

7/30/2024

Mr. Jon Laurance

GeoSyntec Consultants

920 SW Sixth Avenue, Suite 600

Portland OR 97204

Project Name: Cascade SVE

Project #: PNG0564S24

Workorder #: 2407379

Dear Mr. Jon Laurance

The following report includes the data for the above referenced project for sample(s) received on 7/17/2024 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Monica Tran at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Monica Tran

Project Manager

WORK ORDER #: 2407379

Work Order Summary

CLIENT:	Mr. Jon Laurance GeoSyntec Consultants 920 SW Sixth Avenue, Suite 600 Portland, OR 97204	BILL TO:	Accounts Payable Cascade Corporation 2201 NE 201st Avenue Fairview, OR 97024
PHONE:	503-222-9518	P.O. #	
FAX:	503-242-1416	PROJECT #	PNG0564S24 Cascade SVE
DATE RECEIVED:	07/17/2024	CONTACT:	Monica Tran
DATE COMPLETED:	07/29/2024		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVE-EFF-071624	Modified TO-15	5.9 "Hg	9.9 psi
02A	Lab Blank	Modified TO-15	NA	NA
03A	CCV	Modified TO-15	NA	NA
04A	LCS	Modified TO-15	NA	NA
04AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 07/29/24

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017
 Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

LABORATORY NARRATIVE
Modified TO-15
GeoSyntec Consultants
Workorder# 2407379

One 1 Liter Summa Canister (100% Certified) sample was received on July 17, 2024. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample SVE-EFF-071624 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
- UJ- Non-detected compound associated with low bias in the CCV
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SVE-EFF-071624

Lab ID#: 2407379-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.42	10	1.6	42
Trichloroethene	0.42	120	2.2	660
Tetrachloroethene	0.42	6.1	2.8	42



Air Toxics

Client Sample ID: SVE-EFF-071624

Lab ID#: 2407379-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	60071911	Date of Collection:	7/16/24 2:05:00 PM
Dil. Factor:	4.17	Date of Analysis:	7/19/24 06:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.42	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.42	Not Detected	1.6	Not Detected
cis-1,2-Dichloroethene	0.42	10	1.6	42
Trichloroethene	0.42	120	2.2	660
Tetrachloroethene	0.42	6.1	2.8	42

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130

Client Sample ID: Lab Blank

Lab ID#: 2407379-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	60071907a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/19/24 03:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	84	70-130

Client Sample ID: CCV

Lab ID#: 2407379-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	60071903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/24 11:51 AM

Compound	%Recovery
Vinyl Chloride	96
1,1-Dichloroethene	93
cis-1,2-Dichloroethene	98
Trichloroethene	110
Tetrachloroethene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: LCS

Lab ID#: 2407379-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	60071904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/24 01:08 PM

Compound	%Recovery	Method Limits
Vinyl Chloride	97	70-130
1,1-Dichloroethene	88	70-130
cis-1,2-Dichloroethene	95	70-130
Trichloroethene	107	70-130
Tetrachloroethene	104	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: LCSD

Lab ID#: 2407379-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	60071905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/24 01:50 PM

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
1,1-Dichloroethene	91	70-130
cis-1,2-Dichloroethene	99	70-130
Trichloroethene	107	70-130
Tetrachloroethene	106	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	109	70-130

Method : Modified TO-15-LL (Sh)-1,1-DCE, c-1,2-DCE, PCE, TCE, & VC

CAS Number	Compound	Rpt. Limit (ppbv)
75-01-4	Vinyl Chloride	0.10
75-35-4	1,1-Dichloroethene	0.10
156-59-2	cis-1,2-Dichloroethene	0.10
79-01-6	Trichloroethene	0.10
127-18-4	Tetrachloroethene	0.10

	Surrogate	Method Limits
17060-07-0	1,2-Dichloroethane-d4	70-130
2037-26-5	Toluene-d8	70-130
460-00-4	4-Bromofluorobenzene	70-130