

LABORATORY ANALYSIS REPORT

Report Number

N05712R

Customer

SIA Estonian, Latvian & Lithuanian Environment
Vilandes Street 3-6

Riga

LV-1010

Latvia

Booking In Reference

T1007 & T1010

Despatch Note Number

73023

Date Samples Received

06/08/2019

Diffusion Tube Type

2BSUL

Identification and estimation of ng on tube in accordance with ISO16000-6

Index to UKAS Accreditation Status

U

Analysis is UKAS accredited under our Fixed Scope

F

Analysis is UKAS accredited under our Flexible Scope

N

Analysis is not UKAS accredited

Tube Number

GRA09848

Gradko Lab Reference

05N0752

Sample Volume (l)

1.50

Sample Location

1. Near AB Grigeo KNV

Sample ID

1

Top 20 VOC

m/p-Xylene

Accreditation Status

Estimated
ng on tube

µgm⁻³*

Decanal**

U

65

43.6

Toluene

N

45

30.2

Ethylbenzene

U

22

15.0

o-Xylene

U

21

13.7

Tetrachloroethylene

U

20

13.6

Nonanal**

U

19

12.4

Ethanol, 2-phenoxy-

N

13

8.4

2-Ethyl-1-hexanol

N

9

5.9

Benzene

N

7

4.6

Pentadecane

U

7

4.4

Octanal**

N

6

4.2

Acetophenone**

N

<5

<3.3

Phenol

N

<5

<3.3

Benzaldehyde**

N

<5

<3.3

Hexanal**

N

<5

<3.3

.alpha.-Pinene

N

<5

<3.3

Heptanal**

N

<5

<3.3

Phenol, 3-methyl-

N

<5

<3.3

Nonane

U

<5

<3.3

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LABORATORY ANALYSIS REPORT

Tube Number MI150791
Gradko Lab Reference 05N0753
Sample Volume (l) 1.50
Sample Location 2. Near AB Grigeo KNV
Sample ID 2

	Accreditation	Estimated ng on tube	μgm^{-3*}
Top 20 VOC	Status		
m/p-Xylene	U	51	34.3
Ethylbenzene	U	14	9.6
o-Xylene	U	14	9.3
Toluene	U	14	9.2
Decanal**	N	<5	<3.3
Nonanal**	N	<5	<3.3
Tetrachloroethylene	U	<5	<3.3
Benzene	U	<5	<3.3

8 Compounds detected

Tube Number 003512
Gradko Lab Reference 05N0754
Sample Volume (l) 1.50
Sample Location 3. Near AB Grigeo KNV
Sample ID 3

	Accreditation	Estimated ng on tube	μgm^{-3*}
Top 20 VOC	Status		
o-Xylene	U	17	11.1
Ethylbenzene	U	16	10.7
Toluene	U	15	10.1
5,9-Undecadien-2-one, 6,10-dimethyl-, (E)-	N	14	9.4
Nonanal**	N	9	5.9
Octanal**	N	<5	<3.3
Benzene	U	<5	<3.3
Benzaldehyde**	N	<5	<3.3
Hexanal**	N	<5	<3.3
Phenol	N	<5	<3.3
Acetophenone**	N	<5	<3.3

11 Compounds detected

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Tube Number 273503
Gradko Lab Reference 05N0755
Sample Volume (l) 1.50
Sample Location 4. Near Point 9
Sample ID 4

	Accreditation	Estimated ng on tube	μgm^{-3*}
Top 20 VOC	Status		
Decanal**	N	78	52.2
m/p-Xylene	U	58	38.8
Nonanal**	N	17	11.4
Ethylbenzene	U	16	11.0
o-Xylene	U	16	10.7
Toluene	U	16	10.3
Pentadecane	N	9	6.1
Tetrachloroethylene	U	<5.0	<3.3
Octanal**	N	<5.0	<3.3
Benzene	U	<5.0	<3.3

10 Compounds detected

Tube Number GRA10690
Gradko Lab Reference 05N0756
Sample Volume (l) 1.50
Sample Location 5. Near Point 9
Sample ID 5

	Accreditation	Estimated ng on tube	μgm^{-3*}
Top 20 VOC	Status		
Ethylbenzene	U	15	10.1
Toluene	U	15	9.9
m/p-Xylene	U	15	9.7
o-Xylene	U	15	9.7
Decanal**	N	11	7.2
Nonanal**	N	5	3.6
Benzene	U	<5	<3.3

7 Compounds detected

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Tube Number GRA10396
Gradko Lab Reference 05N0757
Sample Volume (l) 1.50
Sample Location 6. Near Point 9
Sample ID 6

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	59	39.1
Ethylbenzene	U	17	11.2
Decanal**	N	17	11.1
Toluene	U	17	11.1
o-Xylene	U	16	10.7
Nonanal**	N	8	5.5
Benzene	U	<5	<3.3
7 Compounds detected			

Tube Number GRA07606
Gradko Lab Reference 05N0758
Sample Volume (l) 1.50
Sample Location 7. Near Point 3
Sample ID 7

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	70	46.9
Decanal**	N	46	30.7
Ethylbenzene	U	19	13.0
o-Xylene	U	19	12.9
Toluene	U	19	12.6
Nonanal**	N	18	12.3
Benzene	U	<5	3.3
7 Compounds detected			

Tube Number 003527
Gradko Lab Reference 05N0759A
Sample Volume (l) 1.50
Sample Location 8. Near Point 87 Klairedan Nofta
Sample ID 8

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	80	53.1
Butane	U	27	17.7
Decanal**	N	25	16.8
Toluene	U	23	15.6
m/p-Xylene	U	23	15.4

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	Accreditation Status	Estimated ng on tube	μgm^{-3*}
o-Xylene	U	22	14.4
Butane, 2-methyl-	N	21	14.0
Nonanal**	N	18	12.2
Pentane	U	13	8.6
Benzene	U	8	5.6
Octane	U	<5	<3.3
Heptane	U	<5	<3.3
Cyclohexane, methyl-	N	<5	<3.3
13 Compounds detected			

Tube Number 003517
Gradko Lab Reference 05N0760
Sample Volume (l) 1.50
Sample Location 9. Near Klairedan Nofta
Sample ID 9

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
Butane	U	87	57.7
m/p-Xylene	U	77	51.1
Butane, 2-methyl-	N	66	44.1
Pentane	U	63	42.1
Pentane, 2-methyl-	N	35	23.3
Toluene	U	29	19.5
Hexane	U	29	19.3
Ethylbenzene	U	23	15.1
Decanal**	N	22	14.4
Pentane, 2,2,4-trimethyl-	N	21	13.7
o-Xylene	U	20	13.1
Benzene	U	16	10.9
Pentane, 3-methyl-	N	16	10.6
Heptane	U	15	10.0
Nonanal**	N	15	9.8
Pentane, 2,3,4-trimethyl-	N	14	9.1
Pentane, 2,3,3-trimethyl-	N	11	7.4
Cyclohexane, methyl-	N	11	7.1
Cyclopentane, methyl-	N	10	7.0
Octane	U	10	6.6

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Tube Number 003520
Gradko Lab Reference 05N0761
Sample Volume (l) 1.50
Sample Location 10. Near UAB BRANDA
Sample ID 10

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	94	62.7
Ethylbenzene	U	28	18.5
o-Xylene	U	28	18.4
Toluene	U	25	17.0
Decanal**	N	19	12.7
Nonanal**	N	14	9.4
.alpha.-Pinene	N	9	5.8
Benzene	U	5	3.3

8 Compounds detected

Tube Number 003521
Gradko Lab Reference 05N0762
Sample Volume (l) 1.50
Sample Location 11. Near Point 3
Sample ID 11

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	77	51.3
Decanal**	N	28	18.9
Ethylbenzene	U	21	14.1
o-Xylene	U	21	14.0
Toluene	U	20	13.0
Nonanal**	N	16	10.4
Benzene	U	6	4.0

7 Compounds detected

Tube Number 003529
Gradko Lab Reference 05N0763
Sample Volume (l) 1.50
Sample Location 12. Near UAB BRANDA
Sample ID 12

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	81	54.3
Decanal**	N	32	21.2
Ethylbenzene	U	24	16.2
o-Xylene	U	24	15.8

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	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Toluene	U	22	14.7
Nonanal**	N	15	9.9
Benzene	U	5	3.4
7 Compounds detected			

Tube Number 003525
Gradko Lab Reference 05N0764
Sample Volume (l) 1.50
Sample Location 13. Near Point 2
Sample ID 13

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	90	59.7
Ethylbenzene	U	23	15.0
o-Xylene	U	22	14.7
Toluene	U	21	14.3
Decanal**	N	20	13.3
Nonanal**	N	9	6.3
Benzene	U	<5	<3.3
7 Compounds detected			

Tube Number 003513
Gradko Lab Reference 05N0765
Sample Volume (l) 1.50
Sample Location 14. Near Point 9 BRANDA
Sample ID 14

	Accreditation Status	Estimated ng on tube	μgm^{-3*}
Top 20 VOC			
m/p-Xylene	U	82	54.9
Ethylbenzene	U	23	15.6
Toluene	U	22	15.0
o-Xylene	U	22	14.8
Decanal**	N	14	9.6
Nonanal**	N	7	4.9
Benzene	U	<5	<3.3
7 Compounds detected			

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Tube Number 003523
Gradko Lab Reference 05N0766
Sample Volume (l) 1.50
Sample Location 15_Near AB Grigeo Klaireda
Sample ID 15

	Accreditation	Estimated ng on tube	μgm^{-3*}
Top 20 VOC	Status		
m/p-Xylene	U	70	46.9
Ethylbenzene	U	20	13.3
o-Xylene	U	19	13.0
Toluene	U	17	11.4
Nonanal**	N	<5	<3.3
Benzene	U	<5	<3.3
Decanal**	N	<5	<3.3

7 Compounds detected

Tube Number 003528
Gradko Lab Reference 05N0767
Sample Volume (l) 1.50
Sample Location 16_Near AB Grigeo Klaireda
Sample ID 16

	Accreditation	Estimated ng on tube	μgm^{-3*}
Top 20 VOC	Status		
m/p-Xylene	U	98	65
Ethylbenzene	U	27	18
o-Xylene	U	26	17
Decanal**	N	23	15
Toluene	U	22	14
Nonanal**	N	13	9
Benzene	U	7	4

7 Compounds detected

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Tube Number	003526	
Gradko Lab Reference	05N0768	
Sample Location	17 Blank	
Sample ID	17	
	Accreditation	Estimated
Top 20 VOC	Status	ng on tube
m/p-Xylene	U	56
Decanal**	N	27
Ethylbenzene	U	16
o-Xylene	U	15
Toluene	U	15
Nonanal**	N	9
Benzene	U	<5

7 Compounds detected

Tube Number	GRA05551	
Gradko Lab Reference	19_190819_Blank6_TC1	
Sample ID	Laboratory Blank	
	Accreditation	Estimated
Top 20 VOC	Status	ng on tube
Benzene	U	<5

1 Compound detected

Estimated results as ng on tube are calculated by reference to toluene in accordance with ISO 16000-6

Results are not Blank corrected.

Results reported as <5ng on tube are below the reporting limit.

Reporting limit for non BTEX compounds are derived from the non-specific standard Toluene.

**Compounds may be an artifact due to reaction of ozone with the Tenax sorbent.

Results for samples 1 to 7 may be compromised because they were associated with a failed AQC standard.

Analysts Name	Gavin Aikman	Date of Analysis	20/08/2019
Report Checked By	Len Gates	Date of Report	22/08/2019

Analysis has been carried out in accordance with in-house method GLM 13

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