Texas Newborn Screening

Implementation Guide for Newborn Screening Results Messaging

HL7 Version 2.5.1

TEXAS
Health and Human Services

Texas Department of State
Health Services

Based on HL7 Version 2.5.1 Implementation Guide: Laboratory Results (LRI) from EHR, Release 1, STU Release 3 - US Realm

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UPDATE HISTORY

Version	Date	Author	Description
0.1		B. Reilly	Draft for partner feedback and review
0.2	05/2018	B. Reilly	- Corrected examples throughout to demonstrate correct data type flavors - Reordered segment summary listing to order in message. - Clarified that OBR-25 will contain the value "I" for messages indicating specimen receipt. - Corrected OBX result examples to reflect interpretation and discussion correctly. - Added LOINC answer of Inconclusive as a possible result interpretation and updated overall result hierarchy. - Corrected data type in PID – 23 to ST - Updated outline of Specimen Rejection Reason Reporting in SPM-21 and OBX segments. - Added Result Messages
0.3	11/2018	B. Reilly	- Added segment cardinality information. - Clarified use of a single ORC and SPM. - Updated NK1-33 will not include sending of mother Social Security Number - Corrected that specimen arrival message will include OBRs for 57128-1^ Newborn Screening report summary panel and 57717-1^Newborn screen card data panel - Removed option of "A - Result Modified due to change in demographic information" in possible answer for OBX-11 - Removed OBX-30 as not applicable for results.
1.0	11/2019	B. Reilly	- Clarified that specimen arrival message is optional. - ORC-1 in arrival message changed to always be RE. - Added OBR-19 Placer Field 2 as a field that will be returned as received in the order message. - Removed OBX 3.7 LOINC version ID. - Removed OBX-25 (Medical Director) as a field that will be included in result messages - Updated Receiver Usage of Specimen Quality OBX to C (R/O) - Added Message Examples for Normal, Abnormal, Partial Unsatisfactory, Global Unsatisfactory, and Revised Results.
2.0	11/2020	B. Reilly	- Added PID-22 Ethnic Group as a value that will be returned as received in the order. - Added ORC-15 Order Effective Date/Time, OBR-18 Placer Field 1, and OBR-19 Placer Field 2 as fields that will be sent as received in associated order message. - Added "UNSAT" to possible values for OBX-8 Abnormal Flag - Removed quotes from beginning and end and initial line break from beginning of answer OBX with OBX-3 valued 57724-7 short narrative summary. - Added XALD to 57724-7 short narrative summary example. - Clarified that original text from collection card answer value will be sent in OBX 5.9 of OBX with OBX-3 valued 57713-0 Infant Factors that affect newborn screening. - Added OBR and OBX information for the addition of Spinal Muscular Atrophy (SMA) (estimated June 2021) and Lysosomal Storage Disorders (estimated 2024) to the newborn screening panel.

Texas Health and Human Services Commission (HHSC) and DSHS assume no liability for the information contained herein and reserves the right to make changes to this document as deemed necessary. Please refer to the Laboratory Website often for any updates or contact the Laboratory Services Section at 1-888-963-7111 X7333.

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SECTION I: OVERVIEW

This implementation guide (IG) provides specifications and standards used to create HL7 2.5.1 messages by the Texas Department of State Health Services (DSHS) Laboratory to report newborn screening results. Additionally, this guide includes examples that demonstrate how the elements connect and form complete Newborn Screening specimen results messages. Combined with the Texas Newborn Screening Implementation Guide for Newborn Screening Orders Messaging, this guide allows facilities submitting newborn screening specimens a means for electronically transferring patient and specimen information and receiving test results.

Although registered users throughout the state can use DSHS Newborn Screening Web Application to access PDF images of newborn screening results reports, newborn screening submitters may prefer to directly import reports or discreet disorder results into their Laboratory Information System (LIS) or Electronic Health Record (EHR) systems. The Texas DSHS Newborn Screening HL7 interface is designed to allow those providers to use their own information systems to generate and submit the required data electronically and receive results electronically.

This guide and message format is designed to conform to HL7 Version 2.5.1 Implementation Guide: Laboratory Results (LRI) from EHR, Release 1, STU Release 3 - US Realm. Whereas the DSHS laboratory does not require recipient systems to fully conform to LRI, partners must demonstrate the ability to receive and display accurate results in recipient systems in accordance with requirements outlined by Clinical Laboratory Improvement Amendments (CLIA) and the College of American Pathologists (CAP).

A. INTENDED AUDIENCE

This document is intended for technical staff from hospital and clinic partners, EHR vendors, LIS vendors and other entities supporting providers' specimen order submission to and result receipt from the Texas Newborn Screening Laboratory. The reader of this state Implementation Guide (IG) should have a solid HL7 foundation and be very familiar with the contents of the HL7 Version 2.5.1 Implementation Guide: Laboratory Results (LRI) from EHR, Release 1, STU Release 3 - US Realm, located on the HL7 web page. The goal of the state IG is to provide an unambiguous specification for creating and interpreting messages exchanged between providers and the DSHS Laboratory.

B. MEANINGFUL USE

The Centers for Medicare and Medicaid Services (CMS) have the Medicare and Medicaid Electronic Health Record Incentive Programs (EHR Incentive Programs), designed to provide incentives to Eligible Providers, Eligible Hospitals, and Critical Access Hospitals for the adoption and utilization of EHR systems. To receive an incentive payment, participants must demonstrate "meaningful use" of certified EHR technology by meeting measurement criteria such as ordering lab test results, recording certain patient information and reporting information to public health.

More information about the EHR incentive programs may be found on CMS web page, Electronic Health

Records Incentive Programs.

Information about the Medicaid EHR Incentive Program in Texas may be found on the Texas Medicaid & Healthcare Partnership's web page, Electronic Health Records Incentive Program Overview. Information about submitting data to DSHS registries and systems to meet EHR Incentive Program requirements may be found at Texas DSHS Support for Meaningful Use of Electronic Health Records.

C. DATA EXCHANGE REQUIREMENTS

In order for the partner (i.e., the provider, EHR or LIS) to engage in data exchange with the DSHS Laboratory, the organization will need to ensure that they:

- Are a registered Newborn Screening specimen submitter with DSHS
- Have a current DSHS Laboratory Services Electronic Ordering and Reporting Memorandum of Agreement on record
- Ensure that all associated facilities in their organizational hierarchy is accurate
- Have the ability to send NBS specimen order data by constructing a valid HL7 version 2.5.1 message
- Have the ability to receive and consume NBS specimen results data by interpreting an HL7 version 2.5.1 message as outlined in this guide
- Have the ability to interface with the DSHS Laboratory using one of the available file transport options listed below

TRANSPORT OPTIONS FOR DATA EXCHANGE

There are a few different transport methods for providers to securely submit newborn screening orders and receive results, formatted as HL7 messages, to the DSHS NBS Lab. The preferred method of submitting HL7 messages is Virtual Private Network.

VIRTUAL PRIVATE NETWORK (VPN)

A virtual private network (VPN) extends a private network across a public network, and enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network. Applications running across the VPN may therefore benefit from the functionality, security, and management of the private network.

The Texas DSHS Laboratory's Virtual Private Network protocol is designed for "real-time" single messaging. Organizations should avoid sending numerous instances of individual messages at a single given instance.

D. SCOPE

The HL7 standard is used for data exchange by many entities in the healthcare industry. The complete standard covers a variety of situations in patient care. The DSHS Laboratory supports a specific subset of HL7 pertaining to Newborn Screening (NBS) Laboratory Orders and NBS Laboratory Results. This HL7 IG covers the format and content of NBS HL7 Results messages generated by the DSHS Laboratory in the ORU^R01 format. The DSHS Laboratory Interfacing system is designed to conform to HL7 Version 2.5.1 Implementation Guide: Laboratory Results (LRI) from EHR, Release 1, STU Release 3 - US Realm.

This guide is intended to outline how the DSHS Laboratory Information Management System will configure newborn screening specimen results messages for transport to and consumption by healthcare provider EHR and/or LIS systems. This includes:

- Optional notification of receipt of the physical specimen
- Final report of disorder test results for the newborn screening panel
- Defining data elements that will be included in results message for provider use to match to the appropriate test order.

The companion guide Texas Newborn Screening Implementation Guide for Newborn Screening Orders Messaging outlines the format and content that DSHS requires for generating the associated results message for the order test sample.

E. ACTORS, GOALS, AND MESSAGING TRANSACTIONS

The following diagram illustrates where the ORU^R01 messages fit into an order interaction between the DSHS Laboratory and the entity submitting the newborn screening specimen.

Figure 1: Use Case and Goal
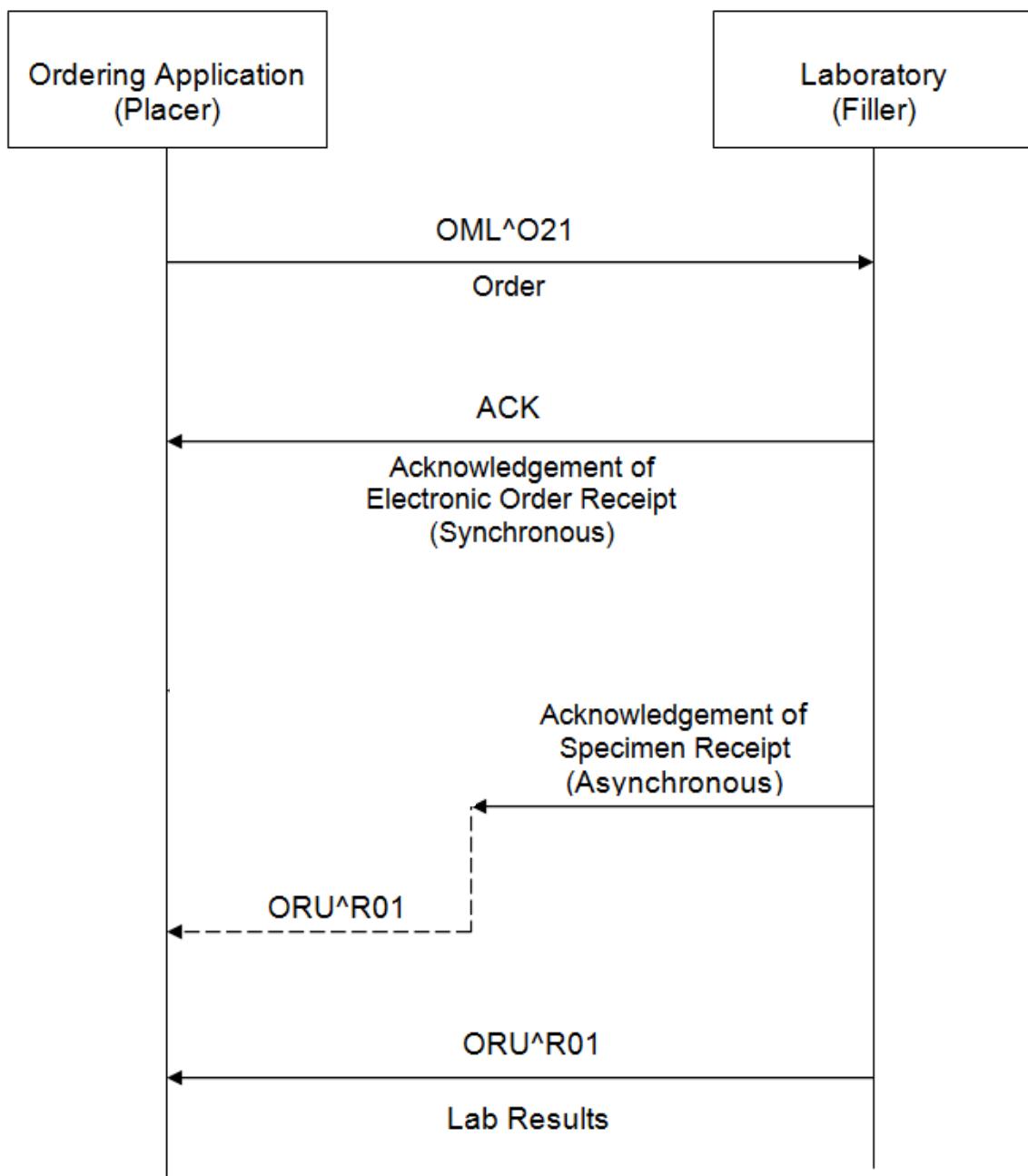
This guide outlines the messaging format that DSHS will use to send an electronic results message for a newborn screening specimen that has received an associated electronic order.

Table 1: Use Case and Goal – Results

Use Case	Message Type	Goal
Send Specimen Receipt Notification	ORU^R01	To send notification of receipt of the physical specimen in the DSHS Laboratory. Receipt of this message is optional for each partner.
Send Newborn Screening Specimen Results	ORU^R01	To send results for the newborn screening specimen testing panel.

The companion guide Texas Newborn Screening: Implementation Guide for Newborn Screening Orders Messaging outlines the appropriate messaging format to send an electronic order for a newborn screening specimen to the DSHS Laboratory.

Table 2: Use Case and Goal – Orders

Use Case	Message Type	Goal
Send Newborn Screening Specimen Order	OML^O21	To send newborn screening specimen and associated patient demographic information to the DSHS Laboratory.
Report Error	ACK^O21	To send error messages related to submitted messages. These errors could result in rejection of the message.

Figure 2: Task Flow Diagram for Newborn Screening Orders and Results
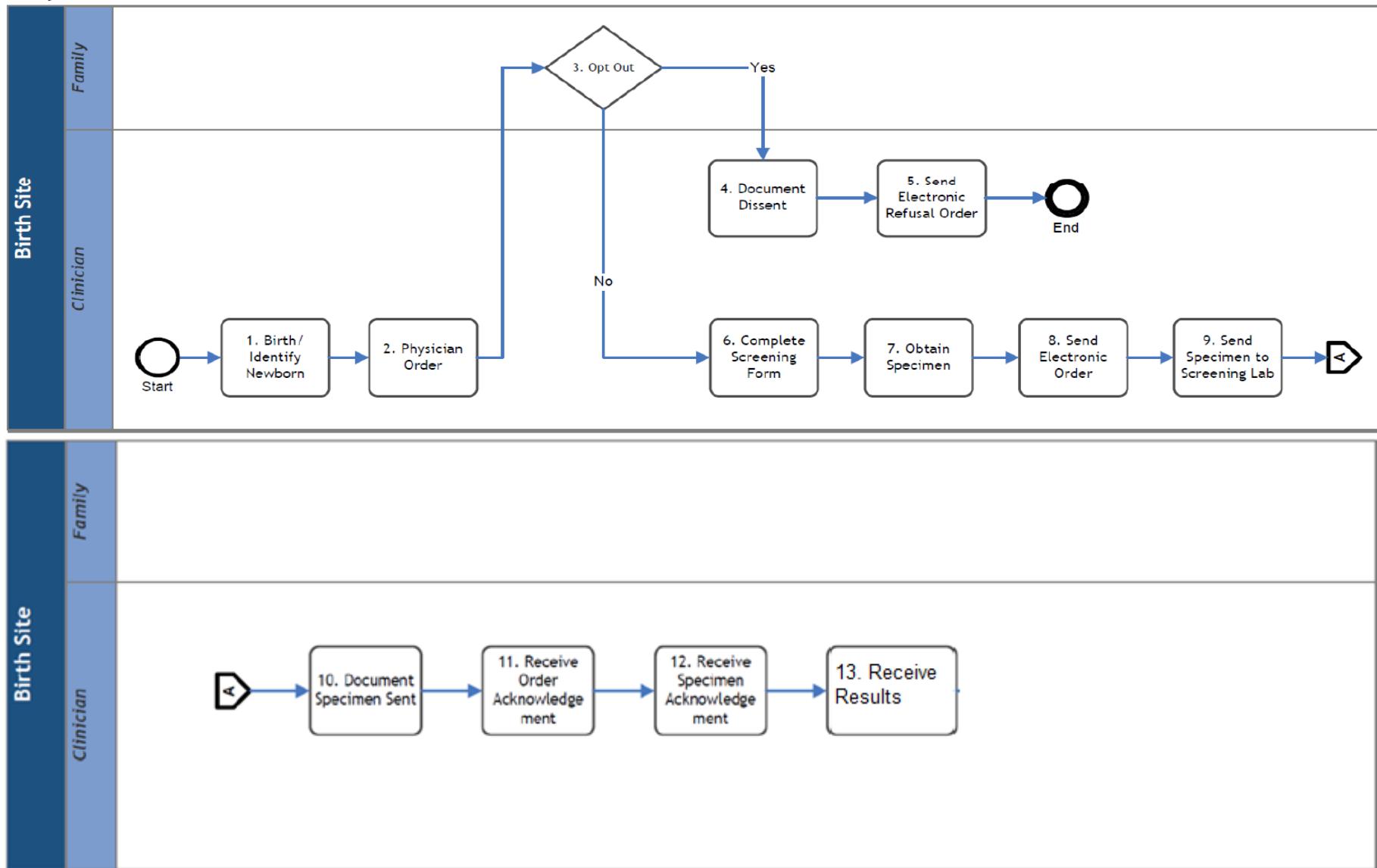
SECTION II: HL7 MESSAGING INFRASTRUCTURE

This section will contain a basic description of the terms and definitions, which are used in this document in order to understand the HL7 standard as it applies to newborn screening laboratory information systems.

A. HL7 DEFINITIONS

The terms below are organized to move from the message to subsequently more granular components. The details of how HL7 messages are structured for DSHS Laboratory purposes will be explained later in this document.

MESSAGE

A message is the entire unit of data transferred between systems in a single transmission. It is a series of segments in a sequence defined by the message specifications.

SEGMENT

A segment is a logical grouping of data fields. Segments within a defined message may be required or optional, may occur only once, or may be allowed to repeat. Each segment is named and is identified by a segment ID, a unique 3-character code.

FIELD

A field is a string of characters delimited by field separators (|). Each field has an element name and is identified by the segment it is in and its position within the segment; e.g., PID-5 is the fifth field of the PID segment.

COMPONENT

A component is an element within a composite field and is delimited within the field by component separators (^). Within a field having several components, not all components may be required. Leading empty components must be represented by a delimiter (^); trailing empty components may be eliminated from the field. A component is referenced by the 3-character segment code, followed by the field position, and the component position with that field; e.g., OBX-5.2 denotes the second component of the fifth field of the OBX segment.

NULL AND EMPTY FIELDS

The null value is transmitted as two double quote marks "". A null-valued element differs from an empty element. The null value means that the receiving system voids any previous value. An empty element remains unchanged. The empty element does not overwrite previously entered data.

DATA TYPE

A data type restricts the contents and format of the data field. Data types are given a 2- or 3-letter code that is specified by HL7. Some data types are coded or composite types with several components. The applicable HL7 data type is listed and defined in each field definition. Data type specifications can be found in Section V: Data Types of this implementation guide. The data types listed throughout this document are the data types required by LRI.

CODE SETS

The Texas DSHS Laboratory associates most data elements with a list of acceptable values. Where applicable, this guide lists code values expected by The Texas DSHS Laboratory. The Texas DSHS Laboratory may not use all the HL7 permitted values.

DELIMITERS

Delimiter characters are used to separate segments, fields and components in an HL7 message. The delimiter values are given in MSH-2 and used throughout the message.

| Field Separator (ASCII 124)
^   Component Separator (ASCII 094)
&   Sub-component Separator (ASCII 038)
~   Repetition Separator (ASCII 126)
\   Escape Character (ASCII 092)

MESSAGE SYNTAX

Several segments form each message. Each segment begins with a three-letter code that identifies the segment category. Segments must be a single line and end with a segment terminator. Square brackets, [ ], enclose required but may be empty segments. Braces, { }, enclose segments that may be repeated.

SEGMENT TERMINATOR

Only the ASCII 013 carriage return is allowed. Throughout this document, this character is represented as <CR>. This value cannot be changed by implementers.

B. RULES FOR SENDING SYSTEMS

The following rules are used by sending systems to construct HL7 messages for submission to The Texas DSHS Laboratory.

- Encode each segment in the order specified in the message format.

- Begin the segment with the 3-letter segment ID (for example "PID").

- Precede each field with the data field separator ("|").

- Use the HL7 recommended encoding characters ("^~\&").

- Encode the data fields in the order given in the table defining the segment's structure.

- Encode the data field according to its HL7 data type format. Less restrictive data types may be allowed as long as the required information is formatted correctly and in the required location within the data type.

- Do not include any characters for fields not present in the segment. Since later fields in the segment are encoded by ordinal position, fields that are not present do not reduce the number of field separators in the segment. For example, when the second and third fields are not present, the field separators maintain the ordinal position of the fourth field (as in MSG|field1|||field4).

- Represent data fields that are present but explicitly null by empty double quotes (""). The Texas DSHS Laboratory does not expect that any patient fields will be sent as null. All patient fields should be sent every time.

- Trailing separators may optionally be omitted. For example, |field1|field2 is equivalent to |field1|field2|||||, when field3 and all subsequent fields are not present.

- End each segment with the default HL7 segment terminator, carriage return character (ASCII 013).

C. FIELD SPECIFICATIONS & USAGE

SEQ

The ordinal position of the field in the segment. Since the Texas DSHS Laboratory does not use all possible fields in the HL7 standard, these are not always consecutive. When values are provided for fields NOT supported by the Texas DSHS Laboratory, those fields will be ignored and will NOT be retained by DSHS.

DT

HL7 data type of the field. Note that this guide provides the LRI conformant data type.

USAGE

A key attribute to HL7 fields, components, and sub-components is the Usage Code. In the table below are the acceptable Usage Codes used in this IG.

For all non-result related segments, this implementation guide will list:

- DSHS Laboratory Usage – Indicates the Usage requirements that DSHS will adhere to for all messages sent
- LRI Usage – The usage requirements as listed in the LRI guide. This usage is listed for partner informational purposes.

The DSHS laboratory is required to ensure partner systems can tie results messages back to the appropriate patient and order information. The specifics of how that is accomplished is at the partner's discretion.

For results related segments and fields, this guide provides clarification as to which fields DSHS is required to verify that recipient systems can consume and display.

Table 3: Usage Codes

Usage Code	Interpretation	Comment
R	Required	A conforming sending application shall populate all "R" elements with a non-empty value. The absence of a required element will result in an error.
RE	Required but may be empty	A conforming sending application should be capable of providing all "RE" elements. If the conforming sending application knows the required values for the element, then it must send that element. If the conforming sending application does not know the required values, then that element may be omitted.
C(*a/b*)	Conditional	This usage has an associated condition predicate that determines the operational requirements (usage code) of the element. **If the predicate is satisfied:** Follow the rules for *a* which SHALL be one of "R", "RE", "O" or "X". **If the predicate is NOT satisfied:** Follow the rules for *b* which shall be one of "R", "RE", "O" or "X". *a* and *b* can be the same
O	Optional	The Texas DSHS Laboratory allows exchange partners to send optional elements in order to meet LRI or partner internal requirements. This guide specifies fields that will be returned to the submitter upon receipt. Other fields may be sent but will not be consumed by DSHS or returned to the submitting facility.
X	Not Supported	The element is not supported. Sending applications should not send this element. A receiving application may raise an error if it receives an unsupported element.

CARDINALITY

Indicator of the minimum and maximum number of times the element may appear.

[0..0]	Element never present.
[0..1]	Element may be omitted or exist, at most, one occurrence.
[0..n]	Element may be omitted or repeat up to n times.
[0..*]	Element may be omitted or repeat an unlimited number of times.
[1..1]	Element must have exactly one occurrence.
[1..n]	Element must appear at least once and may repeat up to n times.
[1..*]	Element must appear at least once and may repeat an unlimited number of times.
[m..n]	Element must appear at least m times and may repeat up to n times.

SECTION III: RESULT MESSAGE (ORU^R01) SEGMENT DETAILS

This chapter will contain specifications for each segment used in the ORU^R01 results message. It will indicate which fields will be included in DSHS Laboratory results messages.

Table 4: ORU^R01 Segments

Segment	Definition	DSHS Usage	Cardin-ality	Note
MSH (Message Segment Header)	The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message.	R	[1..1]	This begins every message and includes information about the type of message, how to process it, and by whom it was created.
PID (Patient Identifier Segment)	The PID segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change. Used by all applications as the primary means of communicating patient identification information frequently.	R	[1..1]	Used to carry information about the patient/client.
NK1 (Next of Kin Segment)	The NK1 segment contains information about the patient's next-of-kin or other related parties. For newborn screening purposes, the NK1 is used to transmit information on the patient's mother.	R	[1..1]	Used to carry information about the mother of the newborn.
ORC (Common Order Segment)	The ORC segment is used to transmit fields that are common to all results (all types of services that are requested).	R	[1..1]	Used to transmit information about the newborn screening order. Although multiple result OBRs will be sent, all orders are processed simultaneously. So, only one ORC will be sent.
OBR (Observations Request Segment)	The observation request (OBR) segment identifies the type of testing performed on the specimen, and ties that information to the order.	R	[1..*]	Used to identify the order for which newborn screening testing panel results are being sent. The DSHS Laboratory also sends some specimen information in both the OBR and the SPM.

Segment	Definition	DSHS Usage	Cardin-ality	Note
NTE (Notes and Comments Segment)	The NTE segment is used for sending notes and comments.	R	[4..5]	Used to transmit information regarding the limits of newborn screening, associated test methodologies and lists of disorders screened. All NTEs will follow the first OBR for Newborn Screening Report summary panel.
OBX (Observation Result Segment)	The OBX segment has many uses. It carries observations about the object of its parent segment. In the ORU^R01, it is associated with the OBR and ORC pair. The basic format is a question and answer.	R	[1..*]	Used to transmit result interpretations and discussion, disorders suspected, and certain specimen and patient data used to complete the newborn screening testing.
SPM (Specimen Segment)	The SPM segment is used to describe the characteristics of a specimen. It differs from the intent of the OBR in that the OBR addresses order-specific information.	R	[1..1]	Used to carry specimen specific information. Some of this information will be duplicated in other segments. Although multiple result OBRs will be sent, all orders are processed using a single specimen. So, only one SPM will be sent.

A. MSH: MESSAGE SEGMENT HEADER

The MSH segment is included for each message sent. It contains information used to identify the intent, source and destination of the message, as well as certain specifics about the syntax of the message. MSH segments separate multiple messages.

Example MSH Segment:
MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.181960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20190724161505||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL

Table 5: Message Segment Header (MSH)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	**Field Separator**	**ST**	**R**	**R**	**[1..1]**	
2	**Encoding Characters**	**ST**	**R**	**R**	**[1..1]**	
3	**Sending Application**	**HD_01**	**R**	**RE**	**[1..1]**	
4	**Sending Facility**	**HD_01**	**R**	**R**	**[1..1]**	
5	**Receiving Application**	**HD_02**	**RE**	**RE**	**[0..1]**	
6	**Receiving Facility**	**HD_02**	**R**	**R**	**[1..1]**	
7	**Date/Time Of Message**	**DTM_10**	**R**	**R**	**[1..1]**	
8	Security		X			
9	**Message Type**	**MSG_01**	**R**	**R**	**[1..1]**	
10	**Message Control ID**	**ST**	**R**	**R**	**[1..1]**	
11	**Processing ID**	**PT_01**	**R**	**R**	**[1..1]**	
12	**Version ID**	**VID_01**	**R**	**R**	**[1..1]**	
13	Sequence Number		X			
14	Continuation Pointer		X			
15	**Accept Acknowledgment Type**	**ID**	**R**	**R**	**[1..1]**	**HL70155_USL**
16	**Application Acknowledgment Type**	**ID**	**R**	**R**	**[1..1]**	**HL70155_USL**
17	Country Code		X			
18	Character Set		X			
19	Principal Language Of Message		X			
20	Alternate Character Set Handling Scheme		X			
21	Message Profile Identifier		X			

MSH-1: FIELD SEPARATOR

This field contains the separator between the segment ID and the first real field, MSH-2-encoding characters. As such, it serves as the separator and defines the character to be used as a separator for the rest of the message. Required value is '|', (ASCII 124).

MSH-2: ENCODING CHARACTERS

This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator. Required values are ^~\& (ASCII 94, 126, 92 and 38 respectively).

MSH-3: SENDING APPLICATION

The sending application will be used to indicate the application name of the sending system. The Texas DSHS Laboratory will send the newborn screening laboratory application OID 'txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO'.

MSH-4: SENDING FACILITY

The Sending facility will be used to indicate the DSHS newborn screening laboratory as the sending facility. The Texas DSHS Laboratory will send the newborn screening laboratory OID 'txdshslab^2.16.840.1.114222.4.1.181960^ISO'.

MSH-5: RECEIVING APPLICATION

The receiving application will be used to indicate the application name of the receiving system. DSHS will return in this field the value received in MSH-3 of the corresponding order message.

MSH-6: RECEIVING FACILITY

The receiving facility will be used to indicate the name of the facility where the data is being sent. DSHS will return in this field the value received in MSH-4 of the corresponding order message.

MSH-7: DATE/TIME OF MESSAGE

This field contains the date/time that the sending system created the message.

MSH-9: MESSAGE TYPE

Three components of this field give the HL7 message type: Message Code, Trigger Event and Message Structure. The Texas DSHS Laboratory will send the value ORU^R01^ORU_R01.

MSH-10: MESSAGE CONTROL ID

This field contains a unique identifier assigned by the sending application that specifically identifies the message. The receiving system echoes this ID back to the sending system in the Message Acknowledgement Segment (MSA) of the acknowledgement (ACK) response message. The content and format of the data sent in this field is the responsibility of the sender. The receiver returns exactly what was sent in the response messages.

MSH-11: PROCESSING ID

This field is used to identify whether to process the message in the test or production environment. The Texas DSHS Laboratory uses the value 'P' for production processing or 'T' for test environment processing.

MSH-12: VERSION ID

This field contains the identifier of the version of the HL7 messaging standard used in constructing, interpreting, and validating the message. The version number that is read in the first MSH segment of the file will be the version assumed for the whole file. The Texas DSHS Laboratory will send the value 2.5.1.

MSH-15: ACCEPT ACKNOWLEDGEMENT TYPE

This field identifies the conditions under which accept acknowledgements are requested to be returned in response to this message. Required for enhanced acknowledgement mode. DSHS will send the value AL in the field.

MSH-16: APPLICATION ACKNOWLEDGEMENT TYPE

This field contains the conditions under which application acknowledgements are requested to be returned in response to this message. DSHS will send the value AL in the field.

B. PID: PATIENT IDENTIFIER SEGMENT

The Patient Identifier segment is used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information.

Example Patient Identifier (PID) Segment:
PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2
028-9^Asian^HL70005~2106-3^White^HL70005||||||||ABCD1234^^^OrderingFacilityName
&2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO
^MR|N|Birth Hospital Name|Y|1

Table 6: Patient Identifier Segment (PID)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Set ID – PID	SI	R	R	[1..1]	
2	Patient ID		X	X		
3	Patient Identifier List	CX	R	R	[1..1]	
4	Alternate Patient ID – PID		X	X		
5	Patient Name	XPN	R	R	[1..1]	
6	Mother's Maiden Name	XPN	RE	O	[0..1]	
7	Date/Time of Birth	DTM_06	R	RE	[1..1]	
8	Administrative Sex	IS	R	R	[1..1]	HL70001
9	Patient Alias		X	X		
10	Race	CWE	RE	RE	[0..*]	HL70005
11	Patient Address		X	O		
12	County Code		X	X		
13	Phone Number – Home		X	O		
14	Phone Number – Business		X	O		
15	Primary Language		X	O		
16	Marital Status		X	O		
17	Religion		X	O		
18	Patient Account Number	CX	RE	RE	[0..1]	
19	SSN Number – Patient		X	X		
20	Driver's License Number – Patient		X	X		
21	Mother's Identifier	CX	RE	O	[0..1]	
22	Ethnic Group	CWE	RE	O	[0..1]	
23	Birth Place	ST	RE	O	[0..1]	
24	Multiple Birth Indicator	ID	RE	RE	[0..1]	HL70136
25	Birth Order	NM	RE	RE	[0..1]	
26	Citizenship		X	O		
27	Veterans Military Status		X	X		
28	Nationality		X	O		
29	Patient Death Date and Time		X	O		

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
30	Patient Death Indicator		X	O		
31	Identity Unknown Indicator		X	O		
32	Identity Reliability Code		X	O		
33	Last Update Date/Time		X	O		
34	Last Update Facility		X	O		
35	Species Code		X	X		
36	Breed Code		X	X		
37	Strain		X	X		
38	Production Class Code		X	X		
39	Tribal Citizenship		X	O		

PID-1: SET ID

This field contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc. PID-1 shall have the literal value of '1'.

PID-3: PATIENT IDENTIFIER LIST

This field contains the Medical Record Number used by the healthcare facility to uniquely identify a patient.

PID-5: PATIENT NAME

This field contains the name of the patient. PID-5.1 Family Name is required. However, as newborns often do not have a first name at the time of order transmission, PID-5.2 Given Name may be empty. DSHS will send components PID 5.1 and PID 5.2 only.

PID-6: MOTHER'S MAIDEN NAME

This field contains the family name under which the mother was born (i.e., before marriage). It is used to assist in distinguishing between patients with the same last name. In this context, where the mother's maiden name is used for patient identification, The Texas DSHS Laboratory uses only last name. The mother's full legal name appears in the NK1 segment.

PID-7: DATE/TIME OF BIRTH

This field contains the patient's date of birth in YYYYMMDDHHMM format. This date is required as testing protocols and cut-off values are specifically designed for the exact age of the infant at the time of specimen collection. When known, the exact time of birth will be included.

PID-8: ADMINISTRATIVE SEX

This field contains the patient's sex.

PID-10: RACE

This field refers to the patient's race. The DSHS Laboratory will return this information as received in the order message.

PID-18: PATIENT ACCOUNT NUMBER

This optional field contains the patient account number assigned by the healthcare facility. The DSHS Laboratory will return this value in the result message if received in the order.

PID-21: MOTHER'S IDENTIFIER

This optional field contains an identifier for the mother assigned by the healthcare facility used to link the mother's account to the baby's. The DSHS Laboratory will return this value in the result message if received in the order.

PID-22: ETHNIC GROUP

This field contains the patient's ethnicity. The DSHS Laboratory will return this value in the result message if received in the order.

PID-23: BIRTH PLACE

This optional field contains the location of the patient's birth. The DSHS Laboratory will return this value in the result message if received in the order.

PID-24: MULTIPLE BIRTH INDICATOR

This field indicates whether the patient was part of a multiple birth. If patient was part of a multiple birth, this field will contain 'Y' (Yes). If patient was a single birth, this field will contain 'N' (No). A blank value indicates birth status is undetermined.

PID-25: BIRTH ORDER

When a patient was part of a multiple birth, a value indicating the patient's birth order is entered in this field. This field will only be used if PID-24 Multiple Birth Indicator is valued as 'Y' (Yes). The expected value would be 1, 2, 3, etc. depending on the total number of children born as multiples.

C. NK1: NEXT OF KIN SEGMENT

The NK1 segment contains information about the patient's next-of-kin or other related parties. For newborn screening results messages, only one NK1 that transmits information about the mother of the newborn will be included.

Example NK1 Segment:
NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE
DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of
Kin^HL70131||||||||||19901115||||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.4
46&ISO^MA

Table 7: Next of Kin Segment (NK1)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Set ID - NK1	SI	R	R	[1..1]	
2	Name	XPN	R	C(R/X)	[1..1]	
3	Relationship	CWE	R	R	[1..1]	HL70063
4	Address	XAD	RE	RE	[0..1]	
5	Phone Number	XTN	RE	RE	[0..1]	
6	Business Phone Number		X	O		
7	Contact Role	CWE	RE	RE	[0..1]	HL70131
8	Start Date		X	O		
9	End Date		X	O		
10	Next of Kin / Associated Parties Job Title		X	O		
11	Next of Kin / Associated Parties Job Code/Class		X	O		
12	Next of Kin / Associated Parties Employee Number		X	O		
13	Organization Name - NK1		X	C(R/X)		
14	Marital Status		X	O		
15	Administrative Sex		X	O		
16	Date/Time of Birth	DTM_05	RE	RE	[0..1]	
17	Living Dependency		X	O		
18	Ambulatory Status		X	O		
19	Citizenship		X	O		
20	Primary Language		X	O		
21	Living Arrangement		X	O		
22	Publicity Code		X	O		
23	Protection Indicator		X	O		
24	Student Indicator		X	O		
25	Religion		X	O		
26	Mother's Maiden Name		X	O		
27	Nationality		X	O		

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
28	Ethnic Group		X	O		
29	Contact Reason		X	O		
30	Contact Person's Name		X	C (RE/X)		
31	Contact Person's Telephone Number		X	O		
32	Contact Person's Address		X	C (RE/X)		
33	**Next of Kin/Associated Party's Identifiers**	**CX**	**RE**	**O**	**[0..1]**	
34	Job Status		X	O		
35	Race		X	O		
36	Handicap		X	O		
37	Contact Person Social Security Number		X	O		
38	Next of Kin Birth Place		X	O		
39	VIP Indicator		X	O		

NK1-1: SET ID

This field contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.

NK1-2: NAME

This field contains the name of the mother. The mother last name must be sent in NK1-2.1 (Family Name). The mother first name must be sent if known in NK1-2.2 (Given Name).

NK1-3: RELATIONSHIP

This field contains a code to indicate the relationship to the baby of the individual that was imported into the Texas DSHS Laboratory information system as the primary contact for the baby.

NK1-4: ADDRESS

This field contains the address of the mother.

NK1-5: PHONE NUMBER

This field contains the telephone number of the next of kin/associated party.

NK1-7: CONTACT ROLE

This field contains the contact role. The DSHS Laboratory will return this value in the result message if received in the order.

NK1-16: DATE / TIME OF BIRTH

This field contains the date of birth of the mother in YYYYMMDD format. The DSHS Laboratory requests this data element for patient matching and specimen linking purposes. This field may be empty if not known.

NK1-33: NEXT OF KIN/ASSOCIATED PARTY'S IDENTIFIERS

This field is used to transmit the mother's Medicaid number. The identifier type code for Medicaid ID will be included in NK1-33.5.

D. ORC: COMMON ORDER SEGMENT

The Common Order segment (ORC) is used to transmit fields that are common to all results (all types of services that are requested). Although multiple order observation groups are generated when a newborn screening panel order is received, all orders are completed simultaneously. As such only one ORC will be sent per result message.

Example ORC Segment:
ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|CM||||
20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^
^NPI|||20190720090030||||||ORDERING FACILITY
NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main
Street^^Austin^TX^78758|^^PH^^^512^5551212

Table 8: Order Request Segment (ORC)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Order Control	ID	R	R	[1..1]	
2	Placer Order Number	EI	RE	RE	[0..1]	
3	Filler Order Number	EI	R	R	[1..1]	
4	Placer Group Number	EI	RE	RE	[0..1]	
5	Order Status	ID	R	O	[1..1]	HL70038
6	Response Flag		X	O		
7	Quantity/Timing		X	X		
8	Parent		X	O		
9	Date/Time of Transaction	DTM_10	R	O	[1..1]	
10	Entered By		X	O		
11	Verified By		X	O		
12	Ordering Provider	XCN	RE	R	[0..1]	
13	Enterer's Location		X	O		
14	Call Back Phone Number		X	O		
15	Order Effective Date/Time	DTM_05	RE	O	[0..1]	
16	Order Control Code Reason		X	O		
17	Entering Organization		X	O		
18	Entering Device		X	O		
19	Action By		X	O		
20	Advanced Beneficiary Notice Code		X	O		
21	Ordering Facility Name	XON	R	O	[1..1]	
22	Ordering Facility Address	XAD	R	O	[1..1]	
23	Ordering Facility Phone Number	XTN	RE	O	[0..1]	
24	Ordering Provider Address		X	O		
25	Order Status Modifier		X	O		

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
26	Advanced Beneficiary Notice Override Reason		X	O		
27	Filler's Expected Availability Date/Time		O	O		
28	Confidentiality Code		O	O		
29	Order Type		O	O		
30	Enterer Authorization Mode		O	O		
31	Parent Universal Service Identifier		O	O		

ORC-1: ORDER CONTROL

Determines the function of the order segment. This field will be valued 'RE'.

ORC-2: PLACER ORDER NUMBER

The placer order number is used to uniquely identify this order among all orders sent by the submitter.

ORC-2 is a system identifier assigned by the placer software application. The Placer Order Number and the Filler Order Number are essentially foreign keys exchanged between applications for uniquely identifying orders and the associated results across applications.

The DSHS Laboratory will return this value in the result message as received in the associated order.

ORC-3: FILLER ORDER NUMBER

The filler order number contains a unique identifier associated with the filler system. DSHS will send the laboratory accession number for the specimen processed.

ORC-4: PLACER GROUP NUMBER

The DSHS Laboratory will return this value in the result message if received in the order.

ORC-5: ORDER STATUS

The DSHS Laboratory will return a value of "IP" to indicate that the physical specimen has been received. A value of "CM" will be sent for messages that include results.

ORC-9: DATE/TIME OF TRANSACTION

This field contains the date and time of the event that initiated the current transaction as reflected in ORC-1 Order Control Code. This field is not equivalent to MSH-7 Date and Time of Message which reflects the date/time of the physical message. For Specimen Receipt messages, this field will reflect the date / time of order import into the Texas Laboratory Information System after receipt of the physical specimen. For results messages, this field will contain the date / time of result reporting.

ORC-12: ORDERING PROVIDER

This field shall contain the provider ordering the newborn screening. The DSHS Laboratory will return this value in the result message as received in the associated order.

ORC-15: ORDER EFFECTIVE DATE/TIME

The DSHS Laboratory will return this value in the result message if received in the order.

ORC-21: ORDERING FACILITY NAME

This field contains the name of the facility submitting the specimen. ORC 21.10 will contain the Texas DSHS Laboratory 8 digit NBS submitter ID number. The entity must be registered in the Texas DSHS Laboratory under this identifier.

ORC-22: ORDERING FACILITY ADDRESS

This field contains the address of the facility submitting the specimen. The DSHS Laboratory will send the address as listed in the DSHS Laboratory database for the NBS submitter ID number.

ORC-23: ORDERING FACILITY PHONE NUMBER

This field contains the phone number of the facility submitting the specimen. The DSHS Laboratory will send the phone number as listed in the DSHS Laboratory database for the NBS submitter ID number.

E. OBR: OBSERVATION REQUEST SEGMENT

A received order for 54089-8 Newborn screening panel American Health Information Community (AHIC) will generate orders for several subpanels. Each result message will contain an OBR for each subpanel along with the associated observation OBXs. No OBR will be sent for LOINC code 54089-8. 54089-8 will be identified in OBR-50 (Parent Universal Identifier) for all related Order Observation groups. The specimen received message will only contain OBRs for 57128-1^Newborn Screening report summary panel and 57717-1^Newborn screen card data panel. Partners who would like to file all results directly back to the original 54089-8 may opt to use the receiving integration engine to replace all generated OBR-4s with the original 54089-8 code.

Example OBR Segment:
OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening Report Summary
Panel^LN|||201907200835||||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

Table 9: Order Request Segment (OBR)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Set ID - OBR	SI	R	R	[1..1]	
2	Placer Order Number	EI	RE	RE	[0..1]	
3	Filler Order Number	EI	R	R	[1..1]	
4	Universal Service Identifier	CWE	R	R	[1..1]	LOINC
5	Priority – OBR		X	X		
6	Requested Date/Time		X	X		
7	Observation Date/Time	DTM_08	R	R	[1..1]	
8	Observation End Date/Time		X	O		
9	Collection Volume		X	O		
10	Collector Identifier	XCN	RE	O	[0..1]	
11	Specimen Action Code	ID	RE	RE	[0..1]	HL70065_USL
12	Danger Code		X	O		
13	Relevant Clinical Information	CWE	RE	RE	[0..1]	HL70916_USL
14	Specimen Received Date/Time	DTM_06	R	X	[1..1]	
15	Specimen Source		X	X		
16	Ordering Provider	XCN	RE	R	[0..1]	
17	Order Call-back Phone Number		X	O		

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
18	**Placer Field 1**	ST	RE	O	[0..1]	
19	**Placer Field 2**	ST	RE	O	[0..1]	
20	Filler Field 1		X	O		
21	Filler Field 2		X	O		
22	**Results Rpt/Status Chng - Date/Time**	DTM_10	R	R	[1..1]	
23	Charge to Practice		X	O		
24	**Diagnostic Service Sect ID**	ID	R	O	[1..1]	
25	**Result Status**	ID	R	R	[1..1]	HL70123
26	Parent Result		X	C(R/RE)		
27	Quantity/Timing		X	X		
28	Result Copies To		X	C(R/X)		
29	**Parent**	EIP_02	R	C(R/RE)	[0..1]	
30	Transportation Mode		X	O		
31	Reason for Study		X	O		
32	Principal Result Interpreter		X	O		
33	Assistant Result Interpreter		X	O		
34	Technician		X	O		
35	Transcriptionist		X	O		
36	Scheduled Date/Time		X	O		
37	Number of Sample Containers		X	O		
38	Transport Logistics of Collected Sample		X	O		
39	**Collector's Comment**	CWE	RE	O	[0..1]	
40	Transport Arrangement Responsibility		X	O		
41	Transport Arranged		X	O		
42	Escort Required		X	O		
43	Planned Patient Transport Comment		X	O		
44	Procedure Code		X	O		
45	Procedure Code Modifier		X	O		
46	Placer Supplemental Service Information		X	O		
47	**Filler Supplemental Service Information**	CWE	R	RE	[1..1]	HL70411_USL
48	Medically Necessary Duplicate Procedure Reason		X	O		
49	**Result Handling**	CWE	RE	RE	[0..3]	HL70507_USL
50	**Parent Universal Service Identifier**	CWE	R	O	[1..1]	LOINC

OBR-1: SET ID - OBR

For the first order transmitted, the sequence number shall be 1; for the second order, it shall be 2; and so on.

OBR-2: PLACER ORDER NUMBER

OBR-2 is a system identifier assigned by the placer software application. The Placer Order Number and the Filler Order Number are essentially foreign keys exchanged between applications for uniquely identifying results and the associated results across applications.

The DSHS Laboratory will return this value in the result message as received in the order message.

OBR-3: FILLER ORDER NUMBER

The filler order number will contain the unique identifier assigned by DSHS, the newborn screening lab accession number.

OBR-4: UNIVERSAL SERVICE IDENTIFIER

This field contains the identifier code for the requested observation/test/battery. The DSHS Laboratory will send OBRs for the following subpanels in final result message. Preliminary specimen arrival messages will only contain OBRs for 57128-1 Newborn Screening Report summary panel and 57717-1 Newborn screen card data panel.

Table 10: Result Message Panels

LOINC Code	LOINC Description
57128-1	Newborn Screening Report summary panel
57717-1	Newborn screen card data panel
53261-4	Amino acid newborn screen panel
57084-6	Fatty acid oxidation newborn screen panel
57085-3	Organic acid newborn screen panel
54078-1	Cystic fibrosis newborn screening panel
57086-1	Congenital adrenal hyperplasia newborn screening panel
54090-6	Thyroid newborn screening panel
54079-9	Galactosemia newborn screening panel
54081-5	Hemoglobinopathies newborn screening panel
57087-9	Biotinidase newborn screening panel
62333-0	Severe combined immunodeficiency (SCID) newborn screening panel
85267-3	X-linked Adrenoleukodystrophy (X- ALD) newborn screening panel

OBR-7: OBSERVATION DATE/TIME

This field shall represent the date and time the specimen was collected.

OBR-10: COLLECTOR IDENTIFIER

This field will identify the person, department, or facility that collected the specimen. If received in the order message, the DSHS Laboratory will return this value in the result message.

OBR-11: SPECIMEN ACTION CODE

This field will hold the value "G" to indicate that the OBRs were generated by an order for the NBS panel LOINC code 54089-8.

OBR-13: RELEVANT CLINICAL INFORMATION

This field contains additional clinical information about the patient or specimen. If received in the order message, the DSHS Laboratory will return this value in the result message.

OBR-14: SPECIMEN RECEIVED DATE/TIME

This field will be valued with the date and time that the specimen was received by the DSHS Laboratory. Currently, this field will only contain information to the day (Ex. 201803190000). However, DSHS plans to expand to include tracking and reporting to the minute.

OBR-16: ORDERING PROVIDER

This field shall contain the provider ordering the newborn screening. The DSHS Laboratory will return this information in the result message as received in the order message.

OBR-18: PLACER FIELD 1

The DSHS Laboratory will return this information in the result message as received in the order message.

OBR-19: PLACER FIELD 2

The DSHS Laboratory will return this information in the result message as received in the order message.

OBR-22: RESULTS RPT/STATUS CHNG – DATE/TIME

For specimen receipt messages, this field shall contain the date that order message information was merged into the DSHS laboratory database.
For final result messages, this field shall contain the reported date for results. In the event that results are revised, this field shall contain the revised date. All subpanels are reported simultaneously.

OBR-24: DIAGNOSTIC SERVICE SECT ID

This field is the section of the diagnostic service where the observation was performed. The DSHS laboratory will send the literal value 'LAB'.

OBR-25: RESULT STATUS

This field shall contain the status of results for this order. For Final Results, this field shall be valued "F". For revised/corrected results, this field shall be valued "C". For messages indicating specimen receipt, this field will be valued "I" (No results available; specimen received, procedure incomplete).

OBR-29: PARENT

In component 1, this field uniquely identifies the order number of the parent order. Since the subpanel is generated from the newborn screening panel order, this value will be the same as OBR-2. Component 2 will indicate the filler order number of the parent. Since the subpanel is generated from the newborn screening panel order, this value will be the same as OBR-3.

OBR-39: COLLECTOR'S COMMENT

This field is for reporting additional comments related to the sample. If received in the order message, the DSHS Laboratory will return this value in the result message.

OBR-47: FILLER SUPPLEMENTAL SERVICE INFORMATION

This field will contain the literal value "NDBS".

OBR-49: RESULT HANDLING

This field transmits information regarding the handling of the result. If received in the order message, the DSHS Laboratory will return this value in the result message. The DSHS Laboratory Interface does not currently support the ability to send result copies to recipients other than the order sender. Interfacing partners may pre-adopt the capability to send this information in the event that the DSHS resulting capabilities is expanded in the future.

OBR-50: PARENT UNIVERSAL SERVICE IDENTIFIER

This field contains the universal service identifier of the parent order. For newborn screening samples, this field will contain the value "54089-8^Newborn screening panel American Health Information Community (AHIC)^LN".

F. NTE: NOTES AND COMMENTS SEGMENT

The notes and comments (NTE) segment will be used to transmit additional information regarding the scope of newborn screening testing, the methodology used for laboratory developed tests, a list of disorders screened, and website information for more information. These notes equate to the result report footers on the physical results report.

DSHS will send 4 statements that are static to each report. One additional statement outlining the testing methodology for Cystic Fibrosis DNA testing will be included only if this testing was completed for the specimen. See NTE-5 in the example below.

All notes will follow the OBR with OBR-4 valued 57128-1^Newborn Screening report summary panel^LN

Example result report footer:

-- The newborn screen identifies newborns at increased risk for specified disorders. The reference value for all screened disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The recommended collection time period and the testing methodologies have been designed to minimize the number of false negative and false positive results in newborns and young infants. When the newborn screen specimen is collected before 24 hours of age or on older children, the test may not identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated. Specimens that are unacceptable are reported as Unsatisfactory.

--The SCID / TREC (T-cell receptor excision circles) test is performed by quantitative real-time polymerase chain reaction analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy screening tests were developed /modified and performance characteristics determined by DSHS. These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The FDA has determined that such approval is not necessary if performance characteristics are verified at the testing laboratory.

--The Cystic Fibrosis molecular testing panel consists of 60 mutations and 4 variants in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene and is performed using the Luminex xTAG Cystic Fibrosis (CFTR) 60 kit v2 assay. Depending on the patient's ethnicity, the mutation detection rate is estimated to be 54.5-95.9% and the residual risk of carrying a CFTR mutation not included on the panel is approximately 0.2-0.5%. Test results should not be used to diagnose but should be interpreted in the context of clinical findings, family history, and other laboratory data.

* Disorders Screened: **AMINO ACID DISORDERS:** ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU, TYRI, TYRII, and TYRIII. **FATTY ACID DISORDERS:** CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD, MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. **ORGANIC ACID DISORDERS:** 2M3HBA, 2MBG, 3MCC, 3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. **GALACTOSEMIA. BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES:** Hb S/S, Hb S/C, Hb S-Beta Th, Var Hb. **CYSTIC FIBROSIS. SCID** and T-Cell related Lymphopenias. List of disorders screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf

For more information, please refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm   Page 1 of 1

Example NTE Segment:
NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen identifies newborns at increased risk for specified disorders. The reference value for all screened disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The recommended collection time period and the testing methodologies have been designed to minimize the number of false negative and false positive results in newborns and young infants. When the newborn screen specimen is collected before 24 hours of age or on older children, the test may not identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated. Specimens that are unacceptable are reported as Unsatisfactory|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105| The SCID / TREC (T-cell receptor excision circles) test is performed by quantitative real-time polymerase chain reaction analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy screening tests were developed /modified and performance characteristics determined by DSHS. These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The FDA has determined that such approval is not necessary if performance characteristics are verified at the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO ACID DISORDERS: ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU, TYRI, TYRII, and TYRIII. FATTY ACID DISORDERS: CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD,

MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. ORGANIC ACID DISORDERS: 2M3HBA, 2MBG, 3MCC, 3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. GALACTOSEMIA. BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S, Hb S/C, Hb S-Beta Th, Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. X-ALD. List of disorders screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information, please refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

NTE|5|L^Ancillary (filler) department is source of comment^HL70105|The Cystic Fibrosis molecular testing panel consists of 60 mutations and 4 variants in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene and is performed using the Luminex xTAG Cystic Fibrosis (CFTR) 60 kit v2 assay. Depending on the patient's ethnicity, the mutation detection rate is estimated to be 54.5-95.9% and the residual risk of carrying a CFTR mutation not included on the panel is approximately 0.2-0.5%. Test results should not be used to diagnose but should be interpreted in the context of clinical findings, family history, and other laboratory data.|RE^Remark^HL70364

Table 11: Notes and Comments Segment (NTE)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Set ID – NTE	SI	R	O	[1..1]	
2	Source of comment	CWE	R	O	[1..1]	HL70105
3	Comment	FT	R	R	[1..1]	
4	Comment Type	CWE	RE	O	[0..1]	HL70364_USL

NTE-1: SET ID – NTE

This field contains the sequence number. The first instance shall be set to '1' and each subsequent instance shall be the next number in sequence.

NTE-2: SOURCE OF COMMENT

This field is used to identify the source of the comment. DSHS will send "L" to indicate the filler as the source off each comment.

NTE-3: COMMENT

This field contains the comment contained in the segment.

NTE-4: COMMENT TYPE

This field contains a value to identify the type of comment text being sent in the specific comment record.

G. OBX: OBSERVATION RESULT SEGMENT

The observation/result (OBX) segment contains information regarding a single observation result. This includes identification of the specific type of observation, the result for the observation, and when the observation was made. The basic format is a question (OBX-3) and an answer (OBX-5). OBX-5.9 will contain the original text.

Example OBX Segment:
OBX|1|CWE|46758-9^CAH DBS-Imp^LN|1|LA18593-6^Out of range^LN^^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

Table 12: Observation Result Segment (OBX)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Set ID – OBX	SI	R	R	[1..1]	
2	Value Type	ID	C(R/X)	C(R/X)	[0..1]	HL70125
3	Observation Identifier	CWE	R	R	[1..1]	LOINC
4	Observation Sub-ID	OG_01	C(R/RE)	C(R/RE)	[0..1]	
5	Observation Value	Varies	RE	RE	[0..1]	
6	Units	CWE	RE	RE	[0..1]	
7	Reference Range		X	RE		
8	Abnormal Flags	IS	RE	RE	[0..1]	HL70078
9	Probability		X	O		
10	Nature of Abnormal Test		X	O		
11	Observation Result Status	ID	R	R	[1..1]	HL70085
12	Effective Date of Reference Range		X	O		
13	User-Defined Access Checks		X	O		
14	Date/Time of the Observation	DTM_08	RE	RE	[0..1]	
15	Producer's Reference		X	O		
16	Responsible Observer		X	O		
17	Observation Method		X	O		
18	Equipment Instance Identifier		X	O		
19	Date/Time of the Analysis	DTM_08	RE	RE	[0..1]	
20	Reserved for harmonization with Version 2.6.		X	X		
21	Reserved for harmonization with Version 2.6.		X	X		
22	Reserved for harmonization with Version 2.6.		X	X		

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
23	Performing Organization Name	XON	R	R	[1..1]	
24	Performing Organization Address	XAD	R	R	[1..1]	
25	Performing Organization Medical Director		X	RE		
26	Patient Results Release Category		X	O		
27	Root Cause		X	O		
28	Local Process Control		X	O		
29	Observation Type	ID	R	R	[1..1]	HL70936
30	Observation Sub-Type		X	RE		

OBX-1: SET ID – OBX

This field contains the sequence number. The first instance shall be set to '1' and each subsequent instance shall be the next number in sequence.

OBX-2: VALUE TYPE

This field contains the data type of the observation value in OBX-5.

OBX-3: OBSERVATION IDENTIFIER

This field contains a unique identifier for the observation. Logical Identifier Name and LOINC codes are sent in components one and two. The Name of the Coding System in the third component must be 'LN' for LOINC.

OBX-4: OBSERVATION SUB-ID

This field is used to distinguish between multiple OBX segments with the same value in OBX-3 Observation Identifier under the same OBR segment. The sub-identifier will increment sequentially. For example, if multiple answers are sent for LOINC code 57131-5, Conditions with Positive Markers, the first OBX will contain a value of '1' in OBX-4, the second OBX will contain a value of '2,' and so on.

OBX-5: OBSERVATION VALUE (VARIES)

This field contains the observation value or answer for the observation identifier in OBX-3. The value type in OBX-2 determines the data type for the observation value. Whether the data type is numeric or short text, the answer shall be recorded in ASCII text.

Important Note: For OBX-5 answers with CWE data type, the original DSHS laboratory text will be included in OBX 5.9.

OBX-6: UNITS

This shall be the units for the value in OBX-5. The value shall be from the ISO+ list of units. If the value is numeric and indicates some kind of quantity the units should be indicated here.

OBX-8: ABNORMAL FLAGS

This field shall contain an interpretation code for each result. Possible values are listed below. Note that the custom value of UNSAT is included at the request of trading partners. This value allows end user systems to flag unsatisfactory results.
> A – Abnormal
> N – Normal
> UNSAT – Unsatisfactory

OBX-11: OBSERVATION RESULT STATUS

This field contains the observation result status. Possible values are:
> P – Preliminary results (used in specimen receipt messages)
> F - Final results
> C - Corrected (revised) results

OBX-14: DATE/TIME OF THE OBSERVATION

This field will contain the date and time of specimen collection.

OBX-19: DATE/TIME OF THE ANALYSIS

This field will contain the date and time of result reporting. In the event that results are revised, this field shall contain the revised date. All subpanels are reported simultaneously.

OBX-23: PERFORMING ORGANIZATION NAME

This field will contain the DSHS Laboratory name, OID, and CLIA number. The field will be literally valued "Texas Department of State Health Services Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644".

OBX-24: PERFORMING ORGANIZATION ADDRESS

This field will contain the DSHS Laboratory address. The field will be literally valued "1100 W.49th St^^Austin^TX^78756^USA^SL^^453".

OBX-29: OBSERVATION TYPE

This field will be valued 'QST' for question, 'SCI' for supporting clinical information or 'RSLT' for results.

H. SPM: SPECIMEN INFORMATION SEGMENT

The Specimen Information segment (SPM) is used to describe the characteristics of a single sample. The SPM segment carries information regarding the type of specimen, where and how it was collected, who collected it, and some basic characteristics of the specimen. Although multiple orders are generated for a newborn screening panel order, the same specimen is used for all testing. As such, only one SPM segment will be sent per result message.

Example SPM Segment:
SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txds hslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840 .1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||||201907200835|201907210000||||||LA12432- 3^Acceptable^LN||||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN ~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456 ^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

Table 13: Specimen Information Segment (SPM)

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
1	Set ID – SPM	SI	R	R	[1..1]	
2	Specimen ID	EIP_03	R	R	[1..1]	
3	Specimen Parent IDs	EIP_02	R	RE	[1..1]	
4	Specimen Type	CWE	R	R	[1..1]	SNOMED_CT
5	Specimen Type Modifier		X	O		
6	Specimen Additives		X	O		
7	Specimen Collection Method	CWE	RE	O	[0..1]	
8	Specimen Source Site		X	O		
9	Specimen Source Site Modifier		X	O		
10	Specimen Collection Site		X	O		
11	Specimen Role		X	O		
12	Specimen Collection Amount		X	O		
13	Grouped Specimen Count		X	O		
14	Specimen Description		X	O		
15	Specimen Handling Code		X	O		
16	Specimen Risk Code		X	O		
17	Specimen Collection Date/Time	DTM_08	R	RE	[1..1]	
18	Specimen Received Date/Time	DTM_06	R	O	[1..1]	
19	Specimen Expiration Date/Time		X	O		
20	Specimen Availability		X	O		
21	Specimen Reject Reason	CWE	RE	RE	[0..3]	LOINC 57718-9

SEQ	Data Element	Data Type	DSHS Usage	LRI Usage	Cardinality	Value Set
22	Specimen Quality		X	O		
23	Specimen Appropriateness		X	O		
24	**Specimen Condition**	**CWE**	**RE**	**RE**	**[0..3]**	**LOINC 57718-9**
25	Specimen Current Quantity		X	O		
26	Number of Specimen Containers		X	O		
27	Container Type		X	O		
28	Container Condition		X	O		
29	Specimen Child Role		X	O		
30	**Accession ID**	**CX**	**R**	**O**	**[1..2]**	
31	**Other Specimen ID**	**CX**	**R**	**O**	**[1..1]**	

SPM-1: SET ID - SPM

The Texas Laboratory processes each newborn screening specimen as a single specimen. As such, SPM-1 will always be 1.

SPM-2: SPECIMEN ID

This field contains a unique identifier for the specimen as identified by the placer and filler systems. SPM 2.1 will contain the placer assigned specimen ID if sent in SPM 2.1 of the order message. SPM 2.2 will contain the DSHS accession number.

SPM-3: SPECIMEN PARENT IDS

This field will contain the unique identifier for the specimen as identified by the placer system. SPM 3.1 will contain the placer assigned specimen ID if sent in SPM 2.1 of the order message.

SPM-4: SPECIMEN TYPE

This field describes the precise nature of the entity that will be the source material for the observation. The DSHS Laboratory will send 440500007^Blood spot specimen^SCT in result messages as this is the only acceptable specimen type for newborn screening purposes.

SPM-7: SPECIMEN COLLECTION METHOD

This field describes the procedure or process by which the specimen was collected. The DSHS Laboratory will return this value in the result message if received in the order.

SPM-17: SPECIMEN COLLECTION DATE/TIME

This field will be valued the same as OBR-7. The value will represent the date and time of collection that the DSHS laboratory used to evaluate the specimen.

SPM-18: SPECIMEN RECEIVED DATE/TIME

This field will be valued with the date and time that the specimen was received by the DSHS Laboratory. Currently, this field will only contain information to the day (Ex. 201803190000). However, DSHS plans to expand to include tracking and reporting to the minute.

SPM-21: SPECIMEN REJECT REASON

If the DSHS Laboratory is unable to initiate testing of a sample due to unsatisfactory sample condition(s), the specimen will be reported as Unsatisfactory, and this field will contain up to three rejection reasons. Possible codes are listed below.

Table 14: LOINC Answers for Specimen Reject Reason

LOINC Code	LOINC Description
LA20626-0	Specimen quantity insufficient because blood did not completely fill specimen circles
LA20625-2	Specimen quantity insufficient due to incomplete saturation (blood did not soak through paper)
LA12682-3	Specimen appears scratched or abraded
LA12685-6	Specimen appears diluted, discolored or contaminated
LA12435-6	Specimen appears clotted or layered
LA20631-0	Demographic information is incomplete or invalid
LA20633-6	Serial number on filter paper does not match serial number on patient information form
LA12441-4	Sample too old
LA20639-3	Unable to analyze specimen due to laboratory accident
LA12687-2	No blood
LA20629-4	Unsuitable for other reasons
LA20634-4	Specimen submitted on expired filter paper
LA12686-4	Specimen exhibits serum rings
LA20623-7	Specimen damaged during transport
LA20632-8	Demographic information on filter paper does not match electronically submitted information
LA20624-5	Specimen received in sealed plastic container

Note that each unsatisfactory result displayed will include the standard LOINC code, LOINC description and the DSHS laboratory original text for the unsatisfactory code. Receiving systems must be able to demonstrate the ability to display the unsatisfactory result reporting statement either from the original text in SPM-21.9 or the original text displayed in OBX 5.9 of the OBX segment(s) for LOINC code 57718-9, Sample quality of dried blood spot^LN.

Example SPM Segment for global unsatisfactory specimen:
SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txds hslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840 .1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||||201907200835|201907210000|||LA20625-2^Specimen quantity insufficient due to incomplete saturation (blood did not soak through paper)^LN^^^^^^Resubmit within 7 days. Blood did not soak through paper due to incomplete saturation.~LA12435-6^Specimen appears clotted or layered^LN^^^^^^Resubmit within 7 days. Blood was caked, clotted, or layered onto the filter paper.|||LA20625-2^Specimen quantity insufficient due to incomplete saturation (blood did not soak through paper)^LN^^^^^^Resubmit within 7 days. Blood did not soak through paper due to incomplete saturation.~LA12435-6^Specimen appears clotted or layered^LN^^^^^^Resubmit within 7 days. Blood was caked, clotted, or layered onto the filter paper.||||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~00000201 9201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshsla b&2.16.840.1.114222.4.1.181960&ISO^SID

Example OBX segments for global unsatisfactory specimen:
OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2. 16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2. 16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113 883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I SO||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

...[NTE Segments will follow here]...

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN|1|LA20625-2^Specimen quantity insufficient due to incomplete saturation (blood did not soak through paper)^LN^^^^^^Resubmit within 7 days. Blood did not soak through paper due to incomplete saturation.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57718-9^Sample quality of Dried blood spot^LN|2|LA12435-6^Specimen appears clotted or layered^LN^^^^^^Resubmit within 7 days. Blood was caked, clotted, or layered onto the filter paper.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

SPM-24: SPECIMEN CONDITION

This field will contain coded information regarding the condition of the specimen upon receipt at the DSHS laboratory. Values in this field will be duplicated in OBX-5 of an OBX segment with OBX-3 valued with LOINC code 57718-9 Sample quality of Dried blood spot. Possible codes are listed below.

Table 15: LOINC Answers for Specimen Condition

LOINC Code	LOINC Description
LA12432-3	Acceptable
LA20626-0	Specimen quantity insufficient because blood did not completely fill specimen circles
LA20625-2	Specimen quantity insufficient due to incomplete saturation (blood did not soak through paper)
LA12682-3	Specimen appears scratched or abraded
LA12685-6	Specimen appears diluted, discolored or contaminated
LA12435-6	Specimen appears clotted or layered
LA20631-0	Demographic information is incomplete or invalid
LA20633-6	Serial number on filter paper does not match serial number on patient information form
LA12441-4	Sample too old
LA20639-3	Unable to analyze specimen due to laboratory accident
LA12687-2	No blood
LA20629-4	Unsuitable for other reasons
LA20634-4	Specimen submitted on expired filter paper
LA12686-4	Specimen exhibits serum rings
LA20623-7	Specimen damaged during transport
LA20632-8	Demographic information on filter paper does not match electronically submitted information
LA20624-5	Specimen received in sealed plastic container
LA20630-2	Testing of this specimen indicates more than one source of blood is present on the filter paper card
LA20639-3	Unable to analyze specimen due to laboratory accident

SPM-30: ACCESSION ID

This field will contain the DSHS Accession number for the sample. The DSHS Laboratory will also return the submitter accession ID in this field if received in the order.

SPM-31: ALTERNATE SPECIMEN ID

This field will contain the form serial number of the specimen collection kit. This number will also be transmitted in an OBX segment with LOINC code 57723-9, Unique bar code number of Current sample.

SECTION IV: OBSERVATION REQUESTS AND RESULTS

An observation request with LOINC code 54089-8 Newborn screening panel American Health Information Community (AHIC) in an order message will generate requests for multiple subpanels for newborn screening. In result messages, LOINC code 54089-8 will NOT be sent in OBR-4 (Universal Service Identifier), but it will be identified in OBR-50 (Parent Universal Identifier) for all related Order Observation groups.

The DSHS Laboratory will send Order / Observation groups for the following subpanels. Each subpanel will include OBX Observation Results associated with that subpanel. Since all orders use the same specimen for the newborn screening specimen, only one SPM segment will be sent.

Messages indicating specimen receipt will only include Order / Observation Groups for the Newborn Screening report summary panel (57128-1) and the Newborn screen card data panel (57717-1).

Table 16: Result Message Panels

LOINC Code	LOINC Description
57128-1	Newborn Screening Report summary panel
57717-1	Newborn screen card data panel
53261-4	Amino acid newborn screen panel
57084-6	Fatty acid oxidation newborn screen panel
57085-3	Organic acid newborn screen panel
54078-1	Cystic fibrosis newborn screening panel
57086-1	Congenital adrenal hyperplasia newborn screening panel
54090-6	Thyroid newborn screening panel
54079-9	Galactosemia newborn screening panel
54081-5	Hemoglobinopathies newborn screening panel
57087-9	Biotinidase newborn screening panel
62333-0	Severe combined immunodeficiency (SCID) newborn screening panel
85267-3	X-linked Adrenoleukodystrophy (X- ALD) newborn screening panel
92005-8	Spinal muscular atrophy (SMA) newborn screening panel
62300-9	Lysosomal storage disorders newborn screening panel

A. NEWBORN SCREENING REPORT SUMMARY PANEL (57128-1)

This Order / Observation group includes OBX segments that carry overall specimen information and report summaries. The Newborn Screening Report Summary Panel group will include OBX segments transmitting answers for each of the below LOINC codes. The Receiver Usage listed for each LOINC indicates whether the associated answer is required to be consumed by the receiving partner. The DSHS laboratory must verify the partner facility ability to display required OBX answers in order to comply with regulatory result reporting requirements.
All overall specimen notes will be included in this group.

Table 17, Observation Results for Newborn Screening Report Summary Panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
57718-9	Sample quality of Dried blood spot	Coded	R	C R/O Condition Predicate: Receiving partner must demonstrate the ability to display unsatisfactory quality information. This information is transmitted in sample quality OBX segments and in the SPM segment	[0..3]
57130-7	Newborn screening report - overall interpretation	Coded	R	R	
57131-5	Newborn conditions with positive markers [Identifier] in DBS	Coded	R	O	
57720-5	Newborn conditions with equivocal markers [Identifier] in DBS	Coded	R	O	
57724-7	Newborn screening short narrative summary	Formatted Text	R	C R/O Condition Predicate: Receiving partners may choose to receive and display the short narrative summary in lieu of discreet results.	

Example Order / Observation Group:
[ORC will precede]…

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI

&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO ||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen identifies newborns at increased risk for specified disorders. The reference value for all screened disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The recommended collection time period and the testing methodologies have been designed to minimize the number of false negative and false positive results in newborns and young infants. When the newborn screen specimen is collected before 24 hours of age or on older children: the test may not identify some of these conditions. If there is a clinical concern: diagnostic testing should be initiated. Specimens that are unacceptable are reported as Unsatisfactory|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105| The SCID / TREC (T-cell receptor excision circles) test is performed by quantitative real-time polymerase chain reaction analysis to detect the number of TRECs. SCID: Biotinidase deficiency: and Hemoglobinopathy screening tests were developed /modified and performance characteristics determined by DSHS. These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The FDA has determined that such approval is not necessary if performance characteristics are verified at the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO ACID DISORDERS: ARG. ASA. CIT. CIT II. BIOPT(BS). BIOPT(REG). HCY. H-PHE. MET. MSUD. PKU. TYRI. TYRII. and TYRIII. FATTY ACID DISORDERS: CACT. CPT IA. CPT II. CUD. DE RED. GA2. LCHAD. MCAD. MCAT. M/SCHAD. SCAD. TFP. VLCAD. ORGANIC ACID DISORDERS: 2M3HBA. 2MBG. 3MCC. 3MGA. BKT. GA1. HMG. IBG. IVA. MAL. MMA (MUT. Cbl A. B. C. D). MCD. PROP. GALACTOSEMIA. BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S. Hb S/C. Hb S-Beta Th. Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. X-ALD. List of disorders screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information: please refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

NTE|5|L^Ancillary (filler) department is source of comment^HL70105|The Cystic Fibrosis molecular testing panel consists of 60 mutations and 4 variants in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene and is performed using the Luminex xTAG Cystic Fibrosis (CFTR) 60 kit v2 assay. Depending on the patient's ethnicity, the mutation detection rate is estimated to be 54.5-95.9% and the residual risk of carrying a CFTR mutation not included on the panel is approximately 0.2-0.5%. Test results should not be used to diagnose but should be interpreted in the context of clinical findings, family history, and other laboratory data.|RE^Remark^HL70364

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN||LA12432-3^Acceptable^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57130-7^Newborn screening report - overall interpretation^LN|1|LA18944-1^Screen is

out of range for at least one condition
^LN^^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|1|LA12533-8^Congenital adrenal hyperplasia^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|4|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|1|LA22202-8^Cystic Fibrosis^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|5|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|2|TXNBS-13^Amino Acid Disorders^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|6|FT|57724-7^Newborn screening short narrative summary^LN||SUMMARY: Abnormal\.br\Sample Quality: Acceptable\.br\Amino Acid Disorders: TPN: Possible TPN. Repeat the newborn screen when TPN is discontinued.\.br\Fatty Acid Disorders: Normal\.br\Organic Acid Disorders: Normal\.br\Galactosemia: Normal \.br\Biotinidase Deficiency: Normal\.br\Hypothyroidism: Normal\.br\CAH: Abnormal: Probable CAH. 17-Hydroxyprogesterone (17-OHP) Elevated and reflex panel Abnormal. Recommend serum 17-OHP within 24 hours. Follow additional recommendations received from Clinical Care Coordination.\.br\Hemoglobinopathies: Normal\.br\Cystic Fibrosis: Inconclusive: No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel. \.br\SCID: Normal\.br\XALD: Normal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396||||||||||201907200835|201907210000|||||||LA12432-3^Acceptable^LN||||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

SAMPLE QUALITY OF DRIED BLOOD SPOT (57718-9)

This LOINC transmits coded information regarding the condition of the specimen upon receipt at the DSHS laboratory. Values in this field will be duplicated in SPM-24. Possible answer codes are listed below.

DSHS does not require recipient systems to be able to consume this data. Individual disorder unsatisfactory information, discussion and recollection recommendations will be reported in the OBX segments for each disorder interpretation and in each disorder discussion. Unsatisfactory specimen information will also be reported in SPM-21.

Table 18: LOINC Answers for Sample Quality of Dried Blood Spot

LOINC Code	LOINC Description
LA12432-3	Acceptable
LA20626-0	Specimen quantity insufficient because blood did not completely fill specimen circles
LA20625-2	Specimen quantity insufficient due to incomplete saturation (blood did not soak through paper)
LA12682-3	Specimen appears scratched or abraded
LA12685-6	Specimen appears diluted, discolored or contaminated
LA12435-6	Specimen appears clotted or layered
LA20631-0	Demographic information is incomplete or invalid
LA20633-6	Serial number on filter paper does not match serial number on patient information form
LA12441-4	Sample too old
LA20639-3	Unable to analyze specimen due to laboratory accident
LA12687-2	No blood
LA20629-4	Unsuitable for other reasons
LA20634-4	Specimen submitted on expired filter paper
LA12686-4	Specimen exhibits serum rings
LA20623-7	Specimen damaged during transport
LA20632-8	Demographic information on filter paper does not match electronically submitted information
LA20624-5	Specimen received in sealed plastic container
LA20630-2	Testing of this specimen indicates more than one source of blood is present on the filter paper card
LA20639-3	Unable to analyze specimen due to laboratory accident

NEWBORN SCREENING REPORT – OVERALL INTERPRETATION (57130-7)

This LOINC transmits the overall result information for the specimen. Only 1 overall result will be sent per specimen. DSHS uses the following disorder result hierarchy to determine the LOINC answer that will be sent for each specimen. Receiving systems should display the original text to the system users. This text matches the overall specimen result on the physical result report.

Table 19: LOINC Answers for Newborn Screening Report Overall Interpretation

DSHS Priority	If any disorder result is classified as:	LOINC Answer	Overall Interpretation	Original Text (OBX 5.9)
1	LA25817-0 Out of range requiring immediate referral	LA25817-0	Out of range requiring immediate referral	Abnormal
2	LA18593-6 Out of range	LA18944-1	Screen is out of range for at least one condition	Abnormal
3	LA12430-7 Out of range requiring further dried blood spot testing for at least one condition	LA12430-7	Out of range requiring further dried blood spot testing for at least one condition	Abnormal
4	LA4259-3 Borderline	LA12429-9	Screen is borderline for at least one condition	Abnormal
5	LA9663-1 Inconclusive	LA18944-1	Screen is out of range for at least one condition	Abnormal
6	LA11884-6 Indeterminate	LA18943-3	Screen is indeterminate for at least one condition	Abnormal
7	LA16205-9 Specimen unsatisfactory for at least one condition	LA16205-9	Specimen unsatisfactory for at least one condition	Unsatisfactory
8	ELSE	LA12428-1	All screening is in range for the conditions tested	Normal
Not Used		LA12431-5	Out of range requiring immediate second-tier testing	
Not Used		LA18594-4	Out of range requiring deferred follow-up for at least one	
Not Used		LA14133-5	Screening not done due to parental refusal	
Not Used		LA16204-2	One or more tests pending	

NEWBORN CONDITIONS WITH POSITIVE MARKERS [IDENTIFIER] IN DRIED BLOOD SPOT (57131-5)

This LOINC transmits a list of conditions for which an out of range result was identified.

LOINC answers for this LOINC code can be found at https://loinc.org/57131-5/. Additional custom codes that are not included in the LOINC answer list include the following.

Table 20: Custom Answers for Newborn Conditions with Positive Markers

LOINC Code	LOINC Description
TXNBS-1	Hb SS-disease OR Hb S beta-thalassemia
TXNBS-2	Hb C-disease OR Hb C beta-thalassemia
TXNBS-3	Hb E-disease OR Hb E beta-thalassemia
TXNBS-4	3-MCC or 3MGA or BKT or HMG or MCD or 2M3HBA
TXNBS-5	3-MCC or 3MGA or HMG or MCD or 2M3HBA
TXNBS-6	HCY or MET
TXNBS-7	IVA or 2MBG
TXNBS-8	MAL or M/SCHAD
TXNBS-9	MCAD or MCKAT
TXNBS-10	PROP or CBL A,B or MUT or CBL C,D
TXNBS-11	SCAD or IBG
TXNBS-13	Amino Acid Disorder
TXNBS-14	Fatty Acid Disorder
TXNBS-15	Organic Acid Disorder

NEWBORN CONDITIONS WITH EQUIVOCAL MARKERS [IDENTIFIER] IN DRIED BLOOD SPOT (57720-5)

This LOINC transmits a list of conditions for which results identified are indeterminate or inconclusive.

LOINC answers for this LOINC code can be found at https://loinc.org/57720-5/. Additional custom codes that are not included in the LOINC answer list include the following.

Table 21: Custom Answers for Newborn Conditions with Equivocal Markers

LOINC Code	LOINC Description
TXNBS-13	Amino Acid Disorder
TXNBS-14	Fatty Acid Disorder
TXNBS-15	Organic Acid Disorder

NEWBORN SCREENING SHORT NARRATIVE SUMMARY (57724-7)

This LOINC transmits a text version of all combined disorder results. Messaging partners may choose to display a text read out of results in lieu of or in addition to consuming and storing discreet results.

Example OBX:
OBX|6|FT|57724-7^Newborn screening short narrative summary^LN||SUMMARY: Screen is out of range for at least one condition \.br\Sample Quality: Acceptable\.br\Amino Acid Disorders: TPN: Possible TPN. Please repeat the newborn screen when TPN is discontinued.\.br\Fatty Acid Disorders: Normal\.br\Organic Acid Disorders: Normal\.br\Galactosemia: Normal \.br\Biotinidase Deficiency: Normal\.br\Hypothyroidism: Normal\.br\CAH: Abnormal: Probable CAH. 17-Hydroxyprogesterone (17-OHP) Elevated and reflex panel Abnormal. Recommend serum 17-OHP within 24 hours. Follow additional recommendations received from Clinical Care Coordination.\.br\Hemoglobinopathies: Normal\.br\Cystic Fibrosis: Inconclusive: No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel. \.br\SCID: Normal\.br\X-ALD: Normal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W. 49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

Example Result display:
SUMMARY: Screen is out of range for at least one condition
Sample Quality: Acceptable
Amino Acid Disorders: TPN: Possible TPN. Please repeat the newborn screen when TPN is discontinued.
Fatty Acid Disorders: Normal
Organic Acid Disorders: Normal
Galactosemia: Normal
Biotinidase Deficiency: Normal
Hypothyroidism: Normal
CAH: Probable CAH. 17-Hydroxyprogesterone (17-OHP) Elevated and reflex panel Abnormal. Recommend serum 17-OHP within 24 hours. Follow additional recommendations received from Clinical Care Coordination.
Hemoglobinopathies: Normal
Cystic Fibrosis: Inconclusive: No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.
SCID: Normal
X-ALD: Normal

B. NEWBORN SCREENING CARD DATA PANEL (57717-1)

This Order / Observation group includes OBX segments that transmit patient and specimen data elements that were used in the interpretation of results. In most cases, this data will be returned to the submitting facility as received in the order. However, some data elements may differ if information updates were completed at the submitter request outside of the interface.

Table 22: Observation Results for Newborn Screening Card Data Panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
57723-9	Unique bar code number of Current sample	ST	R	R	[1..1]
8339-4	Birth weight Measured	Numeric	RE	O	[0..1]
57713-0	Infant factors that affect newborn screening interpretation	Coded	RE	O	[0..3]
67704-7	Feeding types	Coded	RE	O	[0..2]
62324-9	Post-discharge provider name	Text	RE	O	[0..1]
62328-0	Post-discharge provider practice telephone number	XTN	RE	O	[0..1]

Example OBR / OBX group:
OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current sample^LN||190123456||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM |||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA137-2^None^LN^^^^^NORMAL||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||SCI

OBX|4|CWE|67704-7^Feeding types^LN||LA16914-6^Breast milk^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|TX|62324-9^Post-discharge provider name^LN||Healthy, Bob||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|6|XTN|62328-0^Post-discharge provider practice telephone number^LN|1|^^PH^^^555^5551212^||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

UNIQUE BAR CODE NUMBER OF CURRENT SAMPLE (57723-9)

This LOINC transmits the form serial number indicated on the specimen collection kit. This value is the key unique identifier used by the DSHS laboratory information system. The field is required and receiving partners must be able to demonstrate receipt and display of this number with the associated results and patient information.

BIRTHWEIGHT MEASURED (8339-4)

This LOINC transmits the birth weight of the patient in grams. The DSHS laboratory uses birthweight to delineate reference ranges for several disorders. The birthweight transmitted in the result message is the birthweight that was used to complete the analysis.

INFANT FACTORS THAT AFFECT NEWBORN SCREENING INTERPRETATION (57713-0)

This LOINC transmits information related to the specimen Card field 'Status'. The interpretation of disorder results for some disorders are dependent upon whether the baby has been identified as on medications (specifically antibiotics) or transfused at the time of specimen collection.

The below table outlines possible answers in OBX-5 for this data element. DSHS will translate specimen collection card values to LOINC answers as indicated in Table 21. The corresponding collection card value will be sent in OBX 5.9. The DSHS laboratory may send up to 3 OBX segments to transmit the information received and used for result interpretation in the Status field.

Example – Single OBX (Specimen Card Answer – '0. Normal'):
OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA137-2^None^LN^^^^^^NORMAL||||||F|||201907200835|…

Example Multiple OBX (Specimen Card Answer – '4. Both 1 and 2'):
OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN|1|LA12419-0^Infant in NICU at time of specimen collection^LN^^^^^^SICK/PREMATURE||||||F|||201907200835|….

OBX|4|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN|2|LA12420-8^Systemic antibiotics before newborn screening^LN^^^^^^ON MEDICATIONS||||||F|||201907200835|…

Table 23: Specimen Card Value Mapping to LOINC Answers – Status

Specimen Card Value	LOINC	Description
0. Normal	LA137-2	None
1. Sick / Premature	LA12419-0	Infant in NICU at time of specimen collection
2. On Medications	LA12420-8	Systemic antibiotics before newborn screening
3. Transfused	LA12417-4	Any blood product transfusion (including ECLS/ECMO)
4. Both 1 & 2	LA12419-0 and LA12420-8 in repeating OBXs	Sick/Premature and On Medications OBXs
5. Both 1 & 3	LA12419-0 and LA12417-4 in repeating OBXs	Sick/Premature and Transfused OBXs
6. Both 2 & 3	LA12420-8 and LA12417-4 in repeating OBXs	On Medications and Transfused OBXs
7. All 1-3	LA12419-0, LA12420-8, and LA12417-4 in repeating OBXs	All three OBXs

FEEDING TYPES (67704-7)

This LOINC transmits information related to the specimen Card field 'Feed'.

The interpretation of disorder results for some disorders are dependent upon whether the baby has been identified as on TPN at the time of specimen collection.

The below table outlines possible answers in OBX-5 for this data element. DSHS will translate specimen collection card values to LOINC answers as noted. The DSHS laboratory may send up to 2 OBX segments to transmit the information received and used for result interpretation in the Status field.

Example Multiple OBX (Specimen Card Answer – '4. Breastmilk & Formula'):
OBX|5|CE|67704-7^Feeding types^LN|1|LA16914-6^Breast milk^LN||||||F|||201907200835|…

OBX|6|CE|67704-7^Feeding types^LN|2|LA16915-3^Lactose formula^LN||||||F|||201907200835|…

Table 24: Specimen Card Value Mapping to LOINC Answers – Feed

Specimen Card Value	LOINC	Description
1. Breastmilk Only	LA16914-6	Breast milk
2. Formula Only	LA16915-3	Lactose formula
3. TPN+-Milk	LA12418-2	TPN
4. Breastmilk & Formula	LA16914-6 and LA16915-3 in repeating OBXs	Breast milk and Lactose formula in repeating OBXs

POST-DISCHARGE PROVIDER NAME (62324-9)

This LOINC transmits the name of the healthcare provider that will care for the child after discharge from the birthing facility. The post-discharge provider fields are not intended for transmission of ordering physician information. DSHS uses the post-discharge provider information as a primary contact in the event that an abnormal result is identified.

POST-DISCHARGE PROVIDER PRACTICE TELEPONE NUMBER (62328-0)

This LOINC is used to transmit the phone number and fax number of the healthcare provider that will care for the child after discharge from the birthing facility.

C. AMINO ACID NEWBORN SCREEN PANEL (53261-4)

This Order / Observation group includes OBX segments that transmit result information specific to the amino acid disorders category of newborn conditions tested.

Table 25: Observation Results for amino acid newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46733-2	Amino acidemias newborn screen interpretation	Coded	R	R	[1..1]
57793-2	Amino acidemia disorder suspected [Identifier] in Dried blood spot	Coded	R	O	[0..*]
57710-6	Amino acidemias newborn screening comment- discussion	Coded	R	R	[0..*]

Example OBR / OBX group:
OBR|3|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|53261-4^Amino acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46733-2^Amino acidemias newborn screen interpretation^LN||LA12430-7^Out of range requiring further dried blood spot testing for at least one condition^LN^^^^^^TPN|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57793-2^Amino acidemia disorder suspected [Identifier] in Dried blood spot ^LN||TXNBS-13^Amino Acid Disorders^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|TX|57710-6^Amino acidemias newborn screening comment- discussion^LN||Possible TPN. Repeat the newborn screen when TPN is discontinued.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

AMINO ACIDEMIAS NEWBORN SCREEN INTERPRETATION (46733-2)

This LOINC transmits the overall result interpretation for the amino acid disorders category of newborn screening results. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
TPN
Non-specific
Unsatisfactory

AMINO ACIDEMIA DISORDER SUSPECTED [IDENTIFIER] IN DRIED BLOOD SPOT (57793-2)

This LOINC transmits a list of amino acid disorders for which out of range results may be an indicator. Any possible disorders will also be included in the screening result note transmitted in the "comment – discussion" OBX. Possible answers for this LOINC can be found at https://loinc.org/57793-2/. Additional custom codes that are not included in the LOINC answer list include the following.

LOINC Code	LOINC Description
TXNBS-6	HCY or MET
TXNBS-13	Amino Acid Disorder

AMINO ACIDEMIAS NEWBORN SCREENING COMMENT – DISCUSSION (57710-6)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

D. FATTY ACID OXIDATION NEWBORN SCREEN PANEL (57084-6)

This Order / Observation group includes OBX segments that transmit result information specific to the amino acid disorders category of newborn conditions tested.

Table 26: Observation Results for fatty acid oxidation newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46736-5	Fatty acid oxidation defects newborn screen interpretation	Coded	R	R	[1..1]
57792-4	Fatty acid oxidation conditions suspected [Identifier] in Dried blood spot	Coded	R	O	[0..*]
57709-8	Fatty acid oxidation defects newborn screening comment-discussion	Coded	R	R	[0..*]

Example OBR / OBX group:
OBR|4|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57084-6^Fatty acid oxidation newborn screen panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46736-5^Fatty acid oxidation defects newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57792-4^Fatty acid oxidation conditions suspected [Identifier] in Dried blood spot^LN||LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

FATTY ACID OXIDATION NEWBORN SCREEN INTERPRETATION (46736-5)

This LOINC transmits the overall result interpretation for the fatty acid disorders category of newborn screening results. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
TPN
Non-specific
Unsatisfactory

FATTY ACID OXIDATION CONDITIONS SUSPECTED [IDENTIFIER] IN DRIED BLOOD SPOT (57792-4)

This LOINC transmits a list of fatty acid disorders for which out of range results may be an indicator. Any possible disorders will also be included in the screening result note transmitted in the "comment – discussion" OBX. Possible answers for this LOINC can be found at https://loinc.org/57792-4/. Additional custom codes that are not included in the LOINC answer list include the following.

LOINC Code	LOINC Description
TXNBS-9	MCAD or MCKAT
TXNBS-11	SCAD or IBG
TXNBS-14	Fatty Acid Disorder

FATTY ACID OXIDATION DEFECTS NEWBORN SCREENING COMMENT – DISCUSSION (57709-8)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

E. ORGANIC ACID NEWBORN SCREEN PANEL (57085-3)

This Order / Observation group includes OBX segments that transmit result information specific to the amino acid disorders category of newborn conditions tested.

Table 27: Observation Results for organic acid newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46744-9	Organic acidemias newborn screen interpretation	Coded	R	R	[1..1]
57791-6	Organic acidemia conditions suspected [Identifier] in Dried blood spot	Coded	R	O	[0..*]
57708-0	Organic acidemias defects newborn screening comment-discussion	Coded	R	R	[0..*]

Example OBR / OBX group:
OBR|5|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57085-3^Organic acid newborn screen panel ^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46744-9^Organic acidemias newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57791-6^Organic acidemia conditions suspected [Identifier] in Dried blood spot||LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

ORGANIC ACIDEMIAS NEWBORN SCREEN INTERPRETATION (46744-9)

This LOINC transmits the overall result interpretation for the organic acid disorders category of newborn screening results. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
TPN
Non-specific
Unsatisfactory

ORGANIC ACIDEMIA CONDITIONS SUSPECTED [IDENTIFIER] IN DRIED BLOOD SPOT (57791-6)

This LOINC transmits a list of organic acid disorders for which out of range results may be an indicator. Any possible disorders will also be included in the screening result note transmitted in the "comment – discussion" OBX. Possible answers for this LOINC can be found at https://loinc.org/57791-6/. Additional custom codes that are not included in the LOINC answer list include the following.

LOINC Code	LOINC Description
TXNBS-4	3-MCC or 3MGA or BKT or HMG or MCD or 2M3HBA
TXNBS-5	3-MCC or 3MGA or HMG or MCD or 2M3HBA
TXNBS-7	IVA or 2MBG
TXNBS-8	MAL or M/SCHAD
TXNBS-10	PROP or CBL A,B or MUT or CBL C,D
TXNBS-15	Organic Acid Disorder

ORGANIC ACIDEMIAS NEWBORN SCREENING COMMENT – DISCUSSION (57708-0)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

F. CYSTIC FIBROSIS NEWBORN SCREEN PANEL (54078-1)

This Order / Observation group includes OBX segments that transmit result information for cystic fibrosis.

Table 28: Observation Results for cystic fibrosis newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46769-6	Cystic fibrosis newborn screen interpretation	Coded	R	R	[1..1]
57707-2	Cystic fibrosis newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:
OBR|6|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54078-1^Cystic fibrosis newborn screening panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46769-6^Cystic fibrosis newborn screen interpretation^LN||LA9663-1^Inconclusive^LN^^^^^^Inconclusive|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57707-2^Cystic fibrosis newborn screening comment- discussion^LN||No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

CYSTIC FIBROSIS NEWBORN SCREEN INTERPRETATION (46769-6)

This LOINC transmits the overall result interpretation for cystic fibrosis. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA11884-6	Indeterminate
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition
LA9663-1	Inconclusive

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Indeterminate
Inconclusive
Unsatisfactory

CYSTIC FIBROSIS NEWBORN SCREENING COMMENT – DISCUSSION (57707-2)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

G. CONGENITAL ADRENAL HYPERPLASIA NEWBORN SCREEN PANEL (57086-1)

This Order / Observation group includes OBX segments that transmit result information for congenital adrenal hyperplasia.

Table 29: Observation Results for congenital adrenal hyperplasia newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46758-9	Congenital adrenal hyperplasia newborn screen interpretation	Coded	R	R	[1..1]
57706-4	Congenital adrenal hyperplasia newborn screening comment- discussion	Coded	R	R	[0..1]

Example OBR / OBX group:

OBR|7|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57086-1^Congenital adrenal hyperplasia newborn screening panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46758-9^Congenital adrenal hyperplasia newborn screen interpretation^LN||LA18593-6^Out of Range^LN^^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

CONGENITAL ADRENAL HYPERPLASIA NEWBORN SCREEN INTERPRETATION (46769-6)

This LOINC transmits the overall result interpretation for congenital adrenal hyperplasia. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Unsatisfactory

CONGENITAL ADRENAL HYPERPLASIA NEWBORN SCREENING COMMENT – DISCUSSION (57706-4)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

H. THYROID NEWBORN SCREENING PANEL (54090-6)

This Order / Observation group includes OBX segments that transmit result information for congenital hypothyroidism.

Table 30: Observation Results for thyroid newborn screening panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin- ality
46762-1	Congenital hypothyroidism newborn screen interpretation	Coded	R	R	[1..1]
57705-6	Congenital hypothyroidism newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:
OBR|8|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54090-6^Thyroid newborn screening panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46762-1^Congenital hypothyroidism newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

CONGENITAL HYPOTHYROIDISM NEWBORN SCREEN INTERPRETATION (46762-1)

This LOINC transmits the overall result interpretation for hypothyroidism. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Unsatisfactory

CONGENITAL HYPOTHYROIDISM NEWBORN SCREENING COMMENT – DISCUSSION (57705-6)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

I.   GALACTOSEMIA NEWBORN SCREEN PANEL (54079-9)

This Order / Observation group includes OBX segments that transmit result information for galactosemia.

Table 31: Observation Results for galactosemia newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46737-3	Galactosemias newborn screen interpretation	Coded	R	R	[1..1]
57704-9	Galactosemias newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:
OBR|9|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54079-9^Galactosemia newborn screen panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46737-3^Galactosemias newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

GALACTOSEMIAS NEWBORN SCREEN INTERPRETATION (46737-3)

This LOINC transmits the overall result interpretation for galactosemia. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Unsatisfactory

GALACTOSEMIA NEWBORN SCREENING COMMENT - DISCUSSION (54079-9)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

J. HEMOGLOBINOPATHIES NEWBORN SCREEN PANEL (54081-5)

This Order / Observation group includes OBX segments that transmit result information for Hemoglobin disorders.

Table 32: Observation Results for hemoglobinopathies newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46740-7	Hemoglobin disorders newborn screen interpretation	Coded	R	R	[1..1]
57703-1	Hemoglobin disorders newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:
OBR|10|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^ 2.16.840.1.114222.4.1.181960.2^ISO|54081-5^Hemoglobinopathies newborn screen panel^LN|||201806181035||||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2. 16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI &2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityNa me&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&I SO||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46740-7^Hemoglobin disorders newborn screening interpretation^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

HEMOGLOBIN DISORDERS NEWBORN SCREEN INTERPRETATION (46740-7)

This LOINC transmits the overall result interpretation for hemoglobinopathies. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition
LA9663-1	Inconclusive

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Unsatisfactory

HEMOGLOBIN DISORDERS NEWBORN SCREENING COMMENT – DISCUSSION (57703-1)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory

K. BIOTINIDASE NEWBORN SCREEN PANEL (57087-9)

This Order / Observation group includes OBX segments that transmit result information for Biotinidase deficiency.

Table 33: Observation Results for biotinidase newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
46761-3	Biotinidase deficiency newborn screen interpretation	Coded	R	R	[1..1]
57699-1	Biotinidase deficiency newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:
OBR|11|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57087-9^Biotinidase Newborn Screen Panel^LN|||201806181035||||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46761-3^Biotinidase deficiency newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

BIOTINIDASE DEFICIENCY NEWBORN SCREEN INTERPRETATION (46761-3)

This LOINC transmits the overall result interpretation for biotinidase deficiency. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Unsatisfactory

BIOTINIDASE DEFICIENCY NEWBORN SCREENING COMMENT – DISCUSSION (57699-1)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

L. SEVERE COMBINED IMMUNODEFICIENCY (SCID) NEWBORN SCREEN PANEL (62333-0)

This Order / Observation group includes OBX segments that transmit result information for Severe Combined Immunodeficiency (SCID).

Table 34: Observation Results for severe combined immunodeficiency (SCID) newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
62321-5	Severe combined immunodeficiency (SCID) newborn screen interpretation	Coded	R	R	[1..1]
62322-3	Severe combined immunodeficiency (SCID) newborn screening comment- discussion	Coded	R	R	[0..1]

Example OBR / OBX group:

OBR|12|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|62333-0^Severe combined immunodeficiency (SCID) newborn screen panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|62321-5^Severe combined immunodeficiency (SCID) newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SEVERE COMBINED IMMUNODEFICIENCY (SCID) NEWBORN SCREEN INTERPRETATION (62321-5)

This LOINC transmits the overall result interpretation for severe combined immunodeficiency. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Indeterminate
Inconclusive
Unsatisfactory

SEVERE COMBINED IMMUNODEFICIENCY (SCID) NEWBORN SCREENING COMMENT - DISCUSSION (62322-3)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

M. X-LINKED ADRENOLEUKODYSTROPHY (X- ALD) NEWBORN SCREEN PANEL (85267-3)

This Order / Observation group includes OBX segments that transmit result information for X-linked Adrenoleukodystrophy.

Table 35: Observation Results for x-linked adrenoleukodystrophy (x- ald) newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
85269-9	X-linked adrenoleukodystrophy (X- ALD) newborn screen interpretation	Coded	R	R	[1..1]
85268-1	X-linked adrenoleukodystrophy (X- ALD) newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:

OBR|13|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|85267-3^X-linked adrenoleukodystrophy (X-ALD) newborn screen
panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI
&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityNa
me&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|85269-9^X-linked adrenoleukodystrophy (X- ALD) newborn screen interpretation
^LN||LA18592-8^In
range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

X-LINKED ADRENOLEUKODYSTROPHY (X-ALD) NEWBORN SCREEN INTERPRETATION (85269-9)

This LOINC transmits the overall result interpretation for X-linked Adrenoleukodystrophy. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA4259-3	Borderline
LA11884-6	Indeterminate
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA12431-5	Out of range requiring immediate second-tier testing for at least one condition
LA18594-4	Out of range requiring deferred follow-up for at least one condition
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Indeterminate
Inconclusive
Unsatisfactory

X-LINKED ADRENOLEUKODYSTROPHY (X-ALD) NEWBORN SCREENING COMMENT – DISCUSSION (85268-1)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

N. SPINAL MUSCULAR ATROPHY (SMA) NEWBORN SCREEN PANEL (92005-8)

This Order / Observation group includes OBX segments that transmit result information for Spinal Muscular Atrophy. Implementation of screening for this panel is estimated for June 2021.

Table 36: Observation Results for Spinal Muscular Atrophy newborn screen panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
92004-1	Spinal muscular atrophy (SMA) newborn screen interpretation	Coded	R	R	[1..1]
92003-3	Spinal muscular atrophy (SMA) newborn screening comment-discussion	Coded	R	R	[0..1]

Example OBR / OBX group:

OBR|14|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|92005-8^Spinal muscular atrophy (SMA) newborn screen panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO ||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|92004-1^Spinal muscular atrophy (SMA) newborn screen interpretation ^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPINAL MUSCULAR ATROPHY NEWBORN SCREEN INTERPRETATION (92004-1)

This LOINC transmits the overall result interpretation for Spinal Muscular Atrophy. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA4259-3	Borderline
LA11884-6	Indeterminate
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA12431-5	Out of range requiring immediate second-tier testing for at least one condition
LA18594-4	Out of range requiring deferred follow-up for at least one condition
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Indeterminate
Inconclusive
Unsatisfactory

SPINAL MUSCULAR ATROPHY (SMA) NEWBORN SCREENING COMMENT – DISCUSSION (92003-3)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

O. LYSOSOMAL STORAGE DISORDERS NEWBORN SCREENING PANEL (62300-9)

This Order / Observation group includes OBX segments that transmit result information for Lysosomal Storage Disorders. The DSHS Laboratory does not currently screen for any lysosomal storage disorders. Implementation of screening for this panel is estimated for January 2024.

Table 37: Observation Results for lysosomal storage disorders newborn screening panel

LOINC Code	LOINC Description	Value Type	DSHS Usage	Receiver Usage	Cardin-ality
62301-7	Lysosomal storage disorders newborn screen interpretation	Coded	R	R	[1..1]
62302-5	Lysosomal storage disorders suspected [Identifier] in Dried blood spot	Coded	R	O	[0..*]
62303-3	Lysosomal storage disorders newborn screening comment- discussion	Coded	R	R	[0..*]

Example OBR / OBX group:
OBR|15|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|62300-9^Lysosomal storage disorders newborn screening panel^LN|||201806181035|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to procedure^HL70916^^^^^^Fasting|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI||||||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO ||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|62301-7^Lysosomal storage disorders newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

LYSOSOMAL STORAGE DISORDERS NEWBORN SCREEN INTERPRETATION (62301-7)

This LOINC transmits the overall result interpretation for lysosomal storage disorders. Answers for this LOINC and all disorder interpretation LOINCs are drawn from LOINC panel LL840-0. Definitions and additional details available at: https://loinc.org/LL840-0/.

LOINC Code	LOINC Description
LA18592-8	In range
LA4259-3	Borderline
LA11884-6	Indeterminate
LA18593-6	Out of range
LA12430-7	Out of range requiring further dried blood spot testing for at least one condition
LA25817-0	Out of range requiring immediate referral
LA12431-5	Out of range requiring immediate second-tier testing for at least one condition
LA18594-4	Out of range requiring deferred follow-up for at least one condition
LA16204-2	One or more tests pending
LA16205-9	Specimen unsatisfactory for at least one condition

Original text will be transmitted in OBX 5.9. This text will correspond to the Screening Result Note on the physical result report. Messaging partners must demonstrate the ability to display this value to end users of the ordering facility system.

Possible Original Text (OBX 5.9)
Normal
Abnormal
Indeterminate
Inconclusive
Unsatisfactory

LYSOSOMAL STORAGE DISORDERS SUSPECTED [IDENTIFIER] IN DRIED BLOOD SPOT (62302-5)

This LOINC transmits a list of lysosomal storage disorders for which out of range results may be an indicator. Any possible disorders will also be included in the screening result note transmitted in the "comment – discussion" OBX.

Possible answers for this LOINC can be found at https://loinc.org/62302-5/.

LYSOSOMAL STORAGE DISORDERS NEWBORN SCREENING COMMENT – DISCUSSION (62303-3)

This LOINC transmits the screening result note reported by the DSHS laboratory for any out of range or unsatisfactory result. Prior to approving implementation of a newborn screening results interface, the DSHS laboratory must verify partner ability to consume and display this text in a human readable format. The most current list of possible screening result notes can be found the DSHS laboratory website at: http://dshs.texas.gov/lab/nbs/results/.

SECTION V: DATA TYPES

Data types specify the format and type of data used. A data type may be as simple as a numeric data type, which allows a number. It may be a more complex coded entry that requires a specific set of code values and the name of the code system. Data types may contain subcomponents that are specified by data types.

The following list of data types only includes those that are used by fields that are anticipated for Texas DSHS Laboratory use. Data types for fields that are not used in this Guide are not included, even if they are part of a segment that is used.

CWE: CODED WITH EXCEPTIONS

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Identifier	ST	R		
2	Text	ST	RE		It is strongly recommended that text be sent to accompany any identifier.
3	Name of Coding System	ID	R	HL70396_USL	
4	Alternate Identifier		O		
5	Alternate Text		O		
6	Name of Alternate Coding System	ID	C(R/X)	HL70396_USL	Condition Predicate: If CWE.4 (Alternate Identifier) is valued.
7	Coding System Version ID	ST	C(RE/O)		Condition Predicate: If CWE.3 (Name of Coding System) is not an HL7 defined table or user defined.
8	Alternate Coding System Version ID		O		
9	Original Text	ST	RE		Original Text is used to convey the text that was the basis for coding.
10	Second Alternate Identifier		O		
11	Second Alternate Text		O		
12	Second Name of Alternate Coding System		O		
13	Second Alternate Coding System Version ID		O		
14	Coding System OID		O		
15	Value Set OID		O		
16	Value Set Version ID		O		
17	Alternate Coding System OID		O		
18	Alternate Value Set OID		O		
19	Alternate Value Set Version ID		O		
20	Second Alternate Coding System OID		O		
21	Second Alternate Value Set OID		O		
22	Second Alternate Value Set Version ID		O		

CX: EXTENDED COMPOSITE ID WITH CHECK DIGIT

SEQ	Component Name	DT	Usage	Value Set	Comments
1	ID Number	ST	R		
2	Check Digit	ST	O		
3	Check Digit Scheme		O		
4	Assigning Authority	HD_02	RE		
5	Identifier Type Code	ID	R	HL70203_USL	
6	Assigning Facility		O		
7	Effective Date		O		
8	Expiration Date		O		
9	Assigning Jurisdiction		O		
10	Assigning Agency or Department		O		

DTM_05: DATE/TIME 5 - PRECISE TO DAY

SEQ	Component Name	DT	Usage	Value Set	Comments
	YYYY		R		
	MM		R		
	DD		R		
	HH		O		
	MM		O		
	[SS[.S[S[S[S]]]]]		O		
	+/- ZZZZ		O		

DTM_06: DATE/TIME 6 - PRECISE TO DAY, POTENTIALLY TO MINUTE

SEQ	Component Name	DT	Usage	Value Set	Comments
	YYYY		R		
	MM		R		
	DD		R		
	HH		RE		
	MM		RE		
	[SS[.S[S[S[S]]]]]		O		
	+/- ZZZZ		O		

DTM_08: DATE/TIME 8 - PRECISE TO MINUTE

SEQ	Component Name	DT	Usage	Value Set	Comments
	YYYY		R		
	MM		R		
	DD		R		
	HH		R		
	MM		R		
	[SS[.S[S[S[S]]]]]		O		
	+/- ZZZZ		O		

DTM_10: DATE/TIME 10 - PRECISE TO SECOND

SEQ	Component Name	DT	Usage	Value Set	Comments
	YYYY		R		
	MM		R		
	DD		R		
	HH		R		
	MM		R		
	[SS[.S[S[S[S]]]]]		R		
	+/- ZZZZ		O		

EI: ENTITY IDENTIFIER

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Entity Identifier	ST	R		
2	Namespace ID	IS	C(R/O)		Condition Predicate: If EI.3 (Universal ID) is not valued.
3	Universal ID	ST	C(R/O)		Condition Predicate: If EI.2 (Namespace ID) is not valued.
4	Universal ID Type	ID	C(R/X)	HL70301_USL	Condition Predicate: If EI.3 (Universal ID) is valued.

EIP_02: ENTITY IDENTIFIER PAIR (NON-GLOBALLY UNIQUE)

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Placer Assigned Identifier	EI	RE		
2	Filler Assigned Identifier	EI	C(R/RE)		Condition Predicate: If EIP_02.1 (Placer Assigned Identifier) is not valued.

EIP_03: ENTITY IDENTIFIER PAIR (NON-GLOBALLY UNIQUE), PLACER AND FILLER REQUIRED

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Placer Assigned Identifier	EI	R		
2	Filler Assigned Identifier	EI	R		

FT: FORMATTED TEXT DATA

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Formatted Text Data	FT	RE		

HD_01: HIERARCHIC DESIGNATOR (GLOBALLY UNIQUE)

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Namespace ID	IS	RE		This value reflects a local code that represents the combination of HD_01.2 (Universal ID) and HD_01.3 (Universal ID Type).
2	Universal ID	ST	R		
3	Universal ID Type	ID	R		Fixed to 'ISO'.

HD_02: HIERARCHIC DESIGNATOR (NON-GLOBALLY UNIQUE)

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Namespace ID	IS	C(R/O)		Condition Predicate: If HD_02.2 (Universal ID) is not valued.
2	Universal ID	ST	C(R/O)		Condition Predicate: If HD_02.1 (Namespace ID) is not valued.
3	Universal ID Type	ID	C(R/X)	HL70301_USL	Condition Predicate: If HD_02.2 (Universal ID) is valued.

ID: CODED VALUE FOR HL7 DEFINED TABLES

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Coded Value for HL7 Defined Tables	ID	RE		

IS: CODED VALUE FOR USER-DEFINED TABLES

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Coded Value for User-Defined Tables	IS	RE		

MSG_01: MESSAGE TYPE

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Message Code	ID	R	HL70076_USL	
2	Trigger Event	ID	R	HL70003_USL	
3	Message Structure	ID	R	HL70354_USL	

NM: NUMERIC

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Numeric	NM	RE		

OG_01: OBSERVATION GROUPER

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Original Sub-Identifier	ST	O		
2	Group	NM	R		
3	Sequence	NM	R		
4	Identifier	ST	RE		

PT_01: PROCESSING TYPE

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Processing ID	ID	R	HL70103_USL	
2	Processing Mode		O		

SI: SEQUENCE ID

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Sequence ID	SI	RE		

ST: STRING DATA

SEQ	Component Name	DT	Usage	Value Set	Comments
1	String Data	ST	RE		

TX: TEXT DATA

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Text Data	TX	RE		

VID_01: VERSION ID; US REALM VALUE SET REQUIRED

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Version ID	ID	R		
2	Internationalization Code		O		
3	International Version ID		O		

XAD: EXTENDED ADDRESS

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Street Address	ST	RE		
2	Other Designation	ST	RE		
3	City	ST	RE		
4	State or Province	ST	RE	USPS Alpha State Codes	
5	Zip or Postal Code	ST	RE		
6	Country Code	ID	RE	HL70399_USL	Use 3-character (alphabetic) form of ISO 3166 for HL7 Table 0399 as defined in HL7 Chapter 2, Section 2.15.9.17 of LRI.
7	Address Type	ID	RE	HL70190_USL	
8	Other Geographic Designation		O		
9	County/Parish Code		O		
10	Census Tract		O		
11	Address Representation Code		O		
12	Address Validity Range		X		
13	Effective Date		O		

XCN: EXTENDED COMPOSITE ID NUMBER AND NAME FOR PERSONS

SEQ	Component Name	DT	Usage	Value Set	Comments
1	ID Number	ST	RE		Note: Despite the component being named "ID Number" this component is an ST string data type, not numeric, so the component is not limited to just numbers.
2	Family Name	FN	RE		
3	Given Name	ST	RE		i.e., first name.
4	Second and Further Given Names or Initials Thereof		O		
5	Suffix (e.g., JR or III)		O		
6	Prefix (e.g., DR)		O		
7	Degree (e.g., MD)		X		
8	Source Table		C(O/O)		Note: This component is (C) in the v2.5.1 standard with no condition predicate defined; none is defined in this IG.
9	Assigning Authority	HD_02	C(R/X)		Condition Predicate: If XCN_02.1 (ID Number) is valued. The Assigning Authority component is used to identify the system, application, organization, etc. that assigned the value in XCN_02-1 (ID Number).
10	Name Type Code	ID	RE	HL70200_USL	
11	Identifier Check Digit		O		
12	Check Digit Scheme		C(O/X)		Condition Predicate: If XCN_02.11 (Identifier Check Digit) is valued.
13	Identifier Type Code	ID	C(R/X)	HL70203_USL	Condition Predicate: If XCN_02.1 (ID Number) is valued.
14	Assigning Facility		O		
15	Name Representation Code		O		
16	Name Context		O		
17	Name Validity Range		X		
18	Name Assembly Order		O		
19	Effective Date		O		
20	Expiration Date		O		
21	Professional Suffix		O		
22	Assigning Jurisdiction		O		
23	Assigning Agency or Department		O		

XON: EXTENDED COMPOSITE NAME AND IDENTIFICATION NUMBER FOR ORGANIZATIONS

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Organization Name	ST	RE		
2	Organization Name Type Code		O		
3	ID Number		X		
4	Check Digit		O		
5	Check Digit Scheme		C(O/X)		Condition Predicate: If XON_02.4 is valued.
6	Assigning Authority	HD_02	C(R/X)		Condition Predicate: If XON_02.10 (Organization Identifier) is valued. The Assigning Authority component is used to identify the system, application, organization, etc. that assigned the value in XON_02.10 (Organization Identifier).
7	Identifier Type Code	ID	C(R/X)	HL70203_USL	Condition Predicate: If XON_02.10 (Organization Identifier) is valued.
8	Assigning Facility		O		
9	Name Representation Code		O		
10	Organization Identifier	ST	C(R/RE)		Condition Predicate: If XON_02.1 (Organization Name) is not valued.

XPN: EXTENDED PERSON NAME

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Family Name	ST	R		
2	Given Name	ST	RE		I.e., first name.
3	Second and Further Given Names or Initials Thereof	ST	RE		
4	Suffix (e.g., JR or III)	ST	RE		
5	Prefix (e.g., DR)		O		
6	Degree (e.g., MD)		X		
7	Name Type Code	ID	R	HL70200_USL	
8	Name Representation Code		O		
9	Name Context		O		
10	Name Validity Range		X		
11	Name Assembly Order		O		
12	Effective Date		O		
13	Expiration Date		O		
14	Professional Suffix		O		

XTN: EXTENDED TELECOMMUNICATION NUMBER

SEQ	Component Name	DT	Usage	Value Set	Comments
1	Telephone Number		X		Excluded for this Implementation Guide, see Section 1.3.1 of LRI.
2	Telecommunication Use Code		O		
3	Telecommunication Equipment	ID	R	HL70202_USL	
4	Email Address	ST	C(R/X)		Condition Predicate: If XTN.3 (Telecommunication Equipment Type) is valued 'X.400' or 'Internet'.
5	Country Code		O		
6	Area/City Code	NM	C(R/X)		Condition Predicate: If XTN.3 (Telecommunication Equipment Type) is valued 'PH', 'CP', 'FX', or 'TDD'.
7	Local Number	NM	C(R/X)		Condition Predicate: If XTN.3 (Telecommunication Equipment Type) is valued 'PH', 'CP', 'FX', or 'TDD'.
8	Extension	NM	C(RE/X)		Condition Predicate: If XTN.3 (Telecommunication Equipment Type) is valued 'PH', 'CP', 'FX', or 'TDD'.
9	Any Text		O		
10	Extension Prefix		O		
11	Speed Dial Code		O		
12	Unformatted Telephone number		C(O/X)		Condition Predicate: If XTN.3 (Telecommunication Equipment Type) is valued 'PH', 'CP', 'FX', or 'TDD'.

SECTION VI: EXAMPLE MESSAGES

The Texas DSHS Laboratory system is designed to transmit 2 ORU messages, a message indicating arrival of the specimen at the laboratory and a final message transmitting all results. The "arrival" message is optional for receipt by partners. Final results may be Normal, Abnormal, or Unsatisfactory. Additionally, Revised (corrected) results may also be sent.

A. SPECIMEN ARRIVAL MESSAGE

Upon specimen arrival at the laboratory, the Texas DSHS laboratory will assess specimen quality and prepare samples for testing. The laboratory will send a preliminary message at this point to indicate receipt of the physical specimen and the merge of demographic information into the laboratory database.

MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.181960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20190720091229||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL
PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2028-9^Asian^HL70005~2106-3^White^HL70005|||||||||ABCD1234^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^MR|N|Birth Hospital Name|Y|1

NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of Kin^HL70131|||||||||19901115||||||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.446&ISO^MA

ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|IP||||20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI|||20190720090030||||||ORDERING FACILITY NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main Street^^Austin^TX^78758|^^PH^^^512^5551212

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|I|||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN||LA12432-

3^Acceptable^LN||||||P|||201907200835|||||20190724160054||||Texas Department of State Health
Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txds
hslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840
.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary
Specimen^HL70396||||||||||201907200835|201907210000||||||||LA12432-
3^Acceptable^LN||||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN
~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456
^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data
panel^LN|||201907200835||||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|I|||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current
sample^LN||190123456|||||P|||201907200835|||||20190724160054||||Texas Department of State
Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM
|||||P|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100
W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant factors that affect newborn screening interpretation^LN|1|LA12419-
0^Infant in NICU at time of specimen
collection^LN^^^^^SICK/PREMATURE|||||||P|||201907200835|||||20190724160054||||Texas
Department of State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|4|CWE|57713-0^Infant factors that affect newborn screening interpretation^LN|3|LA12420-
8^Systemic antibiotics before newborn screening^LN^^^^^ON
MEDICATIONS|||||||P|||201907200835|||||20190724160054||||Texas Department of State Health
Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|CWE|57713-0^Infant factors that affect newborn screening interpretation^LN|2|LA12417-4^Any blood product transfusion (including ECLS/ECMO)^LN^^^^^TRANSFUSED||||||P|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|6|CWE|67704-7^Feeding types^LN|1|LA16914-6^Breast milk^LN||||||P|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|7|CWE|67704-7^Feeding types^LN|2|LA16915-3^Lactose formula^LN||||||P|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|8|TX|62324-9^Post-discharge provider name^LN||Healthy, Bob||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|9|XTN|62328-0^Post-discharge provider practice telephone number^LN|1|^^PH^^^555^5551212^|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

B. RESULT MESSAGE – NORMAL

RESULT REPORT EXAMPLE:

NORMAL SCREEN

Disorder *		Screening Result
Amino Acid Disorders		Normal
Fatty Acid Disorders		Normal
Organic Acid Disorders		Normal
Galactosemia		Normal
Biotinidase Deficiency		Normal
Hypothyroidism		Normal
CAH		Normal
Hemoglobinopathies		Normal
Cystic Fibrosis		Normal
SCID		Normal
X-ALD		Normal

MESSAGE EXAMPLE

MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.18
1960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1
.114222.XXX^ISO|20190720091229||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL

PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2
028-9^Asian^HL70005~2106-3^White^HL70005|||||||||ABCD1234^^^OrderingFacilityName
&2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO
^MR|N|Birth Hospital Name|Y|1

NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE
DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of
Kin^HL70131|||||||||19901115||||||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.4
46&ISO^MA

ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|CM||||
20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^
^NPI|||20190720090030||||||ORDERING FACILITY
NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main
Street^^Austin^TX^78758|^^PH^^^512^5551212

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113

883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen
identifies newborns at increased risk for specified disorders. The reference value for all screened
disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The
recommended collection time period and the testing methodologies have been designed to minimize
the number of false negative and false positive results in newborns and young infants. When the
newborn screen specimen is collected before 24 hours of age or on older children, the test may not
identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated.
Specimens that are unacceptable are reported as Unsatisfactory|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105|The SCID / TREC (T-cell
receptor excision circles) test is performed by quantitative real-time polymerase chain reaction
analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy
screening tests were developed /modified and performance characteristics determined by DSHS.
These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The
FDA has determined that such approval is not necessary if performance characteristics are verified at
the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO
ACID DISORDERS: ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU,
TYRI, TYRII, and TYRIII. FATTY ACID DISORDERS: CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD,
MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. ORGANIC ACID DISORDERS: 2M3HBA, 2MBG, 3MCC,
3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. GALACTOSEMIA.
BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S, Hb S/C, Hb S-
Beta Th, Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. X-ALD. List of disorders
screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information, please
refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN||LA12432-
3^Acceptable^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health
Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57130-7^Newborn screening report - overall interpretation^LN|1|A12428-1^All
screening is in range for the conditions
tested^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|3|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|4|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|5|ST|57724-7^Newborn screening short narrative summary^LN||SUMMARY: Normal\.br\Sample Quality: Acceptable\.br\Amino Acid Disorders: Normal\.br\Fatty Acid Disorders: Normal\.br\Organic Acid Disorders: Normal\.br\Galactosemia: Normal\.br\Biotinidase Deficiency: Normal\.br\Hypothyroidism: Normal\.br\CAH: Normal\.br\Hemoglobinopathies: Normal\.br\Cystic Fibrosis: Normal\.br\SCID: Normal\.br\XALD: Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||||201907200835|201907210000|||||||LA12432-3^Acceptable^LN|||||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current sample^LN||190123456||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM ||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services

Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA137-2^None^LN^^^^^^NORMAL|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|4|CWE|67704-7^Feeding types^LN||LA16914-6^Breast milk^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|TX|62324-9^Post-discharge provider name^LN||Healthy, Bob|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|6|XTN|62328-0^Post-discharge provider practice telephone number^LN|1|^^PH^^^555^5551212^|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBR|3|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|53261-4^Amino acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46733-2^Amino acidemias newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57793-2^Amino acidemia disorder suspected [Identifier] in Dried blood spot ^LN||LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|4|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57084-6^Fatty acid oxidation newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46736-5^Fatty acid oxidation defects newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57792-4^Fatty acid oxidation conditions suspected [Identifier] in Dried blood spot^LN||LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|5|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57085-3^Organic acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46744-9^Organic acidemias newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57791-6^Organic acidemia conditions suspected [Identifier] in Dried blood spot^LN||LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|6|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54078-1^Cystic fibrosis newborn screening

panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46769-6^Cystic fibrosis newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|7|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57086-1^Congenital adrenal hyperplasia newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46758-9^Congenital adrenal hyperplasia newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|8|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54090-6^Thyroid newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46762-1^Congenital hypothyroidism newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th

St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|9|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54079-9^Galactosemia newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46737-3^Galactosemias newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|10|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54081-5^Hemoglobinopathies newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46740-7^Hemoglobin disorders newborn screening interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|11|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57087-9^Biotinidase Newborn Screen Panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46761-3^Biotinidase deficiency newborn screen interpretation^LN|1|LA18592-8^In

range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|12|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|62333-0^Severe combined immunodeficiency (SCID) newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|62321-5^Severe combined immunodeficiency (SCID) newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|13|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|85267-3^X-linked adrenoleukodystrophy (X-ALD) newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|85269-9^X-linked adrenoleukodystrophy (X- ALD) newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

C. RESULT MESSAGE – ABNORMAL

RESULT REPORT EXAMPLE:

ABNORMAL SCREEN

Disorder *	Screening Result	Analyte	Analyte Result
Amino Acid Disorders	Abnormal: See Note 1	Arginine	Borderline
Fatty Acid Disorders	Normal		
Organic Acid Disorders	Normal		
Galactosemia	Normal		
Biotinidase Deficiency	Normal		
Hypothyroidism	Normal		
CAH	Normal		
Hemoglobinopathies	Normal		
Cystic Fibrosis	Inconclusive: See Note 2	Immunoreactive Trypsinogen	Elevated
		CFTR Mutation	0 Mutations Detected
SCID	Abnormal: See Note 3	TREC	Very Low TREC
X-ALD	Abnormal: See Note 4		

Screening Result Notes:

1. Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.

2. No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.

3. Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination.

4. Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow.

MESSAGE EXAMPLE:

MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.181960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20190720091229||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL

PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2028-9^Asian^HL70005~2106-3^White^HL70005|||||||||ABCD1234^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^MR|N|Birth Hospital Name|Y|1

NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of Kin^HL70131|||||||||19901115|||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.446&ISO^MA

ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|CM||||20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI|||20190720090030||||||ORDERING FACILITY

NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main Street^^Austin^TX^78758|^^PH^^^512^5551212

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen identifies newborns at increased risk for specified disorders. The reference value for all screened disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The recommended collection time period and the testing methodologies have been designed to minimize the number of false negative and false positive results in newborns and young infants. When the newborn screen specimen is collected before 24 hours of age or on older children, the test may not identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated. Specimens that are unacceptable are reported as Unsatisfactory|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105|The SCID / TREC (T-cell receptor excision circles) test is performed by quantitative real-time polymerase chain reaction analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy screening tests were developed /modified and performance characteristics determined by DSHS. These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The FDA has determined that such approval is not necessary if performance characteristics are verified at the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO ACID DISORDERS: ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU, TYRI, TYRII, and TYRIII. FATTY ACID DISORDERS: CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD, MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. ORGANIC ACID DISORDERS: 2M3HBA, 2MBG, 3MCC, 3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. GALACTOSEMIA. BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S, Hb S/C, Hb S-Beta Th, Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. X-ALD. List of disorders screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information, please refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

NTE|5|L^Ancillary (filler) department is source of comment^HL70105|The Cystic Fibrosis molecular testing panel consists of 60 mutations and 4 variants in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene and is performed using the Luminex xTAG Cystic Fibrosis (CFTR) 60 kit v2 assay. Depending on the patient's ethnicity, the mutation detection rate is estimated to be 54.5-95.9% and the residual risk of carrying a CFTR mutation not included on the panel is

approximately 0.2-0.5%. Test results should not be used to diagnose but should be interpreted in the context of clinical findings, family history, and other laboratory data.|RE^Remark^HL70364

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN||LA12432-3^Acceptable^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57130-7^Newborn screening report - overall interpretation^LN|1|LA18944-1^Screen is out of range for at least one condition^LN^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|1|LA21161-7^Argininemia^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|4|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|2|LA12566-8^Severe combined immunodeficiency^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|5|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|3|LA25796-6^X-linked adrenoleukodystrophy^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|6|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|1|LA22202-8^Cystic fibrosis^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|7|ST|57724-7^Newborn screening short narrative summary^LN||SUMMARY: Abnormal\.br\Sample Quality: Acceptable\.br\Amino Acid Disorders: Abnormal - Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.\.br\Fatty Acid Disorders: Normal\.br\Organic Acid Disorders: Normal\.br\Galactosemia: Normal\.br\Biotinidase Deficiency: Normal\.br\Hypothyroidism: Normal\.br\CAH: Normal\.br\Hemoglobinopathies: Normal\.br\Cystic Fibrosis: Inconclusive - No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR

variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.\.br\SCID: Abnormal - Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination.\.br\XALD: Abnormal - Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow.|||A|||F|||201907200835|||||20190724160054|||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||201907200835|201907210000|||||||LA12432-3^Acceptable^LN||||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI^G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current sample^LN||190123456|||||F|||201907200835|||||20190724160054|||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM||||||F|||201907200835|||||20190724160054|||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA12419-0^Infant in NICU at time of specimen collection^LN^^^^^SICK/PREMATURE|||||||F|||201907200835|||||20190724160054|||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|4|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA12420-8^Systemic antibiotics before newborn screening^LN^^^^^ON MEDICATIONS||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|CWE|67704-7^Feeding types^LN||LA16914-6^Breast milk^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|6|CWE|67704-7^Feeding types^LN||LA16915-3^Lactose formula^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|7|TX|62324-9^Post-discharge provider name^LN||Healthy, Bob||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|8|XTN|62328-0^Post-discharge provider practice telephone number^LN|1|^^PH^^^555^5551212^||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBR|3|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|53261-4^Amino acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46733-2^Amino acidemias newborn screen interpretation^LN|1|LA18593-6^Out of range^LN^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57793-2^ Amino acidemia disorder suspected [Identifier] in Dried blood spot^LN|1|LA21161-7^Argininemia^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services

Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|TX|57710-6^Amino acidemias newborn screening comment-discussion^LN|1|Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|4|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57084-6^Fatty acid oxidation newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46736-5^Fatty acid oxidation defects newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57792-4^FA oxidation conditions suspected DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|5|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57085-3^Organic acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46744-9^Organic acidemias newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th

St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57791-6^Organic acidemia conditions suspected [Identifier] in Dried blood spot^LN||LA137-2^None^LN|||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|6|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54078-1^Cystic fibrosis newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46769-6^Cystic fibrosis newborn screen interpretation^LN|1|LA9663-1^Inconclusive^LN^^^^^Inconclusive|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57707-2^Cystic fibrosis newborn screening comment- discussion^LN|1|No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|7|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57086-1^Congenital adrenal hyperplasia newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46758-9^Congenital adrenal hyperplasia newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services

Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|8|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54090-6^Thyroid newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46762-1^Congenital hypothyroidism newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|9|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54079-9^Galactosemia newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46737-3^Galactosemias newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|10|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54081-5^Hemoglobinopathies newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46740-7^Hemoglobin disorders newborn screening interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|11|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57087-9^Biotinidase Newborn Screen Panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46761-3^Biotinidase deficiency newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|12|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|62333-0^Severe combined immunodeficiency (SCID) newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|62321-5^Severe combined immunodeficiency (SCID) newborn screen interpretation^LN|1|LA18593-6^Out of range^LN^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|62322-3^Severe combined immunodeficiency (SCID) newborn screening comment-discussion^LN|1|Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination.|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th

St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|13|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|85267-3^X-linked adrenoleukodystrophy (X-ALD) newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|85269-9^X-linked adrenoleukodystrophy (X- ALD) newborn screen interpretation^LN|1|LA18593-6^Out of range^LN^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|85268-1^X-linked adrenoleukodystrophy (X-ALD) newborn screening comment-discussion^LN|1|Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

D. RESULT MESSAGE – REVISED (CORRECTED) REPORT

RESULT REPORT EXAMPLE:

ABNORMAL SCREEN

Disorder *	Screening Result	Analyte	Analyte Result
Amino Acid Disorders	Abnormal: See Note 1	Arginine	Borderline
Fatty Acid Disorders	Normal		
Organic Acid Disorders	Normal		
Galactosemia	Normal		
Biotinidase Deficiency	Normal		
Hypothyroidism	Revised Result: See Note 2		
CAH	Normal		
Hemoglobinopathies	Normal		
Cystic Fibrosis	Inconclusive: See Note 3	Immunoreactive Trypsinogen	Elevated
		CFTR Mutation	0 Mutations Detected
SCID	Abnormal: See Note 4	TREC	Very Low TREC
X-ALD	Abnormal: See Note 5		

Screening Result Notes:

1. Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.
2. Possible Hypothyroidism. T4 Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days. [The specimen was originally reported as Normal for Hypothyroidism.]
3. No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.
4. Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination.
5. Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow.

MESSAGE EXAMPLE:

MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.18 1960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1 .114222.XXX^ISO|20190720091229||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL

PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2 028-9^Asian^HL70005~2106-3^White^HL70005|||||||||ABCD1234^^^OrderingFacilityName &2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO ^MR|N|Birth Hospital Name|Y|1

NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of Kin^HL70131|||||||||19901115||||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.4 46&ISO^MA

ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^ 2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|CM||||

20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^
^NPI|||20190720090030||||||ORDERING FACILITY
NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main
Street^^Austin^TX^78758|^^PH^^^512^5551212

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen
identifies newborns at increased risk for specified disorders. The reference value for all screened
disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The
recommended collection time period and the testing methodologies have been designed to minimize
the number of false negative and false positive results in newborns and young infants. When the
newborn screen specimen is collected before 24 hours of age or on older children, the test may not
identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated.
Specimens that are unacceptable are reported as Unsatisfactory|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105|The SCID / TREC (T-cell
receptor excision circles) test is performed by quantitative real-time polymerase chain reaction
analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy
screening tests were developed /modified and performance characteristics determined by DSHS.
These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The
FDA has determined that such approval is not necessary if performance characteristics are verified at
the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO
ACID DISORDERS: ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU,
TYRI, TYRII, and TYRIII. FATTY ACID DISORDERS: CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD,
MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. ORGANIC ACID DISORDERS: 2M3HBA, 2MBG, 3MCC,
3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. GALACTOSEMIA.
BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S, Hb S/C, Hb S-
Beta Th, Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. X-ALD. List of disorders
screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information, please
refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

NTE|5|L^Ancillary (filler) department is source of comment^HL70105|The Cystic Fibrosis molecular
testing panel consists of 60 mutations and 4 variants in the Cystic Fibrosis Transmembrane
Conductance Regulator (CFTR) gene and is performed using the Luminex xTAG Cystic Fibrosis

(CFTR) 60 kit v2 assay. Depending on the patient's ethnicity, the mutation detection rate is estimated to be 54.5-95.9% and the residual risk of carrying a CFTR mutation not included on the panel is approximately 0.2-0.5%. Test results should not be used to diagnose but should be interpreted in the context of clinical findings, family history, and other laboratory data.|RE^Remark^HL70364

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN||LA12432-3^Acceptable^LN||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57130-7^Newborn screening report - overall interpretation^LN|1|LA18944-1^Screen is out of range for at least one condition^LN^^^^^Abnormal|||A|||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|1|LA21161-7^Argininemia^LN||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|4|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|2|LA12538-7^Primary congenital hypothyroidism^LN||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|5|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|3|LA12566-8^Severe combined immunodeficiency^LN||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|6|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|4|LA25796-6^X-linked adrenoleukodystrophy^LN||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|7|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|1|LA22202-8^Cystic fibrosis^LN||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|8|ST|57724-7^Newborn screening short narrative summary^LN|1|\SUMMARY: Abnormal\.br\Sample Quality: Acceptable\.br\Amino Acid Disorders: Abnormal - Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.\.br\Fatty Acid Disorders: Normal\.br\Organic Acid Disorders: Normal\.br\Galactosemia: Normal\.br\Biotinidase Deficiency: Normal\.br\Hypothyroidism: Revised Result - Possible Hypothyroidism. T4 Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days. [The specimen was originally reported as Normal for Hypothyroidism.]\.br\CAH: Normal\.br\Hemoglobinopathies: Normal\.br\Cystic Fibrosis: Inconclusive - No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.\.br\SCID: Abnormal - Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination.\.br\XALD: Abnormal - Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow.|||A|||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||201907200835|201907210000||||||||LA12432-3^Acceptable^LN|||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||^difficulty collecting sample|||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current sample^LN||190123456||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM |||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services

Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA137-2^None^LN^^^^^^NORMAL|||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|4|CWE|67704-7^Feeding types^LN||LA16914-6^Breast milk^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|TX|62324-9^Post-discharge provider name^LN||Healthy, Bob|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|6|XTN|62328-0^Post-discharge provider practice telephone number^LN|1|^^PH^^^555^5551212^|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBR|3|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|53261-4^Amino acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46733-2^Amino acidemias newborn screen interpretation^LN|1|LA18593-6^Out of range^LN^^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57793-2^ Amino acidemia disorder suspected [Identifier] in Dried blood spot^LN|1|LA21161-7^Argininemia^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|TX|57710-6^Amino acidemias newborn screening comment-discussion^LN|1|Possible Amino Acid Disorder. Arginine Slightly Elevated. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|4|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57084-6^Fatty acid oxidation newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46736-5^Fatty acid oxidation defects newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57792-4^FA oxidation conditions suspected DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|5|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57085-3^Organic acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46744-9^Organic acidemias newborn screen interpretation^LN||LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57791-6^Organic acidemia conditions suspected [Identifier] in Dried blood

spot^LN||LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|6|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54078-1^Cystic fibrosis newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46769-6^Cystic fibrosis newborn screen interpretation^LN|1|LA9663-1^Inconclusive^LN^^^^^^Inconclusive|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57707-2^Cystic fibrosis newborn screening comment- discussion^LN|1|No further evaluation necessary unless clinically indicated. Immunoreactive Trypsinogen (IRT) Elevated. None of the CFTR variants in the DSHS panel were detected. However, there is a minimal risk for Cystic Fibrosis due to variants not included in the panel.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|7|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57086-1^Congenital adrenal hyperplasia newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46758-9^Congenital adrenal hyperplasia newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|8|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54090-6^Thyroid newborn screening panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46762-1^Congenital hypothyroidism newborn screen interpretation^LN|1|LA18593-6^Out of range^LN^^^^^^Revised Result|||A|||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57705-6^Congenital hypothyroidism newborn screening comment-discussion^LN|1|Possible Hypothyroidism. T4 Low. If this is the second screen, follow recommendations received from Clinical Care Coordination. Otherwise, repeat the newborn screen within 7 days. [The specimen was originally reported as Normal for Hypothyroidism.]||||||C|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|9|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54079-9^Galactosemia newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46737-3^Galactosemias newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|10|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|54081-5^Hemoglobinopathies newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityN

ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46740-7^Hemoglobin disorders newborn screening interpretation^LN|1|LA18592-8^In
range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|11|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|57087-9^Biotinidase Newborn Screen
Panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46761-3^Biotinidase deficiency newborn screen interpretation^LN|1|LA18592-8^In
range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|12|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|62333-0^Severe combined immunodeficiency (SCID) newborn
screen
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|62321-5^Severe combined immunodeficiency (SCID) newborn screen
interpretation^LN|1|LA18593-6^Out of
range^LN^^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|TX|62322-3^Severe combined immunodeficiency (SCID) newborn screening comment-

discussion^LN|1|Possible Severe Combined Immunodeficiency or other T-cell lymphopenia. T-cell receptor excision circles (TREC) number Very Low. Follow recommendations received from Clinical Care Coordination.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|13|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|85267-3^X-linked adrenoleukodystrophy (X-ALD) newborn screen panel^LN|||201907200835||||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|C||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|85269-9^X-linked adrenoleukodystrophy (X- ALD) newborn screen interpretation^LN|1|LA18593-6^Out of range^LN^^^^^Abnormal|||A|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|TX|85268-1^X-linked adrenoleukodystrophy (X-ALD) newborn screening comment-discussion^LN|1|Possible X-ALD. C26:0 LPC Elevated. Recommend confirmatory very long chain fatty acids and consultation with a pediatric metabolic specialist or pediatric neurogeneticist within 7 days. DNA report to follow.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

E. RESULT MESSAGE – PARTIAL UNSATISFACTORY

RESULT REPORT EXAMPLE:

UNSATISFACTORY
SPECIMEN-RESUBMIT

Disorder *	Screening Result
Amino Acid Disorders	Normal
Fatty Acid Disorders	Normal
Organic Acid Disorders	Normal
Galactosemia	Unsatisfactory: See Note 1
Biotinidase Deficiency	Unsatisfactory: See Note 1
Hypothyroidism	Unsatisfactory: See Note 1
CAH	Normal
Hemoglobinopathies	Normal
Cystic Fibrosis	Normal
SCID	Unsatisfactory: See Note 2
X-ALD	Normal

Screening Result Notes:

1. Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.
2. Unsatisfactory: Unable to evaluate for detection of TREC (T-cell receptor excision circles) possibly due to low DNA quantity. Resubmit within 7 days.

MESSAGE EXAMPLE:

MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.181960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20190720091229||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL

PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2028-9^Asian^HL70005~2106-3^White^HL70005|||||||||ABCD1234^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^MR|N|Birth Hospital Name|Y|1

NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of Kin^HL70131|||||||||19901115||||||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.446&ISO^MA

ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|CM||||20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^^NPI|||20190720090030||||||ORDERING FACILITY NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main Street^^Austin^TX^78758|^^PH^^^512^5551212

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary

panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen identifies newborns at increased risk for specified disorders. The reference value for all screened disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The recommended collection time period and the testing methodologies have been designed to minimize the number of false negative and false positive results in newborns and young infants. When the newborn screen specimen is collected before 24 hours of age or on older children, the test may not identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated. Specimens that are unacceptable are reported as Unsatisfactory.|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105|The SCID / TREC (T-cell receptor excision circles) test is performed by quantitative real-time polymerase chain reaction analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy screening tests and CAH and XALD reflex panels were developed / modified and performance characteristics determined by DSHS. These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The FDA has determined that such approval is not necessary if performance characteristics are verified at the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO ACID DISORDERS: ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU, TYRI, TYRII, and TYRIII. FATTY ACID DISORDERS: CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD, MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. ORGANIC ACID DISORDERS: 2M3HBA, 2MBG, 3MCC, 3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. GALACTOSEMIA. BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S, Hb S/C, Hb S-Beta Th, Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. X-LINKED ADRENOLEUKODYSTROPHY. List of disorders screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information, please refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN|1|LA12682-3^Specimen appears scratched or abraded^LN^^^^^^Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57718-9^Sample quality of Dried blood spot^LN|2|LA20629-4^Unsuitable for other reasons^LN^^^^^^Unsatisfactory: Unable to evaluate for detection of TREC (T-cell receptor excision

circles) possibly due to low DNA quantity. Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|CWE|57130-7^Newborn screening report - overall interpretation^LN|1|LA16205-9^Specimen unsatisfactory for at least one condition^LN^^^^^Unsatisfactory|||UNSAT|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|4|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|5|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|6|ST|57724-7^Newborn screening short narrative summary^LN|1|SUMMARY: Unsatisfactory\.br\Sample Quality: Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.\.br\Sample Quality: Unsatisfactory: Unable to evaluate for detection of TREC (T-cell receptor excision circles) possibly due to low DNA quantity. Resubmit within 7 days.\.br\Amino Acid Disorders: Normal\.br\Fatty Acid Disorders: Normal\.br\Organic Acid Disorders: Normal\.br\Galactosemia: Unsatisfactory - Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.\.br\Biotinidase Deficiency: Unsatisfactory - Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.\.br\Hypothyroidism: Unsatisfactory - Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7 days.\.br\CAH: Normal\.br\Hemoglobinopathies: Normal\.br\Cystic Fibrosis: Normal\.br\SCID: Unsatisfactory - Unsatisfactory: Unable to evaluate for detection of TREC (T-cell receptor excision circles) possibly due to low DNA quantity. Resubmit within 7 days.\.br\XALD: Normal|||UNSAT|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||201907200835|201907210000|||||||U^Unsatisfactory^L|||||||201920240 01^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~00000201920100 9999^^^Ordering FacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshslab&2.16.840.1.114222.4

.1.181960&ISO^SID

OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current
sample^LN||190123456||||||F|||201907200835|||||20190724160054||||Texas Department of State
Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM
|||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100
W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA137-
2^None^LN^^^^^^NORMAL||||||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|4|CWE|67704-7^Feeding types^LN||LA16914-6^Breast
milk^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|TX|62324-9^Post-discharge provider name^LN||Healthy,
Bob||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100
W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|6|XTN|62328-0^Post-discharge provider practice telephone
number^LN|1|^^PH^^^555^5551212^||||||F|||201907200835|||||20190724160054||||Texas
Department of State Health Services Laboratory Services Section^^^^^CLIA
&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||QST

OBR|3|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|53261-4^Amino acid newborn screen

panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46733-2^Amino acidemias newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57793-2^Amino acidemia disorder suspected [Identifier] in Dried blood spot^LN|1|LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|4|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57084-6^Fatty acid oxidation newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|46736-5^Fatty acid oxidation defects newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57792-4^Fatty acid oxidation conditions suspected [Identifier] in Dried blood spot^LN|1|LA137-2^None^LN|||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|5|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57085-3^Organic acid newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to

procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46744-9^Organic acidemias newborn screen interpretation^LN|1|LA18592-8^In
range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|CWE|57791-6^Organic acidemia conditions suspected [Identifier] in Dried blood
spot^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|6|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|54078-1^Cystic fibrosis newborn screening
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46769-6^ Cystic fibrosis newborn screen interpretation^LN|1|LA18592-8^In
range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|7|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57086-1^Congenital adrenal hyperplasia newborn screening
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample|||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46758-9^Congenital adrenal hyperplasia newborn screen

interpretation^LN|1|LA18592-8^In
range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|8|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|54090-6^Thyroid newborn screening
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46762-1^Congenital hypothyroidism newborn screen interpretation^LN|1|LA16205-
9^Specimen unsatisfactory for at least one
condition^LN^^^^^^Unsatisfactory|||UNSAT|||F|||201907200835|||||20190724160054||||Texas
Department of State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57705-6^Congenital hypothyroidism newborn screening comment-
discussion^LN|1|Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes.
Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State
Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||

OBR|9|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|54079-9^Galactosemia newborn screen
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46737-3^Galactosemias newborn screen interpretation^LN|1|LA16205-9^Specimen
unsatisfactory for at least one
condition^LN^^^^^^Unsatisfactory|||UNSAT|||F|||201907200835|||||20190724160054||||Texas
Department of State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57704-9^ Galactosemias newborn screening comment- discussion ^LN|1|Unsatisfactory:
Filter paper is scratched from the possible use of capillary tubes. Resubmit within 7
days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100
W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|10|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|54081-5^Hemoglobinopathies newborn screen
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46740-7^Hemoglobin disorders newborn screening interpretation^LN|1|LA18592-8^In
range^LN^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|11|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|57087-9^Biotinidase Newborn Screen
Panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|CWE|46761-3^Biotinidase deficiency newborn screen interpretation^LN|1|LA16205-
9^Specimen unsatisfactory for at least one
condition^LN^^^^^Unsatisfactory|||UNSAT|||F|||201907200835|||||20190724160054||||Texas
Department of State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|TX|57699-1^Biotinidase deficiency newborn screening comment-
discussion^LN|1|Unsatisfactory: Filter paper is scratched from the possible use of capillary tubes.
Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State
Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBR|12|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^ 2.16.840.1.114222.4.1.181960.2^ISO|62333-0^Severe combined immunodeficiency (SCID) newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2. 16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113 883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|62321-5^Severe combined immunodeficiency (SCID) newborn screen interpretation^LN|1|LA16205-9^Specimen unsatisfactory for at least one condition^LN^^^^^^Unsatisfactory|||UNSAT|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBX|2|TX|62322-3^Severe combined immunodeficiency (SCID) newborn screening comment-discussion^LN|1|Unsatisfactory: Unable to evaluate for detection of TREC (T-cell receptor excision circles) possibly due to low DNA quantity. Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

OBR|13|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^ 2.16.840.1.114222.4.1.181960.2^ISO|85267-3^X-linked adrenoleukodystrophy (X-ALD) newborn screen panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2. 16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113 883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I SO|||||||||||^difficulty collecting sample||||||||||NDBS||A^Alert provider when abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community (AHIC)^LN

OBX|1|CWE|85269-9^X-linked adrenoleukodystrophy (X- ALD) newborn screen interpretation^LN|1|LA18592-8^In range^LN^^^^^^Normal|||N|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453||||||RSLT

F. RESULT MESSAGE – GLOBAL UNSATISFACTORY

RESULT REPORT EXAMPLE:

UNSATISFACTORY
SPECIMEN-RESUBMIT
_____

**The specimen submitted for this patient was deemed unsatisfactory for the reasons listed below.
An immediate recollection is necessary to further evaluate this infant.**

1) Specimen appears contaminated or discolored. Resubmit within 7 days.
2) Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.
3) Specimen too old upon receipt. Resubmit within 7 days.

MESSAGE EXAMPLE:

MSH|^~\&|txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|txdshslab^2.16.840.1.114222.4.1.18
1960^ISO|OrderingApplicationName^2.16.840.1.114222.XXX^ISO|OrderingFacilityName^2.16.840.1
.114222.XXX^ISO|20190720091229||ORU^R01^ORU_R01|DSHS123456789012345|P|2.5.1|||AL|AL

PID|1||123456^^^^MR||BabyLast^BabyFirst|MotherMaiden|201907011118|F^Female^HL70001||2
028-9^Asian^HL70005~2106-3^White^HL70005|||||||||ABCD1234^^^OrderingFacilityName
&2.16.840.1.114222.XXX&ISO^AN|||223456^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO
^MR|N|Birth Hospital Name|Y|1

NK1|1|MotherLast^MotherFirst|MTH^Mother^HL70063|123 SUNSHINE
DR^^AUSTIN^TX^78756|^^PH^^^555^5554321||N^Next of
Kin^HL70131|||||||||||19901115|||||||||||||||||||||123456789^^^txMCDmedIDadm&2.16.840.1.113883.4.4
46&ISO^MA

ORC|RE|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^
2.16.840.1.114222.4.1.181960.2^ISO|25^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|CM||||
20190724160530|||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113883.4.6&ISO^L^^
^NPI|||20190720090030||||||ORDERING FACILITY
NAME^^^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^FI^^^01234567|123 Main
Street^^Austin^TX^78758|^^PH^^^512^5551212

OBR|1|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.
16.840.1.114222.4.1.181960.2^ISO|57128-1^Newborn Screening report summary
panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.
16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to
procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113
883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

NTE|1|L^Ancillary (filler) department is source of comment^HL70105|The newborn screen
identifies newborns at increased risk for specified disorders. The reference value for all screened

disorders is 'Normal'. Analyte results are only listed for abnormal disorder screening results. The recommended collection time period and the testing methodologies have been designed to minimize the number of false negative and false positive results in newborns and young infants. When the newborn screen specimen is collected before 24 hours of age or on older children, the test may not identify some of these conditions. If there is a clinical concern, diagnostic testing should be initiated. Specimens that are unacceptable are reported as Unsatisfactory.|RE^Remark^HL70364

NTE|2|L^Ancillary (filler) department is source of comment^HL70105|The SCID / TREC (T-cell receptor excision circles) test is performed by quantitative real-time polymerase chain reaction analysis to detect the number of TRECs. SCID, Biotinidase deficiency, and Hemoglobinopathy screening tests and CAH reflex panel were developed / modified and performance characteristics determined by DSHS. These tests have not been cleared or approved by the US Food and Drug Administration (FDA). The FDA has determined that such approval is not necessary if performance characteristics are verified at the testing laboratory.|RE^Remark^HL70364

NTE|3|L^Ancillary (filler) department is source of comment^HL70105|Disorders Screened: AMINO ACID DISORDERS: ARG, ASA, CIT, CIT II, BIOPT(BS), BIOPT(REG), HCY, H-PHE, MET, MSUD, PKU, TYRI, TYRII, and TYRIII. FATTY ACID DISORDERS: CACT, CPT IA, CPT II, CUD, DE RED, GA2, LCHAD, MCAD, MCAT, M/SCHAD, SCAD, TFP, VLCAD. ORGANIC ACID DISORDERS: 2M3HBA, 2MBG, 3MCC, 3MGA, BKT, GA1, HMG, IBG, IVA, MAL, MMA (MUT, Cbl A, B, C, D), MCD, PROP. GALACTOSEMIA. BIOTINIDASE DEFICIENCY. HYPOTHYROIDISM. CAH. HEMOGLOBINOPATHIES: Hb S/S, Hb S/C, Hb S-Beta Th, Var Hb. CYSTIC FIBROSIS. SCID and T-Cell related Lymphopenias. List of disorders screened available at www.dshs.state.tx.us/lab/NBSdisorderList.pdf|RE^Remark^HL70364

NTE|4|L^Ancillary (filler) department is source of comment^HL70105|For more information, please refer to http://www.dshs.state.tx.us/lab/newbornscreening.shtm|RE^Remark^HL70364

OBX|1|CWE|57718-9^Sample quality of Dried blood spot^LN|1|LA12685-6^Specimen appears diluted, discolored or contaminated^LN^^^^^^Specimen appears contaminated or discolored. Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|2|CWE|57718-9^Sample quality of Dried blood spot^LN|2|LA12435-6^Specimen appears clotted or layered^LN^^^^^^Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|3|CWE|57718-9^Sample quality of Dried blood spot^LN|3|LA12441-4^Sample too old^LN^^^^^^Specimen too old upon receipt. Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|4|CWE|57130-7^Newborn screening report - overall interpretation^LN|1|LA16205-9^Specimen unsatisfactory for at least one condition^LN^^^^^^Unsatisfactory|||UNSAT|||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|5|CWE|57131-5^Newborn conditions with positive markers [Identifier] in DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|6|CWE|57720-5^Newborn conditions with equivocal markers [Identifier] in DBS^LN|1|LA137-2^None^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

OBX|7|ST|57724-7^Newborn screening short narrative summary^LN|1|SUMMARY: Unsatisfactory\.br\Sample Quality: Specimen appears contaminated or discolored. Resubmit within 7 days.\.br\Sample Quality: Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.\.br\Sample Quality: Specimen too old upon receipt. Resubmit within 7 days.||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services Laboratory Services Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th St^^Austin^TX^78756^USA^SL^^453|||||RSLT

SPM|1|SID20192019999&OrderingFacilityName&2.16.840.1.114222.XXX&ISO^20192024001&txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO|SID20192019999^OrderingFacilityName&2.16.840.1.114222.XXX^ISO|440500007^Blood spot specimen^SCT|||CAP^Capillary Specimen^HL70396|||||||||||201907200835|201907210000|||LA12685-6^Specimen appears diluted, discolored or contaminated^LN^^^^^^Specimen appears contaminated or discolored. Resubmit within 7 days.~LA12435-6^Specimen appears clotted or layered^LN^^^^^^Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.~LA12441-4^Sample too old^LN^^^^^^Specimen too old upon receipt. Resubmit within 7 days.|||LA12685-6^Specimen appears diluted, discolored or contaminated^LN^^^^^^Specimen appears contaminated or discolored. Resubmit within 7 days.~LA12435-6^Specimen appears clotted or layered^LN^^^^^^Blood was caked, clotted, or layered onto the filter paper. Resubmit within 7 days.~LA12441-4^Sample too old^LN^^^^^^Specimen too old upon receipt. Resubmit within 7 days.|||||20192024001^^^txdshslabNBS&2.16.840.1.114222.4.1.181960.2&ISO^ACSN~000002019201009999^^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^ACSN|190123456^^^txdshslab&2.16.840.1.114222.4.1.181960&ISO^SID

OBR|2|123456^OrderingFacilityName^2.16.840.1.114222.XXX^ISO|20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^ISO|57717-1^Newborn screen card data panel^LN|||201907200835|||12188^Hippocrates^Harold^H^IV^Dr^MD^^OrderingFacilityName&2.16.840.1.114222.XXX&ISO^L^^EI|G||F^Patient fasting prior to procedure^HL70916|201907210000||1234567890^Dolittle^John^Q^JR^DR^^^NPI&2.16.840.1.113

883.4.6&ISO^L||PlacerField1|PlacerField2|||20190724160054||LAB|F||||123456&OrderingFacilityN
ame&2.16.840.1.114222.XXX&ISO^20192024001^txdshslabNBS^2.16.840.1.114222.4.1.181960.2^I
SO|||||||||||^difficulty collecting sample||||||||NDBS||A^Alert provider when
abnormal^HL70507|54089-8^Newborn screening panel American Health Information Community
(AHIC)^LN

OBX|1|TX|57723-9^Unique bar code number of Current
sample^LN||190123456||||||F|||201907200835|||||20190724160054||||Texas Department of State
Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|2|NM|8339-4^Birthweight^LN||2805|g^gram^UCUM
|||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100
W.49th St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|3|CWE|57713-0^Infant NICU factors that affect newborn screening interpretation^LN||LA137-
2^None^LN^^^^^^NORMAL||||||F|||201907200835|||||20190724160054||||Texas Department of
State Health Services Laboratory Services
Section^^^^^CLIA&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|4|CWE|67704-7^Feeding types^LN||LA16914-6^Breast
milk^LN||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453|||||SCI

OBX|5|TX|62324-9^Post-discharge provider name^LN||Healthy,
Bob||||||F|||201907200835|||||20190724160054||||Texas Department of State Health Services
Laboratory Services Section^^^^^ CLIA &2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100
W.49th St^^Austin^TX^78756^USA^SL^^453|||||QST

OBX|6|XTN|62328-0^Post-discharge provider practice telephone
number^LN|1|^^PH^^^555^5551212^||||||F|||201907200835|||||20190724160054||||Texas
Department of State Health Services Laboratory Services Section^^^^^CLIA
&2.16.840.1.113883.4.7&ISO^LN^^^45D0660644|1100 W.49th
St^^Austin^TX^78756^USA^SL^^453||||||QST