

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins
PROJECT NAME : MO DNR – Bridgeton Landfill
AAC PROJECT NO. : 180623
REPORT DATE : 5/4/2018

On May 3, 2018, Atmospheric Analysis & Consulting, Inc. received two (2) Six-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)
D1 (181386)	180623-108440	607.2
U1 (181387)	180623-108441	615.1

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.aaclab.com.

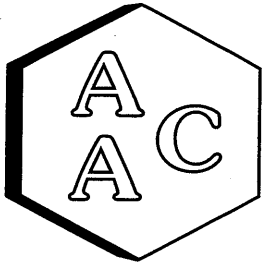
I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Laboratory Director or his/her designee, as verified by the following signature, 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. : 180623
MATRIX : AIR
UNITS : ppmV

SAMPLING DATE : 05/01/2018
RECEIVING DATE : 05/03/2018
ANALYSIS DATE : 05/03/2018
REPORT DATE : 05/04/2018

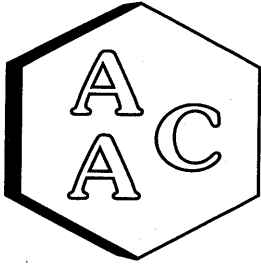
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

Client ID	D1 (181386)	U1 (181387)
AAC ID	180623-108440	180623-108441
Canister Dil. Fac.	1.5	1.5
Analyte	Result	Result
Hydrogen Sulfide	< 0.015	< 0.015
Carbonyl Sulfide	< 0.015	< 0.015
Sulfur Dioxide	< 0.015	< 0.015
Methyl Mercaptan	< 0.015	< 0.015
Ethyl Mercaptan	< 0.015	< 0.015
Dimethyl Sulfide	< 0.015	< 0.015
Carbon Disulfide	< 0.015	< 0.015
Isopropyl Mercaptan	< 0.015	< 0.015
tert-Butyl Mercaptan	< 0.015	< 0.015
n-Propyl Mercaptan	< 0.015	< 0.015
Methylethylsulfide	< 0.015	< 0.015
sec-Butyl Mercaptan	< 0.015	< 0.015
Thiophene	< 0.015	< 0.015
iso-Butyl Mercaptan	< 0.015	< 0.015
Diethyl Sulfide	< 0.015	< 0.015
n-Butyl Mercaptan	< 0.015	< 0.015
Dimethyl Disulfide	< 0.015	< 0.015
2-Methylthiophene	< 0.015	< 0.015
3-Methylthiophene	< 0.015	< 0.015
Tetrahydrothiophene	< 0.015	< 0.015
Bromothiophene	< 0.015	< 0.015
Thiophenol	< 0.015	< 0.015
Diethyl Disulfide	< 0.015	< 0.015
Total Unidentified Sulfur	< 0.015	< 0.015
Total Reduced Sulfurs	< 0.015	< 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: 5/3/2018
 Analyst: ZB
 Units: ppbV

Instrument ID: SCD#10
 Calb. Date: 4/19/2018

Opening Calibration Verification Standard

510.75 ppbV H₂S (SS1041)

H ₂ S	Resp. (area)	Result	% Rec *	% RPD ****
Initial	3568	502	98.3	0.9
Duplicate	3590	505	98.9	0.3
Triplicate	3648	513	100.5	1.3

511.75 ppbV MeSH (SS1041)

MeSH	Resp. (area)	Result	% Rec *	% RPD ****
Initial	3505	517	101.0	0.9
Duplicate	3555	524	102.4	0.5
Triplicate	3550	524	102.3	0.4

522.75 ppbV DMS (SS1041)

DMS	Resp. (area)	Result	% Rec *	% RPD ****
Initial	3824	544	104.1	0.6
Duplicate	3799	541	103.5	0.1
Triplicate	3785	539	103.1	0.5

Method Blank

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

Duplicate Analysis

Sample ID 180618-108429

Analyte	Sample Result	Duplicate Result	Mean	% RPD ***
H ₂ S	13017.7	13416.0	13216.9	3.0
MeSH	<PQL	<PQL	0.0	0.0
DMS	<PQL	<PQL	0.0	0.0

Matrix Spike & Duplicate

Sample ID 180618-108429 x40

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H ₂ S	330.4	255.4	546.5	560.0	93.3	95.6	2.4
MeSH	<PQL	255.9	249.8	243.1	97.6	95.0	2.7
DMS	<PQL	261.4	258.9	258.4	99.0	98.9	0.2

Closing Calibration Verification Standard

Analyte	Std. Conc.	Result	% Rec **
H ₂ S	510.8	463.5	90.8
MeSH	511.8	473.9	92.6
DMS	522.8	497.9	95.3

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

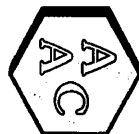
H₂S: PQL = 10.0 ppbV, MDL = 1.09 ppbV

MeSH: PQL = 10.0 ppbV, MDL = 1.13 ppbV

DMS: PQL = 10.0 ppbV, MDL = 1.39 ppbV


 Marcus Hueppe
 Laboratory Director





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AAC Project No. 188623

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CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name MO DNR		Project Name Birds Eye Landfill		Analysis Requested		Send report:	
Project Mgr (Print Name) Michael Paris		Project Number		Type/No. of Containers/and Pressure		Attn: _____	
Sampler's Name (Print Name) Teresa Trevino		Sampler's Signature <i>[Signature]</i>		Client Sample ID/Description D1 (181386)		Phone#: _____ Fax# _____	
AAC Sample No.	Date Sampled	Time Sampled	Sample Type	108440		Send Invoice to:	
Can #823	5/1/18	1125- 1230	Summa- Times	X		Attn: _____	
Can #815	5/1/18	1135- 1215	Summa- Times	X		P.O. # _____	
				108441		Turnaround Time	
						24 - 48 Hr _____ 72 Hr _____	
						5 Day <input checked="" type="checkbox"/> Normal _____	
						Other (Specify) _____	
						Special Instructions/remarks: Shipped via UPS. Tracking # 1ZKUYAU60298480637	
Relinquished by (Signature): <i>[Signature]</i>		Print Name: Teresa Trevino		Received by (signature): <i>[Signature]</i>		Print Name Nick	
Relinquished by (Signature): <i>[Signature]</i>		Print Name: Teresa Trevino		Received by (signature): <i>[Signature]</i>		Print Name 5/3/18 1130	

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