

List of Instruments Certification for Air & Noise Quality Analysis

No.	Instrument/Equipment	Parameter	Manufacturer	Model/Serial No.	Calibrator	Certification No.	Date of Calibration	Due date of Calibration	Remark
Ambient									
1	Orifice Transfer Standard Calibrator	Total Suspended Particulate (TSP) Particulate Matter < 10 µm (PM ₁₀)	Tisch Environmental, Inc.	TE-5025A 3393	Jiranatee Associates Co., Ltd.	CL-004-65	26 Jul 22	25 Jul 24	-
2	U-Tube Manometer	Total Suspended Particulate (TSP) Particulate Matter < 10 µm (PM ₁₀)	Dwyer	1221-36-W/M -	Technology Promotion Association (Thailand-Japan)	22P801	12 Mar 22	11 Mar 23	-
3	Air Flow Meter	Particular Matter (PM _{2.5})	Mesa Labs	DeltaCal DC1 158850	Innovative Instrument Co., Ltd.	22-AFM-116	16 Aug 22	15 Aug 23	-
4	Aneroid Barometer	Total Suspended Particulate (TSP) Particulate Matter < 10 µm (PM ₁₀) Particular Matter (PM _{2.5})	Barigo, Germany	-	Technology Promotion Association (Thailand-Japan)	22P2728	22 Jul 22	21 Jul 23	-
5	Dial Thermo-Hygrometer	Total Suspended Particulate (TSP) Particulate Matter < 10 µm (PM ₁₀) Particular Matter (PM _{2.5})	Barigo, Germany	-	Technology Promotion Association (Thailand-Japan)	22H1587	27 Jul 22	26 Jul 23	-
6	High Volume Air Sampler	Total Suspended Particulate (TSP)	Thremo Scientific	CMCBD 1010	Jiranatee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
7	High Volume Air Sampler	Total Suspended Particulate (TSP)	Thremo Scientific	CMCBD 1011	Jiranatee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
8	High Volume Air Sampler	Total Suspended Particulate (TSP)	Thremo Scientific	CMCBD 1016	Jiranatee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
9	High Volume Air Sampler	Total Suspended Particulate (TSP)	Thremo Scientific	CMCBD 1017	Jiranatee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
10	High Volume Air Sample	Total Suspended Particulate (TSP)	Thremo Scientific	CMCBD 1020	Jiranatee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
11	High Volume Air Sample	Total Suspended Particulate (TSP)	Thremo Scientific	CMCBD 1007	Jiranatee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-

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Ambient									
12	High Volume Air Sample	Particulate Matter < 10 µm (PM ₁₀)	Thremo Scientific	CMBBD 1011	Jirantee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
13	High Volume Air Sample	Particulate Matter < 10 µm (PM ₁₀)	Thremo Scientific	CMBBD 1012	Jirantee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
14	High Volume Air Sample	Particulate Matter < 10 µm (PM ₁₀)	Thremo Scientific	CMBBD 1013	Jirantee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
15	High Volume Air Sample	Particulate Matter < 10 µm (PM ₁₀)	Thremo Scientific	CMBBD 1016	Jirantee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
16	High Volume Air Sample	Particulate Matter < 10 µm (PM ₁₀)	Thremo Scientific	CMBBD 1017	Jirantee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-
17	High Volume Air Sample	Particulate Matter < 10 µm (PM ₁₀)	Thremo Scientific	CMBBD 1005	Jirantee Associates Co., Ltd.	Ref. No.3393	26 Jul 22	25 Jul 24	-

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Ambient									
18	Wind Speed/Wind Direction	WS/WD	Scarlet Tech Ltd.	WL-21 2111DT0041	Scarlet Tech Ltd.	25032022	25 Mar 22	24 Mar 23	-
19	Wind Speed/Wind Direction	WS/WD	Scarlet Tech Ltd.	WL-21 2111DT0052	Scarlet Tech Ltd.	25032022	25 Mar 22	24 Mar 23	-
20	Wind Speed/Wind Direction	WS/WD	Scarlet Tech Ltd.	WL-21 2111DT0058	Scarlet Tech Ltd.	25032022	25 Mar 22	24 Mar 23	-
21	Wind Speed/Wind Direction	WS/WD	Scarlet Tech Ltd.	WL-21 2111DT0065	Scarlet Tech Ltd.	25032022	25 Mar 22	24 Mar 23	-
22	Wind Speed/Wind Direction	WS/WD	Scarlet Tech Ltd.	WL-21 2111DT0072	Scarlet Tech Ltd.	25032022	25 Mar 22	24 Mar 23	-
23	Wind Speed/Wind Direction	WS/WD	Scarlet Tech Ltd.	WL-21 2111DT0102	Scarlet Tech Ltd.	25032022	25 Mar 22	24 Mar 23	-
24	Vibration Meter	Vibration Level Acceleration Level	Instantel Inc.	Micromate UM11229	Calibration Laboratory Co.Ltd	Q22097008	23 Sep 22	22 Sep 23	-
25	Vibration Meter	Vibration Level Acceleration Level	Instantel Inc.	Micromate UM11230	Calibration Laboratory Co.Ltd	Q22086863	30 Aug 22	29 Aug 23	-

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Ambient									
26	Vibration Meter	Vibration Level Acceleration Level	Instantel Inc.	Micromate UM11356	Calibration Laboratory Co.Ltd	Q22097248	23 Sep 22	22 Sep 23	-
27	Vibration Meter	Vibration Level Acceleration Level	Instantel Inc.	Micromate UM12392	Calibration Laboratory Co.Ltd	Q22017950	22 Feb 22	21 Feb 23	-
28	Vibration Meter	Vibration Level Acceleration Level	Instantel Inc.	Micromate UM12865	Calibration Laboratory Co.Ltd	Q22086865	30 Aug 22	29 Aug 23	-
29	Vibration Meter	Vibration Level Acceleration Level	Instantel Inc.	Micromate UM12866	Calibration Laboratory Co.Ltd	Q22097011	23 Sep 22	22 Sep 23	-
30	Sound Level Calibrator (Acoustic Calibrator)	Calibrate Sound Level Meter	01dB	CAL31 84065	Innovative Instrument Co.,Ltd.	22-ACT-523	19 Aug 22	18 Aug 23	-

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31	Sound Level Meter	$L_{Aeq\ 24\ hours}$, L_{Amax} , L_{A90} , L_{Adn}	Rion, Japan	NL-42 00321432	Innovative Instrument Co.,Ltd.	22-ACT-207	17 Mar 22	16 Mar 23	-
32	Sound Level Meter	$L_{Aeq\ 24\ hours}$, L_{Amax} , L_{A90} , L_{Adn}	Rion, Japan	NL-42 00321441	Innovative Instrument Co.,Ltd.	22-ACT-208	17 Mar 22	16 Mar 23	-
33	Sound Level Meter	$L_{Aeq\ 24\ hours}$, L_{Amax} , L_{A90} , L_{Adn}	Rion, Japan	NL-42 00558039	Innovative Instrument Co.,Ltd.	22-ACT-209	17 Mar 22	16 Mar 23	-
34	Sound Level Meter	$L_{Aeq\ 24\ hours}$, L_{Amax} , L_{A90} , L_{Adn}	Rion, Japan	NL-42 00558208	Innovative Instrument Co.,Ltd.	22-ACT-210	17 Mar 22	16 Mar 23	-
35	Sound Level Meter	$L_{Aeq\ 24\ hours}$, L_{Amax} , L_{A90} , L_{Adn}	Rion, Japan	NL-42 00558212	Innovative Instrument Co.,Ltd.	22-ACT-206	17 Mar 22	16 Mar 23	-
36	Sound Level Meter	$L_{Aeq\ 24\ hours}$, L_{Amax} , L_{A90} , L_{Adn}	Rion, Japan	NL-42 01010777	Sithiporn Associates Co., Ltd.	ACL22083	22 Apr 22	21 Apr 23	-

รายการใบรับรองสอบเทียบ ทวนสอบเครื่องมือหลักประจำห้องปฏิบัติการวิเคราะห์

No.	Instrument/Equipment	Parameter	Manufacturer	Model/Serial No.	Calibrator	Certification No.	Date of Calibration	Due date of Calibration*	Remark
เครื่องมือสำหรับวิเคราะห์คุณภาพอากาศ									
1	Analytical Balance (Readability 0.1 mg)	TSP PM-10	Mettler-Toledo	AB204-S / 1128312528	Mettler-Toledo (Thailand) Ltd.	TH2058-097-040722- ACC-TH	7 Apr 22	6 Apr 23	-
2	Analytical Balance (Readability 0.1 mg)		Mettler-Toledo	AB204-S/FACT / B108115858	Mettler-Toledo (Thailand) Ltd.	TH2058-098-040722- ACC-TH	7 Apr 22	6 Apr 23	-

รายการใบรับรองสอบเทียบ/ทวนสอบ เครื่องมือหลักประจำห้องปฏิบัติการ สำหรับวิเคราะห์คุณภาพน้ำใต้ดิน

No.	Instrument/Equipment	Parameter	Manufacturer	Model/Serial No.	Calibrator	Certification No.	Date of Calibration	Due date of Calibration*	Remark
Laboratory Instrument/Equipment.									
1	pH Meter	pH Temperature	Mettler-Toledo	Seven Easy S20 / 1230525212	National Food Institute, Ministry of Industry, Thailand	2302181-001-01	24 Mar 23	22 Mar 24	-
2	pH Meter		Hanna Instrument	HI2020-02 / C0051107	National Food Institute, Ministry of Industry, Thailand	2203135-001-01	8 Jun 22	7 Jun 23	-
3	Analytical Balance (Readability 0.01 mg)	Total Solids Total Dissolved Solids	Mettler-Toledo	XSR205DU / C009071872	Technology Promotion Association (Thailand-Japan)	22MM210	26 Apr 22	25 Apr 23	-
4	Hot Air Oven	Total Suspended Solids	Memmert	UF55 / B216.1666	Technology Promotion Association (Thailand-Japan)	22TM1490	19 Oct 22	18 Oct 23	-

รายการใบรับรองสอบเทียบ ทวนสอบเครื่องมือหลักประจำห้องปฏิบัติการวิเคราะห์

No.	Instrument/Equipment	Parameter	Manufacturer	Model/Serial No.	Calibrator	Certification No.	Date of Calibration	Due date of Calibration*	Remark
5	Atomic Absorption Spectrophotometer (AAS)	Iron, Titanium, Arsenic, Cadmium, Manganese, Chromium, Copper, Barium, Lead, Mercury, Nickel,	Agilent Technologies	System ID:G8432A AA240FS / MY13160001	Thailand Institute of Scientific and Technological Research(TISTR)	MTC.ACL.No. 387/66	2 Feb 23	1 Feb 24	-
6	Inductively Coupled Plasma (ICP)	Selenium, Chromium Trivalent, Chromium Hexalent, Zinc Titanium, Chromium	Agilent Technologies	System ID:G8015A G8015AA / MY18030001	Agilent Technologies (Thailand) Co.,Ltd.	Preventive Maintenance Checklist	30 Nov 22	29 Nov 23	-
7	UV-VIS Spectrophotometer	Phosphate, Ammonia-Nitrogen Sulphate, Cyanide	Agilent Technologies	Cary60 G6860A / MY15410009	DQE Services Co.,Ltd.	SP22-016	31 May 22	30 May 23	-
8	UV-VIS Spectrophotometer	Nitrate Nitrogen, Phenols, Colour, Chromium Hexalent,Total Nitrogen	Hitachi	U-1900 / 2021-064	DQE Services Co.,Ltd.	SP23-007	6 Jan 23	5 Jan 24	-
9	UV-VIS Spectrophotometer	Chemical Oxygen Demand Formaldehyde, Cyanide As HCN	Hitachi	U-2900 / 21E22-009	DQE Services Co.,Ltd.	SP23-008	6 Jan 23	5 Jan 24	-
10	Turbidity Meter	Turbidity	Oakton	T100IR / 1120501017	Technology Promotion Association (Thailand-Japan)	22CH1184	5 Sep 22	4 Sep 23	-

Due Date of Calibration* : Based on the annual calibration plan. At least 1 time per year.