10 Interface Protocols

10.1 Introduction

This protocol describes how data is transmitted from i-SmartCare 10 to the Laboratory Information System (LIS) via TCP/IP and /or the serial (RS-232) ports on the i-SmartCare 10.

The i-SmartCare 10 data transfer protocol is implemented according to LIS1-A and LIS2-A2 low and high level data transfer protocols.

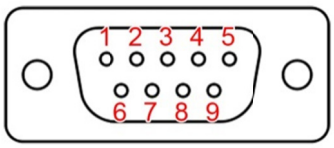
The analyzer TCP / IP communication work as a client.

10.2 Physical Transfer Layer

RS-232

Pin Assignment of DE-9 (9 pin D-sub) connector:

No.	Abbreviation	Description	Note
1	DCD	Data Carrier Detect	1
2	RxD	Received Data	input
3	TxD	Transmitted Data	output
4	DTR	Data Terminal Ready	1
5	SG	Signal Ground	GND
6	DSR	Data Set Ready	1
7	RTS	Request To Send	2
8	CTS	Clear To Send	2
9	RI	Ring Indicator	1
Case	PG	Protective Ground	-
1. Not connected, 2. Optional			



Analyzer	PC
2	2
3	3
5	5
7	7
8	8

Default setting of the i-SmartCare 10 Analyzer:

- Baud rate: 9600
- Parity: none
- Handshake: None
- Data bits: 8
- Stop bits: 1

TCP/IP

Ethernet port: standard RJ-45 network connector

Port: 3030 (Default)

10.3 Low Level Protocol

Restricted Characters

<STX>, <ETX>, <EOT>, <ENQ>, <ACK>, <LF>, <CR>, <NAK>, <ETB>

Transmission Phases

Establishment phase, Transfer phase, Termination phase

Sender>

<STX>	FN	Message	<ETB> or <ETX>	Check Sum	<CR><LF>

Receiver<

<ACK>

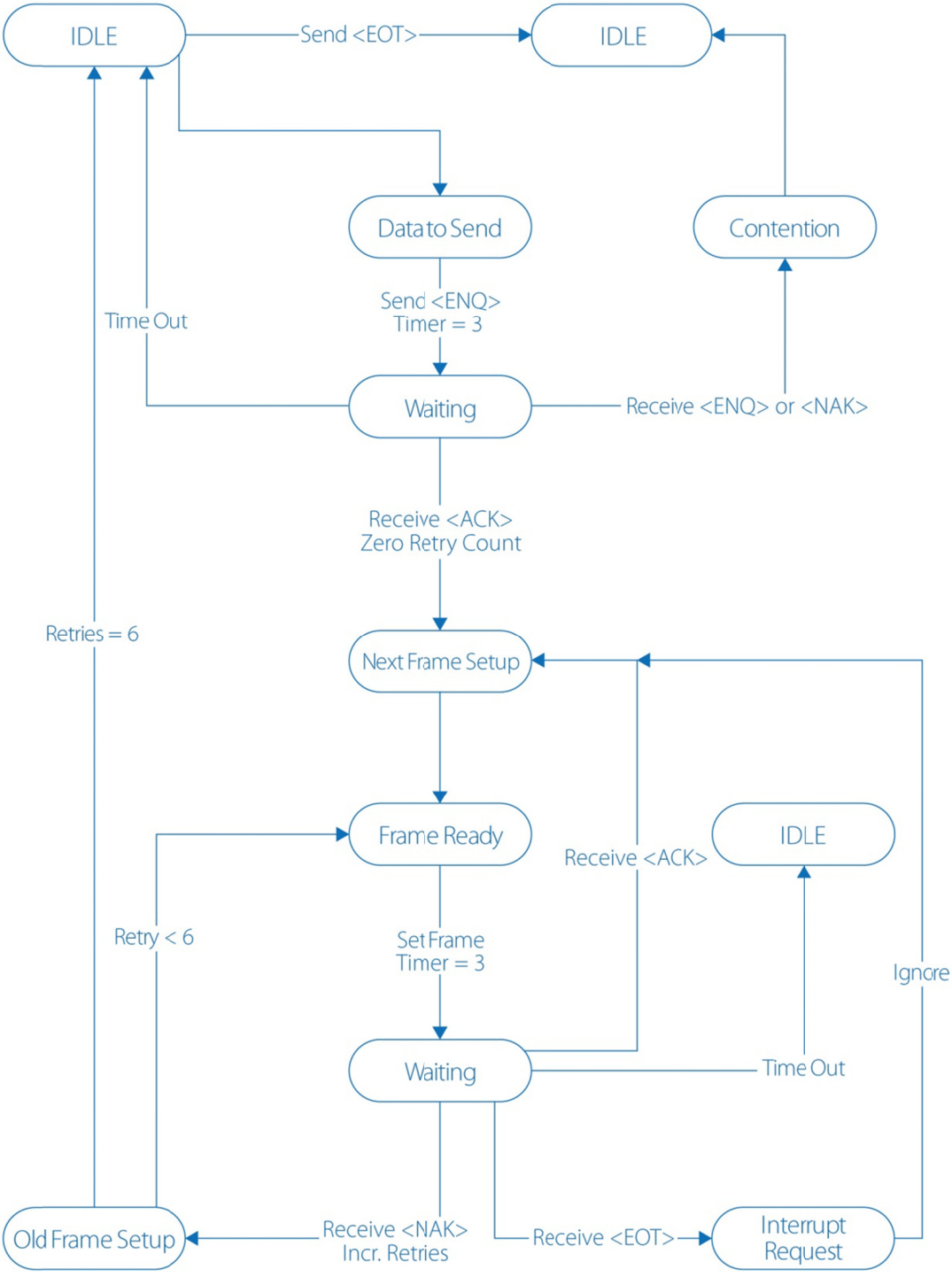
Field Explanations

Field Name	Description
<STX>	Start of Transfer Message
FN	Frame Number 0 through 7
Message	Message
<ETB> or <ETX>	End of Transmission, End of Text
Checksum	Message checksum
<CR><LF>	End of Message

Time-out

Waiting time: 3 seconds

i-SmartCare 10 State Diagram



10.4 High Level Protocol

The i-SmartCare 10 only sends messages to a receiving system and does not receive requests from a receiving system.

Message Structure

Message	Message is a group of records.
Record	Record is a group of fields
Field	Field is a group of components
Component	Components comprise field

Record Types

Header Record	H
Patient Record	P
Test Order Record	O
Comment Record	C
Result Record	R
Message Terminator Record	L

Delimiter Definitions

Delimiter Type	Name	Character
Filed delimiter	Vertical Bar	|
Repeat delimiter	Backslash	\
Component delimiter	Caret	^
Escape delimiter	Ampersand	&
Record delimiter	Carriage return	<CR>

Header Record

The Header record contains information that indicates the start of a message.

Field Descriptions**:**

1|2|3|4|5|6|7|8|9|10|11|12|13|14{RT/CR}

	Field Name	Descriptions
1	Record Type ID	always the character H.
2	Delimiter Definitions	Refer to the delimiter table in section 10.4
5	Sender Name or ID	iSmartCare10^Instrument Seiral Number^Instrument Name designated by operator^Software version
13	VersionNumber	ASTM 1394-97
14	Date and Time of Message	Format=YYYYMMDDhhmmss
<CR>	Carriage return	Record Terminator.

Example:

H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190619194758<CR>

Patient Information Record

The Patient Information record contains patient identification information for a patient sample.

For calibration result, other fields are null except for Record Type and Sequence Number fields.

Field Descriptions:

1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20|21|22|23|24|25|26|27|28|29|30|31|32|33|34|35{RT/CR}

	Field Name	Comment
1	Record Type ID	always the character P.
2	Sequence Number	Always the number 1
4	Laboratory-Assigned Patient ID	Patient ID *null in calibration and QC results
6	Patient Name	Patient Last Name^Patient First Name * null in calibration and QC results
<CR>	Carriage return	Record Terminator

Example:

Sample: P|1||pid||kim^chun||||||||||||||||||||||||||||<CR>

QC: P|1||||||||||||||||||||||||||||<CR>

2 Point Cal: P|1||||||||||||||||||||||||||||<CR>

O_2Cal: P|1||||||||||||||||||||||||||||<CR>

Test Order Record

The Test Order record contains sample, QC, or calibration identifying information.

Field Descriptions:

1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20|21|22|23|24|25|26|27|28|29|30|31{RT/CR}

	Field Name	Comment
1	Record Type ID	always the character O
2	Sequence Number	Always the number 1
3	Specimen ID	The sample number entered by operator
4	Instrument Specimen ID	Cartridge Serial Number-Sxxx or Qxxxx (S=Sample, Q=QC, xxx is the sequential number assigned to each of samples tested with the cartridge) Cartrdige Serial Number-C2-xxx(xxx is the sequential number assigned to each of the 2-point calibrations performed on the cartridge)
8	Specimen Collection Date and Time	Sample Draw Time Format=hhmm *null in calibration and QC results
16	Specimen Descriptor	Sample, QC, or Calibration ex) Arterial, Venous, Mixed Venous, Capillary, Other, 2Pcal, O2Cal For QC ex) QC^Lot Number^QC Level^QC Description
<CR>	Carriage return	Record Terminator.

Example:

Sample: O|1|sid|190701-1-13-S5||||2359|||||||Arterial|||||||||||||<CR>
QC: O|1||190701-1-13-Q8|||||||||||QC^192002^Level 2^i-Smart BGEM Level 2|||||||||||||<CR>
2 Point Cal: O|1||190610-2-1-C2-60|||||||||||2PCal|||||||||||||<CR>
O_2Cal: O|1||190610-2-1-C2-61|||||||||||O2Cal||||||||||||| <CR>

Comment Record

This is a record explaining higher or same level record.

Field Descriptions:

1|2|3|4|5{RT/CR}

	Field Name	Comment
1	Record Type ID	always the character C
2	Sequence Number	Record Number
3	Comment Source	Initiation of comment ex) I: Instrument
4	Comment Text	Content of comment ex) Sample : Sample Comment, QC : QC Comment *null in calibration and QC results
5	Comment Type	Type of comment ex) G: it means general result
<CR>	Carriage return	Record Terminator.

Example:

Sample: C|1|I|blood sample comment|G<CR>

QC: C|1|I|QC Sample Comment|G<CR>

2 Point Cal: C|1|I||G<CR>

O_2Cal: C|1|I||G<CR>

Result Record

The Result record contains information for a sample result or 2-point calibration result

Field Descriptions:

1|2|3|4|5|6|7|8|9|10|11|12|13|14{RT/CR}

	Field Name	Comment
1	Record Type ID	always the character R.
2	Sequence Number	Record sequence number
3	Universal Test ID	It consists of 4 Component Delimiter Each data for sub fields are as follows. ^^^XXX^YYY XXX: Parameter(pH, pCO_2, pO_2, Na^+, K^+, Ca^{2+}, Cl^-, Hct, Glu, Lac, pH(*T*), pCO_2(*T*), HCO_3^-, HCO_3^-(std), BE(B), BE(ecf), tCO_2, pO_2(*T*), pO_2(A-a), tHb, sO_2, Anion gap, Ca^{2+}(7.4)) YYY: Parameter (M = Measured parameter, C = Calculated parameter) ex) ^^^Hct^M
4	Data orMeasurement Value	Result value
5	Units	Measurement Unit
6	Reference Ranges	Patient Reference range: Low limit^High limit^Ref. Range QC range Low limit^Upper limit^QC Range ex) 138^142^Reference 20^200^Reportable 112^122^QC
7	Result Abnormal Flags	This is the field that contains the status of result. XX^YY^ZZZZZZZZZ XX: Parameter(SE: Slope Error, IE: Insufficient Error, CE: Incalculable Error,<: Out of Range Low, >: Out of Range High, DE: Drift Error) YY: Parameter(L: Reference Range Low, H: Reference Range High, L: QC Range Low, H: QC Range High, LL: Critical Range Low, HH: Critical Range High, F: Calibration Error, N: Normal Result,-: Reference range is not entered) ZZZZZ: Parameter(QC Status: ACCEPTED, DISCARDED, PENDING) ex) SE^^ , IE^^ , CE^^ , <^^ , >^^ , DE^LL^, DE^HH^, DE^L^, DE^L^ACCEPTED, DE^L^DISCARDED, DE^L^ PENDING DE^H^, DE^H^ACCEPTED, DE^H^DISCARDED, DE^H^ PENDING ^N^, ^N^ACCEPTED, ^N^DISCARDED, ^N^

		PENDING ^-^, ^-^ACCEPTED, ^-^DISCARDED, ^-^PENDING * Sample, Cal1 or Cal2 field information does not include ZZZZZZZZZ Parameter.
9	Result Status	This is the filed that contains the status of transmission result. F: Result not transmitted R: Result transmitted previously
11	Operator Identification	Operator ID
13	Date/Time Test Completed	The date and time the test is completed Format=YYYYMMDDhhmmss
<CR>	Carriage return	Record Terminator

Example:
Sample: R|1|^^^pH^M|7.291||7.000^7.400^Ref. Range|^N^||F||oid||20190718103934|<CR>
QC: R|1|^^^pH^M|7.304||7.390^7.450^QC Range|^L^ACCEPTED||F||oid||20190718105006|<CR>
Cal2: R|1|^^^pH^Slope^M|55|||^N^||F||||20190610102724|<CR>
O_2Cal: R|1|^^^pO2^Slope^M|80|||^N^||F||||20190610102812|<CR>

Termination Record

The Termination record contains information that indicates the end of a message.

Field Descriptions:

1|2|3{RT/CR}

	Field Name	Comment
1	Record Type ID	always the character L.
2	Sequence Number	Record sequence number
3	Termination Code	N: normal termination
<CR>	Carriage return	Record Terminator

Example:

L|1|N<CR>

10.5 Message Examples

Sample Report

```
H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190619194758
P|1||||^|||||||||||||||||||||||||
O|1||190619-2-29-S1||||||||||Arterial|||||||||||||||
C|1|I||G
R|1|^^^pH^M|7.376|||^N^||F||||20190619194753|
R|2|^^^pCO2^M|37.6|mmHg||^N^||F|||||
R|3|^^^pO2^M|89|mmHg||^N^||F|||||
R|4|^^^Na+^M|138|mmol/L||^N^||F|||||
R|5|^^^K+^M|3.6|mmol/L||^N^||F|||||
R|6|^^^Ca2+^M|1.19|mmol/L||^N^||F|||||
R|7|^^^Cl-^M|100|mmol/L||^N^||F|||||
R|8|^^^Hct^M|40|%||^N^||F|||||
R|9|^^^Glu^M|79|mg/dL||^N^||F|||||
R|10|^^^Lac^M|0.7|mmol/L||^N^||F|||||
R|11|^^^pH(T)^C|7.376|||^N^||F|||||
R|12|^^^pCO2(T)^C|37.6|mmHg||^N^||F|||||
R|13|^^^HCO3-^C|22.0|mmol/L||^N^||F|||||
R|14|^^^HCO3-(std)^C|22.7|mmol/L||^N^||F|||||
R|15|^^^BE(B)^C|-2.8|mmol/L||^N^||F|||||
R|16|^^^BE(ecf)^C|-3.2|mmol/L||^N^||F|||||
R|17|^^^tCO2^C|23.2|mmol/L||^N^||F|||||
R|18|^^^pO2(T)^C|89|mmHg||^N^||F|||||
R|19|^^^pO2(A-a)^C|14|mmHg||^N^||F|||||
R|20|^^^tHb^C|12.4|g/dL||^N^||F|||||
R|21|^^^sO2^C|97|%||^N^||F|||||
R|22|^^^Anion gap^C|20|mmol/L||^N^||F|||||
R|23|^^^Ca2+(7.4)^C|1.17|mmol/L||^N^||F|||||
L|1|N


H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190718104133
P|1||pid||kim^chun||||||||||||||||||||||||||
O|1|sid|190701-1-13-S5||||2359|||||||Arterial|||||||||||||||
C|1|I|blood sample comment|G
R|1|^^^pH^M|7.291||7.000^7.400^Ref. Range|^N^||F||oid||20190718103934|
R|2|^^^pCO2^M|64.9|mmHg|80.0^120.0^Ref. Range|^L^||F|||||
R|3|^^^pO2^M|-|mmHg|200^400^Ref. Range|SE^^||F|||||
R|4|^^^Na+^M|164|mmol/L|100^160^Ref. Range|^H^||F|||||
R|5|^^^K+^M|11.9|mmol/L|3.0^9.0^Ref. Range|^H^||F|||||
R|6|^^^Ca2+^M|1.59|mmol/L|0.50^4.50^Ref. Range|^N^||F|||||
R|7|^^^Cl-^M|141|mmol/L|75^125^Ref. Range|^H^||F|||||
R|8|^^^Hct^M|-|%|20^50^Ref. Range|<^^||F|||||
R|9|^^^Glu^M|163|mg/dL|80^240^Ref. Range|^N^||F|||||
R|10|^^^Lac^M|3.2|mmol/L|8.4^12.6^Ref. Range|^L^||F|||||
R|11|^^^pH(T)^C|7.291||6.200^7.800^Ref. Range|^N^||F|||||
R|12|^^^pCO2(T)^C|64.9|mmHg|95.0^185.0^Ref. Range|^L^||F|||||
R|13|^^^HCO3-^C|31.3|mmol/L|5.0^85.0^Ref. Range|^N^||F|||||
R|14|^^^HCO3-(std)^C|-|mmol/L|15.0^75.0^Ref. Range|CE^^||F|||||
R|15|^^^BE(B)^C|-|mmol/L|-28.0^28.0^Ref. Range|CE^^||F|||||
```

```
R|16|^^^BE(ecf)^C|4.7|mmol/L|-35.0^35.0^Ref. Range|^N^||F|||||
R|17|^^^tCO2^C|33.3|mmol/L|12.0^78.0^Ref. Range|^N^||F|||||
R|18|^^^pO2(T)^C|-|mmHg|150^650^Ref. Range|CE^^||F|||||
R|19|^^^pO2(A-a)^C|-|mmHg|240^660^Ref. Range|CE^^||F|||||
R|20|^^^tHb^C|-|g/dL|5.0^24.0^Ref. Range|CE^^||F|||||
R|21|^^^sO2^C|-|%|90^99^Ref. Range|CE^^||F|||||
R|22|^^^Anion gap^C|4|mmol/L|35^68^Ref. Range|^L^||F|||||
R|23|^^^Ca2+(7.4)^C|1.50|mmol/L|0.44^5.20^Ref. Range|^N^||F|||||
L|1|N


H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190718105602
P|1||||^||||||||||||||||||||||||||
O|1||190701-1-13-S1||||||||||||||||||||||||
C|1|I||G
R|1|^^^pH^M|-|||IE^^||F||||20190718092905|
R|2|^^^pCO2^M|-|mmHg||IE^^||F|||||
R|3|^^^pO2^M|-|mmHg||IE^^||F|||||
R|4|^^^Na+^M|-|mmol/L||IE^^||F|||||
R|5|^^^K+^M|-|mmol/L||IE^^||F|||||
R|6|^^^Ca2+^M|-|mmol/L||IE^^||F|||||
R|7|^^^Cl-^M|-|mmol/L||IE^^||F|||||
R|8|^^^Hct^M|-|%||IE^^||F|||||
R|9|^^^Glu^M|-|mg/dL||IE^^||F|||||
R|10|^^^Lac^M|-|mmol/L||IE^^||F|||||
R|11|^^^pH(T)^C|-|||CE^^||F|||||
R|12|^^^pCO2(T)^C|-|mmHg||CE^^||F|||||
R|13|^^^HCO3-^C|-|mmol/L||CE^^||F|||||
R|14|^^^HCO3-(std)^C|-|mmol/L||CE^^||F|||||
R|15|^^^BE(B)^C|-|mmol/L||CE^^||F|||||
R|16|^^^BE(ecf)^C|-|mmol/L||CE^^||F|||||
R|17|^^^tCO2^C|-|mmol/L||CE^^||F|||||
R|18|^^^pO2(T)^C|-|mmHg||CE^^||F|||||
R|19|^^^pO2(A-a)^C|-|mmHg||CE^^||F|||||
R|20|^^^tHb^C|-|g/dL||CE^^||F|||||
R|21|^^^sO2^C|-|%||CE^^||F|||||
R|22|^^^Anion gap^C|-|mmol/L||CE^^||F|||||
R|23|^^^Ca2+(7.4)^C|-|mmol/L||CE^^||F|||||
L|1|N
```

QC Report

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H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190718105139
P|1||||||||||||||||||||||||||||||
O|1||190701-1-13-Q8||||||||||||QC^192002^Level 2^i-Smart BGEM Level 2||||||||||||||
C|1|I|QC Sample Comment|G
R|1|^^^pH^M|7.304||7.390^7.450^QC Range|^L^ACCEPTED||F||oid||20190718105006|
R|2|^^^pCO2^M|59.8|mmHg|35.5^45.5^QC Range|^H^ACCEPTED||F|||||
R|3|^^^pO2^M|-|mmHg|93^127^QC Range|SE^^ACCEPTED||F|||||
R|4|^^^Na+^M|166|mmol/L|128^138^QC Range|^H^ACCEPTED||F|||||
R|5|^^^K+^M|12.3|mmol/L|4.0^5.0^QC Range|^H^ACCEPTED||F|||||
R|6|^^^Ca2+^M|1.64|mmol/L|1.00^1.30^QC Range|^H^ACCEPTED||F|||||
R|7|^^^Cl-^M|144|mmol/L|93^103^QC Range|^H^ACCEPTED||F|||||
R|8|^^^Glu^M|155|mg/dL|166^206^QC Range|^L^ACCEPTED||F|||||
R|9|^^^Lac^M|3.0|mmol/L|2^3^QC Range|^N^ACCEPTED||F|||||
L|1|N


H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190718105139
P|1||||||||||||||||||||||||||||||
O|1||190701-1-13-Q8||||||||||||QC^190718-1^Other^QC Description||||||||||||||
C|1|I|QC Sample Comment|G
R|1|^^^pH^M|7.304||7.390^7.450^QC Range|^L^ACCEPTED||F||oid||20190718105006|
R|2|^^^pCO2^M|59.8|mmHg|35.5^45.5^QC Range|^H^ACCEPTED||F|||||
R|3|^^^pO2^M|-|mmHg|93^127^QC Range|SE^^ACCEPTED||F|||||
R|4|^^^Na+^M|166|mmol/L|128^138^QC Range|^H^ACCEPTED||F|||||
R|5|^^^K+^M|12.3|mmol/L|4.0^5.0^QC Range|^H^ACCEPTED||F|||||
R|6|^^^Ca2+^M|1.64|mmol/L|1.00^1.30^QC Range|^H^ACCEPTED||F|||||
R|7|^^^Cl-^M|144|mmol/L|93^103^QC Range|^H^ACCEPTED||F|||||
R|8|^^^Hct^M|24|%|15^55^QC Range|^N^ACCEPTED||F|||||
R|9|^^^Glu^M|155|mg/dL|166^206^QC Range|^L^ACCEPTED||F|||||
R|10|^^^Lac^M|3.0|mmol/L|2^3^QC Range|^N^ACCEPTED||F|||||
L|1|N


H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190718111611
P|1||||||||||||||||||||||||||||||
O|1||190701-1-13-Q9||||||||||||QC^192007^Hct Level High^i-Smart Hct High||||||||||||||
C|1|I|COMMENT|G
R|1|^^^Hct^M|-|%|40^60^QC Range|<^^ACCEPTED||F||oid||20190718111603|
L|1|N


H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190610103521
P|1||||||||||||||||||||||||||||||
O|1||190610-2-1-Q7||||||||||||QC^^|||||||||||||||
C|1|I||G
R|1|^^^pH^M|-|||IE^^DISCARDED||F||||20190610103447|
R|2|^^^pCO2^M|-|mmHg||IE^^DISCARDED||F|||||
R|3|^^^pO2^M|-|mmHg||IE^^DISCARDED||F|||||
R|4|^^^Na+^M|-|mmol/L||IE^^DISCARDED||F|||||
R|5|^^^K+^M|-|mmol/L||IE^^DISCARDED||F|||||
R|6|^^^Ca2+^M|-|mmol/L||IE^^DISCARDED||F|||||
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```
R|7|^^^Cl-^M|-|mmol/L||IE^^DISCARDED||F|||||
R|8|^^^Hct^M|-|%||IE^^DISCARDED||F|||||
R|9|^^^Glu^M|-|mg/dL||IE^^DISCARDED||F|||||
R|10|^^^Lac^M|-|mmol/L||IE^^DISCARDED||F|||||
L|1|N


H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190724114747
P|1||||||||||||||||||||||||||||||
O|1||190701-1-15-Q1||||||||||QC^190724-1^Other^MANUAL|||||||||||||||
C|1|I|QC COMMENT|G
07/24 11:53:04  5R|1|^^^pH^M|7.308||6.500^7.800^QC
Range|^N^PENDING||F||oid||20190724114741|
R|2|^^^pCO2^M|70.5|mmHg|5.0^150.0^QC Range|^N^PENDING||F|||||
R|3|^^^pO2^M|95|mmHg|10^680^QC Range|^N^PENDING||F|||||
R|4|^^^Na+^M|165|mmol/L|80^200^QC Range|^N^PENDING||F|||||
R|5|^^^K+^M|12.0|mmol/L|1.0^20.0^QC Range|^N^PENDING||F|||||
R|6|^^^Ca2+^M|1.81|mmol/L|0.25^5.00^QC Range|^N^PENDING||F|||||
R|7|^^^Cl-^M|145|mmol/L|50^150^QC Range|^N^PENDING||F|||||
R|8|^^^Hct^M|-|%|10^70^QC Range|<^^PENDING||F|||||
R|9|^^^Glu^M|155|mg/dL|5^500^QC Range|^N^PENDING||F|||||
R|10|^^^Lac^M|3.6|mmol/L|0^15^QC Range|^N^PENDING||F|||||
L|1|N
```

2 Point Calibration Report

H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190724113814
P|1||||||||||||||||||||||||||||||
O|1||190701-1-15-C2-8||||||||||2PCal|||||||||||||
C|1|I||G
R|1|^^^pH^Slope^M|54|||^N^||F||||20190724113435|
R|2|^^^pCO2^Slope^M|26|||^N^||F|||||
R|3|^^^pO2^Slope^M|77|||^N^||F|||||
R|4|^^^Na+^Slope^M|52|||^N^||F|||||
R|5|^^^K+^Slope^M|64|||^N^||F|||||
R|6|^^^Ca2+^Slope^M|23|||^N^||F|||||
R|7|^^^Cl-^Slope^M|55|||^N^||F|||||
R|8|^^^Hct^Slope^M|14.8|||^N^||F|||||
R|9|^^^Glu^Slope^M|185|||^N^||F|||||
R|10|^^^Lac^Slope^M|115|||^N^||F|||||
R|11|^^^pH^Measured1^M|7.438|||^N^||F|||||
R|12|^^^pCO2^Measured1^M|37.0|mmHg||^N^||F|||||
R|13|^^^pO2^Measured1^M|146|mmHg||^N^||F|||||
R|14|^^^Na+^Measured1^M|148|mmol/L||^N^||F|||||
R|15|^^^K+^Measured1^M|4.0|mmol/L||^N^||F|||||
R|16|^^^Ca2+^Measured1^M|1.12|mmol/L||^N^||F|||||
R|17|^^^Cl-^Measured1^M|122|mmol/L||^N^||F|||||
R|18|^^^Hct^Measured1^M|20.5|%||^N^||F|||||
R|19|^^^Glu^Measured1^M|-|mg/dL||^F^||F|||||
R|20|^^^Lac^Measured1^M|-|mmol/L||^F^||F|||||
R|21|^^^pH^Drift1^M|0.022|||^N^||F|||||
R|22|^^^pCO2^Drift1^M|0.3|mmHg||^N^||F|||||
R|23|^^^pO2^Drift1^M|-26|mmHg||^N^||F|||||
R|24|^^^Na+^Drift1^M|3|mmol/L||^N^||F|||||
R|25|^^^K+^Drift1^M|0.0|mmol/L||^N^||F|||||
R|26|^^^Ca2+^Drift1^M|0.03|mmol/L||^N^||F|||||
R|27|^^^Cl-^Drift1^M|0|mmol/L||^N^||F|||||
R|28|^^^Hct^Drift1^M|0.0|%||^N^||F|||||
R|29|^^^Glu^Drift1^M|0|mg/dL||^N^||F|||||
R|30|^^^Lac^Drift1^M|0.0|mmol/L||^N^||F|||||
R|31|^^^pH^Measured2^M|7.784|||^N^||F|||||
R|32|^^^pCO2^Measured2^M|37.4|mmHg||^N^||F|||||
R|33|^^^pO2^Measured2^M|36|mmHg||^N^||F|||||
R|34|^^^Na+^Measured2^M|128|mmol/L||^N^||F|||||
R|35|^^^K+^Measured2^M|3.8|mmol/L||^N^||F|||||
R|36|^^^Ca2+^Measured2^M|0.86|mmol/L||^N^||F|||||
R|37|^^^Cl-^Measured2^M|130|mmol/L||^N^||F|||||
R|38|^^^Hct^Measured2^M|14.8|%||^N^||F|||||
R|39|^^^Glu^Measured2^M|-|mg/dL||^F^||F|||||
R|40|^^^Lac^Measured2^M|-|mmol/L||^F^||F|||||

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R|41|^^^pH^Drift2^M|0.865|||^N^||F|||||
R|42|^^^pCO2^Drift2^M|-24|mmHg||^N^||F|||||
R|43|^^^pO2^Drift2^M|-69.0|mmHg||^N^||F|||||
R|44|^^^Na+^Drift2^M|30|mmol/L||^N^||F|||||
R|45|^^^K+^Drift2^M|-3.5|mmol/L||^N^||F|||||
R|46|^^^Ca2+^Drift2^M|0.42|mmol/L||^N^||F|||||
R|47|^^^Cl-^Drift2^M|47|mmol/L||^N^||F|||||
R|48|^^^Hct^Drift2^M|14.5|%||DE^^||F|||||
R|49|^^^Glu^Drift2^M|0|mg/dL||^N^||F|||||
R|50|^^^Lac^Drift2^M|0.0|mmol/L||^N^||F|||||
L|1|N
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O_2 Calibration Report

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H|\^&|||i-SmartCare10^G20011^-^1.0.2.2|||||||1394-97|20190724114218
P|1||||||||||||||||||||||||||||||
O|1||190701-1-15-C2-9||||||||||O2Cal|||||||||||||||
C|1|I||G
R|1|^^^pO2^Slope^M|236|||^N^||F||||20190724113956|
R|2|^^^pO2^Measured1^M|124|mmHg||^N^||F|||||
R|3|^^^pO2^Drift1^M|-49|mmHg||^N^||F|||||
R|4|^^^pO2^Measured2^M|-|mmHg||^F^||F|||||
R|5|^^^pO2^Drift2^M|0.0|mmHg||^N^||F|||||
L|1|N
```