

HORIBA

Explore the future

HORIBA India Private Limited

246, Okhla Industrial Estate, Phase-III,

New Delhi 110020, India

Tel : +91 (11) 4646 5000 / 4669 5001

Fax : +91 (11) 4646 5020 / 4669 5010

http : //www.horiba.com

Ref. No.: HIN/MED/2022-23/112319

Date: December 22, 2022.

CALIBRATION CERTIFICATE

This is to certify that the Hematology analyzer Model YUMIZEN H 500 bearing S.No. 904YOXH02319 and installed at Tenet Diagnostic, VIP Road, Visakhapatnam. Was calibrated on 22.12.2022.

The CV of repeatability check, Calibration and Control values were all found in range. Done the Calibration by using the *ABX MINOCAL* Calibrator Lot No: CX477 Exp. Date – 2023/01/05.

Calibration done and the instrument are working satisfactorily. Next Calibration Due On: **December 21, 2023.**



For HORIBA MEDICAL,
HORIBA INDIA PVT. LIMITED.

HORIBA
Medical

**Installation Qualification, Performance,
Qualification and Operational
Qualification**

YUMIZEN H500
(Serial no: **904YOXH02319**)
Fully Automated Hematology Analyzer

For

TENET DIAGNOSTIC
Visakhapatnam

Table of Contents:

Section 1 General Instructions

Section 2 Installation Qualification

- I. Installation Qualification.
- II. Installation Procedure.
- III. Installation Certificate.

Section 3 Operational Qualification

- I. Operational Qualification.
- II. Operational Training Record.
- III. Operator Maintenance Protocol.
- IV. Operational Certificate.

Section 4 Performance Qualifications

- I. Performance Qualification.
- II. Performance Certificate.

General Instructions:

- HORIBA India Pvt. Ltd. is responsible for installation of YUMIZEN H500; fully 6 part Automated Hematology Analyzer, at TENET DIAGNOSTIC, Visakhapatnam. As per the attached protocol.
- An authorized HORIBA India Pvt. Ltd., representative will physically check the system and proceed for the installation.
- This installation protocol will be followed as specified by the manufacturer.
- Installation checks will also be performed to verify that the instrument has been installed with proper connections and utilities.
- An authorized HORIBA India Pvt. Ltd. representative will also perform the precision check on the system to check if it is as per the claim of the manufacturer.
- The results obtained for Calibration, QC & Precision checks will be verified by the qualified trained employee of
- TENET DIAGNOSTIC, VISAKHAPATNAM. , along with an authorized HORIBA India Pvt. Ltd., representative.
- On completion of the Installation all the necessary documents of the System checks will be used to evaluate the instrument installation in accordance with the manufacturer's protocol and intended use.
- An authorized HORIBA India Pvt. Ltd., representative will verify the documents of the system checks and approve the same.
- Successful completion of this protocol will verify that this instrument has been installed in accordance with the intended usage.

Report Sign Off

Prepared by:	HORIBA Medical - HORIBA India Pvt. Ltd.	
Name:	A S RUDRAM NAIDU	
Title:Executive Service Manager	Sign: <i>A S R Naidu</i>	Date: 01-10-2019.
Approved by:	TENET DIAGNOSTIC, VISAKHAPATNAM.	
Name:	<i>K. Phani Krishna</i>	
Title:	Sign: <i>K. Phani Krishna</i>	Date: 01-10-2019.



HORIBA
Medical

YUMIZEN H500
(Serial no: **904YOXH02319**)
Fully Automated Hematology Analyzer

Installation Qualification

For

**TENET DIAGNOSTIC,
VISA KHAPATNAM.**

#246, Okhla Industrial Estate, Phase III, New Delhi 110020, India, Tel: 011 4646
5000.

Visit us: <http://www.horiba.com/in/>

A. Installation Qualification**1. Installation Requirement :**

Sr. No.	Description	Compliance (Yes/No)
1.	Environmental conditions: Indoor Location not exposed to sunlight, water and vibration free platform. Temperature of 16°C to 34°C and maximum relative humidity of 80%.	yes
2.	Physical Space Requirement: 36(W) x 36(D) x 53(H) cm with at least 20 cm space at the back of the instrument from the wall.	yes
3.	Electrical Requirements: Power supply - 100Vac- 240 Vac +/- 10%. Power consumption – Maximum 150VA with earth less than 3 V.	yes
4.	UPS connection available.	yes

2. The instrument has been checked for the following:

Sr. No.	Verification	Provided (Yes/No)
1.	Instrument is identified Instrument Serial No. : 904YOXH02319	yes
2.	Manufacturer's specifications: Technical and Physical Requirement	yes
3.	Accessories / consumables are listed as per checklist (Provided along)	yes
4.	System checked for any External / physical damage.	yes
5.	Instrument User Manual (Soft Copy)	yes

3. Equipment Description :

YUMIZEN H500, Fully Automated Hematology Analyzer

Instrument Identification	Verified Yes/No
Equipment Type : Hematology Analyzer	Yes
Model : YUMIZEN H500	Yes
Manufacturer : HORIBA Medical, France	Yes
Marketed By : HORIBA Medical - HORIBA India Pvt. Ltd.	Yes
Equipment # : One	Yes
Serial Number : 904YOXH02319	Yes
Dimensions : 36(W) x 36(D) x 53(H)	Yes
Power Supply: 100Vac to 240Vac (+/-10%) 50Hz to 60Hz	yes
Power Consumption: 150 VA	

4. Accessories/Consumables :

The accessories were supplied with the instrument as per the check list. Check & verified in case they are found to be in order.

5. Preventive Maintenance :

The routine preventive maintenance of the system will be carried out by an authorized HORIBA India Pvt. Ltd., engineer at a specified time interval as recommended by the manufacturer.

6. Spare Parts :

HORIBA India Pvt. Ltd strongly recommends the end user to maintain a basic consumable parts onsite to minimize down time due to minor failures. Spare parts as provided in the installation kit.

B. Installation Procedure:

1. Putting the system at the predefined and pre inspected location (Having suitable Working Conditions).
2. Removal of the internal packing material of the system.
3. Place the Instrument on the bench top (Vibration free).
4. Connect the Power cord to the Yumizen H500.
6. Turn on the inbuilt Printer.
7. All the operating software has been loaded in to Yumizen H500.
8. Now from back side of the instrument turn the power switch ON. Yumizen H500 goes through its power up and self-test sequence.
9. The Yumizen H500 login menu is displayed after the Startup cycle is completed. Enter the credentials.

C. INSTALLATION CERTIFICATE:

Instrument Name : YUMIZEN H500
Serial Number : **904YOXH02319**
Customer Details : TENET DIAGNOSTIC,
With complete address VISAKHAPATNAM.
Installation Date : 01-10-2019.
(RR) expires on : (RR).

Prepared by:	HORIBA Medical - HORIBA India Pvt. Ltd.	
Name:	A S RUDRAM NAIDU	
Title: Executive Service Manager	Sign: <i>A.S.R. Naidu.</i>	Date: 01-10-2019.
Approved by:	TENET DIAGNOSTIC, Visakhapatnam.	
Name:	<i>K. Phani Krishna.</i>	
Title:	Sign: <i>K. Phani Krishna</i>	Date: 01-10-2019.

Deviation:

Conclusion: Instrument has been qualified for Installation. Hence it has been taken for Operational Qualification.



HORIBA

Medical

YUMIZEN H500

(Serial no: **904YOXH02319**)

Fully Automated Hematology Analyzer

Operational Qualification

For

**TENET DIAGNOSTIC,
VISAKHAPATNAM.**

#246, Okhla Industrial Estate, Phase III, New Delhi 110020, India, Tel: 011 4646
5000.

Visit us: <http://www.horiba.com/in/>

A. Operational Qualification**1. Instrument Identification:**

Instrument Name : YUMIZEN H500

Serial Number : 904YOXH02319

2. Following is the list of actions performed and verified for running the system routinely.

Sr. No.	Test Name	Test Purpose	Method	Observation
1.	SYSTEM SWITCH ON	TO CHECK THE ERROR FREE POWER UP.	Switch on the main, switch on the system. Login into Yumizen Application software. Startup cycle is performed .Login in as User and check for the Screen Errors.	Ok
2.	STARTUP CYCLE	TO CHECK THE BACK GROUND IS OK.	Run a startup cycle from the main menu; check if the background is in the acceptable range.	Ok
3.	PRINTER TEST	TO CHECK STATUS OF THE PRINTER.	Initiate a self-test of printer or run a sample to check the print.	Ok
4.	REAGENT STATUS	TO CHECK ADEQUATE REAGENT IS AVAILABLE FOR ANALYSIS	Manually check in the reagent bottles or else change the reagent from the Status Menu.	Ok
5.	SAMPLE ANALYSIS	TO CHECK PROPER FUNCTIONING OF SAMPLE ANALYSIS	1. To run Stat/ Manual sample, press on sample identification and enter the sample ID and press on validate.	ok
6.	ARCHIVE AND CURRENT REPORTS	TO RECOVER THE SAMPLE RESULT FROM ARCHIVE AND CURRENT REPORTS	Press on Results History icon and view the current results. To view archived reports, Select Archive results and select the date of the reports and view the report.	ok
7.	QUALITY CONTROL DATA	TO RECOVER QUALITY CONTROL DATA AND LJ GRAPH	Press on QC Icon from the Main Menu and select the Lot No. To view on QC Runs, Click on Dates .	ok

8.	FLAGS AND ALARMS	TO CHECK THE PROPER FLAGS AND ALARMS FOR SAMPLES	Run sample to verify alarms and flags.	ok
----	------------------	--	--	----

B. Operational Training Record

Operator Training: The users responsible for the operation of this instrument will be trained on the proper usage of the system. Training will focus on the basic operation and maintenance of the system. The training of the operators will be documented and the training records will be filled as indicated below:

C. Operator Maintenance Protocol

Maintenance and Troubleshooting: Perform Concentration Cleaning as advised by the HORIBA Medical Representative. Run a Shutdown cycle before switching off the analyzer.

D. OPERATIONAL CERTIFICATE:

Instrument Name : YUMIZEN H500.
Serial Number : 904YOXH02319
Customer Details : TENET DIAGNOSTIC,
with complete address VISAKHAPATNAM.
Installation Date : 01-10-2019.
(RR) expires on : (RR).

Prepared by:	HORIBA Medical - HORIBA India Pvt. Ltd.	
Name:	A S RUDRAM NAIDU	
Title:	Sign: <i>A. S. R. Naidu.</i>	Date: 01-10-2019.
Service Manager		
Approved by:	TENET DIAGNOSTIC, Visakhapatnam.	
Name:	<i>K. Phani Krishna</i>	
Title:	Sign: <i>K. Phani Krishna</i>	Date: 01-10-2019.

Deviation:



Conclusion: Instrument has been qualified for Operational. Hence it has been taken for Performance Qualification.

HORIBA

Medical

YUMIZEN H500
(Serial no: **904YOXH02319**)
Fully Automated Hematology Analyzer

Performance Qualification

For

**TENET DIAGNOSTIC,
VISA KHAPATNAM.**

#246, Okhla Industrial Estate, Phase III, New Delhi 110020, India, Tel: 011 4646
5000.

Visit us: <http://www.horiba.com/in/>

A. Performance Qualification

A. Instrument Identification:

Instrument Name : YUMIZEN H500

Serial Number : 904YOXH02319

B. Following is the list of test to be performed and verified

- Blank Reference cycle: To verify the Startup Cycle of the instrument.

Serial No: 904YOXH02319

Parameters	Acceptable Range	Observed Value
WBC $10^3/\text{mm}^3$	$\leq 0.3 \times 10^3/\text{mm}^3$	0.13
RBC $10^6/\text{mm}^3$	$\leq 0.02 \times 10^6/\text{mm}^3$	0.00
HGB g/dL	$\leq 0.3 \text{ g/dl}$	0.0
PLT $10^3/\text{mm}^3$	$\leq 10 \times 10^3/\text{mm}^3$	1

A.S.R. Nandy

Conducted By:

K. Phani Kishore,

Verified By:

- **Control Runs:** The quality of the analyzer is checked by running three levels of Controls & getting the values in the range as per the kit insert.
-

Serial No: 904YOXH02319

Conducted By:

Verified By:

- **Precision Study:** Precision is checked by running blood sample in 10 replicates & getting CV% in within acceptance.

Serial No: 904YOXH02319

Parameters	CV % Acceptance	CV % Observed	Comments
RBC $10^6/\text{mm}^3$	< 2.0	1.66	Passed
HGB g/dL	< 1.5	0.41	Passed
HCT %	< 2.0	1.63	Passed
PLT $10^3/\text{mm}^3$	< 5.0	2.05	Passed
WBC $10^3/\text{mm}^3$	< 2.5	1.51	Passed

A.S.R Naidu
Conducted By:

K. Phani Koushik
Verified By:

- **Carryover Study:** Carry over is checked by running quality controls (Low & high) in 3 replicates & getting CV% in within acceptance.
 - Carry Over % = $(L1-L3) * 100 / (H3-L3)$.

Serial No: 904YOXH02319

Parameters	WBC $10^3/\text{mm}^3$	RBC $10^6/\text{mm}^3$	HGB g/dL	HCT %	PLT $10^3/\text{mm}^3$
Carry Over (%)	0.5	0.9	0	0.6	0.2
Manufacturer acceptable CV%	<1%	<1%	<1%	<1%	<1%
Status	Passed	Passed	Passed	Passed	Passed

A.S.R. Nandy
Conducted By:K. Phai Kuma,
Verified By:

B. PERFORMANCE CERTIFICATE:

Instrument Name : YUMIZEN H500
Serial Number : 904YOXH02319.
Customer Details : TENET DIAGNOSTIC,
With complete address VISAKHAPATNAM.,
Installation Date : 01-10-2019.
(RR) expires on : (RR).

Prepared by:	HORIBA Medical - HORIBA India Pvt. Ltd.	
Name:	A S RUDRAM NAIDU	
Title: Executive Service Manager	Sign: <i>A.S.R. Naidu</i>	Date: 01-10-2019.
Approved by:	TENET DIAGNOSTIC, Visakhapatnam.	
Name:	<i>K. Prani Krishna</i>	
Title:	Sign: <i>K. Prani Krishna</i>	Date: 01-10-2019.

Deviation:

Conclusion: Instrument has been qualified for Performance.

HORIBA

Explore the future

Notification No.	
Work Order No.	

**HORIBA CARE**

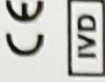
Toll Free No. 1800-103-4470

SERVICE REPORT

CUSTOMER COPY

HIN-M02- 204471

CUSTOMER DETAILS		INSTRUMENT DETAILS			SERVICE STATUS		
NAME: <i>Tenet Diagnostic</i>		MODEL: <i>Yumizen H-500</i>			VISITING PURPOSE:		
ADDRESS: <i>Vizag.</i>		EQUIP. SL. No.: <i>904Y0X402319</i>			<input type="checkbox"/> REPAIR <input type="checkbox"/> DATA ERROR		
		VERSION: <i>2.2.2.2L</i>			<input type="checkbox"/> INSTALLATION <input type="checkbox"/> MAINTENANCE		
		NOTIFICATION No.			<input type="checkbox"/> UPGRADE <input type="checkbox"/> CUSTOMER TRAINING		
		CALL DETAILS		DATE	TIME	<input type="checkbox"/> COURTESY VISIT <input type="checkbox"/> DEMO	
PIN CODE <i>530001</i>		COMPLAINT RECD.		<i>22/12/22</i>	<i>9:00 AM</i>	CUSTOMER STATUS	
CITY <i>Vizag.</i>		START		<i>22/12/22</i>	<i>9:00 AM</i>	<input type="checkbox"/> R.R <input type="checkbox"/> WARRANTY	
STATE <i>Andhra Pradesh</i>		COMPLETED		<i>22/12/22</i>	<i>5:20 PM</i>	<input type="checkbox"/> AMC <input type="checkbox"/> CMC	
TEL. NO.:		TRAVEL TIME (Eng. 1)		<i>20 min</i>	HOURS	<input type="checkbox"/> DEMO <input type="checkbox"/> FREE SERVICE	
CONTACT PERSON: <i>Mr. Eswar.</i>		TRAVEL TIME (Eng. 2)			HOURS	<input type="checkbox"/> CHARGEABLE CALL <input type="checkbox"/> OTHERS	
		DAILY WORKLOAD		<i>80</i>	<i>Per day</i>	WORKS CARRIED OUT AT	
PROBLEM REPORTED:		<input type="checkbox"/> SITE <input type="checkbox"/> SERVICE CENTRE					
OBSERVATIONS:		<i>1 year part & calibration.</i>					
ACTION TAKEN:		<i>* Clean the instrument & start per * given maintenance to all the sensors & change the</i>					
		<i>1-year BMA kit. * Lubricated all the axis</i>					
		<i>Roll. & check & adjust the lamp & HALL beam voltage.</i>					
		<i>Per startup, speed, etc, calibration, etc all are in range</i>					
		<i>* Done the instrument in working order & done the per calibration</i>					
<input type="checkbox"/> FOLLOWING PARTS HAVE BEEN REPLACED		<input type="checkbox"/> FOLLOWING PARTS NEED TO BE REPLACED PLEASE APPROVE					
PART CODE.	DESCRIPTION (Replaced)	QTY.	COST	TAX	TOTAL		
<i>1300033061</i>	<i>Kit, Maintenance 1 year</i>	<i>1</i>	<i>110</i>	<i>10%</i>	<i>121</i>		
<i>1202801364</i>	<i>HYDR/PNEU, Insulator 1/2 range</i>						
	<i>(Stock from Bhubanair)</i>						
PART CODE.	DESCRIPTION (Trouble Shooting)	QTY.	TOTAL RS.				
	<i>(Stock Received from HO Delhi)</i>						
FOLLOW-UP ACTION (Spare need to replaced, if any)			TO BE FILLED IN BY CUSTOMER				
			<input type="checkbox"/> FAULT RECTIFIED & INSTRUMENT IS WORKING SATISFACTORILY				
			<input type="checkbox"/> FAULT IS NOT COMPLETED, ENGINEER NEED TO COME AGAIN				
			<input type="checkbox"/> WE HEREBY APPROVE Rs.				
			<input type="checkbox"/> COMMENTS (IF ANY)				
ENGINEER'S NAME-1:	ENGINEER'S NAME-2:	<i>A. N. Saini</i>					
SIGNATURE:	SIGNATURE:	<i>22/12/22</i>					
DATE & TIME:	DATE & TIME:	CUSTOMER SIGNATURE:					
		NAME:					
		SEAL:					



Manufactured By:
HORIBA India Private Limited
 (A subsidiary of **HORIBA** Limited Japan)
 Plot No.26, Sector-7, I.I.E, SIDCUL,
 Handwar-249403, Uttarakhand, India
 Toll Free No.: 1800 103 4470

ABX Minocal

LOT CX 477 **Rev 1** **CAL** **(Exp.) 2023-01-05**
 (YYYY-MM-DD)

PARAMETRES PARAMETERS	UNITES UNITS	YUMIZEN V1.0 to V2.X				YUMIZEN SIDER V3				TOLERANCES TOLERANCE
		H550	H500 OT H500 CT	H500 OT	H500 CT H550	H500 OT	H500 CT	H500 OT	H500 CT	
		GB WBC	$10^9/\text{mm}^3; 10^9/\text{l}$	8.78	8.78	8.45	9.16	± 0.20		
GR RBC	$10^6/\text{mm}^3; 10^{12}/\text{l}$	4.62	4.62	4.54	4.66	± 0.06				
HT HCT	g/dl	13.6	13.6	13.4	13.7	± 0.2				
HB HGB	g/l	136	136	134	137	± 2				
	mmol/l	8.45	8.45	8.32	8.51	± 0.12				
	%	39.3	39.3	37.3	38.3	± 1.0				
	II	0.393	0.393	0.373	0.383	± 0.010				
PLA PLT	$10^9/\text{mm}^3; 10^9/\text{l}$	270	270	255	275	± 10				
VMP MPV	$\mu\text{m}^3; \text{fl}$	11.1	11.1	10.6	11.0	± 0.5				

Ref TEMP-0387 Rev AB BACK / VERSO 1300105208

*Blood Control Vial should be dispose off as per State Government Bio-Medical Waste Management Rule.

PLA PL
VMP MPV
VGM MCV
Blood Control V
Explor

Blank Cycle Logs

Running Date	Operator	WBC 10 ⁹ /μL	RBC 10 ¹² /μL	HGB g/dL	PLT 10 ⁹ /μL	Status	Technical alarms
22/12/2022 07:46:54 AM	TENET	0.01	0.00	0.0	0	Passed	
22/12/2022 02:11:40 PM	technician	0.11	0.01	0.0	2	Passed	
22/12/2022 02:14:34 PM	technician	0.07	0.00	0.0	2	Passed	
22/12/2022 02:16:45 PM	TENET	0.06	0.00	0.0	4	Passed	
22/12/2022 02:45:23 PM	TENET	0.09	0.00	0.0	0	Passed	
22/12/2022 02:55:10 PM	TENET	0.06	0.00	0.0	1	Passed	
22/12/2022 03:15:18 PM	ABX	0.04	0.00	0.0	5	Passed	
22/12/2022 03:16:47 PM	ABX	0.04	0.00	0.0	2	Passed	
22/12/2022 04:33:54 PM	TENET	0.06	0.01	0.0	2	Passed	
22/12/2022 04:35:26 PM	TENET	0.04	0.00	0.0	0	Passed	

22/12/2022 04:40:26 PM

Printed by : TENET

S/N 904Y0XH02319

Repeatability Report (part 1)

Number of repeatability run report selected for statistic calculation 10/12

Coefficient	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MCV (μm ³)	RDW-CV (%)	RDW-SD (μm ³)	P-LCR (%)
Minimum	7.86	4.62	12.1	37.7	278	81.0	14.8	37.8	25.5
Maximum	8.30	4.78	12.4	39.5	298	83.1	15.2	39.5	28.0
Mean	8.08	4.71	12.2	38.8	288	82.3	15.0	38.7	26.5
Difference	0.43	0.17	0.3	1.7	20	2.2	0.4	1.7	2.5
2 SD	0.26	0.10	0.2	1.2	14	1.5	0.2	1.0	1.7
CV(%)	1.59	1.09	0.70	1.49	2.44	0.93	0.79	1.23	3.17

Sel	Run Date & Time	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MCV (μm ³)	RDW-CV (%)	RDW-SD (μm ³)	P-LCR (%)	Operator
✓	22/12/2022 03:17:12 PM	8.13	4.73	12.2	39.3	297	83.1	14.9	38.6	26.4	ABX
	22/12/2022 03:18:33 PM	8.02	4.74	12.2	39.5	309	83.3	15.1	39.5	26.2	ABX
✓	22/12/2022 03:21:09 PM	8.16	4.75	12.2	39.3	289	82.9	14.9	38.6	25.5	ABX
	22/12/2022 03:22:57 PM	8.24	4.74	12.3	39.2	310	82.7	14.9	38.6	27.7	ABX
✓	22/12/2022 03:24:16 PM	7.98	4.78	12.2	39.5	298	82.6	14.9	38.6	26.1	ABX
✓	22/12/2022 03:25:46 PM	7.86	4.64	12.1	38.3	284	82.6	15.2	39.5	27.6	ABX
✓	22/12/2022 03:27:05 PM	8.23 *	4.71	12.2	38.9	296	82.6	14.8	38.6	28.0	ABX
✓	22/12/2022 03:28:24 PM	8.07	4.74	12.3	39.2	278	82.8	15.0	39.5	25.7	ABX
✓	22/12/2022 03:29:41 PM	8.02	4.70	12.3	38.7	282	82.4	15.0	38.6	25.6	ABX
✓	22/12/2022 03:31:01 PM	8.08	4.62	12.2	37.7	283	81.8	15.0	38.6	26.2	ABX
✓	22/12/2022 03:32:18 PM	7.99	4.76	12.4	38.5	286	81.0	15.1	38.6	26.8	ABX
✓	22/12/2022 03:34:09 PM	8.30	4.71	12.4	38.2	292	81.0	14.9	37.8	26.6	ABX

Repeatability Report (part 2)

Number of repeatability run report selected for statistic calculation 10/12

Coefficient	NEU% (%)	LYM% (%)	MON% (%)	EOS% (%)	BAS% (%)	LIC% (%)
Minimum	50.6	33.6	5.9	5.6	0.6	0.1
Maximum	53.4	36.0	7.2	6.3	1.1	0.3
Mean	52.1	34.7	6.4	5.9	0.9	0.2
Difference	2.8	2.4	1.3	0.7	0.5	0.2
2 SD	1.8	1.6	0.7	0.5	0.4	0.1
CV(%)	1.71	2.25	5.67	4.56	20.82	28.75

Sel	Run Date & Time	NEU% (%)	LYM% (%)	MON% (%)	EOS% (%)	BAS% (%)	LIC% (%)	Operator
✓	22/12/2022 03:17:12 PM	51.3	35.7	6.3	6.0	0.7	0.2	ABX
	22/12/2022 03:18:33 PM	51.6	35.6	6.0	5.8	1.0	0.2	ABX
✓	22/12/2022 03:21:09 PM	53.1	34.0	6.5	5.6	0.8	0.2	ABX
	22/12/2022 03:22:57 PM	52.0	34.6	6.8	5.9	0.7	0.1	ABX
✓	22/12/2022 03:24:16 PM	52.3	34.6	6.2	5.8	1.1	0.2	ABX
✓	22/12/2022 03:25:46 PM	50.6	36.0	6.2	6.3	0.9	0.3	ABX
✓	22/12/2022 03:27:05 PM	53.4 *	33.6 *	6.5 *	5.6 *	0.9 *	0.3 *	ABX
✓	22/12/2022 03:28:24 PM	52.8	33.9	6.7	6.0	0.6	0.3	ABX
✓	22/12/2022 03:29:41 PM	51.4	35.3	6.1	6.1	1.1	0.1	ABX
✓	22/12/2022 03:31:01 PM	52.3 *	34.4 *	5.9 *	6.3 *	1.1 *	0.2 *	ABX
✓	22/12/2022 03:32:18 PM	52.1	34.8	6.5	5.6	1.0	0.2	ABX
✓	22/12/2022 03:34:09 PM	51.4	34.8	7.2	5.9	0.7	0.2	ABX

Calibration Report

Sample ID CX 477
Lot number CX 477

Name ABX Minocal

Exp. date 05/01/2023
Modified on

Coefficient	WBC	RBC	HGB	HCT	PLT	MPV
New	1.096	0.958	0.974	1.196	1.076	1.159
Current	1.096	0.958	0.974	1.196	1.076	1.159
Target	8.78	4.62	13.6	39.3	270	11.1
Mean	8.45	4.53	13.5	37.5	261	10.2
CV(%)	1.75	1.70	0.52	1.46	4.99	1.43

Number of calibration run selected for coefficient calculation (minimum 5) 10/13

Sel.	Run Time	WBC (10 ³ /μL)	RBC (10 ⁶ /μL)	HGB (g/dL)	HCT (%)	PLT (10 ³ /μL)	MPV (μm ³)
	22/12/2022 03:47:12 PM	8.23	4.61	13.5	39.8	277	10.6
	22/12/2022 03:48:29 PM	8.24	4.55	13.5	38.7	271	10.9
✓	22/12/2022 03:49:46 PM	8.31	4.51	13.5	37.9	277	10.4
✓	22/12/2022 03:51:05 PM	8.35	4.42	13.4	37.0	277	10.4
✓	22/12/2022 03:52:40 PM	8.28	4.40	13.4	36.6	250	10.1
✓	22/12/2022 03:54:00 PM	8.31	4.59	13.5	38.1	258	10.1
✓	22/12/2022 03:55:21 PM	8.58	4.55	13.5	37.7	277	10.1
✓	22/12/2022 03:56:45 PM	8.43	4.62	13.5	38.1	254	10.1
✓	22/12/2022 03:58:09 PM	8.63	4.62	13.6	38.2	268	10.5
✓	22/12/2022 03:59:35 PM	8.39	4.54	13.5	37.5	249	10.2
✓	22/12/2022 04:01:13 PM	8.63	4.51	13.6	37.1	242	10.2
✓	22/12/2022 04:02:43 PM	8.62	4.54	13.6	37.3	254	10.1
	22/12/2022 04:04:13 PM	8.99 h	4.64	13.7	37.9	244	9.9