High Technology,Inc. 109 Production Rd, Walpole MA 02081	Document Number	PR-E-HT-C100-CTL-609905-609906
	Revision Level	Rev. 5
	Prepared by	C. Mahoney
	Approved by	S. Titov
	Effective Date	2018/10/23

HTI Chemistry Controls Passport Ranges Sheet

LOT: 609906
EXP: 2020-03

Level 1 CONTROL

Analyte	Units	Biochem SA	Analette/FC-120	FC-200 NEW	FC-200 OLD	FC-360	Gen. Assay Range
Acid Phos	U/L	7.60 ± 1.50	**********	**********	**********	**********	7.6 ± 1.5
Albumin	g/L	21 ± 3	20.2 ± 3	22 ± 2	24 ± 2	22 ± 2	23 ± 2
	g/dL	2.10 ± 0.30	2.02 ± 0.30	2.19 ± 0.20	2.40 ± 0.20	2.20 ± 0.20	2.30 ± 0.20
Alk Phos	U/L	92 ± 31	124 ± 29	132 ± 25	89 ± 24	89 ± 18	94 ± 29
ALT	U/L	40 ± 7	45 ± 8	51 ± 10	34 ± 8	53 ± 10	56 ± 11
Amylase	U/L	234 ± 49	252 ± 75	288 ± 61	218 ± 45	175 ± 39	237 ± 71
AST (SGOT)	U/L	57 ± 12	43 ± 12	53 ± 15	55 ± 12	48 ± 13	65 ± 13
Direct Bilirubin	µmol/L	6.50 ± 1.71	11.0 ± 7	13.0 ± 4	7.52 ± 2.05	16.4 ± 3.9	9.1 ± 7.0
	mg/dL	0.38 ± 0.10	0.64 ± 0.41	0.76 ± 0.23	0.44 ± 0.12	0.96 ± 0.23	0.53 ± 0.41
Total Bilirubin	µmol/L	15.0 ± 3.2	18.0 ± 6	22.0 ± 6.0	17.8 ± 3.9	21 ± 6	15 ± 7
	mg/dL	0.88 ± 0.19	1.05 ± 0.35	1.29 ± 0.35	1.04 ± 0.23	1.25 ± 0.35	0.88 ± 0.41
BUN	mmol/L	5.78 ± 0.71	5.64 ± 0.71	5.82 ± 0.71	5.50 ± 0.71	5.90 ± 0.71	5.7 ± 0.7
	mg/dL	16.2 ± 2.0	15.8 ± 2.0	16.3 ± 2.0	15.4 ± 2.0	16.5 ± 2.0	16.0 ± 2.0
Calcium (CPC)	mmol/L	2.30 ± 0.50	2.42 ± 0.50	2.38 ± 0.50	2.20 ± 0.50	2.41 ± 0.50	2.4 ± 0.3
	mg/dL	9.20 ± 2.00	9.68 ± 2.00	9.50 ± 2.00	8.80 ± 2.00	9.6 ± 2.0	9.6 ± 1.2
Calcium (AR-III)	mmol/L	2.30 ± 0.60	2.21 ± 0.60	2.20 ± 0.50	2.40 ± 0.60	2.35 ± 0.50	2.3 ± 0.3
	mg/dL	9.2 ± 2.4	8.83 ± 2.40	8.80 ± 2.00	9.60 ± 2.40	9.41 ± 2.00	9.2 ± 1.2
Chloride*	mmol/L	82.00 ± 8	89 ± 9	89 ± 9	90 ± 9	94 ± 8	91 ± 5
Cholesterol	mmol/L	3.60 ± 0.4	3.60 ± 0.39	3.60 ± 0.31	3.50 ± 0.39	3.63 ± 0.31	3.7 ± 0.4
	mg/dL	139 ± 15	139 ± 15	139 ± 12	135 ± 15	140 ± 12	143 ± 15
Carbon Dioxide	mmol/L	8.00 ± 5.00	8.00 ± 5.00	8.00 ± 5.00	8.00 ± 5.00	8.00 ± 5.00	8 ± 5
CK/CPK	U/L	143 ± 29	179 ± 44	172 ± 44	128 ± 35	118 ± 24	116 ± 35
Creatinine	µmol/L	106 ± 27	94 ± 27	85 ± 27	116 ± 25	84 ± 27	97 ± 27
	mg/dL	1.20 ± 0.31	1.06 ± 0.31	0.96 ± 0.31	1.31 ± 0.28	0.95 ± 0.31	1.1 ± 0.3
GGTP	U/L	46 ± 9	43 ± 13	44 ± 14	40 ± 7	35 ± 7	46 ± 14
Glucose Hex	mmol/L	4.50 ± 0.89	5.44 ± 0.50	5.20 ± 1.11	4.61 ± 0.72	2.11 ± 1.11	4.9 ± 0.5
	mg/dL	81 ± 16	98 ± 9	94 ± 20	83 ± 13	99 ± 20	88 ± 9
Glucose Ox	mmol/L	5.83 ± 0.72	5.49 ± 0.72	5.20 ± 1.00	4.38 ± 0.61	5.22 ± 1.28	4.7 ± 0.5
	mg/dL	105 ± 13	99 ± 13	94 ± 18	79 ± 11	94 ± 23	85 ± 9
Iron	µmol/L	13.1 ± 3.0	17.4 ± 3.0	14.9 ± 3.0	14.0 ± 3.0	15 ± 4	13.1 ± 3.0
	µg/dL	73 ± 17	97 ± 17	83 ± 17	78 ± 17	83 ± 20	73 ± 17
TIBC (Direct)	µmol/L	47 ± 12	47 ± 12	47 ± 12	47 ± 12	47 ± 12	47 ± 12
	µg/dL	263 ± 67	263 ± 67	263 ± 67	263 ± 67	263 ± 67	263 ± 67
Lactate	mmol/L	**********	1.50 ± 0.20	1.50 ± 0.20	1.50 ± 0.20	1.50 ± 0.20	1.5 ± 0.2
	mg/dL	**********	13.5 ± 1.8	13.5 ± 1.8	13.5 ± 1.8	13.5 ± 1.8	13.5 ± 1.8
LDH	U/L	126 ± 28	128 ± 26	141 ± 26	119 ± 22	80 ± 30	118 ± 24
Lipase	U/L	46 ± 14	46 ± 14	46 ± 14	46 ± 14	46 ± 14	46 ± 14
Magnesium	mmol/L	0.50 ± 0.21	0.50 ± 0.20	0.60 ± 0.20	0.50 ± 0.20	0.60 ± 0.20	0.6 ± 0.2
	mg/dL	1.22 ± 0.5	1.22 ± 0.49	1.46 ± 0.49	1.22 ± 0.49	1.46 ± 0.49	1.5 ± 0.5
Phosphorus	mmol/L	1.10 ± 0.20	1.18 ± 0.20	1.16 ± 0.10	1.00 ± 0.20	1.02 ± 0.19	1.1 ± 0.1
	mg/dL	3.41 ± 0.62	3.66 ± 0.62	3.58 ± 0.31	3.10 ± 0.62	3.15 ± 0.60	3.4 ± 0.3
Potassium*	mmol/L	3.9 ± 0.4	3.8 ± 0.5	3.8 ± 0.5	3.8 ± 0.5	3.8 ± 0.5	3.8 ± 0.5
Sodium*	mmol/L	135 ± 4	**********	**********	**********	**********	135 ± 4
Total Protein	g/L	50 ± 5	45 ± 5	42 ± 5	42 ± 9	46 ± 5	37 ± 4
	g/dL	5.00 ± 0.50	4.47 ± 0.50	4.20 ± 0.50	4.20 ± 0.90	4.57 ± 0.50	3.7 ± 0.4
Trig-GPO	mmol/L	0.99 ± 0.31	1.01 ± 0.31	0.90 ± 0.20	0.80 ± 0.31	1.01 ± 0.20	1 ± 0.3
	mg/dL	88 ± 27	89 ± 27	80 ± 18	71 ± 27	89 ± 18	88 ± 26.5
Uric Acid	µmol/L	297 ± 48	261 ± 48	249 ± 43	293 ± 48	271 ± 81	274 ± 48
	mg/dL	4.99 ± 0.81	4.39 ± 0.81	4.19 ± 0.72	4.93 ± 0.81	4.56 ± 1.36	4.6 ± 0.8

*Cl-, K+, Na+ not tested on ISE unit

	High Technology,Inc. 109 Production Rd, Walpole MA 02081	Document Number	PR-E-HT-C100-CTL-609905-609906
		Revision Level	Rev. 5
		Prepared by	C. Mahoney
		Approved by	S. Titov
		Effective Date	2018/10/23

HTI Chemistry Controls Passport Ranges Sheet

LOT: 609905
EXP: 2019-12

Level 2 CONTROL

Analyte	Units	Biochem SA	Analette/FC-120	FC-200 NEW	FC-200 OLD	FC-360	Gen. Assay Range
Acid Phos	U/L	14.4 ± 2.9	**********	**********	**********	**********	14.4 ± 2.9
Albumin	g/L	48 ± 5	38 ± 4	42 ± 4	43 ± 4	41 ± 4	45 ± 5
	g/dL	4.80 ± 0.50	3.80 ± 0.40	4.20 ± 0.40	4.30 ± 0.40	4.11 ± 0.40	4.50 ± 0.5
Alk Phos	U/L	232 ± 57	336 ± 95	331 ± 77	245 ± 78	227 ± 55	266 ± 80
ALT	U/L	82 ± 16	110 ± 21	117 ± 24	95 ± 19	130 ± 23	134 ± 27
Amylase	U/L	497 ± 102	529 ± 169	584 ± 127	465 ± 83	380 ± 83	520 ± 156
AST (SGOT)	U/L	215 ± 48	166 ± 59	191 ± 58	213 ± 51	176 ± 58	245 ± 49
Direct Bilirubin	µmol/L	89 ± 21	89 ± 16	88 ± 18	89 ± 25	93 ± 20	97 ± 19
	mg/dL	5.20 ± 1.23	5.20 ± 0.94	5.16 ± 1.05	5.20 ± 1.46	5.43 ± 1.17	5.70 ± 1.1
Total Bilirubin	µmol/L	95 ± 22	114 ± 20	110 ± 22	115 ± 25	128 ± 24	89 ± 17
	mg/dL	5.56 ± 1.29	6.67 ± 1.17	6.45 ± 1.29	6.73 ± 1.46	7.49 ± 1.40	5.20 ± 1
BUN	mmol/L	17.9 ± 2.1	17.2 ± 2.1	18 ± 1.4	17.4 ± 1.4	17.1 ± 1.4	18.2 ± 1.8
	mg/dL	50 ± 6	48 ± 6	50 ± 4	49 ± 4	48 ± 4	51 ± 5
Calcium (CPC)	mmol/L	3.20 ± 0.70	3.48 ± 0.70	2.93 ± 0.70	3.00 ± 0.60	3.05 ± 0.70	3.3 ± 0.3
	mg/dL	12.8 ± 2.8	13.9 ± 2.8	11.7 ± 2.8	12.0 ± 2.4	12.2 ± 2.8	13.2 ± 1.2
Calcium (AR-III)	mmol/L	3.40 ± 0.70	3.05 ± 0.70	3.10 ± 0.70	3.30 ± 0.70	3.20 ± 0.70	3.2 ± 0.3
	mg/dL	13.6 ± 2.8	12.2 ± 2.8	12.4 ± 2.8	13.2 ± 2.8	12.8 ± 2.8	12.8 ± 1.2
Chloride*	mmol/L	102 ± 10	96 ± 10	99 ± 11	106 ± 10	100 ± 10	111 ± 6
Cholesterol	mmol/L	7.90 ± 0.80	7.38 ± 0.70	7.40 ± 0.70	6.40 ± 0.70	7.40 ± 0.80	7.9 ± 0.8
	mg/dL	305 ± 31	285 ± 27	286 ± 27	247 ± 27	286 ± 31	305 ± 31
Carbon Dioxide	mmol/L	23 ± 5	23 ± 5	23 ± 5	23 ± 5	23 ± 5	23 ± 5
CK/CPK	U/L	279 ± 60	375 ± 86	363 ± 86	268 ± 65	246 ± 53	244 ± 73
Creatinine	µmol/L	527 ± 89	410 ± 61	326 ± 52	464 ± 77	292 ± 44	478 ± 72
	mg/dL	5.96 ± 1.01	4.64 ± 0.69	3.69 ± 0.59	5.25 ± 0.87	3.3 ± 0.5	5.41 ± 0.81
GGTP	U/L	118 ± 24	116 ± 24	122 ± 26	115 ± 32	99 ± 20	136 ± 27
Glucose Hex	mmol/L	16.1 ± 1.6	17.5 ± 1.7	17.0 ± 2.0	16.1 ± 1.6	17.8 ± 6.1	16.1 ± 1.6
	mg/dL	290 ± 29	316 ± 31	306 ± 36	290 ± 29	320 ± 110	290 ± 29
Glucose Ox	mmol/L	13.5 ± 1.7	17.3 ± 1.7	16.6 ± 1.8	15.9 ± 1.7	17.0 ± 1.9	15.5 ± 1.6
	mg/dL	243 ± 31	311 ± 31	299 ± 32	286 ± 31	306 ± 34	279 ± 29
Iron	µmol/L	37 ± 8	36 ± 8	33.1 ± 8	37 ± 8	29 ± 6	37 ± 8
	µg/dL	207 ± 45	199 ± 47	185 ± 47	207 ± 45	164 ± 34	207 ± 45
TIBC (Direct)	µmol/L	87 ± 22	87 ± 22	87 ± 22	87 ± 22	87 ± 22	87 ± 22
	µg/dL	486 ± 123	486 ± 123	486 ± 123	486 ± 123	486 ± 123	486 ± 123
Lactate	mmol/L	3.33 ± 0.22	5.37 ± 0.22	3.33 ± 0.22	3.33 ± 0.22	3.33 ± 0.22	3.33 ± 0.22
	mg/dL	30 ± 2	30 ± 2	30 ± 2	30 ± 2	30 ± 2	30 ± 2
LDH	U/L	332 ± 66	396 ± 76	434 ± 78	345 ± 68	255 ± 85	351 ± 70
Lipase	U/L	146 ± 44	146 ± 44	146 ± 44	146 ± 44	146 ± 44	146 ± 44
Magnesium	mmol/L	1.40 ± 0.30	1.20 ± 0.50	1.30 ± 0.50	1.50 ± 0.40	1.50 ± 0.40	1.40 ± 0.40
	mg/dL	3.41 ± 0.73	2.92 ± 1.22	3.16 ± 1.22	3.65 ± 0.97	3.65 ± 0.97	3.41 ± 0.97
Phosphorus	mmol/L	2.29 ± 0.29	2.73 ± 0.29	2.60 ± 0.29	1.91 ± 0.29	2.50 ± 0.29	2.49 ± 0.29
	mg/dL	7.1 ± 0.9	8.4 ± 0.9	8.05 ± 0.9	5.9 ± 0.9	7.7 ± 0.9	7.7 ± 0.9
Potassium*	mmol/L	6.3 ± 0.6	6.1 ± 0.5	6.1 ± 0.5	6.1 ± 0.5	6.1 ± 0.5	6.1 ± 0.5
Sodium*	mmol/L	169 ± 4	**********	**********	**********	**********	169 ± 4
Total Protein	g/L	90 ± 9	78 ± 8	76 ± 7	75 ± 8	79 ± 8	73 ± 7
	g/dL	9.00 ± 0.90	7.79 ± 0.80	7.62 ± 0.70	7.50 ± 0.80	7.88 ± 0.80	7.30 ± 0.70
Trig-GPO	mmol/L	2.40 ± 0.70	1.80 ± 0.60	1.98 ± 0.40	2.10 ± 0.60	2.25 ± 0.40	2.31 ± 0.60
	mg/dL	212 ± 62	159 ± 53	175 ± 35	186 ± 53	199 ± 35	204 ± 53
Uric Acid	µmol/L	504 ± 89	477 ± 89	448 ± 84	489 ± 89	476 ± 138	512 ± 89
	mg/dL	8.47 ± 1.50	8.02 ± 1.50	7.54 ± 1.41	8.22 ± 1.50	8.00 ± 2.32	8.61 ± 1.50

*Cl-, K+, Na+ not tested on ISE unit