



Scheduled Maintenance Work Order

Work Order No	n/a pwo 4/3851	Scheduled Month	January 2019
Work Order Date	n/a 01/01/2019	Completed Date	25/1/2019
Clinic Name	K.K LINTANG	Clinic Code	PRK049
BE No	PRK031409	District	KUALA KANGSAR
BE Category	CHEMISTRY ANALYSER (m)	WO Assigned to	NOOR AZARUL
Ownership	<input checked="" type="checkbox"/> Existing Equipment	<input type="checkbox"/> MEET Equipment	
BE Condition	<input type="checkbox"/> Under Warranty	<input type="checkbox"/> BER Proposed	
Work Order Type	<input checked="" type="checkbox"/> Preventive Maintenance (PM)	<input type="checkbox"/> Third Party Calibration (TPC)	
	<input type="checkbox"/> Routine Inspection (RI)	<input type="checkbox"/> Statutory Certification (SC)	

Reschedule Date	
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BE Third Party Calibration / Statutory Certification Details

Company Name	n/a	Cal / Cert Date	n/a
Contact Number	n/a	Cal / Cert Expiry Date	n/a

Action Taken

PPM COMPLETED AS PER CHECKLIST.

Manufacturer: RACH DIAGNOSTIC
Model: CERAS C311
S/N: 1536-07
Purchase Date: 29/9/2015
Kewpa No: KKM/GRK/PRK/16/08-05-03/14/15/18

Schedule Maintenance Execution Details

SI No	QMS Engineer / Technician Name	Date	Start Time	End Time
1	NOOR AZARUL	25/1/2019	9:00	12:00

Customer Remarks

* CURRENT QC LET NOT AVAILABLE.

Engineer / Technician Signature

Name: NOOR AZARUL B AHAMAD
Date: 25/1/2019
PERAK LAB SPECIALIST
Quantum Medical Solution Sdn. Bhd.
No 10 B, Persiaan Greentown 1c
Greentown Avenue, 30450 Ipoh, Perak
Tel/fax : 05-2461991 Hp : 012-39648013

Customer Signature

Name: MOHD REZUEK YAHYAH
Designation: UNIT PATOLOGI
Date: 25/1/2019
Seal: 33.01PUT (U), PERAK, TEL: 05-5912255

For Internal Use only

First Verification
QMS Circle Incharge

Final Verification
QMS State Incharge



KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist
Analyzers, Laboratory, Clinical Chemistry, Automated (Medium)
BE CODE : ME-007

CHECKLIST NO: CL-011-000 REV.000

PART 1 ASSET DETAILS

WORK ORDER NO ▶ *no/pw0413851* BE NO ▶ *PRK031409*
MANUFACTURER ▶ *ROCHE DIAGNOSTICS* MODEL ▶ *CEB050311*
FREQUENCY ▶ 6 MONTHLY (☒) 12 MONTHLY (☐) PPM HOURS ▶ 2.00

PART 2 SPECIAL PRECAUTION

If there is evidence of body fluid contamination, submit the device for cleaning and decontamination before inspecting it.

Wear appropriate Personnel Protection Equipment (PPE) during work.

Wear grounded electrostatic wristband when handling PCB or electronic components.

Refer to the safety procedure for additional precautions and guidance as per manufacturer guidelines.

Make sure the test equipment used are duly calibrated.

PART 3 TEST APPARATUS

Tick (☒) where appropriate

NO	ASSET NO	DESCRIPTION	SERIAL NO	CALIBRATION DUE ON
	<i>no</i>	ELECTRICAL SAFETY ANALYZER	<i>no</i>	

PART 4 QUALITATIVE TASKS

Tick (☒) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	10 Tubes / Hoses - Verify Physical integrity	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
2 Mount/ Fasteners - verify physical integrity	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	11 Pump / Valves - Verify Physical Integrity and Proper Operation	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
3 AC Plug / Power Card - verify Physical Integrity and Proper Insulation	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	12 Electrode/Membrane - verify Physical Integrity	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
4 Strain Relief - verify physical integrity at both ends of line cord	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	13 Sampling and Mesasuring area -Verify Physical Integrity and Proper Operation	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
5 Circuit Breaker /Fuses - Verify Integrity of External Circuit Breaker or Rating of external Fuse	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	14 Initialization Process - Verify Proper Operation	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
6 Fittings/ Connectors - check all fittings/connectors for Physical Integrity	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	15 Labeling - Verify Caution and Warning Labels	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
7 Controls/Switches/Keypad - verify proper operation of controls	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	16 User Setting Calibration - Verify Proper Operation	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
8 Indicators/Displays Verify Proper Operation	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	17 Self Diagnostic Test - Verify Operation / Test results	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
9 Alarms/Interlocks- Check all alarms available	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	18 Printer System - Verify Intergrity	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)

PART 5 PREVENTIVE MAINTENANCE TASKS

Tick (☒) where appropriate

	DONE	NOT DONE**	NA		DONE	NOT DONE**	NA
1 Cleanliness-Clean Interior and Exterior of the Equipment	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)	4 Electrodes / Tubes - <u>Check</u> /Replace ***	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)
2 Check for Fluid leak	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)				
3 Clean Sampling and Measuring area	(<input checked="" type="checkbox"/>)	(<input type="checkbox"/>)	(<input type="checkbox"/>)				

Notes: * For all Parts, NA is defined as NOT APPLICABLE
** If you have ticked 'NOT DONE', then justify in Part 8
*** Choose Whichever Applicable



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WORK ORDER NO ▶ n/o pwo413851

PART 6 QUANTITATIVE TASKS

Tick (✓) where appropriate

No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PASS	FAIL	NA
	CAL/Slope calibration (Result Attach)					(✓)	()	()
	QC Test (attach test result)					()	()	(✓)

PART 7 ELECTRICAL SAFETY TEST

ELECTRICAL SAFETY TEST, (attach report)

Tick (✓) where appropriate

Standard use :

☐ IEC 60601

☐ IEC 61010

☐ IEC 62353

Result :

☐ PASS

☐ FAIL

☒ NA

PART 8 NOTES

NOT APPLICABLE FOR ELECTRICAL SAFETY TEST DUE TO UNIT RUNNING UNDER SOFTWARE BASE.

☐ CORRECTIVE MAINTENANCE REQUIRED

☒ FUNCTIONING

☐ NOT FUNCTIONING

WORK ORDER NO ▶ n/o

NEXT PPM DATE ▶ JULY 2019

PPM has been performed in accordance to the checklist and the equipment is functioning to the intended purpose.

COMPLETED BY:

NOOR AZARUL B AHAMAD
PERAK LAB SPECIALIST

Quantum Medical Solution Sdn Bhd

No 10 B, Persiaan Greentown 4c

Greentown Avenue, 30450 Ipoh, Perak

Tel/fax : 05-2461991 Hp : 012-39648013

DATE :

25/11/2018

Calibration Monitor

25/01/19

11:42

25/01/19 11:35:17 ADMIN

TEST	IS.EMF	S1 EMF	S2 EMF	S3 EMF	SLOPE	IS.CONC.	S3 CONC.	C.VALUE
Na-A	-28.5	-33.2	-25.7	-25.8	60.0	144	160	0
K-A	-34.6	-48.8	-26.8	-26.5	59.8	5.19	7.10	-0.10
Cl-A	133.7	137.6	129.4	129.4	-46.6	96.8	120	0

