



Iowa Department of
REVENUE

**Motor Fuel Tax Section
EDI Implementation Guide
ANSI ASC X.12 V4030**

**Version 1.06
July 01, 2022**



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References

ASC X12

The Accredited Standards Committee
Subcommittee - X12G – Government
Task Group 2 (X12G/TG2)
Tax Information Interchange Development
TIGERS
Web: www.x12.org

ASC X12 Standards Manual

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FTA Uniformity Guide

Motor Fuel Tax Section, Uniformity Project
Federation of Tax Administrators (FTA)
444 N. Capitol St., NW, Washington, DC 20001
Web: www.taxadmin.org

Chapter 1 – Introduction

Changes From Previous Version

- Page 1-7 Updated EDI and General Contact information
- Page B-51 Added Schedule Code 13K Credit or Deduction for Reduced Tax Rate

Description

The motor fuel taxpayer’s inbound tax return information will follow the ANSI ASC X12 813 Electronic Filing of Tax Returns transaction set – as defined in Version 004030.

The following mapping descriptions define the standard layout and data structure of the 813.

The Department requires that all schedules attached to the filed tax returns and information reports reflect detailed information needed to perform tracking of motor fuel. The 813 transaction set is used to capture both return and schedule data.

File Naming

- Format: IA-Name-License #-ccyymm-nn.edi
- IA is the state abbreviation
 - Name is the first four characters of the company name
 - License # is the 9 digit license number assigned by Iowa
 - Ccyymm is the reporting year and month
 - Nn represents an original or amended return
 - 00 for an original return
 - 01 for the first amended return
 - 02 for the second amended return
 - etc

- Example: IA-Sinc-704123456-200509-00.edi
- “IA” the state of Iowa
 - “Sinc” the first four characters of the company name
 - “704123456” the license number issued by Iowa
 - “200509” the reporting year and month
 - “00” the file contains an original return

Important Tips

- All electronic submissions must consist of a single functional group enclosing a single 813 transaction set. Multiple 813 transactions sets within a file are not allowed.
- Multiple TOR returns within an 813 transaction set will be allowed as long as they are all for the same tax period and same license number.
- Prior period loads may be reported on the current tax period being submitted.
- The only valid value for Original Filing Option (BTI13) is 00 - Original.
- The only valid value for Amended Filing Option (BTI14) is CO – Corrected.
- Round to whole gallons. Round down all amounts less than .50 and round up all amounts of .50 through .99. Decimal points are not valid in the gallon fields.
- When reporting terminal codes, you must use the Internal Revenue Service terminal codes that have been assigned to every terminal and refinery in the United States. Any other terminal codes may result in errors.
- Email addresses must contain an @ symbol.
- The “tax due” in your file (TIA02 when TFS02 = S02 and TIA01 = 5005) must match the amount due calculated by the system.
- The “Total Net Reported” (TIA04 when TIA01 = 5001) must equal the sum of gross gallons (sum of TIA04 when TIA01 = 5006) reported in the file.
- The license number in BTI10 must match the license number on the screen for which you are filing.
- The tax period end date (DTM02 when DTM01 = 194) must match the tax period selected on the screens for which you are filing.
- Please make certain that the information on the tax return is correct before filing electronically.
- Please provide complete information. Do not shorten names or cities unless an abbreviation is required.
- You must enter the manifest number or bill of lading on each schedule unless reporting a summary.
- If you are a third party filer sending the return for a taxpayer, please let us know your federal employer identification number before sending a file. (The Sender ID (ISA06) and Software Provider Number (BTI12 when BTI11 is SV) are validated against a database of approved filers).
- Information required on SDR and TOR schedules: Schedule Code, Product Code, Carrier Name, Carrier FEIN, Mode, Origin Terminal Code, Seller Name, Seller FEIN, Origin State, Purchaser Name, Purchaser FEIN, Destination State, Bill of Lading Date, Bill of Lading Number, and Gross Gallons.
- Information required on CCR schedules: Same as SDR and TOR schedules with Consignor Name and Consignor FEIN required.
- The FEIN in ISA06 is validated against a database of approved filers and must match a valid approved FEIN.

IRS Terminal Codes (TCN)

A listing of the IRS Terminal Codes most commonly used in Iowa can be found in [Appendix G](#). All IRS Terminal Codes will be accepted. A complete listing of all IRS Terminal Codes can be found at www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Terminal-Control-Number-TCN-Terminal-Locations-Directory.

Iowa Motor Fuel Tax Licensees

A listing of current Iowa Motor Fuel Tax Licensees may be found at:
tax.iowa.gov/reports?term_node_tid_depth=84

Contact Information

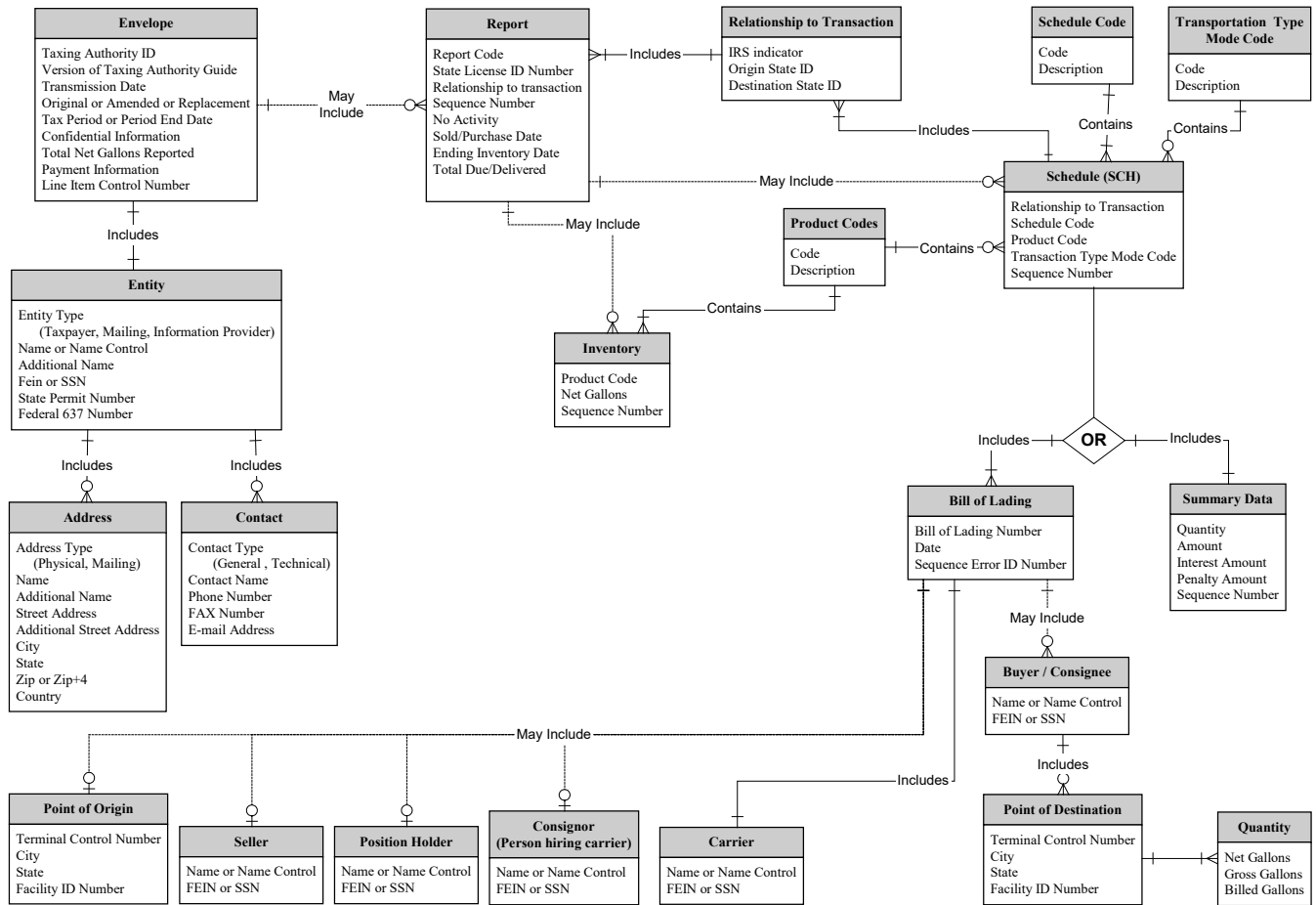
EDI Contact: Scott Fisher
Phone: 515-601-4417
Fax: 515-281-3756
Email: scott.fisher1@iowa.gov

General Contact: Estie Mason
Phone: 515-281-6196
Fax: 515-281-3756
Email: estie.mason@iowa.gov

Note: All correspondence should be mailed to the following address:

Iowa Department of Revenue
Compliance: Fuel Tax Unit
PO Box 10456
Des Moines, IA 50306-0456

Chapter 2 – Motor Fuels X12 Data Model



Chapter 3 – X12 Attribute and Separator Conventions

Attribute Conventions

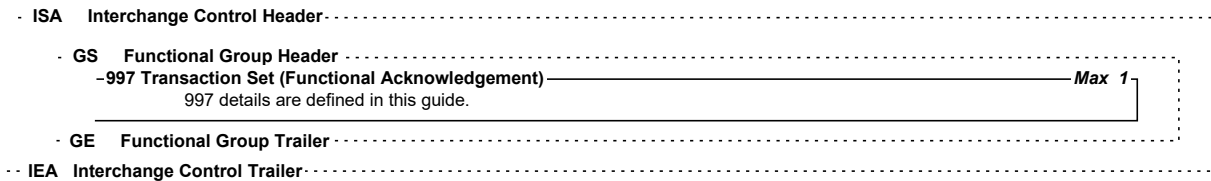
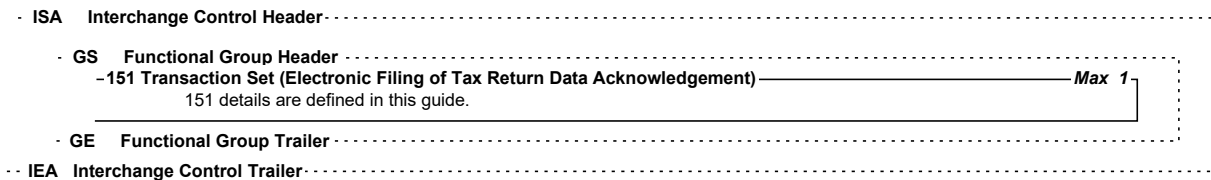
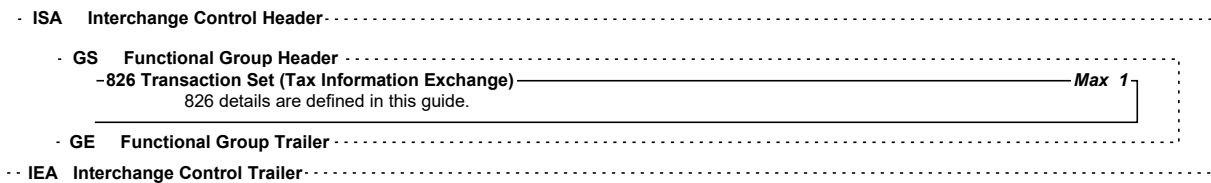
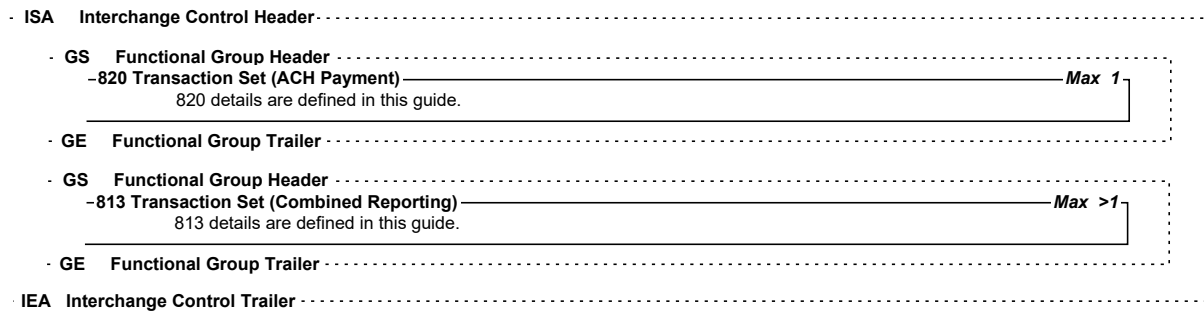
Attribute	Definition
Data Element Type	<p>Nn – Numeric Numeric type data element is symbolized by the two-position representation (Nn). N indicates a numeric, and n indicates the decimal places to the right of a fixed, implied decimal point. N0 (N Zero) is a numeric with no decimal places.</p> <p>R – Decimal (Real) The decimal point is optional for integer values, but is required for fractional values. For negative values, the leading minus (-) sign is used. Absence of this sign indicates a positive value. The plus (+) sign should not be transmitted.</p> <p>ID – Identifier An identifier data element must always contain a value from a predefined list of values that is maintained by ASC X12 or by other bodies that are recognized by ASC X12.</p> <p>AN – String A string (Alphanumeric) is a sequence of any characters from the basic or extended character sets. It must contain at least one nonspace character. The significant characters must be left justified. Leading spaces, if any, are assumed to be significant. Trailing spaces should be suppressed.</p> <p>DT – Date Format for the date type is CCYYMMDD. CC is the century digits of the year (ex. 19, 20). YY is the last two digits of the year (00-99), MM is the numeric value of the month (01-12), and DD for the day (01-31).</p> <p>TM – Time Format for the time type is HHMMSS, expressed in 24-hour clock format. HH is the numeric value for hour (00-23), MM for minute (00-59), and SS for second (00-59).</p>
Requirement Designator	<p>Defines how the data element is used in a segment.</p> <p>M Mandatory data element - This element is required to appear in the segment.</p> <p>O Optional data element - The appearance of this data element is at the option of the sending party or is based on a mutual agreement of the interchange parties.</p> <p>X Relational data element - Relational conditions may exist between two or more data elements. If one is present the other/s is required. The relational condition is displayed under the Syntax Noted of the X12 Standards.</p>
Data Element Length	<p>The number of character positions assigned to a data element. Example: Data element length of 2/10. You must have at least 2 characters but no more than 10 characters for this element (minimum of 2/ maximum of 10).</p>
Semantic Note Designator	<p>Z – Designator A data element within a segment may have a designator (Z) that indicates the existence of a semantic note. Semantic notes are considered part of the standard. If a condition designator and a semantic note both affect a single data element, the condition will appear first, separated from the semantic note designator by a vertical bar (). The number 00 to the left of the comment identifies semantic notes that are general in nature.</p>

Separator Requirements

Type	ASCII Value	EBCDIC Value	Character	Character Name
Repetition Separator	7C	4F		Pipe
Segment Terminator	5C	E0	\	Back Slash
Element Separator	7E	A1	~	Tilde
Sub-element Separator	5E	5F	^	Caret
Padding Character	20	40	Space	Space

Chapter 4 – X12 EDI Envelope

Envelope Flows



Note: The Iowa Department of Revenue only accepts envelopes containing a single functional group (i.e., a single GS-GE sequence) and a single 813 transaction set (i.e., single return or report) within a file. All electronic submissions must consist of a single functional group enclosing a single 813 transaction set. Transaction sets 151, 820 and 826 are not used for Iowa.

Key:

Not Used	Not used: no data to transmit
Not used	Strikethrough
Syntax Notes	Note: Notes defined by X12 Standards
FTA Notes	Note: Notes defined by FTA Uniformity
Iowa Notes	Note: Notes defined by Iowa Department of Revenue

Interchange Control Header Description

Interchange Segment								(Required)
Element ID	Elem Ref #	Sub-Ele Ref#	Field Status	Field Name	Field Type	Length		Field Description
						Min.	Max.	
ISA01	I01		M	Authorization Information Qualifier	ID	2	2	“00” = No Authorization Information Present. (No meaningful information in ISA02) “03” – Additional Data Identification
ISA02	I02		M	Authorization Information	AN	10	10	Information used for additional identification or authorization of the interchange sender or the data in the interchange.
ISA03	I03		M	Security Information Qualifier	ID	2	2	“00” = No Security Information Present (No meaningful information in ISA04) “01” = Password
ISA04	I04		M	Security Information	AN	10	10	This is used for identifying the security information about the interchange sender of the data in the interchange.
ISA05	I05		M	Interchange ID Qualifier	ID	2	2	“01” = DUNS Number “32” = Employer’s Identification Number “ZZ” = ID qualifier published by the sender used to designate the sender ID element being qualified.
ISA06	I06		M	Interchange Sender ID	AN	15	15	Sender’s FEIN Number plus 6 spaces [XXXXXXXXXX]
ISA07	I05		M	Interchange ID Qualifier	ID	2	2	“01” = DUNS Number “32” = Employer’s Identification Number “ZZ” = ID qualifier published by the receiver used to designate the receiver ID element being qualified.
ISA08	I07		M	Interchange Receiver ID	AN	15	15	“421223822 ” = Department of Revenue FEIN number plus 6 spaces.
ISA09	I08		M	Interchange Date	DT	6	6	“YYMMDD” = Date Of The Interchange
ISA10	I09		M	Interchange Time	TM	4	4	“HHMM” = Time Of The Interchange
ISA11	I65		M	Repetition Separator		1	1	“ ” = EBCDIC – 4F HEX ASCII = 7C HEX
ISA12	I11		M	Interchange Control Version Number	ID	5	5	“00403” = ASC X12.
ISA13	I12		M	Interchange Control Number	N0	9	9	The interchange control number uniquely identifies the interchange data to the sender. The sender assigns this number. This control number should never be reused for any future filings. This number should also be entered in IEA02.
ISA14	I13		M	Acknowledgment Requested	ID	1	1	“0” = No Acknowledgment Required “1” = Acknowledgment Required
ISA15	I14		M	Usage Indicator	ID	1	1	“P” = Production Data “T” = Test Data
ISA16	I15		M	Component Sub-Element Separator		1	1	“^” = EBCDIC – 5F HEX ASCII – 5E HEX

Example:

ISA~00~ ~00~ ~32~123456789 ~32~421223822 ~050822~0931~|~00403~00000001~0~T~^|

Syntax Notes:	None
FTA Notes:	ISA09 does not include the century based on the ANSI ASC X12 Standard.
Iowa Notes:	None

Electronic Signature Method:

The following example illustrates how the ISA01-ISA04 can serve as an electronic signature.

- ISA01 is 03 (zero three). ISA01 qualifies ISA02 as an authorization code.
- ISA02 is the ten-digit authorization code provided by the taxing authority. This code, in conjunction with the ten-digit password in ISA04, will represent your signature that is affixed to a trading partner agreement.
- ISA03 is 01 (zero one). ISA03 qualifies ISA04 as a security password.
- ISA04 is the ten-digit password that is created by the trading partner and entered on the trading partner agreement. This password, in conjunction with ISA02 authorization code, will represent your signature that is established on the trading partner agreement.

Functional Group Header Description

Functional Group Segment								(Required)
Element ID	Elem. Ref #	Sub-Ele Ref#	Field Status	Field Name	Field Type	Length		Field Description
						Min.	Max.	
GS01	479		M	Functional Identifier Code	ID	2	2	“TF” = 813 Transaction Set “RA” = 820 Transaction Set “TI” = 826 Transaction Set “FA” = 997 Transaction Set
GS02	142		M	Application Sender’s Code	AN	2	15	“123456789” = Taxpayer FEIN Number
GS03	124		M	Application Receiver’s Code	AN	2	15	“421223822” Department of Revenue FEIN Number.
GS04	373		M/Z	Date	DT	8	8	“CCYYMMDD” = Date
GS05	337		M/Z	Time	TM	4	6	“HHMMSS” = Time
GS06	28		M/Z	Group Control Number	N0	1	9	Filer defined unique control number for this filing. This control number should never be reused for any future filings. This number should also be entered in GE02.
GS07	455		M	Responsible Agency Code	ID	1	2	“X” = ASC X12
GS08	480		M	Version/ Release / Industry Identifier Code	AN	1	12	“004030”
Example: GS~TF~123456789~421223822~20050823~0931~1101~X~004030\								
Syntax Notes:			None					
FTA Notes:			None					
Iowa Notes:			None					

813 Electronic Filing of Tax Return Data – see page 5-14

997 Functional Acknowledgement – see page 6-42

Functional Group Trailer Description

Functional Group Segment								(Required)
Element ID	Elem. Ref #	Sub-Ele Ref#	Field Status	Field Name	Field Type	Length		Field Description
						Min.	Max.	
GE01	97		M	Number of Transaction Sets Included	N0	1	6	Count of transaction sets within this GS/GE
GE02	28		M/Z	Group Control Number	N0	1	9	The data interchange control number in the trailer must be identical to the same data element in the associated functional header (GS06)
Example: GE~1~1101\								
Syntax Notes:			None					
FTA Notes:			None					
Iowa Notes:			None					

Interchange Control Trailer Description

Functional Group Segment								(Required)
Element ID	Elem. Ref #	Sub-Ele Ref#	Field Status	Field Name	Field Type	Length		Field Description
						Min.	Max.	
IEA01	116		M	Number of Included Functional Groups	N0	1	5	Count of Function Groups Within This ISA/IEA
IEA02	112		M	Interchange Control Number	N0	9	9	The interchange number in the trailer must be identical to the same data element in the associated interchange header (ISA13).
Example: IEA~10~00000001\								
Syntax Notes:			None					
FTA Notes:			None					
Iowa Notes:			None					

Chapter 5 - 813 EDI Combined Reporting

ANSI ASC X12 – 813 EDI Standard

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TRANSACTION SET TABLES • 813

813 Electronic Filing of Tax Return Data

FUNCTIONAL GROUP: TF

This Draft Standard for Trial Use contains the format and establishes the data contents of the Electronic Filing of Tax Return Data Transaction Set (813) for use within the context of an Electronic Data Interchange (EDI) environment. This transaction set can be used by tax filers to electronically file tax returns with a federal, state, or local taxing authority and which may initiate payments related to the tax return.

Table 1

NOTE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
	0100	ST	Transaction Set Header	M	1	
	0200	BTI	Beginning Tax Information	M	1	
	0300	DTM	Date/Time Reference	M	10	
N	0400	TIA	Tax Information and Amount	O	1000	
	0430	REF	Reference Identification	O	10	
	0450	TRN	Trace	O	1000	
	0470	BPR	Beginning Segment for Payment Order/Remittance Advice	O	1000	
						LOOP ID - N1
N	0500	N1	Name	O	1	>1
	0600	N2	Additional Name Information	O	2	
	0700	IN2	Individual Name Structure Components	O	10	
	0800	N3	Address Information	O	2	
	0900	N4	Geographic Location	O	1	
	1000	PER	Administrative Communications Contact	O	2	

Table 2

NOTE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
						LOOP ID - TFS
	0100	TFS	Tax Form	O	1	100000
	0200	REF	Reference Identification	O	10	
	0300	DTM	Date/Time Reference	O	10	
	0400	MSG	Message Text	O	1000	
						LOOP ID - N1
N	0500	N1	Name	O	1	>1
	0600	N2	Additional Name Information	O	2	
	0700	IN2	Individual Name Structure Components	O	10	
	0800	N3	Address Information	O	2	
	0900	N4	Geographic Location	O	1	
						LOOP ID - TIA
N	0920	TIA	Tax Information and Amount	O	1	10000
	0940	DTM	Date/Time Reference	O	10	
	0960	MSG	Message Text	O	1000	
						LOOP ID - FGS
	1000	FGS	Form Group	O	1	100000
	1100	REF	Reference Identification	O	10	
	1200	DTM	Date/Time Reference	O	10	
						LOOP ID - N1
N	1300	N1	Name	O	1	>1

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¹ Data Interchange Standards Association, Inc. (DISA)

813 • TRANSACTION SET TABLES

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1400	N2	Additional Name Information	O	2	
1500	IN2	Individual Name Structure Components	O	10	
1600	N3	Address Information	O	2	
1700	N4	Geographic Location	O	1	
				LOOP ID - TIA	10000
N	1800	TIA Tax Information and Amount	O	1	
	1900	DTM Date/Time Reference	O	10	
	2000	MSG Message Text	O	1000	

Table 3

NOTE	POS.NO.	SEG.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
	0100	SE	Transaction Set Trailer	M	1	
Changes loop repeat value in table/positions 1/0500, 2/0500 and 2/1300.						6 205299

NOTES

- 1/0400 The TIA segment allows for tax information and amounts associated with the entire filing. At least one occurrence of the TIA segment must be present in the transaction set, either in Table 1 or Table 2.
- 1/0500 This N1 loop reflects names and addresses associated with the entire filing.
- 2/0500 This N1 loop reflects names and addresses associated with a particular tax form (TFS).
- 2/0920 At least one occurrence of the TIA segment must be present in the transaction set, either in Table 1 or Table 2.
- 2/1300 This N1 loop reflects names and addresses associated with a particular subset of a tax form.
- 2/1800 At least one occurrence of the TIA segment must be present in the transaction set, either in Table 1 or Table 2.

² Data Interchange Standards Association, Inc. (DISA)

813 Combined Reporting Structure

Table1

Pos No	Uniform 813 Map	Header
0100	ST	Transaction Set Header
0200	BTI	Identify Tax Agency Information
0300	DTM	Tax Filing Period
0400	TIA	Confidential Information
0400	TIA	Total Net Reported
0430	REF	Sequence Number
0470	BPR	Payment Information
0500	N1	Taxpayer Name Detail
0600	N2	Additional Taxpayer Name Detail
0800	N3	Address Detail
0900	N4	City, State, Zip Code Detail
1000	PER	General Contact Person
1000	PER	EDI Contact Person
0500	N1	Mailing Name Detail
0600	N2	Additional Mailing Name Detail
0800	N3	Mailing Address Detail
0900	N4	Mailing City State Zip Code Detail

Table 2

Pos No	Uniform 813 Map	Report	SUM	SCH
0100	TFS	Report	Summary Information	Schedules
0200	REF	Relationship to the Transaction	Relationship to the Transaction	Relationship to the Transaction
0200	REF	Sequence Number	Sequence Number	Sequence Number
0200	REF	No Activity		
0300	DTM	Sold/Purchase Date		
0300	DTM	Ending Inventory Date		
0500	N1			Point of Origin
0500	N1			Seller Information
0500	N1			Position Holder Information
0500	N1			Person Hiring Carrier (Consignor)
0500	N1			Carrier Information
0500	N1			Buyer/Consignee Information
0500	N1			Point of Destination
0920	TIA	Total Due/Transported		
1000	FGS	Physical Inventory by Product	Summary Data	Bill of Lading
1100	REF	Sequence Number	Sequence Number	Sequence Number
1200	DTM			Bill of Lading Date
1800	TIA	Physical Inventory	Information	Bill of Lading Net
1800	TIA		Interest	Bill of Lading Gross
1800	TIA		Penalty	Bill of Lading Billed

Table 3

Pos No	Uniform 813 Map	Trailer
0100	SE	Transaction Set Trailer

813 Map Flow

- 0100	ST	Transaction Set Header (TS 813)		Max 1
	0200	BTI	Identify Tax Agency Information	
	0300	DTM	Tax Filing Period	
	0400	TIA	Confidential Information	
	0400	TIA	Total Net Reported	
	0430	REF	Line Item Control Number	
	0470	BPR	Payment Order/Remittance Advice	
-0500	N1 Loop	Taxpayer Name Detail		Max 1
	0600	N2	Additional Taxpayer Name Detail	
	0800	N3	Address Detail	
	0900	N4	City, State, Zip Code Detail	
	1000	PER	General Contact Person	
	1000	PER	EDI Contact Person	
-0500	N1 Loop	Mailing Name Detail		Max 1
	0600	N2	Additional Mailing Name Detail	
	0800	N3	Mailing Address Detail	
	0900	N4	Mailing City, State, Zip Code Detail	
0100	TFS Loop	Report Information		Max 100,000
	0200	REF	Relationship to the Transaction Information	
	0200	REF	Sequence Number	
	0200	REF	No Activity	
	0300	DTM	Sold/Purchased Date	
	0300	DTM	Ending Inventory Date	
	0920	TIA	Total Due/Transported	
-1000	FGS Loop	Physical Inventory by Product		Max 100,000
	1100	REF	Sequence Number	
	1800	TIA	Physical Inventory	
0100	TFS Loop	Summary Information		Max 100,000
	0200	REF	Relationship to the Transaction information	
	0200	REF	Sequence Number	
-1000	FGS Loop	Summary Data		Max 100,000
	1100	REF	Sequence Number	
	1800	TIA	Information	
	1800	TIA	Interest	
	1800	TIA	Penalty	
0100	TFS Loop	Schedules		
	0200	REF	Relationship to the Transaction information	
	0200	REF	Sequence Number	
	0500	N1	Point of Origin	
	0500	N1	Seller Information	
	0500	N1	Position Holder Information / Delivering Exchange Party Information	
	0500	N1	Receiving Exchange Party Information	
	0500	N1	Person Hiring Carrier (Consignor)	
	0500	N1	Carrier Information	
	0500	N1	Buyer/Consignee Information	
	0500	N1	Point of Destination	
-1000	FGS Loop	Bill Lading		Max 100,000
	1100	REF	Sequence Number	
	1200	DTM	Bill of Lading Date	
	1800	TIA	Bill of Lading Net	
	1800	TIA	Bill of Lading Gross	
	1800	TIA	Bill of Lading Billed	
-0100	SE	Transaction Set Trailer		

Maximum Number of TFS Loops = 100,000

Transaction Set - Header Description

Beginning of Transaction Set Header Segment								(Required) Pos. No. 0100	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
ST01	143		M	Transaction Set Code	ID	3	3	"813" = Transaction Set Type	
ST02	329		M	Transaction Set Control Number	AN	4	9	Filer defined unique control number for this filing. This control number should never be reused for any future filings. This number should also be entered in SE02.	
ST03	1705		O/Z	Implementation Convention Reference	AN	1	5	Version of taxing authority's implementation guide.	
Example: ST~813~10001~1\									
Syntax Notes:			None						
FTA Notes:			It is recommended that ST03 be used to help identify which implementation guide the trading partner is using. This element will help the receiver of the data determine if the sender is using an old guide or the most current guide for the data transmission.						
Iowa Notes:			ST03 must contain a whole number (i.e. 1 instead of 1.01)						

Identify Tax Agency Information Begin Tax Information Segment								(Required) Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
BTI01	128		M	Reference Number Qualifier	ID	2	2	"T6" = Defines as Tax Filing	
BTI02	127		M	Reference Number	AN	3	3	"050" = All fuels tax filing	
BTI03	66		M	ID Code Qualifier	ID	2	2	"47" = Tax Authority	
BTI04	67		M	ID Code	AN	2	20	"421223822" = IA Dept of Revenue FEIN number.	
BTI05	373		O	Transaction Create Date	DT	8	8	"CCYYMMDD" = Transmission Date	
BTI06	818		O	Name Control ID	AN	4	4	First 4 positions of Taxpayer's Legal Business Name. If business name is less than 4 characters, left justify name control and pad with "*".	
BTI07	66		X	ID Code Qualifier	ID	2	2	"24" = FEIN Federal Employer Identification Number "34" = Social Security Number "50" = BN - Canadian Business Number	
BTI08	67		X	ID Code	AN	9	18	Taxpayer's FEIN or SSN or BN	
BTI09	66		X	ID Code Qualifier	ID	2	2	"49" = State (assigned) Identification Number	
BTI10	67		X	ID Code	AN	2	20	License or Permit Number	
BTI11	66		X	ID Code Qualifier	ID	2	2	"48" = IRS Electronic Filer ID Number "SV" = Software Provider Number	
BTI12	67		X	ID Code	AN	9	18	637 Permit Number or State Assigned Software Provider Number	
BTI13	353		O	Transaction Set Purpose Code	ID	2	2	Original Filing Options: "00" = Original "05" = Replace "15" = Resubmission	
BTI14	640		O	Transaction Type Code	ID	2	2	Amended Filing Options: "6R" = Resubmission "6S" = Supplemental "CO" = Corrected	
Example: BTI~T6~050~47~421223822~20050823~ABC*~24~516999988~49~704123456~SV~ZY0001~00\									
Syntax Notes:			If either BTI07 or BTI08 is present, then the other is required. If either BTI09 or BTI10 is present, then the other is required. If either BTI11 or BTI12 is present, then the other is required.						

FTA Notes:	<p>BTI07 must be the FEIN if the taxpayer has one. Submit a SSN only for sole proprietorships that have not been issued a FEIN. In Canada, companies use a BN – Canadian Business Number.</p> <p>The application of the BTI13 and BTI14 are as follows: BTI13 should be used when the taxpayer transmits their initial return (BTI13 should be used without BTI14); BTI14 should be used when the taxpayer transmits modifications (BTI14 should be used without BTI13). This is a recommendation of the motor Fuel Uniformity Committee, not a requirement of X12. Further clarification of these elements are located below.</p>
Element	Application
BTI13 [Initial Return]	
“00” = Original	Use “Original” when first attempt to transmit your return to the department, no matter if the Department receives your return.
“05” = Replace	Use “Replace” when first attempt of transmitted return had corrupted data.
“15” = Resubmission	Use “Resubmission” when the Department did not receive first attempt of your transmitted return.
BTI14 [Amended Return]	
“CO” = Corrected	Use “Corrected” when adjusting or correcting original or amended return
“6R” = Resubmission	Use “Resubmission” when first attempt to transmit amended return was not received by the Department.
“6S” = Supplemental	Use “Supplemental” when transmitting new or additional data not included in original or amended return.
Iowa Notes:	For BTI13, Iowa will not use codes 05 and 15. For BTI14, Iowa will not use codes 6R and 6S.

Tax Filing Period								(Required)	
Date/Time Reference Segment								Pos. No. 0300	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
DTM01	374		M	Date/Time Qualifier	ID	3	3	“194” = Tax Period End Date “683” = Filing Period	
DTM02	373		X	Date	DT	8	8	“CCYYMMDD” = Tax Filing Period End	
DTM03 through DTM04 are not used.									
DTM05	1250		X	Date Time Period Format Qualifier	ID	3	3	“RD8” = Range of Dates	
DTM06	1251		X	Date Time Period	AN	17	17	“CCYYMMDD-CCYYMMDD” Tax Filing Period Beginning and Ending Dates.	
Example: DTM~194~20050823\									
Syntax Notes:		At least one of DTM02 or DTM05 is required. If either DTM05 or DTM06 is present, then the other is required.							
FTA Notes:		If qualifier “194” is used in DTM01, then DTM05 and DTM06 are not used. If qualifier “683” is used in DTM01, then DTM02 is not used.							
Iowa Notes:		DTM02 is required.							

Confidential Data								(Not Used)	
Tax Information and Amount Segment								Pos. No. 0400	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
TIA01	C037	817	M	Tax Information Code	AN	4	4	“5010” – Confidential Information	
TIA02 is not used.									
TIA03	449		X	Fixed Format Information	AN	+	5	User Defined: Example: “6103” – IRS 6103 C Tax Data	
Example: TIA-5010-6103\									
Syntax Notes:		TIA03 is required.							
FTA Notes:		This segment is used only between the states and the IRS.							
Iowa Notes:		Not Used by Iowa Department of Revenue.							

Total Net Reported									Pos. No. 0400	
Tax Information and Amount Segment										
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
TIA01	C037	817	M	Tax Information Code	AN	4	4	"5001" = Total Net Reported		
TIA02 and TIA03 are not used.										
TIA04	380		X	Quantity	R	1	15	Total Number of Net Gallons (Total number of Gallons (Gross) before any adjustments)		
TIA05	C001	355	M	Unit of Measurement Code	ID	2	2	"GA" = Gallons "LT" = Liters		
Example: TIA~5001~~~9000000~GA\										
Syntax Notes:			TIA04 is required. If TIA05 is present, then TIA04 is required.							
FTA Notes:			Even though this value can be calculated, it is included, as a control figure to verify that the amount calculated by the Tax Authority is the same as expected by the taxpayer.							
Iowa Notes:			The gallons reported here will be the total of all Gross gallons before adjustments. This is NOT a sum of all the gallons reported as "net" gallons on a schedule.							

Line Item Control Number (Sequence Number)									Pos. No. 0430	
Reference Number Segment										
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
REF01	428		M	Reference Identification Number	ID	2	2	"FJ" Line Item Control Number		
REF02	427		X	Reference Identification	AN	4	9	Control Number		
Example: REF-FJ-0001234\										
Syntax Notes:			REF02 is required.							
FTA Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. REF02 is always required.							
Iowa Notes:			Not Used by Iowa							

The payment order remittance advice is included as a convenience for industry if a taxing authority accepts a BPR segment. The recommendation is **not** to mandate this as the only method of payment a taxing authority accepts.

Payment Order Remittance Advice									(Not Used)	
Beginning Segment									Pos. No. 0470	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
BPR01	305		M	Transaction handling Code	ID	1	2	"S" = Single Debit Authorization "P" = Pre-notification		
BPR02	782		M	Monetary Amount	R	1	18	Amount of Tax payment		
BPR03	478		M	Credit/Debit Flag Code	ID	1	1	"D" = Debit		
BPR04	591		M	Payment Method Code	ID	3	3	"ACH" = Automated Clearing House		
BPR05	812		M	Payment Format Code	ID	3	3	"CCD" = Cash Concentration/Disbursement "CCP" = Cash Concentration/Disbursement plus Addenda (CCD+)		
BPR06 through BPR11 are not inserted by the taxpayer. They are on the file with the party that creates the ACH Debit transaction. The taxpayer transmits empty fields for these elements.										
BPR06	506		X/Z	(ODFI) ID Number Qualifier	ID	2	2	"01" = ABA Transit Routing Number and Check Digits.		
BPR07	507		X	(ODFI) Identification Number	AN	3	12	State's Bank Routing and Transit Number		
BPR08	569		X/Z	(ODFI) Account Number Qualifier	ID	1	3	"DA" = Demand Deposit "SG" = Savings		
BPR09	508		X/Z	(ODFI) Account Number	AN	1	35	State's Bank Account Number to be Credited		

BPR10	509	Q	Originating Company Identifier	AN	10	10	State ID
BPR11	510	Q	Originating Company Supplemental Code	Q	9	9	Example: Taxing Authority's DUNS Number Code Identifying Fiscal Agent
BPR12	506	X/Z	(RDFI) ID Number Qualifier	ID	2	2	"01" = ABA Transit Routing Number and Check Digits
BPR13	507	X	(RDFI) Identification Number	AN	3	12	Taxpayer's Bank Routing and Transit Number
BPR14	569	O/Z	(RDFI) Account Number Qualifier	ID	1	3	"DA" = Demand Deposit "SG" = Savings
BPR15	508	X/Z	(RDFI) Account Number	AN	1	35	Taxpayer's Bank Account to be Debited
BPR16	373	O/Z	Date	DT	8	8	The intended payment effective date (CCYYMMDD)
BPR17	1048	O/Z	Business Function Code	ID	1	3	"TAX" = Tax Payment
BPR16	373	O/Z	Date	DT	8	8	The intended payment effective date (CCYYMMDD)

Example:

BPR-S-500-D-ACH-CCD-01-123456789-DA-987654321-20010325-TAX\

Syntax Notes:	If either BPR06 or BPR07 is present, then the other is required. If BPR08 is present, then BPR09 is required. If either BPR12 or BPR13 is present, then the other is required. If BPR14 is present, then BPR15 is required.
FTA Notes:	This segment should not be mandated by a Taxing Authority. ODFI (Originating Depository Financial Institution) is the bank that creates the ACH transaction. For debit transactions, this is the state's Bank. RDFI (Receiving Depository Financial Institution) is the bank that accepts the ACH transaction. For debit transactions, this is the taxpayer's Bank.
Iowa Notes:	Not Used by Iowa

Name Detail								Pos. No. 0500	
Name Segment									
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	"TP" = Primary Taxpayer "L9" = Information Provider	
N102	93		X	Name	AN	1	35	Name	

Example:
N1~TP~ABC Oil Company\

Syntax Notes:	N102 is required
FTA Notes:	N101: Use "TP" for tax reporting or "L9" for information reporting
Iowa Notes:	None

Additional Taxpayer Name Detail								Pos. No. 0600	
Additional Name Segment									
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N201	93		M	Name	AN	1	35	Taxpayer Name	
N202	93		O	Name	AN	1	35	Taxpayer Name	

Example:
N2~ABC Trucking~ABC Station\

Syntax Notes:	None
FTA Notes:	None
Iowa Notes:	None

Address Detail									
Address Information Segment									Pos. No. 0800
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N301	166		M	Address Information	AN	1	35	First Line Street Address	
N302	166		O	Address Information	AN	1	35	Second Line Street Address	
Example: N3~123 C Street~PO Box 222\									
Syntax Notes:			None						
FTA Notes:			None						
Iowa Notes:			None						

City, State, Zip Code Detail									
Location Geographic Segment									Pos. No. 0900
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N401	19		O	City Name	AN	2	30	Name of City	
N402	156		O	State or Province Code	ID	2	2	State or Province Abbreviation	
N403	116		O	Postal (Zip) Code	ID	3	11	ZIP Code, ZIP Plus 4 Code or Foreign Postal code	
N404	26		O	Country Code	ID	2	3	Country Abbreviation (United States = USA)	
Example: N4~Des Moines~IA~50317-2222~USA\									
Syntax Notes:			None						
FTA Notes:			None						
Iowa Notes:			None						

General Contact Person									
Administrative Communications Contact Segment									Pos. No. 1000
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
PER01	366		M	Contact Function Code	ID	2	2	Contact Type Code: "CN" = General Contact	
PER02	93		O	Name	AN	1	35	Contact Name	
PER03	365		X	Communications Number Qualifier	ID	2	2	"TE" = Telephone Number	
PER04	364		X	Communications Number	AN	10	14	Voice Telephone Number	
PER05	365		X	Communications Number Qualifier	ID	2	2	"FX" = FAX Number	
PER06	364		X	Communications Number	AN	10	10	FAX Telephone Number	
PER07	365		X	Communications Number Qualifier	ID	2	2	"EM" = Email Address	
PER08	364		X	Communications Number	AN	1	80	E-mail Address	
Example: PER~CN~John Doe~TE~3139959988~FX~3139950329~EM~john.doe@abcoil.com\									
Syntax Notes:			If either PER03 or PER04 is present, then the other is required. If either PER05 or PER06 is present, then the other is required. If either PER07 or PER08 is present, then the other is required.						
FTA Notes:			None						
Iowa Notes:			None						

EDI Contact Person								
Administrative Communications Contact Segment								Pos. No. 1000
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
PER01	366		M	Contact Function Code	ID	2	2	Contact Type Code: "EA" = EDI Cordinator
PER02	93		O	Name	AN	1	35	Contact Name
PER03	365		X	Communications Number Qualifier	ID	2	2	"TE" = Telephone Number
PER04	364		X	Communications Number	AN	10	14	Voice Telephone Number
PER05	365		X	Communications Number Qualifier	ID	2	2	"FX" = FAX Number
PER06	364		X	Communications Number	AN	10	10	FAX Telephone Number
PER07	365		X	Communications Number Qualifier	ID	2	2	"EM" = Email Address
PER08	364		X	Communications Number	AN	1	80	E-mail Address
Example: PER~EA~John Doe~TE~3139959988~FX~3139950329~EM~john.doe@abcoil.com\								
Syntax Notes:			If either PER03 or PER04 is present, then the other is required. If either PER05 or PER06 is present, then the other is required. If either PER07 or PER08 is present, then the other is required.					
FTA Notes:			None					
Iowa Notes:			None					

The following segments are required if the mailing address is different than the physical address.

Mailing Name Detail								
Name Segment								Pos. No. 0500
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
N101	98		M	Entity Identification Code	ID	2	2	"31" = Postal Mailing
N102	93		X	Name	AN	1	35	Mailing Name
Example: N1~31~ABC Oil Corp\								
Syntax Notes:			N102 is required					
FTA Notes:			None					
Iowa Notes:			None					

Mailing Additional Name Detail								
Additional Name Segment								Pos. No. 0600
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
N201	93		M	Name	AN	1	35	Mailing Name
N202	93		O	Name	AN	1	35	Mailing Name
Example: N2~ABC Trucking~ABC Station\								
Syntax Notes:			None					
FTA Notes:			None					
Iowa Notes:			None					

Mailing Address Detail									
Address Information Segment									Pos. No. 0800
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N301	166		M	Address Information	AN	1	35	First Line Street Address	
N302	166		O	Address Information	AN	1	35	Second Line Street Address	
Example: N3~123 City Street~PO Box 222\									
Syntax Notes:			None						
FTA Notes:			None						
Iowa Notes:			None						

Mailing City, State, Zip Code Detail									
Location Geographic Segment									Pos. No. 0900
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N401	19		O	City Name	AN	2	30	Name of City	
N402	156		O	State or Province Code	ID	2	2	State or Province Abbreviation	
N403	116		O	Postal (Zip) Code	ID	3	11	ZIP Code, ZIP Plus 4 Code or Foreign Postal code	
N404	26		O	Country Code	ID	2	3	Country Abbreviation (United States = USA)	
Example: N4~Des Moines~IA~50317-2222~USA\									
Syntax Notes:			None						
FTA Notes:			None						
Iowa Notes:			None						

End of Transaction Set Header

Transaction Set - Report Information

This TFS loop reports information on the type of report. Transaction detail is reported using the Summary and Schedule section of this map.

Repeat the FGS loop within the TFS loop for each product reported.

Beginning of Report								Pos. No. 0100	
Tax Form Segment									
Element ID	Elem Ref. #	Sub-Ele Ref. #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
TFS01	128		M	Reference Identification Qualifier	ID	2	2	"T2" = Tax Form Code	
TFS02	127		M	Reference Identification	AN	1	6	Report Code: "SDR" = Distributor Report "TOR" = Terminal Operator Report "CCR" = Carrier Report "RET" = Retailer Report	
TFS03 and TFS04 are not used									
TFS05	66		X	ID Code Qualifier	ID	2	2	"TC" = IRS Terminal Code	
TFS06	67		X	ID Code	AN	9	9	IRS Terminal Control Number (TCN)	
TFS~T2~SDR\									
Syntax Notes:			If either TFS05 or TFS06 is present, then the other is required.						
FTA Notes:			TFS05 and TFS06 are only used on a terminal report.						
Iowa Notes:			None						

Relationship to the Transaction Information								(Not Used)	
Reference Segment								Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
REF01	128		M	Reference Identification Qualifier	ID	2	2	"SU" = Special Processing	
REF02	127		M	Reference Identification	AN	3	3	IRS = IRS Data N/A = If not applicable to the IRS	
REF03 not used									
REF04 01	C040	128	M	Reference Identification Qualifier	ID	2	2	"S0" = Special Approval (S Zero)	
REF04 02	C040	127	M	Reference Identification	AN	2	2	State Abbreviation for the state which it belongs to	
REF04 03	C040	128	X	Reference Identification Qualifier	ID	2	2	"S0" = Special Approval (S Zero)	
REF04 04	C040	127	X	Reference Identification	AN	2	2	State Abbreviation for the state which it belongs to	
Example: REF~SU~IRS~S0^MT									
Syntax Notes:			REF02 is required						
FTA Notes:			REF02, REF04 02 and REF04 04 represent the taxing authorities and their relationship to the information in this TFS loop. REF05 - REF07 use the sub element separator.						
Iowa Notes:			Not Used by Iowa						

Sequence Number Reference Number Segment									Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
REF01	128		M	Reference Identification Qualifier	ID	2	2	“55” = Sequence Number		
REF02	127		X	Reference Identification	AN	1	20	Sequence Number		
REF03	352		X	Description	AN	1	5	Error Response Code (See Appendix H)		
Example: REF~55~0001234\										
Syntax Notes:			At least one of REF02 and REF03 is required.							
FTA Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. REF02 is always required. REF03 is used for responding to an error.							
Iowa Notes:			None							

Condition 1 – If an account has no activity, this segment is required. The condition 2 DTM, TIA and FGS loops are not used.

No Activity Reference Number Segment									(Conditional) Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
REF01	128		M	Reference Identification Qualifier	ID	2	2	“BE” = Business Activity		
REF02	127		X	Reference identification	AN	1	1	“1” = No Activity		
Example: REF~BE~1\										
Syntax Notes:			REF02 is required							
FTA Notes:			If an account has no activity, this segment is required							
Iowa Notes:			None							

Sold/Acquired Date Date/Time Reference Segment									(Conditional) Pos. No. 0300	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
DTM01	374		M	Date/Time Qualifier	ID	3	3	“572” = Date Property Sold “631” = Date Property Acquired		
DTM02	373		X	Date	DT	8	8	“CCYYMMDD”		
Example: DTM~572~20050520\										
Syntax Notes:			DTM02 is required.							
FTA Notes:			This segment is used once when you purchase or sell a terminal.							
Iowa Notes:			Only one Sold Date and/or one Acquired Date is allowed per EDI return.							

Condition 2 - If an account has activity, at least the TIA (Total Due/Delivered) is required. The Condition 1 REF is not used. The FGS loop contains inventory information. The FGS loop is repeated when the product code value changes.

Ending Inventory Date									Pos. No. 0300	
Date/Time Reference Segment										
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
DTM01	374		M	Date/Time Qualifier	ID	3	3	“184 = Inventory Date		
DTM02	373		X	Date	DT	8	8	“CCYYMMDD”		
Example: DTM~184~20010520\										
Syntax Notes:			DTM02 is required							
FTA Notes:			None							
Iowa Notes:			None							

Total Due/Transported									(Conditional)	
Tax Information and Amount Segment									Pos. No. 0920	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	“5003” = Total Due “5004” = Total Net Transported		
TIA02	782		X	Monetary Amount	R	1	15	Dollar Amount (Total Tax Due from the transactions in this file)		
TIA03	Not	Used								
TIA04	380		X	Quantity	R	1	15	Quantity		
TIA05	C001	355	M	Unit of Measurement Code	ID	2	2	“GA” = Gallons “LT” = Liters		
Example: TIA~5003~25000\ or TIA~5003~25000~~10000~GA\										
Syntax Notes:			At least one of TIA02 or TIA04 is required. If TIA05 is present, then TIA04 is required.							
FTA Notes:			Total Due/Transported is passed as a check value and represents dollars and/or quantity.							
Iowa Notes:			If TIA01 = “5003”, then TIA02 is the total amount due from line 16 of 81-010, Iowa Fuel Tax Return.							

Physical Inventory by Product									(Conditional)	
Form Group Segment									Pos. No. 1000	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
FGS01	350		M	Assigned Identification	AN	2	2	“BI” = Beginning Inventory (First Filing) “EI” = Ending Inventory “GL” = Gains and Losses		
FGS02	128		X	Reference Identification Qualifier	AN	2	2	“PG” = Product Group		
FGS03	127		X	Reference Identification	AN	3	5	Product Code See Product Codes in Appendix C		
Example: FGS~EI~PG~065\										
Syntax Notes:			If either FGS02 or FGS03 is present, then the other is required.							
FTA Notes:			FGS01 Recommend BI only be used for first filing. Beginning inventory is the previous period’s ending inventory. FGS01 GL TIA04 is Positive for a gain and negative for a loss.							
Iowa Notes:			None							

Sequence Number Reference Number Segment								Pos. No. 1100
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
REF01	128		M	Reference Identification Qualifier	ID	2	2	“55” = Sequence Number
REF02	127		X	Reference Identification	AN	1	20	Sequence Number
REF03	352		X	Description	AN	1	5	Error Response Code (See Appendix H)
Example: REF~55~0001234\								
Syntax Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. At least one of REF02 or REF03 is required.					
FTA Notes:			REF02 is always required. REF03 is used for responding to an error.					
Iowa Notes:			None					

Inventory Tax Information and Amount Segment								(Required if FGS is Used) Pos. No. 1800
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	“5002” = Net Physical Inventory
TIA02 and TIA03 are not used								
TIA04	380		X	Quantity	R	1	15	Quantity
TIA05	C001	355	M	Unit of Measurement Code	ID	2	2	“GA” = Gallons “LT” = Liters
Example: TIA~5002~~~~1000~GA\								
Syntax Notes:			TIA04 is required. If TIA05 is present, then TIA04 is required.					
FTA Notes:			Physical Inventory is the only value passed. All other information is derivable from schedules.					
Iowa Notes:			None					

End of FGS loop (Line item detail)
End of TFS loop (detail)

Transaction Set - Summary Information

This TFS loop reports summary information. This TFS loop is used in combination with the SDR report.

Summary information is used when the information can not be derived from the schedule details. This TFS loop repeats when one of the following values change: TFS02 Summary Code, TFS04 Product Code, TFS06.

If there are no transactions to report in this filing, it is not necessary to transmit a Summary Information TFS loop.

Beginning of Summary Information								Pos. No. 0100	
Tax Form Segment									
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
TFS01	128		M	Reference Identification Qualifier	ID	2	2	“T3” = Tax Schedule Code	
TFS02	127		M	Reference Identification	AN	1	6	TFS02 Summary Code (See Appendix D)	
TFS03	128		X	Reference Identification Qualifier	ID	2	2	“PG” = Product Group	
TFS04	127		X	Reference Identification	AN	3	5	Product Code (See Appendix C)	
TFS05	66		X	Identification Code Qualifier	ID	2	2	“T2” = Tax Form Code “94” = Mode	
TFS06	67		X	Reference Identification	AN	1	6	Report Code (See Appendix I) or “CE” = Mode	
Example: TFS~T3~S04A~PG~228~94~CE\									
Syntax Notes:		If either TFS03 or TFS04 is present, then the other is required. If either TFS05 or TFS06 is present, then the other is required.							
FTA Notes:		TFS02 references the report the summary is associated with. If TFS05 = “94” then TFS06 = “CE”. If TFS05 = “T2” then TFS06 = Report Code (See Appendix I)							
Iowa Notes:		None							

Relationship to the Transaction Information								(Not Used)	
Reference Segment								Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
REF01	128		M	Reference Identification Qualifier	ID	2	2	“SU” = Special Processing	
REF02	127		M	Reference Identification	AN	3	3	IRS = IRS Data N/A = If not applicable to the IRS	
REF03 not used									
REF04 01	C040	128	M	Reference Identification Qualifier	ID	2	2	“S0” = Special Approval (S Zero)	
REF04 02	C040	127	M	Reference Identification	AN	2	2	State Abbreviation for the state which it belongs to	
REF04 03	C040	128	X	Reference Identification Qualifier	ID	2	2	“S0” = Special Approval (S Zero)	
REF04 04	C040	127	X	Reference Identification	AN	2	2	State Abbreviation for the state which it belongs to	
Example: REF~SU~IRS~S0^MT\									
Syntax Notes:		REF02 is required							
FTA Notes:		REF02, REF04 02 and REF04 04 represent the taxing authorities and their relationship to the information in this TFS loop. REF05 – REF07 use the sub element separator.							
Iowa Notes:		Not Used by Iowa							

Sequence Number Reference Number Segment									Pos. No. 0200
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
REF01	128		M	Reference Identification Qualifier	ID	2	2	“55” = Sequence Number	
REF02	127		X	Reference Identification	AN	1	20	Sequence Number	
REF03	352		X	Description	AN	1	5	Error Response Code (See Appendix H)	
Example: REF~55~0001234\									
Syntax Notes:			At least one of REF02 and REF03 is required.						
FTA Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. REF02 is always required. REF03 is used for responding to an error.						
Iowa Notes:			None						

Summary Data Forms Group Segment									Pos. No. 1000
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
FGS01	350		M	Assigned Identification	ID	1	1	“S” = Schedule Summary	
Example: FGS~S\									
Syntax Notes:			None						
FTA Notes:			None						
Iowa Notes:			None						

Sequence Number Reference Number Segment									Pos. No. 1100
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
REF01	128		M	Reference Identification Qualifier	ID	2	2	“55” = Sequence Number	
REF02	127		X	Reference Identification	AN	1	20	Sequence Number	
REF03	352		X	Description	AN	1	5	Error Response Code (See Appendix H)	
Example: REF~55~0001234\									
Syntax Notes:			At least one of REF02 and REF03 is required.						
FTA Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. REF02 is always required. REF03 is used for responding to an error.						
Iowa Notes:			None						

Information								
Tax Information and Amount Segment								Pos. No. 1800
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	TIA Code (See Appendix D)
TIA02	782		X	Monetary Amount	R	1	15	Dollar Amount
TIA03 not used								
TIA04	380		X	Quantity	R	1	15	Quantity
TIA05	C001	355	M	Unit of Measurement Code	ID	2	2	“GA” = Gallons “LT” = Liters
Example: TIA~5006~5625.00~25000~GA\								
Syntax Notes:			At least one of TIA02 or TIA04 is required. If TIA05 is present, the TIA04 is required.					
FTA Notes:			None					
Iowa Notes:			None					

Interest								
Tax Information and Amount Segment								Pos. No. 1800
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	“5008” = Interest
TIA02	782		X	Monetary Amount	R	1	15	Dollar Amount
Example: TIA~5008~500.00\								
Syntax Notes:			TIA02 is required					
FTA Notes:			None					
Iowa Notes:			None					

Penalty								
Tax Information and Amount Segment								Pos. No. 1800
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	“5009” = Penalty
TIA02	782		X	Monetary Amount	R	1	15	Dollar Amount
Example: TIA~5009~250.00\								
Syntax Notes:			TIA02 is required					
FTA Notes:			None					
Iowa Notes:			None					

End of FGS loop (Summary Data)
End of TFS loop (Summary Information)

This TFS loop begins the schedule detail. It repeats when one of the following values change: Tax Form Code, Schedule Code, Mode Code, Product Code, Origin, Position Holder, Seller, Consignor, Carrier, Buyer, Consignee or Destination.

If there are no transactions to report in this filing, it is not necessary to transmit a Schedules TFS loop. You must indicate no activity in the TOR, SDR, CCR and/or other report type sections of this map.

Transaction Set - Schedules

Beginning of Schedules										Pos. No. 0100	
Tax Form Segment											
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description			
						Min	Max				
TFS01	128		M	Reference Identification Qualifier	ID	2	2	"T3" = Tax Schedule Code			
TFS02	127		M	Reference Identification	AN	1	6	Schedule Type Code (See Appendix B)			
TFS03	128		X	Reference Identification Qualifier	ID	2	2	"PG" = Product Group			
TFS04	127		X	Reference Identification	AN	3	5	Product Code (See Appendix C)			
TFS05	66		X	Identification Code Qualifier	ID	2	2	"94" = Mode			
TFS06	67		X	Identification Code	AN	2	2	Transaction Type Mode Code (See Appendix E)			
Example: TFS~T3~1~PG~065~94~J\											
Syntax Notes:			None								
FTA Notes:			If either TFS03 or TFS04 is present, then the other is required. If either TFS05 or TFS06 is present, then the other is required.								
Iowa Notes:			If Mode Code has only one character ("J", add a blank space to the end ("J ").								

Relationship to the Transaction Information										(Not Used)	
Reference Segment										Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description			
						Min	Max				
REF01	128		M	Reference Identification Qualifier	ID	2	2	"SU" = Special Processing			
REF02	127		M	Reference Identification	AN	3	3	IRS = IRS Data N/A = If not applicable to the IRS			
REF03 not used											
REF04	C040	128	M	Reference Identification Qualifier	ID	2	2	"S0" = Special Approval (S Zero)			
REF05	C040	127	M	Reference Identification	AN	2	2	State Abbreviation for the state which it belongs to			
REF06	C040	128	X	Reference Identification Qualifier	ID	2	2	"S0" = Special Approval (S Zero)			
REF07	C040	127	X	Reference Identification	AN	2	2	State Abbreviation for the state which it belongs to			
Example: REF~SU~IRS~S0^MT\											
Syntax Notes:			REF02 is required								
FTA Notes:			REF02, REF05 and REF07 represent the taxing authorities and their relationship to the information in this TFS loop. REF05 - REF07 use the sub-element separator.								
Iowa Notes:			Not Used by Iowa								

Sequence Number								
Reference Number Segment								Pos. No. 0200
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
REF01	128		M	Reference Identification Qualifier	ID	2	2	“55” = Sequence Number
REF02	127		X	Reference Identification	AN	1	20	Sequence Number
REF03	352		X	Description	AN	1	5	Error Response Code (See Appendix H)
Example: REF~55~0001234\								
Syntax Notes:			At least one of REF02 and REF03 is required.					
FTA Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. REF02 is always required. REF03 is used for responding to an error.					
Iowa Notes:			None					

For Point of Origin/Terminal: (One of the following Options is Required)

Use Option 1 when the origin has an IRS TCN.

Use Option 2 when the origin does not have an IRS TCN.

Use Option 3 when the state requires an origin facility ID (currently used by the state of Florida)

Option 1

Point of Origin								
Name Segment 1								(One of three options is required) Pos. No. 0500
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
N101	98		M	Entity Identification Code	ID	2	2	“OT” = Origin Terminal
N102	Not	Used						
N103	66		X	Identification Code Qualifier	ID	2	2	“TC” = IRS Terminal Code
N104	67		X	Identification Code	AN	9	9	IRS Terminal Code (See Appendix G)
Example: N1~OT~~TC~T42IA3457\								
Syntax Notes:			N103 and N104 are required					
FTA Notes:			None					
Iowa Notes:			None					

Option 2

Point of Origin								
Name Segment 1								(One of three options is required) Pos. No. 0500
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
N101	98		M	Entity Identification Code	ID	2	2	“SF” = Ship From
N102	93		X	Name	ID	2	2	Origin State Abbreviation
Example: N1~SF~IA\								
Syntax Notes:			N102 is required					
FTA Notes:			None					
Iowa Notes:			None					

Point of Origin									Pos. No. 0500	
Name Segment 1										
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
N401	19		O	City Name	AN	2	30	Name of City		
N402	156		O	State or Province Code	ID	2	2	State or Province Abbreviation		
N403	116		O	Postal (Zip) Code	ID	3	11	Zip Code, Zip Plus 4 Code or Foreign Postal Code		
N404	26		O	Country Code	ID	2	3	Country Abbreviation (United States = USA)		
N405	309		X	Location Qualifier	ID	1	2	“CY” = County		
N406	310		O	Location Identifier	AN	1	5	County		
Example: N4~Des Moines~IA~50317-2222~USA\										
Syntax Notes:			None							
FTA Notes:			N404 through N406 are optional N406 is based on the federal county codes N405 and N406 are not in the IRS 4030 map							
Iowa Notes:			None							

Option 3

Point of Origin									(One of three options is required)	
Name Segment 1									Pos. No. 0500	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
N101	98		M	Entity Identification Code	ID	2	2	“WO” = Storage Facility at Origin		
N102	Not	Used								
N103	66		X	Identification Code Qualifier	ID	2	2	“FA” = Facility Identification		
N104	67		X	Identification Code	AN	2	20	Nonterminal Storage Facility License Number		
Example: N1~WO~FA~714123456\										
Syntax Notes:			N103 and N104 are required							
FTA Notes:			None							
Iowa Notes:			Not Used by Iowa							

Seller/Supplier Information									Pos. No. 0500	
Name Segment 2										
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description		
						Min	Max			
N101	98		M	Entity Identification Code	ID	2	2	“SE” = Selling Party		
N102	93		X	Name	AN	1	35	Seller’s Name		
N103	66		X	Identification Code Qualifier	ID	2	2	“24” = FEIN “34” = SSN “50” = BN – Canadian Business Number		
N104	67		X	Identification Code	AN	9	18	Seller’s FEIN, SSN, or BN		
Example: N1~SE~Fuel Seller Inc~24~419999999\										
Syntax Notes:			At least one of N102 and N103 are required If either n103 or N104 is present, the other is required							
FTA Notes:			N102, N103, N104 are required							
Iowa Notes:			None							

Position Holder Information or Delivering Exchange Party Information								Pos. No. 0500	
Name Segment 3									
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	"ON" = Position Holder	
N102	93		X	Name	AN	1	35	Position Holder's Name	
N103	66		X	Identification Code Qualifier	ID	2	2	"24" = FEIN "34" = SSN "50" = BN – Canadian Business Number "FI" = Federal Taxpayer 637 ID Number	
N104	67		X	Identification Code	AN	9	18	Position Holder's FEIN, SSN, or BN or IRS 637 Number	
Example: N1~ON~Fuel Position Holder Inc~24~419999999\									
Syntax Notes:			At least one of N102 and N103 are required If either n103 or N104 is present, the other is required						
FTA Notes:			If reporting position holder or 2-party exchange information this segment is required. For 2-party exchanges this segment defines the party of origin. N102, N103, N104 are required.						
Iowa Notes:			None						

Receiving Exchange Party Information								Pos. No. 0500	
Name Segment 4									
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	"EC" = Exchanger	
N102	93		X	Name	AN	1	35	Exchange Party Name	
N103	66		X	Identification Code Qualifier	ID	2	2	"24" = FEIN "34" = SSN "50" = BN – Canadian Business Number "FI" = Federal Taxpayer 637 ID Number	
N104	67		X	Identification Code	AN	9	18	Exchanger's FEIN, SSN, or BN or IRS 637 Number	
Example: N1~EC~Fuel Exchange Receiver Inc~24~419999999\									
Syntax Notes:			At least one of N102 and N103 are required If either n103 or N104 is present, the other is required						
FTA Notes:			N102, N103, N104 are required.						
Iowa Notes:			None						

Person Hiring Carrier (Consignor)									
Name Segment 4									Pos. No. 0500
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	"CI" = Consignor Name (Person Hiring the Carrier)	
N102	93		X	Name	AN	1	35	Consignor Name	
N103	66		X	Identification Code Qualifier	ID	2	2	"24" = FEIN "34" = SSN "50" = BN – Canadian Business Number	
N104	67		X	Identification Code	AN	9	18	Consignor's (Person Hiring the Carrier) FEIN, SSN, or BN	
Example: N1~C1~Fuel Consignor Inc~24~419999999\									
Syntax Notes:			At least one of N102 and N103 are required If either n103 or N104 is present, the other is required						
FTA Notes:			N102, N103, N104 are required.						
Iowa Notes:			None						

Carrier Information									
Name Segment 6									Pos. No. 0500
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	"CA" = Carrier Name	
N102	93		X	Name	AN	1	35	Carrier's Name	
N103	66		X	Identification Code Qualifier	ID	2	2	"24" = FEIN "34" = SSN "50" = BN – Canadian Business Number	
N104	67		X	Identification Code	AN	9	18	Carrier's FEIN, SSN, or BN	
Example: N1~CA~Fuel Carrier Inc~24~419999999\									
Syntax Notes:			At least one of N102 and N103 are required If either n103 or N104 is present, the other is required						
FTA Notes:			N102, N103, N104 are required.						
Iowa Notes:			None						

Buyer/Consignee Information									
Name Segment 7									Pos. No. 0500
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	"BY" = Buying Party (Buyer/Consignee)	
N102	93		X	Name	AN	1	35	Buyer/Consignee's Name	
N103	66		X	Identification Code Qualifier	ID	2	2	"24" = FEIN "34" = SSN "50" = BN – Canadian Business Number	
N104	67		X	Identification Code	AN	9	18	Buyer/Consignee's FEIN, SSN, or BN	
Example: N1~BY~Fuel Purchaser Inc~24~419999999\									
Syntax Notes:			At least one of N102 and N103 are required If either n103 or N104 is present, the other is required						
FTA Notes:			N102, N103, N104 are required.						
Iowa Notes:			None						

For Point (Address) of Delivery/Destination: (One of the following Options is Required)

Use Option 1 when the origin has an IRS TCN.

Use Option 2 when the origin does not have an IRS TCN.

Use Option 3 when the state requires a destination facility ID (currently used by the state of Florida)

Option 1

Point of Destination Name Segment 8							(One of the three options is used) Pos. No. 0500		
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	“DT” = Destination Terminal	
N102 is not used									
N103	66		X	Identification Code Qualifier	ID	2	2	“TC” = IRS Terminal Code	
N104	67		X	Identification Code	AN	9	9	IRS Terminal Code (See Appendix G)	
Example: N1~DT~~TC~T42IA3457\									
Syntax Notes:			N103 and N104 are required						
FTA Notes:			None						
Iowa Notes:			None						

Option 2

Point of Destination Name Segment 8							(One of the three options is used) Pos. No. 0500		
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N101	98		M	Entity Identification Code	ID	2	2	“ST” = Ship To	
N102	93		X	Name	AN	2	2	Destination State Abbreviation (See Appendix F)	
Example: N1~ST~IA\									
Syntax Notes:			N102 is required						
FTA Notes:			None						
Iowa Notes:			None						

Point of Destination Name Segment 8							Pos. No. 0500		
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
N401	19		O	City Name	AN	2	30	Name of City	
N402	156		O	State or Province Code	ID	2	2	State or Province Abbreviation	
N403	116		O	Postal (Zip) Code	ID	3	11	Zip Code, Zip Plus 4 Code or Foreign Postal Code	
N404	26		O	Country Code	ID	2	3	Country Abbreviation (United States = USA)	
N405	309		X	Location Qualifier	ID	1	2	“CY” = County	
N406	310		O	Location Identifier	AN	1	5	County	
Example: N4~Des Moines~IA~50317-2222~USA\									
Syntax Notes:			None						
FTA Notes:			N404 through N406 are optional N406 is based on the federal county codes N405 and N406 are not in the IRS 4030 map						
Iowa Notes:			None						

Option 3

Point of Destination (One of the three options is used)								
Name Segment 8 Pos. No. 0500								
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
N101	98		M	Entity Identification Code	ID	2	2	“WD” = Destination Facility
N102 is not used								
N103	66		X	Identification Code Qualifier	ID	2	2	“FA” = Facility Identification
N104	67		X	Identification Code	AN	9	20	Nonterminal Storage Facility License Number
Example: N1-WD-FA-714123456\								
Syntax Notes:			N103 and N104 are required					
FTA Notes:			None					
Iowa Notes:			Not Used by Iowa.					

This FGS loop begins the individual shipments within the TFS loop. It is repeated when one of the following values changes:

- Bill of Lading (Document) Number
- Bill of Lading Date (Date Shipped)
- Gallons

Bill of Lading Pos. No. 1000								
Forms Group Segment								
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
FGS01	350		M	Assigned Identifications	AN	1	1	“D” = Schedule Detail
FGS02	128		X	Reference Identification Qualifier	ID	2	2	“BM” = Bill of Lading Number
FGS03	127		X	Reference Identification	AN	1	15	Bill of Lading Number
Example: FGS-D~BM~00123456\								
Syntax Notes:			If either FGS02 or FGS03 is present, then the other is required.					
FTA Notes:			None					
Iowa Notes:			None					

Sequence Number Pos. No. 1100								
Reference Number Segment								
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
REF01	128		M	Reference Identification Qualifier	ID	2	2	“55” = Sequence Number
REF02	127		X	Reference Identification	AN	1	20	Sequence Number
REF03	352		X	Description	AN	1	5	Error Response Code (See Appendix H)
Example: REF~55~0001234\								
Syntax Notes:			At least one of REF02 and REF03 is required.					
FTA Notes:			This segment is used to identify information for error processing. This segment can be generated by the filer when first filing to assist in identifying information or when responding to an error reported. REF02 is always required. REF03 is used for responding to an error.					
Iowa Notes:			None					

Bill of Lading Date									
Date/Time Reference Segment								Pos. No. 1200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
DTM01	374		M	Date/Time Qualifier	ID	3	3	"095" = Bill of Lading Date	
DTM02	373		X	Date	DT	8	8	Bill of Lading Date (CCYYMMDD)	
Example: DTM~095~20050831\									
Syntax Notes:			DTM02 is required						
FTA Notes:			None						
Iowa Notes:			None						

Bill of Lading Net									
Tax Information and Amount Segment								Pos. No. 1800	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	"5005" = Net	
TIA02	Not	Used							
TIA03	Not	Used							
TIA04	380		X	Quantity	R	1	15	Quantity	
TIA05	C001	355	M	Unit of Measurement Code	ID	2	2	"GA" = Gallons "LT" = Liters	
Example: TIA~5005~~~8000~GA\									
Syntax Notes:			TIA04 and TIA05 are required						
FTA Notes:			Numbers should be reported as positive for both disbursements and receipts						
Iowa Notes:			None						

Bill of Lading Gross									
Tax Information and Amount Segment								Pos. No. 1800	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	"5006" = Gross	
TIA02	Not	Used							
TIA03	Not	Used							
TIA04	380		X	Quantity	R	1	15	Quantity	
TIA05	C001	355	M	Unit of Measurement	ID	2	2	"GA" = Gallons "LT" = Liters	
Example: TIA~5006~~~8000~GA\									
Syntax Notes:			TIA04 and TIA05 are required						
FTA Notes:			Numbers should be reported as positive for both disbursements and receipts						
Iowa Notes:			None						

Bill of Lading Billed								Pos. No. 1800
Tax Information and Amount Segment								
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
TIA01	C037	817	M	Tax Information ID Number	AN	4	4	“5007” = Billed
TIA02	Not	Used						
TIA03	Not	Used						
TIA04	380		X	Quantity	R	1	15	Quantity
TIA05	C001	355	M	Unit of Measurement	ID	2	2	“GA” = Gallons “LT” = Liters
Example: TIA~5007~~~8000~GA\								
Syntax Notes:			TIA04 and TIA05 are required					
FTA Notes:			Numbers should be reported as positive for both disbursements and receipts					
Iowa Notes:			None					

**End of FGS loop for individual shipments.
End of TFS loop for Schedule.**

Transaction Set - Trailer Description

End of Transaction Set Trailer Segment								(Required) Pos. No. 0100	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
SE01	96		M	Number of Included Segments	N0	1	10	Number of segments (inserted by translator)	
SE02	329		M	Transaction Set Control Number	AN	4	9	Determined by Filer (same value in ST02, unique control number)	
Example: SE~156~10001\									
Syntax Notes:			None						
FTA Notes:			None						
Iowa Notes:			None						

End of Transaction Set

Chapter 6 – 997 Functional Acknowledgment

ANSI ASC X12 – 997 EDI Standard

RELEASE • 004030

TRANSACTION SET TABLES • 997

997 Functional Acknowledgment

FUNCTIONAL GROUP: FA

This Draft Standard for Trial Use contains the format and establishes the data contents of the Functional Acknowledgment Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgments to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. This standard does not cover the semantic meaning of the information encoded in the transaction sets.

Table 1

NOTE	POS.NO.	SEQ.ID	NAME	REQ.DES.	MAX USE	LOOP REPEAT
N	0100	ST	Transaction Set Header	M	1	
N	0200	AK1	Functional Group Response Header	M	1	
						999999
LOOP ID - AK2						
N	0300	AK2	Transaction Set Response Header	O	1	
						999999
LOOP ID - AK3						
C	0400	AK3	Data Segment Note	O	1	
	0500	AK4	Data Element Note	O	99	
	0600	AK5	Transaction Set Response Trailer	M	1	
	0700	AK9	Functional Group Response Trailer	M	1	
	0800	SE	Transaction Set Trailer	M	1	

NOTES

- 1/0100 These acknowledgments shall not be acknowledged, thereby preventing an endless cycle of acknowledgments of acknowledgments. Nor shall a Functional Acknowledgment be sent to report errors in a previous Functional Acknowledgment.
- 1/0100 The Functional Group Header Segment (GS) is used to start the envelope for the Functional Acknowledgment Transaction Sets. In preparing the functional group of acknowledgments, the application sender's code and the application receiver's code, taken from the functional group being acknowledged, are exchanged; therefore, one acknowledgment functional group responds to only those functional groups from one application receiver's code to one application sender's code.
- 1/0100 There is only one Functional Acknowledgment Transaction Set per acknowledged functional group.
- 1/0200 AK1 is used to respond to the functional group header and to start the acknowledgment for a functional group. There shall be one AK1 segment for the functional group that is being acknowledged.
- 1/0300 AK2 is used to start the acknowledgment of a transaction set within the received functional group. The AK2 segments shall appear in the same order as the transaction sets in the functional group that has been received and is being acknowledged.

COMMENTS

- 1/0400 The data segments of this standard are used to report the results of the syntactical analysis of the functional groups of transaction sets; they report the extent to which the syntax complies with the standards for transaction sets and functional groups. They do not report on the semantic meaning of the transaction sets (for example, on the ability of the receiver to comply with the request of the sender).

DECEMBER 1999

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³ Data Interchange Standards Association, Inc. (DISA)

997 EDI Map

The 997 Functional Acknowledgment notifies the Information Provider that their EDI file was received. Translators create the 997 ACK when the translator processes an EDI file. This ACK is designed to pass back through the Information Provider/Transmitter's translator to notify the Information Provider/Transmitter that the EDI file was accepted, accepted with errors or rejected. If the EDI file is rejected, the Information Provider/Transmitter must fix the file and send a new EDI file.

Transaction Set – Header Description

Beginning of Transaction Set								(Required) Pos. No. 0100	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
ST01	143		M	Transaction Set Code	ID	3	3	"997" – Transaction Set Type	
ST02	329		M	Transaction Set Control Number	AN	4	9	Translator defined (same value in SE02, unique control number)	

Functional Group Response Header								(Required) Pos. No. 0200	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
AK101	479		M/Z	Transaction Set Identifier Code	ID	2	2	Functional ID found in the GS segment (GS01) of the functional group being acknowledged. Equals one of the following: —— TF = 813 —— RD = 820 —— TI = 826 —— TA = 151	
AK102	28		M/Z	Group Control Number	N0	1	9	Functional group control number found in the GS segment (GS02) of the functional group being acknowledged.	

Transaction Set Response Header								(Optional) Pos. No. 0300	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
AK201	143		M/Z	Functional Identifier Code	ID	3	3	Transaction set ID found in the ST segment (ST01) of the transaction set being acknowledged. Equals one of the following: 813, 820, 826, 151	
AK202	329		M/Z	Transaction Set Control Number	AN	4	9	Transaction set control number found in the ST segment (ST01) of the transaction set being acknowledged.	

Data Segment Note								(Optional) Pos. No. 0400	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
AK301	721		M	Segment ID Code	ID	2	3	Code defining the segment ID of the segment in error. See X12 guide for codes.	
AK302	719		M	Segment Position in Transaction Set	N0	+	6	The position of the segment counted from the transaction set header (ST). The transaction set header is 1.	
AK303	447		0	Loop Identifier Code	AN	+	6	Loop ID number given on the transaction set diagram.	
AK304	720		0	Segment Syntax Error Code	ID	+	3	1= Unrecognized segment ID 2= Unexpected segment 3= Mandatory segment missing 4= Loop occurs over maximum times 5= Segment exceeds maximum use 6= Segment not in defined transaction set 7= Segment not in proper sequence 8= Segment has data element errors	
This segment defines segment syntax errors and the location of the segment. Refer to the X12 standards guide for further definition.									

Data Element Note								(Optional) Pos. No. 0500	
Element ID	Elem Ref #	Sub-Ele Ref #	Field Status	Field Name	Field Type	Length		Field Description	
						Min	Max		
AK401	C030		M	Position in Segment				Code indicating relative position of element in error. See X12 guide for further information.	
AK401	C030	722	M	Element Position in Segment	N0	+	2		
AK401	C030	1528	0	Component Data Element Position in Composite	N0	+	2		
AK401	C030	1686	0	Repeating Data Element Position	N0	+	4		
AK402	725		0	Data Element Reference Number	N0	+	4	Reference number used to locate the element in the Data Element Dictionary.	
AK403	723		M	Data Element Syntax Error Code	ID	+	3	1= Mandatory data element missing 2= Conditional required data element missing 3= Too many data elements 4= Data element too short 5= data element too long 6= Invalid character in data element 7= Invalid code value 8= Invalid date 9= Invalid time 10= Exclusion condition violated 12= Too many repetitions 13= Too many components	
AK404	724		O/Z	Copy of Bad Data Element	AN	+	99	A copy of the bad data element.	
This segment defines element syntax errors and the location of the segment. Refer to the X12 standards guide for further definition.									

Transaction Set Response Trailer **(Required)**
Pos. No. 0600

Element ID	Elem Ref #	Sub-Element Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
AK501	717		M	Transaction Set Acknowledgement Code	ID	1	1	A = Accepted E = Accepted but errors were noted M = Rejected, message authentication code failed R = Rejected W = Rejected, assurance failed validity tests X = Rejected, content after decryption could not be analyzed
AK502	718		0	Transaction Set Syntax Error Code	ID	1	3	1 = Transaction set not supported
AK503	718		0	Transaction Set Syntax Error Code	ID	1	3	2 = Transaction set trailer missing
AK504	718		0	Transaction Set Syntax Error Code	ID	1	3	3 = Transaction set control number in header and trailer do not match.
AK505	718		0	Transaction Set Syntax Error Code	ID	1	3	4 = Number of included segments does not match actual count
AK506	718		0	Transaction Set Syntax Error Code	ID	1	3	5 = One or more segments in error 6 = Missing or invalid transaction set identifier 7 = Missing or invalid transaction set control number 8 = Authentication key name unknown 9 = Encryption key name unknown 10 = Requested service (authentication or encryption) not available 11 = Unknown security recipient 12 = Incorrect message length (encryption only) 13 = Message authentication code failed 15 = Unknown security originator 16 = Syntax error in decryption text 17 = Security not supported 23 = Transaction set control number not unique within the functional group. 24 = S3E security end segment missing for S3S security 25 = S3S security start segment missing for S3E security 26 S4E security end segment missing for S4S security 27 = S4S security start segment missing for S4E security end segment

This segment acknowledges acceptance or rejection and reports errors. Refer to the X12 standards guide for further definition.

Functional Group Response Trailer **(Required)**
Pos. No. 0700

Element ID	Elem Ref #	Sub-Element Ref #	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
AK901	715		M	Functional Group Acknowledgement Code	ID	1	1	A = Accepted E = Accepted but errors were noted M = Rejected, message authentication code failed R = Rejected W = Rejected, assurance failed validity tests X = Rejected, content after decryption could not be analyzed
AK902	97		M	Number of Transaction Sets Included	N0	1	6	Number of Transaction Sets Included
AK903	123		M	Number of Received Transaction Sets	N0	1	6	Number of Received Transaction Sets
AK904	2		M	Number of Accepted Transaction Sets	N0	1	6	Number of Accepted Transaction Sets
AK905	716		0	Functional Group Syntax Error Code	ID	1	3	1 = Functional group not supported 2 = Functional group version not supported
AK906	716		0	Functional Group Syntax Error Code	ID	1	3	3 = Functional group trailer missing 4 = Group control number in the functional group header and trailer do not agree.
AK907	716		0	Functional Group Syntax Error Code	ID	1	3	5 = Number of included transaction sets does not match actual count.
AK908	716		0	Functional Group Syntax Error Code	ID	1	3	6 = Group control number violates syntax
AK909	716		0	Functional Group Syntax Error Code	ID	1	3	10 = Authentication key name unknown 11 = Encryption key name unknown 12 = Requested service (authentication or encryption) not available 13 = Unknown security recipient 14 = Unknown security originator 15 = Syntax error in decrypted text 16 = Security not supported 17 = Incorrect message length (encryption only) 18 = Message authentication code failed 23 = Transaction set control number not unique within the functional group. 24 = S3E security end segment missing for S3S security 25 = S3S security start segment missing for S3E security 26 S4E security end segment missing for S4S security 27 = S4S security start segment missing for S4E security end segment

This segment acknowledges acceptance or rejection of a functional group. Refer to the X12 standards guide for further definition.

Transaction Set Trailer Description

End of Transaction Set Trailer Segment							(Required) Pos. No. 0800	
Element ID	Elem Ref#	Sub-Ele Ref#	Field Status	Field Name	Field Type	Length		Field Description
						Min	Max	
SE01	96	96	M	Number of Included Segments	N0	1	10	Number of segments (inserted by translator)
SE02	329	329	M	Transaction Set Control Number	AN	4	9	Determined by Filer (same value in ST02, unique control number)
Example:								
SE-6-100\								

End of Transaction Set

An example of a 997 ACK can be found below.

The file you receive will be a continuous stream of data; no carriage returns or line feeds.

```

ISA-00-0000000000-00-0000000000-ZZ-123456789000000-990913-1512-1-00403-0000000001-0-P-\
GS-FA-040539587050-INTERNALROUTING-20050913-1510-1001-X-004030\
ST-997-0014\
AK1-TF-52001\
AK2-813-000000124\
AK5-A\
AK9-A-1-1-1\
SE-6-0014\
GE-1-1001\
IEA-1-0000000001\
    
```

Appendix A - Trading Partner Agreement

Iowa Department of Revenue

Trading Partner Agreement For Electronic Data Exchange

This Agreement is entered into on _____ (date), by and between the *Iowa Department of Revenue* ("Department") and _____ ("Licensee").

The Department and the Licensee wish to provide a means by which the Licensee will file its Iowa Motor Fuel terminal operator, supplier and/or carrier report(s) by electronically transmitting data in substitution for conventional, paper-based documents and to assure that such report is legally valid and enforceable. In order to achieve this goal, the parties agree as follows:

- Terms and Amendments:** This agreement shall be effective on the date shown above and shall continue until terminated by either party. A party may terminate this agreement by giving thirty (30) days written notice to the other party or by the cancellation of their Motor Fuels License. This agreement may be amended at any time by executing a written addendum signed by both the Licensee and the Department.
- Standards:** The Licensee will electronically transmit report(s) to the Department according to the Department's standards and instructions that may be revised/updated by the Department from time to time. The Department will provide these standards and instructions to the Licensee in a reasonable time frame in advance of due dates to allow compliance with filing requirements.
- Transmission:** The Licensee will access the Department's internet website and upload the EDI file to a Department approved secure web server (https).
- System Operations and Security Procedures:** The Licensee, at its own expense, shall provide and maintain the equipment, software, services and testing necessary for the Licensee to transmit the electronic report(s). The Department, at its own expense, shall provide and maintain the equipment, software, services and testing necessary for the Department to receive the electronic report(s). Each party shall use security procedures which are reasonably sufficient to ensure that all transmissions of the report(s) are authorized and to protect its business records and data from improper access. In addition, the Licensee will comply with all security procedures established and required by the Department.
- Signatures:** The Licensee's identification number and password, when included as part of the report filed pursuant to this agreement, shall constitute the signature of the Licensee on the report as if such report were actually signed by the Licensee. Each Party shall adopt as its signature an electronic identification consisting of codes in each electronic transmission submitted by such Party (the Signature). Each Party agrees that any signature of a Party affixed to or contained in any electronic transmission shall be sufficient to verify the Party originated such electronic transmission. Neither Party shall disclose to any unauthorized person the Signature of the other Party.
- Receipt of Transmission:** A report shall be deemed to have been filed with the department when the report, in the stipulated format, is accessible to the Department or the Department's third party service provider and meets the requirements of the taxing authority. If the Licensee attempts to file and is unable to do so because the Receipt Computer is not available to receive a filing, the department will not impose late filing penalties or interest provided the Licensee contacts the Department immediately when an access problem is identified.

-
7. **Acknowledgement of Transmission:** Upon receiving a successfully transmitted report from the Licensee, the Department or the Department's third party service provider will transmit an acknowledgement in return within one (1) business day from receipt of the Licensee's report. The acknowledgement will communicate only that Department has received the Licensee's transmission. An acknowledgement does not imply any findings by the Department about the correctness of the report. A transmission that is received by the Department but is not in the stipulated format will not constitute a valid report.
 8. **Garbled Transmissions:** If any transmission is received in an unintelligible or garbled form and the Department cannot identify the Licensee, no acknowledgement will be transmitted. The absence of an acknowledgement shall be treated as notice to the Licensee that the report was not received by the Department in the required format.
 9. **Record Retention:** The Licensee shall maintain records of the transactions covered by electronic filings for a period of not less than three years from the due date of the filing. Each party agrees to maintain adequate back-up files to recreate electronic transmissions as required. Back-up files shall be subject to the terms of this Agreement to the same extent as the original data. Electronic transmissions shall be retained for such periods as required by relevant Iowa statutes.
 10. **Admissibility of Returns/Reports as Evidence:** A certified copy of any report may be introduced in paper form as evidence in any judicial or administrative proceeding by either party to the same extent and under the same conditions as any other business record. Neither party shall contest the admissibility of any report on the basis that it was not originated or maintained in paper form.
 11. **Payments:** Any licensee filing a return electronically under this Agreement shall make payment of the taxes due, if greater than zero, by use of electronic payment. The Licensee shall follow the procedures of the Department's eFile and Pay Program.
 12. **Governing Law:** This Agreement shall be governed by, and interpreted in accordance with the laws of the state of Iowa.
 13. **Identifying Codes & Numbers:** To ensure proper identification of electronically transmitted reports, the parties will exchange the identifying qualifiers. Any changes in these qualifiers will be communicated to the other party before any transmission using the new qualifiers is sent.

Licensee:

Print Name of Licensee or Authorized Agent

Signature of Licensee or Authorized Agent **Date**

Department:

Print Name of Authorized Agent

Signature of Authorized Agent **Date**

Appendix B - Iowa Schedule Codes

Schedule Code	Schedule of Receipts	Tax Calc Status
1A	Gallons received originating state tax-paid.	Not included in tax calculation.
1G	Gallons received fully taxed at a reduced rate (for blending).	Not included in tax calculation.
2	Gallons received from motor fuel licensee tax unpaid.	Not included in tax calculation.
2A	Gallons received from terminals, refineries or distributors, origin tax-unpaid.	Not included in tax calculation.
2B	Gallons received tax-unpaid, blendable stock.	Not included in tax calculation.
2X	Gallons received from suppliers on exchange agreements tax unpaid.	Not included in tax calculation.
3	Gallons imported from another state direct to customer	Included in tax calculation as taxable gallons.
3A	Gallons imported from terminals/refineries.	Included in tax calculation as taxable gallons.
3B	Gallons imported from bulk storage in another state.	Included in tax calculation as taxable gallons.
Schedule Code	Schedule of Disbursements	Tax Calc Status
5	Gallons delivered tax collected.	Included in tax calculation as taxable gallons.
5X	Gallons delivered and partially taxed.	Not included in tax calculation. Supports S04A dollar amount for blender credit.
6	Gallons delivered to motor fuel licensee – tax not collected.	Not included in tax calculation.
6B	Gallons sold tax-exempt, customer is a licensed blender.	Not included in tax calculation.
6F	Gallons sold for tax-exempt purposes from in-state terminals.	Not included in tax calculation.
6X	Gallons delivered to suppliers or permissive suppliers on exchange agreements.	Not included in tax calculation.
7	Gallons exported.	Included in tax calculation as gross gallons and exported gallons, not taxable gallons.
10E	Gallons delivered to customers representing uncollectible motor fuel taxes.	Not included in tax calculation. Supports S04A dollar amount for uncollectible taxes.
11A	Diversion to state of _____.	Included in tax calculation as gross gallons and exported gallons, not taxable gallons.
11B	Diversion from state of _____.	Included in tax calculation as taxable gallons.
13K	Credit or Deduction for Reduced Tax Rate	Included in tax calculation as Gallon Deduction for Reduced Tax Rate Sales.
Schedule Code	Carrier / Transportation Schedules	Tax Calc Status
14A	Carrier deliveries in another state (export).	Not applicable.
14B	Carrier deliveries received from another state (import).	Not applicable.
14D	Carrier receipts.	Not applicable.
14E	Carrier deliveries.	Not applicable.
Schedule Code	IRS Gasoline Terminal / Storage Facility (Ethanol Plants, Biodiesel Plants) Schedules	Tax Calc Status
15A	IRS Gasoline Terminal or Storage Facility Receipts	Not applicable.
15B	IRS Gasoline Terminal or Storage Facility Disbursements	Not applicable.

Appendix C - Product Codes

<u>Product</u>	<u>Code</u>
Alcohol.....	123
Aviation Gasoline.....	125
Bio-Diesel Undyed.....	B00-B99
Bio-Diesel Dyed.....	D00-D99
Blending Components*	122
Compressed Natural Gas	224
Diesel Fuel - dye added.....	228
High Sulfur Diesel Fuel - dye added.....	226
Low Sulfur Diesel Fuel - dye added	227
No. 1 Diesel - dye added.....	231
Diesel Fuel - undyed.....	160
Low Sulfur Diesel Fuel #1 - undyed.....	161
Low Sulfur Diesel Fuel #2 - undyed.....	167
No. 1 Fuel Oil - undyed	150
#1 High Sulfur Diesel - undyed	282
#2 High Sulfur Diesel - undyed	283
Ethanol	E00-E99 or 241
Gasohol.....	124
Gasoline	065
E-75	E75 or 078
E-85	E85 or 079
Jet Fuel	130
Kerosene - undyed.....	142
Low Sulfur Kerosene - undyed	145
High Sulfur Kerosene - undyed	147
Kerosene - dye added	072
Low Sulfur Kerosene - dye added.....	073
High Sulfur Kerosene - dye added.....	074
Liquid Natural Gas	225
Methanol.....	M00-M99 or 243
Natural Gasoline.....	061
Propane (Liquified Petroleum Gas).....	054
Residual Fuel Oil.....	175
Soy Oil.....	285
Undefined Products**	092

* Gasohol blending components which do not have a specified product code.

** Products which do not have a specified product code. Also used for diesel blending components which do not have a specified product code.

Appendix D - Summary Codes / TIA Codes

Summary and TIA codes are used for the following purposes (See complete list of codes below.):

813 Map

1. Header – TIA code 5000 defines the version/publication number of the taxing authority’s EC Implementation Guide. TIA code 5001 (Total Net Reported) is a check value for determining if all information is included in the EDI file.
2. TOR – Terminal Operator Report or SDR – Supplier/Distributor Report – TIA code 5002 (Physical Inventory) is used to report ending and/or beginning inventory.
3. SDR – Supplier/Distributor Report – TIA code 5003 (Total Due) is a check value used to acknowledge and validate tax liability or taxable gallons.
4. CCR – Common Carrier Report – TIA code 5004 (Total Net Transported) is a check value used to acknowledge and validate the report.
5. SUM – Summary Code and TIA codes are used for identifying information not found in schedules or able to be derived from the schedules. The SUM loop provides a looping structure allowing multiple TIAs in a uniform format.
6. Schedules – TIA 5005 (Net), 5006 (Gross) and 5007 (Billed) are used to report bill of lading volume details or further define summary detail.
7. Summary codes are defined and utilized for both quantity and money. The TIA segment of the summary has elements for both quantity and monetary values.

820 Map

~~No TIA or summary codes used.~~

826 Map

- ~~1. Header – TIA code 5000 defines the version/publication number of the taxing authority’s EC Implementation Guide. TIA code 5001 (Total Net Reported) is a check value for determining if all information is included in the EDI file.~~
- ~~2. Schedules – TIA 5005 (Net), 5006 (Gross) and 5007 (Billed) are used to report bill of lading volume details or further define summary detail.~~

151 Map

~~No TIA or summary codes used.~~

Summary Codes/TIA combinations

Field Description	Summary Codes	TIA Code	Units
Taxes / Fees	S02	5005, 5008, 5009	Monetary
Tax Bad Debt Write-Off / Blender Credit	S04A	5005	Monetary

FTA Uniformity TIA Codes

The data represented by these TIA codes is not derivable from schedules or represents a check value.		
5000	Not Used	Header
5001	Total Net Reported	Header
5002	Net Physical Inventory	TOR, SDR
5003	Total Due	SDR
5004	Total Net Transported	CCR
5005	Net	SCH, SUM
5006	Gross	SCH, SUM
5007	Billed	SCH, SUM
5008	Interest	SUM
5009	Penalty	SUM
5010	Confidential Information	Header, 826
5011- 5199	Not Used	

Appendix E - Transaction Type Mode Codes

Transaction Type Mode Codes	
Code	Description
J	Truck
R	Rail
B	Barge
S	Ship
PL	Pipeline
GS	Gas Station
BA	Book Adjustment
ST	Stationary Transfer
CE	Summary Information
RT	Removal from Terminal (other than by truck or Rail) for sale or consumption

The X.12 standard requires 2 characters in the field using this code. The “_” in the code table represents a space.

Appendix F - USA States, Canadian Provinces/Territories and Mexican State Abbreviations

USA (USA) State	Abbreviation	Canadian (CAN) Province/Territory	Abbreviation
Alabama	AL	Alberta	AB
Alaska	AK	British Columbia	BC
Arizona	AZ	Manitoba	MB
Arkansas	AR	New Brunswick	NB
California	CA	Newfoundland	NF
Colorado	CO	Northwest Territory	NT
Connecticut	CT	Nova Scotia	NS
Delaware	DE	Nunavut	NU
District of Columbia	DC	Ontario	ON
Florida	FL	Prince Edward Island	PE
Georgia	GA	Quebec	QC
Hawaii	HI	Saskatchewan	SK
Idaho	ID	Yukon Territory	YT
Illinois	IL		
Indiana	IN	Mexican (MEX) State	Abbreviation
Iowa	IA	Aguascalientes	AG
Kansas	KS	Baja California	BJ
Kentucky	KY	Baja California Sur	BS
Louisiana	LA	Campeche	CP
Maine	ME	Chiapas	CH
Maryland	MD	Chihuahua	CI
Massachusetts	MA	Coahuila	CU
Michigan	MI	Colima	CL
Minnesota	MN	Distrito Federal	DF
Mississippi	MS	Durango	DG
Missouri	MO	Guanajuato	GJ
Montana	MT	Guerrero	GR
Nebraska	NE	Hidalgo	HG
Nevada	NV	Jalisco	JA
New Hampshire	NH	Mexico	EM
New Jersey	NJ	Michoacan	MH
New Mexico	NM	Morelos	MR
New York	NY	Nayarit	NA
North Carolina	NC	Nuevo Leon	NL
North Dakota	ND	Oaxaca	OA
Ohio	OH	Puebla	PU
Oklahoma	OK	Queretaro	QA
Oregon	OR	Quintana Roo	QR
Pennsylvania	PA	San Luis Potosi	SL
Rhode Island	RI	Sinaloa	SI
South Carolina	SC	Sonora	SO
South Dakota	SD	Tabasco	TA
Tennessee	TN	Tamaulipas	TM
Texas	TX	Tlaxcala	TL
Utah	UT	Veracruz	VZ
Vermont	VT	Yucatan	YC
Virginia	VA	Zacatecas	ZT
Washington	WA		
West Virginia	WV		
Wisconsin	WI		
Wyoming	WY		

Appendix G - Terminal Codes

Terminal Codes

IRS Code	Terminal Name	City	State
T39IA3475	Sinclair Terminal	Montrose	IA
T42IA3450	BP Products North America Inc	Bettendorf	IA
T42IA3451	Flint Hills Resources, LP-Bettendorf	Bettendorf	IA
T42IA3452	Phillips Pipeline Co.-Bettendorf	Bettendorf	IA
T42IA3454	BP Products North America Inc	Council Bluffs	IA
T42IA3455	National Coop Refinery	Council Bluffs	IA
T42IA3456	BP Products North America Inc	Des Moines	IA
T42IA3457	Magellan Pipeline Company, L.P.	Des Moines	IA
T42IA3458	BP Products North America Inc	Dubuque	IA
T42IA3460	Magellan Pipeline Company, L.P.	Dubuque	IA
T42IA3461	Magellan Pipeline Company, L.P.	Duncombe	IA
T42IA3463	Magellan Pipeline Company, L.P.	Coralville	IA
T42IA3464	Kaneb Pipe Line – Le Mars	Le Mars	IA
T42IA3465	Magellan Pipeline Company, L.P.	Clear Lake	IA
T42IA3466	Kaneb Pipe Line – Milford	Milford	IA
T42IA3467	Magellan Pipeline Company, L.P.	Milford	IA
T42IA3468	BP Products North America Inc	North Liberty	IA
T42IA3469	BP Products North America Inc	Ottumwa	IA
T42IA3470	Conoco Pipeline Co – Pleasant Hill	Pleasant Hill	IA
T42IA3471	CITGO – Bettendorf	Bettendorf	IA
T42IA3472	Kaneb Pipe Line – Rock Rapids	Rock Rapids	IA
T42IA3473	Magellan Pipeline Company, L.P.	Sioux City	IA
T42IA3474	Magellan Pipeline Company, L.P.	Waterloo	IA
T43MO3703	Ayers Oil Co	Caton	MO
T43MO3706	Sinclair Pipeline	Carrollton	MO
T43MO3710	Conoco K.S.	Parkville	MO
T43MO3711	Kerr McGee Ref	Lagrange	MO
T43MO3716	Williams Pipe Line	Palmyra	MO
T46SD3551	Kaneb Pipe Line Co	Mitchell	SD
T46SD3553	Amoco Oil	Sioux Falls	SD
T46SD3554	Williams Pipe Line	Sioux Falls	SD
T46SD3557	Kaneb Pipe Line Co	Yankton	SD
T47NE3603	Conoco Lincoln Products	Roca	NE
T47NE3605	Williams Pipe Line Lincoln	Roca	NE
T47NE3606	Kaneb Pipe Line	Norfolk	NE
T47NE3608	Williams Pipe Line	Omaha	NE
T41MN3402	Amoco Oil Spring Valley	Spring Valley	MN
T41MN3413	Williams Pipe Line	Mankato	MN
T41MN3416	Williams Pipe Line Rochester	Eyota	MN
T39WI3065	Cenex McFarland	McFarland	WI
T39WI3067	Citgo	McFarland	WI
T39WI3069	Terminal Oil Group LTD	Madison	WI

T39WI3072	Koch	McFarland	WI
T39WI3079	Mobil Oil Madison	McFarland	WI
T39WI3083	Kerr-McGee Ref	McFarland	WI
T39WI3085	Uno Ven	McFarland	WI
T39WI3088	US Oil Madison	Madison	WI
T36IL3303	Amoco Oil Rochelle	Rochelle	IL
T36IL3305	GATX Terminals Corp	Argo	IL
T36IL3308	Marathon Oil Rockford	Rockford	IL
T36IL3309	Marathon Oil Willow Springs	Willow Springs	IL
T36IL3312	Petroleum Fuel & Terminal Co	Forest View	IL
T36IL3314	ST Services Peru	Peru	IL
T36IL3315	Shell Oil Argo	Bedford Park	IL
T36IL3319	Williams Pipe Line Amboy	Amboy	IL
T36IL3350	Amoco Oil Peoria	Creve Coeur	IL
T36IL3355	Hicks Oils & Hicks Gas Inc	Creve Coeur	IL
T37IL3352	Clark Ref & Mtkth Peoria	Bartonville	IL

If the terminal code is not listed, see the complete list of all IRS Terminal Codes at www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Terminal-Control-Number-TCN-Terminal-Locations-Directory.

~~Appendix H – Error Response Codes~~

These codes are used to return a response to a taxing authority that has sent a 997 transaction set containing records in error.

Code	Description
00001	Record corrected.
00002	Record correct as originally submitted.
00003	Remove record, reported in error.
00004 – 99999	Available for future use.

Appendix I - Report Codes

Code	Description
TOR	Terminal Operator
SDR	Supplier/Distributor Report
CCR	Common Carrier Report
RET	Retailer Report

Appendix J - Sample EDI Files

Sample SDR Report – With Activity (Form 81-010, Iowa Fuel Tax Return)

Formatted with carriage returns for viewing. In an actual filing, carriage returns would be omitted.

ISA~00~ ~00~ ~32~123456789 ~32~421223822 ~050822~0931~|~00403~000000001~0~T~^\
GS~TF~123456789~421223822~20050822~0931~1101~X~00403\
ST~813~10001~1\
BTI~T6~050~47~421223822~20050822~ABC*~24~516999988~49~704123456~SV~ZY0001~00\
DTM~194~20050731\
TIA~5001~49000~GA\
N1~TP~ABC Oil Company\
N2~ABC Trucking~ABC Station\
N3~123 C Street~PO Box 222\
N4~Des Moines~IA~50317-2222~USA\
PER~CN~John Smith~TE~3139959989~FX~3139950330~EM~john.smith@abcoil.com\
PER~EA~John Doe~TE~3139959988~FX~3139950329~EM~john.doe@abcoil.com\
N1~31~ABC Oil Corp\
N2~ABC Trucking~ABC Station\
N3~123 D Street~PO Box 333\
N4~Des Moines~IA~50317-3333~USA\
TFS~T2~SDR\
REF~55~1\
TIA~5003~4854.39\
TFS~T3~S02~94~CE\
REF~55~2\
FGS~S\
REF~55~3\
TIA~5005~4915.76\
TIA~5008~0.81\
TIA~5009~162.03\
TFS~T3~S04A~94~CE\
REF~55~4\
FGS~S\
REF~55~5\
TIA~5005~224.21\
TFS~T3~2~PG~065~94~J\
REF~55~6\
N1~OT~TC~T42IA3457\
N1~SE~Fuel Seller Inc~24~419999999\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~ST~IA\
N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00123456\
REF~55~7\
DTM~095~20050615\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
TFS~T3~2~PG~160~94~J\
REF~55~8\
N1~OT~TC~T42IA3457\
N1~SE~Fuel Seller Inc~24~419999999\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~ST~IA\

[|Begin Supplier Report](#)
[|Sequence Number](#)
[|Total Due](#)
[|Begin Summary Taxes/Fees Information](#)
[|Sequence Number](#)
[|Summary Data](#)
[|Sequence Number](#)
[|Tax Amount](#)
[|Interest Amount](#)
[|Penalty Amount](#)
[|Begin Summary Uncollectible Information](#)
[|Sequence Number](#)
[|Summary Data](#)
[|Sequence Number](#)
[|Uncollectible Amount](#)
[|Begin Schedule of Receipts for Gasoline](#)
[|Sequence Number](#)
[|Originating Terminal](#)
[|Seller Information](#)
[|Carrier Information](#)
[|Ship To State](#)
[|Point of Destination](#)
[|Bill of Lading Number](#)
[|Sequence Number](#)
[|Bill of Lading Date](#)
[|Bill of Lading Net](#)
[|Bill of Lading Gross](#)
[|Bill of Lading Billed](#)
[|Begin Schedule of Receipts for Diesel](#)
[|Sequence Number](#)
[|Originating Terminal](#)
[|Seller Information](#)
[|Carrier Information](#)
[|Ship To State](#)

N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00123457\
REF~55~9\
DTM~095~20050715\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
TFS~T3~2~PG~124~94~J\
REF~55~10\
N1~OT~TC~T42IA3457\
N1~SE~Fuel Seller Inc~24~419999999\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~ST~IA\
N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00123458\
REF~55~11\
DTM~095~20050715\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
TFS~T3~5~PG~065~94~J\
REF~55~12\
N1~SF~IA\
N4~Des Moines~IA~50317-2222~USA\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~BY~Fuel Purchaser Inc~24~417777777\
N1~ST~IA\
N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00223456\
REF~55~13\
DTM~095~20050615\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
TFS~T3~5~PG~160~94~J\
REF~55~14\
N1~SF~IA\
N4~Des Moines~IA~50317-2222~USA\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~BY~Fuel Purchaser Inc~24~417777777\
N1~ST~IA\
N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00223457\
REF~55~15\
DTM~095~20050715\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
TFS~T3~5~PG~124~94~J\
REF~55~16\
N1~SF~IA\
N4~Des Moines~IA~50317-2222~USA\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~BY~Fuel Purchaser Inc~24~417777777\
N1~ST~IA\
N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00223458\
REF~55~17\
DTM~095~20050715\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA

Point of Destination
Bill of Lading Number
Sequence Number
Bill of Lading Date
Bill of Lading Net
Bill of Lading Gross
Bill of Lading Billed
Begin Schedule of Receipts for Gasohol
Sequence Number
Originating Terminal
Seller Information
Carrier Information
Ship To State
Point of Destination
Bill of Lading Number
Sequence Number
Bill of Lading Date
Bill of Lading Net
Bill of Lading Gross
Bill of Lading Billed
Begin Schedule of Disbursements for Gasoline
Sequence Number
Ship From State
Point of Origin
Carrier Information
Purchaser Information
Ship To State
Point of Destination
Bill of Lading Number
Sequence Number
Bill of Lading Date
Bill of Lading Net
Bill of Lading Gross
Bill of Lading Billed
Begin Schedule of Disbursements for Diesel
Sequence Number
Ship From State
Point of Origin
Carrier Information
Purchaser Information
Ship To State
Point of Destination
Bill of Lading Number
Sequence Number
Bill of Lading Date
Bill of Lading Net
Bill of Lading Gross
Bill of Lading Billed
Begin Schedule of Disbursements for Gasohol
Sequence Number
Ship From State
Point of Origin
Carrier Information
Purchaser Information
Ship To State
Point of Destination
Bill of Lading Number
Sequence Number
Bill of Lading Date
Bill of Lading Net
Bill of Lading Gross
Bill of Lading Billed

TFS~T3~10E~PG~160~94~J\
REF~55~18\
N1~SF~IA\
N4~Des Moines~IA~50317-2222~USA\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~BY~Fuel Purchaser Inc~24~417777777\
N1~ST~IA\
N4~Des Moines~IA~50317-2222~USA\
FGS~D~BM~00323456\
REF~55~19\
DTM~095~20050515\
TIA~5005~~~1005~GA\
TIA~5006~~~1000~GA\
TIA~5007~~~1000~GA\
SE~125~10001\
GE~1~1101\
IEA~1~000000001\

|Begin Schedule of Disbursements for Uncollectible
|Sequence Number
|Ship From State
|Point of Origin
|Carrier Information
|Purchaser Information
|Ship To State
|Point of Destination
|Bill of Lading Number
|Sequence Number
|Bill of Lading Date
|Bill of Lading Net
|Bill of Lading Gross
|Bill of Lading Billed

Sample SDR Report – No Activity (Form 81-010, Iowa Fuel Tax Return)

Formatted with carriage returns for viewing. In an actual filing, carriage returns would be omitted.

ISA~00~ ~00~ ~32~123456789 ~32~421223822 ~050822~0931~|~00403~000000002~0~T~^\
GS~TF~123456789~421223822~20050822~0931~1102~X~004030\
ST~813~10002~1\
BTI~T6~050~47~421223822~20050822~ABC*~24~516999988~49~704123456~SV~ZY0001~00\
DTM~194~20050731\
TIA~5001~~~0~GA\
N1~TP~ABC Oil Company\
N2~ABC Trucking~ABC Station\
N3~123 C Street~PO Box 222\
N4~Des Moines~IA~50317-2222~USA\
PER~CN~John Smith~TE~3139959989~FX~3139950330~EM~john.smith@abcoil.com\
PER~EA~John Doe~TE~3139959988~FX~3139950329~EM~john.doe@abcoil.com\
N1~31~ABC Oil Corp\
N2~ABC Trucking~ABC Station\
N3~123 D Street~PO Box 333\
N4~Des Moines~IA~50317-3333~USA\
TFS~T2~SDR\
REF~55~1\
REF~BE~1\
SE~18~10002\
GE~1~1102\
IEA~1~000000002\

[|Begin Supplier Report](#)
[|Sequence Number](#)
[|No Activity](#)

Sample TOR Report (Form 83-010, Iowa Terminal Report)

Formatted with carriage returns for viewing. In an actual filing, carriage returns would be omitted.

ISA~00~ ~00~ ~32~123456789 ~32~421223822 ~050822~0931~|~00403~000000003~0~T~^\
GS~TF~123456789~421223822~20050822~0931~1103~X~004030\
ST~813~10003~1\
BTI~T6~050~47~421223822~20050822~ABC*~24~516999988~49~704123456~SV~ZY0001~00\
DTM~194~20050731\
TIA~5001~48000~GA\
N1~TP~ABC Fuel Terminal\
N3~123 C Street~PO Box 222\
N4~Des Moines~IA~50317~2222~USA\
PER~CN~John Smith~TE~3139959989~FX~3139950330~EM~john.smith@abcoil.com\
PER~EA~John Doe~TE~3139959988~FX~3139950329~EM~john.doe@abcoil.com\
TFS~T2~TOR~TC~T42IA1234\ [|Begin Terminal Report](#)
REF~55~1\ [|Sequence Number](#)
DTM~184~20050731\
FGS~GL~PG~065\
REF~55~2\
TIA~5002~500~GA\
FGS~EI~PG~065\
REF~55~3\
TIA~5002~21500~GA\
TFS~T3~15A~PG~065~94~PL\
REF~55~4\
N1~OT~TC~T42IA7654\
N1~ON~Fuel Position Holder Inc~24~416666666\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~DT~TC~T42IA1234\
FGS~D~BM~00123456\
REF~55~5\
DTM~095~20050711\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
FGS~D~BM~00123457\
REF~55~6\
DTM~095~20050721\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
FGS~D~BM~00123458\
REF~55~7\
DTM~095~20050731\
TIA~5005~8005~GA\
TIA~5006~8000~GA\
TIA~5007~8000~GA\
TFS~T3~15B~PG~065~94~PL\
REF~55~8\
N1~OT~TC~T42IA1234\
N1~ON~Fuel Position Holder Inc~24~416666666\
N1~CA~Fuel Carrier Inc~24~418888888\
N1~BY~Fuel Buyer Inc~24~417777777\
N1~ST~IA\
FGS~D~BM~00223456\
REF~55~9\
[|Gain/Loss for Gasoline](#)
[|Sequence Number](#)
[|Loss Amount](#)
[|Ending Inventory for Gasoline](#)
[|Sequence Number](#)
[|Inventory Amount](#)
[|Begin Schedule of Receipts for Gasoline](#)
[|Sequence Number](#)
[|Point of Origin](#)
[|Position Holder Information](#)
[|Carrier Information](#)
[|Point of Destination](#)
[|Bill of Lading](#)
[|Sequence Number](#)
[|Bill of Lading Date](#)
[|Bill of Lading Net](#)
[|Bill of Lading Gross](#)
[|Bill of Lading Billed](#)
[|Bill of Lading](#)
[|Sequence Number](#)
[|Bill of Lading Date](#)
[|Bill of Lading Net](#)
[|Bill of Lading Gross](#)
[|Bill of Lading Billed](#)
[|Bill of Lading](#)
[|Sequence Number](#)
[|Bill of Lading Date](#)
[|Bill of Lading Net](#)
[|Bill of Lading Gross](#)
[|Bill of Lading Billed](#)
[|Bill of Lading](#)
[|Sequence Number](#)
[|Bill of Lading Date](#)
[|Bill of Lading Net](#)
[|Bill of Lading Gross](#)
[|Bill of Lading Billed](#)
[|Begin Schedule of Disbursements for Gasoline](#)
[|Sequence Number](#)
[|Point of Origin](#)
[|Position Holder Information](#)
[|Carrier Information](#)
[|Buyer Information](#)
[|Point of Destination](#)
[|Bill of Lading](#)
[|Sequence Number](#)

DTM~095~20050711\ TIA~5005~~8005~GA\ TIA~5006~~8000~GA\ TIA~5007~~8000~GA\ FGS~D~BM~00223457\ REF~55~10\ DTM~095~20050721\ TIA~5005~~8005~GA\ TIA~5006~~8000~GA\ TIA~5007~~8000~GA\ FGS~D~BM~00223458\ REF~55~11\ DTM~095~20050731\ TIA~5005~~8005~GA\ TIA~5006~~8000~GA\ TIA~5007~~8000~GA\ SE~68~10003\ GE~1~1103\ IEA~1~000000003\ Bill of Lading Date Bill of Lading Net Bill of Lading Gross Bill of Lading Billed Bill of Lading Sequence Number Bill of Lading Date Bill of Lading Net Bill of Lading Gross Bill of Lading Billed Bill of Lading Sequence Number Bill of Lading Date Bill of Lading Net Bill of Lading Gross Bill of Lading Billed
