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Date: OCT 0 2 2020
Symbol: EPC-DO: 20-302
LA-UR: 20-27574
Locates Action No.: NA

Mr. Kevin Pierard
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Subject: **Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 12, Los Alamos National Laboratory EPA ID #NM0890010515**

The United States Department of Energy (DOE) National Nuclear Security Administration, Los Alamos Field Office and Triad National Security, LLC (Triad) submit this report to the New Mexico Environment Department, Hazardous Waste Bureau (NMED-HWB) in accordance with Section 3.14.3 of the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit requires that a soil vapor monitoring system for the LANL Technical Area (TA)-63 Transuranic Waste Facility (TWF) be sampled for certain volatile organic compounds (VOCs) and evaluated on a quarterly basis after operations at the facility commence. This report provides analytical data for the twelfth quarter period following the start of operations in October, 2017. The sampling results indicate that vapor concentrations at the site do not exceed the soil gas screening levels established by the Permit.

The attached enclosure for this report includes a discussion of the history and analytical findings for the twelfth quarter, a figure of the LANL TWF permitted unit with the soil vapor monitoring well locations, a data summary with analytical results for the quarter, a data comparison table, and sample collection logs. Specifically, Table 1 is a summary of the analytical results for the twelfth quarter and includes detected VOCs, detection limits, the appropriate soil gas screening levels from Permit Tables 3.14.3.1-3, and a percentage comparison of the detected levels of VOCs with the screening levels. Table 2 is a listing of the analytical results for the sampling event. Table 3 is a comparison table of the detected VOCs for the twelve quarters of sampling currently collected for the soil vapor

monitoring wells. This report also presents a statistical evaluation of the data collected for the project to this date.

A report certification is included with this submittal in compliance with Permit Section 1.9.16. A compact disc with copies of this submittal and the analytical data in an Excel format is also included to facilitate the review of the monitoring results by NMED-HWB.

If you have questions or comments concerning this report, please contact Karen E. Armijo, DOE, at (505) 665-7314, karen.armijo@nnsa.doe.gov, or Patrick L. Padilla, Triad, at (505) 667-3932, plpadilla@lanl.gov.

Sincerely,

JENNIFER PAYNE (Affiliate) Digitally signed by JENNIFER PAYNE (Affiliate) Date: 2020.09.29 13:00:07 -06'00'

Jennifer E. Payne
Division Leader
Environmental Protection & Compliance Division
Triad National Security, LLC

Sincerely,

Karen E. Armijo Digitally signed by Karen E. Armijo Date: 2020.10.01 13:18:17 -06'00'

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy

JEP/KEA/PLP

Enclosure: 1) Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 12, Los Alamos National Laboratory EPA ID #NM0890010515

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The attached enclosure for this report includes a discussion of the history and analytical findings for the twelfth quarter, a figure of the LANL TWF permitted unit with the soil vapor monitoring well locations, a data summary with analytical results for the quarter, a data comparison table, and sample collection logs. Specifically, Table 1 is a summary of the analytical results for the twelfth quarter and includes detected VOCs, detection limits, the appropriate soil gas screening levels from Permit Tables 3.14.3.1-3, and a percentage comparison of the detected levels of VOCs with the screening levels. Table 2 is a listing of the analytical results for the sampling event. Table 3 is a comparison table of the detected VOCs for the twelve quarters of sampling currently collected for the soil vapor

ENCLOSURE 1

TA-63 Transuranic Waste Facility
Soil Vapor Monitoring System Report,
Quarter 12,
Los Alamos National Laboratory
EPA ID #NM0890010515

EPC-DO-20-302

LAUR-20-27574
Unclassified

Date: OCT 0 2 2020

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Technical Area 63 Transuranic Waste Facility
Soil Vapor Monitoring System Report
Quarter 12
Los Alamos National Laboratory
EPA ID #NM0890010515

I. Introduction

This report presents the twelfth quarterly sampling of a soil vapor monitoring system for the Technical Area (TA)-63 Transuranic Waste Facility (TWF) at Los Alamos National Laboratory (LANL). Construction of the TWF was approved by the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) as a modification to the LANL Hazardous Waste Facility Permit (Permit) on December 23, 2013. The permit modification included requirements for monitoring subsurface vapors to prevent worker exposure to potentially harmful levels of volatile organic compounds (VOCs) at the TWF (Permit Section 3.14.3). Sampling and analysis for the twelfth quarter of waste management operations at TWF has established that soil vapor concentrations at the site do not exceed the screening levels established by the Permit. This report also presents a statistical analysis of the data as part of an on-going review of the need for sampling on a quarterly timeframe.

II. TWF Soil Vapor Monitoring Wells

The TWF subsurface vapor monitoring network consists of five vapor monitoring wells in or near the permitted storage unit as specified in Permit Section A.6.10. The TWF is located south-east of the TA-50 Material Disposal Area C, Solid Waste Management Unit 50-009, (MDA-C) at LANL, which appears to be the source of the soil vapor constituents being monitored. Two of the monitoring wells are located close to the storage building foundations adjacent to the unit boundary facing MDA-C and the utility corridor on Puye Road as depicted by well locations VMW-1 (LANL Structure Number 63-2009) and VMW-2 (63-2010) in Figure 1. A third monitoring well within the permitted unit is located at a point on the western edge of the unit close to the utility corridor on Pajarito Road, as depicted by well location VMW-3 (63-2011) in Figure 1. The sampling ports for these three wells are located at a 5 foot nominal depth below the concrete pad of the TWF permitted storage unit. Two monitoring wells are located outside the permitted unit across Puye Road to the north and closer to MDA-C, as depicted by well locations VMW-4 (63-2012) and VMW-5 (63-2013) in Figure 1. There are two sampling ports for both these wells located at depths of 25 and 60 feet.

III. Soil Vapor Sampling

The soil vapor monitoring wells at the TA-63 TWF were sampled for the twelfth quarter of waste management operations on August 3, 2020. Sampling procedures and VOC analyses of the obtained samples were scheduled and performed in compliance with the conditions contained in the Permit. Analytical results for the samples were compared to the soil gas screening levels (SGSLs) for individual VOC constituents in Section 3.14.3 of the Permit.

Sampling and analysis was performed as required by U.S. Environmental Protection Agency (EPA) Method TO-15. Soil vapor gases were extracted through the stainless steel tubing of the sampling ports of the TA-63 TWF wells and were collected from all sampling ports. All gas samples were collected in stainless steel canisters and submitted for laboratory analysis of VOCs using the method. The samples were analyzed for the constituents identified in Tables 3.14.3.1, 3.14.3.2 and 3.14.3.3 in the Permit. There were no variances in the sampling procedures from the Permit requirements.

IV. Analytical Results

A summary of the analytical results for the relevant VOCs detected for this sampling event is presented in Table 1 of this report. While analyses of the samples indicated some results above the report detection limits for trichloroethylene (TCE) and other VOCs, none of the concentrations exceed the relevant SGSLs contained in Permit Tables 3.14.3.1 through 3. Table 1 of this report lists the detected VOCs and includes the calculated percentage of the SGSL as an indicator of the relative concentrations. A complete listing of the full analytical results is included in Table 2.

TCE is the highest concentration VOC detected in this sample event and in previous TA-63 TWF quarterly sampling events. TCE concentrations were detected in all of the five monitoring well locations. The VMW-4 and VMW-5 locations at the 60 foot depth contain the highest concentrations for each of the monitoring wells at 8.1% and 1.5% of the SGSL respectively. These are the soil vapor monitoring wells closest to MDA-C and are not located within the permitted storage unit site at TA-63. The three monitoring wells within the permitted unit (VMW-1, VMW-2 and VMW-3) have detected concentrations for TCE of less than 1.0% of the SGSL.

Chloroform is an additional VOC constituents of concern that is routinely seen in this project and included in the soil gas monitoring screening level tables in the Permit. It was determined to be present at concentrations higher than the report detection limits in three of the soil vapor monitoring samples. The well locations north of Puye Road (VMW-4 and VMW-5) detected the additional chloroform results as included in Table 1 but none of the detections at these two locations exceeded 1.0% of the SGSLs listed in the Permit. The three well locations within the boundary of the TWF permitted unit (VMW-1, VMW-2 and VMW-3) did not indicate additional VOCs other than TCE above the report detection limits for this quarter.

The TA-63 TWF soil vapor monitoring wells were originally installed in August 2015. Baseline soil vapor monitoring samples were taken in September 2015 and the results submitted to NMED on October 29, 2015 (LANL, 2015). Reports were submitted with analytical results for the eleven previous quarters of waste management operations at the TWF and are listed in the references following this discussion. In reply to a letter from NMED-HWB dated May 23, 2018 (NMED, 2018), Table 3 is included in this report to show the current and previous quarterly soil gas screening level results at the facility for tracking purposes. The sampling results reported herein for the twelfth quarter of operations at TWF are consistent with the previous results and do not appear to indicate additional contaminant concerns pending future sampling events subject to the Permit.

V. Additional Discussion

This section of the report discusses additional issues related to the analytical results presented. This quarter's data does not show any additional supporting data for the detection of four new VOC constituents in the VMW-5 60-foot sampling port field duplicate. Those VOCs included tetrahydrofuran, ethanol, propanol-2 (isopropyl alcohol), and 2-butanone in the field duplicate as reported in the tenth quarter TWF sampling report (LANL, 2020c). As discussed in the notification of additional constituents submitted to NMED (LANL, 2020b) required by Permit Section 3.14.3, there were no previous or supporting indications for the detections at that point in the sampling project. The eleventh quarter sampling did not detect the constituents but did state that the issue would be re-evaluated in future sampling events. The data for this quarter also contains a field duplicate for the VMW-5 60-foot sampling port and the additional VOC constituents were not detected in either sample.

Ethanol and propanol[2-] were indicated at concentrations below the report detection limits for two well samples. These were wells VMW-1 and the 25 foot port for Well VMW-4 (see Table 1) and have "J" EPA data qualifiers. These results will be evaluated for re-occurrence in future sampling events and reported to NMED for these wells if detected above the report detection limits. Neither of these constituents is included with the VOC constituents identified in Tables 3.14.3.1, 3.14.3.2 and 3.14.3.3 in the Permit.

Two VOC constituents included in the Permit tables (ethylbenzene and xylene isomers) have been detected in the field blank samples for the sixth through eleventh quarters (LANL, 2019a; LANL, 2019b; LANL, 2019c; LANL, 2020a; LANL, 2020c; LANL, 2020d) and were not detected in samples taken from the actual soil vapor monitoring wells. Ethylbenzene and xylene isomers have also been detected in the field blank analysis for this quarter. The relative concentrations of these constituents are well below the permitted SGSLs for the constituent concentrations (<0.1%). Review of the analytical laboratory data does not indicate a data quality error and this may be an equipment or procedural anomaly as it is limited to the blank sample.

The following statistical discussion is included to demonstrate that the sampling data collected for TCE as the main soil vapor constituent detected during the TA-63 TWF operating period has been relatively stable. The mean and standard deviation for the quarterly TCE concentrations in

each port in the soil vapor monitoring wells during facility waste operations are presented in Table 4 of this submittal to assist in the determination of whether the concentrations for the major constituent detected by this project can be described statistically as within a range of defined concentrations. As shown in Table 4, the TCE concentrations analyzed for the soil vapor monitoring wells for the twelve quarters have remained within the limits of a two standard deviation interval of the sample above or below the mean analytical values with a confidence probability of 95% with two near-range exceptions. A three standard deviation calculation has been added to Table 4 for the wells with exceptions to demonstrate that the concentrations for the exceptions fall within a range with a confidence probability of 99%. Therefore, no significant deviations have been observed for the average TCE concentrations for each sampling port or well to that approximate level of confidence.

Simple linear regression plots for the wells have also been included in Figures 2 and 3 to evaluate whether any significant trends are readily discernable regarding constituent concentration changes over quarters. The line plots for the concentrations determined for separate sampling locations are relatively flat and there do not appear to be data relationships between the well results that would indicate a consistent effect in changing constituent concentrations such as seasonal variations. The concentrations detected are also far below the permitted maximum SGSL constituent concentrations for TCE (by at least one order of magnitude). The TCE concentrations for the quarters collected to this date appear relatively stable. This suggests that any increase in VOC concentrations that would be of concern according to the Permit conditions for reporting would likely occur slowly over time and will be easily identified without approaching the SGSLs.

References

LANL, 2015. *TA-63 Transuranic Waste Facility Soil Vapor Monitoring System Report*, (ENV-DO-15-0305), October 29, 2015. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2017. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 1, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:17-560), December 21, 2017. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2018a. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 2, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:18-139) of March 30, 2018. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2018b. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 3, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:18-245) of June 28, 2018. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2018c. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 4, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:18-349) of September 26, 2018. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2018d. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 5, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:18-448) of December 27, 2018. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2019a. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 6, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:19-103) of April 4, 2019. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2019b. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 7, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:19-203) of June 26, 2019. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2019c. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 8, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:19-343) of September 30, 2019. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2020a. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 9, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:19-467) of January 10, 2020. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2020b. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Additional Information, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:20-121) of March 26, 2020. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2020c. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 10, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:20-121) of March 30, 2020. Los Alamos National Laboratory, Los Alamos, New Mexico.

LANL, 2020d. *Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 11, Los Alamos National Laboratory EPA ID #NM0890010515*, (EPC-DO:20-196) of June 30, 2020. Los Alamos National Laboratory, Los Alamos, New Mexico.

NMED, 2010. *Los Alamos National Laboratory Hazardous Waste Facility Permit*, issued by New Mexico Environment Department, Hazardous Waste Bureau, November 30, 2010 and subsequent revisions.

NMED, 2018. Letter: "*Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 2, Los Alamos National Laboratory EPA ID#NM0890010515, HWB-LANL-18-016,*" dated May 23, 2018. New Mexico Environment Department, Hazardous Waste Bureau, Santa Fe, New Mexico.

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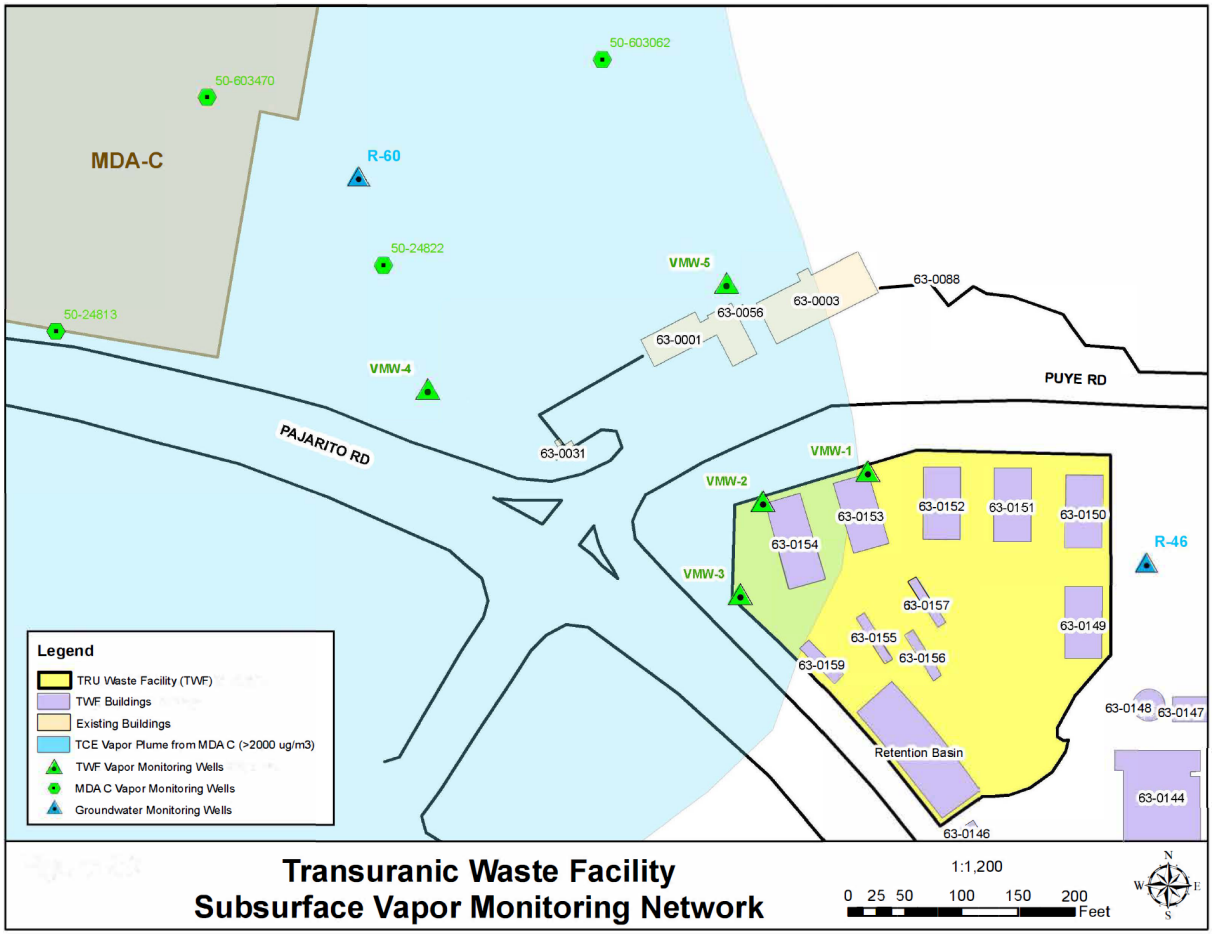

Figure 1

Soil Vapor Monitoring Well Locations at TA-63 TWF

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Table 1. Detected Volatile Organic Compounds
at TA-63 Transuranic Waste Facility – Quarter 12

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Table 1: Detected Volatile Organic Compounds
at TA-63 Transuranic Waste Facility Soil Vapor Monitoring System – Quarter 12

Well	Sample ID	Sample Port Depth (ft)	Analyte/Constituent	Listing in Permit Tables	Result (ug/m^3)	EPA Data Qualifier	Report Detection Limit (ug/m^3)	Soil-Gas Screening Level (ug/m^3)	Percentage Of SGSL (%)
VMW-1 63-2009	TWF63-20-205515	5	Ethanol	NA	58	J	70	NA	NA
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	6.0	J	50	4.86E+07	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	6.9	J	45	1.03E+06	<0.1
			Trichloroethene	Trichloroethylene	59	NQ	49	1.94E+04	0.3
VMW-2 63-2010	TWF63-20-205516	5	Dichlorodifluoromethane	Dichlorodifluoromethane	5.9	J	43	1.03E+06	<0.1
			Trichloroethene	Trichloroethylene	86	NQ	46	1.94E+04	0.4
VMW-3 63-2011	TWF63-20-205517	5	Trichloroethene	Trichloroethylene	75	NQ	49	1.94E+04	0.4
VMW-4 63-2012	TWF63-20-205518	25	Tetrachloroethene	Tetrachloroethylene	40	J	64	2.63E+06	<0.1
			Carbon tetrachloride	Carbon tetrachloride	39	J	59	1.06E+05	<0.1
			Propanol[2-]	NA	32	J	91	NA	NA
			Chloroform	Chloroform	88	NQ	46	2.30E+04	0.4
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	5.5	J	51	1.16E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	59	NQ	46	2.61E+06	<0.1
			Trichloroethene	Trichloroethylene	2600	NQ	50	1.57E+05	1.7
VMW-4 63-2012	TWF63-20-205519	60	Tetrachloroethene	Tetrachloroethylene	81	NQ	61	2.05E+06	<0.1
			Dichloroethene[cis-1,-2]	cis-1,2-Dichloroethylene	22	J	36	2.91E+06	<0.1
			Carbon Tetrachloride	Carbon tetrachloride	100	NQ	57	2.13E+05	<0.1
			Chloroform	Chloroform	200	NQ	44	4.44E+04	0.5
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	13	J	49	2.34E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	160	NQ	44	5.38E+06	<0.1
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	1,1,2-Trichloro-1,2,2-trifluoroethane	24	J	69	1.38E+09	<0.1
			Trichloroethene	Trichloroethylene	7500	NQ	48	9.27E+04	8.1
VMW-5 63-2013	TWF63-20-205520	25	Chloroform	Chloroform	40	J	45	2.30E+04	0.2
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	19	J	50	1.16E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	37	J	45	2.61E+06	<0.1
			Trichloroethene	Trichloroethylene	390	NQ	49	1.57E+05	0.2

Table 1: Detected Volatile Organic Compounds
at TA-63 Transuranic Waste Facility Soil Vapor Monitoring System – Quarter 12

Well	Sample ID	Sample Port Depth (ft)	Analyte/Constituent	Listing in Permit Tables	Result (ug/m^3)	EPA Data Qualifier	Report Detection Limit (ug/m^3)	Soil-Gas Screening Level (ug/m^3)	Percentage Of SGSL (%)
VMW-5 63-2013	TWF63-20-205521	60	Carbon Tetrachloride	Carbon tetrachloride	18	J	58	2.13E+05	<0.1
			Chloroform	Chloroform	20	J	45	4.44E+04	<0.1
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	40	J	50	2.34E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	69	NQ	45	5.38E+06	<0.1
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	1,1,2-Trichloro-1,2,2-trifluoroethane	17	J	70	1.38E+09	<0.1
			Trichloroethene	Trichloroethylene	1400	NQ	49	9.27E+04	1.5
VMW-5 63-2013	TWF63-20-205522 Field Duplicate	60	Carbon Tetrachloride	Carbon tetrachloride	19	J	58	2.13E+05	<0.1
			Chloroform	Chloroform	24	J	45	4.44E+04	<0.1
			Trichloroethane [1,1,1-]	1,1,1-Trichloroethane	38	J	50	2.34E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	69	NQ	45	5.38E+06	<0.1
			Trichloroethene	Trichloroethylene	1400	NQ	49	9.27E+04	1.5
VMW-5 63-2013	TWF63-20-205523 Field Blank		Ethyl benzene	Ethylbenzene	69	J	130	5.40E+05	<0.1
			Xylene[1,2-]	o-Xylene	82	J	130	4.27E+06	<0.1
			Xylene[1,3-] +Xylene[1,4-]	m-Xylene + p-Xylene	230	NQ	130	5.15E+06 4.74E+06	<0.1

EPA Data Qualifier "J" indicates analytes that are detected but results are estimated as less than the report detection limit.
EPA Data Qualifier "NQ" indicates analytes that are detected above the report detection limit with no data qualifiers.
NA" indicates the analyte is not included in the LANL Hazardous Waste Facility Permit, Tables 3.14.3.1-3 for soil-gas screening levels.

Table 2. Analytical Results for Soil Vapor Monitoring Wells
at TA-63 Transuranic Waste Facility – Quarter 12

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TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 12

Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205515	63-2009	08/03/2020	Ethylbenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8 ug/m3	40 ug/m3
TWF63-20-205515	63-2009	08/03/2020	Styrene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	39
TWF63-20-205515	63-2009	08/03/2020	Benzyl Chloride	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	48
TWF63-20-205515	63-2009	08/03/2020	Dichloropropene[cis-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	42
TWF63-20-205515	63-2009	08/03/2020	Dichloropropene[trans-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.5	42
TWF63-20-205515	63-2009	08/03/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	45
TWF63-20-205515	63-2009	08/03/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-205515	63-2009	08/03/2020	Dibromoethane[1,2-]	71	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	71
TWF63-20-205515	63-2009	08/03/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	20
TWF63-20-205515	63-2009	08/03/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	120
TWF63-20-205515	63-2009	08/03/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	37
TWF63-20-205515	63-2009	08/03/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	38
TWF63-20-205515	63-2009	08/03/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205515	63-2009	08/03/2020	Toluene	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	35
TWF63-20-205515	63-2009	08/03/2020	Chlorobenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	42
TWF63-20-205515	63-2009	08/03/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.0	27
TWF63-20-205515	63-2009	08/03/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	32
TWF63-20-205515	63-2009	08/03/2020	Cyclohexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	32
TWF63-20-205515	63-2009	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	270
TWF63-20-205515	63-2009	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205515	63-2009	08/03/2020	Chlorodibromomethane	78	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	78
TWF63-20-205515	63-2009	08/03/2020	Tetrachloroethene	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	62
TWF63-20-205515	63-2009	08/03/2020	n-Heptane	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	38
TWF63-20-205515	63-2009	08/03/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	36
TWF63-20-205515	63-2009	08/03/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-205515	63-2009	08/03/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	33
TWF63-20-205515	63-2009	08/03/2020	Isooctane	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	43
TWF63-20-205515	63-2009	08/03/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	55
TWF63-20-205515	63-2009	08/03/2020	Carbon Tetrachloride	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	58
TWF63-20-205515	63-2009	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	36	150
TWF63-20-205515	63-2009	08/03/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	45
TWF63-20-205515	63-2009	08/03/2020	Ethanol	58	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	34	70
TWF63-20-205515	63-2009	08/03/2020	Propanol[2-]	91	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	91
TWF63-20-205515	63-2009	08/03/2020	Acetone	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	88
TWF63-20-205515	63-2009	08/03/2020	Chloroform	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	45
TWF63-20-205515	63-2009	08/03/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-205515	63-2009	08/03/2020	Trichloroethane[1,1,1-]	6.0	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.2	50
TWF63-20-205515	63-2009	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	140
TWF63-20-205515	63-2009	08/03/2020	Chloromethane	76	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	76
TWF63-20-205515	63-2009	08/03/2020	Chloroethane	98	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	98
TWF63-20-205515	63-2009	08/03/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	24
TWF63-20-205515	63-2009	08/03/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	130
TWF63-20-205515	63-2009	08/03/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	120
TWF63-20-205515	63-2009	08/03/2020	Bromoform	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	95
TWF63-20-205515	63-2009	08/03/2020	Bromodichloromethane	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	62
TWF63-20-205515	63-2009	08/03/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	37
TWF63-20-205515	63-2009	08/03/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-205515	63-2009	08/03/2020	Trichlorofluoromethane	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	52
TWF63-20-205515	63-2009	08/03/2020	Dichlorodifluoromethane	6.9	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205515	63-2009	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	70
TWF63-20-205515	63-2009	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	64
TWF63-20-205515	63-2009	08/03/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42
TWF63-20-205515	63-2009	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205515	63-2009	08/03/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-205515	63-2009	08/03/2020	Trichloroethene	59	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	49
TWF63-20-205515	63-2009	08/03/2020	Tetrachloroethane[1,1,2,2-]	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	63
TWF63-20-205515	63-2009	08/03/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	390
TWF63-20-205515	63-2009	08/03/2020	Xylene[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	40
TWF63-20-205515	63-2009	08/03/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	55
TWF63-20-205515	63-2009	08/03/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.8	45
TWF63-20-205515	63-2009	08/03/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	45
TWF63-20-205515	63-2009	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	40
TWF63-20-205516	63-2010	08/03/2020	Ethylbenzene	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	37
TWF63-20-205516	63-2010	08/03/2020	Styrene	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	37
TWF63-20-205516	63-2010	08/03/2020	Benzyl Chloride	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	44
TWF63-20-205516	63-2010	08/03/2020	Dichloropropene[cis-1,3-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	39
TWF63-20-205516	63-2010	08/03/2020	Dichloropropene[trans-1,3-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.6	39
TWF63-20-205516	63-2010	08/03/2020	Propylbenzene[1-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	42
TWF63-20-205516	63-2010	08/03/2020	Dichlorobenzene[1,4-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	52
TWF63-20-205516	63-2010	08/03/2020	Dibromoethane[1,2-]	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	66
TWF63-20-205516	63-2010	08/03/2020	Butadiene[1,3-]	19	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.0	19
TWF63-20-205516	63-2010	08/03/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	24	110
TWF63-20-205516	63-2010	08/03/2020	Dichloroethane[1,2-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.9	35
TWF63-20-205516	63-2010	08/03/2020	Methyl-2-pentanone[4-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	35
TWF63-20-205516	63-2010	08/03/2020	Trimethylbenzene[1,3,5-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	42
TWF63-20-205516	63-2010	08/03/2020	Toluene	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.0	32
TWF63-20-205516	63-2010	08/03/2020	Chlorobenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	40
TWF63-20-205516	63-2010	08/03/2020	Tetrahydrofuran	25	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	25
TWF63-20-205516	63-2010	08/03/2020	Hexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	30
TWF63-20-205516	63-2010	08/03/2020	Cyclohexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.2	30
TWF63-20-205516	63-2010	08/03/2020	Trichlorobenzene[1,2,4-]	260	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	53	260
TWF63-20-205516	63-2010	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205516	63-2010	08/03/2020	Chlorodibromomethane	73	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	73
TWF63-20-205516	63-2010	08/03/2020	Tetrachloroethene	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	58
TWF63-20-205516	63-2010	08/03/2020	n-Heptane	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	35
TWF63-20-205516	63-2010	08/03/2020	Dichloroethene[cis-1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.2	34
TWF63-20-205516	63-2010	08/03/2020	Dichloroethene[trans-1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	34
TWF63-20-205516	63-2010	08/03/2020	Methyl tert-Butyl Ether	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	31
TWF63-20-205516	63-2010	08/03/2020	Isooctane	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	40
TWF63-20-205516	63-2010	08/03/2020	Dichlorobenzene[1,3-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	52
TWF63-20-205516	63-2010	08/03/2020	Carbon Tetrachloride	54	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	54
TWF63-20-205516	63-2010	08/03/2020	Hexanone[2-]	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	140
TWF63-20-205516	63-2010	08/03/2020	Ethyltoluene[4-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	42
TWF63-20-205516	63-2010	08/03/2020	Ethanol	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	66
TWF63-20-205516	63-2010	08/03/2020	Propanol[2-]	86	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	86
TWF63-20-205516	63-2010	08/03/2020	Acetone	83	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	31	83
TWF63-20-205516	63-2010	08/03/2020	Chloroform	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.8	42
TWF63-20-205516	63-2010	08/03/2020	Benzene	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.2	27
TWF63-20-205516	63-2010	08/03/2020	Trichloroethane[1,1,1-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.9	47
TWF63-20-205516	63-2010	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	38	140
TWF63-20-205516	63-2010	08/03/2020	Chloromethane	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	72
TWF63-20-205516	63-2010	08/03/2020	Chloroethane	92	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	92
TWF63-20-205516	63-2010	08/03/2020	Vinyl Chloride	22	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	22
TWF63-20-205516	63-2010	08/03/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	45	120
TWF63-20-205516	63-2010	08/03/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	27	110
TWF63-20-205516	63-2010	08/03/2020	Bromoform	89	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	89

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205516	63-2010	08/03/2020	Bromodichloromethane	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	58
TWF63-20-205516	63-2010	08/03/2020	Dichloroethane[1,1-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	35
TWF63-20-205516	63-2010	08/03/2020	Dichloroethene[1,1-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	34
TWF63-20-205516	63-2010	08/03/2020	Trichlorofluoromethane	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	48
TWF63-20-205516	63-2010	08/03/2020	Dichlorodifluoromethane	5.9	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.4	43
TWF63-20-205516	63-2010	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	15	66
TWF63-20-205516	63-2010	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	60	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	60
TWF63-20-205516	63-2010	08/03/2020	Dichloropropane[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	40
TWF63-20-205516	63-2010	08/03/2020	Butanone[2-]	100	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	30	100
TWF63-20-205516	63-2010	08/03/2020	Trichloroethane[1,1,2-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	47
TWF63-20-205516	63-2010	08/03/2020	Trichloroethene	86	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	8.6	46
TWF63-20-205516	63-2010	08/03/2020	Tetrachloroethane[1,1,2,2-]	59	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	59
TWF63-20-205516	63-2010	08/03/2020	Hexachlorobutadiene	370	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	52	370
TWF63-20-205516	63-2010	08/03/2020	Xylene[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.1	37
TWF63-20-205516	63-2010	08/03/2020	Dichlorobenzene[1,2-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	52
TWF63-20-205516	63-2010	08/03/2020	Trimethylbenzene[1,2,4-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	42
TWF63-20-205516	63-2010	08/03/2020	Isopropylbenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	42
TWF63-20-205516	63-2010	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	37
TWF63-20-205517	63-2011	08/03/2020	Ethylbenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	40
TWF63-20-205517	63-2011	08/03/2020	Styrene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	39
TWF63-20-205517	63-2011	08/03/2020	Benzyl Chloride	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	48
TWF63-20-205517	63-2011	08/03/2020	Dichloropropene[cis-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	42
TWF63-20-205517	63-2011	08/03/2020	Dichloropropene[trans-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.1	42
TWF63-20-205517	63-2011	08/03/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	45
TWF63-20-205517	63-2011	08/03/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-205517	63-2011	08/03/2020	Dibromoethane[1,2-]	71	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	71
TWF63-20-205517	63-2011	08/03/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	20
TWF63-20-205517	63-2011	08/03/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	120
TWF63-20-205517	63-2011	08/03/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	37
TWF63-20-205517	63-2011	08/03/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	38
TWF63-20-205517	63-2011	08/03/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205517	63-2011	08/03/2020	Toluene	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	35
TWF63-20-205517	63-2011	08/03/2020	Chlorobenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	42
TWF63-20-205517	63-2011	08/03/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	27
TWF63-20-205517	63-2011	08/03/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	32
TWF63-20-205517	63-2011	08/03/2020	Cyclohexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	32
TWF63-20-205517	63-2011	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	270
TWF63-20-205517	63-2011	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205517	63-2011	08/03/2020	Chlorodibromomethane	78	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	78
TWF63-20-205517	63-2011	08/03/2020	Tetrachloroethene	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	62
TWF63-20-205517	63-2011	08/03/2020	n-Heptane	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	38
TWF63-20-205517	63-2011	08/03/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	36
TWF63-20-205517	63-2011	08/03/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-205517	63-2011	08/03/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	33
TWF63-20-205517	63-2011	08/03/2020	Isooctane	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	43
TWF63-20-205517	63-2011	08/03/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	55
TWF63-20-205517	63-2011	08/03/2020	Carbon Tetrachloride	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	58
TWF63-20-205517	63-2011	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	35	150
TWF63-20-205517	63-2011	08/03/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	45
TWF63-20-205517	63-2011	08/03/2020	Ethanol	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	70
TWF63-20-205517	63-2011	08/03/2020	Propanol[2-]	91	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	91
TWF63-20-205517	63-2011	08/03/2020	Acetone	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	88
TWF63-20-205517	63-2011	08/03/2020	Chloroform	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	45

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205517	63-2011	08/03/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-205517	63-2011	08/03/2020	Trichloroethane[1,1,1-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.2	50
TWF63-20-205517	63-2011	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	140
TWF63-20-205517	63-2011	08/03/2020	Chloromethane	76	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	76
TWF63-20-205517	63-2011	08/03/2020	Chloroethane	98	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	98
TWF63-20-205517	63-2011	08/03/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	24
TWF63-20-205517	63-2011	08/03/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	130
TWF63-20-205517	63-2011	08/03/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	120
TWF63-20-205517	63-2011	08/03/2020	Bromoform	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	95
TWF63-20-205517	63-2011	08/03/2020	Bromodichloromethane	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	62
TWF63-20-205517	63-2011	08/03/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	37
TWF63-20-205517	63-2011	08/03/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-205517	63-2011	08/03/2020	Trichlorofluoromethane	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	52
TWF63-20-205517	63-2011	08/03/2020	Dichlorodifluoromethane	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205517	63-2011	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	70
TWF63-20-205517	63-2011	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	64
TWF63-20-205517	63-2011	08/03/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42
TWF63-20-205517	63-2011	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-205517	63-2011	08/03/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-205517	63-2011	08/03/2020	Trichloroethene	75	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	49
TWF63-20-205517	63-2011	08/03/2020	Tetrachloroethane[1,1,2,2-]	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	63
TWF63-20-205517	63-2011	08/03/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	390
TWF63-20-205517	63-2011	08/03/2020	Xylene[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	40
TWF63-20-205517	63-2011	08/03/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	55
TWF63-20-205517	63-2011	08/03/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.8	45
TWF63-20-205517	63-2011	08/03/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	45
TWF63-20-205517	63-2011	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	40
TWF63-20-205518	63-2012	08/03/2020	Ethylbenzene	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	41
TWF63-20-205518	63-2012	08/03/2020	Styrene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	40
TWF63-20-205518	63-2012	08/03/2020	Benzyl Chloride	49	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	49
TWF63-20-205518	63-2012	08/03/2020	Dichloropropene[cis-1,3-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	43
TWF63-20-205518	63-2012	08/03/2020	Dichloropropene[trans-1,3-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.5	43
TWF63-20-205518	63-2012	08/03/2020	Propylbenzene[1-]	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	46
TWF63-20-205518	63-2012	08/03/2020	Dichlorobenzene[1,4-]	56	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	56
TWF63-20-205518	63-2012	08/03/2020	Dibromoethane[1,2-]	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	72
TWF63-20-205518	63-2012	08/03/2020	Butadiene[1,3-]	21	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	21
TWF63-20-205518	63-2012	08/03/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	27	120
TWF63-20-205518	63-2012	08/03/2020	Dichloroethane[1,2-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.7	38
TWF63-20-205518	63-2012	08/03/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	38
TWF63-20-205518	63-2012	08/03/2020	Trimethylbenzene[1,3,5-]	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	46
TWF63-20-205518	63-2012	08/03/2020	Toluene	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	35
TWF63-20-205518	63-2012	08/03/2020	Chlorobenzene	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	43
TWF63-20-205518	63-2012	08/03/2020	Tetrahydrofuran	28	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.0	28
TWF63-20-205518	63-2012	08/03/2020	Hexane	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	33
TWF63-20-205518	63-2012	08/03/2020	Cyclohexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	32
TWF63-20-205518	63-2012	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	270
TWF63-20-205518	63-2012	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205518	63-2012	08/03/2020	Chlorodibromomethane	80	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	80
TWF63-20-205518	63-2012	08/03/2020	Tetrachloroethene	40	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	19	64
TWF63-20-205518	63-2012	08/03/2020	n-Heptane	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	38
TWF63-20-205518	63-2012	08/03/2020	Dichloroethene[cis-1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	37
TWF63-20-205518	63-2012	08/03/2020	Dichloroethene[trans-1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	37
TWF63-20-205518	63-2012	08/03/2020	Methyl tert-Butyl Ether	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	34

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205518	63-2012	08/03/2020	Isooctane	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.9	44
TWF63-20-205518	63-2012	08/03/2020	Dichlorobenzene[1,3-]	56	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	56
TWF63-20-205518	63-2012	08/03/2020	Carbon Tetrachloride	39	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	14	59
TWF63-20-205518	63-2012	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	36	150
TWF63-20-205518	63-2012	08/03/2020	Ethyltoluene[4-]	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	46
TWF63-20-205518	63-2012	08/03/2020	Ethanol	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	70
TWF63-20-205518	63-2012	08/03/2020	Propanol[2-]	32	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	20	91
TWF63-20-205518	63-2012	08/03/2020	Acetone	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	88
TWF63-20-205518	63-2012	08/03/2020	Chloroform	88	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	7.3	46
TWF63-20-205518	63-2012	08/03/2020	Benzene	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	30
TWF63-20-205518	63-2012	08/03/2020	Trichloroethane[1,1,1-]	5.5	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.3	51
TWF63-20-205518	63-2012	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	140
TWF63-20-205518	63-2012	08/03/2020	Chloromethane	76	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	76
TWF63-20-205518	63-2012	08/03/2020	Chloroethane	98	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	98
TWF63-20-205518	63-2012	08/03/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	24
TWF63-20-205518	63-2012	08/03/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	130
TWF63-20-205518	63-2012	08/03/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	120
TWF63-20-205518	63-2012	08/03/2020	Bromoform	97	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	97
TWF63-20-205518	63-2012	08/03/2020	Bromodichloromethane	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	63
TWF63-20-205518	63-2012	08/03/2020	Dichloroethane[1,1-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	38
TWF63-20-205518	63-2012	08/03/2020	Dichloroethene[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	37
TWF63-20-205518	63-2012	08/03/2020	Trichlorofluoromethane	53	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	53
TWF63-20-205518	63-2012	08/03/2020	Dichlorodifluoromethane	59	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	5.9	46
TWF63-20-205518	63-2012	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	72
TWF63-20-205518	63-2012	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	66
TWF63-20-205518	63-2012	08/03/2020	Dichloropropane[1,2-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	43
TWF63-20-205518	63-2012	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-205518	63-2012	08/03/2020	Trichloroethane[1,1,2-]	51	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	51
TWF63-20-205518	63-2012	08/03/2020	Trichloroethene	2600	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	50
TWF63-20-205518	63-2012	08/03/2020	Tetrachloroethane[1,1,2,2-]	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	64
TWF63-20-205518	63-2012	08/03/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	390
TWF63-20-205518	63-2012	08/03/2020	Xylene[1,2-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	41
TWF63-20-205518	63-2012	08/03/2020	Dichlorobenzene[1,2-]	56	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	56
TWF63-20-205518	63-2012	08/03/2020	Trimethylbenzene[1,2,4-]	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.9	46
TWF63-20-205518	63-2012	08/03/2020	Isopropylbenzene	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	46
TWF63-20-205518	63-2012	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	41
TWF63-20-205519	63-2012	08/03/2020	Ethylbenzene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	39
TWF63-20-205519	63-2012	08/03/2020	Styrene	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	38
TWF63-20-205519	63-2012	08/03/2020	Benzyl Chloride	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	47
TWF63-20-205519	63-2012	08/03/2020	Dichloropropene[cis-1,3-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	41
TWF63-20-205519	63-2012	08/03/2020	Dichloropropene[trans-1,3-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.1	41
TWF63-20-205519	63-2012	08/03/2020	Propylbenzene[1-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	44
TWF63-20-205519	63-2012	08/03/2020	Dichlorobenzene[1,4-]	54	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	54
TWF63-20-205519	63-2012	08/03/2020	Dibromoethane[1,2-]	69	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	69
TWF63-20-205519	63-2012	08/03/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	20
TWF63-20-205519	63-2012	08/03/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	110
TWF63-20-205519	63-2012	08/03/2020	Dichloroethane[1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	36
TWF63-20-205519	63-2012	08/03/2020	Methyl-2-pentanone[4-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	37
TWF63-20-205519	63-2012	08/03/2020	Trimethylbenzene[1,3,5-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	44
TWF63-20-205519	63-2012	08/03/2020	Toluene	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	34
TWF63-20-205519	63-2012	08/03/2020	Chlorobenzene	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	41
TWF63-20-205519	63-2012	08/03/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	27
TWF63-20-205519	63-2012	08/03/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	32

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205519	63-2012	08/03/2020	Cyclohexane	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	31
TWF63-20-205519	63-2012	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	270
TWF63-20-205519	63-2012	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205519	63-2012	08/03/2020	Chlorodibromomethane	77	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	77
TWF63-20-205519	63-2012	08/03/2020	Tetrachloroethene	81	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	19	61
TWF63-20-205519	63-2012	08/03/2020	n-Heptane	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	37
TWF63-20-205519	63-2012	08/03/2020	Dichloroethene[cis-1,2-]	22	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.5	36
TWF63-20-205519	63-2012	08/03/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-205519	63-2012	08/03/2020	Methyl tert-Butyl Ether	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	32
TWF63-20-205519	63-2012	08/03/2020	Isooctane	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	42
TWF63-20-205519	63-2012	08/03/2020	Dichlorobenzene[1,3-]	54	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	54
TWF63-20-205519	63-2012	08/03/2020	Carbon Tetrachloride	100	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	14	57
TWF63-20-205519	63-2012	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	35	150
TWF63-20-205519	63-2012	08/03/2020	Ethyltoluene[4-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	44
TWF63-20-205519	63-2012	08/03/2020	Ethanol	68	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	68
TWF63-20-205519	63-2012	08/03/2020	Propanol[2-]	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	88
TWF63-20-205519	63-2012	08/03/2020	Acetone	85	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	31	85
TWF63-20-205519	63-2012	08/03/2020	Chloroform	200	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	7.3	44
TWF63-20-205519	63-2012	08/03/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-205519	63-2012	08/03/2020	Trichloroethane[1,1,1-]	13	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.1	49
TWF63-20-205519	63-2012	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	140
TWF63-20-205519	63-2012	08/03/2020	Chloromethane	74	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	74
TWF63-20-205519	63-2012	08/03/2020	Chloroethane	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	95
TWF63-20-205519	63-2012	08/03/2020	Vinyl Chloride	23	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	23
TWF63-20-205519	63-2012	08/03/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	120
TWF63-20-205519	63-2012	08/03/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	28	110
TWF63-20-205519	63-2012	08/03/2020	Bromoform	93	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	93
TWF63-20-205519	63-2012	08/03/2020	Bromodichloromethane	60	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	60
TWF63-20-205519	63-2012	08/03/2020	Dichloroethane[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	36
TWF63-20-205519	63-2012	08/03/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-205519	63-2012	08/03/2020	Trichlorofluoromethane	51	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	51
TWF63-20-205519	63-2012	08/03/2020	Dichlorodifluoromethane	160	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	5.4	44
TWF63-20-205519	63-2012	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	24	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	16	69
TWF63-20-205519	63-2012	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	63
TWF63-20-205519	63-2012	08/03/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42
TWF63-20-205519	63-2012	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-205519	63-2012	08/03/2020	Trichloroethane[1,1,2-]	49	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	49
TWF63-20-205519	63-2012	08/03/2020	Trichloroethene	7500	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	48
TWF63-20-205519	63-2012	08/03/2020	Tetrachloroethane[1,1,2,2-]	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	62
TWF63-20-205519	63-2012	08/03/2020	Hexachlorobutadiene	380	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	54	380
TWF63-20-205519	63-2012	08/03/2020	Xylene[1,2-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	39
TWF63-20-205519	63-2012	08/03/2020	Dichlorobenzene[1,2-]	54	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	54
TWF63-20-205519	63-2012	08/03/2020	Trimethylbenzene[1,2,4-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	44
TWF63-20-205519	63-2012	08/03/2020	Isopropylbenzene	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	44
TWF63-20-205519	63-2012	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	39
TWF63-20-205520	63-2013	08/03/2020	Ethylbenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	40
TWF63-20-205520	63-2013	08/03/2020	Styrene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	39
TWF63-20-205520	63-2013	08/03/2020	Benzyl Chloride	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	48
TWF63-20-205520	63-2013	08/03/2020	Dichloropropene[cis-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	42
TWF63-20-205520	63-2013	08/03/2020	Dichloropropene[trans-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.5	42
TWF63-20-205520	63-2013	08/03/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	45
TWF63-20-205520	63-2013	08/03/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-205520	63-2013	08/03/2020	Dibromoethane[1,2-]	71	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	71

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205520	63-2013	08/03/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	20
TWF63-20-205520	63-2013	08/03/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	120
TWF63-20-205520	63-2013	08/03/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	37
TWF63-20-205520	63-2013	08/03/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	38
TWF63-20-205520	63-2013	08/03/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205520	63-2013	08/03/2020	Toluene	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	35
TWF63-20-205520	63-2013	08/03/2020	Chlorobenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	42
TWF63-20-205520	63-2013	08/03/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.0	27
TWF63-20-205520	63-2013	08/03/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	32
TWF63-20-205520	63-2013	08/03/2020	Cyclohexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	32
TWF63-20-205520	63-2013	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	270
TWF63-20-205520	63-2013	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205520	63-2013	08/03/2020	Chlorodibromomethane	78	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	78
TWF63-20-205520	63-2013	08/03/2020	Tetrachloroethene	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	62
TWF63-20-205520	63-2013	08/03/2020	n-Heptane	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	38
TWF63-20-205520	63-2013	08/03/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	36
TWF63-20-205520	63-2013	08/03/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-205520	63-2013	08/03/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	33
TWF63-20-205520	63-2013	08/03/2020	Isooctane	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	43
TWF63-20-205520	63-2013	08/03/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	55
TWF63-20-205520	63-2013	08/03/2020	Carbon Tetrachloride	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	58
TWF63-20-205520	63-2013	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	36	150
TWF63-20-205520	63-2013	08/03/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	45
TWF63-20-205520	63-2013	08/03/2020	Ethanol	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	70
TWF63-20-205520	63-2013	08/03/2020	Propanol[2-]	91	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	91
TWF63-20-205520	63-2013	08/03/2020	Acetone	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	88
TWF63-20-205520	63-2013	08/03/2020	Chloroform	40	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	7.3	45
TWF63-20-205520	63-2013	08/03/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-205520	63-2013	08/03/2020	Trichloroethane[1,1,1-]	19	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.2	50
TWF63-20-205520	63-2013	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	140
TWF63-20-205520	63-2013	08/03/2020	Chloromethane	76	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	76
TWF63-20-205520	63-2013	08/03/2020	Chloroethane	98	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	98
TWF63-20-205520	63-2013	08/03/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	24
TWF63-20-205520	63-2013	08/03/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	130
TWF63-20-205520	63-2013	08/03/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	120
TWF63-20-205520	63-2013	08/03/2020	Bromoform	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	95
TWF63-20-205520	63-2013	08/03/2020	Bromodichloromethane	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	62
TWF63-20-205520	63-2013	08/03/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	37
TWF63-20-205520	63-2013	08/03/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-205520	63-2013	08/03/2020	Trichlorofluoromethane	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	52
TWF63-20-205520	63-2013	08/03/2020	Dichlorodifluoromethane	37	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205520	63-2013	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	70
TWF63-20-205520	63-2013	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	64
TWF63-20-205520	63-2013	08/03/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42
TWF63-20-205520	63-2013	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-205520	63-2013	08/03/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-205520	63-2013	08/03/2020	Trichloroethene	390	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	49
TWF63-20-205520	63-2013	08/03/2020	Tetrachloroethane[1,1,2,2-]	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	63
TWF63-20-205520	63-2013	08/03/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	390
TWF63-20-205520	63-2013	08/03/2020	Xylene[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	40
TWF63-20-205520	63-2013	08/03/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	55
TWF63-20-205520	63-2013	08/03/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.8	45
TWF63-20-205520	63-2013	08/03/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	45

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205520	63-2013	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	40
TWF63-20-205521	63-2013	08/03/2020	Ethylbenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	40
TWF63-20-205521	63-2013	08/03/2020	Styrene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	39
TWF63-20-205521	63-2013	08/03/2020	Benzyl Chloride	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	48
TWF63-20-205521	63-2013	08/03/2020	Dichloropropene[cis-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	42
TWF63-20-205521	63-2013	08/03/2020	Dichloropropene[trans-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.1	42
TWF63-20-205521	63-2013	08/03/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	45
TWF63-20-205521	63-2013	08/03/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-205521	63-2013	08/03/2020	Dibromoethane[1,2-]	71	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	71
TWF63-20-205521	63-2013	08/03/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	20
TWF63-20-205521	63-2013	08/03/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	120
TWF63-20-205521	63-2013	08/03/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	37
TWF63-20-205521	63-2013	08/03/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	38
TWF63-20-205521	63-2013	08/03/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205521	63-2013	08/03/2020	Toluene	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	35
TWF63-20-205521	63-2013	08/03/2020	Chlorobenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	42
TWF63-20-205521	63-2013	08/03/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	27
TWF63-20-205521	63-2013	08/03/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	32
TWF63-20-205521	63-2013	08/03/2020	Cyclohexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	32
TWF63-20-205521	63-2013	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	270
TWF63-20-205521	63-2013	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-205521	63-2013	08/03/2020	Chlorodibromomethane	78	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	78
TWF63-20-205521	63-2013	08/03/2020	Tetrachloroethene	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	62
TWF63-20-205521	63-2013	08/03/2020	n-Heptane	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	38
TWF63-20-205521	63-2013	08/03/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	36
TWF63-20-205521	63-2013	08/03/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-205521	63-2013	08/03/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	33
TWF63-20-205521	63-2013	08/03/2020	Isooctane	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	43
TWF63-20-205521	63-2013	08/03/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	55
TWF63-20-205521	63-2013	08/03/2020	Carbon Tetrachloride	18	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	14	58
TWF63-20-205521	63-2013	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	35	150
TWF63-20-205521	63-2013	08/03/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	45
TWF63-20-205521	63-2013	08/03/2020	Ethanol	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	70
TWF63-20-205521	63-2013	08/03/2020	Propanol[2-]	91	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	91
TWF63-20-205521	63-2013	08/03/2020	Acetone	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	88
TWF63-20-205521	63-2013	08/03/2020	Chloroform	20	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	7.3	45
TWF63-20-205521	63-2013	08/03/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-205521	63-2013	08/03/2020	Trichloroethane[1,1,1-]	40	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.2	50
TWF63-20-205521	63-2013	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	140
TWF63-20-205521	63-2013	08/03/2020	Chloromethane	76	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	76
TWF63-20-205521	63-2013	08/03/2020	Chloroethane	98	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	98
TWF63-20-205521	63-2013	08/03/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	24
TWF63-20-205521	63-2013	08/03/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	130
TWF63-20-205521	63-2013	08/03/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	120
TWF63-20-205521	63-2013	08/03/2020	Bromoform	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	95
TWF63-20-205521	63-2013	08/03/2020	Bromodichloromethane	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	62
TWF63-20-205521	63-2013	08/03/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	37
TWF63-20-205521	63-2013	08/03/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-205521	63-2013	08/03/2020	Trichlorofluoromethane	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	52
TWF63-20-205521	63-2013	08/03/2020	Dichlorodifluoromethane	69	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-205521	63-2013	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	17	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	17	70
TWF63-20-205521	63-2013	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	64
TWF63-20-205521	63-2013	08/03/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205521	63-2013	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-205521	63-2013	08/03/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-205521	63-2013	08/03/2020	Trichloroethene	1400	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	49
TWF63-20-205521	63-2013	08/03/2020	Tetrachloroethane[1,1,2,2-]	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	63
TWF63-20-205521	63-2013	08/03/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	390
TWF63-20-205521	63-2013	08/03/2020	Xylene[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	40
TWF63-20-205521	63-2013	08/03/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	55
TWF63-20-205521	63-2013	08/03/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.8	45
TWF63-20-205521	63-2013	08/03/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	45
TWF63-20-205521	63-2013	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	40
TWF63-20-205522	63-2013	08/03/2020	Ethylbenzene	40	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.4	40
TWF63-20-205522	63-2013	08/03/2020	Styrene	39	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.5	39
TWF63-20-205522	63-2013	08/03/2020	Benzyl Chloride	48	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	48
TWF63-20-205522	63-2013	08/03/2020	Dichloropropene[cis-1,3-]	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	42
TWF63-20-205522	63-2013	08/03/2020	Dichloropropene[trans-1,3-]	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	9.5	42
TWF63-20-205522	63-2013	08/03/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.4	45
TWF63-20-205522	63-2013	08/03/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	55
TWF63-20-205522	63-2013	08/03/2020	Dibromoethane[1,2-]	71	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	71
TWF63-20-205522	63-2013	08/03/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.4	20
TWF63-20-205522	63-2013	08/03/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	26	120
TWF63-20-205522	63-2013	08/03/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	9.3	37
TWF63-20-205522	63-2013	08/03/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	19	38
TWF63-20-205522	63-2013	08/03/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.9	45
TWF63-20-205522	63-2013	08/03/2020	Toluene	35	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.4	35
TWF63-20-205522	63-2013	08/03/2020	Chlorobenzene	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.5	42
TWF63-20-205522	63-2013	08/03/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.7	27
TWF63-20-205522	63-2013	08/03/2020	Hexane	32	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.4	32
TWF63-20-205522	63-2013	08/03/2020	Cyclohexane	32	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.9	32
TWF63-20-205522	63-2013	08/03/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	56	270
TWF63-20-205522	63-2013	08/03/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	40	130
TWF63-20-205522	63-2013	08/03/2020	Chlorodibromomethane	78	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	14	78
TWF63-20-205522	63-2013	08/03/2020	Tetrachloroethene	62	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	19	62
TWF63-20-205522	63-2013	08/03/2020	n-Heptane	38	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	13	38
TWF63-20-205522	63-2013	08/03/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.5	36
TWF63-20-205522	63-2013	08/03/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	36
TWF63-20-205522	63-2013	08/03/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.0	33
TWF63-20-205522	63-2013	08/03/2020	Isooctane	43	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.5	43
TWF63-20-205522	63-2013	08/03/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	10	55
TWF63-20-205522	63-2013	08/03/2020	Carbon Tetrachloride	19	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	14	58
TWF63-20-205522	63-2013	08/03/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	35	150
TWF63-20-205522	63-2013	08/03/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.4	45
TWF63-20-205522	63-2013	08/03/2020	Ethanol	70	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	34	70
TWF63-20-205522	63-2013	08/03/2020	Propanol[2-]	91	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	20	91
TWF63-20-205522	63-2013	08/03/2020	Acetone	88	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	33	88
TWF63-20-205522	63-2013	08/03/2020	Chloroform	24	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	7.3	45
TWF63-20-205522	63-2013	08/03/2020	Benzene	29	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	4.5	29
TWF63-20-205522	63-2013	08/03/2020	Trichloroethane[1,1,1-]	38	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	5.2	50
TWF63-20-205522	63-2013	08/03/2020	Bromomethane	140	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	40	140
TWF63-20-205522	63-2013	08/03/2020	Chloromethane	76	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	25	76
TWF63-20-205522	63-2013	08/03/2020	Chloroethane	98	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	37	98
TWF63-20-205522	63-2013	08/03/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.2	24
TWF63-20-205522	63-2013	08/03/2020	Methylene Chloride	130	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	49	130
TWF63-20-205522	63-2013	08/03/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	29	120

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205522	63-2013	08/03/2020	Bromoform	95	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	20	95
TWF63-20-205522	63-2013	08/03/2020	Bromodichloromethane	62	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	62
TWF63-20-205522	63-2013	08/03/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.7	37
TWF63-20-205522	63-2013	08/03/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.1	36
TWF63-20-205522	63-2013	08/03/2020	Trichlorofluoromethane	52	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.7	52
TWF63-20-205522	63-2013	08/03/2020	Dichlorodifluoromethane	69	ug/m3	NQ	Y	GAS	FD	VOC	EPA:TO15	5.9	45
TWF63-20-205522	63-2013	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	70	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	17	70
TWF63-20-205522	63-2013	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	64	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	13	64
TWF63-20-205522	63-2013	08/03/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	42
TWF63-20-205522	63-2013	08/03/2020	Butanone[2-]	110	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	32	110
TWF63-20-205522	63-2013	08/03/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	50
TWF63-20-205522	63-2013	08/03/2020	Trichloroethene	1400	ug/m3	NQ	Y	GAS	FD	VOC	EPA:TO15	9.1	49
TWF63-20-205522	63-2013	08/03/2020	Tetrachloroethane[1,1,2,2-]	63	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.2	63
TWF63-20-205522	63-2013	08/03/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	55	390
TWF63-20-205522	63-2013	08/03/2020	Xylene[1,2-]	40	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.5	40
TWF63-20-205522	63-2013	08/03/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	55
TWF63-20-205522	63-2013	08/03/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	4.8	45
TWF63-20-205522	63-2013	08/03/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.9	45
TWF63-20-205522	63-2013	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	40	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.2	40
TWF63-20-205523	63-2013	08/03/2020	Ethylbenzene	69	ug/m3	J	Y	GAS	FB	VOC	EPA:TO15	25	130
TWF63-20-205523	63-2013	08/03/2020	Styrene	130	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	18	130
TWF63-20-205523	63-2013	08/03/2020	Benzyl Chloride	160	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	36	160
TWF63-20-205523	63-2013	08/03/2020	Dichloropropene[cis-1,3-]	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	37	140
TWF63-20-205523	63-2013	08/03/2020	Dichloropropene[trans-1,3-]	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	31	140
TWF63-20-205523	63-2013	08/03/2020	Propylbenzene[1-]	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	19	150
TWF63-20-205523	63-2013	08/03/2020	Dichlorobenzene[1,4-]	190	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	36	190
TWF63-20-205523	63-2013	08/03/2020	Dibromoethane[1,2-]	240	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	41	240
TWF63-20-205523	63-2013	08/03/2020	Butadiene[1,3-]	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	29	69
TWF63-20-205523	63-2013	08/03/2020	Chloro-1-propene[3-]	380	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	88	380
TWF63-20-205523	63-2013	08/03/2020	Dichloroethane[1,2-]	130	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	32	130
TWF63-20-205523	63-2013	08/03/2020	Methyl-2-pentanone[4-]	130	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	61	130
TWF63-20-205523	63-2013	08/03/2020	Trimethylbenzene[1,3,5-]	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	20	150
TWF63-20-205523	63-2013	08/03/2020	Toluene	120	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	21	120
TWF63-20-205523	63-2013	08/03/2020	Chlorobenzene	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	140
TWF63-20-205523	63-2013	08/03/2020	Tetrahydrofuran	91	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	26	91
TWF63-20-205523	63-2013	08/03/2020	Hexane	110	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	24	110
TWF63-20-205523	63-2013	08/03/2020	Cyclohexane	110	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	22	110
TWF63-20-205523	63-2013	08/03/2020	Trichlorobenzene[1,2,4-]	890	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	190	890
TWF63-20-205523	63-2013	08/03/2020	Dioxane[1,4-]	430	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	130	430
TWF63-20-205523	63-2013	08/03/2020	Chlorodibromomethane	260	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	45	260
TWF63-20-205523	63-2013	08/03/2020	Tetrachloroethene	210	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	63	210
TWF63-20-205523	63-2013	08/03/2020	n-Heptane	130	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	45	130
TWF63-20-205523	63-2013	08/03/2020	Dichloroethene[cis-1,2-]	120	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	19	120
TWF63-20-205523	63-2013	08/03/2020	Dichloroethene[trans-1,2-]	120	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	37	120
TWF63-20-205523	63-2013	08/03/2020	Methyl tert-Butyl Ether	110	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	110
TWF63-20-205523	63-2013	08/03/2020	Isooctane	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	25	140
TWF63-20-205523	63-2013	08/03/2020	Dichlorobenzene[1,3-]	190	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	35	190
TWF63-20-205523	63-2013	08/03/2020	Carbon Tetrachloride	190	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	48	190
TWF63-20-205523	63-2013	08/03/2020	Hexanone[2-]	490	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	120	490
TWF63-20-205523	63-2013	08/03/2020	Ethyltoluene[4-]	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	22	150
TWF63-20-205523	63-2013	08/03/2020	Ethanol	230	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	110	230
TWF63-20-205523	63-2013	08/03/2020	Propanol[2-]	290	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	84	290
TWF63-20-205523	63-2013	08/03/2020	Acetone	280	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	110	280

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Field Sample ID	Location ID	Sample Date	Parameter Name	Report Result	Report Units	Validation Qualifier	Detected	Sample Type	Sample Purpose	Method Category	Lab Method	Report Method Detection Limit	Report Detection Limit
TWF63-20-205523	63-2013	08/03/2020	Chloroform	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	24	150
TWF63-20-205523	63-2013	08/03/2020	Benzene	99	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	15	99
TWF63-20-205523	63-2013	08/03/2020	Trichloroethane[1,1,1-]	170	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	170
TWF63-20-205523	63-2013	08/03/2020	Bromomethane	470	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	140	470
TWF63-20-205523	63-2013	08/03/2020	Chloromethane	250	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	80	250
TWF63-20-205523	63-2013	08/03/2020	Chloroethane	320	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	120	320
TWF63-20-205523	63-2013	08/03/2020	Vinyl Chloride	79	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	28	79
TWF63-20-205523	63-2013	08/03/2020	Methylene Chloride	420	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	160	420
TWF63-20-205523	63-2013	08/03/2020	Carbon Disulfide	370	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	96	370
TWF63-20-205523	63-2013	08/03/2020	Bromoform	320	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	66	320
TWF63-20-205523	63-2013	08/03/2020	Bromodichloromethane	210	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	38	210
TWF63-20-205523	63-2013	08/03/2020	Dichloroethane[1,1-]	130	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	25	130
TWF63-20-205523	63-2013	08/03/2020	Dichloroethene[1,1-]	120	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	24	120
TWF63-20-205523	63-2013	08/03/2020	Trichlorofluoromethane	170	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	24	170
TWF63-20-205523	63-2013	08/03/2020	Dichlorodifluoromethane	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	19	150
TWF63-20-205523	63-2013	08/03/2020	Trichloro-1,2,2-trifluoroethane[1,1	240	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	55	240
TWF63-20-205523	63-2013	08/03/2020	Dichloro-1,1,2,2-tetrafluoroethane	220	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	41	220
TWF63-20-205523	63-2013	08/03/2020	Dichloropropane[1,2-]	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	40	140
TWF63-20-205523	63-2013	08/03/2020	Butanone[2-]	350	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	110	350
TWF63-20-205523	63-2013	08/03/2020	Trichloroethane[1,1,2-]	170	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	38	170
TWF63-20-205523	63-2013	08/03/2020	Trichloroethene	170	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	31	170
TWF63-20-205523	63-2013	08/03/2020	Tetrachloroethane[1,1,2,2-]	210	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	28	210
TWF63-20-205523	63-2013	08/03/2020	Hexachlorobutadiene	1300	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	180	1300
TWF63-20-205523	63-2013	08/03/2020	Xylene[1,2-]	82	ug/m3	J	Y	GAS	FB	VOC	EPA:TO15	22	130
TWF63-20-205523	63-2013	08/03/2020	Dichlorobenzene[1,2-]	190	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	39	190
TWF63-20-205523	63-2013	08/03/2020	Trimethylbenzene[1,2,4-]	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	16	150
TWF63-20-205523	63-2013	08/03/2020	Isopropylbenzene	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	23	150
TWF63-20-205523	63-2013	08/03/2020	Xylene[1,3-]+Xylene[1,4-]	230	ug/m3	NQ	Y	GAS	FB	VOC	EPA:TO15	27	130

Table 3. Current and Previous
Quarterly Results

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Table 3: Current and Previous Quarter Results

Well	Sample Port Depth (ft)	Analyte/Constituent (as Listed in Permit Tables)	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 5		Quarter 6		Quarter 7		Quarter 8		Quarter 9		Quarter 10		Quarter 11		Quarter 12	
			Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)
VMW-1 63-2009	5	Trichloroethylene	64.4	0.3	31.1	0.2	48.3	0.2	53.7	0.3	43.5	0.2	36.0	0.2	44.0	0.2	59.1	0.3	40.3	0.2	41.9	0.2	41	0.2	59	0.3
		Toluene	12.4	<0.1																						
		Tetrachloroethylene	11.5	<0.1																						
		cis-1,2-Dichloroethylene	11.5	<0.1																						
		Acetone	16.1	<0.1																						
		1,1,1-Trichloroethane	142	<0.1			8.2	<0.1									8.7	<0.1					7.6	<0.1	6.0	<0.1
		1,1-Dichloroethane	33.6	<0.1																						
		1,1-Dichloroethylene	10.3	<0.1																						
		Dichlorodifluoromethane	6.9	<0.1																					6.9	<0.1
		Methylene chloride							13.2	<0.1																
		Chloroform															5.9	<0.1								
VMW-2 63-2010	5	Trichloroethylene	134	0.7	80.6	0.4	129	0.7	85.9	0.4	107	0.6	113	0.6	118	0.6	102	0.5	96.7	0.5	102	0.5	97	0.5	86	0.4
		Dichlorodifluoromethane	7.9	<0.1													6.4	<0.1					6.9	<0.1	5.9	<0.1
		Acetone													20.2	<0.1										
		Toluene															6.8	<0.1								
VMW-3 63-2011	5	Trichloroethylene	69.8	0.4	64.4	0.3	96.7	0.5	59.1	0.3	75.2	0.4	85.9	0.4	107	0.6	85.9	0.4	64.4	0.3	75.2	0.4	97	0.5	75	0.4
		Toluene	8.3	<0.1																						
		Acetone							20.9	<0.1					12.3	<0.1										
		Dichlorodifluoromethane															5.9	<0.1								
VMW-4 63-2012	25	Trichloroethylene	3810	2.4	2793	1.8	3437	2.2	2954	1.9	2900	1.8	2900	1.8	2790	1.8	3010	1.9	2790	1.8	2740	1.7	2800	1.8	2600	1.7
		Tetrachloroethylene	49.5	<0.1	34.6	<0.1	34.6	<0.1	36.6	<0.1	43.4	<0.1	39.3	<0.1	34.6	<0.1			35.9	<0.1					40	<0.1
		Carbon tetrachloride	49.7	<0.1	35.2	<0.1	48.4	<0.1	41.5	<0.1	35.2	<0.1	46.5	<0.1	42.1	<0.1	50.9	<0.1	41.5	<0.1			47	<0.1	39	<0.1
		Chloroform	112	0.5	87.8	0.2	107	0.5	107	0.5	102	0.4	92.7	0.4	97.6	0.4	97.6	0.4	102	0.4	102	0.4	93	0.4	88	0.4
		Dichlorodifluoromethane	84	<0.1	74.1	<0.1	84.0	<0.1	84.0	<0.1	69.2	<0.1	79.1	<0.1	84.0	<0.1	59.3	<0.1	74.1	<0.1	74.1	<0.1	79	<0.1	59	<0.1
		1,1,2-Trichloro-1,2,2-trifluoroethane	17.6	<0.1	13.0	<0.1									16.1	<0.1	13.0	<0.1					19	<0.1		
		1,1,1-Trichloroethane	7.1	<0.1																			9.3	<0.1	5.5	<0.1
		Bromodichloromethane															6.6	<0.1								
VMW-4 63-2012	60	Trichloroethylene	8060	8.7	6980	7.5	8590	9.3	8060	8.7	8060	8.7	7520	8.1	7520	8.1	8590	9.3	6980	7.5	7520	8.1	7500	8.1	7500	8.1
		Tetrachloroethylene	81.3	<0.1	74.6	<0.1	88.1	<0.1	81.3	<0.1	88.1	<0.1	88.1	<0.1	81.3	<0.1	94.9	<0.1	67.8	<0.1	74.6	<0.1	81	<0.1	81	<0.1
		cis-1,2-Dichloroethylene	16.6	<0.1	23.8	<0.1	25.8	<0.1	25.0	<0.1	19.4	<0.1	19.8	<0.1	19.8	<0.1	21.8	<0.1	22.2	<0.1	23.0	<0.1	23	<0.1	22	<0.1
		Carbon tetrachloride	94.3	<0.1	88.0	<0.1	113	<0.1	107	<0.1	107	<0.1	113	<0.1	101	<0.1	107	<0.1	101	<0.1	107	<0.1	100	<0.1	100	<0.1
		Chloroform	190	0.4	200	0.5	244	0.5	229	0.5	210	0.5	215	0.5	215	0.5	220	0.5	200	0.5	224	0.5	240	0.5	200	0.5
		1,1,1-Trichloroethane	13.1	<0.1	14.2	<0.1	14.2	<0.1	15.3	<0.1	15.3	<0.1			13.6	<0.1	15.8	<0.1	13.1	<0.1	15.9	<0.1	18	<0.1	13	<0.1
		Dichlorodifluoromethane	143	<0.1	158	<0.1	148	<0.1	193	<0.1	168	<0.1	168	<0.1	183	<0.1	133	<0.1	148	<0.1	173	<0.1	190	<0.1	160	<0.1
		1,1,2-Trichloro-1,2,2-trifluoroethane	25.3	<0.1	28.3	<0.1	29.9	<0.1	32.2	<0.1	36.8	<0.1	26.0	<0.1	28.3	<0.1			26.8	<0.1	27.6	<0.1	38	<0.1	24	<0.1
		Toluene	7.6	<0.1																						
		Acetone	16.1	<0.1																						
		Trichlorofluoromethane	6.2	<0.1			6.7	<0.1													10.7	<0.1				
VMW-5 63-2013	25	Trichloroethylene	483	0.3	258	0.2	414	0.3	344	0.2	365	0.2	360	0.2	360	0.2	424	0.3	338	0.2	392	0.2	380	0.2	390	0.2
		Chloroform	35.6	0.2	19.0	<0.1	26.3	0.1	32.2	<0.1	32.2	0.1	28.8	0.1	32.2	0.1	30.3	0.1	36.6	<0.1	41.5	0.2	41	0.2	40	0.2
		1,1,1-Trichloroethane	30.5	<0.1	19.6	<0.1	20.2	<0.1	27.8	<0.1	22.9	<0.1			23.4	<0.1	22.4	<0.1	21.8	<0.1	24.5	<0.1	24	<0.1	19	<0.1
		Dichlorodifluoromethane	59.3	<0.1	42.0	<0.1	42.0	<0.1	47.4	<0.1	47.0	<0.1	49.4	<0.1	54.4	<0.1	36.6	<0.1	45.5	<0.1	48.9	<0.1	47	<0.1	37	<0.1
		Tetrachloroethylene	6.8	<0.1																						

Table 3: Current and Previous Quarter Results

Well	Sample Port Depth (ft)	Analyte/Constituent (as Listed in Permit Tables)	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 5		Quarter 6		Quarter 7		Quarter 8		Quarter 9		Quarter 10		Quarter 11		Quarter 12	
			Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)
		Acetone							15.0	<0.1					12.3	<0.1										
		Carbon tetrachloride															7.5	<0.1								
VMW-5 63-2013	60	Trichloroethylene	1340	1.4	1343	1.4	1557	1.7	1504	1.6	1396	1.5	1400	1.5	1560	1.7	1500	1.6	1400	1.5	1503	1.6	1400	1.5	1400	1.5
		Tetrachloroethylene	16.9	<0.1	12.9	<0.1	15.6	<0.1					10.2	<0.1	12.9	<0.1										
		Chloroform	15.6	<0.1	18.1	<0.1	22.9	<0.1	19.0	<0.1	22.9	<0.1	22.0	<0.1	21.5	<0.1	26.3	<0.1	21.0	<0.1	23.4	<0.1	23	<0.1	20	<0.1
		1,1,1-Trichloroethane	44.7	<0.1	47.4	<0.1	47.4	<0.1	60.0	<0.1	50.2	<0.1	42.0	<0.1	45.3	<0.1	46.9	<0.1	44.7	<0.1	47.4	<0.1	47	<0.1	40	<0.1
		Dichlorodifluoromethane	64.2	<0.1	84.0	<0.1	69.2	<0.1	84.0	<0.1	79.0	<0.1	79.0	<0.1	79.0	<0.1	59.3	<0.1	64.2	<0.1	79.1	<0.1	84	<0.1	69	<0.1
		1,1,2-Trichloro-1,2,2-trifluoroethane			10.0	<0.1	19.9	<0.1							15.3	<0.1	14.6	<0.1			18.4	<0.1			17	<0.1
		Toluene	10.5	<0.1																						
		Carbon tetrachloride	13.2	<0.1			10.7	<0.1							18.2	<0.1	21.4	<0.1	20.1	<0.1			19	<0.1	18	<0.1
		Acetone	26.1	<0.1													26.1	<0.1								
VMW-5 63-2013 Field Duplicate	25	Trichloroethylene	451	0.3																						
		Tetrachloroethylene	8.8	<0.1																						
		Chloroform	30.7	0.1																						
		1,1,1-Trichloroethane	32.7	<0.1																						
		Dichlorodifluoromethane	59.3	<0.1																						
VMW-3 63-2011 Field Duplicate	5	Trichloroethylene			45.6	0.2					80.6	0.4														
VMW-4 63-2012 Field Duplicate	25	Trichloroethylene					3276	2.1					2790	1.8												
		Tetrachloroethylene					32.5	<0.1					34.6	<0.1												
		Carbon tetrachloride					56.6	<0.1					49.7	<0.1												
		Chloroform					112	0.5					97.6	0.4												
		1,1,1-Trichloroethane					12.5	<0.1																		
		Dichlorofluoromethane					74.1	<0.1					79.1	<0.1												
VWM-4 63-2012 Field Duplicate	60	Trichloroethylene							8593	9.3																
		Tetrachloroethylene							81.3	<0.1																
		cis-1,2-Dichloroethylene							27.0	<0.1																
		Carbon tetrachloride							113	<0.1																
		Chloroform							249	0.6																
		Dichlorodifluoromethane							188	<0.1																
		1,1,2-Trichloro-1,2,2-trifluoroethane							32.2	<0.1																
VMW-1	5	Trichloroethylene													59.1	0.3										

Table 3: Current and Previous Quarter Results

Well	Sample Port Depth (ft)	Analyte/Constituent (as Listed in Permit Tables)	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Quarter 5		Quarter 6		Quarter 7		Quarter 8		Quarter 9		Quarter 10		Quarter 11		Quarter 12	
			Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)	Result (ug/m^3)	Percent of SGSL (%)
63-2009 Field Duplicate																										
		Dichlorodifluoromethane													6.9	<0.1										
VMW-5 63-2013 Field Duplicate	60	Trichloroethylene															1560	1.7	1340	1.4	1340	1.4	1500	1.6	1400	<0.1
		Carbon tetrachloride															18.2	<0.1			17.6	<0.1	19	<0.1	19	<0.1
		1,1,1-Trichloroethane															47.4	<0.1	48.5	<0.1	46.3	<0.1	47	<0.1	38	<0.1
		Dichlorodifluoromethane															64.2	<0.1	69.2	<0.1	79.1	<0.1	79	<0.1	69	<0.1
		1,1,2-Trichloro-1,2,2-trifluoroethane															15.3	<0.1	17.6	<0.1						
		Chloroform																	20.5	<0.1	19.5	<0.1	29	<0.1	24	<0.1
		Methylethylketone (2-butanone)																			162	<0.1				
		1,2,4-Trimethylbenzene																			10.3	<0.1				

Table 4. Statistical Analysis

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Table 4. Statistical Analysis
TWF Soil Vapor Monitoring
Trichloroethylene Data Statistics
Mean and 95% Confidence Range

	VMW-1 (ug/m^3)	VMW-2 (ug/m^3)	VMW-3 (ug/m^3)	VMW-4 25 ft (ug/m^3)	VMW-4 60 ft (ug/m^3)	VMW-5 25 ft (ug/m^3)	VMW-5 60 ft (ug/m^3)
Quarter 1	64.4	134	69.8	3810	8060	483	1340
Quarter 2	31.1	80.6	64.4	2793	6982	258	1343
Quarter 3	48.3	129	96.7	3437	8593	414	1557
Quarter 4	53.7	85.9	59.1	2954	8056	344	1504
Quarter 5	43.5	107	75.2	2900	8056	365	1396
Quarter 6	36.0	113	85.9	2900	7520	360	1400
Quarter 7	44.0	118	107	2790	7520	360	1560
Quarter 8	59.1	102	85.9	3010	8590	424	1500
Quarter 9	40.3	96.7	64.4	2790	6980	338	1400
Quarter 10	41.9	102	75.2	2740	7520	392	1500
Quarter 11	41	97	97	2800	7500	380	1400
Quarter 12	59	86	75	2600	7500	390	1400
Mean (M)	47.6	104	79.6	2960	7740	376	1440
Standard Deviation (SD) [n-1]	10.1	16.8	15.0	337	536	54.5	78.52
Lower Limit (95%=M-2xSD)	27.4	70.4	49.6	2286	6668	267	1283
Upper Limit (95%=M+2xSD)	67.8	138	110	3634	8812	485	1597
Lower Limit (99%=M-3xSD)				1949		212	
Upper Limit (99%=M+3xSD)				3971		540	

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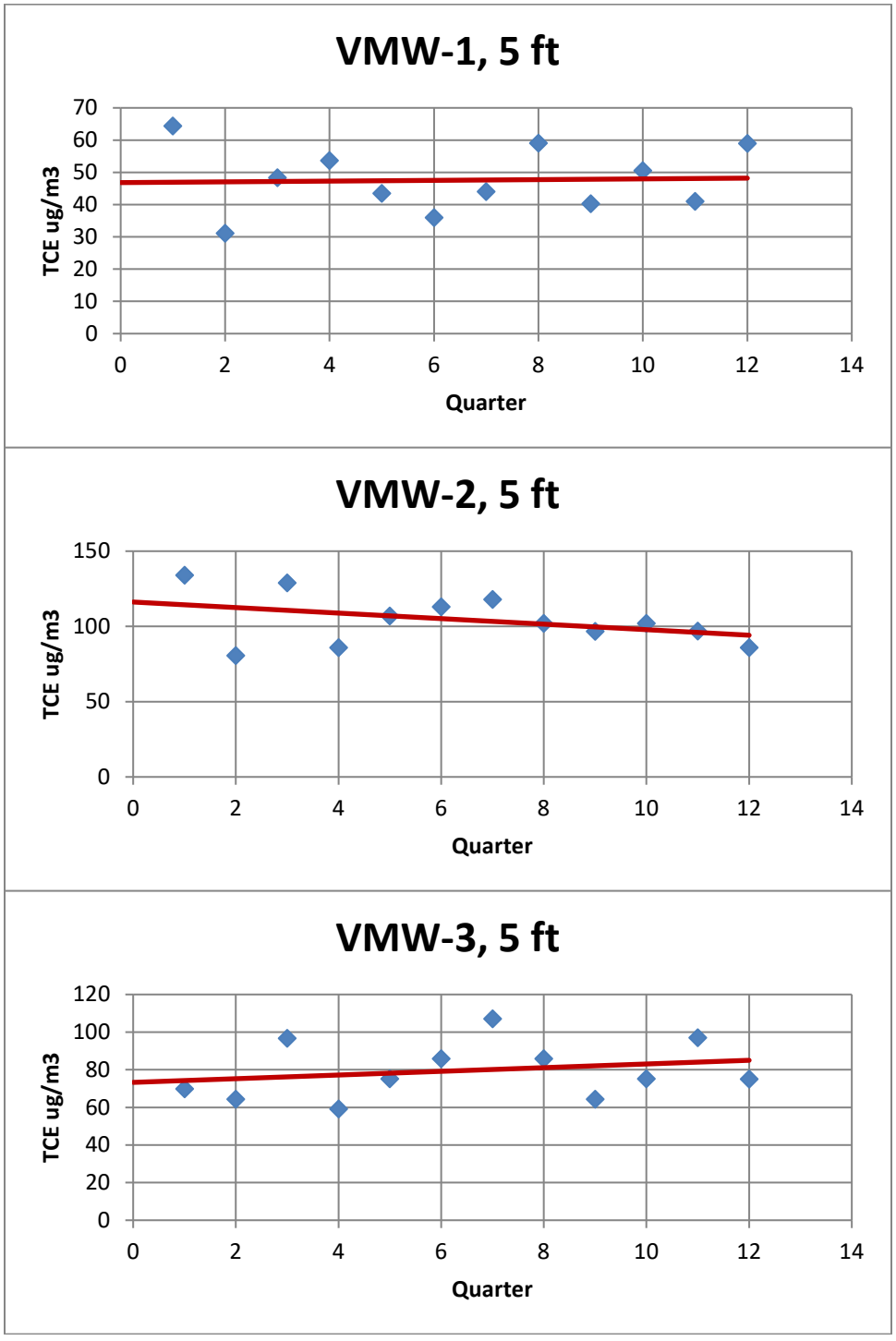

Figure 2. Simple Linear Regression Plots for TA-63 TWF Soil Vapor Monitoring Wells Inside the Permitted Unit

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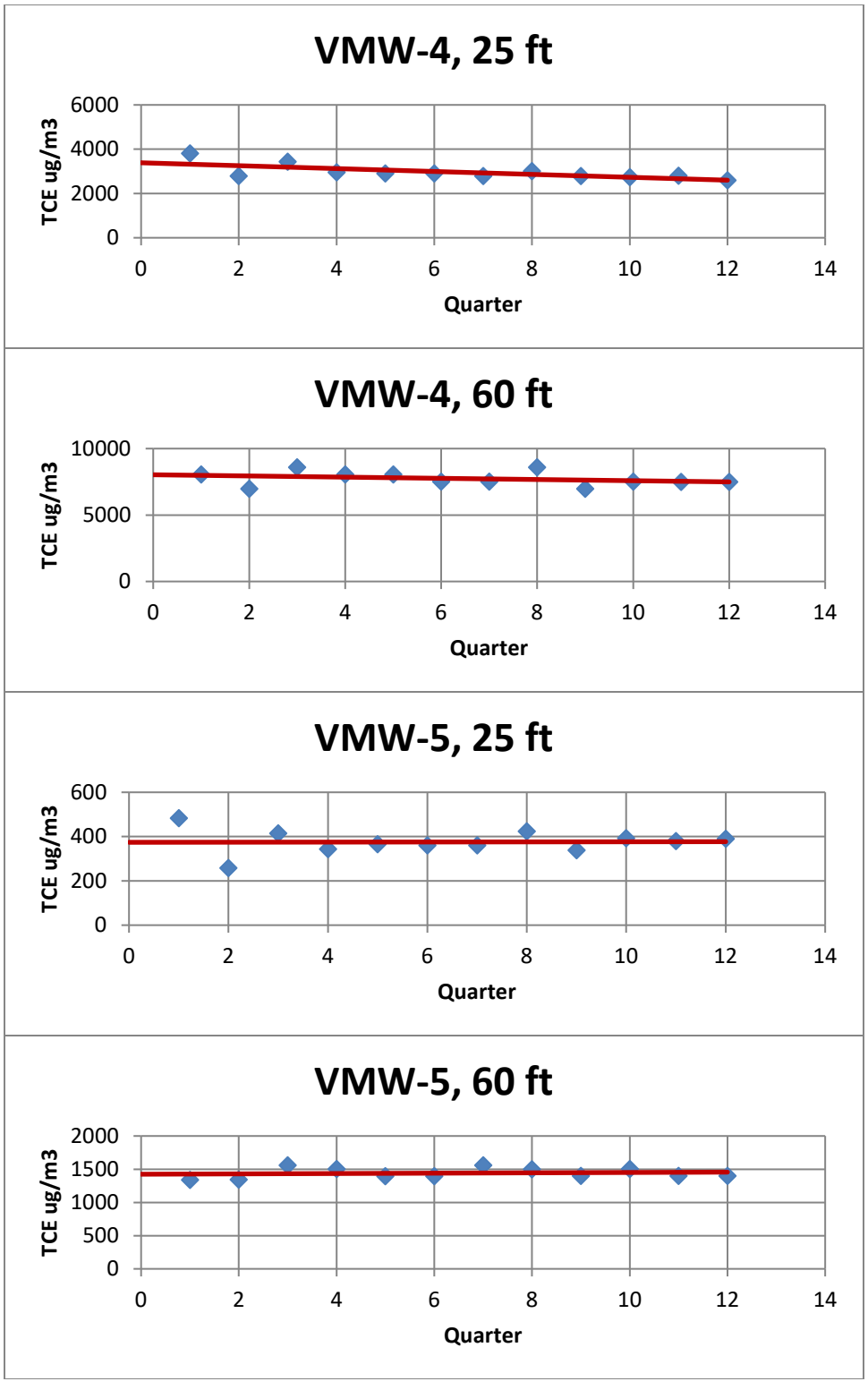

Figure 3. Simple Linear Regression Plots for TA-63 TWF Soil Vapor Monitoring Wells Outside the Permitted Unit

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Sample Collection Logs
TA-63 Transuranic Waste Facility – Quarter 12

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SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205515

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	dc	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	914		MEDIA:	GAS	
PRS ID:	TA-63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	63-2009		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	REG	
TOP DEPTH:	6.5		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	7.5		EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 00136

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time NA HH:MM

CH_4 = 0 % CO_2 = 10.000 ppm O_2% = 19.5 % VOC 0.0 ppm

COLLECTED BY (PRINT): M. Shendo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature)	**Date/Time** 8/3/2020 1225	**RECEIVED BY** (Printed Name) B. Sherwood (Signature) B. Sherwood	**Date/Time** 8/3/2020 1835
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205516

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	OK	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	0934		MEDIA:	GAS	
PRS ID:	TA-63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	63-2010		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	REG	
TOP DEPTH:	6.5		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	7.5		EXCAVATED:		YES / NO / (NA)

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
UA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 34423

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time 1134 HH:MM

CH_4 0 % CO_2 4860 ppm O_2 = 20.4 % Voc 00 ppm

COLLECTED BY (PRINT): M. Sherwood

RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time
Daniel Granb	8/3/2020 1225	S. Sherwood	8/3/2020 1225
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205517

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	ok	**FIELD MATRIX:**	GAS	ok
TIME COLLECTED (HH:MM):	0954		**MEDIA:**	GAS	
PRS ID:	TA-63		**SAMPLE TECH CODE:**	VOST	
LOCATION ID:	63-2011		**FIELD PREP:**	NA	
LOCATION TYPE:	AMS		**FIELD QC TYPE:**	REG	
TOP DEPTH:	6.5		**SAMPLE USAGE:**	INV	J
BOTTOM DEPTH:	7.5	J	**EXCAVATED:**		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
4	TO15	6 Liter Summa Canister	1	NONE	1	6 Liter Summa

SAMPLE COMMENTS: Summa # N2881

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time NA HH:MM

CH_4 = 0 % CO_2 = 4680 ppm O_2 = 20.4 % VOC = 0.0 ppm

COLLECTED BY (PRINT): M. Sherwood

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature) DJ	**Date/Time** 8/3/2020 1225	**RECEIVED BY** (Printed Name) S. Sherwood (Signature) S. Sherwood	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205518

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	OK	FIELD MATRIX:	GAS	OK
TIME COLLECTED (HH:MM):	1037		MEDIA:	GAS	
PRS ID:	TA-63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	63-2012		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	REG	
TOP DEPTH:	24		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	25		EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 96106

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time NA HH:MM

CH_4: 0 % CO_2 = 113000 ppm O_2 = 19.7 % VOC: 0.3 ppm

COLLECTED BY (PRINT): M. Sherlo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature)	**Date/Time** 8/3/20 1225	**RECEIVED BY** (Printed Name) S. Sherwood (Signature)	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205519

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	dc	FIELD MATRIX:	GAS	dc
TIME COLLECTED (HH:MM):	1051		MEDIA:	GAS	
PRS ID:	TA-63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	63-2012		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	REG	
TOP DEPTH:	59		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	60		EXCAVATED:		YES / NO / ~~NA~~

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	3	6 Liter Summa

SAMPLE COMMENTS: Summa # 00271

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time NA HH:MM

CH_4 = 0 % CO_2 = 14.00 ppm O_2 = 19.4 % VOC = 1.7 ppm

COLLECTED BY (PRINT): M. Shenlo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature) DJ	**Date/Time** 8/3/2020 1225	**RECEIVED BY** (Printed Name) S. Sherwood (Signature) S. Sherwood	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205520

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	dk	FIELD MATRIX:	GAS	dk
TIME COLLECTED (HH:MM):	11:5		MEDIA:	GAS	
PRS ID:	TA63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	63-2013		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	REG	
TOP DEPTH:	24		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	25		EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # N3488

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time 11 HH:MM

CH_4 = 0 % CO_2 = 30.00 ppm O_2 = 18.2 % H_2S = 0.0 ppm

COLLECTED BY (PRINT): M. Sherlo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature) DJ	**Date/Time** 8/3/2020 1225	**RECEIVED BY** (Printed Name) S. Sherwood (Signature) S. Sherwood	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205521

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	8/3/2020	OK	**FIELD MATRIX:**	GAS	OK
TIME COLLECTED (HH:MM):	1130		**MEDIA:**	GAS	
PRS ID:	TA-63		**SAMPLE TECH CODE:**	VOST	
LOCATION ID:	63-2013		**FIELD PREP:**	NA	
LOCATION TYPE:	AMS		**FIELD QC TYPE:**	REG	
TOP DEPTH:	59		**SAMPLE USAGE:**	INV	
BOTTOM DEPTH:	60		**EXCAVATED:**		YES / NO / ~~NA~~

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 00977

LOCATION COMMENTS:

FIELD PARAMETERS:

Sample Time NA HH:MM

CH_4 = 0 % CO_2 = 22400 ppm O_2 = 19.1 % VOC = 0.2 ppm

COLLECTED BY (PRINT): M. Sierra

RELINQUISHED BY (Printed Name) Darrel Jaramillo **(Signature)** DOJ	**Date/Time** 8/3/2020 1225	**RECEIVED BY (Printed Name)** B. Sherwood **(Signature)** B. Sherwood	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) **(Signature)**	**Date/Time**	**RECEIVED BY (Printed Name)** **(Signature)**	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205522

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	1131		MEDIA:	GAS	
PRS ID:	TA-63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	UNK		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	FD	
TOP DEPTH:	59		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	60		EXCAVATED:		YES / NO / NA

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 1646

LOCATION COMMENTS: QC sample of TWF63-20-205521

FIELD PARAMETERS:

Sample Time 11 HH:MM

CH_4 0 % CO_2 = 22,400 ppm O_2 = 14.1 % VOC 0.2 ppm

COLLECTED BY (PRINT): M. Sheridan

RELINQUISHED BY (Printed Name) David Jaramillo (Signature)	**Date/Time** 8/3/2020 1225	**RECEIVED BY** (Printed Name) S Sherwood (Signature)	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13172

EVENT NAME: FY 2020 - Poregas Sampling - TA-63 - TWF - July

SAMPLE ID: TWF63-20-205523

WORK ORDER:

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	08/03/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	1205		MEDIA:	N_2	
PRS ID:	TA 63		SAMPLE TECH CODE:	VOST	
LOCATION ID:	UNK		FIELD PREP:	NA	
LOCATION TYPE:	AMS		FIELD QC TYPE:	FB	
TOP DEPTH:	NA		SAMPLE USAGE:	QC	
BOTTOM DEPTH:			EXCAVATED:		YES / NO / (NA)

PRIORITY	ORDER	CONTAINER	#	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
NA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: QC sample of TWF63-20-205521

LOCATION COMMENTS:

FIELD PARAMETERS: Summa #

Sample Time NA HH:MM

COLLECTED BY (PRINT): M. Sherek

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature)	**Date/Time** 8/3/20 1225	**RECEIVED BY** (Printed Name) S. Sherwood (Signature) S. Sherwood	**Date/Time** 8/3/2020 12:25
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

CERTIFICATION

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Document: TA63 TWF SVM Report–Quarter 12
Date: October, 2020

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

JENNIFER PAYNE (Affiliate) Digitally signed by JENNIFER PAYNE (Affiliate) Date: 2020.09.29 13:01:02 -06'00'

9/29/20

Jennifer E. Payne
Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC

Date Signed

Karen E. Armijo Digitally signed by Karen E. Armijo Date: 2020.10.01 13:20:11 -06'00'

10/1/20

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy

Date Signed

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