

EDI FORMAT DESCRIPTION

This document identifies the Laboratory Results electronic reporting format required by the Indiana Department of Environmental Management - Office of Water Quality, Assessments Branch. Should there be any questions concerning the format please feel free to call Tim Bowren at (317) 308-3181 or Charles Hostetter at (317) 308-3369.

The general layout is "pipe-delimited". There are several different record types, which are defined in separate sections in this document. Record type is specified in the first field of every record (Record ID). Details are as listed below:

Naming Conventions:

n = place holder for a Decimal Number (0-9)
 X = place holder for text/other
 M = place holder for a "Month" or "Minute" number
 D = place holder for a "Date" number
 Y = place holder for a "Year" number
 H = place holder for an "Hour" number
 S = place holder for a "Second" number

The file MUST BE SAVED in MS-DOS Text format.

Field names in **Bold Red** are Required fields.

Use the following Table for selection of Units:

<u>UnitValue</u>	<u>Comments</u>
CFU/100mL	Colony Forming Units / 100 mL
MPN/100mL	Most Probable Number / 100mL
g/cm3	Density
mg/Kg dw	Dry Weight
mg/L	milligrams/Liter (Water)
NTU	Turbidity units
SU	pH units
ug/Kg dw	Dry Weight
ug/L	micrograms/Liter (Water)
umho/cm	Conductivity
%	Percent
umoles/g	Molar Ratio for SEM
pg/L	picograms/Liter (Water)
%Recov	% Recovery
°C	Degrees Celsius
AMU	Atomic Mass Units
ug/Kg ww	Wet Weight
mg/Kg ww	Wet Weight
ng/L	nanograms/Liter (Water)
Ratio	to be used for Ratios without Units

DO NOT USE ANY OTHER UNITS WITHOUT PRIOR APPROVAL FROM IDEM/OWQ.

Use dry weight (dw) units for ALL sediment parameters unless specifically told otherwise by IDEM/OWQ.

Use wet weight (ww) units for ALL fish tissues parameters unless specifically told otherwise by IDEM/OWQ.

Recent Revisions to this Document:

5/18/2021	Added Dup_MDL and DUP_MDL_Units to QC tables. This has been in the EDI since 2009
5/30/2019	Updated contacts
3/1/2017	Added notes to show which fields are required fields for each record type. Required Fields are Bold in Red .
02/01/2016	Updated contact information for Technical Logistics and Services section chief. Corrected footnotes for Narrative Records.
06/05/2009	Added Method Detection Limit and Method Detection Limit Units to DS and QC records
6/10/2005	Added language clarifying selections from Units Table (page i) and the Note in Result Field in Sample Number Record (page 5).
6/28/2004	Updated units for coliforms
12/11/2003	Added descriptions for Dup_Reporting_Limit and Dup_Reporting_Limit_Units in the QC records where duplicates may be present. (DU, LC, MS)
5/15/2003	Merged EDI Export format Description with this document.
12/5/2002	Redefined Sample_Medium_ID where 'F' is Biological Tissues including Fish & Plants
10/30/2002	Corrected Typos
6/12/2002	This format is to be used for Lakes Data and Field Data. Added Sample_Depth, and Sample_Depth_Units to Sample Number Header/Footer Records. Added Descriptions for Field Data Records. These additional fields are only required if the EDI includes Lakes data or Field Measured Data (Dissolved oxygen, pH, Water Temperature, Specific conductivity, Turbidity, % Saturation, Chloride, Chlorophyll-a, or Weather Codes)
5/2/2002	Altered unique combination for QC records to CAS_Number + CAS_Num_Qualifier +Test_Method +Test_SubMethod + Sample_Medium_ID + RECORD_ID + RUN_BATCH_NUM + LAB_SAMPLE_NUM (See note on Page 10) Added units ng/L and Ratio to accepted units list.
3/25/2002	Added language Clarifying the Measure_Flags field in QC records is to record the QC Flag for the QC sample and not the regular sample.
3/12/2002	Added the reporting limit and reporting limit units fields to QC records. Modified examples to reflect the additional fields. Added instructions for reporting results below the Min. Reporting Limit or above the Max. Reporting Limit (see Sample Number Record Description) to QC Records Measured_Value, Dup_Measure_Value, True_Value
6/11/2001	Added instructions for reporting results below the Min. Reporting Limit or above the Max. Reporting Limit (see Sample Number Record Description). Added instructions for Lab_Sample_Num, Run_Batch_Num, or Prep_Batch_Num in Project Narrative Header/Footer Records. Added Table for selection of Units. Updated Table of Contents page references for QC Record types: IB, IC, CB, SI, LR
4/19/2001	Added Sample_Medium_ID to Sample Number and QC Header Records
3/28/2001	Added instructions in Sample Number Record for Results exceeding the maximum reporting limit for a test. Added Note in QC Records emphasizing each record must have a unique combination of : CAS_Number + CAS_Num_Qualifier +Test_Method +Test_SubMethod + Sample_Medium_ID + RECORD_ID + RUN_BATCH_NUM + RUN_DATE + RUN_TIME+LAB_SAMPLE_NUM Added Descriptive format for Bacteriological QC Records: KP, PA, EC. Revised Real World Example (final page). Revised Descriptions for Sample Narrative & Added a Table of Contents
2/26/2001	Added MS-DOS Text format requirement to the file requirements.
2/20/2001	Corrected Omissions in Format and Examples in record descriptions (pg. 15)
2/7/2001	Added Dup_Dilution_Mult to Lab QC Records & properly referenced Serial Dilutions in 'Duplicate' QC Records.
2/1/2001	Added choice of 'Free' to CAS_Num_Qualifier
1/29/2001	Replaced Date & Time of file/batch creation with Date_Rec (Date analysis set received by lab) and Time_Rec (Time analysis set received by lab) in: 1) Analysis Set Header/Footer Records 2) Sample Number Header/Footer Records
	Added Sample_Medium_ID to Analysis Set Header/Footer Records.
1/10/2001	Added File Revision Date to this Document.

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EDI Submission Set Header/Footer Records:

The EDI Submission Set Header Record is placed prior to the first line of an EDI Transmission file. An EDI Submission Set Footer Record is placed after the last line of the file, forming a matched pair.

Field Name	Description	Format	Example
Record_ID	Identifies EDI Submission Set Header Record ("HE") Or – EDI Submission Set Footer Record ("FE")	"HE" or "FE"	HE
Lab_ID	Name of Lab Submitting Lab Analysis Data Results	XXXXXXXX	ISDH
Date	Date of file/batch creation	MMDDYYYY	11191999
Time	24-Hour Time of file/batch creation	HHMMSS	220156
Count	Number of Records in this file, excluding EDI Submission Set Header and Footer Lines	nnnnn	43

Record_ID|Lab_ID|Date|Time|Count|

Description Example:

HE|XXXXXXXX|MMDDYYYY|HHMMSS|NNNNN|

Real World Example:

HE|ISDH|11191999|220156|43| (EDI Submission Set Header Record)

----Analysis Set1 Header Record---
 ----Sample Number1 Header Record---
 ----Sample Number1 Records---
 ----Sample Number1 Footer Record---
 ----Sample Number2 Header Record---
 ----Sample Number2 Records---
 ----Sample Number2 Footer Record---
 ----Narrative1 Header Record---
 ----Narrative1 Records---
 ----Narrative1 Footer Record---
 ----Narrative2 Header Record---
 ----Narrative2 Records---
 ----Narrative2 Footer Record---
 ----QC Header Record---
 ----QC Records---
 ----QC Footer Record---
 ----Analysis Set1 Footer Record---
 ----Analysis Set2 Header Record---
 ----Sample Number Header Record---
 ----Sample Number Records---
 ----Sample Number Footer Record---
 ----Narrative Header Record---
 ----Narrative Records---
 ----Narrative Footer Record---
 ----QC Header Record---
 ----QC Records---
 ----QC Footer Record---
 ----Analysis Set2 Footer Record---

FE|ISDH|11191999|220156|43| (EDI Submission Set Footer Record)

Analysis Set Header/Footer Records:

Analysis Set Header Records are placed prior to the first line of an Analysis Set Batch. An Analysis Set Footer Record is placed after the last line of the Analysis Set Batch, forming a matched pair.

Field Name	Description	Format	Example
Record_ID	Identifies Analysis Set Header Record ("HA") Or – Analysis Set Footer Record ("FA")	"HA" or "FA"	HA
Lab_ID	Name of Lab Submitting Lab Analysis Data Results	XXXXXXXXXX	ISDH
Lab_Job_Num	Number used internally by Lab to identify the entire group of samples being analyzed for IDEM	XXXXXXXXXX	BB345678
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	XXXXXXXXXX	00TSW190
Analysis_Set_SubmitCount	On first submission of analysis set test results, =1; if samples are re-analyzed & re-submitted, =2 (or 3 for a 2nd re-analysis/submittal, etc.)	NN	1
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Date_Rec	Date Analysis Set Received by Lab	MMDDYYYY	11191999
Time_Rec	24-Hour Time Analysis Set Received by Lab	HHMMSS	220156
Count	Number of Data Records in this batch (related to this specific Analysis Set Header Record)	nnnnnn	43

Record_ID|Lab_ID|Lab_Job_Num|OWQ_Analysis_Set|Analysis_Set_SubmitCount| Sample_Medium_ID | Date_Rec|Time_Rec|Count|

Description Example:

HA|XXXXXXXXXX|XXXXXXXXXX|XXXXXXXXXX|NN|X|MMDDYYYY|HHMMSS|NNNN|

Real World Example:

HA|ISDH|BB345678|00TSW190|1|W|11191999|220156|43|

(Analysis Set Header Record)

----Sample Number1 Header Record---

----Sample Number1 Records---

----Sample Number1 Footer Record---

----Sample Number2 Header Record---

----Sample Number2 Records---

----Sample Number2 Footer Record---

----Narrative1 Header Record---

----Narrative1 Records---

----Narrative1 Footer Record---

----Narrative2 Header Record---

----Narrative2 Records---

----Narrative2 Footer Record---

----QC Header Record---

----QC Records---

----QC Footer Record---

FA|ISDH|BB345678|00TSW190|1|11191999|220156|43|

(Analysis Set Footer Record)

Sample Number Header/Footer Records:

Sample Number Header Records are placed prior to the first line of a Sample Number's lab analysis result set. A Sample Number Footer Record is placed after the last line of the Sample Number record, forming a matched pair.

Field Name	Description	Format	Example
Record_ID	Identifies Sample Number Header Record ("HS") Or – Sample Number Footer Record ("FS")	"HS" or "FS"	HS
Lab_ID	Name of Lab Submitting Lab Analysis Data Results	XXXXXXXX	ISDH
Sample_ID	IDEM assigned Sample ID	XXnnnnn	DA12345
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Lab_Sample_Num	Number used internally by Lab to identify IDEM Sample being analyzed	XXXXXXXX	AA345678
Lab_Job_Num	Number used internally by Lab to identify the entire group of samples being analyzed for IDEM	XXXXXXXX	BB345678
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	XXXXXXXX	00TSW190
Analysis_Set_SubmitCount	On first submission of analysis set test results, =1; if samples are re-analyzed & re-submitted, =2 (or 3 for a 2nd re-analysis/submittal, etc.)	NN	1
Date_Rec	Date Analysis Set Received by Lab	MMDDYYYY	11191999
Time_Rec	24-Hour Time Analysis Set Received by Lab	HHMMSS	220156
Count	Number of Data Records in this batch (related to this specific Header Record)	nnnn	43
Sample_Depth	Depth the sample was taken in meters (Use 0 for surface water samples)	NN.NN	6.00
Sample_Depth_Units	Units for Sample_Depth (leave blank if Sample_depth is not used)	XXX	m

Record_ID|Lab_ID|Sample_ID|Sample_Medium_ID|Lab_Sample_Num|Lab_Job_Num|OWQ_Analysis_Set|
Analysis_Set_SubmitCount|Date_Rec|Time_Rec|Count|Sample_Depth|Sample_Depth_Units|

Description Example:

HS|XXXXXXXX|XXNNNNN|X|XXXXXXXX|XXXXXXXX|XXXXXXXX|NN|MMDDYYYY|HHMMSS|NNNN|NNNN|XXX|

Real World Examples:

HS|ISDH|DA12345|W|AA345678|BB345678|00TSW190|1|11191999|220156|3| (Sample Number1 Header Record)

----Sample Number Record1---

----Sample Number Record2---

----Sample Number Record3---

FS|ISDH|DA12345|W|AA345678|BB345678|00TSW190|1|11191999|220156|3| (Sample Number1 Footer Record)

HS|ISDH|DA54321|S|345678|363783|00TSW190|1|11191999|142112|2| (Sample Number2 Footer Record)

----Sample Number2 Record1---

----Sample Number2 Record2---

FS|ISDH|DA54321|S|345678|363783|00TSW190|1|11191999|142112|2|(Sample Number2 Footer Record)

Sample Number Record:

Field Name	Description	Format	Example
Record_ID	Identifies Field Data Record	"DS"	DS
Lab_Sample_Num	Number used internally by Lab to identify IDEM Sample being analyzed	XXXXXXXX	AA345678
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Potential Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Result	Parameter test result Use the following if the results are between the Method Detection Limit (MDL) and the Min. Reporting Limit (MRL): Case 1 (Actual Values Requested) then use the Actual value measured Case 2 (Actual Values Not Requested) then use "-1" In Case 1 and Case 2, include '<' in the Result_Flags field. if the Result exceeds the Max. Reporting Limit, then use '-2' in the Result field and include '>' in Result_Flags field.	nnnnnnnn.nnnn	5.0
Result_Units	Result Units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Result_Flags	Lab Flags for this record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table) Use "<" symbol if Result is less than Reporting Limit and use ">" if Result exceeds the Maximum Reporting Limit.	XXXXX	<gx
Prep_Batch_Num	Lab-Internal Alphanumeric identifier indicating batch within which sample was prepped	XXXXXXXX	768
Prep_Date	Date sample prepped (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS	163403
Prep_Method	Prep Method Used (if applicable)	XXXXXXXXXX	3050
Run_Batch_Num	Lab-Internal Alphanumeric identifier indicating batch within which sample was analyzed	XXXXXXXX	8043
Run_Date	Date Field Measurements Taken	MMDDYYYY	12251999
Run_Time	24-Hour Time Field Measurements Taken	HHMMSS	163403
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	10
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|Lab_Sample_Num|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Report_Limit|Report_Limit_Units|Result|Result_Units|Result_Flags|Prep_Batch_Num|Prep_Date|Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time|Dilution_Mult|Lab_MDL|Lab_MDL_Units|

Description Example:

DS|XXXXXXXX|XXXXXXXXXX|X|XXXXXXXXXX|XXXX|X|NNNNNNNN.NNNN|XXXX|NNNNNNNN.NNNN|XXXX|XXXXX|XXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS|NNNN|NNNNNNNN.NNNN|XXXX|

Real World Examples:

DS|AA345678|257301-77-2|T|200.7|N/A|W|1.0|ug/l|8.1|ug/l|<gx|768|12251999|163403|3050|8043|12251999|163403|10|0.3|ug/l|DS|AA345678|257301-77-2|T|200.7|N/A|W|1.0|ug/l|8.1|ug/l|<gx| || ||8043|12251999|163403|10|0.3|ug/l|

Field Data Record:

Field Name	Description	Format	Example
Record_ID	Identifies Field Data Record	"DS"	DS
Lab_Sample_Num	Number used internally by Lab to identify IDEM Sample being analyzed	XXXXXXXX	AA345678
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	E-14539
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	D
Test_Method	Test method used by Field Sampler	XXXXXXXXXX	SM4500-OG
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Potential Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	N/A
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	0.01
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	mg/L
Result	Parameter test result (If the results are between the Method Detection Limit and the Min. Reporting Limit. Include "<" symbol in Result_Flags field and use the actual value measured, if actual values have been requested, or '-1' in the result field. Include '>' in Result_Flags field and use '-2' in the Result field if the Result exceeds the Max. Reporting Limit.	nnnnnnnn.nnnn	7.68
Result_Units	Result Units (see page i for selection of units.)	XXXXX	mg/L
Result_Flags	Lab Flags for this record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table) Use "<" symbol if Result is less than Reporting Limit and use ">" if Result exceeds the Maximum Reporting Limit.	XXXXX	<gx
Prep_Batch_Num	UNUSED (but please add Pipe Delimiter for placeholder)		
Prep_Date	UNUSED (but please add Pipe Delimiter for placeholder)		
Prep_Time	UNUSED (but please add Pipe Delimiter for placeholder)		
Prep_Method	UNUSED (but please add Pipe Delimiter for placeholder)		
Run_Batch_Num	Lab-Internal Alphanumeric identifier indicating batch within which sample was analyzed	XXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run	HHMMSS	163403
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	1.0
SampleDepth	Water depth at which sample collected.	nnnnn.n	0.0
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|Lab_Sample_Num|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Report_Limit|
Report_Limit_Units|Result|Result_Units|Result_Flags|Prep_Batch_Num|Prep_Date|Prep_Time|Prep_Method|
Run_Batch_Num|Run_Date|Run_Time|Dilution_Mult| SampleDepth|Lab_MDL|Lab_MDL_Units|

Description Example:

DS|XXXXXXXX|XXXXXXXXXX|X|XXXXXXXXXX|XXXX|X|NNNNNNNN.NNNN|XXXXX|NNNNNNNN.NNNN|XXXXX|XXXXX|
XXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS|NNNN|NNN.NNNN|NNNNNNNN.NNNN|XXXXX|

Real World Examples:

DS|AA345678|257301-77-2|T|200.7|N/A|W|1.0|ug/l|8.1|ug/l|<gx|768|12251999|163403|3050|8043|12251999|163403|10| 0.3|ug/l|
DS|AA345678|257301-77-2|T|200.7|N/A|W|1.0|ug/l|8.1|ug/l|<gx| | | ||8043|12251999|163403|10|0| 0.3|ug/l|

Project Narrative Header/Footer Records

Project Narrative Header Records are placed prior to the first line of a Project Narrative. Project Narrative Footer Record is placed after last line of the Project Narrative, forming a matched pair.

Field Name	Description	Format	Example
Record_ID	Identifies Project Narrative Header Record ("HN") Or – Project Narrative Footer Record ("FN")	"HN"	HN
Lab_ID	Name of Lab Submitting Lab Analysis Data Results	XXXXXXXXXX	ISDH
Lab_Job_Num	Number used internally by Lab to identify the entire group of samples being analyzed for IDEM	XXXXXXXXXX	BB345678
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	XXXXXXXXXX	00TSW190
Analysis_Set_SubmitCount	On first submission of analysis set test results, =1; if samples are re-analyzed & re-submitted, =2 (or 3 for a 2 nd re-analysis/submittal, etc.)	NN	1
Lab_Sample_Num ①	Number used internally by Lab to identify IDEM Sample being analyzed	XXXXXXXXXX	AA345678
Prep_Batch_Num ②	Lab-Internal Alphanumeric identifier indicating batch within which sample was prepped	XXXXXXXXXX	768
Run_Batch_Num ②	Lab-Internal Alphanumeric identifier indicating batch within which sample was analyzed	XXXXXXXXXX	8043
Refer_Record_ID	Record_ID describing type of record being referred to ("DS", "CC", "BL", "LC", "CS", "SS", "IS", "MS", or "DU") – for definitions, see the Record_ID field in the <u>Sample Number Record</u> and <u>Lab QC Records: General Format Description</u> sections of this document.	XX	DS
CAS_Number	CAS # of substance being tested for	XXXXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Test_Method	Test method used by lab	XXXXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Prep_Method	Prep Method Used (if applicable)	XXXXXXXXXXXX	3050
Date	Date of file/batch creation	MMDDYYYY	11191999
Time	24-Hour Time of file/batch creation	HHMMSS	220156
Count	Number of Narrative records in batch (for this Header Record)	nnnn	7

Record Format(in actual data records, all on one line):

Record_ID|Lab_ID|Lab_Job_Num|OWQ_Analysis_Set|Analysis_Set_SubmitCount|Lab_Sample_Num|Prep_Batch_Num|Run_Batch_Num|Refer_Record_ID|CAS_Number|CAS_Num_Qualifier|Sample_Medium_ID|Test_Method|Test_SubMethod|Prep_Method|Date|Time|Count|

Project Narrative Header Description Example:

HN|XXXXXXXXXX|XXXXXXXXXX|XXXXXXXXXX|NN|XXXXXXXXXX|XXXXXXXXXX|XXXXXXXXXX|XX|XXXXXXXXXXXX|X|X|XXXXXXXXXXXX|XXXX|XXXXXXXXXXXX|HHMMSS|NNNN|MMDDYYYY|

① IF VALID FOR BATCH, PROVIDE BATCH AND NOT INTERNAL SAMPLE NUMBER

② IF VALID FOR CERTAIN SAMPLES, PROVIDE INTERNAL SAMPLE NUMBER, BUT NOT BATCH NUMBER

Project Narrative Data Record:

Field Name	Description	Format	Example
Record_ID	Identifies Project Narrative Data Record	"DN"	DN
Narrative	Projective Narrative Text in a continuous line	XXXXXXXXXX	Analysis Resul...

Record Format:

Record_ID|Narrative|

Description Example:

PN|XX|

Real World Example of Project Narrative Header, Data, and Footer Records:

```

HN|ISDH|BB345678|00TSW190|1|AA345678|768|8043|DR|257301-77-2|T|S|200.7|N/A|3050|11191999|220156|2|
DN|Analysis resulted in an unusually high analyte concentration. Sample tested positive for presence of sulfuric acid preservative. It is possible that
nitric acid is also present in sample.| (This is ONE Line of Text)
FN|ISDH|BB345678|00TSW190|1|AA345678|768|8043|DR|257301-77-2|T|S|200.7|N/A|3050|11191999|220156|2|
HN|ISDH|BB345678|00TSW190|1|AA345679|768|8043|DR|257301-77-2|T|S|200.7|N/A|3050|11191999|220156|3|
---Project Narrative Record---
---Project Narrative Record---
---Project Narrative Record---
FN|ISDH|BB345678|00TSW190|1|AA345679|768|8043|DR|257301-77-2|T|S|200.7|N/A|3050|11191999|220156|3|
HN|ISDH|BB345678|00TSW190|1|AA345680|768|8043|DR|257301-77-2|T|S|200.7|N/A|3050|11191999|220156|6|
---Project Narrative Record---
---Project Narrative Record---
---Project Narrative Record---
---Project Narrative Record---
---Project Narrative Record---
FN|ISDH|BB345678|00TSW190|1|AA345680|768|8043|DR|257301-77-2|T|S|200.7|N/A|3050|11191999|220156|6|

```

QC Header/Footer Records:

QC Header Records are placed prior to the first line of an Analysis Set’s QC Section. QC Footer Record is placed after last line of the QC Section, forming a matched pair.

There is one QC Header/Footer Pair per Analysis Set. QC Detail Records include several types of QC performed by the labs.

Field Name	Description	Format	Example
Record_ID	Identifies QC Header Record (“HQ”) Or – QC Footer Record (“FQ”)	"HQ" or "FQ"	HQ
Lab_ID	Name of Lab Submitting Lab Analysis Data Results	XXXXXXXX	ISDH
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Lab_Job_Num	Number used internally by Lab to identify the entire group of samples being analyzed for IDEM	XXXXXXXX	BB345678
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	XXXXXXXX	00TSW190
Analysis_Set_SubmitCount	On first submission of analysis set test results, =1; if samples are re-analyzed & re-submitted, =2 (or 3 for a 2nd re-analysis/submittal, etc.)	NN	1
Date	Date of file/batch creation	MMDDYYYY	11191999
Time	24-Hour Time of file/batch creation	HHMMSS	220156
Count	Number of records in this batch (for all QC Records)	nnnn	43

Record ID|Lab_ID|Sample_Medium_ID|Lab_Job_Num|OWQ_Analysis_Set|Analysis_Set_SubmitCount|Date|Time|Count|

Description Example:

HQ|XXXXXXXX|X|XXXXXXXX|XXXXXXXX|NN|MMDDYYYY|HHMMSS|NNNN|

Real World Examples:

HQ|ISDH|W|BB345678|00TSW190|1|11191999|220156|3| (QC Header Record)

----QC Record1---

----QC Record2---

----QC Record3---

FQ|ISDH|W|BB345678|00TSW190|1|11191999|220156|3| (QC Footer Record)

Lab QC Records: General Format Description

Field Name	Description	Format	Example
Record_ID	Identifies type of QC record: Blank Record = "BL" Laboratory Control Standard Record = "LC" Laboratory Duplicate Record = "DU" Matrix Spike/Matrix Spike Dup. Record = "MS" Post Digestion Spike/Spike Dup Record = "PS" Serial Dilution Duplicate="SD" Initial Calibration Blank="IB" Initial Calibration Standard="IC" Continuing Calibration Blank="CB" Spectral Interference Check Standard="SI" Continuing Calibration Verification Record = "CC" Control Spike="CS" Internal Standard="IS" Surrogate Standard="SS" Linear Upper Range Standard="LR" Mass Spectrometry Tuning or Performance Standard="TS" Neg. E. Coli, Pos Coliform = "KP" Negative Coliform = "PA" Positive E. Coli = "EC"	XX	LC
CAS Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS	163403
Prep_Method	Prep Method Used (if applicable)	XXXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run	HHMMSS	163403
Dup_Run_Date	Date analysis run for the DUP, MSD, or PSD	MMDDYYYY	12251999
Dup_Run_Time	24-Hour Time analysis run for the DUP, MSD, or PSD	HHMMSS	163403
True_Value	True Value of substance added to sample (See Note for Result in Sample Number Records)	Nnnnnnnn.nnnn	5.0
True_Value_Units	Units for True_Value (see page i for selection of units.)	XXXXXX	ug/l, mg/kg
Measured_Value	Value Measured (See Note for Result in Sample Number Records)	Nnnnnnnn.nnnn	4.4
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXXX	ug/l, mg/kg
Pcnt_Recovered	Percentage Recovered	nnn.nn	88.00
Dup_Measure_Value	Value Measured in Duplicate, MSD, or PSD (See Note for Result in Sample Number Records)	Nnnnnnnn.nnnn	4.0
Dup_Measure_Units	Units for Dup_Measure_Value, MSD, or PSD	XXXXXX	ug/l, mg/kg
Dup_Pcnt_Recover	Percentage Recovered for Duplicate, MSD, or PSD	nnn.nn	80.0
Dup_RPD	% Difference Between Measured_Value and Dup_Measure_Value	nnn.nn	9.50
M_Z_Ratio	Mass to Charge Ratio of Ion Fragment (use for Mass Spectrometry Tuning Standard)	nnn	177
M_Z_Ref	Reference Mass to Charge Ratio of Parent Peak or Secondary Ion (use for Mass Spectrometry Tuning/Performance Ion Abundance Criteria)	nnn	176
MS_Spike_Added	Matrix or Post Digestion Spike Added	Nnnnnnnn.nnnn	4.0
MS_Spike_Units	Units for Matrix Spike Added (see page i for selection of units.)	XXXXXX	ug/l, mg/kg
Measure_Flags	Lab Flags for this QC record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXXX	<gx
Dup_Measure_Flags	Lab Flags for this QC Dup record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXXX	<gx
Lower_Limit	Lower Percent Recovered Limit (in percent)	nnn.n	80.0
Upper_Limit	Upper Percent Recovered Limit (in percent)	nnn.n	120.0
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXXXX	AA345678

Field Name	Description	Format	Example
Dup_Lab_Sample_Num	Number used internally by Lab to identify Sample Dup analyzed	XXXXXXXX	AA345679
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	10
Dup_Dilution_Mult	Number indicating dilution magnitude of Duplicate required for analysis	nnnn	10
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	Lab's Reporting Limit for Duplicate test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Dup_Report_Limit_Units	Lab Reporting Limit units for Duplicate test (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual QC data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier| Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|Prep_Date|
 Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time|Dup_Run_Date|Dup_Run_Time|True_Value|True_Value_Units|
 Measured_Value|Measured_Units|Pcnt_Recovered|Dup_Measure_Value|Dup_Measure_Units|Dup_Pcnt_Recover|Dup_RPD|
 M_Z_Ratio|M_Z_Ref|MS_Spike_Added|MS_Spike_Units|Measure_Flags|Dup_Measure_Flags|Lower_Limit|Upper_Limit|Lab_Sample_Num|
 Dup_Lab_Sample_Num|Dilution_Mult|Dup_Dilution_Mult| Report_Limit| Report_Limit_Units| Dup_Report_Limit |
 Dup_Report_Limit_Units|Lab_MDL|Lab_MDL_Units|

Description Example:

LC|XXXXXXXXXXXX|X|XXXXXXXXXXXX|XXXX|X|XXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS|MMDDYY
 YY|HHMMSS| NNNNNNNN.NNNNNN|XXXXX|NNNNNNNN.NNNNNN|XXXXX|NNN.N|NNNNNNNN.NNNNNN|XXXXX|NNN.N| NNN.N|
 XXXXXXXXXXX|XXXXXXXXXXXX|NNNNNNNN.NNNNNN|XXXXX|XXXXX|XXXXX|NNN.N|NNN.N|XXXXXXXX|XXXXXXXX|NNNN|NNNN|
 NNNNNNNN.NNNN|XXXXX|NNNNNNNN.NNNN|XXXXX|NNNNNNNN.NNNN|XXXXX|

EACH QC RECORD MUST HAVE A UNIQUE COMBINATION OF:

CAS_Number + CAS_Num_Qualifier + Test_Method + Test_SubMethod + Sample_Medium_ID + RECORD_ID +
 RUN_BATCH_NUM + LAB_SAMPLE_NUM

It may be necessary to create an arbitrary Lab_Sample_Num (i.e. CCV1, CCV2, Blank1, Blank2, etc.) in order to achieve this unique combination. A unique Lab_Sample_Num could be generated by concatenating the Lab_Sample_Num & Run_Time fields. Only 4 characters would be need from the Run_Time field. Note that Run_Time does not contain any colons or slashes.

Example: CCV1 run at 080000 would be CCV1-0800
 CCV1 run at 083000 would be CCV1-0830, Etc.

Lab QC Records: Format for QC Records of following types: 'Blank', 'Initial Calibration Blank', or 'Continuing Calibration Blank'

Field Name	Description	Format	Example
Record_ID	Identifies type of QC record: Blank Record = "BL" Initial Calibration Blank="IB" Continuing Calibration Blank="CB"	XX	BL
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS	163403
Prep_Method	Prep Method used (if applicable)	XXXXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run	HHMMSS	163403
Dup_Run_Date	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Run_Time	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measured_Value	Value Measured (See Note for Result in Sample Number Records)	nnnnnnnn.nnnn	4.4
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXXX	ug/l, mg/kg
Pcnt_Recovered	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Pcnt_Recover	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_RPD	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ratio	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ref	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Added	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measure_Flags	Lab Flags for this Blank QC record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXXX	<gx
Dup_Measure_Flags	UNUSED (but please add Pipe Delimiter for placeholder)		
Lower_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Upper_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXXXX	AA345678
Dup_Lab_Sample_Num	UNUSED (but please add Pipe Delimiter for placeholder)		
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	10
Dup_Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXXX	ug/l, mg/kg
Dup_Report_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Report_Limit_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXXX	ug/l, mg/kg
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|Prep_Date|
Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time| || |Measured_Value|Measured_Units| || || || |Measure_Flags| || |
Lab_Sample_Num| |Dilution_Mult| |Report_Limit| Report_Limit_Units| | |Lab_MDL|Lab_MDL_Units|

Description Example:

BL|XXXXXXXXXX|T|XXXXXXXXXX|XXXX|X|XXXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS| || |
NNNNNNNN.NNNNNN|XXXXX| || || || |XXXXX| || |XXXXXXXX| |NNNN| |NNNNNNNN.NNNN|XXXXX| | |NNNNNNNN.NNNN|XXXXX|

Lab QC Records: Format for QC Records of following types: Continuing Calibration Verification, Initial Calibration Standard, Linear Upper Range Standard, or Spectral Interference Check Standard

Field Name	Description	Format	Example
Record_ID	Continuing Calibration Verification Record = "CC" Initial Calibration Standard="IC" Linear Upper Range Standard="LR" Spectral Interference Check Standard="SI"	XX	CC
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS	163403
Prep_Method	Prep Method Used (if applicable)	XXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run	HHMMSS	163403
Dup_Run_Date	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Run_Time	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value	True Value of substance added to sample (See Note for Result in Sample Number Records)	nnnnnnnn.nnnn	5.0
True_Value_Units	Units for True_Value (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Measured_Value	Value Measured (See Note for Result in Sample Number Records)	nnnnnnnn.nnnn	4.4
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Pcnt_Recovered	Percentage Recovered	nnn.n	88.0
Dup_Measure_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Pcnt_Recover	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_RPD	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ratio	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ref	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Added	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measure_Flags	Lab Flags for this QC record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Dup_Measure_Flags	UNUSED (but please add Pipe Delimiter for placeholder)		
Lower_Limit	Lower Percent Recovered Limit (in percent)	nnn.n	80.0
Upper_Limit	Upper Percent Recovered Limit (in percent)	nnn.n	120.0
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXX	AA345678
Dup_Lab_Sample_Num	UNUSED (but please add Pipe Delimiter for placeholder)		
Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Report_Limit_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|Prep_Date|
Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time| | |True_Value|True_Value_Units|Measured_Value|Measured_Units|
Pcnt_Recovered| | | | | | |Measure_Flags| |Lower_Limit|Upper_Limit| Lab_Sample_Num| | | Report_Limit| Report_Limit_Units| |
|Lab_MDL|Lab_MDL_Units|

Description Example:

CC|XXXXXXXXXXXX|T|XXXXXXXXXX|XXXX|X|XXXXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS| | |
NNNNNNNN.NNNNNN|XXXXX|NNNNNNNN.NNNNNN|XXXXX|NNN.N| | | | | | |XXXXX| |NNN.N|NNN.N|XXXXXXXX| | | |
NNNNNNNN.NNNN|XXXXX| | |NNNNNNNN.NNNN|XXXXX|

Lab QC Records: Format for 'Duplicate' or 'Serial Dilution' QC Records

Field Name	Description	Format	Example
Record_ID	Identifies type of QC record: Duplicate Record = "DU"; Serial Dilution = "SD"	XX	DU
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS (military time)	163403 (4:34:03 PM)
Prep_Method	Prep Method Used (if applicable)	XXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run	HHMMSS	163403
Dup_Run_Date	Date analysis run	MMDDYYYY	12251999
Dup_Run_Time	24-Hour Time analysis run	HHMMSS	163403
True_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measured_Value	Value Measured (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	4.4
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Pcnt_Recovered	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Value	Value Measured in Duplicate (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	4.0
Dup_Measure_Units	Units for Dup_Measure_Value	XXXXX	ug/l, mg/kg
Dup_Pcnt_Recover	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_RPD	% Difference Between Measured_Value and Dup_Measure_Value	nnn.n	9.5
M_Z_Ratio	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ref	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Added	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measure_Flags	Lab Flags for this record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Dup_Measure_Flags	Lab Flags for record duplicate (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Lower_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Upper_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXX	AA345678
Dup_Lab_Sample_Num	Number used internally by Lab to identify Sample Dup analyzed	XXXXXXXX	AA345679
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	10
Dup_Dilution_Mult	Number indicating dilution magnitude of Duplicate required for analysis	nnnn	10
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	Lab's Reporting Limit for Duplicate test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Dup_Report_Limit_Units	Lab Reporting Limit units for Duplicate test (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|Prep_Date|Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time|Dup_Run_Date|Dup_Run_Time| | |Measured_Value|Measured_Units|

Dup_Measure_Value|Dup_Measure_Units|Dup_RPD| | | |Measure_Flags|Dup_Measure_Flags| | |Lab_Sample_Num|
Dup_Lab_Sample_Num|Dilution_Mult|Dup_Dilution_Mult| Report_Limit| Report_Limit_Units| Dup_Report_Limit |
Dup_Report_Limit_Units|Lab_MDL|Lab_MDL_Units|

Description Example:

DU|XXXXXXXXXX|T|XXXXXXXXXX|XXXX|X|XXXXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS|
MMDDYYYY|HHMMSS| | |NNNNNNNN.NNNNNN|XXXXX| |NNNNNNNN.NNNNNN|XXXXX| |NNN.N| | | |XXXXXXXX|XXXXX| |XXXXXXXX|
XXXXXXXX|NNNN|NNNN| NNNNNNNN.NNNN|XXXXX| NNNNNNNN.NNNN|XXXXX|NNNNNNNN.NNNN|XXXXX|

Lab QC Records: Format for 'Matrix Spike', 'Matrix Spike Duplicate' Records

Field Name	Description	Format	Example
Record_ID	Identifies type of QC record: Matrix Spike/Matrix Spike Dup. Record = "MS" Post Digestion Spike/Spike Dup Record = "PS"	XX	MD
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS	163403
Prep_Method	Prep Method Used (if applicable)	XXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXX	8043
Run_Date	Date analysis run for the MS or PS	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run for the MS or PS	HHMMSS	163403
Dup_Run_Date	Date analysis run for the MSD or PSD	MMDDYYYY	12251999
Dup_Run_Time	24-Hour Time analysis run for the MSD or PSD	HHMMSS	163403
Unspiked_Value	Measured Value of substance in unspiked sample Use measured value if known or '-1' if below the detection limit. (See Note for Result in Sample Number Records) If the value is '0' then use '-1'	nnnnnnn.nnnn	5.0
Unspiked_Units	Units for Unspiked_Value	XXXXX	ug/l, mg/kg
Measured_Value	Value Measured in Matrix Spike Sample (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	8.5
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Pcnt_Recovered	Percentage Recovered	nnn.n	88.0
Dup_Measure_Value	Value Measured in Matrix Spike Duplicate (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	8.2
Dup_Measure_Units	Units for Dup_Measure_Value	XXXXX	ug/l, mg/kg
Dup_Pcnt_Recover	Percentage Recovered for Duplicate	nnn.n	80.0
Dup_RPD	% Difference Between Measured_Value and Dup_Measure_Value	nnn.n	3.6
M_Z_Ratio	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ref	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Added	Matrix Spike Added	nnnnnnn.nnnn	4.0
MS_Spike_Units	Units for Matrix Spike Added	XXXXX	ug/l, mg/kg
Measure_Flags	Lab Flags for the MS record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table) DO NOT USE THE LAB FLAG FOR THE UNSPIKED_VALUE	XXXXX	<gx
Dup_Measure_Flags	Lab Flags for MSD or PSD record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Lower_Limit	Lower Percent Recovered Limit (in percent)	nnn.n	80.0
Upper_Limit	Upper Percent Recovered Limit (in percent)	nnn.n	120.0
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed (unspiked sample)	XXXXXXXXXX	AA345678
Dup_Lab_Sample_Num	Number used internally by Lab to identify MSD or PSD analyzed	XXXXXXXXXX	AA345679
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	10
Dup_Dilution_Mult	Number indicating dilution magnitude of MSD required for analysis	nnnn	10
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	Lab's Reporting Limit for Duplicate test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Dup_Report_Limit_Units	Lab Reporting Limit units for Duplicate test (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|Prep_Date|
Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time|Dup_Run_Date|Dup_Run_Time|Unspiked_Value|Unspiked_Units|
Measured_Value|Measured_Units|Pcnt_Recovered|Dup_Measure_Value|Dup_Measure_Units|Dup_Pcnt_Recover|Dup_RPD| | |
MS_Spike_Added|MS_Spike_Units|Measure_Flags|Dup_Measure_Flags|Lower_Limit|Upper_Limit|Lab_Sample_Num|
Dup_Lab_Sample_Num|Dilution_Mult|Dup_Dilution_Mult| Report_Limit| Report_Limit_Units| Dup_Report_Limit|
Dup_Report_Limit_Units|Lab_MDL|Lab_MDL_Units|

Description Example:

MS|XXXXXXXXXX|T|XXXXXXXXXX|XXX|X|XXXXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS|
MMDDYYYY|HHMMSS|NNNNNNNN.NNNNNN|XXXXX|NNNNNNNN.NNNNNN|XXXXX|NNN.N|NNNNNNNN.NNNNNN|XXXXX|NNN.N|
NNN.N| |
|NNNNNNNN.NNNNNN|XXXXX|XXXXX|XXXXX|NNN.N|NNN.N|XXXXXXXX|XXXXXXXX|NNNN.NN|NNNN.NN|NNNNNNNN.NNNN|
XXXXX| NNNNNNNN.NNNN|XXXXX|NNNNNNNN.NNNN|XXXXX|

Lab QC Records: Format for Records of following types: 'Control Spike', 'Internal Standard', 'Laboratory Control Standard', 'Surrogate Standard'

Field Name	Description	Format	Example
Record_ID	Identifies QC record type: Control Spike="CS"; Internal Standard="IS"; Laboratory Control Standard = "LC"; Surrogate Standard="SS"	XX	LC
CAS_Number	CAS # of substance being tested for	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis, in 24-hour time (if applicable)	HHMMSS	163403
Prep_Method	Prep Method Used (if applicable)	XXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run, in 24-hour time	HHMMSS	163403
Dup_Run_Date	Date analysis run for the duplicate, if applicable		
Dup_Run_Time	24-Hour Time analysis run for the duplicate, if applicable		
True_Value	True Value of substance added to sample (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	5.0
True_Value Units	Units for True_Value	XXXXX	ug/l, mg/kg
Measured_Value	Value Measured (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	4.4
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Pcnt_Recovered	Percentage Recovered	nnn.n	88.0
Dup_Measure_Value	Value Measured in Duplicate (See Note for Result in Sample Number Records)	nnnnnnn.nnnn	4.0
Dup_Measure_Units	Units for Dup_Measure_Value	XXXXX	ug/l, mg/kg
Dup_Pcnt_Recover	Percentage Recovered for Duplicate	nnn.n	80.0
Dup_RPD	% Difference Between Measured_Value and Dup_Measure_Value	nnn.n	9.5
M_Z_Ratio	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ref	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Added	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measure_Flags	Lab Flags for this QC record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Dup_Measure_Flags	Lab Flags for dup record, if applicable (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Lower_Limit	Lower Percent Recovered Limit (in percent)	nnn.n	80.0
Upper_Limit	Upper Percent Recovered Limit (in percent)	nnn.n	120.0
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXX	AA345678
Dup_Lab_Sample_Num	Number used internally by Lab to identify Sample Dup analyzed (if applicable)	XXXXXXXX	AA345678
Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	Lab's Reporting Limit for Duplicate test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnn.nnnn	5.0
Dup_Report_Limit_Units	Lab Reporting Limit units for Duplicate test (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnn.nnnn	5.0
Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier	nnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|Prep_Date|
Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time| | |True_Value|True_Value_Units|Measured_Value|Measured_Units|
Pcnt_Recovered|Dup_Measure_Value|Dup_Measure_Units|Dup_Pcnt_Recover|Dup_RPD| | | |Measure_Flags| |Lower_Limit|Upper_Limit|
Lab_Sample_Num| | | Report_Limit| Report_Limit_Units| Dup_Report_Limit | Dup_Report_Limit_Units |Lab_MDL|Lab_MDL_Units|

Description Example:

LC|XXXXXXXXXX|T|XXXXXXXXXX|XXXX|X|XXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX|MMDDYYYY|HHMMSS| | |
NNNNNNNN.NNNNNN|XXXXX|NNNNNNNN.NNNNNN|XXXXX|NNN.N|NNNNNNNN.NNNNNN|XXXXX|NNN.N|NNN.N| | | |XXXXX| |
NNN.N|NNN.N|XXXXXXXX| | | NNNNNNNN.NNNN|XXXXX| NNNNNNNN.NNNN | XXXXX |NNNNNNNN.NNNN|XXXXX|

Lab QC Records: Format for Records of following types: 'Tuning Standard'

Field Name	Description	Format	Example
Record_ID	Identifies type of QC record: Mass Spectrometry Tuning or Performance Standard="TS"	XX	TS
CAS_Number	CAS # of substance being tested for (Tuning Standard)	XXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample prepped	XXXXXXXXXX	768
Prep_Date	Date sample prepped for analysis (if applicable)	MMDDYYYY	12251999
Prep_Time	24-Hour Time sample prepped for analysis (if applicable)	HHMMSS	163403
Prep_Method	Prep Method Used (if applicable)	XXXXXXXXXX	3050
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run	HHMMSS	163403
Dup_Run_Date	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Run_Time	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measured_Value	Ion Abundance (Percent of Parent Peak)	Nnnnnnnn.nnnn	4.4
Measured_Units	Units for Ion Abundance	XXXXX	%
Pcnt_Recovered	Percent Ion Abundance to Reference Peak m/z	nnn.nn	88.00
Dup_Measure_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Pcnt_Recover	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_RPD	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ratio	Mass to Charge Ratio of Ion Fragment (use for Mass Spectrometry Tuning Standard)	nnn	177
M_Z_Ref	Reference Mass to Charge of Parent or Secondary (use for Mass Spectrometry Tuning/Performance Ion Abundance Criteria)	nnn	176
MS_Spike_Added	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measure_Flags	Lab Flags for this QC record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Dup_Measure_Flags	UNUSED (but please add Pipe Delimiter for placeholder)		
Lower_Limit	Lower Percent Recovered Limit (in percent)	nnn.n	80.0
Upper_Limit	Upper Percent Recovered Limit (in percent)	nnn.n	120.0
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXXXX	AA345678
Dup_Lab_Sample_Num	UNUSED (but please add Pipe Delimiter for placeholder)		
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	10
Dup_Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Report_Limit_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_MDL	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_MDL_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual QC data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier| Test_Method|Test_SubMethod|Sample_Medium_ID|Prep_Batch_Num|
Prep_Date|Prep_Time|Prep_Method|Run_Batch_Num|Run_Date|Run_Time| || |Measured_Value|Measured_Units|Pcnt_Recovered| || ||
M_Z_Ratio|M_Z_Ref| | Measure_Flags| |Lower_Limit|Upper_Limit|Lab_Sample_Num| |Dilution_Mult| | Report_Limit| Report_Limit_Units| || ||
Description Example:
TS|XXXXXXXXXX|X| XXXXXXXXXXXX|XXXX|X|XXXXXXXXXX|MMDDYYYY|HHMMSS|XXXXXXXX|XXXXXXXX| MMDDYYYY|HHMMSS| || |
|NNNNNNNN.NNNNNN|XXXXX|NNN.N| || | XXXXXXXXXXXX|XXXXXXXXXXXX| |XXXXX| |NNN.N|NNN.N|XXXXXXXXX| |NNNN| |
NNNNNNNN.NNNN|XXXXX| || |

Lab QC Records: Format for Records of following types: 'Neg. E. Coli, Pos Coliform (KP)', 'Negative Coliform (PA)', 'Positive E. Coli (EC)'

Field Name	Description	Format	Example
Record_ID	Identifies QC record type: Neg. E. Coli, Pos Coliform="KP"; Negative Coliform="PA"; Positive E. Coli = "EC"	XX	KP
CAS_Number	CAS # of substance being tested for (ECOLI for E. coli, or TCOLI for Total Coliforms, or FCOLI for Fecal Coliform)	XXXXXXXXXX	ECOLI
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	"T", "D", "F", or "S"	T
Test_Method	Test method used by lab	XXXXXXXXXX	SM 9223B
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	"N/A", "SCAN", or "SIM"	N/A
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Biological Tissues such as Fish)	X	W
Prep_Batch_Num	UNUSED (but please add Pipe Delimiter for placeholder)		
Prep_Date	UNUSED (but please add Pipe Delimiter for placeholder)		
Prep_Time	UNUSED (but please add Pipe Delimiter for placeholder)		
Prep_Method	UNUSED (but please add Pipe Delimiter for placeholder)		
Run_Batch_Num	Lab's Alphanumeric identifier of batch within which Sample analyzed	XXXXXXXX	8043
Run_Date	Date analysis run	MMDDYYYY	12251999
Run_Time	24-Hour Time analysis run, in 24-hour time	HHMMSS	163403
Dup_Run_Date	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Run_Time	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
True_Value_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measured_Value	Value Measured (If the results are between the Method Detection Limit and the Min. Reporting Limit. Include "<" symbol in Result_Flags field and use the actual value measured, if actual values have been requested, or '-1' in the result field. Include '>' in Result_Flags field and use '-2' in the Result field if the Result exceeds the Max. Reporting Limit.	nnnnnnnn.nnnn	4.4
Measured_Units	Units for Measured_Value (see page i for selection of units.)	XXXXX	MPN/100mL
Pcnt_Recovered	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Value	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Measure_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Pcnt_Recover	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_RPD	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ratio	UNUSED (but please add Pipe Delimiter for placeholder)		
M_Z_Ref	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Added	UNUSED (but please add Pipe Delimiter for placeholder)		
MS_Spike_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Measure_Flags	Lab Flags for this QC record (Labs must provide cross-reference of flag codes and interpretations; IDEM will incorporate into translation table)	XXXXX	<gx
Dup_Measure_Flags	UNUSED (but please add Pipe Delimiter for placeholder)		
Lower_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Upper_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_Sample_Num	Number used internally by Lab to identify Sample analyzed	XXXXXXXX	AA345678
Dup_Lab_Sample_Num	UNUSED (but please add Pipe Delimiter for placeholder)		
Dilution_Mult	Number indicating dilution magnitude required for analysis	nnnn	1
Dup_Dilution_Mult	UNUSED (but please add Pipe Delimiter for placeholder)		
Report_Limit	Lab's Reporting limit for test (Method Reporting Limit X Dilution Multiplier) or if Result exceeds the Maximum Reporting Limit enter Maximum Reporting Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Report_Limit_Units	Lab Reporting limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg
Dup_Report_Limit	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Report_Limit_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_MDL	UNUSED (but please add Pipe Delimiter for placeholder)		
Lab_MDL_Units	UNUSED (but please add Pipe Delimiter for placeholder)		
Dup_Lab_MDL	Lab's Detection limit for test (Method Detection Limit X Dilution Multiplier)	nnnnnnnn.nnnn	5.0
Dup_Lab_MDL_Units	Lab Detection limit units (see page i for selection of units.)	XXXXX	ug/l, mg/kg

Record Format (in actual data records, all on one line):

Record_ID|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID| | | |Run_Batch_Num|Run_Date|Run_Time| | | |Measured_Value|Measured_Units| | | | | | | |Measure_Flags|Lower_Limit|Upper_Limit| Lab_Sample_Num| | | |Report_Limit|Report_Limit_Units| | | |

Description Example:

LC|XXXXXXXXXXXX|T|XXXXXXXXXXXX|XXXXX|X| | | |XXXXXXXXXX|MMDDYYYY|HHMMSS| | | |NNNNNNNNN.NNNNNN|XXXXXX| | | | | | | |XXXXXX| |NNN.N|NNN.N|XXXXXXXXX| |NN| | NNNNNNNN.NNNN|XXXXXX| | | |

Note:

These QC samples require separate records for Total Coliform and e. Coli.

Real World Example:

|KP|TCOLI|T|SM 9223B|N/A|W| | | |252|09252000|205000| | | |8.4|MPN/100mL| | | | | | | | | |1|2400|26835| |1| | | | | |KP|ECOLI|T|SM 9223B|N/A|W| | | |252|09252000|205000| | | |1|MPN/100mL| | | | | | | | | |<| |1|1|26835| |1| | | | | |PA|TCOLI|T|SM 9223B|N/A|W| | | |252|09252000|205000| | | |1|MPN/100mL| | | | | | | | | |<| |1|1|26836| |1| | | | | |PA|ECOLI|T|SM 9223B|N/A|W| | | |252|09252000|205000| | | |1|MPN/100mL| | | | | | | | | |<| |1|1|26836| |1| | | | | |EC|TCOLI|T|SM 9223B|N/A|W| | | |252|09252000|205000| | | |21.1|MPN/100mL| | | | | | | | | |1|2400|26837| |1| | | | | |EC|ECOLI|T|SM 9223B|N/A|W| | | |252|09252000|205000| | | |21.1|MPN/100mL| | | | | | | | | |1|2400|26837| |1| | | | |

Example for a complete batch transmission file:

```

HE|ISDH|11191999|220156|50|                                     (EDI Submission Set Header Record)
HA|ISDH|BB345678|00TSW190|1|11191999|220156|31|           (Analysis Set1 Header Record)
HS|ISDH|DA12345|W|AA345678|BB345678|00TSW190|1|11191999|220156|10| (Sample Number1 Header
Record)
DS|AA345678|7429-90-5|T|200.7|N/A|W|1.0|ug/l|8.1|ug/l|<gx| | | ||8042|12251999|163403|10|
DS|AA345678|7440-43-9|T|200.7|N/A|W|2.0|ug/l|8.1|ug/l|<gx| | | ||8042|12251999|163403| |
DS|AA345678|7440-47-3|T|200.7|N/A|W|3.0|ug/l|8.1|ug/l|<gx| | | ||8042|12251999|163403| |
DS|AA345678|309-00-2|T|608|N/A|W|0.03|ug/l|8.1|ug/l|<gx| | | ||843|12251999|163303| |
DS|AA345678|57-74-9|T|608|N/A|W|0.14|ug/l|1.7|ug/l|<gx| | | ||843|12251999|163303| |
DS|AA345678|50-29-3|T|608|N/A|W|0.125|ug/l|1.4|ug/l|<gx| | | ||843|12251999|163303| |
DS|AA345678|76-44-8|T|608|N/A|W|0.03|ug/l|1.1|ug/l|<gx| | | ||843|12251999|163303| |
DS|AA345678|1134-23-2|T|525.2|N/A|W|0.01|ug/l|88.1|ug/l|<gx| | | ||71|12251999|163303| |
DS|AA345678|5836-10-2|T|525.2|N/A|W|0.1|ug/l| |<gx| | | ||71|12251999|163303| |
DS|AA345678|14797-65-0|T|354.1|N/A|W|0.01|mg/l|250|mg/l|<gx| | | ||71|12251999|163303| |
FS|ISDH|DA12345|W|AA345678|BB345678|00TSW190|1|11191999|220156|10| (Sample Number1 Footer Record)
HS|ISDH|DA54321|S|345678|BB345678|00TSW190|1|11191999|142112|5| (Sample Number2 Header
Record)
DS|345678|7429-90-5|T|200.7|N/A|S|5.0|mg/Kg|8.1|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
DS|345678|7440-43-9|T|200.7|N/A|S|1.0|mg/Kg|18.1|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
DS|345678|7440-47-3|T|200.7|N/A|S|5.0|mg/Kg|9|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
DS|345678|7440-50-8|T|200.7|N/A|S|2.0|mg/Kg|4|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
DS|345678|7439-92-1|T|200.7|N/A|S|15.0|mg/Kg|80|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
FS|ISDH|DA54321|S|345678|BB345678|00TSW190|1|11191999|142112|5| (Sample Number2 Footer Record)
HN|ISDH|BB345678|00TSW190|1|AA345678|71|DR|14797-65-0|T|W|354.1|N/A| |11191999|142112|1|
DN|Analysis resulted in an unusually high analyte concentration. Sample tested positive for presence of sulfuric acid preservative. It is
possible that nitric acid is also present in sample, which would account for high concentration. Nitric Acid presence in sample cannot be
positively determined.
FN|ISDH|BB345678|00TSW190|1|AA345678|71|DR|14797-65-0|T|W|354.1|N/A| |11191999|142112|1| (Narrative1 Footer)
HN|ISDH|BB345678|00TSW190|1|345678|768|8043|DR|7439-92-1|T|S|200.7|N/A|3050|11191999|142112|1| (Narrative2 Header)
DN|Analysis resulted in an unusually high analyte concentration. Do Not Eat the Sediments!
FN|ISDH|BB345678|00TSW190|1|345678|768|8043|DR|7439-92-1|T|S|200.7|N/A|3050|11191999|142112|1| (Narrative2 Footer)
HQ|ISDH|W|BB345678|00TSW190|1|11191999|220156|3| (QC Header Record)
CC|7429-90-5 |T|200.7|N/A|S|768|12251999|163403|3050|8043|12251999|163403| | |25.0|mg/kg|24.0|mg/kg|96.0| | | | | | | |90|110|345678| |
| |1.0|ug/l| |
CC|7440-43-9 |T|200.7|N/A|S| | | | |8042|12251999|163403| | |50.0|mg/kg|42.0|mg/kg|96.0| | | | | | | |80|120|AA345678| | |2.0|ug/l| |
CC|14797-65-0|T|354.1|N/A|S| | | | |71|12251999|163403| | |10.0|mg/kg|9.0|mg/kg|90.0| | | | | | | |90|110|SS345678| | |0.01|mg/L| |
FQ|ISDH|W|BB345678|00TSW190|1|11191999|220156|3| (QC Footer Record)
FA|ISDH|BB345678|00TSW190|1|11191999|220156|31| (Analysis Set1 Footer Record)
HA|ISDH|BB345679|00TSW191|1|11201999|140156|16| (Analysis Set2 Header Record)
HS|ISDH|DA12346|W|DD345678|BB345679|00TSW191|1|11201999|140156|1| (Sample Number1 Header
Record)
DS|DD345678|14797-65-0|T|354.1|N/A|W|0.01|mg/l|250|mg/l|<gx| | | ||71|12251999|163303| |
FS|ISDH|DA12346|W|DD345678|BB345679|00TSW191|1|11201999|140156|1| (Sample Number1 Footer Record)
HS|ISDH|DA54320|S|DD34567|BB345679|00TSW191|1|11201999|140156|2| (Sample Number2 Header
Record)
DS|DD34567|7429-90-5|T|200.7|N/A|S|5.0|mg/Kg|8.1|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
DS|DD34567|7439-92-1|T|200.7|N/A|S|15.0|mg/Kg|80|mg/Kg|<gx|768|12251999|163403|3050|8043|12251999|163403|10|
FS|ISDH|DA54320|S|DD34567|BB345679|00TSW191|1|11201999|140156|2| (Sample Number2 Footer Record)
HN|ISDH|BB345679|00TSW191|1|DD345678|71|DR|14797-65-0|T|W|354.1|N/A| |11191999|142112|1| (Narrative1 Header)
DN|Analysis resulted in an unusually high analyte concentration. Sample tested positive for presence of sulfuric acid preservative. It is possible
that nitric acid is also present in sample.
FN|ISDH|BB345679|00TSW191|1|DD345678|71|DR|14797-65-0|T|W|354.1|N/A| |11191999|142112|1| (Narrative1 Footer)
HN|ISDH|BB345679|00TSW191|1|DD34567|768|8043|DR|7439-92-1|T|N/A|S|200.7|3050|11191999|142112|1| (Narrative2 Header)
DN|Analysis resulted in an unusually high analyte concentration. Do Not Eat the Sediments!
FN|ISDH|BB345679|00TSW191|1|DD34567|768|8043|DR|7439-92-1|T|S|200.7|N/A|3050|11191999|142112|1| (Narrative2 Footer)
HQ|ISDH|W|BB345679|00TSW191|1|11201999|140156|1| (QC Header Record)
CC|14797-65-0|T|354.1|N/A|S| | | | |71|12251999|163403| | |10.0|mg/kg|9.0|mg/kg|90.0| | | | | | | |90|110|SS345678| | |0.01|mg/L| |
FQ|ISDH|W|BB345679|00TSW191|1|11201999|140156|1| (QC Footer Record)
FA|ISDH|BB345679|00TSW191|1|11201999|140156|16| (Analysis Set2 Footer Record)
FE|ISDH|11191999|220156|50| (EDI Submission Set Footer Record)

```

Another Example for a complete batch transmission file:

```

HE|MYLAB|01262001|082259|55|                                     (EDI Submission Set Header Record)
HA|MYLAB|00.05223|99WQW399|1|W|09282000|110000|53|         (Analysis Set Header Record)
HS|MYLAB|DX50410|W|382573|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number1 Header Record)
DS|382573|E-10195|T|415.1|N/A|W|1.0|mg/L|4.2|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50410|W|382573|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number1 Footer Record)
HS|MYLAB|DX50411|W|382574|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number2 Header Record)
DS|382574|E-10195|T|415.1|N/A|W|1.0|mg/L|4.6|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50411|W|382574|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number2 Footer Record)
HS|MYLAB|DX50412|W|382575|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number3 Header Record)
DS|382575|E-10195|T|415.1|N/A|W|1.0|mg/L|4.0|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50412|W|382575|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number3 Footer Record)
HS|MYLAB|DX50413|W|382576|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number4 Header Record)
DS|382576|E-10195|T|415.1|N/A|W|1.0|mg/L|3.8|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50413|W|382576|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number4 Footer Record)
HS|MYLAB|DX50414|W|382577|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number5 Header Record)
DS|382577|E-10195|T|415.1|N/A|W|1.0|mg/L|3.1|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50414|W|382577|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number5 Footer Record)
HS|MYLAB|DX50415|W|382578|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number6 Header Record)
DS|382578|E-10195|T|415.1|N/A|W|1.0|mg/L|5.4|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50415|W|382578|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number6 Footer Record)
HS|MYLAB|DX50416|W|382579|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number7 Header Record)
DS|382579|E-10195|T|415.1|N/A|W|1.0|mg/L|4.9|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50416|W|382579|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number7 Footer Record)
HS|MYLAB|DX50417|W|382580|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number8 Header Record)
DS|382580|E-10195|T|415.1|N/A|W|1.0|mg/L|7.2|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50417|W|382580|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number8 Footer Record)
HS|MYLAB|DX50418|W|382581|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number9 Header Record)
DS|382581|E-10195|T|415.1|N/A|W|1.0|mg/L|4.4|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50418|W|382581|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number9 Footer Record)
HS|MYLAB|DX50419|W|382582|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number10 Header Record)
DS|382582|E-10195|T|415.1|N/A|W|1.0|mg/L|1.9|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50419|W|382582|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number10 Footer Record)
HS|MYLAB|DX50420|W|382583|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number11 Header Record)
DS|382583|E-10195|T|415.1|N/A|W|1.0|mg/L|2.6|mg/L| | | | |265|09282000|235900|1|
FS|MYLAB|DX50420|W|382583|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number11 Footer Record)
HS|MYLAB|DX50421|W|382584|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number12 Header Record)
DS|382584|E-10195|T|415.1|N/A|W|100000|mg/L|-2|mg/L|>| | | | |265|09282000|235900|1|
Upper Reporting Limit)
FS|MYLAB|DX50421|W|382584|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number12 Footer Record)
HS|MYLAB|DX50422|W|382585|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number13 Header Record)
DS|382585|E-10195|T|415.1|N/A|W|1.0|mg/L|-1|mg/L|<| | | | |265|09282000|235900|1|
Reporting Limit)
FS|MYLAB|DX50422|W|382585|00.05223|99WQW399|1|09282000|110000|1|   (Sample Number13 Footer Record)
HN|MYLAB|00.05223|99WQW399|1|382580| |E-10195|T|415.1|N/A| |09282000|110000|1|
Header Record)
DN|Sample was received improperly preserved. Sulfuric acid was added to sample by the laboratory upon receipt| (Project Narrative
Record)
FN|MYLAB|00.05223|99WQW399|1|382580| |E-10195|T|415.1|N/A| |09282000|110000|1|   (Sample Number8 Project
Narrative Footer Record)
HQ|MYLAB|W|00.05223|99WQW399|1|01262001|082259|9|             (QC Header Record)
BL|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| | | |1.0|mg/L| |mg/L| | | | |<| | |BLANK1| |1| |1.0|mg/L| (Blank QC Record)
BL|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| | | |1.0|mg/L| |mg/L| | | | |<| | |BLANK2| |1| |1.0|mg/L|
BL|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| | | |1.0|mg/L| |mg/L| | | | |<| | |BLANK3| |1| |1.0|mg/L|
CC|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| |5.0|mg/L|4.90|mg/L|98.0| | | | | |90|110|CCV1| | |1.0|mg/L| | |CCV QC
Record)
CC|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| |5.0|mg/L|4.93|mg/L|98.6| | | | | |90|110|CCV2| | |1.0|mg/L| | |
CC|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| |5.0|mg/L|4.92|mg/L|98.4| | | | | |90|110|CCV3| | |1.0|mg/L| | |(MS/MSD
Record Follows: )
MS|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900|09282000|235900|3.8|mg/L|8.61|mg/L|96.2|8.84|mg/L|100.8|2.6| |5.0|mg/L| |
|80|120|382576|382576|1|1|1.0|mg/L|1.0|mg/L|1.0|mg/L|
LC|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| |10.0|mg/L|10.4|mg/L|104.0|10.2|mg/L|102.0|1.4| | | | |90|110|LCS1|LCS1| |
|1.0|mg/L|1.0|mg/L| (LC with LC Duplicate Record)
DU|E-10195|T|415.1|N/A|W|0| | |265|09282000|235900| | |5.80|mg/L| |5.50|mg/L| |5.3| | | | | |382576|382576|1|1|1.0|mg/L|1.0|mg/L|
(Duplicate Record)

```

FQ|MYLAB|W|00.05223|99WQW399|1|01262001|082259|9|
FA|MYLAB|00.05223|99WQW399|1|W|09282000|110000|53|
FE|MYLAB|01262001|082259|55|

Revision Date: 5/18/2021 8:29:00 AM
(QC Footer Record)
(Analysis Set Footer Record)
(EDI Submission Set Footer Record)

EDI EXPORT FORMAT DESCRIPTION

Introduction

Previously IDEM OWQ defined an EDI Format has proven extremely useful for guaranteeing accurate Lab Test Result Information would be provided by the Laboratories to IDEM OWQ. There has been a tremendous savings in time that previously was spent keying in data and reviewing it for errors. More information is now being stored per sample, and a higher degree of data accuracy is being achieved with less effort.

IDEM OWQ would like to reciprocate by providing the labs with EDI files describing Analysis Sets, Sample Numbers, and Lab Test Parameters for those Analysis Sets and Sample Numbers. In adopting this format, the laboratories can read sample numbers, analysis sets, and laboratory test parameters into their system error-free, with a savings in labor spent on keystroking and QC of the data entry to ensure accuracy. IDEM will benefit from this likewise by achieving a complete correspondence between our sample numbers provided to and received from the labs, along with electronic submission of lab test parameter information to the labs.

The following document describes formats for EDI files to be submitted to labs (when possible) that will provide EDI information to the labs describing Analysis Sets, Sample Numbers, and Test Parameters to be performed by the laboratory. Each of the three files will contain the field names as the first line.

Analysis Set Sample Number List EDI File

Purpose

The Analysis Set Sample Number List will provide the Laboratory with an accurate list of Sample Numbers being sent as part of an analysis set. The Analysis Set Sample Number List will correspond to the Sample Numbers provided to the Lab in the Chain of Custody, and could serve as a useful verification tool against hand-prepared Chain of Custody documents, as well as against the actual samples. Perhaps the most beneficial aspect of the Analysis Set Sample Number List would be to eliminate keystroke errors (which occasionally occur), and the associated QA of data entry. Sample Numbers and analysis sets would be guaranteed to exactly correspond with data stored in the submitting organization (in this case, IDEM).

File Naming Convention: The file will be recognizable as the Analysis Set Sample Number List by using the following naming convention:

File Name: [Submit_Org] & “_” [OWQ_Analysis_Set] & “_SampleEDI.txt”

Ex: for Analysis Set 02WQW397, the Analysis Set Sample Number EDI file would be named “IDEM_02WQW397_SampleEDI.txt”

EDI Format: After the last line of data, an extra line will be appended that has one field indicating the line count of data records in this EDI file (i.e., excluding the extra line). Here is the Analysis Set Sample Number Data Record Format

Field Name	Description	Format	Example
Submit_Org	Name of Organization Submitting Data (In our case, always 'IDEM')	XXXXXXXXXXXX	IDEM
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	nnXXnnnn	02WQW397
Sample_ID	IDEM assigned Sample ID	XXnnnnnnnn	AA12345
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Fish Tissue)	X	W
Date_Collected	Date Sample was collected by IDEM	MM/DD/YYYY	1/12/2002
Time_Collected	24-Hr Time Sample collected by IDEM (if time not important, can be blank)	HH:MM	12:35
Container_Count	Total Count of Containers used to deliver Sample to Lab	nn	1
Record_Count	Total number of Sample (records) in this file (excluding the descriptive header line).	nn	4

Submit_Org|OWQ_Analysis_Set|Sample_ID|Sample_Medium_ID|Date_Collected|Time_Collected|Container_Count|Record_Count|CloseDelim

Description Example:

IDEM|nnXXnnnn|XXnnnnnnnn|X|MM/DD/YYYY|HH:MM|nn|

Real World Example (File Name: IDEM_02WQW397_SampleEDI.txt):

Submit_Org|OWQ_Analysis_Set|Sample_ID|Sample_Medium_ID|Date_Collected|Time_Collected|Container_Count|Record_Count|CloseDelim

IDEM|02WQW397|AA12345|W|1/12/2002|12:35|1|

IDEM|02WQW397|AA12346|W|1/12/2002|13:45|1|

IDEM|02WQW397|AA12347|W|1/13/2002|08:35|1|

IDEM|02WQW397|AA12349|W|1/13/2002|10:35|1|

Analysis Set Parameter List EDI File

Purpose: The Analysis Set Parameter List will provide the Laboratory with an accurate list of Parameter Tests to be performed on the entire analysis set (where Sample_ID='*'), and specific Sample Numbers being sent as part of an analysis set. The Analysis Set Parameter List will correspond to the test regimes provided in many cases through the Lab in the Chain of Custody, and could serve as a useful verification tool against hand-prepared Chain of Custody documents, as well as against the actual samples. Perhaps the most beneficial aspect of the Analysis Set Parameter List would be to eliminate keystroke errors (which occasionally occur), and the associated QA of data entry. Parameter Tests for Sample Numbers and analysis sets would be guaranteed to exactly correspond with data stored by the submitting organization (in this case, IDEM).

Each line of the file will be valid for either an individual sample number, or for the entire group (sample_ID='*'). Each line will describe tests either for a Parameter Group (ex: Nutrients) as defined in the Parameter Group Definitions EDI file (see next page), or for a specific parameter (ex: Mercury).

File Naming Convention: The file will be recognizable as the Analysis Set Parameter List by using the following naming convention:

File Name: [Submit_Org] & “_” & [OWQ_Analysis_Set] & “_ParameterEDI.txt”

Ex: for Analysis Set 02WQW397, the Analysis Set Parameter EDI file would be named “IDEM_02WQW397_ParameterEDI.txt”

EDI Format Description: After the last line of data, an extra line will be appended that has one field indicating the line count of data records in this EDI file (i.e., excluding the extra line). Here is the Analysis Set Parameter Data Record Format

Field Name	Description	Format	Example
Submit_Org	Name of Organization Submitting Data (In our case, always 'IDEM')	XXXXXXXXXXXX	IDEM
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	nnXXXnnnn	02WQW397
Sample_ID	IDEM assigned Sample ID (if tests for entire analysis set, = '*')	XXnnnnnnnnn	AA12345
Parameter_Group	Name of Group of substances being tested for	XXXXXXXXXXXX	Metals
Parameter_Name	Name of substance being tested for	XXXXXXXXXXXX	Mercury
CAS_Number	CAS # of substance being tested for	XXXXXXXXXXXX	7439-97-6
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	X	T
Test_Method	Test method used by lab	XXXXXXXXXXXX	1631
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Potential Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	XXXX	N/A
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Fish Tissue)	X	W
Record_Count	Total number of Sample (records) in this file (excluding the descriptive header line).	nn	4

Submit_Org|OWQ_Analysis_Set|Sample_ID|ParameterGroup|ParameterName|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|

Description Example:

IDEM|nnXXXnnnn|XXnnnnnnnnn|XXXXXXXXXXXX|XXXXXXXXXXXX|XXXXXXXXXXXX|X|XXXXXXXXXXXX|X
 XXX|X|

Real World Example (File Name: IDEM_02WQW397_ParameterEDI.txt):

Submit_Org	OWQ_Analysis_Set	Sample_ID	Parameter_Group	Parameter_Name	CAS_Number	CAS_Nu m_Qualifier	Test_Method	Test_SubMethod	Sample_Medium_ID	Record_Count	CloseDelim
IDEM	02WQW397	*	Nutrients								
IDEM	02WQW397	*	Mercury	7439-97-6	T	1631	N/A	W			
IDEM	02WQW397	AA12345	Pesticides								
IDEM	02WQW397	AA12346	2,4'-DDT	789-02-6	T	608	N/A	W			

Parameter Group Definition List EDI File

Purpose: The Parameter Group Definition List will provide the Laboratory with definitions of each Parameter Group referenced in the Analysis Set Parameter List EDI file. Perhaps the most beneficial aspect of the Parameter Group Definition List would be to eliminate keystroke errors (which occasionally occur), and the associated QA of data entry. Parameter Tests for Sample Numbers and analysis sets would be guaranteed to exactly correspond with data stored by the submitting organization (in this case, IDEM).

File Naming Convention: The file will be recognizable as the Parameter Group Definition List by using the following naming convention:

File Name: [Submit_Org] & “_” & [OWQ_Analysis_Set] & “_GroupDefEDI.txt”

Ex: for Analysis Set 02WQW397, the Parameter Group Definitions EDI file would be named “IDEM_02WQW397_GroupDefEDI.txt”

EDI Format Description: After the last line of data, an extra line will be appended that has one field indicating the line count of data records in this EDI file (i.e., excluding the extra line). Here is the Parameter Group Definition Data Record Format:

Field Name	Description	Format	Example
Submit_Org	Name of Organization Submitting Data (In our case, always 'IDEM')	XXXXXXXXXXXX	IDEM
OWQ_Analysis_Set	IDEM Assigned Analysis Set Number	nnXXXnnnn	02WQW397
Parameter_Group	Name of Group of substances being tested for	XXXXXXXXXXXX	Metals
Parameter_Name	Name of substance being tested for	XXXXXXXXXXXX	Mercury
CAS_Number	CAS # of substance being tested for	XXXXXXXXXXXX	257301-77-2
CAS_Num_Qualifier	Does this record show the substance's value as 'Total' (=T), 'Dissolved' (=D), 'Free' (=F), or 'Simultaneously Extracted Metals' (SEM) (=S)?	X	T
Test_Method	Test method used by lab	XXXXXXXXXXXX	200.7
Test_SubMethod	Identifies Method's elective process when it produces different MDL (as in 200.8; others possible). Potential Values: 'N/A'=No Sub-Method; 'SCAN'=Scanning Mode; 'SIM'=Selection Ion Monitoring Mode	XXXX	SCAN
Sample_Medium_ID	What is the medium of the sample being tested? (W=Water, S=Sediment, or F=Fish Tissue)	X	W
Record_Count	Total number of Sample (records) in this file (excluding the descriptive header line).	nn	4

Submit_Org|OWQ_Analysis_Set|Parameter_Group|Parameter_Name|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Record_Count|CloseDelim

Description Example:

IDEM|nnXXXnnnn|XXXXXXXXXXXX|XXXXXXXXXXXX|XXXXXXXXXXXX|X|XXXXXXXXXXXX |XXXX|X|

Real World Examples (File Name: IDEM_02WQW397_GroupDefEDI.txt):

Submit_Org|OWQ_Analysis_Set|Parameter_Group|Parameter_Name|CAS_Number|CAS_Num_Qualifier|Test_Method|Test_SubMethod|Sample_Medium_ID|Record_Count|CloseDelim

IDEM|02WQW397|Nutrients|TDS|E-10173|D|160.1|N/A|W|

IDEM|02WQW397|Nutrients|TOC|E-10195|T|SM5310|N/A|W|

IDEM|02WQW397|Nutrients|COD|E-10117|T|410|N/A|W|

IDEM|02WQW397|Pesticides|4,4'-DDD|72-54-8|T|525.2|N/A|W|

IDEM|02WQW397|Pesticides|4,4'-DDE|72-55-9|T|525.2|N/A|W|

IDEM|02WQW397|Pesticides|4,4'-DDT|50-29-3|T|525.2|N/A|W|
IDEM|02WQW397|Pesticides|83-32-9|XXXXXXXXXXXX|T|525.2|N/A|W|
IDEM|02WQW397|Pesticides|Acenaphthylene|208-96-8|T|525.2|N/A|W|
IDEM|02WQW397|Pesticides|Benzo[a]anthracene|56-55-3|T|525.2|N/A|W|
IDEM|02WQW397|Pesticides|Benzo[a]pyrene|50-32-8|T|525.2|N/A|W|
IDEM|02WQW397|Pesticides|Benzo[b]fluoranthene|205-99-2|T|525.2|N/A|W|