Template Name
CitationID
Template Version
Last Updated Date
OMB Control Number:

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63.655(h)(8) Fenceline Monitoring Report (Spreadsheet Template)

63.655(h)(8)

v1.00

03/19/2019

2060-0340

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§63.655(h)(8) Fenceline Monitoring Report Spreadsheet Template

Welcome and Instructions

Purpose:

This spreadsheet template was designed by the U.S. EPA to facilitate fenceline monitoring reporting for Petroluem Refineries under 40 CFR part 63, subpart CC. CEDRI is accessed through the EPA's Central Data Exchange

Electronic reporting:

Electronic submission of fenceline monitoring reports through the EPA's Compliance and Emissions Data Reporting

This spreadsheet template is required to be uploaded to CEDRI to fulfill the electronic reporting requirement under §63.655(h)(8). CEDRI is accessed through the EPA's Central Data Exchange: https://cdx.epa.gov

Do not submit confidential business information (CBI) to EPA via CEDRI. If you are required to submit a report in CEDRI, you must submit the report via CEDRI with the CBI omitted and mail a complete report, including any information claimed to be CBI, to EPA on a compact disc, flash drive, or other commonly used electronic storage media via U.S. Postal Service. You must mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. Mail the media to the address in the referencing federal regulation. If no address is specified, mail the media to:

U.S. EPA/OAQPS/CORE CBI Office Attention: Group Leader,
Measurement Policy Group MD C404-02

NOTE: The CEDRI spreadsheet template upload feature allows you to submit data in a single report for a single facility or multiple facilities using this EPA provided Excel workbook. Data for each facility must be entered into the worksheet labeled "Facility Information" in this Excel workbook. Each row in the "Facility Information" worksheet

For each facility record found in the "Facility Information" worksheet, you may reference a single file attachment that includes additional information. If you are uploading file attachments for your report, the uploaded files may be in any format (e.g., zip, docx, PDF). If you would like to include an Excel file(s) as an attachment, you must first zip the excel

IMPORTANT: The final CEDRI upload file must be a single ZIP file, which must include this Excel workbook and any related attachments that were referenced in the workbook (i.e., additional information file found in the "Facilty

§63.655 Reporting and recordkeeping requirements.

(8) For fenceline monitoring systems subject to §63.658, each owner or operator shall submit the following information to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) on a quarterly basis. (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). The first quarterly report must be submitted once the owner or operator has obtained 12 months of data. The first quarterly report must cover the period beginning on the compliance date that is specified in Table 11 of this subpart and ending on March 31, June 30, September 30 or December 31, whichever date is the first date that occurs after the owner or operator has obtained 12 months of data (i.e., the first quarterly report will contain between 12 and 15 months of data). Each subsequent quarterly report must cover one of the following reporting periods: Quarter 1 from January 1 through March 31; Quarter 2 from April 1 through June 30; Quarter 3 from July 1 through September 30; and Quarter 4 from

(i) Facility name and address.

(ii) Year and reporting quarter (i.e., Quarter 1, Quarter 2, Quarter 3, or Quarter 4).

(iii) For the first reporting period and for any reporting period in which a passive monitor is added or moved, for each passive monitor: the latitude and longitude location coordinates; the sampler name; and identification of the type of sampler (i.e., regular monitor, extra monitor, duplicate, field blank, inactive). The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. Coordinates shall be in decimal degrees with at least five decimal places.

(iv) The beginning and ending dates for each sampling period.

(v) Individual sample results for benzene reported in units of µg/m3 for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as below the detection limit and reported at the method detection limit.

(vi) Data flags that indicate each monitor that was skipped for the sampling period, if the owner or operator uses an alternative sampling frequency under §63.658(e)(3).

(vii) Data flags for each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part. For each outlier, the owner or operator must submit the individual sample result of the outlier, as well as the evidence used to conclude

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The Fenceline Monitoring Program

The fenceline monitoring program requires refineries to monitor benzene emissions around their property boundary. The objective of this program is to have refineries assess the benzene monitoring data from their emissions sources such that the refinery can take appropriate actions to address the emissions from these sources in the event they exceed the benzene action level set by EPA.

The benzene monitoring data are reported to EPA electronically on a quarterly basis starting in May 2019. EPA posts the data on WebFIRE, a publicly accessible website, so the public can stay informed on the fenceline monitoring program.

Fenceline Monitoring Regulatory Requirements

40 CFR part 63 subpart CC (Refinery MACT CC) requires all refineries to implement a fenceline monitoring program for benzene emissions. The regulatory requirements of the program can be found in 40 CFR 63.658, and the reporting requirements can be found in 40 CFR 63.655(h)(8). Fenceline monitoring is required to be performed in accordance with Methods 325A and 325B of 40 CFR part 63 Appendix A.

40 CFR Part 63 Subpart CC is available here.

Methods 325A and 325B are available here.

Fenceline Monitoring Data Collection and Reporting

The fenceline monitors are passive diffusive tubes that are placed around the property boundary of the refinery. Each tube pulls a sample for a continuous two-week period. New tubes are placed on the property boundary every two weeks. Benzene concentration measurements from the two week-samples are required to be reported to EPA on a quarterly basis. The refinery is required to subtract the lowest individual monitor reading from the highest individual monitor reading for each two-week period. This result is called the benzene concentration difference (Δc) for a given two-week sample period. An annual average Δc is calculated from the most recent 26 two-week sampling periods. The annual average Δc is recalculated on a rolling basis, meaning it is updated for every two-week sample that is taken by the refinery.

Remaining consistent with EPA's practice to generally require reporting of all test data and not just values calculated from test data and/or where a facility exceeds an emission or operating limit, refineries are required to report the individual fenceline monitoring results for each two-week sampling period for each monitor. This data is submitted electronically through EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which is a reporting portal on EPA's Central Data Exchange (CDX).

How the Fenceline Monitoring Data Should Be Used

The fenceline monitoring data provide refiners additional insight into their emission sources and their potential impacts, such that they can take appropriate actions to mitigate and address the emissions from these sources in the event the annual average Δc exceeds the benzene action level. Since samples are completed every two weeks, refineries may also be able to identify sources that might lead to elevated fenceline concentrations and can correct issues early, in efforts to avoid exceeding the benzene action level.

The public availability of the monitoring data provides transparency and allows for public oversight. The data are being provided to the public so that they can stay informed on the status of refinery monitoring data and emission sources and the actions a refinery is taking to address issues, as necessary.

How the Fenceline Monitoring Data Should Not Be Used

The benzene action level is not an ambient air standard. The fenceline monitors are not intended to provide a measure of benzene levels in the community. There is no correlation between the benzene action level and any health-based benzene or other hazardous air pollutant exposure standard. The benzene action level does not correlate to a benzene emissions level that presents a risk to the public. EPA did not establish the fenceline monitoring program as a risk reduction step under the Clean Air Act section 112(f)(2). Rather, the fenceline monitoring requirements are a development of practices that will provide additional information on the status of emission sources for refineries and the public. It is also important to note that the fenceline monitoring program is not an appropriate tool for monitoring and assessing emergency releases since the data from the monitors are not immediately available.

The fenceline monitors are not limited to measuring emissions from only refineries. The passive diffusive tubes may collect benzene from nearby sources that refineries do not manage, such as neighboring facilities, roadways, airports, marine ports, and from environmental events (e.g., smoke from forest fires). External emissions sources may contribute to elevated background readings that are measured by a refinery's fenceline monitors. Consequently, while this monitoring program is a reasonable means for a refinery to oversee its emission sources, there may be situations where the monitors identify benzene emissions that do not originate from the refinery.

The Benzene Action Level

The benzene action level is 9 micrograms per cubic meter ($\mu g/m^3$) for the rolling annual average Δc. Exceeding the benzene action level is not a violation of the Refinery MACT CC regulation. Rather, exceeding the action level requires the refinery to perform a root cause and corrective action analysis. While the data from an individual monitor for any 2-week sampling period may be above 9 $\mu g/m^3$ or an individual sampling period Δc value may be above 9 $\mu g/m^3$, the root cause and corrective action analysis is only required when the rolling annual average Δc is above 9 $\mu g/m^3$. It is important to note that an individual elevated value from a monitor may be the result of an upset event in the refinery, but it could also be related to a process change maintenance activity or an intermittent emission from a source external to the refinery, as discussed above. The fenceline monitoring program recognizes these possibilities and provides a mechanism to identify and address these situations.

Because the rolling annual average Δc is based on the sample results from 26 individual 2-week sample periods, the rolling annual average Δc may remain above the benzene action level even after the root cause of the action level exceedance has been addressed. In other words, one elevated sampling period Δc value may continue to affect the rolling annual average Δc for subsequent sampling periods. This does not mean the emission source that contributed to the higher Δc value is continuing, but rather that the high Δc value may impact the rolling annual average Δc for an additional 25 sampling periods (until the high Δc value is no longer used in calculating the rolling annual average Δc).

How the Benzene Action Level was Developed

EPA established the benzene action level by conducting atmospheric dispersion modeling to determine expected fenceline benzene concentrations. The dispersion modeling used the emissions inventories reported by refineries in response to the 2011 Refinery ICR, which were adjusted to represent reductions from additional control requirements prescribed in amendments to Refinery MACT CC and 40 CFR part 63 subpart UUU (together, the Refinery Sector MACT Rules) that were published on Dec. 1, 2015. Atmospheric dispersion modeling is a mathematical simulation of how air pollutants disperse in the atmosphere, which allows the modeler to evaluate what the expected concentration would be at any given geographic point. These geographic points are referred to as receptor locations. Modeling was conducted using EPA's American Meteorological Society/EPA Regulatory Model dispersion modeling system (AERMOD) to determine estimated concentrations within the sites and extending from the facility outward to a distance of 50 kilometers. This modeling indicated that based on refinery emissions sources controlled consistent with the existing and updated provisions specified in the Refinery Sector MACT Rules, the maximum post-control benzene concentration expected at the fenceline should be 9 $\mu g/m^3$ (annual average).

The refinery emissions inventories generally reflect the emissions from emission sources with required emissions controls working as designed (e.g., no tears in seals for storage vessel floating roofs, water seals in sewer drains). If a refinery's emissions inventory is correct, then the annual average Δc benzene values for the refinery should not exceed 9 $\mu g/m^3$. Because EPA's modeling approach considers only the emissions from the refinery and not the background readings from emission sources external to the refinery, this concentration is comparable to the highest modeled fenceline concentration after correcting for these background emission sources. The subtraction of the lowest monitor reading from the highest monitor reading in the calculation of Δc accounts for background readings from these emissions sources.

Site-Specific Monitoring Plans

Refineries may request approval from EPA to use a site-specific monitoring plan to account for emissions sources from the refinery source category or external to the refinery that are not regulated by the Refinery Sector MACT Rules. The site-specific monitoring plan must include identification of these emissions sources. For excluded onsite sources, the plan must include documentation that the onsite source is excluded from the Refinery Sector MACT Rules. The plan must also include the location of any additional monitoring stations that will be used to determine a uniform background concentration or concentrations contributed by the excluded emission source(s); identification of the fenceline monitoring location(s) impacted by the excluded emissions source(s); and a description of the calculations that will be used to determine the concentration contribution for each monitoring location. If more frequent monitoring or a monitoring station other than a passive diffusive tube monitoring station is proposed, the plan must provide a detailed description of the measurement methods, measurement frequency, and recording frequency for determining the uniform background or concentrations contributed by the excluded emission source(s). These plans will be made available to the public in WebFIRE.

Data Flags

EPA Methods 325A and 325B include numerous quality control checks, including laboratory blanks, field blanks, and duplicate samples. In the event there are data that are flagged, under the "Sample Results" tab of this workbook, refiners may note the flags that have been identified on laboratory data and provide explanations of what these flags mean. Data flagged for adjustment or elimination will be documented in the site's refinery quarterly data reports that are submitted electronically through CEDRI.

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40 CFR Part 63 - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries - §63.655(h)(8) Fenceline Monitoring Report Spreadsheet Template

For fenceline monitoring systems subject to §63.658, each owner or operator shall submit the following inform

The asterisk (*) next to each field indicates that the corresponding field is required. There are comment boxes to assist with filling out this form. **You can show/hide comment boxes by selecting 'Review' from**

Facility Record No. *
(Field value will automatically generate if a value is not entered.)

XML Tag:
e.g.: 1
e.g.: ER01

1

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ıation to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) on a quarterly basis.

menu toolbar above and clicking on Show/Hide Comment or Show All Comments.

SITE INFORMATION

Facility Name * (§63.655(h)(8)(i))	**Address * (§63.655(h)(8)(i))**	**Address 2**	**City * (§63.655(h)(8)(i))**	**County ***	**State Abbreviation * (§63.655(h)(8)(i))**	**Zip Code * (§63.655(h)(8)(i))**
FacilityName	AddressLine1	AddressLine2	CityName	CountyName	StateName	ZIPCode
e.g.: ABC Company	e.g.: 123 Main Street	e.g.: Suite 101	e.g.: Brooklyn	e.g.: Kings	e.g.: NY	e.g.: 11221
e.g.: Exemplar Refining	e.g.: 345 Park	e.g.: Suite 100	e.g.: Houston	e.g.: Harris	e.g.: TX	e.g.: 77390
Philadelphia Energy Solutions	3144 Passyunk Avenue		Philadelphia	Philadelphia	PA	19145

	REPORTING PERIOD		ADDITIONAL INFORMATION	
Responsible Agency Facility ID (State Facility Identifier)	**Sampling Year * (§63.655(h)(8)(ii))**	**Sampling Quarter * (§63.655(h)(8)(ii))**	**Please enter any additional information.**	**Enter associated file name reference.**
StateFacID	SamplingYear	SamplingQuarter	AddInfo	AddFile
e.g.: AI 725647	e.g.: 2019	e.g.: Quarter 4	e.g.: This submission includes data for previous quarters.	e.g.: addlinfo.zip
e.g.: TX12345	e.g.: 2018	e.g.: Quarter 1		
110000336994	2019	Quarter 4	Report generated by Fenceline Pro™, powered by Trihydro	

ED_004461_00004036-00034

Cell: A12
Comment: Facility Record No. Comment:
The facility record number must be a unique identifier for each row in this sheet. You can enter your own ID or one can be generated for you.

Cell: B12
Comment: Facility Name Comment:
An individual facility should only be entered once in this sheet. Multiple rows should be completed only if there is more than one facility. Please use the additional information column to provide any necessary explanation.

Cell: J12
Comment: Sampling Year and Quarter Comment:
Provide the sampling year and sampling quarter. If you have more than one sampling year or quarter, provide the last sampling year and quarter and use the additional information column to provide further explanation.

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Submit the beginning and ending dates for each sampling period, the biweekly concentration difference (Δc) for each sampling period, and the annual average Δc for benzene for each sampling period.

NOTE: See tab labeled "Background" for information on interpretation of the data presented below.

The asterisk (*) next to each field indicates that the corresponding field is required.

Facility Record No. * **(Select from dropdown list)**
XML Tag:
e.g.: 1
e.g.: ER01
e.g.: ER01
e.g.: ER01
e.g.: ER01
1
1
1
1
1
1

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Sampling Period ID *	Sampling Period Start Date * (§63.655(h)(8)(iv))	Sampling Period End Date * (§63.655(h)(8)(iv))	Sampling Period Δc * (µg/m^3) (§63.655(h)(8)(iv))	Annual Average Δc * (µg/m^3) (§63.655(h)(8)(iv))	Comments
PeriodId	PeriodStartDate	PeriodEndDate	PeriodAvg	AnnualAvg	PeriodComments
e.g.: 010219	e.g.: 12/31/18	e.g.: 1/14/19	e.g.: 2	e.g.: 5	
e.g.: 2018-1	e.g.: 1/1/18	e.g.: 1/14/18	e.g.: 7.5	e.g.: 4.3	
e.g.: 2018-2	e.g.: 1/14/18	e.g.: 1/27/18	e.g.: 4.9	e.g.: 4.2	
e.g.: 2018-3	e.g.: 1/27/18	e.g.: 2/9/18	e.g.: 4.5	e.g.: 4.3	
2019-0925	9/25/2019	10/9/2019	9	49	
2019-1009	10/9/2019	10/23/2019	11	49	
2019-1023	10/23/2019	11/6/2019	13	49	
2019-1106	11/6/2019	11/20/2019	30	50	
2019-1120	11/20/2019	12/4/2019	44	51	
2019-1204	12/4/2019	12/18/2019	18	49	

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For the first reporting period and for any reporting period in which a passive monitor is added or moved, for each passive monitor: the latitude and longitude location coordinates; the sampler name; and identification of the type of sampler (i.e., regular monitor, extra monitor, duplicate, field blank, inactive). The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. Coordinates shall be in decimal degrees with at least five decimal places.

The asterisk (*) next to each field indicates that the corresponding field is required.

Facility Record No. * **(Select from dropdown list)**	**Sampler Name *** **(§63.655(h)(8)(iiii))**	**Latitude of Passive Sampler in Decimal Degree (at least five decimal places) *** **(§63.655(h)(8)(iiii))**	**Longitude of Passive Sampler in Decimal Degree (at least five decimal places) *** **(§63.655(h)(8)(iiii))**	**Passive Sampler Type *** **(§63.655(h)(8)(iiii))** (Select from dropdown list)	**Comments**
XML Tag:	SamplerName	SamplerLatitude	SamplerLongitude	SamplerType	SamplerComments
e.g.: 1	e.g.: PS1	e.g.: 34.12345	e.g.: -101.12345	e.g.: Regular Monitor	
e.g.: ER01	e.g.: ER-01	e.g.: 29.74615242	e.g.: -95.36109815	e.g.: Regular Monitor	
e.g.: ER01	e.g.: ER-03	e.g.: 29.7469659	e.g.: -95.36492524	e.g.: Duplicate	
e.g.: ER01	e.g.: ER-04	e.g.: 29.7469659	e.g.: -95.36492524	e.g.: Field Blank	
e.g.: ER01	e.g.: ER-11	e.g.: 29.75407539	e.g.: -95.35852382	e.g.: Extra Monitor	
1	1	39.91593	-75.19201	Regular Monitor	
1	10	39.92919	-75.19901	Regular Monitor	
1	10	39.92919	-75.19901	Field Blank	
1	11	39.91993	-75.19242	Regular Monitor	
1	11	39.91993	-75.19242	Field Blank	
1	12	39.92773	-75.21032	Regular Monitor	
1	13	39.90612	-75.21433	Regular Monitor	
1	13	39.90612	-75.21433	Duplicate	
1	14	39.90117	-75.21300	Regular Monitor	
1	14	39.90117	-75.21300	Duplicate	
1	16	39.90974	-75.20944	Regular Monitor	
1	16	39.90974	-75.20944	Duplicate	
1	17	39.90296	-75.20149	Regular Monitor	
1	17	39.90296	-75.20149	Duplicate	
1	18	39.91681	-75.20185	Regular Monitor	
1	18	39.91681	-75.20185	Field Blank	
1	2	39.91306	-75.19268	Regular Monitor	
1	20	39.90984	-75.21243	Regular Monitor	
1	20	39.90984	-75.21243	Duplicate	
1	21	39.92298	-75.21074	Regular Monitor	
1	22	39.92212	-75.20434	Regular Monitor	
1	22	39.92212	-75.20434	Field Blank	
1	23	39.92808	-75.20958	Regular Monitor	
1	23	39.92808	-75.20958	Field Blank	
1	24	39.91010	-75.20585	Regular Monitor	
1	25	39.90518	-75.19618	Regular Monitor	
1	25	39.90518	-75.19618	Duplicate	
1	26	39.93015	-75.20560	Regular Monitor	
1	26	39.93015	-75.20560	Field Blank	
1	27	39.91000	-75.19346	Regular Monitor	
1	27	39.91000	-75.19346	Duplicate	
1	28	39.89540	-75.20431	Regular Monitor	
1	28	39.89540	-75.20431	Duplicate	
1	31	39.91850	-75.19148	Regular Monitor	
1	31	39.91850	-75.19148	Field Blank	
1	32	39.92195	-75.20801	Regular Monitor	
1	32	39.92195	-75.20801	Field Blank	
1	33	39.90332	-75.21379	Regular Monitor	
1	33	39.90332	-75.21379	Duplicate	
1	34	39.92801	-75.19662	Regular Monitor	

1	34	39.92801	-75.19662	Field Blank	
1	35	39.92631	-75.19486	Regular Monitor	
1	35	39.92631	-75.19486	Field Blank	
1	36	39.92029	-75.19669	Regular Monitor	
1	37	39.92396	-75.19880	Regular Monitor	
1	37	39.92396	-75.19880	Field Blank	
1	37	39.92396	-75.19880	Duplicate	
1	4	39.91503	-75.20256	Regular Monitor	
1	4	39.91503	-75.20256	Duplicate	
1	5	39.91959	-75.20063	Regular Monitor	
1	5	39.91959	-75.20063	Field Blank	
1	6	39.89757	-75.20953	Regular Monitor	
1	6	39.89757	-75.20953	Duplicate	
1	7	39.89626	-75.20060	Regular Monitor	
1	7	39.89626	-75.20060	Duplicate	
1	8	39.89798	-75.20049	Regular Monitor	
1	8	39.89798	-75.20049	Duplicate	

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Report: (v) Individual sample results for benzene reported for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as below the detection limit and reported at the method detection limit. (vi) Data flags that indicate each monitor that was skipped for the sampling period, if the owner or operator uses an alternative sampling frequency under §63.658(e)(3). (vii) Data flags for each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part. For each outlier, the owner or operator must submit the individual sample result of the outlier, as well as the evidence used to conclude that the result is an outlier.

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Facility Record No. * (Select from dropdown list)	Sampling Period ID * (Select from dropdown list)	Sampler Name *	Passive Sampler Type (Select from dropdown list)	Sampling Period Benzene Concentration ($\mu g/m^3$) * (§63.655(h)(8)(v))	Corrected Sampling Period Benzene Concentration (e.g., if required by site-specific monitoring plan) ($\mu g/m^3$)	Below method detection limit (BDL)? * (§63.655(h)(8)(v))	Lab Reported Benzene Concentration for BDL Sample ($\mu g/m^3$)	Outlier? * (If yes, attach evidence in Additional Information on Facility Information tab.) (§63.655(h)(8)(vii))	Skipped due to §63.658(e)(3)? * (§63.655(h)(8)(vi))	Other Data Flag(s)	
XML Tag:	PeriodId	SamplerName	SamplerType	BenzeneAmt	CorrectedBenzeneAmt	BdlFlag	BdlAmt	OutlierFlag	SkippedFlag	OtherData	
e.g.: 1	e.g.: 010219	e.g.: PS1	e.g.: Regular Monitor	e.g.: 0.52		e.g.: no		e.g.: no	e.g.: no	e.g.: E	e.g.
e.g.: ER01	e.g.: 2018-1	e.g.: ER-01	e.g.: Regular Monitor	e.g.: 0.140		e.g.: yes	e.g.: 0.112	e.g.: no	e.g.: no		e.g.: Method detec
e.g.: ER01	e.g.: 2018-1	e.g.: ER-03	e.g.: Duplicate	e.g.: 12.0	e.g.: 4.00	e.g.: no		e.g.: no	e.g.: no	e.g.: X	e.g.: Adjusted for O
e.g.: ER01	e.g.: 2018-2	e.g.: ER-01	e.g.: Regular Monitor	e.g.: 0.258		e.g.: no		e.g.: no	e.g.: no	e.g.: J	e.g.: Estim
e.g.: ER01	e.g.: 2018-2	e.g.: ER-03	e.g.: Duplicate	e.g.: 22.0	e.g.: 0.00	e.g.: no		e.g.: no	e.g.: no	e.g.: Fe	e.g.: Discarded due
e.g.: ER01	e.g.: 2018-3	e.g.: ER-01	e.g.: Regular Monitor	e.g.: 2.00		e.g.: no		e.g.: no	e.g.: no		
1	2019-0925	1	Regular Monitor	3.8		no		no	no		
1	2019-0925	10	Regular Monitor	0.77		no		no	no		
1	2019-0925	11	Regular Monitor	1.8		no		no	no		
1	2019-0925	12	Regular Monitor	0.75		no		no	no		
1	2019-0925	13	Regular Monitor	1.2		no		no	no		
1	2019-0925	13	Duplicate	1.2		no		no	no		
1	2019-0925	14	Regular Monitor	2.5		no		no	no		
1	2019-0925	16	Regular Monitor	2.0		no		no	no		
1	2019-0925	17	Regular Monitor	1.8		no		no	no		
1	2019-0925	18	Regular Monitor	1.6		no		no	no		
1	2019-0925	2	Regular Monitor	1.9		no		no	no		
1	2019-0925	20	Regular Monitor	1.3		no		no	no		
1	2019-0925	21	Regular Monitor	1.2		no		no	no		
1	2019-0925	22	Regular Monitor	0.79		no		no	no		
1	2019-0925	23	Regular Monitor	0.67		no		no	no		
1	2019-0925	24	Regular Monitor	1.9		no		no	no		
1	2019-0925	25	Regular Monitor	1.6		no		no	no		
1	2019-0925	26	Regular Monitor	0.94		no		no	no		
1	2019-0925	27	Regular Monitor	2.6		no		no	no		
1	2019-0925	27	Duplicate	2.6		no		no	no		
1	2019-0925	28	Regular Monitor	4.2		no		no	no		
1	2019-0925	31	Regular Monitor	2.0		no		no	no		
1	2019-0925	32	Regular Monitor	1.0		no		no	no		
1	2019-0925	32	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-0925	33	Regular Monitor	1.9		no		no	no		
1	2019-0925	34	Regular Monitor	0.80		no		no	no		
1	2019-0925	35	Regular Monitor	0.97		no		no	no		
1	2019-0925	36	Regular Monitor	1.3		no		no	no		
1	2019-0925	37	Regular Monitor	0.97		no		no	no		
1	2019-0925	37	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-0925	4	Regular Monitor	1.6		no		no	no		
1	2019-0925	5	Regular Monitor	1.1		no		no	no		
1	2019-0925	6	Regular Monitor	1.4		no		no	no		
1	2019-0925	6	Duplicate	1.4		no		no	no		
1	2019-0925	7	Regular Monitor	10		no		no	no		
1	2019-0925	8	Regular Monitor	5.3		no		no	no		
1	2019-1009	1	Regular Monitor	2.8		no		no	no		
1	2019-1009	10	Regular Monitor	0.67		no		no	no		
1	2019-1009	11	Regular Monitor	1		no		no	no		
1	2019-1009	12	Regular Monitor	0.75		no		no	no		
1	2019-1009	13	Regular Monitor	1.4		no		no	no		
1	2019-1009	14	Regular Monitor	2.5		no		no	no		
1	2019-1009	14	Duplicate	2.6		no		no	no		
1	2019-1009	16	Regular Monitor	2.2		no		no	no		
1	2019-1009	17	Regular Monitor	2.5		no		no	no		
1	2019-1009	18	Regular Monitor	3.1		no		no	no		
1	2019-1009	2	Regular Monitor	2.6		no		no	no		
1	2019-1009	20	Regular Monitor	1.1		no		no	no		
1	2019-1009	20	Duplicate	1.2		no		no	no		
1	2019-1009	21	Regular Monitor	0.68		no		no	no		
1	2019-1009	22	Regular Monitor	0.7		no		no	no		
1	2019-1009	22	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1009	23	Regular Monitor	0.66		no		no	no		
1	2019-1009	24	Regular Monitor	3.3		no		no	no		
1	2019-1009	25	Regular Monitor	1.8		no		no	no		
1	2019-1009	25	Duplicate	1.7		no		no	no		
1	2019-1009	26	Regular Monitor	1.1		no		no	no		
1	2019-1009	27	Regular Monitor	2.4		no		no	no		
1	2019-1009	28	Regular Monitor	3.5		no		no	no		
1	2019-1009	31	Regular Monitor	1.4		no		no	no		
1	2019-1009	32	Regular Monitor	0.83		no		no	no		
1	2019-1009	33	Regular Monitor	1.8		no		no	no		
1	2019-1009	34	Regular Monitor	0.7		no		no	no		
1	2019-1009	35	Regular Monitor	0.72		no		no	no		
1	2019-1009	35	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1009	36	Regular Monitor	1.1		no		no	no		
1	2019-1009	37	Regular Monitor	0.67		no		no	no		
1	2019-1009	4	Regular Monitor	1.2		no		no	no		
1	2019-1009	5	Regular Monitor	0.92		no		no	no		

1	2019-1009	6	Regular Monitor	1.9		no		no	no	
1	2019-1009	7	Regular Monitor	12		no		no	no	
1	2019-1009	8	Regular Monitor	2.3		no		no	no	
1	2019-1023	1	Regular Monitor	8.5		no		no	no	
1	2019-1023	10	Regular Monitor	1.1		no		no	no	
1	2019-1023	11	Regular Monitor	2.4		no		no	no	
1	2019-1023	12	Regular Monitor	0.9		no		no	no	
1	2019-1023	13	Regular Monitor	1.7		no		no	no	
1	2019-1023	14	Regular Monitor	2.2		no		no	no	
1	2019-1023	16	Regular Monitor	2.7		no		no	no	
1	2019-1023	16	Duplicate	2.8		no		no	no	
1	2019-1023	17	Regular Monitor	2.8		no		no	no	
1	2019-1023	17	Duplicate	3		no		no	no	
1	2019-1023	18	Regular Monitor	1.5		no		no	no	
1	2019-1023	2	Regular Monitor	7.8		no		no	no	
1	2019-1023	20	Regular Monitor	1.9		no		no	no	
1	2019-1023	21	Regular Monitor	1		no		no	no	
1	2019-1023	22	Regular Monitor	0.96		no		no	no	
1	2019-1023	23	Regular Monitor	0.82		no		no	no	
1	2019-1023	24	Regular Monitor	2.4		no		no	no	
1	2019-1023	25	Regular Monitor	2.3		no		no	no	
1	2019-1023	26	Regular Monitor	0.96		no		no	no	
1	2019-1023	27	Regular Monitor	4		no		no	no	
1	2019-1023	28	Regular Monitor	5		no		no	no	
1	2019-1023	31	Regular Monitor	3.2		no		no	no	
1	2019-1023	32	Regular Monitor	1.1		no		no	no	
1	2019-1023	33	Regular Monitor	2.3		no		no	no	
1	2019-1023	33	Duplicate	2.1		no		no	no	
1	2019-1023	34	Regular Monitor	0.98		no		no	no	
1	2019-1023	34	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1023	35	Regular Monitor	1		no		no	no	
1	2019-1023	36	Regular Monitor	1.8		no		no	no	
1	2019-1023	37	Regular Monitor	1.1		no		no	no	
1	2019-1023	4	Regular Monitor	1.3		no		no	no	
1	2019-1023	5	Regular Monitor	1.1		no		no	no	
1	2019-1023	5	Field Blank	0.27		no		no	no	J	
1	2019-1023	6	Regular Monitor	1.9		no		no	no	
1	2019-1023	7	Regular Monitor	14		no		no	no	
1	2019-1023	8	Regular Monitor	5.2		no		no	no	
1	2019-1106	1	Regular Monitor	3.6		no		no	no	
1	2019-1106	10	Regular Monitor	1.1		no		no	no	
1	2019-1106	10	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1106	11	Regular Monitor	2.0		no		no	no	
1	2019-1106	12	Regular Monitor	0.87		no		no	no	
1	2019-1106	13	Regular Monitor	1.5		no		no	no	
1	2019-1106	13	Duplicate	1.4		no		no	no	
1	2019-1106	14	Regular Monitor	2.3		no		no	no	
1	2019-1106	16	Regular Monitor	2.5		no		no	no	
1	2019-1106	17	Regular Monitor	3.2		no		no	no	
1	2019-1106	18	Regular Monitor	1.4		no		no	no	
1	2019-1106	18	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1106	2	Regular Monitor	2.1		no		no	no	
1	2019-1106	20	Regular Monitor	1.7		no		no	no	
1	2019-1106	21	Regular Monitor	1.1		no		no	no	
1	2019-1106	22	Regular Monitor	1.1		no		no	no	
1	2019-1106	23	Regular Monitor	0.85		no		no	no	
1	2019-1106	24	Regular Monitor	2.6		no		no	no	
1	2019-1106	24	Regular Monitor	2.6		no		no	no	
1	2019-1106	25	Regular Monitor	2.6		no		no	no	
1	2019-1106	26	Regular Monitor	0.90		no		no	no	
1	2019-1106	27	Regular Monitor	3.5		no		no	no	
1	2019-1106	28	Regular Monitor	4.6		no		no	no	
1	2019-1106	31	Regular Monitor	2.4		no		no	no	
1	2019-1106	32	Regular Monitor	1.2		no		no	no	
1	2019-1106	33	Regular Monitor	1.8		no		no	no	
1	2019-1106	34	Regular Monitor	1.2		no		no	no	
1	2019-1106	35	Regular Monitor	1.3		no		no	no	
1	2019-1106	36	Regular Monitor	1.9		no		no	no	
1	2019-1106	37	Regular Monitor	1.3		no		no	no	
1	2019-1106	4	Regular Monitor	1.6		no		no	no	
1	2019-1106	5	Regular Monitor	1.4		no		no	no	
1	2019-1106	6	Regular Monitor	2.3		no		no	no	
1	2019-1106	7	Regular Monitor	31		no		no	no		Related to fugitives (non- routine). De
1	2019-1106	8	Regular Monitor	9.1		no		no	no	
1	2019-1106	8	Duplicate	9.5		no		no	no	
1	2019-1120	1	Regular Monitor	3.8		no		no	no	
1	2019-1120	10	Regular Monitor	1.2		no		no	no	
1	2019-1120	11	Regular Monitor	3		no		no	no	
1	2019-1120	11	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1120	12	Regular Monitor	0.99		no		no	no	
1	2019-1120	13	Regular Monitor	1.5		no		no	no	
1	2019-1120	14	Regular Monitor	1.6		no		no	no	
1	2019-1120	16	Regular Monitor	1.8		no		no	no	
1	2019-1120	17	Regular Monitor	2.7		no		no	no	
1	2019-1120	18	Regular Monitor	1.4		no		no	no	
1	2019-1120	2	Regular Monitor	2.3		no		no	no	
1	2019-1120	20	Regular Monitor	1.6		no		no	no	
1	2019-1120	20	Duplicate	1.6		no		no	no	
1	2019-1120	21	Regular Monitor	1.3		no		no	no	
1	2019-1120	22	Regular Monitor	1.1		no		no	no	
1	2019-1120	23	Regular Monitor	0.92		no		no	no	
1	2019-1120	24	Regular Monitor	2.3		no		no	no	
1	2019-1120	25	Regular Monitor	2.3		no		no	no	
1	2019-1120	26	Regular Monitor	0.99		no		no	no	
1	2019-1120	26	Field Blank	0.19		no		no	no	U	Compound analyze
1	2019-1120	27	Regular Monitor	2.8		no		no	no	
1	2019-1120	28	Regular Monitor	5.8		no		no	no	
1	2019-1120	31	Regular Monitor	2.5		no		no	no	
1	2019-1120	32	Regular Monitor	1.5		no		no	no	
1	2019-1120	33	Regular Monitor	1.5		no		no	no	

1	2019-1120	34	Regular Monitor	1.2		no		no	no	
1	2019-1120	35	Regular Monitor	1.1		no		no	no	
1	2019-1120	36	Regular Monitor	1.4		no		no	no	
1	2019-1120	37	Regular Monitor	1.1		no		no	no	
1	2019-1120	4	Regular Monitor	1.4		no		no	no	
1	2019-1120	4	Duplicate	1.4		no		no	no	
1	2019-1120	5	Regular Monitor	1.2		no		no	no	
1	2019-1120	6	Regular Monitor	1.6		no		no	no	
1	2019-1120	7	Regular Monitor	46		no		no	no	Related to fugitives (non- routine). De
1	2019-1120	7	Duplicate	43		no		no	no	
1	2019-1120	8	Regular Monitor	6.6		no		no	no	
1	2019-1204	1	Regular Monitor	4.7		no		no	no	
1	2019-1204	10	Regular Monitor	1.1		no		no	no	
1	2019-1204	11	Regular Monitor	2.5		no		no	no	
1	2019-1204	12	Regular Monitor	1.0		no		no	no	
1	2019-1204	13	Regular Monitor	1.4		no		no	no	
1	2019-1204	14	Regular Monitor	2.0		no		no	no	
1	2019-1204	16	Regular Monitor	2.3		no		no	no	
1	2019-1204	16	Duplicate	2.6		no		no	no	
1	2019-1204	17	Regular Monitor	1.6		no		no	no	
1	2019-1204	18	Regular Monitor	1.8		no		no	no	
1	2019-1204	2	Regular Monitor	4.0		no		no	no	
1	2019-1204	20	Regular Monitor	1.4		no		no	no	
1	2019-1204	21	Regular Monitor	1.1		no		no	no	
1	2019-1204	22	Regular Monitor	1.0		no		no	no	
1	2019-1204	23	Regular Monitor	1.0		no		no	no	
1	2019-1204	23	Field Blank	0.19		no		no	no	U Compound analyze
1	2019-1204	24	Regular Monitor	3.0		no		no	no	
1	2019-1204	25	Regular Monitor	1.9		no		no	no	
1	2019-1204	26	Regular Monitor	0.90		no		no	no	
1	2019-1204	27	Regular Monitor	3.6		no		no	no	
1	2019-1204	28	Regular Monitor	6.7		no		no	no	
1	2019-1204	28	Duplicate	6.8		no		no	no	
1	2019-1204	31	Regular Monitor	3.4		no		no	no	
1	2019-1204	31	Field Blank	0.19		no		no	no	U Compound analyze
1	2019-1204	32	Regular Monitor	1.1		no		no	no	
1	2019-1204	33	Regular Monitor	1.9		no		no	no	
1	2019-1204	34	Regular Monitor	1.0		no		no	no	
1	2019-1204	35	Regular Monitor	1.2		no		no	no	
1	2019-1204	36	Regular Monitor	2.2		no		no	no	
1	2019-1204	37	Regular Monitor	0.48		no		no	no	
1	2019-1204	37	Duplicate	1.1		no		no	no	
1	2019-1204	4	Regular Monitor	2.7		no		no	no	
1	2019-1204	5	Regular Monitor	1.3		no		no	no	
1	2019-1204	6	Regular Monitor	1.1		no		no	no	
1	2019-1204	7	Regular Monitor	19		no		no	no	
1	2019-1204	8	Regular Monitor	7.4		no		no	no	

Cell: B12
Comment: Sampling Period ID Comment:
The sampling period IDs in this column must match the sampling period IDs on the "Period Identifications" tab. A drop down box of these names is in this column to assist you.

Cell: C12
Comment: Sampler Name Comment:
If you have sampler names listed on the "Sampler Information" tab, the sampler names listed in the columns must match the sampler names on the "Sampler Information" tab. A drop down box of these names is in this column to assist you.

Cell: E12
Comment: Sampling Period Benzene Concentration Comment:
If sample is below the method detection limit, report the detection limit. Do not report zero or ND. Please do not use the less than symbol in this column.

Date	Description
6/21/2019	Added comment boxes to multiple worksheets to provide additional instruction.

Rank	FacilityNum	FacilityNumber	Column1
1	1	1	1

Rank	PeriodID	Period
1	2019-0925	2019-0925
2	2019-1009	2019-1009
3	2019-1023	2019-1023
4	2019-1106	2019-1106
5	2019-1120	2019-1120
6	2019-1204	2019-1204

Column1
2019-0925
2019-1009
2019-1023
2019-1106
2019-1120
2019-1204

SamplerName	Column1	Rank	Sampler
1	1	1	1
10	10	2	10
10			11
11	11	3	12
11			13
12	12	4	14
13	13	5	16
13			17
14	14	6	18
14			2
16	16	7	20
16			21
17	17	8	22
17			23
18	18	9	24
18			25
2	2	10	26
20	20	11	27
20			28
21	21	12	31
22	22	13	32
22			33
23	23	14	34
23			35
24	24	15	36
25	25	16	37
25			4
26	26	17	5
26			6
27	27	18	7
27			8
28	28	19	
28			
31	31	20	
31			
32	32	21	

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33	33	22
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34	34	23
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35	35	24
35		
36	36	25
37	37	26
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4	4	27
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5	5	28
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6	6	29
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7	7	30
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8	8	31
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States
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IL
IN
KS
KY
LA
MA
MD
ME
MI
MN
MO
MP
MS
MT
NC
ND
NE
NH
NJ
NM

SamplerType
Regular Monitor
Extra Monitor
Duplicate
Field Blank
Inactive

NV
NY
OH
OK
OR
PA
PR
RI
SC
SD
TN
TX
UT
VA
VI
VT
WA
WI
WV
WY