

3/27/2024

Mr. Lucas Henry

GeoSyntec Consultants

920 SW Sixth Avenue, Suite 600

Portland OR 97204

Project Name: Cascade SVE

Project #: PNG0564S23/02/01

Workorder #: 2403271

Dear Mr. Lucas Henry

The following report includes the data for the above referenced project for sample(s) received on 3/8/2024 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 #: 2403271

Work Order Summary

CLIENT:	Mr. Lucas Henry 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 #	PNG0564S23/02/01 Cascade SVE
DATE RECEIVED:	03/08/2024	CONTACT:	Monica Tran
DATE COMPLETED:	03/27/2024		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVE-EFF-020724	Modified TO-15	4.1 "Hg	10 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: 03/27/24

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.

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LABORATORY NARRATIVE
Modified TO-15
GeoSyntec Consultants
Workorder# 2403271

One 1 Liter Summa Canister (100% Certified) sample was received on March 08, 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

The date of sample collection noted on the Chain of Custody and on the sample tag appeared to be inaccurate by a factor of one month.

Analytical Notes

The summa canister for sample SVE-EFF-020724 was initially pressurized to approximately 10psi per project specifications. After multiple analyses were performed, the samples were found to be at ambient pressure at the time of TO-15 analysis. The sample canisters were subsequently re-pressurized which resulted in elevated reporting limits for TO-15. Analysis proceeded.

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-020724

Lab ID#: 2403271-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.55	5.5	2.2	22
Trichloroethene	0.55	46	3.0	250
Tetrachloroethene	0.55	2.9	3.7	20

Client Sample ID: SVE-EFF-020724

Lab ID#: 2403271-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22032627	Date of Collection:	3/7/24 10:40:00 AM
Dil. Factor:	5.50	Date of Analysis:	3/27/24 04:51 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.55	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.55	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.55	5.5	2.2	22
Trichloroethene	0.55	46	3.0	250
Tetrachloroethene	0.55	2.9	3.7	20

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: Lab Blank

Lab ID#: 2403271-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22032606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/26/24 12:18 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	104	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: CCV

Lab ID#: 2403271-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22032602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/26/24 09:25 AM

Compound	%Recovery
Vinyl Chloride	105
1,1-Dichloroethene	103
cis-1,2-Dichloroethene	102
Trichloroethene	108
Tetrachloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCS

Lab ID#: 2403271-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22032603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/26/24 10:11 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	101	70-130
1,1-Dichloroethene	93	70-130
cis-1,2-Dichloroethene	96	70-130
Trichloroethene	106	70-130
Tetrachloroethene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 2403271-04AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22032604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/26/24 10:47 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	103	70-130
1,1-Dichloroethene	94	70-130
cis-1,2-Dichloroethene	97	70-130
Trichloroethene	106	70-130
Tetrachloroethene	95	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130