



Kuwait Environment Public Authority

Compliance Information Management System

Environmental Chemistry

Electronic Data Deliverable Handbook

Ver 2 – 4 October 2018

Prepared by :



INTEGRATED ENVIRONMENTAL SOLUTIONS

Version	Date Issued	Reason
1	1 Aug 2016	Initial
1.4a	22 Aug 2017	Table Updates
2	4 Oct 2018	Table Updates

Website : www.iestech.net/CIMS

Email : cims@iestech.net

Contents

Introduction	5
1. Registering Company and locations	6
1.1 Facility EDD.....	6
1.1.1 Facility Code	6
1.1.2 Facility Name.....	7
1.1.3 Governorate.....	7
1.1.4 Block	11
1.1.5 Street	11
1.1.6 Contact.....	11
1.1.7 Email	11
1.1.8 Phone.....	11
1.1.9 Date_Updated.....	12
1.1.10 Samples_Flag.....	12
1.1.11 Generator_Flag	12
1.1.12 Transporter_Flag	12
1.1.13 Receiver_Flag	12
1.2 Location EDD	13
1.2.1 Facility_Code	13
1.2.2 Location_Code.....	13
1.2.3 Location_Name	13
1.2.4 Latitude.....	13
1.2.5 Longitude	13
1.2.6 Coordinate_Collection_Method_Code.....	13
1.2.7 Surface_Elevation.....	13
1.2.8 Sample_Elevation.....	14
1.2.9 Elev_Coord_collect_method.....	14
1.2.10 Location_Type_Code	15
2. Field EDD	16
2.1 #facility_code.....	16
2.2 Sample_Code	16
2.3 Sample_Name.....	16

2.4	Sample_Date.....	16
2.5	Sample_Time	16
2.6	Sample_Matrix_Code.....	17
2.7	Location_Code	17
2.8	Sample_Type_Code.....	17
2.9	Sample_method.....	18
2.10	Preservative	19
2.11	Sampling_Company_Code.....	20
3.	Lab EDD	21
3.1	#facility_code.....	21
3.2	Sample_Name.....	21
3.3	Sample_Code.....	21
3.4	Sample_Date.....	21
3.5	Sample_Time	21
3.6	Location_Code	21
3.7	Analysis_Location.....	21
3.8	Lab_Name_Code.....	22
3.9	Lab_Sample_Id.....	22
3.10	Lab_SDG	22
3.11	Lab_Batch_Number	22
3.12	Lab_AnI_Method_Name	23
3.13	Chemical_Name.....	32
3.14	Cas_Rn.....	35
3.15	Result_Value.....	38
3.16	Lab_Qualifiers.....	39
3.17	Result_Unit	41
3.18	Result_Type_Code	48
3.19	Detect_Flag.....	48
3.20	Reporting_Detection_Limit	48
3.21	Dilution_Factor	48
3.22	Sample_Matrix_Code.....	49
3.23	Lab_Matrix_Code.....	49
3.24	Total_or_Dissolved	49

3.25	Basis	50
3.26	Analysis_Date	50
3.27	Analysis_Time	50
3.28	Method_Detection_Limit	50
3.29	Lab_Preparation_Method_Name	50
3.30	Prep_Date	52
3.31	Prep_Time	52
3.32	Test_Batch_ID	52
3.33	TIC_Retention_Time	52
3.34	QC_Level	52
3.35	Comment	52
3.36	parent_sample_code	52
4.	Submitting an EDD	53
Appendix 1 – Useful MS Excel Techniques		56
A1.1	– Convert Date to Text	56

Introduction

This **KEPA Compliance Information Management System Environmental Sample Electronic Data Deliverable Handbook**, or **CIMS Sample EDD Handbook**, is prepared as a reference for users preparing Electronic Data Deliverables (EDDs) of environmental chemistry samples for submittal to the CIMS Environmental Quality Information System (EQUIS). A similar handbook will be available for Hazardous Waste.

Prior to submitting an EDD, the user **MUST**:

1. Register with KEPA and get an EQUIS username and password
2. Download and install the EQUIS Data Processor and KEPA EDD format files from the Earthsoft website (<http://earthsoft.com/products/edp/edp-format-for-kuwait-epa/>)

Reference table values included in this handbook were accurate at the date of publishing but are subject to change. The user is encouraged to check the Earthsoft website to insure they have the latest reference file (.rvf) with updated reference table values:

Please report errors or corrections to epa.cca.cims2016@gmail.com and cims-help@iestech.net

IMPORTANT NOTES

EDDs **must be** submitted in English using MS Excel

EDD fields **must be** kept in sequential order shown below on the final EDD template.

Fields names highlighted in **red bold** are required fields.

Dates and time **must be** converted to text format. A MS Excel procedure is provided in Appendix A1.

Each EDD can be submitted separately, however they should be submitted in sequence:

1. Facility EDD – in most cases this has already been accomplished.
2. Location EDD
3. Field EDD
4. Lab EDD

Prior to submitting the EDD, **check the EDD** using the stand-alone EQUIS Data Processor (EDP) and use the **Save & Sign feature** to prepare an EDD package (see Chapter 4).

Submit completed EDDs as an email attachment to:

epa.cca.cims2016@gmail.com

1. Registering Company and locations

1.1 Facility EDD

The Facility EDD is used to register companies or agencies that will generate environmental samples and/or hazardous waste. A facility is usually defined by the property line of the company or agency. In some cases, there may be multiple facilities associated with one company due to dispersed geographic operations such as KOC fields, or accidental releases that require sampling. The facility should always refer to the geographical area where the samples will be taken.

1.1.1 Facility Code

These are unique alphanumeric identifier of a company or agency that will generate environmental samples and/or hazardous waste. Current facility codes for registered organizations are:

Organization	Facility_Code	Facility Description
EQUATE	WWEQT	EQUATE
KEPA	KEPAWDCOAST	KEPA Water Department coastal monitoring station
	KEPAWDSEA	KEPA Water Department sea monitoring station
KNPC	KNPCLM	Local marketing
	KNPCMAA	Mina Al Ahmadi Refinery
	KNPCMAB	Mina Abdullah Refinery
	KNPCSHU	Mina Shuiba Refinery
	WWMMAA	Mina Al Ahmadi WWTP
	WWMAB	Mina Abdullah WWTP
	KOCN	KOC North
	KOCS	KOC South and East
	KOCW	KOC West
MEW	MEWEDOH	East Doha
	MEWSAZR	North Al-Zour
	MEWSIH	South Al-Zour
	MEWSHU	Shuaiba
	MEWSIH	Subiyah
	MEWSWH	Shuwaikh
	MEWWDOH	West Doha
MPW	DCM	Data Monitoring center
	LFKBD	Kabd
	PSABD	Abdally pumping Station
	PSARD	Ardhiya Pumping station

MPW	PSMIS	Mishref Pumping Station
	PSREG	Reggae Pumping station
	PSWFA	Wafra Pumping station
	WWJHR	Jahra
	WWKBD	Kbda
	WWRQA	Riqqa
	WWSUL	Sulabiyah
	WWUHM	Um-Alhayman
	WWWFR	Wafra
	WWWFRI	Wafra Industrial WWTP
MUN	LFEQL	Eqaila
	LFESUL	East Sulibyah
	LFFLA	Failaka
	LFJHR	Al-Jahra
	LFJLB	Jeleeb Al-Shuyoukh
	LFKBD	Kabad
	LFMAB	Mina Abdullah
	LFN7R	North of the seventh ring road
	LFQRN	Al-Qurain
	LFS7R	South of the seventh ring road
	LFSSHU	South Subhan
	LFSUB	Subhan Military (Al-Meselah)
	LFSUL	Sulibyah
	LFWFR	Wafra
LFYMK	Yarmouk	
PIC	WWPIC	Petrochemical Industries Company

1.1.2 Facility Name

Name of the company or agency that is generating environmental samples or hazardous waste.

1.1.3 Governorate

The Governorate value is mapped to the rt_state table. It refers to the Governorate in Kuwait where samples will be taken.

state_code	state_name
AHM	AHMADI
CAP	CAPITAL
FRW	FARWANIYA
HWL	HAWALLI
JHR	JAHRA

MAK	MUBARAK AL-KABEER
-----	-------------------

1.1.4 District

Name of district that samples will be taken – not the location of the agency or company.

District	Governorate
Abdulla Port	Ahmadi
Abdulla Port Resort	Ahmadi
Abu Halifa	Ahmadi
Ahmadi City	Ahmadi
Ahmadi Desert	Ahmadi
Ali Sabah Alsalem	Ahmadi
Auqqila	Ahmadi
Bedier Resort	Ahmadi
Fahaheel	Ahmadi
Fahd Al Ahmad	Ahmadi
Fintas	Ahmadi
Hadiya	Ahmadi
Jaber Al Ali	Ahmadi
Jlaiaa Resort	Ahmadi
Mahbula	Ahmadi
Munkaf	Ahmadi
Muqwaa	Ahmadi
New Wafra	Ahmadi
Nwaiseeb	Ahmadi
Rajm Khashman	Ahmadi
Rikka	Ahmadi
Sabahiya	Ahmadi
Shuaiba	Ahmadi
South Sabahiya	Ahmadi
Thaher	Ahmadi
Wafra	Ahmadi
Wafra Agriculture	Ahmadi
Zoor	Ahmadi
Zoor Resort	Ahmadi
Abdalla-alsalim	Capital
Al Yarmouk	Capital
Aum Almaradim Isl	Capital
Aum Alnamil Isl	Capital
Bneid Al Gar	Capital

Coastal strip	Capital
Dasma	Capital
Dasman	Capital
Diya	Capital
Doha	Capital
Faiha	Capital
Free Zone	Capital
Garnada	Capital
Health Reg	Capital
Idailiya	Capital
Khaldiya	Capital
Kifan	Capital
Kubar Isl	Capital
Mansoriya	Capital
Mirqab	Capital
Miskan Isl	Capital
Mubarakiya Comp	Capital
Nuzha	Capital
Oha Isl	Capital
Oha port	Capital
Qadisiya	Capital
Qarowa Isl	Capital
Qayrawan	Capital
Qibla	Capital
Qurtuba	Capital
Rawda	Capital
Shamiya	Capital
Sharq	Capital
Shuaiba ind W	Capital
Shuaikh Ind	Capital
Shuwaikh	Capital
Soor Gardens	Capital
Sulaibekhat	Capital
Surra	Capital
Abdulla Mubarak AlSabah	Farwaniya
Al Nahda	Farwaniya
AlRaay	Farwaniya
Andalus	Farwaniya
Ardiya	Farwaniya
Ardiya(6)	Farwaniya
Farwaniya	Farwaniya
Fordus	Farwaniya
International Airport	Farwaniya

Ishbiliya	Farwaniya
Jleeb Al Shuyoukh	Farwaniya
Khitan	Farwaniya
Omarya	Farwaniya
Rabiya	Farwaniya
Reggae	Farwaniya
Rihab	Farwaniya
Sabah Alnasir	Farwaniya
Al Salam	Hawalli
Al Shohadaa	Hawalli
Al Siddeek	Hawalli
Al Zahraa	Hawalli
Bayan	Hawalli
Hawalli	Hawalli
Hetteen	Hawalli
Jabriya	Hawalli
Mubarak Al Abdel Allah	Hawalli
Mushraif	Hawalli
Rumaythiya	Hawalli
Salmiya	Hawalli
Salwa	Hawalli
Shaab	Hawalli
Abdelli	Jahra
Al Auyon	Jahra
Al Behaith	Jahra
Al Kasser	Jahra
Al Naim	Jahra
Al Naseem	Jahra
Al Rawadain	Jahra
Al Salmi	Jahra
Al Sebiya	Jahra
Amgara Ind	Jahra
Aum Al Ash	Jahra
Bubyan Isl	Jahra
Jahara Desert	Jahra
Jahra	Jahra
Jahra Camp	Jahra
Jahraa Gawakheer	Jahra
Jahraa Ind	Jahra
Kabad	Jahra
Kathma	Jahra
Mitlaa	Jahra
Northwest Al Jahra	Jahra

Saad Al Abdulla city	Jahra
Sekrab Reg	Jahra
Sulaibiya Agriculture	Jahra
Sulaibiya Ind (1)	Jahra
Sulaibiya Ind (2)	Jahra
Sulaibiya Ind (3)	Jahra
Sulaibiya Shabiya	Jahra
Taimaa	Jahra
Waha	Jahra
Wara	Jahra
Abu Fatira	Mubarak Al-Kabeer
Al Adan	Mubarak Al-Kabeer
Fanatees	Mubarak Al-Kabeer
Mid Reg	Mubarak Al-Kabeer
Misila	Mubarak Al-Kabeer
Mubarak Kabeer	Mubarak Al-Kabeer
Qosoor	Mubarak Al-Kabeer
Qurain	Mubarak Al-Kabeer
Sabhan Ind	Mubarak Al-Kabeer
Subah Alsalm	Mubarak Al-Kabeer

1.1.5 Block

Numeric value of block

1.1.6 Street

Street name or number if known.

1.1.7 Contact

Name of contact in company or agency

1.1.8 Email

Contact's email

1.1.9 Phone

Contact's phone number

1.1.10 Date_Updated

Date data entered or updated in mm/dd/yyyy format.

1.1.11 Samples_Flag

Select if new facility will generate environmental chemistry samples that will be submitted using the KEPA EDD format.

1.1.12 Generator_Flag

Select if the facility will generate hazardous waste.

1.1.13 Transporter_Flag

Select if the facility will transport hazardous waste on public roads.

1.1.14 Receiver_Flag

Select if the facility will receive hazardous wastes to treat, dispose, or recycle.

1.2 Location EDD

1.2.1 Facility_Code

Facility code established in the Field EDD or listed previously.

1.2.2 Location_Code

Unique alphanumeric code for sample location. The location code should incorporate elements of the Facility code to be readily distinguishable.

Example: S01 (note that the EDD will already reference the facility)

1.2.3 Location_Name

Descriptive name of sample location such as “KEPA Salwa coastal site”

1.2.4 Latitude

Latitude measured in decimal degrees (Example: 28.1483).

1.2.5 Longitude

Longitude measured in decimal degrees (Example: 48.5421).

1.2.6 Coordinate_Collection_Method_Code

Method used to measure or report Lat/Long values

elev_collect_method_code	elev_collect_method_desc
GPSH	HIGH PRECISION GPS
GPSL	LOW PRECISION GPS
LBM	PRECISE LEVELING FROM A BENCH MARK
LCP	LEVELING BETWEEN NON BENCH MARK CONTROL POINTS
LTR	TRIGONOMETRIC LEVELING
OTH	OTHER
HRS	HIGH RESOLUTION SATELLITE IMAGERY
GOE	GOOGLE EARTH
CST	CLASSICAL SURVEYING TECHNIQUES
TMI	TOPOGRAPHIC MAP INTERPOLATION
UNK	UNKNOWN

1.2.7 Surface_Elevation

Surface elevation measured from Mean Sea Level in meters (m).

1.2.8 Sample_Elevation

Elevation measured from Mean Sea Level of where sample actually was taken. For a monitoring well, the well head may be 100 meters above sea level (ASL) but the ground water table may be 2 meters below the surface. The sample is taken 3 meters below the water table. The Sample Elevation is therefore $100\text{m} - 2\text{m} - 3\text{m} = 95\text{m ASL}$.

1.2.9 Elev_Coord_collect_method

Method used to report elevation values.

elev_collect_method_code	elev_collect_method_desc
GPSH	HIGH PRECISION GPS
GPSL	LOW PRECISION GPS
LBM	PRECISE LEVELING FROM A BENCH MARK
LCP	LEVELING BETWEEN NON BENCH MARK CONTROL POINTS
LTR	TRIGONOMETRIC LEVELING
OTH	OTHER
HRS	HIGH RESOLUTION SATELLITE IMAGERY
GOE	GOOGLE EARTH
CST	CLASSICAL SURVEYING TECHNIQUES
TMI	TOPOGRAPHIC MAP INTERPOLATION
UNK	UNKNOWN

1.2.10 Location_Type_Code

This code is used to describe the type of sample location.

location_type_code	location_type_desc
CONTAINER	CONTAINER
DPO	DISCHARGE POINT OUTLET
MONWELL	MONITORING WELL
MS	MONITORING STATION
PIPE	PIPE
PUMPSTA	PUMPING STATION
SCREEN	SCREENING STATION
SLBOR	SOIL BORING
SURFWATER	SURFACE WATER
TANK	TANK

2. Field EDD

The Field EDD is used to initiate the sample analysis process by collecting metadata associated with the environmental sample such as where it was collected and why it was collected. The Sample Code is used to link the field data to the lab data.

2.1 #facility_code

Unique code describing the company or organization registered using the Facility EDD or previous list.

2.2 Sample_Code

Unique reference to each individual sample. Format for the code is the Location Code + Date (mm/dd/yyyy) + 3 digits beginning with 001.

Example:

Location code = S01

Date = 25 July 2016

Unique 3 digit identifier = 001

Resulting Sample Code: S01-07252016-001

2.3 Sample_Name

Descriptive name of sample.

2.4 Sample_Date

Date sample taken in MM/DD/YYYY format.

IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.

2.5 Sample_Time

Time of day sample taken in 24-hour format (15:00 or 01:00).

IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.

2.6 Sample_Matrix_Code

This code is used to describe the physical state of the sample when collected at site.

#matrix_code	matrix_desc
SL	SLUDGE
SLI	INDUSTRIAL SLUDGE
SLP	PETROCHEMICAL SLUDGE
SLS	SANITARY SLUDGE
SO	SOIL
WD	DISCHARGE WATER
WG	GROUND WATER
WI	INJECTION WATER
WIN	INFLUENT WATER
WS	SURFACE WATER
WSEA	SEA WATER
WSTORM	STORM WATER

2.7 Location_Code

Pre-established sample location completed on the Location EDD that refers to the samples physical location and elevation.

2.8 Sample_Type_Code

This code is used to designate Quality Assurance/Quality Control samples from normal samples. The Lab should not be aware of this code.

#sample_type_code	sample_type_desc
AB	Blank
FD	Field Duplicate
FR	Field Replicate
LB	Lab Blank
MS	Lab Matrix Spike
MSD	Lab Matrix Spike and Spike Duplicate pair considered as one sample
N	Normal Environmental Sample
TB	Trip Blank

2.9 Sample_method

This code describes the tool or method used to collect the sample from the environment and transfer it into a collection vessel.

method_code	method_desc
AUGER	AUGER
BAILER	BAILER
BLADPUMP	BLADDER PUMP
DIRECTPUSH	DIRECT PUSH
GEOPROBE	GEOPROBE
GRAB	GRAB
HANDAUGER	HAND AUGER
HIVOLPURGE	HIGH VOLUME PURGE
HYDROPUNCH	HYDROPUNCH
LABPREP	LAB PREP
LOFLOW	LOW FLOW
NONE	NONE
PERCDRILL	PERCUSSION DRILLING
POLYTUBING	POLY TUBING
PUMPDIS	PUMP DISCHARGE
PURGPUMP	PURGE PUMP
SHELBYTUBE	PUSHED SHELBY-TUBE
RINSE	RINSE
ROTCORE	ROTARY CORE DRILL
SCOOP	SCOOP
SCOOPULA	SCOOPULA
SPLTSPoon	SPLIT SPOON
SPOON	STAINLESS STEEL SPOON
SUBMERSIBLE	SUBMERSIBLE
TAP	TAP
TROWEL	TROWEL
TUBING	TUBING
WIPE	WIPE

2.10 Preservative

If a preservative is added to the sample, these codes should be used.

preservative	preservative_desc
ACID	ACID, UNSPECIFIED
ASCORBIC_ACID	ASCORBIC ACID
BRCL	5 ML/ L BROMINE CHLORIDE
CH3OH	METHANOL
FAS	1ML FERROUS AMMONIUM SULFATE SOLUTION
FREEZE	STORE AT TEMPERATURE OF 4 DEGREES CELCIUS OR LESS
H2SO4	SULFURIC ACID
H3PO4	PHOSPHORIC ACID TO PH < 2
HCL	HYDROCHLORIC ACID
HCLPH<2	HCL TO PH
HNO3	NITRIC ACID
ICE	ICE THAT KEEPS SAMPLES COOL DURING SHIPPING
NA2S2O3	SODIUM THIOSULFATE
NAHSO4	SODIUM BISULFATE
NAOH	SODIUM HYDROXIDE
NAOH > 12	SODIUM HYDROXIDE TO PH > 12
NAOH > 9	SODIUM HYDROXIDE TO PH > 9
NAOH/ZNAC	USED FOR SULFIDE ANALYSIS
NAOHZNAC	SODIUM HYDROXIDE ZINC ACETATE
NOCHEM	NO CHEMICAL PRESERVATIVE, THERMAL ONLY
NONE	NO CHEMICAL PRESERVATION
NOUV	STORE SAMPLES IN DARK OR PROTECT FROM LIGHT
P05	ADJUST TO PH2 WITH HYDROCHLORIC ACID
PH 4-5	ADJUST SAMPLE PH TO BETWEEN 4 AND 5
PH 5-9	ADJUST SAMPLE PH TO BETWEEN 5 AND 9
PH 9.3-9.7	ADJUST SAMPLE PH TO BETWEEN 9.3 AND 9.7
TSP	TRI SODIUM PHOSPHATE
ZNACETATE	ZINC ACETATE ((CH3COO) 2ZN
ZNACETATE/HNO3	ZINC ACETATE WITH NITRIC ACID

2.11 Sampling_Company_Code

Code for registered sampling companies. Check for updates.

company_code	company_name
BPC	BP Consulting
IES	Integrated Environmental Solutions
KAD	Kadhema Company for Consulting and Scientific Services
KEO	KEO International Consultants
WES	National Company for Environmental Services
WPC	Worley Parsons Company
OTH	Other Not Listed

If a company is not listed, use the OTH code for Other and contact KEPA to register the supporting company with the Facility EDD.

3. Lab EDD

The Lab EDD is used to report the results of the sample collected in the field and capture metadata associated with the analytical process.

3.1 #facility_code

From Field EDD or previous list.

3.2 Sample_Name

From Field EDD.

3.3 Sample_Code

From Field EDD.

3.4 Sample_Date

From Field EDD. **IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.**

3.5 Sample_Time

From Field EDD. **IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.**

3.6 Location_Code

From Field EDD.

3.7 Analysis_Location

Location	LocationDesc
FI	Field Instrument
FL	Mobile field laboratory analysis
LB	Fixed-based laboratory analysis

For most labs, the code will be LB but if results are recorded at the sample location, the code would be FI.

3.8 Lab_Name_Code

company_code	company_name
ALS	ALS Environmental Division
EWC	Environment World Company
EXOVA	Exova Labs
GEO	Geo International Company for Environmental Consulting
GHA	Al-Ghanim National General Trading and Contracting Co.
HIAD	HiAdvance Labs
KEPA	KEPA Labs
KISR	Kuwait Institute for Scientific Research (KISR) Lab
KM	Kuwait Municipality Labs
KNPC	Kuwait National Petroleum Company (KNPC) Lab
KOC	Kuwait Oil Company (KOC) Labs
LABCO	LABCO International
MEW	Ministry of Electricity and Water (MEW) Lab
MISHRIF	Mishrif Labs
MPW	Ministry of Public Works (MPW) Lab
NAPESCO	National Company for Petroleum Services
NCC	National Cleaning Company Lab
OCPD	Office of Consultancy and Professional Development (OCPD) - Kuwait University (KU)
PAAF	Public Authority for Agriculture and Fisheries (PAAF) Lab
PAI	Public Authority of Industry (PAI) Lab
SGS	SGS Gulf Limited
SHU	KEPA Lab-Shuaibah Center
STL	Sulaibiya Testing Laboratory
OTH	Other

If a lab is not listed, use the OTH code for other and request that the lab register with KEPA.

3.9 Lab_Sample_Id

If the lab does not have any Lab_Sample_Id, use the same code for Sample_Code

3.10 Lab_SDG

Lab Sample Delivery Group ID. Optional

3.11 Lab_Batch_Number

Lab use. Optional

3.12 Lab_AnI_Method_Name

analytic_method	preferred_name
1311/6010B/7470A	US EPA METHODS, TCLP METALS
1311/8081A	US EPA METHODS, TCLP PESTICIDES
1311/8151A	US EPA METHODS, TCLP HERBICIDES
1311/8260B	US EPA METHODS, TCLP VOC
1311/8270C	US EPA METHODS, TCLP SVOC
1311/8321	US EPA METHODS, TCLP NON-VOLATILE COMPOUNDS
1312/6010B/7470A	US EPA METHODS, SPLP METALS
1312/8081A	US EPA METHODS, SPLP PESTICIDES
1312/8151A	US EPA METHODS, SPLP HERBICIDES
1312/8260B	US EPA METHODS, SPLP VOC
1312/8270C	US EPA METHODS, SPLP SVOC
A2580	APHA OXIDATION-REDUCTION POTENTIAL
A503A	APHA OIL AND GREASE, PARTITION - GRAVIMETRIC METHOD
A503D	APHA OIL AND GREASE IN SOIL AND SLUDGE SAMPLES
A503DE	APHA OIL AND GREASE IN SOIL AND SLUDGE WITH SILICA GEL HYDROCARBON REMOVAL
D2216	ASTM PERCENT SOLID
D422	ASTM GRAIN SIZE
D7575	ASTM STANDARD TEST METHOD FOR SOLVENT-FREE MEMBRANE RECOVERABLE OIL AND GREASE BY INFRARED DETERMINATION
D7678	ASTM STANDARD TEST METHOD FOR TOTAL PETROLEUM HYDROCARBONS
E1010A	US EPA METHOD, TEST METHODS FOR FLASH POINT BY PENSKY-MARTENS CLOSED-CUP TESTER
E1020A	US EPA METHOD, STANDARD TEST METHODS FOR FLASH POINT BY SETAFLASH (SMALL SCALE) CLOSED-CUP APPARATUS
E1030A	US EPA METHOD, IGNITABILITY OF SOLIDS
E110.2	US EPA METHOD, COLOR (COLORIMETRIC-PLATINUM-COBALT)

E1110A	US EPA METHOD, CORROSIVITY TOWARD STEEL
E120.1	US EPA METHOD, SPECIFIC CONDUCTANCE
E130.2	US EPA METHOD, HARDNESS, TOTAL (TITRIMETRIC)
E1330A	US EPA METHOD, EXTRACTION PROCEDURE FOR OILY WASTES
E160.1	US EPA METHOD, RESIDUE, FILTERABLE (TDS)
E160.2	US EPA METHOD, RESIDUE, NON-FILTERABLE & TOTAL SUSPENDED SOLIDS
E160.3	US EPA METHOD, RESIDUE, TOTAL (GRAVIMETRIC, DRIED AT 103-105 DEGREE CELSIUS)/ (GRAVIMETRIC DRIED) MODIFIED.
E160.4	US EPA METHOD, RESIDUE, VOLATILE (GRAVIMETRIC, IGNITION AT 550 DEGREE CELSIUS)
E160.5	US EPA METHOD, SETTLEABLE MATTER (VOLUMETRIC, IMHOFF CONE)
E1613	US EPA METHOD, EPA STANDARD METHOD FOR HIGH RESOLUTION ANALYSIS OF DIOXINS/FURANS IN DILUTION HRGC/HRMS
E1613B	US EPA METHOD, ANALYSIS OF DIOXINS AND FURANS IN WASTE WATER
E1664	US EPA METHOD, ANALYSIS OF GREASE AND OIL AND NON POLAR MATERIAL
E1664A	US EPA METHOD, MODIFIED VERSION OF E1664
E180.1	US EPA METHOD, TURBIDITY (NEPHELOMETRIC)
E200.7	US EPA METHOD, INDUCTIVELY COUPLED PLASMA (ICP) METALS SCREEN
E200.8	US EPA METHOD, INDUCTIVELY COUPLED PLASMA- MASS SPECTROMETRY (METALS IN WATER)
E245.1	US EPA METHOD, MERCURY (COLD VAPOR, MANUAL)
E245.7	SANDARD METHOD, MERCURY IN WATER BY COLD-VAPOR ATOMIC FLUORESCENC
E300.0	US EPA METHOD, DETERMINATION OF INORGANIC ANIONS IN WATER BY ION CHROMATOGRAPHY
E3005	US EPA METHOD, ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS
E3005A	US EPA METHOD, ACID DIGESTION OF AQUEOUS SAMPLES FOR TOTAL RECOVERABLE OR DISS METALS
E3010	US EPA METHOD, ACID DIGESTION OF AQUEOUS SAMPLES FOR TOTAL METALS
E3010A	US EPA METHOD, ACID DIGESTION OF AQUEOUS SAMPLES FOR TOTAL METALS

E3050B	US EPA METHOD, ACID DIGESTION OF SEDIMENTS, SLUDGES AND SOLIDS
E3060A	US EPA METHOD, ALKALINE DIGESTION OF SOIL AND SOLID WASTE FOR HEXAVALENT CHROMIUM
E310.1	US EPA METHOD, ALKALINITY (TITRIMETRIC)
E325.3	US EPA METHOD, CHLORIDE (TITRIMETRIC, MERCURIC NITRATE)
E330.3	US EPA METHOD, CHLORINE, TOTAL RESIDUAL (TITRIMETRIC, IODOMETRIC)
E330.5	US EPA METHOD, CHLORINE, TOTAL RESIDUAL (SPECTROPHOTOMETRIC, DPD)
E335.1	US EPA METHOD, CYNAIDES, AMENABLE TO CHLORINATION (TITRIMETRIC; SPECTROPHOTOMETRIC)
E335.2	US EPA METHOD, TOTAL CYANIDE
E340.2	US EPA METHOD, FLUORIDE, POTENTIOMETRIC, ION SELECTIVE ELECTRODE
E350.1	US EPA METHOD, NITROGEN (AMMONIA - COLORIMETRIC, AUTOMATED PHENATE)
E350.3	US EPA METHOD, NITROGEN, AMMONIA (POTENTIOMETRIC, ION SELECTIVE ELECTRODE)
E351.2	US EPA METHOD, NITROGEN, KJELDAHL, TOTAL (COLORIMETRIC, SEMI-AUTOMATED BLOCK DIGESTER)
E3510C	US EPA METHOD, SEPERATORY FUNNEL LIQUID-LIQUID EXTRACTION
E353.2	US EPA METHOD, NITROGEN, NITRATE-NITRITE (COLORIMETRIC AUTOMATED, CADMIUM REDUCTION)
E360.1	US EPA METHOD, OXYGEN, DISSOLVED (MEMBRANE ELECTRODE)
E365.2	US EPA METHOD, PHOSPHORUS, ALL FORMS (AS P)
E375.4	US EPA METHOD, SULFATE (AS SO ₄), TURBIDIMETRIC
E376.1	US EPA METHOD, SULFIDE, TITRIMETRIC, IODINE
E376.2	US EPA METHOD, SULFIDE (COLORIMETRIC, METHYLENE BLUE)
E3810	US EPA METHOD, HEADSPACE
E4030	US EPA METHOD, SOIL SCREENING FOR PETROLEUM HYDROCARBONS BY IMMUNOASSAY
E410.4	US EPA METHOD, CHEMICAL OXYGEN DEMAND (COLORIMETRIC, AUTOMATED MANUAL)
E413.2	EPA METHOD, OIL AND GREASE (SPECTROPHOTOMETRIC, INFRARED)

E415.1	US EPA METHOD, TOTAL ORGANIC CARBON (COMBUSTION OR OXIDATION)
E415.2	US EPA METHOD, TOTAL ORGANIC CARBON (UV PROMOTED, PERSULFATE OXIDATION)
E420.1	US EPA METHOD, PHENOLICS, TOTAL RECOVERABLE (SPECTROPHOTOMETRIC, MANUAL)
E420.2	US EPA METHOD, PHENOLICS (COLORIMETRIC, AUTOMATED 4-AAP WITH DISTILLATION)
E420.3	US EPA METHOD, PHENOLICS, TOTAL RECOVERABLE (SPECTROPHOTOMETRIC, MAN. 4-AAP)
E425.1	US EPA METHOD, METHYLENE BLUE ACTIVE SUBSTANCES (MBAS)
E504.1	US EPA METHOD, ETHYLENE DIBROMIDE
E507	US EPA METHOD, DETERMINATION OF NITROGEN-AND PHOSPHORUS-CONTAINING PESTICIDES IN GROU
E508	US EPA METHOD, DETERMINATION OF CHLORINATED PESTICIDES IN GROUND WATER
E508A	US EPA METHOD, POLYCHLORINATED BIPHENYLS (PCB'S)
E515	US EPA METHOD, DETERMINATION OF CHLORINATED HERBICIDES IN DRINKING WATER
E524.2	US EPA METHOD, VOLATILE ORGANIC COMPOUNDS BY PURGE & TRAP CAPILLARY COLUMN GC/MS
E531.1	US EPA METHOD, DETERM. OF N-METHYLCARBAMOYLOXIMES & N-METHYLCARBAMATES IN WATER BY DI
E549	US EPA METHOD, DETERMINATION OF DIQUAT AND PARAQUAT IN DRINKING WATER BY LIQUID-SOLID
E6010B	US EPA METHOD, INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY METHOD B
E6010C	US EPA METHOD, INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY METHOD C
E6020A	US EPA METHOD, INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY
E604	US EPA METHOD, PHENOLS
E608	US EPA METHOD, ORGANOCHLORINE PESTICIDES AND PCBS
E624	US EPA METHOD, VOLATILE ORGANICS GC/MS

E625	US EPA METHOD, EXTRACTABLE PRIORITY POLLUTANTS (BASE/NEUTRAL AND ACID)
E7196A	US EPA METHOD, CHROMIUM, HEXAVALENT (COLORIMETRIC)
E7470A	US EPA METHOD, COLD VAPOR ATOMIC ABSORPTION FOR MERCURY
E7471A	US EPA METHOD, MERCURY IN SOLID OR SEMISOLID WASTE (MANUAL COLD-VAPOR TECH) METHOD A
E7474	US EPA METHOD, MERCURY BY ATOMIC FLUORESCENCE SPECTROMETRY
E8015B	US EPA METHOD, NONHALOGENATED ORGANICS USING GC/FID. MODIFIED 8015 FOR THE DETERMINATION OF DIESEL RANGE ORGANIC IN SOIL
E8015D	US EPA METHOD, NONHALOGENATED ORGANICS USING GC/FID. MODIFIED 8015 FOR THE DETERMINATION OF DIESEL RANGE ORGANIC IN SOIL
E8021	US EPA METHOD, HALOGENATED AND AROMATIC VOLATILES BY GC USING ELECTROLYTIC CONDUCTIVITY
E8081B	US EPA METHOD, ORGANOCHLORINE PESTICIDES BY GAS CHROMATOGRAPHY
E8082A	US EPA METHOD, POLYCHLORINATED BIPHENYLS (PCBS) BY GAS CHROMATOGRAPHY
E8141B	US EPA METHOD, ORGANOPHOSPHORUS COMPOUNDS BY GAS CHROMATOGRAPHY: CAPILLARY COLUMN TECH
E8151A	US EPA METHOD, CHLORINATED HERBICIDES BY GC USING METHYLATION OR PENTAFLUOROBENZYLATION
E8260B	US EPA METHOD, VOLATILE ORGANIC COMPOUNDS BY GC/MS
E8260B SIM	US EPA METHOD, VOLATILE ORGANIC COMPOUNDS BY GC/MS-SELECTIVE ION MONITORING
E8270D	US EPA METHOD, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS
E8270D SIM	US EPA METHOD, SEMI-VOLATILE ORGANIC COMPOUNDS BY SELECTIVE ION METHOD
E900	US EPA METHOD, GROSS ALPHA AND BETA RADIATION
E9010C	US EPA METHOD, TOTAL AND AMENABLE CYANIDE: DISTILLATION
E9012B	US EPA METHOD, TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFFLINE DISTILLATION)
E9030B	US EPA METHOD, SULFIDE, ACID-SOLUBLE AND ACID-INSOLUBLE (DISTILLATION) (REVISION B)
E9034	US EPA METHOD, TITRIMETRIC PROCEDURE FOR ACID-SOLUBLE AND ACID-

	INSOLUBLE SULFIDES
E9040C	US EPA METHOD, PH ELECTROMETRIC MEASUREMENT
E9045C	US EPA METHOD, ELECTROMETRIC PROCEDURE FOR MEASURING PH IN SOILS & SOLID WASTE
E9065	US EPA METHOD, PHENOLICS (SPECTROPHOTOMETRIC, MANUAL 4-AAP WITH DISTILLATION)
E9071B	US EPA METHOD, N-HEXANE EXTRACTABLE MATERIAL (HEM) FOR SLUDGE, SEDIMENT, AND SOLID SAMPLES
E9095	US EPA METHOD, PAINT FILTER LIQUIDS TEST
M8015C	US EPA METHOD, NONHALOGENATED ORGANICS USING GC/FID. MODIFIED 8015 FOR THE DETERMINATION OF GASOLINE RANGE ORGANIC IN SOIL
MADEPEPH	MADEP EPH REV 1.1 - MASS DEP METHOD FOR THE DETERMINATION OF EXTRACTABLE PETROLEUM HYDROCARBONS (EPD) - GASOLINE RANGE ORGANICS
MM-III.2	MOOPAM 2010 ANALYSES OF WATER /CHEMICAL OCEANOGRAPHY
MM-IV.2	MOOPAM 2010 GRANULOMETRY (GRAIN SIZE ANALYSIS) FOR SEDIMENTOLOGICAL ANALYSES
MM-IV.4	MOOPAM 2010 TOTAL ORGANIC CARBON
MM-IV.5	MOOPAM 2010 DETERMINATION OF CALCIUM CARBONATE
MM-VI.5	MOOPAM 2010 DETERMINATION OF DRY WEIGHT FOR PETROLEUM HYDROCARBONS ANALYSIS
MM-VI.6	MOOPAM 2010 ANALYSIS OF WATER FOR PETROLEUM HYDROCARBONS ANALYSIS
MM-VI.7	MOOPAM 2010 ANALYSIS OF SEDIMENTS FOR PETROLEUM HYDROCARBONS ANALYSIS
MM-VI.8	MOOPAM 2010 ANALYSIS OF BIOTA FOR PETROLEUM HYDROCARBONS ANALYSIS
MM-VII.2	MOOPAM 2010 SAMPLING FOR RADIONUCLIDES ANALYSIS
MM-VII.3	MOOPAM 2010 PRE-CONCENTRATION FROM LARGE VOLUME SEAWATER SAMPLES FOR RADIONUCLIDES ANALYSIS
MM-VII.4	MOOPAM 2010 SEAWATER ANALYSES FOR RADIONUCLIDES ANALYSIS
MM-VII.5	MOOPAM 2010 SEDIMENT AND BIOTA ANALYSES FOR RADIONUCLIDES ANALYSIS
MM-VIII.2	MOOPAM 2010 BIOLOGICAL ANALYSIS / BIOLOGICAL OCEANOGRAPHY
MM-VIII.3	MOOPAM 2010 MICROBIOLOGICAL ANALYSIS / BIOLOGICAL OCEANOGRAPHY

ORTPHD	DIESEL IN SOIL - ADAPTED METHOD FROM EPA SW846 METHODS 3540 AND 8000
ORTPHG	GASOLINE IN SOIL - ADAPTED METHOD FROM EPA SW846 5030 &/OR 8020
OTHER	OTHER METHOD NOT LISTED
SAAEPC1989-6	DETERMINATION OF TRACE METALS IN SEAWATER, WASTEWATER, SEDIMENT AND MARINE ORGANISMS.
SM20-4500H-B	STANDARD METHOD, PH ANALYSIS
SM2120B	STANDARD METHOD, COLOR
SM2130-B	STANDARD METHOD, TURBIDITY, NEPHELOMETRIC METHOD
SM2320B	STANDARD METHOD, ALKALINITY AS CaCO ₃
SM2340-C	STANDARD METHOD, TOTAL HARDNESS AS CaCO ₃
SM2340B	STANDARD METHOD, TOTAL HARDNESS
SM2510A	STANDARD METHOD, CONDUCTIVITY (A)
SM2510B	STANDARD METHOD, CONDUCTIVITY (B)
SM2520-B	STANDARD METHOD, SALINITY, CONDUCTIVITY METHOD
SM2540-G	STANDARD METHOD, TOTAL, FIXED, AND VOLATILE SOLIDS IN SOLID AND SEMISOLID SAMPLES
SM2540B	STANDARD METHOD, TS-SOLIDS, TOTAL
SM2540C	STANDARD METHOD, TOTAL DISSOLVED SOLIDS DRIED AT 180C
SM2540D	STANDARD METHOD, TOTAL SUSPENDED SOLIDS
SM2540E	STANDARD METHOD, TOTAL VOLATILE SOLIDS
SM2540F	STANDARD METHOD, SOLIDS IN WATER
SM2550	STANDARD METHOD, TEMPERATURE
SM2710C	STANDARD METHOD, SPECIFIC GRAVITY
SM2710D	STANDARD METHOD, SLUDGE VOLUME INDEX
SM3114B	SANDARD METHOD, ARSENIC AND SELENIUM BY HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRY
SM3500-FE-B	STANDARD METHOD, ANALYTICAL METHOD FOR SM3500 FERRIC/FERROUS IRON
SM4500-CL	STANDARD METHOD, CHLORINE RESIDUAL
SM4500-CL-B	STANDARD METHOD, CHLORIDE ARGENTOMETRIC

SM4500-CL-G	STANDARD METHOD, CHLORINE RESIDUAL DPD COLORIMETRIC METHOD
SM4500-CN-E	STANDARD METHOD, STANDARD METHOD FOR DETERMINATION OF CYANIDE, COLORIMETRIC METHOD
SM4500-CN-G	STANDARD METHOD, CYANIDES AMENABLE TO CHLORINATION AFTER DISTILLATION
SM4500-CN-I	STANDARD METHOD, WEAK ACID DISSOCIABLE CYANIDE METHOD
SM4500-CO2-D	STANDARD METHOD, CARBON DIOXIDE
SM4500-H-B	STANDARD METHOD, pH IN WATER BY POTENTIOMETRY
SM4500-NC	STANDARD METHOD, NITROGEN, TOTAL PERSULFATE METHOD
SM4500-NH3-C	STANDARD METHOD, AMMONIA
SM4500-NH3-D	STANDARD METHOD, AMMONIA-SELECTIVE ELECTRODE
SM4500-NH3-G	STANDARD METHOD, NITROGEN (AMMONIA) AUTOMATED PHENATE
SM4500-NH3-H	STANDARD METHOD, NITROGEN, AMMONIA
SM4500-NO2-B	STANDARD METHOD, NITRITE, NITROGEN BY COLOMETRIC METHOD
SM4500-NO3-E	SANDARD METHOD, NITRATE IN WATER AFTER CADMIUM REDUCTION
SM4500-NORG-C	STANDARD METHOD, TOTAL KJELDHAL NITROGEN
SM4500-O-B	STANDARD METHOD, PHOSPHORUS, SAMPLE PREPARATION METHOD
SM4500-O-G	STANDARD METHOD, OXYGEN, DISSOLVED
SM4500-P-E	STANDARD METHOD, TOTAL PHOSPHORUS, PHOSPHORUS BY ASCORBIC ACID
SM4500-P-G	STANDARD METHOD, PHOSPHORUS, ORTHO (FLOW INJECTION ANALYSIS FOR ORTHOPHOSPHORUS)
SM4500-S2-D	STANDARD METHOD, SULFIDE BY METHYLENE BLUE COLORIMETRIC 20TH ED.
SM4500-S2-F	STANDARD METHOD, ANALYTICAL METHOD FOR TOTAL SULFIDE
SM4500-SIO2-C	STANDARD METHOD, SILICA
SM4500-SO4-E	STANDARD METHOD, STANDARD METHODS 4500 VERSION E, TURBIDIMETRIC ANALYSIS OF SULFATE
SM4500-NO3-F	STANDARD METHOD, NITROGEN, NITRATE-NITRITE (AUTOMATED CADMIUM REDUCTION METHOD)
SM5210B	STANDARD METHOD, 5 DAY BIOCHEMICAL OXYGEN DEMAND TEST
SM5220D	STANDARD METHOD, STANDARD METHODS 5220D COD CLOSED REFLUX COLORIMETRIC METHOD

SM5310B	STANDARD METHOD, STANDARD METHOD FOR THE DETERMINATION OF TOTAL ORGANIC CARBON, COMBUSTION DETECTION
SM5310C	STANDARD METHOD, TOTAL ORGANIC CARBON (TOC), PERSULFATE-ULTRAVIOLET OR HEATED-PERSULFATE OXIDATION
SM5520B	STANDARD METHOD, METHOD FOR THE DETERMINATION OF OIL AND GREASE IN WATER AND WASTE WATER, LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD
SM5540C	STANDARD METHOD, ANIONIC SURFACTANTS AS METHYLENE BLUE ACTIVE SUBSTANCES (MBAS)
SM9215B	STANDARD METHOD, METHOD FOR ANALYZING A SAMPLE FOR TOTAL HETEROTROPHIC BACTERIA, (E.G. HETEROTROPHIC PLATE COUNT), POUR PLATE METHOD, MODIFIED FOR PAPERBOARD 20TH ED.
SM9221-B-C	STANDARD METHOD, STANDARD TOTAL COLIFORM FERMENTATION TECHNIQUE C
SM9222	STANDARD METHOD, MEMBRANE FILTRATION TEST
SM9222-B	STANDARD METHOD, TOTAL COLIFORM, MEMBRANE FILTER PROCEDURE
SM9222-D	STANDARD METHOD, FECAL COLIFORM, MEMBRANE FILTER PROCEDURE
SM9222B	STANDARD METHOD, STANDARD TOTAL COLIFORM MEMBRANE FILTER PROCEDURE
SM9222D	STANDARD METHOD, FECAL COLIFORM/ FECAL COLIFORM MEMBRANE FILTER PROCEDURE
SM9260-B	STANDARD METHOD, SALMONELLA
SPECTROPHOMETRY	SPECTROPHOMETRY METHOD
WBLACK	WALKLEY-BLACK METHOD, ORGANIC CARBON (TOC)

3.13 Chemical_Name

chemical_name	cas_rn
1,1 - ETHYLENE DICHLORIDE	75-35-4
2,1 - ETHANE DICHLORIDE	107-06-2
4,1 - BENZENE DICHLORIDE	106-46-7
AIR TEMPERATURE	TEMP_AIR
ALDRIN	309-00-2
ALL HERBICIDES	HERB
ALKALINITY	ALKALINITY
ALUMINIUM	7429-90-5
AMMONIA	7664-41-7
AMMONIUM	14798-03-9
ANTIMONY	7440-36-0
ARSENIC	7440-38-2
ATMOSPHERIC PRESSURE	ATP
BARIUM	7440-39-3
BENZENE	71-43-2
BENZENE ETHYL	100-41-4
BENZO (A) PYRENE	50-32-8
BERYLLIUM	7440-41-7
BIOLOGICAL OXYGEN DEMAND	BOD
BIS (2-ETHYLHEXYL) PHTHALATE	117-81-7
BORON	7440-42-8
CADMIUM	7440-43-9
CALCIUM	7440-70-2
CARBON TETRACHLORIDE	56-23-5
CHEMICAL OXYGEN DEMAND	COD
CHLORDANE	57-74-9
CHLORIDE	16887-00-6
CHLORINE	7782-50-5
CHLORINE, FREE	7782-50-5F
CHLORINE, RESIDUAL	7782-50-5R
CHLORINE, TOTAL	7782-50-5T
CHLOROBENZENE	108-90-7
CHLOROFORM	67-66-3
CHLOROPHYLL-A	CHLA
CHROMIUM	7440-47-3
COBALT	7440-48-4
COLOUR	CLOR
CONDUCTIVITY, FIELD	COND_FIELD
CONDUCTIVITY, LAB	COND_LAB
COPPER	7440-50-8
CRESOL	1319-77-3
CYANIDES	57-12-5
DEPTH	DEPTH
DICHLORODIPHENYLDICHLOROETHANE	72-54-8
DICHLORODIPHENYLDICHLOROETHYLENE	72-55-9

DICHLORODIPHENYLTRICHLOROETHANE	50-29-3
DIELDRIN	60-57-1
DIESEL RANGE ORGANICS	DRO
DIMETHYL NITROSAM	55-18-5
DIMETHYL NITROSAMINE	62-75-9
DISSOLVED OXYGEN, FIELD	DO_FIELD
DISSOLVED OXYGEN, LAB	DO_LAB
EGG PARASITES	EP
EMULSIFIED OIL	EOIL
ENTERIC VIRUSES	EV
ETHANE HEXACHLORIDE	67-72-1
ETHYLENE TETRACHLORIDE	127-18-4
ETHYLENE TRICHLORIDE	86-42-0
FECAL COLIFORM	FC
FLOATABLE	FLT
FLOATING OIL	FOIL
FLUORIDES	16984-48-8
GASOLINE RANGE ORGANICS	GRO
HEPTACHLOR	76-44-8
HEXACHLOROBENZENE	118-74-1
HEXACHLOROBUTADIENE	87-68-3
HYDROGEN SULFIDE	7783-06-4
IRON	7439-89-6
LEAD	7439-92-1
LINDANE	58-89-9
LITHIUM	7439-93-2
MANGANESE	7439-96-5
MERCURY	7439-97-6
METHYL ETHYL KETONE	78-93-3
MOLYBDENUM	7439-98-7
MOST PROBABLE NUMBER OF FAECAL COLIFORM	FCMPN
MOST PROBABLE NUMBER OF TOTAL COLIFORM	TCMPN
NICKEL	7440-02-0
NITRATE	14797-55-8
NITRITE	14797-65-0
NITROBENZENE	98-95-3
NITROGEN	7727-37-9
OIL	OIL
OIL AND GREASE	OIL_GRS
OTHER	OTHER
PARACRESOL	106-44-5
PH, FIELD	PH_FIELD
PH, LAB	PH_LAB
PHENOL	108-95-2
PHENOL PENTACHLORIDE	87-86-5
PHOSPHATE	14265-44-2
POLYCHLORINATED BIPHENYL	1336-36-3
PYRIDINE	110-86-1
RELITIVE HUMIDITY	RH

SALINITY	SAL_LAB
SALMONELLA	SALM
SETTLEABLE SOLIDS	SET_SOLIDS
SLUDGE VOLUME	SV
SLUDGE VOLUME INDEX	SVI
SELENIUM	7782-49-2
SILICATE	12627-13-3
SILVER	7440-22-4
STYRENE	100-42-5
SULPHATES	14808-79-8
SULFIDES	18496-25-8
TAR	TAR
TAR OIL	TAROIL
TEMPERATURE, FIELD	TEMP_FIELD
TEMPERATURE, LAB	TEMP_LAB
TIDE	TIDE
TOLUENE	108-88-3
TOTAL COLIFORM	TC
TOTAL DISSOLVED SOLIDS	TDS
TOTAL KJELDAHL NITROGEN	TKJDN
TOTAL NITROGEN	TN
TOTAL ORGANIC CARBON	TOC
TOTAL PETROLEUM HYDROCARBONS	TPH
TOTAL RECOVERABLE PHENOL	TRP
TOTAL SUSPENDED SOLIDS	TSS
TOTAL VOLATILE RESIDUE	TVR
TOXAPHENE	8001-35-2
TRICHLOROETHYLENE	79-01-6
TURBIDITY	TURBID_LAB
VANADIUM	7440-62-2
VIABLE HELMINTH EGGS	VHE
VINYL CHLORIDE	75-01-4
VOLATILE SUSPENDED SOLIDS	VSS
WATER CURRENT DIRECTION	CURRD
WATER CURRENT SPEED	CURRS
WAVE DIRECTION	WAVED
WAVE HEIGHT	WAVEH
WEATHER CONDITION	WX
WIND DIRECTION	WD
WIND SPEED	WS
WORM PARASITES	WP
XYLENE	1330-20-7
ZINC	7440-66-6

3.14 Cas_Rn

cas_rn	chemical_name
100-41-4	BENZENE ETHYL
100-42-5	STYRENE
106-44-5	PARACRESOL
106-46-7	4,1 - BENZENE DICHLORIDE
107-06-2	2,1 - ETHANE DICHLORIDE
108-88-3	TOLUENE
108-90-7	CHLOROBENZENE
108-95-2	PHENOL
110-86-1	PYRIDINE
117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE
118-74-1	HEXACHLOROBENZENE
12627-13-3	SILICATE
127-18-4	ETHYLENE TETRACHLORIDE
1319-77-3	CRESOL
1330-20-7	XYLENE
1336-36-3	POLYCHLORINATED BIPHENYL
14265-44-2	PHOSPHATE
14797-55-8	NITRATE
14797-65-0	NITRITE
14798-03-9	AMMONIUM
14808-79-8	SULPHATES
16887-00-6	CHLORIDE
16984-48-8	FLUORIDES
18496-25-8	SULFIDES
309-00-2	ALDRIN
50-29-3	DICHLORODIPHENYLTRICHLOROETHANE
50-32-8	BENZO (A) PYRENE
55-18-5	DIMETHYL NITROSAM
56-23-5	CARBON TETRACHLORIDE
57-12-5	CYANIDES
57-74-9	CHLORDANE
58-89-9	LINDANE
60-57-1	DIELDRIN
62-75-9	DIMETHYL NITROSAMINE
67-66-3	CHLOROFORM
67-72-1	ETHANE HEXACHLORIDE

71-43-2	BENZENE
72-54-8	DICHLORODIPHENYLDICHLOROETHANE
72-55-9	DICHLORODIPHENYLDICHLOROETHYLENE
7429-90-5	ALUMINUM
7439-89-6	IRON
7439-92-1	LEAD
7439-93-2	LITHIUM
7439-96-5	MANGANESE
7439-97-6	MERCURY
7439-98-7	MOLYBDENUM
7440-02-0	NICKEL
7440-22-4	SILVER
7440-36-0	ANTIMONY
7440-38-2	ARSENIC
7440-39-3	BARIUM
7440-41-7	BERYLLIUM
7440-42-8	BORON
7440-43-9	CADMIUM
7440-47-3	CHROMIUM
7440-48-4	COBALT
7440-50-8	COPPER
7440-62-2	VANADIUM
7440-66-6	ZINC
7440-70-2	CALCIUM
75-01-4	VINYL CHLORIDE
75-35-4	1,1 - ETHYLENE DICHLORIDE
76-44-8	HEPTACHLOR
7664-41-7	AMMONIA
7727-37-9	NITROGEN
7782-49-2	SELENIUM
7782-50-5	CHLORINE
7782-50-5F	CHLORINE, FREE
7782-50-5R	CHLORINE, RESIDUAL
7782-50-5T	CHLORINE, TOTAL
7783-06-4	HYDROGEN SULFIDE
78-93-3	METHYL ETHYL KETONE
79-01-6	TRICHLOROETHYLENE
8001-35-2	TOXAPHENE
86-42-0	ETHYLENE TRICHLORIDE
87-68-3	HEXACHLOROBUTADIENE

87-86-5	PHENOL PENTACHLORIDE
98-95-3	NITROBENZENE
ALKALINITY	ALKALINITY
ATP	ATMOSPHERIC PRESSURE
BOD	BIOLOGICAL OXYGEN DEMAND
CHLA	CHLOROPHYLL-A
CLOR	COLOUR
COD	CHEMICAL OXYGEN DEMAND
COND_FIELD	CONDUCTIVITY, FIELD
COND_LAB	CONDUCTIVITY, LAB
CURRD	WATER CURRENT DIRECTION
CURRS	WATER CURRENT SPEED
DEPTH	DEPTH
DO_FIELD	DISSOLVED OXYGEN, FIELD
DO_LAB	DISSOLVED OXYGEN, LAB
DRO	DIESEL RANGE ORGANICS
EOIL	EMULSIFIED OIL
EP	EGG PARASITES
EV	ENTERIC VIRUSES
FC	FECAL COLIFORM
FCMPN	MOST PROBABLE NUMBER OF FAECAL COLIFORM
FLT	FLOATABLE
FOIL	FLOATING OIL
GRO	GASOLINE RANGE ORGANICS
HERB	ALL HERBICIDES
OIL	OIL
OIL_GRS	OIL AND GREASE
OTHER	OTHER
PH_FIELD	PH, FIELD
PH_LAB	PH, LAB
RH	RELATIVE HUMIDITY
SAL_LAB	SALINITY
SALM	SALMONELLA
SET_SOLIDS	SETTLABLE SOLIDS
SV	SLUDGE VOLUME
SVI	SLUDGE VOLUME INDEX
TAR	TAR
TAROIL	TAR OIL
TC	TOTAL COLIFORM
TCMPN	MOST PROBABLE NUMBER OF TOTAL COLIFORM

TDS	TOTAL DISSOLVED SOLIDS
TEMP_AIR	AIR TEMPERATURE
TEMP_FIELD	TEMPERATURE, FIELD
TEMP_LAB	TEMPERATURE, LAB
TIDE	TIDE
TKJDN	TOTAL KJELDAHL NITROGEN
TN	TOTAL NITROGEN
TOC	TOTAL ORGANIC CARBON
TPH	TOTAL PETROLEUM HYDROCARBONS
TRP	TOTAL RECOVERABLE PHENOL
TSS	TOTAL SUSPENDED SOLIDS
TURBID_LAB	TURBIDITY
TVR	TOTAL VOLATILE RESIDUE
VHE	VIABLE HELMINTH EGGS
VSS	VOLATILE SUSPENDED SOLIDS
WAVED	WAVE DIRECTION
WAVEH	WAVE HEIGHT
WD	WIND DIRECTION
WP	WORM PARASITES
WS	WIND SPEED
WX	WEATHER CONDITION

3.15 Result_Value

Numerical value of result.

3.16 Lab_Qualifiers

qualifier	qualifier_desc
*	DUPLICATE NOT WITHIN CONTROL LIMITS
+	
<	REPORTED VALUE LESS THAN NOTED DETECTION LIMIT
A	INDICATES TENTATIVELY IDENTIFIED COMPOUNDS THAT ARE SUSPECTED TO BE ALDOL CONDENSATION PRODUCTS.
B	INDICATES THE ANALYTE IS DETECTED IN THE ASSOCIATED BLANK AS WELL AS IN THE SAMPLE.
BJ	COMBINATION.
C	INDICATES PESTICIDE RESULTS HAVE BEEN CONFIRMED BY GC/MS.
D	INDICATES AN IDENTIFIED COMPOUND IN AN ANALYSIS THAT HAS BEEN DILUTED. THIS FLAG ALERTS THE DATA USER TO ANY DIFFERENCES BETWEEN THE CONCENTRATIONS REPORTED IN THE TWO ANALYSES.
E	INDICATES COMPOUNDS WHOSE CONCENTRATIONS EXCEED THE CALIBRATION RANGE OF THE INSTRUMENT.
F	THE RESULT IS FAULTY DUE TO PROBLEMS OUTSIDE THE REALM OF TYPICAL VALIDATION RULES/FLAGS. THIS QUALIFIER MAY BE AFFIXED TO A RESULT WHEN THE DATA VALIDATOR HAS REASON TO CONSIDER THE RESULT SUSPECT, WARRANTING NOTIFICATION OF THE END USER
G	INDICATES THE TCLP MATRIX SPIKE RECOVERY WAS GREATER THAN THE UPPER LIMIT OF THE ANALYTICAL METHOD.
H	SAMPLE RESULT IS ESTIMATED AND BIASED HIGH.
I	MATRIX INTERFERENCE
J	INDICATES AN ESTIMATED VALUE. THIS FLAG IS USED EITHER WHEN ESTIMATING A CONCENTRATION FOR A TENTATIVELY IDENTIFIED COMPOUND OR WHEN THE DATA INDICATES THE PRESENCE OF A COMPOUND BUT THE RESULT IS LESS THAN THE SAMPLE QUANTITATION LIMIT, BUT GREATER
J+	ESTIMATED ON THE HIGH SIDE
J-	ESTIMATED ON THE LOW SIDE
JL	ESTIMATED BIASED LOW BASED ON USE OF ANALYTICAL METHOD: SW846 5035/5035A, WHERE SOIL WILL BE ANALYZED FOR VOCs
JN	PRESENCE OF AN ANALYTE TENTATIVELY IDENTIFIED
K	REPORTED CONCENTRATION VALUE IS PROPORTIONAL TO DILUTION FACTOR AND MAY BE EXAGGERATED
L	SAMPLE RESULT IS ESTIMATED AND BIASED LOW.
M	INDICATES THAT THE DUPLICATE INJECTION PRECISION WAS NOT MET.
N	INDICATES PRESUMPTIVE EVIDENCE OF A COMPOUND. THIS FLAG IS USUALLY USED FOR A TENTATIVELY IDENTIFIED COMPOUND, WHERE THE IDENTIFICATION IS BASED ON A MASS SPECTRAL LIBRARY SEARCH.

NJ	THE ANALYSIS INDICATES THE PRESENT OF AN ANALYTE FOR WHICH THERE IS PRESUMPTIVE EVIDENCE TO MAKE A TENTATIVE IDENTIFICATION AND THE ASSOCIATED NUMERICAL VALUE REPRESENTS ITS APPROXIMATE CONCENTRATION.
P	INDICATES A PESTICIDE/AROCLOR TARGET ANALYTE HAD A PERCENT DIFFERENCE GREATER THAN 25% BETWEEN THE TWO GC COLUMNS. THE LOWER OF THE TWO RESULTS IS REPORTED.
R	INDICATES THE DATA ARE UNUSABLE. (NOTE: THE ANALYTE MAY OR MAY NOT BE PRESENT.)
S	INDICATES THAT THE REPORTED VALUES WERE DETERMINED BY THE METHOD OF STANDARD ADDITIONS.
U	INDICATES THAT THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. THE SAMPLE QUANTITATION LIMIT CORRECTED FOR DILUTION AND PERCENT MOISTURE IS REPORTED.
UJ	WE FOUND A HINT OF SOMETHING BELOW DETECTION LIMIT, BIASED LOW, NON-DETECT
W	POST-DIGESTION SPIKE OUT OF CONTROL LIMITS ETC.
X	RECOVERED AMOUNT OF SPIKE IS LESS THAN THE PROJECT REPORTING LIMIT.
OTH	OTHER QUALIFIER NOT LISTED

3.17 Result_Unit

unit_code	unit_desc
%	percent
%v/v	percent by volume
-	unitless
1/s	per second
acre ft	acre feet
acres	acres
bacillus/g	bacillus per gram
bacillus/dry g	
bacillus/g	
bars	bars
cfs	cubic feet per second
CFU/100ml	colony forming units per 100 milliliters
CFU/g	colony forming units per gram
CFU/ml	colony forming units per milliliters
cm	centimeter
cm/hr	centimeters per hour
cm/sec	centimeters per second
cm/yr	centimeters per year
cm ² /sec	square centimeters per second
colf/100ml	coliform bacteria per 100 milliliters
colf/g	coliform bacteria per gram
day	days
DD	decimal degree
deg C	degrees Celsius
deg F	degrees Fahrenheit

deg K	degrees Kelvin
Degree	angular degree
degrees	angle
dm	decimeter
dpy	drums per year
dynes/cm	dynes per centimeter
egg/4g	
eggs/g	eggs per gram
fibers/l	fibers per liter
ft	feet
ft AGL	feet above ground level
ft MSL	feet above mean sea level
ft/day	feet per day
ft/in	feet per inch
ft/min	feet per minute
ft/sec	feet per second
ft ²	square feet
ft ² /day	square feet per day (cubic feet/day-foot)
ft ² /min	feet squared per minute (for units of transmissivity)
ft ³	cubic feet
ft ³ /day	cubic feet per day
ft ³ /min	cubic feet per minute
ft ³ /yr	cubic feet per year
g	grams
g/cc	grams per cubic centimeter
g/g	grams per gram
g/kg	grams per kilogram
g/l	grams per liter

g/m ² /yr	grams per square meter per year
g/ml	grams per milliliter
g/mole	grams per mole
gal	gallons
gal/day	gallons per day
gal/hr	gallons per hour
gal/min	gallons per minute
gal/sec	gallons per second
gpd	gallons per day
gpd/ft	gallons per day per foot
gpd/ft ²	gallons per day per foot squared
gpm/ft	gallons per minute per foot
gpy	gallons per year
hrs	hours
hrs/day	hours per day
in	inches
in/day	inches per day
in/ft	inches per foot
in/hr	inches per hour
in/in	inches per inch
in/wk	inches per week
in ² /ft	square inches per foot
inHg	inches of mercury
kg	kilogram
kg/1000gal	kilograms per 1000 gallons
kg/batch	kilograms per batch
kg/day	kilograms per day
kg/ha	kilograms per hectare

kg/ha/365 days	kilograms per hectare per year
kg/hectare	kilogram per hectare
kg/m ³	kilogram per meter cubed
kg/m ³ /s	kilogram per meter cubed per second
kg/s	kilogram per second
km	kilometer
km ²	square kilometers
l	liter
l/day	liters per day
l/hr	liters per hour
l/min	liters per minute
l/sec	liters per second
lb/1000lb	pounds per thousand pounds
lb/barrel	pound per barrel
lb/ft ³	pounds per cubic foot
lb/in ²	pounds per square inch
lb/ton	pounds per ton
lbs	pounds
lbs/day	pounds per day
lbs/mon	pounds per month
lbs/yr	pounds per year
m	meter
m AGL	meters above ground level
m MSL	meters above mean sea level
m/day	meters per day
m/s	meters per second
m ²	meters squared

m ² /s	meters squared per second
10E6m ³	million cubic meters
m ³ /kg	meters cubed per kilogram
m ³ /s	meters cubed per second
meq/100g	milliequivalents per 100 grams
mg/100cm ²	milligrams per 100 square centimeters
mg/flt	milligrams per filter
mg/g	milligrams per gram
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
mg/m ²	milligrams per square meter
mg/m ² /day	milligrams per meter squared per day
mg/m ³	milligrams per cubic meter (ppbv)
mg/ml	milligrams per milliliter
mgal	million gallons
mgd	millions of gallons per day
mgdo/l	milligrams dissolved oxygen per liter
mgm	millions of gallons per month
mg/y	millions of gallons per year
mi	statute mile
mile ²	square miles
10E6ft ³	million cubic feet
min	minutes
ml	milliliter
ml/l	milliliter per liter
mm	millimeter
mm/m ² /hr	millimeter per meter squared per hour
mm/yr	millimeter per year

mmHg	pressure millimeters of Mercury
mmhos/cm	milliohms (mmhos) per centimeter
mol %	mole percent
MPN/100ml	Most Probable Number of total bacterial colonies per 100 milliliters
mS/cm	milliSiemens per centimeter
mV	milliVolts
ng/100cm ²	nanograms per 100 square centimeters
ng/g	nanograms per gram
ng/kg	nanogram per kilogram
ng/l	nanogram per liter
ng/m ³	nanogram per cubic meter
ng/ml	nanograms per milliliter
nmi	nautical mile
None	None
NTU	Nephelometric Turbidity Units
pcf	pounds per cubic foot
pci/g	picocuries per gram
pci/l	picocuries per liter
pci/mg	picocuries per milligram
pci/ml	picocuries per milliliters
per loss	percent loss
percent	percent
pg/μl	picograms per microliter
pg/g	picograms per gram
pg/kg	picograms per kilogram
pg/l	picograms per liter
pg/m ³	picograms per cubic meter

pH	pH
ppb	parts per billion
ppbv	parts per billion by volume
ppm	parts per million
ppmv	parts per million by volume
pptv	parts per trillion by volume
psf	pounds per square foot
psi	pounds per square inch
s	second
tonnes	metric tonne
tonnes/day	metric tonne per day
tonnes/yr	metric tonnes per year
tons/acre	tons per acre
tons/day	tons per day
ug/100cm ²	micrograms per 100 square centimeters
ug/cm ²	microgram per square centimeter
ug/g	micrograms per gram
ug/kg	micrograms per kilogram
ug/l	micrograms/liter
ug/m ³	micrograms per cubic meter
ug/yr	micrograms per year
UKN	Unknown unit
um	micrometers
um/sec	micrometer per second
units/g	units per gram
uohms/cm	micro-ohms per centimeter
upy	units per year
uS/cm	micro-Siemens per centimeter

V	Redox potential (volts)
yd	yard

3.18 Result_Type_Code

#result_type_code	result_type_desc
CAL	Calculated
IS	Internal Standards.
SC	Spiked Compounds.
SUR	Surrogates.
TIC	Tentatively Identified Compound.
TRG	Target, regular result.

3.19 Detect_Flag

Detect_Flag	Description
Y	Analyte detected within range of instruments
N	Analyte not detected

3.20 Reporting_Detection_Limit

Analysis detection limit of instrumentation or method. Units must be the same as the results.

3.21 Dilution_Factor

Numerical fraction value - Default is 1.

3.22 Sample_Matrix_Code

#matrix_code	matrix_desc
SL	SLUDGE
SLI	INDUSTRIAL SLUDGE
SLP	PETROCHEMICAL SLUDGE
SLS	SANITARY SLUDGE
SO	SOIL
WD	DISCHARGE WATER
WG	GROUND WATER
WI	INJECTION WATER
WIN	INFLUENT WATER
WS	SURFACE WATER
WSEA	SEA WATER
WSTORM	STORM WATER

3.23 Lab_Matrix_Code

#matrix_code	matrix_desc
SL	SLUDGE
SLI	INDUSTRIAL SLUDGE
SLP	PETROCHEMICAL SLUDGE
SLS	SANITARY SLUDGE
SO	SOIL
WD	DISCHARGE WATER
WG	GROUND WATER
WI	INJECTION WATER
WIN	INFLUENT WATER
WS	SURFACE WATER
WSEA	SEA WATER
WSTORM	STORM WATER

3.24 Total_or_Dissolved

TotalDissolved	TotalDesc
T	Total metal concentration
R	Total Recoverable
N	Neither 'total' nor 'dissolved' is applicable
D	Dissolved or filtered metal concentration

3.25 Basis

Basis	BasisDesc
Wet	Wet-weight basis reporting
Dry	Dry-weight basis reporting
NA	Not applicable

3.26 Analysis_Date

Date sample taken in MM/DD/YYYY format. **IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.**

3.27 Analysis_Time

Duration of analysis in HH:MM format. **IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.**

3.28 Method_Detection_Limit

Must be in the same units as the Results

3.29 Lab_Prep_Method_Name

#prep_meth	preferred_name
DIEAT	LEACHING OF ANALYTE FROM SOIL SAMPLES USING DISTILLED WATER
E1311	US EPA METHOD - TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) REVISION
E1312	US EPA METHOD - SYNTHETIC PRECIPITATION LEACHING PROCEDURE (SPLP)
E1631E	US EPA METHOD - LOW LEVEL MERCURY ANALYSIS IN WASTE EFFLUENT
E1664A	US EPA METHOD - MODIFIED VERSION OF E1664
E200.0	US EPA METHOD - ATOMIC ABSORBTION METHODS
E200.7	US EPA METHOD - ICP-AES
E200.8	US EPA METHOD - PREP METHOD FOR INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETRY (METALS IN WATER)
E245.1	US EPA METHOD - DETERMINATION OF MERCURY IN WATER BY COLD VAPOR ATOMIC ABSORPTION SPECTROMETRY
E245.5	US EPA METHOD - DETERMINATION OF MERCURY IN SEDIMENT BY COLD VAPOR ATOMIC ABSORPTION SPECTROMETRY
E300.0	US EPA METHOD - DETERMINATION OF INORGANIC ANIONS IN WATER BY ION CHROMATOGRAPHY
E3005A	US EPA METHOD - ACID DIGESTION OF WATERS
E3010A	US EPA METHOD - ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS FOR
E3015B	US EPA METHOD - MICROWAVE ASSISTED ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS

E3050B	US EPA METHOD - ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS
E3051	US EPA METHOD - MICROWAVE ASSISTED ACID DIGESTION OF SOILS, SEDIMENTS, SLUDGES AND OIL
E3060A	US EPA METHOD - ALKALINE DIGESTION OF SOIL AND SOLID WASTE FOR HEXAVALENT CHROMIUM
E335.2	US EPA METHOD - CYANIDES, AMENABLE TO CHLORINATION (TITRIMETRIC; SPECTROPHOTOMETRIC)
E335.4	US EPA METHOD - TOTAL CYANIDES
E351.2	US EPA METHOD - NITROGEN, KJELDAHL, TOTAL (COLORIMETRIC, SEMI-AUTOMATED BLOCK DIGESTER)
E3510C	US EPA METHOD - SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
E3520C	US EPA METHOD - CONTINUOUS LIQUID-LIQUID EXTRACTION
E353.2	US EPA METHOD - NITROGEN, NITRATE-NITRITE (COLORIMETRIC AUTOMATED, CADMIUM REDUCTION)
E3535	US EPA METHOD - SOLID-PHASE EXTRACTION
E3540C	US EPA METHOD - SOXHLET EXTRACTION
E3541	US EPA METHOD - ORGANIC ANALYTES FROM SOIL/ WASTE SOLIDS BY AUTOMATED SOXHLET EXTRACT.
E3545	US EPA METHOD - PRESSURIZED FLUID EXTRACTION (PFE)
E3546	US EPA METHOD - MICROWAVE EXTRACTION
E3550	US EPA METHOD - SONICATION EXTRACTION
E3550B	US EPA METHOD - ULTRASONIC EXTRACTION
E3550C	US EPA METHOD - ULTRASONIC EXTRACTION
E3580	US EPA METHOD - WASTE DILUTION
E3610	US EPA METHOD - ALUMINA COLUMN CLEANUP
E3611	US EPA METHOD - ALUMINA COLUMN CLEANUP AND SEPARATION OF PETROLEUM WASTES
E3620	US EPA METHOD - FLORISIL COLUMN CLEANUP
E3630	US EPA METHOD - SILICA GEL CLEANUP
E3640	US EPA METHOD - GEL-PERMEATION CLEANUP
E3650	US EPA METHOD - ACID-BASE PARTITION CLEANUP
E3660	US EPA METHOD - SULFUR CLEANUP
E420.4	US EPA METHOD - PREP METHOD FOR VOCS
E5030	US EPA METHOD - PURGE-AND-TRAP
E5030B	US EPA METHOD - PURGE & TRAP PROCEDURE FOR ANALYSIS OF VOLITILE ORGANIC COMPOUNDS
E5035	US EPA METHOD - CLOSED SYSTEM PURGE-AND-TRAP AND EXTRACTION FOR VOCS IN SOIL AND WASTE
E5035/E5030	US EPA METHOD - COMBINED METHODS 5035 AND 5030
E625	US EPA METHOD - EXTRACTABLE PRIORITY POLLUTANTS (BASE/NEUTRAL AND ACID)
E7.3.3.2	US EPA METHOD - SW846 CH 7.3 CYANIDE/SULFIDE REACTIVITY
E7.33	US EPA METHOD - REACTIVITY CN
E7.34	US EPA METHOD - REACTIVITY SULFIDE

E7470A	US EPA METHOD - MERCURY IN LIQUID WASTE (COLD VAPOR TECHNIQUE)
E7471B	US EPA METHOD - MERCURY IN SOLID OR SEMISOLID WASTE (MANUAL COLD-VAPOR TECHNIQUE) METHOD B
E9010B	US EPA METHOD - TOTAL AND AMENABLE CYANIDE: DISTILLATION
E9012	US EPA METHOD - PREP BY ANALYTICAL METHOD SW9012 FOR TOTAL AND AMENDABLE CYANIDE
E9030B	US EPA METHOD - ACID-SOLUBLE AND ACID-INSOLUBLE SULFIDES: DISTILLATION
E9060M	US EPA METHOD - TOTAL ORGANIC CARBON
GENPREP	GENERAL PREPARATION
SM4500-CN C	STANDARD METHOD - CYANIDE COLORIMETRIC
SM4500_NH3_G	STANDARD METHOD - NITROGEN (AMMONIA) AUTOMATED PHENATE METHOD
SM4500NH3_B	STANDARD METHOD - PREPARATION METHOD FOR SM4500_NH3_H
OTHER	OTHER PREPARATION NOT LISTED

3.30 Prep_Date

Date sample taken in MM/DD/YYYY format. **IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.**

3.31 Prep_Time

Time Preparation completed in 24 hour format (13:00). **IMPORTANT – this must be in a text format otherwise the EDP will convert it into the Excel date code serial number.**

3.32 Test_Batch_ID

3.33 TIC_Retention_Time

3.34 QC_Level

3.35 Comment

3.36 parent_sample_code

4. Submitting an EDD

Prior to submitting an EDD, it must be checked by the standalone EDP. Open the EDP and ensure it has the KEPA.xse format file. When load with the KEPA format, it should look similar to Figure 1.

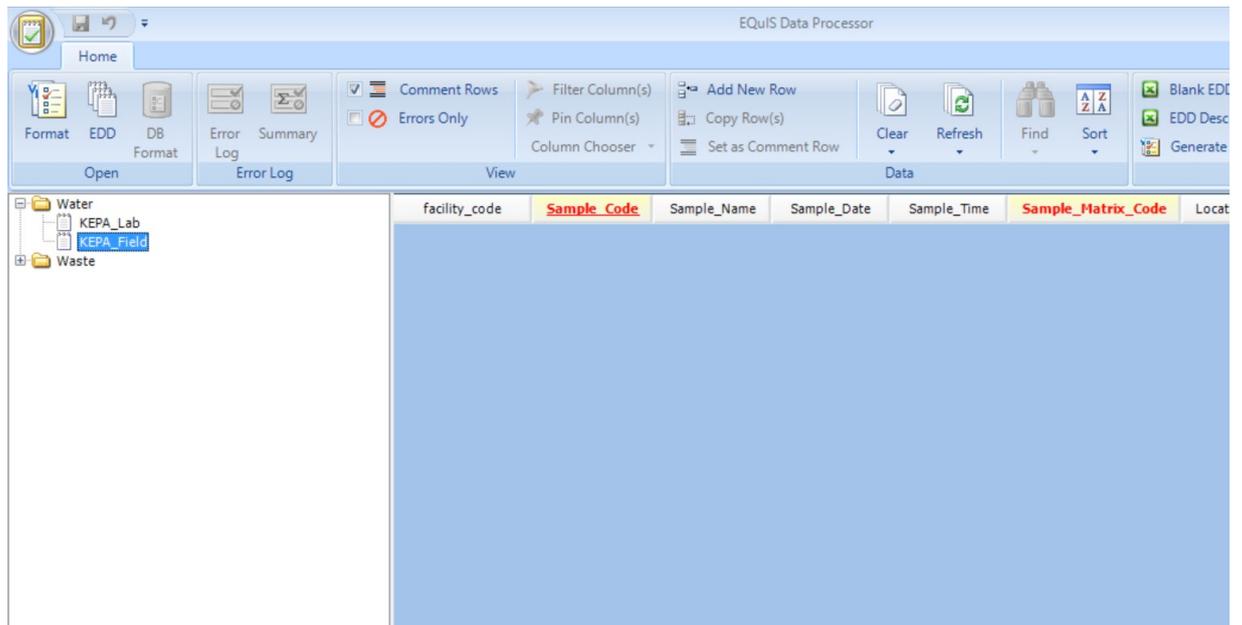


Figure 1. Open screen of Standalone EDP with KEPA format

Select an EDD for review by selecting the EDD icon on the top left of the screen. If you use the EDD-it tool or generate the EDD with another application, the column headers may appear as errors. Right-click on the far left of the cell field and set the row as a Comment Row as shown in *Figure 2*.

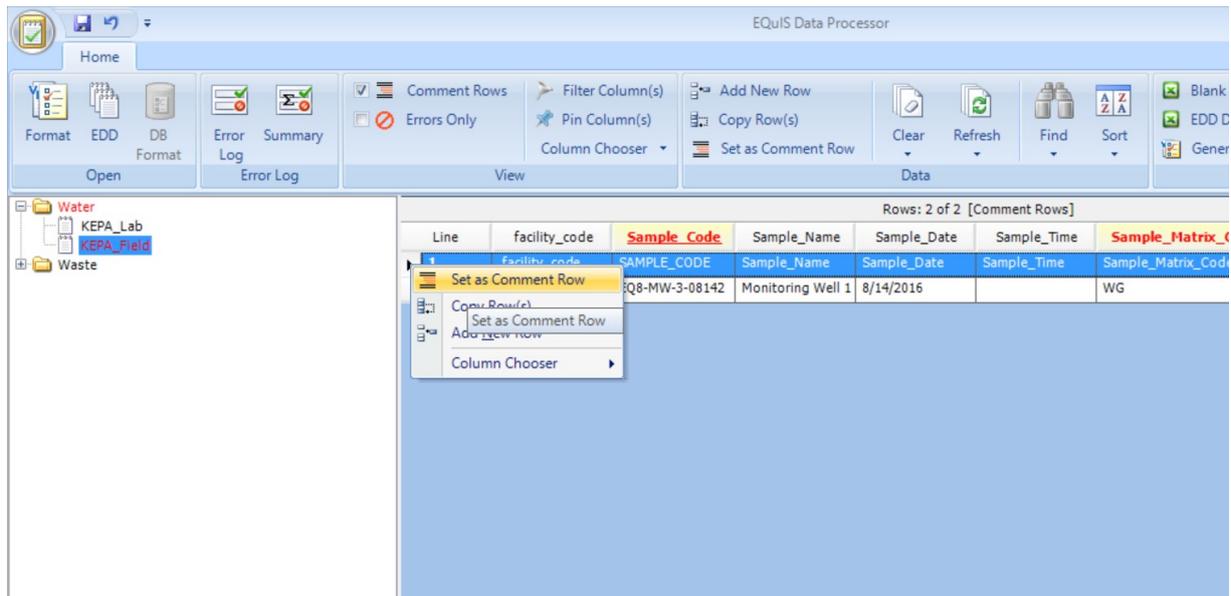


Figure 2. Setting the EDD column headers to Comment Row

After correcting errors or if there are no errors, prepare the EDD for submittal by selecting EDP icon on the top left corner and then selecting the **Sign and Submit** option as shown in *Figure 3*.

EDP Icon

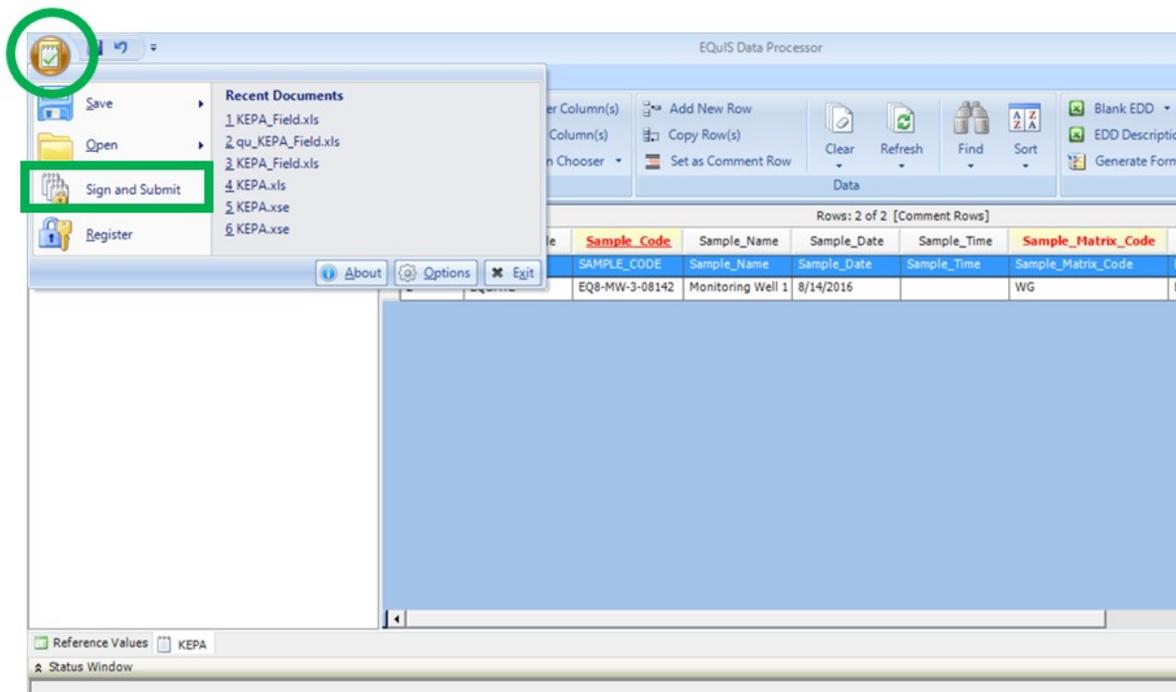


Figure 3. Selecting the Sign and Submit option

You will be prompted to provide your KEPA Username and Password as well as your Facility Code as shown in Figure 4. Use the Save button to save to a file and attach to an email. Send the email to cims@emisk.org and epa.cca.cims2016@gmail.com.

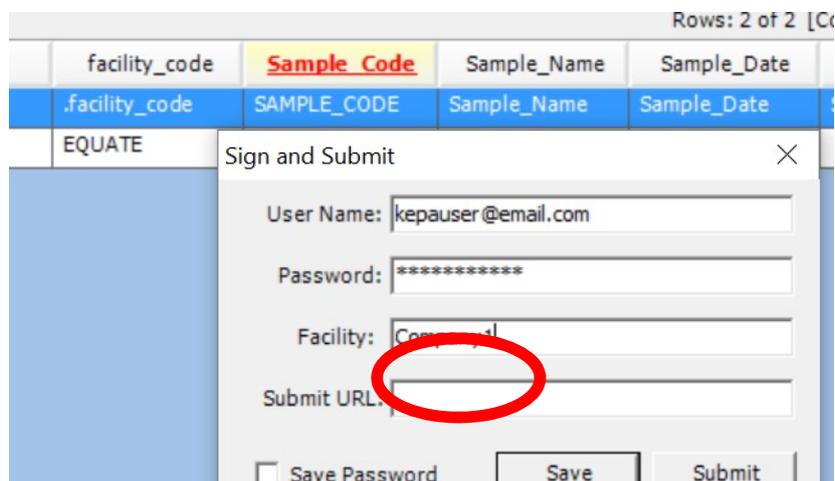


Figure 4. Submittal Information

This will be used to generate a user certificate that will be included in a .zip file generated by the EDP for submittal. The format of the file will be <Unique number>.<facility code>.KEPA.zip

<Unique number> - an EDP generated number for identification based on the date

<facility code> - the pre-registered Facility Code for the individual company

KEPA – designates the EDD format used (in this case the KEPA format)

In the example from Figure 4, the file will be **20160825 085226.Company1.KEPA.zip** in the user's specified folder.

The final file contents ready for submittal are shown in Figure 5.

Name	Size	Packed
..		
KEPA_Field.txt	236	166
kepauser@email.com user	141	122

Figure 5. Contents of packaged EDD

The file contains a user certificate and the EDD converted to a text file that the CIMS Enterprise EDP will process. The user certificate acts as a verification tool for the Enterprise EDP to trust the attachment and insure it comes from a registered user.

For more information, review the Earthsoft help contents for the Sign and Submit function at <http://help.earthsoft.com/default.asp?W681>.

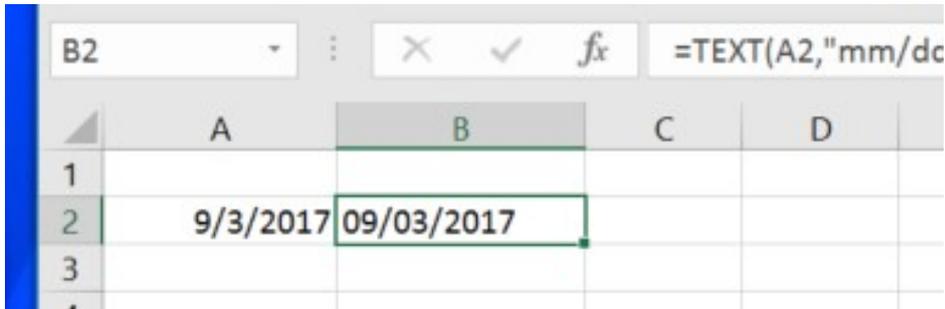
Appendix 1 – Useful MS Excel Techniques

A1.1 – Convert Date to Text

To convert an Excel date to text, use the following command in a new cell:

```
=text(A2,"mm/dd/yyyy")
```

Where A2 is the cell with the date value and "mm/dd/yyyy" is the desired text format.



Make sure you paste as values by right clicking the mouse and selecting the "Paste Values" option.

END OF HANDBOOK