

Appendix I

Landfill Gas Monitoring Equipment Calibration Certificate



路達國際有限公司

ROTTER INTERNATIONAL LIMITED

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Calibration Report - Gas Detector

PGM-2500 (QRAE III) --- LEL/O2/CO/H2S

UNIT INFORMATION :

Customer:	Penta Ocean Construction Co Ltd	Serial #:	M02A001708	Model:	QRAE III
		Firmware:	V2.12	Sensor:	LEL/O2/CO/H2S
		Cal date:	28-Jul-2022	Inspected:	Teddy

SENSOR DATA :

	LEL sensor (ME)	O2 sensor	CO sensor (Tox1)	H2S sensor (Tox2)
Calibration dates:	28-Jul-2022	28-Jul-2022	28-Jul-2022	28-Jul-2022
After Calibration levels:	50%	18.00%	50 ppm	10.0 ppm
Alarm levels (Low):	10.00%	19.50%	35 ppm	10 ppm
Alarm levels (High):	20.00%	23.50%	200 ppm	20 ppm
TWA Level :	--	--	35 ppm	10 ppm
STEL Level :	--	--	100 ppm	15 ppm

Status:

Pump Speed	Low	Back Light	Manual
Clock	Yes	Measure	Average

LEL Gas Selection

LEL Calibration Gas	Methane	LEL measurement Gas	Methane
LEL Custom Gas	LEL_custom_gas	LEL Custom Factor	1.0

Gas types used : 4-Gas Mix: (18% O2, 50ppm CO, 10ppm H2S, 50% LEL CH4, BAL N2) Gas lot #WO350201-3

*** Fresh Air Calibration is highly recommended to proceed prior for measurement each time.

Replaced Parts:

Notes:

The unit was calibrated and checked under good working condition

**Next calibration due on or before 27 July 2023

Serviced by Teddy Wong
Rotter International Ltd



PROMAT (HK) LTD

寶時(香港)有限公司

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VERIFICATION CERTIFICATE OF CO2 Analyzer

Report No. : 21012
Date : 15/11/2021
Client : Penta Ocean Concentric JV

EQUIPMENT TO BE VERIFIED

Equipment Name : CO2 Analyzer
Supplier : TES
Model No. : 1307H
Serial No. : 200901259
Date of Verification : 15/11/2021
Due Verification : 14/11/2022

VERIFICATION DEVICES USED

Reference Equipment	: CO2 in N2	CO2 in N2
Supplier	: NorLab	NorLab
Model No.	: H1013500PN	H1013.3VN
Lot #	: 0-353-780	1-006-21
Expiry date	: 23/12/2023	10/1/2024
Accuracy	: Within +/-2%	Within +/-2%

ENVIRONMENTAL CONDITION

Ambient Temp : 25.2 °C
Relative Humidity : 53%

Verification Result


Test Number	Concentration (Mole%)	Results
Test 1	500ppm	510ppm
Test 2	0.50%	0.52%

Remarks

- 1 The Gas reference used in this verification has traceable accuracy to Manufacturer Standard
- 2 The above equipment was operated by the competent person
- 3 Promat is Registered ISO9001:2015 Quality Management System in Sales, Repair and Calibration Services

Certification

Verification by


Mr. Eric Lee / Product Manager

Calibration Certificate

Cert. Ref. No.: BW/XT/3RD/17974

Date: 2022 09 02

Customer: Renopipe Construction Company Limited

Purchase Order No.: SME-C-20-21-6/2020-76554

九龍觀塘海濱道133號萬兆豐中心6樓K2室

Date: 2020 07 07 INVOICE NO: AP

Email: damonhuang@renopipe.com.hk

Attn: Damon Huang

Tel: 3998 3193

Fax: 3998 3225

Mobile Phone

User Details:

Gas Detector Model: XT-XWHM-Y-OR

Serial No.: MA220-012709

Pump S/N: 420373

Calibration Record:

Inspection before calibration	Visual inspection	Functional Test
Basic Unit - Case, Clip & Display etc.	OK	OK
Battery and charge etc.	OK	OK
Motorized Pump	OK	OK
Other items		

Type of Sensor	Expiry Date
Oxygen Sensor	
CO & H2S Sensor	
Combustible(LEL) Sensor	

Type of calibration	Date of calibration	H2S (ppm)	CO (ppm)	O2 (%)	LEL (%)
3rd Calibration	2022 09 02	25	100	18	50
Result of Calibration		OK	OK	OK	OK

Calibration Cost: (As per attached invoice) F.O.C

Calibration remarks: Oxygen sensor replaced by new one
Warranty : Oxygen Sensor 1 years warranty

Next calibration date of this instrument will be : 2023 09 02

IMPORTANT NOTES TO BW GAS DETECTOR USERS

USERS MUST READ THE OPERATOR'S MANUAL THOROUGHLY BEFORE OPERATING THIS EQUIPMENT AND FOLLOW THEIR OWN SAFETY SUPERVISOR'S INSTRUCTION TO WORK.

All gas detection instrumentation on the market requires periodic calibration to accurately measure gas. Calibration is only as accurate as the test gas used. BW Technologies quality test gases are made to the highest accuracy and trace-ability to N. I.S.T. Standards.



Calibrated By: Sara Tse

Service Hotline: 2592 2120 Ms. Tse - Service Dept.

Asia Pacific Industrial Safety Equipment

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亞洲科技