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August 6, 2019

Victoria Branson
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P.O Box 5400 MS 0184
Albuquerque, New Mexico 87185-5400

Subject: **Data Submittal for Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2019 Q-3**

Ms. Branson:

This letter transmits the subject report as final. The report shows soil vapor data results from Mixed Waste Landfill conducted by the New Mexico Environment Department DOE Oversight Bureau during a sampling event on May 2, 2019.

The enclosed monitoring results were provided to the U.S Department of Energy in draft form on June 24, 2019 for 30-day review and comment. The final monitoring results are provided to DOE, the State of New Mexico and other federal agencies, the NMED website and interested members of the public. If you have any questions, or if you would like copies of the complete data set, please contact me by phone at (505) 383-2070, by email at chris.armijo1@state.nm.us, or by mail to the address in the above letterhead.

Sincerely,

Chris Armijo
Environmental Scientist
Sandia Oversight Section

Enclosure: (1) Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2019 Q-3
(2) Table 3-1 Volatile Organic Compounds Results MWL-SV01, 42.5
(3) Table 3-2 Volatile Organic Compounds Results MWL-SV02, 41.5
(4) Table 3-3 Volatile Organic Compound Results MWL-SV03, 50
(5) Table 3-4 Volatile Organic Compound Results MWL-SV03, 100
(6) Table 3-5 Volatile Organic Compound Results MWL-SV03, 200
(7) Table 3-6 Volatile Organic Compound Results MWL-SV03, 300
(8) Table 3-7 Volatile Organic Compound Results MWL-SV03, 400
(9) Table 3-8 Volatile Organic Compound Results MWL-SV04, 50
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(14) Table 3-13 Volatile Organic Compound Results MWL-SV05, 50
(15) Table 3-14 Volatile Organic Compound Results MWL-SV05, 100
(16) Table 3-15 Volatile Organic Compound Results MWL-SV05, 200
(17) Table 3-16 Volatile Organic Compound Results MWL-SV05, 300
(18) Table 3-17 Volatile Organic Compound Results MWL-SV05, 400
(19) Footnotes for Mixed Waste Landfill Soil Vapor Monitoring Analytical Results Tables

Distribution: David Rast, DOE/SFO
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File: SGE42. Soil Vapor Monitoring. MWL. FFY 2019 Q-3

DOE Oversight Bureau, New Mexico Environment Department

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill

Conducted by the
New Mexico Environment Department
DOE Oversight Bureau
for FFY 2019 Q-3

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Final Report

8/6/2019

The purpose of this communication is to transmit soil vapor data collected by the New Mexico Environment Department DOE Oversight Bureau from Sandia National Laboratories/New Mexico Mixed Waste Landfill during the third quarter of Federal Fiscal Year (FFY) 2019.

Acknowledgment:
This material is based upon work supported by the Department of Energy Office of Environmental Management under Award Number *DE-EM0002420*.

Introduction

The New Mexico Environment Department (NMED) DOE Oversight Bureau (DOE-OB or Bureau) has compiled and assessed soil vapor data collected on May 2, 2019. The Bureau collected soil vapor samples from Solid Waste Management Unit (SWMU) 76, Mixed Waste Landfill (MWL) monitoring wells MWL-SV01, MWL-SV02, MWL-SV03, MWL-SV04 and MWL-SV05. Samples were collected using standard Sandia National Laboratories/New Mexico (SNL/NM or Sandia) sampling procedures and equipment in accordance with the MWL Long-Term Monitoring and Maintenance Plan (LTMMP), Appendix D (Soil Vapor Sampling and Analysis Plan). Soil vapor samples were collected in 6-liter SUMMA canisters and analyzed for volatile organic compounds (VOCs) in accordance with EPA method TO-15. The Bureau submitted samples for analysis to an independent analytical laboratory under contract with the NMED.

MWL monitoring wells MWL-SV01 and MWL-SV02 are single port wells at sampling depths approximately 42.5 feet below ground surface (ft. bgs) and 41.5 ft. bgs, respectively. Monitoring wells MWL-SV03, MWL-SV04 and MWL-SV05 are Flexible Liner Underground Technologies (FLUTe™) wells, constructed with multi-sampling ports at depths of approximately Port 1 (50ft bgs), Port 2 (100ft bgs), Port 3 (200ft bgs), Port 4 (300ft bgs), and Port 5 (400ft bgs). Bureau staff collected split samples at all depths from each multi-port well. Bureau staff also collected field blanks before sampling at each monitoring well and duplicate samples were collected from monitoring wells MWL-SV04 300 and MWL-SV05 50. The well locations are shown in Figure 1.

Split samples were collected in sequence, rather than using the manifold sampling system, designed to collect samples simultaneously. All samples collected from May 2019 were well below established trigger levels for VOCs in soil vapor, as specified in the SNL/NM LTMMP for the MWL.

Data Assessment

Data results are compared to VOC trigger levels listed in the SNL/NM LTMMP for the MWL. Trigger levels for tetrachloroethene (PCE), trichloroethylene (TCE), and total organics (sum of organic analytes detected at or above the method detection limit (MDL)) in soil vapor at the MWL are 20 parts per million by volume (ppmv) for PCE and TCE, and 25 ppmv for total organics. These trigger levels are equivalent to 20,000 parts per billion by volume (ppbv) and 25,000 ppbv, respectively. Trigger levels apply only to samples collected from the deepest sampling port (i.e., 400 feet bgs) in each of the three FLUTe™ multi-port soil vapor monitoring wells (MWL-SV03, MWL-SV04, and MWL-SV05).

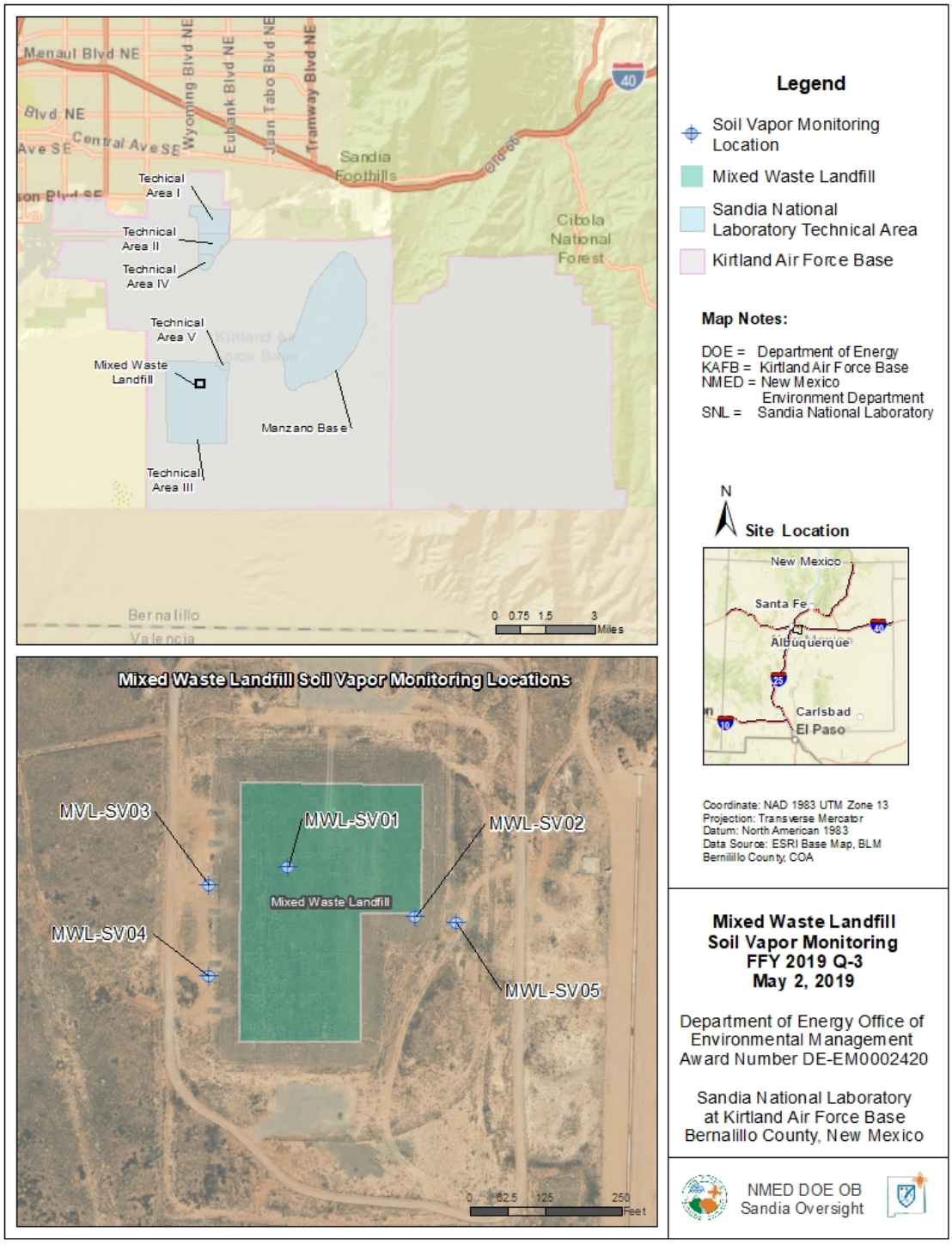

Figure 1
Mixed Waste Landfill Soil-Vapor Monitoring Well Locations

Results

Analytical results for VOCs are presented in Table 3-1 through Table 3-17. All samples were analyzed for VOCs in accordance with EPA method TO-15. A total of twenty-three (23) compounds were detected above the laboratory MDL in samples collected during May 2019. Below is a summary of the detected compounds.

Acetone	Methylene Chloride
Benzene	Tetrachloroethene
Butanone[2-]	Toluene
Carbon Disulfide	Trichloro-1,2,2-trifluoroethane[1,1,2-]
Carbon Tetrachloride	Trichloroethane[1,1,1-]
Chloroform	Trichloroethene
Dichlorodifluoromethane	Trichlorofluoromethane
Dichloroethane[1,1-]	Trimethylbenzene[1,2,4-]
Dichloroethene[1,1-]	Trimethylbenzene[1,3,5-]
Dichloroethene[cis-1,2-]	Xylene[1,2-]
Ethylbenzene	Xylene[1,3-]+Xylene[1,4-]
Ethyltoluene[4-]	

PCE concentrations ranged from 39 ppbv at MWL-SV05-50 to 340 ppbv at MWL-SV03-400. TCE concentrations ranged from 29 ppbv at MWL-SV04-400 to 170 ppbv at MWL-SV03-400. Total organics ranged from 152.21 ppbv at MWL-SV03-100 to 645.61 ppbv at MWL-SV03-400. PCE, TCE and total organic concentrations for each sample are summarized below in Table 1.

Table 1
Summary of PCE,TCE and Total Organics Concentrations, May 2019

Well ID/Depth	Port Number	Tetrachloroethene (PCE) (ppbv)	Trichloroethene (TCE) (ppbv)	Total Organics[b] (ppbv)
MWL-SV01 42.5	Single Port	300	60	634.84
MWL-SV02 41.5	Single Port	48	41	470
MWL-SV03-50	Port 1	130	120	374.31
MWL-SV03-100	Port 2	52	44	152.21
MWL-SV03-200	Port 3	160	150	522.92
MWL-SV03-300	Port 4	150	98	400.03
MWL-SV03-400	Port 5	340	170	645.61
MWL-SV04-50	Port 1	47	39	174.29
MWL-SV04-100	Port 2	94	95	339.21
MWL-SV04-200	Port 3	130	160	529.75
MWL-SV04-300	Port 4	69	36	198.56
MWL-SV04-300*	Port 4	59	33	178.98
MWL-SV04-400	Port 5	66	29	185.06
MWL-SV05-50	Port 1	39	47	269.53
MWL-SV05-50*	Port 1	42	51	280.66
MWL-SV05-100	Port 2	70	97	450.2
MWL-SV05-200	Port 3	80	130	459.37
MWL-SV05-300	Port 4	63	56	260.59
MWL-SV05-400	Port 5	52	37	185.36
Trigger Level[a]		**20,000**	**20,000**	**25,000**

[a] The trigger levels only apply to samples collected from 400ft ports (SNL/NM March 2012).
[b] Total Organics. Sum of organic analytes detected at or above the MDL.
***** Indicates a Duplicate sample

Conclusions

The DOE-OB collected soil vapor samples from monitoring wells MWL-SV01, MWL-SV02, MWL-SV03, MWL-SV04 and MWL-SV05. Samples were collected at all depths from each multi-port well. Duplicate samples were collected from MWL-SV04-300 and MWL-SV05-50. The soil vapor samples collected by DOE-OB during May 2019 were measured at levels well below the trigger levels listed in the SNL/NM LTMMP for the MWL.

PCE, TCE and total organic concentrations from 2014-2019 are presented in Tables 2-1, 2-2 and 2-3. The soil vapor concentrations measured by the analytical laboratories were well below the LTMMP trigger levels during all sampling events.

The DOE-OB will continue to independently monitor soil vapor at the MWL during future SNL/NM sampling events and report data results to DOE. The analytical data for all past soil vapor monitoring conducted by the DOE OB is available on the New Mexico Environment Department website at https://www.env.nm.gov/doeob/.

Table 2-1 NMED DOE-OB PCE Concentrations
NMED DOE-OB Soil Vapor Data Results from the MWL 2014-2019

Well ID & Depth[b]	Tetrachloroethene (PCE) (ppbv)									
	Sep 2014[c]	Apr 2015[c]	Oct 2015[c]	Apr 2016[c]	Oct 2016[c]	May 2017[c]	Oct 2017[c]	Apr 2018[c]	Oct 2018[c]	May 2019[c]
MWL-SV01-42.5	460	NA	NA	NA	NA	360	320	260	180	300
MWL-SV02-41.5	69	NA	NA	NA	NA	54	53	43	65	48
MWL-SV03-50	NA	NA	NA	NA	NA	NA	NA	100	NA	130
MWL-SV03-100	NA	NA	NA	NA	NA	NA	NA	160	NA	52
MWL-SV03-200	NA	NA	NA	NA	NA	NA	NA	170	NA	160
MWL-SV03-300	200	270	190	240	260	240	250	140	210	150
MWL-SV03-400	350	330	310	340	350	260	310	240	320	340
MWL-SV04-50	NA	NA	NA	NA	NA	NA	NA	46	NA	47
MWL-SV04-100	NA	NA	NA	NA	NA	NA	NA	82	NA	94
MWL-SV04-200	NA	NA	NA	NA	NA	NA	NA	110	NA	130
MWL-SV04-300	61	86	85	98	130	83	61	60	93	69
MWL-SV04-400	67	93	88	90	110	79	100	68	74	66
MWL-SV05-50	NA	NA	NA	NA	NA	NA	NA	41	NA	42
MWL-SV05-100	NA	NA	NA	NA	NA	NA	NA	69	NA	70
MWL-SV05-200	NA	NA	NA	NA	NA	NA	NA	130	NA	80
MWL-SV05-300	70	76	46	91	150	89	86	70	99	63
MWL-SV05-400	71	74	71	94	94	69	74	63	66	52
Trigger Level[a]	**20,000**									

[a] The trigger levels only apply to samples collected from 400ft ports (SNL/NM March 2012).
[b] Port depth is the last number in the Well ID and is in feet below ground surface.
[c] If a duplicate sample was collected, then maximum concentration of the environmental-duplicate sample pair is shown.
NA = No data available. No samples were collected during this sampling event.

Table 2-2 NMED DOE-OB TCE Concentrations
NMED DOE-OB Soil Vapor Data Results from the MWL 2014-2019

Well ID & Depth[b]	Trichloroethene (TCE) (ppbv)									
	Sep 2014[c]	Apr 2015[c]	Oct 2015[c]	Apr 2016[c]	Oct 2016[c]	May 2017[c]	Oct 2017[c]	Apr 2018[c]	Oct 2018[c]	May 2019[c]
MWL-SV01-42.5	110	NA	NA	NA	NA	75	67	61	34	60
MWL-SV02-41.5	68	NA	NA	NA	NA	52	51	45	53	41
MWL-SV03-50	NA	NA	NA	NA	NA	NA	NA	80	NA	120
MWL-SV03-100	NA	NA	NA	NA	NA	NA	NA	140	NA	44
MWL-SV03-200	NA	NA	NA	NA	NA	NA	NA	170	NA	150
MWL-SV03-300	120	150	140	160	180	140	190	97	130	98
MWL-SV03-400	200	210	210	200	230	120	180	130	160	170
MWL-SV04-50	NA	NA	NA	NA	NA	NA	NA	40	NA	39
MWL-SV04-100	NA	NA	NA	NA	NA	NA	NA	89	NA	95
MWL-SV04-200	NA	NA	NA	NA	NA	NA	NA	140	NA	160
MWL-SV04-300	33	58	59	82	68	50	42	38	54	36
MWL-SV04-400	40	58	67	68	56	32	54	34	37	29
MWL-SV05-50	NA	NA	NA	NA	NA	NA	NA	53	NA	51
MWL-SV05-100	NA	NA	NA	NA	NA	NA	NA	110	NA	97
MWL-SV05-200	NA	NA	NA	NA	NA	NA	NA	200	NA	130
MWL-SV05-300	73	72	66	81	150	110	110	81	97	56
MWL-SV05-400	56	62	60	71	75	40	67	44	54	37
Trigger Level[a]	**20,000**									

[a] The trigger levels only apply to samples collected from 400ft ports (SNL/NM March 2012).
[b] Port depth is the last number in the Well ID and is in feet below ground surface.
[c] If a duplicate sample was collected, then maximum concentration of the environmental-duplicate sample pair is shown.
NA = No data available. No samples were collected during this sampling event.

Table 2-3 NMED DOE-OB Total Organic Concentrations
NMED DOE-OB Soil Vapor Data Results from the MWL 2014-2019

Well ID & Depth[b]	Total Organics[d] (ppbv)									
	Sep 2014[c]	Apr 2015[c]	Oct 2015[c]	Apr 2016[c]	Oct 2016[c]	May 2017[c]	Oct 2017[c]	Apr 2018[c]	Oct 2018[c]	May 2019[c]
MWL-SV01-42.5	833.7	NA	NA	NA	NA	838.76	780.64	605.3	363.8	634.84
MWL-SV02-41.5	515.5	NA	NA	NA	NA	607.78	648.72	477.9	554.5	470
MWL-SV03-50	NA	NA	NA	NA	NA	NA	NA	481.34	NA	374.31
MWL-SV03-100	NA	NA	NA	NA	NA	NA	NA	507.25	NA	152.207
MWL-SV03-200	NA	NA	NA	NA	NA	NA	NA	577.08	NA	522.92
MWL-SV03-300	460.6	554.9	493.6	576.8	649.67	593.58	709.38	396.33	525.34	400.03
MWL-SV03-400	825.4	685.3	661.5	678.6	681.73	437	587.86	473.04	571.86	645.61
MWL-SV04-50	NA	NA	NA	NA	NA	NA	NA	188.43	NA	174.29
MWL-SV04-100	NA	NA	NA	NA	NA	NA	NA	339.42	NA	339.21
MWL-SV04-200	NA	NA	NA	NA	NA	NA	NA	483.07	NA	529.75
MWL-SV04-300	158.7	237.9	252.4	269.7	320.64	2275.6	227.67	210.52	256.94	198.56
MWL-SV04-400	147.5	228.9	220.5	234.6	285.08	265.86	295.34	187.40	196.3	185.06
MWL-SV05-50	NA	NA	NA	NA	NA	NA	NA	309.91	NA	280.66
MWL-SV05-100	NA	NA	NA	NA	NA	NA	NA	501.03	NA	450.2
MWL-SV05-200	NA	NA	NA	NA	NA	NA	NA	714.99	NA	459.37
MWL-SV05-300	282.8	289.9	272.2	335.3	534.19	495.2	472.68	383.7	394.5	260.59
MWL-SV05-400	802	235.8	241.2	249.7	310.66	192.71	242.63	207.03	233.45	185.36
Trigger Level[a]	**25,000**									

[a] The trigger levels only apply to samples collected from 400ft ports (SNL/NM March 2012).
[b] Port depth is the last number in the Well ID and is in feet below ground surface.
[c] If a duplicate sample was collected, then maximum concentration of the environmental-duplicate sample pair is shown.
[d] Total Organics. Sum of organic analytes detected at or above the MDL.
NA = No data available. No samples were collected during this sampling event.

References

Sandia National Laboratories, New Mexico Environmental Restoration Operations. Long-Term Monitoring and Maintenance Plan for the Mixed Waste Landfill, March 2012.

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2014 Q-4

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2015 Q-3

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2016 Q-1

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2016 Q-3

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2017 Q-1

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2017 Q-3

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2018 Q-1

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2018 Q-3

Soil Vapor Monitoring at Sandia National Laboratories/New Mexico Mixed Waste Landfill Conducted by the New Mexico Environment Department DOE Oversight Bureau for FFY 2019 Q-1

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Table 3-1
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV01 sampled at a depth of approximately 42.5 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV01 42.5ft	Acetone	26	50	26	U
	Benzene	0.71	2	0.71	U
	Benzyl Chloride	1.2	2	1.2	U
	Bromodichloromethane	0.94	2	0.94	U
	Bromoform	0.86	2	0.86	U
	Bromomethane	0.62	2	0.62	U*
	Butanone[2-]	2	5	2	U
	Carbon Disulfide	1.2	5	1.2	U
	Carbon Tetrachloride	0.24	2	0.24	U
	Chlorobenzene	0.4	2	0.4	U
	Chlorodibromomethane	0.71	2	0.71	U
	Chloroethane	2.1	5	2.1	U
	Chloroform	11	2	0.52	
	Chloromethane	2.5	5	2.5	U
	Dibromoethane[1,2-]	0.69	2	0.69	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.68	2	0.68	U
	Dichlorobenzene[1,2-]	0.71	2	0.71	U
	Dichlorobenzene[1,3-]	0.82	2	0.82	U
	Dichlorobenzene[1,4-]	0.65	2	0.65	U
	Dichlorodifluoromethane	64	5	2	
	Dichloroethane[1,1-]	1.4	2	0.26	J
	Dichloroethane[1,2-]	0.63	2	0.63	U
	Dichloroethene[1,1-]	2.9	2	0.34	
	Dichloroethene[cis-1,2-]	0.54	2	0.37	J
	Dichloroethene[trans-1,2-]	0.74	2	0.74	U
	Dichloropropane[1,2-]	1.2	2	1.2	U
	Dichloropropene[cis-1,3-]	0.98	2	0.98	U
	Dichloropropene[trans-1,3-]	1.2	2	1.2	U
	Ethylbenzene	0.73	2	0.73	U
	Ethyltoluene[4-]	0.69	2	0.69	U
	Hexachlorobutadiene	0.82	2	0.82	U

Refer to footnotes at the end of tables.

Table 3-1
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV01 sampled at a depth of approximately 42.5 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV01 42.5ft	Hexanone[2-]	4.2	5	4.2	U
	Methyl-2-pentanone[4-]	3.6	5	3.6	U
	Methylene Chloride	2	5	2	U
	Styrene	0.86	2	0.86	U
	Tetrachloroethane[1,1,2,2-]	0.76	2	0.76	U
	Tetrachloroethene	300	2	0.29	
	Toluene	0.69	2	0.69	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	52	2	0.31	
	Trichlorobenzene[1,2,4-]	2.4	5	2.4	U
	Trichloroethane[1,1,1-]	23	2	0.68	
	Trichloroethane[1,1,2-]	0.78	2	0.78	U
	Trichloroethene	60	2	0.3	
	Trichlorofluoromethane	120	2	0.62	
	Trimethylbenzene[1,2,4-]	0.8	2	0.8	U
	Trimethylbenzene[1,3,5-]	0.58	2	0.58	U
	Vinyl acetate	23	50	23	U
	Vinyl Chloride	0.41	2	0.41	U
	Xylene[1,2-]	0.71	2	0.71	U
	Xylene[1,3-]+Xylene[1,4-]	0.7	5	0.7	U
	Total Organics[f]	634.84	NA	NA	

Refer to footnotes at the end of tables.

Table 3-2
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV02 sampled at a depth of approximately 41.5 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV02 41.5ft	Acetone	52	100	52	U
	Benzene	1.4	4	1.4	U
	Benzyl Chloride	2.4	4	2.4	U
	Bromodichloromethane	1.9	4	1.9	U
	Bromoform	1.7	4	1.7	U
	Bromomethane	1.2	4	1.2	U
	Butanone[2-]	4	10	4	U
	Carbon Disulfide	2.4	10	2.4	U
	Carbon Tetrachloride	0.48	4	0.48	U
	Chlorobenzene	0.8	4	0.8	U
	Chlorodibromomethane	1.4	4	1.4	U
	Chloroethane	4.2	10	4.2	U
	Chloroform	1.9	4	1	J
	Chloromethane	5	10	5	U
	Dibromoethane[1,2-]	1.4	4	1.4	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	1.4	4	1.4	U
	Dichlorobenzene[1,2-]	1.4	4	1.4	U
	Dichlorobenzene[1,3-]	1.6	4	1.6	U
	Dichlorobenzene[1,4-]	1.3	4	1.3	U
	Dichlorodifluoromethane	73	10	4	
	Dichloroethane[1,1-]	1.4	4	0.52	J
	Dichloroethane[1,2-]	1.3	4	1.3	U
	Dichloroethene[1,1-]	6.7	4	0.68	
	Dichloroethene[cis-1,2-]	0.74	4	0.74	U
	Dichloroethene[trans-1,2-]	1.5	4	1.5	U
	Dichloropropane[1,2-]	2.4	4	2.4	U
	Dichloropropene[cis-1,3-]	2	4	2	U
	Dichloropropene[trans-1,3-]	2.4	4	2.4	U
	Ethylbenzene	1.5	4	1.5	U
	Ethyltoluene[4-]	1.4	4	1.4	U
	Hexachlorobutadiene	1.6	4	1.6	U

Refer to footnotes at the end of tables.

Table 3-2
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV02 sampled at a depth of approximately 41.5 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV02 41.5ft	Hexanone[2-]	8.4	10	8.4	U
	Methyl-2-pentanone[4-]	7.2	10	7.2	U
	Methylene Chloride	4	10	4	U
	Styrene	1.7	4	1.7	U
	Tetrachloroethane[1,1,2,2-]	1.5	4	1.5	U
	Tetrachloroethene	48	4	0.58	
	Toluene	1.4	4	1.4	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	33	4	0.62	
	Trichlorobenzene[1,2,4-]	4.8	10	4.8	U
	Trichloroethane[1,1,1-]	45	4	1.4	
	Trichloroethane[1,1,2-]	1.6	4	1.6	U
	Trichloroethene	41	4	0.6	
	Trichlorofluoromethane	220	4	1.2	
	Trimethylbenzene[1,2,4-]	1.6	4	1.6	U
	Trimethylbenzene[1,3,5-]	1.2	4	1.2	U
	Vinyl acetate	46	100	46	U
	Vinyl Chloride	0.82	4	0.82	U
	Xylene[1,2-]	1.4	4	1.4	U
	Xylene[1,3-]+Xylene[1,4-]	1.4	10	1.4	U
	Total Organics[f]	470	NA	NA	

Refer to footnotes at the end of tables.

Table 3-3
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 50ft	Acetone	13	25	13	U
	Benzene	0.36	1	0.36	U
	Benzyl Chloride	0.6	1	0.6	U
	Bromodichloromethane	0.47	1	0.47	U
	Bromoform	0.43	1	0.43	U
	Bromomethane	0.31	1	0.31	U*
	Butanone[2-]	1	2.5	1	U
	Carbon Disulfide	0.6	2.5	0.6	U
	Carbon Tetrachloride	0.22	1	0.12	J
	Chlorobenzene	0.2	1	0.2	U
	Chlorodibromomethane	0.36	1	0.36	U
	Chloroethane	1.1	2.5	1.1	U
	Chloroform	1.5	1	0.26	
	Chloromethane	1.3	2.5	1.3	U
	Dibromoethane[1,2-]	0.35	1	0.35	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.34	1	0.34	U
	Dichlorobenzene[1,2-]	0.36	1	0.36	U
	Dichlorobenzene[1,3-]	0.41	1	0.41	U
	Dichlorobenzene[1,4-]	0.33	1	0.33	U
	Dichlorodifluoromethane	25	2.5	1	
	Dichloroethane[1,1-]	2.4	1	0.13	
	Dichloroethane[1,2-]	0.32	1	0.32	U
	Dichloroethene[1,1-]	6.9	1	0.17	
	Dichloroethene[cis-1,2-]	0.99	1	0.19	J
	Dichloroethene[trans-1,2-]	0.37	1	0.37	U
	Dichloropropane[1,2-]	0.6	1	0.6	U
	Dichloropropene[cis-1,3-]	0.49	1	0.49	U
	Dichloropropene[trans-1,3-]	0.6	1	0.6	U
	Ethylbenzene	0.37	1	0.37	U
	Ethyltoluene[4-]	0.35	1	0.35	U
	Hexachlorobutadiene	0.41	1	0.41	U

Refer to footnotes at the end of tables.

Table 3-3
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 50ft	Hexanone[2-]	2.1	2.5	2.1	U
	Methyl-2-pentanone[4-]	1.8	2.5	1.8	U
	Methylene Chloride	1	2.5	1	U
	Styrene	0.43	1	0.43	U
	Tetrachloroethane[1,1,2,2-]	0.38	1	0.38	U
	Tetrachloroethene	130	1	0.15	
	Toluene	0.35	1	0.35	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	62	1	0.16	
	Trichlorobenzene[1,2,4-]	1.2	2.5	1.2	U
	Trichloroethane[1,1,1-]	2.3	1	0.34	
	Trichloroethane[1,1,2-]	0.39	1	0.39	U
	Trichloroethene	120	1	0.15	
	Trichlorofluoromethane	23	1	0.31	
	Trimethylbenzene[1,2,4-]	0.4	1	0.4	U
	Trimethylbenzene[1,3,5-]	0.29	1	0.29	U
	Vinyl acetate	12	25	12	U
	Vinyl Chloride	0.21	1	0.21	U
	Xylene[1,2-]	0.36	1	0.36	U
	Xylene[1,3-]+Xylene[1,4-]	0.35	2.5	0.35	U
	Total Organics[f]	374.31	NA	NA	

Refer to footnotes at the end of tables.

Table 3-4
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 100 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 100ft	Acetone	7.9	15	7.9	U
	Benzene	0.22	0.61	0.22	U
	Benzyl Chloride	0.36	0.61	0.36	U
	Bromodichloromethane	0.28	0.61	0.28	U
	Bromoform	0.26	0.61	0.26	U
	Bromomethane	0.19	0.61	0.19	U
	Butanone[2-]	0.61	1.5	0.61	U
	Carbon Disulfide	0.36	1.5	0.36	U
	Carbon Tetrachloride	0.077	0.61	0.073	J
	Chlorobenzene	0.12	0.61	0.12	U
	Chlorodibromomethane	0.22	0.61	0.22	U
	Chloroethane	0.64	1.5	0.64	U
	Chloroform	0.53	0.61	0.16	J
	Chloromethane	0.76	1.5	0.76	U
	Dibromoethane[1,2-]	0.21	0.61	0.21	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.21	0.61	0.21	U
	Dichlorobenzene[1,2-]	0.22	0.61	0.22	U
	Dichlorobenzene[1,3-]	0.25	0.61	0.25	U
	Dichlorobenzene[1,4-]	0.2	0.61	0.2	U
	Dichlorodifluoromethane	12	1.5	0.61	
	Dichloroethane[1,1-]	1.2	0.61	0.079	
	Dichloroethane[1,2-]	0.19	0.61	0.19	U
	Dichloroethene[1,1-]	4.2	0.61	0.1	
	Dichloroethene[cis-1,2-]	0.57	0.61	0.11	J
	Dichloroethene[trans-1,2-]	0.22	0.61	0.22	U
	Dichloropropane[1,2-]	0.36	0.61	0.36	U
	Dichloropropene[cis-1,3-]	0.3	0.61	0.3	U
	Dichloropropene[trans-1,3-]	0.36	0.61	0.36	U
	Ethylbenzene	0.22	0.61	0.22	U
	Ethyltoluene[4-]	0.21	0.61	0.21	U
	Hexachlorobutadiene	0.25	0.61	0.25	U

Refer to footnotes at the end of tables.

Table 3-4
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 100 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 100ft	Hexanone[2-]	1.3	1.5	1.3	U
	Methyl-2-pentanone[4-]	1.1	1.5	1.1	U
	Methylene Chloride	0.61	1.5	0.61	U
	Styrene	0.26	0.61	0.26	U
	Tetrachloroethane[1,1,2,2-]	0.23	0.61	0.23	U
	Tetrachloroethene	52	0.61	0.088	
	Toluene	0.21	0.61	0.21	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	27	0.61	0.094	
	Trichlorobenzene[1,2,4-]	0.73	1.5	0.73	U
	Trichloroethane[1,1,1-]	0.83	0.61	0.21	
	Trichloroethane[1,1,2-]	0.24	0.61	0.24	U
	Trichloroethene	44	0.61	0.091	
	Trichlorofluoromethane	9.8	0.61	0.19	
	Trimethylbenzene[1,2,4-]	0.24	0.61	0.24	U
	Trimethylbenzene[1,3,5-]	0.18	0.61	0.18	U
	Vinyl acetate	7	15	7	U
	Vinyl Chloride	0.12	0.61	0.12	U
	Xylene[1,2-]	0.22	0.61	0.22	U
	Xylene[1,3-]+Xylene[1,4-]	0.21	1.5	0.21	U
	Total Organics[f]	152.21	NA	NA	

Refer to footnotes at the end of tables.

Table 3-5
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 200 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 200ft	Acetone	13	25	13	U
	Benzene	0.36	1	0.36	U
	Benzyl Chloride	0.6	1	0.6	U
	Bromodichloromethane	0.47	1	0.47	U
	Bromoform	0.43	1	0.43	U
	Bromomethane	0.31	1	0.31	U
	Butanone[2-]	1	2.5	1	U
	Carbon Disulfide	0.6	2.5	0.6	U
	Carbon Tetrachloride	0.25	1	0.12	J
	Chlorobenzene	0.2	1	0.2	U
	Chlorodibromomethane	0.36	1	0.36	U
	Chloroethane	1.1	2.5	1.1	U
	Chloroform	1.5	1	0.26	
	Chloromethane	1.3	2.5	1.3	U
	Dibromoethane[1,2-]	0.35	1	0.35	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.34	1	0.34	U
	Dichlorobenzene[1,2-]	0.36	1	0.36	U
	Dichlorobenzene[1,3-]	0.41	1	0.41	U
	Dichlorobenzene[1,4-]	0.33	1	0.33	U
	Dichlorodifluoromethane	39	2.5	1	
	Dichloroethane[1,1-]	4.9	1	0.13	
	Dichloroethane[1,2-]	0.32	1	0.32	U
	Dichloroethene[1,1-]	22	1	0.17	
	Dichloroethene[cis-1,2-]	3.1	1	0.19	
	Dichloroethene[trans-1,2-]	0.37	1	0.37	U
	Dichloropropane[1,2-]	0.6	1	0.6	U
	Dichloropropene[cis-1,3-]	0.49	1	0.49	U
	Dichloropropene[trans-1,3-]	0.6	1	0.6	U
	Ethylbenzene	0.37	1	0.37	U
	Ethyltoluene[4-]	0.35	1	0.35	U
	Hexachlorobutadiene	0.41	1	0.41	U

Refer to footnotes at the end of tables.

Table 3-5
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 200 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 200ft	Hexanone[2-]	2.1	2.5	2.1	U
	Methyl-2-pentanone[4-]	1.8	2.5	1.8	U
	Methylene Chloride	2.2	2.5	1	J
	Styrene	0.43	1	0.43	U
	Tetrachloroethane[1,1,2,2-]	0.38	1	0.38	U
	Tetrachloroethene	160	1	0.15	
	Toluene	0.35	1	0.35	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	110	1	0.16	
	Trichlorobenzene[1,2,4-]	1.2	2.5	1.2	U
	Trichloroethane[1,1,1-]	1.6	1	0.34	
	Trichloroethane[1,1,2-]	0.39	1	0.39	U
	Trichloroethene	150	1	0.15	
	Trichlorofluoromethane	28	1	0.31	
	Trimethylbenzene[1,2,4-]	0.4	1	0.4	U
	Trimethylbenzene[1,3,5-]	0.29	1	0.29	U
	Vinyl acetate	12	25	12	U
	Vinyl Chloride	0.21	1	0.21	U
	Xylene[1,2-]	0.36	1	0.36	U
	Xylene[1,3-]+Xylene[1,4-]	0.37	2.5	0.35	J
	Total Organics[f]	522.92	NA	NA	

Refer to footnotes at the end of tables.

Table 3-6
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 300ft	Acetone	16	31	16	U
	Benzene	0.44	1.2	0.44	U
	Benzyl Chloride	0.74	1.2	0.74	U
	Bromodichloromethane	0.58	1.2	0.58	U
	Bromoform	0.53	1.2	0.53	U
	Bromomethane	0.38	1.2	0.38	U*
	Butanone[2-]	1.2	3.1	1.2	U
	Carbon Disulfide	0.74	3.1	0.74	U
	Carbon Tetrachloride	0.27	1.2	0.15	J
	Chlorobenzene	0.25	1.2	0.25	U
	Chlorodibromomethane	0.44	1.2	0.44	U
	Chloroethane	1.3	3.1	1.3	U
	Chloroform	0.59	1.2	0.32	J
	Chloromethane	1.5	3.1	1.5	U
	Dibromoethane[1,2-]	0.42	1.2	0.42	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.42	1.2	0.42	U
	Dichlorobenzene[1,2-]	0.44	1.2	0.44	U
	Dichlorobenzene[1,3-]	0.5	1.2	0.5	U
	Dichlorobenzene[1,4-]	0.4	1.2	0.4	U
	Dichlorodifluoromethane	35	3.1	1.2	
	Dichloroethane[1,1-]	1	1.2	0.16	J
	Dichloroethane[1,2-]	0.39	1.2	0.39	U
	Dichloroethene[1,1-]	8.8	1.2	0.21	
	Dichloroethene[cis-1,2-]	0.37	1.2	0.23	J
	Dichloroethene[trans-1,2-]	0.45	1.2	0.45	U
	Dichloropropane[1,2-]	0.74	1.2	0.74	U
	Dichloropropene[cis-1,3-]	0.6	1.2	0.6	U
	Dichloropropene[trans-1,3-]	0.74	1.2	0.74	U
	Ethylbenzene	0.45	1.2	0.45	U
	Ethyltoluene[4-]	0.42	1.2	0.42	U
	Hexachlorobutadiene	0.5	1.2	0.5	U

Refer to footnotes at the end of tables.

Table 3-6
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 300ft	Hexanone[2-]	2.6	3.1	2.6	U
	Methyl-2-pentanone[4-]	2.2	3.1	2.2	U
	Methylene Chloride	1.2	3.1	1.2	U
	Styrene	0.53	1.2	0.53	U
	Tetrachloroethane[1,1,2,2-]	0.47	1.2	0.47	U
	Tetrachloroethene	150	1.2	0.18	
	Toluene	0.42	1.2	0.42	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	93	1.2	0.19	
	Trichlorobenzene[1,2,4-]	1.5	3.1	1.5	U
	Trichloroethane[1,1,1-]	0.42	1.2	0.42	U
	Trichloroethane[1,1,2-]	0.48	1.2	0.48	U
	Trichloroethene	98	1.2	0.18	
	Trichlorofluoromethane	13	1.2	0.38	
	Trimethylbenzene[1,2,4-]	0.49	1.2	0.49	U
	Trimethylbenzene[1,3,5-]	0.36	1.2	0.36	U
	Vinyl acetate	14	31	14	U
	Vinyl Chloride	0.25	1.2	0.25	U
	Xylene[1,2-]	0.44	1.2	0.44	U
	Xylene[1,3-]+Xylene[1,4-]	0.43	3.1	0.43	U
	Total Organics[f]	400.03	NA	NA	

Refer to footnotes at the end of tables.

Table 3-7
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 400 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 400ft	Acetone	40	77	40	U
	Benzene	1.1	3.1	1.1	U
	Benzyl Chloride	1.8	3.1	1.8	U
	Bromodichloromethane	1.4	3.1	1.4	U
	Bromoform	1.3	3.1	1.3	U
	Bromomethane	0.95	3.1	0.95	U
	Butanone[2-]	3.1	7.7	3.1	U
	Carbon Disulfide	1.8	7.7	1.8	U
	Carbon Tetrachloride	0.37	3.1	0.37	U
	Chlorobenzene	0.62	3.1	0.62	U
	Chlorodibromomethane	1.1	3.1	1.1	U
	Chloroethane	3.2	7.7	3.2	U
	Chloroform	0.91	3.1	0.8	J
	Chloromethane	3.9	7.7	3.9	U
	Dibromoethane[1,2-]	1.1	3.1	1.1	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	1	3.1	1	U
	Dichlorobenzene[1,2-]	1.1	3.1	1.1	U
	Dichlorobenzene[1,3-]	1.3	3.1	1.3	U
	Dichlorobenzene[1,4-]	1	3.1	1	U
	Dichlorodifluoromethane	31	7.7	3.1	
	Dichloroethane[1,1-]	1.7	3.1	0.4	J
	Dichloroethane[1,2-]	0.97	3.1	0.97	U
	Dichloroethene[1,1-]	12	3.1	0.52	
	Dichloroethene[cis-1,2-]	1	3.1	0.57	J
	Dichloroethene[trans-1,2-]	1.1	3.1	1.1	U
	Dichloropropane[1,2-]	1.8	3.1	1.8	U
	Dichloropropene[cis-1,3-]	1.5	3.1	1.5	U
	Dichloropropene[trans-1,3-]	1.8	3.1	1.8	U
	Ethylbenzene	1.1	3.1	1.1	U
	Ethyltoluene[4-]	1.1	3.1	1.1	U
	Hexachlorobutadiene	1.3	3.1	1.3	U

Refer to footnotes at the end of tables.

Table 3-7
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV03 sampled at a depth of approximately 400 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV03 400ft	Hexanone[2-]	6.5	7.7	6.5	U
	Methyl-2-pentanone[4-]	5.5	7.7	5.5	U
	Methylene Chloride	3.1	7.7	3.1	U
	Styrene	1.3	3.1	1.3	U
	Tetrachloroethane[1,1,2,2-]	1.2	3.1	1.2	U
	Tetrachloroethene	340	3.1	0.45	
	Toluene	1.1	3.1	1.1	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	76	3.1	0.48	
	Trichlorobenzene[1,2,4-]	3.7	7.7	3.7	U
	Trichloroethane[1,1,1-]	1	3.1	1	U
	Trichloroethane[1,1,2-]	1.2	3.1	1.2	U
	Trichloroethene	170	3.1	0.46	
	Trichlorofluoromethane	13	3.1	0.95	
	Trimethylbenzene[1,2,4-]	1.2	3.1	1.2	U
	Trimethylbenzene[1,3,5-]	0.89	3.1	0.89	U
	Vinyl acetate	35	77	35	U
	Vinyl Chloride	0.63	3.1	0.63	U
	Xylene[1,2-]	1.1	3.1	1.1	U
	Xylene[1,3-]+Xylene[1,4-]	1.1	7.7	1.1	U
	Total Organics[f]	645.61	NA	NA	

Refer to footnotes at the end of tables.

Table 3-8
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 50ft	Acetone	16	30	16	U
	Benzene	0.43	1.2	0.43	U
	Benzyl Chloride	0.73	1.2	0.73	U
	Bromodichloromethane	0.57	1.2	0.57	U
	Bromoform	0.52	1.2	0.52	U
	Bromomethane	0.38	1.2	0.38	U
	Butanone[2-]	1.2	3	1.2	U
	Carbon Disulfide	0.73	3	0.73	U
	Carbon Tetrachloride	0.15	1.2	0.15	J
	Chlorobenzene	0.24	1.2	0.24	U
	Chlorodibromomethane	0.43	1.2	0.43	U
	Chloroethane	1.3	3	1.3	U
	Chloroform	1.3	1.2	0.32	
	Chloromethane	1.5	3	1.5	U
	Dibromoethane[1,2-]	0.42	1.2	0.42	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.41	1.2	0.41	U
	Dichlorobenzene[1,2-]	0.43	1.2	0.43	U
	Dichlorobenzene[1,3-]	0.5	1.2	0.5	U
	Dichlorobenzene[1,4-]	0.39	1.2	0.39	U
	Dichlorodifluoromethane	16	3	1.2	
	Dichloroethane[1,1-]	0.82	1.2	0.16	J
	Dichloroethane[1,2-]	0.38	1.2	0.38	U
	Dichloroethene[1,1-]	4	1.2	0.21	
	Dichloroethene[cis-1,2-]	0.22	1.2	0.22	J
	Dichloroethene[trans-1,2-]	0.45	1.2	0.45	U
	Dichloropropane[1,2-]	0.73	1.2	0.73	U
	Dichloropropene[cis-1,3-]	0.59	1.2	0.59	U
	Dichloropropene[trans-1,3-]	0.73	1.2	0.73	U
	Ethylbenzene	0.44	1.2	0.44	U
	Ethyltoluene[4-]	0.42	1.2	0.42	U
	Hexachlorobutadiene	0.5	1.2	0.5	U

Refer to footnotes at the end of tables.

Table 3-8
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 50ft	Hexanone[2-]	2.5	3	2.5	U
	Methyl-2-pentanone[4-]	2.2	3	2.2	U
	Methylene Chloride	1.2	3	1.2	U
	Styrene	0.52	1.2	0.52	U
	Tetrachloroethane[1,1,2,2-]	0.46	1.2	0.46	U
	Tetrachloroethene	47	1.2	0.18	
	Toluene	0.42	1.2	0.42	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	40	1.2	0.19	
	Trichlorobenzene[1,2,4-]	1.5	3	1.5	U
	Trichloroethane[1,1,1-]	4.8	1.2	0.41	
	Trichloroethane[1,1,2-]	0.47	1.2	0.47	U
	Trichloroethene	39	1.2	0.18	
	Trichlorofluoromethane	21	1.2	0.38	
	Trimethylbenzene[1,2,4-]	0.48	1.2	0.48	U
	Trimethylbenzene[1,3,5-]	0.35	1.2	0.35	U
	Vinyl acetate	14	30	14	U
	Vinyl Chloride	0.25	1.2	0.25	U
	Xylene[1,2-]	0.43	1.2	0.43	U
	Xylene[1,3-]+Xylene[1,4-]	0.42	3	0.42	U
	Total Organics[f]	174.29	NA	NA	

Refer to footnotes at the end of tables.

Table 3-9
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 100 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 100ft	Acetone	26	50	26	U
	Benzene	0.71	2	0.71	U
	Benzyl Chloride	1.2	2	1.2	U
	Bromodichloromethane	0.94	2	0.94	U
	Bromoform	0.86	2	0.86	U
	Bromomethane	0.62	2	0.62	U
	Butanone[2-]	2	5	2	U
	Carbon Disulfide	1.2	5	1.2	U
	Carbon Tetrachloride	0.24	2	0.24	U
	Chlorobenzene	0.4	2	0.4	U
	Chlorodibromomethane	0.71	2	0.71	U
	Chloroethane	2.1	5	2.1	U
	Chloroform	1.5	2	0.52	J
	Chloromethane	2.5	5	2.5	U
	Dibromoethane[1,2-]	0.69	2	0.69	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.68	2	0.68	U
	Dichlorobenzene[1,2-]	0.71	2	0.71	U
	Dichlorobenzene[1,3-]	0.82	2	0.82	U
	Dichlorobenzene[1,4-]	0.65	2	0.65	U
	Dichlorodifluoromethane	30	5	2	
	Dichloroethane[1,1-]	2	2	0.26	
	Dichloroethane[1,2-]	0.63	2	0.63	U
	Dichloroethene[1,1-]	9.5	2	0.34	
	Dichloroethene[cis-1,2-]	0.91	2	0.37	J
	Dichloroethene[trans-1,2-]	0.74	2	0.74	U
	Dichloropropane[1,2-]	1.2	2	1.2	U
	Dichloropropene[cis-1,3-]	0.98	2	0.98	U
	Dichloropropene[trans-1,3-]	1.2	2	1.2	U
	Ethylbenzene	0.73	2	0.73	U
	Ethyltoluene[4-]	0.69	2	0.69	U
	Hexachlorobutadiene	0.82	2	0.82	U

Refer to footnotes at the end of tables.

Table 3-9
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 100 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 100ft	Hexanone[2-]	4.2	5	4.2	U
	Methyl-2-pentanone[4-]	3.6	5	3.6	U
	Methylene Chloride	2	5	2	U
	Styrene	0.86	2	0.86	U
	Tetrachloroethane[1,1,2,2-]	0.76	2	0.76	U
	Tetrachloroethene	94	2	0.29	
	Toluene	0.69	2	0.69	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	69	2	0.31	
	Trichlorobenzene[1,2,4-]	2.4	5	2.4	U
	Trichloroethane[1,1,1-]	4.3	2	0.68	
	Trichloroethane[1,1,2-]	0.78	2	0.78	U
	Trichloroethene	95	2	0.3	
	Trichlorofluoromethane	33	2	0.62	
	Trimethylbenzene[1,2,4-]	0.8	2	0.8	U
	Trimethylbenzene[1,3,5-]	0.58	2	0.58	U
	Vinyl acetate	23	50	23	U
	Vinyl Chloride	0.41	2	0.41	U
	Xylene[1,2-]	0.71	2	0.71	U
	Xylene[1,3-]+Xylene[1,4-]	0.7	5	0.7	U
	Total Organics[f]	339.21	NA	NA	

Refer to footnotes at the end of tables.

Table 3-10
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 200 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 200ft	Acetone	26	50	26	U
	Benzene	0.71	2	0.71	U
	Benzyl Chloride	1.2	2	1.2	U
	Bromodichloromethane	0.94	2	0.94	U
	Bromoform	0.86	2	0.86	U
	Bromomethane	0.62	2	0.62	U
	Butanone[2-]	2	5	2	U
	Carbon Disulfide	1.2	5	1.2	U
	Carbon Tetrachloride	0.45	2	0.24	J
	Chlorobenzene	0.4	2	0.4	U
	Chlorodibromomethane	0.71	2	0.71	U
	Chloroethane	2.1	5	2.1	U
	Chloroform	1.2	2	0.52	J
	Chloromethane	2.5	5	2.5	U
	Dibromoethane[1,2-]	0.69	2	0.69	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.68	2	0.68	U
	Dichlorobenzene[1,2-]	0.71	2	0.71	U
	Dichlorobenzene[1,3-]	0.82	2	0.82	U
	Dichlorobenzene[1,4-]	0.65	2	0.65	U
	Dichlorodifluoromethane	50	5	2	
	Dichloroethane[1,1-]	3.8	2	0.26	
	Dichloroethane[1,2-]	0.63	2	0.63	U
	Dichloroethene[1,1-]	23	2	0.34	
	Dichloroethene[cis-1,2-]	1.8	2	0.37	J
	Dichloroethene[trans-1,2-]	0.74	2	0.74	U
	Dichloropropane[1,2-]	1.2	2	1.2	U
	Dichloropropene[cis-1,3-]	0.98	2	0.98	U
	Dichloropropene[trans-1,3-]	1.2	2	1.2	U
	Ethylbenzene	0.73	2	0.73	U
	Ethyltoluene[4-]	0.69	2	0.69	U
	Hexachlorobutadiene	0.82	2	0.82	U

Refer to footnotes at the end of tables.

Table 3-10
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 200 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 200ft	Hexanone[2-]	4.2	5	4.2	U
	Methyl-2-pentanone[4-]	3.6	5	3.6	U
	Methylene Chloride	2.1	5	2	J
	Styrene	0.86	2	0.86	U
	Tetrachloroethane[1,1,2,2-]	0.76	2	0.76	U
	Tetrachloroethene	130	2	0.29	
	Toluene	0.69	2	0.69	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	120	2	0.31	
	Trichlorobenzene[1,2,4-]	2.4	5	2.4	U
	Trichloroethane[1,1,1-]	1.4	2	0.68	J
	Trichloroethane[1,1,2-]	0.78	2	0.78	U
	Trichloroethene	160	2	0.3	
	Trichlorofluoromethane	36	2	0.62	
	Trimethylbenzene[1,2,4-]	0.8	2	0.8	U
	Trimethylbenzene[1,3,5-]	0.58	2	0.58	U
	Vinyl acetate	23	50	23	U
	Vinyl Chloride	0.41	2	0.41	U
	Xylene[1,2-]	0.71	2	0.71	U
	Xylene[1,3-]+Xylene[1,4-]	0.7	5	0.7	U
	Total Organics[f]	529.75	NA	NA	

Refer to footnotes at the end of tables.

Table 3-11
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 300ft	Acetone	7.9	15	7.9	U
	Benzene	0.22	0.61	0.22	U
	Benzyl Chloride	0.36	0.61	0.36	U
	Bromodichloromethane	0.28	0.61	0.28	U
	Bromoform	0.26	0.61	0.26	U
	Bromomethane	0.19	0.61	0.19	U
	Butanone[2-]	0.61	1.5	0.61	U
	Carbon Disulfide	0.66	1.5	0.36	J
	Carbon Tetrachloride	0.16	0.61	0.073	J
	Chlorobenzene	0.12	0.61	0.12	U
	Chlorodibromomethane	0.22	0.61	0.22	U
	Chloroethane	0.64	1.5	0.64	U
	Chloroform	0.22	0.61	0.16	J
	Chloromethane	0.76	1.5	0.76	U
	Dibromoethane[1,2-]	0.21	0.61	0.21	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.21	0.61	0.21	U
	Dichlorobenzene[1,2-]	0.22	0.61	0.22	U
	Dichlorobenzene[1,3-]	0.25	0.61	0.25	U
	Dichlorobenzene[1,4-]	0.2	0.61	0.2	U
	Dichlorodifluoromethane	24	1.5	0.61	
	Dichloroethane[1,1-]	0.22	0.61	0.079	J
	Dichloroethane[1,2-]	0.19	0.61	0.19	U
	Dichloroethene[1,1-]	5.4	0.61	0.1	
	Dichloroethene[cis-1,2-]	0.11	0.61	0.11	U
	Dichloroethene[trans-1,2-]	0.22	0.61	0.22	U
	Dichloropropane[1,2-]	0.36	0.61	0.36	U
	Dichloropropene[cis-1,3-]	0.3	0.61	0.3	U
	Dichloropropene[trans-1,3-]	0.36	0.61	0.36	U
	Ethylbenzene	0.22	0.61	0.22	U
	Ethyltoluene[4-]	0.21	0.61	0.21	U
	Hexachlorobutadiene	0.25	0.61	0.25	U

Refer to footnotes at the end of tables.

Table 3-11
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 300ft	Hexanone[2-]	1.3	1.5	1.3	U
	Methyl-2-pentanone[4-]	1.1	1.5	1.1	U
	Methylene Chloride	0.61	1.5	0.61	U
	Styrene	0.26	0.61	0.26	U
	Tetrachloroethane[1,1,2,2-]	0.23	0.61	0.23	U
	Tetrachloroethene	69	0.61	0.088	
	Toluene	0.21	0.61	0.21	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	53	0.61	0.094	
	Trichlorobenzene[1,2,4-]	0.73	1.5	0.73	U
	Trichloroethane[1,1,1-]	0.21	0.61	0.21	U
	Trichloroethane[1,1,2-]	0.24	0.61	0.24	U
	Trichloroethene	36	0.61	0.091	
	Trichlorofluoromethane	9.9	0.61	0.19	
	Trimethylbenzene[1,2,4-]	0.24	0.61	0.24	U
	Trimethylbenzene[1,3,5-]	0.18	0.61	0.18	U
	Vinyl acetate	7	15	7	U
	Vinyl Chloride	0.12	0.61	0.12	U
	Xylene[1,2-]	0.22	0.61	0.22	U
	Xylene[1,3-]+Xylene[1,4-]	0.21	1.5	0.21	U
	Total Organics[f]	198.56	NA	NA	

Refer to footnotes at the end of tables.

Table 3-11
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 300ft (Duplicate)	Acetone	7.9	15	7.9	U
	Benzene	0.22	0.61	0.22	U
	Benzyl Chloride	0.36	0.61	0.36	U
	Bromodichloromethane	0.28	0.61	0.28	U
	Bromoform	0.26	0.61	0.26	U
	Bromomethane	0.19	0.61	0.19	U
	Butanone[2-]	0.61	1.5	0.61	U
	Carbon Disulfide	0.36	1.5	0.36	U
	Carbon Tetrachloride	0.15	0.61	0.073	J
	Chlorobenzene	0.12	0.61	0.12	U
	Chlorodibromomethane	0.22	0.61	0.22	U
	Chloroethane	0.64	1.5	0.64	U
	Chloroform	0.2	0.61	0.16	J
	Chloromethane	0.76	1.5	0.76	U
	Dibromoethane[1,2-]	0.21	0.61	0.21	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.21	0.61	0.21	U
	Dichlorobenzene[1,2-]	0.22	0.61	0.22	U
	Dichlorobenzene[1,3-]	0.25	0.61	0.25	U
	Dichlorobenzene[1,4-]	0.2	0.61	0.2	U
	Dichlorodifluoromethane	23	1.5	0.61	
	Dichloroethane[1,1-]	0.22	0.61	0.079	J
	Dichloroethane[1,2-]	0.19	0.61	0.19	U
	Dichloroethene[1,1-]	5.3	0.61	0.1	
	Dichloroethene[cis-1,2-]	0.11	0.61	0.11	J
	Dichloroethene[trans-1,2-]	0.22	0.61	0.22	U
	Dichloropropane[1,2-]	0.36	0.61	0.36	U
	Dichloropropene[cis-1,3-]	0.3	0.61	0.3	U
	Dichloropropene[trans-1,3-]	0.36	0.61	0.36	U
	Ethylbenzene	0.22	0.61	0.22	U
	Ethyltoluene[4-]	0.21	0.61	0.21	U
	Hexachlorobutadiene	0.25	0.61	0.25	U

Refer to footnotes at the end of tables.

Table 3-11
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 300ft (Duplicate)	Hexanone[2-]	1.3	1.5	1.3	U
	Methyl-2-pentanone[4-]	1.1	1.5	1.1	U
	Methylene Chloride	0.61	1.5	0.61	U
	Styrene	0.26	0.61	0.26	U
	Tetrachloroethane[1,1,2,2-]	0.23	0.61	0.23	U
	Tetrachloroethene	59	0.61	0.088	
	Toluene	0.21	0.61	0.21	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	49	0.61	0.094	
	Trichlorobenzene[1,2,4-]	0.73	1.5	0.73	U
	Trichloroethane[1,1,1-]	0.21	0.61	0.21	U
	Trichloroethane[1,1,2-]	0.24	0.61	0.24	U
	Trichloroethene	33	0.61	0.091	
	Trichlorofluoromethane	9	0.61	0.19	
	Trimethylbenzene[1,2,4-]	0.24	0.61	0.24	U
	Trimethylbenzene[1,3,5-]	0.18	0.61	0.18	U
	Vinyl acetate	7	15	7	U
	Vinyl Chloride	0.12	0.61	0.12	U
	Xylene[1,2-]	0.22	0.61	0.22	U
	Xylene[1,3-]+Xylene[1,4-]	0.21	1.5	0.21	U
	Total Organics[f]	178.98	NA	NA	

Refer to footnotes at the end of tables.

Table 3-12
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 400 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 400ft	Acetone	9.3	15	7.9	J
	Benzene	0.52	0.61	0.22	J
	Benzyl Chloride	0.36	0.61	0.36	U
	Bromodichloromethane	0.28	0.61	0.28	U
	Bromoform	0.26	0.61	0.26	U
	Bromomethane	0.19	0.61	0.19	U
	Butanone[2-]	2	1.5	0.61	
	Carbon Disulfide	0.56	1.5	0.36	J
	Carbon Tetrachloride	0.096	0.61	0.073	J
	Chlorobenzene	0.12	0.61	0.12	U
	Chlorodibromomethane	0.22	0.61	0.22	U
	Chloroethane	0.64	1.5	0.64	U
	Chloroform	0.16	0.61	0.16	J
	Chloromethane	0.76	1.5	0.76	U
	Dibromoethane[1,2-]	0.21	0.61	0.21	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.21	0.61	0.21	U
	Dichlorobenzene[1,2-]	0.22	0.61	0.22	U
	Dichlorobenzene[1,3-]	0.25	0.61	0.25	U
	Dichlorobenzene[1,4-]	0.2	0.61	0.2	U
	Dichlorodifluoromethane	20	1.5	0.61	
	Dichloroethane[1,1-]	0.12	0.61	0.079	J
	Dichloroethane[1,2-]	0.19	0.61	0.19	U
	Dichloroethene[1,1-]	3.8	0.61	0.1	
	Dichloroethene[cis-1,2-]	0.11	0.61	0.11	U
	Dichloroethene[trans-1,2-]	0.22	0.61	0.22	U
	Dichloropropane[1,2-]	0.36	0.61	0.36	U
	Dichloropropene[cis-1,3-]	0.3	0.61	0.3	U
	Dichloropropene[trans-1,3-]	0.36	0.61	0.36	U
	Ethylbenzene	0.22	0.61	0.22	U
	Ethyltoluene[4-]	0.21	0.61	0.21	U
	Hexachlorobutadiene	0.25	0.61	0.25	U

Refer to footnotes at the end of tables.

Table 3-12
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV04 sampled at a depth of approximately 400 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV04 400ft	Hexanone[2-]	1.3	1.5	1.3	U
	Methyl-2-pentanone[4-]	1.1	1.5	1.1	U
	Methylene Chloride	0.61	1.5	0.61	U
	Styrene	0.26	0.61	0.26	U
	Tetrachloroethane[1,1,2,2-]	0.23	0.61	0.23	U
	Tetrachloroethene	66	0.61	0.088	
	Toluene	0.21	0.61	0.21	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	46	0.61	0.094	
	Trichlorobenzene[1,2,4-]	0.73	1.5	0.73	U
	Trichloroethane[1,1,1-]	0.21	0.61	0.21	U
	Trichloroethane[1,1,2-]	0.24	0.61	0.24	U
	Trichloroethene	29	0.61	0.091	
	Trichlorofluoromethane	7.5	0.61	0.19	
	Trimethylbenzene[1,2,4-]	0.24	0.61	0.24	U
	Trimethylbenzene[1,3,5-]	0.18	0.61	0.18	U
	Vinyl acetate	7	15	7	U
	Vinyl Chloride	0.12	0.61	0.12	U
	Xylene[1,2-]	0.22	0.61	0.22	U
	Xylene[1,3-]+Xylene[1,4-]	0.21	1.5	0.21	U
	Total Organics[f]	185.06	NA	NA	

Refer to footnotes at the end of tables.

Table 3-13
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 50ft	Acetone	10	20	10	U
	Benzene	0.28	0.8	0.28	U
	Benzyl Chloride	0.48	0.8	0.48	U
	Bromodichloromethane	0.38	0.8	0.38	U
	Bromoform	0.34	0.8	0.34	U
	Bromomethane	0.25	0.8	0.25	U
	Butanone[2-]	0.8	2	0.8	U
	Carbon Disulfide	0.48	2	0.48	U
	Carbon Tetrachloride	0.24	0.8	0.096	J
	Chlorobenzene	0.16	0.8	0.16	U
	Chlorodibromomethane	0.28	0.8	0.28	U
	Chloroethane	0.84	2	0.84	U
	Chloroform	1	0.8	0.21	
	Chloromethane	1	2	1	U
	Dibromoethane[1,2-]	0.28	0.8	0.28	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.27	0.8	0.27	U
	Dichlorobenzene[1,2-]	0.28	0.8	0.28	U
	Dichlorobenzene[1,3-]	0.33	0.8	0.33	U
	Dichlorobenzene[1,4-]	0.26	0.8	0.26	U
	Dichlorodifluoromethane	41	2	0.8	
	Dichloroethane[1,1-]	1.1	0.8	0.1	
	Dichloroethane[1,2-]	0.25	0.8	0.25	U
	Dichloroethene[1,1-]	6.8	0.8	0.14	
	Dichloroethene[cis-1,2-]	0.39	0.8	0.15	J
	Dichloroethene[trans-1,2-]	0.3	0.8	0.3	U
	Dichloropropane[1,2-]	0.48	0.8	0.48	U
	Dichloropropene[cis-1,3-]	0.39	0.8	0.39	U
	Dichloropropene[trans-1,3-]	0.48	0.8	0.48	U
	Ethylbenzene	0.29	0.8	0.29	U
	Ethyltoluene[4-]	0.28	0.8	0.28	U
	Hexachlorobutadiene	0.33	0.8	0.33	U

Refer to footnotes at the end of tables.

Table 3-13
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 50ft	Hexanone[2-]	1.7	2	1.7	U
	Methyl-2-pentanone[4-]	1.4	2	1.4	U
	Methylene Chloride	0.8	2	0.8	U
	Styrene	0.34	0.8	0.34	U
	Tetrachloroethane[1,1,2,2-]	0.3	0.8	0.3	U
	Tetrachloroethene	39	0.8	0.12	
	Toluene	0.28	0.8	0.28	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	33	0.8	0.12	
	Trichlorobenzene[1,2,4-]	0.96	2	0.96	U
	Trichloroethane[1,1,1-]	10	0.8	0.27	
	Trichloroethane[1,1,2-]	0.31	0.8	0.31	U
	Trichloroethene	47	0.8	0.12	
	Trichlorofluoromethane	90	0.8	0.25	
	Trimethylbenzene[1,2,4-]	0.32	0.8	0.32	U
	Trimethylbenzene[1,3,5-]	0.23	0.8	0.23	U
	Vinyl acetate	9.2	20	9.2	U
	Vinyl Chloride	0.16	0.8	0.16	U
	Xylene[1,2-]	0.28	0.8	0.28	U
	Xylene[1,3-]+Xylene[1,4-]	0.28	2	0.28	U
	Total Organics[f]	269.53	NA	NA	

Refer to footnotes at the end of tables.

Table 3-13
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 50ft (Duplicate)	Acetone	7.9	15	7.9	U
	Benzene	0.22	0.61	0.22	U
	Benzyl Chloride	0.36	0.61	0.36	U
	Bromodichloromethane	0.28	0.61	0.28	U
	Bromoform	0.26	0.61	0.26	U
	Bromomethane	0.19	0.61	0.19	U
	Butanone[2-]	0.61	1.5	0.61	U
	Carbon Disulfide	0.36	1.5	0.36	U
	Carbon Tetrachloride	0.28	0.61	0.073	J
	Chlorobenzene	0.12	0.61	0.12	U
	Chlorodibromomethane	0.22	0.61	0.22	U
	Chloroethane	0.64	1.5	0.64	U
	Chloroform	1.1	0.61	0.16	
	Chloromethane	0.76	1.5	0.76	U
	Dibromoethane[1,2-]	0.21	0.61	0.21	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.21	0.61	0.21	U
	Dichlorobenzene[1,2-]	0.22	0.61	0.22	U
	Dichlorobenzene[1,3-]	0.25	0.61	0.25	U
	Dichlorobenzene[1,4-]	0.2	0.61	0.2	U
	Dichlorodifluoromethane	43	1.5	0.61	
	Dichloroethane[1,1-]	1.1	0.61	0.079	
	Dichloroethane[1,2-]	0.19	0.61	0.19	U
	Dichloroethene[1,1-]	6.9	0.61	0.1	
	Dichloroethene[cis-1,2-]	0.28	0.61	0.11	J
	Dichloroethene[trans-1,2-]	0.22	0.61	0.22	U
	Dichloropropane[1,2-]	0.36	0.61	0.36	U
	Dichloropropene[cis-1,3-]	0.3	0.61	0.3	U
	Dichloropropene[trans-1,3-]	0.36	0.61	0.36	U
	Ethylbenzene	0.22	0.61	0.22	U
	Ethyltoluene[4-]	0.21	0.61	0.21	U
	Hexachlorobutadiene	0.25	0.61	0.25	U

Refer to footnotes at the end of tables.

Table 3-13
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 50 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 50ft (Duplicate)	Hexanone[2-]	1.3	1.5	1.3	U
	Methyl-2-pentanone[4-]	1.1	1.5	1.1	U
	Methylene Chloride	0.61	1.5	0.61	U
	Styrene	0.26	0.61	0.26	U
	Tetrachloroethane[1,1,2,2-]	0.23	0.61	0.23	U
	Tetrachloroethene	42	0.61	0.088	
	Toluene	0.21	0.61	0.21	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	34	0.61	0.094	
	Trichlorobenzene[1,2,4-]	0.73	1.5	0.73	U
	Trichloroethane[1,1,1-]	11	0.61	0.21	
	Trichloroethane[1,1,2-]	0.24	0.61	0.24	U
	Trichloroethene	51	0.61	0.091	
	Trichlorofluoromethane	90	0.61	0.19	
	Trimethylbenzene[1,2,4-]	0.24	0.61	0.24	U
	Trimethylbenzene[1,3,5-]	0.18	0.61	0.18	U
	Vinyl acetate	7	15	7	U
	Vinyl Chloride	0.12	0.61	0.12	U
	Xylene[1,2-]	0.22	0.61	0.22	U
	Xylene[1,3-]+Xylene[1,4-]	0.21	1.5	0.21	U
	Total Organics[f]	280.66	NA	NA	

Refer to footnotes at the end of tables.

Table 3-14
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 100 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 100ft	Acetone	10	20	10	U
	Benzene	0.28	0.8	0.28	U
	Benzyl Chloride	0.48	0.8	0.48	U
	Bromodichloromethane	0.38	0.8	0.38	U
	Bromoform	0.34	0.8	0.34	U
	Bromomethane	0.25	0.8	0.25	U
	Butanone[2-]	0.8	2	0.8	U
	Carbon Disulfide	0.48	2	0.48	U
	Carbon Tetrachloride	0.49	0.8	0.096	J
	Chlorobenzene	0.16	0.8	0.16	U
	Chlorodibromomethane	0.28	0.8	0.28	U
	Chloroethane	0.84	2	0.84	U
	Chloroform	1.6	0.8	0.21	
	Chloromethane	1	2	1	U
	Dibromoethane[1,2-]	0.28	0.8	0.28	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.27	0.8	0.27	U
	Dichlorobenzene[1,2-]	0.28	0.8	0.28	U
	Dichlorobenzene[1,3-]	0.33	0.8	0.33	U
	Dichlorobenzene[1,4-]	0.26	0.8	0.26	U
	Dichlorodifluoromethane	65	2	0.8	
	Dichloroethane[1,1-]	2.3	0.8	0.1	
	Dichloroethane[1,2-]	0.25	0.8	0.25	U
	Dichloroethene[1,1-]	15	0.8	0.14	
	Dichloroethene[cis-1,2-]	0.87	0.8	0.15	
	Dichloroethene[trans-1,2-]	0.3	0.8	0.3	U
	Dichloropropane[1,2-]	0.48	0.8	0.48	U
	Dichloropropene[cis-1,3-]	0.39	0.8	0.39	U
	Dichloropropene[trans-1,3-]	0.48	0.8	0.48	U
	Ethylbenzene	0.29	0.8	0.29	U
	Ethyltoluene[4-]	0.28	0.8	0.28	U
	Hexachlorobutadiene	0.33	0.8	0.33	U

Refer to footnotes at the end of tables.

Table 3-14
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 100 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 100ft	Hexanone[2-]	1.7	2	1.7	U
	Methyl-2-pentanone[4-]	1.4	2	1.4	U
	Methylene Chloride	0.94	2	0.8	J
	Styrene	0.34	0.8	0.34	U
	Tetrachloroethane[1,1,2,2-]	0.3	0.8	0.3	U
	Tetrachloroethene	70	0.8	0.12	
	Toluene	0.28	0.8	0.28	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	66	0.8	0.12	
	Trichlorobenzene[1,2,4-]	0.96	2	0.96	U
	Trichloroethane[1,1,1-]	11	0.8	0.27	
	Trichloroethane[1,1,2-]	0.31	0.8	0.31	U
	Trichloroethene	97	0.8	0.12	
	Trichlorofluoromethane	120	0.8	0.25	
	Trimethylbenzene[1,2,4-]	0.32	0.8	0.32	U
	Trimethylbenzene[1,3,5-]	0.23	0.8	0.23	U
	Vinyl acetate	9.2	20	9.2	U
	Vinyl Chloride	0.16	0.8	0.16	U
	Xylene[1,2-]	0.28	0.8	0.28	U
	Xylene[1,3-]+Xylene[1,4-]	0.28	2	0.28	U
	Total Organics[f]	450.2	NA	NA	

Refer to footnotes at the end of tables.

Table 3-15
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 200 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 200ft	Acetone	33	63	33	U
	Benzene	0.89	2.5	0.89	U
	Benzyl Chloride	1.5	2.5	1.5	U
	Bromodichloromethane	1.2	2.5	1.2	U
	Bromoform	1.1	2.5	1.1	U
	Bromomethane	0.78	2.5	0.78	U
	Butanone[2-]	2.5	6.3	2.5	U
	Carbon Disulfide	1.5	6.3	1.5	U
	Carbon Tetrachloride	0.61	2.5	0.3	J
	Chlorobenzene	0.5	2.5	0.5	U
	Chlorodibromomethane	0.89	2.5	0.89	U
	Chloroethane	2.6	6.3	2.6	U
	Chloroform	1.2	2.5	0.65	J
	Chloromethane	3.1	6.3	3.1	U
	Dibromoethane[1,2-]	0.86	2.5	0.86	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.85	2.5	0.85	U
	Dichlorobenzene[1,2-]	0.89	2.5	0.89	U
	Dichlorobenzene[1,3-]	1	2.5	1	U
	Dichlorobenzene[1,4-]	0.81	2.5	0.81	U
	Dichlorodifluoromethane	56	6.3	2.5	
	Dichloroethane[1,1-]	2.8	2.5	0.33	
	Dichloroethane[1,2-]	0.79	2.5	0.79	U
	Dichloroethene[1,1-]	21	2.5	0.43	
	Dichloroethene[cis-1,2-]	0.86	2.5	0.46	J
	Dichloroethene[trans-1,2-]	0.93	2.5	0.93	U
	Dichloropropane[1,2-]	1.5	2.5	1.5	U
	Dichloropropene[cis-1,3-]	1.2	2.5	1.2	U
	Dichloropropene[trans-1,3-]	1.5	2.5	1.5	U
	Ethylbenzene	0.91	2.5	0.91	U
	Ethyltoluene[4-]	0.86	2.5	0.86	U
	Hexachlorobutadiene	1	2.5	1	U

Refer to footnotes at the end of tables.

Table 3-15
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 200 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 200ft	Hexanone[2-]	5.3	6.3	5.3	U
	Methyl-2-pentanone[4-]	4.5	6.3	4.5	U
	Methylene Chloride	2.7	6.3	2.5	J
	Styrene	1.1	2.5	1.1	U
	Tetrachloroethane[1,1,2,2-]	0.95	2.5	0.95	U
	Tetrachloroethene	80	2.5	0.36	
	Toluene	0.86	2.5	0.86	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	97	2.5	0.39	
	Trichlorobenzene[1,2,4-]	3	6.3	3	U
	Trichloroethane[1,1,1-]	2.2	2.5	0.85	J
	Trichloroethane[1,1,2-]	0.98	2.5	0.98	U
	Trichloroethene	130	2.5	0.38	
	Trichlorofluoromethane	65	2.5	0.78	
	Trimethylbenzene[1,2,4-]	1	2.5	1	U
	Trimethylbenzene[1,3,5-]	0.73	2.5	0.73	U
	Vinyl acetate	29	63	29	U
	Vinyl Chloride	0.51	2.5	0.51	U
	Xylene[1,2-]	0.89	2.5	0.89	U
	Xylene[1,3-]+Xylene[1,4-]	0.88	6.3	0.88	U
	Total Organics[f]	459.37	NA	NA	

Refer to footnotes at the end of tables.

Table 3-16
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 300ft	Acetone	13	25	13	U
	Benzene	0.36	1	0.36	U
	Benzyl Chloride	0.6	1	0.6	U
	Bromodichloromethane	0.47	1	0.47	U
	Bromoform	0.43	1	0.43	U
	Bromomethane	0.31	1	0.31	U
	Butanone[2-]	1	2.5	1	U
	Carbon Disulfide	0.6	2.5	0.6	U
	Carbon Tetrachloride	0.66	1	0.12	J
	Chlorobenzene	0.2	1	0.2	U
	Chlorodibromomethane	0.36	1	0.36	U
	Chloroethane	1.1	2.5	1.1	U
	Chloroform	0.32	1	0.26	J
	Chloromethane	1.3	2.5	1.3	U
	Dibromoethane[1,2-]	0.35	1	0.35	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.34	1	0.34	U
	Dichlorobenzene[1,2-]	0.36	1	0.36	U
	Dichlorobenzene[1,3-]	0.41	1	0.41	U
	Dichlorobenzene[1,4-]	0.33	1	0.33	U
	Dichlorodifluoromethane	31	2.5	1	
	Dichloroethane[1,1-]	0.61	1	0.13	J
	Dichloroethane[1,2-]	0.32	1	0.32	U
	Dichloroethene[1,1-]	14	1	0.17	
	Dichloroethene[cis-1,2-]	0.19	1	0.19	U
	Dichloroethene[trans-1,2-]	0.37	1	0.37	U
	Dichloropropane[1,2-]	0.6	1	0.6	U
	Dichloropropene[cis-1,3-]	0.49	1	0.49	U
	Dichloropropene[trans-1,3-]	0.6	1	0.6	U
	Ethylbenzene	0.37	1	0.37	U
	Ethyltoluene[4-]	0.35	1	0.35	U
	Hexachlorobutadiene	0.41	1	0.41	U

Refer to footnotes at the end of tables.

Table 3-16
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 300 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 300ft	Hexanone[2-]	2.1	2.5	2.1	U
	Methyl-2-pentanone[4-]	1.8	2.5	1.8	U
	Methylene Chloride	1	2.5	1	U
	Styrene	0.43	1	0.43	U
	Tetrachloroethane[1,1,2,2-]	0.38	1	0.38	U
	Tetrachloroethene	63	1	0.15	
	Toluene	0.35	1	0.35	U
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	76	1	0.16	
	Trichlorobenzene[1,2,4-]	1.2	2.5	1.2	U
	Trichloroethane[1,1,1-]	0.34	1	0.34	U
	Trichloroethane[1,1,2-]	0.39	1	0.39	U
	Trichloroethene	56	1	0.15	
	Trichlorofluoromethane	19	1	0.31	
	Trimethylbenzene[1,2,4-]	0.4	1	0.4	U
	Trimethylbenzene[1,3,5-]	0.29	1	0.29	U
	Vinyl acetate	12	25	12	U
	Vinyl Chloride	0.21	1	0.21	U
	Xylene[1,2-]	0.36	1	0.36	U
	Xylene[1,3-]+Xylene[1,4-]	0.35	2.5	0.35	U
	Total Organics[f]	260.59	NA	NA	

Refer to footnotes at the end of tables.

Table 3-17
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 400 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 400ft	Acetone	11	15	7.9	J
	Benzene	0.48	0.61	0.22	J
	Benzyl Chloride	0.36	0.61	0.36	U
	Bromodichloromethane	0.28	0.61	0.28	U
	Bromoform	0.26	0.61	0.26	U
	Bromomethane	0.19	0.61	0.19	U
	Butanone[2-]	1.3	1.5	0.61	J
	Carbon Disulfide	2.9	1.5	0.36	
	Carbon Tetrachloride	0.21	0.61	0.073	J
	Chlorobenzene	0.12	0.61	0.12	U
	Chlorodibromomethane	0.22	0.61	0.22	U
	Chloroethane	0.64	1.5	0.64	U
	Chloroform	0.21	0.61	0.16	J
	Chloromethane	0.76	1.5	0.76	U
	Dibromoethane[1,2-]	0.21	0.61	0.21	U
	Dichloro-1,1,2,2-tetrafluoroethane[1,2-]	0.21	0.61	0.21	U
	Dichlorobenzene[1,2-]	0.22	0.61	0.22	U
	Dichlorobenzene[1,3-]	0.25	0.61	0.25	U
	Dichlorobenzene[1,4-]	0.2	0.61	0.2	U
	Dichlorodifluoromethane	17	1.5	0.61	
	Dichloroethane[1,1-]	0.53	0.61	0.079	J
	Dichloroethane[1,2-]	0.19	0.61	0.19	U
	Dichloroethene[1,1-]	4.7	0.61	0.1	
	Dichloroethene[cis-1,2-]	0.2	0.61	0.11	J
	Dichloroethene[trans-1,2-]	0.22	0.61	0.22	U
	Dichloropropane[1,2-]	0.36	0.61	0.36	U
	Dichloropropene[cis-1,3-]	0.3	0.61	0.3	U
	Dichloropropene[trans-1,3-]	0.36	0.61	0.36	U
	Ethylbenzene	1.2	0.61	0.22	
	Ethyltoluene[4-]	0.26	0.61	0.21	J
	Hexachlorobutadiene	0.25	0.61	0.25	U

Refer to footnotes at the end of tables.

Table 3-17
Soil Vapor Monitoring Results: Volatile Organic Compounds (EPA Method TO-15[a])
Sandia National Laboratories/New Mexico Mixed Waste Landfill
New Mexico Environment Department DOE Oversight Bureau
MWL-SV05 sampled at a depth of approximately 400 feet below ground surface
LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.
May 2019

Monitoring Well/ Sample Depth[b]	Analyte	Result (ppbv)	Reporting Limit[c] (ppbv)	MDL[d] (ppbv)	Laboratory Qualifier[e]
MWL-SV05 400ft	Hexanone[2-]	1.3	1.5	1.3	U
	Methyl-2-pentanone[4-]	1.1	1.5	1.1	U
	Methylene Chloride	0.61	1.5	0.61	U
	Styrene	0.26	0.61	0.26	U
	Tetrachloroethane[1,1,2,2-]	0.23	0.61	0.23	U
	Tetrachloroethene	52	0.61	0.088	
	Toluene	4.3	0.61	0.21	
	Trichloro-1,2,2-trifluoroethane[1,1,2-]	32	0.61	0.094	
	Trichlorobenzene[1,2,4-]	0.73	1.5	0.73	U
	Trichloroethane[1,1,1-]	0.46	0.61	0.21	J
	Trichloroethane[1,1,2-]	0.24	0.61	0.24	U
	Trichloroethene	37	0.61	0.091	
	Trichlorofluoromethane	13	0.61	0.19	
	Trimethylbenzene[1,2,4-]	0.72	0.61	0.24	
	Trimethylbenzene[1,3,5-]	0.44	0.61	0.18	J
	Vinyl acetate	7	15	7	U
	Vinyl Chloride	0.12	0.61	0.12	U
	Xylene[1,2-]	0.95	0.61	0.22	
	Xylene[1,3-]+Xylene[1,4-]	4.5	1.5	0.21	
	Total Organics[f]	185.36	NA	NA	

Refer to footnotes at the end of tables.

Footnotes for Mixed Waste Landfill Soil Vapor Monitoring Analytical Results Tables

Sandia National Laboratories/New Mexico

New Mexico Environment Department DOE Oversight Bureau

May 2019

DOE = Department of Energy

EPA = U.S. Environmental Protection Agency.

ft = Feet. Measured below ground surface.

LTMMP = Long-term Monitoring and Maintenance Plan

ppbv = Parts per billion, by volume basis

VOC = Volatile organic compound.

NA = Not applicable

[a]U.S. Environmental Protection Agency, 1999, "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, Compendium Method TO-15" Center for Environmental Research Information, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio.

[b]Monitoring Well/Sample Depth

Mixed Waste Landfill soil vapor monitoring well ID, followed by the sample depth, below ground surface (bgs). Monitoring wells MWL-SV03, MWL-SV04 and MWL-SV05 are multi-port monitoring wells

[c]Reporting Limit (RL)

RL = Reporting limit. is the lowest that can be reliably measured by a laboratory with defined limits of precision and accuracy.

[d]MDL

MDL = Method detection limit. The minimum concentration of an analyte that can be measured and reported with 99% confidence that the analyte is greater than zero.

[e]Laboratory Qualifier

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U = Indicates the analyte was analyzed for but not detected.

* = LCS or LCSD is outside acceptance limits.

[f]Total Organics. Sum of organic analytes detected at or above the MDL.

LTMMP trigger levels are 20,000 ppbv for PCE and TCE and 25,000 ppbv for total VOCs in samples collected from 400ft ports.