

## **Appendix K – EPC Performance Guarantee**

# 1 EPC Performance Guarantees

## 1.1 Conditions for the validity of the performance guarantees

- The Facility is to be operated, supervised and maintained in compliance with the directives and operation manuals of the EPC Contractor by appropriately qualified personnel.
- Upon the Operational Commencement Data the O&M Contractor has the obligation to inspect and maintain the Facility in accordance with the EPC Contractor's written O&M manuals.
- In case of technical malfunctions or abnormal operational behaviour of the Facility the EPC Contractor must be notified as fast as possible.
- The EPC Contractor must be given unlimited access at any time to all parts of the Facility and to all documented operating data.
- The EPC Contractor reserves the right to access the distributed control system (DCS) daily via the OPC-interface for purposes of data acquisition.
- All relevant operating data must be recorded by the O&M Contractor electronically and/or as hard copy. Data includes, but is not limited to operating data from the DCS, alarm records, records of equipment failure, records of delivery of operating chemicals as well as wear and spare parts, completed maintenance and cleaning activities etc.
- All repairs and maintenance activities are to be conducted by mutually agreed qualified companies only.
- Wear and spare parts are to be kept in stock according to mutually agreed specifications.
- The O&M Contractor must maintain adequate inventories of all necessary operating chemicals in the specified quality.

### 1.1.1 Waste requirements

Here a list of the main requirements on the waste to be fed to the boilers:

**a) Examples of unacceptable waste (not exhaustive):**

- Liquids and slurries
- Hazardous wastes
- Salts, chemical residues
- Slaughter house waste, cadavers
- Explosives
- Unshredded bulky goods
- Bone meal
- Radioactive wastes

Large fractions of the following materials are not acceptable (not exhaustive):

- Inert materials like ash, bottom ash, demolition waste, scrap metal, glass, fibre glass, mineral fibres etc.
- Fine dusty materials (e.g. saw dust)
- Auto shredder fluff
- Electrical and electronic waste

**b) Mixing of the waste**

Prior to feeding, the waste must be thoroughly mixed.

As guideline, "thoroughly mixed" can be defined as follows:

- The operating time of the crane dedicated to mixing is approximately as long as the time used for feeding.
- Prior to feeding, the waste is turned over at least once.

### c) Piece size

Waste components must be sized to prevent plugging in the feed hopper and chute and in the bottom ash discharge system.

Guidelines for solid, not easily breakable pieces are:

- Combustible, solid pieces \*: < 1.8 m
- Non-combustible items \*: < 0.9 m

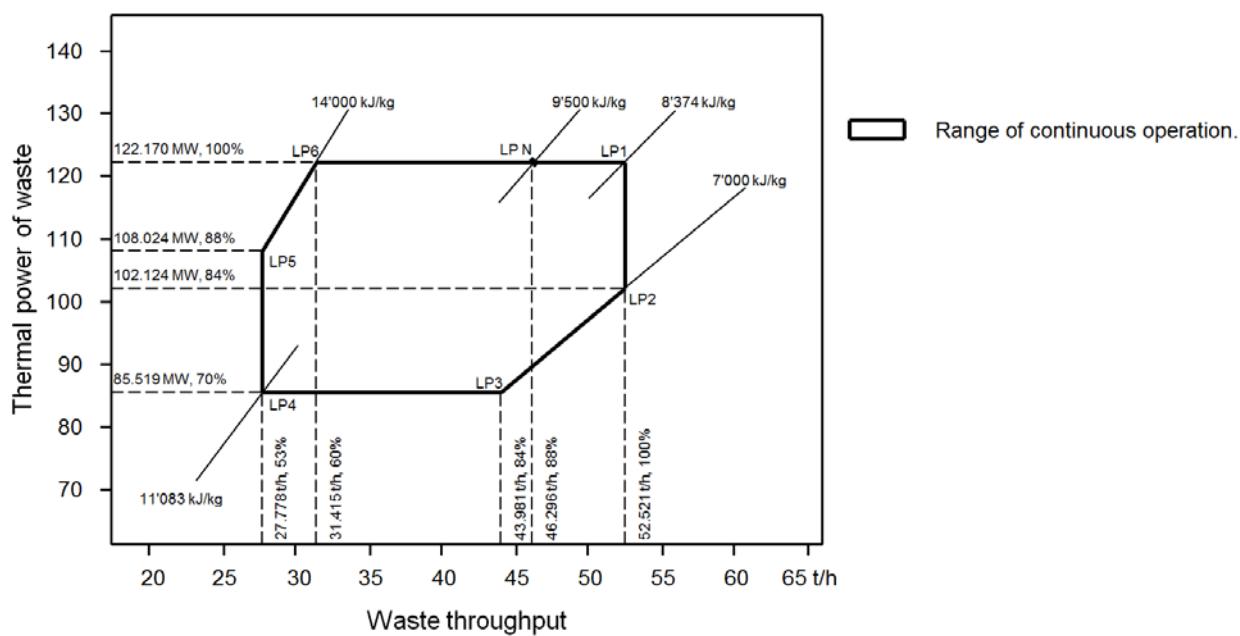
\*: sum of length, width, and height of enveloping cuboid.

### 1.1.2 Combustion Diagram

The combustion diagram defines the nominal range of continuous operation of an incineration line (i.e. LP 1-2-3-4-5-6-1).

In addition of the indicated nominal range of continuous operation:

- Continuous operation with superheated steam generation of 155.3 t/h per incineration line is guaranteed for NCV's between 8'374 kJ/kg and 14'000 kJ/kg, independent of the ambient conditions and for all acceptable waste compositions. Thus the guaranteed maximum continuous waste throughput corresponds to the values shown in the combustion diagram or corresponds to the waste throughput that is required for the steam generation of 155.3 t/h per incineration line, whichever is higher.
- The boilers are designed (no guarantee) for continuous operation at an overload of max. 107 % of thermal power (depending on the NCV).



### 1.2 Definition of load point LPN

The load point nominal LPN is the load point at 100% thermal power of waste with reference waste (design values, NCV 9.5 MJ/kg).

### 1.3 Reference Waste Composition

The Guaranteed Performance Levels stated below shall be achieved based on the Table 1 Reference Waste Composition and the Waste requirements according to paragraph 1.1.1.

**Table 1: Reference Waste Composition**

	Unit	Design	Range
Ash	% (by weight)	16	15 - 22
Moisture	% (by weight)	39	22 - 50
Combustible	% (by weight)	45	35 - 63
NCV	MJ/kg	9.5	7.0 - 14.0

### 1.4 Reference Flue gas flow and Pollutants concentration

The following flue gas flow and emission concentrations at the boiler outlet are the basis for the Guaranteed Performance Levels in regards to consumable consumptions and residue production.

Standard Temperature and Pressure (STP) as defined by ISO 10780:1994 (0°C, 1.013 bar).

Flue gas flow: 275'256 m<sup>3</sup>/h, STP, dry, 11%O<sub>2</sub>

HCl: 1200 mg/m<sup>3</sup>, STP, dry, 11%O<sub>2</sub>

SO<sub>2</sub>: 350 mg/m<sup>3</sup>, STP, dry, 11%O<sub>2</sub>

### 1.5 Reference Consumables qualities

The following qualities of consumables are the basis for the Guaranteed Performance Levels:

Typical quality of quicklime CaO:

- Content in CaO: min. 92%
- Reactivity (2 minutes): min. 56°C (Test according EN 459-2)
- Grain size:
  - 100% smaller than 1.2 mm
  - min. 90% smaller than 75 µm

Typical quality of powered activated carbon (PAC):

- Apparent density: approx. 500 kg/m<sup>3</sup>
- Specific surface area: ≥ 700 m<sup>2</sup>/g
- Grain size: < 400 µm
- D50: ≤ 63 µm

## 1.6 Performance Guarantees

### 1.6.1 Performance Guarantees. Case 1 Plant Rejection

Table 2: Performance Guarantees, Case 1 Plant Rejection

Guaranteed parameters for which failure to meet Rejection Level triggers rejection of the Plant				
No	Performance Indicator	Unit	Guaranteed Performance Level	Rejection Level
1	WtE Plant furnaces temperature maintained for at least two seconds after the last injection of combustion air and in the presence of sufficient oxygen to meet IED 2010/75 EU for all points within the Combustion Diagram.	°C	≥850	<850
2	Maximum unburnt matter in either bottom ash or boiler ash, referred to dry weight of the material as specified in the IED 2010/75/EU, either			
2a	as Total Organic Carbon (excluding elemental carbon), OR	% w/w	3.0	≥3.0
2b	as Loss on Ignition	% w/w	5.0	≥5.0
3	Maximum emission concentrations of pollutants at the WtE Plant stack(s) as specified in the IED 2010/75/EU, under the full range of firing conditions shown on the Combustion Diagram (1.1.2) and under the full range of input conditions.		≤ any limit specified in IED	>any limit specified in IED

## 1.6.2 Performance Guarantees. Case 2 Plant Liquidated damages

Table 3: Performance Guarantees, Case 2 Plant Liquidated damages

No	Performance Indicator	Unit	Guaranteed Performance Level
1	Waste throughput capacity when average NCV is 9.5 MJ/kg	Mg/h	≥231
2a	Minimum net electrical power export capacity at the 132kV terminals of Site GIS substation transformer, with 5 incineration lines of the WtE Plant operating at LPN at 24°C ambient air temperature	MW <sub>e</sub>	
2b	Minimum net electrical power export capacity at the 132kV terminals of Site GIS substation transformer, with 5 incineration lines of the WtE Plant operating at LPN at 31°C ambient air temperature	MW <sub>e</sub>	
2c	Minimum net electrical power export capacity at the 132kV terminals of Site GIS substation transformer, with 4 incineration lines of the WtE Plant operating at LPN at 24°C ambient air temperature	MW <sub>e</sub>	
2d	Minimum net electrical power export capacity at the 132kV terminals of Site GIS substation transformer, with 4 incineration lines of the WtE Plant operating at LPN at 31°C ambient air temperature	MW <sub>e</sub>	
2e	Minimum net electrical power export capacity at the 132kV terminals of Site GIS substation transformer, with 2 incineration lines of the WtE Plant operating at LPN at 24°C ambient air temperature	MW <sub>e</sub>	
2f	Minimum net electrical power export capacity at the 132kV terminals of Site GIS substation transformer, with 2 incineration lines of the WtE Plant operating at LPN at 31°C ambient air temperature	MW <sub>e</sub>	
3	Maximum consumption of SNCR reagent with WtE Plant processing Reference waste (1.3) at LPN (32.5% Urea water solution), per line.	kg/h	40
4	Maximum Treated Sewage Effluent water consumption for process of WtE plant operating at 31°C ambient air temperature with 5 incineration lines in operation at LPN (excluding irrigation, hosing down, cleanings and other consumers i.e. the bottom ash maturation and water for adsorption chillers), averaged over 72 hours	m <sup>3</sup> /h	22.5
5	Maximum consumption of quick lime CaO (95 % purity) at LPN, per line	kg/h	683
6	Maximum consumption of powdered activated carbon at LPN, per line	kg/h	12.6
7	Maximum dry FGT residue production with 95 % purity of lime at LPN, per line	kg/h	2640
8	Auxiliary fuel consumption (fuel oil with LHV of 42700 kJ/kg) for one cold start-up of one incineration line	kg	35000
9	Auxiliary fuel consumption (fuel oil with LHV of 42700 kJ/kg) for one normal shutdown of one incineration line	kg	17000

### 1.6.3 Performance Guarantees. Case 3 Contractor remedy

**Table 4: Performance Guarantees, Case 3 Contractor remedy**

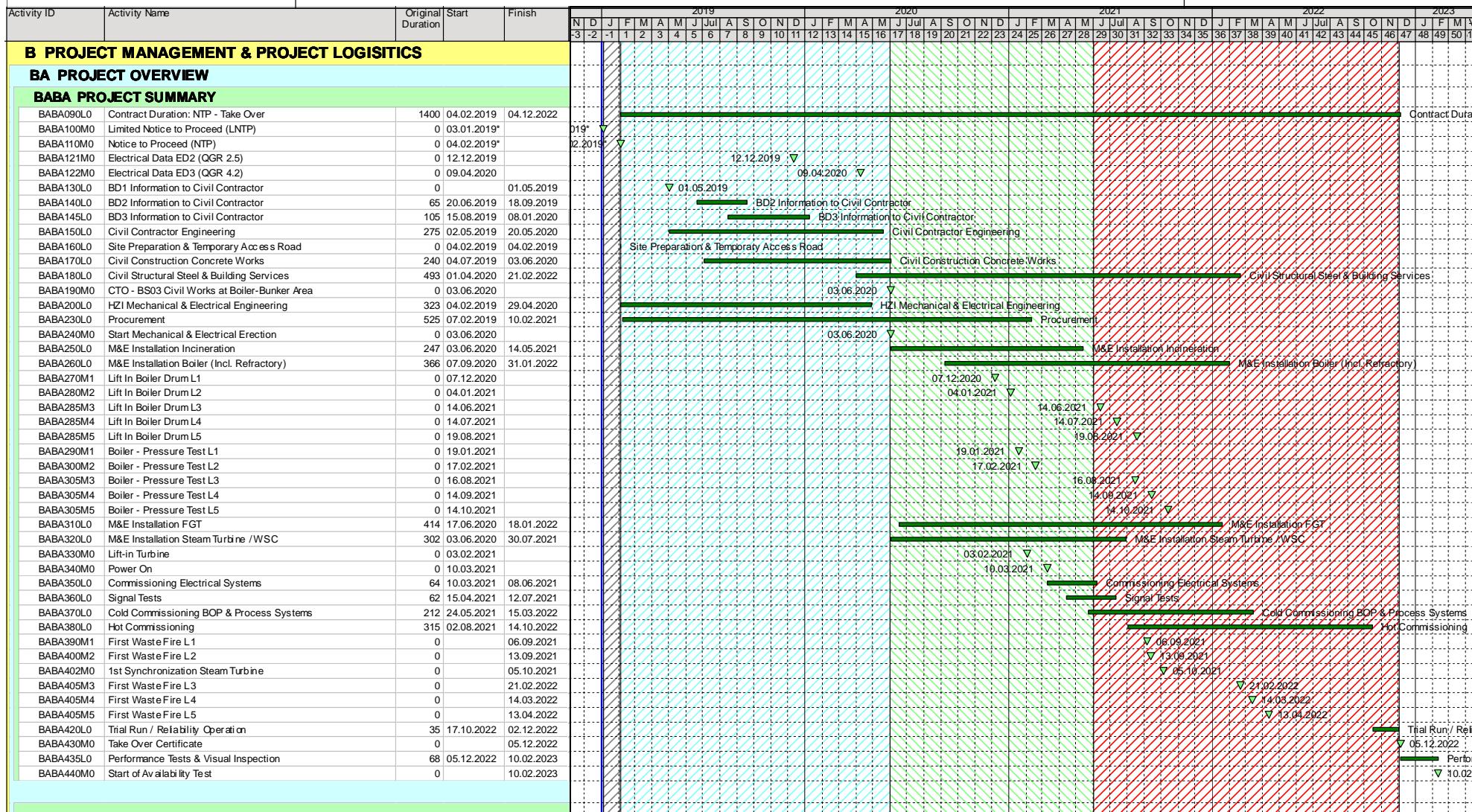
Performance Indicators for which failure to meet action limit triggers Contractor remedy

No	Performance Indicator	Unit	Expected performance	Action limit
<b>Maximum Noise Emissions – Performance Test requirements</b>				
1a	Maximum A-weighted surface sound pressure level measured at a distance of 1m from any equipment or its acoustical enclosure and 1.5m above ground level or personnel platforms in the WtE Plant at normal operation conditions, measured according to ISO 3746-2010 (excluding areas and operation modes identified here below).  Operation of intermittent equipment such as pressure relief valves, safety valves or boiler cleaning, areas with acoustical enclosures, area of the feedwater pumps, construction, erection and commissioning activities, start-up and shutdown, unit trips, turbine bypass operation and equipment failures are excluded.	dB(A)	85	>85
<b>Heating, ventilation and air conditioning</b>				
2a	Maximum temperature in main process and turbine hall with external ambient air temperature of 50°C with WtE Plant operating at LPN and all louvres in the fully open position.	°C	55	>55
2b	Maximum temperature in workshops.	°C	25	>28

## **Appendix L** – Gantt Chart

# Tender Time Schedule (TTS) **PRELIMINARY**

**Project: YE-3256 Dubai BOT**  
 5- Lines / 5 x 46.3 t/h / 610 MWth  
 Hitachi Zosen Inova AG  
 Switzerland



# **Appendix M – Laboratory Reports and Calibration Certificates**

Ambient Air Quality Laboratory Report

Dioxin and Furan Laboratory Report

Ground Gas Laboratory Report

Odour Monitoring Report

Ambient Noise Monitoring Report

Soil Laboratory Report

Groundwater Laboratory Report

Calibration Certificates

<b>Client Detail</b>	Name	GHD Global PTY. LTD	<b>Lab ID Detail</b>	Date	15/09/2018
	Address	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Abu Dhabi, United Arab Emirates		Report Number	RPSA 00889-01-01
	Nature of Business	Consultancy		Sample Number	SPSA 00889-01-01
	Reference	AAQM - 01 - Ambient Air Quality Monitoring		Client Project Reference No.	<b>7610735</b>

<b>Project Detail</b>	Name	Hitachi Zosen Inova Ltd. Dubai Resources Recovery Facility ESIA	ID	Not Given
	Address	Warsan 2, Dubai, United Arab Emirates		
	Consultant	No Specific Consultant		
	Contractor	No Specific Contractor		

<b>Monitoring Detail</b>	Location (GPS)	AAQM 01, 25°09'44.7"N 55°26'41.7"E	On-Site Observation		
	Point	AAQM 01, Open Area	<b>Area Activity</b>	Open Area	
	Start Date	16/08/2018	<b>Time</b>	09:00 Hrs	<b>Area Condition</b>
	End Date	30/08/2018	<b>Time</b>	00:00 Hrs	<b>Exposure Time</b>

**Meteorological Average Results**

Parameter	RESULT	Unit	Lab Detection Limit	Test Method
Ambient Temperature	<b>36.8</b>	°C	0.1	Internal Procedure IP-04 & IP-10
Relative Humidity	<b>48.7</b>	%	0.1	
Wind Speed	<b>4.5</b>	kph	0.1	
Wind Direction	<b>198</b>	°	1	

**Monitoring Average Results**

Parameter	RESULT	Unit	Lab Detection Limit	# UAE Federal Law Limits	Test Method
Carbon Monoxide (as CO)	<b>1.54</b>	mg/m³	0.02	10 (8 Hrs)	Internal Procedure IP-04 & IP-10
Nitrogen Dioxide (as NO₂)	<b>98</b>	µg/m³	38	150 (24 Hrs)	
Sulphur Dioxide (as SO₂)	<b>63</b>	µg/m³	52	150 (24 Hrs)	
Ozone (as O₃)	<b>79</b>	µg/m³	20	120 (8 Hrs)	
Volatile Organic Compoud (VOC)	<b>0.23</b>	mg/m³	0.02	-	
Particulate Matter 10 (PM10)	<b>64</b>	µg/m³	10	150 (24 Hrs)	Internal Procedure IP-04 & IP-05
Total Suspended Particulates TSP	<b>110</b>	µg/m³	10	230 (24 Hrs)	

<b>Notes</b>	Test Variation	None	Monitored By	SI/BN/SL
	Remarks	1) This test is Accreditated by Dubai Municipality (DAC).	Equipment Ref. No.	C-AQ-04
	Reference	1) # Annex (8), Ambient Air Quality Standards (Air Pollutants Limits in the Ambient Air) , UAE Cabinet Decree (12) of 2006.		

Results relates only to the items tested.

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RPSA 00889-01-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 1 of 11

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
DAY 1											
16th Aug 18 10:00	< 0.02	74	< 52	27	0.37	37	74	38.9	45.2	0.8	156
11:00	< 0.02	< 38	67	60	0.86	16	70	40.8	41.8	1.6	112
12:00	2.40	< 38	141	75	0.34	43	85	42.5	40.3	2.6	235
13:00	3.04	< 38	84	100	0.74	51	85	43.8	44.1	3.9	275
14:00	0.05	100	117	109	0.27	126	134	42.9	48.2	10.1	296
15:00	< 0.02	134	< 52	130	0.67	107	143	41.6	49.3	10.0	287
16:00	< 0.02	133	120	139	0.66	114	117	41.2	50.2	9.0	291
17:00	0.03	86	147	123	0.66	125	141	40.8	48.2	8.5	301
18:00	1.57	118	< 52	91	0.76	140	156	39.5	52.1	6.0	326
19:00	4.78	106	< 52	80	0.55	130	169	37.1	54.3	3.1	309
20:00	2.78	145	155	68	0.30	113	154	35.9	60.5	0.7	320
21:00	2.16	129	65	42	0.22	121	149	35.1	62.5	0.6	306
22:00	1.74	97	72	< 20	0.16	110	136	34.6	63.4	< 0.1	304
23:00	1.84	84	< 52	< 20	0.14	112	154	33.5	67.2	< 0.1	305
17th Aug 18 00:00	1.75	63	< 52	< 20	0.12	111	171	33.8	65.8	< 0.1	352
01:00	1.62	55	< 52	< 20	0.11	105	143	32.6	63.1	< 0.1	259
02:00	1.75	42	< 52	< 20	0.10	94	139	32.3	70.4	0.1	319
03:00	1.50	< 38	< 52	29	0.10	113	131	31.8	68.4	< 0.1	331
04:00	1.51	74	< 52	< 20	0.07	91	150	31.1	67.4	< 0.1	131
05:00	1.47	81	< 52	< 20	0.09	87	165	30.2	77.2	3.2	64
06:00	1.37	115	< 52	< 20	0.06	88	161	30.0	74.8	0.8	74
07:00	1.41	85	< 52	< 20	0.09	113	176	31.2	78.5	3.6	78
08:00	0.60	112	< 52	34	0.15	115	138	33.8	66.4	6.2	85
09:00	0.10	54	130	50	0.21	95	151	36.4	56.7	9.8	114
10:00	< 0.02	< 38	< 52	81	0.28	74	170	38.9	44.5	12.7	131
11:00	0.22	< 38	84	92	0.37	40	122	40.6	41.8	11.0	145
12:00	0.11	< 38	107	97	0.80	35	123	42.8	33.0	8.3	225
13:00	< 0.02	45	183	84	0.48	114	137	44.8	27.6	11.0	272
14:00	< 0.02	69	86	117	0.62	106	122	46.8	25.2	8.1	275
15:00	< 0.02	98	126	129	0.52	114	132	47.8	33.4	8.4	259
16:00	< 0.02	103	164	132	0.48	143	147	46.8	36.4	8.6	265
17:00	< 0.02	114	88	120	0.53	147	161	44.7	38.3	7.3	259
18:00	< 0.02	126	81	126	0.35	145	175	42.1	45.5	8.0	252
19:00	1.51	82	81	108	0.37	134	168	37.2	57.4	5.2	268
20:00	2.97	81	82	91	0.22	115	151	36.2	59.4	1.3	313
21:00	1.64	102	< 52	89	0.13	113	138	34.8	64.2	< 0.1	270
22:00	1.80	133	91	61	0.08	91	151	33.8	65.2	< 0.1	285
23:00	2.94	99	86	69	0.19	94	154	33.2	56.8	< 0.1	239
18th Aug 18 00:00	1.02	70	< 52	< 20	0.16	105	180	32.8	60.2	2.3	216
01:00	1.48	85	< 52	47	0.20	22	63	32.4	63.4	0.4	272

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<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
02:00	3.00	100	< 52	25	0.22	< 10	59	32.5	70.6	0.1	140
03:00	3.05	141	< 52	< 20	0.23	12	75	31.8	75.9	0.1	75
04:00	2.80	67	< 52	33	0.19	< 10	54	31.5	80.2	< 0.1	13
05:00	2.66	100	< 52	< 20	0.18	< 10	60	31.1	84.1	< 0.1	1
06:00	1.62	88	< 52	< 20	0.19	11	93	30.6	79.4	4.3	82
07:00	0.89	122	< 52	22	0.19	51	93	31.2	77.6	4.2	102
08:00	< 0.02	104	< 52	39	0.16	11	78	33.9	64.3	8.6	113
09:00	< 0.02	82	131	62	0.23	28	100	37.8	46.7	15.9	128
10:00	< 0.02	80	57	86	0.34	37	68	39.8	41.2	18.3	143
11:00	0.05	101	105	96	0.45	36	93	41.2	40.2	12.4	170
12:00	0.10	121	71	84	0.54	101	159	43.5	38.1	10.3	188
13:00	0.83	38	125	94	0.76	71	165	44.4	35.2	8.2	206
14:00	< 0.02	62	< 52	103	0.72	181	227	43.7	42.0	8.6	274
15:00	< 0.02	91	< 52	129	0.53	173	198	41.6	46.1	8.5	261
16:00	0.04	142	188	135	0.47	155	163	41.2	48.1	8.5	284
17:00	0.61	134	80	141	0.55	150	156	40.6	44.6	7.8	292
18:00	0.93	84	97	137	0.49	143	162	38.6	49.1	6.3	278
19:00	3.46	92	81	117	0.43	131	179	37.1	55.2	2.9	323
20:00	3.99	88	69	96	0.32	96	161	36.2	60.4	0.8	330
21:00	2.80	125	92	85	0.18	24	143	35.3	62.5	0.1	252
22:00	1.95	120	135	72	0.12	74	112	34.7	66.7	< 0.1	342
23:00	2.04	137	150	32	0.10	99	137	33.6	64.7	< 0.1	360
19th Aug 18 00:00	1.94	129	< 52	29	0.09	153	220	33.1	66.7	0.1	222
01:00	2.04	129	< 52	31	0.09	117	164	32.5	69.4	0.1	72
02:00	2.95	97	< 52	33	0.14	90	143	32.2	67.4	< 0.1	274
03:00	3.30	156	< 52	30	0.15	10	133	31.8	72.1	< 0.1	32
04:00	2.55	130	< 52	31	0.15	61	132	31.1	72.9	< 0.1	42
05:00	2.56	107	< 52	34	0.15	43	155	30.5	73.4	0.2	69
06:00	2.70	166	< 52	22	0.16	52	147	29.8	75.2	0.3	76
07:00	0.88	93	92	35	0.16	78	151	31.0	69.4	3.5	63
08:00	< 0.02	153	168	65	0.04	32	91	33.9	66.4	10.6	83
09:00	< 0.02	109	72	75	0.04	65	167	36.4	53.1	15.9	109
10:00	0.37	88	99	83	0.26	83	123	39.4	48.1	12.1	120
11:00	2.65	37	110	90	0.49	66	86	40.4	43.2	8.9	126
12:00	2.39	26	48	103	0.53	33	98	41.4	38.9	4.6	143
13:00	0.48	115	69	123	0.50	100	123	43.4	36.4	9.1	244
14:00	< 0.02	158	71	141	0.35	77	116	44.5	33.2	9.6	262
15:00	< 0.02	87	< 52	153	0.30	99	121	43.4	44.6	10.2	275
16:00	0.02	134	< 52	149	0.39	106	114	41.8	48.4	8.9	290
17:00	0.23	100	< 52	133	0.37	114	124	41.1	46.7	8.5	290
18:00	0.47	147	< 52	114	0.33	121	131	40.8	42.9	7.5	273

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	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
19:00	2.73	112	< 52	94	0.31	110	142	39.3	46.7	3.8	286
20:00	2.68	96	< 52	88	0.17	105	136	31.6	32.5	0.4	233
21:00	2.04	71	90	85	0.11	98	130	34.4	41.3	< 0.1	278
22:00	1.89	143	89	77	0.09	92	118	34.9	46.2	< 0.1	340
23:00	2.04	130	61	70	0.08	87	123	34.3	48.5	< 0.1	340
20th Aug 18 00:00	2.06	123	< 52	59	0.07	95	146	33.9	49.6	< 0.1	340
01:00	2.54	115	< 52	44	0.10	89	133	33.7	50.1	< 0.1	218
02:00	1.86	130	< 52	43	0.07	83	132	32.6	56.1	< 0.1	216
03:00	1.93	111	< 52	45	0.06	31	147	31.6	55.8	< 0.1	217
04:00	1.88	68	< 52	53	0.06	71	133	30.9	59.8	< 0.1	241
05:00	1.74	78	< 52	56	0.04	35	126	30.3	64.5	< 0.1	288
06:00	1.47	56	< 52	54	0.02	64	133	29.9	69.6	< 0.1	251
07:00	2.05	86	< 52	53	0.07	59	139	30.5	71.3	0.6	17
08:00	0.66	109	53	92	0.13	83	113	33.8	64.0	3.5	71
09:00	0.31	70	154	97	0.12	46	86	39.2	50.1	1.2	144
10:00	2.24	80	64	117	0.26	31	78	40.0	44.7	4.1	89
11:00	1.93	65	99	125	0.38	36	78	41.4	40.8	4.4	130
12:00	3.16	36	171	134	0.51	40	79	42.9	38.3	4.2	196
13:00	6.05	10	< 52	152	0.77	42	85	44.2	34.3	4.0	197
14:00	0.77	22	< 52	161	0.54	88	117	42.8	43.0	8.5	279
15:00	< 0.02	78	90	165	0.36	70	113	41.7	45.8	9.8	282
16:00	0.05	95	97	114	0.37	70	116	41.4	44.6	9.1	282
17:00	0.84	101	81	100	0.48	105	114	41.1	43.8	7.4	282
18:00	0.86	81	95	93	0.44	112	126	39.1	47.2	6.4	267
19:00	2.16	68	< 52	81	0.41	115	139	36.8	51.3	5.0	269
20:00	3.27	104	58	75	0.28	85	112	35.5	58.1	2.2	267
21:00	2.79	126	100	66	0.17	86	111	34.9	60.5	0.8	248
22:00	2.05	151	104	63	0.08	82	112	34.5	61.6	< 0.1	259
23:00	1.89	139	< 52	65	0.03	81	120	33.8	63.1	< 0.1	272
21st Aug 18 00:00	1.94	135	< 52	58	0.04	98	131	33.4	63.1	< 0.1	275
01:00	1.91	135	< 52	49	0.03	90	124	32.8	64.8	< 0.1	275
02:00	1.94	135	< 52	45	0.04	87	130	32.5	65.0	< 0.1	247
03:00	1.70	151	< 52	72	0.03	54	112	32.2	70.1	0.2	275
04:00	1.67	131	< 52	53	0.02	83	124	31.0	70.8	< 0.1	65
05:00	1.58	135	< 52	46	< 0.02	93	135	30.6	72.0	< 0.1	46
06:00	1.54	138	< 52	44	< 0.02	93	136	30.1	73.2	< 0.1	82
07:00	1.49	78	< 52	86	0.02	76	116	31.4	73.6	0.8	55
08:00	0.54	42	71	91	0.08	46	68	34.4	64.8	3.6	55
09:00	< 0.02	73	141	105	0.11	26	54	36.7	54.2	11.0	67
10:00	< 0.02	99	97	111	0.22	26	52	39.1	47.2	9.8	75
11:00	1.09	89	64	123	0.42	42	56	40.4	43.9	9.1	96

RPSA 00889-01-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 4 of 11

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
12:00	1.80	76	95	116	0.38	27	48	43.4	34.1	4.4	122
13:00	4.65	< 38	92	127	0.73	11	28	45.2	28.1	4.1	73
14:00	4.08	46	128	136	0.69	28	45	46.9	26.8	2.6	188
15:00	0.47	107	118	142	0.32	144	180	48.1	34.4	12.9	277
16:00	< 0.02	143	125	153	0.37	79	108	47.2	34.0	9.0	299
17:00	0.43	77	118	124	0.41	69	104	45.0	37.5	8.0	293
18:00	2.26	73	88	102	0.48	75	108	42.0	43.1	6.1	299
19:00	0.96	84	146	99	0.31	79	140	36.9	56.2	4.3	320
20:00	2.15	106	79	87	0.31	21	116	35.5	58.3	1.1	320
21:00	2.00	65	85	73	0.26	21	100	35.0	54.1	0.6	351
22:00	3.71	39	112	61	0.24	26	91	34.2	54.1	< 0.1	309
23:00	3.10	107	89	60	0.21	39	97	33.5	56.4	< 0.1	343
22nd Aug 18 00:00	2.97	49	74	55	0.20	42	92	33.3	57.2	< 0.1	321
01:00	2.96	< 38	53	71	0.20	31	95	32.8	61.1	< 0.1	297
02:00	2.13	71	< 52	68	0.20	51	106	32.7	73.6	0.7	247
03:00	2.84	90	< 52	55	0.10	25	111	32.1	76.7	0.2	238
04:00	2.70	145	71	57	0.15	45	114	31.6	79.6	0.1	53
05:00	1.71	136	129	93	0.17	41	123	31.3	83.6	1.7	57
06:00	1.84	72	108	99	0.15	51	119	30.8	85.4	2.0	53
07:00	2.16	132	52	88	0.17	63	101	31.0	82.2	0.4	62
08:00	< 0.02	85	66	104	0.08	48	93	34.0	62.3	5.7	73
09:00	< 0.02	76	95	109	0.08	51	90	37.5	43.6	8.6	85
10:00	0.33	126	< 52	105	0.24	61	105	40.5	32.3	10.9	115
11:00	2.14	< 38	90	121	0.43	72	98	43.3	27.3	7.7	129
12:00	1.87	45	88	132	0.39	38	70	45.5	23.7	4.7	114
13:00	3.46	52	68	125	0.56	49	44	47.8	21.2	2.3	174
14:00	4.73	< 38	< 52	103	0.78	25	42	48.4	21.5	2.7	157
15:00	0.25	68	< 52	94	0.46	133	157	43.7	33.2	10.3	276
16:00	0.16	119	83	103	0.43	103	148	42.4	41.1	9.1	308
17:00	0.80	163	81	120	0.47	124	131	42.2	40.0	7.4	311
18:00	2.62	108	84	97	0.46	63	137	41.0	42.5	4.3	314
19:00	3.91	129	55	95	0.37	76	138	38.6	46.7	1.9	325
20:00	3.05	79	67	92	0.21	119	139	37.2	48.5	0.1	336
21:00	3.18	69	< 52	90	0.23	59	102	36.4	51.3	< 0.1	345
22:00	3.54	82	64	57	0.18	29	111	35.4	53.8	< 0.1	350
23:00	3.43	93	60	56	0.23	43	113	35.1	55.8	0.1	306
23rd Aug 18 00:00	3.29	121	71	28	0.24	69	130	34.4	58.8	0.4	285
01:00	3.41	111	< 52	76	0.23	77	112	33.6	57.6	0.3	305
02:00	3.44	128	< 52	44	0.20	83	112	32.4	61.5	< 0.1	49
03:00	3.05	147	< 52	20	0.17	101	126	31.6	64.7	0.2	295
04:00	2.76	138	< 52	35	0.17	61	122	31.2	70.1	0.1	153

RPSA 00889-01-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 5 of 11

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
05:00	2.53	140	< 52	28	0.17	42	123	30.9	70.4	1.7	178
06:00	0.31	110	< 52	51	0.13	78	96	30.9	68.1	5.3	81
07:00	< 0.02	145	< 52	52	0.07	25	127	32.2	54.5	9.6	104
08:00	< 0.02	120	< 52	57	0.09	66	134	34.4	45.3	7.9	99
09:00	< 0.02	107	< 52	54	0.19	42	94	38.6	36.1	9.0	114
10:00	1.28	54	60	79	0.35	65	106	42.2	27.1	10.9	147
11:00	2.27	27	71	92	0.44	81	108	43.9	25.9	9.7	172
12:00	0.37	47	60	105	0.49	18	96	44.9	24.7	8.5	202
13:00	0.09	62	62	109	0.48	56	179	45.2	25.9	7.2	248
14:00	0.03	120	56	127	0.55	10	130	45.9	24.8	6.0	240
15:00	0.03	128	91	134	0.46	41	129	45.0	29.0	7.5	267
16:00	0.08	169	131	143	0.23	85	166	43.6	34.8	9.0	266
17:00	0.01	158	136	148	0.21	48	153	43.3	33.0	8.4	261
18:00	0.63	110	99	122	0.32	63	142	41.3	38.1	5.2	301
19:00	1.91	119	151	111	0.39	39	149	38.7	44.2	1.8	297
20:00	1.88	152	125	99	0.26	23	139	37.3	46.8	1.0	278
21:00	2.27	151	116	73	0.15	39	131	36.5	48.4	< 0.1	257
22:00	2.26	183	130	37	0.11	41	124	35.7	51.1	< 0.1	257
23:00	2.23	143	62	32	0.09	48	124	34.9	54.9	< 0.1	240
24th Aug 18 00:00	1.94	77	73	43	0.16	54	127	34.5	60.4	2.3	252
01:00	3.21	114	62	47	0.14	79	124	33.4	71.9	2.5	275
02:00	2.39	96	91	45	0.09	42	118	32.6	73.1	1.7	334
03:00	2.03	66	< 52	50	0.06	13	126	31.9	76.1	0.9	335
04:00	1.61	130	< 52	68	0.02	31	134	31.1	76.2	< 0.1	248
05:00	1.81	86	< 52	76	0.04	51	147	30.5	80.9	2.5	60
06:00	2.03	120	< 52	82	0.09	45	122	30.3	80.2	6.5	76
07:00	< 0.02	121	< 52	96	0.02	30	77	31.7	69.8	13.9	79
08:00	< 0.02	120	81	98	0.08	28	70	34.9	55.0	10.5	96
09:00	0.82	143	67	110	0.22	13	61	38.6	41.6	7.8	103
10:00	1.35	79	65	111	0.23	15	62	41.8	29.6	8.8	135
11:00	1.41	99	74	121	0.29	25	49	43.9	25.1	9.0	146
12:00	2.64	64	140	129	0.40	22	46	46.1	22.3	5.5	152
13:00	3.00	< 38	147	141	0.70	15	51	46.7	22.4	5.9	168
14:00	0.10	83	107	138	0.49	84	101	44.5	32.2	9.3	292
15:00	0.18	143	126	145	0.45	77	87	44.2	32.2	9.0	285
16:00	0.28	122	< 52	150	0.49	67	81	44.0	35.1	8.0	295
17:00	0.75	103	64	149	0.54	85	102	43.4	36.0	7.6	322
18:00	1.71	108	87	132	0.51	72	118	41.2	40.3	6.3	314
19:00	0.84	164	62	108	0.36	58	108	38.5	43.4	4.8	322
20:00	1.43	110	84	93	0.33	17	96	36.7	48.6	1.1	328
21:00	2.65	82	59	87	0.20	74	107	35.6	50.7	0.4	313

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
22:00	2.08	73	76	73	0.10	53	89	34.5	54.0	< 0.1	334
23:00	1.91	154	< 52	67	0.07	40	83	33.5	56.8	< 0.1	331
25th Aug 18 00:00	1.89	143	< 52	45	0.04	33	85	32.4	61.4	< 0.1	338
01:00	1.75	138	< 52	29	0.03	36	95	31.4	64.6	< 0.1	138
02:00	1.70	138	< 52	21	0.02	15	99	31.2	67.3	0.1	188
03:00	1.73	133	< 52	14	< 0.02	47	99	30.3	68.1	< 0.1	326
04:00	1.42	135	< 52	17	< 0.02	29	94	30.0	70.2	< 0.1	327
05:00	1.38	140	< 52	< 20	< 0.02	36	95	29.8	70.3	< 0.1	221
06:00	1.44	147	< 52	< 20	< 0.02	29	102	29.0	71.1	< 0.1	359
07:00	1.22	97	< 52	24	< 0.02	34	98	30.2	66.2	1.0	241
08:00	1.00	53	< 52	37	< 0.02	22	101	34.3	49.4	6.8	136
09:00	0.50	96	< 52	45	0.07	36	106	39.4	29.5	11.8	139
10:00	1.11	73	66	73	0.15	22	95	41.9	25.3	14.8	138
11:00	1.86	71	55	86	0.33	13	139	44.3	21.5	11.3	152
12:00	1.94	51	88	98	0.50	20	93	46.0	19.9	7.0	207
13:00	< 0.02	14	115	99	0.34	155	185	44.9	24.5	10.0	258
14:00	0.02	95	132	102	0.24	161	163	43.9	30.7	11.2	267
15:00	0.02	74	78	107	0.21	126	179	43.1	32.6	11.5	268
16:00	< 0.02	78	131	114	0.23	87	139	42.5	37.2	10.0	267
17:00	0.14	103	132	121	0.22	68	112	40.7	48.8	9.6	276
18:00	0.72	132	105	106	0.26	79	122	39.0	51.0	7.9	279
19:00	3.70	163	119	92	0.34	103	126	36.9	52.0	4.7	301
20:00	2.06	103	137	88	0.26	67	86	35.5	54.7	0.1	280
21:00	1.94	87	76	65	0.17	2	11	34.5	57.6	< 0.1	1
22:00	0.08	151	< 52	20	0.17	3	23	33.6	57.9	< 0.1	37
23:00	2.19	49	< 52	27	0.22	46	101	33.0	59.0	< 0.1	240
26th Aug 18 00:00	1.78	67	< 52	< 20	0.06	75	105	32.3	60.8	< 0.1	6
01:00	1.73	72	< 52	< 20	0.03	54	101	31.3	63.0	< 0.1	23
02:00	1.55	76	< 52	24	0.02	48	97	31.1	63.7	< 0.1	102
03:00	1.52	72	< 52	25	< 0.02	40	93	30.4	64.4	< 0.1	43
04:00	1.55	65	< 52	< 20	< 0.02	29	104	29.5	66.6	< 0.1	1
05:00	1.34	60	< 52	< 20	< 0.02	20	99	28.6	68.6	< 0.1	1
06:00	1.28	64	< 52	< 20	< 0.02	56	103	28.2	69.6	< 0.1	1
07:00	1.37	77	< 52	< 20	< 0.02	71	118	29.1	68.9	< 0.1	1
08:00	0.36	67	< 52	23	< 0.02	28	118	35.0	51.4	0.3	68
09:00	1.08	121	< 52	56	0.06	35	79	37.7	45.6	3.8	106
10:00	1.11	92	55	95	0.20	27	90	40.5	35.4	11.7	129
11:00	1.81	98	92	103	0.25	19	107	42.7	26.8	11.2	161
12:00	2.20	55	87	119	0.40	17	57	45.3	21.0	8.2	172
13:00	1.29	< 38	81	120	0.64	18	59	46.8	21.6	5.4	243
14:00	0.21	159	131	129	0.35	94	104	42.5	40.7	10.4	274

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
15:00	< 0.02	121	121	149	0.26	95	105	41.2	46.2	9.9	278
16:00	0.07	106	119	152	0.24	71	97	40.6	48.9	9.3	269
17:00	0.18	138	100	147	0.14	69	106	39.2	53.0	9.8	265
18:00	0.33	123	136	137	0.18	79	114	37.9	55.0	7.6	262
19:00	3.62	109	144	127	0.25	69	129	36.5	53.4	2.4	304
20:00	2.66	115	122	110	0.15	42	102	35.5	52.3	0.8	328
21:00	2.02	59	124	97	0.10	47	88	34.8	55.7	0.2	334
22:00	1.82	49	67	94	0.06	32	81	33.9	57.2	0.1	237
23:00	1.67	45	52	76	0.04	33	78	32.8	59.0	< 0.1	308
27th Aug 18 00:00	1.62	151	< 52	40	0.03	27	90	32.1	62.5	< 0.1	342
01:00	1.61	91	< 52	37	0.02	31	97	31.4	65.3	< 0.1	343
02:00	1.64	128	< 52	37	< 0.02	47	92	31.0	67.8	0.1	174
03:00	1.60	154	< 52	30	< 0.02	31	93	31.0	71.1	0.1	115
04:00	1.52	83	< 52	30	< 0.02	45	93	30.8	72.5	< 0.1	360
05:00	1.55	135	< 52	41	0.05	77	112	30.9	70.4	1.8	99
06:00	1.52	60	< 52	51	< 0.02	38	96	31.4	68.4	0.6	135
07:00	1.56	112	87	49	0.05	30	103	32.1	59.8	2.2	152
08:00	1.42	106	63	50	0.05	48	109	34.1	52.6	4.2	91
09:00	0.50	147	77	99	0.14	21	63	38.0	38.4	7.1	69
10:00	< 0.02	92	140	109	0.12	29	49	40.4	28.9	11.8	65
11:00	< 0.02	99	84	111	0.23	13	50	42.0	23.4	11.4	84
12:00	1.77	89	120	122	0.41	13	40	44.3	21.4	8.9	97
13:00	3.43	55	113	125	0.55	23	43	46.4	19.1	6.8	99
14:00	3.46	121	128	135	0.59	25	61	48.3	16.2	4.4	171
15:00	2.26	101	< 52	122	0.66	50	98	48.4	14.3	6.7	113
16:00	3.82	69	< 52	140	0.78	93	104	47.9	19.8	5.7	188
17:00	2.88	107	128	131	0.78	129	140	44.4	31.7	6.5	302
18:00	1.19	139	< 52	124	0.49	87	119	41.9	31.5	6.7	320
19:00	3.34	75	< 52	91	0.47	98	134	39.2	34.7	4.4	327
20:00	2.07	93	118	84	0.37	57	93	37.5	38.1	4.8	341
21:00	3.35	147	101	100	0.29	52	85	36.2	44.2	2.4	277
22:00	2.48	99	83	97	0.15	48	85	35.0	49.2	0.4	158
23:00	1.96	88	124	27	0.10	78	120	34.1	45.1	< 0.1	125
28th Aug 18 00:00	1.79	84	63	56	0.08	54	74	33.9	39.5	0.5	255
01:00	1.96	66	< 52	52	0.07	55	76	33.5	37.7	0.8	297
02:00	2.13	44	< 52	43	0.05	64	85	32.1	39.0	0.1	222
03:00	1.70	56	< 52	41	0.05	65	87	30.9	42.2	0.6	98
04:00	1.57	62	< 52	59	0.04	28	69	30.6	53.5	1.0	196
05:00	1.61	111	< 52	54	0.06	63	94	30.7	50.5	3.7	61
06:00	1.60	159	< 52	60	0.05	58	93	30.9	53.4	2.9	66
07:00	2.10	95	< 52	50	0.08	51	116	30.5	63.2	5.2	72

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
08:00	0.56	94	65	65	0.11	33	63	33.1	54.3	8.8	75
09:00	< 0.02	120	101	74	0.13	29	84	38.0	31.1	11.5	109
10:00	0.66	150	95	82	0.28	23	103	40.4	22.5	12.9	111
11:00	1.60	127	86	109	0.27	39	77	43.9	18.6	12.1	129
12:00	2.41	37	92	112	0.48	25	90	45.1	17.1	11.4	117
13:00	4.43	40	141	129	0.56	12	61	46.1	16.4	7.8	138
14:00	3.89	55	< 52	144	0.56	11	23	46.9	15.5	4.1	159
15:00	1.48	47	82	133	0.61	71	98	45.1	22.5	7.0	254
16:00	0.23	102	142	131	0.41	116	129	42.5	31.5	8.7	288
17:00	0.97	126	105	134	0.46	92	139	41.4	37.0	7.3	305
18:00	1.99	90	55	131	0.42	135	151	39.6	35.5	5.5	319
19:00	3.95	133	81	117	0.31	91	140	37.4	35.9	2.0	317
20:00	2.25	94	52	36	0.17	141	165	35.7	37.6	< 0.1	66
21:00	2.02	116	< 52	< 20	0.12	107	132	34.2	40.2	0.2	274
22:00	2.00	80	100	< 20	0.07	94	127	33.7	43.6	0.5	292
23:00	1.92	67	18	24	0.04	89	131	32.6	45.6	0.4	207
29th Aug 18 00:00	1.75	68	< 52	16	0.03	98	133	31.6	43.7	0.2	70
01:00	1.61	90	< 52	31	0.03	59	84	31.6	44.4	1.4	122
02:00	2.03	82	< 52	68	0.03	37	68	30.9	52.9	1.7	104
03:00	1.64	121	< 52	61	0.02	48	77	30.2	58.5	1.7	43
04:00	1.59	70	< 52	78	< 0.02	30	59	30.0	59.5	1.0	90
05:00	1.60	147	< 52	73	< 0.02	39	69	29.5	66.1	2.1	35
06:00	1.12	100	< 52	85	0.02	50	73	29.6	65.3	6.5	42
07:00	< 0.02	118	92	91	0.01	51	63	30.1	59.9	9.6	50
08:00	< 0.02	72	85	101	< 0.02	31	52	33.0	47.8	11.2	49
09:00	< 0.02	133	67	116	< 0.02	15	52	37.0	31.5	12.5	53
10:00	< 0.02	83	68	119	0.07	15	29	40.9	21.1	10.9	54
11:00	< 0.02	144	59	116	0.26	< 10	32	43.2	17.3	8.8	68
12:00	1.84	121	105	113	0.38	< 10	21	45.5	14.2	4.3	93
13:00	2.43	90	106	119	0.44	< 10	15	47.3	12.5	2.2	121
14:00	3.51	23	128	123	0.78	32	46	47.2	12.9	3.8	232
15:00	0.23	115	124	137	0.29	136	149	43.9	25.2	11.2	272
16:00	0.12	141	65	124	0.35	83	124	42.7	29.7	9.3	307
17:00	0.03	75	87	117	0.28	94	124	41.4	28.8	9.5	290
18:00	1.07	101	< 52	107	0.38	116	119	39.3	29.7	6.9	307
19:00	3.68	67	< 52	99	0.28	101	124	37.2	31.6	2.7	306
20:00	2.25	60	< 52	53	0.14	86	98	34.9	36.3	0.2	322
21:00	2.06	128	< 52	23	0.15	86	94	33.4	40.3	< 0.1	318
22:00	2.32	139	< 52	24	0.17	100	113	32.0	44.1	< 0.1	241
23:00	1.94	88	< 52	< 20	0.07	82	106	30.7	46.5	< 0.1	323
30th Aug 18 00:00	1.65	82	< 52	< 20	0.03	68	89	29.8	47.9	0.1	310

RPSA 00889-01-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 9 of 11

Client Detail	Name	GHD Global PTY. LTD	Lab ID Detail	Date	15/09/2018
	Address	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates		Report Number	RPSA 00889-01-02
	Nature of Business	Environmental Consultant		Sample Number	SPSA 00889-01-02
	Reference	AAQM 01 - Ambient Air Quality Monitoring		Client Project Ref. No. :	7610735

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
01:00	1.68	124	< 52	< 20	< 0.02	80	108	28.9	49.5	0.7	116
02:00	1.37	144	< 52	< 20	< 0.02	102	151	28.7	48.0	< 0.1	56
03:00	1.12	137	< 52	20	< 0.02	50	63	28.7	45.4	< 0.1	19
04:00	1.32	140	< 52	34	< 0.02	51	62	29.7	39.4	< 0.1	38
05:00	1.45	127	< 52	37	< 0.02	76	128	29.9	39.0	< 0.1	56
06:00	1.65	133	< 52	25	< 0.02	123	212	28.8	41.8	< 0.1	37
07:00	1.18	80	< 52	23	< 0.02	128	227	29.7	43.9	3.0	109
08:00	0.98	115	80	42	< 0.02	82	149	32.3	42.8	7.5	135
09:00	1.61	99	139	79	0.02	44	97	34.6	38.9	11.4	136
10:00	1.24	91	56	90	0.03	18	86	37.9	33.0	12.2	146
11:00	2.31	92	77	98	0.09	40	75	39.0	30.2	10.9	153
12:00	0.54	99	54	91	0.19	21	79	40.7	27.1	11.5	185
13:00	0.14	105	< 52	107	0.24	< 10	63	42.4	22.8	9.6	200
14:00	0.29	89	< 52	123	0.35	29	85	43.8	20.1	8.1	203
15:00	0.05	123	110	129	0.23	109	125	42.0	24.3	10.4	252
16:00	0.08	100	113	134	0.08	133	148	40.3	29.8	12.8	239
17:00	0.15	84	< 52	132	0.09	75	99	39.3	35.2	11.7	244
18:00	0.22	102	98	114	0.10	52	96	37.9	39.2	8.4	248
19:00	0.38	75	122	87	0.15	93	115	35.7	46.1	6.2	238
20:00	1.66	131	126	35	0.18	76	101	34.5	53.1	4.6	212
21:00	2.73	153	185	29	0.10	68	93	33.9	56.3	1.3	205
22:00	2.21	103	128	47	0.04	61	92	33.5	58.3	< 0.1	247
23:00	1.82	94	160	39	0.04	36	86	33.2	60.8	< 0.1	258
00:00	2.17	89	92	< 20	0.05	99	122	31.9	64.1	< 0.1	293

8 Hrs Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
16/08/18 09:00-16:00	0.78	65	79	91	0.56	70	101	41.7	45.6	5.4	236
17:00-00:00	2.08	103	65	56	0.36	120	154	36.3	59.3	2.4	315
17/08/18 01:00-08:00	1.40	75	< 52	< 20	0.10	101	151	31.6	70.8	1.7	168
09:00-16:00	0.05	54	115	98	0.47	90	138	43.1	37.3	9.7	211
17:00-00:00	1.49	101	73	85	0.25	118	160	36.9	55.9	3.0	263
18/08/18 01:00-08:00	1.94	101	< 52	25	0.19	16	72	31.9	74.4	2.2	100
09:00-16:00	0.13	90	96	99	0.51	98	147	41.7	42.2	11.3	207
17:00-00:00	2.22	114	88	89	0.28	109	159	36.2	58.7	2.2	300
19/08/18 01:00-08:00	2.12	129	< 52	35	0.13	60	139	31.6	70.8	1.9	89
09:00-16:00	0.74	94	64	115	0.36	79	119	41.3	43.2	9.9	196
17:00-00:00	1.77	115	< 52	90	0.19	103	131	36.3	44.3	2.5	298
20/08/18 01:00-08:00	1.77	94	< 52	55	0.07	64	132	31.6	61.4	0.5	190
09:00-16:00	1.81	57	93	133	0.41	53	94	41.7	42.7	5.7	200

RPSA 00889-01-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 10 of 11

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD						<b>Lab ID Detail</b>	<b>Date</b>	15/09/2018		
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							<b>Report Number</b>	RPSA 00889-01-02		
	<b>Nature of Business</b>	Environmental Consultant							<b>Sample Number</b>	SPSA 00889-01-02		
	<b>Reference</b>	AAQM 01 - Ambient Air Quality Monitoring							<b>Client Project Ref. No. : 7610735</b>			

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
17:00-00:00	1.97	113	64	75	0.24	96	121	36.1	56.1	2.7	267
21/08/18 01:00-08:00	1.55	118	< 52	61	0.03	78	118	31.9	69.3	0.6	138
09:00-16:00	1.51	81	108	127	0.41	48	71	43.4	37.8	7.9	149
17:00-00:00	2.20	75	99	83	0.30	46	106	36.9	52.1	2.5	319
22/08/18 01:00-08:00	2.04	94	71	79	0.15	44	108	32.0	75.5	1.4	135
09:00-16:00	1.62	66	67	112	0.42	67	94	43.6	30.5	7.0	170
17:00-00:00	2.98	106	65	79	0.30	73	125	37.5	49.7	1.8	321
23/08/18 01:00-08:00	1.94	130	< 52	45	0.15	67	119	32.1	61.5	3.1	158
09:00-16:00	0.52	89	72	105	0.40	50	126	43.7	28.5	8.5	207
17:00-00:00	1.64	137	111	83	0.21	45	136	37.8	47.1	2.3	268
24/08/18 01:00-08:00	1.64	107	< 52	70	0.07	40	115	32.1	72.9	4.8	188
09:00-16:00	1.22	95	97	131	0.41	40	67	43.7	30.1	7.9	197
17:00-00:00	1.66	117	58	94	0.27	54	99	37.0	48.9	2.5	325
25/08/18 01:00-08:00	1.45	123	< 52	21	< 0.02	31	98	30.8	65.9	1.0	242
09:00-16:00	0.68	69	89	90	0.26	77	137	43.2	27.6	10.9	212
17:00-00:00	1.58	107	87	67	0.21	55	86	35.7	55.2	2.8	177
26/08/18 01:00-08:00	1.34	69	< 52	18	< 0.02	43	104	30.4	64.5	< 0.1	30
09:00-16:00	0.97	96	89	115	0.30	47	87	42.2	35.8	8.7	204
17:00-00:00	1.74	99	93	104	0.12	50	98	35.3	56.0	2.6	297
27/08/18 01:00-08:00	1.55	109	< 52	41	0.02	43	99	31.6	66.0	1.1	184
09:00-16:00	1.90	97	91	120	0.43	33	64	44.5	22.7	7.9	111
17:00-00:00	2.38	104	85	89	0.34	75	106	37.8	39.2	3.2	263
28/08/18 01:00-08:00	1.65	86	< 52	53	0.06	52	85	31.5	49.2	2.9	136
09:00-16:00	1.84	85	97	114	0.41	41	83	43.5	21.9	9.4	163
17:00-00:00	2.11	97	57	61	0.20	106	140	35.8	39.9	2.0	231
29/08/18 01:00-08:00	1.20	100	< 52	74	0.02	43	68	30.6	56.8	4.4	67
09:00-16:00	1.02	106	90	121	0.32	37	59	43.4	20.6	7.9	150
17:00-00:00	1.87	93	< 52	56	0.19	92	109	34.8	38.1	2.4	302
30/08/18 01:00-08:00	1.35	125	< 52	25	< 0.02	86	138	29.6	43.7	1.4	71
09:00-16:00	0.78	100	77	106	0.15	50	95	40.1	28.3	10.9	189
17:00-00:00	1.42	104	119	62	0.10	70	100	35.0	51.6	4.0	243

24Hrs Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
17-Aug-18											DAY 2
24 Hours Avg	0.98	76	64	66	0.27	103	149	37.2	54.7	4.8	213.7
18-Aug-18											DAY 3
24 Hours Avg	1.43	101	68	71	0.33	74	126	36.6	58.5	5.3	202
19-Aug-18											DAY 4
24 Hours Avg	1.54	113	48	80	0.23	81	130	36.4	52.8	4.8	194

RPSA 00889-01-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 11 of 11

<b>Client Detail</b>	Name	GHD Global PTY. LTD						<b>Lab ID Detail</b>	Date	15/09/2018		
	Address	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates							Report Number	RPSA 00889-01-02		
	Nature of Business	Environmental Consultant							Sample Number	SPSA 00889-01-02		
	Reference	AAQM 01 - Ambient Air Quality Monitoring							Client Project Ref. No. :	7610735		

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
20-Aug-18											DAY 5
24 Hours Avg	1.85	88	55	88	0.24	71	116	36.5	53.4	3.0	219
21-Aug-18											DAY 6
24 Hours Avg	1.75	91	72	90	0.25	57	99	37.4	53.1	3.7	202
22-Aug-18											DAY 7
24 Hours Avg	2.21	88	68	90	0.29	61	109	37.7	51.9	3.4	209
23-Aug-18											DAY 8
24 Hours Avg	1.37	119	69	78	0.25	54	127	37.9	45.7	4.6	211
24-Aug-18											DAY 9
24 Hours Avg	1.50	106	66	98	0.25	45	94	37.6	50.6	5.1	237
25-Aug-18											DAY 10
24 Hours Avg	1.24	99	60	59	0.16	55	107	36.6	49.6	4.9	210
26-Aug-18											DAY 11
24 Hours Avg	1.35	88	63	79	0.14	47	97	36.0	52.1	3.8	177
27-Aug-18											DAY 12
24 Hours Avg	1.95	103	65	83	0.27	51	90	37.9	42.6	4.1	186
28-Aug-18											DAY 13
24 Hours Avg	1.87	89	59	76	0.23	66	103	36.9	37.0	4.8	177
29-Aug-18											DAY 13
24 Hours Avg	1.36	100	51	83	0.18	57	78	36.3	38.5	4.9	173
30-Aug-18											DAY 14
24 Hours Avg	1.18	110	69	2313	0.08	69	111	34.9	41.2	5.4	168

Results relates only to the items tested.

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DISCLAIMER: Scope of Accreditation <http://www.dac.dm.ae/NR/rdonlyres/6641CFF6-0BDD-4F4E-8D18-ED97B0D255A2/0/CoreLaboratoryLB073.pdf>

<b>Client Detail</b>	Name	GHD Global PTY. LTD	<b>Lab ID Detail</b>	Date	15/09/2018
	Address	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Abu Dhabi, United Arab Emirates		Report Number	RPSA 00889-02-01
	Nature of Business	Consultancy		Sample Number	SPSA 00889-02-01
	Reference	AAQM -03 - Ambient Air Quality Monitoring		Client Project Reference No.	<b>7610735</b>

<b>Project Detail</b>	Name	Hitachi Zosen Inova Ltd. Dubai Resources Recovery Facility ESIA	ID	Not Given
	Address	Warsan 2, Dubai, United Arab Emirates		
	Consultant	No Specific Consultant		
	Contractor	No Specific Contractor		

<b>Monitoring Detail</b>	Location (GPS)	AAQM 03, 25°09'24.4"N 55°26'39.0"E	On-Site Observation		
	Point	AAQM 03, Open Area	Area Activity	Open Area	
	Start Date	16/08/2018	Time	18:00 Hrs	Area Condition
	End Date	30/08/2018	Time	00:00 Hrs	Exposure Time

**Meteorological Average Results**

Parameter	RESULT	Unit	Lab Detection Limit	Test Method
Ambient Temperature	<b>37.4</b>	°C	0.1	Internal Procedure IP-04 & IP-10
Relative Humidity	<b>47.6</b>	%	0.1	
Wind Speed	<b>4.1</b>	kph	0.1	
Wind Direction	<b>210</b>	°	1	

**Monitoring Average Results**

Parameter	RESULT	Unit	Lab Detection Limit	# UAE Federal Law Limits	Test Method
Carbon Monoxide (as CO)	<b>0.41</b>	mg/m³	0.02	10 (8 Hrs)	Internal Procedure IP-04 & IP-10
Nitrogen Dioxide (as NO₂)	<b>64</b>	µg/m³	38	150 (24 Hrs)	
Sulphur Dioxide (as SO₂)	<b>&lt; 52</b>	µg/m³	52	150 (24 Hrs)	
Ozone (as O₃)	<b>21</b>	µg/m³	20	120 (8 Hrs)	
Volatile Organic Compoud (VOC)	<b>0.12</b>	mg/m³	0.02	-	
Particulate Matter 10 (PM10)	<b>95</b>	µg/m³	10	150 (24 Hrs)	Internal Procedure IP-04 & IP-05
Total Suspended Particulates TSP	<b>141</b>	µg/m³	10	230 (24 Hrs)	

<b>Notes</b>	Test Variation	None	Monitored By	SI/BN/SL
	Remarks	1) This test is Accreditated by Dubai Municipality (DAC).	Equipment Ref. No.	C-AQ-06
	Reference	1) # Annex (8), Ambient Air Quality Standards (Air Pollutants Limits in the Ambient Air) , UAE Cabinet Decree (12) of 2006.		

Results relates only to the items tested.

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RPSA 00889-02-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 1 of 11

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
16th Aug 18, 19:00	0.04	< 38	< 52	77	0.08	116	141	38.3	43.6	5.4	195
20:00	0.40	59	< 52	49	0.50	139	140	37.4	32.8	< 0.02	283
21:00	0.54	78	< 52	< 20	0.06	94	124	36.0	44.6	2.4	282
22:00	0.40	117	< 52	< 20	0.16	89	99	35.3	46.5	0.4	287
23:00	1.00	111	< 52	< 20	1.26	126	149	34.6	48.0	0.2	260
17th Aug 18, 00:00	0.83	68	< 52	< 20	0.05	111	147	33.5	48.5	< 0.02	172
01:00	0.60	102	< 52	< 20	< 0.02	133	152	33.1	51.2	1.8	166
02:00	0.40	87	< 52	< 20	< 0.02	65	96	32.5	55.7	1.4	122
03:00	0.30	108	< 52	< 20	0.10	85	106	31.9	55.4	2.0	148
04:00	1.00	95	< 52	< 20	< 0.02	87	109	31.5	62.1	1.0	156
05:00	0.50	112	< 52	< 20	0.20	178	245	30.7	65.4	1.2	147
06:00	0.80	134	< 52	< 20	< 0.02	271	344	30.4	70.2	1.8	139
07:00	0.50	72	< 52	< 20	< 0.02	344	341	31.8	72.1	1.2	126
08:00	0.10	84	< 52	< 20	< 0.02	231	346	36.2	59.4	3.2	118
09:00	0.20	< 38	< 52	< 20	< 0.02	351	624	38.2	52.4	1.1	133
10:00	< 0.02	< 38	< 52	< 20	0.10	399	712	40.2	47.4	0.4	147
11:00	< 0.02	< 38	< 52	40	0.20	22	51	41.6	42.6	< 0.02	159
12:00	< 0.02	< 38	< 52	56	0.17	138	187	43.8	38.6	< 0.02	168
13:00	< 0.02	< 38	< 52	75	< 0.02	109	124	45.2	34.5	5.3	219
14:00	< 0.02	< 38	< 52	81	0.09	149	189	44.6	40.2	10.4	222
15:00	< 0.02	47	< 52	94	0.73	79	134	44.2	42.5	10.0	220
16:00	< 0.02	< 38	< 52	91	0.03	109	142	43.4	44.9	10.3	223
17:00	< 0.02	< 38	< 52	96	0.06	122	171	42.7	48.2	8.8	229
18:00	0.20	18	< 52	89	0.08	150	210	40.2	52.0	9.3	220
19:00	0.50	165	< 52	86	0.19	141	171	38.6	51.4	8.2	220
20:00	0.74	138	< 52	78	0.03	121	153	36.7	59.6	4.0	267
21:00	0.71	125	< 52	66	< 0.02	92	122	35.2	62.7	1.9	230
22:00	0.84	109	< 52	41	0.02	118	159	34.8	61.4	1.5	290
23:00	0.69	145	< 52	40	0.05	106	133	34.1	65.4	0.4	223
18th Aug 18, 00:00	1.05	130	< 52	< 20	0.13	72	125	33.8	66.9	2.9	195
01:00	0.84	97	< 52	24	0.14	83	123	33.4	62.1	2.3	224
02:00	0.95	89	< 52	< 20	0.05	155	186	32.4	58.6	2.4	308
03:00	0.74	107	< 52	< 20	< 0.02	85	106	32.0	72.4	3.0	337
04:00	0.58	145	< 52	< 20	0.02	57	109	31.6	55.4	1.6	335
05:00	0.40	99	< 52	< 20	0.05	78	145	30.9	70.5	0.6	272
06:00	0.59	148	< 52	< 20	0.03	71	144	30.4	77.4	2.3	76
07:00	0.66	102	< 52	< 20	0.14	144	181	31.8	72.8	2.2	72
08:00	0.24	64	< 52	< 20	0.06	91	146	34.9	62.2	4.3	85
09:00	< 0.02	< 38	< 52	< 20	0.10	91	124	36.7	50.7	8.8	123
10:00	< 0.02	< 38	< 52	< 20	0.15	99	112	39.5	44.8	9.9	126
11:00	< 0.02	< 38	< 52	31	0.49	147	229	41.6	41.0	< 0.02	158

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
12:00	< 0.02	< 38	< 52	32	0.05	109	179	43.9	33.6	< 0.02	158
13:00	< 0.02	< 38	< 52	36	< 0.02	103	158	45.7	30.1	4.2	157
14:00	< 0.02	< 38	< 52	46	0.04	173	233	46.2	26.4	8.7	207
15:00	< 0.02	< 38	< 52	73	0.07	110	157	43.8	44.7	10.4	226
16:00	< 0.02	< 38	< 52	93	0.03	183	203	42.6	42.8	10.4	245
17:00	0.32	< 38	< 52	87	< 0.02	122	155	41.3	48.9	10.5	253
18:00	0.52	118	< 52	82	0.06	147	185	40.7	52.7	9.5	242
19:00	0.64	120	< 52	66	< 0.02	133	167	38.3	48.5	6.5	271
20:00	0.81	162	< 52	50	0.04	155	186	37.4	33.4	3.4	297
21:00	0.85	123	< 52	25	0.05	144	181	36.0	44.7	2.4	307
22:00	0.70	87	< 52	< 20	0.04	119	149	35.3	45.5	1.2	315
23:00	1.06	135	< 52	< 20	0.06	159	260	34.6	49.8	0.3	234
19th Aug 18 00:00	0.90	91	< 52	< 20	0.06	149	236	33.5	52.7	0.5	63
01:00	0.66	83	< 52	< 20	0.02	138	183	33.1	51.8	0.8	194
02:00	0.79	115	< 52	< 20	0.07	174	228	32.5	54.3	0.8	323
03:00	0.76	111	< 52	< 20	< 0.02	75	128	31.9	58.7	2.2	343
04:00	0.69	80	< 52	< 20	0.08	99	175	31.5	62.4	1.1	344
05:00	0.64	69	< 52	< 20	0.03	87	128	30.7	65.6	1.8	342
06:00	0.49	62	< 52	< 20	< 0.02	141	208	30.4	70.1	1.7	255
07:00	0.57	70	< 52	< 20	0.06	163	243	31.8	72.5	2.0	43
08:00	0.43	83	< 52	< 20	< 0.02	99	174	36.2	62.4	4.4	54
09:00	0.36	< 38	< 52	< 20	0.02	163	335	38.2	55.4	8.2	85
10:00	0.39	< 38	< 52	< 20	< 0.02	57	129	40.2	48.2	6.8	96
11:00	0.90	< 38	< 52	< 20	< 0.02	110	220	41.6	42.5	5.6	98
12:00	< 0.02	< 38	< 52	24	0.26	128	170	43.8	40.5	< 0.02	116
13:00	< 0.02	< 38	< 52	37	0.04	103	127	45.2	35.6	2.3	188
14:00	< 0.02	< 38	< 52	49	< 0.02	125	149	44.6	40.8	11.0	222
15:00	0.09	< 38	< 52	67	0.02	130	151	44.2	42.4	12.0	236
16:00	0.25	< 38	< 52	71	< 0.02	92	108	43.4	44.9	10.4	253
17:00	0.40	127	< 52	57	0.10	140	169	42.7	42.4	11.2	252
18:00	0.35	98	< 52	47	0.13	89	109	40.2	47.1	9.6	251
19:00	0.47	112	< 52	46	0.03	80	108	38.7	35.4	8.3	236
20:00	0.56	104	< 52	19	0.06	123	150	37.6	32.6	3.1	280
21:00	0.67	105	< 52	< 20	0.09	114	152	36.0	43.4	1.9	319
22:00	0.59	33	< 52	< 20	< 0.02	41	111	35.9	44.7	0.5	316
23:00	0.69	55	< 52	< 20	< 0.02	148	207	34.9	47.0	0.4	339
20th Aug 18 00:00	0.76	91	< 52	< 20	0.06	48	105	33.9	49.3	< 0.02	339
01:00	0.65	71	< 52	< 20	0.06	92	135	33.2	50.6	< 0.02	106
02:00	0.98	72	< 52	< 20	0.07	160	250	32.2	53.7	< 0.02	101
03:00	0.83	79	< 52	< 20	0.10	113	215	32.2	54.9	0.2	58
04:00	0.90	55	< 52	< 20	0.16	115	204	31.8	60.2	< 0.02	58

RPSA 00889-02-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 3 of 11

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
05:00	0.85	108	< 52	< 20	0.02	98	196	30.6	63.2	< 0.02	58
06:00	0.74	123	< 52	< 20	0.05	108	134	30.0	67.5	< 0.02	58
07:00	0.66	131	< 52	< 20	< 0.02	152	263	31.3	69.6	1.0	53
08:00	0.47	91	< 52	< 20	0.04	101	154	35.1	60.3	3.2	50
09:00	0.32	66	< 52	< 20	< 0.02	79	121	38.4	52.7	2.7	176
10:00	0.33	< 38	< 52	< 20	< 0.02	82	148	40.0	46.9	3.6	62
11:00	0.01	< 38	< 52	29	0.10	74	127	41.9	41.6	3.8	110
12:00	< 0.02	< 38	< 52	41	0.04	42	71	43.4	38.6	4.7	175
13:00	< 0.02	< 38	< 52	40	< 0.02	49	64	45.0	33.5	5.1	184
14:00	< 0.02	< 38	< 52	54	0.09	71	81	44.8	39.4	< 0.02	241
15:00	0.05	< 38	< 52	89	0.28	108	138	44.1	41.7	2.7	228
16:00	0.39	110	55	83	2.68	80	144	43.1	42.4	11.3	247
17:00	0.20	< 38	< 52	72	< 0.02	34	80	42.2	41.9	10.5	244
18:00	0.35	121	< 52	62	0.17	141	196	40.1	46.0	8.8	252
19:00	0.39	98	< 52	57	0.26	47	74	37.4	50.9	7.6	240
20:00	0.36	83	< 52	36	0.18	79	83	35.6	58.0	5.3	235
21:00	0.60	116	< 52	23	< 0.02	94	114	34.8	60.8	3.9	224
22:00	0.71	121	< 52	< 20	0.08	92	127	34.2	62.8	1.6	227
23:00	0.79	106	< 52	< 20	< 0.02	66	89	34.1	63.4	0.3	226
21st Aug 18 00:00	0.79	116	< 52	< 20	0.08	107	147	34.0	64.0	< 0.02	335
01:00	0.85	76	< 52	< 20	< 0.02	106	126	33.4	63.7	0.2	335
02:00	0.71	130	< 52	< 20	0.09	73	124	32.8	64.3	< 0.02	335
03:00	0.59	68	< 52	< 20	0.04	86	126	32.2	70.7	0.8	275
04:00	0.86	85	< 52	< 20	0.07	96	142	31.9	69.7	0.6	309
05:00	0.59	134	< 52	< 20	0.02	98	133	31.5	69.5	0.3	55
06:00	0.65	87	< 52	< 20	0.10	53	164	30.8	72.5	0.2	54
07:00	0.41	135	< 52	< 20	0.03	76	133	32.0	71.2	0.9	22
08:00	0.23	54	< 52	< 20	0.03	68	71	36.0	60.2	1.9	13
09:00	0.13	< 38	< 52	20	0.04	68	71	37.9	52.7	4.9	23
10:00	< 0.02	< 38	< 52	25	0.02	33	70	39.9	47.2	5.3	44
11:00	< 0.02	< 38	< 52	26	0.10	49	79	42.2	42.2	4.8	61
12:00	< 0.02	< 38	< 52	35	0.05	30	61	44.1	34.4	4.7	180
13:00	< 0.02	< 38	< 52	38	< 0.02	34	44	47.1	27.2	3.3	53
14:00	< 0.02	< 38	< 52	45	0.09	47	63	48.3	25.5	4.0	245
15:00	< 0.02	< 38	< 52	53	< 0.02	164	224	44.6	40.6	12.7	237
16:00	< 0.02	< 38	< 52	60	< 0.02	89	111	43.2	43.8	10.3	265
17:00	0.12	< 38	< 52	59	< 0.02	76	89	41.8	46.6	8.0	275
18:00	0.16	< 38	< 52	56	< 0.02	75	101	40.1	50.8	8.8	253
19:00	0.37	134	< 52	53	0.12	81	92	37.1	57.8	< 0.02	295
20:00	0.55	104	< 52	45	< 0.02	82	98	36.0	58.5	2.8	309
21:00	0.50	69	< 52	38	< 0.02	81	97	35.6	53.8	3.7	315

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
22:00	0.45	83	< 52	< 20	0.25	87	121	34.9	53.6	1.0	317
23:00	0.66	77	< 52	< 20	0.39	85	167	34.4	55.1	0.7	314
22nd Aug 18 00:00	0.29	< 38	< 52	< 20	< 0.02	35	44	34.0	56.1	0.4	310
01:00	0.76	113	< 52	< 20	0.09	76	99	33.3	58.8	0.9	323
02:00	0.63	114	< 52	< 20	0.10	75	98	32.9	74.4	3.8	328
03:00	0.56	95	< 52	20	< 0.02	79	80	32.3	78.7	2.2	330
04:00	0.48	105	< 52	21	0.03	90	93	31.8	81.5	2.2	339
05:00	0.48	80	< 52	< 20	< 0.02	110	112	31.8	84.0	2.8	181
06:00	0.34	105	< 52	20	0.02	92	96	31.2	82.8	1.3	271
07:00	0.40	116	< 52	< 20	< 0.02	79	92	31.6	75.9	1.7	353
08:00	0.23	65	< 52	< 20	0.01	100	125	35.7	56.9	2.0	17
09:00	0.04	< 38	< 52	< 20	0.05	56	75	39.7	41.7	2.5	33
10:00	< 0.02	< 38	< 52	< 20	0.03	51	81	41.7	32.3	3.5	89
11:00	< 0.02	< 38	< 52	< 20	0.03	55	84	44.0	27.8	4.2	125
12:00	< 0.02	< 38	< 52	26	< 0.02	16	18	46.2	24.5	3.8	138
13:00	< 0.02	< 38	< 52	32	< 0.02	15	18	47.7	22.0	3.3	166
14:00	< 0.02	< 38	< 52	47	0.21	74	87	48.7	21.3	3.8	294
15:00	< 0.02	< 38	< 52	57	< 0.02	86	113	45.7	30.7	10.5	254
16:00	0.03	< 38	< 52	62	< 0.02	93	115	43.3	40.0	10.6	261
17:00	0.16	< 38	< 52	67	0.03	74	95	42.1	41.2	8.0	286
18:00	0.31	59	< 52	61	0.08	94	108	40.8	43.7	6.3	284
19:00	0.49	78	< 52	44	0.47	22	31	38.9	46.8	< 0.02	321
20:00	0.49	58	< 52	36	< 0.02	52	73	37.9	48.1	< 0.02	316
21:00	0.72	85	< 52	22	< 0.02	72	88	37.2	50.1	0.3	327
22:00	0.72	114	< 52	< 20	0.08	68	99	36.3	51.9	0.8	327
23:00	0.74	140	< 52	< 20	0.08	78	118	35.8	54.8	1.5	310
23rd Aug 18 00:00	0.95	111	< 52	< 20	0.04	76	120	35.0	58.1	3.0	308
01:00	0.57	122	< 52	< 20	0.03	89	109	34.0	57.3	2.8	322
02:00	0.72	78	< 52	< 20	< 0.02	182	285	33.0	60.8	1.0	321
03:00	0.53	122	< 52	< 20	0.04	96	167	32.5	62.7	0.5	268
04:00	0.81	144	< 52	< 20	0.38	93	167	31.6	67.9	1.5	351
05:00	0.57	85	< 52	< 20	< 0.02	94	123	31.5	68.0	0.8	173
06:00	0.37	88	< 52	< 20	< 0.02	93	152	31.3	66.4	1.2	30
07:00	0.45	108	< 52	< 20	< 0.02	149	210	32.0	58.0	1.8	72
08:00	0.18	63	< 52	< 20	< 0.02	125	158	35.2	45.9	1.7	68
09:00	0.08	< 38	< 52	< 20	0.04	99	133	40.4	35.2	1.9	84
10:00	< 0.02	< 38	< 52	< 20	0.05	90	166	42.4	28.1	5.4	159
11:00	< 0.02	< 38	< 52	< 20	0.08	91	145	43.6	27.1	7.4	164
12:00	< 0.02	< 38	< 52	25	0.09	90	143	45.3	25.2	6.4	165
13:00	< 0.02	< 38	< 52	28	0.06	103	166	46.2	25.4	6.8	202
14:00	< 0.02	< 38	< 52	42	0.02	112	114	46.8	25.0	6.9	217

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
15:00	< 0.02	< 38	< 52	51	< 0.02	77	93	46.8	27.3	6.4	208
16:00	< 0.02	< 38	< 52	53	< 0.02	79	158	45.3	33.2	10.2	222
17:00	< 0.02	< 38	< 52	46	< 0.02	70	135	44.4	32.3	10.3	213
18:00	0.19	55	< 52	46	0.04	57	127	41.9	38.0	7.3	253
19:00	0.48	141	< 52	41	0.02	55	126	39.2	44.3	4.5	254
20:00	0.61	107	< 52	31	0.02	47	101	37.4	47.4	2.7	236
21:00	0.84	148	< 52	< 20	0.03	80	102	36.7	48.8	0.5	232
22:00	1.09	165	< 52	< 20	0.03	83	108	35.9	52.1	< 0.02	229
23:00	1.38	98	< 52	< 20	0.15	93	147	34.5	55.8	< 0.02	229
24th Aug 18 00:00	1.01	112	< 52	< 20	0.13	89	128	33.8	61.6	1.4	222
01:00	0.71	110	< 52	25	0.15	85	114	33.4	71.5	4.6	243
02:00	0.73	94	< 52	34	0.06	79	110	33.1	72.2	4.3	290
03:00	0.66	77	< 52	41	< 0.02	80	116	32.3	77.6	3.3	310
04:00	0.68	111	< 52	24	< 0.02	94	129	31.6	79.0	1.1	333
05:00	0.59	96	< 52	< 20	< 0.02	89	111	31.2	80.0	0.9	200
06:00	0.46	88	< 52	< 20	0.12	63	131	30.8	76.8	1.6	39
07:00	0.43	110	< 52	< 20	0.21	185	270	32.0	69.1	4.6	111
08:00	0.32	68	< 52	< 20	1.21	105	190	36.4	53.2	3.2	51
09:00	0.08	< 38	< 52	< 20	0.05	38	54	41.1	40.1	2.0	52
10:00	< 0.02	< 38	< 52	< 20	< 0.02	22	59	42.5	30.7	3.2	123
11:00	< 0.02	< 38	< 52	20	0.03	24	59	44.3	26.1	5.1	159
12:00	< 0.02	< 38	< 52	23	0.06	28	43	47.0	22.6	3.7	144
13:00	< 0.02	< 38	< 52	30	0.06	51	56	47.6	22.4	4.9	184
14:00	< 0.02	< 38	< 52	49	< 0.02	92	104	45.7	31.3	9.9	244
15:00	< 0.02	< 38	< 52	62	< 0.02	88	105	46.0	30.3	9.8	243
16:00	< 0.02	< 38	< 52	61	< 0.02	81	109	45.2	33.8	9.6	257
17:00	< 0.02	< 38	< 52	61	< 0.02	91	103	43.2	37.0	8.4	291
18:00	0.15	< 38	< 52	57	< 0.02	54	67	40.9	41.7	7.6	283
19:00	0.33	97	< 52	46	0.07	73	101	38.8	43.8	6.7	297
20:00	0.47	93	< 52	36	0.05	69	94	37.2	48.4	5.1	296
21:00	0.58	112	< 52	23	0.20	62	109	36.3	49.9	< 0.02	312
22:00	0.67	144	< 52	< 20	0.32	45	136	35.3	52.8	< 0.02	308
23:00	0.62	70	< 52	< 20	0.18	56	111	34.2	55.1	0.6	311
25th Aug 18 00:00	0.91	121	< 52	< 20	0.09	69	82	32.8	59.5	0.2	311
01:00	0.97	133	< 52	< 20	0.27	185	248	32.1	62.0	1.5	330
02:00	0.64	104	< 52	< 20	< 0.02	40	121	31.4	66.1	1.3	330
03:00	0.76	96	< 52	< 20	< 0.02	48	156	31.1	67.0	0.9	323
04:00	0.70	105	< 52	< 20	0.06	164	248	30.9	67.6	0.7	86
05:00	0.74	64	< 52	< 20	0.05	35	105	29.9	69.3	0.2	4
06:00	0.83	90	< 52	< 20	0.27	150	225	29.8	69.1	0.9	6
07:00	0.60	85	< 52	< 20	0.06	93	166	31.1	61.7	0.7	181

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
08:00	0.45	72	< 52	< 20	0.06	78	143	35.1	49.3	2.3	142
09:00	0.29	< 38	59	< 20	0.05	148	219	40.0	29.9	4.9	159
10:00	< 0.02	< 38	< 52	< 20	< 0.02	121	244	42.4	26.0	7.1	165
11:00	< 0.02	< 38	< 52	< 20	< 0.02	154	218	45.3	21.8	6.3	163
12:00	< 0.02	< 38	< 52	25	< 0.02	43	78	47.1	19.6	6.7	172
13:00	< 0.02	< 38	< 52	20	< 0.02	176	203	46.4	24.2	10.8	233
14:00	< 0.02	< 38	< 52	30	< 0.02	147	195	45.2	29.4	13.1	231
15:00	< 0.02	< 38	< 52	30	0.07	154	199	44.5	30.2	14.7	217
16:00	< 0.02	< 38	< 52	33	0.03	125	153	44.1	34.5	13.3	227
17:00	0.35	63	< 52	38	0.09	118	148	41.8	46.2	11.9	246
18:00	0.48	102	< 52	36	0.06	106	149	39.6	48.6	11.6	238
19:00	0.94	143	104	35	3.10	103	239	37.2	51.9	< 0.02	278
20:00	0.59	132	< 52	21	0.30	113	135	36.0	53.6	0.3	296
21:00	0.75	123	< 52	< 20	< 0.02	22	36	35.1	56.9	1.9	336
22:00	0.82	75	62	< 20	0.18	83	132	34.5	56.4	1.3	346
23:00	0.91	107	< 52	< 20	0.01	33	57	33.3	58.1	0.7	346
26th Aug 18 00:00	1.16	105	145	< 20	2.33	130	173	32.5	59.5	1.0	345
01:00	0.91	124	79	< 20	0.83	179	202	31.7	62.1	1.0	345
02:00	0.59	90	< 52	< 20	0.04	42	74	31.0	63.7	1.3	345
03:00	0.66	75	< 52	< 20	0.06	55	83	30.4	65.0	0.9	345
04:00	0.70	111	< 52	< 20	< 0.02	37	90	29.7	65.8	0.2	345
05:00	0.62	80	< 52	< 20	0.04	113	156	29.0	68.2	0.4	345
06:00	0.74	53	< 52	< 20	0.08	95	178	28.0	69.4	< 0.02	345
07:00	0.88	64	< 52	< 20	0.14	111	184	29.1	66.9	< 0.02	345
08:00	0.34	45	< 52	< 20	0.06	72	122	34.7	51.2	0.4	155
09:00	0.24	64	< 52	< 20	0.15	116	168	38.9	44.3	2.0	93
10:00	0.03	< 38	< 52	< 20	0.03	148	219	41.2	35.8	5.7	113
11:00	< 0.02	< 38	< 52	< 20	0.41	162	225	43.4	27.0	7.3	153
12:00	< 0.02	< 38	< 52	23	0.18	108	242	46.0	20.9	7.3	163
13:00	< 0.02	< 38	< 52	34	< 0.02	42	61	47.8	20.2	5.6	196
14:00	< 0.02	< 38	< 52	38	< 0.02	42	63	43.7	38.5	12.1	243
15:00	0.06	< 38	< 52	60	< 0.02	72	124	42.6	43.9	12.9	237
16:00	0.28	46	< 52	59	< 0.02	57	64	42.2	46.0	11.8	235
17:00	0.41	44	< 52	58	0.23	109	118	40.7	49.9	11.7	230
18:00	0.51	96	< 52	52	0.13	53	43	38.5	54.2	11.0	233
19:00	0.76	73	< 52	37	1.85	120	142	36.8	53.6	< 0.02	253
20:00	0.45	68	< 52	22	0.06	24	27	35.9	52.0	< 0.02	299
21:00	0.55	126	< 52	21	0.10	52	57	35.4	55.1	2.6	301
22:00	0.55	97	< 52	< 20	0.07	86	97	34.5	56.5	1.4	299
23:00	0.71	78	69	< 20	0.86	137	193	33.4	58.3	0.7	301
27th Aug 18 00:00	0.98	93	< 52	< 20	0.22	102	205	32.4	61.1	< 0.02	318

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
01:00	0.69	118	< 52	< 20	0.08	100	159	32.0	63.7	0.9	245
02:00	0.82	89	< 52	< 20	0.30	158	211	31.5	66.1	1.9	174
03:00	0.74	105	< 52	< 20	0.30	123	166	31.3	70.6	2.1	338
04:00	0.62	129	< 52	< 20	0.00	16	40	31.5	71.8	0.2	345
05:00	0.57	61	< 52	< 20	0.06	88	142	31.4	67.8	1.6	202
06:00	0.46	147	< 52	< 20	0.03	67	94	32.0	66.5	1.0	340
07:00	0.52	72	< 52	< 20	0.41	86	155	32.5	59.2	1.9	121
08:00	0.61	96	< 52	< 20	0.19	128	147	34.7	52.8	2.2	77
09:00	0.17	67	< 52	< 20	0.17	161	289	38.9	39.4	3.7	48
10:00	< 0.02	< 38	< 52	< 20	0.22	148	252	42.2	28.1	4.9	41
11:00	< 0.02	< 38	< 52	< 20	0.73	161	257	43.6	23.5	5.6	63
12:00	< 0.02	< 38	< 52	< 20	< 0.02	15	64	46.0	21.2	4.8	60
13:00	< 0.02	< 38	< 52	22	< 0.02	42	113	47.9	18.9	5.2	81
14:00	< 0.02	< 38	< 52	33	< 0.02	14	42	49.4	16.4	5.0	160
15:00	< 0.02	< 38	< 52	29	0.06	60	119	49.8	14.5	5.6	138
16:00	< 0.02	< 38	< 52	32	0.13	11	20	49.4	18.3	6.2	158
17:00	0.04	< 38	< 52	56	0.15	99	128	44.5	32.5	8.4	272
18:00	0.18	< 38	< 52	51	0.00	9	16	41.8	33.8	8.7	284
19:00	0.37	122	< 52	54	0.21	111	127	39.5	35.5	< 0.02	295
20:00	0.45	121	< 52	52	0.02	59	78	37.9	38.4	0.9	309
21:00	0.59	92	< 52	42	< 0.02	64	73	36.7	44.0	6.1	324
22:00	0.66	66	< 52	< 20	< 0.02	93	150	35.4	48.6	3.4	339
23:00	0.84	114	< 52	< 20	0.06	104	201	34.5	44.5	0.6	110
28th Aug 18 00:00	0.54	61	< 52	< 20	0.17	138	249	33.7	40.5	1.2	166
01:00	0.42	106	< 52	< 20	0.05	69	114	33.2	39.3	1.2	306
02:00	0.62	39	< 52	< 20	0.02	99	146	32.2	39.4	2.1	333
03:00	0.47	44	< 52	< 20	< 0.02	107	173	31.4	42.4	2.8	336
04:00	0.54	62	< 52	< 20	0.10	100	164	30.8	53.1	3.5	343
05:00	0.48	143	< 52	< 20	0.08	79	129	31.1	49.9	2.4	44
06:00	0.44	97	< 52	< 20	0.06	89	126	31.3	53.4	2.0	53
07:00	0.64	50	< 52	< 20	0.07	134	249	31.3	60.3	1.6	55
08:00	0.67	81	< 52	< 20	0.10	67	155	34.4	51.9	3.6	57
09:00	0.22	43	< 52	< 20	0.07	73	126	39.2	31.2	5.9	89
10:00	< 0.02	< 38	< 52	< 20	< 0.02	87	157	41.0	23.3	7.1	99
11:00	< 0.02	< 38	< 52	< 20	< 0.02	82	168	44.9	18.9	7.2	123
12:00	< 0.02	< 38	< 52	< 20	< 0.02	137	202	46.7	17.1	6.6	111
13:00	< 0.02	< 38	< 52	< 20	< 0.02	146	242	47.4	16.7	6.1	116
14:00	< 0.02	< 38	< 52	25	< 0.02	64	85	47.8	15.8	4.0	74
15:00	< 0.02	< 38	< 52	29	0.07	106	137	46.7	21.9	7.7	201
16:00	0.02	41	< 52	30	< 0.02	117	155	43.7	30.5	10.3	263
17:00	0.46	127	< 52	32	0.08	117	149	41.5	37.4	9.1	275

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
<b>Detection Limit</b>	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
18:00	0.62	99	< 52	31	0.08	122	161	39.4	36.8	7.5	293
19:00	0.53	85	< 52	28	0.04	113	147	37.8	36.2	6.4	300
20:00	0.65	115	< 52	< 20	0.31	136	170	36.5	37.2	< 0.02	223
21:00	0.94	98	< 52	< 20	0.05	75	94	35.1	39.2	0.3	128
22:00	0.87	78	< 52	< 20	< 0.02	110	122	34.1	43.3	3.2	324
23:00	0.77	95	< 52	< 20	0.02	105	157	32.8	46.1	1.5	317
29th Aug 18 00:00	0.81	102	< 52	< 20	0.32	149	207	32.5	42.3	3.1	339
01:00	0.55	112	< 52	< 20	0.02	102	131	32.5	42.9	4.9	353
02:00	0.59	130	< 52	< 20	0.14	54	84	30.9	52.5	2.8	331
03:00	0.34	72	< 52	< 20	0.07	54	88	30.5	57.7	2.9	269
04:00	0.63	159	< 52	< 20	0.14	104	165	30.3	59.6	4.0	257
05:00	0.74	102	58	< 20	1.90	84	142	29.8	66.9	3.8	254
06:00	0.38	< 38	< 52	< 20	< 0.02	47	68	29.9	64.8	5.1	9
07:00	0.51	113	< 52	< 20	0.07	81	132	30.4	60.1	5.9	14
08:00	0.28	49	< 52	< 20	0.02	22	34	33.9	47.1	6.5	16
09:00	0.20	63	< 52	< 20	0.04	62	147	38.2	31.2	6.7	14
10:00	< 0.02	< 38	< 52	< 20	< 0.02	33	105	42.0	21.1	5.7	14
11:00	< 0.02	< 38	< 52	< 20	< 0.02	23	48	44.5	17.9	4.5	47
12:00	< 0.02	< 38	< 52	24	0.03	28	32	46.6	14.9	3.6	39
13:00	< 0.02	< 38	< 52	35	< 0.02	18	25	48.2	13.1	3.2	197
14:00	< 0.02	< 38	< 52	48	< 0.02	30	37	48.0	13.1	5.0	311
15:00	< 0.02	< 38	< 52	57	< 0.02	121	146	45.1	24.3	11.7	258
16:00	0.03	< 38	< 52	55	0.06	112	159	43.1	29.5	10.7	276
17:00	0.14	71	< 52	54	0.21	140	224	41.9	28.7	11.3	267
18:00	0.27	111	< 52	50	0.04	103	144	39.4	30.5	8.4	280
19:00	0.40	74	< 52	32	0.04	54	70	37.6	32.1	5.6	274
20:00	0.48	141	77	< 20	0.38	64	74	35.6	36.0	2.0	295
21:00	1.11	102	35	< 20	0.59	99	139	34.2	39.3	1.9	322
22:00	0.91	86	133	< 20	0.67	130	159	32.6	43.5	1.0	326
23:00	1.02	68	72	< 20	0.19	84	196	30.7	46.6	0.4	318
30th Aug 18 00:00	0.80	97	< 52	< 20	0.09	138	191	29.6	48.6	1.1	327
01:00	0.84	85	< 52	< 20	0.16	108	146	29.3	49.4	3.6	342
02:00	0.65	111	< 52	< 20	0.09	85	193	28.9	47.2	1.0	130
03:00	0.35	128	< 52	< 20	0.06	111	149	29.0	45.4	0.5	310
04:00	0.51	102	< 52	< 20	< 0.02	129	181	28.3	44.2	0.2	4
05:00	0.30	46	< 52	< 20	< 0.02	78	118	28.7	41.9	0.3	42
06:00	0.41	48	< 52	< 20	0.09	106	218	28.0	44.7	< 0.02	82
07:00	0.56	58	< 52	< 20	0.14	119	262	30.2	43.4	0.8	89
08:00	0.35	91	< 52	< 20	0.02	138	254	32.8	42.9	3.7	140
09:00	0.23	81	< 52	< 20	0.22	96	201	34.5	40.3	6.6	138
10:00	0.07	< 38	< 52	< 20	0.06	88	148	37.8	34.5	7.6	144

RPSA 00889-02-02 **HOURLY, 8 HOURS & 24 HOURS AVERAGE DATA FOR AMBIENT AIR QUALITY** Page 9 of 11

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
11:00	< 0.02	< 38	< 52	< 20	< 0.02	74	132	39.2	31.2	7.6	153
12:00	< 0.02	< 38	< 52	< 20	< 0.02	95	128	41.1	27.6	8.9	161
13:00	< 0.02	< 38	< 52	24	< 0.02	39	86	42.8	23.4	8.9	180
14:00	< 0.02	< 38	< 52	31	0.03	64	102	44.4	20.3	9.0	201
15:00	< 0.02	< 38	< 52	35	0.02	82	126	43.6	23.5	10.8	223
16:00	< 0.02	< 38	< 52	34	< 0.02	54	73	41.7	28.3	14.3	223
17:00	0.06	< 38	< 52	25	< 0.02	61	67	40.3	33.6	13.5	213
18:00	0.23	56	< 52	24	< 0.02	74	78	38.6	38.0	10.7	223
19:00	0.52	103	54	< 20	0.12	76	133	36.0	46.2	7.5	220
20:00	0.75	114	< 52	< 20	0.05	43	75	34.6	53.8	7.6	191
21:00	0.61	72	< 52	< 20	0.10	49	56	33.6	57.1	3.3	189
22:00	0.71	121	< 52	< 20	0.09	51	68	33.2	59.3	1.3	226
23:00	0.50	97	< 52	< 20	0.48	34	35	32.8	62.2	0.6	248
00:00	0.80	132	139	< 20	0.36	110	225	32.5	64.8	< 0.02	210

8 Hrs Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
16th Aug 18, 17-24	0.53	78	< 52	25	0.35	112	133	35.8	44.0	1.4	246
17/08/2018 01-08	0.53	99	< 52	< 20	0.04	174	217	32.3	61.4	1.7	140
09:00-16:00	0.03	< 38	< 52	59	0.17	169	270	42.7	42.9	4.7	186
17:00:24:00	0.59	104	< 52	63	0.07	115	155	37.0	58.5	4.6	234
18/08/2018 01-08	0.63	106	< 52	< 20	0.06	96	142	32.2	66.4	2.3	214
09:00-16:00	< 0.02	< 38	< 52	42	0.12	127	174	42.5	39.3	6.5	175
17:00:24:00	0.73	108	< 52	40	0.04	141	190	37.1	47.0	4.3	248
19/08/2018 01-08	0.63	84	< 52	< 20	0.03	122	183	32.3	62.2	1.8	237
09:00-16:00	0.25	< 38	< 52	35	0.04	114	174	42.7	43.8	7.0	162
17:00:24:00	0.56	91	< 52	22	0.06	98	139	37.5	42.7	4.4	291
20/08/2018 01-08	0.76	91	< 52	< 20	0.06	117	194	32.0	60.0	0.6	68
09:00-16:00	0.14	< 38	< 52	45	0.40	73	112	42.6	42.1	4.2	178
17:00:24:00	0.53	95	< 52	32	0.10	83	114	36.5	56.0	4.7	248
21/08/2018 01-08	0.61	96	< 52	< 20	0.05	82	127	32.6	67.7	0.6	175
09:00-16:00	0.02	< 38	< 52	37	0.04	64	90	43.4	39.2	6.2	138
17:00:24:00	0.39	61	< 52	34	0.10	75	101	36.7	54.0	3.2	298
22/08/2018 01-08	0.49	99	< 52	12	0.03	88	99	32.6	74.1	2.1	267
09:00-16:00	0.01	< 38	< 52	34	0.04	56	74	44.6	30.0	5.3	170
17:00:24:00	0.57	82	< 52	30	< 0.02	67	91	38.0	49.3	2.5	310
23/08/2018 01-08	0.52	101	< 52	< 20	0.06	115	171	32.6	60.9	1.4	201
09:00-16:00	0.01	< 38	< 52	28	0.04	93	140	44.6	28.3	6.4	178
17:00:24:00	0.70	104	< 52	22	0.05	72	122	38.0	47.5	3.3	233
24/08/2018 01-08	0.57	94	< 52	23	0.22	97	146	32.6	72.4	2.9	197

<b>Client Detail</b>	Name	GHD Global PTY. LTD	<b>Lab ID Detail</b>	Date	15/09/2018
	Address	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates		Report Number	RPSA 00889-02-02
	Nature of Business	Environmental Consultant		Sample Number	SPSA 00889-02-02
	Reference	AAQM - 03 - Ambient Air Quality Monitoring		Client Project Ref. No. :	7610735

Hourly Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
09:00:16:00	0.01	< 38	< 52	34	0.03	53	73	44.9	29.7	6.0	176
17:00:24:00	0.47	81	< 52	30	0.11	65	100	37.3	48.5	3.6	301
25/08/2018 01:08	0.71	94	< 52	< 20	0.10	99	176	31.4	64.0	1.1	175
09:00:16:00	0.04	< 38	< 52	< 20	0.02	134	189	44.3	26.9	9.6	196
17:00:24:00	0.75	106	< 52	< 20	0.76	89	134	36.3	53.9	3.6	304
26/08/2018 01:08	0.68	80	< 52	< 20	0.16	88	136	30.4	64.0	0.5	321
09:00:16:00	0.08	< 38	< 52	30	0.10	93	146	43.2	34.5	8.1	179
17:00:24:00	0.61	84	< 52	24	0.44	85	110	35.9	55.1	3.4	279
27/02/2018 01:08	0.63	102	< 52	< 20	0.17	96	139	32.1	64.8	1.5	230
09:00:16:00	0.02	< 38	< 52	20	0.16	76	145	45.9	22.5	5.1	93
17:00:24:00	0.46	76	< 52	34	0.08	85	128	38.0	39.7	3.6	262
28/02/2018 01:08	0.53	78	< 52	< 20	0.06	93	157	32.0	48.7	2.4	191
09:00:16:00	0.03	< 38	< 52	< 20	0.02	101	159	44.7	21.9	6.9	134
17:00:24:00	0.70	100	< 52	< 20	0.11	116	151	36.2	39.8	3.9	275
29/02/2018 01:08	0.50	95	< 52	< 20	0.30	68	105	31.0	56.4	4.5	188
09:00:16:00	0.03	< 38	< 52	31	0.02	53	87	44.4	20.6	6.4	144
17:00:24:00	0.64	94	< 52	< 20	0.28	102	150	35.2	38.2	3.9	301
30/02/2018 01:08	0.49	84	< 52	< 20	0.07	109	190	29.4	44.9	1.3	142
09:00:16:00	0.04	< 38	< 52	21	0.04	74	124	40.6	28.6	9.2	178
17:00:24:00	0.52	89	< 52	< 20	0.15	62	92	35.2	51.9	5.6	215

24Hrs Average Results	CO	NO <sub>2</sub>	SO <sub>2</sub>	O <sub>3</sub>	VOC	PM 10	TSP	Temp	U.R.	VV.	DV
	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	°C	%	kph	°
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
17-Aug-18											DAY 2
24 Hours Avg	0.38	70	< 52	43	0.09	153	214	37.3	54.3	3.7	187
18-Aug-18											DAY 3
24 Hours Avg	0.45	72	< 52	30	0.07	121	169	37.3	50.9	4.4	212
19-Aug-18											DAY 4
24 Hours Avg	0.48	60	< 52	< 20	0.05	111	165	37.5	49.6	4.4	230
20-Aug-18											DAY 5
24 Hours Avg	0.47	70	< 52	26	0.19	91	140	37.1	52.7	3.2	164
21-Aug-18											DAY 6
24 Hours Avg	0.34	54	< 52	24	0.06	74	106	37.6	53.6	3.3	204
22-Aug-18											DAY 7
24 Hours Avg	0.36	61	< 52	25	0.06	70	88	38.4	51.2	3.3	249
23-Aug-18											DAY 8
24 Hours Avg	0.41	69	< 52	< 20	0.05	93	144	38.4	45.6	3.7	204
24-Aug-18											DAY 9
24 Hours Avg	0.35	60	< 52	29	0.12	72	107	38.3	50.2	4.2	225
25-Aug-18											DAY 10

<b>Client Detail</b>	Name <b>GHD Global PTY. LTD</b> Address <b>3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Dubai, United Arab Emirates</b> Nature of Business <b>Environmental Consultant</b> Reference <b>AAQM - 03 - Ambient Air Quality Monitoring</b>	<b>Lab ID Detail</b>	Date <b>15/09/2018</b> Report Number <b>RPSA 00889-02-02</b> Sample Number <b>SPSA 00889-02-02</b> Client Project Ref. No. : <b>7610735</b>
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Hourly Average Results	CO mg/m <sup>3</sup>	NO <sub>2</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m <sup>3</sup>	O <sub>3</sub> μg/m <sup>3</sup>	VOC mg/m <sup>3</sup>	PM 10 μg/m <sup>3</sup>	TSP μg/m <sup>3</sup>	Temp °C	U.R. %	V.V. kph	DV
Detection Limit	0.02	38	52	20	0.02	10	10	0.1	0.1	0.1	1
24 Hours Avg	0.50	67	< 52	< 20	0.29	107	166	37.3	48.3	4.7	225
26-Aug-18											DAY 11
24 Hours Avg	0.46	60	< 52	< 20	0.23	89	131	36.5	51.2	4.0	260
27-Aug-18											DAY 12
24 Hours Avg	0.37	63	< 52	< 20	0.14	86	137	38.7	42.3	3.4	195
28-Aug-18											DAY 13
24 Hours Avg	0.42	63	< 52	< 20	0.06	103	156	37.6	36.8	4.4	200
29-Aug-18											DAY 13
24 Hours Avg	0.39	67	< 52	< 20	0.20	74	114	36.9	38.4	4.9	211
30-Aug-18											DAY 14
24 Hours Avg	0.35	62	< 52	< 20	0.09	82	135	35.1	41.8	5.3	178

**Murtaza Huseni**  
Manager (Technical & Operation)  
**For CORE Laboratory**

Results relates only to the items tested.

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Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
28/08/2018 00:00	0.006	0.004	0.035	0.039	0.3	2.008	0.208	2.216	0.008	44	157	0.0	0.0	0.0	0.0	0.0	0.0	1.06	16	34.2	33	0.5	
28/08/2018 00:30	0.003	0.010	0.038	0.049	0.34	1.979	0.253	2.232	0.009	43	157	0.0	0.0	0.0	0.0	0.0	0.0	0.70	36	34.1	33	0.5	
28/08/2018 01:00	0.005	0.004	0.034	0.039	0.29	1.999	0.236	2.236	0.009	156	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.80	32	33.8	32	0.5	
28/08/2018 01:30	0.005	0.005	0.034	0.039	0.24	1.963	0.206	2.17	0.009	156	9.1	0.2	0.0	0.0	0.0	0.0	0.0	0.86	32	33.4	33	0.5	
28/08/2018 02:00	0.002	0.019	0.036	0.055	0.25	2.399	0.252	2.651	0.009	155	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	36	32.2	35	0.5	
28/08/2018 02:30	0.010	0.009	0.035	0.045	0.22	2.117	0.248	2.365	0.008	155	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.00	40	31.8	42	0.5	
28/08/2018 03:00	0.028	0.001	0.024	0.024	0.17	1.909	0.167	2.076	0.008	167	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.74	41	32.1	49	0.5	
28/08/2018 03:30	0.011	0.004	0.038	0.042	0.22	2.286	0.234	2.52	0.007	167	0.0	0.0	5.2	0.0	0.4	0.0	0.0	0.59	82	31.5	52	0.4	
28/08/2018 04:00	0.007	0.044	0.048	0.092	0.29	5.269	0.408	5.676	0.005	128	0.0	0.0	8.1	0.2	0.4	0.0	0.0	0.73	118	31.1	51	0.4	
28/08/2018 04:30	0.004	0.032	0.040	0.072	0.29	1.985	0.169	2.154	0.005	129	0.0	0.0	9.1	0.0	0.4	0.0	0.0	0.99	101	31.3	42	0.4	
28/08/2018 05:00	0.004	0.040	0.040	0.080	0.52	1.916	0.16	2.076	0.008	196	0.0	0.0	6.0	0.0	0.6	0.0	0.0	0.72	108	31.4	46	0.4	
28/08/2018 05:30	0.003	0.048	0.042	0.090	0.6	1.89	0.156	2.046	0.008	197	0.0	0.0	8.1	0.0	0.3	0.0	0.0	0.50	107	31.1	54	0.4	
28/08/2018 06:00	0.005	0.044	0.037	0.081	0.35	1.877	0.164	2.041	0.006	260	0.3	0.0	9.4	0.0	0.3	0.3	0.0	0.60	105	30.5	59	7.5	
28/08/2018 06:30	0.006	0.028	0.031	0.059	0.21	1.885	0.152	2.036	0.007	260	0.0	0.0	9.3	0.0	0.6	0.0	0.0	0.66	102	30.4	61	35.6	
28/08/2018 07:00	0.010	0.015	0.024	0.039	0.18	1.874	0.259	2.133	0.006	221	0.0	0.0	8.5	0.0	0.6	0.0	0.0	0.66	106	31	58	98.6	
28/08/2018 07:30	0.019	0.022	0.022	0.045	0.2	1.933	0.153	2.087	0.006	220	1.1	0.0	7.6	0.7	0.4	0.1	0.0	0.88	124	32.5	51	207	
28/08/2018 08:00	0.026	0.022	0.018	0.040	0.16	2.91	0.202	3.112	0.006	158	0.0	0.0	2.5	0.0	0.3	0.0	0.0	1.15	137	34.9	36	251.5	
28/08/2018 08:30	0.032	0.010	0.010	0.019	0.13	3.879	0.256	4.135	0.007	158	0.0	0.1	0.0	0.0	0.0	0.0	1.0	1.41	152	36.9	26	274.5	
28/08/2018 09:00	0.032	0.016	0.014	0.030	0.14	3.708	0.262	3.97	0.008	134	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.60	157	37.9	23	225.9	
28/08/2018 09:30	0.035	0.015	0.012	0.026	0.13	3.569	0.242	3.811	0.008	134	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.68	163	38.9	22	291.8	
28/08/2018 10:00	0.042	0.005	0.006	0.011	0.12	3.28	0.23	3.51	0.009	157	0.2	0.1	0.1	0.0	0.0	0.0	0.1	1.76	172	40.1	20	447.1	
28/08/2018 10:30	0.045	0.003	0.004	0.007	0.11	2.766	0.198	2.964	0.010	157	0.0	0.0	0.2	0.2	0.0	0.0	0.2	2.02	194	41.1	18	518.9	
28/08/2018 11:00	0.045	0.007	0.006	0.013	0.11	2.647	0.187	2.834	0.011	184	0.0	0.0	0.4	0.0	0.2	1.2	2.15	192	41.8	18	531.8		
28/08/2018 11:30	0.045	0.011	0.008	0.019	0.11	2.518	0.17	2.688	0.010	184	0.0	0.0	0.7	0.0	0.0	1.1	2.57	204	42	17	455.2		
28/08/2018 12:00	0.050	0.003	0.004	0.007	0.1	2.304	0.154	2.459	0.009	168	0.0	0.0	0.2	0.1	0.0	0.0	0.1	1.87	204	42.1	17	487.5	
28/08/2018 12:30	0.050	0.007	0.007	0.014	0.11	2.242	0.148	2.39	0.009	168	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.07	215	42.6	17	509.8	
28/08/2018 13:00	0.053	0.004	0.005	0.009	0.11	2.093	0.139	2.232	0.008	142	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.53	207	42.9	16	391.4	
28/08/2018 13:30	0.056	0.003	0.004	0.007	0.11	2.131	0.146	2.277	0.009	142	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.81	220	42.9	16	357.5	
28/08/2018 14:00	0.051	0.007	0.015	0.021	0.17	2.021	0.183	2.203	0.010	132	0.0	0.0	0.0	0.1	0.0	0.0	2.3	1.54	276	43.2	19	471.2	
28/08/2018 14:30	0.051	0.009	0.023	0.032	0.22	1.852	0.224	2.076	0.012	136	0.0	0.0	0.0	0.0	0.1	0.0	2.9	2.16	316	41.1	28	428.7	
28/08/2018 15:00	0.051	0.005	0.020	0.026	0.21	1.843	0.188	2.031	0.013	435	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.39	318	40.6	30	358.2	
28/08/2018 15:30	0.052	0.005	0.019	0.024	0.2</td																		

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2	
29/08/2018 07:00	0.025		0.007	0.017	0.024	0.14	1.89	0.13	2.02	0.007	32	157	0.0	0.0	0.0	0.0	0.1	0.0	2.40	96	30.6	53	131.2	
29/08/2018 07:30	0.030		0.005	0.013	0.017	0.14	1.89	0.133	2.023	0.007	32	157	0.0	0.3	0.0	0.0	0.1	0.3	2.63	90	32.1	44	200.2	
29/08/2018 08:00	0.035		0.004	0.011	0.015	0.13	1.901	0.131	2.032	0.007	40	175	0.0	0.0	0.0	0.0	0.2	0.0	1.98	99	33.7	36	267.3	
29/08/2018 08:30	0.039		0.004	0.010	0.014	0.13	1.898	0.129	2.027	0.007	41	175	0.0	0.0	0.0	0.0	0.0	0.0	2.36	94	35.4	29	327.7	
29/08/2018 09:00	0.042		0.003	0.009	0.012	0.12	1.9	0.134	2.034	0.007	36	198	0.2	0.0	0.0	0.0	0.0	0.6	2.26	94	37.1	24	378.7	
29/08/2018 09:30	0.045		0.003	0.008	0.011	0.12	1.905	0.137	2.041	0.008	35	198	0.0	0.0	0.0	0.0	0.0	0.1	1.84	87	38.6	20	422.4	
29/08/2018 10:00	0.044		0.007	0.009	0.016	0.11	1.887	0.14	2.027	0.008	32	164	0.0	0.0	0.0	0.0	0.0	0.3	1.09	103	39.4	19	366.4	
29/08/2018 10:30	0.049		0.007	0.007	0.015	0.12	2.047	0.148	2.196	0.009	32	164	0.0	0.0	0.0	0.0	0.0	1.0	1.23	109	40.3	18	490.4	
29/08/2018 11:00	0.055		0.004	0.005	0.009	0.11	1.942	0.147	2.089	0.009	32	164	0.0	0.0	0.0	0.0	0.0	1.1	0.83	113	41.1	15	516	
29/08/2018 11:30	0.056		0.006	0.007	0.013	0.11	1.894	0.134	2.029	0.009	32	160	0.0	0.1	0.0	0.0	0.0	0.2	0.69	260	42.1	14	530.9	
29/08/2018 12:00	0.060		0.003	0.005	0.008	0.11	1.885	0.133	2.018	0.009	28	97	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.74	12	42.6	14	539.6
29/08/2018 12:30	0.062		0.003	0.006	0.010	0.11	1.895	0.14	2.034	0.008	28	97	0.0	0.1	0.0	0.0	0.0	0.4	0.97	290	43.3	13	540.9	
29/08/2018 13:00	0.067		0.001	0.004	0.005	0.11	1.88	0.139	2.02	0.008	29	94	0.1	0.1	0.0	0.0	0.0	0.4	1.39	12	43.5	12	522.2	
29/08/2018 13:30	0.079		0.001	0.007	0.008	0.15	1.885	0.162	2.046	0.008	29	94	0.2	0.4	0.0	0.0	0.0	0.0	1.78	359	43.4	14	504.7	
29/08/2018 14:00	0.098		0.003	0.019	0.021	0.25	1.903	0.202	2.105	0.010	22	96	0.2	0.0	0.0	0.0	0.0	0.9	2.59	320	42.2	23	473.4	
29/08/2018 14:30	0.091		0.003	0.019	0.022	0.24	1.888	0.202	2.089	0.012	25	153	0.0	0.0	0.0	0.0	0.0	1.2	3.17	339	40.8	28	432.1	
29/08/2018 15:00	0.095		0.003	0.015	0.018	0.24	1.895	0.221	2.117	0.013	68		0.0	0.0	0.0	0.0	0.0	1.4	3.08	332	39.8	34	381.6	
29/08/2018 15:30	0.092		0.002	0.012	0.015	0.21	2.027	0.211	2.238	0.014	67		0.0	0.2	0.0	0.0	0.3	1.5	4.32	353	39.5	30	324	
29/08/2018 16:00	0.084		0.002	0.014	0.017	0.22	1.945	0.212	2.156	0.015	51	336	0.0	0.5	0.0	0.0	0.0	1.0	4.14	352	39.1	30	216.1	
29/08/2018 16:30	0.085		0.002	0.015	0.017	0.23	1.87	0.218	2.088	0.015	51	334	0.0	0.0	0.0	0.0	0.0	1.2	3.02	338	38.8	29	186.5	
29/08/2018 17:00	0.075		0.002	0.019	0.021	0.25	1.874	0.255	2.129	0.016	48	308	0.0	0.0	0.0	0.0	0.0	0.9	2.47	327	38.4	30	78.9	
29/08/2018 17:30	0.071		0.002	0.020	0.021	0.26	1.949	0.261	2.21	0.015	48	300	0.0	0.0	0.0	0.0	0.0	0.6	2.81	<Samp	37.7	29	23.1	
29/08/2018 18:00	0.057		0.001	0.023	0.024	0.27	1.99	0.38	2.37	0.015	42	189	0.0	0.0	0.2	0.0	0.8	0.7	2.75	339	37.4	29	13.3	
29/08/2018 18:30	0.039		0.002	0.026	0.027	0.27	2.022	0.857	2.878	0.014	43	188	0.0	0.0	0.1	0.0	0.8	0.6	2.21	359	36.9	29	0.8	
29/08/2018 19:00	0.024		0.002	0.035	0.037	0.3	2.125	0.284	2.409	0.013	49	176	0.0	0.0	0.0	0.0	0.7	0.9	1.47	356	36.2	32	0.5	
29/08/2018 19:30	0.013		0.004	0.044	0.048	0.31	1.88	0.228	2.108	0.011	49	175	0.0	0.0	0.0	0.0	0.0	0.1	0.69	30	35.9	33	0.5	
29/08/2018 20:00	0.008		0.007	0.048	0.055	0.33	1.988	0.282	2.269	0.008	44	153	0.0	0.0	0.0	0.0	0.1	0.1	0.52	27	35.4	34	0.4	
29/08/2018 20:30	0.017		0.006	0.038	0.044	0.29	2.131	0.216	2.347	0.007	45	154	0.0	0.0	0.0	0.0	0.0	0.1	0.98	32	34.7	36	0.4	
29/08/2018 21:00	0.016		0.004	0.035	0.039	0.28	2.131	0.181	2.312	0.005	57	172	0.0	0.0	0.0	0.0	0.1	0.0	0.67	39	34.1	38	0.4	
29/08/2018 21:30	0.007		0.008	0.041	0.049	0.3	2.6	0.212	2.812	0.005	56	171	0.0	0.0	0.0	0.0	0.2	0.0	0.54	46	33.2	40	0.4	
29/08/2018 22:00	0.002		0.021	0.046	0.067	0.35	2.399	0.253	2.652	0.006	42	157	0.0	0.0	0.0	0.0	0.2	0.0	0.6					

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2	
30/08/2018 14:00	0.050		0.013	0.021	0.034	0.17	1.846	0.188	2.034	0.009	56	262	0.0	0.0	0.0	1.0	0.0	0.3	2.35	311	39.9	24	360.5	
30/08/2018 14:30	0.052		0.006	0.015	0.020	0.19	1.836	0.158	1.994	0.011	56	266	0.0	0.0	0.3	0.0	0.0	1.0	2.25	299	39.7	25	433.7	
30/08/2018 15:00	0.054		0.007	0.014	0.020	0.2	1.828	0.147	1.974	0.013	62	326	0.0	0.0	0.2	0.0	0.0	0.6	2.46	302	38.7	28	394.3	
30/08/2018 15:30	0.051		0.009	0.019	0.028	0.17	1.836	0.148	1.984	0.013	62	325	3.2	0.0	0.0	0.1	0.0	0.5	2.02	306	37.8	31	186.8	
30/08/2018 16:00	0.050		0.012	0.022	0.034	0.16	1.829	0.147	1.976	0.014	58	314	0.0	0.2	0.3	0.0	0.0	0.5	2.31	296	37.2	35	223.4	
30/08/2018 16:30	0.042		0.020	0.026	0.046	0.19	1.836	0.156	1.992	0.015	57	308	0.0	0.0	1.2	0.0	0.0	0.8	2.38	283	37.2	36	214	
30/08/2018 17:00	0.037	0.037	0.021	0.026	0.048	0.18	1.823	0.139	1.962	0.015	47	223	0.0	0.0	0.5	0.0	0.0	0.6	1.50	294	36.8	37	126.5	
30/08/2018 17:30	0.029	0.036	0.011	0.026	0.037	0.2	1.841	0.149	1.989	0.015	47	221	1.1	0.1	0.4	0.0	0.0	1.0	1.74	310	36.4	40	48.7	
30/08/2018 18:00	0.020	0.034	0.026	0.034	0.060	0.22	1.828	0.164	1.992	0.014	48	187	0.0	0.0	2.6	0.0	0.0	1.2	1.58	276	35.8	42	17.5	
30/08/2018 18:30	0.015	0.034	0.022	0.035	0.057	0.26	1.823	0.153	1.976	0.014	48	186	0.0	0.3	0.6	0.0	0.0	0.6	2.01	252	35.2	46	0.8	
30/08/2018 19:00	0.018	0.032	0.014	0.032	0.046	0.23	2.031	0.176	2.207	0.013	54	174	0.0	0.6	6.0	0.1	0.0	0.9	2.95	243	34.9	49	0.5	
30/08/2018 19:30	0.024	0.035	0.001	0.018	0.020	0.19	2.05	0.136	2.186	0.011	54	174	0.5	0.1	29.9	0.3	0.0	0.3	2.28	244	34.1	54	0.5	
30/08/2018 20:00	0.025	0.041	0.001	0.014	0.015	0.18	2.04	0.137	2.177	0.008	52	174	0.0	0.0	21.0	0.7	0.0	0.3	1.02	252	33.9	55	0.4	
30/08/2018 20:30	0.019	0.043	0.001	0.020	0.021	0.21	2.021	0.157	2.178	0.006	52	173	0.0	0.4	7.3	0.0	0.0	0.0	0.90	259	33.9	55	0.4	
30/08/2018 21:00	0.010	0.043	0.004	0.030	0.034	0.29	1.856	0.183	2.038	0.005	45	161	0.0	0.0	0.0	0.0	0.0	0.0	0.69	314	33.9	55	0.4	
30/08/2018 21:30	0.010	0.046	0.004	0.034	0.037	0.33	1.839	0.204	2.044	0.005	45	162	0.0	0.0	0.0	0.0	0.0	1.0	0.94	304	33.4	57	0.4	
30/08/2018 22:00	0.016	0.042	0.003	0.032	0.035	0.28	1.868	0.186	2.054	0.006	51	172	0.0	0.0	0.0	0.0	0.0	0.1	0.59	305	33.9	59	0.5	
30/08/2018 22:30	0.013	0.040	0.003	0.038	0.041	0.3	1.838	0.188	2.026	0.007	51	172	0.0	0.0	0.0	0.0	0.0	0.3	0.82	295	33.9	59	0.5	
30/08/2018 23:00	0.014	0.040	0.006	0.039	0.045	0.32	2.201	0.212	2.413	0.008	43	176	4.4	0.0	0.0	0.0	0.0	0.1	0.48	253	33.2	62	0.5	
30/08/2018 23:30	0.004	0.039	0.019	0.043	0.061	0.43	2.289	0.231	2.52	0.008	43	176	0.0	0.0	0.0	0.0	0.0	0.1	0.28	64	32.5	63	0.5	
31/08/2018 00:00	0.002	0.040	0.023	0.042	0.065	0.39	2.519	0.279	2.798	0.008	41	170	0.0	0.0	0.0	0.0	0.0	0.2	0.15	105	32.1	64	0.5	
31/08/2018 00:30	0.002	0.040	0.045	0.044	0.089	0.37	2.163	0.256	2.419	0.009	42	173	0.0	0.0	0.4	0.0	0.0	0.3	0.38	95	31.6	63	0.5	
31/08/2018 01:00	0.002	0.040	0.034	0.039	0.073	0.31	2.089	0.229	2.318	0.009	52	218	0.0	0.0	0.0	0.0	0.0	2.4	6.5	0.57	96	31.3	62	0.5
31/08/2018 01:30	0.003	0.039	0.019	0.034	0.053	0.25	2.04	0.202	2.242	0.009	53	226	0.0	0.0	0.0	0.0	0.0	0.1	0.45	103	31.1	63	0.5	
31/08/2018 02:00	0.004	0.038	0.040	0.042	0.082	0.32	3.078	0.258	3.336	0.009	59	341	0.0	0.0	0.0	0.0	0.0	0.7	0.35	99	30.6	64	0.5	
31/08/2018 02:30	0.004	0.038	0.012	0.031	0.043	0.26	31.456	1.694	33.15	0.009	59	333	0.0	0.6	1.2	0.0	0.0	0.3	0.28	112	30.3	64	0.5	
31/08/2018 03:00	0.003	0.037	0.021	0.034	0.054	0.26	47.135	2.701	49.836	0.009	59	209	0.0	0.0	4.2	0.1	0.0	0.0	0.22	147	30	65	0.5	
31/08/2018 03:30	0.002	0.035	0.018	0.028	0.046	0.25	26.513	1.257	27.77	0.007	59	209	0.0	0.0	0.5	0.0	0.0	0.0	0.32	153	29.7	66	0.4	
31/08/2018 04:00	0.002	0.035	0.022	0.026	0.047	0.25	52.921	2.9	55.821	0.005	54	203	0.0	0.1	0.0	0.0	0.0	0.0	0.25	107	29.1	68	0.4	
31/08/2018 04:30	0.002	0.038	0.014	0.024	0.038	0.23	31.978	2.017	33.995	0.004	54	202	0.0	0.0	0.0	0.0	0.0	0.0	0.46	182	28.8	67	0.4	
31/08/2018 05:00																								

Station: DM-Mobile -AI Warsan

Date & Time	O3 ppm	NH3 ppm	NO ppm	NO2 ppm	NOX ppm	CO ppm	CH4 ppm	NMHC ppm	THC ppm	SO2 ppm	PM2.5 µg/m3	PM10 µg/m3	DES ppb	DMDS ppb	H2S ppb	METHYL-SH ppb	ETHYL_SH ppb	DMS ppb	Wind Speed m/s	Wind Dir Deg	Temp C°	RH %	Solar Rad w/m2	
31/08/2018 21:00	0.028	0.030	0.004	0.027	0.030	0.36	36.676	1.548	38.224	0.005	51	129	2.4	0.0	0.0	0.0	0.1	0.0	0.61	181	33.5	58	0.4	
31/08/2018 21:30	0.021	0.031	0.003	0.028	0.030	0.34	17.775	1.042	18.817	0.005	51	129	0.0	0.1	0.5	0.0	0.3	0.3	0.52	201	33.3	60	0.5	
31/08/2018 22:00	0.018	0.043	0.004	0.031	0.035	0.33	4.225	0.368	4.593	0.006	48	134	0.0	0.0	43.1	1.2	0.1	0.6	0.40	116	33.2	61	0.5	
31/08/2018 22:30	0.009	0.053	0.011	0.039	0.051	0.51	4.961	0.395	5.356	0.007	48	134	0.0	0.0	3.2	0.0	0.0	0.0	0.50	71	32.3	62	0.5	
31/08/2018 23:00	0.012	0.049	0.008	0.036	0.044	0.51	2.652	0.263	2.915	0.007	43	131	0.0	0.0	0.4	0.0	0.0	0.4	0.44	77	31.5	63	0.5	
31/08/2018 23:30	0.012	0.055	0.005	0.035	0.040	0.42	2.858	0.289	3.146	0.007	43	132	0.3	0.0	0.8	0.0	0.0	0.8	0.51	68	31.1	68	0.5	
01/09/2018 00:00	0.008	0.065	0.006	0.040	0.046	0.45	2.53	0.298	2.828	0.007	47	153	0.0	0.0	1.4	0.0	0.0	0.5	0.70	49	30.7	72	0.5	
01/09/2018 00:30	0.004	0.060	0.008	0.042	0.050	0.42	2.979	0.341	3.32	0.008	47	153	0.0	0.0	0.9	0.0	0.0	0.9	0.56	42	30.2	75	0.5	
01/09/2018 01:00	0.009	0.058	0.005	0.034	0.039	0.34	2.928	0.317	3.245	0.008	47	156	0.0	0.0	0.0	0.0	0.0	1.3	0.56	22	29.9	77	0.5	
01/09/2018 01:30	0.007	0.062	0.009	0.034	0.043	0.35	3.492	0.349	3.84	0.008	47	155	0.0	0.2	0.0	0.0	0.0	0.1	0.48	53	29.8	79	0.5	
01/09/2018 02:00	0.004	0.105	0.009	0.036	0.045	0.37	3.257	0.305	3.562	0.008	45	146	0.0	0.5	0.0	0.0	0.9	0.0	0.36	70	29.2	81	0.5	
01/09/2018 02:30	0.005	0.077	0.011	0.036	0.047	0.4	2.878	0.231	3.11	0.007	45	146	0.0	0.0	0.0	0.0	0.0	0.0	0.47	72	28.9	81	0.5	
01/09/2018 03:00	0.009	0.056	0.005	0.027	0.032	0.31	2.397	0.201	2.597	0.007	48	137	0.0	0.4	0.0	0.0	0.0	0.3	0.44	70	28.6	81	0.5	
01/09/2018 03:30	0.010	0.044	0.002	0.024	0.027	0.3	2.166	0.174	2.34	0.006	48	136	0.0	0.0	0.0	0.0	0.0	0.2	0.46	58	28.3	81	0.4	
01/09/2018 04:00	0.009	0.041	0.008	0.025	0.033	0.27	2.919	0.222	3.14	0.004	43	122	0.0	0.0	0.0	0.0	0.1	0.5	0.42	36	28.1	79	0.4	
01/09/2018 04:30	0.008	0.041	0.004	0.026	0.030	0.25	2.149	0.184	2.333	0.003	43	122	0.0	0.0	0.0	0.0	0.0	0.0	0.39	37	28	78	0.4	
01/09/2018 05:00	0.002	0.038	0.026	0.032	0.058	0.31	2.429	0.188	2.617	0.003	48	126	0.0	0.0	0.0	0.0	0.0	0.0	0.36	100	27.9	79	0.4	
01/09/2018 05:30	0.002	0.040	0.072	0.029	0.101	0.42	2.606	0.216	2.822	0.003	48	126	0.0	0.0	0.0	0.0	0.0	0.0	0.58	69	27.2	81	0.5	
01/09/2018 06:00	0.002	0.066	0.080	0.031	0.112	0.43	2.502	0.22	2.722	0.004	49	131	0.0	0.0	0.0	0.0	0.0	0.0	0.70	37	27.3	75	14.7	
01/09/2018 06:30	0.004	0.090	0.041	0.029	0.070	0.33	2.662	0.191	2.853	0.006	49	132	0.0	0.0	0.0	0.0	0.0	0.2	0.86	47	27.9	70	61.4	
01/09/2018 07:00	0.005	0.196				0.42	3.449	0.332	3.781	0.009	46	150	0.0	0.8	0.0	0.0	0.0	0.6	0.82	61	28.3	71	123	
01/09/2018 07:30	0.012	0.092	0.025	0.030	0.055	0.32	2.189	0.231	2.42	0.010	47	151	0.0	0.0	0.9	0.1	0.0	0.7	0.89	68	30.3	59	191.1	
01/09/2018 08:00	0.030	0.075	0.009	0.017	0.026	0.2	1.993	0.167	2.16	0.010	60	161	0.0	0.0	0.0	0.3	0.0	0.5	0.63	68	32.7	52	254.2	
01/09/2018 08:30	0.040	0.081	0.009	0.015	0.024	0.16	1.876	0.166	2.042	0.013	60	163	0.0	0.0	0.0	0.0	0.0	0.3	0.94	126	34.3	48	314	
01/09/2018 09:00	0.052	0.066	0.008	0.010	0.019	0.17	2.304	0.17	2.475	0.017	56	188	0.0	0.0	0.0	0.0	2.5	0.0	0.73	139	36.1	39	364.8	
01/09/2018 09:30	0.056	0.043	0.005	0.009	0.014	0.18	2.289	0.177	2.467	0.020	55	185	0.0	0.0	0.0	0.0	0.3	0.0	1.14	215	37.3	31	408.5	
01/09/2018 10:00																			1.95	240				
01/09/2018 10:30																			1.49	244				
01/09/2018 11:00																			1.89	262				
01/09/2018 11:30	0.061	0.031	0.008	0.019	0.027	0.2	1.814	0.352	2.165	0.016	46	141		0.0	0.0	0.2	0.0	0.0	0.7	1.33	268	40.6	20	520
01/09/2018 12:00	0.061	0.031	0.007	0.018	0.025	0.22	1.927	0.179	2.106	0.013			0.0	0.0	0.3	0.0	0.0	0.3	1.15	261	41.2	18	514	
01/09/2018 12:30	0.065	0.029	0.004	0.017	0.022	0.23</td																		

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
02/09/2018 04:00	0.008	0.032	0.008	0.035	0.043	0.3	2.598	0.274	2.872	0.005	75	9.1	5.6	0.0	2.6	0.0	0.0	0.63	40	29.3	68	0.4	
02/09/2018 04:30	0.002	0.031	0.014	0.041	0.056	0.33	2.283	0.266	2.549	0.004	75	0.0	0.4	0.3	0.0	0.0	0.9	0.57	64	28.7	66	0.4	
02/09/2018 05:00	0.002	0.031	0.038	0.040	0.078	0.35	4.382	0.37	4.751	0.003	69	0.0	0.0	0.0	0.1	0.0	0.0	0.45	72	28.5	65	0.4	
02/09/2018 05:30	0.002	0.067	0.172	0.064	0.236	0.48	7.243	0.699	7.941	0.004	70	0.0	0.0	0.0	0.0	0.0	0.0	0.60	89	28	60	0.6	
02/09/2018 06:00	0.002	0.068	0.104	0.044	0.148	0.45	2.607	0.345	2.952	0.008	91	1.6	0.0	0.0	0.0	0.2	0.6	0.46	57	28.6	49	12.5	
02/09/2018 06:30	0.003	0.060	0.085	0.040	0.124	0.45	6.719	0.609	7.328	0.011	90	0.0	0.2	1.0	0.0	0.0	0.0	0.83	105	28.9	45	56	
02/09/2018 07:00	0.010	0.047	0.038	0.034	0.072	0.24	3.174	0.324	3.498	0.016	69	0.0	0.0	0.9	0.0	0.0	0.8	0.73	116	29.3	51	110.8	
02/09/2018 07:30	0.012	0.049	0.028	0.028	0.056	0.21	1.986	0.167	2.153	0.018	67	9.0	0.0	0.4	0.0	1.4	0.0	0.71	97	30.5	55	187.2	
02/09/2018 08:00	0.026	0.046	0.013	0.020	0.033	0.16	1.872	0.146	2.019	0.019	43	0.0	0.0	5.8	0.0	0.0	0.0	0.75	113	32.8	45	256.2	
02/09/2018 08:30	0.038	0.033	0.029	0.020	0.049	0.15	1.989	0.151	2.14	0.017	43	2.0	0.2	0.2	0.0	1.2	0.3	0.82	123	35.2	32	317.8	
02/09/2018 09:00	0.036	0.033	0.053	0.022	0.075	0.13	2.228	0.188	2.415	0.015	37	0.0	0.1	0.8	0.0	0.0	0.3	1.08	128	36.5	28	370.9	
02/09/2018 09:30	0.044	0.033	0.011	0.012	0.023	0.14	1.914	0.134	2.048	0.015	37	0.0	0.0	0.0	0.2	0.1	0.7	1.06	133	37.6	28	384.3	
02/09/2018 10:00	0.045	0.031	0.014	0.011	0.025	0.13	2.432	0.171	2.603	0.014	39	0.0	0.0	1.1	0.0	0.0	0.0	1.10	129	39.1	24	345.6	
02/09/2018 10:30	0.049	0.030	0.009	0.009	0.018	0.13	2.054	0.152	2.207	0.014	39	0.0	0.1	1.7	0.0	0.0	0.0	1.00	134	40	21	471.9	
02/09/2018 11:00	0.052	0.029	0.017	0.014	0.031	0.14	2.165	0.159	2.325	0.014	41	0.8	0.6	0.0	0.0	0.0	0.5	0.79	167	40.8	19	493.6	
02/09/2018 11:30	0.060	0.027	0.010	0.009	0.019	0.14	1.926	0.142	2.068	0.013	41	1.0	0.0	0.0	0.6	1.1	0.3	0.85	147	41.5	17	507.4	
02/09/2018 12:00	0.064	0.027	0.005	0.006	0.011	0.14	1.881	0.135	2.016	0.011	43	0.0	0.0	0.0	0.0	0.0	1.1	1.21	207	42.1	17	510.2	
02/09/2018 12:30	0.067	0.027	0.002	0.006	0.008	0.13	1.862	0.135	1.997	0.010	43	0.0	0.0	0.0	0.0	0.0	0.0	1.44	309	42.4	17	505.1	
02/09/2018 13:00	0.070	0.027	0.003	0.004	0.007	0.13	1.968	0.142	2.11	0.009	45	0.0	0.0	0.0	0.0	0.9	0.0	1.12	14	43.1	16	499.2	
02/09/2018 13:30	0.071	0.027	0.009	0.008	0.017	0.13	1.969	0.147	2.116	0.009	45	1.9	0.0	5.8	0.0	0.5	3.3	1.01	26	43.6	15	471.8	
02/09/2018 14:00	0.072	0.028	0.003	0.013	0.017	0.19	1.893	0.181	2.074	0.009	42	3.4	0.0	0.4	0.0	0.0	0.0	1.73	302	43.5	17	442.4	
02/09/2018 14:30	0.058	0.029	0.011	0.038	0.049	0.34	1.905	0.277	2.183	0.010	42	0.0	0.0	0.0	0.0	0.0	0.3	2.19	310	42.4	23	397.6	
02/09/2018 15:00	0.060	0.030	0.011	0.040	0.050	0.37	1.898	0.297	2.195	0.012	47	0.0	0.3	3.0	0.0	0.0	0.0	2.09	302	41.2	26	348.8	
02/09/2018 15:30	0.071	0.031	0.006	0.029	0.035	0.3	1.888	0.212	2.1	0.014	47	0.0	0.0	5.3	0.0	0.0	2.1	2.40	329	40.1	28		
02/09/2018 16:00	0.077	0.031	0.006	0.026	0.032	0.28	1.866	0.192	2.058	0.015	53	1.7	0.0	0.0	0.0	0.9	3.3	2.66	337	39.3	28	228.5	
02/09/2018 16:30	0.073	0.031	0.007	0.034	0.041	0.3	1.858	0.209	2.067	0.016	53	0.0	0.0	0.9	0.0	0.9	0.0	2.26	317	39	28	161	
02/09/2018 17:00	0.060	0.031	0.006	0.035	0.040	0.3	1.844	0.208	2.053	0.017	52	0.0	0.0	0.0	0.0	2.6	0.0	2.55	325	38.3	32	98.4	
02/09/2018 17:30	0.045	0.030	0.005	0.040	0.045	0.31	1.837	0.227	2.064	0.017	53	0.0	0.0	0.0	0.0	0.7	1.2	2.61	329	37.7	34	44.2	
02/09/2018 18:00	0.038	0.030	0.005	0.049	0.054	0.38	1.919	0.297	2.216	0.017	68	0.0	0.0	0.0	0.3	0.0	0.2	1.99	351	37.2	36	13.9	
02/09/2018 18:30	0.042	0.031	0.004	0.038	0.041	0.39	2.441	0.419	2.86	0.016	68	0.0	0.0	3.0	0.0	0.0	0.7	2.04	354	36.2	43	0.7	
02/09/2018 19:00	0.035	0.030	0.003	0.034	0.037	0.35	2.705	0.38	3.084	0.015	70	1.6	0.0	0.0	0.0	0.0	0.0	1.81	6	35.8	41	0.5	
02/09/2018 19																							

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
03/09/2018 11:00	0.048	0.033	0.010	0.008	0.018	0.12	2.373	0.177	2.55	0.011	41	0.0	0.8	0.0	0.0	0.0	1.4	1.45	197	41.3	18	483.2	
03/09/2018 11:30	0.051	0.031	0.009	0.007	0.017	0.12	2.158	0.159	2.316	0.010	42	0.0	0.0	0.0	0.2	0.0	0.0	1.78	200	42	18	496.5	
03/09/2018 12:00	0.054	0.030	0.007	0.005	0.013	0.11	2.311	0.168	2.478	0.009	57	0.0	0.0	1.1	0.0	0.1	0.0	1.61	213	42.2	18	503.9	
03/09/2018 12:30	0.056	0.030	0.008	0.006	0.014	0.12	2.146	0.156	2.302	0.009	57	0.0	0.0	2.7	0.1	0.0	0.2	1.34	207	42.8	17	500.3	
03/09/2018 13:00	0.058	0.029	0.008	0.007	0.015	0.15	2.12	0.161	2.281	0.008	62	0.0	0.0	0.0	0.0	0.3	0.0	2.54	234	43.4	17	478.8	
03/09/2018 13:30	0.059	0.029	0.006	0.015	0.021	0.21	1.994	0.199	2.193	0.008	62	0.0	0.0	12.6	0.4	0.0	0.0	2.13	265	43.2	19	461.8	
03/09/2018 14:00	0.062	0.030	0.007	0.022	0.030	0.24	1.854	0.213	2.068	0.008	69	0.0	0.0	0.0	0.0	0.0	0.0	2.10	296	42	22	433.2	
03/09/2018 14:30	0.067	0.031	0.008	0.024	0.032	0.24	1.853	0.213	2.066	0.009	69	0.0	0.6	1.4	0.0	0.8	3.1	1.63	287	42.1	22	384.3	
03/09/2018 15:00	0.071	0.030	0.007	0.025	0.033	0.24	1.847	0.229	2.076	0.011	70	0.0	0.0	0.4	0.0	0.0	0.0	1.54	310	42.1	22	339	
03/09/2018 15:30	0.063	0.031	0.006	0.032	0.039	0.25	1.842	0.226	2.069	0.013	71	0.0	0.0	0.3	0.2	0.0	0.0	1.86	328	41.9	22	271.1	
03/09/2018 16:00	0.076	0.031	0.004	0.028	0.032	0.27	1.882	0.246	2.128	0.014	78	0.0	0.0	0.0	0.0	1.5	1.3	2.15	335	41.4	23	205.5	
03/09/2018 16:30	0.085	0.032	0.004	0.026	0.030	0.3	2.233	0.317	2.549	0.015	78	0.0	0.2	0.0	0.0	0.0	0.5	3.59	346	40	27	145.3	
03/09/2018 17:00	0.077	0.033	0.004	0.037	0.041	0.3	2.123	0.286	2.409	0.016	77	0.0	0.0	0.0	0.0	0.2	0.2	3.02	350	39.2	31	93.8	
03/09/2018 17:30	0.081	0.033	0.003	0.032	0.035	0.27	1.87	0.26	2.131	0.016	75	0.0	0.1	2.6	0.0	0.0	0.0	3.39	348	38.4	33	44.3	
03/09/2018 18:00	0.086	0.033	0.002	0.026	0.028	0.27	1.857	0.295	2.152	0.016	44	0.0	0.0	0.0	0.0	0.0	0.0	2.82	344	38	32	11.5	
03/09/2018 18:30	0.075	0.032	0.003	0.025	0.027	0.26	1.859	0.28	2.138	0.015	44	0.0	0.0	0.0	0.0	0.0	0.3	2.31	11	37.1	35	0.6	
03/09/2018 19:00	0.051	0.030	0.002	0.022	0.024	0.2	1.886	0.18	2.066	0.015	50	0.0	0.1	1.7	0.0	0.0	0.3	1.76	34	37.3	27	0.5	
03/09/2018 19:30	0.028	0.028	0.003	0.024	0.026	0.19	2.048	0.159	2.208	0.012	53	0.0	0.0	0.0	0.0	0.1	0.0	0.86	48	37.6	19	0.5	
03/09/2018 20:00	0.031	0.027	0.003	0.021	0.024	0.17	2.118	0.156	2.273	0.010	96	0.0	0.0	0.0	0.0	0.0	0.2	1.53	82	37.2	20	0.5	
03/09/2018 20:30	0.036	0.027	0.003	0.018	0.022	0.14	2.251	0.177	2.427	0.008	94	0.0	0.0	0.0	0.0	0.1	0.0	1.48	85	36.9	19	0.4	
03/09/2018 21:00	0.041	0.028	0.003	0.015	0.017	0.14	2.025	0.169	2.193	0.006	68	0.0	0.0	0.0	0.0	0.0	0.0	1.79	90	36.6	18	0.4	
03/09/2018 21:30	0.046	0.028	0.002	0.012	0.014	0.14	1.991	0.168	2.159	0.005	67	0.2	0.0	0.0	0.0	0.0	0.0	1.60	93	36.3	16	0.4	
03/09/2018 22:00	0.045	0.029	0.002	0.012	0.014	0.14	1.943	0.156	2.1	0.005	52	0.0	0.0	0.0	0.0	0.0	0.0	1.76	95	35.9	17	0.4	
03/09/2018 22:30	0.040	0.029	0.001	0.014	0.015	0.14	1.921	0.154	2.075	0.004	52	0.0	0.0	0.0	0.0	0.0	0.0	1.62	94	35.5	18	0.4	
03/09/2018 23:00	0.032	0.029	0.002	0.019	0.021	0.14	1.97	0.152	2.122	0.004	47	0.0	0.0	0.0	0.0	0.0	0.0	1.56	94	35	20	0.4	
03/09/2018 23:30	0.029	0.030	0.003	0.018	0.021	0.14	2.271	0.169	2.44	0.003	47	0.0	0.0	0.0	0.0	0.0	0.0	1.55	89	34.3	26	0.4	
04/09/2018 00:00	0.020	0.032	0.005	0.025	0.030	0.15	2.259	0.169	2.428	0.003	53	0.0	0.0	0.0	0.0	0.0	0.0	1.08	82	33.9	31	0.4	
04/09/2018 00:30	0.011	0.035	0.010	0.033	0.043	0.17	2.472	0.186	2.658	0.004	53	0.0	0.0	0.0	0.0	0.0	0.0	0.70	67	33.5	34	0.4	
04/09/2018 01:00	0.008	0.037	0.011	0.035	0.046	0.17	2.247	0.174	2.422	0.005	45	0.0	0.0	0.0	0.0	6.1	0.0	0.84	65	33.3	34	0.5	
04/09/2018 01:30	0.008	0.037	0.009	0.035	0.044	0.16	2.422	0.291	2.713	0.006	45	0.0	0.0	0.0	0.0	0.0	0.0	0.98	41	33.2	32	0.5	
04/09/2018 02:00	0.007	0.036	0.007	0.034	0.041	0.18	1.982	0.213	2.195	0.006	47	0.0	0.0	0.0	0.0	0.0	0.0	1.15	14	32.4	31	0.4	
04/09/2018 02:30	0.007	0.0																					

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
04/09/2018 18:00	0.049	0.031	0.002	0.023	0.026	0.21	1.83	0.216	2.046	0.017	125	0.0	0.0	0.0	0.0	0.0	0.0	2.00	9	38.8	27	12.2	
04/09/2018 18:30	0.050	0.031	0.002	0.021	0.023	0.19	1.86	0.169	2.029	0.017	123	0.0	0.0	0.2	0.0	0.0	0.2	1.32	23	37.9	30	0.6	
04/09/2018 19:00	0.045	0.030	0.002	0.022	0.025	0.2	1.852	0.167	2.019	0.016	99	505	0.0	0.0	0.0	0.0	0.0	0.0	1.29	30	37.5	28	0.5
04/09/2018 19:30	0.036	0.029	0.003	0.028	0.031	0.22	1.866	0.177	2.043	0.014	99	500	0.0	0.0	0.0	0.0	0.0	0.0	1.25	19	37.2	28	0.5
04/09/2018 20:00	0.034	0.028	0.003	0.028	0.031	0.23	1.871	0.171	2.043	0.011	93	422	0.0	0.0	0.0	0.0	0.0	0.4	0.93	31	36.9	29	0.5
04/09/2018 20:30	0.035	0.027	0.003	0.026	0.029	0.22	1.891	0.173	2.064	0.009	93	421	0.0	0.0	0.0	0.0	0.0	0.0	0.93	26	36.6	29	0.4
04/09/2018 21:00	0.028	0.028	0.004	0.031	0.034	0.25	1.899	0.183	2.082	0.008	83	398	0.0	0.0	0.0	0.0	0.0	0.2	0.93	25	36.3	30	0.4
04/09/2018 21:30	0.008	0.029	0.008	0.044	0.052	0.35	2.268	0.222	2.49	0.008	83	394	0.0	0.0	0.0	0.0	0.0	0.0	0.62	40	35.4	32	0.5
04/09/2018 22:00	0.003	0.033	0.016	0.042	0.057	0.31	2.586	0.235	2.821	0.008	73	325	0.0	0.0	0.5	0.0	0.0	0.0	0.50	60	34.7	37	0.5
04/09/2018 22:30	0.002	0.041	0.025	0.037	0.061	0.29	2.484	0.226	2.71	0.009	72	321	0.0	0.0	0.0	0.0	0.0	0.0	1.01	86	34.5	40	0.5
04/09/2018 23:00	0.015	0.041	0.007	0.025	0.031	0.16	2.137	0.147	2.284	0.009	62	248	0.0	0.0	0.0	0.0	0.0	0.0	1.65	95	34.4	40	0.5
04/09/2018 23:30	0.019	0.039	0.004	0.020	0.024	0.12	2.157	0.135	2.292	0.010	61	243	0.0	0.0	0.0	0.0	0.0	0.0	1.67	96	34	42	0.5
05/09/2018 00:00	0.025	0.040	0.003	0.014	0.017	0.12	2.119	0.128	2.248	0.010	43	158	0.0	0.0	0.0	0.0	0.0	0.0	1.68	92	33.3	47	0.5
05/09/2018 00:30	0.022	0.041	0.004	0.015	0.019	0.11	2.052	0.118	2.17	0.010	42	156	0.0	0.0	0.0	0.0	0.0	0.4	1.42	95	32.9	52	0.5
05/09/2018 01:00	0.024	0.041	0.003	0.013	0.016	0.11	1.979	0.115	2.093	0.010	33	119	0.0	0.1	0.0	0.0	0.0	0.1	1.63	98	32.8	53	0.5
05/09/2018 01:30	0.007	0.039	0.016	0.029	0.044	0.13	1.923	0.118	2.04	0.010	33	121	0.0	0.0	0.0	0.0	0.0	0.4	0.88	96	32.5	54	0.5
05/09/2018 02:00	0.004	0.038	0.030	0.031	0.061	0.13	2.015	0.127	2.142	0.010	35	154	0.0	0.0	0.0	0.0	0.0	0.0	1.11	95	32.3	54	0.5
05/09/2018 02:30	0.007	0.039	0.015	0.026	0.040	0.12	2.429	0.151	2.58	0.010	35	155	0.0	0.0	0.0	0.0	0.0	0.0	1.21	93	32.4	51	0.5
05/09/2018 03:00	0.002	0.037	0.042	0.031	0.073	0.13	2.048	0.137	2.184	0.010	41	164	0.0	0.0	0.2	0.0	0.0	0.0	1.04	80	32.2	50	0.5
05/09/2018 03:30	0.004	0.033	0.057	0.033	0.090	0.15	1.9	0.154	2.054	0.015	42	170	0.0	0.0	0.0	0.0	0.0	0.4	0.80	98	32.2	41	0.4
05/09/2018 04:00	0.014	0.031	0.007	0.015	0.022	0.12	1.893	0.143	2.037	0.016	59	267	0.0	0.0	0.0	0.0	0.0	0.2	0.91	103	33.5	29	0.4
05/09/2018 04:30	0.015	0.029	0.006	0.016	0.022	0.12	1.884	0.145	2.029	0.011	58	264	0.0	0.0	0.0	0.0	0.0	0.0	1.22	105	33.6	26	0.4
05/09/2018 05:00	0.005	0.028	0.049	0.032	0.082	0.14	1.881	0.166	2.047	0.020	35	216	0.0	0.0	0.0	0.0	0.0	0.0	0.94	106	33.8	24	0.4
05/09/2018 05:30	0.006	0.028	0.047	0.032	0.079	0.14	1.865	0.173	2.038	0.026	37	228	0.0	0.0	0.0	0.0	0.0	0.0	1.06	105	33.5	24	0.4
05/09/2018 06:00	0.006	0.028	0.030	0.031	0.061	0.15	1.885	0.185	2.07	0.021	59	410	0.0	0.0	0.0	0.0	0.0	0.0	1.16	63	33.2	24	10.9
05/09/2018 06:30	0.011	0.029	0.015	0.024	0.039	0.18	1.937	0.179	2.117	0.008	58	400	0.0	0.0	0.0	0.0	0.0	0.0	0.96	77	33.6	25	49.9
05/09/2018 07:00	0.011	0.029	0.021	0.025	0.047	0.2	1.915	0.186	2.101	0.013	46	249	0.0	0.0	0.0	0.0	0.0	0.0	0.97	43	34.3	25	107.4
05/09/2018 07:30	0.019	0.030	0.017	0.019	0.037	0.16	1.903	0.164	2.067	0.013	46	251	0.0	0.0	0.0	0.0	0.0	0.0	1.36	114	35.5	24	176.4
05/09/2018 08:00	0.023	0.031	0.015	0.023	0.032	0.13	1.848	0.157	2.004	0.019	48	272	0.0	0.0	0.0	0.0	0.0	0.0	1.18	112	36.8	22	239.8
05/09/2018 08:30	0.033	0.031	0.017	0.013	0.031	0.13	2.036	0.158	2.194	0.009	49	279	0.0	0.0	0.0	0.0	0.0	0.0	2.25	101	38.2	20	300.2
05/09/2018 09:00	0.037	0.030	0.																				

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
06/09/2018 01:00	0.020	0.039	0.008	0.025	0.033	0.13	1.84	0.121	1.96	0.012	37	202	0.0	0.0	0.0	0.0	0.0	0.0	1.00	108	34.8	48	0.5
06/09/2018 01:30	0.018	0.038	0.009	0.024	0.033	0.13	1.841	0.123	1.964	0.012	37	200	0.0	0.0	0.3	0.0	0.0	0.0	1.04	91	34.3	49	0.5
06/09/2018 02:00	0.009	0.037	0.016	0.031	0.047	0.13	2.031	0.134	2.165	0.012	39	170	0.0	0.0	0.2	0.0	0.0	0.0	0.66	80	34.1	49	0.5
06/09/2018 02:30	0.015	0.037	0.012	0.024	0.036	0.13	1.946	0.133	2.079	0.012	39	169	0.0	0.0	0.0	0.0	0.0	0.0	0.62	116	33.8	49	0.5
06/09/2018 03:00	0.010	0.035	0.016	0.028	0.043	0.13	3.447	0.219	3.666	0.012	41	154	0.0	0.0	0.6	0.0	0.0	0.0	0.63	108	33.9	47	0.5
06/09/2018 03:30	0.011	0.033	0.015	0.025	0.040	0.14	4.207	0.261	4.468	0.012	41	156	0.0	0.0	0.0	0.0	0.0	0.0	0.73	135	33.8	46	0.4
06/09/2018 04:00	0.013	0.033	0.007	0.019	0.026	0.13	6.917	0.433	7.349	0.009	42	187	0.0	0.0	3.4	0.0	0.0	0.2	0.70	118	33.5	45	0.4
06/09/2018 04:30	0.003	0.034	0.021	0.029	0.050	0.15	3.27	0.222	3.492	0.007	42	185	0.0	0.0	0.6	0.0	0.0	0.0	0.72	42	33.1	46	0.4
06/09/2018 05:00	0.004	0.037	0.033	0.033	0.066	0.18	6.401	0.43	6.831	0.006	39	154	0.0	0.0	1.8	0.0	0.0	0.0	0.87	91	33.1	43	0.4
06/09/2018 05:30	0.007	0.037	0.039	0.035	0.073	0.17	1.903	0.168	2.071	0.006	40	159	0.0	0.0	0.0	0.0	0.0	0.0	0.81	102	33.9	35	0.4
06/09/2018 06:00	0.008	0.035	0.039	0.033	0.072	0.16	2.802	0.228	3.03	0.007	48	230	0.0	0.0	0.0	0.0	0.0	0.0	0.71	109	34	29	8.8
06/09/2018 06:30	0.017	0.034	0.027	0.022	0.049	0.16	9.029	0.68	9.71	0.007	48	226	0.0	0.0	0.0	0.0	0.0	0.0	0.89	132	34.1	25	45.5
06/09/2018 07:00	0.019	0.033	0.018	0.018	0.036	0.14	7.036	0.544	7.58	0.007	44	164	0.0	0.0	0.5	0.0	0.0	0.0	0.84	140	35.1	23	101.8
06/09/2018 07:30	0.023	0.031	0.021	0.017	0.038	0.14	4.841	0.363	5.203	0.008	44	164	0.0	0.0	0.0	0.0	0.0	0.0	0.88	161	36.5	22	168.9
06/09/2018 08:00	0.027	0.031	0.009	0.010	0.020	0.12	4.643	0.351	4.994	0.009	34	164	0.0	0.0	0.0	0.0	0.0	0.0	1.82	153	38.2	21	231.7
06/09/2018 08:30	0.032	0.030	0.008	0.008	0.016	0.11	4.093	0.309	4.402	0.010	36	181	0.0	0.0	0.0	0.0	0.0	0.0	1.62	164	39.4	20	289.4
06/09/2018 09:00	0.035	0.030	0.003	0.006	0.009	0.1	3.594	0.274	3.868	0.011	62	435	0.0	0.0	0.3	0.0	0.0	0.0	1.99	179	40.5	18	342.5
06/09/2018 09:30	0.038	0.029	0.002	0.005	0.008	0.11	3.331	0.261	3.592	0.012	61	426	0.0	0.0	0.2	0.0	0.0	0.0	2.08	197	41.5	17	389.3
06/09/2018 10:00	0.042	0.029	0.002	0.004	0.006	0.11	2.459	0.196	2.654	0.013	50	275	0.0	0.1	0.0	0.0	0.0	0.0	2.70	202	42.1	16	427
06/09/2018 10:30	0.044	0.029	0.002	0.004	0.006	0.11	2.518	0.201	2.719	0.014	50	275	0.0	0.0	0.0	0.0	0.0	0.0	3.38	203	42.7	16	455.4
06/09/2018 11:00	0.042	0.028	0.011	0.009	0.020	0.11	2.333	0.195	2.528	0.015	47	272	0.0	0.0	0.0	0.0	0.0	0.0	3.54	205	43.2	15	480.5
06/09/2018 11:30	0.039	0.030	0.025	0.015	0.039	0.12	2.36	0.187	2.546	0.014	47	272	0.0	0.2	3.3	0.0	0.0	0.0	3.38	211	43.5	15	499.2
06/09/2018 12:00	0.045	0.030	0.002	0.005	0.007	0.12	2.552	0.203	2.755	0.013	50	268	0.0	0.0	0.0	2.4	0.0	0.0	3.05	207	43.7	15	502
06/09/2018 12:30	0.046	0.029	0.003	0.004	0.006	0.11	2.195	0.164	2.359	0.012	50	269	3.1	0.0	12.3	0.1	0.2	0.0	3.54	219	43.7	14	500.3
06/09/2018 13:00	0.046	0.029	0.003	0.004	0.007	0.11	2.198	0.168	2.365	0.011	53	283	0.0	0.0	0.9	0.0	0.0	0.0	3.21	224	43.8	13	493.9
06/09/2018 13:30	0.046	0.031	0.003	0.004	0.007	0.11	2.159	0.165	2.324	0.010	53	276	0.0	0.0	1.0	0.0	0.0	0.0	3.21	236	44.1	13	484.4
06/09/2018 14:00	0.046	0.033	0.005	0.012	0.018	0.16	2.005	0.185	2.19	0.010	44	157	0.0	0.0	10.8	0.0	0.0	0.0	2.92	262	44	15	400.3
06/09/2018 14:30	0.047	0.034	0.009	0.020	0.029	0.2	1.836	0.203	2.039	0.011	45	171	6.1	0.0	0.0	0.0	0.0	0.0	2.34	295	42.8	19	413.9
06/09/2018 15:00	0.044	0.033	0.012	0.024	0.036	0.23	1.823	0.212	2.035	0.012	60	396	0.0	0.0	1.8	0.0	0.0	0.0	1.93	311	42.1	23	354.6
06/09/2018 15:30	0.045	0.033	0.008	0.026	0.034	0.27	1.814	0.236	2.05	0.014	60	387	0.0	0.0	0.0	0.0	0.0	0.0	1.90	318	41.4	26	29

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2	
07/09/2018 08:00	0.023	0.047	0.007	0.017	0.024	0.2	2.015	0.238	2.252	0.010	38	148	0.0	0.0	1.7	0.0	0.0	0.0	0.98	356	33.6	32	239.6	
07/09/2018 08:30	0.031	0.043	0.004	0.011	0.016	0.17	1.926	0.191	2.117	0.011	38	148	0.0	0.0	0.0	0.0	0.0	0.0	1.51	358	35.2	27	300.4	
07/09/2018 09:00	0.038	0.039	0.003	0.008	0.011	0.14	1.914	0.163	2.077	0.010	38	151	0.0	0.0	0.0	0.0	0.0	2.8	0.88	352	37.3	22	350.3	
07/09/2018 09:30	0.044	0.037	0.003	0.008	0.011	0.15	1.892	0.162	2.055	0.010	38	149	0.0	0.0	0.0	0.5	0.1	0.0	0.84	336	38.5	22	303.8	
07/09/2018 10:00	0.054	0.037	0.002	0.008	0.010	0.15	1.911	0.173	2.083	0.010	34	115	0.0	0.0	0.0	0.0	0.0	0.0	0.94	344	39.7	20	422.6	
07/09/2018 10:30	0.062	0.035	0.002	0.007	0.009	0.14	1.902	0.171	2.072	0.011	34	116	0.0	0.0	0.0	0.0	0.0	0.0	0.64	316	40.9	17	455.3	
07/09/2018 11:00	0.064	0.033	0.005	0.011	0.016	0.15	2.032	0.175	2.207	0.012	128	0.0	0.1	0.0	1.3	0.0	0.0	0.0	1.16	302	42.1	15	478.7	
07/09/2018 11:30	0.066	0.031	0.005	0.008	0.012	0.18	2.077	0.182	2.259	0.012	128	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.58	201	42.7	14	495.5
07/09/2018 12:00	0.070	0.030	0.004	0.006	0.009	0.13	2.413	0.196	2.609	0.011	120	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.12	240	43.3	13	503.7	
07/09/2018 12:30	0.073	0.030	0.002	0.004	0.005	0.14	2.181	0.182	2.363	0.010	120	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.40	222	43.6	13	505.4	
07/09/2018 13:00	0.074	0.031	0.001	0.004	0.006	0.14	1.958	0.164	2.122	0.010	122	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.98	261	43.8	13	495.5	
07/09/2018 13:30	0.072	0.031	0.002	0.003	0.005	0.13	2.2	0.185	2.384	0.009	123	0.0	0.0	0.0	2.5	0.0	0.0	0.0	1.66	237	44	13	479.3	
07/09/2018 14:00	0.085	0.035	0.004	0.010	0.014	0.17	1.911	0.183	2.093	0.009	130	0.0	0.5	0.0	0.4	0.0	0.0	0.0	1.95	280	43.9	16	439.3	
07/09/2018 14:30	0.092	0.036	0.005	0.020	0.025	0.22	1.87	0.204	2.074	0.010	134	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.11	292	42.7	22	406.4	
07/09/2018 15:00	0.108	0.035	0.003	0.015	0.018	0.23	1.869	0.204	2.073	0.012	188	0.0	2.5	0.0	0.0	1.7	0.0	0.0	1.79	295	41.5	24	360.9	
07/09/2018 15:30	0.098	0.034	0.002	0.016	0.018	0.23	1.849	0.194	2.043	0.013	187	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.70	292	41	26	305.2	
07/09/2018 16:00	0.089	0.033	0.004	0.021	0.026	0.24	1.837	0.201	2.038	0.014	174	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.30	285	40.1	29	237.8	
07/09/2018 16:30	0.085	0.032	0.002	0.020	0.022	0.24	1.838	0.195	2.032	0.015	173	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.44	280	39.5	29	166.5	
07/09/2018 17:00	0.071	0.031	0.007	0.029	0.036	0.26	1.844	0.197	2.04	0.016	163	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.79	302	39.1	27	105.5	
07/09/2018 17:30	0.078	0.031	0.002	0.024	0.026	0.28	1.843	0.21	2.053	0.016	161	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.48	305	38.5	28	47	
07/09/2018 18:00	0.067	0.031	0.001	0.027	0.028	0.29	1.831	0.197	2.028	0.015	132	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.19	329	37.2	36	11.5	
07/09/2018 18:30	0.071	0.030	0.000	0.022	0.022	0.31	1.837	0.19	2.027	0.015	132	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.46	348	36.6	33	0.5	
07/09/2018 19:00	0.058	0.029	0.001	0.027	0.028	0.37	1.914	0.2	2.113	0.014	127	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.59	328	36.3	33	0.5	
07/09/2018 19:30	0.048	0.028	0.002	0.033	0.034	0.36	1.992	0.245	2.237	0.012	127	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.36	28	36.2	32	0.5	
07/09/2018 20:00	0.036	0.027	0.002	0.038	0.040	0.37	2.206	0.27	2.476	0.010	130	0.0	0.1	0.0	0.0	0.0	0.0	1.1	0.16	109	36.1	32	0.5	
07/09/2018 20:30	0.040	0.027	0.002	0.030	0.032	0.32	2.262	0.27	2.532	0.007	131	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.35	181	36.1	32	0.5	
07/09/2018 21:00	0.027	0.028	0.003	0.032	0.035	0.32	5.928	0.494	6.422	0.006	141	0.0	0.0	0.0	4.9	0.1	0.0	0.0	0.85	231	35.9	34	0.6	
07/09/2018 21:30	0.020	0.041	0.003	0.036	0.039	0.41	24.477	1.828	26.305	0.006	142	0.0	0.1	0.0	10.4	0.0	0.0	0.0	0.76	238	34.5	43	0.5	
07/09/2018 22:00	0.009	0.059	0.004	0.052	0.055	0.51	2.963	0.39	3.353	0.006	153	0.0	0.1	0.0	3.5	0.0	0.0	0.0	1.03	228	34.2	42	0.4	
07/09/2018 22:30	0.015	0.067	0.003	0.048	0.051	0.48	2.349	0.324	2.672	0.007	152	0.0	0.0	0.0	6.0	0.0	0.0							

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
08/09/2018 15:00	0.086	0.041	0.004	0.031	0.035	0.34	1.858	0.262	2.12	0.011	161	0.0	0.0	1.6	1.3	0.0	0.0	1.93	300	39.1	39	351.9	
08/09/2018 15:30	0.086	0.039	0.002	0.027	0.028	0.3	1.835	0.231	2.066	0.013	161	0.0	0.9	0.0	0.0	0.0	0.0	2.08	300	37.8	42	291.5	
08/09/2018 16:00	0.078	0.039	0.002	0.027	0.029	0.28	1.819	0.201	2.019	0.014	164	0.0	0.0	0.0	0.0	0.6	0.0	2.07	321	36.7	51	224.3	
08/09/2018 16:30	0.065	0.038	0.003	0.025	0.028	0.29	1.813	0.203	2.017	0.014	163	0.0	0.0	1.9	0.0	0.0	0.0	1.95	308	36.1	54	157.7	
08/09/2018 17:00	0.051	0.037	0.001	0.026	0.027	0.29	1.81	0.229	2.038	0.014	145	0.0	0.0	0.0	1.1	0.0	0.0	1.86	305	35.5	59	98.1	
08/09/2018 17:30	0.044	0.036	0.000	0.025	0.025	0.29	1.802	0.218	2.021	0.014	144	0.0	0.2	0.0	0.0	0.0	0.0	1.62	313	34.7	65	44.9	
08/09/2018 18:00	0.035	0.036	0.001	0.023	0.024	0.29	1.803	0.199	2.003	0.014	134	0.0	0.0	0.0	0.0	0.0	0.0	1.79	312	34	69	9.9	
08/09/2018 18:30	0.030	0.036	0.001	0.024	0.024	0.29	1.81	0.206	2.016	0.013	135	0.0	0.0	0.0	0.0	0.0	1.1	1.47	300	33.4	74	0.5	
08/09/2018 19:00	0.029	0.036	0.001	0.021	0.021	0.3	1.816	0.2	2.016	0.012	67	150	0.0	0.0	0.0	0.0	0.0	0.0	1.12	315	33	74	0.5
08/09/2018 19:30	0.021	0.033	0.001	0.024	0.024	0.35	1.833	0.217	2.05	0.010	69	150	0.7	0.0	0.0	0.0	0.0	0.0	0.56	315	33.2	68	0.5
08/09/2018 20:00	0.015	0.032	0.001	0.029	0.030	0.38	1.855	0.231	2.085	0.008	93	151	0.0	0.1	0.2	0.0	0.0	0.2	0.41	350	33.4	63	0.4
08/09/2018 20:30	0.004	0.031	0.008	0.038	0.046	0.41	2.288	0.219	2.506	0.006	93	151	0.0	0.0	0.0	0.0	0.0	0.0	0.45	122	33.1	65	0.4
08/09/2018 21:00	0.003	0.034	0.019	0.035	0.054	0.51	3.097	0.28	3.378	0.005	99	149	0.0	0.0	0.0	0.0	0.0	2.0	0.42	111	32.5	69	0.4
08/09/2018 21:30	0.003	0.042	0.007	0.035	0.042	0.41	13.685	0.833	14.518	0.005	99	151	0.0	0.0	0.0	0.0	0.0	0.0	0.26	134	32.3	69	0.4
08/09/2018 22:00	0.006	0.044	0.004	0.029	0.033	0.35	14.4	0.79	15.19	0.006	90	189	0.0	0.0	0.0	0.0	1.1	0.0	0.25	116	32	75	0.4
08/09/2018 22:30	0.003	0.044	0.015	0.033	0.048	0.42	3.364	0.321	3.685	0.006	89	188	0.0	0.0	0.0	0.0	1.0	0.0	0.54	96	31.6	79	0.5
08/09/2018 23:00	0.003	0.045	0.017	0.034	0.051	0.45	2.247	0.26	2.507	0.007	76	169	0.0	0.0	0.0	0.0	0.0	0.0	0.38	29	31.4	80	0.5
08/09/2018 23:30	0.003	0.046	0.011	0.034	0.045	0.37	2.206	0.238	2.443	0.007	75	168	0.0	0.0	4.6	0.0	0.0	0.0	0.47	63	31	81	0.5
09/09/2018 00:00	0.002	0.047	0.011	0.033	0.045	0.34	2.374	0.24	2.613	0.007	64	155	0.0	0.0	0.0	0.0	1.5	0.0	0.40	87	30.6	82	0.5
09/09/2018 00:30	0.002	0.046	0.031	0.035	0.066	0.37	2.255	0.254	2.509	0.008	64	154	0.0	0.0	0.0	0.0	0.5	0.0	0.28	77	30.5	82	0.5
09/09/2018 01:00	0.003	0.046	0.021	0.033	0.054	0.34	1.999	0.24	2.24	0.008	57	145	0.0	0.0	0.0	0.0	0.0	0.0	0.58	39	30.4	81	0.5
09/09/2018 01:30	0.002	0.044	0.036	0.037	0.072	0.35	2.013	0.236	2.249	0.008	57	146	0.0	0.0	0.0	0.0	0.0	0.0	0.40	84	30.2	80	0.5
09/09/2018 02:00	0.005	0.043	0.009	0.033	0.041	0.29	10.937	0.631	11.568	0.008	57	154	0.0	0.0	0.0	0.0	0.0	0.0	0.47	174	30	80	0.5
09/09/2018 02:30	0.002	0.040	0.036	0.032	0.068	0.35	36.722	1.776	38.498	0.008	57	154	0.0	0.0	0.0	0.0	0.0	1.0	0.45	109	29.9	80	0.5
09/09/2018 03:00	0.002	0.039	0.060	0.033	0.093	0.43	3.339	0.318	3.657	0.007	59	155	0.0	0.1	0.0	0.0	0.0	1.2	0.39	91	29.5	82	0.5
09/09/2018 03:30	0.001	0.038	0.058	0.031	0.089	0.42	6.796	0.48	7.275	0.006	60	156	0.0	0.0	0.0	0.0	0.0	0.0	0.39	94	28.9	83	0.4
09/09/2018 04:00	0.002	0.035	0.055	0.031	0.086	0.32	2.693	0.298	2.991	0.005	69	178	0.0	0.0	0.0	2.2	0.0	0.0	0.43	99	29.1	81	0.4
09/09/2018 04:30	0.001	0.033	0.086	0.029	0.114	0.38	3.474	0.363	3.837	0.004	70	185	0.0	0.0	0.0	0.0	0.0	0.1	0.39	110	29.1	80	0.4
09/09/2018 05:00	0.001	0.032	0.085	0.030	0.114	0.39	4.547	0.422	4.968	0.003	77	301	0.0	0.0	0.0	0.0	0.1	0.0	0.27	120	28.7	81	0.4
09/09/2018 05:30	0.002	0.035	0.065	0.030	0.094	0.35	36.309	1.986	38.295	0.004	77	302	0.0	0.0	0.0	0.0	0.0	1.0	0.33	124	28.4	81	0.4
09/09/2018 06:00	0.002	0.036	0.143	0.028	0.171	0.57</																	

Station: DM-Mobile -AI Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2
09/09/2018 22:00	0.006	0.030	0.005	0.068	0.073	0.39	2.209	0.252	2.461	0.006	64	214	0.0	0.0	0.0	0.0	0.0	0.46	50	32.7	51	0.4	
09/09/2018 22:30	0.002	0.032	0.022	0.075	0.097	0.47	2.008	1.277	3.285	0.006	64	213	0.0	0.0	0.2	0.0	0.0	0.46	73	32.6	50	0.5	
09/09/2018 23:00	0.008	0.035	0.012	0.062	0.074	0.44	2.015	0.276	2.291	0.007	57	200	0.0	0.5	0.0	0.0	0.0	0.37	27	32.7	46	0.5	
09/09/2018 23:30	0.003	0.035	0.030	0.064	0.094	0.46	4.182	0.426	4.608	0.007	57	197	0.0	0.0	0.0	0.0	0.0	0.48	60	32.2	48	0.5	
10/09/2018 00:00	0.002	0.036	0.036	0.065	0.100	0.43	2.335	0.321	2.656	0.007	52	139	0.0	0.0	0.2	0.0	0.0	0.40	48	32	48	0.5	
10/09/2018 00:30	0.001	0.037	0.046	0.064	0.110	0.52	2.14	0.321	2.461	0.007	52	141	0.0	0.0	1.4	0.0	0.0	0.60	84	31.4	49	0.5	
10/09/2018 01:00	0.002	0.036	0.090	0.061	0.151	0.64	2.792	0.408	3.199	0.007	55	168	0.0	0.0	0.0	0.0	0.0	0.50	73	30.7	53	0.5	
10/09/2018 01:30	0.002	0.037	0.053	0.060	0.113	0.52	2.127	0.344	2.471	0.007	56	173	0.0	0.0	0.0	0.0	0.0	0.44	62	30.6	54	0.5	
10/09/2018 02:00	0.003	0.037	0.016	0.052	0.068	0.38	2.151	0.274	2.424	0.007	65	252	0.0	0.0	0.0	0.0	0.0	0.30	91	30.1	56	0.5	
10/09/2018 02:30	0.003	0.036	0.041	0.055	0.095	0.39	5.65	0.477	6.127	0.007	65	248	0.0	0.0	0.0	0.0	0.0	0.63	98	30	57	0.5	
10/09/2018 03:00	0.002	0.035	0.021	0.046	0.067	0.23	3.746	0.274	4.02	0.006	56	187	0.0	0.2	0.0	0.0	0.0	0.69	72	29.9	60	0.5	
10/09/2018 03:30	0.001	0.032	0.020	0.041	0.061	0.23	2.45	0.201	2.651	0.005	56	187	0.0	0.0	0.0	0.0	0.0	0.60	58	29.7	62	0.4	
10/09/2018 04:00	0.008	0.031	0.016	0.026	0.042	0.17	12.349	0.746	13.095	0.004	50	177	0.0	0.0	0.0	0.0	0.8	0.0	61	77	30.2	61	0.4
10/09/2018 04:30	0.010	0.031	0.007	0.019	0.025	0.14	6.533	0.401	6.934	0.003	50	175	0.0	0.3	0.0	0.0	0.0	0.49	61	30.4	59	0.4	
10/09/2018 05:00	0.001	0.032	0.046	0.031	0.077	0.22	2.583	0.19	2.773	0.003	46	133	1.5	0.0	0.0	0.0	0.0	0.43	41	30.2	58	0.4	
10/09/2018 05:30	0.002	0.037	0.089	0.029	0.118	0.4	2.317	0.201	2.518	0.004	46	134	0.0	0.0	0.0	0.0	0.0	0.85	69	29.8	59	0.5	
10/09/2018 06:00	0.002	0.089	0.170	0.052	0.222	0.61	2.012	0.297	2.308	0.006	38	158	0.0	0.0	0.0	0.0	0.0	0.69	85	29.2	60	10.3	
10/09/2018 06:30	0.002	0.075	0.146	0.036	0.182	0.59	2.205	0.287	2.492	0.009	39	163	0.0	0.0	6.6	0.0	0.0	0.3	1.07	95	28.9	60	50.1
10/09/2018 07:00	0.004	0.075	0.067	0.030	0.097	0.33	2.523	0.234	2.757	0.011	51	238	0.0	0.0	2.6	0.0	0.0	0.66	95	30.3	54	107.6	
10/09/2018 07:30	0.009	0.072	0.030	0.026	0.056	0.25	1.874	0.156	2.03	0.014	50	236	0.0	0.0	1.1	0.0	0.0	0.61	105	31.1	59	170.2	
10/09/2018 08:00	0.018	0.066	0.012	0.017	0.029	0.19	1.835	0.169	2.004	0.017	40	198	0.0	0.0	0.0	0.0	0.0	1.12	103	31.7	58	234.2	
10/09/2018 08:30	0.028	0.050	0.004	0.011	0.015	0.14	1.825	0.127	1.951	0.016	40	195	0.0	0.0	0.0	0.0	0.0	1.36	109	33.2	49	290.6	
10/09/2018 09:00	0.033	0.043	0.006	0.011	0.017	0.14	1.817	0.12	1.937	0.014	39	135	0.0	0.2	0.0	0.3	0.0	0.0	1.50	113	34.6	40	341.3
10/09/2018 09:30	0.037	0.039	0.007	0.011	0.018	0.12	1.812	0.119	1.93	0.014	39	139	0.0	0.0	0.0	0.0	0.0	0.0	1.55	113	35.4	40	306.5
10/09/2018 10:00	0.042	0.034	0.008	0.010	0.018	0.12	2.026	0.145	2.17	0.013	39	207	0.0	0.0	0.0	0.0	0.8	0.0	1.51	121	37.1	29	425.2
10/09/2018 10:30	0.046	0.029	0.009	0.010	0.019	0.12	2.663	0.205	2.867	0.012	39	203	0.0	0.0	0.0	0.0	0.0	0.0	1.60	150	38.7	20	457.8
10/09/2018 11:00	0.052	0.028	0.007	0.008	0.015	0.12	2.777	0.222	2.998	0.012	33	141	0.0	0.0	0.0	0.0	0.0	0.0	1.87	177	39.5	17	480.6
10/09/2018 11:30	0.053	0.027	0.007	0.014	0.012	0.12	2.52	0.2	2.72	0.011	33	143	0.0	0.0	0.0	0.0	0.0	0.0	2.11	194	40	16	495
10/09/2018 12:00	0.056	0.026	0.002	0.004	0.007	0.12	2.295	0.181	2.476	0.010	36	170	0.0	0.0	0.4	0.0	0.0	0.0	2.11	205	40.6	15	501.7
10/09/2018 12:30	0.057	0.026	0.003	0.005	0.008	0.11	2.339	0.18	2.517	0.009	36	169	1.6	0.0	14.7	0.3	0.0	0.0	2.34	213	41.1	14	500.9
10/09/2018 13:00	0.057	0.026	0.009	0.008	0.017	0.13	2.246	0.176	2.423	0.008	38	142	0.0	0.0	0.0	0.0	0.0	0					

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2	
28/08/2018 00:00	0.004		0.007	0.037	0.044	0.32	1.994	0.230	2.224	0.008	43	157	0.0	0.0	0.0	0.0	0.0	2.8	329	34.2	33	0.5	
28/08/2018 01:00	0.005		0.005	0.034	0.039	0.26	1.981	0.221	2.203	0.009	43	156	4.7	0.2	0.0	0.0	0.0	2.8	71	33.6	32	0.5	
28/08/2018 02:00	0.006		0.014	0.036	0.050	0.24	2.258	0.250	2.508	0.008	56	155	0.4	0.0	0.0	0.0	0.0	2.7	34	32	39	0.5	
28/08/2018 03:00	0.019		0.002	0.031	0.033	0.19	2.098	0.200	2.298	0.007	47	167	0.0	0.0	2.9	0.0	0.2	0.0	2.5	60	31.8	51	0.4
28/08/2018 04:00	0.005		0.038	0.044	0.082	0.29	3.627	0.289	3.915	0.005	49	128	0.0	0.0	8.6	0.1	0.4	0.0	2.7	113	31.2	46	0.4
28/08/2018 05:00	0.003		0.044	0.041	0.085	0.56	1.903	0.158	2.061	0.008	69	196	0.0	0.0	7.0	0.0	0.4	0.0	2.3	118	31.2	50	0.4
28/08/2018 06:00	0.005		0.036	0.034	0.070	0.28	1.881	0.158	2.038	0.006	65	260	0.2	0.0	9.3	0.0	0.4	0.1	2.8	118	30.4	60	21.5
28/08/2018 07:00	0.015		0.019	0.023	0.042	0.19	1.904	0.206	2.110	0.006	50	221	0.6	0.0	8.1	0.3	0.5	0.1	3.7	119	31.7	54	152.8
28/08/2018 08:00	0.029		0.016	0.014	0.030	0.15	3.395	0.229	3.623	0.007	47	158	0.0	0.0	1.3	0.0	0.2	0.5	4.9	141	35.9	31	263
28/08/2018 09:00	0.033		0.015	0.013	0.028	0.13	3.639	0.252	3.890	0.008	63	134	0.0	0.1	0.0	0.0	0.0	5.4	142	38.4	22	258.8	
28/08/2018 10:00	0.043		0.004	0.005	0.009	0.11	3.023	0.214	3.237	0.009	40	157	0.1	0.1	0.1	0.0	0.0	5.5	158	40.6	19	483	
28/08/2018 11:00	0.045		0.009	0.007	0.016	0.11	2.583	0.178	2.761	0.010	46	184	0.0	0.0	0.5	0.0	0.1	1.2	4.9	151	41.9	17	493.5
28/08/2018 12:00	0.050		0.005	0.006	0.011	0.11	2.273	0.151	2.424	0.009	44	168	0.0	0.0	0.1	0.1	0.0	0.3	3.9	160	42.3	17	498.7
28/08/2018 13:00	0.054		0.004	0.005	0.008	0.11	2.112	0.142	2.254	0.009	43	142	0.0	0.0	0.1	0.0	0.0	2.8	122	42.9	16	374.4	
28/08/2018 14:00	0.051		0.008	0.019	0.027	0.2	1.936	0.203	2.139	0.011	40	134	0.0	0.0	0.1	0.1	0.1	2.6	4.7	281	42.1	23	449.9
28/08/2018 15:00	0.051		0.005	0.019	0.025	0.2	1.839	0.173	2.012	0.014	80	434	0.0	0.0	0.0	0.0	0.0	2.1	5.8	303	39.9	33	335.9
28/08/2018 16:00	0.056		0.004	0.022	0.026	0.22	1.857	0.217	2.074	0.015	71	296	0.0	0.0	1.2	0.0	0.0	1.9	5.5	313	38.6	38	200.5
28/08/2018 17:00	0.052		0.003	0.023	0.026	0.26	2.000	0.274	2.275	0.016	56	263	0.3	0.0	1.4	0.0	0.2	1.5	4.9	319	37.8	35	73
28/08/2018 18:00	0.038		0.002	0.030	0.032	0.28	2.164	0.267	2.431	0.015	59	277	0.1	0.0	0.1	0.0	0.0	1.6	3.2	312	37.2	33	9.6
28/08/2018 19:00	0.016		0.014	0.046	0.060	0.3	10.897	0.722	11.618	0.013	52	247	0.1	0.0	0.0	0.0	0.1	0.4	1.4	89	36.5	34	0.5
28/08/2018 20:00	0.003		0.029	0.055	0.083	0.45	2.065	0.375	2.440	0.008	63	268	0.2	0.0	2.3	0.0	0.1	0.1	1.8	16	35.5	35	0.4
28/08/2018 21:00	0.011		0.004	0.042	0.046	0.38	1.954	0.264	2.218	0.006	71	258	0.0	0.0	2.9	0.0	0.3	0.0	2.8	3	34.8	39	0.4
28/08/2018 22:00	0.012		0.004	0.040	0.044	0.32	2.004	0.201	2.205	0.006	59	267	0.0	0.0	0.0	0.0	0.3	0.0	2.1	21	34.1	39	0.4
28/08/2018 23:00	0.004		0.018	0.045	0.063	0.33	2.431	0.267	2.697	0.007	56	256	0.0	0.0	0.0	0.0	0.0	0.1	3	38	32.6	38	0.5
29/08/2018 00:00	0.008		0.008	0.036	0.044	0.24	2.274	0.215	2.489	0.008	61	262	0.0	0.0	0.0	0.1	0.0	0.0	3.1	40	32.1	40	0.5
29/08/2018 01:00	0.021		0.002	0.021	0.023	0.17	2.122	0.162	2.285	0.008	34	165	10.5	0.0	0.0	0.0	0.0	1.1	3	39	31.3	49	0.5
29/08/2018 02:00	0.013		0.009	0.026	0.034	0.16	2.285	0.170	2.455	0.008	27	127	0.0	0.2	0.0	0.0	0.0	0.9	2.8	65	30.6	55	0.4
29/08/2018 03:00	0.020		0.002	0.017	0.019	0.13	2.202	0.135	2.337	0.007	35	143	0.0	0.0	1.3	0.0	0.3	0.0	2.7	57	30.4	56	0.4
29/08/2018 04:00	0.016		0.002	0.016	0.017	0.12	2.053	0.121	2.174	0.004	29	102	0.0	0.0	4.6	0.0	0.1	0.2	3.2	67	29.8	63	0.4
29/08/2018 05:00	0.013		0.002	0.019	0.022	0.14	1.948	0.104	2.052	0.003	31	117	0.8	0.0	3.9	0.0	0.0	0.0	3.6	71	29.8	62	0.4
29/08/2018 06:00	0.019		0.005	0.022	0.027	0.14	1.883	0.120	2.003	0.005	33	154	0.0	0.0	1.5	0.0	0.2	0.3	4.3	77	29.9	58	40.3
29/08/2018 07:00	0.027		0.006	0.015	0.020	0																	

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2		
30/08/2018 14:00	0.051		0.009	0.018	0.027	0.18	1.841	0.173	2.014	0.010	56	264	0.0	0.0	0.1	0.5	0.0	0.6	5.2	102	39.8	24	397.1	
30/08/2018 15:00	0.053		0.008	0.017	0.024	0.18	1.832	0.147	1.979	0.013	62	326	1.6	0.0	0.1	0.0	0.0	0.6	5.5	90	38.2	29	300	
30/08/2018 16:00	0.046		0.016	0.024	0.040	0.17	1.833	0.151	1.984	0.014	58	311	0.0	0.1	0.8	0.0	0.0	0.6	4.8	90	37.2	35	218.7	
30/08/2018 17:00	0.033	0.036	0.016	0.026	0.042	0.19	1.832	0.144	1.976	0.015	47	222	0.5	0.1	0.4	0.0	0.0	0.8	4.1	95	36.6	38	87.6	
30/08/2018 18:00	0.018	0.034	0.024	0.034	0.059	0.24	1.825	0.158	1.984	0.014	48	187	0.0	0.1	1.6	0.0	0.0	0.9	3.3	99	35.5	44	9.2	
30/08/2018 19:00	0.021	0.034	0.008	0.025	0.033	0.21	2.041	0.156	2.196	0.012	54	174	0.3	0.3	18.0	0.2	0.0	0.6	2	43	34.5	51	0.5	
30/08/2018 20:00	0.022	0.042	0.001	0.017	0.018	0.2	2.030	0.147	2.177	0.007	52	174	0.0	0.2	14.1	0.3	0.0	0.1	1.5	63	33.9	55	0.4	
30/08/2018 21:00	0.010	0.045	0.004	0.032	0.036	0.31	1.848	0.193	2.041	0.005	45	161	0.0	0.0	0.0	0.0	0.0	0.5	1.5	112	33.6	56	0.4	
30/08/2018 22:00	0.014	0.041	0.003	0.035	0.038	0.29	1.853	0.187	2.040	0.007	51	172	0.0	0.0	0.0	0.0	0.0	0.2	1.5	96	33.9	59	0.5	
30/08/2018 23:00	0.009	0.039	0.012	0.041	0.053	0.37	2.245	0.221	2.467	0.008	43	176	2.2	0.0	0.0	0.0	0.0	0.1	1.1	189	32.9	62	0.5	
31/08/2018 00:00	0.002	0.040	0.034	0.043	0.077	0.38	2.341	0.267	2.608	0.009	41	172	0.0	0.0	0.2	0.0	0.0	0.3	1.4	287	31.8	63	0.5	
31/08/2018 01:00	0.003	0.040	0.026	0.036	0.063	0.28	2.064	0.215	2.280	0.009	52	222	0.0	0.0	0.0	0.0	0.0	3.3	2.1	281	31.2	62	0.5	
31/08/2018 02:00	0.004	0.038	0.026	0.037	0.063	0.29	17.267	0.976	18.243	0.009	59	337	0.0	0.3	0.6	0.0	0.0	0.5	1.4	309	30.4	64	0.5	
31/08/2018 03:00	0.002	0.036	0.019	0.031	0.050	0.26	36.824	1.979	38.803	0.008	59	209	0.0	0.0	2.3	0.0	0.0	0.0	1.5	321	29.8	65	0.4	
31/08/2018 04:00	0.002	0.037	0.018	0.025	0.043	0.24	42.449	2.458	44.908	0.005	54	203	0.0	0.0	0.0	0.0	0.0	0.0	2.1	327	28.9	67	0.4	
31/08/2018 05:00	0.002	0.041	0.015	0.023	0.038	0.27	17.187	0.978	18.165	0.003	51	193	0.2	0.0	0.0	0.0	0.0	0.0	3.1	329	28.6	68	0.5	
31/08/2018 06:00	0.005	0.062	0.013	0.031	0.044	0.26	11.541	0.758	12.299	0.004	41	178	0.0	0.0	0.1	0.0	0.0	0.6	0.0	2	334	29.1	63	29.1
31/08/2018 07:00	0.014	0.050	0.009	0.022	0.031	0.24	8.801	0.687	9.488	0.005	42	178	0.0	0.0	0.8	0.0	0.0	0.4	3.1	334	30	52	79.6	
31/08/2018 08:00	0.029	0.049	0.005	0.013	0.017	0.2	3.423	0.334	3.757	0.006	52	180	0.0	0.0	1.5	0.2	0.0	0.0	3.9	328	33.1	37	215.9	
31/08/2018 09:00	0.043	0.045	0.002	0.008	0.010	0.17	2.586	0.209	2.795	0.008	49	187	0.0	0.1	13.9	1.2	0.0	0.1	4.3	217	36.2	27	320.1	
31/08/2018 10:00	0.051	0.038	0.002	0.006	0.008	0.16	2.416	0.209	2.626	0.009	37	166	0.0	0.0	22.5	0.7	0.0	0.4	3.8	168	37.9	24	480.7	
31/08/2018 11:00	0.061	0.030	0.002	0.006	0.007	0.15	2.214	0.185	2.398	0.010	39	165	0.1	0.1	34.8	1.2	0.3	0.2	2.8	93	39.5	19	515.7	
31/08/2018 12:00	0.061	0.028	0.003	0.014	0.017	0.19	2.064	0.191	2.255	0.009	40	128	0.0	0.0	23.3	0.1	0.0	0.3	2.8	48	40.5	18	526	
31/08/2018 13:00	0.065	0.028	0.004	0.015	0.019	0.19	1.884	0.189	2.073	0.009	35	144	0.0	0.0	9.0	0.0	0.0	0.4	5.3	99	41.2	18	513.4	
31/08/2018 14:00	0.069	0.029	0.002	0.008	0.010	0.18	1.867	0.150	2.017	0.012	37	191	0.0	0.0	0.3	0.0	0.0	0.2	5.5	97	40	22	459.2	
31/08/2018 15:00	0.071	0.029	0.002	0.008	0.009	0.16	1.861	0.151	2.011	0.013	39	212	0.2	0.0	0.0	0.0	0.0	0.2	5.3	101	39.5	22	364.2	
31/08/2018 16:00	0.070	0.030	0.007	0.014	0.020	0.18	1.860	0.154	2.013	0.014	28	110	0.2	0.0	0.1	0.1	0.0	0.3	4.7	103	38.5	27	226.2	
31/08/2018 17:00	0.065	0.030	0.012	0.020	0.032	0.21	1.851	0.159	2.009	0.015	23	99	0.5	0.6	0.0	0.0	0.0	0.4	3.8	107	37.4	36	81.3	
31/08/2018 18:00	0.055	0.030	0.009	0.026	0.035	0.29	1.855	0.170	2.025	0.015	33	102	0.0	0.0	0.0	0.1	0.0	1.2	2.9	102	35.8	49	8.8	
31/08/2018 19:00	0.049	0.029	0.005	0.027	0.032	0.34	1.903	0.198	2.101	0.012	40	118	0.0	0.0	0.5	0.0	0.4	1.2	1.7	98	35	53	0.5	
31/08/2018 20:00	0.038	0.030	0.001																					

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2	
02/09/2018 04:00	0.005	0.032	0.011	0.038	0.049	0.31	2.440	0.270	2.710	0.004	75	148	4.5	3.0	0.2	1.3	0.0	0.5	1.8	95	29	67	0.4
02/09/2018 05:00	0.002	0.049	0.105	0.052	0.157	0.41	5.812	0.534	6.346	0.004	70	101	0.0	0.0	0.1	0.0	0.0	1.8	136	28.2	62	0.5	
02/09/2018 06:00	0.003	0.064	0.094	0.042	0.136	0.45	4.663	0.477	5.140	0.009	90	121	0.8	0.1	0.5	0.0	0.1	0.3	2.7	134	28.7	47	34.2
02/09/2018 07:00	0.011	0.048	0.033	0.031	0.064	0.23	2.580	0.245	2.825	0.017	68	126	4.5	0.0	0.7	0.0	0.7	0.4	2.4	164	29.9	53	149
02/09/2018 08:00	0.032	0.040	0.021	0.020	0.041	0.16	1.931	0.148	2.079	0.018	43	126	1.0	0.1	3.0	0.0	0.6	0.1	3.9	170	34	39	287
02/09/2018 09:00	0.040	0.033	0.032	0.017	0.049	0.14	2.071	0.161	2.231	0.015	37	138	0.0	0.1	0.4	0.1	0.1	0.5	3.5	172	37	28	377.6
02/09/2018 10:00	0.047	0.030	0.011	0.010	0.021	0.13	2.243	0.162	2.405	0.014	39	159	0.0	0.9	0.5	0.0	0.0	0.0	3.5	182	39.6	22	408.8
02/09/2018 11:00	0.056	0.028	0.014	0.011	0.025	0.14	2.046	0.150	2.196	0.014	41	168	0.9	0.3	0.0	0.3	0.5	0.4	3	181	41.2	18	500.5
02/09/2018 12:00	0.065	0.027	0.004	0.006	0.009	0.13	1.872	0.135	2.006	0.011	43	223	0.0	0.0	0.0	0.0	0.0	0.6	2.8	110	42.2	17	507.6
02/09/2018 13:00	0.070	0.027	0.006	0.006	0.012	0.13	1.968	0.145	2.113	0.009	45	267	1.0	0.0	2.9	0.0	0.7	1.7	2	157	43.3	16	485.5
02/09/2018 14:00	0.065	0.028	0.007	0.025	0.033	0.26	1.899	0.229	2.128	0.009	42	279	1.7	0.0	0.2	0.0	0.0	0.2	5.1	327	43	20	420
02/09/2018 15:00	0.066	0.030	0.008	0.034	0.043	0.33	1.893	0.254	2.147	0.013	47	184	0.0	0.2	4.2	0.0	0.0	1.0	7	2	40.7	27	324.5
02/09/2018 16:00	0.075	0.031	0.007	0.030	0.037	0.29	1.862	0.201	2.062	0.016	53	179	0.8	0.0	0.5	0.0	0.9	1.7	6.5	312	39.2	28	194.8
02/09/2018 17:00	0.053	0.031	0.005	0.037	0.042	0.3	1.840	0.218	2.058	0.017	52	155	0.0	0.0	0.0	0.0	1.6	0.6	5.6	337	38	33	71.3
02/09/2018 18:00	0.040	0.030	0.004	0.043	0.048	0.38	2.180	0.358	2.538	0.017	68	148	0.0	0.0	1.5	0.2	0.0	0.4	4.4	27	36.7	40	7.3
02/09/2018 19:00	0.030	0.029	0.003	0.036	0.040	0.35	2.429	0.330	2.759	0.013	70	157	0.8	0.0	0.0	0.0	0.0	0.1	3.1	48	35.6	41	0.5
02/09/2018 20:00	0.023	0.028	0.003	0.038	0.041	0.31	1.874	0.294	2.168	0.008	72	155	0.0	0.2	0.2	0.0	0.0	0.4	2.5	57	35	42	0.5
02/09/2018 21:00	0.011	0.029	0.007	0.049	0.056	0.42	2.150	0.257	2.407	0.006	75	195	3.2	0.0	0.0	0.0	1.0	0.0	1.7	91	34.3	43	0.4
02/09/2018 22:00	0.012	0.032	0.008	0.045	0.053	0.39	2.494	0.231	2.725	0.007	62	182	0.0	0.6	0.4	0.0	0.0	0.3	2.7	91	33.4	45	0.5
02/09/2018 23:00	0.007	0.036	0.010	0.050	0.060	0.33	2.167	0.240	2.406	0.008	56	169	1.4	0.0	0.0	0.0	1.0	0.0	1.8	73	33.3	41	0.5
03/09/2018 00:00	0.002	0.038	0.044	0.054	0.098	0.44	2.686	0.371	3.057	0.009	47	156	2.8	0.2	0.4	0.2	0.0	0.2	2.2	77	32.8	39	0.5
03/09/2018 01:00	0.005	0.039	0.012	0.049	0.061	0.34	2.226	0.352	2.578	0.009	53	151	0.0	0.0	0.0	0.0	0.3	0.0	2.8	63	32.8	33	0.5
03/09/2018 02:00	0.002	0.051	0.045	0.049	0.094	0.41	3.381	0.476	3.857	0.009	47	149	0.0	0.1	1.2	0.1	0.0	0.0	2.5	90	31.8	32	0.7
03/09/2018 03:00	0.001	0.130	0.054	0.045	0.099	0.31	4.065	0.465	4.531	0.007	55	132	0.0	0.0	10.3	0.0	0.0	0.0	2.5	102	31.3	29	0.5
03/09/2018 04:00	0.001	0.069	0.035	0.045	0.080	0.24	3.201	0.357	3.558	0.005	53	160	0.0	0.2	3.2	0.1	0.3	0.0	2.2	94	31.1	24	0.4
03/09/2018 05:00	0.001	0.048	0.088	0.046	0.133	0.31	2.922	0.405	3.327	0.004	41	131	0.0	0.0	0.1	0.0	0.0	0.0	2.1	110	31.1	22	0.4
03/09/2018 06:00	0.002	0.043	0.102	0.049	0.151	0.34	2.778	0.336	3.114	0.006	38	98	0.0	0.1	0.3	0.0	0.2	0.0	3	139	30.6	25	32.2
03/09/2018 07:00	0.010	0.044	0.059	0.038	0.097	0.24	2.075	0.233	2.308	0.013	49	104	0.0	0.1	0.0	0.0	0.1	0.0	3.6	170	33	32	145.4
03/09/2018 08:00	0.019	0.038	0.026	0.025	0.051	0.19	1.927	0.180	2.107	0.022	52	107	0.0	0.0	0.0	0.0	0.7	0.4	3.5	168	35.3	27	274
03/09/2018 09:00	0.034	0.037	0.016	0.016	0.031	0.15	2.001	0.159	2.160	0.012	45	97	0.0	0.2	0.0	0.3	0.0	0.0	3.9	169	37.5	25	365.6
03/09/2018 10:00	0.043	0.034	0.013	0.011	0.024	0.13																	

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2	
04/09/2018 18:00	0.049	0.031	0.002	0.022	0.025	0.2	1.845	0.192	2.037	0.017	124	505	0.0	0.0	0.1	0.0	0.0	0.1	4.1	150	38.3	28	6.4
04/09/2018 19:00	0.040	0.029	0.003	0.025	0.028	0.21	1.859	0.172	2.031	0.015	99	502	0.0	0.0	0.0	0.0	0.0	0.0	3.1	150	37.4	28	0.5
04/09/2018 20:00	0.035	0.028	0.003	0.027	0.030	0.22	1.881	0.172	2.054	0.010	93	421	0.0	0.0	0.0	0.0	0.0	0.2	3.2	156	36.8	29	0.4
04/09/2018 21:00	0.018	0.028	0.006	0.037	0.043	0.3	2.084	0.202	2.286	0.008	83	396	0.0	0.0	0.0	0.0	0.0	0.1	2.4	182	35.8	31	0.4
04/09/2018 22:00	0.003	0.037	0.020	0.039	0.059	0.3	2.535	0.231	2.766	0.009	73	323	0.0	0.0	0.2	0.0	0.0	0.0	2	218	34.6	39	0.5
04/09/2018 23:00	0.017	0.040	0.006	0.022	0.028	0.14	2.147	0.141	2.288	0.009	61	245	0.0	0.0	0.0	0.0	0.0	0.0	1.9	232	34.2	41	0.5
05/09/2018 00:00	0.024	0.040	0.003	0.015	0.018	0.11	2.086	0.123	2.209	0.010	43	157	0.0	0.0	0.0	0.0	0.0	0.2	1.7	214	33.1	49	0.5
05/09/2018 01:00	0.016	0.040	0.009	0.021	0.030	0.12	1.951	0.116	2.067	0.010	33	120	0.0	0.0	0.0	1.2	0.2	0.3	2	252	32.6	54	0.5
05/09/2018 02:00	0.006	0.039	0.022	0.028	0.051	0.12	2.222	0.139	2.361	0.010	35	154	0.0	0.0	0.0	0.0	0.0	0.0	1.6	247	32.3	52	0.5
05/09/2018 03:00	0.003	0.035	0.050	0.032	0.082	0.14	1.974	0.145	2.119	0.012	42	167	0.0	0.0	0.1	0.0	0.0	0.2	2.4	263	32.2	46	0.4
05/09/2018 04:00	0.015	0.030	0.007	0.016	0.022	0.12	1.889	0.144	2.033	0.013	58	265	0.0	0.0	0.0	0.0	0.0	0.1	4.9	268	33.5	28	0.4
05/09/2018 05:00	0.005	0.028	0.048	0.032	0.080	0.14	1.873	0.170	2.043	0.023	36	222	0.0	0.0	0.0	0.0	0.0	0.0	4.7	277	33.6	24	0.4
05/09/2018 06:00	0.008	0.029	0.023	0.028	0.050	0.16	1.911	0.182	2.094	0.015	59	405	0.0	0.0	0.0	0.0	0.0	0.0	3.2	233	33.4	25	30.4
05/09/2018 07:00	0.015	0.030	0.019	0.022	0.042	0.18	1.909	0.175	2.084	0.013	46	250	0.0	0.0	0.0	0.0	0.0	0.0	3.8	230	34.9	24	141.9
05/09/2018 08:00	0.028	0.031	0.016	0.015	0.031	0.13	1.942	0.157	2.099	0.014	48	275	0.0	0.0	0.0	0.0	0.0	0.0	5.6	282	37.5	21	270
05/09/2018 09:00	0.039	0.031	0.008	0.008	0.017	0.11	3.372	0.254	3.626	0.010	57	376	0.0	0.0	0.0	0.0	0.0	0.0	6.6	316	39.8	18	374
05/09/2018 10:00	0.046	0.031	0.003	0.004	0.007	0.11	2.943	0.228	3.171	0.012	51	354	0.0	0.3	0.2	0.1	0.0	0.0	6.8	318	41.2	16	446.1
05/09/2018 11:00	0.048	0.029	0.002	0.004	0.006	0.11	2.567	0.197	2.764	0.013	60	388	0.1	0.0	0.2	2.1	0.0	0.5	6.2	317	41.8	16	491.2
05/09/2018 12:00	0.047	0.028	0.003	0.004	0.007	0.11	2.262	0.175	2.437	0.011	57	297	0.0	0.0	8.0	0.4	0.1	0.1	5.5	307	42.7	15	508.7
05/09/2018 13:00	0.048	0.030	0.003	0.003	0.006	0.1	2.280	0.172	2.452	0.010	48	249	0.0	0.0	1.0	0.0	0.0	0.0	5	288	43.3	15	484.2
05/09/2018 14:00	0.049	0.032	0.002	0.003	0.006	0.1	2.123	0.164	2.288	0.010	53	214	0.0	0.0	10.6	0.5	0.0	0.0	4.5	242	43.8	15	428.1
05/09/2018 15:00	0.053	0.059	0.004	0.014	0.018	0.17	1.975	0.193	2.169	0.014	49	433	0.0	0.1	0.0	0.0	0.0	0.1	4.7	80	43.3	17	315
05/09/2018 16:00	0.058	0.050	0.005	0.028	0.032	0.26	1.987	0.274	2.262	0.018	58	314	0.0	0.0	0.9	0.0	0.3	0.0	5.4	112	41.6	22	182.3
05/09/2018 17:00	0.052	0.035	0.004	0.031	0.035	0.22	1.849	0.237	2.086	0.019	74	349	0.0	0.1	0.0	0.0	0.2	0.0	4	61	41	22	62.1
05/09/2018 18:00	0.056	0.033	0.002	0.025	0.027	0.2	1.835	0.175	2.010	0.019	77	410	0.0	0.0	0.1	0.0	0.1	0.1	3.5	66	39.7	24	4.3
05/09/2018 19:00	0.051	0.030	0.002	0.027	0.029	0.24	1.893	0.184	2.077	0.016	68	309	0.0	0.0	0.0	0.0	0.0	0.0	3	85	39	23	0.5
05/09/2018 20:00	0.028	0.030	0.004	0.032	0.036	0.23	2.090	0.195	2.284	0.011	74	323	0.0	0.0	0.2	0.0	0.1	0.1	4	121	38.6	26	0.5
05/09/2018 21:00	0.032	0.034	0.003	0.012	0.015	0.12	1.852	0.123	1.975	0.009	67	296	0.0	0.0	0.0	0.0	0.1	0.0	4.7	145	37.8	29	0.5
05/09/2018 22:00	0.020	0.036	0.009	0.027	0.036	0.13	1.855	0.116	1.970	0.010	52	218	0.0	0.0	0.0	0.0	0.0	0.0	4.1	151	36.8	35	0.5
05/09/2018 23:00	0.031	0.038	0.004	0.017	0.020	0.12	1.846	0.112	1.958	0.011	40	174	0.0	0.0	0.0	0.0	0.0	0.0	3.9	149	35.9	43	0.5
06/09/2018 00:00	0.016	0.039	0.012	0.032	0																		

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2		
07/09/2018 08:00	0.027	0.045	0.006	0.014	0.020	0.19	1.970	0.214	2.185	0.010	38	148	0.0	0.0	0.8	0.0	0.0	0.0	2.6	121	34.4	30	270	
07/09/2018 09:00	0.041	0.038	0.003	0.008	0.011	0.14	1.903	0.163	2.066	0.010	38	150	0.0	0.0	0.0	0.3	0.0	1.4	1.4	118	37.9	22	327	
07/09/2018 10:00	0.058	0.036	0.002	0.007	0.009	0.14	1.906	0.172	2.078	0.011	34	115	0.0	0.0	0.0	0.0	0.1	0.0	1.7	133	40.3	19	439	
07/09/2018 11:00	0.065	0.032	0.005	0.009	0.014	0.16	2.054	0.179	2.233	0.012		128	0.0	0.0	0.0	0.7	0.4	0.0	1.7	140	42.4	14	487.1	
07/09/2018 12:00	0.071	0.030	0.003	0.005	0.007	0.13	2.297	0.189	2.486	0.010		120	0.0	0.0	0.9	0.0	0.0	2.5	289	43.5	13	504.6		
07/09/2018 13:00	0.073	0.031	0.002	0.004	0.006	0.13	2.079	0.174	2.253	0.009		122	0.0	0.0	1.8	0.0	0.0	2.7	215	43.9	13	487.4		
07/09/2018 14:00	0.089	0.035	0.005	0.015	0.020	0.2	1.891	0.193	2.084	0.010		132	0.0	0.2	0.0	0.2	0.0	0.0	5.1	54	43.3	19	422.8	
07/09/2018 15:00	0.103	0.034	0.002	0.016	0.018	0.23	1.859	0.199	2.058	0.012		188	0.0	1.2	0.0	0.1	0.8	0.0	5.9	60	41.2	25	333.1	
07/09/2018 16:00	0.087	0.033	0.003	0.021	0.024	0.24	1.837	0.198	2.035	0.015		174	0.0	0.0	0.0	0.0	0.0	0.5	5.9	66	39.8	29	202.2	
07/09/2018 17:00	0.075	0.031	0.005	0.026	0.031	0.27	1.843	0.203	2.047	0.016		162	0.0	0.0	0.0	0.0	0.0	4.4	64	38.8	28	76.3		
07/09/2018 18:00	0.069	0.031	0.001	0.024	0.025	0.3	1.834	0.194	2.027	0.015		132	0.0	0.0	0.0	0.0	0.0	0.7	3.8	91	36.9	35	6	
07/09/2018 19:00	0.053	0.029	0.001	0.030	0.031	0.37	1.953	0.222	2.175	0.013		127	0.0	0.0	0.0	0.3	0.0	1.2	114	36.2	32	0.5		
07/09/2018 20:00	0.038	0.027	0.002	0.034	0.036	0.35	2.234	0.270	2.504	0.008		130	0.3	0.0	0.0	0.0	0.6	1.1	103	36.1	32	0.5		
07/09/2018 21:00	0.024	0.035	0.003	0.034	0.037	0.36	15.202	1.161	16.363	0.006		141	0.0	0.1	2.4	0.1	0.0	1.6	342	35.4	37	0.5		
07/09/2018 22:00	0.012	0.063	0.003	0.050	0.053	0.49	2.656	0.357	3.013	0.006		152	0.0	0.1	6.9	0.0	0.0	2.2	30	34.3	42	0.5		
07/09/2018 23:00	0.019	0.065	0.002	0.040	0.042	0.41	2.851	0.389	3.241	0.008		133	0.6	0.1	7.8	0.0	0.1	1.9	252	33.7	43	0.5		
08/09/2018 00:00	0.002	0.051	0.024	0.063	0.087	0.69	2.147	0.500	2.647	0.009		144	0.0	0.0	7.3	0.7	0.6	0.0	2	72	33.3	44	0.5	
08/09/2018 01:00	0.001	0.043	0.035	0.061	0.096	0.78	3.352	0.529	3.882	0.008		160	0.0	0.0	2.6	0.0	0.2	0.0	2.3	170	31.9	47	0.5	
08/09/2018 02:00	0.001	0.051	0.067	0.134	0.77	11.324	1.098	12.422	0.008		154	0.0	0.0	5.5	0.0	0.0	0.0	2.1	242	30.7	48	0.5		
08/09/2018 03:00	0.001	0.047	0.051	0.055	0.107	0.72	2.973	0.790	3.763	0.007		248	1.2	0.0	6.9	0.2	0.1	0.1	2.4	206	30.1	48	0.4	
08/09/2018 04:00	0.001	0.042	0.072	0.054	0.125	0.69	2.886	0.476	3.362	0.004		173	0.0	0.0	0.5	0.0	0.0	0.0	1.6	226	29.7	47	0.4	
08/09/2018 05:00	0.001	0.046	0.100	0.057	0.157	0.61	3.588	0.536	4.124	0.003		207	0.0	0.0	13.7	0.0	0.0	0.0	0.0	1	146	29.7	48	0.5
08/09/2018 06:00	0.002	0.057	0.104	0.056	0.161	0.58	19.264	1.420	20.684	0.007		207	0.0	0.2	41.1	1.2	0.6	0.5	1.7	264	29.2	49	28.4	
08/09/2018 07:00	0.003	0.043	0.096	0.054	0.150	0.56	4.670	0.511	5.181	0.010		295	0.0	0.0	1.2	0.0	0.1	1.7	1.6	253	29.4	45	135.4	
08/09/2018 08:00	0.011	0.043	0.050	0.053	0.103	0.45	14.930	1.198	16.128	0.017		365	0.0	0.0	11.7	1.6	0.0	1.5	0.8	253	33	45	255.5	
08/09/2018 09:00	0.017	0.046	0.048	0.060	0.108	0.43	2.844	0.396	3.240	0.023		298	0.0	0.0	3.8	0.1	0.6	0.0	1	219	35.4	43	304.9	
08/09/2018 10:00	0.044	0.042	0.014	0.042	0.056	0.34	2.953	0.352	3.304	0.014		263	0.0	0.0	7.9	0.0	0.0	0.0	1.3	213	37.8	32	425.5	
08/09/2018 11:00	0.062	0.036	0.009	0.030	0.039	0.29	2.425	0.262	2.687	0.015		171	0.0	0.1	2.4	0.0	0.0	0.0	1.3	145	39.7	26	474.7	
08/09/2018 12:00	0.059	0.031	0.011	0.042	0.053	0.36	2.103	0.295	2.398	0.012		133	0.9	0.0	17.2	0.0	0.0	1.1	1.7	193	41.6	21	473.3	
08/09/2018 13:00	0.090	0.033	0.006	0.038	0.044	0.4	1.902	0.300	2.202	0.008		147	0.3	0.0	9.5	0.2	0.5	0.1	4.8	80	40.6	35	453.9	
08/09/2018 14:00	0.089	0.038	0.004	0.030	0.035	0.35	1.865	0.259	2.123	0.008		172	0.0	0.0	0.0	0.0	0.0	0.1	5.					

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL-SETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2		
09/09/2018 22:00	0.004	0.031	0.013	0.072	0.085	0.43	2.109	0.765	2.873	0.006	64	214	0.0	0.0	0.1	0.0	0.0	0.0	1.4	188	32.6	50	0.5	
09/09/2018 23:00	0.005	0.035	0.021	0.063	0.084	0.45	3.099	0.351	3.449	0.007	57	198	0.0	0.2	0.0	0.0	0.0	0.0	1.5	178	32.4	47	0.5	
10/09/2018 00:00	0.002	0.037	0.041	0.064	0.105	0.47	2.238	0.321	2.558	0.007	52	140	0.0	0.0	0.8	0.0	0.0	0.0	1.5	183	31.7	48	0.5	
10/09/2018 01:00	0.002	0.037	0.072	0.060	0.132	0.58	2.459	0.376	2.835	0.007	55	170	0.0	0.0	0.0	0.0	0.0	0.0	1.4	210	30.7	53	0.5	
10/09/2018 02:00	0.003	0.037	0.028	0.053	0.082	0.38	3.901	0.375	4.276	0.007	65	250	0.0	0.0	0.0	0.0	0.0	0.0	1.5	208	30	56	0.5	
10/09/2018 03:00	0.002	0.034	0.020	0.044	0.064	0.23	3.098	0.237	3.335	0.006	56	187	0.0	0.1	0.0	0.0	0.0	0.0	0.9	226	29.8	61	0.4	
10/09/2018 04:00	0.009	0.031	0.011	0.023	0.034	0.16	9.441	0.574	10.014	0.004	50	176	0.0	0.2	0.0	0.0	0.4	0.0	1.6	262	30.3	60	0.4	
10/09/2018 05:00	0.001	0.035	0.067	0.030	0.098	0.31	2.450	0.195	2.646	0.003	46	134	0.8	0.0	0.0	0.0	0.0	0.0	1.6	211	30	59	0.4	
10/09/2018 06:00	0.002	0.082	0.158	0.044	0.202	0.6	2.109	0.292	2.400	0.008	38	160	0.0	0.0	3.3	0.0	0.0	0.2	2.1	221	29	60	30.2	
10/09/2018 07:00	0.006	0.073	0.049	0.028	0.076	0.29	2.198	0.195	2.393	0.013	51	237	0.0	0.0	1.9	0.0	0.0	0.0	2.3	236	30.7	56	138.9	
10/09/2018 08:00	0.023	0.058	0.008	0.014	0.022	0.16	1.830	0.148	1.977	0.016	40	196	0.0	0.0	0.0	0.0	0.0	0.0	4.7	242	32.4	53	262.4	
10/09/2018 09:00	0.035	0.041	0.006	0.011	0.017	0.13	1.814	0.119	1.934	0.014	39	137	0.0	0.1	0.0	0.2	0.0	0.0	6.1	251	35	40	323.9	
10/09/2018 10:00	0.044	0.032	0.009	0.010	0.018	0.12	2.344	0.175	2.519	0.013	39	205	0.0	0.0	0.0	0.0	0.4	0.0	5.8	268	37.9	25	441.5	
10/09/2018 11:00	0.053	0.027	0.007	0.008	0.015	0.12	2.649	0.211	2.859	0.012	33	142	0.0	0.0	0.0	0.0	0.0	0.0	5.2	291	39.8	17	487.8	
10/09/2018 12:00	0.057	0.026	0.003	0.005	0.007	0.12	2.317	0.180	2.496	0.010	36	169	0.8	0.0	7.5	0.1	0.0	0.0	3.8	300	40.8	15	501.3	
10/09/2018 13:00	0.058	0.026	0.007	0.007	0.015	0.13	2.190	0.172	2.362	0.008	38	142	0.0	0.0	0.0	0.0	0.0	0.0	2.7	270	41.9	14	480.4	
10/09/2018 14:00	0.063	0.026	0.003	0.006	0.009	0.12	1.960	0.158	2.119	0.008	36	127	0.0	0.0	1.5	0.0	0.1	0.1	2.2	189	42.8	12	423.2	
10/09/2018 15:00	0.075	0.027	0.002	0.020	0.022	0.22	1.854	0.203	2.057	0.011	34	116	4.0	0.0	0.0	0.0	0.0	0.0	5.9	85	40.4	24	319	
10/09/2018 16:00	0.078	0.027	0.001	0.019	0.020	0.24	1.910	0.223	2.133	0.013	51	316	0.0	0.0	1.2	0.0	0.0	0.0	5.7	104	38.1	33	192.8	
10/09/2018 17:00	0.071	0.027	0.000	0.024	0.024	0.24	2.214	0.284	2.498	0.014	48	262	0.0	0.0	0.0	0.0	0.2	0.0	4.9	113	37.4	32	70.7	
10/09/2018 18:00	0.055	0.027	0.000	0.033	0.033	0.26	1.880	0.250	2.131	0.014	47	226	0.7	0.0	0.0	0.0	0.0	0.0	3.8	127	36.8	34	4.4	
10/09/2018 19:00	0.053	0.026	0.000	0.026	0.026	0.25	1.863	0.196	2.059	0.012	53	199	0.5	0.0	0.0	0.0	0.0	0.0	0.0	2.8	137	35.8	38	0.5
10/09/2018 20:00	0.040	0.025	0.001	0.027	0.028	0.25	1.881	0.173	2.054	0.008	48	172	0.0	0.0	0.1	0.0	0.0	0.0	2.4	151	35.2	40	0.4	
10/09/2018 21:00	0.018	0.025	0.004	0.028	0.032	0.23	2.363	0.182	2.545	0.006	44	160	0.0	0.3	0.0	0.0	0.0	0.0	2.6	191	34.4	44	0.4	
10/09/2018 22:00	0.012	0.029	0.005	0.026	0.031	0.18	2.338	0.154	2.492	0.006	42	135	0.0	0.0	0.0	0.0	0.0	0.0	2.8	193	33.2	46	0.5	
10/09/2018 23:00	0.013	0.033	0.002	0.024	0.026	0.16	2.074	0.134	2.209	0.007	27	103	0.0	0.0	0.0	0.1	0.0	0.0	2.7	178	31.8	50	0.5	
Minimum	0.001	0.024	0.000	0.003	0.005	0.1	1.806	0.104	1.934	0.0029	23	90	0	0	0	0	0	0.8	2	27.6	12	0.4		
Maximum	0.103	0.144	0.158	0.072	0.202	0.78	42.449	2.458	44.908	0.0247	124	505	10.5	3	45.7	7.8	3	4.9	8.2	358	43.9	82	540.2	

## Station: DM-Mobile -Al Warsan

Date & Time	O3	NH3	NO	NO2	NOX	CO	CH4	NMHC	THC	SO2	PM2.5	PM10	DES	DMDS	H2S	METHYL_SH	ETHYL_SH	DMS	Wind Speed	Wind Dir	Temp	RH	Solar Rad
	ppm	µg/m3	µg/m3	ppb	ppb	ppb	ppb	ppb	ppb	m/s	Deg	C°	%	w/m2									
28/08/2018 00:00	0.026		0.013	0.028	0.041	0.25	2.66	0.24	2.90	0.009	55	212	0.30	0.00	1.90	0.00	0.10	0.50	3.5	83	36.1	35	150.2
29/08/2018 00:00	0.037		0.007	0.022	0.029	0.21	2.04	0.20	2.24	0.008	39	203	0.50	0.00	0.50	0.00	0.10	0.40	3.7	140	35.4	36	165.8
30/08/2018 00:00	0.023		0.018	0.025	0.042	0.20	4.97	0.35	5.32	0.008	50	219	0.20	0.00	4.80	0.10	0.00	0.30	3.0	44	34.2	39	151.4
31/08/2018 00:00	0.034	0.037	0.010	0.022	0.032	0.26	8.37	0.53	8.90	0.009	43	167	0.10	0.10	5.50	0.20	0.20	0.40	2.9	25	34.4	46	159.4
01/09/2018 00:00	0.032	0.047	0.016	0.032	0.048	0.33	2.39	0.26	2.65	0.010	57	160	0.30	0.10	0.50	0.00	0.20	0.50	2.7	233	33.8	51	141.9
02/09/2018 00:00	0.031	0.034	0.018	0.033	0.051	0.30	2.39	0.26	2.66	0.011	61	171	1.10	0.20	0.90	0.10	0.30	0.40	3.2	97	35.3	39	155.5
03/09/2018 00:00	0.035	0.040	0.023	0.028	0.051	0.23	2.32	0.25	2.57	0.010	51	111	0.10	0.10	1.10	0.00	0.10	0.20	3.8	116	36.5	25	152.8
04/09/2018 00:00	0.028	0.034	0.011	0.022	0.033	0.18	2.29	0.20	2.48	0.011	72	180	0.00	0.00	1.20	0.20	0.20	0.10	4.3	214	37	27	153.6
05/09/2018 00:00	0.032	0.034	0.011	0.019	0.029	0.15	2.10	0.17	2.28	0.013	54	280	0.00	0.00	1.00	0.20	0.00	0.10	4.2	250	37.9	27	156.5
06/09/2018 00:00	0.027	0.032	0.011	0.025	0.036	0.19	2.85	0.24	3.08	0.011	51	241	0.20	0.00	1.40	0.10	0.00	0.10	4.2	181	38.1	29	154.6
07/09/2018 00:00	0.042	0.038	0.007	0.023	0.030	0.24	3.55	0.30	3.86	0.009		145	0.20	0.10	3.00	0.90	0.10	0.10	2.6	127	36.8	31	155.7
08/09/2018 00:00	0.028	0.041	0.031	0.043	0.073	0.47	4.58	0.48	5.06	0.010		190	0.10	0.00	5.30	0.20	0.20	0.30	2.6	164	34	50	148.4
09/09/2018 00:00	0.037	0.040	0.024	0.033	0.056	0.35	4.14	0.38	4.52	0.008	59	180	0.00	0.00	1.20	0.10	0.10	0.50	2.5	187	33.9	56	143.9
10/09/2018 00:00	0.032	0.035	0.021	0.027	0.047	0.25	2.56	0.23	2.79	0.009	45	178	0.30	0.00	0.70	0.00	0.00	0.00	3.2	207	34.8	40	153.4
Minimum	0.023	0.032	0.007	0.019	0.029	0.150	2.040	0.173	2.239	0.008	39	111	0.00	0.00	0.50	0.00	0.00	0.00	2.5	25	34	25	141.9
Maximum	0.042	0.047	0.031	0.043	0.073	0.470	8.367	0.532	8.900	0.013	72	280	1.10	0.20	5.50	0.90	0.30	0.50	4.3	250	38	56	165.8

## **REPORT OF TESTS**

Description	Test Report GHD – DM Waste to Energy – Ambient Air
Tested for	GHD Global PTY LTD
Lab Ref. No.	ENV DXB 18/052
Date Reported	14.10.2018

Project name : GHD – DQ24095  
Sampled by : Element  
Sampling Date : 10<sup>th</sup> – 11<sup>th</sup> September 2018

## 1.0 Introduction

Further to the test work instructions under quotation DQ24095 from GHD Global PTY LTD, Ambient air monitoring has been conducted at two locations identified by the client.

## **2.0      Ambient Air Monitoring**

Sampling was conducted utilising an Ecotech HIVOL 3000 high volume sampler. The results are shown in the table below:

Location Name.	Long / Lat	Start Date / Time	End Date / Time	Sampling Volume (m³)	Analysis Result (ng TEQ)	Concentration (ng/m³ TEQ)	Limit ng/m³
Location 1	N-25°09'25 E-55°26'44	11/09/2018 12:38	12/09/2018 12:38	322.56	0.00242	0.000007	-
Location 2	N-25°09'44 E-55°26'25	10/09/2018 11:14	11/09/2018 11:14	322.56	0.00194	0.000006	-

## TEQ: Toxic Equivalent Value

**For and on behalf of Al Futtaim Exova**

L. Pallei

Reviewed by: Andrew Palliser, Operations Manager – Environmental

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The test results relate only to the samples tested.



**Marchwood Scientific Services**

**371 Millbrook Rd West  
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**Tel: 02380 786979**

**UKAS accredited testing laboratory No. 1668**

**Name of Client :** Al Futtaim Exova Dubai

**Test Certificate No:** 18009709

**Address :** Plot 598-221 Dubai Investment Park, Jebel Ali, PO Box 34924 Dubai

0

## **ANALYSIS OF PCDDs and PCDFs**

**Job Reference:** 0

**Sample Identifier :** DXB ENV 18/052-R1/DF1 11/09/18

**Date of Receipt :** 17/09/18

**Sample No:** 18009709

**Date of Analysis :** 21/09/18

**Order No:** 0

**Date of Report :** 11/10/18

**Sample Type:** Ambient

**Sample Condition :** conforming

**Instrument :** Micromass Ultima NT

**Test Method :** 2002

**GC Column :** DB5

**Blank :** 170918

**Calibration File :** 190918

**Sample size:** 1

expressed as ng /sample

Congener	Conc	TEFs	TEQ <sup>1</sup>	TEQ <sup>2</sup>	DL	REC%
2378-TCDD	*	1.000	0.0002	0.0000	0.0002	110
12378-PCDD	*	0.500	0.0002	0.0000	0.0004	87
123478-HxCDD	0.000294	0.100	0.0000	0.0000	0.0001	88
123678-HxCDD	0.000771	0.100	0.0001	0.0001	0.0001	88
123789-HxCDD	0.000387	0.100	0.0000	0.0000	0.0001	
1234678-HpCDD	0.0057	0.010	0.0001	0.0001	0.0001	89
OCDD	0.0126	0.001	0.0000	0.0000	0.0001	77
2378-TCDF	0.00132	0.100	0.0001	0.0001	0.0002	79
12378-PCDF	0.000639	0.050	0.0000	0.0000	0.0002	84
23478-PCDF	0.00194	0.500	0.0010	0.0010	0.0004	88
123478-HxCDF	0.00165	0.100	0.0002	0.0002	0.0002	81
123678-HxCDF	0.00185	0.100	0.0002	0.0002	0.0002	84
234678-HxCDF	0.00224	0.100	0.0002	0.0002	0.0002	86
123789-HxCDF	0.000222	0.100	0.0000	0.0000	0.0001	87
1234678-HpCDF	0.00884	0.010	0.0001	0.0001	0.0000	87
1234789-HpCDF	0.000297	0.010	0.0000	0.0000	0.0000	124
OCDF	0.00541	0.001	0.0000	0.0000	0.0001	77
<b>TEQ (NATO)</b>		<b>0.00242</b>	<b>0.00204</b>			

\* Isomer Not detected

**TEQ<sup>1</sup>** Concentration of Non Detected

**TEQ** Toxic Equivalent Value

Congeners at Detection Limit

**TEF** Toxic Equivalent Factor

Concentration of Non Detected

**Conc** Concentration

Congeners at Zero

**DL** Detection Value



**REC** Recovery

1668

**Reported by :** K Pettit  
**Position :** Technical Manager

**Signature :** *Karl Pettit*



**Marchwood Scientific Services**

**371 Millbrook Rd West  
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SO15 0HW**

**Tel: 02380 786979**

**UKAS accredited testing laboratory No. 1668**

**Name of Client :** Al Futtaim Exova Dubai

**Test Certificate No:** 18009708

**Address :** Plot 598-221 Dubai Investment Park, Jebel Ali, PO Box 34924 Dubai

0

## **ANALYSIS OF PCDDs and PCDFs**

**Job Reference:** 0

**Sample Identifier :** DXB ENV 18/052-R1/DF2 10/09/18

**Date of Receipt :** 17/09/18

**Sample No:** 18009708

**Date of Analysis :** 21/09/18

**Order No:** 0

**Date of Report :** 11/10/18

**Sample Type:** Ambient

**Sample Condition :** conforming

**Instrument :** Micromass Ultima NT

**Test Method :** 2002

**GC Column :** DB5

**Blank :** 170918

**Calibration File :** 190918

**Sample size:** 1

expressed as ng /sample

Congener	Conc	TEFs	TEQ <sup>1</sup>	TEQ <sup>2</sup>	DL	REC%
2378-TCDD	*	1.000	0.0002	0.0000	0.0002	115
12378-PCDD	*	0.500	0.0001	0.0000	0.0003	91
123478-HxCDD	0.00033	0.100	0.0000	0.0000	0.0001	95
123678-HxCDD	0.00127	0.100	0.0001	0.0001	0.0001	92
123789-HxCDD	0.000568	0.100	0.0001	0.0001	0.0001	
1234678-HpCDD	0.00683	0.010	0.0001	0.0001	0.0001	96
OCDD	0.0124	0.001	0.0000	0.0000	0.0002	84
2378-TCDF	0.00125	0.100	0.0001	0.0001	0.0003	82
12378-PCDF	0.000268	0.050	0.0000	0.0000	0.0002	95
23478-PCDF	0.000729	0.500	0.0004	0.0004	0.0003	95
123478-HxCDF	0.00237	0.100	0.0002	0.0002	0.0001	85
123678-HxCDF	0.00114	0.100	0.0001	0.0001	0.0001	87
234678-HxCDF	0.00316	0.100	0.0003	0.0003	0.0001	88
123789-HxCDF	0.000303	0.100	0.0000	0.0000	0.0001	90
1234678-HpCDF	0.0114	0.010	0.0001	0.0001	0.0001	92
1234789-HpCDF	0.000462	0.010	0.0000	0.0000	0.0000	131
OCDF	0.00659	0.001	0.0000	0.0000	0.0001	85
<b>TEQ (NATO)</b>		<b>0.00194</b>	<b>0.00162</b>			

\* Isomer Not detected

**TEQ<sup>1</sup>** Concentration of Non Detected

**TEQ** Toxic Equivalent Value

Congeners at Detection Limit

**TEF** Toxic Equivalent Factor

Concentration of Non Detected

**Conc** Concentration

Congeners at Zero

**DL** Detection Value



**REC** Recovery

1668

**Reported by :** K Pettit  
**Position :** Technical Manager

**Signature :** *Karl Pettit*



**Marchwood Scientific Services**

**371 Millbrook Rd West  
Southampton  
SO15 0HW**

**Tel: 02380 786979**

**UKAS accredited testing laboratory No. 1668**

**Name of Client :** Al Futtaim Exova Dubai

**Test Certificate No:** 18009710

**Address :** Plot 598-221 Dubai Investment Park, Jebel Ali, PO Box 34924 Dubai

0

## **ANALYSIS OF PCDDs and PCDFs**

**Job Reference:** 0

**Sample Identifier :** DXB ENV 18/052-R1/Blank 12/09/18

**Date of Receipt :** 17/09/18

**Sample No:** 18009710

**Date of Analysis :** 21/09/18

**Order No:** 0

**Date of Report :** 11/10/18

**Sample Type:** Ambient

**Sample Condition :** conforming

**Instrument :** Micromass Ultima NT

**Test Method :** 2002

**GC Column :** DB5

**Blank :** 170918

**Calibration File :** 190918

**Sample size:** 1

expressed as ng /sample

Congener	Conc	TEFs	TEQ <sup>1</sup>	TEQ <sup>2</sup>	DL	REC%
2378-TCDD	*	1.000	0.0002	0.0000	0.0002	113
12378-PCDD	0.00214	0.500	0.0011	0.0011	0.0003	89
123478-HxCDD	0.00241	0.100	0.0002	0.0002	0.0001	91
123678-HxCDD	0.0134	0.100	0.0013	0.0013	0.0001	88
123789-HxCDD	0.00915	0.100	0.0009	0.0009	0.0001	
1234678-HpCDD	0.0724	0.010	0.0007	0.0007	0.0002	91
OCDD	0.0552	0.001	0.0001	0.0001	0.0001	78
2378-TCDF	0.00114	0.100	0.0001	0.0001	0.0002	78
12378-PCDF	0.00044	0.050	0.0000	0.0000	0.0001	84
23478-PCDF	0.00233	0.500	0.0012	0.0012	0.0002	93
123478-HxCDF	0.00718	0.100	0.0007	0.0007	0.0001	83
123678-HxCDF	0.00818	0.100	0.0008	0.0008	0.0001	83
234678-HxCDF	0.0158	0.100	0.0016	0.0016	0.0001	83
123789-HxCDF	0.000496	0.100	0.0000	0.0000	0.0001	87
1234678-HpCDF	0.0303	0.010	0.0003	0.0003	0.0001	88
1234789-HpCDF	0.00204	0.010	0.0000	0.0000	0.0000	128
OCDF	0.00913	0.001	0.0000	0.0000	0.0001	80
<b>TEQ (NATO)</b>		<b>0.00933</b>	<b>0.00914</b>			

\* Isomer Not detected  
**TEQ** Toxic Equivalent Value  
**TEF** Toxic Equivalent Factor  
**Conc** Concentration  
**DL** Detection Value  
**REC** Recovery

**TEQ<sup>1</sup>** Concentration of Non Detected Congeners at Detection Limit  
**TEQ<sup>2</sup>** Concentration of Non Detected Congeners at Zero



1668

**Reported by :** K Pettit  
**Position :** Technical Manager

**Signature :** *Karl Pettit*

## **REPORT OF TESTS**

Description	Test Report GHD – DM Waste to Energy – Dioxins in Ambient Air
Tested for	GHD Global PTY LTD
Lab Ref. No.	ENV DXB 18/052/2
Date Reported	29.10.2018

Project name : GHD – DQ24095  
Sampled by : Element  
Sampling Date : 30<sup>th</sup> September – 2<sup>nd</sup> October 2018

## 1.0 Introduction

Further to the test work instructions under quotation DQ24095 from GHD Global PTY LTD, Ambient air monitoring has been conducted at two locations identified by the client. These results relate to the 2<sup>nd</sup> test of the monitoring campaign.

## **2.0      Ambient Air Monitoring**

Sampling was conducted utilising an Ecotech HIVOL 3000 high volume sampler. The results are shown in the table below:

Location Name.	Long / Lat	Start Date / Time	End Date / Time	Sampling Volume (m³)	Analysis Result (ng TEQ)	Concentration (ng/m³ TEQ)	Limit ng/m³
Location 1	N-25°09'27 E-55°26'43	01/10/2018 11:30	02/10/2018 11:30	322.56	0.00589	0.000018	-
Location 2	N-25°09'44 E-55°26'25	30/09/2018 10:54	01/10/2018 10:54	322.56	0.00172	0.000005	-

TEQ: Toxic Equivalent Value

For and on behalf of Al Futtaim Element

L. Pelli

Reviewed by: Andrew Palliser, Manager – Environmental

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**371 Millbrook Rd West  
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**Tel: 02380 786979**

**UKAS accredited testing laboratory No. 1668**

**Name of Client :** Exova Dubai

**Test Certificate No:** 18010182

**Address :** Plot 598-221, Dubai Investment Park, Jebeli Ali P.O. Box 34924, Dubai

0

### **ANALYSIS OF PCDDs and PCDFs**

**Job Reference:** 0

**Sample Identifier :** DXB-ENV-18/052-R1/DF2

**Date of Receipt :** 04/10/18

**Sample No:** 18010182

**Date of Analysis :** 12/10/18

**Order No:** 0

**Date of Report :** 22/10/18

**Sample Type:** Stack

**Sample Condition :** conforming

**Instrument :** Micromass Ultima NT

**Test Method :** 2002

**GC Column :** DB5

**Blank :** 11018

**Calibration File :** 101018

**Sample size:** 1

expressed as ng /sample

Congener	Conc	TEFs	TEQ <sup>1</sup>	TEQ <sup>2</sup>	DL	REC%
2378-TCDD	0.000157	1.000	0.0002	0.0002	0.0001	104
12378-PCDD	*	0.500	0.0001	0.0000	0.0002	84
123478-HxCDD	0.00025	0.100	0.0000	0.0000	0.0001	93
123678-HxCDD	0.000616	0.100	0.0001	0.0001	0.0001	92
123789-HxCDD	0.000214	0.100	0.0000	0.0000	0.0001	
1234678-HpCDD	0.00579	0.010	0.0001	0.0001	0.0001	89
OCDD	0.0111	0.001	0.0000	0.0000	0.0002	74
2378-TCDF	0.00121	0.100	0.0001	0.0001	0.0002	81
12378-PCDF	0.000484	0.050	0.0000	0.0000	0.0001	83
23478-PCDF	0.00112	0.500	0.0006	0.0006	0.0003	87
123478-HxCDF	0.00165	0.100	0.0002	0.0002	0.0001	95
123678-HxCDF	0.00128	0.100	0.0001	0.0001	0.0001	98
234678-HxCDF	0.00171	0.100	0.0002	0.0002	0.0001	87
123789-HxCDF	0.000302	0.100	0.0000	0.0000	0.0001	87
1234678-HpCDF	0.00625	0.010	0.0001	0.0001	0.0001	92
1234789-HpCDF	0.000239	0.010	0.0000	0.0000	0.0000	120
OCDF	0.00343	0.001	0.0000	0.0000	0.0001	77
<b>TEQ (NATO)</b>			<b>0.00172</b>	<b>0.0016</b>		

\* Isomer Not detected  
**TEQ** Toxic Equivalent Value  
**TEF** Toxic Equivalent Factor  
**Conc** Concentration  
**DL** Detection Value  
**REC** Recovery

**TEQ<sup>1</sup>** Concentration of Non Detected Congeners at Detection Limit  
**TEQ<sup>2</sup>** Concentration of Non Detected Congeners at Zero



1668

**Reported by :** K Pettit  
**Position :** Technical Manager

**Signature :** *Karl Pettit*



**Marchwood Scientific Services**

**371 Millbrook Rd West  
Southampton  
SO15 0HW**

**Tel: 02380 786979**

**UKAS accredited testing laboratory No. 1668**

**Name of Client :** Exova Dubai

**Test Certificate No:** 18010183

**Address :** Plot 598-221, Dubai Investment Park, Jebeli Ali P.O. Box 34924, Dubai

0

## **ANALYSIS OF PCDDs and PCDFs**

**Job Reference:** 0

**Sample Identifier :** DXB-ENV-18/052-R1/DF1

**Date of Receipt :** 04/10/18

**Sample No:** 18010183

**Date of Analysis :** 12/10/18

**Order No:** 0

**Date of Report :** 22/10/18

**Sample Type:** Stack

**Sample Condition :** conforming

**Instrument :** Micromass Ultima NT

**Test Method :** 2002

**GC Column :** DB5

**Blank :** 11018

**Calibration File :** 101018

**Sample size:** 1

expressed as ng /sample

Congener	Conc	TEFs	TEQ <sup>1</sup>	TEQ <sup>2</sup>	DL	REC%
2378-TCDD	0.000154	1.000	0.0002	0.0002	0.0001	107
12378-PCDD	0.000557	0.500	0.0003	0.0003	0.0002	90
123478-HxCDD	0.000609	0.100	0.0001	0.0001	0.0001	93
123678-HxCDD	0.000784	0.100	0.0001	0.0001	0.0001	92
123789-HxCDD	0.000817	0.100	0.0001	0.0001	0.0001	
1234678-HpCDD	0.00647	0.010	0.0001	0.0001	0.0001	85
OCDD	0.0108	0.001	0.0000	0.0000	0.0002	69
2378-TCDF	0.0033	0.100	0.0003	0.0003	0.0002	84
12378-PCDF	0.00205	0.050	0.0001	0.0001	0.0001	92
23478-PCDF	0.00425	0.500	0.0021	0.0021	0.0001	92
123478-HxCDF	0.00858	0.100	0.0009	0.0009	0.0001	93
123678-HxCDF	0.00683	0.100	0.0007	0.0007	0.0001	94
234678-HxCDF	0.00687	0.100	0.0007	0.0007	0.0001	86
123789-HxCDF	0.000455	0.100	0.0000	0.0000	0.0001	88
1234678-HpCDF	0.0311	0.010	0.0003	0.0003	0.0001	88
1234789-HpCDF	0.000709	0.010	0.0000	0.0000	0.0000	103
OCDF	0.00971	0.001	0.0000	0.0000	0.0001	70
<b>TEQ (NATO)</b>		<b>0.00589</b>	<b>0.00589</b>			

\* Isomer Not detected  
**TEQ** Toxic Equivalent Value  
**TEF** Toxic Equivalent Factor  
**Conc** Concentration  
**DL** Detection Value  
**REC** Recovery

**TEQ<sup>1</sup>** Concentration of Non Detected Congeners at Detection Limit  
**TEQ<sup>2</sup>** Concentration of Non Detected Congeners at Zero



1668

**Reported by :** K Pettit  
**Position :** Technical Manager

**Signature :** *Karl Pettit*



**Marchwood Scientific Services**

**371 Millbrook Rd West  
Southampton  
SO15 0HW**

**Tel: 02380 786979**

**UKAS accredited testing laboratory No. 1668**

**Name of Client :** Exova Dubai

**Test Certificate No:** 18010184

**Address :** Plot 598-221, Dubai Investment Park, Jebeli Ali P.O. Box 34924, Dubai

0

## **ANALYSIS OF PCDDs and PCDFs**

**Job Reference:** 0

**Sample Identifier :** DXB-ENV-18/052-R1/Blank

**Date of Receipt :** 04/10/18

**Sample No:** 18010184

**Date of Analysis :** 12/10/18

**Order No:** 0

**Date of Report :** 22/10/18

**Sample Type:** Stack

**Sample Condition :** conforming

**Instrument :** Micromass Ultima NT

**Test Method :** 2002

**GC Column :** DB5

**Blank :** 11018

**Calibration File :** 101018

**Sample size:** 1

expressed as ng /sample

Congener	Conc	TEFs	TEQ <sup>1</sup>	TEQ <sup>2</sup>	DL	REC%
2378-TCDD	*	1.000	0.0001	0.0000	0.0001	106
12378-PCDD	*	0.500	0.0001	0.0000	0.0002	92
123478-HxCDD	*	0.100	0.0000	0.0000	0.0001	93
123678-HxCDD	*	0.100	0.0000	0.0000	0.0001	93
123789-HxCDD	*	0.100	0.0000	0.0000	0.0001	
1234678-HpCDD	0.000528	0.010	0.0000	0.0000	0.0001	85
OCDD	0.00143	0.001	0.0000	0.0000	0.0001	68
2378-TCDF	*	0.100	0.0000	0.0000	0.0001	86
12378-PCDF	0.000131	0.050	0.0000	0.0000	0.0000	87
23478-PCDF	*	0.500	0.0000	0.0000	0.0001	93
123478-HxCDF	*	0.100	0.0000	0.0000	0.0001	92
123678-HxCDF	*	0.100	0.0000	0.0000	0.0001	92
234678-HxCDF	*	0.100	0.0000	0.0000	0.0001	86
123789-HxCDF	0.000244	0.100	0.0000	0.0000	0.0001	82
1234678-HpCDF	0.000316	0.010	0.0000	0.0000	0.0000	89
1234789-HpCDF	*	0.010	0.0000	0.0000	0.0000	120
OCDF	0.000366	0.001	0.0000	0.0000	0.0001	68
<b>TEQ (NATO)</b>		<b>0.000299</b>	<b>0.0000412</b>			

\* Isomer Not detected

**TEQ<sup>1</sup>** Concentration of Non Detected

**TEQ** Toxic Equivalent Value

Congeners at Detection Limit

**TEF** Toxic Equivalent Factor

Concentration of Non Detected

**Conc** Concentration

Congeners at Zero

**DL** Detection Value



**REC** Recovery

1668

**Reported by :** K Pettit  
**Position :** Technical Manager

**Signature :** *Karl Pettit*

## REPORT OF TESTS

Description	Test Report GHD – DM Waste to Energy - Odour
Tested for	GHD Global PTY LTD
Lab Ref. No.	ENV DXB 18/052
Date Reported	08.11.2018

Project name : GHD, DM Waste to Energy Project – DQ24095  
 Sampled by : Element  
 Sampling Date : 15<sup>th</sup> – 16<sup>th</sup> October 2018

### 1.0 Introduction

Further to the test work instructions under quotation DQ24095 from GHD Global PTY LTD, Odour monitoring was undertaken by targeting specific odorous compounds at four locations at the Al Warsan Project site in Dubai.

Figure 1 (Al Warsan Project Site)



## 2.0 Odour Chemical analysis

Sampling was conducted by pumping ambient air on to various sampling media to capture the target compounds. The results are shown in the table 1 below:

**Table 1**

Location	Date / Time	Averaging period	Hydrogen Sulphide (ug/m <sup>3</sup> )	Ammonia (ug/m <sup>3</sup> )	Mercaptans (ug/m <sup>3</sup> )	Dimethyl Disulphide (ug/m <sup>3</sup> )	Dimethyl Sulphide (ug/m <sup>3</sup> )
<b>Sampling Media / Analysis</b>			Orbo 34 Tube / Ion Chromatography	Treated Silica Tube / Ion Chromatography	Treated Filter / GC-MS	Charcoal Tube / GC-FID	Charcoal Tube / GC-FID
Al Warsan N1 Long. 25.1629 Lat. 55.4444	15/10/2018 08:15 – 16:15	8 hrs	6	<1	<10	<5	<5
Al Warsan N2 Long. 25.1610 Lat. 55.4384	15/10/2018 08:30 – 16:30	8 hrs	20	<1	<10	<5	<5
Al Warsan N3 Long. 25.1537 Lat. 55.4419	16/10/2018 08:00 – 16:00	8 hrs	11	3	<10	<5	<5
Al Warsan N4 Long. 25.1597 Lat. 55.4479	16/10/2018 08:20 – 16:20	8 hrs	<5	<1	<10	<5	<5

< denotes the result is less than the laboratory limit of detection

**For and on behalf of Element**



Reviewed by: Andrew Palliser, Manager – Environmental

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The test results relate only to the samples tested.



## Test Certificate

Date 26/10/2018

Client	Al Futtaim Exova LLC PO BOX 34924 Dubai Investments Park Dubai UAE	Order No.	POD-011460-V1
		Certificate No.	WK18-7328
		Issue No.	1

Contact	Luke Prowse	Date Received	19/10/2018
Description	5 tubes for Ammonia	Technique	IC

---

Sample No.	1016549	Location 1	Method
------------	---------	------------	--------

<b>Ammonia</b>	<0.2 µg	<0.001 mg/m³	A6(U)
----------------	---------	--------------	-------

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Sample No.	1016550	Location 2	Method
------------	---------	------------	--------

<b>Ammonia</b>	0.7 µg	<0.001 mg/m³	A6(U)
----------------	--------	--------------	-------

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Sample No.	1016551	Location 3	Method
------------	---------	------------	--------

<b>Ammonia</b>	3.1 µg	0.003 mg/m³	A6(U)
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---

Sample No.	1016552	Location 4	Method
------------	---------	------------	--------

<b>Ammonia</b>	<0.2 µg	<0.001 mg/m³	A6(U)
----------------	---------	--------------	-------

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Sample No.	1016553	Blank	Method
------------	---------	-------	--------

<b>Ammonia</b>	<0.2 µg	<0.001 mg/m³	A6(U)
----------------	---------	--------------	-------

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## Test Certificate

Date 26/10/2018

Client	Al Futtaim Exova LLC	Certificate No.	WK18-7328
		Issue No.	1

Tested By	Adam Oseland	Date	22/10/2018
			25/10/2018

Approved By		Date	26/10/2018
-------------	--	------	------------

Joanne Dewhurst  
Operational Manager

For and on authority of RPS Laboratories Ltd.

Method Symbols      (U) Analysis is UKAS Accredited  
                          (N) Analysis is not UKAS Accredited

Concentration values (mg/m<sup>3</sup> and ppm) are not covered by the scope of UKAS accreditation.

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Page 2 of 2

RPS Laboratories Ltd. Unit 12. Waters Edge Business Park. Modwen Road. Salford. M5 3EZ

Tel: (0161) 872 2443 Fax: (0161) 877 3959

## Test Certificate

Date 31/10/2018

Client	Al Futtaim Exova LLC PO BOX 34924 Dubai Investments Park Dubai UAE	Order No.	POD-011458-V2
		Certificate No.	WK18-7326
		Issue No.	1

Contact	Luke Prowse	Date Received	19/10/2018
Description	5 charcoal tubes for DMD & DMDS	Technique	GC-FID

Sample No.	1016554	Location 1	Method
------------	---------	------------	--------

<b>Dimethyl disulphide</b>	<5 µg	<0.005 mg/m³	G8(N)
<b>Dimethyl sulphide</b>	<5 µg	<0.005 mg/m³	G8(N)

Sample No.	1016555	Location 2	Method
------------	---------	------------	--------

<b>Dimethyl disulphide</b>	<5 µg	<0.005 mg/m³	G8(N)
<b>Dimethyl sulphide</b>	<5 µg	<0.005 mg/m³	G8(N)

Sample No.	1016556	Location 3	Method
------------	---------	------------	--------

<b>Dimethyl disulphide</b>	<5 µg	<0.005 mg/m³	G8(N)
<b>Dimethyl sulphide</b>	<5 µg	<0.005 mg/m³	G8(N)

Sample No.	1016557	Location 4	Method
------------	---------	------------	--------

<b>Dimethyl disulphide</b>	<5 µg	<0.005 mg/m³	G8(N)
<b>Dimethyl sulphide</b>	<5 µg	<0.005 mg/m³	G8(N)

Sample No.	1016558	Blank	Method
------------	---------	-------	--------

<b>Dimethyl disulphide</b>	<5 µg		G8(N)
<b>Dimethyl sulphide</b>	<5 µg		G8(N)

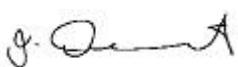
## Test Certificate

Date 31/10/2018

---

Client	Al Futtaim Exova LLC	Certificate No.	WK18-7326
		Issue No.	1

Tested By                   Jane Damerum                   Date                   31/10/2018

Approved By                                      Date                   31/10/2018

Joanne Dewhurst  
Operational Manager

For and on authority of RPS Laboratories Ltd.

Method Symbols                   (U) Analysis is UKAS Accredited  
   (N) Analysis is not UKAS Accredited

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## Test Certificate

Date 25/10/2018

Client	Al Futtaim Exova LLC PO BOX 34924 Dubai Investments Park Dubai UAE	Order No.	POD-011460-V1
		Certificate No.	WK18-7329
		Issue No.	1

Contact	Luke Prowse	Date Received	19/10/2018
Description	5 x orbo tubes for H2S	Technique	IC

Sample No.	1016544	Location 1	Method
------------	---------	------------	--------

Hydrogen Sulphide	6 µg	0.006 mg/m³	C28(N)
	0.006 mg/m³ as TWA		

Sample No.	1016545	Location 2	Method
------------	---------	------------	--------

Hydrogen Sulphide	15 µg	0.02 mg/m³	C28(N)
	0.02 mg/m³ as TWA		

Sample No.	1016546	Location 3	Method
------------	---------	------------	--------

Hydrogen Sulphide	11 µg	0.01 mg/m³	C28(N)
	0.01 mg/m³ as TWA		

Sample No.	1016547	Location 4	Method
------------	---------	------------	--------

Hydrogen Sulphide	<5 µg	<0.005 mg/m³	C28(N)
	<0.005 mg/m³ as TWA		

Sample No.	1016548	Blank	Method
------------	---------	-------	--------

Hydrogen Sulphide	<5 µg	C28(N)
-------------------	-------	--------

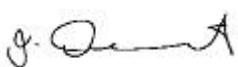
## Test Certificate

Date 25/10/2018

---

Client	Al Futtaim Exova LLC	Certificate No.	WK18-7329
		Issue No.	1

Tested By Tammy Illingworth Date 25/10/2018

Approved By  Date 25/10/2018

Joanne Dewhurst  
Operational Manager

For and on authority of RPS Laboratories Ltd.

Method Symbols (U) Analysis is UKAS Accredited  
(N) Analysis is not UKAS Accredited

Concentration values (mg/m<sup>3</sup> and ppm) are not covered by the scope of UKAS accreditation.

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## Test Certificate

Date 01/11/2018

Client	Al Futtaim Exova LLC PO BOX 34924 Dubai Investments Park Dubai UAE	Order No.	POD-011460-V1
		Certificate No.	WK18-7325
		Issue No.	1

Contact	Luke Prowse	Date Received	19/10/2018
Description	5 filters for mercaptan screen	Technique	GC-FID

Sample No.	1016539	Location 1	Method
------------	---------	------------	--------

**Mercaptans** in house(N)**Butyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

**Ethyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

**Methyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

Sample No.	1016540	Location 2	Method
------------	---------	------------	--------

**Mercaptans** in house(N)**Butyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

**Ethyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

**Methyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

Sample No.	1016541	Location 3	Method
------------	---------	------------	--------

**Mercaptans** in house(N)**Butyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

**Ethyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

**Methyl mercaptans**

&lt;10 µg | &lt;0.01 mg/m³

## Test Certificate

Date 01/11/2018

---

Client	Al Futtaim Exova LLC	Certificate No.	WK18-7325
		Issue No.	1

---

Sample No.	1016542	Location	4	Method
------------	---------	----------	---	--------

---

**Mercaptans** in house(N)

**Butyl mercaptans**

<10 µg	<0.01 mg/m³
--------	-------------

**Ethyl mercaptans**

<10 µg	<0.01 mg/m³
--------	-------------

**Methyl mercaptans**

<10 µg	<0.01 mg/m³
--------	-------------

---

Sample No.	1016543	Blank	Method
------------	---------	-------	--------

---

**Mercaptans** in house(N)

**Butyl mercaptans**

<10 µg	<0.01 mg/m³
--------	-------------

**Ethyl mercaptans**

<10 µg	<0.01 mg/m³
--------	-------------

**Methyl mercaptans**

<10 µg	<0.01 mg/m³
--------	-------------

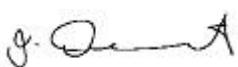
## Test Certificate

Date 01/11/2018

---

Client	Al Futtaim Exova LLC	Certificate No.	WK18-7325
		Issue No.	1

Tested By                   Jane Damerum                   Date                   01/11/2018

Approved By                                      Date                   01/11/2018

Joanne Dewhurst  
Operational Manager

For and on authority of RPS Laboratories Ltd.

Method Symbols                   (U) Analysis is UKAS Accredited  
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## REPORT OF TESTS

Description	Test Report GHD – DM Waste to Energy - Ground Gas
Tested for	GHD Global PTY LTD
Lab Ref. No.	ENV DXB 18/052
Date Reported	06.09.2018

Project name : GHD – DQ24095  
Sampled by : Exova  
Sampling Date : 28<sup>th</sup> – 29<sup>th</sup> August 2018

### 1.0 Introduction

Further to the test work instructions under quotation DQ24095 from GHD Global PTY LTD, Ground gas monitoring was undertaken at multiple locations. These comprise of two existing boreholes and 4 new boreholes.

### 2.0 Ground Gas analysis

Sampling was conducted utilising a Geotechnical instruments GA 2000 unit. The results are shown in the table below:

Borehole No.	Long / Lat	Date / Time	Averaging period	Methane (%)	CO2 (%)	CO (ppm)	O2 (%)	H2S (ppm)
BH 1	25.1582 / 55.4392	29/08/2018 11:20 – 11:30	10 min	Average: 0.07 Peak: 0.3	Average: 0.28	Average: 0	Average: 20.0 Peak: 0	Average: 0 Peak: 0
BH 14	25.1597 / 55.4465	28/08/2018 10:40 – 10:50	10 min	Average: 0.88 Peak: 2.0	Average: 0.2	Average: 1.4	Average: 20.6	Average: 0 Peak: 0
BH-2018-01	25.1598 / 55.4406	29/08/2018 10:55 – 11:05	10 min	Average: 0.04 Peak: 0.4	Average: 0	Average: 0	Average: 20.5	Average: 0 Peak: 0
BH-2018-02	25.1594 / 55.4433	29/08/2018 11:40 – 11:50	10 min	Average: 0.0 Peak: 0.0	Average: 0	Average: 0	Average: 20.8	Average: 0 Peak: 0
BH-2018-03	25.1578 / 55.4456	28/08/2018 11:40 – 11:50	10 min	Average: 0.0 Peak: 0.0	Average: 0.01	Average: 0	Average: 20.8	Average: 0 Peak: 0
BH-2018-04	25.1611 / 55.4416	28/08/2018 11:10 – 11:20	10 min	Average: 0.0 Peak: 0.0	Average: 0.25	Average: 2.6	Average: 20.6	Average: 0 Peak: 0

For and on behalf of Al Futtaim Exova



Reviewed by: Andrew Palliser, Operations Manager – Environmental

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## REPORT OF TESTS

Description	Test Report GHD – DM Waste to Energy - Ground Gas
Tested for	GHD Global PTY LTD
Lab Ref. No.	ENV DXB 18/052
Date Reported	26.09.2018

Project name : GHD – DQ24095  
Sampled by : Exova  
Sampling Date : 23<sup>rd</sup>September 2018

### 1.0 Introduction

Further to the test work instructions under quotation DQ24095 from GHD Global PTY LTD, Ground gas monitoring was undertaken at multiple locations. These comprise of two existing boreholes and 4 new boreholes. This report details the second round of monitoring conducted on the 23<sup>rd</sup> of September 2018.

### 2.0 Ground Gas analysis

Sampling was conducted utilising a Geotechnical Instruments GA 2000 unit. The results are shown in the table below:

Borehole No.	Long / Lat	Date / Time	Averaging period	Methane (%)	CO2 (%)	CO (ppm)	O2 (%)	H2S (ppm)
BH 1	25.1582 / 55.4392	23/09/2018 09:25 – 09:35	10 min	Average: 0.0 Peak: 0.0	Average: 0.00	Average: 0.0	Average: 20.8	Average: 0 Peak: 0
BH 14	25.1597 / 55.4465	23/09/2018 08:40 – 08:50	10 min	Average: 0.1 Peak: 0.2	Average: 0.0	Average: 0.7	Average: 20.5	Average: 0 Peak: 0
BH-2018-01	25.1598 / 55.4406	23/09/2018 10:05 – 10:15	10 min	Average: 0.0 Peak: 0.0	Average: 0	Average: 0	Average: 20.5	Average: 0 Peak: 0
BH-2018-02	25.1594 / 55.4433	23/08/2018 10:25 – 10:35	10 min	Average: 0.0 Peak: 0.0	Average: 0	Average: 0	Average: 20.8	Average: 0 Peak: 0
BH-2018-03	25.1578 / 55.4456			The Trial Pit has collapsed to a current depth of 2.5m				
BH-2018-04	25.1611 / 55.4416			The Trial Pit has collapsed to a current depth of 2.3m				

For and on behalf of Al Futtaim Exova



Reviewed by: Luke Prowse, Engineer – Environmental

<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD	<b>Lab ID Detail</b>	<b>Date</b>	27/08/2018
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Abu Dhabi United Arab Emirates		<b>Report Number</b>	RPSA 00889-03
	<b>Nature of Business:</b>	Consultancy		<b>Sample Number</b>	SPSA 00889-03
	<b>Reference</b>	Noise			

<b>Project Detail</b>	<b>Name</b>	Hitachi Zosen Inova Ltd. Dubai Resources Recovery Facility ESIA	<b>ID</b>	Not Given
	<b>Address</b>	Al Awir, Dubai, United Arab Emirates		
	<b>Consultant</b>	No Specific Consultant		
	<b>Contractor</b>	No Specific Contractor		

<b>Monitoring Detail</b>	<b>Location (GPS)</b>	NQM 01, 25°09'46.4"N 55°26'39.8"E	<b>On-Site Observation</b>					
	<b>Point</b>	NQM 01, Open Area	<b>Area Activity</b>					Normal
	<b>Start Date</b>	As Mentioned Below	<b>Area Condition</b>					Open Area
	<b>End Date</b>	As Mentioned Below	<b>Exposure Time</b>					15 mins

**Monitoring Average Results**

Parameters	Date / Time	Day & Night / Time	Noise Monitoring RESULTS					Unit (dBA)*	Lab Detection Limit	# UAE Federal Law Limits	Test Method
			Lmin	Lmax	Laeq	L10	L90				
Noise / Week End	18/08/2018 10:40 - 10:55 Hrs	Day / 07:00 - 20:00	47	67	55	58	48	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	18/08/2018 21:15 - 21:30 Hrs	Night / 20:00 - 7:00	45	59	49	51	46	dBA	30	50-60	
Noise / Week Days	19/08/2018 11:15 - 11:30 Hrs	Day / 07:00 - 20:00	45	61	50	52	46	dBA	30	60-70	
	19/08/2018 20:45 - 21:00 Hrs	Night / 20:00 - 7:00	44	56	48	49	45	dBA	30	50-60	

<b>Notes</b>	<b>Test Variation</b>	None	<b>Monitored By</b>	SI/SL
	<b>Remarks</b>	1) This test is Accredited by Dubai Municipality (DAC). 2) *dBA means decibels adjusted. dBA is used for determining the sound exposure to humans.	<b>Equipment Ref. No.</b>	C-NM-05, C-NM-04
	<b>Reference</b>	1) # Annex (6), Allowable Limits for Noise Level in Different Areas , UAE Cabinet Decree (12) of 2006.		

Results relates only to the items tested.

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<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD	<b>Lab ID Detail</b>	<b>Date</b>	27/08/2018
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Abu Dhabi United Arab Emirates		<b>Report Number</b>	RPSA 00889-04
	<b>Nature of Business:</b>	Consultancy		<b>Sample Number</b>	SPSA 00889-04
	<b>Reference</b>	Noise			

<b>Project Detail</b>	<b>Name</b>	Hitachi Zosen Inova Ltd. Dubai Resources Recovery Facility ESIA	<b>ID</b>	Not Given
	<b>Address</b>	Al Awir, Dubai, United Arab Emirates		
	<b>Consultant</b>	No Specific Consultant		
	<b>Contractor</b>	No Specific Contractor		

<b>Monitoring Detail</b>	<b>Location (GPS)</b>	NQM 02, 25°09'39.6"N 55°26'18.2"E	<b>On-Site Observation</b>					
	<b>Point</b>	NQM 02, Open Area	<b>Area Activity</b>					Normal
	<b>Start Date</b>	As Mentioned Below	<b>Area Condition</b>					Open Area
	<b>End Date</b>	As Mentioned Below	<b>Exposure Time</b>					15 mins

**Monitoring Average Results**

Parameters	Date / Time	Day & Night / Time	Noise Monitoring RESULTS					Unit (dBA)*	Lab Detection Limit	# UAE Federal Law Limits	Test Method
			Lmin	Lmax	Laeq	L10	L90				
Noise / Week End	18/08/2018 11:20 - 11:35 Hrs	Day / 07:00 - 20:00	<b>44</b>	<b>66</b>	<b>53</b>	<b>56</b>	<b>47</b>	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	18/08/2018 21:30 - 21:45 Hrs	Night / 20:00 - 7:00	<b>41</b>	<b>63</b>	<b>49</b>	<b>46</b>	<b>42</b>	dBA	30	50-60	
Noise / Week Days	19/08/2018 11:40 - 11:55 Hrs	Day / 07:00 - 20:00	<b>41</b>	<b>78</b>	<b>59</b>	<b>57</b>	<b>42</b>	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	19/08/2018 21:15 - 21:30 Hrs	Night / 20:00 - 7:00	<b>48</b>	<b>70</b>	<b>56</b>	<b>55</b>	<b>48</b>	dBA	30	50-60	

<b>Notes</b>	<b>Test Variation</b>	None	<b>Monitored By</b>	SI/SL
	<b>Remarks</b>	1) This test is Accredited by Dubai Municipality (DAC). 2) *dBA means decibels adjusted. dBA is used for determining the sound exposure to humans.	<b>Equipment Ref. No.</b>	C-NM-05, C-NM-04
	<b>Reference</b>	1) # Annex (6), Allowable Limits for Noise Level in Different Areas , UAE Cabinet Decree (12) of 2006.		

Results relates only to the items tested.

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<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD	<b>Lab ID Detail</b>	<b>Date</b>	27/08/2018
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Abu Dhabi United Arab Emirates		<b>Report Number</b>	RPSA 00889-05
	<b>Nature of Business:</b>	Consultancy		<b>Sample Number</b>	SPSA 00889-05
	<b>Reference</b>	Noise			

<b>Project Detail</b>	<b>Name</b>	Hitachi Zosen Inova Ltd. Dubai Resources Recovery Facility ESIA	<b>ID</b>	Not Given
	<b>Address</b>	Al Awir, Dubai, United Arab Emirates		
	<b>Consultant</b>	No Specific Consultant		
	<b>Contractor</b>	No Specific Contractor		

<b>Monitoring Detail</b>	<b>Location (GPS)</b>	NQM 03, 25°09'13.3"N 55°26'30.8"E	<b>On-Site Observation</b>					
	<b>Point</b>	NQM 03, Open Area	<b>Area Activity</b>					Normal
	<b>Start Date</b>	As Mentioned Below	<b>Area Condition</b>					Open Area
	<b>End Date</b>	As Mentioned Below	<b>Exposure Time</b>					15 mins

**Monitoring Average Results**

Parameters	Date / Time	Day & Night / Time	Noise Monitoring RESULTS					Unit (dBA)*	Lab Detection Limit	# UAE Federal Law Limits	Test Method
			Lmin	Lmax	Laeq	L10	L90				
Noise / Week End	18/08/2018 09:30 - 09:45 Hrs	Day / 07:00 - 20:00	<b>39</b>	<b>71</b>	<b>53</b>	<b>55</b>	<b>39</b>	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	18/08/2018 20:15 - 20:30 Hrs	Night / 20:00 - 7:00	<b>40</b>	<b>49</b>	<b>42</b>	<b>42</b>	<b>40</b>	dBA	30	50-60	
Noise / Week Days	19/08/2018 10:25 - 10:40 Hrs	Day / 07:00 - 20:00	<b>44</b>	<b>63</b>	<b>52</b>	<b>56</b>	<b>45</b>	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	19/08/2018 20:00 - 20:15 Hrs	Night / 20:00 - 7:00	<b>46</b>	<b>55</b>	<b>49</b>	<b>51</b>	<b>47</b>	dBA	30	50-60	

<b>Notes</b>	<b>Test Variation</b>	None	<b>Monitored By</b>	SI/SL
	<b>Remarks</b>	1) This test is Accredited by Dubai Municipality (DAC). 2) *dBA means decibels adjusted. dBA is used for determining the sound exposure to humans.	<b>Equipment Ref. No.</b>	C-NM-05, C-NM-04
	<b>Reference</b>	1) # Annex (6), Allowable Limits for Noise Level in Different Areas , UAE Cabinet Decree (12) of 2006.		

Results relates only to the items tested.

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<b>Client Detail</b>	<b>Name</b>	GHD Global PTY. LTD	<b>Lab ID Detail</b>	<b>Date</b>	27/08/2018
	<b>Address</b>	3rd Floor, Guardian Tower, Danet Community, P O Box 45921, Abu Dhabi United Arab Emirates		<b>Report Number</b>	RPSA 00889-06
	<b>Nature of Business:</b>	Consultancy		<b>Sample Number</b>	SPSA 00889-06
	<b>Reference</b>	Noise			

<b>Project Detail</b>	<b>Name</b>	Hitachi Zosen Inova Ltd. Dubai Resources Recovery Facility ESIA	<b>ID</b>	Not Given
	<b>Address</b>	Al Awir, Dubai, United Arab Emirates		
	<b>Consultant</b>	No Specific Consultant		
	<b>Contractor</b>	No Specific Contractor		

<b>Monitoring Detail</b>	<b>Location (GPS)</b>	NQM 04, 25°09'34.9"N 55°26'52.4"E	<b>On-Site Observation</b>					
	<b>Point</b>	NQM 04, Open Area	<b>Area Activity</b>					Normal
	<b>Start Date</b>	As Mentioned Below	<b>Area Condition</b>					Open Area
	<b>End Date</b>	As Mentioned Below	<b>Exposure Time</b>					15 mins

**Monitoring Average Results**

Parameters	Date / Time	Day & Night / Time	Noise Monitoring RESULTS					Unit (dBA)*	Lab Detection Limit	# UAE Federal Law Limits	Test Method
			Lmin	Lmax	Laeq	L10	L90				
Noise / Week End	18/08/2018 10:20 - 10:45 Hrs	Day / 07:00 - 20:00	<b>46</b>	<b>67</b>	<b>55</b>	<b>58</b>	<b>47</b>	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	18/08/2018 20:50 - 21:10 Hrs	Night / 20:00 - 7:00	<b>40</b>	<b>56</b>	<b>45</b>	<b>48</b>	<b>40</b>	dBA	30	50-60	
Noise / Week Days	19/08/2018 11:05 - 11:20 Hrs	Day / 07:00 - 20:00	<b>43</b>	<b>79</b>	<b>60</b>	<b>58</b>	<b>45</b>	dBA	30	60-70	EPA Victoria (Australia) Publication 280 - 1991
	19/08/2018 21:35 - 21:50 Hrs	Night / 20:00 - 7:00	<b>45</b>	<b>75</b>	<b>61</b>	<b>64</b>	<b>48</b>	dBA	30	50-60	

<b>Notes</b>	<b>Test Variation</b>	None	<b>Monitored By</b>	SI/SL
	<b>Remarks</b>	1) This test is Accredited by Dubai Municipality (DAC). 2) *dBA means decibels adjusted. dBA is used for determining the sound exposure to humans.	<b>Equipment Ref. No.</b>	C-NM-05, C-NM-04
	<b>Reference</b>	1) # Annex (6), Allowable Limits for Noise Level in Different Areas , UAE Cabinet Decree (12) of 2006.		

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/07
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/07
	<b>Sampling Report No :</b> SRN/SA-00889/07

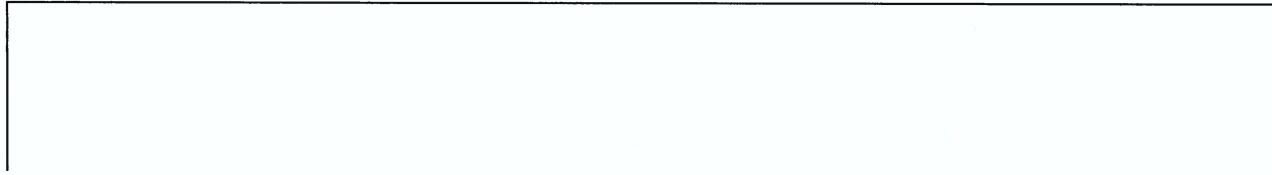
**Sample Detail**

<b>Sample Type :</b> Soil	<b>On-Site Details</b>
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>pH / Temperature :</b> Not Applicable
<b>Sampling Point :</b> BH-2018-03, Depth 1.00m	<b>Appearance :</b> Brown Solid
<b>Sampling Location :</b> BH-2018-03, Ref. SD180030	<b>Preservation :</b> Yes

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 28/08/2018 / 10:45 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 28/08/2019 <b>Time :</b> 12:10 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 28/08/2019 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	4.9	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.034	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	427.30	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	12.7	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	16.9	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	< 1.0	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	15.9	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	4021.9	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	114.5	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	13.2	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	6.5	mg/kg	2.0	APHA AWWA 3120 B



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## LABORATORY TEST RESULT ON SOIL

Client Name : GHD GLOBAL PTY. LTD	Date : 08/09/2018
Nature of Business : Environment Consultant	Report No : RP/SA-00889/07
Client Address : P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	Sample No : SP/SA-00889/07
	Sampling Report No : SRN/SA-00889/07

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Liwelyn Viljapando  
Laboratory Manager  
For CORE Laboratory

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/08
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/08
	<b>Sampling Report No :</b> SRN/SA-00889/08

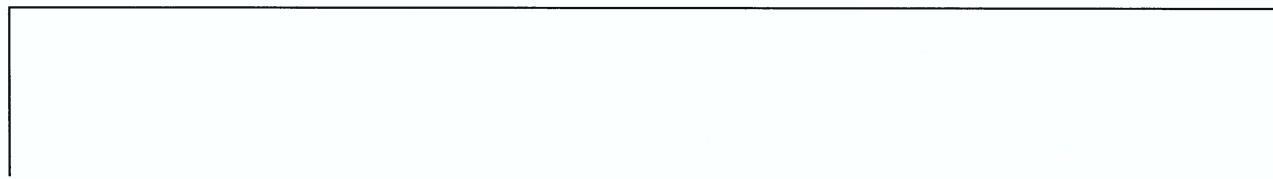
**Sample Detail**

<b>Sample Type :</b> Soil	<b>On-Site Details</b>
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>pH / Temperature :</b> Not Applicable
<b>Sampling Point :</b> BH-2018-03, Depth 5.00m	<b>Appearance :</b> Brown Solid
<b>Sampling Location :</b> BH-2018-03, Ref. SD180030	<b>Preservation :</b> Yes

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 28/08/2018 / 11:10 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 28/08/2018 <b>Time :</b> 12:10 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 28/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	10.7	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.010	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	433.70	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	12.8	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	27.1	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	1.6	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	10.5	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	4396.4	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	1.5	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	142.4	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	20.2	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	7.4	mg/kg	2.0	APHA AWWA 3120 B



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## LABORATORY TEST RESULT ON SOIL

Client Name :GHD GLOBAL PTY. LTD	Date : 08/09/2018
Nature of Business : Environment Consultant	Report No : RP/SA-00889/08
Client Address : P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	Sample No : SP/SA-00889/08
	Sampling Report No : SRN/SA-00889/08

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Liwelyn Villapando

Laboratory Manager

For CORE Laboratory

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/09
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/09
	<b>Sampling Report No :</b> SRN/SA-00889/09

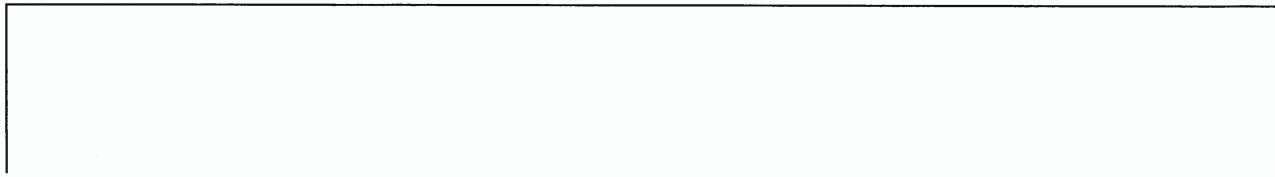
**Sample Detail**

<b>Sample Type :</b> Soil	<b>On-Site Details</b>
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>pH / Temperature :</b> Not Applicable
<b>Sampling Point :</b> BH-2018-04, Depth 1.00m	<b>Appearance :</b> Brown Solid
<b>Sampling Location :</b> BH-2018-04, Ref. SD180030	<b>Preservation :</b> Yes

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 28/08/2018 / 09:00 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 28/08/2019 <b>Time :</b> 12:10 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 28/08/2019 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	6.9	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.020	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	428.20	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	16.9	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	21.4	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	1.8	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	10.0	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	5038.7	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	1.4	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	169.8	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	18.8	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	8.9	mg/kg	2.0	APHA AWWA 3120 B



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## LABORATORY TEST RESULT ON SOIL

**Client Name :** GHD GLOBAL PTY. LTD

**Date :** 08/09/2018

**Nature of Business :** Environment Consultant

**Report No :** RP/SA-00889/09

**Client Address :** P O Box 45921, Guardian Tower, Danet Community  
Abu Dhabi, United Arab Emirates

**Sample No :** SP/SA-00889/09

**Sampling Report No :** SRN/SA-00889/09

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

*LJ*

Liwelyn Villapando  
Laboratory Manager

For CORE Laboratory

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/10
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/10
	<b>Sampling Report No :</b> SRN/SA-00889/10

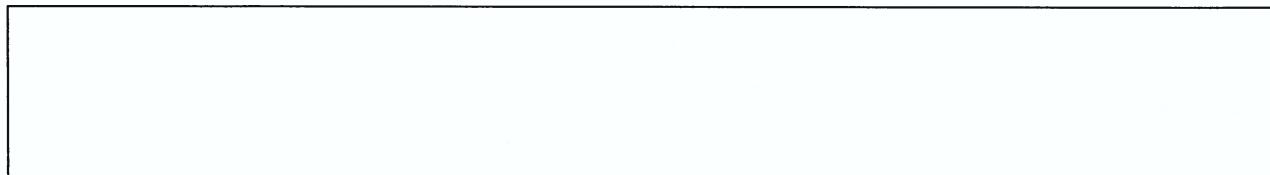
**Sample Detail**

<b>Sample Type :</b> Soil	<b>pH / Temperature :</b> Not Applicable
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>Appearance :</b> Brown Solid
<b>Sampling Point :</b> BH-2018-04, Depth 5.00m	<b>Preservation :</b> Yes
<b>Sampling Location :</b> BH-2018-04, Ref. SD180030	

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 28/08/2018 / 09:40 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 28/08/2018 <b>Time :</b> 12:10 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 28/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	< 1.5	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	< 0.002	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	531.00	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	13.3	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	20.3	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	1.1	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	10.4	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	3911.6	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	3.3	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	104.5	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	15.3	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	7.5	mg/kg	2.0	APHA AWWA 3120 B



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TESTING | INVESTIGATION | ASSURING

## LABORATORY TEST RESULT ON SOIL

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/10
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/10 <b>Sampling Report No :</b> SRN/SA-00889/10

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

*Lj*

Liwelyn Villapando  
Laboratory Manager  
For CORE Laboratory

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/11
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/11 <b>Sampling Report No :</b> SRN/SA-00889/11

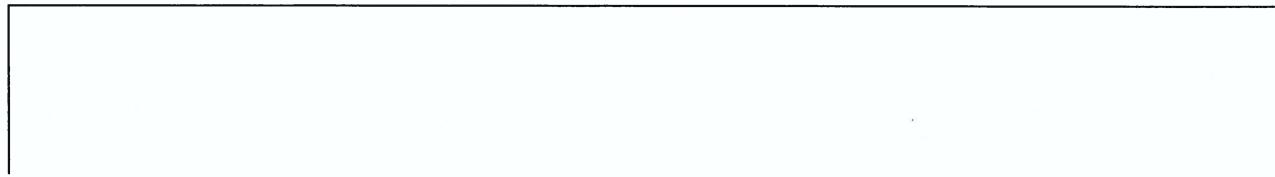
**Sample Detail**

<b>Sample Type :</b> Soil	<b>pH / Temperature :</b> Not Applicable
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>Appearance :</b> Brown Soil
<b>Sampling Point :</b> BH-2018-01, Depth 1.00m	<b>Preservation :</b> Yes
<b>Sampling Location :</b> BH-2018-01, Ref. SD1800020	

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 29/08/2018 / 08:48 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 29/08/2018 <b>Time :</b> 11:30 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 29/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	< 1.5	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.571	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	444.70	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	20.8	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	33.6	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	2.5	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	9.3	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	5371.0	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	1.7	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	206.8	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	30.0	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	12.0	mg/kg	2.0	APHA AWWA 3120 B





**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/11
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/11
	<b>Sampling Report No :</b> SRN/SA-00889/11

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Results relates only to the items tested.

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Llewelyn Villapando

Laboratory Manager

For CORE Laboratory

**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/12
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/12
	<b>Sampling Report No :</b> SRN/SA-00889/12

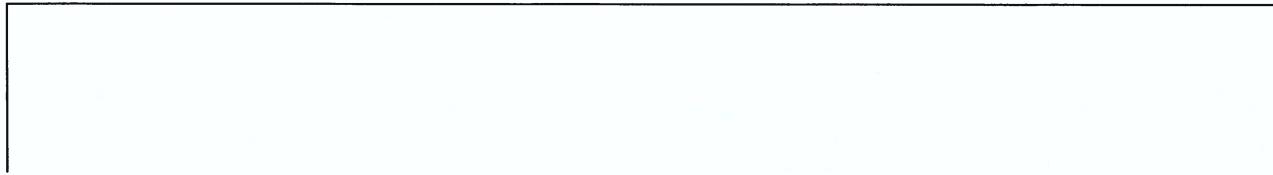
**Sample Detail**

<b>Sample Type :</b> Soil	<b>pH / Temperature :</b> Not Applicable
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>Appearance :</b> Brown Soil
<b>Sampling Point :</b> BH-2018-01, Depth 5.00m	<b>Preservation :</b> Yes
<b>Sampling Location :</b> BH-2018-01, Ref. SD1800020	

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 29/08/2018 / 06:53 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 29/08/2018 <b>Time :</b> 11:30 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 29/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	< 1.5	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.563	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	493.50	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 1.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	14.7	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	20.2	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	1.6	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	6.9	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	4050.2	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	2.1	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	135.9	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	18.4	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	7.7	mg/kg	2.0	APHA AWWA 3120 B



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## LABORATORY TEST RESULT ON SOIL

**Client Name :** GHD GLOBAL PTY. LTD  
**Nature of Business :** Environment Consultant  
**Client Address :** P O Box 45921, Guardian Tower, Danet Community  
Abu Dhabi, United Arab Emirates

**Date :** 08/09/2018  
**Report No :** RP/SA-00889/12  
**Sample No :** SP/SA-00889/12  
**Sampling Report No :** SRN/SA-00889/12

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

A handwritten signature in blue ink that appears to read 'Liwelyn Villapando'.

Liwelyn Villapando  
Laboratory Manager  
For CORE Laboratory

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/13
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/13
	<b>Sampling Report No :</b> SRN/SA-00889/13

**Sample Detail**

<b>Sample Type :</b> Soil	<b>On-Site Details</b>
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>pH / Temperature :</b> Not Applicable
<b>Sampling Point :</b> BH-2018-02, Depth 1.00m	<b>Appearance :</b> Brown Soil
<b>Sampling Location :</b> BH-2018-02, Ref. SD1800020	<b>Preservation :</b> Yes

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 29/08/2018 / 09:42 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 29/08/2018 <b>Time :</b> 11:30 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 29/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	< 1.5	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.571	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	502.10	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	20.7	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	26.1	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	2.5	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	8.8	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	5370.7	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	1.7	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	213.9	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	23.2	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	10.0	mg/kg	2.0	APHA AWWA 3120 B



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## LABORATORY TEST RESULT ON SOIL

Client Name : GHD GLOBAL PTY. LTD	Date : 08/09/2018
Nature of Business : Environment Consultant	Report No : RP/SA-00889/13
Client Address : P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	Sample No : SP/SA-00889/13
	Sampling Report No : SRN/SA-00889/13

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Liwelyn Villapando  
Laboratory Manager  
For CORE Laboratory

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/14
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/14
	<b>Sampling Report No :</b> SRN/SA-00889/14

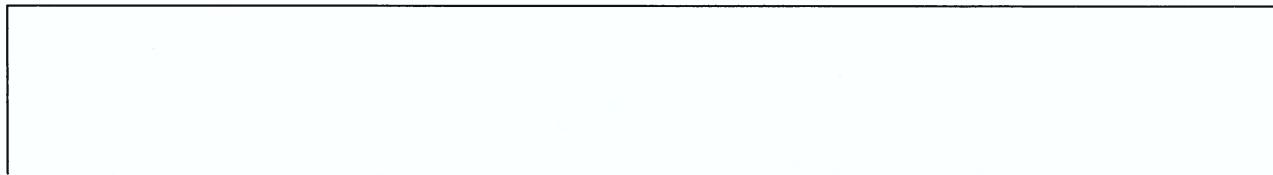
**Sample Detail**

<b>Sample Type :</b> Soil	<b>pH / Temperature :</b> Not Applicable
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>Appearance :</b> Brown Soil
<b>Sampling Point :</b> BH-2018-02, Depth 5.00m	<b>Preservation :</b> Yes
<b>Sampling Location :</b> BH-2018-02, Ref. SD18000020	

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 29/08/2018 / 10:10 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 29/08/2018 <b>Time :</b> 11:30 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 29/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	< 1.5	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.299	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	333.6	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 1.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	17.3	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	29.3	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	2.6	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	7.9	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	5615.5	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	2.0	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	204.0	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	31.1	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	9.2	mg/kg	2.0	APHA AWWA 3120 B



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## LABORATORY TEST RESULT ON SOIL

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/14
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/14 <b>Sampling Report No :</b> SRN/SA-00889/14

Test Method Variation: None

Remarks: \* This Test is Accredited by Dubai Municipality (DAC).

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

*LJ*

Liwelyn Villapando  
Laboratory Manager  
For CORE Laboratory

Results relates only to the items tested.

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 08/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/15
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/15
	<b>Sampling Report No :</b> SRN/SA-00889/15

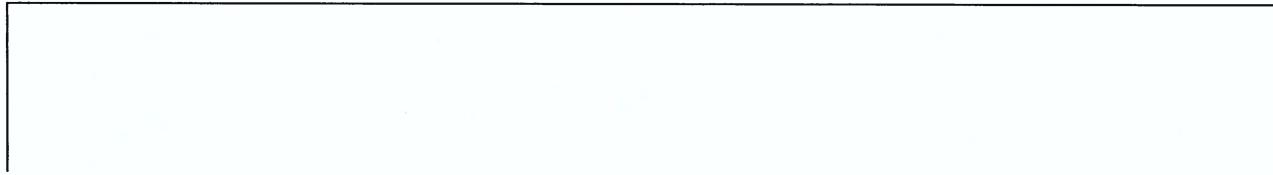
**Sample Detail**

<b>Sample Type :</b> Soil	<b>On-Site Details</b>
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>pH / Temperature :</b> Not Applicable
<b>Sampling Point :</b> SS-2018-01, Depth 0.50m	<b>Appearance :</b> Brown Soil
<b>Sampling Location :</b> SS-2018-01, Ref. SD1800030	<b>Preservation :</b> Yes

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 29/08/2018 / 10:38 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 29/08/2018 <b>Time :</b> 11:30 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 29/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	< 1.5	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.247	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	573.40	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	20.5	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	27.4	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	2.4	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	7.2	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	5311.8	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	1.8	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	223.8	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	24.0	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	10.3	mg/kg	2.0	APHA AWWA 3120 B



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TESTING | INVESTIGATION | ASSURING

## LABORATORY TEST RESULT ON SOIL

**Client Name :** GHD GLOBAL PTY. LTD

**Date :** 08/09/2018

**Nature of Business :** Environment Consultant

**Report No :** RP/SA-00889/15

**Client Address :** P O Box 45921, Guardian Tower, Danet Community  
Abu Dhabi, United Arab Emirates

**Sample No :** SP/SA-00889/15

**Sampling Report No :** SRN/SA-00889/15

**Test Method Variation:** None

**Remarks:** \* This Test is Accredited by Dubai Municipality (DAC).

**Reference:** APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Liwelyn Villapando  
Laboratory Manager

For CORE Laboratory

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**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 17/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/16
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/16
	<b>Sampling Report No :</b> SRN/SA-00889/16

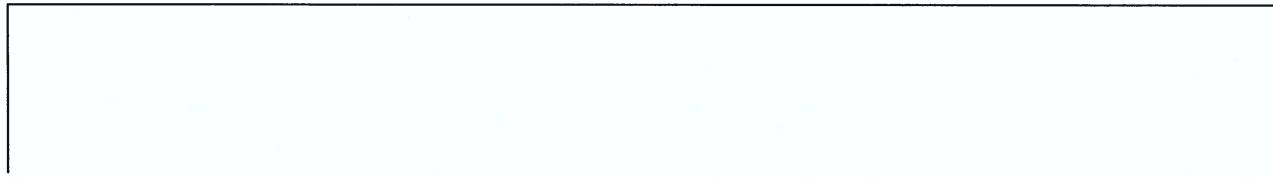
**Sample Detail**

<b>Sample Type :</b> Soil	<b>pH / Temperature :</b> Not Applicable
<b>Source of Sample :</b> Existing Soil (Borehole)	<b>Appearance :</b> Brown Soil
<b>Sampling Point :</b> SS-2018-02, Depth 0.50m	<b>Preservation :</b> Yes
<b>Sampling Location :</b> SS-2018-02, Ref. SD1800030	

**Sampling Detail**

<b>Apparatus :</b> Not Given	<b>Method :</b> Not Given
<b>Quantity / Size :</b> 1 * 1 Kg	<b>Collected by :</b> Client Rep.
<b>Sampling Date / Time :</b> 29/08/2018 10:29 Hrs	<b>Delivered by :</b> Client Rep.
<b>Receiving Date :</b> 29/08/2018 <b>Time :</b> 11:30 Hrs	<b>Received by :</b> AC (Core Lab Rep.)

<b>Result on Chemical Analysis</b>	<b>Tested by :</b> AC/DC	<b>Date of Analysis :</b> 29/08/2018 - 08/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Cyanide as CN	< 0.002	mg/kg	0.002	Pyridine Pyrazalone Method £
Nitrate Nitrogen as NO3-N	2.4	mg/Kg	1.5	Cadmium Reduction Method £
Nitrite Nitrogen as NO2-N	0.175	mg/Kg	0.010	Diazotization Method £
Phosphate Phosphorus as PO4	517.00	mg/Kg	0.10	USEPA PhosVer 3 Method £
Benzene	< 0.05	mg/kg	0.05	USEPA 8260
Toluene	< 0.05	mg/kg	0.05	USEPA 8260
Ethylbenzene	< 0.05	mg/kg	0.05	USEPA 8260
Xylene	< 0.05	mg/kg	0.05	USEPA 8260
Gasoline Range (C5 - C10)	< 2.0	mg/Kg	2.0	USEPA 8015
Diesel Range (C11 - C28)	< 20.0	mg/Kg	20.0	USEPA 8015
Motor Oil Range (C29 - C40)	< 50.0	mg/Kg	50.0	USEPA 8015
Antimony as Sb	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Arsenic as As *	< 5.0	mg/kg	5.0	APHA AWWA 3120 B
Beryllium as Be	< 1.0	mg/Kg	1.0	APHA AWWA 3120 B
Boron as B *	18.7	mg/Kg	1.0	APHA AWWA 3120 B
Cadmium as Cd *	< 2.0	mg/kg	2.0	APHA AWWA 3120 B
Trivalent Chromium as Cr III	24.1	mg/Kg	1.0	APHA AWWA 3120 B / Calculation
Hexavalent Chromium as Cr VI	< 5.0	mg/Kg	5.0	USEPA 3060 / APHA AWWA 3120 B
Cobalt as Co *	2.4	mg/kg	2.0	APHA AWWA 3120 B
Copper as Cu *	8.5	mg/kg	1.0	APHA AWWA 3120 B
Iron as Fe *	4717.3	mg/Kg	1.0	APHA AWWA 3120 B
Lead as Pb *	1.2	mg/kg	1.0	APHA AWWA 3120 B
Manganese as Mn *	215.4	mg/kg	2.0	APHA AWWA 3120 B
Mercury as Hg	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Nickel as Ni *	25.2	mg/kg	2.0	APHA AWWA 3120 B
Selenium as Se *	< 1.0	mg/kg	1.0	APHA AWWA 3120 B
Zinc as Zn *	9.5	mg/kg	2.0	APHA AWWA 3120 B





**LABORATORY TEST RESULT ON SOIL**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 17/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/16
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/16 <b>Sampling Report No :</b> SRN/SA-00889/16

Test Method Variation: None

Remarks: 1)\* This Test is Accredited by Dubai Municipality (DAC).  
2) This document supercedes Report Number RPSA-00889/16 dated 08/09/2018.

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Liwelyn Villapando  
Laboratory Manager  
For CORE Laboratory

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**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/17
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/17
	<b>Sampling Report No :</b> Not Applicable

<b>Sample Detail</b>		<b>On-Site Details</b>
<b>Sample Type :</b> Groundwater		<b>pH / Temperature :</b> 7.3 pH unit / 33.8°C
<b>Source of Sample :</b> Ground Water from Borehole		<b>Appearance :</b> Mild Turbid Liquid
<b>Sampling Point :</b> BH - 2018 - 1, Water Level - 9.96m, 25.159603 N, 55.440754 E		<b>Preservation :</b> Yes
<b>Sampling Location :</b> BH - 2018 - 1, Near Fence (Parking Area), Solid Waste to Energy (WTE) Project in Al Warsan, Dubai		

<b>Sampling Detail</b>		<b>Method :</b> Not Given
<b>Apparatus :</b> Not Given		<b>Collected by :</b> Client Rep.
<b>Quantity / Size :</b> Plastic (3*1 Ltr), Amber Glass (1*1 L) , Glass (2*1 Ltr) & Micro (1*500ml)		<b>Delivered by :</b> Client Rep.
<b>Sampling Date / Time :</b> 06/09/2018 / 10:00 Hrs		
<b>Sample Transport Condition :</b> Below 10°C (Micro)		<b>Received by :</b> AC (Core Lab Rep.)
<b>Receiving Date :</b> 06/09/2018 <b>Time :</b> 13:40 Hrs		<b>Sample Condition :</b> OK
<b>Sample Temperature on Receipt :</b> Below 10°C (Micro)		

<b>Result of Chemical and Microbiological Analysis</b>	<b>Tested by :</b> AC/DC/DT/MK	<b>Date of Analysis :</b> 06/09/2018 - 15/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Benzene	< 1	µg/L	1	USEPA 8260
Toluene	604	µg/L	1	USEPA 8260
Ethylbenzene	< 1	µg/L	1	USEPA 8260
Xylene (o,p)	< 1	µg/L	1	USEPA 8260
TPH Gasoline Range (C5 - C10)	0.53	mg/L	0.02	USEPA 8015
TPH Diesel Range (C11-C28)	< 0.10	mg/L	0.10	USEPA 8015
TPH Motor Oil Range (C29 - C40)	< 0.50	mg/L	0.50	USEPA 8015
Antimony as Sb *	< 0.10	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Arsenic as As *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Barium as Ba	0.12	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Cadmium as Cd *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Chromium as Cr *	0.088	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Cobalt as Co *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Copper as Cu *	0.012	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Lead as Pb *	0.032	mg/L	0.015	APHA AWWA 3030 E / 3120 B
Manganese as Mn *	0.034	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Mercury as Hg	< 0.001	mg/L	0.001	APHA AWWA 3030 E / 3120 B
Nickel as Ni *	< 0.005	mg/L	0.005	APHA AWWA 3030 E / 3120 B
Zinc as Zn *	0.026	mg/L	0.006	APHA AWWA 3030 E / 3120 B
pH @ 25 °C * (Laboratory)	7.5	-	0.1	APHA AWWA 4500 H+B
Electrical Conductivity @ 25 °C * (Laboratory)	4050.0	µS/cm	0.1	APHA AWWA 2510 B
Temperature @ Site	33.8	°C	-	APHA AWWA 2550 B
Total Dissolved Solids @ 180 °C *	2100	mg/L	9	APHA AWWA 2540 C
Biochemical Oxygen Demand @ 5 Days	15	mg/L	6	ASTM D 888
Oil & Grease (Free) *	< 0.001	%	0.001	Gravimetric / IP-13
Oil & Grease (emulsified) *	< 10	mg/L	10	APHA AWWA 5520 B
Chloride as Cl- *	1281	mg/L	1	APHA AWWA 4500 Cl B
Total Sulfates as SO4 *	261	mg/L	8	APHA AWWA 4500 SO4 C
Total Chlorine	< 0.01	mg/L	0.01	USEPA DPD Method
Cyanide as CN *	< 0.002	mg/L	0.002	Pyridine Pyrazalone Method
Colour	< 15	Pt-Co	15	Platinum-Cobalt Method

**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/17
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/17
	<b>Sampling Report No :</b> Not Applicable

Dissolved Oxygen (Laboratory)	4.0	mg/L	0.1	APHA AWWA 4500-O H/G
Nitrate as NO <sub>3</sub> *	6.60	mg/L	0.01	Cadmium Reduction Method
Phosphate - Phosphorus as PO <sub>4</sub> *	< 0.02	mg/L	0.02	USEPA Phos Ver 3
Sulfide as S <sub>2</sub> - *	< 0.005	mg/L	0.005	USEPA Methylene Blue Method
Turbidity *	1.9	NTU	0.1	USEPA 180.1
Pesticide (Non-Chlorinated)	< 0.01	mg/L	0.01	USEPA 8081
Phenol	< 0.005	mg/L	0.005	USEPA 528
1,2-Dichloroethane	< 0.001	mg/L	0.001	USEPA 8260
Dichloromethane	< 0.001	mg/L	0.001	USEPA 8260
Aluminum as Al *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Boron as B *	1.51	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Beryllium as Be	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Calcium as Ca	247.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Iron as Fe *	0.038	mg/L	0.011	APHA AWWA 3030 E / 3120 B
Magnesium as Mg	91.50	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Molybdenum as Mo *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Potassium as K *	36.70	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Sodium as Na *	440.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Escherichia coli	Not Detected	CFU/100ml	1	APHA AWWA 9222 G
Total Coliforms	Not Detected	CFU/100ml	1	APHA AWWA 9222 B

Test Variation: None

Remarks: 1) \* This Test is Accredited by Dubai Municipality (DAC).

2) ND - Not Detected (<1), CFU - Colony Forming Unit

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Results relates only to the items tested.

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*Liwelyn Villapando*  
Liwelyn Villapando  
Laboratory Manager

For CORE Laboratory



LABORATORY TEST REPORT ON GROUNDWATER

Client Name : GHD GLOBAL PTY. LTD	Date : 15/09/2018
Nature of Business : Environment Consultant	Report No : RP/SA-00889/18
Client Address : P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	Sample No : SP/SA-00889/18
	Sampling Report No : Not Applicable

Sample Detail	On-Site Details
Sample Type : Groundwater	pH / Temperature : 7.4 pH unit / 32.6°C
Source of Sample : Ground Water from Borehole	Appearance : Mild Turbid Liquid
Sampling Point : EXISTING - BH - 01, Water Level - 15.34m, 25.157818 N, 55.439291 E	Preservation : Yes
Sampling Location : EXISTING - BH - 01, Near STP Plant, Solid Waste to Energy (WTE) Project in Al Warsan, Dubai	

Sampling Detail	Method : Not Given
Apparatus : Not Given	Collected by : Client Rep.
Quantity / Size : Plastic (3*1 Ltr), Amber Glass (1*1 L) , Glass (2*1 Ltr) & Micro (1*500ml)	Delivered by : Client Rep.
Sampling Date / Time : 06/09/2018 / 10:45 Hrs	Received by : AC (Core Lab Rep.)
Sample Transport Condition : Below 10°C (Micro)	Sample Condition : OK
Receiving Date : 06/09/2018 Time : 13:40 Hrs	
Sample Temperature on Receipt : Below 10°C (Micro)	

Result of Chemical and Microbiological Analysis	Tested by : AC/DC/DT/MK	Date of Analysis : 06/09/2018 - 15/09/2018		
Parameters	RESULT	Unit	MDL	Test Method
Benzene	< 1	µg/L	1	USEPA 8260
Toluene	< 1	µg/L	1	USEPA 8260
Ethylbenzene	< 1	µg/L	1	USEPA 8260
Xylene (o,p)	< 1	µg/L	1	USEPA 8260
TPH Gasoline Range (C5 - C10)	< 0.02	mg/L	0.02	USEPA 8015
TPH Diesel Range (C11-C28)	< 0.10	mg/L	0.10	USEPA 8015
TPH Motor Oil Range (C29 - C40)	< 0.50	mg/L	0.50	USEPA 8015
Antimony as Sb *	< 0.10	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Arsenic as As *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Barium as Ba	0.05	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Cadmium as Cd *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Chromium as Cr *	0.177	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Cobalt as Co *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Copper as Cu *	0.011	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Lead as Pb *	< 0.015	mg/L	0.015	APHA AWWA 3030 E / 3120 B
Manganese as Mn *	0.012	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Mercury as Hg	< 0.001	mg/L	0.001	APHA AWWA 3030 E / 3120 B
Nickel as Ni *	< 0.005	mg/L	0.005	APHA AWWA 3030 E / 3120 B
Zinc as Zn *	0.023	mg/L	0.006	APHA AWWA 3030 E / 3120 B
pH @ 25 °C * (Laboratory)	7.5	-	0.1	APHA AWWA 4500 H+B
Electrical Conductivity @ 25 °C * (Laboratory)	6900.0	µS/cm	0.1	APHA AWWA 2510 B
Temperature @ Site	32.6	°C	-	APHA AWWA 2550 B
Total Dissolved Solids @ 180 °C *	4200	mg/L	9	APHA AWWA 2540 C
Biochemical Oxygen Demand @ 5 Days	< 6	mg/L	6	ASTM D 888
Oil & Grease (Free) *	< 0.001	%	0.001	Gravimetric / IP-13
Oil & Grease (emulsified) *	< 10	mg/L	10	APHA AWWA 5520 B
Chloride as Cl- *	1941	mg/L	1	APHA AWWA 4500 Cl B
Total Sulfates as SO4 *	450	mg/L	8	APHA AWWA 4500 SO4 C
Total Chlorine	0.02	mg/L	0.01	USEPA DPD Method
Cyanide as CN *	< 0.002	mg/L	0.002	Pyridine Pyrazalone Method
Colour	< 15	Pt-Co	15	Platinum-Cobalt Method

**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/18
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/18
	<b>Sampling Report No :</b> Not Applicable

Dissolved Oxygen (Laboratory)	4.9	mg/L	0.1	APHA AWWA 4500-O H/G
Nitrate as NO <sub>3</sub> *	59.00	mg/L	0.01	Cadmium Reduction Method
Phosphate - Phosphorus as PO <sub>4</sub> *	< 0.02	mg/L	0.02	USEPA Phos Ver 3
Sulfide as S <sub>2</sub> - *	0.013	mg/L	0.005	USEPA Methylene Blue Method
Turbidity *	0.9	NTU	0.1	USEPA 180.1
Pesticide (Non-Chlorinated)	< 0.01	mg/L	0.01	USEPA 8081
Phenol	< 0.005	mg/L	0.005	USEPA 528
1,2-Dichloroethane	< 0.001	mg/L	0.001	USEPA 8260
Dichloromethane	< 0.001	mg/L	0.001	USEPA 8260
Aluminum as Al *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Boron as B *	3.00	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Beryllium as Be	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Calcium as Ca	240.50	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Iron as Fe *	0.049	mg/L	0.011	APHA AWWA 3030 E / 3120 B
Magnesium as Mg	86.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Molybdenum as Mo *	0.02	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Potassium as K *	42.95	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Sodium as Na *	467.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Escherichia coli	Not Detected	CFU/100ml	1	APHA AWWA 9222 G
Total Coliforms	Not Detected	CFU/100ml	1	APHA AWWA 9222 B

Test Variation: None

Remarks: 1) \* This Test is Accredited by Dubai Municipality (DAC).

2) ND - Not Detected (<1), CFU - Colony Forming Unit

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Liwelyn Villapando

Laboratory Manager  
For CORE Laboratory

Results relates only to the items tested.

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Laboratory Test Report on Groundwater

Client Name : GHD GLOBAL PTY. LTD	Date : 15/09/2018
Nature of Business : Environment Consultant	Report No : RP/SA-00889/19
Client Address : P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	Sample No : SP/SA-00889/19
	Sampling Report No : Not Applicable

**Sample Detail**

Sample Type : Groundwater	pH / Temperature : 7.3 pH Unit / 33.6°C
Source of Sample : Ground Water from Borehole	Appearance : Mild Turbid Liquid
Sampling Point : BH - 2018 - 02, Water Level - 8.37, 25.158983 N, 55.443112 E	Preservation : Yes
Sampling Location : BH - 2018 - 02, Parking Area, Solid Waste to Energy (WTE) Project in Al Warsan, Dubai	

**Sampling Detail**

Apparatus : Not Given	Method : Not Given
Quantity / Size : Plastic (3*1 Ltr), Amber Glass (1*1 L) , Glass (2*1 Ltr) & Micro (1*500ml)	Collected by : Client Rep.
Sampling Date / Time : 06/09/2018 / 11:30 Hrs	Delivered by : Client Rep.
Sample Transport Condition : Below 10°C (Micro)	
Receiving Date : 06/09/2018 Time : 13:40 Hrs	Received by : AC (Core Lab Rep.)
Sample Temperature on Receipt : Below 10°C (Micro)	Sample Condition : OK

Result of Chemical and Microbiological Analysis	Tested by : AC/DC/DT/MK	Date of Analysis : 06/09/2018 - 15/09/2018		
Parameters	RESULT	Unit	MDL	Test Method
Benzene	< 1	µg/L	1	USEPA 8260
Toluene	1728	µg/L	1	USEPA 8260
Ethylbenzene	< 1	µg/L	1	USEPA 8260
Xylene (o,p)	< 1	µg/L	1	USEPA 8260
TPH Gasoline Range (C5 - C10)	1.40	mg/L	0.02	USEPA 8015
TPH Diesel Range (C11-C28)	< 0.10	mg/L	0.10	USEPA 8015
TPH Motor Oil Range (C29 - C40)	< 0.50	mg/L	0.50	USEPA 8015
Antimony as Sb *	< 0.10	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Arsenic as As *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Barium as Ba	0.10	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Cadmium as Cd *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Chromium as Cr *	0.037	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Cobalt as Co *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Copper as Cu *	0.014	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Lead as Pb *	0.018	mg/L	0.015	APHA AWWA 3030 E / 3120 B
Manganese as Mn *	0.168	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Mercury as Hg	< 0.001	mg/L	0.001	APHA AWWA 3030 E / 3120 B
Nickel as Ni *	0.010	mg/L	0.005	APHA AWWA 3030 E / 3120 B
Zinc as Zn *	0.036	mg/L	0.006	APHA AWWA 3030 E / 3120 B
pH @ 25 °C * (Laboratory)	7.5	-	0.1	APHA AWWA 4500 H+B
Electrical Conductivity @ 25 °C * (Laboratory)	5060.0	µS/cm	0.1	APHA AWWA 2510 B
Temperature @ Site	33.6	°C	-	APHA AWWA 2550 B
Total Dissolved Solids @ 180 °C *	3580	mg/L	9	APHA AWWA 2540 C
Biochemical Oxygen Demand @ 5 Days	18	mg/L	6	ASTM D 888
Oil & Grease (Free) *	< 0.001	%	0.001	Gravimetric / IP-13
Oil & Grease (emulsified) *	< 10	mg/L	10	APHA AWWA 5520 B
Chloride as Cl- *	1009	mg/L	1	APHA AWWA 4500 Cl B
Total Sulfates as SO4 *	850	mg/L	8	APHA AWWA 4500 SO4 C
Total Chlorine	0.02	mg/L	0.01	USEPA DPD Method
Cyanide as CN *	< 0.002	mg/L	0.002	Pyridine Pyrazalone Method
Colour	< 15	Pt-Co	15	Platinum-Cobalt Method



**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/19
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/19
	<b>Sampling Report No :</b> Not Applicable

Dissolved Oxygen (Laboratory)	4.1	mg/L	0.1	APHA AWWA 4500-O H/G
Nitrate as NO <sub>3</sub> *	6.60	mg/L	0.01	Cadmium Reduction Method
Phosphate - Phosphorus as PO <sub>4</sub> *	< 0.02	mg/L	0.02	USEPA Phos Ver 3
Sulfide as S <sub>2</sub> - *	0.006	mg/L	0.005	USEPA Methylene Blue Method
Turbidity *	0.4	NTU	0.1	USEPA 180.1
Pesticide (Non-Chlorinated)	< 0.01	mg/L	0.01	USEPA 8081
Phenol	< 0.005	mg/L	0.005	USEPA 528
1,2-Dichloroethane	< 0.001	mg/L	0.001	USEPA 8260
Dichloromethane	< 0.001	mg/L	0.001	USEPA 8260
Aluminum as Al *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Boron as B *	2.75	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Beryllium as Be	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Calcium as Ca	621.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Iron as Fe *	0.048	mg/L	0.011	APHA AWWA 3030 E / 3120 B
Magnesium as Mg	234.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Molybdenum as Mo *	0.06	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Potassium as K *	67.50	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Sodium as Na *	571.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Escherichia coli	Not Detected	CFU/100ml	1	APHA AWWA 9222 G
Total Coliforms	Not Detected	CFU/100ml	1	APHA AWWA 9222 B

Test Variation: None

Remarks: 1) \* This Test is Accredited by Dubai Municipality (DAC).

2) ND - Not Detected (<1), CFU - Colony Forming Unit

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Results relates only to the items tested.

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*Liwelyn Villapando*  
Laboratory Manager

For CORE Laboratory



**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/20
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/20
	<b>Sampling Report No :</b> Not Applicable

<b>Sample Detail</b>		<b>On-Site Details</b>
<b>Sample Type :</b> Groundwater		<b>pH / Temperature :</b> 7.0 pH unit / 32.6°C
<b>Source of Sample :</b> Ground Water from Borehole		<b>Appearance :</b> Mild Turbid Liquid
<b>Sampling Point :</b> EXISTING - BH - 14, Water Level - 7.24, 25.159838 N, 55.446015 E		<b>Preservation :</b> Yes
<b>Sampling Location :</b> EXISTING - BH - 14, Near Security, Solid Waste to Energy (WTE) Project in Al Warsan, Dubai		

<b>Sampling Detail</b>		<b>Method :</b> Not Given
<b>Apparatus :</b> Not Given		<b>Collected by :</b> Client Rep.
<b>Quantity / Size :</b> Plastic (3*1 Ltr), Amber Glass (1*1 L) , Glass (2*1 Ltr) & Micro (1*500ml)		<b>Delivered by :</b> Client Rep.
<b>Sampling Date / Time :</b> 06/09/2018 / 12:10 Hrs		
<b>Sample Transport Condition :</b> Below 10°C (Micro)		<b>Received by :</b> AC (Core Lab Rep.)
<b>Receiving Date :</b> 06/09/2018 <b>Time :</b> 13:40 Hrs		<b>Sample Condition :</b> Ok
<b>Sample Temperature on Receipt :</b> Below 10°C (Micro)		

<b>Result of Chemical and Microbiological Analysis</b>	<b>Tested by :</b> AC/DC/DT/MK	<b>Date of Analysis :</b> 06/09/2018 - 15/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Benzene	< 1	µg/L	1	USEPA 8260
Toluene	< 1	µg/L	1	USEPA 8260
Ethylbenzene	<.1	µg/L	1	USEPA 8260
Xylene (o,p)	< 1	µg/L	1	USEPA 8260
TPH Gasoline Range (C5 - C10)	< 0.02	mg/L	0.02	USEPA 8015
TPH Diesel Range (C11-C28)	< 0.10	mg/L	0.10	USEPA 8015
TPH Motor Oil Range (C29 - C40)	< 0.50	mg/L	0.50	USEPA 8015
Antimony as Sb *	< 0.10	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Arsenic as As *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Barium as Ba	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Cadmium as Cd *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Chromium as Cr *	< 0.006	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Cobalt as Co *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Copper as Cu *	0.013	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Lead as Pb *	< 0.015	mg/L	0.015	APHA AWWA 3030 E / 3120 B
Manganese as Mn *	0.040	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Mercury as Hg	< 0.001	mg/L	0.001	APHA AWWA 3030 E / 3120 B
Nickel as Ni *	< 0.005	mg/L	0.005	APHA AWWA 3030 E / 3120 B
Zinc as Zn *	0.020	mg/L	0.006	APHA AWWA 3030 E / 3120 B
pH @ 25 °C * (Laboratory)	7.2	-	0.1	APHA AWWA 4500 H+B
Electrical Conductivity @ 25 °C * (Laboratory)	7050.0	µS/cm	0.1	APHA AWWA 2510 B
Temperature @ Site	32.6	°C	-	APHA AWWA 2550 B
Total Dissolved Solids @ 180 °C *	4000	mg/L	9	APHA AWWA 2540 C
Biochemical Oxygen Demand @ 5 Days	< 6	mg/L	6	ASTM D 888
Oil & Grease (Free) *	< 0.001	%	0.001	Gravimetric / IP-13
Oil & Grease (emulsified) *	< 10	mg/L	10	APHA AWWA 5520 B
Chloride as Cl- *	1242	mg/L	1	APHA AWWA 4500 Cl B
Total Sulfates as SO4 *	950	mg/L	8	APHA AWWA 4500 SO4 C
Total Chlorine	0.01	mg/L	0.01	USEPA DPD Method
Cyanide as CN *	< 0.002	mg/L	0.002	Pyridine Pyrazalone Method
Colour	< 15	Pt-Co	15	Platinum-Cobalt Method

**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/20
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/20
	<b>Sampling Report No :</b> Not Applicable

Dissolved Oxygen	3.6	mg/L	0.1	APHA AWWA 4500-O H/G
Nitrate as NO <sub>3</sub> *	20.30	mg/L	0.01	Cadmium Reduction Method
Phosphate - Phosphorus as PO <sub>4</sub> *	< 0.02	mg/L	0.02	USEPA Phos Ver 3
Sulfide as S <sub>2</sub> - *	0.010	mg/L	0.005	USEPA Methylene Blue Method
Turbidity *	1.5	NTU	0.1	USEPA 180.1
Pesticide (Non-Chlorinated)	< 0.01	mg/L	0.01	USEPA 8081
Phenol	< 0.001	mg/L	0.005	USEPA 528
1,2-Dichloroethane	< 0.001	mg/L	0.001	USEPA 8260
Dichloromethane	< 0.001	mg/L	0.001	USEPA 8260
Aluminum as Al *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Boron as B *	4.06	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Beryllium as Be	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Calcium as Ca	890.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Iron as Fe *	0.068	mg/L	0.011	APHA AWWA 3030 E / 3120 B
Magnesium as Mg	319.50	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Molybdenum as Mo *	0.05	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Potassium as K *	88.50	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Sodium as Na *	622.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Escherichia coli	Not Detected	CFU/100ml	1	APHA AWWA 9222 G
Toal Coliforms	Not Detected	CFU/100ml	1	APHA AWWA 9222 B

Test Variation: None

Remarks: 1) \* This Test is Accredited by Dubai Municipality (DAC).  
2) ND - Not Detected (<1), CFU - Colony Forming Unit

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Results relates only to the items tested.

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Liwelyn Villapando  
Laboratory Manager

For CORE Laboratory



**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/21
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/21
	<b>Sampling Report No :</b> Not Applicable

<b>Sample Detail</b>	<b>On-Site Details</b>
<b>Sample Type :</b> Ground Water	<b>pH / Temperature :</b> 6.9 pH unit / 35.6°C
<b>Source of Sample :</b> Ground Water from Borehole	<b>Appearance :</b> Mild Turbid Liquid
<b>Sampling Point :</b> BH - 15, Water Level - 7.24, 25.159797 N, 55.447094 E	<b>Preservation :</b> Yes
<b>Sampling Location :</b> BH - 15, Solid Waste to Energy (WTE) Project in Al Warsan, Dubai	

<b>Sampling Detail</b>	<b>Method :</b> Not Given
<b>Apparatus :</b> Not Given	<b>Collected by :</b> Client Rep.
<b>Quantity / Size :</b> Plastic (3*1 Ltr), Amber Glass (1*1 L) , Glass (2*1 Ltr) & Micro (1*500ml)	<b>Delivered by :</b> Client Rep.
<b>Sampling Date / Time :</b> 06/09/2018 / 12:10 Hrs	
<b>Sample Transport Condition :</b> Below 10°C (Micro)	<b>Received by :</b> AC (Core Lab Rep.)
<b>Receiving Date :</b> 06/09/2018 <b>Time :</b> 13:40 Hrs	<b>Sample Condition :</b> OK
<b>Sample Temperature on Receipt :</b> Below 10°C (Micro)	

<b>Result of Chemical and Microbiological Analysis</b>	<b>Tested by :</b> AC/DC/DT/MK	<b>Date of Analysis :</b> 06/09/2018 - 15/09/2018		
<b>Parameters</b>	<b>RESULT</b>	<b>Unit</b>	<b>MDL</b>	<b>Test Method</b>
Benzene	< 1	µg/L	1	USEPA 8260
Toluene	< 1	µg/L	1	USEPA 8260
Ethylbenzene	< 1	µg/L	1	USEPA 8260
Xylene (o,p)	< 1	µg/L	1	USEPA 8260
TPH Gasoline Range (C5 - C10)	< 0.02	mg/L	0.02	USEPA 8015
TPH Diesel Range (C11-C28)	< 0.10	mg/L	0.10	USEPA 8015
TPH Motor Oil Range (C29 - C40)	< 0.50	mg/L	0.50	USEPA 8015
Antimony as Sb *	< 0.10	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Arsenic as As *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Barium as Ba	0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Cadmium as Cd *	< 0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Chromium as Cr *	< 0.006	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Cobalt as Co *	0.002	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Copper as Cu *	0.014	mg/L	0.006	APHA AWWA 3030 E / 3120 B
Lead as Pb *	0.016	mg/L	0.015	APHA AWWA 3030 E / 3120 B
Manganese as Mn *	0.039	mg/L	0.002	APHA AWWA 3030 E / 3120 B
Mercury as Hg	< 0.001	mg/L	0.001	APHA AWWA 3030 E / 3120 B
Nickel as Ni *	< 0.005	mg/L	0.005	APHA AWWA 3030 E / 3120 B
Zinc as Zn *	0.035	mg/L	0.006	APHA AWWA 3030 E / 3120 B
pH @ 25 °C * (Laboratory)	7.2	-	0.1	APHA AWWA 4500 H+B
Electrical Conductivity @ 25 °C * (Laboratory)	7100.0	µS/cm	0.1	APHA AWWA 2510 B
Temperature @ Site	35.6	°C	-	APHA AWWA 2550 B
Total Dissolved Solids @ 180 °C *	4100	mg/L	9	APHA AWWA 2540 C
Biochemical Oxygen Demand @ 5 Days	< 6	mg/L	6	ASTM D 888
Oil & Grease (Free) *	< 0.001	%	0.001	Gravimetric / IP-13
Oil & Grease (emulsified) *	< 10	mg/L	10	APHA AWWA 5520 B
Chloride as Cl- *	1274	mg/L	1	APHA AWWA 4500 Cl B
Total Sulfates as SO4 *	1090	mg/L	8	APHA AWWA 4500 SO4 C
Total Chlorine	0.02	mg/L	0.01	USEPA DPD Method
Cyanide as CN *	< 0.002	mg/L	0.002	Pyridine Pyrazalone Method
Colour	< 15	Pt-Co	15	Platinum-Cobalt Method



**LABORATORY TEST REPORT ON GROUNDWATER**

<b>Client Name :</b> GHD GLOBAL PTY. LTD	<b>Date :</b> 15/09/2018
<b>Nature of Business :</b> Environment Consultant	<b>Report No :</b> RP/SA-00889/21
<b>Client Address :</b> P O Box 45921, Guardian Tower, Danet Community Abu Dhabi, United Arab Emirates	<b>Sample No :</b> SP/SA-00889/21
	<b>Sampling Report No :</b> Not Applicable

Dissolved Oxygen (Laboratory)	3.5	mg/L	0.1	APHA AWWA 4500-O H/G
Nitrate as NO <sub>3</sub> *	25.60	mg/L	0.01	Cadmium Reduction Method
Phosphate - Phosphorus as PO <sub>4</sub> *	< 0.02	mg/L	0.02	USEPA Phos Ver 3
Sulfide as S <sub>2</sub> - *	0.005	mg/L	0.005	USEPA Methylene Blue Method
Turbidity *	1.4	NTU	0.1	USEPA 180.1
Pesticide (Non-Chlorinated)	< 0.01	mg/L	0.01	USEPA 8081
Phenol	< 0.005	mg/L	0.005	USEPA 528
1,2-Dichloroethane	< 0.001	mg/L	0.001	USEPA 8260
Dichloromethane	< 0.001	mg/L	0.001	USEPA 8260
Aluminum as Al *	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Boron as B *	4.16	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Beryllium as Be	< 0.01	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Calcium as Ca	850.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Iron as Fe *	0.079	mg/L	0.011	APHA AWWA 3030 E / 3120 B
Magnesium as Mg	311.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Molybdenum as Mo *	0.06	mg/L	0.01	APHA AWWA 3030 E / 3120 B
Potassium as K *	84.50	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Sodium as Na *	496.00	mg/L	0.10	APHA AWWA 3030 E / 3120 B
Escherichia coli	Not Detected	CFU/100ml	1	APHA AWWA 9222 G
Total Coliforms	Not Detected	CFU/100ml	1	APHA AWWA 9222 B

Test Variation: None

Remarks: 1) \* This Test is Accredited by Dubai Municipality (DAC).  
2) ND - Not Detected (<1), CFU - Colony Forming Unit

Reference: APHA AWWA WEF 22nd Ed. 2012 Standard Method for the Examination of Water and Waste Water.

Results relates only to the items tested.

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Liwelyn Villapando  
Laboratory Manager

For CORE Laboratory