

Thursday, December 28, 2023

Fibertec Project Number: A19021  
Project Identification: FCA/Stellantis (23001494-01) /23001494-01  
Submittal Date: 12/21/2023

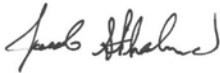
Mr. Bhushan Modi  
NTH Consultants, Ltd. - Northville  
41780 Six Mile Road  
Suite 200  
Northville, MI 48168-3459

Dear Mr. Modi,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at ( ) .

Sincerely,



By Jacob Sutherland at 7:59 AM, Dec 28, 2023

For Heather L. Smith  
Director of Laboratory Operations

Enclosures

Client Identification: <b>NTH Consultants, Ltd. - Northville</b>	Sample Description: ██████████	Chain of Custody: <b>219389</b>
Client Project Name: <b>FCA/Stellantis (23001494-01)</b>	Sample No: <b>A-18</b>	Collect Date: <b>12/20/23</b>
Client Project No: <b>23001494-01</b>	Sample Matrix: <b>Air</b>	Collect Time: <b>08:56</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**TO-15 (Summa)** Aliquot ID: **A19021-001** Matrix: **Air**  
**Method: EPA TO-15** Description: **4458 Beniteau**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Acetone	U		µg/m3	36	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
2. Benzene	U		µg/m3	2.9	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
3. Benzyl Chloride	U		µg/m3	0.41	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
4. Bromodichloromethane	U		µg/m3	0.80	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
5. Bromoform	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
6. Bromomethane	U		µg/m3	3.5	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
7. 1,3-Butadiene	U		µg/m3	0.66	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
8. 2-Butanone	U		µg/m3	8.8	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 9. Carbon Disulfide	U		µg/m3	19	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
10. Carbon Tetrachloride	U		µg/m3	0.75	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
11. Chlorobenzene	U		µg/m3	14	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
12. Chloroethane	U		µg/m3	4.0	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
13. Chloroform	U		µg/m3	0.59	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
14. Chloromethane	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
15. Cyclohexane	U		µg/m3	10	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
16. Dibromochloromethane	U		µg/m3	0.68	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
17. 1,2-Dichlorobenzene	U		µg/m3	9.0	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
18. 1,3-Dichlorobenzene	U		µg/m3	1.8	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
19. 1,4-Dichlorobenzene	U		µg/m3	1.8	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
20. Dichlorodifluoromethane	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
21. 1,1-Dichloroethane	U		µg/m3	6.1	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
22. 1,2-Dichloroethane	U		µg/m3	0.49	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
23. 1,1-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
24. cis-1,2-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
25. trans-1,2-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
26. 1,2-Dichloropropane	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
27. cis-1,3-Dichloropropene	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
28. trans-1,3-Dichloropropene	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
29. 1,4-Dioxane	U		µg/m3	5.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 30. Ethyl Acetate	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
31. Ethylbenzene	U		µg/m3	6.5	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
32. Ethylene Dibromide	U		µg/m3	0.23	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
33. n-Heptane	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
34. Hexachlorobutadiene	U		µg/m3	1.3	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
35. n-Hexane	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 36. 2-Hexanone	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY

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F: (231) 775 8584

Client Identification: <b>NTH Consultants, Ltd. - Northville</b>	Sample Description: <span style="background-color: black; color: black;">XXXXXXXXXX</span>	Chain of Custody: <b>219389</b>
Client Project Name: <b>FCA/Stellantis (23001494-01)</b>	Sample No: <b>A-18</b>	Collect Date: <b>12/20/23</b>
Client Project No: <b>23001494-01</b>	Sample Matrix: <b>Air</b>	Collect Time: <b>08:56</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**TO-15 (Summa)** Aliquot ID: **A19021-001** Matrix: **Air**  
**Method: EPA TO-15** Description: **4458 Beniteau**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 37. Isopropanol	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
38. 4-Methyl-2-pentanone	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
39. Methylene Chloride	U		µg/m3	21	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
40. MTBE	U		µg/m3	5.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 41. Naphthalene	U		µg/m3	1.6	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
42. Styrene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
43. 1,1,2,2-Tetrachloroethane	U		µg/m3	0.21	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
44. Tetrachloroethene	U		µg/m3	6.1	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 45. Tetrahydrofuran	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
46. Toluene	U		µg/m3	5.7	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
47. 1,2,4-Trichlorobenzene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
48. 1,1,1-Trichloroethane	U		µg/m3	8.2	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
49. 1,1,2-Trichloroethane	U		µg/m3	0.65	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
50. Trichloroethene	U		µg/m3	0.16	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
51. Trichlorofluoromethane	U		µg/m3	8.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 52. 1,1,2-Trichlorotrifluoroethane	U		µg/m3	23	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
53. 1,2,4-Trimethylbenzene	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
54. 1,3,5-Trimethylbenzene	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
55. Vinyl Acetate	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
56. Vinyl Chloride	U		µg/m3	0.77	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
57. m&p-Xylene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
58. o-Xylene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY
‡ 59. Xylenes	U		µg/m3	26	1.0	12/22/23	VK23L22B	12/22/23 14:40	VK23L22B	CY

Surrogate Summary	Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
4-Bromofluorobenzene(S)	101 %	80-120	VK	VK23L22B	12/22/2023 14:40	1 VK400

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Client Identification: <b>NTH Consultants, Ltd. - Northville</b>	Sample Description: ██████████	Chain of Custody: <b>219389</b>
Client Project Name: <b>FCA/Stellantis (23001494-01)</b>	Sample No: <b>A-28</b>	Collect Date: <b>12/20/23</b>
Client Project No: <b>23001494-01</b>	Sample Matrix: <b>Air</b>	Collect Time: <b>09:02</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**TO-15 (Summa)** Aliquot ID: **A19021-002** Matrix: **Air**  
**Method: EPA TO-15** Description: **3870 Beniteau**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Acetone	U		µg/m3	36	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
2. Benzene	U		µg/m3	2.9	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
3. Benzyl Chloride	U		µg/m3	0.41	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
4. Bromodichloromethane	U		µg/m3	0.80	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
5. Bromoform	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
6. Bromomethane	U		µg/m3	3.5	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
7. 1,3-Butadiene	U		µg/m3	0.66	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
8. 2-Butanone	U		µg/m3	8.8	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 9. Carbon Disulfide	U		µg/m3	19	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
10. Carbon Tetrachloride	U		µg/m3	0.75	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
11. Chlorobenzene	U		µg/m3	14	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
12. Chloroethane	U		µg/m3	4.0	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
13. Chloroform	U		µg/m3	0.59	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
14. Chloromethane	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
15. Cyclohexane	U		µg/m3	10	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
16. Dibromochloromethane	U		µg/m3	0.68	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
17. 1,2-Dichlorobenzene	U		µg/m3	9.0	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
18. 1,3-Dichlorobenzene	U		µg/m3	1.8	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
19. 1,4-Dichlorobenzene	U		µg/m3	1.8	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
20. Dichlorodifluoromethane	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
21. 1,1-Dichloroethane	U		µg/m3	6.1	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
22. 1,2-Dichloroethane	U		µg/m3	0.49	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
23. 1,1-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
24. cis-1,2-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
25. trans-1,2-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
26. 1,2-Dichloropropane	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
27. cis-1,3-Dichloropropene	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
28. trans-1,3-Dichloropropene	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
29. 1,4-Dioxane	U		µg/m3	5.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 30. Ethyl Acetate	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
31. Ethylbenzene	U		µg/m3	6.5	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
32. Ethylene Dibromide	U		µg/m3	0.23	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
33. n-Heptane	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
34. Hexachlorobutadiene	U		µg/m3	1.3	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
35. n-Hexane	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 36. 2-Hexanone	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY

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Client Identification: <b>NTH Consultants, Ltd. - Northville</b>	Sample Description: ██████████	Chain of Custody: <b>219389</b>
Client Project Name: <b>FCA/Stellantis (23001494-01)</b>	Sample No: <b>A-28</b>	Collect Date: <b>12/20/23</b>
Client Project No: <b>23001494-01</b>	Sample Matrix: <b>Air</b>	Collect Time: <b>09:02</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**TO-15 (Summa)**

Method: EPA TO-15

Aliquot ID: **A19021-002** Matrix: **Air**

Description: **3870 Beniteau**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 37. Isopropanol	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
38. 4-Methyl-2-pentanone	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
39. Methylene Chloride	U		µg/m3	21	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
40. MTBE	U		µg/m3	5.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 41. Naphthalene	U		µg/m3	1.6	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
42. Styrene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
43. 1,1,2,2-Tetrachloroethane	U		µg/m3	0.21	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
44. Tetrachloroethene	U		µg/m3	6.1	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 45. Tetrahydrofuran	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
46. Toluene	U		µg/m3	5.7	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
47. 1,2,4-Trichlorobenzene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
48. 1,1,1-Trichloroethane	U		µg/m3	8.2	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
49. 1,1,2-Trichloroethane	U		µg/m3	0.65	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
50. Trichloroethene	U		µg/m3	0.16	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
51. Trichlorofluoromethane	U		µg/m3	8.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 52. 1,1,2-Trichlorotrifluoroethane	U		µg/m3	23	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
53. 1,2,4-Trimethylbenzene	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
54. 1,3,5-Trimethylbenzene	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
55. Vinyl Acetate	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
56. Vinyl Chloride	U		µg/m3	0.77	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
57. m&p-Xylene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
58. o-Xylene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY
‡ 59. Xylenes	U		µg/m3	26	1.0	12/22/23	VK23L22B	12/22/23 15:33	VK23L22B	CY

**Surrogate Summary**

			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
4-Bromofluorobenzene(S)	102	%	80-120	VK	VK23L22B	12/22/2023 15:33	1	VK400

1914 Holloway Drive  
11766 E Grand River  
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F: (517) 699 0388  
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F: (231) 775 8584

Client Identification: <b>NTH Consultants, Ltd. - Northville</b>	Sample Description: ██████████	Chain of Custody: <b>219389</b>
Client Project Name: <b>FCA/Stellantis (23001494-01)</b>	Sample No: <b>A-38</b>	Collect Date: <b>12/20/23</b>
Client Project No: <b>23001494-01</b>	Sample Matrix: <b>Air</b>	Collect Time: <b>09:10</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**TO-15 (Summa)** Aliquot ID: **A19021-003** Matrix: **Air**  
**Method: EPA TO-15** Description: **4642 Cope**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 1. Acetone	U		µg/m3	36	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
2. Benzene	U		µg/m3	2.9	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
3. Benzyl Chloride	U		µg/m3	0.41	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
4. Bromodichloromethane	U		µg/m3	0.80	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
5. Bromoform	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
6. Bromomethane	U		µg/m3	3.5	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
7. 1,3-Butadiene	U		µg/m3	0.66	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
8. 2-Butanone	U		µg/m3	8.8	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 9. Carbon Disulfide	U		µg/m3	19	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
10. Carbon Tetrachloride	U		µg/m3	0.75	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
11. Chlorobenzene	U		µg/m3	14	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
12. Chloroethane	U		µg/m3	4.0	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
13. Chloroform	U		µg/m3	0.59	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
14. Chloromethane	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
15. Cyclohexane	U		µg/m3	10	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
16. Dibromochloromethane	U		µg/m3	0.68	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
17. 1,2-Dichlorobenzene	U		µg/m3	9.0	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
18. 1,3-Dichlorobenzene	U		µg/m3	1.8	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
19. 1,4-Dichlorobenzene	U		µg/m3	1.8	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
20. Dichlorodifluoromethane	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
21. 1,1-Dichloroethane	U		µg/m3	6.1	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
22. 1,2-Dichloroethane	U		µg/m3	0.49	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
23. 1,1-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
24. cis-1,2-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
25. trans-1,2-Dichloroethene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
26. 1,2-Dichloropropane	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
27. cis-1,3-Dichloropropene	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
28. trans-1,3-Dichloropropene	U		µg/m3	1.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
29. 1,4-Dioxane	U		µg/m3	5.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 30. Ethyl Acetate	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
31. Ethylbenzene	U		µg/m3	6.5	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
32. Ethylene Dibromide	U		µg/m3	0.23	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
33. n-Heptane	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
34. Hexachlorobutadiene	U		µg/m3	1.3	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
35. n-Hexane	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 36. 2-Hexanone	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY

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Client Identification: <b>NTH Consultants, Ltd. - Northville</b>	Sample Description: ██████████	Chain of Custody: <b>219389</b>
Client Project Name: <b>FCA/Stellantis (23001494-01)</b>	Sample No: <b>A-38</b>	Collect Date: <b>12/20/23</b>
Client Project No: <b>23001494-01</b>	Sample Matrix: <b>Air</b>	Collect Time: <b>09:10</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**TO-15 (Summa)**

Method: EPA TO-15

Aliquot ID: **A19021-003**

Matrix: **Air**

Description: **4642 Cope**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
‡ 37. Isopropanol	U		µg/m3	15	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
38. 4-Methyl-2-pentanone	U		µg/m3	12	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
39. Methylene Chloride	U		µg/m3	21	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
40. MTBE	U		µg/m3	5.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 41. Naphthalene	U		µg/m3	1.6	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
42. Styrene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
43. 1,1,2,2-Tetrachloroethane	U		µg/m3	0.21	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
44. Tetrachloroethene	U		µg/m3	6.1	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 45. Tetrahydrofuran	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
46. Toluene	U		µg/m3	5.7	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
47. 1,2,4-Trichlorobenzene	U		µg/m3	5.9	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
48. 1,1,1-Trichloroethane	U		µg/m3	8.2	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
49. 1,1,2-Trichloroethane	U		µg/m3	0.65	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
50. Trichloroethene	U		µg/m3	0.16	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
51. Trichlorofluoromethane	U		µg/m3	8.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 52. 1,1,2-Trichlorotrifluoroethane	U		µg/m3	23	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
53. 1,2,4-Trimethylbenzene	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
54. 1,3,5-Trimethylbenzene	U		µg/m3	4.4	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
55. Vinyl Acetate	U		µg/m3	11	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
56. Vinyl Chloride	U		µg/m3	0.77	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
57. m&p-Xylene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
58. o-Xylene	U		µg/m3	13	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY
‡ 59. Xylenes	U		µg/m3	26	1.0	12/22/23	VK23L22B	12/22/23 16:27	VK23L22B	CY

**Surrogate Summary**

			Control Limits	Instrument	Batch	Run Time	Column	Inst. Method
4-Bromofluorobenzene(S)	103	%	80-120	VK	VK23L22B	12/22/2023 16:27	1	VK400

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**Definitions/ Qualifiers:**

- A:** Spike recovery or precision unusable due to dilution.
- B:** The analyte was detected in the associated method blank.
- E:** The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J:** The concentration is an estimated value.
- M:** Modified Method
- U:** The analyte was not detected at or above the reporting limit.
- X:** Matrix Interference has resulted in a raised reporting limit or distorted result.
- W:** Results reported on a wet-weight basis.
- \***: Value reported is outside QC limits
- D:** The sample or extract was analyzed at a DF greater than 1.

**Exception Summary:**

**Analysis Locations:**

All analyses performed in Holt.



Accreditation Number(s):

**T104704518-23-15 (TX)**

1914 Holloway Drive  
11766 E Grand River  
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VK23L22B: Method Blank (MB)

EPA TO-15

Run Time: VK23L22B.MB 12/22/2023 13:47 [VK23L22B]

Analyte	MB Result	MB Qualifier	MB RDL
	µg/m3		µg/m3
Acetone	U		36
Benzene	U		2.9
Benzyl Chloride	U		0.41
Bromodichloromethane	U		0.80
Bromoform	U		15
Bromomethane	U		3.5
1,3-Butadiene	U		0.66
2-Butanone	U		8.8
Carbon Disulfide	U		19
Carbon Tetrachloride	U		0.75
Chlorobenzene	U		14
Chloroethane	U		4.0
Chloroform	U		0.59
Chloromethane	U		12
Cyclohexane	U		10
Dibromochloromethane	U		0.68
1,2-Dichlorobenzene	U		9.0
1,3-Dichlorobenzene	U		1.8
1,4-Dichlorobenzene	U		1.8
Dichlorodifluoromethane	U		15
1,1-Dichloroethane	U		6.1
1,2-Dichloroethane	U		0.49
1,1-Dichloroethene	U		5.9
cis-1,2-Dichloroethene	U		5.9
trans-1,2-Dichloroethene	U		5.9
1,2-Dichloropropane	U		1.4
cis-1,3-Dichloropropene	U		1.4
trans-1,3-Dichloropropene	U		1.4
1,4-Dioxane	U		5.4
E hyl Acetate	U		11
E hylbenzene	U		6.5

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VK23L22B: Method Blank (MB)

EPA TO-15

Run Time: VK23L22B.MB 12/22/2023 13:47 [VK23L22B]

Analyte	MB Result	MB Qualifier	MB RDL
	µg/m3		µg/m3
E hylene Dibromide	U		0.23
n-Heptane	U		12
Hexachlorobutadiene	U		1.3
n-Hexane	U		11
2-Hexanone	U		12
Isopropanol	U		15
4-Me hyl-2-pentanone	U		12
Methylene Chloride	U		21
MTBE	U		5.4
Naph halene	U		1.6
Styrene	U		13
1,1,2,2-Tetrachloroethane	U		0.21
Tetrachloroethene	U		6.1
Tetrahydrofuran	U		4.4
Toluene	U		5.7
1,2,4-Trichlorobenzene	U		5.9
1,1,1-Trichloroethane	U		8.2
1,1,2-Trichloroethane	U		0.65
Trichloroethene	U		0.16
Trichlorofluoromethane	U		8.4
1,1,2-Trichlorotrifluoroethane	U		23
1,2,4-Trimethylbenzene	U		4.4
1,3,5-Trimethylbenzene	U		4.4
Vinyl Acetate	U		11
Vinyl Chloride	U		0.77
m&p-Xylene	U		13
o-Xylene	U		13
4-Bromofluorobenzene(S)	102		80-120

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VK23L22B: Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD)

EPA TO-15

Run Time: VK23L22B.LCS: 12/22/2023 11:16 [VK23L22B] VK23L22B.LCSD: 12/22/2023 12:06 [VK23L22B]

Analyte	LCS Spike Amount µg/m3	LCS Result µg/m3	LCS Rec. %	Rec. Limits %	LCS Qualifier	LCSD Spike Amount µg/m3	LCSD Result µg/m3	LCSD Rec. %	LCSD Qualifier	RPD %	RPD Limits %	RPD Qualifier
Acetone	31.2	28.9	93	70-130		31.2	28.8	92		1	20	
Benzene	42.7	39.7	93	70-130		42.7	39.5	92		1	20	
Benzyl Chloride	66.6	63.7	96	70-150		66.6	61.6	93		3	20	
Bromodichloromethane	87.9	78.8	90	70-130		87.9	78.0	89		1	20	
Bromoform	134	121	90	70-138		134	121	90		0	20	
Bromomethane	51.4	44.3	86	70-133		51.4	44.2	86		0	20	
1,3-Butadiene	29.6	26.4	89	70-134		29.6	26.5	89		0	20	
2-Butanone	39.8	36.6	92	70-130		39.8	36.6	92		0	20	
Carbon Disulfide	41.2	37.2	90	70-130		41.2	37.0	90		0	20	
Carbon Tetrachloride	80.2	70.0	87	70-131		80.2	68.8	86		1	20	
Chlorobenzene	61.5	55.7	91	70-130		61.5	55.4	90		1	20	
Chloroethane	34.9	30.4	87	70-130		34.9	30.0	86		1	20	
Chloroform	64.7	56.7	88	70-130		64.7	56.7	88		0	20	
Chloromethane	27.1	24.5	90	70-130		27.1	24.5	90		0	20	
Cyclohexane	45.6	46.7	102	70-130		45.6	46.9	103		1	20	
Dibromochloromethane	113	102	90	70-135		113	101	90		0	20	
1,2-Dichlorobenzene	75.9	72.4	95	70-130		75.9	70.9	93		2	20	
1,3-Dichlorobenzene	76.6	73.2	95	70-131		76.6	71.0	93		2	20	
1,4-Dichlorobenzene	75.9	73.5	97	70-134		75.9	72.5	96		1	20	
Dichlorodifluoromethane	65.5	55.7	85	70-132		65.5	55.1	84		1	20	
1,1-Dichloroethane	53.6	49.4	92	70-130		53.6	48.8	91		1	20	
1,2-Dichloroethane	54.1	47.5	88	70-130		54.1	47.3	87		1	20	
1,1-Dichloroethene	54.0	48.5	90	70-133		54.0	48.3	89		1	20	
cis-1,2-Dichloroethene	53.0	50.6	95	70-130		53.0	50.7	96		1	20	
trans-1,2-Dichloroethene	53.0	49.0	92	70-130		53.0	49.3	93		1	20	
1,2-Dichloropropane	61.8	58.5	95	70-130		61.8	57.8	94		1	20	
cis-1,3-Dichloropropene	60.7	58.8	97	70-131		60.7	58.7	97		0	20	
trans-1,3-Dichloropropene	59.5	58.6	98	70-134		59.5	58.5	98		0	20	
1,4-Dioxane	47.3	48.2	102	70-130		47.3	47.7	101		1	20	
E hyl Acetate	47.3	47.7	101	70-130		47.3	46.9	99		2	20	
E hylbenzene	57.5	55.3	96	70-130		57.5	54.3	94		2	20	

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VK23L22B: Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD)

EPA TO-15

Run Time: VK23L22B.LCS: 12/22/2023 11:16 [VK23L22B] VK23L22B.LCSD: 12/22/2023 12:06 [VK23L22B]

Analyte	LCS Spike Amount µg/m3	LCS Result µg/m3	LCS Rec. %	Rec. Limits %	LCS Qualifier	LCSD Spike Amount µg/m3	LCSD Result µg/m3	LCSD Rec. %	LCSD Qualifier	RPD %	RPD Limits %	RPD Qualifier
E hylene Dibromide	102	91.5	90	70-130		102	90.7	89		1	20	
n-Heptane	54.3	54.2	100	70-132		54.3	54.1	100		0	20	
Hexachlorobutadiene	123	113	92	70-134		123	105	86		7	20	
n-Hexane	48.0	46.3	96	70-130		48.0	46.2	96		0	20	
2-Hexanone	55.3	55.6	101	70-139		55.3	55.2	100		1	20	
Isopropanol	33.5	31.8	95	54-144		33.5	31.8	95		0	20	
4-Me hyl-2-pentanone	54.3	57.8	107	70-130		54.3	57.6	106		1	20	
Methylene Chloride	44.7	37.9	85	70-132		44.7	39.1	87		2	20	
MTBE	48.2	47.6	99	70-130		48.2	47.7	99		0	20	
Naph halene	61.6	68.9	112	70-148		61.6	64.8	105		6	20	
Styrene	55.4	54.2	98	70-130		55.4	53.0	96		2	20	
1,1,2,2-Tetrachloroethane	90.1	79.9	89	70-130		90.1	79.6	88		1	20	
Tetrachloroethene	89.8	81.1	90	70-130		89.8	81.1	90		0	20	
Tetrahydrofuran	38.0	37.5	99	70-138		38.0	37.2	98		1	20	
Toluene	50.4	45.2	90	70-130		50.4	44.8	89		1	20	
1,2,4-Trichlorobenzene	83.5	83.3	100	70-140		83.5	78.5	94		6	20	
1,1,1-Trichloroethane	73.6	63.5	86	70-130		73.6	62.9	85		1	20	
1,1,2-Trichloroethane	72.9	65.3	90	70-130		72.9	65.0	89		1	20	
Trichloroethene	71.8	66.3	92	70-130		71.8	65.8	92		0	20	
Trichlorofluoromethane	73.7	63.7	86	70-132		73.7	62.7	85		1	20	
1,1,2-Trichlorotrifluoroethane	102	88.8	87	70-130		102	88.9	87		0	20	
1,2,4-Trimethylbenzene	62.7	66.1	106	70-132		62.7	64.3	103		3	20	
1,3,5-Trimethylbenzene	63.9	63.7	100	70-131		63.9	62.6	98		2	20	
Vinyl Acetate	48.4	50.3	104	70-131		48.4	49.4	102		2	20	
Vinyl Chloride	33.5	29.8	89	70-131		33.5	30.2	90		1	20	
m&p-Xylene	114	110	96	70-130		114	109	95		1	20	
o-Xylene	56.4	58.0	103	70-130		56.4	57.1	101		2	20	
4-Bromofluorobenzene(S)			104	80-120				100				

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**Definitions/Qualifiers:**

- U: The analyte was not detected at or above the Reporting Limit (RL).
- \*: Value reported is outside QC limits

**Exception Summary:**

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

**Report Generated By:**



By Jacob Sutherland at 8:01 AM, Dec 28, 2023

