



Date: 20th November 2023

Redcliffe Lifetech Pvt. Ltd. JAMMU (J&K)

Dear Sir,

As desired by you please find enclosed herewith the Calibration report

1. Instrument & Serial No.: **XL-640, Serial No. 640483**
2. Range of the instrument: Optical density Linear form 0-3.5 A
3. Precision & Accuracy study on XL-640 done on November-20-2023.
4. Validity of this Calibration Certificate is till November -19- 2024.

Precision with Potassium Dichromate (K₂Cr₂O₇)

Reagent / Sample ratio -

Cup Position	Replicates	Absorbance (X)	SD	CV
Cup 1	20	1.5403 OD	0.0062	0.44%
Cup 2	20	1.5579 OD	0.0053	0.42 %
Cup 3	20	1.5432 OD	0.0051	0.39%

Accuracy study with Potassium Dichromate (K₂Cr₂O₇) in comparison with XL- 640

Wavelengths scan on Referral Spectrophotometer for Potassium Dichromate (K₂Cr₂O₇)



Contd..... 2



Wavelength	Spectrophotometer OD	
	Low	High
335	0.1890	1.7129
336	0.1903	1.7190
337	0.1986	1.7231
338	0.2052	1.7510
339	0.2076	1.7752
340	0.2098	1.7950
341	0.2123	1.8121
342	0.2151	2.8360
343	0.2190	2.8533
344	0.2231	2.8831
345	0.2249	2.8931



Contd.....3



Test of Potassium Dichromate (K₂Cr₂O₇) on XL 640

Pipetted / Measured by XL 640		Manually Pipettes EM		Manually pipetted & read in Autospan	
Low	High	Low	High	Low	High
0.2009	1.8752	0.1986	1.8820	0.2052	1.7292

This instrument is manufactured in accordance with the European law in force, in particular to "Electricity Safety" EN 610101 and "Electromagnetic Compatibility" EN 61326 Standards.

Item	Ideal	Actual
Pressure	0.9 bar	0.9 bar
Lamp Voltage	12 V	11.95 V
Temperature	37° C	37.1 ° C

Photometer Calibration Check	Ok
Cuvette Blank Check	Ok

Wavelength	Off Set	Gain
340	NA	104
376	NA	106
415	NA	112
450	NA	117
480	NA	113
505	NA	120
546	NA	121
570	NA	128
600	NA	135
660	NA	120
700	NA	132
750	NA	138

Contd.....4





-4-

The instrument does photometer check before each batch of tests is run. It will give an error message if the photometer test fails and it will not run any samples.

Thanking you and assuring of our prompt attention at all times.

Yours faithfully,

For **TRANSASIA BIO-MEDICALS LTD.**


Rashpal Singh Rana
Sr. Regional Service Manager

M: +91-9316004670

E mail: r.rana@transasia.co.in

Calibration - XL-640

Test : GLU

Revision : <A-640-GLU-2 18.06.2019>

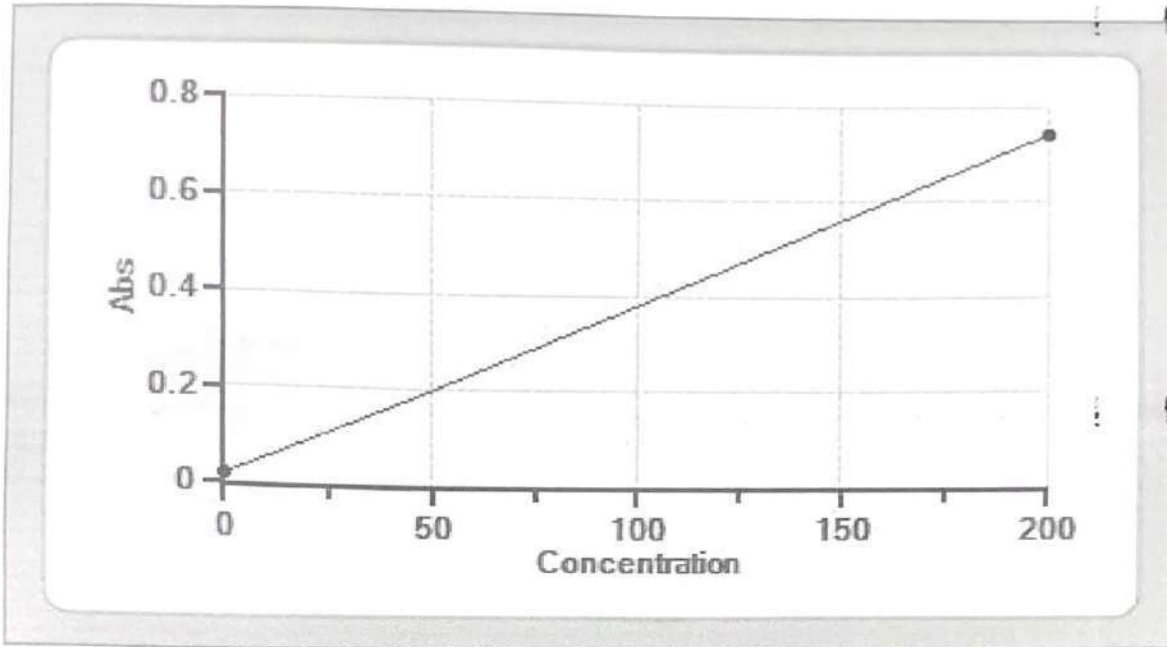
Curve Type : Linear

R1 Lot-Bottle No : B082352-334#3159

Calibration Date : 05-Feb-2024 11:13:35

R2 Lot-Bottle No : ---

Last Calibration Date : 05-Feb-2024 11:13:35



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0207	0.0000
-	MC2309047A	2309047	200.000	0.7422	277.2003

Calibration - XL-640

Test : CRENZ

Revision : <A-640-CRENZ-4 26.11.2020>

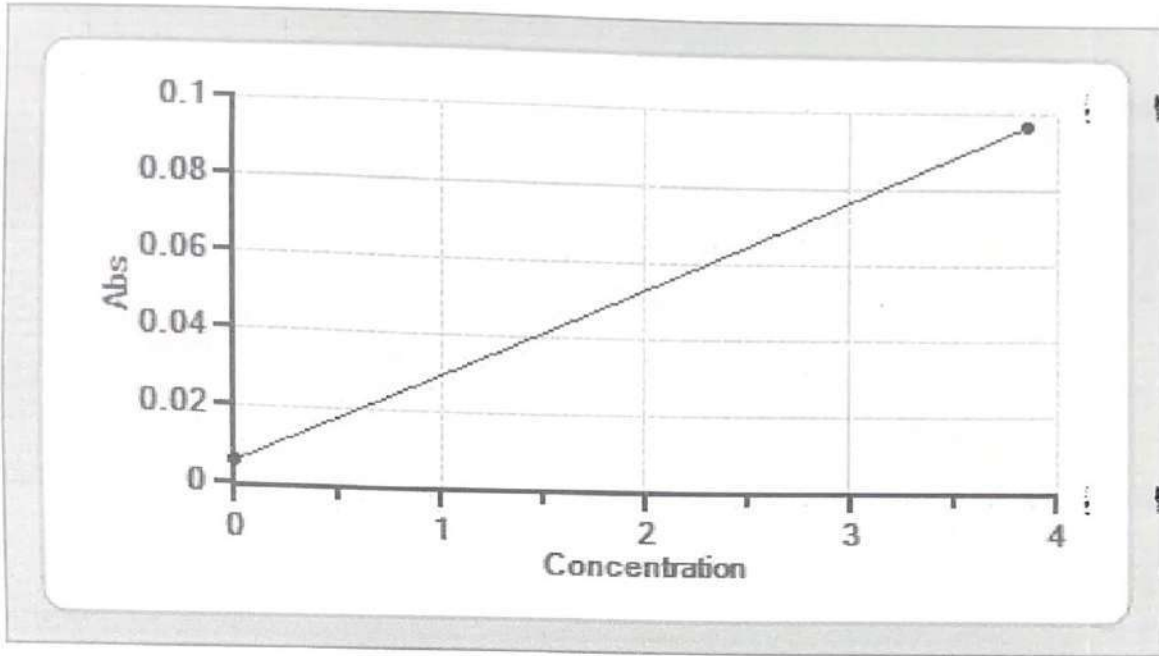
Curve Type : Linear

R1 Lot-Bottle No : T112323-334#2331

Calibration Date : 13-Mar-2024 15:39:59

R2 Lot-Bottle No : T112323-334#4538

Last Calibration Date : 13-Mar-2024 15:39:59



Pos	Consumable	LotNo.	Conc	Abs	Factor
S1	DW	123654	0.000	0.0058	0.0000
S2	MC2309047A	2309047	3.850	0.0965	42.4476

Handwritten signature

Calibration - XL-640

Test : SGPTD

Revision : <A-640-SGPTD-3 21.06.2017>

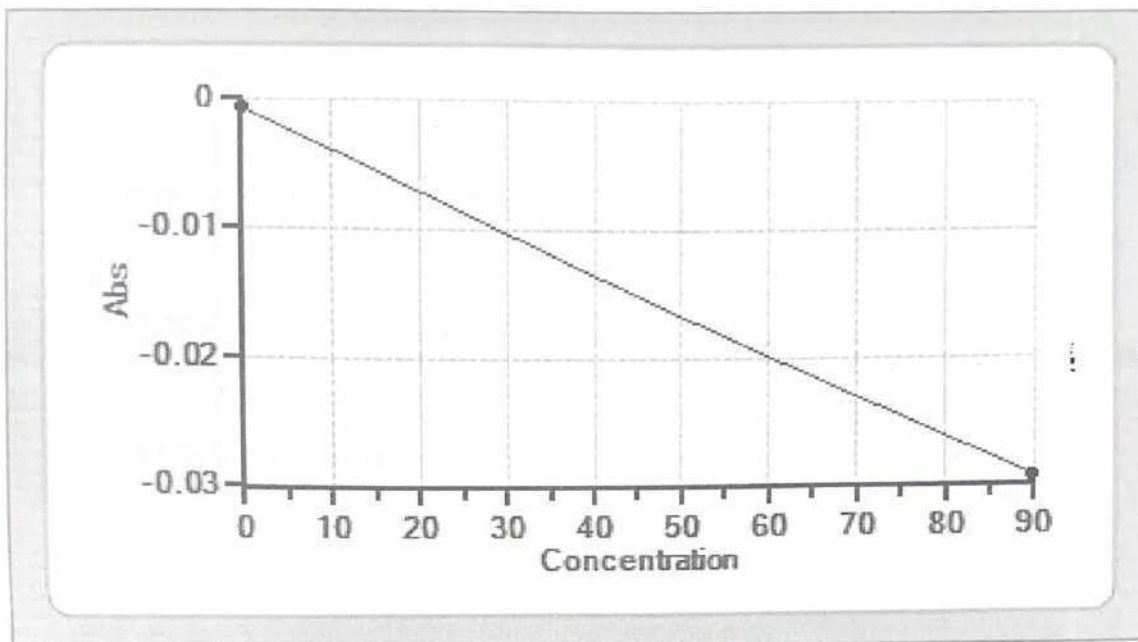
Curve Type : Linear

R1 Lot-Bottle No : T082308-335#7361

Calibration Date : 27-Dec-2023 11:27:32

R2 Lot-Bottle No : T082308-335#0722

Last Calibration Date : 28-Feb-2024 17:11:05



Pos	Consumable	LotNo.	Conc	Delta Abs/Min	Factor
-	DW	123654	0.000	-0.0007	0.0060
-	MULTICAL	2301066B	89.600	-0.0293	-3,132.8672

Handwritten signature

Calibration - XL-640

Test : SGOTD

Curve Type : Linear

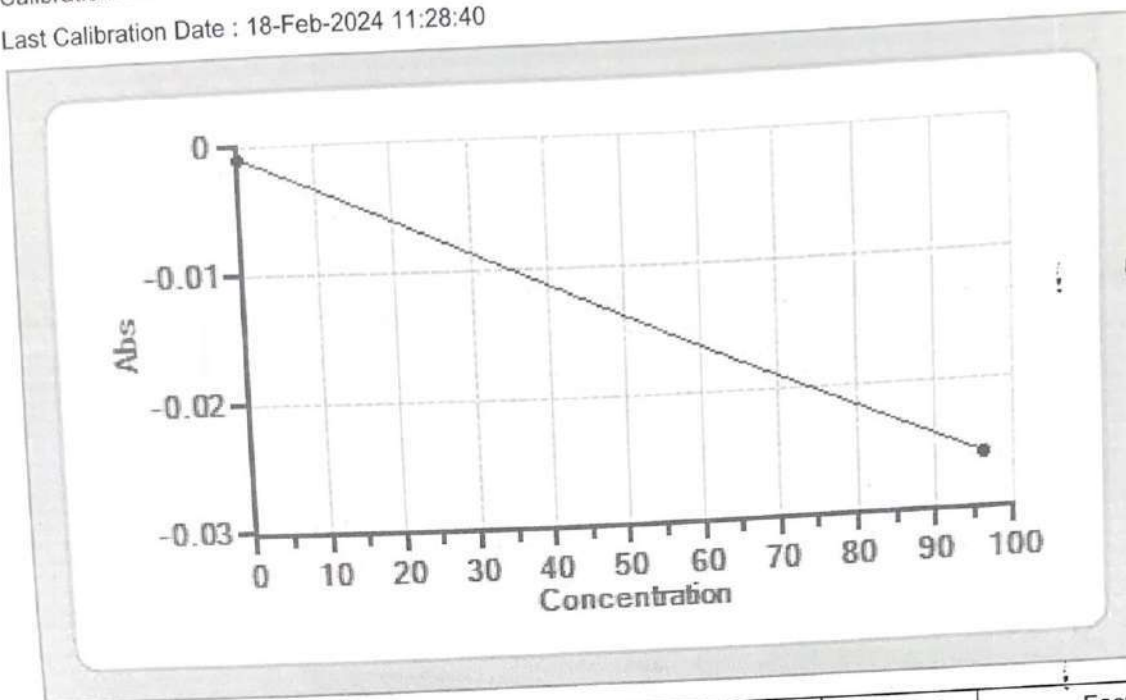
Calibration Date : 18-Feb-2024 11:28:40

Last Calibration Date : 18-Feb-2024 11:28:40

Revision : <A-640-SGOTD-3 21.06.2017>

R1 Lot-Bottle No : S112379-347#4959

R2 Lot-Bottle No : S112379-347#0406



Pos	Consumable	LotNo.	Conc	Delta Abs/Min	Factor
-	DW	123654	0.000	-0.0009	0.0000
-	MC2309047A	2309047	96.400	-0.0258	-3,871.4858

Handwritten signature

Calibration - XL-640

Test : BIT

Revision : <A-640-BIT-3 18.06.2019>

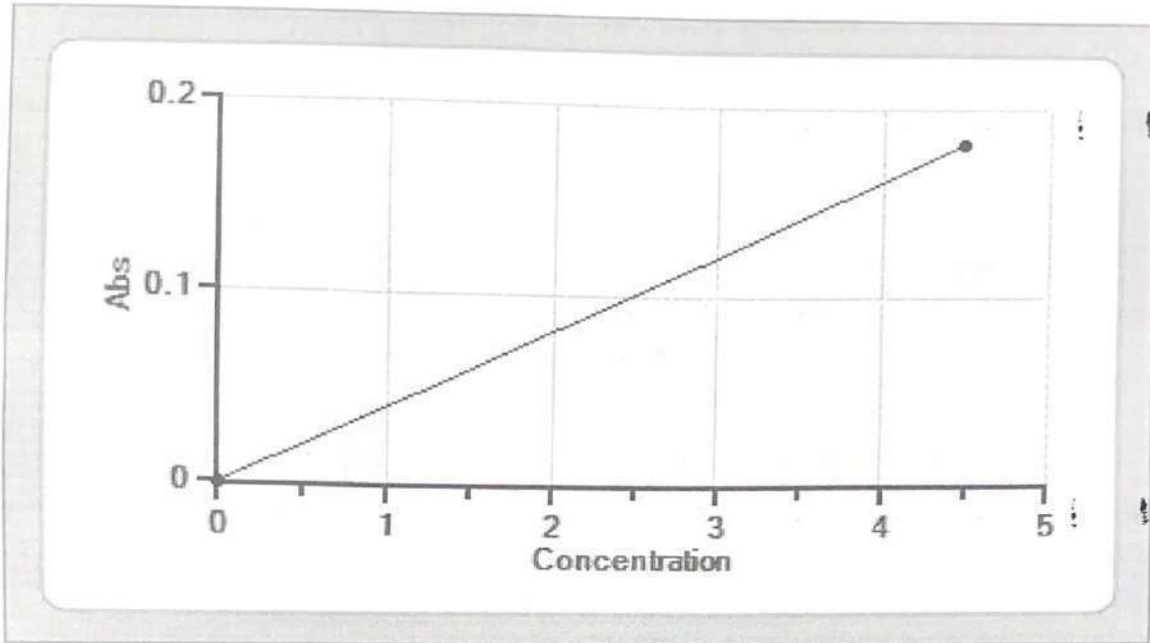
Curve Type : Linear

R1 Lot-Bottle No : S082353-334#0469

Calibration Date : 12-Mar-2024 15:24:31

R2 Lot-Bottle No : S072346-328#4018

Last Calibration Date : 12-Mar-2024 15:24:31



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0003	0.0000
-	MC2309047A	2309047	4.490	0.1818	24.7383

Handwritten signature

Calibration - XL-640

Test : BIDD

Revision : <A-640-BIDD-4 10.04.2018>

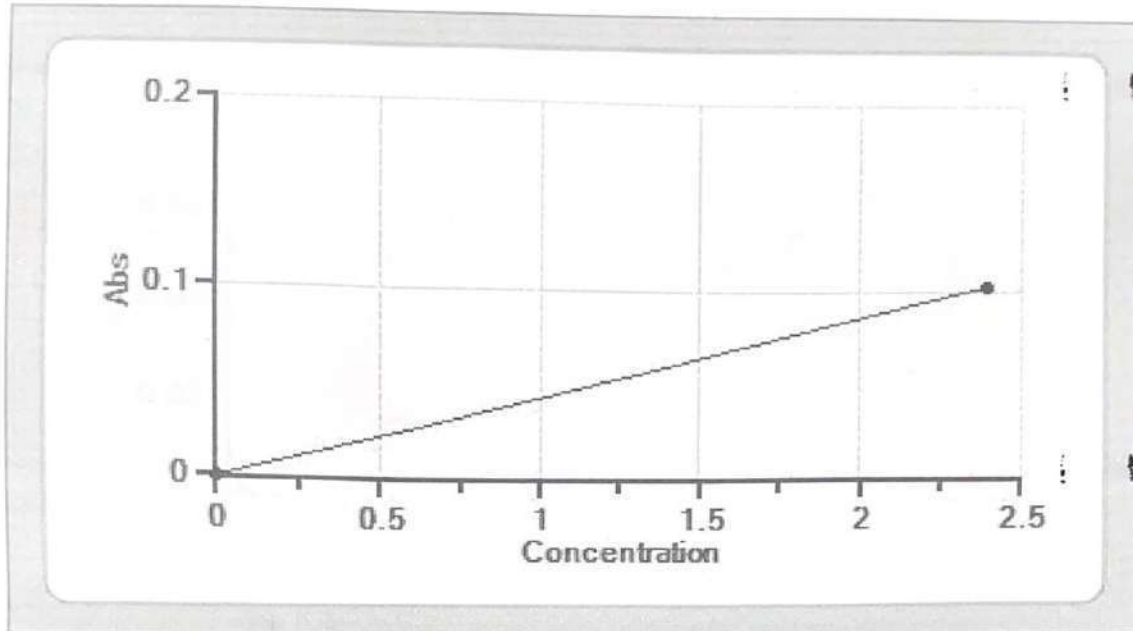
Curve Type : Linear

R1 Lot-Bottle No : S112390-347#8660

Calibration Date : 12-Mar-2024 15:24:13

R2 Lot-Bottle No : S112390-347#5699

Last Calibration Date : 12-Mar-2024 15:24:13



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0001	0.0000
-	MC2309047A	2309047	2.390	0.1029	23.2490

Calibration - XL-640

Test : ALPU

Revision : <A-640-ALPU-3 01.03.2016>

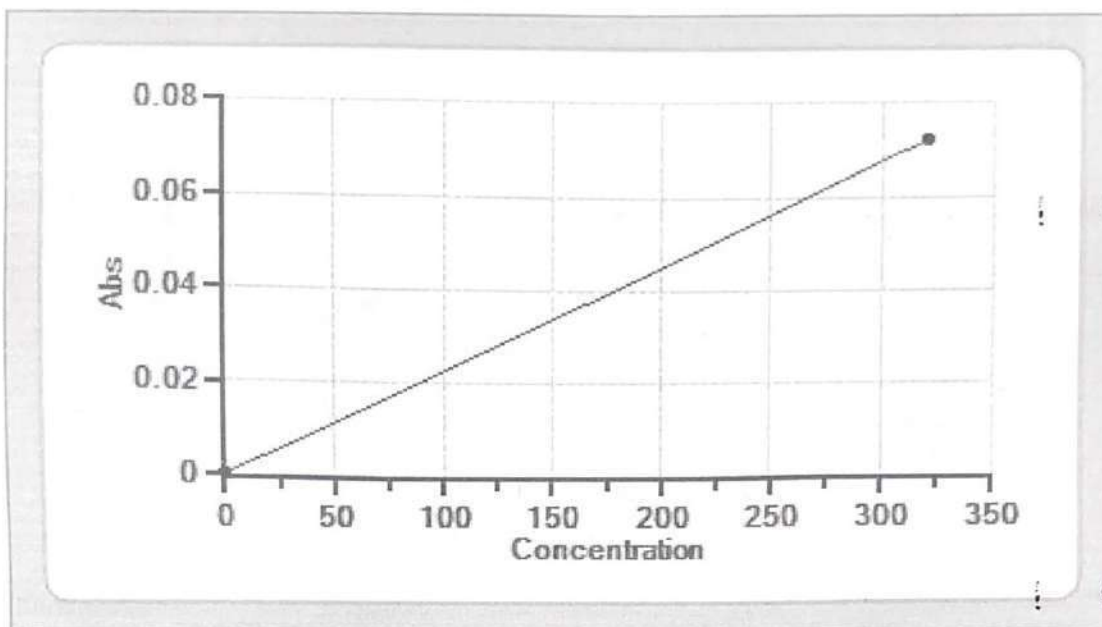
Curve Type : Linear

R1 Lot-Bottle No : S082344-334#2831

Calibration Date : 10-Mar-2024 14:46:13

R2 Lot-Bottle No : S082344-334#4368

Last Calibration Date : 10-Mar-2024 14:46:13



Pos	Consumable	LotNo.	Conc	Delta Abs/Min	Factor
-	DW	123654	0.000	0.0003	0.0000
-	MC2309047A	2309047	320.000	0.0719	4,469.2734

Calibration - XL-640

Test : TRIG

Revision : <A-640-TRIG-1 20.08.2013>

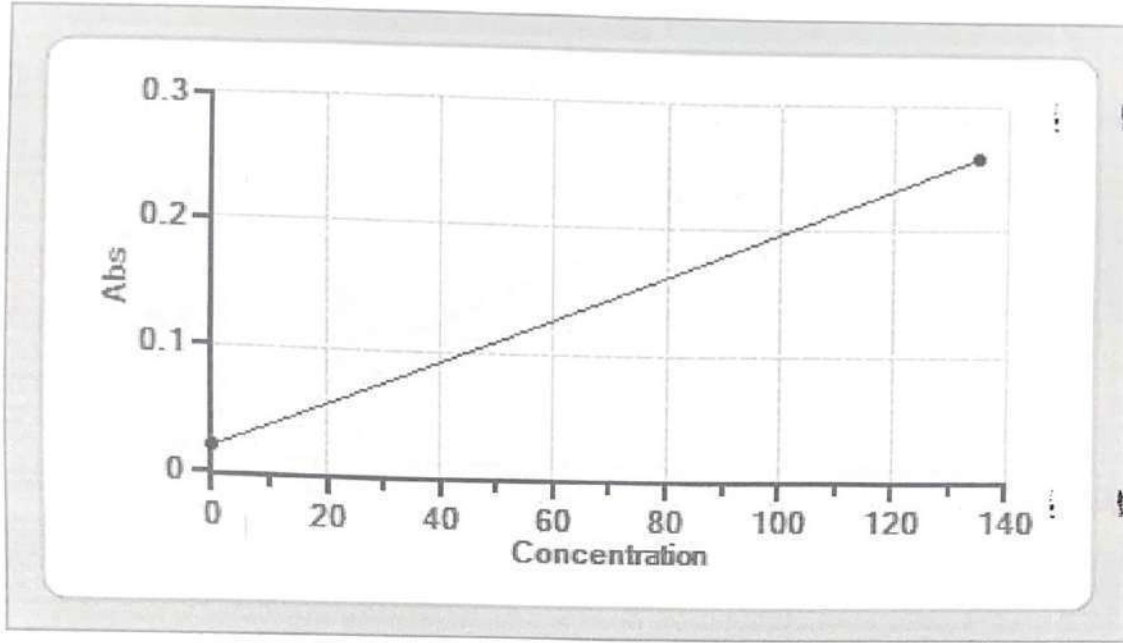
Curve Type : Linear

R1 Lot-Bottle No : S082369-335#3531

Calibration Date : 03-Mar-2024 12:41:46

R2 Lot-Bottle No : S082369-335#4779

Last Calibration Date : 03-Mar-2024 12:41:46



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0210	0.0000
-	MC2309047A	2309047	135.000	0.2583	568.9001

Handwritten signature

Calibration - XL-640

Test : CHOL

Revision : <A-640-CHOL-1 20.08.2013>

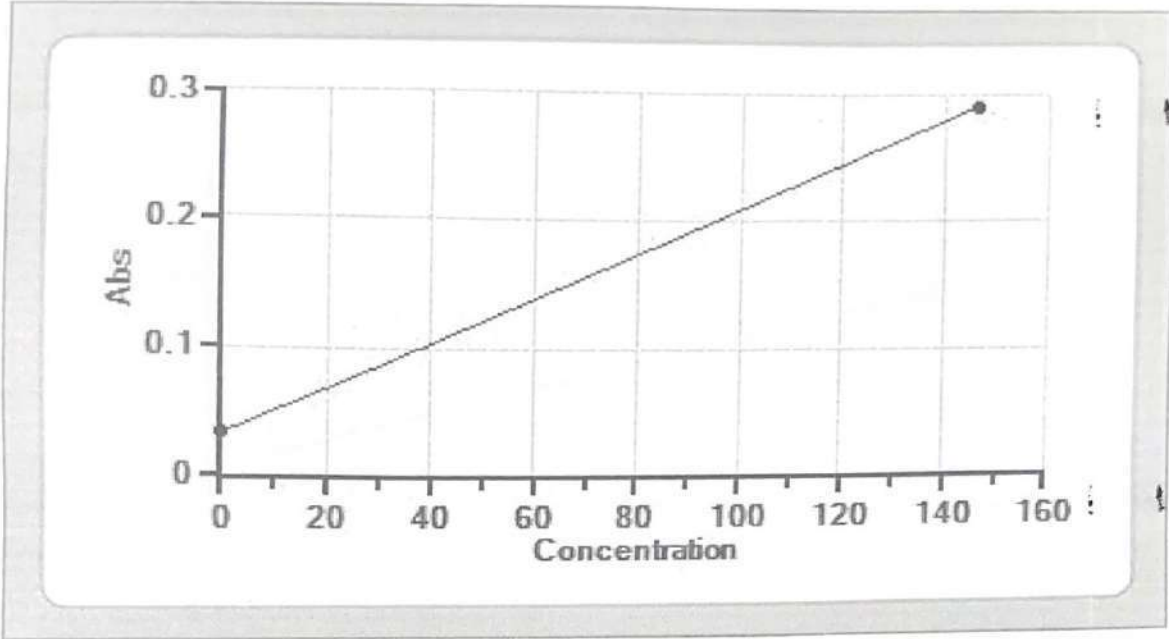
Curve Type : Linear

R1 Lot-Bottle No : S112354-347#1175

Calibration Date : 03-Mar-2024 16:46:09

R2 Lot-Bottle No : ---

Last Calibration Date : 03-Mar-2024 16:46:09



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0331	0.0000
-	MC2309047A	2309047	146.000	0.2906	566.9903

Calibration - XL-640

Test : HDLC

Revision : <A-640-HDLC-1 20.08.2013>

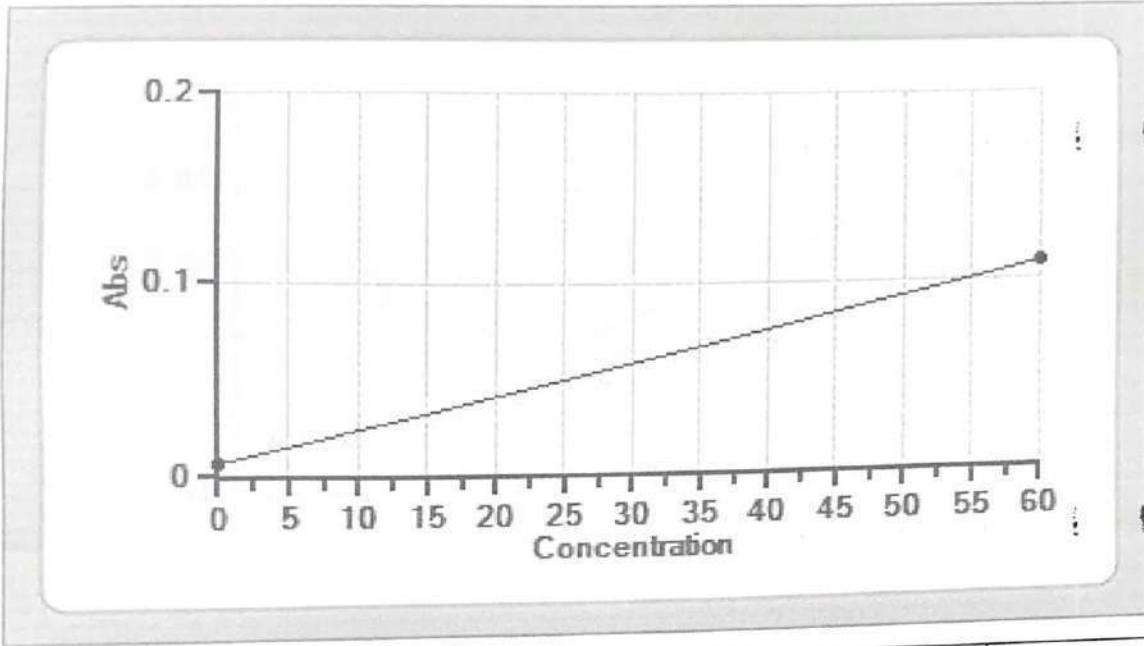
Curve Type : Linear

R1 Lot-Bottle No : S012474-403#7634

Calibration Date : 01-Mar-2024 11:29:34

R2 Lot-Bottle No : S012474-403#0417

Last Calibration Date : 01-Mar-2024 11:29:34



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0066	0.0000
-	HDL LDL CAL	S082359	60.000	0.1092	584.7953

Handwritten signature

Calibration - XL-640

Test : LDL1

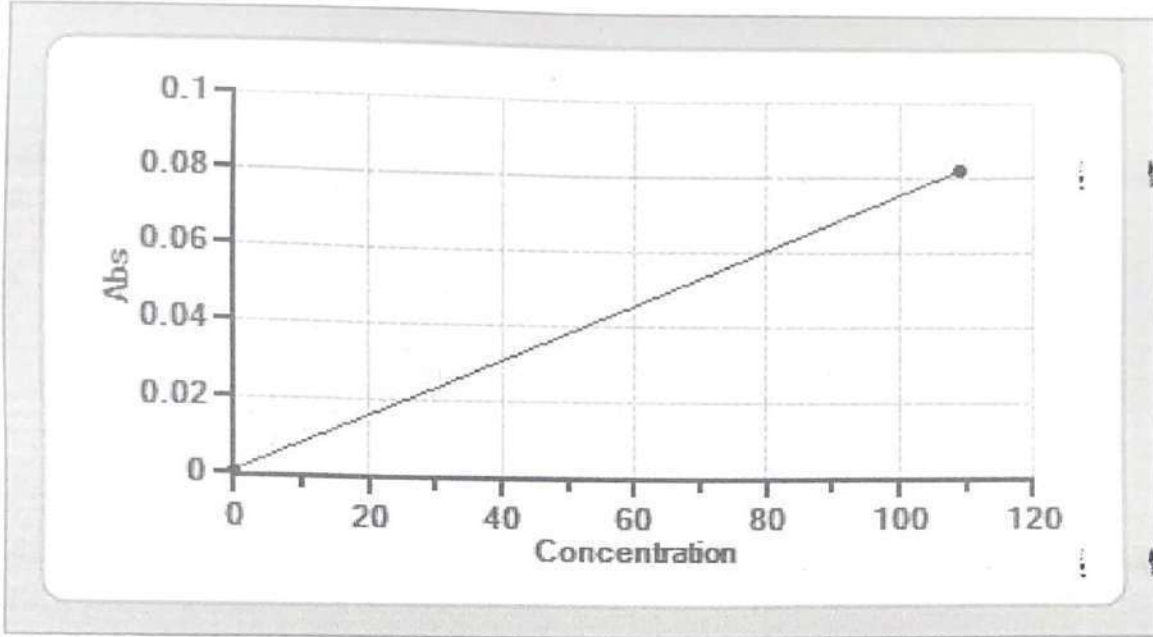
Curve Type : Linear

R1 Lot-Bottle No : --

Calibration Date : 07-Oct-2023 12:45:43

R2 Lot-Bottle No : --

Last Calibration Date : 07-Oct-2023 12:45:43



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0010	0.0000
-	HDL LDL CAL	S082359	109.000	0.0820	1,345.6790

Calibration - XL-640

Test : UA

Revision : <A-640-UA-2 18.06.2019>

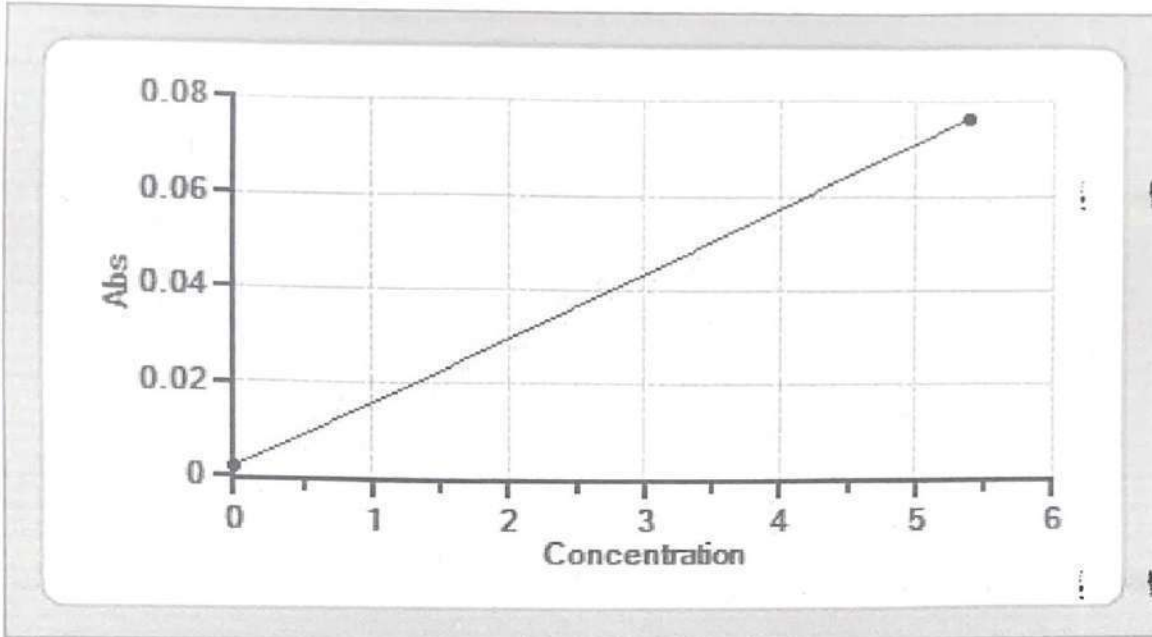
Curve Type : Linear

R1 Lot-Bottle No : S082395-336#6749

Calibration Date : 12-Mar-2024 11:59:40

R2 Lot-Bottle No : S082395-336#5728

Last Calibration Date : 12-Mar-2024 11:59:40



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0022	0.0000
-	MULTICAL	2301066B	5.390	0.0764	72.6415

Handwritten signature

Calibration - XL-640

Test : GGT1

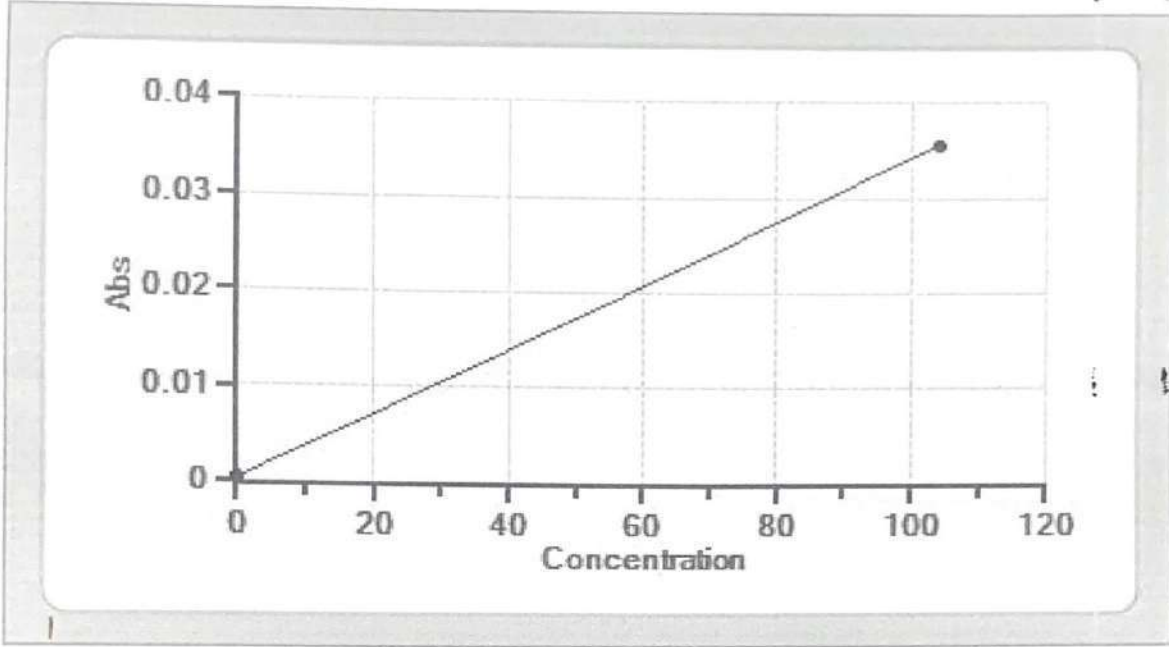
Curve Type : Linear

R1 Lot-Bottle No : ---

Calibration Date : 02-Mar-2024 11:21:30

R2 Lot-Bottle No : ---

Last Calibration Date : 13-Mar-2024 12:06:32



Pos	Consumable	LotNo.	Conc	Delta Abs/Min	Factor
-	DW	123654	0.000	0.0005	0.0000
-	MC2309047A	2309047	104.000	0.0355	2,971.4285

Handwritten signature

Calibration - XL-640

Test : UREA

Revision : <A-640-UREA-3 18.06.2019>

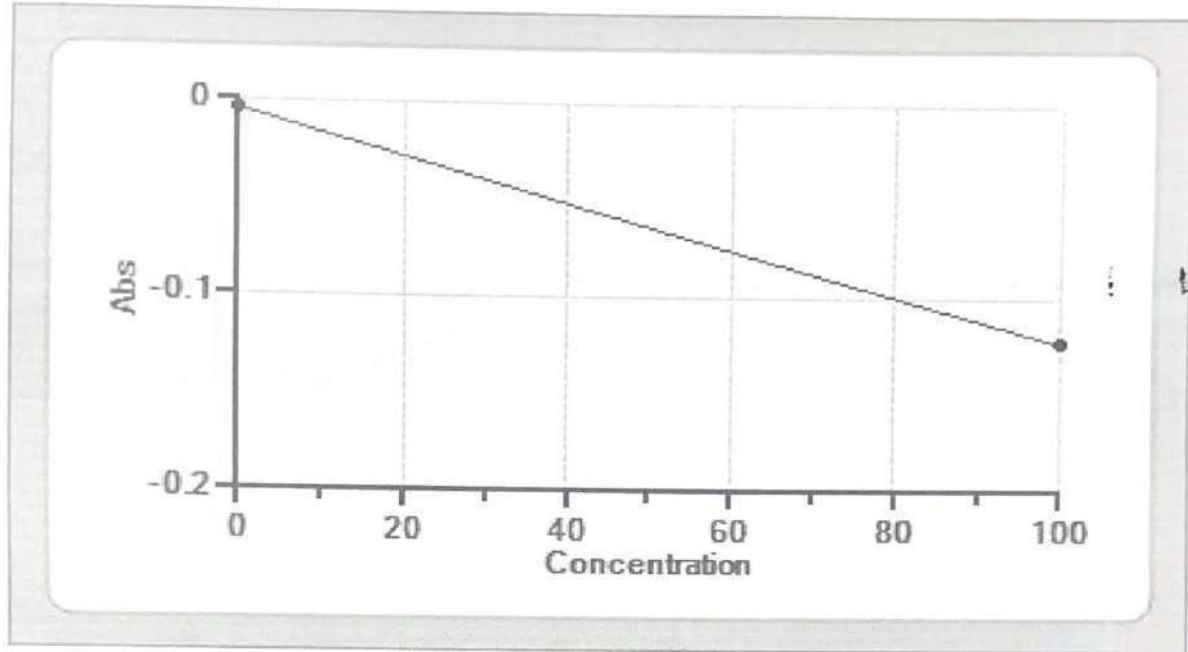
Curve Type : Linear

R1 Lot-Bottle No : S092343-337#0023

Calibration Date : 12-Mar-2024 11:59:13

R2 Lot-Bottle No : S092343-337#0942

Last Calibration Date : 12-Mar-2024 11:59:13



Pos	Consumable	LotNo.	Conc	Delta Abs/Min	Factor
-	DW	123654	0.000	-0.0041	0.0000
-	MULTICAL	2301066B	100.000	-0.1232	-839.6306

Calibration - XL-640

Test : PHOS1

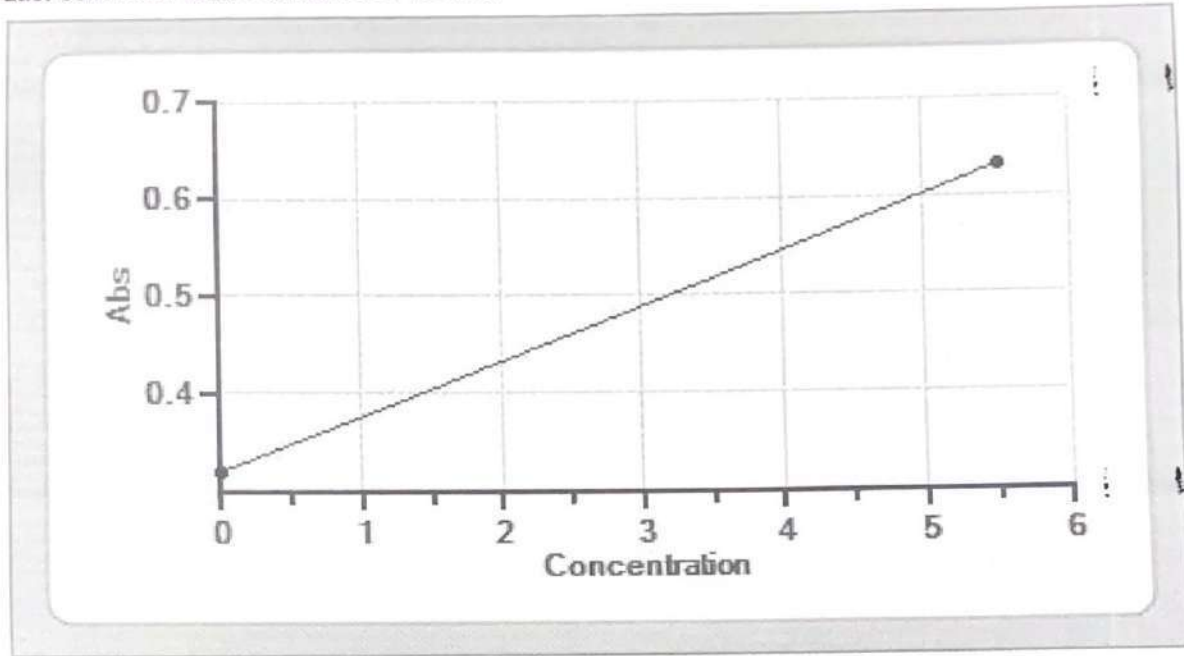
Curve Type : Linear

Calibration Date : 13-Mar-2024 15:40:17

Last Calibration Date : 13-Mar-2024 15:40:17

R1 Lot-Bottle No : ---

R2 Lot-Bottle No : ---



Pos	Consumable	LotNo.	Conc	Abs	Factor
S1	DW	123654	0.000	0.3195	0.0000
S2	MC2309047A	2309047	5.520	0.6316	17.6866

Handwritten signature

Calibration - XL-640

Test : CA

Revision : <A-640-CA-2 18.06.2019>

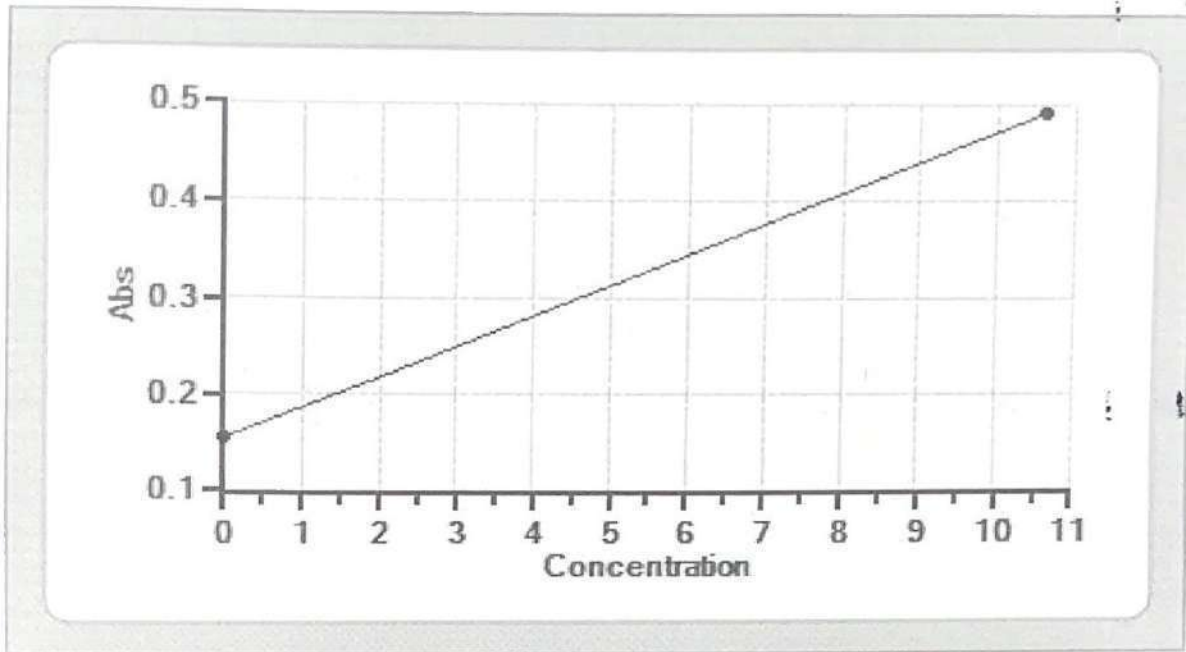
Curve Type : Linear

R1 Lot-Bottle No : S092383-338#5088

Calibration Date : 13-Mar-2024 11:29:00

R2 Lot-Bottle No : ---

Last Calibration Date : 13-Mar-2024 11:29:00



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.1558	0.0000
-	MC2309047A	2309047	10.600	0.4914	31.5852

Handwritten signature

Calibration - XL-640

Test : ALBD

Revision : <A-640-ALB-1 07.11.2017>

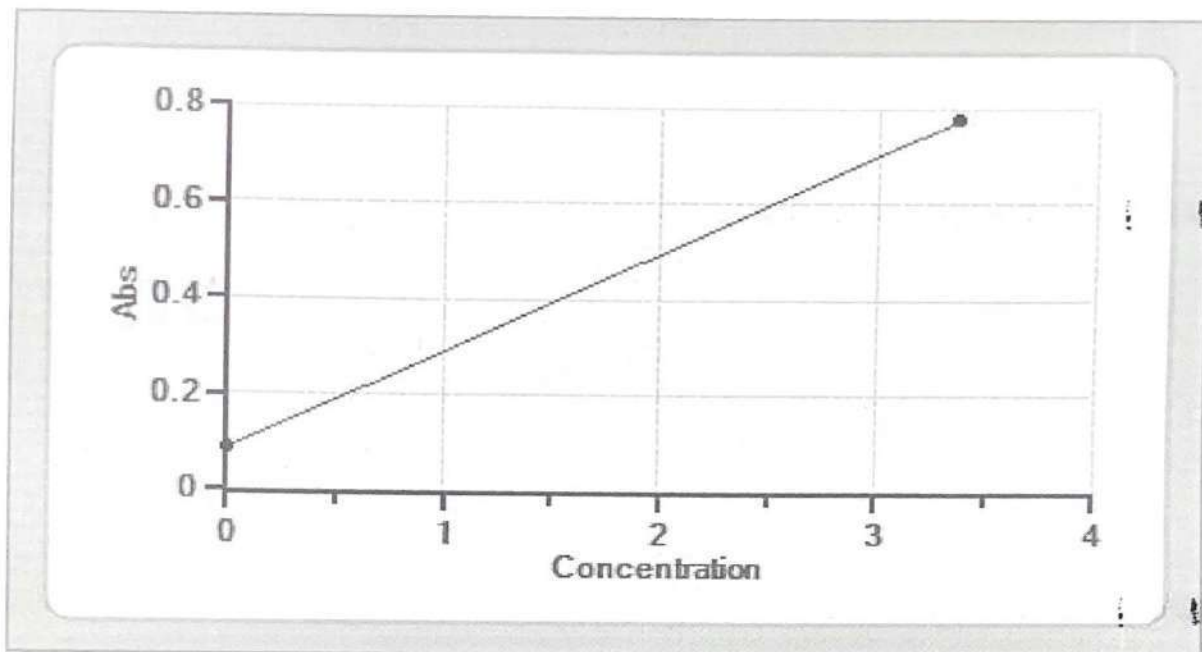
Curve Type : Linear

R1 Lot-Bottle No : S102339-343#4982

Calibration Date : 03-Mar-2024 16:46:27

R2 Lot-Bottle No : ---

Last Calibration Date : 03-Mar-2024 16:46:27



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.0894	0.0000
-	MC2309047A	2309047	3.370	0.7767	4.9032

Handwritten signature

Calibration - XL-640

Test : PRO

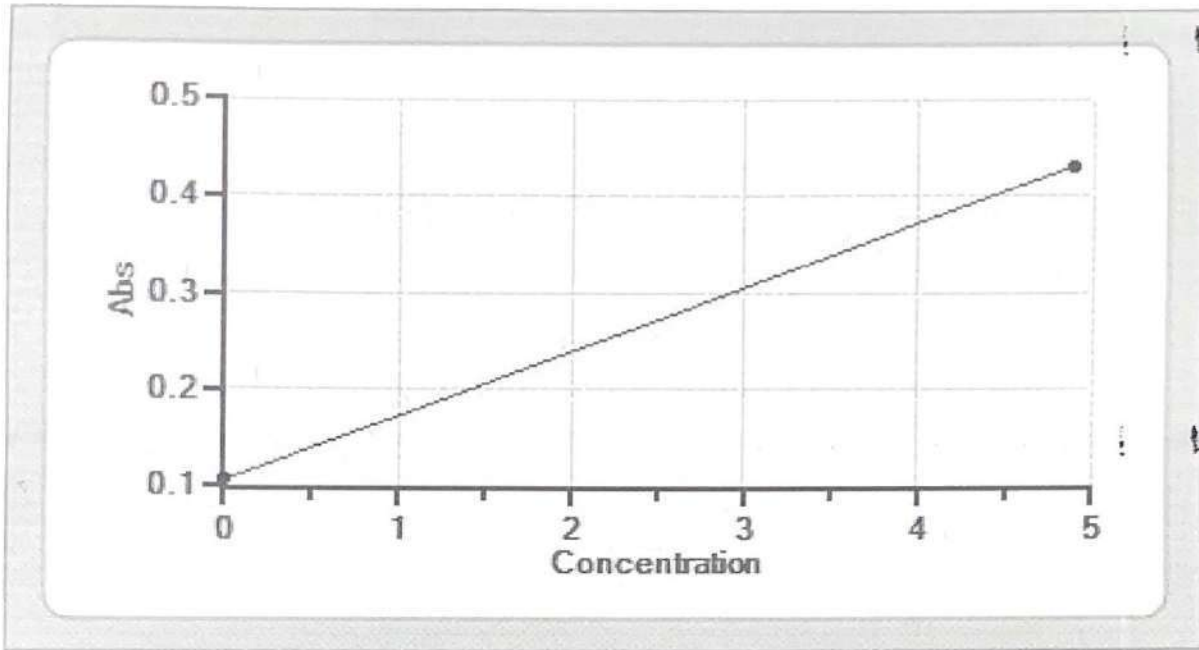
Curve Type : Linear

R1 Lot-Bottle No : S112392-347#8912

Calibration Date : 29-Feb-2024 18:33:32

R2 Lot-Bottle No : ---

Last Calibration Date : 29-Feb-2024 18:33:32



Pos	Consumable	LotNo.	Conc	Abs	Factor
-	DW	123654	0.000	0.1071	0.0000
-	MC2309047A	2309047	4.880	0.4311	15.0617

Handwritten signature

Result Reprint

SI #	Lot #	Consumable	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
1	89731	BIORAD L1	Na	146.10 mmol/L		0	14-Mar-2024 10:35:18	149.000	7.500	126.5 - 171.5
2	89731	BIORAD L1	K	3.67 mmol/L		0	14-Mar-2024 10:35:19	3.740	0.180	3.2 - 4.28
3	89731	BIORAD L1	Cl	96.80 mmol/L		0	14-Mar-2024 10:36:05	97.500	4.850	82.95 - 112.05
4	89732	BIORAD L2	Na	122.40 mmol/L		0	14-Mar-2024 10:36:05	127.000	6.000	109 - 145
5	89732	BIORAD L2	K	5.48 mmol/L		0	14-Mar-2024 10:36:05	5.580	0.280	4.74 - 6.42
6	89732	BIORAD L2	Cl	84.50 mmol/L		0	14-Mar-2024 10:36:05	84.700	4.200	72.1 - 97.3
7	89731	BIORAD L1	SGPTD	27.0 U/L		188941	14-Mar-2024 10:37:36	26.500	2.700	18.4 - 34.6
8	89732	BIORAD L2	SGPTD	96.5 U/L		188942	14-Mar-2024 10:37:44	95.100	9.450	66.75 - 123.45
9	89731	BIORAD L1	SGOTT	41.1 U/L		188943	14-Mar-2024 10:37:53	41.900	4.200	29.3 - 54.5
10	89732	BIORAD L2	SGOTT	206.0 U/L		188944	14-Mar-2024 10:38:03	204.000	21.000	141 - 267
11	89731	BIORAD L1	ALPU	132 U/L		188945	14-Mar-2024 10:38:12	129.750	15.000	84.75 - 174.75
12	89732	BIORAD L2	ALPU	552 U/L		188946	14-Mar-2024 10:38:21	571.000	57.000	400 - 742
13	89731	BIORAD L1	BIDD	0.54 mg/dL		188947	14-Mar-2024 10:38:30	0.520	0.060	0.34 - 0.7
14	89732	BIORAD L2	BIDD	1.26 mg/dL		188948	14-Mar-2024 10:38:39	1.370	0.160	0.89 - 1.85
15	89731	BIORAD L1	BIT	1.09 mg/dL	-1SD	188949	14-Mar-2024 10:38:48	1.280	0.160	0.8 - 1.76
16	89732	BIORAD L2	BIT	4.27 mg/dL	-1SD	188950	14-Mar-2024 10:38:57	4.900	0.610	3.07 - 6.73
17	89731	BIORAD L1	UREA	29.8 mg/dL	-1SD	188951	14-Mar-2024 10:39:06	34.600	2.550	26.95 - 42.25

14/3/24

Print Date 14-Mar-2024

Result Reprint

Sr #	Lot #	Consumable	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
18	89732	BIORAD L2	UREA	91.5 mg/dL	-1SD	188952	14-Mar-2024 10:39:15	102.000	7.500	79.5 - 124.5
19	89731	BIORAD L1	CRENZ	1.58 mg/dL		188953	14-Mar-2024 10:39:24	1.630	0.160	1.15 - 2.11
20	89732	BIORAD L2	CRENZ	5.06 mg/dL		188954	14-Mar-2024 10:39:33	5.420	0.540	3.8 - 7.04
21	89731	BIORAD L1	GLU	85.3 mg/dL		188955	14-Mar-2024 10:39:42	87.500	6.670	67.49 - 107.51
22	89732	BIORAD L2	GLU	296.0 mg/dL		188956	14-Mar-2024 10:39:51	294.000	22.500	226.5 - 361.5
23	89731	BIORAD L1	TRIG	152.7 mg/dL		188957	14-Mar-2024 10:40:00	160.000	12.000	124 - 196
24	89732	BIORAD L2	TRIG	86.8 mg/dL		188958	14-Mar-2024 10:40:09	87.300	6.720	67.14 - 107.46
25	89731	BIORAD L1	CHOL	225 mg/dL		188959	14-Mar-2024 10:40:18	237.000	18.000	183 - 291
26	89732	BIORAD L2	CHOL	98 mg/dL		188960	14-Mar-2024 10:40:27	104.000	7.500	81.5 - 126.5
27	89731	BIORAD L1	HDL	93.1 mg/dL		188961	14-Mar-2024 10:40:36	88.600	8.470	63.19 - 114.01
28	89732	BIORAD L2	HDL	28.5 mg/dL		188962	14-Mar-2024 10:40:45	27.400	2.700	19.3 - 35.5
29	89731	BIORAD L1	UA	4.5 mg/dL		188963	14-Mar-2024 10:40:54	4.500	0.940	1.68 - 7.32
30	89732	BIORAD L2	UA	10.3 mg/dL		188964	14-Mar-2024 10:41:03	10.700	0.750	8.45 - 12.95
31	89731	BIORAD L1	ALBD	4.13 g/dL		188965	14-Mar-2024 10:41:12	4.250	0.310	3.32 - 5.18
32	89732	BIORAD L2	ALBD	2.70 g/dL		188966	14-Mar-2024 10:41:39	2.720	0.210	2.09 - 3.35
33	89731	BIORAD L1	PRO	6.61 g/dL		188969	14-Mar-2024 10:41:48	6.530	0.490	5.06 - 8
34	89732	BIORAD L2	PRO	4.33 g/dL		188970	14-Mar-2024 10:41:57	4.230	0.310	3.3 - 5.18

Handwritten signature

Result Reprint

Report Type	Controls	14-Mar-2024	Test	Result Unit	Flag	Curve #	Result Date	Mean	SD	Interval (3SD)
	Consumable									
Sr #	Lot #									
35	S082305	RF CRP LOW	CRPD	11.4 mg/L		188972	14-Mar-2024 10:42:15	11.150	1.670	6.14 - 16.16
36	S082305	RF CRP LOW	RFD	26.5 IU/mL		188973	14-Mar-2024 10:42:24	23.920	3.590	13.15 - 34.69
37	89732	BIORAD L2	UIBC	137.6 µg/dL	F	188975	14-Mar-2024 10:42:51	145.000	15.000	95.5 - 176.5
38	89731	BIORAD L1	LDL1	128.1 mg/dL	-1SD	188976	14-Mar-2024 10:43:00	70.400	7.050	49.25 - 91.55
39	89732	BIORAD L2	LDL1	69.8 mg/dL		188977	14-Mar-2024 10:43:09	1.080	0.140	0.66 - 1.5
40	34722	HSCRP L1	HSCRP	1.24 mg/L	+1SD	188978	14-Mar-2024 10:43:18	59.533	6.150	41.083 - 77.983
41	89731	BIORAD L1	GGT1	67.2 U/L	+1SD	188979	14-Mar-2024 10:43:27	165.000	16.500	115.5 - 214.5
42	89732	BIORAD L2	GGT1	181.0 U/L		188980	14-Mar-2024 10:43:37	205.000	21.000	142 - 268
43	89731	BIORAD L1	FE1	165.1 µg/dL	-1SD	188981	14-Mar-2024 10:43:46	56.700	5.700	39.6 - 73.8
44	89732	BIORAD L2	FE1	49.5 µg/dL	-1SD	188982	14-Mar-2024 10:43:55	3.680	0.270	2.87 - 4.49
45	89731	BIORAD L1	PHOS1	3.45 mg/dL		188983	14-Mar-2024 10:44:04	6.900	0.520	5.34 - 8.46
46	89732	BIORAD L2	PHOS1	6.44 mg/dL		188984	14-Mar-2024 11:22:56	9.350	0.710	7.22 - 11.48
47	89731	BIORAD L1	CA	9.5 mg/dL		188989	14-Mar-2024 11:23:23	115.000	12.000	79 - 151
48	89731	BIORAD L1	UIBC	119.2 µg/dL	F	188992	14-Mar-2024 11:25:29	12.200	0.900	9.5 - 14.9
49	89732	BIORAD L2	CA	13.6 mg/dL	+1SD	188993				

Handwritten signature and date:
 [Signature]
 3/13/24

Print Date 14-Mar-2024