

## **ASC X12L/97-xxx**

**Based on Version 4, Release 1**

**ASC X12 Standards for Electronic Data Interchange  
Technical Report Type 1**

# **X12.41: Well Information Data Transaction Set (625)**

JUNE 1998 – DRAFT

### **ABSTRACT**

The purpose of this tutorial is to offer guidance on the use of the Well Information Transaction Set (625). The (625) transaction set facilitates the exchange of engineering, geological and environmental information related to non-financial well activities. The transaction set can be used between private industry trading partners to relay information about joint venture well activities or between private industry and government agencies.

***This transaction set shall not be used to relay financial information such as regulatory royalty payment information or costs associated with well activities.***

**Copyright © 1998 DISA**  
Data Interchange Standards Association, Inc.  
All rights reserved throughout the world.

# TABLE OF CONTENTS

<b>Preface</b> .....	<b>iv</b>
General .....	iv
Limitations .....	iv
Referenced and Related Standards .....	iv
Creation Of A (625) Transaction Set .....	v
Format and Symbols .....	v
Code Usage .....	v
Comments .....	vi
<b>Chapter 1</b> .....	<b>1</b>
Why Use the Electronic Well Information System .....	1
When to Send an X12 (625)Transaction .....	1
<b>Chapter 2</b> .....	<b>3</b>
Transaction Set (625) Architecture.....	3
Technical Considerations .....	3
Hierarchical Level Example: Single Well or Facility Permit/Report.....	4
Hierarchical Level Example: Blanket Permit/Report.....	5
The Hierarchical Level and Well Information Objects .....	6
Conclusion.....	8
<b>Chapter 3</b> .....	<b>9</b>
Transaction Set (625).....	11
Segment Definitions For Well Information.....	13
<b>Appendix A</b> .....	<b>55</b>
Copy BLM Form 3160-4 “Completion Report” .....	56
Example BLM 3160-4 625 Transmission .....	58
<b>Appendix B</b> .....	<b>95</b>
Well Information Objects .....	96

# PREFACE

## GENERAL

This tutorial was created to explain the developers' intent when the Well Information Transaction Set was designed. It corresponds to Version/Release 4010 "Draft Standards for Trial Use" approved for publication by ASC X12 Procedures Review Board through December, 1997. This is the first tutorial published for this transaction set.

This document is a Technical Report Type 1 (Tutorial). It was prepared by the Industry Standards Transition Subcommittee (X12L).

The 625 transaction set was designed to allow the exchange of engineering, geological and environmental information related to non-financial well activities. This tutorial will only demonstrate the fully structured format as the authors believe that is the way to get the most from an EDI transaction.

This tutorial is intended for use in creating an electronic well information data set either from a paper source or a non-X12 electronic file. For receivers and transmitters of electronic well information in the X12 format, this tutorial can be used by an EDI-proficient person that can identify and map the data contents to an existing well information database.

## LIMITATIONS

Although individual use of all segments and data elements contained in the 625 transaction set is permissible under X12 rules, this tutorial prohibits the use of a segment or data element wherever the label "Not Used" appears, or where the guideline text indicates "do not use".

- The term "**Required**" means that a given segment or data element must be used as explained at that point in the guideline text.
- The term "**Recommended**" means that under this tutorial the segment or data element is probably necessary or the most appropriate choice among options to carry a given data value. If no margin notation is present, use of the segment or data element is optional: it need not always be used, but will be necessary from case to case, and designers must provide for it.
- The term "**Not Recommended**" means that guideline developers foresee risks or ambiguity if the given segment or data element is used, and that a user may put either sender or receiver at a programming - or worse - safety risk by using it.

Multiple reports can be included in a single (625) transaction set through the use of the HL loop. However, it is recommended that only one type of report be sent within a single (625) transaction set. For example the sender may include a number of Well Completion Reports within one GS envelope and a number of Well Plug and Abandonment reports in another GS envelope.

## REFERENCED AND RELATED STANDARDS

The X12 series of standards on electronic data interchange is interdependent. The following standards may be required to interpret, understand, and use this tutorial:

- **X12.3** Data Element Dictionary
- **X12.5** Interchange Control Structures
- **X12.6** Application Control Structure
- **X12.22** Segment Directory

Readers of this tutorial may want to consult *An Introduction to EDI*, a useful primer for those new to the world of electronic data interchange. It is available from the ASC X12 Secretariat.

### CREATION OF A (625) TRANSACTION SET

This guideline offers decision rules and examples for selecting items or groups of related items of data from your paper source report, and putting them into the proper electronic format positions for continued use as X12 electronic reports.

There are no laws or regulations requiring the use of the standards, specifically, the (625) electronic format. However, this guideline does apply equally well in a state, provincial, or national jurisdiction. Each standard is an industry-consensus standard created to guide good business practice and help reduce overall cost and error to report makers and users between industry and government trading partners.

### FORMAT AND SYMBOLS

Transaction Set (625) tables and loops are provided on pages 1 through 3. Successive pages delineate each segment that appears in the transaction set tables. Page numbers in the left most column of the page indicate where segment details can be found.

Following the transaction set tables is a detailed description of each segment in the order specified by the transaction set tables. Segments are listed by segment ID and name, level (header, detail, or summary), loop (if segment is contained within a loop), loop repeat (for the first segment in the loop), requirement within the transaction set, maximum use, purpose, syntax, and semantic notes and comments (if any). Special notes prepared by the subcommittee are provided in shaded blocks.

The X12.6 Application Control Structure contains the formal definitions of all terms related to electronic data interchange. The following abbreviations are used in this tutorial:

ABBREVIATION	DEFINITION
<b>O</b>	Optional
<b>M</b>	Mandatory
<b>X</b>	Conditional
<b>AN</b>	Alphanumeric- (string) type data element
<b>COMP</b>	Composite unit of measure
<b>DT</b>	Date-type data element
<b>ID</b>	Identifier-type data element
<b>Nx</b>	Numeric-type data element
<b>R</b>	Decimal-type data element
<b>TM</b>	Time-type data element
<b>Max. Use</b>	Maximum use
<b>Req. Des.</b>	Requirement designator
<b>Ref. Des.</b>	Reference designator
<b>Seg. ID</b>	Segment ID

### CODE USAGE

The code values shown in this tutorial are those the developers of Transaction Set (625) intend for use when transmitting Well Information transactions. Codes may be required or recommended by the developers.

- A **“Required”** code is the only code available for use at specific occurrence of a data element.

- A “**Recommended**” code is a code preferred for use by the developers at a specific occurrence of a data element. When codes appear with no requirement or recommendation, it is up to users to choose the proper code for their implementation.

If you do not find a code you need in this report, look for an appropriate code in the X12 standards. The best place is to look in the X12 Alphabetic Code List. Users who have a business need to use codes not listed in this tutorial are requested to apprise the ASC X12 Secretariat so that the developers may add these code values to future releases of this tutorial.

## COMMENTS

Comments, questions, and suggestions for improvement of this document may be submitted in writing to the Secretariat who will forward them to the appropriate ASC X12 Subcommittee. ASC X12 Standards are available for purchase from the ASC X12 Secretariat.

### Manager, Publications & Standards

ASC X12 Secretariat  
Data Interchange Standards Association, Inc.  
1800 Diagonal Road - Suite 200  
Alexandria, Virginia 22314-2852

Phone: (703) 548-7005 FAX: (703) 548-5738  
Publications Order Desk 1 (888) DO EC/EDI  
Email: [publications@disa.org](mailto:publications@disa.org) Internet: <http://www.disa.org>

---

# CHAPTER 1

## Why use the electronic ASC X12 Well Information System?

For every oil and gas well drilled, produced, serviced or abandoned either onshore or offshore within the United States, well permits and activity reports are submitted by the Oil & Gas industry to Regulatory Agencies. Quantifying this permitting and reporting activity from an operational perspective - over 3.5 million oil and gas wells are monitored by the oversight of 36 state and three federal regulatory agencies (onshore and offshore) which are operated by 250 major and over 8000 smaller oil and gas companies. There are tens of thousands of well permits and reports forwarded between these entities on a yearly basis. These well permits and reports are very similar in nature when compared for each agency's data requirements, but unfortunately up to now have not been standardized as a whole. Operators have found themselves submitting the same data to different regulatory entities but having to do so using a variety of manual formats.

Using Transaction Set (625), the oil and gas industry, state and federal regulatory agencies will accrue considerable time and cost savings through electronic submission and associated data capture of well permits and reports. With the trend toward smaller and more cost effective regulatory staffs, this X12 standard will enable these agencies to process more well permits/reports quicker, cheaper and faster than can be achieved manually. The industry will benefit through lower cost well permitting and reporting process cycle times.

An electronic X12 transaction set allows the creation of a computer based Well Information Report file for easy access, transmission, and maintenance.

## When to Send an X12 Transaction (625)

A trading partner should be prepared to send a Well Information Transaction Set (625) format under the following typical implementation conditions, which reflect both the requirements of industry/agency trading partners. Examples of these include:

- **Well Drilling Permits**
- **Drilling and Well Status Reports**
- **Sundry Well Activity Permits and Reports**
- **Completion Reports**
- **When a trading partner requests electronic well information**



## CHAPTER 2

### Transaction Set (625) Architecture

#### Technical Considerations

The concept of hierarchical levels is a key feature of the Well Information Transaction Set (625). Applying a common hierarchy to levels of data allows the sender to describe the details of well information in an electronic format. In this way, the receiver can successfully process the electronic transaction and correctly associating the well information data to a physical action that has or will be taking place for a well or a facility.

Each level within the Well Information Transaction Set (625) groups together related details about a physical well or a related facility. Data is transmitted at the level to which it logically applies, therefore avoiding redundancy. The seven hierarchical levels defined for use in an oil and gas industry implementation of the Transaction Set (625) are:

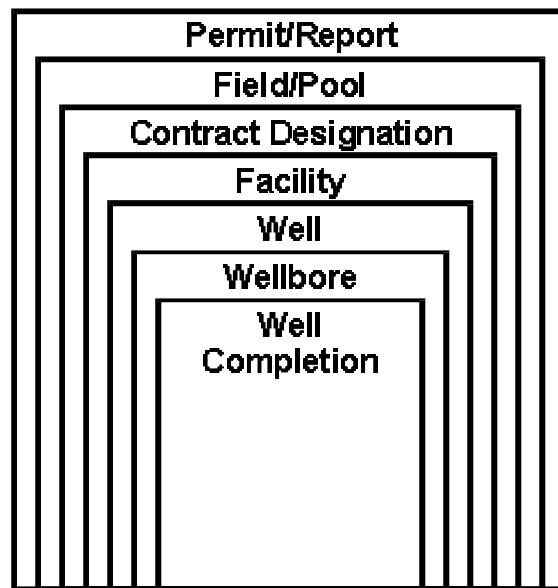


Figure 1

- **Permit/Report** - Data related to a well permit or report being submitted by a sender to the receiver, such as well permit/report type and sender/receiver information. There is one and only one permit/report level in each transaction set.
- **Field/Pool** - Data related to a well's or facility's field or producing pool location, such as field or pool geographic name, well spacing order number, etc. This level may be omitted if there are no field/pool data attributes described within the transaction set.
- **Contract Designation** - Contractual obligations such as lease name, lease number, unit name and unit number.
- **Facility** - Data related to specific oil and gas facilities such as the facility name, facility numbers, facility type, it's legal land description location, etc.
- **Well** - Data and descriptive information related to or descriptive of a well. This includes information such as well name and/or number as well as operational status.

- **Wellbore** - Data specifically relevant to one or multiple wellbores associated with a well. This includes information such as the wellbore's legal land description locations, elevations/datums, drilling attributes, geologic formations encountered, tubulars, treatments used or serviced, etc.
- **Well Completion** - Data specifically related to a well's one or multiple completions. This includes information such as the well completion's reservoir properties, fluid properties, well performance test attributes, etc.

The hierarchical structure defines the sequence or order in which the levels will appear within the Well Information Transaction Set (625).

There are several distinct hierarchical structures which can be identified for use in oil and gas industry implementations. Examples of these: *Single Well Permits/Reports*, *Facility Permits/Reports*, and *Blanket Permits/Reports* are given on the following pages. The distinction between these structures is the number of Field/Pool, Contract Designation, Facility, and Well hierarchical levels within the transaction set. To illustrate this point, a *Single Well or Facility Permit/Report* transaction contains only one of each of the Field/Pool, Contract Designation, Facility and/or Well hierarchical levels, whereas, a *Blanket Permit/Report* may contain one or multiple instances of these four levels. Only one hierarchical structure (composed of one or multiple hierarchical levels) can be present in a single transaction set. Therefore, one permit report equals one (625) transaction.

### Hierarchical Level Example: Single Well or Facility Permit/Report

The *Single Well or Facility Permit/Report* hierarchical structure should be used in single well or facility transaction set submissions. Typically, this is when the Well Information (625) attributes being sent are related to one well or facility. Examples of types of *Single Well Permits/Reports* include: *Application-For-Permit-To-Drill (APD)*, a *Well Completion Report*, *Notice-Of-Intent To Plug And Abandon*, *Subsequent Report Of Abandonment*, and *Meter Proving Report*.

For *Single Well or Facility Permits/Reports*, the sender transacts data using (625) for each well or facility respectively and does not combine information from a number of wells or facilities. For example, in Figure 2, the submission of a *report of well abandonment* utilizes five of the seven hierarchical levels and the Facility level is not used. The Wellbore hierarchical level for a single well where only one wellbore is to be plugged is shown below.

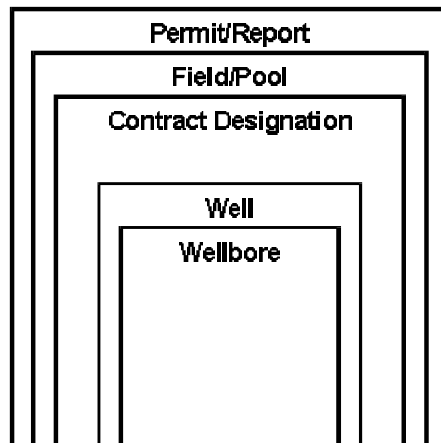


Figure 2

A similar example for a single well where two wellbores are to be plugged would be structured as illustrated in Figure 3.

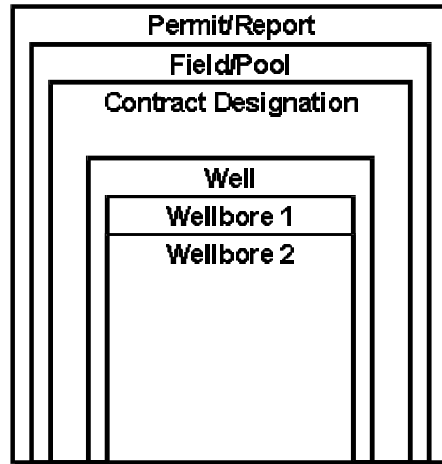


Figure 3

Figure 4 illustrates an example of a single facility.

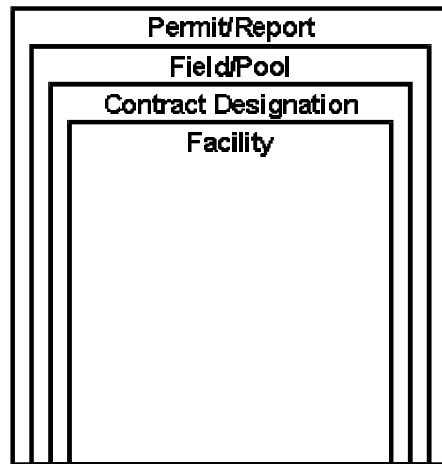


Figure 4

### Hierarchical Level Example: Blanket Permit/Report

Multiple well or facility transaction set submissions are sent using the *Blanket Permit/Report* hierarchical structure. Typically this occurs when multiple wells or facilities are related. Examples of blanket permit/report include: temporary abandonment, flaring or venting of gas, and successor operator reports.

The example illustrated in Figure 5, the submission of a *report of facility repair*, utilizes four of the seven hierarchical levels and has multiple facilities described.

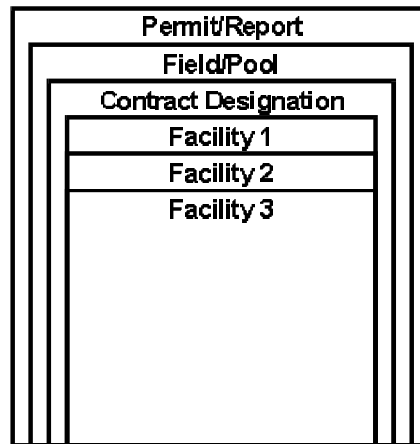


Figure 5

An example of a multiple well blanket permit/report such as a *request to flare or vent wells* (Figure 6):

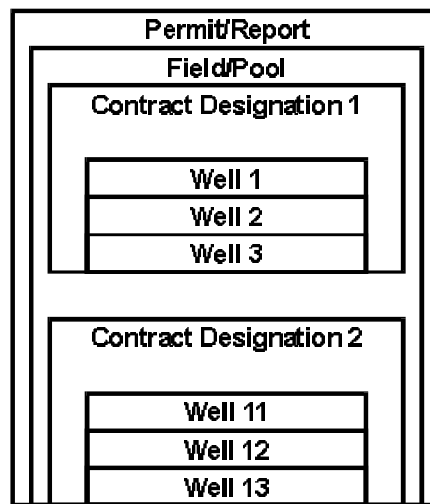


Figure 6

### The Hierarchical Level and Well Information Objects

For each of the seven hierarchical levels described in the first part of this Chapter, data that is associated to one of these levels can be logically combined into smaller groups of well information activities. These smaller groups of a single hierarchical level's data segments are called **Well Information Objects**. Table 1, provides a description/purpose of each hierarchical level's Well Information Objects.

Table 1		
Level No.	Hierarchical Levels	Well Information Object Data Content Description
1.0	Permit/Report Hierarchical Level	Data related to a well permit or report being submitted by a sender to the receiver, such as well permit/report type and sender/receiver information. <i>There is only one permit/report hierarchical level for each transaction set.</i>
2.0	Fields/Pools Hierarchical Level	Data related to a well's or facility's field or producing pool location, such as field or pool geographic name, well spacing order number, etc. This level may be omitted if there are no field/pool data attributes described within the transaction set.
3.0	Contract Designation Hierarchical Level	Data to identify a well's or facility's contractual obligations or referential keys such as lease name, lease number, unit name and unit number.
4.0	Facility Hierarchical Level	Data related to specific oil and gas facilities such as the facility name, facility number(s), facility type and its legal land description location, etc. This level may be omitted if there are no facilities described within the transaction set.
5.0	Well Hierarchical Level	Data specifically related to or description of a well. This includes information such as well name/number and well operational status attributes. This hierarchical level may be omitted if there are no well attributes described within the transaction set.
6.0	Wellbore Hierarchical Level	Data specifically related to a well's one or multiple wellbores. This includes information such as the wellbore's legal land description locations, wellbore elevations and datums, wellbore drilling attributes, geologic formations encountered, wellbore tubulars and treatments used or serviced, etc. This hierarchical level may be omitted if there are no wellbore attributes described within the transaction set.
7.0	Well Completion Hierarchical Level	Data specifically related to a well's one or multiple producing or serviceable completions. This includes information such as the well completion's reservoir properties, fluid properties, well performance test attributes, etc.

For each Well Information object in Table 1 above, this transaction set uses data within the **Hierarchical Level (HL) Segment** and the **Product Item Description (PID) Segment** to distinguish them. These HL and PID segment data values allow the sender to tell the receiver that the information that follows is associated to a specific well information object.

**(Note: For a better understanding review Appendix A.)**

## **Conclusion**

The Well Information Transaction Set (625) is very simple in design and provides substantial flexibility in handling a wide array of data. It is important to note, that the Well Information Transaction Set (625) was designed so that it had flexibility to handle future changes to data handling requirements.

---

# CHAPTER 3

Transaction Set (625)

Segment Definitions



# 625 Well Information

FUNCTIONAL GROUP: **WL**

This Draft Standard for Trial Use contains the format and establishes the data content of the Well Information Transaction Set (625) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set facilitates the exchange of engineering, geological and environmental information related to non-financial well activities. The transaction set can be used between private industry trading partners to relay information about joint venture well activities or between private industry and government agencies.

This transaction set shall not be used to relay financial information such as regulatory royalty payment information or costs associated with well activities.

		<b>Table 1</b>				
PAGE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
13	010	ST	Transaction Set Header	M	1	
14	020	BGN	Beginning Segment	M	1	
<b>LOOP ID - HL</b>						<b>&gt;1</b>
16	030	HL	Hierarchical Level	M	1	
18	040	PID	Product/Item Description	O	1	
20	050	DTP	Date or Time or Period	O	>1	
22	060	REF	Reference Identification	O	>1	
24	070	YNQ	Yes/No Question	O	>1	
26	080	MTX	Text	O	>1	
<b>LOOP ID - LIE</b>						<b>&gt;1</b>
27	090	LIE	Individual or Event Location	O	1	
28	100	PPA	Property Location	M	>1	
30	110	MEA	Measurements	O	>1	
<b>LOOP ID - CID</b>						<b>&gt;1</b>
32	120	CID	Characteristic/Class ID	O	1	
34	130	QTY	Quantity	O	>1	
36	140	MEA	Measurements	O	>1	
<b>LOOP ID - N1</b>						<b>&gt;1</b>
43	150	N1	Name	O	1	
45	160	N2	Additional Name Information	O	1	
46	170	N3	Address Information	O	1	
47	180	N4	Geographic Location	O	1	
48	190	PER	Administrative Communications Contact	O	>1	
<b>LOOP ID - LM</b>						<b>&gt;1</b>
50	200	LM	Code Source Information	O	1	
51	210	LQ	Industry Code	M	>1	
52	220	SE	Transaction Set Trailer	M	1	

**NOTES**

- 1/030 The HL segment identifies the appropriate level: Reports, Contract, Operating Unit, Ancillary Facility, Well, Wellbore, and Well Completion.
- 1/040 The PID segment, when used, identifies a component and its accompanying description if needed, for the associated hierarchical level.
- 1/070 The YNQ segment provides responses to conditions relevant to the associated hierarchical level.
- 1/090 The LIE Loop is used to provide physical location information related to the associated hierarchical level.
- 1/100 The PPA segment is used to relay descriptive information about a location.
- 1/110 The MEA segment shall only be used to relay measurement information (e.g., 660 feet from section line) associated with a physical location.

- 1/120 The CID Loop shall only be used to identify non-location related attributes (e.g., the evaporation rate, the number of producing wells, blowout preventor test pressure measurement) of the associated hierarchical level or a component of the hierarchical level.
- 1/130 The QTY segment is used to relay quantities or counts associated with the physical characteristics of a well.
- 1/140 The MEA segment shall only be used to relay any physical measurements related to the physical characteristics of a well.

**Segment:** **ST** Transaction Set Header

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Mandatory

**Max Use:** 1

**Purpose:** To indicate the start of a transaction set and to assign a control number

**Semantic:** 1 The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES				
ST01	143	Transaction Set Identifier Code	M/Z ID 3/3				
		Code uniquely identifying a Transaction Set					
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>625</td> <td>Well Information</td> </tr> </tbody> </table>	CODE	DEFINITION	625	Well Information	
CODE	DEFINITION						
625	Well Information						
ST02	329	Transaction Set Control Number	M AN 4/9				
		Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set					
		<b>This number has nothing to do with Well Information Report contents. It also must be used in SE02. Normally it is assigned by the EDI translator program.</b>					

**Segment: BGN Beginning Segment**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Mandatory

**Max Use:** 1

**Purpose:** To indicate the beginning of a transaction set

**Syntax:** 1 C0504 - If BGN05 is present, then BGN04 is required.

**Semantic:** 1 BGN02 is the transaction set reference number.

2 BGN03 is the transaction set date.

3 BGN04 is the transaction set time.

4 BGN05 is the transaction set time qualifier.

5 BGN06 is the transaction set reference number of a previously sent transaction affected by the current transaction.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
BGN01	353	Transaction Set Purpose Code	M ID 2/2
Code identifying purpose of transaction set			
		<u>CODE</u> <u>DEFINITION</u>	
		00 Original	
		This is the sender's first creation of the wells creation with data contents between but not including the ST & SE.	
		01 Cancellation	
		Cancel all prior well information with the same BGN02 identification number.	
		05 Replace	
		Replace the prior well information with the same BGN02 with this one.	
		07 Duplicate	
		This code is used if the receiver of well information report has need to have a duplicate copy sent. For example, an original sent to a primary agency with a duplicate sent to a secondary agency.	
		11 Response	
		This code is used by the sender of well information in response to a previous request or query identified in	
		13 Request	
		Please send us your well information which matches all of the data contents in the segments that follow.	
		15 Re-Submission	
		Re-submission of all prior well information with the same BGN02 identification number. For example original data was either not received or was	
		28 Query	
		Please send us your well information which matches the data segments which follow.	
		54 Approval	
		This code is used if the sender of the well information has approved the data contents in the BGN06 or in additional segments that follow.	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES											
BGN02	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier <b>Unique identifying number for this sender's Well Information Transaction Set.</b>	<b>M/Z AN 1/30</b>											
BGN03	373	<b>Date</b> Date expressed as CCYYMMDD <b>This is the date that the report was sent.</b>	<b>M/Z DT 8/8</b>											
BGN04	337	<b>Time</b> Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	<b>X/Z TM 4/8</b>											
BGN05	623	<b>Time Code</b> Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow <table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>UT</td> <td>Universal Time Coordinate</td> </tr> </tbody> </table>	CODE	DEFINITION	UT	Universal Time Coordinate	<b>O/Z ID 2/2</b>							
CODE	DEFINITION													
UT	Universal Time Coordinate													
BGN06	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier <b>This references the unique identifying number of a previously submitted Well Information Transaction Set.</b>	<b>O/Z AN 1/30</b>											
<b>Not Recommended</b>	BGN07	640	<b>Transaction Type Code</b> Code specifying the type of transaction	<b>O ID 2/2</b>										
	BGN08	306	<b>Action Code</b> Code indicating type of action	<b>O ID 1/2</b>										
	BGN09	786	<b>Security Level Code</b> Code indicating the level of confidentiality assigned by the sender to the information following <table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>00</td> <td>Company Non-Classified</td> </tr> <tr> <td>02</td> <td>Company Confidential</td> </tr> <tr> <td>90</td> <td>Government Non-Classified</td> </tr> <tr> <td>92</td> <td>Government Confidential</td> </tr> </tbody> </table>	CODE	DEFINITION	00	Company Non-Classified	02	Company Confidential	90	Government Non-Classified	92	Government Confidential	<b>O ID 2/2</b>
CODE	DEFINITION													
00	Company Non-Classified													
02	Company Confidential													
90	Government Non-Classified													
92	Government Confidential													

**Segment:** **HL** Hierarchical Level

**Level:** Header

**Loop:** HL **Repeat:** >1

**Usage:** Mandatory

**Max Use:** 1

**Purpose:** To identify dependencies among and the content of hierarchically related groups of data segments

**Set Notes:** 1 The HL segment identifies the appropriate level: Reports, Contract, Operating Unit, Ancillary Facility, Well, Wellbore, and Well Completion.

**Comments:** A The HL segment is used to identify levels of detail information using a hierarchical structure, such as relating line-item data to shipment data, and packaging data to line-item data.

B The HL segment defines a top-down/left-right ordered structure.

C HL01 shall contain a unique alphanumeric number for each occurrence of the HL segment in the transaction set. For example, HL01 could be used to indicate the number of occurrences of the HL segment, in which case the value of HL01 would be "1" for the initial HL segment and would be incremented by one in each subsequent HL segment within the transaction.

D HL02 identifies the hierarchical ID number of the HL segment to which the current HL segment is subordinate.

E HL03 indicates the context of the series of segments following the current HL segment up to the next occurrence of an HL segment in the transaction. For example, HL03 is used to indicate that subsequent segments in the HL loop form a logical grouping of data referring to shipment, order, or item-level information.

F HL04 indicates whether or not there are subordinate (or child) HL segments related to the current HL segment.

**Notes:** The HL segment defines necessary Well Information objects to their lowest level of detail. For example in Well Information it is used to relate well completion data to wellbore data, wellbore data to well data, well data to facility data, etc.

### Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
HL01	628	Hierarchical ID Number A unique number assigned by the sender to identify a particular data segment in a hierarchical structure <b>This data element represents an integer that uniquely identifies a particular occurrence of segment HL controlling a loop. Usually HL01 is a sequential number.</b>	M AN 1/12
HL02	734	Hierarchical Parent ID Number Identification number of the next higher hierarchical data segment that the data segment being described is subordinate to <b>The first object of a given level is the parent of all other objects on that level and also the parent of the first object of the next subordinate level.</b>	O AN 1/12
HL03	735	Hierarchical Level Code Code defining the characteristic of a level in a hierarchical structure <b>This data element is used to establish the broad category of Well Information objects in which the hierarchical level applies.</b>	M ID 1/2
		<b>27</b> Ancillary Facility or Department <b>Use this code to indicate the fourth highest level of the hierarchy for well facility information.</b>	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
		<b>CODE</b> <b>DEFINITION</b>	
		<b>36</b> Operating Unit Use this code to indicate the second highest level of the heirarchy for a field or well pool information.	
		<b>IB</b> Contract Use this code to indicate the third highest level of the hierarchy for lease, unit or related contract.	
		<b>RP</b> Report Use this code to indicate the highest level of the hierarchy for a report or permit.	
		<b>WL</b> Well Use this code to indicate the fifth highest level of the hierarchy for general well information.	
		<b>WP</b> Well Completion Use this code to indicate the seventh highest level of the heirarchy for well completion information.	
		<b>WR</b> Wellbore Use this code to indicate the sixth highest level of the hierarchy for wellbore information.	
<b>HL04</b>	<b>736</b>	<b>Hierarchical Child Code</b>	<b>O ID 1/1</b>
		Code indicating if there are hierarchical child data segments subordinate to the level being described	
		<b>CODE</b> <b>DEFINITION</b>	
		<b>0</b> No Subordinate HL Segment in This Hierarchical Structure.	
		<b>1</b> Additional Subordinate HL Data Segment in This Hierarchical Structure.	

**Segment: PID Product/Item Description**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** 1

**Purpose:** To describe a product or process in coded or free-form format

**Set Notes:** 1 The PID segment, when used, identifies a component and its accompanying description if needed, for the associated hierarchical level.

- Syntax:**
- 1 C0403 - If PID04 is present, then PID03 is required.
  - 2 R0405 - At least one of PID04 or PID05 is required.
  - 3 C0703 - If PID07 is present, then PID03 is required.
  - 4 C0804 - If PID08 is present, then PID04 is required.
  - 5 C0905 - If PID09 is present, then PID05 is required.

- Semantic:**
- 1 Use PID03 to indicate the organization that publishes the code list being referred to.
  - 2 PID04 should be used for industry-specific product description codes.
  - 3 PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.
  - 4 PID09 is used to identify the language being used in PID05.

- Comments:**
- A** If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.
  - B** Use PID06 when necessary to refer to the product surface or layer being described in the segment.
  - C** PID07 specifies the individual code list of the agency specified in PID03.

**Notes:** Exactly one occurrence is used with each iteration of the HL loop. The PID segment can only be used to indicate a Well Information object.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
PID01	349	<b>Item Description Type</b> Code indicating the format of a description	M ID 1/1
		<b>CODE</b> <b>DEFINITION</b>	
		<b>S</b> Structured (From Industry Code List)	
<b>Not Recommended</b>	PID02	<b>750 Product/Process Characteristic Code</b> Code identifying the general class of a product or process characteristic	O ID 2/3
	PID03	<b>559 Agency Qualifier Code</b> Code identifying the agency assigning the code values	X/Z ID 2/2
		<b>If a specific organization is the unique owner, sponsor, publisher, or regulator of the data items included within this PID segment or loop, then give the organization's agency code here.</b>	
		<b>CODE</b> <b>DEFINITION</b>	
		<b>AP</b> American Petroleum Institute <b>See Code Source 261</b>	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
PID04	751	<b>Product Description Code</b> A code from an industry code list which provides specific data about a product characteristic <b>For reporting petroleum well information, use petroleum well activity description codes.</b>	X/Z AN 1/12
PID05	352	<b>Description</b> A free-form description to clarify the related data elements and their content <b>This data element provides additional information about a table reference with in a specified code source contained in PID07.</b>	X AN 1/80
<b>Not Recommended</b>	PID06	752 <b>Surface/Layer/Position Code</b> Code indicating the product surface, layer or position that is being described	O ID 2/2
	PID07	822 <b>Source Subqualifier</b> A reference that indicates the table or text maintained by the Source Qualifier <b>This data element provides additional, finer detail on the particular table of code values furnished more generally by the entity coded in PID03 above.</b>	O AN 1/15
<b>Not Recommended</b>	PID08	1073 <b>Yes/No Condition or Response Code</b> Code indicating a Yes or No condition or response	O/Z ID 1/1
	PID09	819 <b>Language Code</b> Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)	O/Z ID 2/3

**Segment:** **DTP** Date or Time or Period

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify any or all of a date, a time, or a time period

**Semantic:** 1 DTP02 is the date or time or period format that will appear in DTP03.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
DTP01	374	<b>Date/Time Qualifier</b> Code specifying type of date or time, or both date and time	M ID 3/3
		<b>CODE</b> <b>DEFINITION</b>	
		<b>090</b> Report Start	
		<b>091</b> Report End	
		<b>119</b> Test Performed	
		<b>141</b> Assigned	
		<b>152</b> Effective Date of Change	
		<b>171</b> Revision	
		<b>196</b> Start	
		<b>198</b> Completion	
		<b>201</b> Acceptance	
		<b>217</b> Spud	
		<b>219</b> Plugged and Abandoned	
		<b>244</b> Estimated Start	
		<b>245</b> Estimated Completion	
		<b>270</b> Date Filed	
		<b>275</b> Approved	
		<b>323</b> Replaced	
		<b>329</b> Terminated <b>This code is used for operation completion date.</b>	
		<b>396</b> Termination <b>This code indicates confidentiality expiration date.</b>	
		<b>458</b> Certification	
		<b>727</b> On Hold	
		<b>W01</b> Sample Collected	
		<b>W02</b> Status Change	
		<b>W03</b> Construction Start	
		<b>W05</b> Recompletion	
		<b>W06</b> Last Logged	
		<b>W07</b> Well Log Run	
		<b>W08</b> Surface Casing Authority Approval	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
		<b>W09</b> Reached Total Depth	
		<b>W10</b> Spacing Order Unit Assigned	
		<b>W11</b> Rig Arrival	
		<b>W12</b> Location Exception Order Number Assigned	
		<b>W13</b> Sidetracked Wellbore	
<b>DTP02</b>	<b>1250</b>	<b>Date Time Period Format Qualifier</b>	<b>M/Z ID 2/3</b>
		Code indicating the date format, time format, or date and time format	
		<b>D8</b> Date Expressed in Format CCYYMMDD	
		<b>TS</b> Time Expressed in Format HHMMSS	
<b>DTP03</b>	<b>1251</b>	<b>Date Time Period</b>	<b>M AN 1/35</b>
		Expression of a date, a time, or range of dates, times or dates and times	

**Segment: REF Reference Identification**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify identifying information

**Syntax:** 1 R0203 - At least one of REF02 or REF03 is required.

**Semantic:** 1 REF04 contains data relating to the value cited in REF02.

**Notes:** Recommended for use with any reference identification information associated with a Well Information object.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
REF01	128	<b>Reference Identification Qualifier</b> Code qualifying the Reference Identification	M ID 2/3
		<b>CODE</b> <b>DEFINITION</b>	
		<b>4X</b> Log	
		<b>6M</b> Application Number	
		<b>94</b> File Identification Number	
		<b>AH</b> Agreement Number <b>Use this code for Agreement number (REF02) and name (REF03).</b>	
		<b>E9</b> Attachment Code <b>Use this code only for an attachment file not contained in this Well Information Transaction Set (625). For example, this code is used to indicate that an Associated Data Transaction Set (102) is referenced by this transaction set.</b>	
		<b>FI</b> File Identifier <b>Use this code only to indicate a unique reference number of an Associate Data Transaction Set (102).</b>	
		<b>LC</b> Lease Number <b>Use this code for Lease number (RED02) and name (REF03).</b>	
		<b>PN</b> Permit Number	
		<b>QQ</b> Unit Number <b>Use this code for Unit number (REF02) and name (REF03).</b>	
		<b>WB</b> American Petroleum Institute (API) Well <b>See Code Source 261</b> <b>Use this code for an American Petroleum Institute assigned well number.</b>	
		<b>WN</b> Well Number	
		<b>ZN</b> Agency Case Number	
		<b>DON</b> Density Order Number	
		<b>FMP</b> Facility Measurement Point Number	
		<b>LEN</b> Location Exception Order Number	
		<b>MZO</b> Multiple Zone Order Number	
		<b>PGN</b> Plug Number	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES
		CODE	DEFINITION	
		<b>RGI</b>	Regulatory Guideline Identifier	
		<b>RIG</b>	Rig Number <b>Use this code for Rig number (REF02) and name (REF03).</b>	
		<b>SBN</b>	Surety Bond Number	
		<b>SUO</b>	Spacing Unit Order Number	
<b>REF02</b>	<b>127</b>	<b>Reference Identification</b>		<b>X AN 1/30</b>
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		
<b>REF03</b>	<b>352</b>	<b>Description</b>		<b>X AN 1/80</b>
		A free-form description to clarify the related data elements and their content		
<b>REF04</b>	<b>C040</b>	<b>Reference Identifier</b>		<b>O/Z</b>
		To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier		
	<b>C04001</b>	<b>128</b>	<b>Reference Identification Qualifier</b>	<b>O/Z ID 2/3</b>
			Code qualifying the Reference Identification	
	<b>C04002</b>	<b>127</b>	<b>Reference Identification</b>	<b>O/Z AN 1/30</b>
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
	<b>C04003</b>	<b>128</b>	<b>Reference Identification Qualifier</b>	<b>O/Z ID 2/3</b>
			Code qualifying the Reference Identification	
	<b>C04004</b>	<b>127</b>	<b>Reference Identification</b>	<b>O/Z AN 1/30</b>
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
	<b>C04005</b>	<b>128</b>	<b>Reference Identification Qualifier</b>	<b>O/Z ID 2/3</b>
			Code qualifying the Reference Identification	
	<b>C04006</b>	<b>127</b>	<b>Reference Identification</b>	<b>O/Z AN 1/30</b>
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	

**Segment:** **YNQ** Yes/No Question

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To identify and answer yes and no questions, including the date, time, and comments further qualifying the condition

**Set Notes:** 1 The YNQ segment provides responses to conditions relevant to the associated hierarchical level.

- Syntax:**
- 1 E010910 - Only one of YNQ01, YNQ09 or YNQ10 may be present.
  - 2 P0304 - If either YNQ03 or YNQ04 is present, then the other is required.
  - 3 C0908 - If YNQ09 is present, then YNQ08 is required.

- Semantic:**
- 1 YNQ02 confirms or denies the statement made in YNQ01, YNQ09 or YNQ10. A "Y" indicates the statement is confirmed; an "N" indicates the statement is denied.
  - 2 YNQ10 contains a free-form question when codified questions are not available.

**Notes:** **Recommended for use for any boolean data type associated with a Well Information object.**

### Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES						
<b>Not Recommended</b>	YNQ01 1321	<b>Condition Indicator</b> Code indicating a condition	X ID 2/2						
	YNQ02 1073	<b>Yes/No Condition or Response Code</b> Code indicating a Yes or No condition or response	M/Z ID 1/1						
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>No</td> </tr> <tr> <td>Y</td> <td>Yes</td> </tr> </tbody> </table>	CODE	DEFINITION	N	No	Y	Yes	
CODE	DEFINITION								
N	No								
Y	Yes								
<b>Not Recommended</b>	YNQ03 1250	<b>Date Time Period Format Qualifier</b> Code indicating the date format, time format, or date and time format	X ID 2/3						
<b>Not Recommended</b>	YNQ04 1251	<b>Date Time Period</b> Expression of a date, a time, or range of dates, times or dates and times	X AN 1/35						
<b>Not Recommended</b>	YNQ05 933	<b>Free-Form Message Text</b> Free-form message text	O AN 1/264						
<b>Not Recommended</b>	YNQ06 933	<b>Free-Form Message Text</b> Free-form message text	O AN 1/264						
<b>Not Recommended</b>	YNQ07 933	<b>Free-Form Message Text</b> Free-form message text	O AN 1/264						
	YNQ08 1270	<b>Code List Qualifier Code</b> Code identifying a specific industry code list	X ID 1/3						
		<b>Use this element to convey the appropriate code table that contains the YNQ09 element code.</b>							
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>PWI</td> <td>Petroleum Well Information See Code Source 261</td> </tr> </tbody> </table>	CODE	DEFINITION	PWI	Petroleum Well Information See Code Source 261			
CODE	DEFINITION								
PWI	Petroleum Well Information See Code Source 261								

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
YNQ09	1271	<b>Industry Code</b> Code indicating a code from a specific industry code list <b>Use this element to identify the context of the YNQ02 data value.</b>	X AN 1/30
<b>Not Recommended</b>	YNQ10 933	<b>Free-Form Message Text</b> Free-form message text	X/Z AN 1/264

**Segment:** **MTX** Text

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify textual data

**Syntax:** 1 C0102 - If MTX01 is present, then MTX02 is required.

2 C0302 - If MTX03 is present, then MTX02 is required.

**Notes:** Recommended for use with remark data associated with a Well Information object.

**Data Element Summary**

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES
<b>Not Recommended</b>	MTX01	363	<b>Note Reference Code</b> Code identifying the functional area or purpose for which the note applies	O ID 3/3
	MTX02	1551	<b>Message Text</b> To transmit large volumes of message text	X AN 1/4096
	<b>Recommended use of this element is for remark data only.</b>			
	MTX03	1551	<b>Message Text</b> To transmit large volumes of message text	O AN 1/4096
	<b>Use this element only if the remark data size in the MTX02 is insufficient.</b>			
<b>Not Recommended</b>	MTX04	934	<b>Printer Carriage Control Code</b> A field to be used for the control of the line feed of the receiving printer	O ID 2/2

**Segment:** **LIE** Individual or Event Location

**Level:** Header

**Loop:** LIE **Repeat:** >1

**Usage:** Optional

**Max Use:** 1

**Purpose:** To provide an accurate description of where an individual was located or an event took place

**Set Notes:** 1 The LIE Loop is used to provide physical location information related to the associated hierarchical level.

**Semantic:** 1 LIE03 is the free-form description of the location.

**Notes:** Use this segment to convey what item the legal survey pertains to in association to a Well Information object.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES														
LIE01	1466	<b>Location Type Code</b> Code identifying a type of location	M ID 2/2														
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td><b>FC</b></td> <td>Facility Location</td> </tr> <tr> <td><b>WB</b></td> <td>Wellbore Bottomhole Location</td> </tr> <tr> <td><b>WE</b></td> <td>Wellbore Entry Point Location</td> </tr> <tr> <td><b>WK</b></td> <td>Wellbore Kickoff Point Location</td> </tr> <tr> <td><b>WS</b></td> <td>Wellbore Surface Location</td> </tr> <tr> <td><b>WX</b></td> <td>Wellbore Exit Point Location</td> </tr> </tbody> </table>	CODE	DEFINITION	<b>FC</b>	Facility Location	<b>WB</b>	Wellbore Bottomhole Location	<b>WE</b>	Wellbore Entry Point Location	<b>WK</b>	Wellbore Kickoff Point Location	<b>WS</b>	Wellbore Surface Location	<b>WX</b>	Wellbore Exit Point Location	
CODE	DEFINITION																
<b>FC</b>	Facility Location																
<b>WB</b>	Wellbore Bottomhole Location																
<b>WE</b>	Wellbore Entry Point Location																
<b>WK</b>	Wellbore Kickoff Point Location																
<b>WS</b>	Wellbore Surface Location																
<b>WX</b>	Wellbore Exit Point Location																
LIE02	1465	<b>Proximity Code</b> Code identifying proximity	O ID 2/2														
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td><b>EO</b></td> <td>East Of</td> </tr> <tr> <td><b>NO</b></td> <td>North Of</td> </tr> <tr> <td><b>SO</b></td> <td>South Of</td> </tr> <tr> <td><b>WO</b></td> <td>West Of</td> </tr> </tbody> </table>	CODE	DEFINITION	<b>EO</b>	East Of	<b>NO</b>	North Of	<b>SO</b>	South Of	<b>WO</b>	West Of					
CODE	DEFINITION																
<b>EO</b>	East Of																
<b>NO</b>	North Of																
<b>SO</b>	South Of																
<b>WO</b>	West Of																
<b>Not Recommended</b>	LIE03	<b>352 Description</b> A free-form description to clarify the related data elements and their content	O/Z AN 1/80														
<b>Not Recommended</b>	LIE04	<b>98 Entity Identifier Code</b> Code identifying an organizational entity, a physical location, property or an individual	O ID 2/3														

**Segment: PPA Property Location**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Mandatory

**Max Use:** >1

**Purpose:** To identify a physical property location

**Set Notes:** 1 The PPA segment is used to relay descriptive information about a location.

**Syntax:** 1 P0304 - If either PPA03 or PPA04 is present, then the other is required.

2 P0506 - If either PPA05 or PPA06 is present, then the other is required.

**Semantic:** 1 PPA01 is a geographic reference point of the location.

2 PPA03 specifies the longitude of the location.

3 PPA04 may only be "E" or "W".

4 PPA05 specifies the latitude of the location.

5 PPA06 may only be "N" or "S".

**Notes:** Recommended for use to convey data specific to a location associated to an LIE location item.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
PPA01	309	<b>Location Qualifier</b> Code identifying type of location	M/Z ID 1/2
		<b>CODE</b> <b>DEFINITION</b>	
		12 Range	
		13 Section	
		14 Quarter Section	
		30 Map Reference	
		32 Aliquot	
		33 Block	
		34 District	
		35 Drainhole Number	
		38 Footage Call Direction	
		39 Location Direction	
		41 Lot	
		42 Map Quadrangle	
		43 Principal Meridian	
		44 Outer Continental Shelf Area	
		45 Outer Continental Shelf Block	
		46 Official Protraction Diagram	
		47 Quarter Quarter Quarter Section	
		48 Quarter Quarter Section	
		49 Section Type	
		50 Abstract	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
		<u>CODE</u> <u>DEFINITION</u>	
		<b>52</b> Labor	
		<b>53</b> League	
		<b>54</b> Survey	
		<b>57</b> Tract	
		<b>58</b> Universal Transverse Mercator Quadrant	
		<b>59</b> Course Direction	
		<b>CC</b> Country	
		<b>CY</b> County/Parish	
		<b>SP</b> State/Province	
		<b>TN</b> Township	
		<b>ZZ</b> Mutually Defined	
<b>PPA02</b>	<b>310</b>	<b>Location Identifier</b> Code which identifies a specific location	<b>M AN 1/30</b>
<b>PPA03</b>	<b>1654</b>	<b>Longitude Code</b> Code indicating the longitude in degrees (3 positions), minutes (2 positions), and seconds (2 positions)	<b>X/Z ID 7/7</b>
<b>PPA04</b>	<b>1280</b>	<b>Direction Identifier Code</b> Code identifying geographic direction	<b>X/Z ID 1/1</b>
		<u>CODE</u> <u>DEFINITION</u>	
		<b>E</b> East	
		<b>W</b> West	
<b>PPA05</b>	<b>1655</b>	<b>Latitude Code</b> Code indicating the latitude in degrees (3 positions), minutes (2 positions), seconds (2 positions)	<b>X/Z ID 7/7</b>
<b>PPA06</b>	<b>1280</b>	<b>Direction Identifier Code</b> Code identifying geographic direction	<b>X/Z ID 1/1</b>
		<u>CODE</u> <u>DEFINITION</u>	
		<b>N</b> North	
		<b>S</b> South	

**Segment: MEA Measurements**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify physical measurements or counts, including dimensions, tolerances, variances, and weights

(See Figures Appendix for example of use of C001)

**Set Notes:** 1 The MEA segment shall only be used to relay measurement information (e.g., 660 feet from section line) associated with a physical location.

- Syntax:**
- 1 R03050608 - At least one of MEA03, MEA05, MEA06 or MEA08 is required.
  - 2 C0504 - If MEA05 is present, then MEA04 is required.
  - 3 C0604 - If MEA06 is present, then MEA04 is required.
  - 4 L07030506 - If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
  - 5 E0803 - Only one of MEA08 or MEA03 may be present.

**Semantic:** 1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

**Comments:** A When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

**Notes:** Use this segment only to convey distances that further clarify an LIE location item.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
<b>Not Recommended</b>	MEA01 737	<b>Measurement Reference ID Code</b> Code identifying the broad category to which a measurement applies	O ID 2/2
	MEA02 738	<b>Measurement Qualifier</b> Code identifying a specific product or process characteristic to which a measurement applies	O ID 1/3
<b>Use this segment to qualify the general type of measurement.</b>			
		<b>DT Distance From Base Point</b>	
	MEA03 739	<b>Measurement Value</b> The value of the measurement	X R 1/20
	MEA04 C001	<b>Composite Unit of Measure</b> To identify a composite unit of measure  (See Figures Appendix for examples of use)	X/Z
	C00101 355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2
		<b>EZ Feet and Decimal</b>	
<b>Not Recommended</b>	C00102 1018	<b>Exponent</b> Power to which a unit is raised	X/Z R 1/15
<b>Not Recommended</b>	C00103 649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	X/Z R 1/10

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
Not Recommended	C00104	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2
Not Recommended	C00105	1018 Exponent Power to which a unit is raised	X/Z R 1/15
Not Recommended	C00106	649 Multiplier Value to be used as a multiplier to obtain a new value	X/Z R 1/10
Not Recommended	C00107	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2
Not Recommended	C00108	1018 Exponent Power to which a unit is raised	X/Z R 1/15
Not Recommended	C00109	649 Multiplier Value to be used as a multiplier to obtain a new value	X/Z R 1/10
Not Recommended	C00110	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2
Not Recommended	C00111	1018 Exponent Power to which a unit is raised	X/Z R 1/15
Not Recommended	C00112	649 Multiplier Value to be used as a multiplier to obtain a new value	X/Z R 1/10
Not Recommended	C00113	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2
Not Recommended	C00114	1018 Exponent Power to which a unit is raised	X/Z R 1/15
Not Recommended	C00115	649 Multiplier Value to be used as a multiplier to obtain a new value	X/Z R 1/10
Not Recommended	MEA05	740 Range Minimum The value specifying the minimum of the measurement range	X R 1/20
Not Recommended	MEA06	741 Range Maximum The value specifying the maximum of the measurement range	X R 1/20
Not Recommended	MEA07	935 Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
Not Recommended	MEA08	936 Measurement Attribute Code Code used to express an attribute response when a numeric measurement value cannot be determined	X ID 2/2
Not Recommended	MEA09	752 Surface/Layer/Position Code Code indicating the product surface, layer or position that is being described	O ID 2/2
Not Recommended	MEA10	1373 Measurement Method or Device The method or device used to record the measurement	O ID 2/4

**Segment: CID Characteristic/Class ID**

**Level:** Header

**Loop:** CID **Repeat:** >1

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify the general class or specific characteristic upon which test results are being reported or are to be taken

**Set Notes:** 1 The CID Loop shall only be used to identify non-location related attributes (e.g., the evaporation rate, the number of producing wells, blowout preventor test pressure measurement) of the associated hierarchical level or a component of the hierarchical level.

- Syntax:**
- 1 R01020405 - At least one of CID01, CID02, CID04 or CID05 is required.
  - 2 P0304 - If either CID03 or CID04 is present, then the other is required.
  - 3 C060304 - If CID06 is present, then CID03 and CID04 are required.
  - 4 L070405 - If CID07 is present, then at least one of CID04 or CID05 is required.

- Comments:**
- A** CID06 specifies the individual code list of the agency specified in CID03.
  - B** CID07 refers to whether or not the characteristic identified in CID04 or CID05 or both is affected by the product change. If it is affected, the value is "Y". A value of "N" is used when it is known that it will not be affected. Any other value indicates it is indeterminate.

**Notes:** Recommended for use to classify a measurement or quantity associated with a Well Information object.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
Not Recommended	CID01	738 Measurement Qualifier Code identifying a specific product or process characteristic to which a measurement applies	X ID 1/3
Not Recommended	CID02	750 Product/Process Characteristic Code Code identifying the general class of a product or process characteristic	X ID 2/3
	CID03	559 Agency Qualifier Code Code identifying the agency assigning the code values <b>If a specific organization is the unique owner, sponsor, publisher, or regulator of the data items included within this CID segment or loop, then give the organization's agency code here.</b>	X ID 2/2
		CODE DEFINITION	
		AP American Petroleum Institute See Code Source 261	
	CID04	751 Product Description Code A code from an industry code list which provides specific data about a product characteristic	X AN 1/12
	CID05	352 Description A free-form description to clarify the related data elements and their content <b>This data element provides additional information about a table reference with in a specified code source contained in CID05.</b>	X AN 1/80
	CID06	822 Source Subqualifier A reference that indicates the table or text maintained by the Source Qualifier <b>This data element provides additional, finer detail on the particular table of code values furnished more generally by the entity coded in CID04 above.</b>	O AN 1/15

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
<b>Not Recommended</b>	CID07 1073	<b>Yes/No Condition or Response Code</b> Code indicating a Yes or No condition or response	O ID 1/1

**Segment: QTY Quantity**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify quantity information

**Set Notes:** 1 The QTY segment is used to relay quantities or counts associated with the physical characteristics of a well.

**Syntax:** 1 R0204 - At least one of QTY02 or QTY04 is required.

2 E0204 - Only one of QTY02 or QTY04 may be present.

**Semantic:** 1 QTY04 is used when the quantity is non-numeric.

**Notes:** Use this segment only for quantity data associated with a CID classification.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
QTY01	673	<b>Quantity Qualifier</b> Code specifying the type of quantity	M ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		01 Discrete Quantity	
		5U Frequency	
QTY02	380	<b>Quantity</b> Numeric value of quantity	X R 1/15
QTY03	C001	<b>Composite Unit of Measure</b> To identify a composite unit of measure  (See Figures Appendix for examples of use)	O
	C00101	355 <b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		AC Acre	
		BR Barrel	
		CF Cubic Feet	
		FC 1000 Cubic Feet	
		LB Pound	
		UL Unitless	
		YR Years	
Not Recommended	C00102	1018 <b>Exponent</b> Power to which a unit is raised	O R 1/15
Not Recommended	C00103	649 <b>Multiplier</b> Value to be used as a multiplier to obtain a new value	O R 1/10
Not Recommended	C00104	355 <b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
Not Recommended	C00105	1018 Exponent Power to which a unit is raised	O R 1/15
Not Recommended	C00106	649 Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
Not Recommended	C00107	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2
Not Recommended	C00108	1018 Exponent Power to which a unit is raised	O R 1/15
Not Recommended	C00109	649 Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
Not Recommended	C00110	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2
Not Recommended	C00111	1018 Exponent Power to which a unit is raised	O R 1/15
Not Recommended	C00112	649 Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
Not Recommended	C00113	355 Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2
Not Recommended	C00114	1018 Exponent Power to which a unit is raised	O R 1/15
Not Recommended	C00115	649 Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
Not Recommended	QTY04	61 Free-Form Message Free-form information	X/Z AN 1/30

**Segment: MEA Measurements**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify physical measurements or counts, including dimensions, tolerances, variances, and weights

(See Figures Appendix for example of use of C001)

**Set Notes:** 1 The MEA segment shall only be used to relay any physical measurements related to the physical characteristics of a well.

- Syntax:**
- 1 R03050608 - At least one of MEA03, MEA05, MEA06 or MEA08 is required.
  - 2 C0504 - If MEA05 is present, then MEA04 is required.
  - 3 C0604 - If MEA06 is present, then MEA04 is required.
  - 4 L07030506 - If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
  - 5 E0803 - Only one of MEA08 or MEA03 may be present.

**Semantic:** 1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

**Comments:** A When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

**Notes:** Use this segment only for measurement data associated with a CID classification.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
<b>Not Recommended</b>	MEA01 737	<b>Measurement Reference ID Code</b> Code identifying the broad category to which a measurement applies	O ID 2/2
	MEA02 738	<b>Measurement Qualifier</b> Code identifying a specific product or process characteristic to which a measurement applies	O ID 1/3
		<b>CODE</b> <b>DEFINITION</b>	
		41 Built-up Rate	
		AF Angle of Bend	
		BT Bursts	
		CD Compression	
		DI Diameter	
		DN Density	
		DP Depth	
		LN Length	
		M4 Area	
		NP Percent of Specified	
		PB Pressure	
		PO Percent of Order (-, +)	
		RC Radius of Corner	
		TC Temperature	
		TF Tensile	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
		<b>WT</b> Weight	
		<b>XP</b> Specified	
		<b>CHG</b> Rate of Change	
		<b>CON</b> Concentration	
		<b>EVL</b> Evaporation Loss	
		<b>H2O</b> Water Volume	
		<b>LIR</b> Liquid Injection Test Rate	
		<b>PSA</b> Percent Solution Actual	
		<b>PWE</b> Physical Description - Weight	
		<b>PWF</b> Power Factor	
		<b>TPF</b> Temperature Factor	
		<b>TVD</b> Maximum True Vertical Depth	
		<b>WRA</b> Water Test Rate	
<b>MEA03</b>	<b>739</b>	<b>Measurement Value</b> The value of the measurement	<b>X R 1/20</b>
<b>MEA04</b>	<b>C001</b>	<b>Composite Unit of Measure</b> To identify a composite unit of measure  (See Figures Appendix for examples of use)	<b>X/Z</b>
<b>C00101</b>	<b>355</b>	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	<b>X/Z ID 2/2</b>
		<b>14</b> Shot	
		<b>59</b> Parts Per Million	
		<b>5A</b> Barrels per Minute	
		<b>AC</b> Acre	
		<b>B1</b> Barrels per Day	
		<b>BR</b> Barrel	
		<b>CE</b> Centigrade, Celsius	
		<b>CF</b> Cubic Feet	
		<b>DD</b> Degree	
		<b>ED</b> Inches, Decimal--Nominal	
		<b>EZ</b> Feet and Decimal	
		<b>FA</b> Fahrenheit	
		<b>FT</b> Foot	
		<b>G2</b> U.S. Gallons Per Minute	
		<b>GB</b> Gallons/Day	
		<b>GE</b> Pounds per Gallon	
		<b>IN</b> Inch	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
		<b>LB Pound</b>	
		<b>MO Months</b>	
		<b>P1 Percent</b>	
		<b>P2 Pounds per Foot</b>	
		<b>PS Pounds per Sq. Inch</b>	
		<b>UL Unitless</b>	
<b>C00102</b>	<b>1018</b>	<b>Exponent</b> Power to which a unit is raised	<b>X/Z R 1/15</b>
<b>C00103</b>	<b>649</b>	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	<b>X/Z R 1/10</b>
<b>C00104</b>	<b>355</b>	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	<b>X/Z ID 2/2</b>
		<b>CODE</b>	<b>DEFINITION</b>
		<b>14 Shot</b>	
		<b>59 Parts Per Million</b>	
		<b>5A Barrels per Minute</b>	
		<b>AC Acre</b>	
		<b>B1 Barrels per Day</b>	
		<b>BR Barrel</b>	
		<b>CE Centigrade, Celsius</b>	
		<b>CF Cubic Feet</b>	
		<b>DD Degree</b>	
		<b>ED Inches, Decimal--Nominal</b>	
		<b>EZ Feet and Decimal</b>	
		<b>FA Fahrenheit</b>	
		<b>FT Foot</b>	
		<b>G2 U.S. Gallons Per Minute</b>	
		<b>GB Gallons/Day</b>	
		<b>GE Pounds per Gallon</b>	
		<b>IN Inch</b>	
		<b>LB Pound</b>	
		<b>MO Months</b>	
		<b>P1 Percent</b>	
		<b>P2 Pounds per Foot</b>	
		<b>PS Pounds per Sq. Inch</b>	
		<b>UL Unitless</b>	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
C00105	1018	<b>Exponent</b> Power to which a unit is raised	X/Z R 1/15
C00106	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	X/Z R 1/10
C00107	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2
		<b>CODE</b> <b>DEFINITION</b>	
		14 Shot	
		59 Parts Per Million	
		5A Barrels per Minute	
		AC Acre	
		B1 Barrels per Day	
		BR Barrel	
		CE Centigrade, Celsius	
		CF Cubic Feet	
		DD Degree	
		ED Inches, Decimal--Nominal	
		EZ Feet and Decimal	
		FA Fahrenheit	
		FT Foot	
		G2 U.S. Gallons Per Minute	
		GB Gallons/Day	
		GE Pounds per Gallon	
		IN Inch	
		LB Pound	
		MO Months	
		P1 Percent	
		P2 Pounds per Foot	
		PS Pounds per Sq. Inch	
		UL Unitless	
C00108	1018	<b>Exponent</b> Power to which a unit is raised	X/Z R 1/15
C00109	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	X/Z R 1/10

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
C00110	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	<b>X/Z ID 2/2</b>
		<b>CODE</b>	<b>DEFINITION</b>
		14 Shot	
		59 Parts Per Million	
		5A Barrels per Minute	
		AC Acre	
		B1 Barrels per Day	
		BR Barrel	
		CE Centigrade, Celsius	
		CF Cubic Feet	
		DD Degree	
		ED Inches, Decimal--Nominal	
		EZ Feet and Decimal	
		FA Fahrenheit	
		FT Foot	
		G2 U.S. Gallons Per Minute	
		GB Gallons/Day	
		GE Pounds per Gallon	
		IN Inch	
		LB Pound	
		MO Months	
		P1 Percent	
		P2 Pounds per Foot	
		PS Pounds per Sq. Inch	
		UL Unitless	
C00111	1018	<b>Exponent</b> Power to which a unit is raised	<b>X/Z R 1/15</b>
C00112	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	<b>X/Z R 1/10</b>

Data Element Summary

REF. DES.	DATA ELE.	NAME	ATTRIBUTES																																																	
	C00113	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X/Z ID 2/2																																																
			<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr><td>14</td><td>Shot</td></tr> <tr><td>59</td><td>Parts Per Million</td></tr> <tr><td>5A</td><td>Barrels per Minute</td></tr> <tr><td>AC</td><td>Acre</td></tr> <tr><td>B1</td><td>Barrels per Day</td></tr> <tr><td>BR</td><td>Barrel</td></tr> <tr><td>CE</td><td>Centigrade, Celsius</td></tr> <tr><td>CF</td><td>Cubic Feet</td></tr> <tr><td>DD</td><td>Degree</td></tr> <tr><td>ED</td><td>Inches, Decimal--Nominal</td></tr> <tr><td>EZ</td><td>Feet and Decimal</td></tr> <tr><td>FA</td><td>Fahrenheit</td></tr> <tr><td>FT</td><td>Foot</td></tr> <tr><td>G2</td><td>U.S. Gallons Per Minute</td></tr> <tr><td>GB</td><td>Gallons/Day</td></tr> <tr><td>GE</td><td>Pounds per Gallon</td></tr> <tr><td>IN</td><td>Inch</td></tr> <tr><td>LB</td><td>Pound</td></tr> <tr><td>MO</td><td>Months</td></tr> <tr><td>P1</td><td>Percent</td></tr> <tr><td>P2</td><td>Pounds per Foot</td></tr> <tr><td>PS</td><td>Pounds per Sq. Inch</td></tr> <tr><td>UL</td><td>Unitless</td></tr> </tbody> </table>	CODE	DEFINITION	14	Shot	59	Parts Per Million	5A	Barrels per Minute	AC	Acre	B1	Barrels per Day	BR	Barrel	CE	Centigrade, Celsius	CF	Cubic Feet	DD	Degree	ED	Inches, Decimal--Nominal	EZ	Feet and Decimal	FA	Fahrenheit	FT	Foot	G2	U.S. Gallons Per Minute	GB	Gallons/Day	GE	Pounds per Gallon	IN	Inch	LB	Pound	MO	Months	P1	Percent	P2	Pounds per Foot	PS	Pounds per Sq. Inch	UL	Unitless	
CODE	DEFINITION																																																			
14	Shot																																																			
59	Parts Per Million																																																			
5A	Barrels per Minute																																																			
AC	Acre																																																			
B1	Barrels per Day																																																			
BR	Barrel																																																			
CE	Centigrade, Celsius																																																			
CF	Cubic Feet																																																			
DD	Degree																																																			
ED	Inches, Decimal--Nominal																																																			
EZ	Feet and Decimal																																																			
FA	Fahrenheit																																																			
FT	Foot																																																			
G2	U.S. Gallons Per Minute																																																			
GB	Gallons/Day																																																			
GE	Pounds per Gallon																																																			
IN	Inch																																																			
LB	Pound																																																			
MO	Months																																																			
P1	Percent																																																			
P2	Pounds per Foot																																																			
PS	Pounds per Sq. Inch																																																			
UL	Unitless																																																			
	C00114	1018	<b>Exponent</b> Power to which a unit is raised	X/Z R 1/15																																																
	C00115	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	X/Z R 1/10																																																
Not Recommended	MEA05	740	<b>Range Minimum</b> The value specifying the minimum of the measurement range	X R 1/20																																																
Not Recommended	MEA06	741	<b>Range Maximum</b> The value specifying the maximum of the measurement range	X R 1/20																																																
	MEA07	935	<b>Measurement Significance Code</b> Code used to benchmark, qualify or further define a measurement value	O ID 2/2																																																
Not Recommended	MEA08	936	<b>Measurement Attribute Code</b> Code used to express an attribute response when a numeric measurement value cannot be determined	X ID 2/2																																																

**Data Element Summary**

	REF. DES.	DATA ELE.	NAME	ATTRIBUTES
<b>Not Recommended</b>	MEA09	752	<b>Surface/Layer/Position Code</b> Code indicating the product surface, layer or position that is being described	O ID 2/2
<b>Not Recommended</b>	MEA10	1373	<b>Measurement Method or Device</b> The method or device used to record the measurement	O ID 2/4

**Segment:** **N1**    **Name**

**Level:** Header

**Loop:** N1    **Repeat:** >1

**Usage:** Optional

**Max Use:** 1

**Purpose:** To identify a party by type of organization, name, and code

**Syntax:** 1 R0203 - At least one of N102 or N103 is required.

2 P0304 - If either N103 or N104 is present, then the other is required.

**Comments:** **A** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

**B** N105 and N106 further define the type of entity in N101.

**Notes:** **Recommended for use to identify an entity associated with a Well Information object.**

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
N101	98	<b>Entity Identifier Code</b>	M ID 2/3
		Code identifying an organizational entity, a physical location, property or an individual	
		<b>CODE</b> <b>DEFINITION</b>	
		12 Regional Office	
		13 Contracted Service Provider	
		18 Production	
		1B Applicant	
		40 Receiver	
		41 Submitter	
		8P Producer	
		AG Agent/Agency	
		B1 Construction Firm	
		C8 City	
		KM Coordinator	
		L8 Head Office	
		OP Operator of property or unit	
		QW Government	
		RV Reservoir	
		V1 Surety	
		V2 Grantor	
		V3 Well Pad Construction Contractor	
		V4 Oil and Gas Regulatory Agency	
		V5 Surface Discharge Agency	
		V6 Well Casing Depth Authority	
		WI Witness	
		XY Tribal Government	

**Data Element Summary**

REF. DES.	DATA ELE.	NAME		ATTRIBUTES	
		CODE	DEFINITION		
		<b>Z3</b>	Potential Source of Supply		
		<b>ZU</b>	Formation		
		<b>ZW</b>	Field		
		<b>001</b>	Pumper		
		<b>002</b>	Surface Management Entity		
		<b>003</b>	Application Party		
		<b>004</b>	Site Operator		
		<b>005</b>	Construction Contractor		
		<b>006</b>	Drilling Contractor		
		<b>007</b>	Spud Contractor		
		<b>AAU</b>	Marker Owner		
<b>N102</b>	<b>93</b>	<b>Name</b>		<b>X</b>	<b>AN 1/60</b>
		Free-form name			
<b>N103</b>	<b>66</b>	<b>Identification Code Qualifier</b>		<b>X</b>	<b>ID 1/2</b>
		Code designating the system/method of code structure used for Identification Code (67)			
		<b>94</b>	Code assigned by the organization that is the ultimate destination of the transaction set		
<b>N104</b>	<b>67</b>	<b>Identification Code</b>		<b>X</b>	<b>AN 2/80</b>
		Code identifying a party or other code			
<b>Not Recommended</b>	<b>N105</b>	<b>706</b>	<b>Entity Relationship Code</b>	<b>O</b>	<b>ID 2/2</b>
		Code describing entity relationship			
<b>Not Recommended</b>	<b>N106</b>	<b>98</b>	<b>Entity Identifier Code</b>	<b>O</b>	<b>ID 2/3</b>
		Code identifying an organizational entity, a physical location, property or an individual			

**Segment: N2 Additional Name Information**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify additional names or those longer than 35 characters in length

**Notes:** Use this segment to further clarify the entity described with the previous N1 segment.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
N201	93	Name Free-form name	M AN 1/60
N202	93	Name Free-form name	O AN 1/60

**Segment: N3** Address Information

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify the location of the named party

**Notes:** Use this segment to convey address information associated with an entity identified in the previous N1 segment.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
N301	166	<b>Address Information</b> Address information	M AN 1/55
N302	166	<b>Address Information</b> Address information	O AN 1/55

**Segment: N4 Geographic Location**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify the geographic place of the named party

**Syntax:** 1 C0605 - If N406 is present, then N405 is required.

**Comments:** A A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.

B N402 is required only if city name (N401) is in the U.S. or Canada.

**Notes:** Continued from N3, this is the city, state, zip, and country information associated with an entity identified in the previous N1 segment.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
N401	19	<b>City Name</b> Free-form text for city name	O AN 2/30
N402	156	<b>State or Province Code</b> Code (Standard State/Province) as defined by appropriate government agency	O ID 2/2
N403	116	<b>Postal Code</b> Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	O ID 3/15
N404	26	<b>Country Code</b> Code identifying the country	O ID 2/3
N405	309	<b>Location Qualifier</b> Code identifying type of location	X ID 1/2
N406	310	<b>Location Identifier</b> Code which identifies a specific location	O AN 1/30

**Segment: PER Administrative Communications Contact**

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Optional

**Max Use:** >1

**Purpose:** To identify a person or office to whom administrative communications should be directed

- Syntax:**
- 1 P0304 - If either PER03 or PER04 is present, then the other is required.
  - 2 P0506 - If either PER05 or PER06 is present, then the other is required.
  - 3 P0708 - If either PER07 or PER08 is present, then the other is required.

**Notes:** Use this segment if any contact information is associated with the entity identified in the previous N1 segment.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
PER01	366	<b>Contact Function Code</b> Code identifying the major duty or responsibility of the person or group named	M ID 2/2
PER02	93	<b>Name</b> Free-form name	O AN 1/60
PER03	365	<b>Communication Number Qualifier</b> Code identifying the type of communication number	X ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		<b>EM</b> Electronic Mail	
		<b>FX</b> Facsimile	
		<b>TE</b> Telephone	
PER04	364	<b>Communication Number</b> Complete communications number including country or area code when applicable	X AN 1/80
PER05	365	<b>Communication Number Qualifier</b> Code identifying the type of communication number	X ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		<b>EM</b> Electronic Mail	
		<b>FX</b> Facsimile	
		<b>TE</b> Telephone	
PER06	364	<b>Communication Number</b> Complete communications number including country or area code when applicable	X AN 1/80
PER07	365	<b>Communication Number Qualifier</b> Code identifying the type of communication number	X ID 2/2
		<u>CODE</u> <u>DEFINITION</u>	
		<b>EM</b> Electronic Mail	
		<b>FX</b> Facsimile	
		<b>TE</b> Telephone	
PER08	364	<b>Communication Number</b> Complete communications number including country or area code when applicable	X AN 1/80

---

**Data Element Summary**

---

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
PER09	443	<b>Contact Inquiry Reference</b> Additional reference number or description to clarify a contact number	<b>O AN 1/20</b>

**Segment: LM Code Source Information**

**Level:** Header

**Loop:** LM **Repeat:** >1

**Usage:** Optional

**Max Use:** 1

**Purpose:** To transmit standard code list identification information

**Comments:** A LM02 identifies the applicable industry code list source information.

**Notes:** Use this segment to identify a specific organization that is the unique owner, sponsor, publisher, or regulator of codes and source listings associated with a Well Information object.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES						
LM01	559	<b>Agency Qualifier Code</b> Code identifying the agency assigning the code values	M ID 2/2						
		<table border="1"> <thead> <tr> <th>CODE</th> <th>DEFINITION</th> </tr> </thead> <tbody> <tr> <td>AP</td> <td>American Petroleum Institute</td> </tr> <tr> <td></td> <td>See Code Source 261</td> </tr> </tbody> </table>	CODE	DEFINITION	AP	American Petroleum Institute		See Code Source 261	
CODE	DEFINITION								
AP	American Petroleum Institute								
	See Code Source 261								
LM02	822	<b>Source Subqualifier</b> A reference that indicates the table or text maintained by the Source Qualifier	O AN 1/15						

**Segment:** **LQ** Industry Code

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Mandatory

**Max Use:** >1

**Purpose:** Code to transmit standard industry codes

**Syntax:** 1 C0102 - If LQ01 is present, then LQ02 is required.

**Notes:** Recommended for use to convey a table and a specific code value published by an organization identified in the previous LM segment.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
LQ01	1270	<b>Code List Qualifier Code</b> Code identifying a specific industry code list	O ID 1/3
		<b>CODE</b> <b>DEFINITION</b>	
		<b>PGS</b> Petroleum United States Geological Survey (USGS) Formation Code <b>See Code Source 261</b>	
		<b>PLC</b> Petroleum Land Category <b>See Code Source 261</b>	
		<b>PPD</b> Petroleum Product Disposition <b>See Code Source 261</b>	
		<b>PRR</b> Petroleum Regulatory Report <b>See Code Source 261</b>	
		<b>PWI</b> Petroleum Well Information <b>See Code Source 261</b>	
		<b>PWS</b> Petroleum Well Classification Status <b>See Code Source 261</b>	
		<b>PWT</b> Petroleum Well Test Information <b>See Code Source 261</b>	
LQ02	1271	<b>Industry Code</b> Code indicating a code from a specific industry code list	X AN 1/30

**Segment:** **SE** Transaction Set Trailer

**Level:** Header

**Loop:** \_\_\_\_\_

**Usage:** Mandatory

**Max Use:** 1

**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

**Comments:** **A** SE is the last segment of each transaction set.

**Data Element Summary**

REF. DES.	DATA ELE.	NAME	ATTRIBUTES
SE01	96	<b>Number of Included Segments</b> Total number of segments included in a transaction set including ST and SE segments	<b>M NO 1/10</b>
SE02	329	<b>Transaction Set Control Number</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set <b>The same value used in ST02.</b>	<b>M AN 4/9</b>

---

## **APPENDIX A: EXAMPLE BLM 3160-4, WELL COMPLETION REPORT (625) TRANSMISSION**

This appendix is an example of a paper version of the Well Completion Report, BLM 3160-4, and the same example using the ASC X12 (625) protocol. It is divided into two columns. The left column is the transaction as it is to be transmitted. The right column is an explanation of the (625) transmission, line by line.

Form 3160-4

SUBMIT IN DUPLICATE\*

FORM APPROVED

(July 1992)

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANGEMENT**

(See other In-  
structions on  
reverse side)

OMB NO. 1004-0137  
Expires: February 28, 1995

5. LEASE DESIGNATION AND SERIAL NO.  
WYW087102

6. IF INDIAN, ALOTTEE OR TRIBE NAME

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_  
 b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

7. UNIT AGREEMENT NAME  
Golden Hills Unit 8710968433

2. NAME OF OPERATOR  
Capitol Resources

8. FARM OR LEASE NAME, WELL NO.  
32-7

3. ADDRESS AND TELEPHONE NO.  
3786 Capitol Ave. Cheyenne, WY 82007 307-555-1212

9. API WELL NO.  
049-011-67877

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 586' FNL, 507' FWL (NWNW) Section 32, T.50N., R64W., 6th P.M.  
At top prod. Interval reported below  
At total depth

10. FIELD AND POOL, OR WILDCAT  
Keyline  
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Section 32, T.50N., R.64W.

12. COUNTY OR PARISH CROOK 13. STATE WY

15. DATE SPUNDED 02-03-97 16. DATE T.D. REACHED 05-24-97 17. DATE COMPL. (Ready to prod.) 06-15-97 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 4,450' GL 19. ELEV. CASINGHEAD 4,450'

20. TOTAL DEPTH, MD & TVD 15,197' MD 15,150' TVD 21. PLUG BACK T.D., MD & TVD 14,970' MD 14,921' TVD 22. IF MULTIPLE COMPL., HOW MANY\* 1 23. INTERVALS DRILLED BY [arrow] ROTARY TOOLS 0' - 15,197' CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME, (MD AND TVD)\*  
Gros Ventre, 14,500 - 14,850' TVD (14,451 - 14,806)  
26. TYPE ELECTRIC AND OTHER LOGS RUN  
DIL, GR, Caliper, CNL  
25. WAS DIRECTIONAL SURVEY MADE Yes  
27. WAS WELL CORED No

28. CASING RECORD (report all strings set in well)					
CASING SIZE/GRADE	WEIGHT, LB/FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13.375" / K-55	54.5	1,712'	17.5"	685 sacks, Class "A" Cement	0'
9.625" / P-110	43.5	5,280'	12.25"		0'
9.625" / C-95	40	8,294'	12.25"	800 sacks, Class "H" Cement	0'
5.5" / P-110	20	15,194'	6.5"	200 sacks, Class "H" Cement	0'

29. LINER RECORD				30. TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
7.625"	8.004'	10.504'	280 sx Class "H"		3.5"	14.480'	14.475'

31. PERFORATION RECORD (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)	NUMBER OF HOLES	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
14,550' - 14,720', .31"	272 Holes	14,550' - 14,702'	Frac'd 89,000# 40/60 sand and 98,500 gal. water.

33. PRODUCTION							
DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)					WELL STATUS (Producing or shut-in)	
06-18-97	Flowing					PGW	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO
06-19-97	8	24/64"	[arrow]	118	1,084	2	9,186
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (COOR.)	
1380	0	[arrow]	354	3,252	6	48	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold TEST WITNESSED BY Vincent Daniels

35. LIST OF ATTACHMENTS  
Geologic Report, Well Logs (Listed above), and DST (Park Formation)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
SIGNED Donald R. Watts TITLE Vice President of Operations DATE 06-30-97

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

BLM 3160-4 WELL COMPLETION REPORT

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, test, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Muddy	3,516'	3,597'	Formation contains water	Niobrara	1,057'	1,057'
Dakota	3,778'	4,003'	Formation has oil shows	Turner	2,235'	2,235'
Phosphoria	9,758'	10,002'	Formation contains water	Mowry	3,231'	3,231'
Minnelusa	11,978'	12,243'	Formation contains water	Muddy	3,516'	3,516'
Gros Ventre	14,500'	14,850'	Formation contains oil and gas mainly gas	Skull Creek	3,613'	3,613'
Park	14,970'	15,197'	Formation contains water	Dakota	3,778'	3,778'
				Lakota	4,115'	4,113'
				Morrison	4,376'	4,372'
				Sundance	5,286'	5,281'
				Nugget	7,567'	7,548'
				Spearfish	8,173'	8,128'
				Phosphoria	9,758'	9,701'
				Minnekahta	10,078'	10,012'
				Minnelusa	11,978'	11,908'
				Madison	12,952'	12,875'
				Kibby	13,778'	13,718'
				Charles	14,035'	13,985'
				Gros Ventre	14,500'	14,451'
				Park	14,970'	14,921'

**INFORMATION SENT**

**EXPLANATION**

ST*625*0001^	625 indicates the transaction set. 0001 is the control number.
BGN*00*123*19970630*0830*UT^	00 indicates this is an original transmission; 123 is the assigned reference number; 19970630 is the date of June 30, 1997 when the transaction set was sent; 0830 is the time of 8:30 when the transaction set was sent; UT indicates Coordinated Universal Time.
HL*1**RP*1^	1 indicates this is the first hierarchical segment used; RP indicates the hierarchical level is that of a Report; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWAPOR*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWAPOR indicates the Permits/Reports; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PRR*034^	PRR indicates the Petroleum Regulatory Report List is being used; 034 indicates a BLM Form 3160-4 (Well Completion or Recompletion Report and Log).
HL*2*1*RP*0^	2 indicates this is the second hierarchical segment used; 1 indicates the hierarchical Parent ID Number; RP indicates the hierarchical level is that of a Report; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWABAS*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWABAS indicates the Business Associate; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source is being used.
N1*OP*Capital Resources*94*12345^	OP indicates the field to follow is the Operator of the property; Capital Resources is the name; 94 indicates the field to follow is the number assigned by the BLM for the company; 12345 is the number.
N2*Vice President of Operations^	Vice President of Operations is the title of the report authorizer for the operator.
N3*3786 Capitol Ave.^	3786 Capitol Ave. indicates the street address of the operator.
N4*Cheyenne*WY*82007^	Cheyenne is the name of the city where the company is located; WY indicates Wyoming; 82007 is the zip code

PER*AU*Donald R. Watts*TE*3075551212^	AU indicates the field to follow is the name of the Report Authorizer; Donald R. Watts is the name; TE indicates the field that follows is the telephone number of the Authorizer; 3075551212 is the telephone number.
HL*3*1*36*1^	3 Indicates this is the third hierarchical segment in this example; 1 indicates the hierarchical Parent ID Number; 36 indicates the hierarchical level is Operating Unit; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWAFP*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWAFP indicates the Field/ Pools; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
N1*ZW*Keyline^	ZW indicates the field to follow is the field name; Keyline is the name.
HL*4*3*IB*1^	4 Indicates this is the fourth hierarchical segment in this example; 3 indicates the hierarchical Parent ID Number; IB indicates the hierarchical level is Contract Designation; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWACDN*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWACDN indicates the Contract Designation; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
REF*QQ*8710968433*Golden Hills^	QQ indicates the field to follow is a Unit number; 8710968433 is the unit number; Golden Hills is the name of the unit.
REF*LC*WYW087102^	LC indicates the field to follow is a lease number; WYW087102 is the lease number.
HL*5*4*WL*1^	5 Indicates the fifth hierarchical segment in this example; 4 indicates the hierarchical Parent ID Number; WL indicates the hierarchical level is Well; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWAWEL*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWAWEL indicates the Well; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
REF*WB*04901167877^	WB indicates the field to follow is the American Petroleum Institute Well number; 04901167877 is the number.
LQ*PWI*PWY002^	PWI indicates the Petroleum Well Information Code List is being used; PWY002 indicates a Gas Well.
HL*6*4*WL*0^	6 indicates this is the sixth hierarchical segment used; 4 indicates the hierarchical Parent ID Number; WL indicates the hierarchical level is that of a Well; 0 indicates this hierarchical segment has no children.

PID*S**AP*PWAWS*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWAWS indicates the Well Status; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source table is being used.
LQ*PWI*PCC007^	PWI indicates the Petroleum Well Information Code List is being used; PCC007 indicates a New Well.
LQ*PWS*003^	PWS indicates the Petroleum Well Classification Status Code List is being used; 003 indicates Producing Gas Well.
HL*7*4*WL*0^	7 indicates this is the seventh hierarchical segment used; WL indicates the hierarchical level is that of a Well; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAATT*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute; PWAATT indicates the Attached Files; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
REF*E9*Geologic Report*TS102*FI:12223^	E9 indicates the field that follows is an Attachment; Geologic Report is the Attachment; TS102 indicates the attachment is being transmitted in Transaction Set (102); FI indicates the field that follows is a file identifier; 12223 is the file identifier.
REF*E9*Well Logs*At Wyoming State Well Log Library^	E9 indicates the field to follow is an Attachment; Well Logs indicates the Attachment is a Set of Well Logs; At Wyoming State Well Log Library is the location of this set of Well Logs.
REF*E9*DST*http://capitol.com/test_library/dst.23^	E9 indicates the field to follow is an Attachment; DST indicates the Attachment is a Drill Stem Test; http://capitol.com/test_library/dst.23 is the location of the DST file.
HL*8*5*WR*1^	8 Indicates the eighth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWALSA*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWALSA indicates the Legal Survey Area; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
LIE*WS^	WS indicates a Wellbore Surface Location.
PPA*43*6th^	43 indicates the field to follow is a Principle Meridian; 6th is the meridian.
PPA*SP*WY^	SP indicates the field to follows is a State; WY is the State Wyoming.

PPA*CY*Crook^	CY indicates the field to follow is a County; Crook is the county.
PPA*TN*0500N^	TN indicates the field to follow is a Township; 0500N is the Township of 50 North.
PPA*12*0640W^	12 indicates the field to follow is a Range; 0640W is the Range of 64 West.
PPA*13*32^	13 indicates the field to follow is a Section; 32 is the section.
PPA*48*NWNW^	48 indicates the field to follow is a Quarter Quarter Section; NWNW is the Quarter Quarter Section of Northwest Northwest.
PPA*38*FNL^	38 indicates the field to follow is a Footage Call Direction; FNL is From the North Line.
MEA**DT*586*EZ^	DT indicates the field to follow is a Distance From Base Point; 586 is the distance; EZ indicates the distance is measured in Feet and Decimal.
LIE*WS^	WS indicates a Wellbore Surface Location.
PPA*38*FWL^	38 indicates the field to follow is a Footage Call Direction; FWL is From the West Line.
MEA**DT*507*EZ^	DT indicates the field to follow is a Distance From Base Point; 507 is the distance; EZ indicates the distance is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source table is being used.
LQ*PWI*PLS002^	PWI indicates the Petroleum Well Information Code List is being used; PLS002 indicates a Congressional Survey.
HL*9*5*WR*0^	9 indicates the ninth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWADAT*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWADAT indicates Datums; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRE005*PWI*261^	AP indicates the American Petroleum Institute code source; PRE005 Indicates Ground Level; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**ELE*4450*EZ^	ELE indicates the fields to follow deal with an Elevation; 4450 is the elevation; EZ indicates the Elevation is measured in Feet and Decimal.
CID***AP*PRE004*PWI*261^	AP indicates the American Petroleum Institute code source; PRE004 Indicates Casing Flange; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**ELE*4450*EZ^	ELE indicates the fields to follow deal with an Elevation; 4450 is the elevation; EZ indicates the Elevation is measured in Feet and Decimal.
CID***AP*PRD012*PWI*261^	AP indicates the American Petroleum Institute code source; PRD012 Indicates Well Total Measured Depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*15197*EZ^	DP indicates the fields to follow deal with Depth; 15197 is the depth; EZ indicates the Depth is measured in Feet and Decimal.
MEA**TVD*15150*EZ^	TVD indicates the fields to follow deal with True Vertical Depth; 15150 is the depth; EZ indicates the Depth is measured in Feet and Decimal.
HL*10*5*WR*0^	10 Indicates the tenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWADWB*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWADWB indicates Drill Wellbore; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
DTP*217*D8*19970203^	217 indicates the fields to follow are related to the Spud Date; D8 indicates the date format is CCYYMMDD; 19970203 is the date of February 3, 1997.
DTP*W09*D8*19970524^	W09 indicates the fields to follow are related to the Date Total Depth was reached; D8 indicates the date format is CCYYMMDD; 19970524 is the date of May 24, 1997.
CID***AP*PRD029*PWI*261^	AP indicates the American Petroleum Institute code source; PRD029 Indicates the depth Rotary Tools were started to be used; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*0*EZ^	DP indicates the fields to follow relate to Depth; 0 is the depth; EZ indicates the depth is measured in Feet and Decimal.

CID***AP*PRD030*PWI*261^	AP indicates the American Petroleum Institute code source; PRD030 Indicates the bottom depth Rotary Tools were used; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*15197*EZ^	DP indicates the fields to follow relate to Depth; 15197 is the depth; EZ indicates the depth is measured in Feet and Decimal.
HL*11*5*WR*0^	11 Indicates the eleventh hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGT*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGT indicates Geologic Targets; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 Indicates the Geologic Marker Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14500*EZ^	DP indicates the fields to follow relate to Depth; 14500 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*14451*EZ*^	TVD indicates the fields to follow relate to True Vertical Depth; 14451 is the minimum depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD036*PWI*261^	AP indicates the American Petroleum Institute code source; PRD036 Indicates the Geologic Marker Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14850*EZ^	DP indicates the fields to follow relate to Depth; 14850 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*14806*EZ*^	TVD indicates the fields to follow relate to True Vertical Depth; 14806 is the minimum depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*152GRVR^	PGS indicates the Petroleum USGS Formation Code List is being used; 152GRVR indicates the Gros Ventre formation.
HL*12*5*WR*1^	12 indicates the twelfth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWAPRZ*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRZ indicates a Porous Zone; PWI indicates the Petroleum Well Information

	Code List is being used; 261 indicates this code source table is being used.
MTX**Water^	"Water" is free form text.
CID***AP*PRD045*PWI*261^	AP indicates the American Petroleum Institute code source; PRD045 Indicates the Porous Zone Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3516*EZ^	DP indicates the fields to follow relate to Depth; 3516 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD046*PWI*261^	AP indicates the American Petroleum Institute code source; PRD046 indicates the Porous Zone Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3597*EZ^	DP indicates the fields to follow relate to Depth; 3597 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*602MDDY^	PGS indicates the Petroleum USGS Formation Code List is being used; 602MDDY indicates the Muddy formation.
HL*13*5*WR*0^	13 indicates the thirteenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPRZ*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRZ indicates a Porous Zone; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MTX**Oil shows^	"Oil shows" is free form text.
CID***AP*PRD045*PWI*261^	AP indicates the American Petroleum Institute code source; PRD045 Indicates the Porous Zone Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3778*EZ^	DP indicates the fields to follow relate to Depth; 3778 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD046*PWI*261^	AP indicates the American Petroleum Institute code source; PRD046 Indicates the Porous Zone Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**DP*4003*EZ^	DP indicates the fields to follow relate to Depth; 4003 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source table is being used.
LQ*PGS*602DKOT^	PGS indicates the Petroleum USGS Formation Code List is being used; 602DKOT indicates the Dakota formation.
HL*14*5*WR*0^	14 indicates the fourteenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPRZ*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRZ indicates a Porous Zone; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MTX**Water^	"Water" is free form text.
CID***AP*PRD045*PWI*261^	AP indicates the American Petroleum Institute code source; PRD045 Indicates the Porous Zone Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*9758*EZ^	DP indicates the fields to follow relate to Depth; 9758 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD046*PWI*261^	AP indicates the American Petroleum Institute code source; PRD046 indicates the Porous Zone Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*10002*EZ^	DP indicates the fields to follow relate to Depth; 10002 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*452PSPR^	PGS indicates the Petroleum USGS Formation Code List is being used; 452PSPR indicates the Phosphoria formation.
HL*15*5*WR*0^	15 Indicates the fifteenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPRZ*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRZ indicates a Porous Zone; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MTX**Water^	"Water" is free form text.

CID***AP*PRD045*PWI*261^	AP indicates the American Petroleum Institute code source; PRD045 Indicates the Porous Zone Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*11978*EZ^	DP indicates the fields to follow relate to Depth; 11978 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD046*PWI*261^	AP indicates the American Petroleum Institute code source; PRD046 indicates the Porous Zone Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*12243*EZ^	DP indicates the fields to follow relate to Depth; 12243 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*419MNLS^	PGS indicates the Petroleum USGS Formation Code List is being used; 419MNLS indicates the Minnelusa formation.
HL*16*5*WR*0^	16 indicates the sixteenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPRZ*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRZ indicates a Porous Zone; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MTX**Oil and Gas, mainly gas^ CID***AP*PRD045*PWI*261^	"Oil and Gas, mainly gas" is free form text. AP indicates the American Petroleum Institute code source; PRD045 Indicates the Porous Zone Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14500*EZ^	DP indicates the fields to follow relate to Depth; 14500 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD046*PWI*261^	AP indicates the American Petroleum Institute code source; PRD046 Indicates the Porous Zone Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14850*EZ^	DP indicates the fields to follow relate to Depth; 14850 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.

LQ*PGS*152GRVR^	PGS indicates the Petroleum USGS Formation Code List is being used; 152GRVR indicates the Gros Ventre formation.
HL*17*5*WR*0^	17 Indicates the seventeenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPRZ*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRZ indicates a Porous Zone; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MTX**Water^	"Water" is free form text.
CID***AP*PRD045*PWI*261^	AP indicates the American Petroleum Institute code source; PRD045 indicates the Porous Zone Top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14970*EZ^	DP indicates the fields to follow relate to Depth; 14970 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD046*PWI*261^	AP indicates the American Petroleum Institute code source; PRD046 indicates the Porous Zone Bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*15197*EZ^	DP indicates the fields to follow relate to Depth; 15197 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*152PARK^	PGS indicates the Petroleum USGS Formation Code List is being used; 152PARK indicates the Park formation.
HL*18*12*WR*0^	18 indicates the eighteenth hierarchical segment in this example; 12 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWACOR*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACOR indicates a Core; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
YNQ**N*****PWI*POC010^	N indicates a No response; PWI indicates the Petroleum Well Information Code List is being used; POF010 indicates the question Was Well Cored?

HL*19*5*WR*0^	19 indicates the nineteenth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*1057*EZ^	DP indicates the fields to follow relate to Depth; 1057 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*1057*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 1057 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*603NBRR^	PGS indicates the Petroleum USGS Formation Code List is being used; 603NBRR indicates the Niobrara formation.
HL*20*5*WR*0^	20 indicates the twentieth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*2235*EZ^	DP indicates the fields to follow relate to Depth; 2235 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*2235*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 2235 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*603TRNR^	PGS indicates the Petroleum USGS Formation Code List is being used; 603TRNR indicates the Turner formation.

HL*21*5*WR*0^	21 indicates the Twenty-first hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3231*EZ^	DP indicates the fields to follow relate to Depth; 3231 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*3231*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 3231 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*602MWRY^	PGS indicates the Petroleum USGS Formation Code List is being used; 602MWRY indicates the Mowry formation.
HL*22*5*WR*0^	22 indicates the twenty-second hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3516*EZ^	DP indicates the fields to follow relate to Depth; 3516 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*3516*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 3516 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.

LQ*PGS*602MDDY^	PGS indicates the Petroleum USGS Formation Code List is being used; 602MDDY indicates the Muddy formation.
HL*23*5*WR*0^	23 indicates the twenty-third hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3613*EZ^	DP indicates the fields to follow relate to Depth; 3613 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*3613*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 3613 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*602SKCK^	PGS indicates the Petroleum USGS Formation Code List is being used; 602SKCK indicates the Skull Creek formation.
HL*24*5*WR*0^	24 indicates the twenty-fourth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*3778*EZ^	DP indicates the fields to follow relate to Depth; 3778 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*3778*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 3778 is the depth; EZ indicates the depth is measured in Feet and Decimal.

LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*602DKOT^	PGS indicates the Petroleum USGS Formation Code List is being used; 602DKOT indicates the Dakota formation.
HL*25*5*WR*0^	25 indicates the Twenty-fifth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*4115*EZ^	DP indicates the fields to follow relate to Depth; 4115 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*4113*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 4113 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*602LKOT^	PGS indicates the Petroleum USGS Formation Code List is being used; 602LKOT indicates the Lakota formation.
HL*26*5*WR*0^	26 indicates the twenty-sixth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*4376*EZ^	DP indicates the fields to follow relate to Depth; 4376 is the depth; EZ indicates the depth is measured in Feet and Decimal.

MEA**TVD*4372*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 4372 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*553MRSN^	PGS indicates the Petroleum USGS Formation Code List is being used; 553MRSN indicates the Morrison formation.
HL*27*5*WR*0^	27 indicates the twenty-seventh hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*5286*EZ^	DP indicates the fields to follow relate to Depth; 5286 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*5281*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 5281 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*553SNDC^	PGS indicates the Petroleum USGS Formation Code List is being used; 553SNDC indicates the Sundance formation.
HL*28*5*WR*0^	28 indicates the twenty-eighth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*7567*EZ^	DP indicates the fields to follow relate to Depth; 7567 is the depth; EZ indicates the depth is measured in Feet and Decimal.

MEA**TVD*7548*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 7548 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*551NGGT^	PGS indicates the Petroleum USGS Formation Code List is being used; 551NGGT indicates the Nugget formation.
HL*29*5*WR*0^	29 indicates the twenty-ninth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*8173*EZ^	DP indicates the fields to follow relate to Depth; 8173 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*8128*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 8128 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*469SPRF^	PGS indicates the Petroleum USGS Formation Code List is being used; 469SPRF indicates the Spearfish formation.
HL*30*5*WR*0^	30 indicates the thirtieth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**DP*9758*EZ^	DP indicates the fields to follow relate to Depth; 9758 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*9701*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 9701 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*452PSPR^	PGS indicates the Petroleum USGS Formation Code List is being used; 452PSPR indicates the Phosphoria formation.
HL*31*5*WR*0^	31 indicates the thirty-first hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*10078*EZ^	DP indicates the fields to follow relate to Depth; 10078 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*10012*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 10012 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*452MNKT^	PGS indicates the Petroleum USGS Formation Code List is being used; 452MNKT indicates the Minnekahta formation.
HL*32*5*WR*0^	32 indicates the thirty-second hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*11978*EZ^	DP indicates the fields to follow relate to Depth; 11978 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*11908*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 11908 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*419MNLS^	PGS indicates the Petroleum USGS Formation Code List is being used; 419MNLS indicates the Minnelusa formation.
HL*33*5*WR*0^	33 indicates the thirty-third hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*12952*EZ^	DP indicates the fields to follow relate to Depth; 12952 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*12875*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 12875 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*359MDSN^	PGS indicates the Petroleum USGS Formation Code List is being used; 359MDSN indicates the Madison formation.
HL*34*5*WR*0^	34 indicates the thirty-fourth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code

source table is being used.

CID\*\*\*AP\*PRD035\*PWI\*261^

AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA\*\*DP\*13778\*EZ^

DP indicates the fields to follow relate to Depth; 13778 is the depth; EZ indicates the depth is measured in Feet and Decimal.

MEA\*\*TVD\*13718\*EZ^

TVD indicates the fields to follow relate to True Vertical Depth; 13718 is the depth; EZ indicates the depth is measured in Feet and Decimal.

LM\*AP\*261^

AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.

LQ\*PGS\*354KBBY^

PGS indicates the Petroleum USGS Formation Code List is being used; 354KBBY indicates the Kibbey formation.

HL\*35\*5\*WR\*0^

35 indicates the thirty-fifth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.

PID\*S\*\*AP\*PWAGEO\*PWI\*\*261^

S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

CID\*\*\*AP\*PRD035\*PWI\*261^

AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA\*\*DP\*14035\*EZ^

DP indicates the fields to follow relate to Depth; 14035 is the depth; EZ indicates the depth is measured in Feet and Decimal.

MEA\*\*TVD\*13985\*EZ^

TVD indicates the fields to follow relate to True Vertical Depth; 13985 is the depth; EZ indicates the depth is measured in Feet and Decimal.

LM\*AP\*261^

AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.

LQ\*PGS\*353CRLS^

PGS indicates the Petroleum USGS Formation Code List is being used; 353CRLS indicates the Charles formation.

HL\*36\*5\*WR\*0^

36 indicates the thirty-sixth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.

PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14500*EZ^	DP indicates the fields to follow relate to Depth; 14500 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*14451*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 14451 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*152GRVR^	PGS indicates the Petroleum USGS Formation Code List is being used; 152GRVR indicates the Gros Ventre formation.
HL*37*5*WR*0^	37 indicates the thirty-seventh hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGEO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGEO indicates a Geologic Marker; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD035*PWI*261^	AP indicates the American Petroleum Institute code source; PRD035 indicates a Geologic Marker Top depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14970*EZ^	DP indicates the fields to follow relate to Depth; 14970 is the depth; EZ indicates the depth is measured in Feet and Decimal.
MEA**TVD*14921*EZ^	TVD indicates the fields to follow relate to True Vertical Depth; 14921 is the depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PGS*152PARK^	PGS indicates the Petroleum USGS Formation Code List is being used; 152PARK indicates the Park formation.

HL*38*5*WR*0^	38 indicates the thirty-eighth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWALOG*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWALOG indicates Well Logs; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source table is being used.
LQ*PWI*PLTDIL^	PWI indicates the Petroleum Well Information Code List is being used; PLTDIL indicates a dual induction lateral log.
LQ*PWI*PLTGR^	PWI indicates the Petroleum Well Information Code List is being used; PLTGR indicates a gamma ray log.
LQ*PWI*PLTCAL^	PWI indicates the Petroleum Well Information Code List is being used; PLTCAL indicates a caliper log.
LQ*PWI*PLTCNL^	PWI indicates the Petroleum Well Information Code List is being used; PLTCNL indicates a compensated neutron log.
HL*39*5*WR*0^	39 indicates the thirty-ninth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWADS*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWADS indicates Directional Survey; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
YNQ**Y*****PWI*POC009^	Y indicates a Yes response; PWI indicates the Petroleum Well Information Code List is being used; POC009 indicates the question was a directional survey done?
HL*40*5*WR*1^	40 indicates the fortieth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWACSG*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACSG indicates Casing String; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PMC020*PWI*261^	AP indicates the American Petroleum Institute code source; PMC020 indicates the drill bit diameter (or hole size); PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**DI*17.5*ED^	DI indicates the fields to follow deal with Diameter; 17.5 is the diameter; ED indicates the diameter is measured in Inches and Decimal.
CID***AP*PMC023*PWI*261^	AP indicates the American Petroleum Institute code source; PMC023 Indicates the Tubular Outside Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*13.375*ED^	DI indicates the fields to follow deal with Diameter; 13.375 is the diameter; ED indicates the diameter is measured in Inches and Decimal.
CID***AP*PMC011*PID*261^	AP indicates the American Petroleum Institute code source; PMC011 Indicates the Tubular Weight; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**WT*54.5*P2^	WT indicates the fields to follow deal with Weight; 54.5 is the weight; P2 indicates the weight is measured in Pounds per Foot.
CID***AP*PRD051*PWI*261^	AP indicates the American Petroleum Institute code source; PRD051 indicates the top of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*0*EZ^	DP indicates the fields to follow relate to Depth; 0 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD052*PWI*261^	AP indicates the American Petroleum Institute code source; PRD052 indicates the bottom of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*1712*EZ^	DP indicates the fields to follow relate to Depth; 1712 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PMC051*PWI*261^	AP indicates the American Petroleum Institute code source; PMC051 indicates the Tubular Segment Removed Length; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**LN*0*EZ^	LN indicates the fields to follow relate to Length; 0 is the Length; EZ indicates the Length is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PTG011^	PWI indicates the Petroleum Well Information Code List is being used; PTG011 indicates K-55 grade of casing.

HL*41*40*WR*0^	41 indicates the forty-first hierarchical segment in this example; 40 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWACMT*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACMT indicates cement; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PQC002*PWI*261^	AP indicates the American Petroleum Institute code source; PQC002 indicates Cement Stage Volume; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
QTY*01*685*SJ^	01 indicates the fields to follow relate to a quantity; 685 is the quantity; SJ indicates the quantity is measured in sacks.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PCT001^	PWI indicates the Petroleum Well Information Code List is being used; PCT001 indicates Class A Cement.
HL*42*5*WR*0^	42 indicates the forty-second hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWACSG*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACSG indicates Casing String; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PMC020*PWI*261^	AP indicates the American Petroleum Institute code source; PMC020 indicates the drill bit diameter (or hole size); PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*12.25*ED^	DI indicates the fields to follow deal with Diameter; 12.25 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PMC023*PWI*261^	AP indicates the American Petroleum Institute code source; PMC023 indicates the Tubular Outside Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*9.625*ED^	DI indicates the fields to follow deal with Diameter; 9.625 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PMC011*PWI*261^	AP indicates the American Petroleum Institute code source; PMC011 indicates the Tubular Weight; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**WT*43.5*P2^	WT indicates the fields to follow deal with Weight; 43.5 is the weight; P2 indicates the weight is measured in Pounds per Foot.
CID***AP*PRD051*PWI*261^	AP indicates the American Petroleum Institute code source; PRD051 indicates the top of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*0*EZ^	DP indicates the fields to follow relate to Depth; 0 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD052*PWI*261^	AP indicates the American Petroleum Institute code source; PRD052 indicates the bottom of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*5280*EZ^	DP indicates the fields to follow relate to Depth; 5280 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PMC051*PWI*261^	AP indicates the American Petroleum Institute code source; PMC051 indicates the Tubular Segment Removed Length; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**LN*0*EZ^	LN indicates the fields to follow relate to Length; 0 is the Length; EZ indicates the Length is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PTG018^	PWI indicates the Petroleum Well Information Code List is being used; PTG018 indicates P-110 grade of casing.
HL*43*5*WR*1^	43 indicates the forty-third hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWACSG*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACSG indicates Casing String; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PMC020*PWI*261^	AP indicates the American Petroleum Institute code source; PMC020 indicates the drill bit diameter (or hole size); 261 indicates this code source table is being used.

MEA**DI*12.25*ED^	DI indicates the fields to follow deal with Diameter; 12.25 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PMC023*PWI*261^	AP indicates the American Petroleum Institute code source; PMC023 Indicates the Tubular Outside Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*9.625*ED^	DI indicates the fields to follow deal with Diameter; 9.625 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PMC011*PWI*261^	AP indicates the American Petroleum Institute code source; PMC011 indicates the Tubular Weight; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**WT*40*P2^	WT indicates the fields to follow deal with Weight; 40 is the weight; P2 indicates the weight is measured in Pounds per Foot.
CID***AP*PRD051*PWI*261^	AP indicates the American Petroleum Institute code source; PRD051 indicates the top of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*5280*EZ^	DP indicates the fields to follow relate to Depth; 5280 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD052*PWI*261^	AP indicates the American Petroleum Institute code source; PRD052 indicates the bottom of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*8294*EZ^	DP indicates the fields to follow relate to Depth; 8294 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PMC051*PWI*261^	AP indicates the American Petroleum Institute code source; PMC051 indicates the Tubular Segment Removed Length; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**LN*0*EZ^	LN indicates the fields to follow relate to Length; 0 is the Length; EZ indicates the Length is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PTG003^	PWI indicates the Petroleum Well Information Code List is being used; PTG003 indicates C-95 grade of casing.

HL*44*43*WR*0^	44 indicates the forty-fourth hierarchical segment in this example; 43 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWACMT*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACMT indicates Cement; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PQC002*PWI*261^	AP indicates the American Petroleum Institute code source; PQC002 Indicates Cement Stage Volume; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
QTY*01*800*SJ^	01 indicates the fields to follow relate to a quantity; 800 is the quantity; SJ indicates the quantity is measured in sacks.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PCT005^	PWI indicates the Petroleum Well Information Code List is being used; PCT005 indicates Class H Cement.
HL*45*5*WR*1^	45 indicates the forty-fifth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWACSG*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACSG indicates Casing String; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PMC020*PWI*261^	AP indicates the American Petroleum Institute code source; PMC020 indicates the drill bit diameter (or hole size); PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*6.5*ED^	DI indicates the fields to follow deal with Diameter; 6.5 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PMC023*PWI*261^	AP indicates the American Petroleum Institute code source; PMC023 indicates the Tubular Outside Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*5.5*ED^	DI indicates the fields to follow deal with Diameter; 5.5 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PMC011*PWI*261^	AP indicates the American Petroleum Institute code source; PMC011 indicates the Tubular Weight; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**WT*20*P2^	WT indicates the fields to follow deal with Weight; 20 is the weight; P2 indicates the weight is measured in Pounds per Foot.
CID***AP*PRD051*PWI*261^	AP indicates the American Petroleum Institute code source; PRD051 indicates the top of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*0*EZ^	DP indicates the fields to follow relate to Depth; 0 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD052*PWI*261^	AP indicates the American Petroleum Institute code source; PRD052 indicates the bottom of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*15194*EZ^	DP indicates the fields to follow relate to Depth; 15194 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PMC051*PWI*261^	AP indicates the American Petroleum Institute code source; PMC051 indicates the Tubular Segment Removed Length; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**LN*0*EZ^	LN indicates the fields to follow relate to Length; 0 is the Length; EZ indicates the Length is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PTG018^	PWI indicates the Petroleum Well Information Code List is being used; PTG018 indicates P-110 grade of casing.
HL*46*45*WR*0^	46 indicates the forty-sixth hierarchical segment in this example; 45 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWACMT*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACMT indicates Cement; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PQC002*PWI*261^	AP indicates the American Petroleum Institute code source; PQC002 indicates Cement Stage Volume; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

QTY*01*200*SJ^	01 indicates the fields to follow relate to a quantity; 200 is the quantity; SJ indicates the quantity is measured in sacks.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PCT005^	PWI indicates the Petroleum Well Information Code List is being used; PCT005 indicates Class H Cement.
HL*47*5*WR*1^	47 indicates the forty-seventh hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWATBG*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWATBG indicates Tubing; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PMC023*PWI*261^	AP indicates the American Petroleum Institute code source; PMC023 Indicates the Tubular Outside Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*3.5*ED^	DI indicates the fields to follow deal with Diameter; 3.5 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PRD051*PWI*261^	AP indicates the American Petroleum Institute code source; PRD051 indicates the top of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*0*EZ^	DP indicates the fields to follow relate to Depth; 0 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD052*PWI*261^	AP indicates the American Petroleum Institute code source; PRD052 Indicates the bottom of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14480*EZ^	DP indicates the fields to follow relate to Depth; 14480 is the depth; EZ indicates the depth is measured in Feet and Decimal.
HL*48*47*WR*0^	48 indicates the forty-eighth hierarchical segment in this example; 47 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPKR*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPKR indicates a Packer; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

CID\*\*\*AP\*PRD008\*PWI\*261^

AP indicates the American Petroleum Institute code source; PRD008 indicates the Packer Setting Depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA\*\*DP\*14475\*EZ^

DP indicates the fields to follow deal with Depth; 14475 is the depth; EZ indicates the Depth is measured in Feet and Decimal.

HL\*49\*5\*WR\*1^

49 indicates the forty-ninth hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 1 indicates this hierarchical segment has at least one child.

PID\*S\*\*AP\*PWALIN\*PWI\*\*261^

S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWALIN indicates a Liner; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

CID\*\*\*AP\*PMC023\*PWI\*261^

AP indicates the American Petroleum Institute code source; PMC023 indicates the Tubular Outside Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA\*\*DI\*7.625\*ED^

DI indicates the fields to follow deal with Diameter; 7.625 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.

CID\*\*\*AP\*PRD051\*PWI\*261^

AP indicates the American Petroleum Institute code source; PRD051 indicates the top of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA\*\*DP\*8004\*EZ^

DP indicates the fields to follow relate to Depth; 8004 is the depth; EZ indicates the depth is measured in Feet and Decimal.

CID\*\*\*AP\*PRD052\*PWI\*261^

AP indicates the American Petroleum Institute code source; PRD052 indicates the bottom of the Tubular Segment; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA\*\*DP\*10504\*EZ^

DP indicates the fields to follow relate to Depth; 10504 is the depth; EZ indicates the depth is measured in Feet and Decimal.

HL\*50\*49\*WR\*0^

50 indicates the fiftieth hierarchical segment in this example; 49 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.

PID\*S\*\*AP\*PWACMT\*PWI\*\*261^

S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACMT indicates

	Cement; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PQC002**261^	AP indicates the American Petroleum Institute code source; PQC002 indicates Cement Stage Volume; 261 indicates this code source table is being used.
QTY*01*280*SJ^	01 indicates the fields to follow relate to a quantity; 280 is the quantity; SJ indicates the quantity is measured in sacks.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PCT005^	PWI indicates the Petroleum Well Information Code List is being used; PCT005 indicates Class H Cement.
HL*51*5*WR*0^	51 indicates the fifty-first hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAUPI*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAUPI indicates Wellbore Plug; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PRD009*PWI*261^	AP indicates the American Petroleum Institute code source; PRD009 indicates Plug Back Total Depth; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14970*EZ^	DP indicates the fields to follow deal with Depth; 14970 is the depth; EZ indicates the Depth is measured in Feet and Decimal.
MEA**TVD*14921*EZ^	TVD indicates the fields to follow deal with True Vertical Depth; 14921 is the depth; EZ indicates the Depth is measured in Feet and Decimal.
HL*52*5*WR*0^	52 indicates the fifty-second hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WR indicates the hierarchical level is Wellbore; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAGWO*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAGWO indicates General Well Operations; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MTX**Frac'd 89,000 # 40/60 sand and 98,000 gal. water.^	"Frac'd 89,000 # 40/60 sand and 98,000 gal. water." is free form text.
CID***AP*PRD049*PWI*261^	AP indicates the American Petroleum Institute code source; PRD049 Indicates the Treatment Interval top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.

MEA**DP*14550*EZ^	DP indicates the fields to follow relate to Depth; 14550 is the minimum depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD050*PWI*261^	AP indicates the American Petroleum Institute code source; PRD050 indicates the Treatment Interval bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14702*EZ^	DP indicates the fields to follow relate to Depth; 14702 is the minimum depth; EZ indicates the depth is measured in Feet and Decimal.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWI*PTR003^	PWI indicates the Petroleum Well Information Code List is being used; PTR003 indicates Hydraulic Perforation Breakdown.
HL*53*5*WP*1^	53 indicates the fifty-third hierarchical segment in this example; 5 indicates the hierarchical Parent ID Number; WP indicates the hierarchical level is Well Completion; 1 indicates this hierarchical segment has at least one child.
PID*S**AP*PWAPRF*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPRF indicates Perforations; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
CID***AP*PMC022*PWI*261^	AP indicates the American Petroleum Institute code source; PMC022 Indicates the Perforation Diameter; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*.31*ED^	DI indicates the fields to follow deal with Diameter; .31 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PRD041*PWI*261^	AP indicates the American Petroleum Institute code source; PRD041 indicates the Perforation top; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14550*EZ^	DP indicates the fields to follow relate to Depth; 14550 is the depth; EZ indicates the depth is measured in Feet and Decimal.
CID***AP*PRD042*PWI*261^	AP indicates the American Petroleum Institute code source; PRD042 indicates the Perforation bottom; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DP*14720*EZ^	DP indicates the fields to follow relate to Depth; 14720 is the depth; EZ indicates the depth is measured in Feet and Decimal.

CID***AP*PMC042*PWI*261^	AP indicates the American Petroleum Institute code source; PMC042 indicates the Number of Perforations (number of shots); PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**HO*272^	HO indicates the fields to follow deal with Holes; 272 is the number of holes.
HL*54*53*WP*0^	54 indicates the fifty-fourth hierarchical segment in this example; 53 indicates the hierarchical Parent ID Number; WP indicates the hierarchical level is Well Completion; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWAPTS*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWAPTS indicates Well Performance Test; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
DTP*203*D8*19970618^	203 indicates the fields to follow are related to the First Production Date; D8 indicates the date format is CCYYMMDD; 19970618 is the date of June 18, 1997.
DTP*119*D8*19970619^	119 indicates the fields to follow are related to the Test Performed Date; D8 indicates the date format is CCYYMMDD; 19970619 is the date of June 19, 1997.
DTP*AB4*TS*080000^	AB4 indicates the fields to follow are related to the Time Period; Ts indicates the time format is HHMMSS; 080000 is the time of 8 hours.
CID***AP*PMC090*PWI*261^	AP indicates the American Petroleum Institute code source; PMC090 indicates the Gas Oil Ratio; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**GOR*9186*CF:::BR:-1^	GOR indicates the fields to follow deal with the Gas to Oil Ratio; 9186 is the ratio; CF:::BR:-1 indicates the ratio is measured in Cubic Feet per Barrel.
CID***AP*PRP005*PWI*261^	AP indicates the American Petroleum Institute code source; PRP005 indicates the Flowing Casing Pressure; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**PB*0*PS^	PB indicates the fields to follow deal with Pressure; 0 is the pressure; PS indicates the pressure is measured in Pounds per Square Inch.
CID***AP*PRP006*PWI*261^	AP indicates the American Petroleum Institute code source; PRP006 indicates the Flowing Tubing Pressure; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**PB*1380*PS^	PB indicates the fields to follow deal with Pressure; 1380 is the pressure; PS indicates the pressure is measured in Pounds per Square Inch.

CID***AP*PMC031*PWI*261^	AP indicates the American Petroleum Institute code source; PMC031 indicates the Choke Size; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**DI*.375*ED^	DI indicates the fields to follow deal with Diameter; .375 is the diameter; ED indicates the Diameter is measured in Inches and Decimal.
CID***AP*PFG001*PWI*261^	AP indicates the American Petroleum Institute code source; PFG001 indicates the Corrected API Gravity; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**API*48*DD^	API indicates the fields to follow deal with API Gravity; 48 is the Gravity; DD indicates the Gravity is measured in Degrees.
CID***AP*PQC013*PWI*261^	AP indicates the American Petroleum Institute code source; PQC013 indicates the Test Oil Condensate Volume; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
QTY*01*118*BR^	01 indicates the fields to follow relate to quantity; 118 is the quantity; BR indicates the quantity is measured in Barrels.
CID***AP*PQC012*PWI*261^	AP indicates the American Petroleum Institute code source; PQC012 indicates the Test Gas Volume; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
QTY*01*1084*FC^	01 indicates the fields to follow relate to a quantity; 1084 is the quantity; FC indicates the quantity is measured in 1000 Cubic Feet.
CID***AP*PQC011*PWI*261^	AP indicates the American Petroleum Institute code source; PQC011 indicates the Test Water Volume; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
QTY*01*2*BR^	01 indicates the fields to follow relate to a quantity; 2 is the quantity; BR indicates the quantity is measured in Barrels.
CID***AP*PMC144*PWI*261^	AP indicates the American Petroleum Institute code source; PMC144 indicates the Twenty-four Hour Calculated Oil Condensate Rate; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**OCR*354*B1^	OCR indicates the fields to follow deal with Oil/Condensate Test Rate; 354 is the Rate; B1 indicates the Rate is measured in Barrels per Day.

CID***AP*PMC143*PWI*261^	AP indicates the American Petroleum Institute code source; PMC143 indicates the Twenty-four Hour Calculated Gas Rate; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
MEA**GRA*3252*F1^	GRA indicates the fields to follow deal with Gas Test Rate; 3252 is the Rate; F1 indicates the Rate is measured in Thousand Cubic Feet per Day.
CID***AP*PMC145**261^	AP indicates the American Petroleum Institute code source; PMC145 indicates the Twenty-four Hour Calculated Water Rate; 261 indicates this code source table is being used.
MEA**WRA*6*B1^	WRA indicates the fields to follow deal with Water Test Rate; 6 is the Rate; B1 indicates the Rate is measured in Barrels per Day.
N1*WI*Vincent Daniels^	WI indicates the fields to follow relate to a Witness; Vincent Daniels is the witness.
HL*55*53*WP*0^	55 indicates the fifty-fifth hierarchical segment in this example; 53 indicates the hierarchical Parent ID Number; WP indicates the hierarchical level is Well Completion; 0 indicates this hierarchical segment has no children.
PID*S**AP*PWACS*PWI**261^	S indicates a structured code list; AP indicates the American Petroleum Institute code source; PWACS indicates Completion Status; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
DTP*198*D8*19970615^	198 indicates the fields to follow are related to the Completion Date; D8 indicates the date format is CCYYMMDD; 19970615 is the date of June 15, 1997.
MTX**Sold^	"Sold" is free form text.
CID***AP*PQC024*PWI*261^	AP indicates the American Petroleum Institute code source; PQC024 indicates the Well Completion Count; PWI indicates the Petroleum Well Information Code List is being used; 261 indicates this code source table is being used.
QTY*01*1*UL^	01 indicates the fields to follow relate to a quantity; 1 is the quantity; UL indicates no units.
LM*AP*261^	AP indicates the American Petroleum Institute Source code will be used; 261 indicates this code source is being used.
LQ*PWS*050^	PWS indicates the Petroleum Well Classification Status Code List is being used; 050 indicates Flowing.
SE*449*0001^	449 is the number of segments; 0001 is the control number.



---

## APPENDIX B: Well Information Objects

For each Well Information Object in Table 2, the 625 Well Information transaction set uses codes within the Hierarchical Level (HL) Segment and the Product Item Description (PID) Segment to distinguish them. The codes are shown in the two columns located along the right side of Table 1. These HL and PID segment codes allow the sender to tell the receiver that the information that follows is associated to a Specific well information object.

<b>TABLE 2 THE SEVEN HIERARCHICAL LEVELS AND THEIR WELL INFORMATION OBJECTS</b>				
<b>Level No.</b>	<b>Hierarchical Level with % Well Information Object Name</b>	<b>Well Information Object Data Content Description</b>	<b>HL Segment Code</b>	<b>PID Segment Code</b>
<b>1.0</b>	<b>Permit/Report Hierarchical Level</b>	Data related to a well permit or report being submitted by a sender to the receiver, such as well permit/report type and sender/receiver information. <u>There is only one permit/report hierarchical level for each transaction set.</u>		
1.1	% Process Permit/Report	Data related to permit/report type codes, agency form identification codes, regulatory guideline identification, report starting and ending dates, confidentiality type and expiration dates,	RP	PWAPOR
1.2	% Business Associate	Data related to business associate type code (operator, permit agent, etc.), name, mailing address, phone, fax and email address, change effective dates.	RP	PWABAS
1.3	% General	Data related to general permit or report remarks.	RP	PWAGEN
<b>2.0</b>	<b>Fields/Pools Hierarchical Level</b>	Data related to a well's or facility's field or producing pool location, such as field or pool geographic name, well spacing order number, etc. This level may be omitted if there are no field/pool data attributes described within the transaction set.		
2.1	% Fields/Pools	Data related to the permit or report's field or pool geographic (regulatory ) name	36	PWAFP
2.2	% Spacing Order	Data related to spacing order number, spacing unit size and orientation, subject product (gas, oil or both), effective date, order exception date, etc.	36	PWASOR
<b>3.0</b>	<b>Contract Designation Hierarchical Level</b>	Data to identify a well's or facility's contractual obligations or referential keys such as lease name, lease number, unit name and unit number.		
3.1	% Contract Designation	Data related to lease or agreement number/name/type, well count, assigned acreage, regulatory agency name (surface management entity).	IB	PWACDN
3.2	% Contract Suspension	Data related to suspension type, and suspension termination date.	IB	PWACSU
<b>4.0</b>	<b>Facility Hierarchical Level</b>	Data related to specific oil and gas facilities such as the facility name, facility number(s), facility type and its legal land description location, etc. This level may be omitted if there are no facilities described within the transaction set.		
4.1	% Facility	Data to identify a facility such as the facility measurement point number.	27	PWAFAC

**TABLE 2  
THE SEVEN HIERARCHICAL LEVELS AND THEIR WELL INFORMATION OBJECTS**

<b>Level No.</b>	<b>Hierarchical Level with % Well Information Object Name</b>	<b>Well Information Object Data Content Description</b>	<b>HL Segment Code</b>	<b>PID Segment Code</b>
4.2	% Legal Survey Area	Data related to a facility's legal location such as state, county, survey code and name, regulatory district code, township, range, section, lot, tract, aliquot and location direction description, outer continental shelf (OCS) area code, block number, protraction diagram number, latitude/longitude/datum and terminus location. Includes data related to distances to lease lines and offset wells.	27	PWALSA
4.3	% Access Road	Data related to a facility's access road such as road number, length and width, construction status.	27	PWAARD
4.4	% Construction Materials	Data related to a facility's construction materials such as location and ownership of sand & gravel to be used, use of surface or underground water, etc.	27	PWACON
4.6	% Wastes	Data related to a facility's waste handling requirements such as methods to be used, type of waste and quantities generated, etc.	27	PWAWST
4.5	% Surface Discharge Permit	Data related to surface discharge permit number, permit application dates, discharge limits and properties, evaporation rates, and pit liner types, etc.	27	PWASDP
4.6	% Attached File	Data related to attached data files to the permit or report such as the attached file name and file type for: access road schematic, ancillary facility schematic, construction material schematic, facility schematic, facility topographic map, road construction schematic, soil sample analysis report.	27	PWAATT
<b>5.0</b>	<b>Well Hierarchical Level</b>	Data specifically related to or description of a well. This includes information such as well name/number and well operational status attributes. This hierarchical level may be omitted if there are no well attributes described within the transaction set.		
5.1	% Well	Data related to a well's American Petroleum Institute (API) number, well name and number, well file (agency) number, drilling permit number and assigned date, well classification code, etc.	WL	PWAWEL
5.2	% Bonding	Data related to a surety bond number, amount and type.	WL	PWABND
5.3	% Well Status	Data related to well status and well status change dates, operations start and complete dates and final abandonment date.	WL	PWAWS
5.4	% Underground Injection Control	Data related to UIC permit number, application and approval dates, and approved maximum injection rate.	WL	PWAUIC

**TABLE 2**  
**THE SEVEN HIERARCHICAL LEVELS AND THEIR WELL INFORMATION OBJECTS**

<b>Level No.</b>	<b>Hierarchical Level with % Well Information Object Name</b>	<b>Well Information Object Data Content Description</b>	<b>HL Segment Code</b>	<b>PID Segment Code</b>
5.5	% Attached File	Data related to attached data files to the permit or report such as the attached file name and file type for: access road schematic, ancillary facility schematic, construction material schematic, one mile radius map of all wells, road construction schematic, soil sample analysis report, well site layout schematic, well survey plat or well topographic map.	WL	PWAATT
<b>6.0</b>	<b>Wellbore Hierarchical Level</b>	Data specifically related to a well's one or multiple wellbores. This includes information such as the wellbore's legal land description locations, wellbore elevations and datums, wellbore drilling attributes, geologic formations encountered, wellbore tubulars and treatments used or serviced, etc. This hierarchical level may be omitted if there are no wellbore attributes described within the transaction set.		
6.1	% Legal Survey Area	Data related to a wellbore's legal location such as state, county, survey code and name, regulatory district code, township, range, section, lot, tract, aliquot and location direction description, outer continental shelf (OCS) area code, block number, protraction diagram number, latitude/longitude/datum and terminus location. Includes data related to distances to lease lines and offset wells.	WR	PWALSA
6.2	% Rig	Data related to rig type, name, number and arrival date.	WR	PWARIG
6.3	% Datums	Data related to true and measured vertical well depths, drilled true and measured depths, elevation reference point and North American vertical datum used.	WR	PWADAT
6.4	% Drill Wellbore	Data related to spud date, sidetrack date, total depth reached date, type of drilling tools used (cable, rotary, coiled tubing), depth of drilling hazards encountered, etc.	WR	PWADWB
6.5	% Wellbore Fluid	Data related to drilling fluid type, weight, depths used, source of water for drilling fluid, etc.	WR	PWAWBF
6.6	% Geologic Targets	Data related to geologic formation name, USGS formation code, lithology type, true vertical and measured top and bottom depths, producing formation name, etc.	WR	PWAGT
6.7	% Porous Zones	Data related to porous zone name, USGS formation code, true vertical and measured top and bottom depths, etc.	WR	PWAPRZ
6.8	% Cores	Data related to core top and bottom measured depths, core type taken, core diameter, recovery length.	WR	PWACOR
6.9	% Drillstem Test	Data related to drillstem test date, test duration, test run number, test interval depths, choke size, initial shut-in pressure, etc.	WR	PWADST

**TABLE 2**  
**THE SEVEN HIERARCHICAL LEVELS AND THEIR WELL INFORMATION OBJECTS**

<b>Level No.</b>	<b>Hierarchical Level with % Well Information Object Name</b>	<b>Well Information Object Data Content Description</b>	<b>HL Segment Code</b>	<b>PID Segment Code</b>
6.10	% Well Potential Test	Data related to test date, test duration, sample date, volume produced prior to test, well integrity test date, bottomhole temperature and measurement depth, differential pressure, choke size, tubing, casing separator flowing pressures and temperatures, shut-in casing/tubing pressures, recoveries,	WR	PWAWPT
6.11	% Geologic Markers	Data related to geologic marker name, USGS formation code, measured and true vertical top and bottom depths.	WR	PWAGEO
6.12	% Wireline Formation Test	Data related to wireline test type.	WR	PWAWFT
6.13	% Well Log	Data related to well log type, number of runs, true vertical and measured log interval depths, etc.	WR	PWALOG
6.14	% Directional Survey	Data related to directional survey method code, wellbore point where survey was taken and depth, drainhole number, drainhole turn radius, deviation angle, deviation course length and direction, displacement measurement and cumulative measurement, when filed or submitted to agency, etc.	WR	PWADS
6.15	% Tubular	Data related to well tubular such as tubular type code, tubular grade, tubular outer diameter, coupling type, segment length, sequence number, safety factors, hole size or bit diameter, setting depths, free-point depth, cut-off depth, integrity test dates and pressures, surface casing minimum set depth, surface casing authority depth and code, etc.	WR	PWATUB
6.16	% Casing	Data related to well casing such as casing type code, steel grade, casing outer diameter, coupling type, string length, sequence number, safety factors, hole size or bit diameter, setting depths, free-point depth, cut-off depth, integrity test dates and pressures, surface casing minimum set depth, surface casing authority depth and code, etc.	WR	PWATUBCS G
6.17	% Liner	Data related to liner casing such as casing type code, steel grade, casing outer diameter, coupling type, string length, sequence number, safety factors, hole size or bit diameter, setting depths, free-point depth, cut-off depth, integrity test dates and pressures, surface casing minimum set depth, surface casing authority depth and code, etc.	WR	PWATUBLI N
6.18	% Tubing	Data related to tubing such as steel grade, tubing outer diameter, string length, sequence number, safety factors, setting depths, integrity test dates and pressures, etc.	WR	PWTUBTBG

**TABLE 2**  
**THE SEVEN HIERARCHICAL LEVELS AND THEIR WELL INFORMATION OBJECTS**

Level No.	Hierarchical Level with % Well Information Object Name	Well Information Object Data Content Description	HL Segment Code	PID Segment Code
6.19	% Cementing	Data related to cementing date, cement class, slurry volume, cement column length, density, displacement to surface, hole washout percentage, time waiting on cement, cement bond log runs, centralizer count, plug sequence, plug diameter, plug length, plug top depth, diverting tool depth, additive percentage, additive class code, plug placement method, etc.	WR	PWACMT
6.20	% Packer	Data related to packer set depth and packer type.	WR	PWAPKR
6.21	% Well Control System	Data related to blowout preventor type and size, maximum pressure rating, maximum wellhead pressure anticipated, etc.	WR	PWAWCS
6.22	% Static Pressure Test	Data related to test pressure applied, formation integrity test pressure, bottomhole pressure, pressure gradient, etc	WR	PWASPT
6.23	% Wellbore Plug	Data related to plug type, cement volume, placement depths, plug number, wellbore fluid weight, temporary plugback depth, etc.	WR	PWAWPI
6.24	% General Well Operations	Data related to treatment type, treatment volume, material type, date conducted, etc.	WR	PWAGWO
6.25	% Attached File	Data related to attached data files to the permit or report such as the attached file name and file type for: cementing affidavit, paleontological report, proposed wellbore schematic, present wellbore schematic, well control equipment schematic, well directional survey and well log.	WR	PWAATT
<b>7.0</b>	<b>Well Completion Hierarchical Level</b>	Data specifically related to a well's one or multiple producing or serviceable completions. This includes information such as the well completion's reservoir properties, fluid properties, well performance test attributes, etc.		
7.1	% Reservoir Property	Data related to reservoir pressure, temperature, pore pressure, etc.	WP	PWARVP
7.2	% Fluid Property	Data related to gas or fluid gravity, initial boiling point, end point temperature, residue percentage, lost percentage, etc.	WP	PWAFLP
7.3	% Perforations	Data related to perforation type, size, density, sequence and interval.	WP	PWAPRF
7.4	% Well Performance Test	Data related to test date, test duration, volume produced prior to test, shut-in pressures and temperatures, flowing tubing, casing or separator pressures and temperatures, bottomhole and surface pressures and temperatures, differential pressures, choke and line size, API and gas gravity, gas oil ratio, z-factor, test gas, water, and oil volumes, monthly gas, water and oil production volumes, maximum injection rate, volume and pressure, hydrogen sulfide percentage, 24-hour calculated production rates, 24-hour coefficients, allocation percentage, disposition of gas, etc.	WP	PWAPTS

**TABLE 2**  
**THE SEVEN HIERARCHICAL LEVELS AND THEIR WELL INFORMATION OBJECTS**

<b>Level No.</b>	<b>Hierarchical Level with % Well Information Object Name</b>	<b>Well Information Object Data Content Description</b>	<b>HL Segment Code</b>	<b>PID Segment Code</b>
7.5	% Completion Status	Data related to well completion or recompletion date, operations completed date, commingling permit number, disposition of gas (flared or vented), well completion count, well operational condition, well activity code, well completion classification code, etc.	WP	PWACS
7.6	% Well Completion Allocation	Data related to formation allocation percentage.	WP	PWACA
7.7	% Workover	Data related to workover fluid type and weight, etc.	WP	PWAWO
7.8	% Attached File	Data related to attached data files to the permit or report such as the attached file name and file type for: drillstem test report, pore pressure/mud weight or frac gradient plot, reservoir structure map or well test report	WP	PWAATT

