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LAMPIRAN

Lampiran 1. Kuesioner Persepsi dan Sikap Masyarakat

Kuesioner Dalam Rangka Penyusunan Tesis berjudul “Analisis Dampak Penurunan Waktu Pelayanan Waktu Pelayanan di TPST Bantargebang Terhadap Lingkungan”

Tanggal survei	_____ (DD/MM/YY)	1	<input type="text"/>
Nomor kuesioner	_____	2	<input type="text"/>

Identitas Responden (Domisili sekitar Jl. Pangkalan 5 TPST Bantargebang / Pengguna Jl. Pangkalan 5)

1. Nama	_____		
2. Alamat	_____		
3. Jenis kelamin	(1) Laki-laki	(2) Perempuan	3 <input type="text"/>
4. Status dalam keluarga	(1) Suami / Ayah (2) Istri / Ibu	(3) Anak (4) Lainnya	4 <input type="text"/>
5. Pekerjaan kepala keluarga	(1) Wiraswasta (2) PNS (3) Pegawai swasta (4) TNI / Polri (5) Buruh harian (6) Petani / peternak	(7) Ibu rumah tangga (8) Pensiunan (9) Profesional (10) Tidak bekerja (11) Lainnya	5 <input type="text"/>
6. Pendidikan kepala keluarga	(1) Tidak pernah sekolah (2) Tidak tamat SD/MI (3) Tamat SD/MI (4) Tidak tamat SMP/MTs (5) Tamat SMP/MTs (6) Tidak Tamat SMA/MA	(7) Tamat SMA/MA (8) Tidak tamat D1-D3 (9) Tamat D1-D3 (10) Tidak tamat S1 (11) Tamat S1 (12) Tamat S2 – S3	6 <input type="text"/>
6. Lama Menetap	(1) 0-5 Tahun (2) 5-10 Tahun	(3) > 10 Tahun	7 <input type="text"/>
7. Status kepemilikan rumah yg ditempati	(1) SHM atau HGB (2) Sewa/Kontrak	(3) Menumpang	8 <input type="text"/>
8. Alat transportasi yg sering digunakan	(1) Mobil (2) Motor	(3) Sepeda (4) Kendaraan Umum	9 <input type="text"/>
9. Pengguna jalan	(1) Pertama kali berkunjung (2) Lebih dari 1x kunjungan	(3) Sering berkunjung ke TPST Bantargebang	10 <input type="text"/>

Persepsi Terhadap Kualitas Udara

1. Bagaimana saudara/i menilai kualitas udara di lingkungan tempat tinggal anda? ¹¹
- (1) Baik
(1) Biasa saja
(2) Buruk

Jelaskan alasannya

2. Apakah saudara/i mencium kebauan di sekitar tempat tinggal anda? ¹²
- (1) Tidak ada (Baik)
(2) Biasa saja
(3) Buruk

Jelaskan alasannya

3. Bagaimana kondisi kebisingan di sekitar tempat tinggal anda? ¹³
- (1) Tidak ada (Baik)
(2) Biasa saja
(3) Buruk

Jelaskan alasannya

4. Menurut anda, apakah sumber polusi udara terbesar yang terjadi di sekitar Kawasan TPST Bantargebang? ¹⁴
- (1) Emisi Kendaraan
(2) Tumpukan sampah di TPST Bantargebang
(3) Lainnya,.....

Jelaskan alasannya

Persepsi Terhadap Lalu Lintas

5. Bagaimana kondisi lalu lintas di sekitar rumah saudara? ¹⁵
- (1) Lancar
(2) Biasa saja
(3) Macet

Jelaskan alasannya

6. Bagaimana kondisi perkerasan jalan di Jalan Pangkalan 5? ¹⁶
- (1) Baik (tidak rusak)
(2) Biasa saja
(3) Buruk (rusak)

Jelaskan alasannya

7. Menurut Anda, apakah kendaraan pengangkut sampah menyebabkan gangguan lalu lintas di Jalan Pangkalan 5? ¹⁷
- (1) Ya
(2) Tidak
(3) Tidak Tahu

Jelaskan alasannya

8. Bagaimana kecepatan rata-rata kendaraan pengangkut sampah?

- (1) Lambat (20-30 km/jam)
- (2) Cukup tinggi (30-40 km/jam)
- (3) Tinggi (40-50 km/jam)

Jelaskan alasannya

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9. Apakah lalu lintas truk pengangkut sampah mengganggu Anda?

- (1) Mengganggu
- (2) Cukup Mengganggu
- (3) Tidak Mengganggu

Jelaskan alasannya

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10. Bagaimana kondisi penerangan jalan malam hari di Jalan Pangkalan 5?

- (1) Kurang penerangan lampu jalan
- (2) Cukup penerangan lampu jalan
- (3) tidak ada keluhan penurunan

Jelaskan alasannya

20

11. Apakah ada Truk Pengangkut Sampah yg parkir di Jalan Pangkalan 5?

- (1) Tidak ada
- (2) hanya satu Truk
- (3) Ada beberapa Truk

Jelaskan alasannya

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12. Berapa panjang kemacetan yang diakibatkan oleh kegiatan TPST Bantargebang?

- (1) Panjang (3-4 km)
- (2) Cukup Panjang (2-3 km)
- (3) Tidak Panjang (1-2 km)

Jelaskan alasannya

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Lampiran 2. Hasil Pengukuran kualitas udara dan emisi kendaraan



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SPECIALISASI: WILAYAH BANTARGEANG



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PT. KARSA BUANA LESTARI
No : 31.3/FPP
Revisi : 2

ANALYTICAL REPORT

Number : 0129/LHP/III/2024

Customer name : Ristri Widyasworo	Sample number : 0129.1/III/2024
Customer address : Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06, Bintaro, Pesanggerahan, Jakarta Selatan	Date of sampling : March 5th - 6th 2024
Project name/activity : Penelitian S2 - S3	Date of received : March 6th 2024
Project address : TPST Bantargebang, Kel. Ciketing Udik, Kec. Bantargebang, Bekasi	Date of analysis : March 6th - 14th 2024
Sample matrix : AMBIENT AIR	Sampling method : SNI 19-7119.6-2005
Customer sample ID : UA.1 = Pintu Masuk TPST Bantargebang	S: 06°20'56,35" E: 106°59'37,22"

Meteorology Data

No.	Parameter	Result						
		I	II	III	IV	V	VI	VII
		05.00-09.00	09.00-12.00	14.00-17.00	17.00-22.00	22.00-00.00	00.00-03.00	03.00-06.00
1.	Temperature	27.4 °C	31.7 °C	31.5 °C	28.4 °C	26.7 °C	26.5 °C	26.4 °C
2.	Relative Humidity	74% RH	60% RH	60% RH	78% RH	80% RH	84% RH	85% RH
3.	Dominant Wind Direction	North	North	North	South	South	South	South
4.	Weather	Sunny	Sunny	Cloudy	Cloudy	Cloudy	Sunny	Sunny

Test Results

No.	Parameter	Measurement Time	Unit	Regulation Limit (*)	Result	Method
1.	Sulfur Dioxide (SO ₂)	1 hour	µg/Nm ³	150	44	SNI 7119-7:2017
2.	Carbon Monoxide (CO)	1 hour	µg/Nm ³	10,000	1,436	IK No : 19-37/IK (Direct Reading)
3.	Nitrogen Dioxide (NO ₂)	1 hour	µg/Nm ³	200	51	SNI 19-7119.2-2005
4.	Oxidant (O ₃)	1 hour	µg/Nm ³	150	37	SNI 19-7119.8-2005
5.	Hydrocarbon Non Methane (NMHC) (s) **	3 hour	µg/Nm ³	160	29	SNI 7119.13:2009 (GC)
6.	Particle < 100 µm (TSP)	24 hour	µg/Nm ³	230	158	SNI 7119-3:2017
7.	Particle < 10 µm (PM ₁₀)	24 hour	µg/Nm ³	75	36	SNI 7119-15:2016
8.	Particle < 2.5 µm (PM _{2.5})	24 hour	µg/Nm ³	55	24	SNI 7119-14:2016
9.	Lead (Pb)	24 hour	µg/Nm ³	2	0.01	SNI 7119-4:2017

Information : (*) = Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 (Attachment VII) Ambient Air Quality Standards
 ** = Parameters not accredited
 (s) = Subcontracted parameters

Jakarta, March 15th 2024



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KANTOR I : Perkasoran Bintaro II, J. Bintaro-Pemai Raya Kav. S/II Bintaro Jakarta Selatan 12330
 KANTOR II : J. Kesehatan IV No. 45 A, Bintaro, Jakarta Selatan 12330
 Telp. 021-7378020 (Hunting), Fax. 021-7353319 webotlv : www.ptarsabuaralestari.com email : marketing@ptarsabuaralestari.com



ANALYTICAL REPORT

Number : 0136/LHP/III/2024

Customer name : Ristri Widyasworo
 Customer address : Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06,
 Bintaro, Pesanggerahan, Jakarta Selatan
 Project name/activity : Penelitian S2 - S3
 Project address : TPST Bantargebang, Kel. Ciketing Udik,
 Kec. Bantargebang, Bekasi
 Sample matrix : AMBIENT AIR
 Customer sample ID : UA.2 = Jalan Perbatasan Zona TPST Bantargebang S: 06°20'48,50" E: 106°59'49,10"

Sample number : 0136.1/III/2024
 Date of sampling : March 6th - 7th 2024
 Date of received : March 7th 2024
 Date of analysis : March 7th - 14th 2024
 Sampling method : SNI 19-7119.6-2005

Meteorology Data

No.	Parameter	Result						
		I 06.00-09.00	II 09.00-12.00	III 14.00-17.00	IV 17.00-22.00	V 22.00-00.00	VI 00.00-03.00	VII 03.00-06.00
1.	Temperature	27.0 °C	31.5 °C	31.2 °C	28.3 °C	26.8 °C	26.5 °C	26.2 °C
2.	Relative Humidity	74% RH	60% RH	59% RH	79% RH	81% RH	83% RH	85% RH
3.	Dominant Wind Direction	North	North	North	North	South	South	South
4.	Weather	Sunny	Sunny	Sunny	Cloudy	Cloudy	Sunny	Sunny

Test Results

No.	Parameter	Measurement Time	Unit	Regulation Limit (*)	Result	Method
1.	Sulfur Dioxide (SO ₂)	1 hour	µg/Nm ³	150	36	SNI 7119-7-2017
2.	Carbon Monoxide (CO)	1 hour	µg/Nm ³	10,000	1,409	IK No : 19-37/IK (Direct Reading)
3.	Nitrogen Dioxide (NO ₂)	1 hour	µg/Nm ³	200	51	SNI 19-7119.2-2005
4.	Oxidant (O ₃)	1 hour	µg/Nm ³	150	39	SNI 19-7119.8-2005
5.	Hydrocarbon Non Methane (NMHC) (a) **	3 hour	µg/Nm ³	160	31	SNI 7119.13-2009 (GC)
6.	Particle < 100 µm (TSP)	24 hour	µg/Nm ³	230	156	SNI 7119-3-2017
7.	Particle < 10 µm (PM ₁₀)	24 hour	µg/Nm ³	75	38	SNI 7119-15-2016
8.	Particle < 2.5 µm (PM _{2.5})	24 hour	µg/Nm ³	55	22	SNI 7119-14-2016
9.	Lead (Pb)	24 hour	µg/Nm ³	2	0.01	SNI 7119-4-2017

Information : (*) = Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 (Attachment VII)
 Ambient Air Quality Standards

** = Parameters not accredited

(a) = Subcontracted parameters

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ANALYTICAL REPORT

Number : 0136/LHP/III/2024

Customer name : **Ristri Widyasworo**
 Customer address : **Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06,
 Bintaro, Pesanggerahan, Jakarta Selatan**
 Project name/activity : **Penelitian S2 - S3**
 Project address : **TPST Bantargebang, Kel. Ciketing Udik,
 Kec. Bantargebang, Bekasi**
 Sample matrix : **AMBIENT AIR**
 Customer sample ID : **UA.3 = Simpang Kantor TPST Bantargebang**

Sample number : **0136.2/III/2024**
 Date of sampling : **March 6th - 7th 2024**
 Date of received : **March 7th 2024**
 Date of analysis : **March 7th - 14th 2024**
 Sampling method : **SNI 19-7119.6-2005**

S: **06°20'59,60" E: 106°59'37,77"**

Meteorology Data

No.	Parameter	Result						
		I	II	III	IV	V	VI	VII
		06.00-09.00	09.00-12.00	14.00-17.00	17.00-22.00	22.00-00.00	00.00-03.00	03.00-06.00
1.	Temperature	27.5 °C	31.6 °C	30.5 °C	28.9 °C	26.7 °C	26.4 °C	26.1 °C
2.	Relative Humidity	75% RH	60% RH	58% RH	78% RH	80% RH	84% RH	65% RH
3.	Dominant Wind Direction	North	North	North	North	South	South	South
4.	Weather	Sunny	Sunny	Sunny	Cloudy	Cloudy	Cloudy	Sunny

Test Results

No.	Parameter	Measurement Time	Unit	Regulation Limit *)	Result	Method
1.	Sulfur Dioxide (SO ₂)	1 hour	µg/Nm ³	150	40	SNI 7119-7:2017
2.	Carbon Monoxide (CO)	1 hour	µg/Nm ³	10,000	951	IK No : 19-37/IK (Direct Reading)
3.	Nitrogen Dioxide (NO ₂)	1 hour	µg/Nm ³	200	48	SNI 19-7119.2-2005
4.	Oxidant (O ₃)	1 hour	µg/Nm ³	150	43	SNI 19-7119.8-2005
5.	Hydrocarbon Non Methane (NMHC) ^{(s) **}	3 hour	µg/Nm ³	160	27	SNI 7119.13:2009 (GC)
6.	Particle < 100 µm (TSP)	24 hour	µg/Nm ³	230	142	SNI 7119-3:2017
7.	Particle < 10 µm (PM ₁₀)	24 hour	µg/Nm ³	75	36	SNI 7119-15:2016
8.	Particle < 2.5 µm (PM _{2.5})	24 hour	µg/Nm ³	55	18	SNI 7119-14:2016
9.	Lead (Pb)	24 hour	µg/Nm ³	2	0.01	SNI 7119-4:2017

Information : *) = Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 (Attachment VII)

Ambient Air Quality Standards

** = Parameters not accredited

(s) = Subcontracted parameters

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ANALYTICAL REPORT

Number : 0136/LHP/III/2024

Customer name : **Ristri Widyaworo**
Customer address : **Jl. Kesehatan IV No 45 A, RT. 01/ RW. 06,
Bintaro, Pesanggerahan, Jakarta Selatan**
Project name/activity : **Penelitian S2 - S3**
Project address : **TPST Bantargebang, Kel. Ciketing Udik,
Kec. Bantargebang, Bekasi**
Sample matrix : **AMBIENT AIR**
Customer sample ID : **UA.4 = Simpang Jalan Pangkalan 5** **S: 06°20'54,81" E: 106°59'13,31"**
Sample number : 0136.3/III/2024
Date of sampling : March 8th - 7th 2024
Date of received : March 7th 2024
Date of analysis : March 7th - 14th 2024
Sampling method : SNI 19-7119.8-2005

Meteorology Data

No.	Parameter	Result						
		I	II	III	IV	V	VI	VII
		06.00-09.00	09.00-12.00	14.00-17.00	17.00-22.00	22.00-00.00	00.00-03.00	03.00-06.00
1.	Temperature	27.3 °C	31.6 °C	31.5 °C	28.4 °C	26.5 °C	26.4 °C	26.1 °C
2.	Relative Humidity	75% RH	60% RH	59% RH	78% RH	82% RH	83% RH	86% RH
3.	Dominant Wind Direction	North	North	North	South	South	South	North
4.	Weather	Sunny	Sunny	Sunny	Cloudy	Cloudy	Cloudy	Sunny

Test Results

No.	Parameter	Measurement Time	Unit	Regulation Limit *)	Result	Method
1.	Sulfur Dioxide (SO ₂)	1 hour	µg/Nm ³	150	43	SNI 7119-7:2017
2.	Carbon Monoxide (CO)	1 hour	µg/Nm ³	10,000	1,832	IK No : 19-37/IK (Direct Reading)
3.	Nitrogen Dioxide (NO ₂)	1 hour	µg/Nm ³	200	51	SNI 19-7119.2-2005
4.	Oxidant (O ₃)	1 hour	µg/Nm ³	150	35	SNI 19-7119.8-2005
5.	Hydrocarbon Non Methane (NMHC) (s) **	3 hour	µg/Nm ³	160	41	SNI 7119.13:2009 (GC)
6.	Particle < 100 µm (TSP)	24 hour	µg/Nm ³	230	188	SNI 7119-3:2017
7.	Particle < 10 µm (PM ₁₀)	24 hour	µg/Nm ³	75	61	SNI 7119-15:2016
8.	Particle < 2.5 µm (PM _{2.5})	24 hour	µg/Nm ³	55	42	SNI 7119-14:2016
9.	Lead (Pb)	24 hour	µg/Nm ³	2	0.01	SNI 7119-4:2017

Information : *) = Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021 (Attachment VII)
Ambient Air Quality Standards

** = Parameters not accredited

(s) = Subcontracted parameters

Jakarta, March 15th 2024



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ANALYTICAL REPORT

Number : 0129/LHP/III/2024

Customer name : Ristri Widyasworo
Customer address : Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06,
Bintaro, Pesanggerahan, Jakarta Selatan
Project name/activity : Penelitian S2 - S3
Project address : TPST Bantargebang, Kel. Ciketing Udik,
Kec. Bantargebang, Bekasi
Sample matrix : VEHICLE EMISSIONS
Customer sample ID : EK.2 = Hino
EK.3 = Hino
EK.4 = Hino

Sample number : 0129.2-4/III/2024
Date of sampling : March 6th 2024
Date of received : March 6th 2024
Date of analysis : March 8th - 14th 2024
Sampling method : SNI 19-7118.2-2005
SNI 19-7118.1-2005

Test Results

Sample Code	Date of Inspection	Brand	Production year	Parameter	Result	Unit
EK.2	March 6 th 2024	Hino	2015	Opacity	17	% HSU
				Carbon Monoxide (CO)	0.30	%
				Hydrocarbon (HC)	45	ppm
EK.3	March 6 th 2024	Hino	2015	Opacity	21	% HSU
				Carbon Monoxide (CO)	0.36	%
				Hydrocarbon (HC)	39	ppm
EK.4	March 6 th 2024	Hino	2016	Opacity	18	% HSU
				Carbon Monoxide (CO)	0.35	%
				Hydrocarbon (HC)	33	ppm

Regulation Limit

Category	Production year	Parameter (*)	
		CO (%)	HC (ppm)
Compression ignition fuel motor driven (gasoline)			
Category M	< 2007	4	1000
	2007 - 2018	1	150
	> 2018	0.5	100
Category N & O	< 2007	4	1100
	2007 - 2018	1	200
	> 2018	0.5	150
Compression ignition fuel motor driven (diesel)		Parameter *) Opacity % HSU	
- JBB ≤ 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	30	
- GVW > 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	35	

Information *) = Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 8 Tahun 2023 (Attachment I.A)
Implementation of Motor Vehicle Emission Quality Standards.

Note HSU = Hartridge Smoke Unit
JBB = Jumlah Berat yang diperbolehkan

Jakarta, March 15th 2024

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ANALYTICAL REPORT

Number : 0129/LHP/III/2024

Customer name	: Rietri Widyasworo	Sample number	: 0129.5-7/III/2024
Customer address	: Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06, Bintaro, Pesanggerahan, Jakarta Selatan	Date of sampling	: March 6th 2024
Project name/activity	: Penelitian S2 - S3	Date of received	: March 6th 2024
Project address	: TPST Bantargebang, Kel. Ciketing Udik, Kec. Bantargebang, Bekasi	Date of analysis	: March 6th - 14th 2024
Sample matrix	: VEHICLE EMISSIONS	Sampling method	: SNI 19-7118.2-2005
Customer sample ID	: EK.5 = Isuzu EK.6 = Isuzu EK.7 = Hino		

Test Results

Sample Code	Date of Inspection	Brand	Production year	Parameter	Result	Unit
EK.5	March 6 th 2024	Isuzu	2016	Opacity	15	% HSU
				Carbon Monoxide (CO)	0.33	%
				Hidrocarbon (HC)	35	ppm
EK.6	March 6 th 2024	Isuzu	2017	Opacity	14	% HSU
				Carbon Monoxide (CO)	0.29	%
				Hidrocarbon (HC)	28	ppm
EK.7	March 6 th 2024	Hino	2017	Opacity	15	% HSU
				Carbon Monoxide (CO)	0.31	%
				Hidrocarbon (HC)	29	ppm

Regulation Limit

Category	Production year	Parameter *)	
		CO (%)	HC (ppm)
Compression ignition fuel motor driven (gassoline)			
Category M	< 2007	4	1000
	2007 - 2018	1	150
	> 2018	0.5	100
Category N & O	< 2007	4	1100
	2007 - 2018	1	200
	> 2018	0.5	150
Compression ignition fuel motor driven (diesel)			
		Parameter *) Opacity % HSU	
- JBB ≤ 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	30	
- GVW > 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	35	

Information : *) = Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 8 Tahun 2023 (Attachment I.A)
 Implementation of Motor Vehicle Emission Quality Standards.

Note : HSU = Hartridge Smoke Unit
 JBB = Jumlah Berat yang diperbolehkan

Jakarta, March 15th 2024

Drs. E. U. Harahap, M. Sc
 Director Laboratory



Page 1 of 5

KANTOR I : Perkantoran Bintaro B, Jl. Bintaro Prima Raya Kav. 8/II Bintaro Jakarta Selatan 12330
 KANTOR II : J. Kesehatan IV No. 45 A, Bintaro, Jakarta Selatan 12330

Telp. 021-7378020 (Hunting) Fax 021-7353319 website : www.pkbntarubuanalestari.com email : marketing@pkbntarubuanalestari.com

ANALYTICAL REPORT

Number : 0129/LHP/III/2024

Customer name : Ristri Widyasworo
 Customer address : Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06,
 Bintaro, Pesanggerahan, Jakarta Selatan
 Project name/activity : Penelitian S2 - S3
 Project address : TPST Bantargebang, Kel. Ciketing Udik,
 Kec. Bantargebang, Bekasi
 Sample matrix : VEHICLE EMISSIONS
 Customer sample ID : EK.8 = Isuzu
 EK.9 = Hino
 EK.10 = Hino

Sample number : 0129-B-10/III/2024
 Date of sampling : March 6th 2024
 Date of received : March 6th 2024
 Date of analysis : March 6th - 14th 2024
 Sampling method : SNI 19-7118.2-2005
 SNI 19-7118.1-2005

Test Results

Sample Code	Date of Inspection	Brand	Production year	Parameter	Result	Unit
EK.8	March 6 th 2024	Hino	2019	Opacity	11	% HSU
				Carbon Monoxide (CO)	0.22	%
				Hydrocarbon (HC)	19	ppm
EK.9	March 6 th 2024	Hino	2019	Opacity	10	% HSU
				Carbon Monoxide (CO)	0.20	%
				Hydrocarbon (HC)	17	ppm
EK.10	March 6 th 2024	Hino	2019	Opacity	11	% HSU
				Carbon Monoxide (CO)	0.24	%
				Hydrocarbon (HC)	21	ppm

Regulation Limit

Category	Production year	Parameter *)	
		CO (%)	HC (ppm)
Compression ignition fuel motor driven (gasoline)			
Category M	< 2007	4	1000
	2007 - 2018	1	150
	> 2018	0.5	100
Category N & O	< 2007	4	1100
	2007 - 2018	1	200
	> 2018	0.5	150
Compression ignition fuel motor driven (diesel)			
		Parameter *)	
		Opacity % HSU	
- JBB ≤ 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	30	
- GWV > 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	35	

Information : *) = Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 8 Tahun 2023 (Attachment I.A)
 Implementation of Motor Vehicle Emission Quality Standards.

Note : HSU = Hartridge Smoke Unit
 JBB = Jumlah Berat yang diperbolehkan

Jakarta, March 15th 2024

Dr. E. U. Harahap, M. Sc
 Director Laboratory



ANALYTICAL REPORT

Number : 0129/LHP/II/2024

Customer name : Ristri Widiasworo
 Customer address : Jl. Kesehatan IV No.45 A, RT. 01/ RW. 06,
 Bintaro, Pesanggerahan, Jakarta Selatan
 Project name/activity : Penelitian S2 - S3
 Project address : TPST Bantargebang, Kel. Ciketing Udik,
 Kec. Bantargebang, Bekasi
 Sample matrix : VEHICLE EMISSIONS
 Customer sample ID : EK.11 = Hino
 EK.12 = Hino
 EK.13 = Hino

Sample number : 0129.11-13/II/2024
 Date of sampling : March 6th 2024
 Date of received : March 6th 2024
 Date of analysis : March 6th - 14th 2024
 Sampling method : SNI 19-7118.2-2005
 SNI 19-7118.1-2005

Test Results

Sample Code	Date of Inspection	Brand	Production year	Parameter	Result	Unit
EK.11	March 6 th 2024	Hino	2020	Opacity	9	% HSU
				Carbon Monoxide (CO)	0,19	%
				Hydrocarbon (HC)	17	ppm
EK.12	March 6 th 2024	Hino	2023	Opacity	7	% HSU
				Carbon Monoxide (CO)	0.13	%
				Hydrocarbon (HC)	16	ppm
EK.13	March 6 th 2024	Hino	2023	Opacity	6	% HSU
				Carbon Monoxide (CO)	0,14	%
				Hydrocarbon (HC)	15	ppm

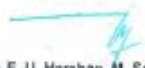
Regulation Limit

Category	Production year	Parameter *)	
		CO (%)	HC (ppm)
Compression ignition fuel motor driven (gassoline)			
Category M	< 2007	4	1000
	2007 - 2018	1	150
	> 2018	0.5	100
Category N & O	< 2007	4	1100
	2007 - 2018	1	200
	> 2018	0.5	150
Compression ignition fuel motor driven (diesel)			
- JBB ≤ 3.5 tons	< 2010	Opacity % HSU	
	2010 - 2021	65	
	> 2021	40	
- GVW > 3.5 tons	< 2010	65	
	2010 - 2021	40	
	> 2021	35	

Information : *) = Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor 8 Tahun 2023 (Attachment LA)
 Implementation of Motor Vehicle Emission Quality Standards.

Note : HSU = Hartridge Smoke Unit
 JBB = Jumlah Berat yang diperbolehkan

Jakarta, March 15th 2024


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 Director Laboratory



Lampiran 3. Dokumentasi Penelitian



Penyebaran Kuesioner



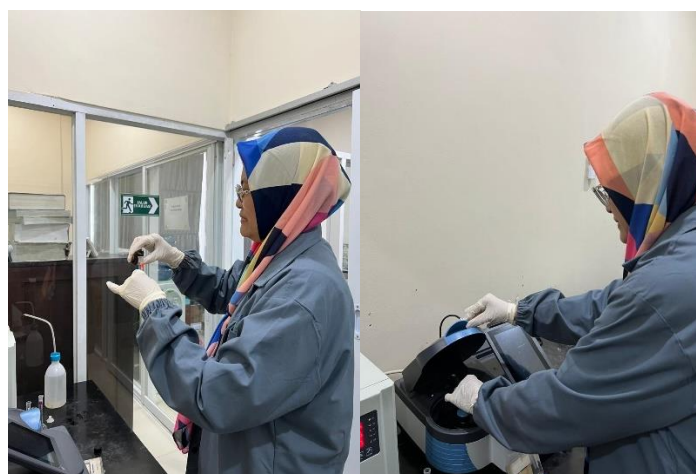
Survei Lalu Lintas



Pengukuran Emisi Truk



Pengukuran Kualitas Udara



Analisis Kualitas Udara

DAFTAR RIWAYAT HIDUP

A. Data Pribadi

1. Nama : Ristri Widyasworo
2. Tempat, Tanggal Lahir : Jakarta, 18 Februari 1970
3. Alamat : Jakarta Selatan, DKI Jakarta
4. Kewarganegaraan : Warga Negara Indonesia (WNI)

B. Riwayat Pendidikan

1. SMA : SMA Negeri 21 Jakarta
2. Sarjana (S1) : Teknik Sipil, Fakultas Teknik, Universitas Pancasila

C. Pekerjaan dan Riwayat Pekerjaan

1. Jenis Pekerjaan : Swasta
2. NIP : -
3. Pangkat/Jabatan :

D. Karya Ilmiah yang telah dipublikasikan

The Public Perception of The Waste Collection System: A Review

E. Makalah pada Seminar/Konferensi Ilmiah Nasional dan Internasional

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