result
H ₂ S	<PQL
MeSH	<PQL
CS ₂	<PQL

Duplicate Analysis

Sample ID 170179-96753

Analyte	Sample Result	Duplicate Result	Mean	% RPD ***
H ₂ S	7065.7	7068.1	7066.9	0.0
MeSH	<PQL	<PQL	0.0	0.0
CS ₂	<PQL	<PQL	0.0	0.0

Matrix Spike & Duplicate

Sample ID 170179-96753 x10

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H ₂ S	706.7	262.8	923.8	938.2	95.3	96.8	1.6
MeSH	<PQL	274.5	257.4	254.2	93.8	92.6	1.2
CS ₂	<PQL	244.4	222.7	221.9	91.1	90.8	0.4

Closing Calibration Verification Standard

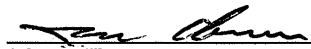
Analyte	Std. Conc.	Result	% Rec **
H ₂ S	525.5	476.7	90.7
MeSH	549.0	520.9	94.9
CS ₂	488.8	451.0	92.3

* Must be 95-105%, ** Must be 90-110%, *** Must be < 10%, **** Must be < 5% RPD from Mean result.

H₂S: PQL = 10.0 ppbV, MDL = 1.51 ppbV

MeSH: PQL = 10.0 ppbV, MDL = 1.48 ppbV

CS₂: PQL = 10.0 ppbV, MDL = 1.44 ppbV



 Marcus Hueppe
 Laboratory Director



