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JAN 11 2021

Date:
Symbol: EPC-DO: 21-417
LA-UR: 20-30390
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 13, 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 63 (TA-63) Transuranic Waste Facility (TWF) be sampled for designated volatile organic compounds (VOCs) and evaluated on a quarterly basis after operations at the facility commence to ensure protection of environmental health and safety including that of onsite workers. This report provides analytical data for the thirteenth quarter period following the start of operations in October, 2017. The sampling results indicate that vapor concentrations at the site are consistent with previous events and 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 thirteenth 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 field logs. Specifically, Table 1 is a summary of the analytical results for the thirteenth 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 thirteen 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) 412-0462, plpadilla@lanl.gov.

Sincerely,

JENNIFER PAYNE (Affiliate)
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Jennifer E. Payne
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Triad National Security, LLC

Sincerely,

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

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Enclosure: 1) Technical Area 63 Transuranic Waste Facility Soil Vapor Monitoring System Report, Quarter 13, 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 thirteenth 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 field logs. Specifically, Table 1 is a summary of the analytical results for the thirteenth 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 thirteen quarters of sampling currently collected for

ENCLOSURE 1

TA-63 Transuranic Waste Facility
Soil Vapor Monitoring System Report,
Quarter 13,
Los Alamos National Laboratory
EPA ID #NM0890010515

EPC-DO-20-417

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Technical Area 63 Transuranic Waste Facility
Soil Vapor Monitoring System Report
Quarter 13
Los Alamos National Laboratory
EPA ID #NM0890010515

I. Introduction

This report presents the thirteenth 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 thirteenth 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 thirteenth quarter of waste management operations on November 10, 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 are 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 indicate 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 those monitoring wells at 8.1% and 1.4% 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 ranging from 0.2% to 0.7% of the SGSL.

Chloroform is an additional VOC constituent 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 twelve 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 thirteenth 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 above. A discussion of data anomalies and a discussion regarding statistical analysis of the analytical results are presented below.

The data collected during past quarters included detection of several new VOC constituents in the TWF SVM wells. In the tenth quarter, the well VMW-5 60-foot sampling port field duplicate detected constituents which were new and not detected in the main sample. Those VOCs included tetrahydrofuran, ethanol, propanol-2 (isopropyl alcohol), and 2-butanone (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 and there have been no detections since.

In quarter twelve, ethanol and propanol[2-] were indicated at concentrations below the report detection limits for two well samples collected from wells VMW-1 and the 25 foot port for well VMW-4; the results were "J" qualified. 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. The thirteenth quarter sampling and analytical results demonstrate that the constituents are not present for the current quarter. As stated in the previous quarterly reports, these issues will be evaluated for re-occurrence in future sampling events and reported to NMED if detected above the report detection limits.

Two VOC constituents included in the Permit tables (ethylbenzene and xylene isomers) have been detected in the field blank samples for the sixth through the current quarter (LANL, 2019a; LANL, 2019b; LANL, 2019c; LANL, 2020a; LANL, 2020c; LANL, 2020d; LANL, 2020e); however, the constituents have not been detected in samples taken from the soil vapor monitoring wells. 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 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 thirteen quarters have remained within the limits of a two standard deviation intervals 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 is included within 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.

Data plots for the wells are included as Figures 2 and 3 to evaluate whether any significant trends regarding constituent concentration changes over quarters are readily discernable. 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 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

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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.

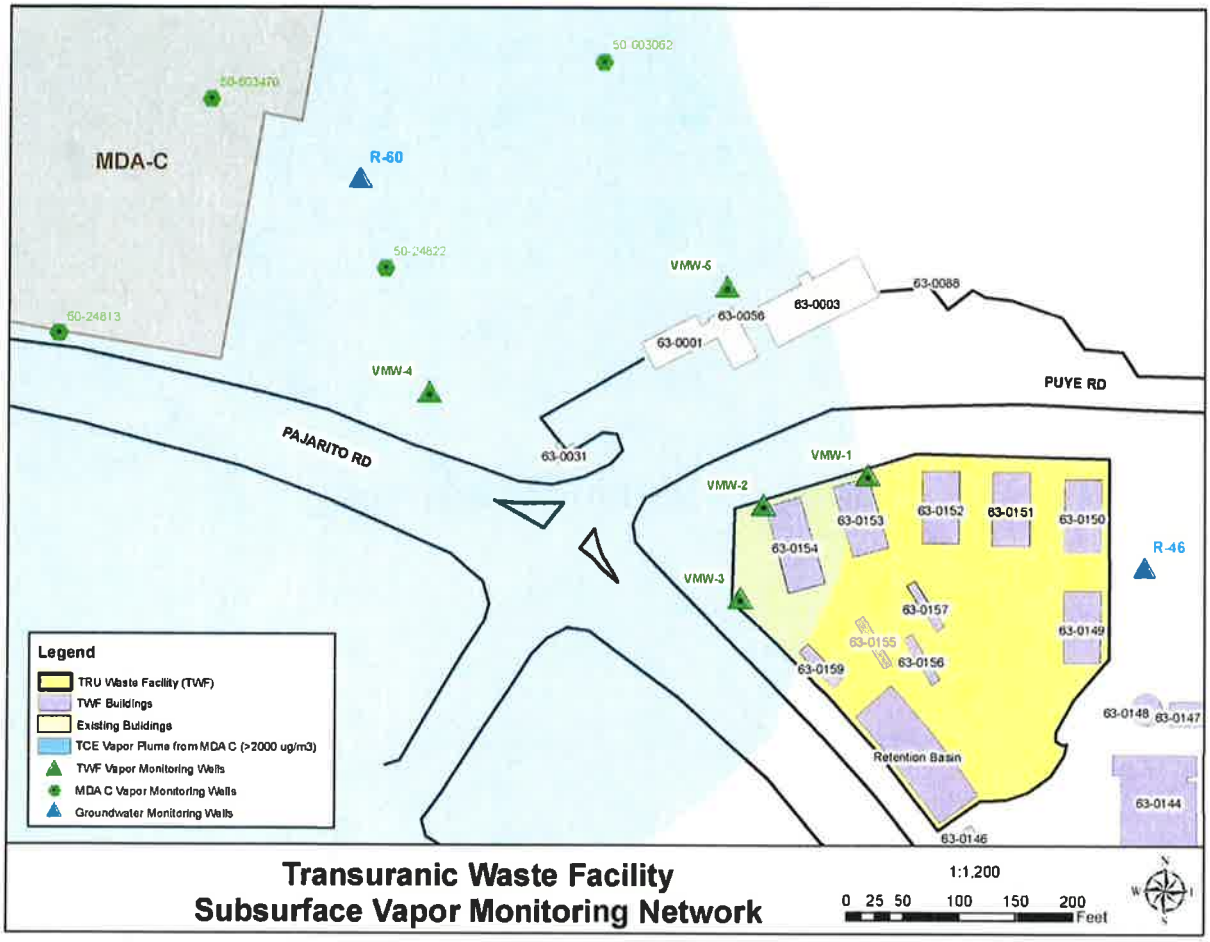

Figure 1

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 13

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Table 1: Detected Volatile Organic Compounds
at TA-63 Transuranic Waste Facility Soil Vapor Monitoring System – Quarter 13

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	TWF63-20-210186	5	Trichloroethene	Trichloroethylene	44	J	52	1.94E+04	0.2
VMW-2 63-2010	TWF63-20-210187	5	Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	5.1	J	47	4.86E+07	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	5.9	J	43	1.03E+06	<0.1
			Trichloroethene	Trichloroethylene	130	NQ	46	1.94E+04	0.7
VMW-3 63-2011	TWF63-20-210188	5	Dichlorodifluoromethane	Dichlorodifluoromethane	7.9	J	43	1.03E+06	<0.1
			Trichloroethene	Trichloroethylene	86	NQ	47	1.94E+04	0.4
VMW-4 63-2012	TWF63-20-210189	25	Tetrachloroethene	Tetrachloroethylene	40	J	62	2.63E+06	<0.1
			Carbon Tetrachloride	Carbon tetrachloride	43	J	57	1.06E+05	<0.1
			Chloroform	Chloroform	83	NQ	44	2.30E+04	0.4
			Dichlorodifluoromethane	Dichlorodifluoromethane	64	NQ	45	2.61E+06	<0.1
			Trichloroethene	Trichloroethylene	2600	NQ	49	1.57E+05	1.7
VMW-4 63-2012	TWF63-20-210190	60	Tetrachloroethene	Tetrachloroethylene	75	NQ	57	2.05E+06	<0.1
			Dichloroethene[cis-1,2-]	cis-1,2-Dichloroethylene	21	J	33	2.91E+06	<0.1
			Carbon Tetrachloride	Carbon tetrachloride	110	NQ	53	2.13E+05	<0.1
			Chloroform	Chloroform	200	NQ	41	4.44E+04	0.5
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	15	J	46	2.34E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	160	NQ	42	5.38E+06	<0.1
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	1,1,2-Trichloro-1,2,2-trifluoroethane	34	J	64	1.38E+09	<0.1
			Trichloroethene	Trichloroethylene	7500	NQ	45	9.27E+04	8.1
VMW-5 63-2013	TWF63-20-210191	25	Chloroform	Chloroform	35	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	47	NQ	45	2.61E+06	<0.1
			Trichloroethene	Trichloroethylene	400	NQ	49	1.57E+05	0.3
VMW-5 63-2013	TWF63-20-210192	60	Carbon Tetrachloride	Carbon tetrachloride	18	J	53	2.13E+05	<0.1
			Chloroform	Chloroform	19	J	41	4.44E+04	<0.1
			Trichloroethane[1,1,1-]	1,1,1-Trichloroethane	33	J	46	2.34E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	74	NQ	42	5.38E+06	<0.1
			Trichloroethene	Trichloroethylene	1300	NQ	45	9.27E+04	1.4
VMW-5		60	Carbon Tetrachloride	Carbon tetrachloride	22	J	60	2.13E+05	<0.1

Table 1: Detected Volatile Organic Compounds
at TA-63 Transuranic Waste Facility Soil Vapor Monitoring System – Quarter 13

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 (%)
63-2013	TWF63-20-210193 Field Duplicate		Chloroform	Chloroform	22	J	47	4.44E+04	<0.1
			Trichloroethane [1,1,1-]	1,1,1-Trichloroethane	47	J	52	2.34E+08	<0.1
			Dichlorodifluoromethane	Dichlorodifluoromethane	74	NQ	47	5.38E+06	<0.1
			Trichloro-1,2,2-trifluoroethane[1,1,2-]	1,1,2-Trichloro-1,2,2-trifluoroethane	18	J	74	1.38E+09	<0.1
			Trichloroethene	Trichloroethylene	1400	NQ	52	9.27E+04	1.5
VMW-5 63-2013	TWF63-20-210194 Field Blank		Ethyl benzene	Ethylbenzene	16	J	61	5.40E+05	<0.1
			Xylene[1,2-]	o-Xylene	12	J	61	4.27E+06	<0.1
			Xylene[1,3-] +Xylene[1,4-]	m-Xylene + p-Xylene	37	J	61	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.									

Table 2. Analytical Results for Soil Vapor Monitoring Wells
at TA-63 Transuranic Waste Facility – Quarter 13

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TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210186	63-2009	11/10/2020	Ethylbenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	42
TWF63-20-210186	63-2009	11/10/2020	Styrene	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	41
TWF63-20-210186	63-2009	11/10/2020	Benzyl Chloride	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-210186	63-2009	11/10/2020	Dichloropropene[cis-1,3-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	44
TWF63-20-210186	63-2009	11/10/2020	Dichloropropene[trans-1,3-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.5	44
TWF63-20-210186	63-2009	11/10/2020	Propylbenzene[1-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	47
TWF63-20-210186	63-2009	11/10/2020	Dichlorobenzene[1,4-]	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	58
TWF63-20-210186	63-2009	11/10/2020	Dibromoethane[1,2-]	74	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	74
TWF63-20-210186	63-2009	11/10/2020	Butadiene[1,3-]	21	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.6	21
TWF63-20-210186	63-2009	11/10/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	27	120
TWF63-20-210186	63-2009	11/10/2020	Dichloroethane[1,2-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.7	39
TWF63-20-210186	63-2009	11/10/2020	Methyl-2-pentanone[4-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	39
TWF63-20-210186	63-2009	11/10/2020	Trimethylbenzene[1,3,5-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	47
TWF63-20-210186	63-2009	11/10/2020	Toluene	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.8	36
TWF63-20-210186	63-2009	11/10/2020	Chlorobenzene	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	44
TWF63-20-210186	63-2009	11/10/2020	Tetrahydrofuran	28	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.3	28
TWF63-20-210186	63-2009	11/10/2020	Hexane	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	34
TWF63-20-210186	63-2009	11/10/2020	Cyclohexane	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	33
TWF63-20-210186	63-2009	11/10/2020	Trichlorobenzene[1,2,4-]	280	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	58	280
TWF63-20-210186	63-2009	11/10/2020	Dioxane[1,4-]	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	140
TWF63-20-210186	63-2009	11/10/2020	Chlorodibromomethane	82	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	82
TWF63-20-210186	63-2009	11/10/2020	Tetrachloroethene	65	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	65
TWF63-20-210186	63-2009	11/10/2020	n-Heptane	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	39
TWF63-20-210186	63-2009	11/10/2020	Dichloroethene[cis-1,2-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	38
TWF63-20-210186	63-2009	11/10/2020	Dichloroethene[trans-1,2-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	38
TWF63-20-210186	63-2009	11/10/2020	Methyl tert-Butyl Ether	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	35
TWF63-20-210186	63-2009	11/10/2020	Isooctane	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.9	45
TWF63-20-210186	63-2009	11/10/2020	Dichlorobenzene[1,3-]	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	58
TWF63-20-210186	63-2009	11/10/2020	Carbon Tetrachloride	60	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	15	60
TWF63-20-210186	63-2009	11/10/2020	Hexanone[2-]	160	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	160
TWF63-20-210186	63-2009	11/10/2020	Ethyltoluene[4-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	47
TWF63-20-210186	63-2009	11/10/2020	Ethanol	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	45	72
TWF63-20-210186	63-2009	11/10/2020	Propanol[2-]	93	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	93
TWF63-20-210186	63-2009	11/10/2020	Acetone	90	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	90
TWF63-20-210186	63-2009	11/10/2020	Chloroform	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	47
TWF63-20-210186	63-2009	11/10/2020	Benzene	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	31
TWF63-20-210186	63-2009	11/10/2020	Trichloroethane[1,1,1-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	52
TWF63-20-210186	63-2009	11/10/2020	Bromomethane	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	150
TWF63-20-210186	63-2009	11/10/2020	Chloromethane	78	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	78
TWF63-20-210186	63-2009	11/10/2020	Chloroethane	100	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	100
TWF63-20-210186	63-2009	11/10/2020	Vinyl Chloride	25	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.7	25
TWF63-20-210186	63-2009	11/10/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	52	130
TWF63-20-210186	63-2009	11/10/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	30	120
TWF63-20-210186	63-2009	11/10/2020	Bromoform	99	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	21	99
TWF63-20-210186	63-2009	11/10/2020	Bromodichloromethane	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	64

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210186	63-2009	11/10/2020	Dichloroethane[1,1-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.1	39
TWF63-20-210186	63-2009	11/10/2020	Dichloroethene[1,1-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	38
TWF63-20-210186	63-2009	11/10/2020	Trichlorofluoromethane	54	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	54
TWF63-20-210186	63-2009	11/10/2020	Dichlorodifluoromethane	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	47
TWF63-20-210186	63-2009	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	74	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	74
TWF63-20-210186	63-2009	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	67	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	67
TWF63-20-210186	63-2009	11/10/2020	Dichloropropane[1,2-]	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	44
TWF63-20-210186	63-2009	11/10/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-210186	63-2009	11/10/2020	Trichloroethane[1,1,2-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	52
TWF63-20-210186	63-2009	11/10/2020	Trichloroethene	44	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	9.7	52
TWF63-20-210186	63-2009	11/10/2020	Tetrachloroethane[1,1,2,2-]	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.9	66
TWF63-20-210186	63-2009	11/10/2020	Hexachlorobutadiene	410	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	58	410
TWF63-20-210186	63-2009	11/10/2020	Xylene[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	42
TWF63-20-210186	63-2009	11/10/2020	Dichlorobenzene[1,2-]	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	58
TWF63-20-210186	63-2009	11/10/2020	Trimethylbenzene[1,2,4-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.9	47
TWF63-20-210186	63-2009	11/10/2020	Isopropylbenzene	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	47
TWF63-20-210186	63-2009	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	42
TWF63-20-210187	63-2010	11/10/2020	Ethylbenzene	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	37
TWF63-20-210187	63-2010	11/10/2020	Styrene	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	37
TWF63-20-210187	63-2010	11/10/2020	Benzyl Chloride	44	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	44
TWF63-20-210187	63-2010	11/10/2020	Dichloropropene[cis-1,3-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	39
TWF63-20-210187	63-2010	11/10/2020	Dichloropropene[trans-1,3-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.6	39
TWF63-20-210187	63-2010	11/10/2020	Propylbenzene[1-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.8	42
TWF63-20-210187	63-2010	11/10/2020	Dichlorobenzene[1,4-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	52
TWF63-20-210187	63-2010	11/10/2020	Dibromoethane[1,2-]	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	66
TWF63-20-210187	63-2010	11/10/2020	Butadiene[1,3-]	19	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	19
TWF63-20-210187	63-2010	11/10/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	24	110
TWF63-20-210187	63-2010	11/10/2020	Dichloroethane[1,2-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.9	35
TWF63-20-210187	63-2010	11/10/2020	Methyl-2-pentanone[4-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	35
TWF63-20-210187	63-2010	11/10/2020	Trimethylbenzene[1,3,5-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	42
TWF63-20-210187	63-2010	11/10/2020	Toluene	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.0	32
TWF63-20-210187	63-2010	11/10/2020	Chlorobenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	40
TWF63-20-210187	63-2010	11/10/2020	Tetrahydrofuran	25	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	25
TWF63-20-210187	63-2010	11/10/2020	Hexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	30
TWF63-20-210187	63-2010	11/10/2020	Cyclohexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.2	30
TWF63-20-210187	63-2010	11/10/2020	Trichlorobenzene[1,2,4-]	250	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	52	250
TWF63-20-210187	63-2010	11/10/2020	Dioxane[1,4-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	120
TWF63-20-210187	63-2010	11/10/2020	Chlorodibromomethane	73	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	73
TWF63-20-210187	63-2010	11/10/2020	Tetrachloroethene	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	58
TWF63-20-210187	63-2010	11/10/2020	n-Heptane	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	35
TWF63-20-210187	63-2010	11/10/2020	Dichloroethene[cis-1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.9	34
TWF63-20-210187	63-2010	11/10/2020	Dichloroethene[trans-1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	34
TWF63-20-210187	63-2010	11/10/2020	Methyl tert-Butyl Ether	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	31
TWF63-20-210187	63-2010	11/10/2020	Isooctane	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	40
TWF63-20-210187	63-2010	11/10/2020	Dichlorobenzene[1,3-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	52

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210187	63-2010	11/10/2020	Carbon Tetrachloride	54	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	54
TWF63-20-210187	63-2010	11/10/2020	Hexanone[2-]	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	140
TWF63-20-210187	63-2010	11/10/2020	Ethyltoluene[4-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	42
TWF63-20-210187	63-2010	11/10/2020	Ethanol	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	64
TWF63-20-210187	63-2010	11/10/2020	Propanol[2-]	84	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	84
TWF63-20-210187	63-2010	11/10/2020	Acetone	81	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	31	81
TWF63-20-210187	63-2010	11/10/2020	Chloroform	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.8	42
TWF63-20-210187	63-2010	11/10/2020	Benzene	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.2	27
TWF63-20-210187	63-2010	11/10/2020	Trichloroethane[1,1,1-]	5.1	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	4.9	47
TWF63-20-210187	63-2010	11/10/2020	Bromomethane	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	38	130
TWF63-20-210187	63-2010	11/10/2020	Chloromethane	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	70
TWF63-20-210187	63-2010	11/10/2020	Chloroethane	90	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	90
TWF63-20-210187	63-2010	11/10/2020	Vinyl Chloride	22	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	22
TWF63-20-210187	63-2010	11/10/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	45	120
TWF63-20-210187	63-2010	11/10/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	27	110
TWF63-20-210187	63-2010	11/10/2020	Bromoform	89	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	89
TWF63-20-210187	63-2010	11/10/2020	Bromodichloromethane	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	58
TWF63-20-210187	63-2010	11/10/2020	Dichloroethane[1,1-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	35
TWF63-20-210187	63-2010	11/10/2020	Dichloroethene[1,1-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	34
TWF63-20-210187	63-2010	11/10/2020	Trichlorofluoromethane	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	48
TWF63-20-210187	63-2010	11/10/2020	Dichlorodifluoromethane	7.4	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.4	43
TWF63-20-210187	63-2010	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	15	66
TWF63-20-210187	63-2010	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	60	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	60
TWF63-20-210187	63-2010	11/10/2020	Dichloropropane[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	40
TWF63-20-210187	63-2010	11/10/2020	Butanone[2-]	100	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	30	100
TWF63-20-210187	63-2010	11/10/2020	Trichloroethane[1,1,2-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	47
TWF63-20-210187	63-2010	11/10/2020	Trichloroethene	130	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	8.6	46
TWF63-20-210187	63-2010	11/10/2020	Tetrachloroethane[1,1,2,2-]	59	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	59
TWF63-20-210187	63-2010	11/10/2020	Hexachlorobutadiene	360	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	51	360
TWF63-20-210187	63-2010	11/10/2020	Xylene[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.1	37
TWF63-20-210187	63-2010	11/10/2020	Dichlorobenzene[1,2-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	52
TWF63-20-210187	63-2010	11/10/2020	Trimethylbenzene[1,2,4-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	42
TWF63-20-210187	63-2010	11/10/2020	Isopropylbenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	42
TWF63-20-210187	63-2010	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	37
TWF63-20-210188	63-2011	11/10/2020	Ethylbenzene	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	38
TWF63-20-210188	63-2011	11/10/2020	Styrene	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	37
TWF63-20-210188	63-2011	11/10/2020	Benzyl Chloride	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	45
TWF63-20-210188	63-2011	11/10/2020	Dichloropropene[cis-1,3-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	39
TWF63-20-210188	63-2011	11/10/2020	Dichloropropene[trans-1,3-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.6	39
TWF63-20-210188	63-2011	11/10/2020	Propylbenzene[1-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	43
TWF63-20-210188	63-2011	11/10/2020	Dichlorobenzene[1,4-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	52
TWF63-20-210188	63-2011	11/10/2020	Dibromoethane[1,2-]	67	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	67
TWF63-20-210188	63-2011	11/10/2020	Butadiene[1,3-]	19	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.0	19
TWF63-20-210188	63-2011	11/10/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	110
TWF63-20-210188	63-2011	11/10/2020	Dichloroethane[1,2-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.9	35

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210188	63-2011	11/10/2020	Methyl-2-pentanone[4-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	36
TWF63-20-210188	63-2011	11/10/2020	Trimethylbenzene[1,3,5-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	43
TWF63-20-210188	63-2011	11/10/2020	Toluene	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.0	33
TWF63-20-210188	63-2011	11/10/2020	Chlorobenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	40
TWF63-20-210188	63-2011	11/10/2020	Tetrahydrofuran	26	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	26
TWF63-20-210188	63-2011	11/10/2020	Hexane	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	31
TWF63-20-210188	63-2011	11/10/2020	Cyclohexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	30
TWF63-20-210188	63-2011	11/10/2020	Trichlorobenzene[1,2,4-]	260	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	53	260
TWF63-20-210188	63-2011	11/10/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-210188	63-2011	11/10/2020	Chlorodibromomethane	74	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	74
TWF63-20-210188	63-2011	11/10/2020	Tetrachloroethene	59	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	59
TWF63-20-210188	63-2011	11/10/2020	n-Heptane	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	36
TWF63-20-210188	63-2011	11/10/2020	Dichloroethene[cis-1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	34
TWF63-20-210188	63-2011	11/10/2020	Dichloroethene[trans-1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	34
TWF63-20-210188	63-2011	11/10/2020	Methyl tert-Butyl Ether	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	31
TWF63-20-210188	63-2011	11/10/2020	Isooctane	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	41
TWF63-20-210188	63-2011	11/10/2020	Dichlorobenzene[1,3-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	52
TWF63-20-210188	63-2011	11/10/2020	Carbon Tetrachloride	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	55
TWF63-20-210188	63-2011	11/10/2020	Hexanone[2-]	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	140
TWF63-20-210188	63-2011	11/10/2020	Ethyltoluene[4-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	43
TWF63-20-210188	63-2011	11/10/2020	Ethanol	66	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	41	66
TWF63-20-210188	63-2011	11/10/2020	Propanol[2-]	86	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	24	86
TWF63-20-210188	63-2011	11/10/2020	Acetone	83	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	31	83
TWF63-20-210188	63-2011	11/10/2020	Chloroform	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.8	42
TWF63-20-210188	63-2011	11/10/2020	Benzene	28	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.2	28
TWF63-20-210188	63-2011	11/10/2020	Trichloroethane[1,1,1-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.9	47
TWF63-20-210188	63-2011	11/10/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	140
TWF63-20-210188	63-2011	11/10/2020	Chloromethane	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	72
TWF63-20-210188	63-2011	11/10/2020	Chloroethane	92	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	34	92
TWF63-20-210188	63-2011	11/10/2020	Vinyl Chloride	22	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.9	22
TWF63-20-210188	63-2011	11/10/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	45	120
TWF63-20-210188	63-2011	11/10/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	27	110
TWF63-20-210188	63-2011	11/10/2020	Bromoform	90	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	90
TWF63-20-210188	63-2011	11/10/2020	Bromodichloromethane	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	58
TWF63-20-210188	63-2011	11/10/2020	Dichloroethane[1,1-]	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.3	35
TWF63-20-210188	63-2011	11/10/2020	Dichloroethene[1,1-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	34
TWF63-20-210188	63-2011	11/10/2020	Trichlorofluoromethane	49	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	49
TWF63-20-210188	63-2011	11/10/2020	Dichlorodifluoromethane	7.9	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.4	43
TWF63-20-210188	63-2011	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	67	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	15	67
TWF63-20-210188	63-2011	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	61	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	61
TWF63-20-210188	63-2011	11/10/2020	Dichloropropane[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	40
TWF63-20-210188	63-2011	11/10/2020	Butanone[2-]	100	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	30	100
TWF63-20-210188	63-2011	11/10/2020	Trichloroethane[1,1,2-]	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	47
TWF63-20-210188	63-2011	11/10/2020	Trichloroethene	86	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	8.6	47
TWF63-20-210188	63-2011	11/10/2020	Tetrachloroethane[1,1,2,2-]	60	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	60

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210188	63-2011	11/10/2020	Hexachlorobutadiene	370	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	52	370
TWF63-20-210188	63-2011	11/10/2020	Xylene[1,2-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.1	38
TWF63-20-210188	63-2011	11/10/2020	Dichlorobenzene[1,2-]	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	52
TWF63-20-210188	63-2011	11/10/2020	Trimethylbenzene[1,2,4-]	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	43
TWF63-20-210188	63-2011	11/10/2020	Isopropylbenzene	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	43
TWF63-20-210188	63-2011	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	38
TWF63-20-210189	63-2012	11/10/2020	Ethylbenzene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	39
TWF63-20-210189	63-2012	11/10/2020	Styrene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	39
TWF63-20-210189	63-2012	11/10/2020	Benzyl Chloride	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	47
TWF63-20-210189	63-2012	11/10/2020	Dichloropropene[cis-1,3-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	41
TWF63-20-210189	63-2012	11/10/2020	Dichloropropene[trans-1,3-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.1	41
TWF63-20-210189	63-2012	11/10/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	45
TWF63-20-210189	63-2012	11/10/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-210189	63-2012	11/10/2020	Dibromoethane[1,2-]	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	70
TWF63-20-210189	63-2012	11/10/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	20
TWF63-20-210189	63-2012	11/10/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	110
TWF63-20-210189	63-2012	11/10/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	37
TWF63-20-210189	63-2012	11/10/2020	Methyl-2-pentanone[4-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	37
TWF63-20-210189	63-2012	11/10/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-210189	63-2012	11/10/2020	Toluene	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	34
TWF63-20-210189	63-2012	11/10/2020	Chlorobenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	42
TWF63-20-210189	63-2012	11/10/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	27
TWF63-20-210189	63-2012	11/10/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	32
TWF63-20-210189	63-2012	11/10/2020	Cyclohexane	31	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	31
TWF63-20-210189	63-2012	11/10/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	270
TWF63-20-210189	63-2012	11/10/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-210189	63-2012	11/10/2020	Chlorodibromomethane	77	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	77
TWF63-20-210189	63-2012	11/10/2020	Tetrachloroethene	40	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	19	62
TWF63-20-210189	63-2012	11/10/2020	n-Heptane	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	37
TWF63-20-210189	63-2012	11/10/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-210189	63-2012	11/10/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-210189	63-2012	11/10/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	33
TWF63-20-210189	63-2012	11/10/2020	Isooctane	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	42
TWF63-20-210189	63-2012	11/10/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	55
TWF63-20-210189	63-2012	11/10/2020	Carbon Tetrachloride	43	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	14	57
TWF63-20-210189	63-2012	11/10/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	35	150
TWF63-20-210189	63-2012	11/10/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	45
TWF63-20-210189	63-2012	11/10/2020	Ethanol	68	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	68
TWF63-20-210189	63-2012	11/10/2020	Propanol[2-]	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	88
TWF63-20-210189	63-2012	11/10/2020	Acetone	85	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	85
TWF63-20-210189	63-2012	11/10/2020	Chloroform	83	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	7.3	44
TWF63-20-210189	63-2012	11/10/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-210189	63-2012	11/10/2020	Trichloroethane[1,1,1-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.2	50
TWF63-20-210189	63-2012	11/10/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	140
TWF63-20-210189	63-2012	11/10/2020	Chloromethane	74	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	74

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210189	63-2012	11/10/2020	Chloroethane	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	95
TWF63-20-210189	63-2012	11/10/2020	Vinyl Chloride	23	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	23
TWF63-20-210189	63-2012	11/10/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	120
TWF63-20-210189	63-2012	11/10/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	110
TWF63-20-210189	63-2012	11/10/2020	Bromoform	94	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	94
TWF63-20-210189	63-2012	11/10/2020	Bromodichloromethane	61	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	61
TWF63-20-210189	63-2012	11/10/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	37
TWF63-20-210189	63-2012	11/10/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-210189	63-2012	11/10/2020	Trichlorofluoromethane	51	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	51
TWF63-20-210189	63-2012	11/10/2020	Dichlorodifluoromethane	64	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	5.4	45
TWF63-20-210189	63-2012	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	16	70
TWF63-20-210189	63-2012	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	64
TWF63-20-210189	63-2012	11/10/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42
TWF63-20-210189	63-2012	11/10/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-210189	63-2012	11/10/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-210189	63-2012	11/10/2020	Trichloroethene	2600	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	49
TWF63-20-210189	63-2012	11/10/2020	Tetrachloroethane[1,1,2,2-]	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	62
TWF63-20-210189	63-2012	11/10/2020	Hexachlorobutadiene	380	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	380
TWF63-20-210189	63-2012	11/10/2020	Xylene[1,2-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	39
TWF63-20-210189	63-2012	11/10/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-210189	63-2012	11/10/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	45
TWF63-20-210189	63-2012	11/10/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	45
TWF63-20-210189	63-2012	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.8	39
TWF63-20-210190	63-2012	11/10/2020	Ethylbenzene	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	36
TWF63-20-210190	63-2012	11/10/2020	Styrene	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	36
TWF63-20-210190	63-2012	11/10/2020	Benzyl Chloride	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.8	43
TWF63-20-210190	63-2012	11/10/2020	Dichloropropene[cis-1,3-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10.0	38
TWF63-20-210190	63-2012	11/10/2020	Dichloropropene[trans-1,3-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.6	38
TWF63-20-210190	63-2012	11/10/2020	Propylbenzene[1-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.8	41
TWF63-20-210190	63-2012	11/10/2020	Dichlorobenzene[1,4-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	50
TWF63-20-210190	63-2012	11/10/2020	Dibromoethane[1,2-]	65	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	65
TWF63-20-210190	63-2012	11/10/2020	Butadiene[1,3-]	19	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	19
TWF63-20-210190	63-2012	11/10/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	24	110
TWF63-20-210190	63-2012	11/10/2020	Dichloroethane[1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.5	34
TWF63-20-210190	63-2012	11/10/2020	Methyl-2-pentanone[4-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	34
TWF63-20-210190	63-2012	11/10/2020	Trimethylbenzene[1,3,5-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	41
TWF63-20-210190	63-2012	11/10/2020	Toluene	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.0	32
TWF63-20-210190	63-2012	11/10/2020	Chlorobenzene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.6	39
TWF63-20-210190	63-2012	11/10/2020	Tetrahydrofuran	25	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	25
TWF63-20-210190	63-2012	11/10/2020	Hexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	30
TWF63-20-210190	63-2012	11/10/2020	Cyclohexane	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.2	29
TWF63-20-210190	63-2012	11/10/2020	Trichlorobenzene[1,2,4-]	250	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	51	250
TWF63-20-210190	63-2012	11/10/2020	Dioxane[1,4-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	120
TWF63-20-210190	63-2012	11/10/2020	Chlorodibromomethane	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	72
TWF63-20-210190	63-2012	11/10/2020	Tetrachloroethene	75	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	18	57

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210190	63-2012	11/10/2020	n-Heptane	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	34
TWF63-20-210190	63-2012	11/10/2020	Dichloroethene[cis-1,2-]	21	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	9.9	33
TWF63-20-210190	63-2012	11/10/2020	Dichloroethene[trans-1,2-]	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	33
TWF63-20-210190	63-2012	11/10/2020	Methyl tert-Butyl Ether	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	30
TWF63-20-210190	63-2012	11/10/2020	Isooctane	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	39
TWF63-20-210190	63-2012	11/10/2020	Dichlorobenzene[1,3-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	50
TWF63-20-210190	63-2012	11/10/2020	Carbon Tetrachloride	110	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	13	53
TWF63-20-210190	63-2012	11/10/2020	Hexanone[2-]	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	140
TWF63-20-210190	63-2012	11/10/2020	Ethyltoluene[4-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	41
TWF63-20-210190	63-2012	11/10/2020	Ethanol	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	64
TWF63-20-210190	63-2012	11/10/2020	Propanol[2-]	84	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	84
TWF63-20-210190	63-2012	11/10/2020	Acetone	81	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	28	81
TWF63-20-210190	63-2012	11/10/2020	Chloroform	200	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	6.8	41
TWF63-20-210190	63-2012	11/10/2020	Benzene	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.2	27
TWF63-20-210190	63-2012	11/10/2020	Trichloroethane[1,1,1-]	15	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	4.7	46
TWF63-20-210190	63-2012	11/10/2020	Bromomethane	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	38	130
TWF63-20-210190	63-2012	11/10/2020	Chloromethane	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	70
TWF63-20-210190	63-2012	11/10/2020	Chloroethane	90	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	90
TWF63-20-210190	63-2012	11/10/2020	Vinyl Chloride	21	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	21
TWF63-20-210190	63-2012	11/10/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	45	120
TWF63-20-210190	63-2012	11/10/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	110
TWF63-20-210190	63-2012	11/10/2020	Bromoform	87	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	87
TWF63-20-210190	63-2012	11/10/2020	Bromodichloromethane	56	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	56
TWF63-20-210190	63-2012	11/10/2020	Dichloroethane[1,1-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	34
TWF63-20-210190	63-2012	11/10/2020	Dichloroethene[1,1-]	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	33
TWF63-20-210190	63-2012	11/10/2020	Trichlorofluoromethane	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.2	47
TWF63-20-210190	63-2012	11/10/2020	Dichlorodifluoromethane	160	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	4.9	42
TWF63-20-210190	63-2012	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	34	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	15	64
TWF63-20-210190	63-2012	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	59	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	59
TWF63-20-210190	63-2012	11/10/2020	Dichloropropane[1,2-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	39
TWF63-20-210190	63-2012	11/10/2020	Butanone[2-]	100	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	100
TWF63-20-210190	63-2012	11/10/2020	Trichloroethane[1,1,2-]	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	46
TWF63-20-210190	63-2012	11/10/2020	Trichloroethene	7500	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	8.6	45
TWF63-20-210190	63-2012	11/10/2020	Tetrachloroethane[1,1,2,2-]	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	58
TWF63-20-210190	63-2012	11/10/2020	Hexachlorobutadiene	360	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	51	360
TWF63-20-210190	63-2012	11/10/2020	Xylene[1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.1	36
TWF63-20-210190	63-2012	11/10/2020	Dichlorobenzene[1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-210190	63-2012	11/10/2020	Trimethylbenzene[1,2,4-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.4	41
TWF63-20-210190	63-2012	11/10/2020	Isopropylbenzene	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	41
TWF63-20-210190	63-2012	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	36
TWF63-20-210191	63-2013	11/10/2020	Ethylbenzene	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	40
TWF63-20-210191	63-2013	11/10/2020	Styrene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	39
TWF63-20-210191	63-2013	11/10/2020	Benzyl Chloride	48	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	48
TWF63-20-210191	63-2013	11/10/2020	Dichloropropene[cis-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	42
TWF63-20-210191	63-2013	11/10/2020	Dichloropropene[trans-1,3-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.1	42

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210191	63-2013	11/10/2020	Propylbenzene[1-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	45
TWF63-20-210191	63-2013	11/10/2020	Dichlorobenzene[1,4-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	55
TWF63-20-210191	63-2013	11/10/2020	Dibromoethane[1,2-]	71	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	71
TWF63-20-210191	63-2013	11/10/2020	Butadiene[1,3-]	20	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.4	20
TWF63-20-210191	63-2013	11/10/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	120
TWF63-20-210191	63-2013	11/10/2020	Dichloroethane[1,2-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.3	37
TWF63-20-210191	63-2013	11/10/2020	Methyl-2-pentanone[4-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	38
TWF63-20-210191	63-2013	11/10/2020	Trimethylbenzene[1,3,5-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-210191	63-2013	11/10/2020	Toluene	35	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	35
TWF63-20-210191	63-2013	11/10/2020	Chlorobenzene	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.5	42
TWF63-20-210191	63-2013	11/10/2020	Tetrahydrofuran	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	27
TWF63-20-210191	63-2013	11/10/2020	Hexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	32
TWF63-20-210191	63-2013	11/10/2020	Cyclohexane	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	32
TWF63-20-210191	63-2013	11/10/2020	Trichlorobenzene[1,2,4-]	270	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	56	270
TWF63-20-210191	63-2013	11/10/2020	Dioxane[1,4-]	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	130
TWF63-20-210191	63-2013	11/10/2020	Chlorodibromomethane	78	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	78
TWF63-20-210191	63-2013	11/10/2020	Tetrachloroethene	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	19	62
TWF63-20-210191	63-2013	11/10/2020	n-Heptane	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	38
TWF63-20-210191	63-2013	11/10/2020	Dichloroethene[cis-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-210191	63-2013	11/10/2020	Dichloroethene[trans-1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	36
TWF63-20-210191	63-2013	11/10/2020	Methyl tert-Butyl Ether	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.0	33
TWF63-20-210191	63-2013	11/10/2020	Isooctane	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	43
TWF63-20-210191	63-2013	11/10/2020	Dichlorobenzene[1,3-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	55
TWF63-20-210191	63-2013	11/10/2020	Carbon Tetrachloride	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	14	58
TWF63-20-210191	63-2013	11/10/2020	Hexanone[2-]	150	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	35	150
TWF63-20-210191	63-2013	11/10/2020	Ethyltoluene[4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	45
TWF63-20-210191	63-2013	11/10/2020	Ethanol	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	43	70
TWF63-20-210191	63-2013	11/10/2020	Propanol[2-]	91	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	91
TWF63-20-210191	63-2013	11/10/2020	Acetone	88	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	33	88
TWF63-20-210191	63-2013	11/10/2020	Chloroform	35	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	7.3	45
TWF63-20-210191	63-2013	11/10/2020	Benzene	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.5	29
TWF63-20-210191	63-2013	11/10/2020	Trichloroethane[1,1,1-]	19	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	5.2	50
TWF63-20-210191	63-2013	11/10/2020	Bromomethane	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	140
TWF63-20-210191	63-2013	11/10/2020	Chloromethane	76	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	25	76
TWF63-20-210191	63-2013	11/10/2020	Chloroethane	98	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	37	98
TWF63-20-210191	63-2013	11/10/2020	Vinyl Chloride	24	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	24
TWF63-20-210191	63-2013	11/10/2020	Methylene Chloride	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	49	130
TWF63-20-210191	63-2013	11/10/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	120
TWF63-20-210191	63-2013	11/10/2020	Bromoform	95	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	20	95
TWF63-20-210191	63-2013	11/10/2020	Bromodichloromethane	62	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	62
TWF63-20-210191	63-2013	11/10/2020	Dichloroethane[1,1-]	37	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	37
TWF63-20-210191	63-2013	11/10/2020	Dichloroethene[1,1-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	36
TWF63-20-210191	63-2013	11/10/2020	Trichlorofluoromethane	52	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	52
TWF63-20-210191	63-2013	11/10/2020	Dichlorodifluoromethane	47	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	5.9	45
TWF63-20-210191	63-2013	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	70

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210191	63-2013	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	13	64
TWF63-20-210191	63-2013	11/10/2020	Dichloropropane[1,2-]	42	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	42
TWF63-20-210191	63-2013	11/10/2020	Butanone[2-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	110
TWF63-20-210191	63-2013	11/10/2020	Trichloroethane[1,1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-210191	63-2013	11/10/2020	Trichloroethene	400	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	9.1	49
TWF63-20-210191	63-2013	11/10/2020	Tetrachloroethane[1,1,2,2-]	63	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	63
TWF63-20-210191	63-2013	11/10/2020	Hexachlorobutadiene	390	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	55	390
TWF63-20-210191	63-2013	11/10/2020	Xylene[1,2-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.5	40
TWF63-20-210191	63-2013	11/10/2020	Dichlorobenzene[1,2-]	55	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	55
TWF63-20-210191	63-2013	11/10/2020	Trimethylbenzene[1,2,4-]	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.8	45
TWF63-20-210191	63-2013	11/10/2020	Isopropylbenzene	45	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	45
TWF63-20-210191	63-2013	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	40	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.2	40
TWF63-20-210192	63-2013	11/10/2020	Ethylbenzene	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	36
TWF63-20-210192	63-2013	11/10/2020	Styrene	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.1	36
TWF63-20-210192	63-2013	11/10/2020	Benzyl Chloride	43	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.8	43
TWF63-20-210192	63-2013	11/10/2020	Dichloropropene[cis-1,3-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10.0	38
TWF63-20-210192	63-2013	11/10/2020	Dichloropropene[trans-1,3-]	38	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.6	38
TWF63-20-210192	63-2013	11/10/2020	Propylbenzene[1-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.8	41
TWF63-20-210192	63-2013	11/10/2020	Dichlorobenzene[1,4-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	50
TWF63-20-210192	63-2013	11/10/2020	Dibromoethane[1,2-]	65	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	65
TWF63-20-210192	63-2013	11/10/2020	Butadiene[1,3-]	19	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	19
TWF63-20-210192	63-2013	11/10/2020	Chloro-1-propene[3-]	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	24	110
TWF63-20-210192	63-2013	11/10/2020	Dichloroethane[1,2-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	8.5	34
TWF63-20-210192	63-2013	11/10/2020	Methyl-2-pentanone[4-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	17	34
TWF63-20-210192	63-2013	11/10/2020	Trimethylbenzene[1,3,5-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.4	41
TWF63-20-210192	63-2013	11/10/2020	Toluene	32	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.0	32
TWF63-20-210192	63-2013	11/10/2020	Chlorobenzene	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.6	39
TWF63-20-210192	63-2013	11/10/2020	Tetrahydrofuran	25	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.1	25
TWF63-20-210192	63-2013	11/10/2020	Hexane	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	30
TWF63-20-210192	63-2013	11/10/2020	Cyclohexane	29	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.2	29
TWF63-20-210192	63-2013	11/10/2020	Trichlorobenzene[1,2,4-]	250	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	51	250
TWF63-20-210192	63-2013	11/10/2020	Dioxane[1,4-]	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	120
TWF63-20-210192	63-2013	11/10/2020	Chlorodibromomethane	72	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	72
TWF63-20-210192	63-2013	11/10/2020	Tetrachloroethene	57	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	57
TWF63-20-210192	63-2013	11/10/2020	n-Heptane	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	12	34
TWF63-20-210192	63-2013	11/10/2020	Dichloroethene[cis-1,2-]	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.9	33
TWF63-20-210192	63-2013	11/10/2020	Dichloroethene[trans-1,2-]	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	33
TWF63-20-210192	63-2013	11/10/2020	Methyl tert-Butyl Ether	30	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.7	30
TWF63-20-210192	63-2013	11/10/2020	Isooctane	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.0	39
TWF63-20-210192	63-2013	11/10/2020	Dichlorobenzene[1,3-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	9.6	50
TWF63-20-210192	63-2013	11/10/2020	Carbon Tetrachloride	18	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	13	53
TWF63-20-210192	63-2013	11/10/2020	Hexanone[2-]	140	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	140
TWF63-20-210192	63-2013	11/10/2020	Ethyltoluene[4-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	5.9	41
TWF63-20-210192	63-2013	11/10/2020	Ethanol	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	40	64
TWF63-20-210192	63-2013	11/10/2020	Propanol[2-]	84	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	84

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210192	63-2013	11/10/2020	Acetone	81	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	28	81
TWF63-20-210192	63-2013	11/10/2020	Chloroform	19	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	6.8	41
TWF63-20-210192	63-2013	11/10/2020	Benzene	27	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.2	27
TWF63-20-210192	63-2013	11/10/2020	Trichloroethane[1,1,1-]	33	ug/m3	J	Y	GAS	REG	VOC	EPA:TO15	4.7	46
TWF63-20-210192	63-2013	11/10/2020	Bromomethane	130	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	38	130
TWF63-20-210192	63-2013	11/10/2020	Chloromethane	70	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	23	70
TWF63-20-210192	63-2013	11/10/2020	Chloroethane	90	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	32	90
TWF63-20-210192	63-2013	11/10/2020	Vinyl Chloride	21	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.7	21
TWF63-20-210192	63-2013	11/10/2020	Methylene Chloride	120	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	45	120
TWF63-20-210192	63-2013	11/10/2020	Carbon Disulfide	110	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	26	110
TWF63-20-210192	63-2013	11/10/2020	Bromoform	87	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	18	87
TWF63-20-210192	63-2013	11/10/2020	Bromodichloromethane	56	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	56
TWF63-20-210192	63-2013	11/10/2020	Dichloroethane[1,1-]	34	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.9	34
TWF63-20-210192	63-2013	11/10/2020	Dichloroethene[1,1-]	33	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.7	33
TWF63-20-210192	63-2013	11/10/2020	Trichlorofluoromethane	47	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.2	47
TWF63-20-210192	63-2013	11/10/2020	Dichlorodifluoromethane	74	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	4.9	42
TWF63-20-210192	63-2013	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	64	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	15	64
TWF63-20-210192	63-2013	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	59	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	59
TWF63-20-210192	63-2013	11/10/2020	Dichloropropane[1,2-]	39	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	39
TWF63-20-210192	63-2013	11/10/2020	Butanone[2-]	100	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	29	100
TWF63-20-210192	63-2013	11/10/2020	Trichloroethane[1,1,2-]	46	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	10	46
TWF63-20-210192	63-2013	11/10/2020	Trichloroethene	1300	ug/m3	NQ	Y	GAS	REG	VOC	EPA:TO15	8.6	45
TWF63-20-210192	63-2013	11/10/2020	Tetrachloroethane[1,1,2,2-]	58	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.5	58
TWF63-20-210192	63-2013	11/10/2020	Hexachlorobutadiene	360	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	51	360
TWF63-20-210192	63-2013	11/10/2020	Xylene[1,2-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.1	36
TWF63-20-210192	63-2013	11/10/2020	Dichlorobenzene[1,2-]	50	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	11	50
TWF63-20-210192	63-2013	11/10/2020	Trimethylbenzene[1,2,4-]	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	4.4	41
TWF63-20-210192	63-2013	11/10/2020	Isopropylbenzene	41	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	6.4	41
TWF63-20-210192	63-2013	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	36	ug/m3	U	N	GAS	REG	VOC	EPA:TO15	7.4	36
TWF63-20-210193	63-2013	11/10/2020	Ethylbenzene	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.8	42
TWF63-20-210193	63-2013	11/10/2020	Styrene	41	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.5	41
TWF63-20-210193	63-2013	11/10/2020	Benzyl Chloride	50	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	50
TWF63-20-210193	63-2013	11/10/2020	Dichloropropene[cis-1,3-]	44	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	44
TWF63-20-210193	63-2013	11/10/2020	Dichloropropene[trans-1,3-]	44	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	10.0	44
TWF63-20-210193	63-2013	11/10/2020	Propylbenzene[1-]	47	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	47
TWF63-20-210193	63-2013	11/10/2020	Dichlorobenzene[1,4-]	58	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	58
TWF63-20-210193	63-2013	11/10/2020	Dibromoethane[1,2-]	74	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	13	74
TWF63-20-210193	63-2013	11/10/2020	Butadiene[1,3-]	21	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.8	21
TWF63-20-210193	63-2013	11/10/2020	Chloro-1-propene[3-]	120	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	27	120
TWF63-20-210193	63-2013	11/10/2020	Dichloroethane[1,2-]	39	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	9.7	39
TWF63-20-210193	63-2013	11/10/2020	Methyl-2-pentanone[4-]	39	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	20	39
TWF63-20-210193	63-2013	11/10/2020	Trimethylbenzene[1,3,5-]	47	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.4	47
TWF63-20-210193	63-2013	11/10/2020	Toluene	36	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.8	36
TWF63-20-210193	63-2013	11/10/2020	Chlorobenzene	44	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.5	44
TWF63-20-210193	63-2013	11/10/2020	Tetrahydrofuran	28	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.3	28

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210193	63-2013	11/10/2020	Hexane	34	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.7	34
TWF63-20-210193	63-2013	11/10/2020	Cyclohexane	33	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.9	33
TWF63-20-210193	63-2013	11/10/2020	Trichlorobenzene[1,2,4-]	280	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	58	280
TWF63-20-210193	63-2013	11/10/2020	Dioxane[1,4-]	140	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	43	140
TWF63-20-210193	63-2013	11/10/2020	Chlorodibromomethane	82	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	14	82
TWF63-20-210193	63-2013	11/10/2020	Tetrachloroethene	65	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	20	65
TWF63-20-210193	63-2013	11/10/2020	n-Heptane	39	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	14	39
TWF63-20-210193	63-2013	11/10/2020	Dichloroethene[cis-1,2-]	38	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	38
TWF63-20-210193	63-2013	11/10/2020	Dichloroethene[trans-1,2-]	38	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	38
TWF63-20-210193	63-2013	11/10/2020	Methyl tert-Butyl Ether	35	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	5.4	35
TWF63-20-210193	63-2013	11/10/2020	Isooctane	45	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.9	45
TWF63-20-210193	63-2013	11/10/2020	Dichlorobenzene[1,3-]	58	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	11	58
TWF63-20-210193	63-2013	11/10/2020	Carbon Tetrachloride	22	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	15	60
TWF63-20-210193	63-2013	11/10/2020	Hexanone[2-]	160	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	37	160
TWF63-20-210193	63-2013	11/10/2020	Ethyltoluene[4-]	47	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.9	47
TWF63-20-210193	63-2013	11/10/2020	Ethanol	72	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	45	72
TWF63-20-210193	63-2013	11/10/2020	Propanol[2-]	93	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	20	93
TWF63-20-210193	63-2013	11/10/2020	Acetone	90	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	33	90
TWF63-20-210193	63-2013	11/10/2020	Chloroform	22	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	7.8	47
TWF63-20-210193	63-2013	11/10/2020	Benzene	31	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	4.5	31
TWF63-20-210193	63-2013	11/10/2020	Trichloroethane[1,1,1-]	47	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	5.5	52
TWF63-20-210193	63-2013	11/10/2020	Bromomethane	150	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	43	150
TWF63-20-210193	63-2013	11/10/2020	Chloromethane	78	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	25	78
TWF63-20-210193	63-2013	11/10/2020	Chloroethane	100	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	37	100
TWF63-20-210193	63-2013	11/10/2020	Vinyl Chloride	25	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.7	25
TWF63-20-210193	63-2013	11/10/2020	Methylene Chloride	130	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	52	130
TWF63-20-210193	63-2013	11/10/2020	Carbon Disulfide	120	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	30	120
TWF63-20-210193	63-2013	11/10/2020	Bromoform	99	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	21	99
TWF63-20-210193	63-2013	11/10/2020	Bromodichloromethane	64	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	64
TWF63-20-210193	63-2013	11/10/2020	Dichloroethane[1,1-]	39	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.1	39
TWF63-20-210193	63-2013	11/10/2020	Dichloroethene[1,1-]	38	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.5	38
TWF63-20-210193	63-2013	11/10/2020	Trichlorofluoromethane	54	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	7.3	54
TWF63-20-210193	63-2013	11/10/2020	Dichlorodifluoromethane	74	ug/m3	NQ	Y	GAS	FD	VOC	EPA:TO15	5.9	47
TWF63-20-210193	63-2013	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	18	ug/m3	J	Y	GAS	FD	VOC	EPA:TO15	18	74
TWF63-20-210193	63-2013	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	67	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	13	67
TWF63-20-210193	63-2013	11/10/2020	Dichloropropane[1,2-]	44	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	44
TWF63-20-210193	63-2013	11/10/2020	Butanone[2-]	110	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	32	110
TWF63-20-210193	63-2013	11/10/2020	Trichloroethane[1,1,2-]	52	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	52
TWF63-20-210193	63-2013	11/10/2020	Trichloroethene	1400	ug/m3	NQ	Y	GAS	FD	VOC	EPA:TO15	9.7	52
TWF63-20-210193	63-2013	11/10/2020	Tetrachloroethane[1,1,2,2-]	66	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.9	66
TWF63-20-210193	63-2013	11/10/2020	Hexachlorobutadiene	410	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	58	410
TWF63-20-210193	63-2013	11/10/2020	Xylene[1,2-]	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.9	42
TWF63-20-210193	63-2013	11/10/2020	Dichlorobenzene[1,2-]	58	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	12	58
TWF63-20-210193	63-2013	11/10/2020	Trimethylbenzene[1,2,4-]	47	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	4.9	47
TWF63-20-210193	63-2013	11/10/2020	Isopropylbenzene	47	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	6.9	47

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210193	63-2013	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	42	ug/m3	U	N	GAS	FD	VOC	EPA:TO15	8.7	42
TWF63-20-210194	63-2013	11/10/2020	Ethylbenzene	16	ug/m3	J	Y	GAS	FB	VOC	EPA:TO15	12	61
TWF63-20-210194	63-2013	11/10/2020	Styrene	60	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	8.5	60
TWF63-20-210194	63-2013	11/10/2020	Benzyl Chloride	72	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	72
TWF63-20-210194	63-2013	11/10/2020	Dichloropropene[cis-1,3-]	64	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	64
TWF63-20-210194	63-2013	11/10/2020	Dichloropropene[trans-1,3-]	64	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	15	64
TWF63-20-210194	63-2013	11/10/2020	Propylbenzene[1-]	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	69
TWF63-20-210194	63-2013	11/10/2020	Dichlorobenzene[1,4-]	84	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	84
TWF63-20-210194	63-2013	11/10/2020	Dibromoethane[1,2-]	110	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	19	110
TWF63-20-210194	63-2013	11/10/2020	Butadiene[1,3-]	31	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	13	31
TWF63-20-210194	63-2013	11/10/2020	Chloro-1-propene[3-]	180	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	41	180
TWF63-20-210194	63-2013	11/10/2020	Dichloroethane[1,2-]	57	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	15	57
TWF63-20-210194	63-2013	11/10/2020	Methyl-2-pentanone[4-]	57	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	29	57
TWF63-20-210194	63-2013	11/10/2020	Trimethylbenzene[1,3,5-]	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	9.3	69
TWF63-20-210194	63-2013	11/10/2020	Toluene	53	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	9.8	53
TWF63-20-210194	63-2013	11/10/2020	Chlorobenzene	64	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	8.3	64
TWF63-20-210194	63-2013	11/10/2020	Tetrahydrofuran	41	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	12	41
TWF63-20-210194	63-2013	11/10/2020	Hexane	49	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	11	49
TWF63-20-210194	63-2013	11/10/2020	Cyclohexane	48	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	10	48
TWF63-20-210194	63-2013	11/10/2020	Trichlorobenzene[1,2,4-]	420	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	89	420
TWF63-20-210194	63-2013	11/10/2020	Dioxane[1,4-]	210	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	61	210
TWF63-20-210194	63-2013	11/10/2020	Chlorodibromomethane	120	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	20	120
TWF63-20-210194	63-2013	11/10/2020	Tetrachloroethene	95	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	29	95
TWF63-20-210194	63-2013	11/10/2020	n-Heptane	57	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	20	57
TWF63-20-210194	63-2013	11/10/2020	Dichloroethene[cis-1,2-]	55	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	55
TWF63-20-210194	63-2013	11/10/2020	Dichloroethene[trans-1,2-]	55	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	55
TWF63-20-210194	63-2013	11/10/2020	Methyl tert-Butyl Ether	50	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	7.9	50
TWF63-20-210194	63-2013	11/10/2020	Isooctane	65	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	12	65
TWF63-20-210194	63-2013	11/10/2020	Dichlorobenzene[1,3-]	84	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	16	84
TWF63-20-210194	63-2013	11/10/2020	Carbon Tetrachloride	88	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	22	88
TWF63-20-210194	63-2013	11/10/2020	Hexanone[2-]	230	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	53	230
TWF63-20-210194	63-2013	11/10/2020	Ethyltoluene[4-]	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	9.8	69
TWF63-20-210194	63-2013	11/10/2020	Ethanol	110	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	66	110
TWF63-20-210194	63-2013	11/10/2020	Propanol[2-]	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	39	140
TWF63-20-210194	63-2013	11/10/2020	Acetone	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	50	140
TWF63-20-210194	63-2013	11/10/2020	Chloroform	68	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	11	68
TWF63-20-210194	63-2013	11/10/2020	Benzene	45	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	6.7	45
TWF63-20-210194	63-2013	11/10/2020	Trichloroethane[1,1,1-]	76	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	8.2	76
TWF63-20-210194	63-2013	11/10/2020	Bromomethane	220	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	62	220
TWF63-20-210194	63-2013	11/10/2020	Chloromethane	120	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	37	120
TWF63-20-210194	63-2013	11/10/2020	Chloroethane	150	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	55	150
TWF63-20-210194	63-2013	11/10/2020	Vinyl Chloride	36	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	13	36
TWF63-20-210194	63-2013	11/10/2020	Methylene Chloride	200	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	76	200
TWF63-20-210194	63-2013	11/10/2020	Carbon Disulfide	180	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	44	180
TWF63-20-210194	63-2013	11/10/2020	Bromoform	140	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	30	140

TA-63 Transuranic Waste Facility Soil Vapor Monitoring System
Sampling and Analysis - Quarter 13

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 (ug/m3)	Report Detection Limit (ug/m3)
TWF63-20-210194	63-2013	11/10/2020	Bromodichloromethane	94	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	94
TWF63-20-210194	63-2013	11/10/2020	Dichloroethane[1,1-]	57	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	12	57
TWF63-20-210194	63-2013	11/10/2020	Dichloroethene[1,1-]	55	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	11	55
TWF63-20-210194	63-2013	11/10/2020	Trichlorofluoromethane	79	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	11	79
TWF63-20-210194	63-2013	11/10/2020	Dichlorodifluoromethane	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	8.9	69
TWF63-20-210194	63-2013	11/10/2020	Trichloro-1,2,2-trifluoroethane[1,1,2-]	110	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	25	110
TWF63-20-210194	63-2013	11/10/2020	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	98	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	19	98
TWF63-20-210194	63-2013	11/10/2020	Dichloropropane[1,2-]	65	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	18	65
TWF63-20-210194	63-2013	11/10/2020	Butanone[2-]	170	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	50	170
TWF63-20-210194	63-2013	11/10/2020	Trichloroethane[1,1,2-]	76	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	17	76
TWF63-20-210194	63-2013	11/10/2020	Trichloroethene	75	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	14	75
TWF63-20-210194	63-2013	11/10/2020	Tetrachloroethane[1,1,2,2-]	96	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	13	96
TWF63-20-210194	63-2013	11/10/2020	Hexachlorobutadiene	610	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	85	610
TWF63-20-210194	63-2013	11/10/2020	Xylene[1,2-]	12	ug/m3	J	Y	GAS	FB	VOC	EPA:TO15	10.0	61
TWF63-20-210194	63-2013	11/10/2020	Dichlorobenzene[1,2-]	84	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	18	84
TWF63-20-210194	63-2013	11/10/2020	Trimethylbenzene[1,2,4-]	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	7.4	69
TWF63-20-210194	63-2013	11/10/2020	Isopropylbenzene	69	ug/m3	U	N	GAS	FB	VOC	EPA:TO15	10	69
TWF63-20-210194	63-2013	11/10/2020	Xylene[1,3-]+Xylene[1,4-]	37	ug/m3	J	Y	GAS	FB	VOC	EPA:TO15	13	61

Table 3. Current and Previous
Quarterly Results

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Table 3: Current and Previous Quarter Results

Well ID (Port(ft))	Analyte/Constituent (as Listed in Permit Tables)	Q1		Q2		Q3		Q4		Q5		Q6		Q7		Q8		Q9		Q10		Q11		Q12		Q13	
		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 (%)	Result (ug/m^3)	Percent of SGSL (%)
VMW-1 (5) 63-2009	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	44	0.2
	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																				
	1,1-Dichloroethane	33.6	<0.1													8.7	<0.1					7.6	<0.1	6.0	<0.1		
	1,1-Dichloroethylene	10.3	<0.1																								
	Dichlorodifluoromethane	6.9	<0.1																								
	Methylene chloride							13.2	<0.1															6.9	<0.1		
	Chloroform															5.9	<0.1										
VMW-2 (5) 63-2010	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	130	0.7
	Dichlorodifluoromethane	7.9	<0.1													6.4	<0.1					6.9	<0.1	5.9	<0.1	5.9	<0.1
	Acetone													20.2	<0.1												
	1,1,1-Trichloroethane															6.8	<0.1									5.1	<0.1
	Toluene																										
VMW-3 (5) 63-2011	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	86	0.4
	Toluene	8.3	<0.1																								
	Acetone							20.9	<0.1					12.3	<0.1												
	Dichlorodifluoromethane															5.9	<0.1									7.9	<0.1
VMW-4 (25) 63-2012	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	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	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	43	<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	83	0.5
	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	64	<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 (60) 63-2012	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	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	75	<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	21	<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	110	<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	200	0.4
	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	15	<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	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	34	<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 (25) 63-2013	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	400	0.3
	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	35	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	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	47	<0.1
	Tetrachloroethylene	6.8	<0.1																								
	Acetone							15.0	<0.1					12.3	<0.1												
	Carbon tetrachloride															7.5	<0.1										

Table 3: Current and Previous Quarter Results

Well ID (Port(ft))	Analyte/Constituent (as Listed in Permit Tables)	Q1		Q2		Q3		Q4		Q5		Q6		Q7		Q8		Q9		Q10		Q11		Q12		Q13	
		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 (%)	Result (ug/m^3)	Percent of SGSL (%)
VMW-5 (60) 63-2013	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	1300	1.4
	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	19	<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	33	<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	74	<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	18	<0.1
	Acetone	26.1	<0.1													26.1	<0.1										
VMW-1 (5) 63-2009 FD	Trichloroethylene													59.1	0.3												
	Dichlorodifluoromethane													6.9	<0.1												
VMW-3 (5) 63-2011 FD	Trichloroethylene			45.6	0.2					80.6	0.4																
VMW-4 (25) 63-2012 FD	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 (60) 63-2012 FD	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-5 (25) 63-2013 FD	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-5 (60) 63-2013 FD	Trichloroethylene															1560	1.7	1340	1.4	1340	1.4	1500	1.6	1400	1.5	1400	1.5
	Carbon tetrachloride															18.2	<0.1			17.6	<0.1	19	<0.1	19	<0.1	22	<0.1
	1,1,1-Trichloroethane															47.4	<0.1	48.5	<0.1	46.3	<0.1	47	<0.1	38	<0.1	47	<0.1
	Dichlorodifluoromethane															64.2	<0.1	69.2	<0.1	79.1	<0.1	79	<0.1	69	<0.1	74	<0.1
	1,1,2-Trichloro-1,2,2-trifluoroethane															15.3	<0.1	17.6	<0.1							18	<0.1
	Chloroform																	20.5	<0.1	19.5	<0.1	29	<0.1	24	<0.1	22	<0.1
	Methylethylketone (2-butanone)																			162	<0.1						
	1,2,4-Trimethylbenzene																			10.3	<0.1						

Notes: "Q" indicates the sampling quarter
"FD" indicates a field duplicate sample
Blank cell indicates non-detect

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
Quarter 13	44	130	86	2600	7500	400	1300
Mean (M)	47.3	106.2	80.1	2933	7721	378	1431
Standard Deviation (SD) [n-1]	9.7	17.6	14.4	338	518	52.6	84.8
Lower Limit (95%=M-2xSD)	27.9	71.0	51.3	2257	6685	272.8	1261.4
Upper Limit (95%=M+2xSD)	66.7	141.4	108.9	3609	8757	483.2	1600.6
Lower Limit (99%=M-3xSD)				1919		220.2	
Upper Limit (99%=M+3xSD)				3947		535.8	

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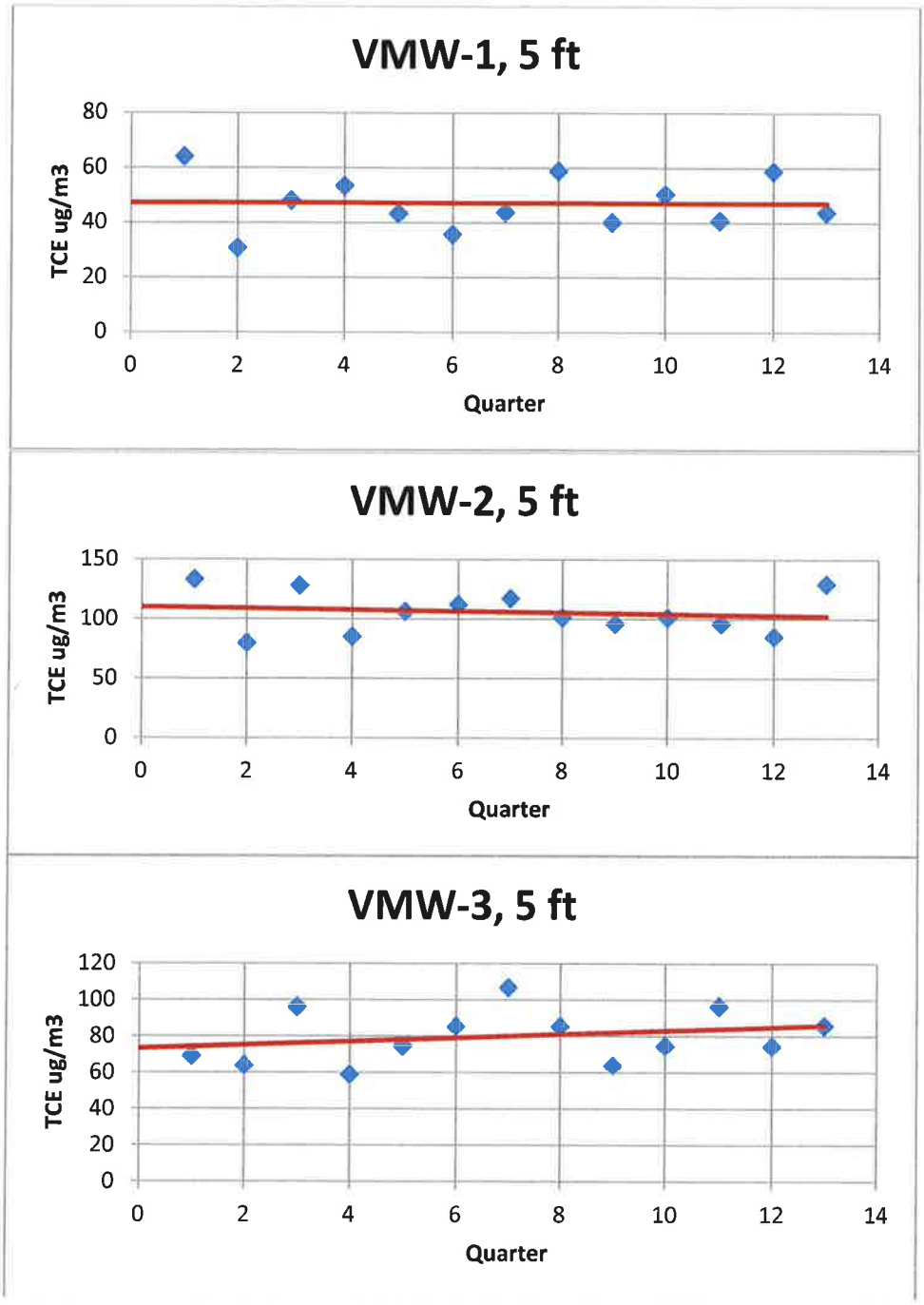

Figure 2. Data Plots for TA-63 TWF Soil Vapor Monitoring Wells Inside the Permitted Unit

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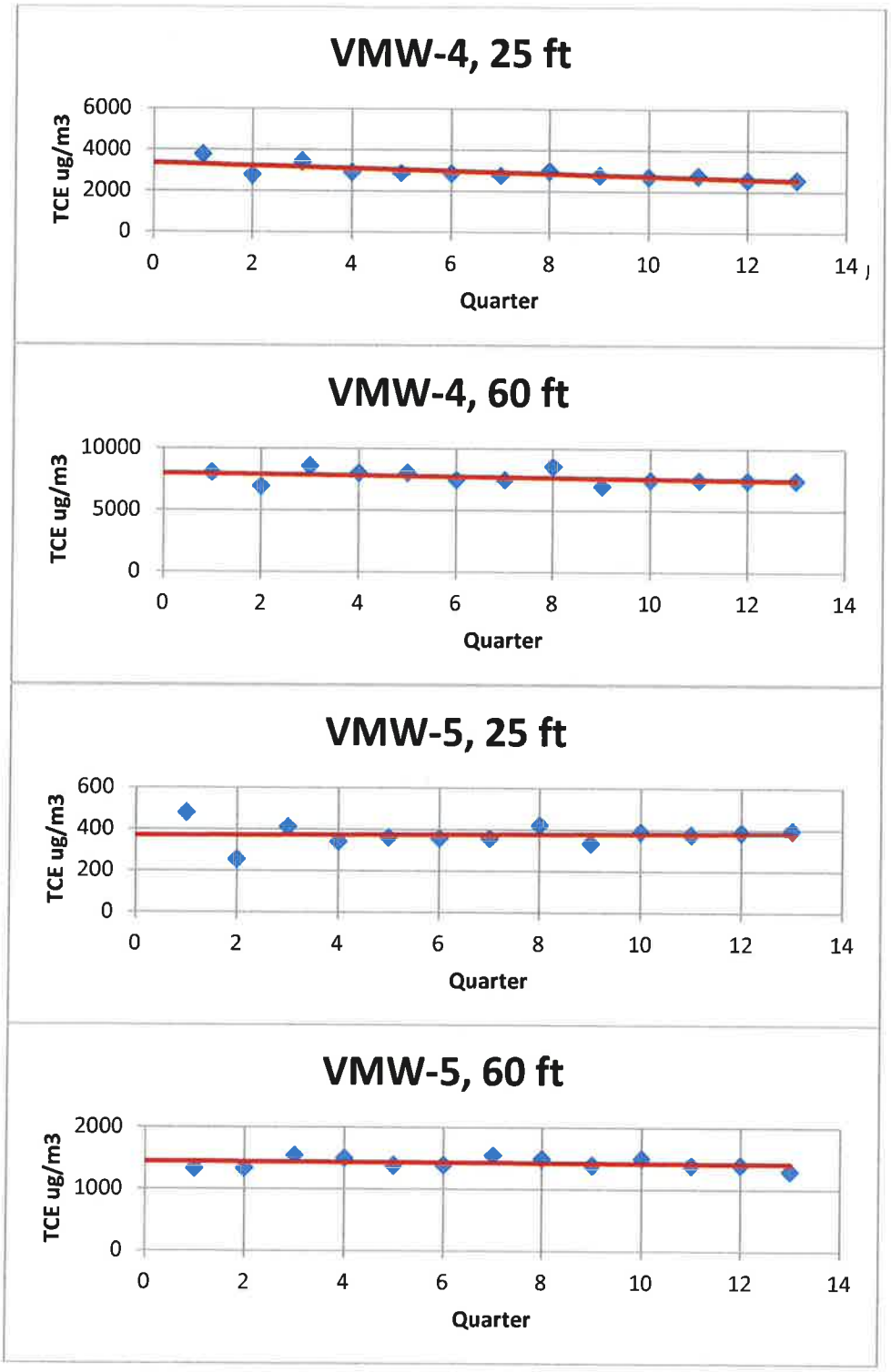

Figure 3. Data Plots for TA-63 TWF Soil Vapor Monitoring Wells Outside the Permitted Unit

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Sample Collection Logs
TA-63 Transuranic Waste Facility – Quarter 13

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SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210186 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	10 02	ok	MEDIA:	GAS	
PRS ID:	NA		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
M	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa #34423

LOCATION COMMENTS: UMW-1

FIELD PARAMETERS:

Sample Time 10:02 HH:MM

$CH_4 = 0$ % ~~ppm~~ $CO_2 = 6600$ ppm $O_2 = 19.7\%$ $Vac = 0.4$ ppm

DS 11/10/20

COLLECTED BY (PRINT): M Stanko, K. Reid

RELINQUISHED BY (Printed Name) Daniel Stanko (Signature)	Date/Time 11/10/2020 1345	RECEIVED BY (Printed Name) (Signature)	Date/Time 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210187 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	dc	FIELD MATRIX:	GAS	dc
TIME COLLECTED (HH:MM):	1031	dc	MEDIA:	GAS	
PRS ID:	M		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
M	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 35131

LOCATION COMMENTS: Vmw-2

FIELD PARAMETERS:

Sample Time 1031 HH:MM

CH_4: 0 % DJ 11/6/20 CO_2: 3480 ppm DJ 11/6/20 O_2: 20.4 % DJ 11/6/20 VOC: 0.7 ppm DJ 11/6/20

COLLECTED BY (PRINT): M. Shendo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature)	**Date/Time** 11/10/2020 1345	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time** 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210188 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	1052	ok	MEDIA:	GAS	
PRS ID:	M		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	
BOTTOM DEPTH:	7.5		EXCAVATED:		YES / NO / NA

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

SAMPLE COMMENTS: Summa # 34366

LOCATION COMMENTS: VMW-3

FIELD PARAMETERS:

Sample Time 1052 HH:MM

CH_4 = 0% CO_2 = 2460 ppm O_2 = 20.7 % VOC = 0.9 ppm

COLLECTED BY (PRINT): M. Sisneros

RELINQUISHED BY (Printed Name) Daniel Sisneros (Signature)	**Date/Time** 11/10/2020 1345	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time** 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210189 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	1138	ok	MEDIA:	GAS	
PRS ID:	NA		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
M	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 2586

LOCATION COMMENTS: VMW-4 (part 1)

FIELD PARAMETERS:

Sample Time 1138 HH:MM

$CH_4 = 0\%$ $CO_2 = 5960$ ppm $O_2 = 20.4\%$ $VOC = 1.5$ ppm

COLLECTED BY (PRINT): M. Shendo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature) RJS	Date/Time 11/10/2020 1345	RECEIVED BY (Printed Name) (Signature)	Date/Time 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210190 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ck	FIELD MATRIX:	GAS	ck
TIME COLLECTED (HH:MM):	1156	ck	MEDIA:	Gas	
PRS ID:	M		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	Y	6 Liter Summa

SAMPLE COMMENTS: Summa # 41418

LOCATION COMMENTS: VMW. 4 (Part 2)

FIELD PARAMETERS:

Sample Time 1156 HH:MM

$CH_4 = 0\%$ $CO_2 = 7100$ ppm $O_2 = 20.1\%$ VOC = 21 ppm

COLLECTED BY (PRINT): M. Sandoval

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature)	Date/Time 11/10/2020 1345	**RECEIVED BY** (Printed Name) (Signature)	Date/Time 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	**RECEIVED BY** (Printed Name) (Signature)	Date/Time

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210191 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	12:21	ok	MEDIA:	GAS	
PRS ID:	NA		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
WA	TO15	6 Liter Summa Canister	1	NONE	Y	6 Liter Summa

SAMPLE COMMENTS: Summa# ~~13374~~ 13674
DJ ad 11/11/2020

LOCATION COMMENTS: UMW-5 Part 1

FIELD PARAMETERS:

Sample Time 12:21 HH:MM

$CH_4 = 0\%$ $CO_2 =$ over 10,000 ppm $O_2 = 18.6\%$ VOC = 1.2 ppm

COLLECTED BY (PRINT): M. Shendo

RELINQUISHED BY (Printed Name) Daniel Sanchez (Signature) DSC	**Date/Time** 11/10/2020 1345	**RECEIVED BY** (Printed Name) Melissa Martinez (Signature)	**Date/Time** 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210192 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	12:37	ok	MEDIA:	Gas	
PRS ID:	ok		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 # 03946

LOCATION COMMENTS: VMW-5 part 2

FIELD PARAMETERS:

Sample Time 1237 HH:MM

$CH_4 = 0$ $CO_2 =$ over 10,000 ppm $O_2 = 19.3\%$ VOC = 1.3 ppm

COLLECTED BY (PRINT): M. Sloan

RELINQUISHED BY (Printed Name) Daniel Sweet (Signature) DS	**Date/Time** 11/10/2020 1345	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time** 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210193 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	NA
TIME COLLECTED (HH:MM):	1238	ok	MEDIA:	GAS	
PRS ID:	NA		SAMPLE TECH CODE:	VOST	
LOCATION ID:	UNK	63-2013	FIELD PREP:	NA	
LOCATION TYPE:	BHover10ft	OK	FIELD QC TYPE:	FD	
TOP DEPTH:	54		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 # 35275

LOCATION COMMENTS: VMW-5 (part 2)

FIELD PARAMETERS:

Sample Time 1238 HH:MM

CH_4 = 0% CO_2 = over 10,000 ppm O_2 = 19.3% VOC = 1.3 ppm

COLLECTED BY (PRINT): M. Sleeda

RELINQUISHED BY (Printed Name) Daniel Sarabia (Signature)	**Date/Time** 11/10/2020 1345	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time** 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 13354 **EVENT NAME:** FY 2020 - Poregas Sampling - TA-63 - TWF - October

SAMPLE ID: TWF63-20-210194 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
Date Collected (MM/DD/YYYY)	11/10/2020	ok	FIELD MATRIX:	GAS	ok
TIME COLLECTED (HH:MM):	1301	ok	MEDIA:	N2	
PRS ID:	NA		SAMPLE TECH CODE:	VOST	
LOCATION ID:	UNK	11/19 DJ 63-2013	FIELD PREP:	NA	
LOCATION TYPE:	~~BHover10ft~~ NA	ok	FIELD QC TYPE:	FB	
TOP DEPTH:	NA	OK	SAMPLE USAGE:	QC	
BOTTOM DEPTH:			EXCAVATED:		YES / NO / NA

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

SAMPLE COMMENTS: Summa #34191

LOCATION COMMENTS: VMW-5 port 2 QC of TWF63-20-210192

FIELD PARAMETERS:

Sample Time 1301 HH:MM

COLLECTED BY (PRINT): M. Salcedo

RELINQUISHED BY (Printed Name) Daniel Jaramillo (Signature)	**Date/Time** 11/10/2020 1345	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time** 11/10/20 1345
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

CERTIFICATION

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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: 2021.01.07 09:34:44 -07'00'

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: 2021.01.07 11:24:14 -07'00'

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

Date Signed

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