

Atmospheric Analysis & Consulting, Inc.

CLIENT : Eurofins
PROJECT NAME : MO DNR – Bridgeton Landfill
AAC PROJECT NO. : 170596
REPORT DATE : 5/11/2017

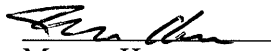
On May 9, 2017, Atmospheric Analysis & Consulting, Inc. received two (2) Six-Liter Silonite Canisters for TRS analysis by ASTM D-5504. Upon receipt, each sample was assigned a unique Laboratory ID number as follows:

Client ID	Lab No.	Initial Pressure (mmHg)
D1 (172328)	170596-98613	636.9
U1 (172329)	170596-98614	609.9

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.

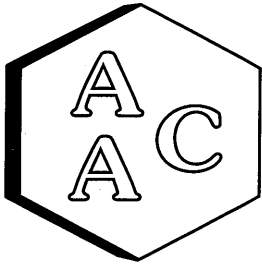
If you have any questions or require further explanation of data results, please contact the undersigned.



Marcus Hueppe
Laboratory Director

This report consists of 4 pages.





Atmospheric Analysis & Consulting, Inc.

LABORATORY ANALYSIS REPORT


CLIENT : Eurofins
PROJECT NO. : 170596
MATRIX : AIR
UNITS : ppmV

SAMPLING DATE : 05/05/2017
RECEIVING DATE : 05/09/2017
ANALYSIS DATE : 05/10/2017
REPORT DATE : 05/11/2017

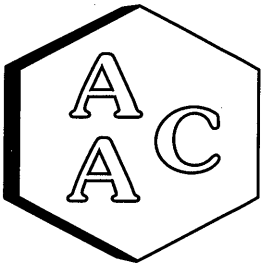
Total Reduced Sulfur Compounds Analysis by ASTM D-5504

Client ID	D1 (172328)	U1 (172329)
AAC ID	170596-98613	170596-98614
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: 5/10/2017
Analyst: ZB
Units: ppbV

Instrument ID: SCD#10
Calb. Date: 5/5/2017

Opening Calibration Verification Standard

525.5 ppbV H2S (SS0971)

H ₂ S	Resp. (area)	Result	% Rec *	% RPD ****
Initial	15389	522	99.4	0.8
Duplicate	15210	516	98.2	0.4
Triplicate	15213	516	98.3	0.4

549 ppbV MeSH (SS0988)

MeSH	Resp. (area)	Result	% Rec *	% RPD ****
Initial	15094	562	102.3	0.7
Duplicate	15219	566	103.2	0.1
Triplicate	15285	569	103.6	0.6

488.8 ppbV CS₂ (SS0972)

CS ₂	Resp. (area)	Result	% Rec *	% RPD ****
Initial	34425	508	104.0	0.0
Duplicate	34353	507	103.8	0.2
Triplicate	34461	509	104.1	0.1

Method Blank

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

Duplicate Analysis

Sample ID 170604-98636

Analyte	Sample Result	Duplicate Result	Mean	% RPD ***
H ₂ S	65736.6	59620.3	62678.4	9.8
MeSH	1179.1	1169.1	1174.1	0.9
CS ₂	<PQL	<PQL	0.0	0.0

Matrix Spike & Duplicate

Sample ID 170604-98636 x100

Analyte	Sample Conc.	Spike Added	MS Result	MSD Result	MS % Rec **	MSD % Rec **	% RPD ***
H ₂ S	626.8	262.8	824.7	855.0	92.7	96.1	3.6
MeSH	11.7	274.5	274.1	271.4	95.7	94.8	1.0
CS ₂	<PQL	244.4	235.7	235.2	96.4	96.2	0.2

Closing Calibration Verification Standard

Analyte	Std. Conc.	Result	% Rec **
H ₂ S	525.5	484.4	92.2
MeSH	549.0	525.9	95.8
CS ₂	488.8	477.9	97.8

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

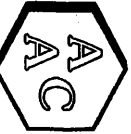
H₂S: PQL = 10.0 ppbV, MDL = 1.51 ppbV

MeSH: PQL = 10.0 ppbV, MDL = 1.48 ppbV

CS₂: PQL = 10.0 ppbV, MDL = 1.44 ppbV


 Marcus Hueppe
 Laboratory Director





ATMOSPHERIC ANALYSIS & CONSULTING, INC.
 1534 Eastman Avenue, Suite A
 Ventura, California 93003
 Phone (805) 650-1642 Fax (805) 650-1644
 E-mail: info@aaclab.com

AAC Project No. 170546

170546

Page 1 of 1

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name MO DNR		Project Name Bigdipon Landfill		Analysis Requested		Send report:	
Project Mgr (Print Name) Michael Perris		Project Number		Type/No. of Samples/End Pressure		Attn: _____	
Sampler's Name (Print Name) Teresa Previny		Sampler's Signature <i>[Signature]</i>		Client Sample ID/Description		Phone#: Fax#:	
AAC Sample No.		Date Sampled		Time Sampled		Send invoice to:	
Can #815		5/5/17		1055-1125		Attn: _____	
Can #816		5/5/17		1055-1135		P.O. # _____	
						Turnaround Time	
						24 - 48 Hr _____ 72 Hr _____	
						5 Day _____ <input checked="" type="checkbox"/> Normal _____	
						Other (Specify) _____	
						Special Instructions/remarks: Shipped via UPS - Tracking # 1ZPDY0W0294989293	
Relinquished by (Signature): <i>[Signature]</i>		Print Name: Teresa Previny		Date/Time 5/5/17 1400		Received by (signature): <i>[Signature]</i>	
Relinquished by (Signature):		Print Name:		Date/Time		Received by (signature):	
						Print Name 5/9/17 1218	

2x CAN Set 2x FLOWS UPS