



# Scheduled Maintenance Work Order

Work Order No	N/A PWO 414161	Scheduled Month	January 2019
Work Order Date	N/A 01/01/2019	Completed Date	7/1/2019
Clinic Name	K.K SIMPANG	Clinic Code	PRK720
BE No	PRK030720	District	LMS
BE Category	HEMATOLOGY ANALYZER (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"/> Routine Inspection (RI)	<input type="checkbox"/> Third Party Calibration (TPC) <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: NIKON KOTOCN  
Model: MEK6510K  
S/N: 00648  
Purchase Date: 15/10/2014  
Kewpa No: KKM/JKN/PRK/ICK/08-06-12/14/14/80

## Schedule Maintenance Execution Details

SI No	QMS Engineer / Technician Name	Date	Start Time	End Time
1	AZARUL	7/1/2019	8:10	10:10

## Customer Remarks

## Engineer / Technician Signature

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

## Customer Signature

Name: NUR HAZWANI BINTI MOHAMAD YOSOF  
Juruteknologi Makmal Perubatan U29  
Date: 07 JAN 2019  
Seal:

For Internal Use only

First Verification  
QMS Circle Incharge

Final Verification  
QMS State Incharge





KEMENTERIAN KESIHATAN MALAYSIA  
MEET Planned Preventive Maintenance Checklist  
Analyzers, Laboratory, Hematology, Cell Counting, Automated ( Medium)  
BE CODE : ME-009

CHECKLIST NO: CL-015-000  
REV.000

**PART 1 ASSET DETAILS**

WORK ORDER NO ▶ *n/a* BE NO ▶ *PRK030720*  
MANUFACTURER ▶ *NIHON KOGAKU* MODEL ▶ *MTK6510K*  
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>n/a</i>	ELECTRICAL SAFETY ANALYZER	<i>n/a</i>	

**PART 4 QUALITATIVE TASKS**

Tick ( *✓* ) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	( <i>/</i> )	( )	( )	11 Probes- Verify physical integrity	( <i>/</i> )	( )	( )
2 Mount/ Fasteners - verify physical integrity	( <i>/</i> )	( )	( )	12 Temperature system- verify proper operation	( <i>/</i> )	( )	( )
3 Power Cord - verify proper insulation and integrity	( <i>/</i> )	( )	( )	13 Fan/motor/compressor/pump- verify physical integrity and proper operation	( <i>/</i> )	( )	( )
4 Strain Relief - verify physical integrity at both ends of line cord	( <i>/</i> )	( )	( )	14 Initialization Process- Verify	( <i>/</i> )	( )	( )
5 Fittings/ Connectors - check all fittings/connectors	( <i>/</i> )	( )	( )	15 Printer - Verify physical operation.	( <i>/</i> )	( )	( )
6 Controls/Switches - verify proper operation of controls	( <i>/</i> )	( )	( )	16 User Setting - Verify Operation	( <i>/</i> )	( )	( )
7 Indicators/Displays- verify proper operation	( <i>/</i> )	( )	( )	17 User calibration - Verify Operation	( <i>/</i> )	( )	( )
8 Electrodes and Transducer -verify physical integrity	( <i>/</i> )	( )	( )	18 Self Diagnostic - Verify Operation	( <i>/</i> )	( )	( )
9 Hydraulics and Pneumatics System-verify physical integrity	( <i>/</i> )	( )	( )	19 Plate movement calibration - Verify Operation	( )	( )	( <i>/</i> )
10 Sensors- verify physical integrity	( <i>/</i> )	( )	( )				

**PART 5 PREVENTIVE MAINTENANCE TASKS**

Tick ( *✓* ) where appropriate

	DONE	NOT DONE **	NA		DONE	NOT DONE **	NA
1 Clean exterior and interior of the equipment	( <i>/</i> )	( )	( )	6 Clean measuring area	( <i>/</i> )	( )	( )
2 Inspect/clean interior of unit	( <i>/</i> )	( )	( )	7 Calibrate system parameter	( <i>/</i> )	( )	( )
3 Clean hydraulics and pneumatic system	( <i>/</i> )	( )	( )	8 Perform Post routine	( <i>/</i> )	( )	( )
4 Tubings - clean/ replace ***	( <i>/</i> )	( )	( )				
5 Clean sampling mechanism	( <i>/</i> )	( )	( )				

Notes:

\* For all Parts, NA is defined as NOT APPLICABLE

\*\* If you have ticked 'NOT DONE', then justify in Part 8

\*\*\* Choose Whichever Applicable





# KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Analyzers, Laboratory, Hematology, Cell Counting, Automated (Medium)  
BE CODE : ME-009

CHECKLIST NO: CL-015-000 REV.000

WORK ORDER NO *n/p*

## PART 6 QUANTITATIVE TASKS

Tick (✓) where appropriate

No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PASS	FAIL	NA
1.	BACKGROUND CHECK							
2.	QC TEST							

## 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

#NET APPLICABLE FOR ELECTRICAL SAFETY TEST  
DUE TO UNIT RUNNING UNDER SOFTWARE  
BASE



CORRECTIVE MAINTENANCE REQUIRED



FUNCTIONING



NOT FUNCTIONING

WORK ORDER NO *n/p*

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, Persiaran Greentown 4c

Greentown Avenue, 30450 Ipoh, Perak  
Tel/fax : 05-2461991 Hp : 012-39648013

DATE:

*7/1/2019*



# BACKGROUND

WBC	0.0	WBC	(5)
RBC	0.00		
HGB	0.1	100 200 300	
HCT	0.0	RBC	(5) (HT)
MCV			
MCH		100 200	
MCHC		PLT	(5)
PLT	7	2 10 20	





# KLINIK KESIHATAN SIMPANG 2

07 JAN '19 09:58	ID	MEK3DL01071st
	WBC	
	RBC	2.1 2.48 10 <sup>3</sup> /μL
	HGB	2.6 2.6 10 <sup>6</sup> /μL
	HCT	19.0 19.0 g/dL
	MCV	16.6 16.6 fL
	MCH	24.2 24.2 pg
	MCHC	31.6 31.6 g/dL
	PLT	91 91 10 <sup>3</sup> /μL
	LY	(%) 58.4 (10 <sup>3</sup> /μL)
	MO	10.9 10.9
	GR	30.7 30.7
	RDW	17.1 17.1 %
	PCT	0.08 0.08 %
	MPV	8.6 8.6 fL
	PDW	17.4 17.4 %



# KLIAK KESIHATAN SIMPANG 2

07 JAN '19 10:03

ID

MEK3DN01071st

WBC

WBC

7.73

10<sup>3</sup>/μL

10<sup>6</sup>/μL

g/dL

%

fL

PS

g/dL

10<sup>3</sup>/μL

(10<sup>3</sup>/μL)

2.0

0.47

4.7

16.4

0.21

0.1

16.6

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

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Printed on: 27.12.2018  
2:02:12PM

**ARCHITECT**

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E.SHOWER"							
3. MEMASTIKAN FUNGSI "EYE SPLASH" OK.							
4. MEMASTIKAN FUNGSI ALIRAN AIR OK.							
	MAC						
1. MEMBERSIHKAN SHOWER							
2. MENGUJI FUNGSI PAM "E.SHOWER"							
3. MEMASTIKAN FUNGSI "EYE SPLASH" OK.							
4. MEMASTIKAN FUNGSI ALIRAN AIR OK.							