11-18-2014

September 2014 Soil-Vapor Monitoring Results, Solid Waste Management Unit 76, Mixed Waste Landfill, Sandia National Laboratories

U.S. Department of Energy

SOLID WASTE MANAGEMENT UNIT 76, MIXED WASTE LANDFILL
SEPTEMBER 2014 SOIL-VAPOR MONITORING RESULTS

Attached are the monitoring results for the first soil-vapor monitoring event conducted under the Mixed Waste Landfill Long-Term Monitoring and Maintenance Plan (LTMMP). These results will be included in the Mixed Waste Landfill Annual Long-Term Monitoring and Maintenance Report that will be submitted to the New Mexico Environment Department on or before June 30, 2015.

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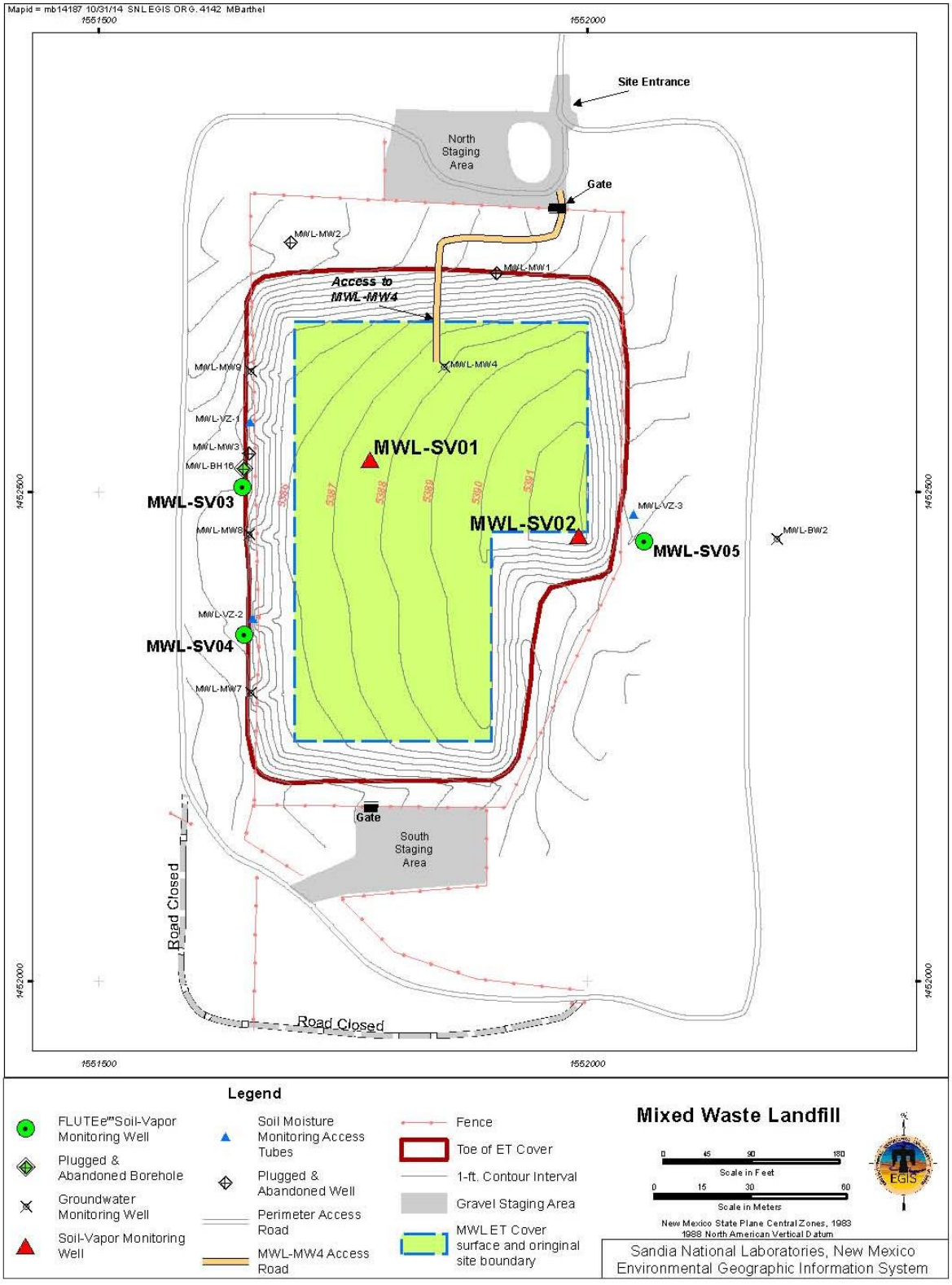

Figure 1
Soil-Vapor Monitoring Well Location Map
Solid Waste Management Unit 76, Mixed Waste Landfill

Table 1
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV01-42.5	Acetone	0.013	0.89	25	B, J	25U
11-Sep-14	Bromodichloromethane	0.00040	0.33	1.5	J	--
	2-Butanone	0.0027	0.99	4.0	J	--
	Carbon Disulfide	0.0031	0.39	4.0	J	4U
	Carbon Tetrachloride	0.00035	0.32	4.0	J	--
	Chloroform	0.013	0.47	1.5	--	--
	Chloromethane	0.0012	0.98	4.0	J	--
	Dichlorodifluoromethane	0.100	0.72	2.0	--	--
	1,1-Dichloroethane	0.0028	0.36	1.5	--	--
	1,1-Dichloroethene	0.0080	0.64	4.0	--	--
	cis-1,2-Dichloroethene	0.0015	0.44	2.0	J	--
	Tetrachloroethene	0.560	0.77	6.0	--	--
	Toluene	0.0011	0.25	2.0	J	--
	Trichloroethene	0.110	0.52	2.0	--	--
	Trichlorofluoromethane	0.190	0.98	2.0	--	--
	1,1,1-Trichloroethane	0.055	0.32	1.5	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.094	0.81	2.0	--	--
	Total Organics[d]	1.14010	NA	NA	NA	NA
MWL-SV02-41.5	Acetone	0.0083	0.38	11	B, J	11U
11-Sep-14	Benzene	0.00017	0.17	0.84	J	0.84U
	2-Butanone	0.0041	0.42	1.7	--	--
	Carbon Disulfide	0.0019	0.16	1.7	--	--
	Chloroform	0.0031	0.20	0.63	--	--
	Chloromethane	0.00052	0.42	1.7	J	--
	Dichlorodifluoromethane	0.094	0.31	0.84	--	--
	1,1-Dichloroethane	0.0026	0.15	0.63	--	--
	1,1-Dichloroethene	0.011	0.27	1.7	--	--
	cis-1,2-Dichloroethene	0.00096	0.19	0.84	--	--
	2-Hexanone	0.00043	0.18	0.84	J	--
	Methylene Chloride	0.00061	0.15	0.84	J	--
	Tetrachloroethene	0.086	0.11	0.84	--	--
	Trichloroethene	0.075	0.22	0.84	--	--
	Trichlorofluoromethane	0.300	1.7	3.4	--	--
	1,1,1-Trichloroethane	0.082	0.14	0.63	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.056	0.34	0.84	--	--
	Total Organics[d]	0.71822	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV03-50	Acetone	0.0072	0.24	6.8	B	--
11-Sep-14	Benzene	0.0060	0.11	0.54	--	--
	2-Butanone	0.0021	0.27	1.1	--	--
	Carbon Disulfide	0.00020	0.11	1.1	J	1.1U
	Carbon Tetrachloride	0.00022	0.086	1.1	J	--
	Chloroform	0.0018	0.13	0.41	--	--
	Dichlorodifluoromethane	0.022	0.20	0.54	--	--
	1,1-Dichloroethane	0.0024	0.097	0.41	--	--
	1,1-Dichloroethene	0.0085	0.17	1.1	--	--
	cis-1,2-Dichloroethene	0.0016	0.12	0.54	--	--
	2-Hexanone	0.00019	0.12	0.54	J	--
	Methylene Chloride	0.00046	0.097	0.54	J	--
	Tetrachloroethene	0.140	0.15	1.2	--	--
	Toluene	0.0028	0.069	0.54	--	2.8U
	Trichloroethene	0.100	0.31	1.2	--	--
	Trichlorofluoromethane	0.022	0.26	0.54	--	--
	1,1,1-Trichloroethane	0.0061	0.088	0.41	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.049	0.22	0.54	--	--
	Total Organics[d]	0.36957	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV03-100	Acetone	0.011	0.38	11	B	11U
11-Sep-14	Benzene	0.00081	0.17	0.85	J	0.85U
	2-Butanone	0.0021	0.42	1.7	--	--
	Carbon Disulfide	0.00086	0.17	1.7	J	1.7U
	Carbon Tetrachloride	0.00037	0.14	1.7	J	--
	Chloroform	0.0023	0.20	0.64	--	--
	Chloromethane	0.00052	0.42	1.7	J	--
	Dichlorodifluoromethane	0.040	0.31	0.85	--	--
	1,1-Dichloroethane	0.0051	0.15	0.64	--	--
	1,1-Dichloroethene	0.019	0.27	1.7	--	--
	cis-1,2-Dichloroethene	0.0034	0.19	0.85	--	--
	Methylene Chloride	0.0019	0.15	0.85	--	--
	Tetrachloroethene	0.210	0.22	1.7	--	--
	Toluene	0.0030	0.11	0.85	--	3.0U
	Trichloroethene	0.190	0.45	1.7	--	--
	Trichlorofluoromethane	0.030	0.42	0.85	--	--
	1,1,1-Trichloroethane	0.0066	0.14	0.64	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.100	0.35	0.85	--	--
	m,p-Xylene	0.00022	0.21	1.7	J	--
	Total Organics[d]	0.61151	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV03-200	Acetone	0.0047	0.53	15	B, J	15U
11-Sep-14	Benzene	0.00068	0.23	1.2	J	1.2U
	2-Butanone	0.0013	0.59	2.4	J	--
	Carbon Disulfide	0.00061	0.23	2.4	J	2.4U
	Carbon Tetrachloride	0.00056	0.19	2.4	J	--
	Chloroform	0.0020	0.28	0.89	--	--
	Dichlorodifluoromethane	0.057	0.43	1.2	--	--
	1,1-Dichloroethane	0.0076	0.21	0.89	--	--
	1,1-Dichloroethene	0.034	0.38	2.4	--	--
	cis-1,2-Dichloroethene	0.0050	0.26	1.2	--	--
	Methylene Chloride	0.0032	0.21	1.2	--	--
	Tetrachloroethene	0.300	0.30	2.4	--	--
	Toluene	0.0036	0.15	1.2	--	3.6U
	Trichloroethene	0.300	0.62	2.4	--	--
	Trichlorofluoromethane	0.026	0.58	1.2	--	--
	1,1,1-Trichloroethane	0.0024	0.19	0.89	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.180	0.96	2.4	--	--
	Total Organics[d]	0.91906	NA	NA	NA	NA
MWL-SV03-300	Acetone	0.014	0.90	25	B, J	25U
11-Sep-14	Benzene	0.0012	0.40	2.0	J	2.0U
	2-Butanone	0.0035	1.0	4.0	J	--
	Carbon Disulfide	0.023	0.39	4.0	--	--
	Chloroform	0.00081	0.48	1.5	J	--
	Dichlorodifluoromethane	0.027	0.73	2.0	--	--
	1,1-Dichloroethane	0.0020	0.36	1.5	--	--
	1,1-Dichloroethene	0.015	0.65	4.0	--	--
	cis-1,2-Dichloroethene	0.0020	0.45	2.0	--	--
	Methylene Chloride	0.0011	0.38	2.0	J	--
	Tetrachloroethene	0.290	0.26	2.0	--	--
	Toluene	0.0060	0.26	2.0	--	--
	Trichloroethene	0.190	0.53	2.0	--	--
	Trichlorofluoromethane	0.0091	0.99	2.0	--	--
	1,1,1-Trichloroethane	0.00066	0.33	1.5	J	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.079	0.82	2.0	--	--
	Total Organics[d]	0.64917	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV03-400	Acetone	0.013	0.90	25	B, J	25U
11-Sep-14	Benzene	0.0015	0.40	2.0	J	2.0U
	2-Butanone	0.0044	1.0	4.0	--	--
	Carbon Disulfide	0.026	0.39	4.0	--	--
	Carbon Tetrachloride	0.00033	0.32	4.0	J	--
	Chloroform	0.0012	0.48	1.5	J	--
	Chloromethane	0.0019	0.99	4.0	J	--
	Dichlorodifluoromethane	0.026	0.73	2.0	--	--
	1,1-Dichloroethane	0.0029	0.36	1.5	--	--
	1,1-Dichloroethene	0.019	0.65	4.0	--	--
	cis-1,2-Dichloroethene	0.0028	0.45	2.0	--	--
	Tetrachloroethene	0.390	0.51	4.0	--	--
	Toluene	0.022	0.26	2.0	--	--
	Trichloroethene	0.290	0.53	2.0	--	--
	Trichlorofluoromethane	0.0096	0.99	2.0	--	--
	1,1,1-Trichloroethane	0.0013	0.33	1.5	J	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.075	0.82	2.0	--	--
	o-Xylene	0.00027	0.27	2.0	J	--
	Total Organics[d]	0.87270	NA	NA	NA	NA
MWL-SV04-50	Acetone	0.0069	0.44	12	B, J	12U
11-Sep-14	Benzene	0.0017	0.20	1.0	--	1.7U
	2-Butanone	0.00064	0.50	2.0	J	--
	Carbon Disulfide	0.00024	0.19	2.0	J	--
	Chloroform	0.0018	0.24	0.75	--	--
	Dichlorodifluoromethane	0.021	0.36	1.0	--	--
	1,1-Dichloroethane	0.0013	0.18	0.75	--	--
	1,1-Dichloroethene	0.0064	0.32	2.0	--	--
	cis-1,2-Dichloroethene	0.00051	0.22	1.0	J	--
	Tetrachloroethene	0.072	0.13	1.0	--	--
	Toluene	0.0013	0.13	1.0	--	--
	Trichloroethene	0.061	0.26	1.0	--	--
	Trichlorofluoromethane	0.023	0.49	1.0	--	--
	1,1,1-Trichloroethane	0.0063	0.16	0.75	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.064	0.41	1.0	--	--
	Total Organics[d]	0.25949	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV04-100	Acetone	0.0033	0.24	6.8	B, J	6.8U
11-Sep-14	Benzene	0.00094	0.11	0.54	--	0.94U
	2-Butanone	0.00050	0.27	1.1	J	--
	Carbon Disulfide	0.00014	0.11	1.1	J	--
	Carbon Tetrachloride	0.00038	0.086	1.1	J	--
	Chloroform	0.0018	0.13	0.41	--	--
	Chloromethane	0.00029	0.27	1.1	J	--
	Dichlorodifluoromethane	0.035	0.20	0.54	--	--
	1,1-Dichloroethane	0.0029	0.097	0.41	--	--
	1,1-Dichloroethene	0.016	0.17	1.1	--	--
	cis-1,2-Dichloroethene	0.0017	0.12	0.54	--	--
	Methylene Chloride	0.00045	0.097	0.54	J	--
	Tetrachloroethene	0.130	0.21	1.6	--	--
	Toluene	0.0019	0.069	0.54	--	--
	Trichloroethene	0.130	0.42	1.6	--	--
	Trichlorofluoromethane	0.029	0.26	0.54	--	--
	1,1,1-Trichloroethane	0.0050	0.088	0.41	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.100	0.66	1.6	--	--
	Total Organics[d]	0.45506	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV04-100 (Duplicate)	Acetone	0.011	0.44	12	B, J	12U
11-Sep-14	Benzene	0.00085	0.20	0.99	J	0.99U
	2-Butanone	0.0024	0.49	2.0	--	--
	Carbon Disulfide	0.00045	0.19	2.0	J	--
	Carbon Tetrachloride	0.00039	0.16	2.0	J	--
	Chloroform	0.0018	0.24	0.74	--	--
	Dichlorodifluoromethane	0.035	0.36	0.99	--	--
	1,1-Dichloroethane	0.0029	0.18	0.74	--	--
	1,1-Dichloroethene	0.016	0.32	2.0	--	--
	cis-1,2-Dichloroethene	0.0018	0.22	0.99	--	--
	Methylene Chloride	0.00047	0.18	0.99	J	--
	Tetrachloroethene	0.130	0.13	0.99	--	--
	Toluene	0.0021	0.13	0.99	--	--
	Trichloroethene	0.130	0.26	0.99	--	--
	Trichlorofluoromethane	0.031	0.49	0.99	--	--
	1,1,1-Trichloroethane	0.0050	0.16	0.74	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.097	0.40	0.99	--	--
	Total Organics[d]	0.45631	NA	NA	NA	NA
MWL-SV04-200	Acetone	0.0072	0.52	15	B, J	15U
11-Sep-14	Benzene	0.00060	0.23	1.2	J	1.2U
	2-Butanone	0.00081	0.58	2.3	J	--
	Carbon Disulfide	0.00058	0.23	2.3	J	--
	Carbon Tetrachloride	0.00062	0.19	2.3	J	--
	Chloroform	0.0014	0.28	0.87	--	--
	Dichlorodifluoromethane	0.051	0.42	1.2	--	--
	1,1-Dichloroethane	0.0049	0.21	0.87	--	--
	1,1-Dichloroethene	0.034	0.37	2.3	--	--
	cis-1,2-Dichloroethene	0.0031	0.26	1.2	--	--
	Methylene Chloride	0.0012	0.21	1.2	--	--
	Tetrachloroethene	0.180	0.30	2.3	--	--
	Toluene	0.0030	0.15	1.2	--	--
	Trichloroethene	0.210	0.61	2.3	--	--
	Trichlorofluoromethane	0.031	0.57	1.2	--	--
	1,1,1-Trichloroethane	0.0020	0.19	0.87	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.160	0.47	1.2	--	--
	Total Organics[d]	0.68361	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV04-300	Acetone	0.0045	0.25	7.2	B, J	7.2U
11-Sep-14	Benzene	0.00064	0.11	0.57	--	0.64U
	2-Butanone	0.00084	0.28	1.1	J	--
	Carbon Disulfide	0.00044	0.11	1.1	J	--
	Chloroform	0.00044	0.14	0.43	--	--
	Dichlorodifluoromethane	0.016	0.21	0.57	--	--
	1,1-Dichloroethane	0.00071	0.10	0.43	--	--
	1,1-Dichloroethene	0.0095	0.18	1.1	--	--
	cis-1,2-Dichloroethene	0.00071	0.13	0.57	--	--
	Methylene Chloride	0.00026	0.10	0.57	J	--
	Tetrachloroethene	0.110	0.15	1.1	--	--
	Toluene	0.0033	0.073	0.57	--	--
	Trichloroethene	0.076	0.15	0.57	--	--
	Trichlorofluoromethane	0.0079	0.28	0.57	--	--
	1,1,1-Trichloroethane	0.00046	0.093	0.43	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.039	0.23	0.57	--	--
	1,2,4-Trimethylbenzene	0.00038	0.23	1.1	J	--
	m,p-Xylene	0.00020	0.14	1.1	J	--
	o-Xylene	0.00010	0.077	0.57	J	--
	Total Organics[d]	0.26624	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV04-300 (Duplicate) 11-Sep-14	Acetone	0.0089	0.25	7.1	B	--
	Benzene	0.00055	0.11	0.57	J	0.57U
	2-Butanone	0.0019	0.28	1.1	--	--
	Carbon Disulfide	0.00071	0.11	1.1	J	--
	Carbon Tetrachloride	0.00019	0.091	1.1	J	--
	Chloroform	0.00019	0.13	0.43	J	--
	Dibromochloromethane	0.00017	0.11	0.57	J	--
	Dichlorodifluoromethane	0.015	0.21	0.57	--	--
	1,1-Dichloroethane	0.00016	0.10	0.43	J	--
	1,1-Dichloroethene	0.0052	0.18	1.1	--	--
	2-Hexanone	0.00019	0.12	0.57	J	--
	Tetrachloroethene	0.082	0.072	0.57	--	--
	Toluene	0.0034	0.072	0.57	--	--
	Trichloroethene	0.044	0.15	0.57	--	--
	Trichlorofluoromethane	0.0053	0.28	0.57	--	--
	1,1,1-Trichloroethane	0.00013	0.092	0.43	J	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.036	0.23	0.57	--	--
	1,2,4-Trimethylbenzene	0.00047	0.23	1.1	J	--
	1,3,5-Trimethylbenzene	0.00018	0.18	0.57	J	--
	m,p-Xylene	0.00018	0.14	1.1	J	--
	o-Xylene	0.00011	0.077	0.57	J	--
	Total Organics[d]	0.20438	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV04-400	Acetone	0.0087	0.29	8.2	B	8.7U
11-Sep-14	Benzene	0.0012	0.13	0.65	--	1.2U
	2-Butanone	0.0016	0.32	1.3	--	--
	Carbon Disulfide	0.0023	0.13	1.3	--	--
	Carbon Tetrachloride	0.00016	0.10	1.3	J	--
	Chloroform	0.00040	0.15	0.49	J	--
	Chloromethane	0.0012	0.32	1.3	J	--
	Dichlorodifluoromethane	0.011	0.24	0.65	--	--
	1,1-Dichloroethane	0.00068	0.12	0.49	--	--
	1,1-Dichloroethene	0.0073	0.21	1.3	--	--
	cis-1,2-Dichloroethene	0.00075	0.15	0.65	--	--
	Ethylbenzene	0.00012	0.10	0.65	J	--
	Methylene Chloride	0.00026	0.12	0.65	J	--
	Tetrachloroethene	0.110	0.17	1.3	--	--
	Toluene	0.0023	0.083	0.65	--	--
	Trichloroethene	0.075	0.17	0.65	--	--
	Trichlorofluoromethane	0.0060	0.32	0.65	--	--
	1,1,1-Trichloroethane	0.00039	0.11	0.49	J	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.030	0.27	0.65	--	--
	1,2,4-Trimethylbenzene	0.00042	0.26	1.3	J	--
	m,p-Xylene	0.00029	0.16	1.3	J	--
	o-Xylene	0.00014	0.088	0.65	J	--
	Total Organics[d]	0.25031	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV05-50	Acetone	0.012	0.24	6.8	B	--
11-Sep-14	Benzene	0.00068	0.11	0.54	--	0.68U
	2-Butanone	0.0019	0.27	1.1	--	--
	Carbon Disulfide	0.00021	0.11	1.1	J	--
	Carbon Tetrachloride	0.00039	0.086	1.1	J	--
	Chloroform	0.0015	0.13	0.41	--	--
	Dichlorodifluoromethane	0.045	0.20	0.54	--	--
	1,1-Dichloroethane	0.0018	0.097	0.41	--	--
	1,1-Dichloroethene	0.011	0.17	1.1	--	--
	cis-1,2-Dichloroethene	0.00071	0.12	0.54	--	--
	2-Hexanone	0.00015	0.12	0.54	J	--
	Methylene Chloride	0.00031	0.097	0.54	J	--
	Tetrachloroethene	0.052	0.069	0.54	--	--
	Toluene	0.0015	0.069	0.54	--	--
	Trichloroethene	0.067	0.14	0.54	--	--
	Trichlorofluoromethane	0.110	0.53	1.1	--	--
	1,1,1-Trichloroethane	0.013	0.088	0.41	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.047	0.22	0.54	--	--
	Total Organics[d]	0.36547	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV05-100	Acetone	0.0052	0.38	11	B, J	11U
11-Sep-14	Benzene	0.00056	0.17	0.86	J	0.86U
	2-Butanone	0.0010	0.43	1.7	J	--
	Carbon Disulfide	0.00026	0.17	1.7	J	--
	Carbon Tetrachloride	0.00070	0.14	1.7	J	--
	Chloroform	0.0021	0.20	0.65	--	--
	Dichlorodifluoromethane	0.066	0.31	0.86	--	--
	1,1-Dichloroethane	0.0034	0.15	0.65	--	--
	1,1-Dichloroethene	0.023	0.28	1.7	--	--
	cis-1,2-Dichloroethene	0.0016	0.19	0.86	--	--
	Methylene Chloride	0.00092	0.15	0.86	--	--
	Tetrachloroethene	0.092	0.11	0.86	--	--
	Toluene	0.0018	0.11	0.86	--	--
	Trichloroethene	0.140	0.45	1.7	--	--
	Trichlorofluoromethane	0.130	0.42	0.86	--	--
	1,1,1-Trichloroethane	0.012	0.14	0.65	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.091	0.35	0.86	--	--
	Total Organics[d]	0.56578	NA	NA	NA	NA
MWL-SV05-200	Acetone	0.0083	0.45	13	B, J	13U
11-Sep-14	Benzene	0.00034	0.20	1.0	J	1.0U
	2-Butanone	0.0018	0.50	2.0	J	--
	Carbon Disulfide	0.00027	0.20	2.0	J	--
	Carbon Tetrachloride	0.0012	0.16	2.0	J	--
	Chloroform	0.0019	0.24	0.75	--	--
	Dichlorodifluoromethane	0.066	0.36	1.0	--	--
	1,1-Dichloroethane	0.0049	0.18	0.75	--	--
	1,1-Dichloroethene	0.042	0.32	2.0	--	--
	cis-1,2-Dichloroethene	0.0023	0.22	1.0	--	--
	Methylene Chloride	0.0025	0.18	1.0	--	--
	Tetrachloroethene	0.140	0.13	1.0	--	--
	Toluene	0.0042	0.13	1.0	--	--
	Trichloroethene	0.200	0.53	2.0	--	--
	Trichlorofluoromethane	0.072	0.49	1.0	--	--
	1,1,1-Trichloroethane	0.0033	0.16	0.75	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.160	0.82	2.0	--	--
	Total Organics[d]	0.70237	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Continued)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV05-300	Acetone	0.013	0.27	7.5	B	--
11-Sep-14	Benzene	0.00053	0.12	0.60	J	0.6U
	2-Butanone	0.0020	0.30	1.2	--	--
	Carbon Disulfide	0.0031	0.12	1.2	--	--
	Carbon Tetrachloride	0.00087	0.096	1.2	J	--
	Chloroform	0.00061	0.14	0.45	--	--
	Chloromethane	0.00051	0.30	1.2	J	--
	Dichlorodifluoromethane	0.024	0.22	0.60	--	--
	1,1-Dichloroethane	0.0012	0.11	0.45	--	--
	1,1-Dichloroethene	0.020	0.19	1.2	--	--
	cis-1,2-Dichloroethene	0.00089	0.13	0.60	--	--
	2-Hexanone	0.00013	0.13	0.60	J	--
	Methylene Chloride	0.00072	0.11	0.60	--	--
	Tetrachloroethene	0.090	0.077	0.60	--	--
	Toluene	0.0061	0.077	0.60	--	--
	Trichloroethene	0.100	0.32	1.2	--	--
	Trichlorofluoromethane	0.019	0.29	0.60	--	--
	1,1,1-Trichloroethane	0.00090	0.098	0.45	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.073	0.24	0.60	--	--
	m,p-Xylene	0.00016	0.15	1.2	J	--
	o-Xylene	0.000085	0.081	0.60	J	--
	Total Organics[d]	0.35628	NA	NA	NA	NA

Refer to footnotes at end of table.

Table 1 *(Concluded)*
Summary of Detected Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Well ID/Sample Port	Analyte	Result[b] (ppmv)	MDL[b] (ppbv)	RL[b] (ppbv)	Laboratory Qualifier[c]	Validation Qualifier[c]
MWL-SV05-400	Acetone	0.014	0.52	15	B, J	15U
11-Sep-14	Benzene	0.00099	0.23	1.2	J	1.2U
	2-Butanone	0.0022	0.59	2.4	J	--
	Carbon Disulfide	0.0012	0.23	2.4	J	--
	Carbon Tetrachloride	0.00049	0.19	2.4	J	--
	Chloroform	0.00054	0.28	0.88	J	--
	Chloromethane	0.0017	0.58	2.4	J	--
	Dichlorodifluoromethane	0.015	0.43	1.2	--	--
	1,1-Dichloroethane	0.0012	0.21	0.88	--	--
	1,1-Dichloroethene	0.014	0.38	2.4	--	--
	cis-1,2-Dichloroethene	0.00082	0.26	1.2	J	--
	Methylene Chloride	0.00071	0.21	1.2	J	--
	Tetrachloroethene	0.100	0.15	1.2	--	--
	Toluene	0.250	0.30	2.4	--	--
	Trichloroethene	0.094	0.31	1.2	--	--
	Trichlorofluoromethane	0.018	0.58	1.2	--	--
	1,1,1-Trichloroethane	0.0011	0.19	0.88	--	--
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.040	0.48	1.2	--	--
	Total Organics[d]	0.54096	NA	NA	NA	NA

Notes:

[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]Results are reported in ppmv. MDL and RL are reported in ppbv.

[c]Laboratory/Validation Qualifier - Blank (--) cell = all quality control samples met acceptance criteria. Qualifiers "B," "J," and "U" see below.

[d]Total Organics -- Sum of validated detected organic analytes (i.e., results for analytes reported as detections by the laboratory but qualified during data validation as not detected are not included in the Total Organics value).

B = Compound was detected in the blank and sample.
ID = Identifier.
J = Result detected at a level below the RL but greater than or equal to the MDL and is an approximate value.
MDL = Method detection limit. The minimum concentration that can be measured and reported with 99% confidence that the analyte is present (i.e., greater than zero).
MWL = Mixed Waste Landfill.
NA = Not applicable.
ppbv = parts per billion by volume basis.
ppmv = parts per million by volume basis.
RL = Reporting limit. Minimum concentration that can be reported with a statistically established degree of confidence.
SV = Soil-Vapor
U = The analyte was reported as a detection by the laboratory but was qualified during data validation review as not detected. The associated numerical value is the revised sample quantitation limit, in accordance with the data validation process.

Table 2
Method Detection Limits for Volatile Organic Compounds (EPA Method[a] TO-15)
Mixed Waste Landfill Soil-Vapor Monitoring

September 2014

Analyte	MDL[b] (ppbv)	Analyte	MDL[b] (ppbv)
1,1,1-Trichloroethane	0.088 - 0.33	Bromomethane	0.45 - 1.7
1,1,2,2-Tetrachloroethane	0.093 - 0.35	Carbon disulfide	0.11 - 0.39
1,1,2-Trichloroethane	0.090 - 0.34	Carbon tetrachloride	0.086 - 0.32
1,1-Dichloroethane	0.097 - 0.36	Chlorobenzene	0.086 - 0.32
1,1-Dichloroethene	0.17 - 0.65	Chloroethane	0.42 - 1.6
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.21 - 0.78	Chloroform	0.13 - 0.48
1,2,4-Trichlorobenzene	0.58 - 2.20	Chloromethane	0.27 - 0.99
1,2,4-Trimethylbenzene	0.22 - 0.82	Dibromochloromethane	0.11 - 0.40
1,2-Dibromoethane	0.10 - 0.38	Dichlorodifluoromethane	0.20 - 0.73
1,2-Dichlorobenzene	0.18 - 0.66	Ethyl benzene	0.085 - 0.32
1,2-Dichloroethane	0.12 - 0.44	Hexachlorobutadiene	0.58 - 2.2
1,2-Dichloropropane	0.32 - 1.2	Methylene chloride	0.097 - 0.36
1,3,5-Trimethylbenzene	0.17 - 0.63	Styrene	0.080 - 0.30
1,3-Dichlorobenzene	0.15 - 0.56	Tetrachloroethene	0.11 - 0.77
1,4-Dichlorobenzene	0.20 - 0.75	Toluene	0.069 - 0.26
1,1,2-Trichloro-1,2,2-trifluoroethane	0.22 - 0.96	Trichloroethene	0.22 - 0.62
2-Butanone	0.27 – 1.0	Trichlorofluoromethane	0.26 - 1.7
2-Hexanone	0.12 - 0.44	Vinyl acetate	0.20 - 0.73
4-Ethyltoluene	0.25 - 0.94	Vinyl chloride	0.16 - 0.61
4-methyl-, 2-Pentanone	0.18 - 0.68	cis-1,2-Dichloroethene	0.12 - 0.45
Acetone	0.24 - 0.90	cis-1,3-Dichloropropene	0.14 - 0.53
Benzene	0.11 - 0.40	m-, p-Xylene	0.14 - 0.51
Benzyl chloride	0.22 - 0.82	o-Xylene	0.073 - 0.27
Bromodichloromethane	0.089 - 0.33	trans-1,2-Dichloroethene	0.14 - 0.51
Bromoform	0.095 - 0.35	trans-1,3-Dichloropropene	0.12 - 0.44

Notes:
[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]Method detection limits reported in ppbv.
MDL = Method detection limit. The minimum concentration that can be measured and reported with 99% confidence that the analyte is present (i.e., greater than zero).
ppbv = parts per billion by volume basis.