February 29, 2024

Taylor J. Monnin
New York State Department of Environmental Conservation
Division of Environmental Remediation
700 Delaware Avenue
Buffalo, NY 14209

RE: Supplemental Sampling Work Plan – Parcel Reclassification
Tulip Molded Plastics Corporation Site – Site No. 932169
3125 Highland Avenue, Niagara Falls, New York

Inventum Engineering, P.C. (Inventum), on behalf of Ganson Alternative Energy, LLC (GAE) is pleased to submit the following supplemental soil sampling work plan for the Tulip Molded Plastics Corporation Site located at 3125 Highland Avenue, Niagara Falls, New York (Tulip Site; Figure 1). The New York State Department of Environmental Conservation (NYSDEC) and GAE entered into an Order on Consent and Administrative Settlement (Index No. CO 9-20200107-2) in January 2020 to appropriately characterize potential contamination on the Site. The Site is currently not listed in the Registry (the Registry) of Inactive Hazardous Waste Disposal Site (IHWS) or the Brownfield Cleanup Program (BCP) in New York State and was assigned Site Number 932169 with a "P" classification.

The Tulip Site encompasses approximately 9 acres (Ac) consisting of seven (7) tax parcels (Figure 1):

Former Operational Parcels
- 144.06-2-1 (4.9 Ac)
- 130.18-2-4 (3.14 Ac)

Historically Vacant Parcels
- 144.23-1-2 (0.11 Ac)
- 144.23-1-3 (0.21 Ac)
- 144.23-1-4 (0.11 Ac)
- 144.23-1-5 (0.11 Ac)
- 144.23-1-6 (0.31 Ac)

Inventum and GAE have submitted a BCP Application for the former operational parcels (144.06-2-1 and 130.18-2-4) and request reclassification of the five historically vacant parcels that the NYSDEC indicated were not eligible for the BCP.

Data has been previously submitted to the NYSDEC representative of environmental conditions on two of the historically vacant parcels. Soil samples collected from borings advanced on parcel 144.23-1-2 (SB-013; Figure 1 and Table 1) and 144.23-1-6 (SB-012; Figure 1 and Table 1) were non-detect for volatile organic

compounds (VOCs)[1], semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), herbicides, pesticides, and per- and polyfluoroalkyl substances (PFASs). There were no metals detected at concentrations above the Part 375 Commercial Use Soil Cleanup Objectives. Laboratory data reports for these samples are provided in Attachment A.

Additional sampling is proposed below for parcels 144.23-1-3, 144.23-1-4, and 144.23-1-5 to supplement the previous data to allow reclassification of all the historically vacant parcels.

Scope of Work

One test pit will be completed on each parcel (144.23-1-3, 144.23-1-4, and 144-23.1-5) as shown on Figure 1. Test pits will be a maximum of 10-feet in length and extend a minimum of 2-feet into the native silty clay if fill is present, or to a maximum depth of 5-feet below ground surface (bgs) if fill is not encountered. Fill was not encountered in the borings completed (SB-012 and SB-013) on the other two historically vacant parcels. Soil samples will be collected at each location. One (1) shallow (0 to 2 inches bgs) will be collected and analyzed for Target Analyte List (TAL) Metals (EPA Method 6010), Target Compound List (TCL) VOCs (EPA Method 8260), and TCL SVOCs (EPA Method 8270). One (1) subsurface sample will be collected from the base of the test pit in the native material (if fill is present above 5 ft-bgs) and analyzed for TAL Metals, TCL VOCs, and TCL SVOCs.

All samples will be submitted to a New York Environmental Laboratory Approval Program (ELAP) accredited laboratory (Eurofins Laboratory, Buffalo, NY or Alpha Analytical Laboratory, Tonawanda, NY). A Data Usability Summary Report (DUSR) will be prepared, and laboratory data submitted to the NYSDEC EQUiS database.

Field screening with a photoionization detector (PID) will also be conducted across the entire depth of the test pit at 2-foot intervals and additional samples will be collected for TCL VOC and TCL SVOC analysis if visual or olfactory evidence of impact or PID readings (>10 parts per million [ppm] sustained from a sample placed in a Ziploc bag) indicate evidence of organic contamination. Photographs will be taken of each test pit.

Soils from the test pit(s) will be temporarily stockpiled adjacent to the excavation and placed back in the trench after sampling.

All sampling will be conducted in accordance with the Health and Safety Plan (HASP) provided in Attachment B and the Community Air Monitoring Program (CAMP) provided in Attachment C.

A letter report will be prepared within 30 days following receipt of final laboratory data reports. The report will include a summary of all data (including laboratory data reports and DUSR) of all samples collected on the six (6) historically vacant parcels. The report will also include field notes, test pit logs, photographs, and any other data/documentation relevant to the requested reclassification.

Please let us know if you have any additional questions or comments.

Respectfully submitted,

[1] Acetone, a common laboratory contaminant, was detected from SB-12 at a concentration (0.016 milligrams per kilogram [mg/kg])

Todd Waldrop
Inventum Engineering, PC

Enclosures

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Table

Table 1
Tulip Molding Plastics Facility (Site #932169)
Parcel Reclassification Sampling Work Plan
Existing Data

Analyte	Commercial Use SCO (a)	Industrial Use SCO (b)	Units	Location: SB-12-02		SB-12-1213		SB-13-02		SB-13-1314	
				ParceL ID: 144.23-1-6		144.23-1-6		144.23-1-2		144.23-1-2	
				Date: 7/20/2021		7/20/2021		7/20/2021		7/20/2021	
				Sample Depth (ft): 0 to 2		12 to 13		0 to 2		13 to 14	
				Formation: Silty Clay		Silty Clay		Silty Clay		Silty Clay	
Total Mercury											
Mercury	2.8	5.7	mg/kg	**0.013**		<0.0106	U	**0.0215**		**0.0107**	
TAL Metals											
Aluminum	-	-	mg/kg	**17300**		**21100**		**23100**		**15600**	
Antimony	-	-	mg/kg	<3.44		**1.95**	J	<3.53	U	<3.61	U
Arsenic	16	16	mg/kg	**5.79**	D	**1.78**		**5.06**		**3.11**	
Barium	400	10000	mg/kg	**95.5**		**120**		**118**		**68.3**	
Beryllium	590	2700	mg/kg	**0.273**	J	**0.332**		**0.611**		**0.232**	J
Cadmium	9.3	60	mg/kg	**0.655**	D	**0.725**		**0.54**		**0.315**	
Calcium	-	-	mg/kg	**69600**		**51200**		**12800**		**47900**	
Chromium	400	800	mg/kg	**19.1**		**24.2**		**27.7**		**17.8**	
Cobalt	-	-	mg/kg	**9.1**		**10.2**		**9.27**		**9.42**	
Copper	270	10000	mg/kg	**23.4**		**19.3**		**22.9**		**18**	
Iron	-	-	mg/kg	**29200**		**28500**		**27700**		**24200**	
Lead	1000	3900	mg/kg	**6.59**		**6.96**		**12**		**5.13**	
Magnesium	-	-	mg/kg	**9430**		**10800**		**9410**		**8940**	
Manganese	10000	10000	mg/kg	**444**		**498**		**280**		**562**	
Nickel	310	10000	mg/kg	**19.8**		**24.3**		**25.3**		**20**	
Potassium	-	-	mg/kg	**3140**		**4950**		**3730**		**3380**	
Selenium	1500	6800	mg/kg	<1.15	U	<2.57	U	<1.18	U	<1.20	U
Silver	1500	6800	mg/kg	<0.573	U	<0.644	U	<0.588	U	<0.602	U
Sodium	-	-	mg/kg	**179**		**253**		**269**		**193**	
Thallium	-	-	mg/kg	<2.87	U	<3.22	U	<1.47	U	<3.01	U
Vanadium	-	-	mg/kg	**30.1**		**33**		**36.7**		**25.7**	
Zinc	10000	10000	mg/kg	**47.3**		**56**		**62.1**		**46.7**	
Herbicides											
2,4-D	-	-	mg/kg	<0.198	U	NS		<0.204	U	NS	
2,4,5-T	-	-	mg/kg	<0.198	U	NS		<0.204	U	NS	
2,4,5-TP (Silvex)	500	1000	mg/kg	<0.198	U	NS		<0.204	U	NS	
Pesticides											
Delta-BHC	500	1000	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
Lindane	9.2	23	mg/kg	<0.00078	U	NS		<0.000811	U	NS	
Alpha-BHC	3.4	6.8	mg/kg	<0.00078	U	NS		<0.000811	U	NS	
Beta-BHC	3	14	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
Heptachlor	15	29	mg/kg	<0.000936	U	NS		<0.000974	U	NS	
Aldrin	0.68	1.4	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
Heptachlor epoxide	-	-	mg/kg	<0.00351	U	NS		<0.00365	U	NS	
Endrin	89	410	mg/kg	<0.00078	U	NS		<0.000811	U	NS	
Endrin aldehyde	-	-	mg/kg	<0.00234	U	NS		<0.00243	U	NS	
Endrin ketone	-	-	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
Dieldrin	1.4	2.8	mg/kg	<0.00117	U	NS		<0.00122	U	NS	
4,4'-DDE	62	120	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
4,4'-DDD	92	180	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
4,4'-DDT	47	94	mg/kg	<0.00351	U	NS		<0.00365	U	NS	
Endosulfan I	200	920	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
Endosulfan II	200	920	mg/kg	<0.00187	U	NS		<0.00195	U	NS	
Endosulfan sulfate	200	920	mg/kg	<0.00078	U	NS		<0.000811	U	NS	
Methoxychlor	-	-	mg/kg	<0.00351	U	NS		<0.00365	U	NS	
Toxaphene	-	-	mg/kg	<0.0351	U	NS		<0.0365	U	NS	
cis-Chlordane	24	47	mg/kg	<0.00234	U	NS		<0.00243	U	NS	
trans-Chlordane	-	-	mg/kg	<0.00234	U	NS		<0.00243	U	NS	
Chlordane	-	-	mg/kg	<0.0156	U	NS		<0.0162	U	NS	
PFAS											
Perfluorobutanoic Acid (PFBA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluoropentanoic Acid (PFPeA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorobutanesulfonic Acid (PFBS)	-	-	ng/g	<0.267	U	NS		<0.296	U	NS	
Perfluorohexanoic Acid (PFHxA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluoroheptanoic Acid (PFHpA)	-	-	ng/g	<0.267	U	NS		<0.296	U	NS	
Perfluorohexanesulfonic Acid (PFHxS)	-	-	ng/g	<0.267	U	NS		<0.296	U	NS	
Perfluorooctanoic Acid (PFOA)	500	600	ng/g	<0.267	U	NS		<0.296	U	NS	
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluoroheptanesulfonic Acid (PFHpS)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorononanoic Acid (PFNA)	-	-	ng/g	<0.267	U	NS		<0.296	U	NS	
Perfluorooctanesulfonic Acid (PFOS)	440	440	ng/g	<0.267	U	NS		<0.296	U	NS	
Perfluorodecanoic Acid (PFDA)	-	-	ng/g	<0.267	U	NS		<0.296	U	NS	
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluoroundecanoic Acid (PFUnA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorodecanesulfonic Acid (PFDS)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorooctanesulfonamide (FOSA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorododecanoic Acid (PFDoA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorotridecanoic Acid (PFTrDA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
Perfluorotetradecanoic Acid (PFTA)	-	-	ng/g	<0.534	U	NS		<0.592	U	NS	
PFOA/PFOS, Total	-	-	ng/g	<0.267	U	NS		<0.296	U	NS	
PCBs											
Aroclor 1016	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1221	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1232	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1242	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1248	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1254	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1260	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1262	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
Aroclor 1268	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	
PCBs, Total	1	25	mg/kg	<0.0381	U	NS		<0.041	U	NS	

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Tulip Molding Plastics Facility (Site #932169)
Parcel Reclassification Sampling Work Plan
Existing Data

Analyte			Location:	SB-12-02		SB-12-1213		SB-13-02		SB-13-1314	
			ParceL ID:	144.23-1-6		144.23-1-6		144.23-1-2		144.23-1-2	
			Date:	7/20/2021		7/20/2021		7/20/2021		7/20/2021	
			Sample Depth (ft):	0 to 2		12 to 13		0 to 2		13 to 14	
			Formation:	Silty Clay		Silty Clay		Silty Clay		Silty Clay	
	Commercial Use SCO (a)	Industrial Use SCO (b)	Units								
SVOCs											
Acenaphthene	500	1000	mg/kg	<0.16	U	NS		<0.16	U	NS	
Hexachlorobenzene	6	12	mg/kg	<0.12	U	NS		<0.12	U	NS	
Bis(2-chloroethyl)ether	-	-	mg/kg	<0.18	U	NS		<0.18	U	NS	
2-Chloronaphthalene	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
3,3'-Dichlorobenzidine	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2,4-Dinitrotoluene	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2,6-Dinitrotoluene	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Fluoranthene	500	1000	mg/kg	<0.12	U	NS		<0.12	U	NS	
4-Chlorophenyl phenyl ether	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
4-Bromophenyl phenyl ether	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Bis(2-chloroisopropyl)ether	-	-	mg/kg	<0.23	U	NS		<0.24	U	NS	
Bis(2-chloroethoxy)methane	-	-	mg/kg	<0.21	U	NS		<0.22	U	NS	
Hexachlorobutadiene	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Hexachlorocyclopentadiene	-	-	mg/kg	<0.56	U	NS		<0.58	U	NS	
Hexachloroethane	-	-	mg/kg	<0.16	U	NS		<0.16	U	NS	
Isophorone	-	-	mg/kg	<0.18	U	NS		<0.18	U	NS	
Naphthalene	500	1000	mg/kg	<0.19	U	NS		<0.2	U	NS	
Nitrobenzene	8.9	8.9	mg/kg	<0.18	U	NS		<0.18	U	NS	
NDPA/DPA	-	-	mg/kg	<0.16	U	NS		<0.16	U	NS	
n-Nitrosodi-n-propylamine	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Bis(2-ethylhexyl)phthalate	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Butyl benzyl phthalate	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Di-n-butylphthalate	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Di-n-octylphthalate	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Diethyl phthalate	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Dimethyl phthalate	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Benzo(a)anthracene	5.6	11	mg/kg	<0.12	U	NS		<0.12	U	NS	
Benzo(a)pyrene	1	1.1	mg/kg	<0.16	U	NS		<0.16	U	NS	
Benzo(b)fluoranthene	5.6	11	mg/kg	<0.12	U	NS		<0.12	U	NS	
Benzo(k)fluoranthene	56	110	mg/kg	<0.12	U	NS		<0.12	U	NS	
Chrysene	56	110	mg/kg	<0.12	U	NS		<0.12	U	NS	
Acenaphthylene	500	1000	mg/kg	<0.16	U	NS		<0.16	U	NS	
Anthracene	500	1000	mg/kg	<0.12	U	NS		<0.12	U	NS	
Benzo(ghi)perylene	500	1000	mg/kg	<0.16	U	NS		<0.16	U	NS	
Fluorene	500	1000	mg/kg	<0.19	U	NS		<0.2	U	NS	
Phenanthrene	500	1000	mg/kg	<0.12	U	NS		<0.12	U	NS	
Dibenzo(a,h)anthracene	0.56	1.1	mg/kg	<0.12	U	NS		<0.12	U	NS	
Indeno(1,2,3-cd)pyrene	5.6	11	mg/kg	<0.16	U	NS		<0.16	U	NS	
Pyrene	500	1000	mg/kg	<0.12	U	NS		<0.12	U	NS	
Biphenyl	-	-	mg/kg	<0.44	U	NS		<0.47	U	NS	
4-Chloroaniline	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2-Nitroaniline	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
3-Nitroaniline	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
4-Nitroaniline	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Dibenzofuran	350	1000	mg/kg	<0.19	U	NS		<0.2	U	NS	
2-Methylnaphthalene	-	-	mg/kg	<0.23	U	NS		<0.24	U	NS	
1,2,4,5-Tetrachlorobenzene	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Acetophenone	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2,4,6-Trichlorophenol	-	-	mg/kg	<0.12	U	NS		<0.12	U	NS	
p-Chloro-m-cresol	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2-Chlorophenol	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2,4-Dichlorophenol	-	-	mg/kg	<0.18	U	NS		<0.18	U	NS	
2,4-Dimethylphenol	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2-Nitrophenol	-	-	mg/kg	<0.42	U	NS		<0.44	U	NS	
4-Nitrophenol	-	-	mg/kg	<0.27	U	NS		<0.29	U	NS	
2,4-Dinitrophenol	-	-	mg/kg	<0.93	U	NS		<0.98	U	NS	
4,6-Dinitro-o-cresol	-	-	mg/kg	<0.51	U	NS		<0.53	U	NS	
Pentachlorophenol	6.7	55	mg/kg	<0.16	U	NS		<0.16	U	NS	
Phenol	500	1000	mg/kg	<0.19	U	NS		<0.2	U	NS	
2-Methylphenol	500	1000	mg/kg	<0.19	U	NS		<0.2	U	NS	
3-Methylphenol/4-Methylphenol	500	1000	mg/kg	<0.28	U	NS		<0.29	U	NS	
2,4,5-Trichlorophenol	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Carbazole	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
Atrazine	-	-	mg/kg	<0.16	U	NS		<0.16	U	NS	
Benzaldehyde	-	-	mg/kg	<0.26	U	NS		<0.27	U	NS	
Caprolactam	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
2,3,4,6-Tetrachlorophenol	-	-	mg/kg	<0.19	U	NS		<0.2	U	NS	
1,4-Dioxane	130	250	mg/kg	<0.029	U	NS		<0.031	U	NS	

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Tulip Molding Plastics Facility (Site #932169)
Parcel Reclassification Sampling Work Plan
Existing Data

Analyte				Location:		SB-12-02		SB-12-1213		SB-13-02		SB-13-1314	
				ParceL ID:		144.23-1-6		144.23-1-6		144.23-1-2		144.23-1-2	
				Date:		7/20/2021		7/20/2021		7/20/2021		7/20/2021	
				Sample Depth (ft):		0 to 2		12 to 13		0 to 2		13 to 14	
				Formation:		Silty Clay		Silty Clay		Silty Clay		Silty Clay	
	Commercial Use SCO (a)	Industrial Use SCO (b)	Units										
VOCs													
Methylene chloride	500	1000	mg/kg	<0.0049	U	NS		<0.0048	U	NS	
1,1-Dichloroethane	240	480	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Chloroform	350	700	mg/kg	<0.0015	U	NS		<0.0014	U	NS	
Carbon tetrachloride	22	44	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
1,2-Dichloropropane	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Dibromochloromethane	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
1,1,2-Trichloroethane	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Tetrachloroethene	150	300	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
Chlorobenzene	500	1000	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
Trichlorofluoromethane	-	-	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
1,2-Dichloroethane	30	60	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
1,1,1-Trichloroethane	500	1000	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
Bromodichloromethane	-	-	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
trans-1,3-Dichloropropene	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
cis-1,3-Dichloropropene	-	-	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
Bromoform	-	-	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
1,1,2,2-Tetrachloroethane	-	-	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
Benzene	44	89	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
Toluene	500	1000	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Ethylbenzene	390	780	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Chloromethane	-	-	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
Bromomethane	-	-	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
Vinyl chloride	13	27	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Chloroethane	-	-	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
1,1-Dichloroethene	500	1000	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
trans-1,2-Dichloroethene	500	1000	mg/kg	<0.0015	U	NS		<0.0014	U	NS	
Trichloroethene	200	400	mg/kg	<0.00049	U	NS		<0.00048	U	NS	
1,2-Dichlorobenzene	500	1000	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
1,3-Dichlorobenzene	280	560	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
1,4-Dichlorobenzene	130	250	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
Methyl tert butyl ether	500	1000	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
p/m-Xylene	-	-	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
o-Xylene	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
cis-1,2-Dichloroethene	500	1000	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Styrene	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Dichlorodifluoromethane	-	-	mg/kg	<0.0097	U	NS		<0.0096	U	NS	
Acetone	500	1000	mg/kg	**0.016**		NS		<0.0096	U	NS	
Carbon disulfide	-	-	mg/kg	<0.0097	U	NS		<0.0096	U	NS	
2-Butanone	500	1000	mg/kg	<0.0097	U	NS		<0.0096	U	NS	
4-Methyl-2-pentanone	-	-	mg/kg	<0.0097	U	NS		<0.0096	U	NS	
2-Hexanone	-	-	mg/kg	<0.0097	U	NS		<0.0096	U	NS	
1,2-Dibromoethane	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
n-Butylbenzene	500	1000	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
sec-Butylbenzene	500	1000	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
tert-Butylbenzene	500	1000	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
1,2-Dibromo-3-chloropropane	-	-	mg/kg	<0.0029	U	NS		<0.0029	U	NS	
Isopropylbenzene	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
p-Isopropyltoluene	-	-	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
Naphthalene	500	1000	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
n-Propylbenzene	500	1000	mg/kg	<0.00097	U	NS		<0.00096	U	NS	
1,2,4-Trichlorobenzene	-	-	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
1,3,5-Trimethylbenzene	190	380	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
1,2,4-Trimethylbenzene	190	380	mg/kg	<0.0019	U	NS		<0.0019	U	NS	
Methyl Acetate	-	-	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
Cyclohexane	-	-	mg/kg	<0.0097	U	NS		<0.0096	U	NS	
Freon-113	-	-	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
Methyl cyclohexane	-	-	mg/kg	<0.0039	U	NS		<0.0038	U	NS	
General Chemistry													
Solids, Total	-	-	%	**83.4**		**78.6**		**80.6**		**80.3**	

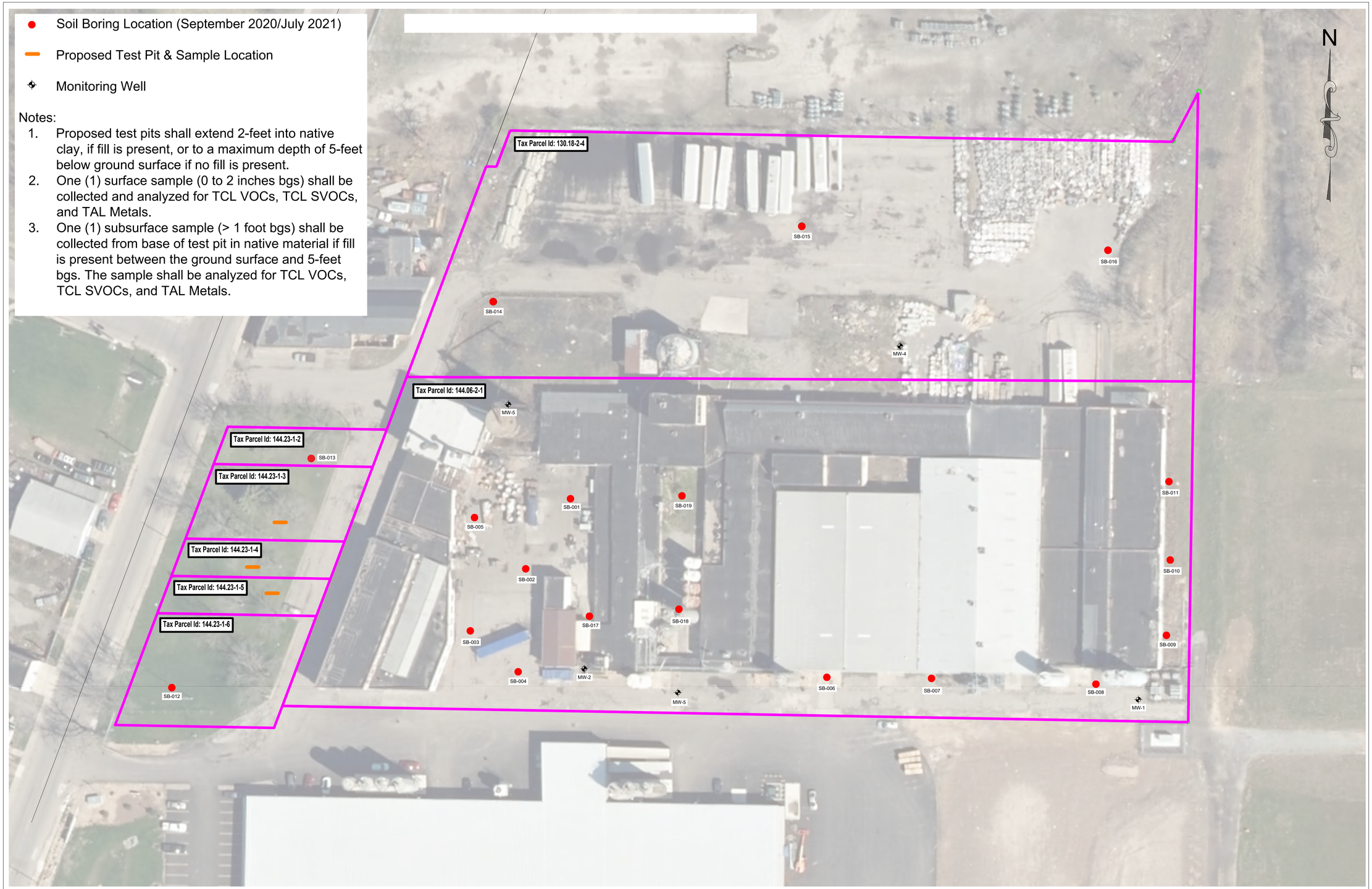
Notes:
(a) 6 NYCRR Part 375 Commercial Use and Industrial Use Soil Cleanup Objectives (SCOs); Dash "-" indicates SCO does not exist.
"mg/kg" = milligrams per kilogram; "ng/g" = nanograms per gram; "TAL" = Target Analyte List; "TCL" = Target Compound List; "NS" = Not Analyzed
"U" = Analyte was not detected above reporting limit shown; "J" = Estimated value. Concentration between the Method Reporting Limit and Method Detection Limit; "D" = Concentration is a result of a dilution;

Figure

- Soil Boring Location (September 2020/July 2021)
- Proposed Test Pit & Sample Location
- Monitoring Well

Notes:

1. Proposed test pits shall extend 2-feet into native clay, if fill is present, or to a maximum depth of 5-feet below ground surface if no fill is present.
2. One (1) surface sample (0 to 2 inches bgs) shall be collected and analyzed for TCL VOCs, TCL SVOCs, and TAL Metals.
3. One (1) subsurface sample (> 1 foot bgs) shall be collected from base of test pit in native material if fill is present between the ground surface and 5-feet bgs. The sample shall be analyzed for TCL VOCs, TCL SVOCs, and TAL Metals.



D

1" = 40'

80' 40' 0' 80'

DRAWING BY	R. BIRX
CHECKED	T. WALDROP
APPROVED	J. BLACK

Ganson Alternative Energy LLC
3125 Highland Avenue
Niagara Falls, NY
Site No. 932169

PROPOSED PARCEL
RECLASSIFICATION SAMPLE
LOCATIONS

INVENTUM ENGINEERING
441 CARLISLE DRIVE
SUITE C
HERNDON, VIRGINIA 20170
(703) 722-6049
www.InventumEng.com

FIGURE 1

Attachment A – Laboratory Data Reports

ANALYTICAL REPORT

Lab Number:	L2138906
Client:	Inventum Engineering 481 Carlisle Drive #202 Herndon, NY 20170
ATTN:	Todd Waldrop
Phone:	(571) 752-6562
Project Name:	TULIP MOLDED PLASTICS
Project Number:	Not Specified
Report Date:	07/29/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2138906-01	SB-16-02	SOIL	Not Specified	07/20/21 10:00	07/20/21
L2138906-02	SB-16-1314	SOIL	Not Specified	07/20/21 10:20	07/20/21
L2138906-03	MW-4-02	SOIL	Not Specified	07/20/21 10:45	07/20/21
L2138906-04	MW-4-1415	SOIL	Not Specified	07/20/21 11:30	07/20/21
L2138906-05	SB-15-02	SOIL	Not Specified	07/20/21 11:55	07/20/21
L2138906-06	SB-150-02	SOIL	Not Specified	07/20/21 12:00	07/20/21
L2138906-07	SB-15-1314	SOIL	Not Specified	07/20/21 12:15	07/20/21
L2138906-08	SB-14-02	SOIL	Not Specified	07/20/21 13:15	07/20/21
L2138906-09	SB-14-1314	SOIL	Not Specified	07/20/21 13:40	07/20/21
L2138906-10	SB-13-02	SOIL	Not Specified	07/20/21 14:05	07/20/21
L2138906-11	SB-13-1314	SOIL	Not Specified	07/20/21 14:30	07/20/21
L2138906-12	SB-12-02	SOIL	Not Specified	07/20/21 15:00	07/20/21
L2138906-13	SB-12-1213	SOIL	Not Specified	07/20/21 15:20	07/20/21

Project Name:	TULIP MOLDED PLASTICS	**Lab Number:**	L2138906
Project Number:	Not Specified	**Report Date:**	07/29/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	TULIP MOLDED PLASTICS	**Lab Number:**	L2138906
Project Number:	Not Specified	**Report Date:**	07/29/21

Case Narrative (continued)

Report Submission

July 29, 2021: This final report includes the results of all requested analyses.

July 27, 2021: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The analysis of Total Metals was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Volatile Organics

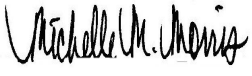
L2138906-01: The internal standard (IS) response(s) for 1,4-dichlorobenzene-d4 (44%) and the surrogate recovery for 4-bromofluorobenzene (143%) were outside the acceptance criteria; however, re-analysis achieved similar results: 1,4-dichlorobenzene-d4 (39%) and 4-bromofluorobenzene (141%). The results of both analyses are reported; however, since the IS response was below method criteria, all associated compounds and surrogate recoveries are considered to have a potentially high bias.

Perfluorinated Alkyl Acids by Isotope Dilution

L2138906-01 and -08: The MeOH fraction of the extraction is reported for Perfluorooctanesulfonamide (FOSA) due to better extraction efficiency of the M8FOSA Surrogate (Extracted Internal Standard).

L2138906-06 and -08: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 07/29/21

ORGANICS

VOLATILES

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 03:19
Analyst: JC
Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	8.0	3.7	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.23	1
Chloroform	0.40	J	ug/kg	2.4	0.22	1
Carbon tetrachloride	ND		ug/kg	1.6	0.37	1
1,2-Dichloropropane	ND		ug/kg	1.6	0.20	1
Dibromochloromethane	ND		ug/kg	1.6	0.22	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.43	1
Tetrachloroethene	ND		ug/kg	0.80	0.31	1
Chlorobenzene	ND		ug/kg	0.80	0.20	1
Trichlorofluoromethane	ND		ug/kg	6.4	1.1	1
1,2-Dichloroethane	ND		ug/kg	1.6	0.41	1
1,1,1-Trichloroethane	ND		ug/kg	0.80	0.27	1
Bromodichloromethane	ND		ug/kg	0.80	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	0.44	1
cis-1,3-Dichloropropene	ND		ug/kg	0.80	0.25	1
Bromoform	ND		ug/kg	6.4	0.40	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.80	0.27	1
Benzene	ND		ug/kg	0.80	0.27	1
Toluene	ND		ug/kg	1.6	0.87	1
Ethylbenzene	ND		ug/kg	1.6	0.23	1
Chloromethane	ND		ug/kg	6.4	1.5	1
Bromomethane	ND		ug/kg	3.2	0.93	1
Vinyl chloride	ND		ug/kg	1.6	0.54	1
Chloroethane	ND		ug/kg	3.2	0.73	1
1,1-Dichloroethene	ND		ug/kg	1.6	0.38	1
trans-1,2-Dichloroethene	ND		ug/kg	2.4	0.22	1
Trichloroethene	ND		ug/kg	0.80	0.22	1
1,2-Dichlorobenzene	ND		ug/kg	3.2	0.23	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 Date Collected: 07/20/21 10:00

Client ID: SB-16-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	3.2	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	3.2	0.27	1
Methyl tert butyl ether	ND		ug/kg	3.2	0.32	1
p/m-Xylene	ND		ug/kg	3.2	0.90	1
o-Xylene	ND		ug/kg	1.6	0.47	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	0.28	1
Styrene	ND		ug/kg	1.6	0.31	1
Dichlorodifluoromethane	ND		ug/kg	16	1.5	1
Acetone	45		ug/kg	16	7.7	1
Carbon disulfide	14	J	ug/kg	16	7.3	1
2-Butanone	9.8	J	ug/kg	16	3.6	1
4-Methyl-2-pentanone	ND		ug/kg	16	2.0	1
2-Hexanone	ND		ug/kg	16	1.9	1
1,2-Dibromoethane	ND		ug/kg	1.6	0.45	1
n-Butylbenzene	ND		ug/kg	1.6	0.27	1
sec-Butylbenzene	ND		ug/kg	1.6	0.23	1
tert-Butylbenzene	ND		ug/kg	3.2	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.8	1.6	1
Isopropylbenzene	ND		ug/kg	1.6	0.18	1
p-Isopropyltoluene	ND		ug/kg	1.6	0.18	1
Naphthalene	ND		ug/kg	6.4	1.0	1
n-Propylbenzene	ND		ug/kg	1.6	0.27	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.2	0.44	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.2	0.31	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.2	0.54	1
Methyl Acetate	ND		ug/kg	6.4	1.5	1
Cyclohexane	1.9	J	ug/kg	16	0.87	1
Freon-113	ND		ug/kg	6.4	1.1	1
Methyl cyclohexane	3.0	J	ug/kg	6.4	0.97	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	115		70-130
4-Bromofluorobenzene	**143**	Q	70-130
Dibromofluoromethane	105		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 R
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 13:20
Analyst: MKS
Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.3	3.4	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.21	1
Chloroform	0.38	J	ug/kg	2.2	0.20	1
Carbon tetrachloride	ND		ug/kg	1.5	0.34	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.18	1
Dibromochloromethane	ND		ug/kg	1.5	0.20	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.39	1
Tetrachloroethene	ND		ug/kg	0.73	0.29	1
Chlorobenzene	ND		ug/kg	0.73	0.19	1
Trichlorofluoromethane	ND		ug/kg	5.9	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	0.73	0.24	1
Bromodichloromethane	ND		ug/kg	0.73	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.40	1
cis-1,3-Dichloropropene	ND		ug/kg	0.73	0.23	1
Bromoform	ND		ug/kg	5.9	0.36	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.73	0.24	1
Benzene	ND		ug/kg	0.73	0.24	1
Toluene	ND		ug/kg	1.5	0.80	1
Ethylbenzene	ND		ug/kg	1.5	0.21	1
Chloromethane	ND		ug/kg	5.9	1.4	1
Bromomethane	ND		ug/kg	2.9	0.85	1
Vinyl chloride	ND		ug/kg	1.5	0.49	1
Chloroethane	ND		ug/kg	2.9	0.66	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	0.20	1
Trichloroethene	ND		ug/kg	0.73	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	2.9	0.21	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 R Date Collected: 07/20/21 10:00

Client ID: SB-16-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.9	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	2.9	0.25	1
Methyl tert butyl ether	ND		ug/kg	2.9	0.29	1
p/m-Xylene	ND		ug/kg	2.9	0.82	1
o-Xylene	ND		ug/kg	1.5	0.43	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.26	1
Styrene	ND		ug/kg	1.5	0.29	1
Dichlorodifluoromethane	ND		ug/kg	15	1.3	1
Acetone	24		ug/kg	15	7.0	1
Carbon disulfide	ND		ug/kg	15	6.7	1
2-Butanone	5.3	J	ug/kg	15	3.2	1
4-Methyl-2-pentanone	ND		ug/kg	15	1.9	1
2-Hexanone	ND		ug/kg	15	1.7	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.41	1
n-Butylbenzene	ND		ug/kg	1.5	0.24	1
sec-Butylbenzene	ND		ug/kg	1.5	0.21	1
tert-Butylbenzene	ND		ug/kg	2.9	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.4	1.5	1
Isopropylbenzene	ND		ug/kg	1.5	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.16	1
Naphthalene	ND		ug/kg	5.9	0.95	1
n-Propylbenzene	ND		ug/kg	1.5	0.25	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.9	0.40	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.9	0.28	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.9	0.49	1
Methyl Acetate	ND		ug/kg	5.9	1.4	1
Cyclohexane	2.6	J	ug/kg	15	0.80	1
Freon-113	ND		ug/kg	5.9	1.0	1
Methyl cyclohexane	3.8	J	ug/kg	5.9	0.88	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	122		70-130
4-Bromofluorobenzene	**141**	Q	70-130
Dibromofluoromethane	108		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 03:57
Analyst: JC
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.7	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.95	0.14	1
Chloroform	0.20	J	ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.95	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.95	0.12	1
Dibromochloromethane	ND		ug/kg	0.95	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.95	0.25	1
Tetrachloroethene	ND		ug/kg	0.47	0.19	1
Chlorobenzene	ND		ug/kg	0.47	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.66	1
1,2-Dichloroethane	ND		ug/kg	0.95	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.47	0.16	1
Bromodichloromethane	ND		ug/kg	0.47	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.95	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.47	0.15	1
Bromoform	ND		ug/kg	3.8	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.47	0.16	1
Benzene	ND		ug/kg	0.47	0.16	1
Toluene	ND		ug/kg	0.95	0.52	1
Ethylbenzene	ND		ug/kg	0.95	0.13	1
Chloromethane	ND		ug/kg	3.8	0.88	1
Bromomethane	ND		ug/kg	1.9	0.55	1
Vinyl chloride	ND		ug/kg	0.95	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.95	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1
Trichloroethene	ND		ug/kg	0.47	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03 Date Collected: 07/20/21 10:45

Client ID: MW-4-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.53	1
o-Xylene	ND		ug/kg	0.95	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.95	0.17	1
Styrene	ND		ug/kg	0.95	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.5	0.87	1
Acetone	ND		ug/kg	9.5	4.6	1
Carbon disulfide	ND		ug/kg	9.5	4.3	1
2-Butanone	ND		ug/kg	9.5	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.5	1.2	1
2-Hexanone	ND		ug/kg	9.5	1.1	1
1,2-Dibromoethane	ND		ug/kg	0.95	0.26	1
n-Butylbenzene	ND		ug/kg	0.95	0.16	1
sec-Butylbenzene	ND		ug/kg	0.95	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.95	1
Isopropylbenzene	ND		ug/kg	0.95	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.95	0.10	1
Naphthalene	ND		ug/kg	3.8	0.62	1
n-Propylbenzene	ND		ug/kg	0.95	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.32	1
Methyl Acetate	ND		ug/kg	3.8	0.90	1
Cyclohexane	ND		ug/kg	9.5	0.52	1
Freon-113	ND		ug/kg	3.8	0.66	1
Methyl cyclohexane	ND		ug/kg	3.8	0.57	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	126		70-130
Dibromofluoromethane	103		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 04:35
Analyst: JC
Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	0.25	J	ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.94	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05 Date Collected: 07/20/21 11:55

Client ID: SB-15-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	40		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	7.0	J	ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
Methyl Acetate	ND		ug/kg	4.0	0.95	1
Cyclohexane	ND		ug/kg	10	0.55	1
Freon-113	ND		ug/kg	4.0	0.70	1
Methyl cyclohexane	ND		ug/kg	4.0	0.60	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	125		70-130
Dibromofluoromethane	102		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 05:14
Analyst: JC
Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	0.20	J	ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.23	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.92	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06 Date Collected: 07/20/21 12:00

Client ID: SB-150-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.90	1
Acetone	ND		ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.5	1
2-Butanone	ND		ug/kg	9.8	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.3	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	0.98	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
Naphthalene	ND		ug/kg	3.9	0.64	1
n-Propylbenzene	ND		ug/kg	0.98	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Methyl Acetate	ND		ug/kg	3.9	0.94	1
Cyclohexane	ND		ug/kg	9.8	0.54	1
Freon-113	ND		ug/kg	3.9	0.68	1
Methyl cyclohexane	ND		ug/kg	3.9	0.59	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	102		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 01:23
Analyst: NLK
Percent Solids: 76%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.0	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.23	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.69	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08 Date Collected: 07/20/21 13:15

Client ID: SB-14-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
2-Hexanone	ND		ug/kg	12	1.4	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.78	1
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
Methyl Acetate	ND		ug/kg	4.8	1.1	1
Cyclohexane	ND		ug/kg	12	0.65	1
Freon-113	ND		ug/kg	4.8	0.83	1
Methyl cyclohexane	ND		ug/kg	4.8	0.72	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	107		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 01:51
Analyst: NLK
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.96	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.96	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.96	0.12	1
Dibromochloromethane	ND		ug/kg	0.96	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.96	0.26	1
Tetrachloroethene	ND		ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.67	1
1,2-Dichloroethane	ND		ug/kg	0.96	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.96	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	ND		ug/kg	0.48	0.16	1
Toluene	ND		ug/kg	0.96	0.52	1
Ethylbenzene	ND		ug/kg	0.96	0.14	1
Chloromethane	ND		ug/kg	3.8	0.89	1
Bromomethane	ND		ug/kg	1.9	0.56	1
Vinyl chloride	ND		ug/kg	0.96	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.96	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10 Date Collected: 07/20/21 14:05

Client ID: SB-13-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.54	1
o-Xylene	ND		ug/kg	0.96	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.96	0.17	1
Styrene	ND		ug/kg	0.96	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.6	0.88	1
Acetone	ND		ug/kg	9.6	4.6	1
Carbon disulfide	ND		ug/kg	9.6	4.4	1
2-Butanone	ND		ug/kg	9.6	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.6	1.2	1
2-Hexanone	ND		ug/kg	9.6	1.1	1
1,2-Dibromoethane	ND		ug/kg	0.96	0.27	1
n-Butylbenzene	ND		ug/kg	0.96	0.16	1
sec-Butylbenzene	ND		ug/kg	0.96	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.96	1
Isopropylbenzene	ND		ug/kg	0.96	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.96	0.10	1
Naphthalene	ND		ug/kg	3.8	0.62	1
n-Propylbenzene	ND		ug/kg	0.96	0.16	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.32	1
Methyl Acetate	ND		ug/kg	3.8	0.91	1
Cyclohexane	ND		ug/kg	9.6	0.52	1
Freon-113	ND		ug/kg	3.8	0.66	1
Methyl cyclohexane	ND		ug/kg	3.8	0.58	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	105		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified

Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 07/23/21 02:18
Analyst: NLK
Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.97	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.97	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.97	0.12	1
Dibromochloromethane	ND		ug/kg	0.97	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.97	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.97	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.97	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.97	0.53	1
Ethylbenzene	ND		ug/kg	0.97	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	1.9	0.57	1
Vinyl chloride	ND		ug/kg	0.97	0.33	1
Chloroethane	ND		ug/kg	1.9	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.97	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12 Date Collected: 07/20/21 15:00

Client ID: SB-12-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.17	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.20	1
p/m-Xylene	ND		ug/kg	1.9	0.54	1
o-Xylene	ND		ug/kg	0.97	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.97	0.17	1
Styrene	ND		ug/kg	0.97	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.7	0.89	1
Acetone	16		ug/kg	9.7	4.7	1
Carbon disulfide	ND		ug/kg	9.7	4.4	1
2-Butanone	ND		ug/kg	9.7	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	9.7	1.2	1
2-Hexanone	ND		ug/kg	9.7	1.2	1
1,2-Dibromoethane	ND		ug/kg	0.97	0.27	1
n-Butylbenzene	ND		ug/kg	0.97	0.16	1
sec-Butylbenzene	ND		ug/kg	0.97	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.97	1
Isopropylbenzene	ND		ug/kg	0.97	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.97	0.11	1
Naphthalene	ND		ug/kg	3.9	0.63	1
n-Propylbenzene	ND		ug/kg	0.97	0.17	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.32	1
Methyl Acetate	ND		ug/kg	3.9	0.93	1
Cyclohexane	ND		ug/kg	9.7	0.53	1
Freon-113	ND		ug/kg	3.9	0.68	1
Methyl cyclohexane	ND		ug/kg	3.9	0.59	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	106		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/22/21 20:24
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 08,10,12 Batch: WG1527215-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/22/21 20:24
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 08,10,12 Batch: WG1527215-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/22/21 20:24
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 08,10,12 Batch: WG1527215-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/22/21 21:34
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05-06 Batch: WG1527246-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	0.24	J	ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	0.93	J	ug/kg	4.0	0.93
Bromomethane	1.3	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/22/21 21:34
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05-06 Batch: WG1527246-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	0.22	J	ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/22/21 21:34
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05-06 Batch: WG1527246-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	100		70-130

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/23/21 09:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1527527-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	0.30	J	ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/23/21 09:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1527527-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/23/21 09:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1527527-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 08,10,12 Batch: WG1527215-3 WG1527215-4								
Methylene chloride	121		120		70-130	1		30
1,1-Dichloroethane	101		101		70-130	0		30
Chloroform	100		100		70-130	0		30
Carbon tetrachloride	100		100		70-130	0		30
1,2-Dichloropropane	106		105		70-130	1		30
Dibromochloromethane	102		102		70-130	0		30
1,1,2-Trichloroethane	105		106		70-130	1		30
Tetrachloroethene	100		100		70-130	0		30
Chlorobenzene	102		101		70-130	1		30
Trichlorofluoromethane	126		121		70-139	4		30
1,2-Dichloroethane	99		100		70-130	1		30
1,1,1-Trichloroethane	100		99		70-130	1		30
Bromodichloromethane	103		102		70-130	1		30
trans-1,3-Dichloropropene	101		102		70-130	1		30
cis-1,3-Dichloropropene	100		100		70-130	0		30
Bromoform	90		92		70-130	2		30
1,1,2,2-Tetrachloroethane	104		104		70-130	0		30
Benzene	104		103		70-130	1		30
Toluene	104		104		70-130	0		30
Ethylbenzene	105		104		70-130	1		30
Chloromethane	104		104		52-130	0		30
Bromomethane	135		127		57-147	6		30
Vinyl chloride	121		120		67-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 08,10,12 Batch: WG1527215-3 WG1527215-4								
Chloroethane	126		124		50-151	2		30
1,1-Dichloroethene	113		112		65-135	1		30
trans-1,2-Dichloroethene	109		111		70-130	2		30
Trichloroethene	100		99		70-130	1		30
1,2-Dichlorobenzene	101		100		70-130	1		30
1,3-Dichlorobenzene	102		101		70-130	1		30
1,4-Dichlorobenzene	101		100		70-130	1		30
Methyl tert butyl ether	90		114		66-130	24		30
p/m-Xylene	102		102		70-130	0		30
o-Xylene	103		104		70-130	1		30
cis-1,2-Dichloroethene	100		99		70-130	1		30
Styrene	107		108		70-130	1		30
Dichlorodifluoromethane	109		109		30-146	0		30
Acetone	111		112		54-140	1		30
Carbon disulfide	118		116		59-130	2		30
2-Butanone	86		93		70-130	8		30
4-Methyl-2-pentanone	89		95		70-130	7		30
2-Hexanone	82		88		70-130	7		30
1,2-Dibromoethane	99		102		70-130	3		30
n-Butylbenzene	111		109		70-130	2		30
sec-Butylbenzene	107		105		70-130	2		30
tert-Butylbenzene	103		101		70-130	2		30
1,2-Dibromo-3-chloropropane	89		92		68-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 08,10,12 Batch: WG1527215-3 WG1527215-4								
Isopropylbenzene	102		101		70-130	1		30
p-Isopropyltoluene	104		102		70-130	2		30
Naphthalene	92		94		70-130	2		30
n-Propylbenzene	107		104		70-130	3		30
1,2,4-Trichlorobenzene	94		93		70-130	1		30
1,3,5-Trimethylbenzene	103		101		70-130	2		30
1,2,4-Trimethylbenzene	101		100		70-130	1		30
Methyl Acetate	100		132		51-146	28		30
Cyclohexane	104		103		59-142	1		30
Freon-113	119		117		50-139	2		30
Methyl cyclohexane	106		104		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		100		70-130
Toluene-d8	102		103		70-130
4-Bromofluorobenzene	97		95		70-130
Dibromofluoromethane	97		98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06 Batch: WG1527246-3 WG1527246-4								
Methylene chloride	103		101		70-130	2		30
1,1-Dichloroethane	122		122		70-130	0		30
Chloroform	106		108		70-130	2		30
Carbon tetrachloride	115		121		70-130	5		30
1,2-Dichloropropane	116		116		70-130	0		30
Dibromochloromethane	98		99		70-130	1		30
1,1,2-Trichloroethane	95		93		70-130	2		30
Tetrachloroethene	95		98		70-130	3		30
Chlorobenzene	91		92		70-130	1		30
Trichlorofluoromethane	106		108		70-139	2		30
1,2-Dichloroethane	113		113		70-130	0		30
1,1,1-Trichloroethane	114		117		70-130	3		30
Bromodichloromethane	110		114		70-130	4		30
trans-1,3-Dichloropropene	113		112		70-130	1		30
cis-1,3-Dichloropropene	117		118		70-130	1		30
Bromoform	92		94		70-130	2		30
1,1,2,2-Tetrachloroethane	91		90		70-130	1		30
Benzene	108		109		70-130	1		30
Toluene	96		96		70-130	0		30
Ethylbenzene	103		104		70-130	1		30
Chloromethane	100		103		52-130	3		30
Bromomethane	122		123		57-147	1		30
Vinyl chloride	118		117		67-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06 Batch: WG1527246-3 WG1527246-4								
Chloroethane	110		106		50-151	4		30
1,1-Dichloroethene	102		102		65-135	0		30
trans-1,2-Dichloroethene	104		103		70-130	1		30
Trichloroethene	106		109		70-130	3		30
1,2-Dichlorobenzene	87		88		70-130	1		30
1,3-Dichlorobenzene	89		90		70-130	1		30
1,4-Dichlorobenzene	89		90		70-130	1		30
Methyl tert butyl ether	122		116		66-130	5		30
p/m-Xylene	95		96		70-130	1		30
o-Xylene	96		96		70-130	0		30
cis-1,2-Dichloroethene	102		102		70-130	0		30
Styrene	96		96		70-130	0		30
Dichlorodifluoromethane	78		76		30-146	3		30
Acetone	106		98		54-140	8		30
Carbon disulfide	104		104		59-130	0		30
2-Butanone	101		95		70-130	6		30
4-Methyl-2-pentanone	102		97		70-130	5		30
2-Hexanone	96		90		70-130	6		30
1,2-Dibromoethane	92		91		70-130	1		30
n-Butylbenzene	105		108		70-130	3		30
sec-Butylbenzene	101		104		70-130	3		30
tert-Butylbenzene	99		102		70-130	3		30
1,2-Dibromo-3-chloropropane	86		86		68-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06 Batch: WG1527246-3 WG1527246-4								
Isopropylbenzene	99		102		70-130	3		30
p-Isopropyltoluene	100		102		70-130	2		30
Naphthalene	82		82		70-130	0		30
n-Propylbenzene	102		105		70-130	3		30
1,2,4-Trichlorobenzene	91		91		70-130	0		30
1,3,5-Trimethylbenzene	100		102		70-130	2		30
1,2,4-Trimethylbenzene	101		103		70-130	2		30
Methyl Acetate	105		97		51-146	8		30
Cyclohexane	126		127		59-142	1		30
Freon-113	106		107		50-139	1		30
Methyl cyclohexane	110		111		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		110		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	111		112		70-130
Dibromofluoromethane	100		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1527527-3 WG1527527-4								
Methylene chloride	101		99		70-130	2		30
1,1-Dichloroethane	122		122		70-130	0		30
Chloroform	107		106		70-130	1		30
Carbon tetrachloride	115		115		70-130	0		30
1,2-Dichloropropane	118		118		70-130	0		30
Dibromochloromethane	100		98		70-130	2		30
1,1,2-Trichloroethane	94		93		70-130	1		30
Tetrachloroethene	90		90		70-130	0		30
Chlorobenzene	88		89		70-130	1		30
Trichlorofluoromethane	103		102		70-139	1		30
1,2-Dichloroethane	117		115		70-130	2		30
1,1,1-Trichloroethane	114		114		70-130	0		30
Bromodichloromethane	114		115		70-130	1		30
trans-1,3-Dichloropropene	112		112		70-130	0		30
cis-1,3-Dichloropropene	117		117		70-130	0		30
Bromoform	94		91		70-130	3		30
1,1,2,2-Tetrachloroethane	93		87		70-130	7		30
Benzene	107		107		70-130	0		30
Toluene	93		93		70-130	0		30
Ethylbenzene	100		100		70-130	0		30
Chloromethane	104		105		52-130	1		30
Bromomethane	118		118		57-147	0		30
Vinyl chloride	116		114		67-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1527527-3 WG1527527-4								
Chloroethane	106		104		50-151	2		30
1,1-Dichloroethene	98		96		65-135	2		30
trans-1,2-Dichloroethene	99		99		70-130	0		30
Trichloroethene	104		105		70-130	1		30
1,2-Dichlorobenzene	83		84		70-130	1		30
1,3-Dichlorobenzene	82		84		70-130	2		30
1,4-Dichlorobenzene	83		84		70-130	1		30
Methyl tert butyl ether	122		118		66-130	3		30
p/m-Xylene	91		93		70-130	2		30
o-Xylene	93		94		70-130	1		30
cis-1,2-Dichloroethene	100		100		70-130	0		30
Styrene	93		94		70-130	1		30
Dichlorodifluoromethane	74		73		30-146	1		30
Acetone	102		99		54-140	3		30
Carbon disulfide	100		100		59-130	0		30
2-Butanone	99		93		70-130	6		30
4-Methyl-2-pentanone	102		100		70-130	2		30
2-Hexanone	97		92		70-130	5		30
1,2-Dibromoethane	91		89		70-130	2		30
n-Butylbenzene	95		98		70-130	3		30
sec-Butylbenzene	97		98		70-130	1		30
tert-Butylbenzene	96		97		70-130	1		30
1,2-Dibromo-3-chloropropane	84		84		68-130	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1527527-3 WG1527527-4								
Isopropylbenzene	98		97		70-130	1		30
p-Isopropyltoluene	92		95		70-130	3		30
Naphthalene	80		79		70-130	1		30
n-Propylbenzene	98		98		70-130	0		30
1,2,4-Trichlorobenzene	78		80		70-130	3		30
1,3,5-Trimethylbenzene	96		97		70-130	1		30
1,2,4-Trimethylbenzene	96		97		70-130	1		30
Methyl Acetate	108		100		51-146	8		30
Cyclohexane	124		124		59-142	0		30
Freon-113	101		99		50-139	2		30
Methyl cyclohexane	106		105		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	114		110		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	114		112		70-130
Dibromofluoromethane	100		100		70-130

SEMIVOLATILES

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/22/21 15:34
Analyst: WR
Percent Solids: 70%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	190	24.	1
Hexachlorobenzene	ND		ug/kg	140	26.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	32.	1
2-Chloronaphthalene	ND		ug/kg	230	23.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	62.	1
2,4-Dinitrotoluene	ND		ug/kg	230	47.	1
2,6-Dinitrotoluene	ND		ug/kg	230	40.	1
Fluoranthene	ND		ug/kg	140	27.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	25.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	36.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	280	40.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	250	23.	1
Hexachlorobutadiene	ND		ug/kg	230	34.	1
Hexachlorocyclopentadiene	ND		ug/kg	670	210	1
Hexachloroethane	ND		ug/kg	190	38.	1
Isophorone	ND		ug/kg	210	30.	1
Naphthalene	52	J	ug/kg	230	28.	1
Nitrobenzene	ND		ug/kg	210	35.	1
NDPA/DPA	ND		ug/kg	190	27.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	36.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	230	81.	1
Butyl benzyl phthalate	ND		ug/kg	230	59.	1
Di-n-butylphthalate	ND		ug/kg	230	44.	1
Di-n-octylphthalate	ND		ug/kg	230	80.	1
Diethyl phthalate	ND		ug/kg	230	22.	1
Dimethyl phthalate	ND		ug/kg	230	49.	1
Benzo(a)anthracene	ND		ug/kg	140	26.	1
Benzo(a)pyrene	ND		ug/kg	190	57.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 Date Collected: 07/20/21 10:00

Client ID: SB-16-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	140	39.	1
Benzo(k)fluoranthene	ND		ug/kg	140	37.	1
Chrysene	ND		ug/kg	140	24.	1
Acenaphthylene	ND		ug/kg	190	36.	1
Anthracene	ND		ug/kg	140	46.	1
Benzo(ghi)perylene	ND		ug/kg	190	28.	1
Fluorene	ND		ug/kg	230	23.	1
Phenanthrene	44	J	ug/kg	140	28.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	27.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	190	33.	1
Pyrene	ND		ug/kg	140	23.	1
Biphenyl	ND		ug/kg	530	54.	1
4-Chloroaniline	ND		ug/kg	230	43.	1
2-Nitroaniline	ND		ug/kg	230	45.	1
3-Nitroaniline	ND		ug/kg	230	44.	1
4-Nitroaniline	ND		ug/kg	230	97.	1
Dibenzofuran	ND		ug/kg	230	22.	1
2-Methylnaphthalene	73	J	ug/kg	280	28.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	24.	1
Acetophenone	ND		ug/kg	230	29.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	44.	1
p-Chloro-m-cresol	ND		ug/kg	230	35.	1
2-Chlorophenol	ND		ug/kg	230	28.	1
2,4-Dichlorophenol	ND		ug/kg	210	38.	1
2,4-Dimethylphenol	ND		ug/kg	230	77.	1
2-Nitrophenol	ND		ug/kg	510	88.	1
4-Nitrophenol	ND		ug/kg	330	96.	1
2,4-Dinitrophenol	ND		ug/kg	1100	110	1
4,6-Dinitro-o-cresol	ND		ug/kg	610	110	1
Pentachlorophenol	ND		ug/kg	190	52.	1
Phenol	ND		ug/kg	230	35.	1
2-Methylphenol	ND		ug/kg	230	36.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	340	37.	1
2,4,5-Trichlorophenol	ND		ug/kg	230	45.	1
Carbazole	ND		ug/kg	230	23.	1
Atrazine	ND		ug/kg	190	82.	1
Benzaldehyde	ND		ug/kg	310	63.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 Date Collected: 07/20/21 10:00

Client ID: SB-16-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	230	71.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	230	47.	1
1,4-Dioxane	ND		ug/kg	35	11.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	96		10-136
4-Terphenyl-d14	92		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 11:19
Analyst: HT
Percent Solids: 70%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.656	0.030	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.656	0.060	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.328	0.051	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.656	0.069	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.328	0.059	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.328	0.079	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.328	0.055	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.656	0.236	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.656	0.179	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.328	0.098	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.328	0.170	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.328	0.088	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.656	0.377	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.656	0.264	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.656	0.061	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.656	0.201	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.656	0.111	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.656	0.092	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.656	0.268	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.656	0.071	1
PFOA/PFOS, Total	ND		ng/g	0.328	0.055	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 Date Collected: 07/20/21 10:00

Client ID: SB-16-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	111		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	115		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	103		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	105		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	105		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	101		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	104		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	65		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	98		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	58		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	87		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	49		24-159

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/27/21 15:54
Analyst: RS
Percent Solids: 70%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.656	0.128	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	66		10-117

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/22/21 15:57
Analyst: WR
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	440		ug/kg	160	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	10000	E	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	1300		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	120	J	ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	5800		ug/kg	120	22.	1
Benzo(a)pyrene	6400		ug/kg	160	48.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03 Date Collected: 07/20/21 10:45

Client ID: MW-4-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	7800		ug/kg	120	33.	1
Benzo(k)fluoranthene	2500		ug/kg	120	32.	1
Chrysene	4900		ug/kg	120	21.	1
Acenaphthylene	600		ug/kg	160	31.	1
Anthracene	1400		ug/kg	120	39.	1
Benzo(ghi)perylene	3400		ug/kg	160	23.	1
Fluorene	610		ug/kg	200	19.	1
Phenanthrene	4500		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	900		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	4500		ug/kg	160	28.	1
Pyrene	9400	E	ug/kg	120	20.	1
Biphenyl	160	J	ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	600		ug/kg	200	19.	1
2-Methylnaphthalene	1300		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	95.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	120	J	ug/kg	200	30.	1
2-Methylphenol	37	J	ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	120	J	ug/kg	280	31.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Carbazole	420		ug/kg	200	19.	1
Atrazine	ND		ug/kg	160	69.	1
Benzaldehyde	ND		ug/kg	260	54.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03 Date Collected: 07/20/21 10:45

Client ID: MW-4-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	200	60.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	200	40.	1
1,4-Dioxane	ND		ug/kg	30	9.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	73		10-136
4-Terphenyl-d14	71		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 11:36
Analyst: HT
Percent Solids: 83%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.051	J	ng/g	0.541	0.025	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.541	0.050	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.270	0.042	1
Perfluorohexanoic Acid (PFHxA)	0.069	J	ng/g	0.541	0.057	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.270	0.049	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.270	0.066	1
Perfluorooctanoic Acid (PFOA)	0.054	J	ng/g	0.270	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.541	0.194	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.541	0.148	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.270	0.081	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.270	0.141	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.270	0.073	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.541	0.311	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.541	0.218	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.541	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.541	0.166	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.541	0.106	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.541	0.091	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.541	0.076	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.541	0.221	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.541	0.058	1
PFOA/PFOS, Total	0.054	J	ng/g	0.270	0.045	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03 Date Collected: 07/20/21 10:45

Client ID: MW-4-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	109		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	121		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	119		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	113		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	109		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	107		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	110		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	112		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	120		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	120		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	116		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	109		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	81		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	116		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	57		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	82		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	88		24-159

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03 D
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/26/21 11:46
Analyst: IM
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Fluoranthene	10000		ug/kg	600	110	5
Pyrene	9600		ug/kg	600	99.	5

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/22/21 16:21
Analyst: WR
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	180		ug/kg	120	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	590	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	71.	1
Butyl benzyl phthalate	ND		ug/kg	200	52.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	70.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	96	J	ug/kg	120	23.	1
Benzo(a)pyrene	110	J	ug/kg	160	50.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05 Date Collected: 07/20/21 11:55

Client ID: SB-15-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	140		ug/kg	120	34.	1
Benzo(k)fluoranthene	55	J	ug/kg	120	33.	1
Chrysene	100	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	76	J	ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	66	J	ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	86	J	ug/kg	160	28.	1
Pyrene	150		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	48.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	40.	1
3-Nitroaniline	ND		ug/kg	200	39.	1
4-Nitroaniline	ND		ug/kg	200	85.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	68.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	290	84.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Carbazole	ND		ug/kg	200	20.	1
Atrazine	ND		ug/kg	160	72.	1
Benzaldehyde	ND		ug/kg	270	55.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05 Date Collected: 07/20/21 11:55

Client ID: SB-15-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	200	62.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	200	41.	1
1,4-Dioxane	ND		ug/kg	31	9.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	87		25-120
Phenol-d6	93		10-120
Nitrobenzene-d5	99		23-120
2-Fluorobiphenyl	93		30-120
2,4,6-Tribromophenol	105		10-136
4-Terphenyl-d14	97		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 11:53
Analyst: HT
Percent Solids: 79%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.620	0.028	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.620	0.057	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.310	0.048	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.620	0.065	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.310	0.056	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.310	0.075	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.310	0.052	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.620	0.222	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.620	0.169	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.310	0.093	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.310	0.161	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.310	0.083	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.620	0.356	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.620	0.250	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.620	0.058	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.620	0.190	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.620	0.121	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.620	0.105	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.620	0.087	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.620	0.253	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.620	0.067	1
PFOA/PFOS, Total	ND		ng/g	0.310	0.052	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05 Date Collected: 07/20/21 11:55

Client ID: SB-15-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	111		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	122		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	119		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	113		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	108		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	113		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	126		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	121		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	116		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	116		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	140		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	99		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	132		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	23		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	92		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	94		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	98		24-159

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/22/21 16:45
Analyst: WR
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	41	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	25	J	ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06 Date Collected: 07/20/21 12:00

Client ID: SB-150-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	24	J	ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	36	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	280	83.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Carbazole	ND		ug/kg	200	20.	1
Atrazine	ND		ug/kg	160	71.	1
Benzaldehyde	ND		ug/kg	270	55.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06 Date Collected: 07/20/21 12:00

Client ID: SB-150-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	200	62.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	200	41.	1
1,4-Dioxane	ND		ug/kg	30	9.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	89		25-120
Phenol-d6	94		10-120
Nitrobenzene-d5	99		23-120
2-Fluorobiphenyl	93		30-120
2,4,6-Tribromophenol	103		10-136
4-Terphenyl-d14	91		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 12:09
Analyst: HT
Percent Solids: 79%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.556	0.025	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.556	0.051	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.278	0.043	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.556	0.058	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.278	0.050	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.278	0.067	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.278	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.556	0.199	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.556	0.152	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.278	0.083	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.278	0.144	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.278	0.074	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.556	0.319	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.556	0.224	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.556	0.052	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.556	0.170	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.556	0.109	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.556	0.094	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.556	0.078	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.556	0.227	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.556	0.060	1
PFOA/PFOS, Total	ND		ng/g	0.278	0.047	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06 Date Collected: 07/20/21 12:00

Client ID: SB-150-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	**137**	Q	61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	**152**	Q	58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	**147**	Q	74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	**141**	Q	66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	**136**	Q	71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	136		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	**139**	Q	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	147		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	**148**	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	**145**	Q	79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	**146**	Q	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	157		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	117		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	155		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	72		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	117		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	141		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	124		24-159

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/23/21 16:35
Analyst: IM
Percent Solids: 76%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	180	23.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	30.	1
2-Chloronaphthalene	ND		ug/kg	220	22.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	58.	1
2,4-Dinitrotoluene	ND		ug/kg	220	44.	1
2,6-Dinitrotoluene	ND		ug/kg	220	38.	1
Fluoranthene	2000		ug/kg	130	25.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	33.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	37.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	22.	1
Hexachlorobutadiene	ND		ug/kg	220	32.	1
Hexachlorocyclopentadiene	ND		ug/kg	630	200	1
Hexachloroethane	ND		ug/kg	180	35.	1
Isophorone	ND		ug/kg	200	28.	1
Naphthalene	210	J	ug/kg	220	27.	1
Nitrobenzene	ND		ug/kg	200	32.	1
NDPA/DPA	ND		ug/kg	180	25.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	34.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	76.	1
Butyl benzyl phthalate	ND		ug/kg	220	55.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	74.	1
Diethyl phthalate	ND		ug/kg	220	20.	1
Dimethyl phthalate	ND		ug/kg	220	46.	1
Benzo(a)anthracene	1200		ug/kg	130	25.	1
Benzo(a)pyrene	1000		ug/kg	180	53.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08 Date Collected: 07/20/21 13:15

Client ID: SB-14-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	1200		ug/kg	130	37.	1
Benzo(k)fluoranthene	530		ug/kg	130	35.	1
Chrysene	1000		ug/kg	130	23.	1
Acenaphthylene	140	J	ug/kg	180	34.	1
Anthracene	390		ug/kg	130	43.	1
Benzo(ghi)perylene	540		ug/kg	180	26.	1
Fluorene	71	J	ug/kg	220	21.	1
Phenanthrene	810		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	120	J	ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	610		ug/kg	180	30.	1
Pyrene	1700		ug/kg	130	22.	1
Biphenyl	ND		ug/kg	500	51.	1
4-Chloroaniline	ND		ug/kg	220	40.	1
2-Nitroaniline	ND		ug/kg	220	42.	1
3-Nitroaniline	ND		ug/kg	220	41.	1
4-Nitroaniline	ND		ug/kg	220	91.	1
Dibenzofuran	76	J	ug/kg	220	21.	1
2-Methylnaphthalene	84	J	ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	27.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	42.	1
p-Chloro-m-cresol	ND		ug/kg	220	33.	1
2-Chlorophenol	ND		ug/kg	220	26.	1
2,4-Dichlorophenol	ND		ug/kg	200	35.	1
2,4-Dimethylphenol	ND		ug/kg	220	72.	1
2-Nitrophenol	ND		ug/kg	470	82.	1
4-Nitrophenol	ND		ug/kg	310	89.	1
2,4-Dinitrophenol	ND		ug/kg	1000	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	570	100	1
Pentachlorophenol	ND		ug/kg	180	48.	1
Phenol	ND		ug/kg	220	33.	1
2-Methylphenol	ND		ug/kg	220	34.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	320	34.	1
2,4,5-Trichlorophenol	ND		ug/kg	220	42.	1
Carbazole	57	J	ug/kg	220	21.	1
Atrazine	ND		ug/kg	180	77.	1
Benzaldehyde	ND		ug/kg	290	59.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08 Date Collected: 07/20/21 13:15

Client ID: SB-14-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	220	67.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	220	44.	1
1,4-Dioxane	ND		ug/kg	33	10.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	89		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 12:26
Analyst: HT
Percent Solids: 76%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.582	0.026	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.582	0.054	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.291	0.045	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.582	0.061	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.291	0.053	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.291	0.070	1
Perfluorooctanoic Acid (PFOA)	0.052	J	ng/g	0.291	0.049	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.582	0.209	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.582	0.159	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.291	0.087	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.291	0.151	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.291	0.078	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.582	0.334	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.582	0.235	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.582	0.055	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.582	0.178	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.582	0.098	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.582	0.082	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.582	0.238	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.582	0.063	1
PFOA/PFOS, Total	0.052	J	ng/g	0.291	0.049	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08 Date Collected: 07/20/21 13:15

Client ID: SB-14-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	88		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	89		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	99		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	36		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	77		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	**28**	Q	34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	60		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	24		24-159

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/27/21 16:02
Analyst: RS
Percent Solids: 76%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.582	0.114	1

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	52		10-117

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/22/21 23:08
Analyst: CMM
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	28.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	41.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	35.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	32.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	71.	1
Butyl benzyl phthalate	ND		ug/kg	200	52.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	43.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	50.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10 Date Collected: 07/20/21 14:05

Client ID: SB-13-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	33.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	32.	1
Anthracene	ND		ug/kg	120	40.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	25.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	24.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	470	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	85.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	25.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	33.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	77.	1
4-Nitrophenol	ND		ug/kg	290	83.	1
2,4-Dinitrophenol	ND		ug/kg	980	95.	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	98.	1
Pentachlorophenol	ND		ug/kg	160	45.	1
Phenol	ND		ug/kg	200	31.	1
2-Methylphenol	ND		ug/kg	200	32.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Carbazole	ND		ug/kg	200	20.	1
Atrazine	ND		ug/kg	160	72.	1
Benzaldehyde	ND		ug/kg	270	55.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10 Date Collected: 07/20/21 14:05

Client ID: SB-13-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	200	62.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	200	41.	1
1,4-Dioxane	ND		ug/kg	31	9.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	99		23-120
2-Fluorobiphenyl	96		30-120
2,4,6-Tribromophenol	91		10-136
4-Terphenyl-d14	91		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 12:42
Analyst: HT
Percent Solids: 81%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.592	0.027	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.592	0.055	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.296	0.046	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.592	0.062	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.296	0.053	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.296	0.072	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.296	0.050	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.592	0.213	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.592	0.162	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.296	0.089	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.296	0.154	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.296	0.079	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.592	0.340	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.592	0.239	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.592	0.055	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.592	0.181	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.592	0.116	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.592	0.100	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.592	0.083	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.592	0.242	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.592	0.064	1
PFOA/PFOS, Total	ND		ng/g	0.296	0.050	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10 Date Collected: 07/20/21 14:05

Client ID: SB-13-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	109		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	120		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	124		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	115		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	110		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	110		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	110		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	121		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	120		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	115		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	115		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	69		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	114		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	106		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	77		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	88		24-159

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified

Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 07/22/21 13:06
Analyst: IM
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	52.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	31.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	47.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12 Date Collected: 07/20/21 15:00

Client ID: SB-12-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	38.	1
3-Nitroaniline	ND		ug/kg	190	37.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	93.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Carbazole	ND		ug/kg	190	19.	1
Atrazine	ND		ug/kg	160	68.	1
Benzaldehyde	ND		ug/kg	260	52.	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12 Date Collected: 07/20/21 15:00

Client ID: SB-12-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	59.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	39.	1
1,4-Dioxane	ND		ug/kg	29	9.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	59		30-120
2,4,6-Tribromophenol	61		10-136
4-Terphenyl-d14	65		18-120

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified

Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 12:59
Analyst: HT
Percent Solids: 83%

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.534	0.024	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.534	0.049	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.267	0.042	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.534	0.056	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.267	0.048	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.267	0.065	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.267	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.534	0.192	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.534	0.146	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.267	0.080	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.267	0.139	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.267	0.072	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.534	0.306	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.534	0.215	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.534	0.050	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.534	0.163	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.534	0.105	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.534	0.090	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.534	0.075	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.534	0.218	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.534	0.058	1
PFOA/PFOS, Total	ND		ng/g	0.267	0.045	1

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12 Date Collected: 07/20/21 15:00

Client ID: SB-12-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	104		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	117		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	116		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	112		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	106		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	108		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	107		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	117		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	115		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	110		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	106		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	75		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	113		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	23		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	79		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	103		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	88		24-159

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/22/21 10:06
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/22/21 10:06
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-1					
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/22/21 10:06
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:21

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-1					
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	57.
Benzaldehyde	ND		ug/kg	210	44.
Caprolactam	ND		ug/kg	160	49.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.
1,4-Dioxane	ND		ug/kg	24	7.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	69		10-136
4-Terphenyl-d14	80		18-120

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 06:21
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526580-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.250	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.250	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.250	0.061
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.250	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.250	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.250	0.130
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.250	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.500	0.054
PFOA/PFOS, Total	ND		ng/g	0.250	0.042

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/23/21 06:21
Analyst: HT

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526580-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	111		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	102		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	98		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	87		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	108		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	103		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	105		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	89		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	28		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	72		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	76		24-159

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID
Analytical Date: 07/25/21 14:37
Analyst: SG

Extraction Method: ALPHA 23528
Extraction Date: 07/22/21 07:36

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526580-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	87		10-117

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-2 WG1526462-3								
Acenaphthene	98		95		31-137	3		50
Hexachlorobenzene	80		79		40-140	1		50
Bis(2-chloroethyl)ether	92		90		40-140	2		50
2-Chloronaphthalene	90		89		40-140	1		50
3,3'-Dichlorobenzidine	82		86		40-140	5		50
2,4-Dinitrotoluene	94		95		40-132	1		50
2,6-Dinitrotoluene	92		91		40-140	1		50
Fluoranthene	98		97		40-140	1		50
4-Chlorophenyl phenyl ether	86		85		40-140	1		50
4-Bromophenyl phenyl ether	84		84		40-140	0		50
Bis(2-chloroisopropyl)ether	97		94		40-140	3		50
Bis(2-chloroethoxy)methane	97		94		40-117	3		50
Hexachlorobutadiene	70		69		40-140	1		50
Hexachlorocyclopentadiene	58		57		40-140	2		50
Hexachloroethane	85		84		40-140	1		50
Isophorone	94		94		40-140	0		50
Naphthalene	91		90		40-140	1		50
Nitrobenzene	94		94		40-140	0		50
NDPA/DPA	98		98		36-157	0		50
n-Nitrosodi-n-propylamine	96		92		32-121	4		50
Bis(2-ethylhexyl)phthalate	108		103		40-140	5		50
Butyl benzyl phthalate	105		103		40-140	2		50
Di-n-butylphthalate	106		104		40-140	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-2 WG1526462-3								
Di-n-octylphthalate	106		103		40-140	3		50
Diethyl phthalate	98		98		40-140	0		50
Dimethyl phthalate	91		90		40-140	1		50
Benzo(a)anthracene	93		92		40-140	1		50
Benzo(a)pyrene	98		98		40-140	0		50
Benzo(b)fluoranthene	95		97		40-140	2		50
Benzo(k)fluoranthene	94		93		40-140	1		50
Chrysene	93		92		40-140	1		50
Acenaphthylene	90		91		40-140	1		50
Anthracene	102		101		40-140	1		50
Benzo(ghi)perylene	98		98		40-140	0		50
Fluorene	97		96		40-140	1		50
Phenanthrene	100		99		40-140	1		50
Dibenzo(a,h)anthracene	100		100		40-140	0		50
Indeno(1,2,3-cd)pyrene	96		98		40-140	2		50
Pyrene	97		96		35-142	1		50
Biphenyl	95		93		37-127	2		50
4-Chloroaniline	85		84		40-140	1		50
2-Nitroaniline	95		96		47-134	1		50
3-Nitroaniline	87		88		26-129	1		50
4-Nitroaniline	99		98		41-125	1		50
Dibenzofuran	95		93		40-140	2		50
2-Methylnaphthalene	91		90		40-140	1		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-2 WG1526462-3								
1,2,4,5-Tetrachlorobenzene	78		77		40-117	1		50
Acetophenone	98		96		14-144	2		50
2,4,6-Trichlorophenol	87		87		30-130	0		50
p-Chloro-m-cresol	100		100		26-103	0		50
2-Chlorophenol	98		96		25-102	2		50
2,4-Dichlorophenol	100		99		30-130	1		50
2,4-Dimethylphenol	103		101		30-130	2		50
2-Nitrophenol	93		91		30-130	2		50
4-Nitrophenol	**131**	Q	**131**	Q	11-114	0		50
2,4-Dinitrophenol	78		79		4-130	1		50
4,6-Dinitro-o-cresol	86		88		10-130	2		50
Pentachlorophenol	86		86		17-109	0		50
Phenol	**104**	Q	**103**	Q	26-90	1		50
2-Methylphenol	103		103		30-130.	0		50
3-Methylphenol/4-Methylphenol	105		104		30-130	1		50
2,4,5-Trichlorophenol	88		89		30-130	1		50
Carbazole	105		106		54-128	1		50
Atrazine	93		92		40-140	1		50
Benzaldehyde	94		89		40-140	5		50
Caprolactam	96		98		15-130	2		50
2,3,4,6-Tetrachlorophenol	83		81		40-140	2		50
1,4-Dioxane	56		56		40-140	0		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526462-2 WG1526462-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	94		92		25-120
Phenol-d6	101		100		10-120
Nitrobenzene-d5	92		90		23-120
2-Fluorobiphenyl	85		84		30-120
2,4,6-Tribromophenol	79		81		10-136
4-Terphenyl-d14	89		88		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526580-2								
Perfluorobutanoic Acid (PFBA)	108		-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	112		-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	106		-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	110		-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	106		-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	101		-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	106		-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	117		-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	110		-		70-132	-		30
Perfluorononanoic Acid (PFNA)	101		-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	108		-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	105		-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	128		-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	107		-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	104		-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	106		-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	116		-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	108		-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	121		-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	123		-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	114		-		69-133	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526580-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	93				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	102				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99				79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93				19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	81				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	22				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	75				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77				24-159

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526580-2								
Perfluorooctanesulfonamide (FOSA)	86		-		67-137	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	82				10-117

Matrix Spike Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 QC Batch ID: WG1526580-3 QC Sample: L2138378-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	ND	5.78	6.25	108		-	-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	ND	5.78	6.37	110		-	-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	5.14	5.26	102		-	-		72-128	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.42	6.86	127		-	-		62-145	-		30
Perfluorohexanoic Acid (PFHxA)	0.067JF	5.78	6.31	108		-	-		70-132	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	5.44	5.78	106		-	-		73-123	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	5.78	6.26	108		-	-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	5.29	5.87	111		-	-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	0.055J	5.78	6.25	107		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.51	6.56	119		-	-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	5.51	5.74	104		-	-		70-132	-		30
Perfluorononanoic Acid (PFNA)	ND	5.78	5.91	102		-	-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	0.350	5.37	6.14	108		-	-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	0.118J	5.78	6.26	106		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.55	6.96	125		-	-		65-137	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	5.56	6.02	108		-	-		69-125	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	5.78	6.15	106		-	-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	0.058J	5.78	6.07	104		-	-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	5.58	6.14	110		-	-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	ND	5.78	6.74	116		-	-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	5.78	5.52	95		-	-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	ND	5.78	6.20	107		-	-		69-135	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 QC Batch ID: WG1526580-3 QC Sample: L2138378-01 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTrDA)	ND	5.78	6.58	114		-	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	5.78	6.84	118		-	-		69-133	-		30

Surrogate (Extracted Internal Standard)	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	122				19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	93				14-167
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	117				20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	78				34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	67				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	98				61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	100				75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93				78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87				24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	97				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109				58-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	70				10-117
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	104				79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97				75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	105				72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108				74-139

Lab Duplicate Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 QC Batch ID: WG1526580-4 QC Sample: L2138378-02 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	0.034J	0.032J	ng/g	NC		30
Perfluoropentanoic Acid (PFPeA)	0.101J	0.095J	ng/g	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/g	NC		30
Perfluorohexanoic Acid (PFHxA)	0.10J	0.101JF	ng/g	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/g	NC		30
Perfluoroheptanoic Acid (PFHpA)	0.060J	0.059J	ng/g	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/g	NC		30
Perfluorooctanoic Acid (PFOA)	0.089J	0.076J	ng/g	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/g	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/g	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonic Acid (PFOS)	0.268J	0.214J	ng/g	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/g	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/g	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/g	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/g	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/g	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/g	NC		30

Lab Duplicate Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 QC Batch ID: WG1526580-4 QC Sample: L2138378-02 Client ID: DUP Sample						
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/g	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/g	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/g	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	119		104		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	133		115		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	134		113		74-139
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	89		76		14-167
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	126		105		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	118		102		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	120		105		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	123		101		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	118		102		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	130		110		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	128		110		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	122		108		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	116		103		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		57		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	119		104		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	64		58		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	107		88		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		75		24-159

Lab Duplicate Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01,03,05-06,08,10,12 QC Batch ID: WG1526580-4 QC Sample: L2138378-02 Client ID: DUP Sample						
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/g	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	62		70		10-117

PCBS

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/22/21 15:29
Analyst: JAW
Percent Solids: 70%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	44.6	3.96	1	A
Aroclor 1221	ND		ug/kg	44.6	4.47	1	A
Aroclor 1232	ND		ug/kg	44.6	9.46	1	A
Aroclor 1242	ND		ug/kg	44.6	6.02	1	A
Aroclor 1248	ND		ug/kg	44.6	6.70	1	A
Aroclor 1254	ND		ug/kg	44.6	4.88	1	A
Aroclor 1260	ND		ug/kg	44.6	8.25	1	A
Aroclor 1262	ND		ug/kg	44.6	5.67	1	A
Aroclor 1268	ND		ug/kg	44.6	4.62	1	A
PCBs, Total	ND		ug/kg	44.6	3.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	42		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	41		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/22/21 15:36
Analyst: JAW
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.0	3.55	1	A
Aroclor 1221	ND		ug/kg	40.0	4.01	1	A
Aroclor 1232	ND		ug/kg	40.0	8.49	1	A
Aroclor 1242	ND		ug/kg	40.0	5.40	1	A
Aroclor 1248	ND		ug/kg	40.0	6.00	1	A
Aroclor 1254	32.6	J	ug/kg	40.0	4.38	1	B
Aroclor 1260	71.5		ug/kg	40.0	7.40	1	A
Aroclor 1262	ND		ug/kg	40.0	5.08	1	A
Aroclor 1268	ND		ug/kg	40.0	4.15	1	A
PCBs, Total	104	J	ug/kg	40.0	3.55	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/23/21 11:41
Analyst: JAW
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 07/22/21 07:58
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/23/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	41.4	3.68	1	A
Aroclor 1221	ND		ug/kg	41.4	4.15	1	A
Aroclor 1232	ND		ug/kg	41.4	8.78	1	A
Aroclor 1242	ND		ug/kg	41.4	5.58	1	A
Aroclor 1248	ND		ug/kg	41.4	6.21	1	A
Aroclor 1254	ND		ug/kg	41.4	4.53	1	A
Aroclor 1260	ND		ug/kg	41.4	7.65	1	A
Aroclor 1262	ND		ug/kg	41.4	5.26	1	A
Aroclor 1268	ND		ug/kg	41.4	4.29	1	A
PCBs, Total	ND		ug/kg	41.4	3.68	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	57		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/22/21 15:43
Analyst: JAW
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.9	3.63	1	A
Aroclor 1221	ND		ug/kg	40.9	4.09	1	A
Aroclor 1232	ND		ug/kg	40.9	8.66	1	A
Aroclor 1242	ND		ug/kg	40.9	5.51	1	A
Aroclor 1248	ND		ug/kg	40.9	6.13	1	A
Aroclor 1254	ND		ug/kg	40.9	4.47	1	A
Aroclor 1260	ND		ug/kg	40.9	7.55	1	A
Aroclor 1262	ND		ug/kg	40.9	5.19	1	A
Aroclor 1268	ND		ug/kg	40.9	4.23	1	A
PCBs, Total	ND		ug/kg	40.9	3.63	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	41		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	38		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/22/21 15:50
Analyst: JAW
Percent Solids: 76%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	42.9	3.81	1	A
Aroclor 1221	ND		ug/kg	42.9	4.30	1	A
Aroclor 1232	ND		ug/kg	42.9	9.09	1	A
Aroclor 1242	ND		ug/kg	42.9	5.78	1	A
Aroclor 1248	ND		ug/kg	42.9	6.43	1	A
Aroclor 1254	ND		ug/kg	42.9	4.69	1	A
Aroclor 1260	ND		ug/kg	42.9	7.93	1	A
Aroclor 1262	ND		ug/kg	42.9	5.45	1	A
Aroclor 1268	ND		ug/kg	42.9	4.44	1	A
PCBs, Total	ND		ug/kg	42.9	3.81	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	50		30-150	B

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/22/21 15:57
Analyst: JAW
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	41.0	3.64	1	A
Aroclor 1221	ND		ug/kg	41.0	4.11	1	A
Aroclor 1232	ND		ug/kg	41.0	8.69	1	A
Aroclor 1242	ND		ug/kg	41.0	5.53	1	A
Aroclor 1248	ND		ug/kg	41.0	6.15	1	A
Aroclor 1254	ND		ug/kg	41.0	4.48	1	A
Aroclor 1260	ND		ug/kg	41.0	7.58	1	A
Aroclor 1262	ND		ug/kg	41.0	5.21	1	A
Aroclor 1268	ND		ug/kg	41.0	4.25	1	A
PCBs, Total	ND		ug/kg	41.0	3.64	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	41		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified

Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/22/21 16:04
Analyst: JAW
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.1	3.39	1	A
Aroclor 1221	ND		ug/kg	38.1	3.82	1	A
Aroclor 1232	ND		ug/kg	38.1	8.08	1	A
Aroclor 1242	ND		ug/kg	38.1	5.14	1	A
Aroclor 1248	ND		ug/kg	38.1	5.72	1	A
Aroclor 1254	ND		ug/kg	38.1	4.17	1	A
Aroclor 1260	ND		ug/kg	38.1	7.05	1	A
Aroclor 1262	ND		ug/kg	38.1	4.84	1	A
Aroclor 1268	ND		ug/kg	38.1	3.95	1	A
PCBs, Total	ND		ug/kg	38.1	3.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	43		30-150	B

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 07/22/21 14:54
Analyst: CW

Extraction Method: EPA 3546
Extraction Date: 07/21/21 16:33
Cleanup Method: EPA 3665A
Cleanup Date: 07/22/21
Cleanup Method: EPA 3660B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526438-1						
Aroclor 1016	ND		ug/kg	31.3	2.78	A
Aroclor 1221	ND		ug/kg	31.3	3.13	A
Aroclor 1232	ND		ug/kg	31.3	6.63	A
Aroclor 1242	ND		ug/kg	31.3	4.22	A
Aroclor 1248	ND		ug/kg	31.3	4.69	A
Aroclor 1254	ND		ug/kg	31.3	3.42	A
Aroclor 1260	ND		ug/kg	31.3	5.78	A
Aroclor 1262	ND		ug/kg	31.3	3.97	A
Aroclor 1268	ND		ug/kg	31.3	3.24	A
PCBs, Total	ND		ug/kg	31.3	2.78	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	48		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526438-2 WG1526438-3									
Aroclor 1016	67		64		40-140	5		50	A
Aroclor 1260	61		58		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		63		30-150	A
Decachlorobiphenyl	53		51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		66		30-150	B
Decachlorobiphenyl	50		48		30-150	B

PESTICIDES

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 12:54
Analyst: SDC
Percent Solids: 70%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.26	0.442	1	A
Lindane	ND		ug/kg	0.941	0.420	1	A
Alpha-BHC	ND		ug/kg	0.941	0.267	1	A
Beta-BHC	ND		ug/kg	2.26	0.856	1	A
Heptachlor	ND		ug/kg	1.13	0.506	1	A
Aldrin	ND		ug/kg	2.26	0.795	1	A
Heptachlor epoxide	ND		ug/kg	4.23	1.27	1	A
Endrin	ND		ug/kg	0.941	0.386	1	A
Endrin aldehyde	ND		ug/kg	2.82	0.988	1	A
Endrin ketone	ND		ug/kg	2.26	0.581	1	A
Dieldrin	ND		ug/kg	1.41	0.706	1	A
4,4'-DDE	ND		ug/kg	2.26	0.522	1	A
4,4'-DDD	ND		ug/kg	2.26	0.805	1	A
4,4'-DDT	ND		ug/kg	4.23	1.82	1	A
Endosulfan I	ND		ug/kg	2.26	0.533	1	A
Endosulfan II	ND		ug/kg	2.26	0.754	1	A
Endosulfan sulfate	ND		ug/kg	0.941	0.448	1	A
Methoxychlor	ND		ug/kg	4.23	1.32	1	A
Toxaphene	ND		ug/kg	42.3	11.8	1	A
cis-Chlordane	ND		ug/kg	2.82	0.786	1	A
trans-Chlordane	ND		ug/kg	2.82	0.745	1	A
Chlordane	ND		ug/kg	18.8	7.48	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01 Date Collected: 07/20/21 10:00

Client ID: SB-16-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 19:11
Analyst: KB
Percent Solids: 70%
Methylation Date: 07/24/21 10:40

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	234	14.7	1	A
2,4,5-T	ND		ug/kg	234	7.25	1	A
2,4,5-TP (Silvex)	ND		ug/kg	234	6.22	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	103		30-150	A
DCAA	100		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 11:02
Analyst: AR
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.367	1	A
Lindane	ND		ug/kg	0.780	0.349	1	A
Alpha-BHC	ND		ug/kg	0.780	0.222	1	A
Beta-BHC	ND		ug/kg	1.87	0.710	1	A
Heptachlor	ND		ug/kg	0.936	0.420	1	A
Aldrin	ND		ug/kg	1.87	0.659	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.819	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	ND		ug/kg	1.87	0.433	1	A
4,4'-DDD	ND		ug/kg	1.87	0.668	1	A
4,4'-DDT	ND		ug/kg	3.51	1.50	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.626	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.371	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.83	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	ND		ug/kg	2.34	0.618	1	A
Chlordane	ND		ug/kg	15.6	6.20	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03 Date Collected: 07/20/21 10:45

Client ID: MW-4-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	105		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	**153**	Q	30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 19:29
Analyst: KB
Percent Solids: 83%
Methylation Date: 07/24/21 10:40

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	199	12.6	1	A
2,4,5-T	ND		ug/kg	199	6.18	1	A
2,4,5-TP (Silvex)	ND		ug/kg	199	5.31	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	95		30-150	A
DCAA	95		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 13:05
Analyst: SDC
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.99	0.390	1	A
Lindane	ND		ug/kg	0.831	0.371	1	A
Alpha-BHC	ND		ug/kg	0.831	0.236	1	A
Beta-BHC	ND		ug/kg	1.99	0.756	1	A
Heptachlor	ND		ug/kg	0.997	0.447	1	A
Aldrin	ND		ug/kg	1.99	0.702	1	A
Heptachlor epoxide	ND		ug/kg	3.74	1.12	1	A
Endrin	ND		ug/kg	0.831	0.340	1	A
Endrin aldehyde	ND		ug/kg	2.49	0.872	1	A
Endrin ketone	ND		ug/kg	1.99	0.513	1	A
Dieldrin	ND		ug/kg	1.25	0.623	1	A
4,4'-DDE	ND		ug/kg	1.99	0.461	1	A
4,4'-DDD	ND		ug/kg	1.99	0.711	1	A
4,4'-DDT	ND		ug/kg	3.74	1.60	1	A
Endosulfan I	ND		ug/kg	1.99	0.471	1	A
Endosulfan II	ND		ug/kg	1.99	0.666	1	A
Endosulfan sulfate	ND		ug/kg	0.831	0.395	1	A
Methoxychlor	ND		ug/kg	3.74	1.16	1	A
Toxaphene	ND		ug/kg	37.4	10.5	1	A
cis-Chlordane	ND		ug/kg	2.49	0.694	1	A
trans-Chlordane	ND		ug/kg	2.49	0.658	1	A
Chlordane	ND		ug/kg	16.6	6.60	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05 Date Collected: 07/20/21 11:55

Client ID: SB-15-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	32		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	61		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 19:48
Analyst: KB
Percent Solids: 79%
Methylation Date: 07/24/21 10:40

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	210	13.2	1	A
2,4,5-T	ND		ug/kg	210	6.50	1	A
2,4,5-TP (Silvex)	ND		ug/kg	210	5.57	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	103		30-150	A
DCAA	103		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 13:16
Analyst: SDC
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.00	0.391	1	A
Lindane	ND		ug/kg	0.831	0.372	1	A
Alpha-BHC	ND		ug/kg	0.831	0.236	1	A
Beta-BHC	ND		ug/kg	2.00	0.756	1	A
Heptachlor	ND		ug/kg	0.998	0.447	1	A
Aldrin	ND		ug/kg	2.00	0.702	1	A
Heptachlor epoxide	ND		ug/kg	3.74	1.12	1	A
Endrin	ND		ug/kg	0.831	0.341	1	A
Endrin aldehyde	ND		ug/kg	2.49	0.873	1	A
Endrin ketone	ND		ug/kg	2.00	0.514	1	A
Dieldrin	ND		ug/kg	1.25	0.623	1	A
4,4'-DDE	ND		ug/kg	2.00	0.461	1	A
4,4'-DDD	ND		ug/kg	2.00	0.712	1	A
4,4'-DDT	ND		ug/kg	3.74	1.60	1	A
Endosulfan I	ND		ug/kg	2.00	0.471	1	A
Endosulfan II	ND		ug/kg	2.00	0.667	1	A
Endosulfan sulfate	ND		ug/kg	0.831	0.396	1	A
Methoxychlor	ND		ug/kg	3.74	1.16	1	A
Toxaphene	ND		ug/kg	37.4	10.5	1	A
cis-Chlordane	ND		ug/kg	2.49	0.695	1	A
trans-Chlordane	ND		ug/kg	2.49	0.658	1	A
Chlordane	ND		ug/kg	16.6	6.61	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06 Date Collected: 07/20/21 12:00

Client ID: SB-150-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	39		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 20:06
Analyst: KB
Percent Solids: 79%
Methylation Date: 07/24/21 10:40

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	208	13.1	1	A
2,4,5-T	ND		ug/kg	208	6.44	1	A
2,4,5-TP (Silvex)	ND		ug/kg	208	5.53	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	96		30-150	A
DCAA	96		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 13:28
Analyst: SDC
Percent Solids: 76%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.04	0.400	1	A
Lindane	ND		ug/kg	0.851	0.380	1	A
Alpha-BHC	ND		ug/kg	0.851	0.242	1	A
Beta-BHC	ND		ug/kg	2.04	0.775	1	A
Heptachlor	ND		ug/kg	1.02	0.458	1	A
Aldrin	ND		ug/kg	2.04	0.719	1	A
Heptachlor epoxide	ND		ug/kg	3.83	1.15	1	A
Endrin	ND		ug/kg	0.851	0.349	1	A
Endrin aldehyde	ND		ug/kg	2.55	0.894	1	A
Endrin ketone	ND		ug/kg	2.04	0.526	1	A
Dieldrin	ND		ug/kg	1.28	0.638	1	A
4,4'-DDE	ND		ug/kg	2.04	0.472	1	A
4,4'-DDD	ND		ug/kg	2.04	0.729	1	A
4,4'-DDT	ND		ug/kg	3.83	1.64	1	A
Endosulfan I	ND		ug/kg	2.04	0.483	1	A
Endosulfan II	ND		ug/kg	2.04	0.683	1	A
Endosulfan sulfate	ND		ug/kg	0.851	0.405	1	A
Methoxychlor	ND		ug/kg	3.83	1.19	1	A
Toxaphene	ND		ug/kg	38.3	10.7	1	A
cis-Chlordane	ND		ug/kg	2.55	0.712	1	A
trans-Chlordane	ND		ug/kg	2.55	0.674	1	A
Chlordane	ND		ug/kg	17.0	6.77	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08 Date Collected: 07/20/21 13:15

Client ID: SB-14-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 20:24
Analyst: KB
Percent Solids: 76%
Methylation Date: 07/24/21 10:40

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	216	13.6	1	A
2,4,5-T	ND		ug/kg	216	6.69	1	A
2,4,5-TP (Silvex)	ND		ug/kg	216	5.74	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	105		30-150	A
DCAA	104		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 11:35
Analyst: AR
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.95	0.381	1	A
Lindane	ND		ug/kg	0.811	0.363	1	A
Alpha-BHC	ND		ug/kg	0.811	0.230	1	A
Beta-BHC	ND		ug/kg	1.95	0.738	1	A
Heptachlor	ND		ug/kg	0.974	0.436	1	A
Aldrin	ND		ug/kg	1.95	0.686	1	A
Heptachlor epoxide	ND		ug/kg	3.65	1.10	1	A
Endrin	ND		ug/kg	0.811	0.333	1	A
Endrin aldehyde	ND		ug/kg	2.43	0.852	1	A
Endrin ketone	ND		ug/kg	1.95	0.501	1	A
Dieldrin	ND		ug/kg	1.22	0.608	1	A
4,4'-DDE	ND		ug/kg	1.95	0.450	1	A
4,4'-DDD	ND		ug/kg	1.95	0.694	1	A
4,4'-DDT	ND		ug/kg	3.65	1.57	1	A
Endosulfan I	ND		ug/kg	1.95	0.460	1	A
Endosulfan II	ND		ug/kg	1.95	0.651	1	A
Endosulfan sulfate	ND		ug/kg	0.811	0.386	1	A
Methoxychlor	ND		ug/kg	3.65	1.14	1	A
Toxaphene	ND		ug/kg	36.5	10.2	1	A
cis-Chlordane	ND		ug/kg	2.43	0.678	1	A
trans-Chlordane	ND		ug/kg	2.43	0.643	1	A
Chlordane	ND		ug/kg	16.2	6.45	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10 Date Collected: 07/20/21 14:05

Client ID: SB-13-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 20:43
Analyst: KB
Percent Solids: 81%
Methylation Date: 07/24/21 10:40

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:04

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	204	12.9	1	A
2,4,5-T	ND		ug/kg	204	6.34	1	A
2,4,5-TP (Silvex)	ND		ug/kg	204	5.44	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	106		30-150	A
DCAA	98		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified

Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 07/23/21 12:19
Analyst: AR
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 07/21/21 19:54
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.366	1	A
Lindane	ND		ug/kg	0.780	0.348	1	A
Alpha-BHC	ND		ug/kg	0.780	0.221	1	A
Beta-BHC	ND		ug/kg	1.87	0.709	1	A
Heptachlor	ND		ug/kg	0.936	0.419	1	A
Aldrin	ND		ug/kg	1.87	0.659	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.818	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	ND		ug/kg	1.87	0.433	1	A
4,4'-DDD	ND		ug/kg	1.87	0.667	1	A
4,4'-DDT	ND		ug/kg	3.51	1.50	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.625	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.371	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.82	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	ND		ug/kg	2.34	0.617	1	A
Chlordane	ND		ug/kg	15.6	6.20	1	A

Project Name: TULIP MOLDED PLASTICS **Lab Number:** L2138906

Project Number: Not Specified **Report Date:** 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12 Date Collected: 07/20/21 15:00

Client ID: SB-12-02 Date Received: 07/20/21

Sample Location: Not Specified Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	86		30-150	B

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number: Not Specified
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified

Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 07/24/21 12:27
Analyst: KB
Percent Solids: 83%
Methylation Date: 07/23/21 19:07

Extraction Method: EPA 8151A
Extraction Date: 07/22/21 11:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	198	12.5	1	A
2,4,5-T	ND		ug/kg	198	6.15	1	A
2,4,5-TP (Silvex)	ND		ug/kg	198	5.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	91		30-150	A
DCAA	91		30-150	B

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/23/21 12:20
Analyst: SDC

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:02
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526452-1						
Delta-BHC	ND		ug/kg	1.58	0.309	A
Lindane	ND		ug/kg	0.658	0.294	A
Alpha-BHC	ND		ug/kg	0.658	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.599	A
Heptachlor	ND		ug/kg	0.789	0.354	A
Aldrin	ND		ug/kg	1.58	0.556	A
Heptachlor epoxide	ND		ug/kg	2.96	0.888	A
Endrin	ND		ug/kg	0.658	0.270	A
Endrin aldehyde	ND		ug/kg	1.97	0.691	A
Endrin ketone	ND		ug/kg	1.58	0.406	A
Dieldrin	ND		ug/kg	0.987	0.493	A
4,4'-DDE	ND		ug/kg	1.58	0.365	A
4,4'-DDD	ND		ug/kg	1.58	0.563	A
4,4'-DDT	ND		ug/kg	2.96	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.373	A
Endosulfan II	ND		ug/kg	1.58	0.528	A
Endosulfan sulfate	ND		ug/kg	0.658	0.313	A
Methoxychlor	ND		ug/kg	2.96	0.921	A
Toxaphene	ND		ug/kg	29.6	8.29	A
cis-Chlordane	ND		ug/kg	1.97	0.550	A
trans-Chlordane	ND		ug/kg	1.97	0.521	A
Chlordane	ND		ug/kg	13.2	5.23	A

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/23/21 12:20
Analyst: SDC

Extraction Method: EPA 3546
Extraction Date: 07/21/21 17:02
Cleanup Method: EPA 3620B
Cleanup Date: 07/22/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03,05-06,08,10,12 Batch: WG1526452-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 07/23/21 13:54
Analyst: AR

Extraction Method: EPA 8151A
Extraction Date: 07/22/21 11:22

Methylation Date: 07/23/21 12:30

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 12 Batch: WG1526764-1						
2,4-D	ND		ug/kg	162	10.2	A
2,4,5-T	ND		ug/kg	162	5.04	A
2,4,5-TP (Silvex)	ND		ug/kg	162	4.32	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	86		30-150	A
DCAA	82		30-150	B

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 07/24/21 15:49
Analyst: KB

Extraction Method: EPA 8151A
Extraction Date: 07/23/21 11:03

Methylation Date: 07/24/21 10:40

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01,03,05-06,08,10 Batch: WG1527204-1						
2,4-D	ND		ug/kg	162	10.2	A
2,4,5-T	ND		ug/kg	162	5.04	A
2,4,5-TP (Silvex)	ND		ug/kg	162	4.32	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	100		30-150	A
DCAA	100		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526452-2 WG1526452-3									
Delta-BHC	84		83		30-150	1		30	A
Lindane	82		82		30-150	0		30	A
Alpha-BHC	70		72		30-150	3		30	A
Beta-BHC	83		83		30-150	0		30	A
Heptachlor	86		87		30-150	1		30	A
Aldrin	76		78		30-150	3		30	A
Heptachlor epoxide	70		70		30-150	0		30	A
Endrin	83		83		30-150	0		30	A
Endrin aldehyde	50		53		30-150	6		30	A
Endrin ketone	73		73		30-150	0		30	A
Dieldrin	82		83		30-150	1		30	A
4,4'-DDE	71		74		30-150	4		30	A
4,4'-DDD	83		83		30-150	0		30	A
4,4'-DDT	86		88		30-150	2		30	A
Endosulfan I	71		73		30-150	3		30	A
Endosulfan II	81		81		30-150	0		30	A
Endosulfan sulfate	64		63		30-150	2		30	A
Methoxychlor	90		91		30-150	1		30	A
cis-Chlordane	58		60		30-150	3		30	A
trans-Chlordane	85		86		30-150	1		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03,05-06,08,10,12 Batch: WG1526452-2 WG1526452-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		85		30-150	A
Decachlorobiphenyl	87		83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		72		30-150	B
Decachlorobiphenyl	69		76		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 12 Batch: WG1526764-2 WG1526764-3									
2,4-D	83		93		30-150	11		30	A
2,4,5-T	72		78		30-150	8		30	A
2,4,5-TP (Silvex)	70		77		30-150	10		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	89		98		30-150	A
DCAA	90		96		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01,03,05-06,08,10 Batch: WG1527204-2 WG1527204-3									
2,4-D	79		86		30-150	8		30	A
2,4,5-T	77		83		30-150	8		30	A
2,4,5-TP (Silvex)	73		78		30-150	7		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	95		99		30-150	A
DCAA	94		107		30-150	B

INORGANICS
&
MISCELLANEOUS

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-01
Client ID: SB-16-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	70.4		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-02
Client ID: SB-16-1314
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Date Collected: 07/20/21 10:20
Date Received: 07/20/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.3		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-03
Client ID: MW-4-02
Sample Location: Not Specified

Date Collected: 07/20/21 10:45
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.5		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-04
Client ID: MW-4-1415
Sample Location: Not Specified

Date Collected: 07/20/21 11:30
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.6		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-05
Client ID: SB-15-02
Sample Location: Not Specified

Date Collected: 07/20/21 11:55
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.3		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-06
Client ID: SB-150-02
Sample Location: Not Specified

Date Collected: 07/20/21 12:00
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.3		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-07
Client ID: SB-15-1314
Sample Location: Not Specified

Date Collected: 07/20/21 12:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-08
Client ID: SB-14-02
Sample Location: Not Specified

Date Collected: 07/20/21 13:15
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75.5		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-09
Client ID: SB-14-1314
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Date Collected: 07/20/21 13:40
Date Received: 07/20/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.2		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-10
Client ID: SB-13-02
Sample Location: Not Specified

Date Collected: 07/20/21 14:05
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.6		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-11
Client ID: SB-13-1314
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Date Collected: 07/20/21 14:30
Date Received: 07/20/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.3		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified
Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-12
Client ID: SB-12-02
Sample Location: Not Specified
Sample Depth:
Matrix: Soil
Date Collected: 07/20/21 15:00
Date Received: 07/20/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.4		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

SAMPLE RESULTS

Lab ID: L2138906-13
Client ID: SB-12-1213
Sample Location: Not Specified

Date Collected: 07/20/21 15:20
Date Received: 07/20/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.6		%	0.100	NA	1	-	07/21/21 12:29	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: TULIP MOLDED PLASTICS

Project Number: Not Specified

Lab Number: L2138906

Report Date: 07/29/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-13 QC Batch ID: WG1526310-1 QC Sample: L2138850-01 Client ID: DUP Sample						
Solids, Total	70.9	71.2	%	0		20

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2138906-01A	Vial MeOH preserved	A	NA		3.7	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-01B	Vial water preserved	A	NA		3.7	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-01C	Vial water preserved	A	NA		3.7	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-01D	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-01F	Plastic 8oz unpreserved	A	NA		3.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-01G	Glass 500ml/16oz unpreserved	A	NA		3.7	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-02A	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-02B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-03A	Vial MeOH preserved	B	NA		5.2	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-03B	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-03C	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-03D	Plastic 2oz unpreserved for TS	B	NA		5.2	Y	Absent		TS(7)
L2138906-03E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		5.2	Y	Absent		SUB-TAL 6010(180)
L2138906-03F	Plastic 8oz unpreserved	B	NA		5.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-03G	Glass 500ml/16oz unpreserved	B	NA		5.2	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-04A	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-04B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-05A	Vial MeOH preserved	A	NA		3.7	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-05B	Vial water preserved	A	NA		3.7	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-05C	Vial water preserved	A	NA		3.7	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)

*Values in parentheses indicate holding time in days

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2138906-05D	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-05F	Plastic 8oz unpreserved	A	NA		3.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-05G	Glass 500ml/16oz unpreserved	A	NA		3.7	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-06A	Vial MeOH preserved	A	NA		3.7	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-06B	Vial water preserved	A	NA		3.7	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-06C	Vial water preserved	A	NA		3.7	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-06D	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-06F	Plastic 8oz unpreserved	A	NA		3.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-06G	Glass 500ml/16oz unpreserved	A	NA		3.7	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-07A	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-07B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-08A	Vial MeOH preserved	B	NA		5.2	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-08B	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-08C	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-08D	Plastic 2oz unpreserved for TS	B	NA		5.2	Y	Absent		TS(7)
L2138906-08E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		5.2	Y	Absent		SUB-TAL 6010(180)
L2138906-08F	Plastic 8oz unpreserved	B	NA		5.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-08G	Glass 500ml/16oz unpreserved	B	NA		5.2	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-09A	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-09B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-10A	Vial MeOH preserved	B	NA		5.2	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-10B	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-10C	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-10D	Plastic 2oz unpreserved for TS	B	NA		5.2	Y	Absent		TS(7)
L2138906-10E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		5.2	Y	Absent		SUB-TAL 6010(180)

*Values in parentheses indicate holding time in days

Project Name: TULIP MOLDED PLASTICS
Project Number: Not Specified

Lab Number: L2138906
Report Date: 07/29/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2138906-10F	Plastic 8oz unpreserved	B	NA		5.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-10G	Glass 500ml/16oz unpreserved	B	NA		5.2	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-11A	Plastic 2oz unpreserved for TS	A	NA		3.7	Y	Absent		TS(7)
L2138906-11B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		SUB-TAL 6010(180)
L2138906-12A	Vial MeOH preserved	B	NA		5.2	Y	Absent		NYTCL-8260HLW-R2(14)
L2138906-12B	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-12C	Vial water preserved	B	NA		5.2	Y	Absent	21-JUL-21 11:27	NYTCL-8260HLW-R2(14)
L2138906-12D	Plastic 2oz unpreserved for TS	B	NA		5.2	Y	Absent		TS(7)
L2138906-12E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		5.2	Y	Absent		SUB-TAL 6010(180)
L2138906-12F	Plastic 8oz unpreserved	B	NA		5.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L2138906-12G	Glass 500ml/16oz unpreserved	B	NA		5.2	Y	Absent		NYTCL-8270(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(365)
L2138906-13A	Plastic 2oz unpreserved for TS	B	NA		5.2	Y	Absent		TS(7)
L2138906-13B	Metals Only-Glass 60mL/2oz unpreserved	B	NA		5.2	Y	Absent		SUB-TAL 6010(180)

*Values in parentheses indicate holding time in days

Project Name: TULIP MOLDED PLASTICS
Lab Number: L2138906
Project Number:
Report Date: 07/29/21

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name:	TULIP MOLDED PLASTICS	**Lab Number:**	L2138906
Project Number:	Not Specified	**Report Date:**	07/29/21

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	TULIP MOLDED PLASTICS	**Lab Number:**	L2138906
Project Number:	Not Specified	**Report Date:**	07/29/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	TULIP MOLDED PLASTICS	**Lab Number:**	L2138906
Project Number:	Not Specified	**Report Date:**	07/29/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name:	TULIP MOLDED PLASTICS	**Lab Number:**	L2138906
Project Number:	Not Specified	**Report Date:**	07/29/21

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 7/21/21

ALPHA Job #: L2138906

Project Information

Project Name: Tulip Molded Plastics
Project Location:
Project #
(Use Project name as Project #) ☑
Project Manager: Todd Waldrop
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Client Information

Client: INVENTUM ENGINEERING
Address: 481 Carlisle Drive, Suite 202
Herndon, VA 20170
Phone: 571.752.6562
Fax:
Email: todd.waldrop@inventumeng.com

Deliverables

☑ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other

Billing Information

☑ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☑ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration

☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals / HG	TCL VOCs (8260/5035)	TCL SVOCs (8270)	1,4-Dioxane (8270 SIM)	PCBs (8082)	TCL Pest/Herb (8081/8151)	PFAS (537 Mod)		Sample Specific Comments	Total Bottles
38906-01	SB-16-02	7/20/21	1000	Soil	TW	✓	✓	✓	✓	✓	✓	✓			
-02	SB-16-1314	"	1020	"	TW	✓									
-03	MW-4-02	"	1045	"	TW	✓	✓	✓	✓	✓	✓	✓			
-04	MW-4-1415	"	1130	"	TW	✓	No VOCs (only mtls & Hg)								
-05	SB-15-02	"	1155	"	TW	✓	✓	✓	✓	✓	✓	✓			
-06	SB-150-02	"	1200	"	TW	✓	✓	✓	✓	✓	✓	✓			
-07	SB-15-1314	"	1215	"	TW	✓									
-08	SB-14-02	"	1315	"	TW	✓	✓	✓	✓	✓	✓	✓			
-09	SB-14-1314	"	1340	"	TW	✓									
-10	SB-13-02	"	1405	"	TW	✓	✓	✓	✓	✓	✓	✓			

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

	TAL Metals / HG	TCL VOCs	TCL SVOCs	1,4-Dioxane	PCBs	TCL Pest/Herb	PFAS	
Container Type	A	A	A	A	A	A	P	
Preservative	A	A	A	A	A	A	A	

Relinquished By:	Date/Time	Received By:	Date/Time
Todd [signature]	7/20/21 1600	[signature] AAL	7/20/21 1610
		[signature]	7/21/21 00:50

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 7/21/21

ALPHA Job #: L2138906

Client Information

Client: INVENTUM ENGINEERING
Address: 481 Carlisle Drive, Suite 202
Herndon, VA 20170
Phone: 571.752.6562
Fax:
Email: todd.waldrop@inventumeng.com

Project Information

Project Name: Tulip Molded Plastics
Project Location:
Project #
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals / HG	TCL VOCs (8260/5035)	TCL SVOCs (8270)	1,4-Dioxane (8270 SIM)	PCBs (8082)	TCL Pest/Herb (8081/815	PFAS (537 Mod)		Sample Specific Comments	Total Bottle
38906-11	SB-13-1314	7/20/21	1430	Soil	TW	✓									
-12	SB-12-02	"	1500	Soil	TW	✓	✓	✓	✓	✓	✓	✓			
-13	SB-12-1213	"	1520	Soil	TW	✓									

Container Type	A	A	A	A	A	A	P						
Preservative	A	A	A	A	A	A	A						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
		TW AAL	7/20/21 1610
			7/21/21 0515

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Paradigm
179 Lake Avenue
Rochester, NY 14608

Alpha Job Number
L2138906

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 603.319.5010
Email: mgulli@alphalab.com

Project Information

Project Location: NY
Project Manager: Melissa Gulli

Turnaround & Deliverables Information

Due Date: 07/27/21
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2138906

Report to include Method Blank, LCS/LCSD: YES

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	SB-16-02	07-20-21 10:00	SOIL	TAL 6010 Metals	
	SB-16-1314	07-20-21 10:20	SOIL	TAL 6010 Metals	
	MW-4-02	07-20-21 10:45	SOIL	TAL 6010 Metals	
	MW-4-1415	07-20-21 11:30	SOIL	TAL 6010 Metals	
	SB-15-02	07-20-21 11:55	SOIL	TAL 6010 Metals	
	SB-150-02	07-20-21 12:00	SOIL	TAL 6010 Metals	
	SB-15-1314	07-20-21 12:15	SOIL	TAL 6010 Metals	
	SB-14-02	07-20-21 13:15	SOIL	TAL 6010 Metals	
	SB-14-1314	07-20-21 13:40	SOIL	TAL 6010 Metals	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	CGelbeau	7/21/21		
Form No: AL_subcoc				

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Paradigm
179 Lake Avenue
Rochester, NY 14608

Alpha Job Number
L2138906

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 603.319.5010
Email: mgulli@alphalab.com

Project Information

Project Location: NY
Project Manager: Melissa Gulli

Turnaround & Deliverables Information

Due Date: 07/27/21
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2138906

Report to include Method Blank, LCS/LCSD: YES

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	SB-13-02	07-20-21 14:05	SOIL	TAL 6010 Metals	
	SB-13-1314	07-20-21 14:30	SOIL	TAL 6010 Metals	
	SB-12-02	07-20-21 15:00	SOIL	TAL 6010 Metals	
	SB-12-1213	07-20-21 15:20	SOIL	TAL 6010 Metals	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	C Telvan	7/21/21		
Form No: AL_subcoc				

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

Alpha Analytical

For Lab Project ID

213259

Referencing

L2138906

Prepared

Tuesday, July 27, 2021

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-16-02		
Lab Sample ID:	213259-01	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0401**	mg/Kg		7/26/2021 09:06

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726A

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**17100**	mg/Kg		7/23/2021 18:41
Antimony	< 3.78	mg/Kg		7/23/2021 18:41
Arsenic	**5.81**	mg/Kg		7/23/2021 18:41
Barium	**64.9**	mg/Kg		7/23/2021 18:41
Beryllium	**0.262**	mg/Kg	J	7/23/2021 18:41
Cadmium	< 0.315	mg/Kg		7/23/2021 18:41
Calcium	**1650**	mg/Kg		7/23/2021 18:41
Chromium	**21.1**	mg/Kg		7/23/2021 18:41
Cobalt	**17.7**	mg/Kg		7/23/2021 18:41
Copper	**5.86**	mg/Kg		7/23/2021 18:41
Iron	**26600**	mg/Kg		7/23/2021 18:41
Lead	**12.3**	mg/Kg		7/23/2021 18:41
Magnesium	**4120**	mg/Kg		7/23/2021 18:41
Manganese	**352**	mg/Kg		7/23/2021 18:41
Nickel	**16.2**	mg/Kg		7/23/2021 18:41
Potassium	**1550**	mg/Kg		7/23/2021 18:41
Selenium	**1.39**	mg/Kg		7/23/2021 18:41
Silver	< 0.629	mg/Kg		7/23/2021 18:41
Sodium	**98.5**	mg/Kg	J	7/23/2021 18:41
Thallium	< 1.57	mg/Kg		7/23/2021 18:41
Vanadium	**37.6**	mg/Kg		7/23/2021 18:41

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-16-02		
Lab Sample ID:	213259-01	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**74.1**	mg/Kg		7/23/2021	18:41

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210723C

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-16-1314		
Lab Sample ID:	213259-02	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0134**	mg/Kg		7/26/2021 09:14

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**22700**	mg/Kg		7/23/2021 18:46
Antimony	**2.12**	mg/Kg	J	7/23/2021 18:46
Arsenic	**2.89**	mg/Kg		7/23/2021 18:46
Barium	**161**	mg/Kg		7/23/2021 18:46
Beryllium	**0.371**	mg/Kg		7/23/2021 18:46
Cadmium	**0.346**	mg/Kg		7/23/2021 18:46
Calcium	**45800**	mg/Kg		7/26/2021 21:25
Chromium	**29.1**	mg/Kg		7/23/2021 18:46
Cobalt	**13.2**	mg/Kg		7/23/2021 18:46
Copper	**23.1**	mg/Kg		7/23/2021 18:46
Iron	**27600**	mg/Kg		7/23/2021 18:46
Lead	**9.82**	mg/Kg		7/23/2021 18:46
Magnesium	**12200**	mg/Kg		7/23/2021 18:46
Manganese	**467**	mg/Kg		7/23/2021 18:46
Nickel	**28.9**	mg/Kg		7/23/2021 18:46
Potassium	**6180**	mg/Kg		7/23/2021 18:46
Selenium	< 1.32	mg/Kg		7/23/2021 18:46
Silver	< 0.659	mg/Kg		7/23/2021 18:46
Sodium	**263**	mg/Kg		7/23/2021 18:46
Thallium	< 3.30	mg/Kg		7/27/2021 12:34
Vanadium	**39.7**	mg/Kg		7/23/2021 18:46

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-16-1314		
Lab Sample ID:	213259-02	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**64.6**	mg/Kg	7/23/2021	18:46

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210723C

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	MW-4-02		
Lab Sample ID:	213259-03	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0270**	mg/Kg		7/26/2021 09:16

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**18200**	mg/Kg		7/23/2021 18:50
Antimony	**2.12**	mg/Kg	J	7/23/2021 18:50
Arsenic	**4.57**	mg/Kg		7/23/2021 18:50
Barium	**99.9**	mg/Kg		7/23/2021 18:50
Beryllium	**0.330**	mg/Kg		7/23/2021 18:50
Cadmium	**0.358**	mg/Kg		7/23/2021 18:50
Calcium	**62500**	mg/Kg		7/26/2021 21:30
Chromium	**22.4**	mg/Kg		7/23/2021 18:50
Cobalt	**12.5**	mg/Kg		7/23/2021 18:50
Copper	**160**	mg/Kg		7/23/2021 18:50
Iron	**23800**	mg/Kg		7/23/2021 18:50
Lead	**99.5**	mg/Kg		7/23/2021 18:50
Magnesium	**9380**	mg/Kg		7/23/2021 18:50
Manganese	**507**	mg/Kg		7/23/2021 18:50
Nickel	**22.8**	mg/Kg		7/23/2021 18:50
Potassium	**4130**	mg/Kg		7/23/2021 18:50
Selenium	< 1.26	mg/Kg		7/23/2021 18:50
Silver	< 0.632	mg/Kg		7/23/2021 18:50
Sodium	**168**	mg/Kg		7/23/2021 18:50
Thallium	< 1.58	mg/Kg		7/23/2021 18:50
Vanadium	**32.3**	mg/Kg		7/23/2021 18:50

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	MW-4-02		
Lab Sample ID:	213259-03	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**67.5**	mg/Kg	7/23/2021	18:50

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210723C

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	MW-4-1415		
Lab Sample ID:	213259-04	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0145**	mg/Kg		7/26/2021 09:18

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**14900**	mg/Kg		7/23/2021 18:54
Antimony	**2.30**	mg/Kg	J	7/23/2021 18:54
Arsenic	**2.80**	mg/Kg		7/23/2021 18:54
Barium	**91.2**	mg/Kg		7/23/2021 18:54
Beryllium	**0.197**	mg/Kg	J	7/23/2021 18:54
Cadmium	**0.356**	mg/Kg		7/23/2021 18:54
Calcium	**49600**	mg/Kg		7/26/2021 21:34
Chromium	**19.8**	mg/Kg		7/23/2021 18:54
Cobalt	**10.3**	mg/Kg		7/23/2021 18:54
Copper	**20.1**	mg/Kg		7/23/2021 18:54
Iron	**20700**	mg/Kg		7/23/2021 18:54
Lead	**7.20**	mg/Kg		7/23/2021 18:54
Magnesium	**9790**	mg/Kg		7/23/2021 18:54
Manganese	**512**	mg/Kg		7/23/2021 18:54
Nickel	**20.9**	mg/Kg		7/23/2021 18:54
Potassium	**3650**	mg/Kg		7/23/2021 18:54
Selenium	**1.17**	mg/Kg	J	7/23/2021 18:54
Silver	< 0.605	mg/Kg		7/23/2021 18:54
Sodium	**192**	mg/Kg		7/23/2021 18:54
Thallium	< 3.02	mg/Kg		7/27/2021 12:38
Vanadium	**28.2**	mg/Kg		7/23/2021 18:54

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	MW-4-1415		
Lab Sample ID:	213259-04	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**53.1**	mg/Kg		7/23/2021	18:54

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210723C

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-15-02		
Lab Sample ID:	213259-05	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.127**	mg/Kg		7/26/2021 09:20

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**16800**	mg/Kg		7/23/2021 18:58
Antimony	< 3.96	mg/Kg		7/23/2021 18:58
Arsenic	**3.87**	mg/Kg		7/23/2021 18:58
Barium	**102**	mg/Kg		7/23/2021 18:58
Beryllium	**0.556**	mg/Kg		7/23/2021 18:58
Cadmium	**0.219**	mg/Kg	J	7/23/2021 18:58
Calcium	**16800**	mg/Kg		7/23/2021 18:58
Chromium	**20.3**	mg/Kg		7/23/2021 18:58
Cobalt	**10.3**	mg/Kg		7/23/2021 18:58
Copper	**24.1**	mg/Kg		7/23/2021 18:58
Iron	**22700**	mg/Kg		7/23/2021 18:58
Lead	**106**	mg/Kg		7/23/2021 18:58
Magnesium	**7060**	mg/Kg		7/23/2021 18:58
Manganese	**356**	mg/Kg		7/23/2021 18:58
Nickel	**22.7**	mg/Kg		7/23/2021 18:58
Potassium	**2780**	mg/Kg		7/23/2021 18:58
Selenium	< 1.32	mg/Kg		7/23/2021 18:58
Silver	< 0.660	mg/Kg		7/23/2021 18:58
Sodium	**192**	mg/Kg		7/23/2021 18:58
Thallium	< 1.65	mg/Kg		7/23/2021 18:58
Vanadium	**29.5**	mg/Kg		7/23/2021 18:58

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-15-02		
Lab Sample ID:	213259-05	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**66.9**	mg/Kg		7/23/2021	18:58

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210723C

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-150-02		
Lab Sample ID:	213259-06	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0728**	mg/Kg		7/26/2021 09:26

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**17600**	mg/Kg		7/27/2021 12:16
Antimony	**2.16**	mg/Kg	J	7/23/2021 19:12
Arsenic	**10.1**	mg/Kg		7/23/2021 19:12
Barium	**105**	mg/Kg		7/23/2021 19:12
Beryllium	**0.517**	mg/Kg		7/23/2021 19:12
Cadmium	**0.316**	mg/Kg	J	7/23/2021 19:12
Calcium	**25500**	mg/Kg		7/23/2021 19:12
Chromium	**21.3**	mg/Kg		7/23/2021 19:12
Cobalt	**12.8**	mg/Kg		7/23/2021 19:12
Copper	**23.7**	mg/Kg		7/23/2021 19:12
Iron	**32200**	mg/Kg		7/27/2021 12:16
Lead	**120**	mg/Kg		7/23/2021 19:12
Magnesium	**6970**	mg/Kg		7/23/2021 19:12
Manganese	**579**	mg/Kg		7/23/2021 19:12
Nickel	**22.8**	mg/Kg		7/23/2021 19:12
Potassium	**2890**	mg/Kg		7/23/2021 19:12
Selenium	< 1.38	mg/Kg		7/23/2021 19:12
Silver	< 0.692	mg/Kg		7/23/2021 19:12
Sodium	**208**	mg/Kg		7/23/2021 19:12
Thallium	< 1.73	mg/Kg		7/23/2021 19:12
Vanadium	**35.7**	mg/Kg		7/23/2021 19:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-150-02		
Lab Sample ID:	213259-06	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**73.5**	mg/Kg		7/23/2021	19:12

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-15-1314		
Lab Sample ID:	213259-07	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0151**	mg/Kg		7/26/2021 09:28

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**20000**	mg/Kg		7/27/2021 12:48
Antimony	**2.45**	mg/Kg	J	7/23/2021 19:17
Arsenic	**4.28**	mg/Kg		7/23/2021 19:17
Barium	**89.0**	mg/Kg		7/23/2021 19:17
Beryllium	**0.270**	mg/Kg	J	7/23/2021 19:17
Cadmium	**0.467**	mg/Kg		7/23/2021 19:17
Calcium	**60600**	mg/Kg		7/26/2021 21:39
Chromium	**22.2**	mg/Kg		7/23/2021 19:17
Cobalt	**10.0**	mg/Kg		7/23/2021 19:17
Copper	**22.3**	mg/Kg		7/23/2021 19:17
Iron	**28800**	mg/Kg		7/27/2021 12:48
Lead	**10.4**	mg/Kg		7/23/2021 19:17
Magnesium	**9920**	mg/Kg		7/23/2021 19:17
Manganese	**461**	mg/Kg		7/23/2021 19:17
Nickel	**22.2**	mg/Kg		7/23/2021 19:17
Potassium	**4400**	mg/Kg		7/23/2021 19:17
Selenium	< 1.12	mg/Kg		7/23/2021 19:17
Silver	< 0.558	mg/Kg		7/23/2021 19:17
Sodium	**228**	mg/Kg		7/23/2021 19:17
Thallium	< 2.79	mg/Kg		7/27/2021 12:48
Vanadium	**31.7**	mg/Kg		7/23/2021 19:17

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-15-1314		
Lab Sample ID:	213259-07	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**61.3**	mg/Kg	7/23/2021	19:17

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-14-02		
Lab Sample ID:	213259-08	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0256**	mg/Kg		7/26/2021 09:29

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**23900**	mg/Kg		7/27/2021 12:21
Antimony	< 3.55	mg/Kg		7/23/2021 19:21
Arsenic	**6.76**	mg/Kg		7/23/2021 19:21
Barium	**109**	mg/Kg		7/23/2021 19:21
Beryllium	**0.226**	mg/Kg	J	7/23/2021 19:21
Cadmium	**0.324**	mg/Kg		7/23/2021 19:21
Calcium	**2640**	mg/Kg		7/23/2021 19:21
Chromium	**28.2**	mg/Kg		7/23/2021 19:21
Cobalt	**8.21**	mg/Kg		7/23/2021 19:21
Copper	**19.6**	mg/Kg		7/23/2021 19:21
Iron	**41500**	mg/Kg		7/27/2021 12:21
Lead	**16.8**	mg/Kg		7/23/2021 19:21
Magnesium	**4840**	mg/Kg		7/23/2021 19:21
Manganese	**332**	mg/Kg		7/23/2021 19:21
Nickel	**19.0**	mg/Kg		7/23/2021 19:21
Potassium	**2360**	mg/Kg		7/23/2021 19:21
Selenium	< 1.18	mg/Kg		7/23/2021 19:21
Silver	< 0.592	mg/Kg		7/23/2021 19:21
Sodium	< 148	mg/Kg		7/23/2021 19:21
Thallium	< 1.48	mg/Kg		7/23/2021 19:21
Vanadium	**40.6**	mg/Kg		7/23/2021 19:21

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-14-02		
Lab Sample ID:	213259-08	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**63.2**	mg/Kg		7/23/2021	19:21

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-14-1314		
Lab Sample ID:	213259-09	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0115**	mg/Kg		7/26/2021 09:30

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**12800**	mg/Kg		7/27/2021 12:25
Antimony	< 3.69	mg/Kg		7/23/2021 19:25
Arsenic	**4.06**	mg/Kg		7/23/2021 19:25
Barium	**102**	mg/Kg		7/23/2021 19:25
Beryllium	**0.186**	mg/Kg	J	7/23/2021 19:25
Cadmium	**0.205**	mg/Kg	J	7/23/2021 19:25
Calcium	**55600**	mg/Kg		7/26/2021 21:53
Chromium	**16.9**	mg/Kg		7/23/2021 19:25
Cobalt	**9.23**	mg/Kg		7/23/2021 19:25
Copper	**20.5**	mg/Kg		7/23/2021 19:25
Iron	**20200**	mg/Kg		7/27/2021 12:25
Lead	**6.85**	mg/Kg		7/23/2021 19:25
Magnesium	**8260**	mg/Kg		7/23/2021 19:25
Manganese	**503**	mg/Kg		7/23/2021 19:25
Nickel	**18.3**	mg/Kg		7/23/2021 19:25
Potassium	**2890**	mg/Kg		7/23/2021 19:25
Selenium	< 1.23	mg/Kg		7/23/2021 19:25
Silver	< 0.616	mg/Kg		7/23/2021 19:25
Sodium	**165**	mg/Kg		7/23/2021 19:25
Thallium	< 1.54	mg/Kg		7/23/2021 19:25
Vanadium	**24.4**	mg/Kg		7/23/2021 19:25

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-14-1314		
Lab Sample ID:	213259-09	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**44.0**	mg/Kg	7/23/2021	19:25

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 7/23/2021
Data File: 210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-13-02		
Lab Sample ID:	213259-10	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0215**	mg/Kg		7/26/2021 09:33

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**23100**	mg/Kg		7/27/2021 12:30
Antimony	< 3.53	mg/Kg		7/23/2021 19:29
Arsenic	**5.06**	mg/Kg		7/23/2021 19:29
Barium	**118**	mg/Kg		7/23/2021 19:29
Beryllium	**0.611**	mg/Kg		7/23/2021 19:29
Cadmium	**0.540**	mg/Kg		7/23/2021 19:29
Calcium	**12800**	mg/Kg		7/23/2021 19:29
Chromium	**27.7**	mg/Kg		7/23/2021 19:29
Cobalt	**9.27**	mg/Kg		7/23/2021 19:29
Copper	**22.9**	mg/Kg		7/23/2021 19:29
Iron	**27700**	mg/Kg		7/27/2021 12:30
Lead	**12.0**	mg/Kg		7/23/2021 19:29
Magnesium	**9410**	mg/Kg		7/23/2021 19:29
Manganese	**280**	mg/Kg		7/23/2021 19:29
Nickel	**25.3**	mg/Kg		7/23/2021 19:29
Potassium	**3730**	mg/Kg		7/23/2021 19:29
Selenium	< 1.18	mg/Kg		7/23/2021 19:29
Silver	< 0.588	mg/Kg		7/23/2021 19:29
Sodium	**269**	mg/Kg		7/23/2021 19:29
Thallium	< 1.47	mg/Kg		7/23/2021 19:29
Vanadium	**36.7**	mg/Kg		7/23/2021 19:29

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-13-02		
Lab Sample ID:	213259-10	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**62.1**	mg/Kg		7/23/2021	19:29

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-13-1314		
Lab Sample ID:	213259-11	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0107**	mg/Kg		7/26/2021 09:36

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**15600**	mg/Kg		7/27/2021 13:06
Antimony	< 3.61	mg/Kg		7/23/2021 19:33
Arsenic	**3.11**	mg/Kg		7/23/2021 19:33
Barium	**68.3**	mg/Kg		7/23/2021 19:33
Beryllium	**0.232**	mg/Kg	J	7/23/2021 19:33
Cadmium	**0.315**	mg/Kg		7/23/2021 19:33
Calcium	**47900**	mg/Kg		7/26/2021 21:58
Chromium	**17.8**	mg/Kg		7/23/2021 19:33
Cobalt	**9.42**	mg/Kg		7/23/2021 19:33
Copper	**18.0**	mg/Kg		7/23/2021 19:33
Iron	**24200**	mg/Kg		7/27/2021 13:06
Lead	**5.13**	mg/Kg		7/23/2021 19:33
Magnesium	**8940**	mg/Kg		7/23/2021 19:33
Manganese	**562**	mg/Kg		7/23/2021 19:33
Nickel	**20.0**	mg/Kg		7/23/2021 19:33
Potassium	**3380**	mg/Kg		7/23/2021 19:33
Selenium	< 1.20	mg/Kg		7/23/2021 19:33
Silver	< 0.602	mg/Kg		7/23/2021 19:33
Sodium	**193**	mg/Kg		7/23/2021 19:33
Thallium	< 3.01	mg/Kg		7/27/2021 13:06
Vanadium	**25.7**	mg/Kg		7/23/2021 19:33

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-13-1314		
Lab Sample ID:	213259-11	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**46.7**	mg/Kg	7/23/2021	19:33

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	7/23/2021
Data File:	210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-12-02		
Lab Sample ID:	213259-12	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0130**	mg/Kg		7/26/2021 09:39

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**17300**	mg/Kg		7/27/2021 13:11
Antimony	< 3.44	mg/Kg	M	7/23/2021 19:48
Arsenic	**5.79**	mg/Kg	D	7/23/2021 19:48
Barium	**95.5**	mg/Kg		7/23/2021 19:48
Beryllium	**0.273**	mg/Kg	JM	7/23/2021 19:48
Cadmium	**0.655**	mg/Kg	DM	7/23/2021 19:48
Calcium	**69600**	mg/Kg		7/27/2021 14:01
Chromium	**19.1**	mg/Kg	M	7/23/2021 19:48
Cobalt	**9.10**	mg/Kg	M	7/23/2021 19:48
Copper	**23.4**	mg/Kg		7/23/2021 19:48
Iron	**29200**	mg/Kg		7/27/2021 13:11
Lead	**6.59**	mg/Kg	M	7/23/2021 19:48
Magnesium	**9430**	mg/Kg		7/23/2021 19:48
Manganese	**444**	mg/Kg	M	7/23/2021 19:48
Nickel	**19.8**	mg/Kg	M	7/23/2021 19:48
Potassium	**3140**	mg/Kg	M	7/23/2021 19:48
Selenium	< 1.15	mg/Kg	M	7/23/2021 19:48
Silver	< 0.573	mg/Kg		7/23/2021 19:48
Sodium	**179**	mg/Kg		7/26/2021 20:49
Thallium	< 2.87	mg/Kg	M	7/27/2021 13:11
Vanadium	**30.1**	mg/Kg		7/23/2021 19:48

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-12-02		
Lab Sample ID:	213259-12	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**47.3**	mg/Kg	M	7/23/2021	19:48

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 7/23/2021
Data File: 210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-12-1213		
Lab Sample ID:	213259-13	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	< 0.0106	mg/Kg		7/26/2021 09:44

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726B

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**21100**	mg/Kg		7/27/2021 13:33
Antimony	**1.95**	mg/Kg	J	7/23/2021 20:09
Arsenic	**1.78**	mg/Kg		7/23/2021 20:09
Barium	**120**	mg/Kg		7/23/2021 20:09
Beryllium	**0.332**	mg/Kg		7/23/2021 20:09
Cadmium	**0.725**	mg/Kg		7/23/2021 20:09
Calcium	**51200**	mg/Kg		7/26/2021 22:35
Chromium	**24.2**	mg/Kg		7/23/2021 20:09
Cobalt	**10.2**	mg/Kg		7/23/2021 20:09
Copper	**19.3**	mg/Kg		7/23/2021 20:09
Iron	**28500**	mg/Kg		7/27/2021 13:33
Lead	**6.96**	mg/Kg		7/23/2021 20:09
Magnesium	**10800**	mg/Kg		7/23/2021 20:09
Manganese	**498**	mg/Kg		7/23/2021 20:09
Nickel	**24.3**	mg/Kg		7/23/2021 20:09
Potassium	**4950**	mg/Kg		7/23/2021 20:09
Selenium	< 2.57	mg/Kg		7/27/2021 13:33
Silver	< 0.644	mg/Kg		7/23/2021 20:09
Sodium	**253**	mg/Kg		7/26/2021 21:11
Thallium	< 3.22	mg/Kg		7/27/2021 13:33
Vanadium	**33.0**	mg/Kg		7/23/2021 20:09

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 213259

Client: **Alpha Analytical**

Project Reference: L2138906

Sample Identifier:	SB-12-1213		
Lab Sample ID:	213259-13	**Date Sampled:**	7/20/2021
Matrix:	Soil	**Date Received:**	7/22/2021

Zinc	**56.0**	mg/Kg	7/23/2021	20:09

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 7/23/2021
Data File: 210727B

PARADIGM ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client:	**Alpha Analytical**
Project Reference:	L2138906
Lab Project ID:	213259
SDG #:	3259-01
Matrix:	Soil

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	<0.00771	mg/Kg		7/26/2021 08:48

Method Reference(s):	EPA 7471B
Preparation Date:	7/23/2021
Data File:	Hg210726A
QC Batch ID:	QC210723HgSoil
QC Number:	Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: **Alpha Analytical**

Project Reference: L2138906

Lab Project ID: 213259

SDG #: 3259-01

Matrix: Soil

Mercury

Analyte	LCS Added	LCSD Added	Spike Units	LCS Result	LCSD Result	LCS % Recovery	LCSD % Recovery	% Rec Limits	LCS Outliers	LCSD Outliers	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Mercury	0.0783	0.0769	mg/Kg	0.0814	0.0790	104	103	80 - 120			1.27	20		7/26/2021

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Data File: Hg210726A
QC Number: 1
QC Batch ID: QC210723HgSoil

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Sample Spike and Sample Duplicate

SDG #: 3259-01

Client: **Alpha Analytical**

Lab Project ID: 213259

Project Reference: L2138906

Lab Sample ID: 213259-12
Sample Identifier: SB-12-02
Matrix: Soil

Date Sampled: 7/20/2021
Date Received: 7/22/2021

Mercury

Analyte	Sample Results	Result Units	Spike Added	Spike Result	Spike % Recovery	% Rec Limits	Spike Outliers	Duplicate Result	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Mercury	**0.0130**	mg/Kg	0.0910	0.111	108	75 - 125		0.0131	0.822	20		7/26/2021

Method Reference(s): EPA 7471B
Preparation Date: 7/23/2021
Hg210726B
QC Batch ID: QC210723HgSoil

NC = Not Calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Method Blank Report

Client: **Alpha Analytical**
Project Reference: L2138906
Lab Project ID: 213259
SDG #: 3259-01
Matrix: Soil

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Aluminum	<5.00	mg/Kg		7/23/2021	18:27
Antimony	<3.00	mg/Kg		7/23/2021	18:27
Arsenic	<0.500	mg/Kg		7/23/2021	18:27
Barium	<5.00	mg/Kg		7/23/2021	18:27
Beryllium	<0.250	mg/Kg		7/23/2021	18:27
Cadmium	<0.250	mg/Kg		7/23/2021	18:27
Calcium	<125	mg/Kg		7/23/2021	18:27
Chromium	<0.500	mg/Kg		7/23/2021	18:27
Cobalt	<2.50	mg/Kg		7/23/2021	18:27
Copper	<1.00	mg/Kg		7/23/2021	18:27
Iron	<10.0	mg/Kg		7/23/2021	18:27
Lead	<0.500	mg/Kg		7/23/2021	18:27
Magnesium	<125	mg/Kg		7/23/2021	18:27
Manganese	<0.750	mg/Kg		7/23/2021	18:27
Nickel	<2.00	mg/Kg		7/23/2021	18:27
Potassium	<125	mg/Kg		7/23/2021	18:27
Selenium	<1.00	mg/Kg		7/23/2021	18:27
Silver	<0.500	mg/Kg		7/23/2021	18:27
Sodium	<125	mg/Kg		7/23/2021	18:27
Thallium	<1.25	mg/Kg		7/23/2021	18:27
Vanadium	<1.25	mg/Kg		7/23/2021	18:27
Zinc	<3.00	mg/Kg		7/23/2021	18:27

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 7/23/2021
Data File: 210723C
QC Batch ID: QC210723Soil
QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: **Alpha Analytical**

Project Reference: L2138906

Lab Project ID: 213259

SDG #: 3259-01

Matrix: Soil

TAL Metals (ICP)

Analyte	LCS Added	LCSD Added	Spike Units	LCS Result	LCSD Result	LCS % Recovery	LCSD % Recovery	% Rec Limits	LCS Outliers	LCSD Outliers	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Aluminum	125	125	mg/Kg	119	119	95.0	95.3	80 - 120			0.378	20		7/23/2021
Antimony	125	125	mg/Kg	120	119	95.7	95.0	80 - 120			0.764	20		7/23/2021
Arsenic	125	125	mg/Kg	117	115	93.6	91.9	80 - 120			1.82	20		7/23/2021
Barium	125	125	mg/Kg	134	133	107	106	80 - 120			0.945	20		7/23/2021
Beryllium	25.0	25.0	mg/Kg	23.4	22.8	93.5	91.3	80 - 120			2.38	20		7/23/2021
Cadmium	50.0	50.0	mg/Kg	52.0	51.5	104	103	80 - 120			1.02	20		7/23/2021
Calcium	200	200	mg/Kg	193	193	96.3	96.3	80 - 120			0.0122	20		7/23/2021
Chromium	125	125	mg/Kg	130	128	104	103	80 - 120			0.980	20		7/23/2021
Cobalt	50.0	50.0	mg/Kg	51.6	51.2	103	102	80 - 120			0.774	20		7/23/2021
Copper	125	125	mg/Kg	123	121	98.3	97.1	80 - 120			1.28	20		7/23/2021
Iron	125	125	mg/Kg	119	123	95.3	98.4	80 - 120			3.21	20		7/23/2021
Lead	125	125	mg/Kg	129	127	103	102	80 - 120			1.29	20		7/23/2021
Magnesium	400	400	mg/Kg	413	410	103	102	80 - 120			0.831	20		7/23/2021
Manganese	50.0	50.0	mg/Kg	50.5	49.9	101	99.8	80 - 120			1.21	20		7/23/2021
Nickel	250	250	mg/Kg	249	248	99.6	99.0	80 - 120			0.558	20		7/23/2021
Potassium	2120	2120	mg/Kg	2080	2090	97.8	98.5	80 - 120			0.757	20		7/23/2021

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: **Alpha Analytical**
Project Reference: L2138906
Lab Project ID: 213259
SDG #: 3259-01
Matrix: Soil

TAL Metals (ICP)

Analyte	LCS Added	LCSD Added	Spike Units	LCS Result	LCSD Result	LCS % Recovery	LCSD % Recovery	% Rec Limits	LCS Outliers	LCSD Outliers	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Selenium	125	125	mg/Kg	110	109	88.3	87.1	80 - 120			1.36	20		7/23/2021
Silver	12.5	12.5	mg/Kg	11.6	11.5	92.6	91.8	80 - 120			0.914	20		7/23/2021
Sodium	600	600	mg/Kg	579	576	96.5	96.1	80 - 120			0.402	20		7/23/2021
Thallium	125	125	mg/Kg	121	119	96.4	95.3	80 - 120			1.21	20		7/23/2021
Vanadium	50.0	50.0	mg/Kg	47.5	47.3	95.1	94.6	80 - 120			0.511	20		7/23/2021
Zinc	125	125	mg/Kg	116	115	92.5	92.1	80 - 120			0.366	20		7/23/2021

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 7/23/2021
Data File: 210723C
QC Number: 1
QC Batch ID: QC210723Soil

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Sample Spike and Sample Duplicate

SDG #: 3259-01

Client: **Alpha Analytical**

Lab Project ID: 213259

Project Reference: L2138906

Lab Sample ID: 213259-12
Sample Identifier: SB-12-02
Matrix: Soil

Date Sampled: 7/20/2021
Date Received: 7/22/2021

TAL Metals (ICP)

Analyte	Sample Results	Result Units	Spike Added	Spike Result	Spike % Recovery	% Rec Limits	Spike Outliers	Duplicate Result	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Aluminum	**17300**	mg/Kg	146	21000	NC	75 - 125		17900	3.32	20		7/23/2021
Antimony	< 3.44	mg/Kg	146	25.8	17.7	75 - 125	*	<3.44	NC	20		7/23/2021
Arsenic	**5.79**	mg/Kg	146	116	75.7	75 - 125		4.71	20.6	20	*	7/23/2021
Barium	**95.5**	mg/Kg	146	208	76.8	75 - 125		115	18.5	20		7/23/2021
Beryllium	**0.273**	mg/Kg	29.2	20.9	70.7	75 - 125	*	0.254	NC	20		7/23/2021
Cadmium	**0.655**	mg/Kg	58.4	41.0	69.1	75 - 125	*	0.500	26.8	20	*	7/23/2021
Calcium	**69600**	mg/Kg	234	70900	NC	75 - 125		71400	2.60	20		7/27/2021
Chromium	**19.1**	mg/Kg	146	128	74.3	75 - 125	*	19.1	0.00648	20		7/23/2021
Cobalt	**9.10**	mg/Kg	58.4	50.8	71.3	75 - 125	*	7.80	15.4	20		7/23/2021
Copper	**23.4**	mg/Kg	146	149	85.9	75 - 125		19.7	17.3	20		7/23/2021
Iron	**29200**	mg/Kg	146	30300	NC	75 - 125		28700	1.74	20		7/27/2021
Lead	**6.59**	mg/Kg	146	110	70.8	75 - 125	*	6.43	2.45	20		7/23/2021
Magnesium	**9430**	mg/Kg	467	10500	NC	75 - 125		9580	1.58	20		7/23/2021

NC = Not Calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Sample Spike and Sample Duplicate

SDG #: 3259-01

Client: **Alpha Analytical**

Lab Project ID: 213259

Project Reference: L2138906

Lab Sample ID: 213259-12
Sample Identifier: SB-12-02
Matrix: Soil

Date Sampled: 7/20/2021
Date Received: 7/22/2021

TAL Metals (ICP)

Analyte	Sample Results	Result Units	Spike Added	Spike Result	Spike % Recovery	% Rec Limits	Spike Outliers	Duplicate Result	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Manganese	**444**	mg/Kg	58.4	599	265	75 - 125	*	393	12.1	20		7/23/2021
Nickel	**19.8**	mg/Kg	292	212	65.8	75 - 125	*	18.5	7.01	20		7/23/2021
Potassium	**3140**	mg/Kg	2480	6610	140	75 - 125	*	3250	3.28	20		7/23/2021
Selenium	< 1.15	mg/Kg	146	105	72.0	75 - 125	*	<1.15	NC	20		7/23/2021
Silver	< 0.573	mg/Kg	14.6	11.1	75.8	75 - 125		<0.573	NC	20		7/23/2021
Sodium	**179**	mg/Kg	701	822	91.6	75 - 125		177	1.41	20		7/26/2021
Thallium	< 2.87	mg/Kg	146	109	74.8	75 - 125	*	<2.87	NC	20		7/27/2021
Vanadium	**30.1**	mg/Kg	58.4	75.6	77.9	75 - 125		28.7	4.92	20		7/23/2021
Zinc	**47.3**	mg/Kg	146	154	73.1	75 - 125	*	46.4	1.73	20		7/23/2021

NC = Not Calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Sample Spike and Sample Duplicate

SDG #: 3259-01

Client: **Alpha Analytical**

Lab Project ID: 213259

Project Reference: L2138906

Lab Sample ID: 213259-12
Sample Identifier: SB-12-02
Matrix: Soil

Date Sampled: 7/20/2021
Date Received: 7/22/2021

TAL Metals (ICP)

Analyte	Sample Results	Result Units	Spike Added	Spike Result	Spike % Recovery	% Rec Limits	Spike Outliers	Duplicate Result	Relative % Difference	RPD Limit	RPD Outliers	Date Analyzed
Method Reference(s):		EPA 6010C EPA 3050B										
Preparation Date:		7/23/2021										
Data File:		210723C 210727B 210727B										
QC Batch ID:		QC210723Soil										

NC = Not Calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

Subcontract Chain of Custody

ALPHA ANALYTICAL
World Class Chemistry

Paradigm
179 Lake Avenue
Rochester, NY 14608

213259

Alpha Job Number
L2138906

Client Information	Project Information	Regulatory Requirements/Report Limits
Client: Alpha Analytical Labs Address: Eight Walkup Drive Westborough, MA 01581-1019 Phone: 603.319.5010 Email: mgulli@alphalab.com	Project Location: NY Project Manager: Melissa Gulli **Turnaround & Deliverables Information** Due Date: 07/27/21 Deliverables:	State/Federal Program: Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2138906

Report to include Method Blank, LCS/LCSD: YES

Additional Comments: Send all results/reports to subreports@alphalab.com

ASP Cat A per email 6P 7/22/21

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
01	SB-16-02	07-20-21 10:00	SOIL	TAL 6010 Metals	
02	SB-16-1314	07-20-21 10:20	SOIL	TAL 6010 Metals	
03	MW-4-02	07-20-21 10:45	SOIL	TAL 6010 Metals	
04	MW-4-1415	07-20-21 11:30	SOIL	TAL 6010 Metals	
05	SB-15-02	07-20-21 11:55	SOIL	TAL 6010 Metals	
06	SB-150-02	07-20-21 12:00	SOIL	TAL 6010 Metals	
07	SB-15-1314	07-20-21 12:15	SOIL	TAL 6010 Metals	
08	SB-14-02	07-20-21 13:15	SOIL	TAL 6010 Metals	
09	SB-14-1314	07-20-21 13:40	SOIL	TAL 6010 Metals	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	C Gelrean	7/21/21	2P	7/22/21 10:46
Form No: AL_subcoc				

3°C iced 7/22/21 10:38

Subcontract Chain of Custody

Paradigm
179 Lake Avenue
Rochester, NY 14608

213259

Alpha Job Number
L2138906

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 603.319.5010
Email: mgulli@alphalab.com

Project Information

Project Location: NY
Project Manager: Melissa Gulli

Turnaround & Deliverables Information

Due Date: 07/27/21
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:
Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2138906

Report to include Method Blank, LCS/LCSD: YES

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
10	SB-13-02	07-20-21 14:05	SOIL	TAL 6010 Metals	
11	SB-13-1314	07-20-21 14:30	SOIL	TAL 6010 Metals	
12	SB-12-02	07-20-21 15:00	SOIL	TAL 6010 Metals	
13	SB-12-1213	07-20-21 15:20	SOIL	TAL 6010 Metals	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	C Telvan	7/21/21		7/22/21 10:46
Form No: AL_subcoc				

3 of 3

PARADIGM

Chain of Custody Supplement

Client: Alpha Analytical **Completed by:** Glenn Pezzulo

Lab Project ID: 213259 **Date:** 7/22/21

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X		
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X Hg		X
Comments	3°C iced		
Compliant Sample Quantity/Type	X		
Comments			

Attachment B – Health and Safety Plan

Inventum Engineering
Site-Specific Health and Safety Plan (HASP)

(Required for all Type 2 and 3 projects.)

1. General Information

Client Name: Ganson Alternative Energy, LLC

Project #:

Project Name: Tulip Molded Plastics Corporation Site

Project Manager: Todd Waldrop

Street Address:

3125 Highland Avenue

Niagara Falls, New York 14305

Prepared By: Todd Waldrop Date: February 19, 2024

Approved By: John Black, P.E. Date: February 19, 2024

Proposed Date(s) of Work: March 2024

Proposed Scope of Work:

Inventum Engineering, P.C. (Inventum) will be the owner's representative, investigation team, and engineer supporting sampling for the reclassification of several parcels on the Tulip Molded Plastics Corporation Site (Site No. 932169). The general scope of work is provided below, and tasks will be updated with additional details/specifications as the project progresses.

Task 1 - Site Meetings and Oversight

Inventum will conduct periodic site visits and general contractor and subcontractor oversight related to the site investigation. This task includes site visits related to the site investigation, but specifically excludes Inventum personnel directly performing any intrusive site work or oversight of contractors/subcontractors performing intrusive site work. Direct intrusive site work and/or intrusive site work oversight is covered under Tasks 2 and 3 below.

Task 2 –Soil Sampling

Soils samples will be collected from various locations of the Site to establish current conditions. Depending on the depth of sample, subsurface samples may be collected using a hand-auger, shovel, trowel, light or heavy excavating equipment, direct-push equipment, or rotary drilling equipment. Material will be recovered for lithological characterization and field screening with a PID equipped with a 10.6 eV lamp. All observations and measurements will be logged in the field notebook. Samples will be collected for laboratory analysis of Metals (EPA Method 6010), Volatile Organic Compounds (VOCs; EPA Method 8260), and Semi-Volatile Organic Compounds (SVOCs; EPA Method 8270). The primary contaminant-of-concern (COC) at the site is lead.

Task 3 – Test Pit Excavations

Inventum Engineering
Site-Specific Health and Safety Plan (HASP)

(Required for all Type 2 and 3 projects.)

Test pits will be conducted as part of the Site investigation work. Test pits will be excavated using an excavator to a maximum anticipated depth of 5-feet below ground surface (bgs). Excavated soils will be temporarily stockpiled a minimum of 2-feet away from the edge of the pit. Excavated soils will be recovered and presented to Inventum for lithological characterization and field screening with a PID equipped with a 10.6 eV lamp. All observations and measurements will be logged in the field notebook. Samples will be collected for laboratory analysis of Metals, VOCs, and SVOCs.

Inventum Role(s) On Site:

- ☐ Inventum Staff Will Not Be On Site (HASP and Risk Analysis is for subcontractor information only)
- ☒ Resident Project Representative (*e.g.,* "Observe and Document")
- ☐ Construction Manager (*e.g.*, CM, Managing/General Contractor)
- ☒ Representative for Client (*e.g.,* "Agent for Owner")
- ☒ General On-site Consulting/Engineering Services
- ☒ Other

☒ Soil Sampling	☐ Solid Waste Sampling	☐ Liquid Waste Sampling
☐ Groundwater Sampling	☐ Surface Water Sampling	☐ Wastewater Sampling
☐ Sediment Sampling	☐ Surveying	☐ Confined Space Entry

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Major Project Tasks	Inventum Task	Subcontractor Task	Minimum PPE Level Required see HASP for details (suggested levels for Subcontractor work)
1. Site Meetings and Oversight	☒	☐	☐ N/A ☒ D ☐ C ☐ B ☐ A
2. Soil Sampling	☒	☐	☐ N/A ☒ D ☐ C ☐ B ☐ A
3. Test Pit Excavations	☒	☒	☐ N/A ☒ D ☐ C ☐ B ☐ A
4.	☐	☐	☐ N/A ☐ D ☐ C ☐ B ☐ A
5.	☐	☐	☐ N/A ☐ D ☐ C ☐ B ☐ A

2. Contingency Planning

LOCAL EMERGENCY RESOURCES:	
Ambulance: 911	Emergency Room: 716.278.4395
Police: 911	Fire Department: 911
NYSDEC Contact: Taylor Monnin, Project Manager, 716.851.7220	Poison Control Center: 1-800-222-1222 ☐ Specify:
Other (client services offered, etc.):	

SITE RESOURCES:			
Drinking Water Supply	☐ Inventum	☐ Subcontractor	☒ Client
Wash Water Supply	☐ Inventum	☐ Subcontractor	☒ Client
Telephone – Land Line		☐ Subcontractor	☒ Client
Telephone - Cellular	☒ Inventum	☒ Subcontractor	
First Aid Kit	☒ Inventum	☒ Subcontractor	
Fire Extinguisher	☐ Inventum	☒ Subcontractor	☒ Client
Emergency Shower N/A	☐ Inventum	☐ Subcontractor	☐ Client
Eye Wash N/A	☐ Inventum	☐ Subcontractor	☐ Client
Other: Confined space retrieval device N/A	☐ Inventum	☐ Subcontractor	☐ Client

EMERGENCY/SAFETY CONTACTS:	
Inventum Technical Contacts	Todd Waldrop (571.217.3627);
Inventum Project Manager (PM): Todd Waldrop	571.217.3627
Inventum Office Safety Coordinator (OSC)	John Black (571.217.6761); Todd Waldrop (571.217.3627); James Edwards (571.232.5048)
Inventum Field Contact:	Pete Zaffram (716.553.5129); Todd Waldrop (571.217.3627)
Contractor Contact (To Vary – Main Remedial Contractor provided):	Ontario Specialty Contracting; 716.856.3333
Client Contact:	Jon Williams: 716.856.3333; John Yensan (716.856.3333)

EMERGENCY/SAFETY CONTACTS:	

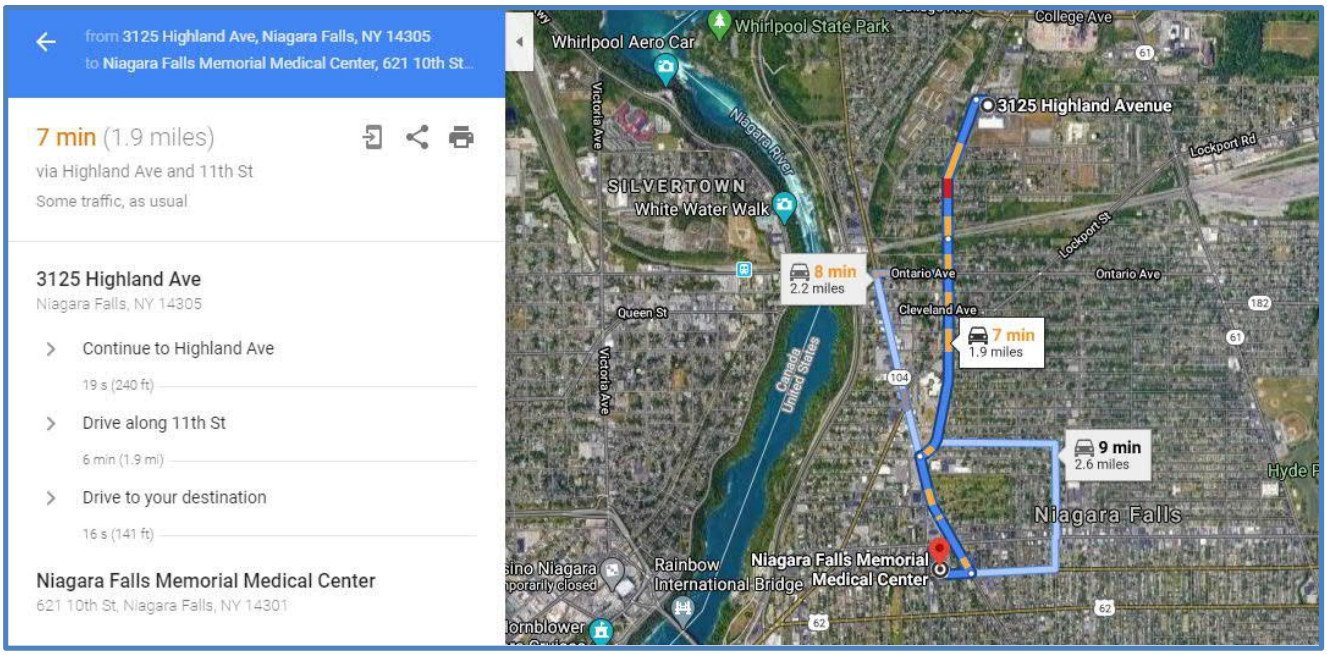
Emergency Route:

Hospitals or clinics identified for emergency medical care should be contacted, to verify that emergency care is provided at that location. Verify the exact location of the medical facility during this call. See directions and map of route to Kenmore Mercy Hospital on the following page:

Hospital: **Niagara Falls Memorial Medical Center**
621 Tenth Street
Niagara Falls, NY 14302
716.278.4000

Other: NA

Map to Hospital



Directions to Hospital:

- **Turn left onto Highland Avenue**
- **Continue onto 11th St.**
- **Use any lane to turn left onto Portage Road**
- **Turn right onto Walnut Ave.**
- **Turn right at Memorial Pkwy**
- **Hospital will be on the left**

Emergency Procedures:

If an emergency develops at the site, the first responder should take the following course of action:

- Notify the proper emergency services for assistance.
- Notify other personnel at the site.
- As soon as possible, contact the Inventum Project Manager to inform them of the incident.
- Complete the Inventum Incident Report Form (see Appendices) within 24 hours of the incident and client notifications, as required.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Investigation of Near Miss Incident and Initial Report of Incident/Exposure:

Inventum employees are required to report any incident, near miss, or injury, as soon as possible, by contacting the following:

☒ Inventum Managing Partner ☒ Notify supervisor ☒ Notify project manager

☐ Notify Site Manager () ☐ Complete client report: as required

(name):

(phone number):

Emergency Equipment Required On Site:

☒ First Aid Kit

☐ Emergency Eye Wash

☐ Emergency Shower

☐ Fire Extinguisher

☐ Spill Control Media

☐ Tripod/Hoist/Harness for non-entry confined space rescue

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

3. Site Classification

	Identification of Potential Hazards	YES	NO	SITE TYPE(1)
1.	Is the work a Phase I ESA (i.e., supervised plant walk-through, etc.)?	☐	☒	1
2.	Is the work being performed solely by a subcontractor (i.e., INVENTUM not on site)?	☐	☒	1
3.	Is the work just a supervised inspection for process evaluation, other inspections, meetings, records review, or a tour?	☐	☒	1
4.[1]	Is the work completely absent any chemical, physical, biological, or radiological hazards which would require a site-specific health and safety plan?	☐	☒	1
5.	Does the work include any mandatory client H&S requirements?	☒	☐	1, 2, or 3
6.	Does the project include on-site work other than office type areas?	☒	☐	2 or 3
7.	Does the proposed work scope involve any of the following:			
	Known and controlled chemical or biological hazards	☒	☐	2
	Unprotected work at elevation (fall protection required)	☐	☒	2
	Invasive activities (*i.e.,* Phase II ESA, UST Removal, sampling, etc.)	☒	☐	2 or 3
	Exposure to ionizing radiation (i.e., using nuclear gauges, etc.)	☐	☒	2 or 3
	Open excavations/trenches (Competent Person may be required on site)	☒	☐	2 or 3
	Confined space entry (permit may be required)	☐	☒	2 or 3
	The use of scaffolding (qualified inspections are required)	☐	☒	2 or 3
	Heavy equipment	☒	☐	2 or 3
	Facility maintenance (O&M, piping, electrical, lockout/tagout, etc.)	☐	☒	2 or 3
	Underground utilities may be encountered	☒	☐	2 or 3
	Overhead utilities may be encountered	☐	☒	2 or 3
	Stack testing	☐	☒	2 or 3
	Geotechnical drilling	☐	☒	2 or 3
	Demolition Activities with known or suspected contamination	☐	☒	2 or 3
	Unknown or uncontrolled chemical or biological hazards	☐	☒	3
	Known and uncontrolled chemical or biological hazards	☐	☒	3
	Waste sampling	☐	☒	3
	Construction activities with known or suspected contamination	☐	☒	3
	Remedial activities (RCRA, CERCLA, EnviroBlend®, Oxigent, etc.)	☐	☒	3
8.	Is the work regulated by 29 CFR 1910.120 (OSHA) or 30 CFR (MSHA)?	☒	☐	3
9.	Is the work regulated by NPL, CERCLA, RCRA, TSD, or SARA?	☒	☐	3

(1) Denotes typical site level (based on activities).

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Site Type Designation:

☐ Type 1 Known and controlled hazards associated with consulting/engineering services.

☒ Type 2 Known and controlled hazards, but with invasive, hazardous activities and/or civil/mechanical construction related services, or sampling.

☐ Type 3 Unknown and/or uncontrolled hazards associated with corrective action clean-up, and/or remediation of hazardous substances.

4. Site Characterization

Client Requirement(s)[1]:	☒ None	☐ Site Orientation	☐ H&S Orientation
	☐ Permits or Other Requirements (specify and attach, if available):		
Site Information:	☒ Map/Diagram (attach)	☐ Map/Diagram Unavailable	
	☐ Inactive Site	☒ Active Site (specify below)	
General Environmental Concerns:	☐ Contaminated Water	☐ Wastewater	☒ Dust
	☒ Contaminated Soil	☒ Solid Waste	☐ Noise
	☐ Contaminated Air	☐ Waterways	☐ Asbestos
Site Security/Access Control:	☐ None	☒ On Site	
	☐ Other (explain):		
Amenities Available for Work:	☐ None	☒ Waste Storage	☒ Restrooms
	☒ Tools/Equipment Storage	☒ Office/Trailer Space	☒ Supplies Storage
Utilities Available For Work:	☐ None	☒ As Listed: Water, electric	
Medical Services Available:	☐ None On Site	☒ As Listed: First aid	
Facility Alarms/Signals:	☒ None	☐ As Listed:	
Traffic/Parking/Railway Issues:	☐ None	☒ As Listed (On-Site/Off-Site): On-site parking	
☒ Permits Required (specify)[2]:	☐ Confined Space Entry	☐ Local: POTW	☐ State:
	☐ Federal:	☐ Other:	☒ N/A
☒ Utility Locate Service(s):	☒ On Site	☐ Client	☐ Other:
	☐ Off Site	☐	☒ One Call
		☐	☐ N/A

[1] If relying on the client for any specific hazard identification and control, implemented control and effectiveness should be documented prior to beginning any work activities. This is recommended for all field projects.

[2] Permit examples: Utilities (electrical, water, gas, etc.); Excavations; Explosives; Cranes; Burning; Fuel storage; Traffic control; Hoists; Cutting; Welding; Demolition; Confined space; Restricted access areas; etc.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Detailed Physical Description of Site/Facility: ☒ Map/Diagram Attached
The Tulip Site encompasses approximately 9 acres (Ac) consisting of seven (7) tax parcels (Figure 1):

- Former Operational Parcels
  - 144.06-2-1 (4.9 Ac)
  - 130.18-2-4 (3.14 Ac)

- Historically Vacant Parcels
  - 144.23-1-2 (0.11 Ac)
  - 144.23-1-3 (0.21 Ac)
  - 144.23-1-4 (0.11 Ac)
  - 144.23-1-5 (0.11 Ac)
  - 144.23-1-6 (0.31 Ac)

Inventum and GAE have submitted a Brownfield Cleanup Program (BCP) Application for the former operational parcels (144.06-2-1 and 130.18-2-4) and are conducted additional sampling to aid in the reclassification of the five (5) historically vacant parcels that the NYSDEC indicated were not eligible for the BCP.

Data has been previously submitted to the NYSDEC representative of environmental conditions on two of the five historically vacant parcels. Soil samples collected from borings those parcels were non-detect for volatile VOCs, SVOCs, PCBs, herbicides, pesticides, and per- and polyfluoroalkyl substances (PFASs). There were no metals detected at concentrations above the Part 375 Commercial Use Soil Cleanup Objectives.

Additional sampling is proposed below to supplement the previous data to allow reclassification of all five (5) of the historically vacant parcels.

Figure 1; Site Location

Site Activities/Current Operations: ☐ None ☒ As Specified: Mfg operations.

Other Concurrent Site Activities, Work, and/or Other Adjacent Hazards or Concerns:

☐ None

As Specified:

☐ Schools ☐ Daycare ☐ Hospital ☐ Airport
☐ Residential ☒ Offices ☐ Shopping ☒ Active parking lot in work space

5. Hazard Evaluation

Complete (1) Substance Name (be specific)	Specific Applicable OSHA Standard (if any)	Physical State (2) (S, L, G, Aq, Vap, F, P)	Max. (3) Conc. Level Per Physical State	General (4) Control Measures (Eng., Admin., PPE)
Lead	0.050 mg/m3	S	7,050 mg/kg	Eng., PPE

(1) Use OSHA regulated name, not elemental forms. If available, attach SDS. Identify any sample preservative or O&M chemicals or subcontractor chemicals in this table also.

(2) S = Solids, L = Liquid, G = Gas, Aq = Aqueous, Vap = Vapor, F = Fume, P = Airborne Particulate.

(3) If available, attach laboratory results or summary tables.
(4) See the following sections for detailed control measures: personal protection equipment (PPE), Air Monitoring (Admin), or Site Control (Admin and Eng.).
(6) IP = Ionization Potential, VP = Vapor Pressure, LEL = Lower Explosive Limit, UEL = Upper Explosive Limit, N/A = Not Applicable, N.D. = Not Determined
(7) IDLH = Immediately Dangerous to Life and Health. NEVER enter IDLH conditions on site without proper respiratory protection.
(8) C = Ceiling Value, ST = Short-Term Exposure Limit, TWA = Time-Weighted Average, None Est. = None Established
(9) R = Respirable Limit, T = Total Limit
(10) Warning Properties: Good (G), Poor (P), None (N)

5. Hazard Evaluation (continued)

Site-Specific Physical Hazards

HAZARD	SPECIFIC CONTROL MEASURE
Slip/Trip/Fall Injury	— Use roads or trails whenever possible. — Occasionally reassess route to avoid dangerous terrain. — Maintain good housekeeping and keep work area clear of loose materials and equipment. — Use portable steps to mount and dismount sampling vehicle.
Ingestion of or contact with impacted soil	— Wear safety glasses. — Wear nitrile and appropriate cut-/puncture-resistant gloves (see Glove Selection Guideline) when performing tasks. — Wash hands and arms thoroughly when daily work is completed. — No eating, drinking, or smoking while conducting monitoring or sampling activities.
Pinched fingers or toes	— Where appropriate cut-/puncture-resistant gloves (see Glove Selection Guideline) when the potential for hand injury exists. — Where steel-toed safety shoes with steel shanks while on site.
COVID-19 exposure	— Follow the additional site procedures listed which include Social Distancing, increased Sanitation and Cleanness, and increased Cleaning for Receiving Supplies and Equipment
Strained muscles	— Use proper lifting posture, techniques, and equipment when handling heavy objects. — Use two people for loads >40 lbs. or awkward items. — Take rests as needed during and between carries.
Cutting activities	
Flying debris/eye injuries	— Wear ANSI-approved safety glasses when the potential for flying debris and eye injuries exists.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Aboveground Storage Tanks (AST)	Be aware of any aboveground storage tanks and the type of material being stored in them. Be aware of the potential of spills, fires, explosions, etc., while working near the tanks. Stay clear of tanks whenever possible, and be aware of any equipment operators near the tank(s).
☒	Animals (dogs, etc.)	Be aware of any animals on site or adjacent to the site. Appropriate care should be taken if any feral (wild) animals are encountered.
☐	Blasting/Explosives	INVENTUM personnel shall not handle any explosive devices or materials. INVENTUM personnel should understand the blasting procedures being used by the subcontractor, and all of the associated health & safety precautions. The subcontractor shall handle, store, and use the explosives in accordance with 29 CFR 1926.900, Subpart H and U.
☐	Boat or Barge	A boat or barge should be used that is adequately stable for the type of activity conducted. The boat or barge should have all of the appropriate and current licensing and registrations required by the applicable regulatory agencies. All applicable laws and regulations will be followed when launching the boat or barge, and when navigating to and from the work site. Personal floatation devices should always be worn while navigating the boat or barge. The boat must be equipped with the following approved United States Coast Guard (USCG) safety equipment: — A Type 1, 2, or 3 personal flotation device (PFD) for every person aboard (should be worn while navigating) The following equipment is recommended: — A Type 4 throwable PFD — Audible distress signal device (air horn, whistle) — Fire extinguisher (if engine-propelled) — Auxiliary propulsion (spare paddles, trolling motor) — Bow and stern lines — Anchor and anchor line — First aid kit — Visual distress signal device(s) (flares, dyes) — Additional PFDs Be familiar with local weather and tidal characteristics. Do not conduct sampling from a boat/barge when threatening weather is imminent, or poor visibility exists. Sampling from a boat is prohibited in water containing substances likely to cause injury upon short-term or prolonged contact. Sampling from a boat is prohibited when the temperature of the water is high or low enough to cause injury upon short-term or prolonged exposure. Avoid sampling from a boat when unsafe water turbulence (waves) exists. Avoid standing in a boat. Always use the buddy system when sampling from a boat or barge; one person should be on shore with visual contact of the barge and should be able to summon emergency assistance if needed. Be familiar with local weather and tidal characteristics. Work on a boat or barge will not be performed when threatening or severe weather is impending or present.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Briars or Thistles	Be aware of any briars or thistles on site. Wear appropriate clothing and gloves. Avoid contact with briars or thistles whenever possible.
☒	Business Traffic	Be aware of traffic patterns associated with local businesses near the work site. Allow traffic to enter and exit the businesses in such a manner to avoid creating traffic hazards, back-ups, delays, or potential accident situations.
☐	Cement Dust	Stay clear of mixing operations and avoid contact with or breathing of the dust.
☐	Chain Saws	Stay clear of any chain saw operations. Subcontractor is responsible for the safe use of chain saws on site.
☒	Cleaning Agents	Use caution when applying cleaning agent to equipment. Use gloves, safety glasses, splash shields, and protective clothing as needed.
☒	Client Activities	Be aware of client activities at or adjacent to the site. Work activities should be coordinated with other site activities to avoid conflicts. Contact Tulip and OSC offices prior to starting work.
☒	Cold Stress	Work schedules may be modified when temperatures are below 20° F as measured by the wind chill factor. Take frequent breaks to warm up. Drink plenty of fluids. Wear appropriate clothing, and monitor for cold stress symptoms (frostbite, hypothermia, etc.).
☒	Compressed Air or Gas Cylinders	Compressed air or gas cylinders should be clearly marked, and they should be stored, transported, and secured in an approved manner.
☒	Compressed Air/Gas or Pressurized Liquids Hoses, Lines & Fittings	Compressed air or gas, or pressurized liquid lines or hoses should be inspected at least daily, or in the event a leak develops, or if a line or hose is run over or crimped.
☐	Concrete/Masonry/ Foundations	No construction loads shall be placed on a concrete structure or portion of a concrete structure unless a person who is qualified in structural design has determined that the structure or portion of the structure is capable of supporting the loads. All protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement. No employee shall be permitted to work under concrete buckets while buckets are being elevated or lowered into position. To the extent practical, elevated concrete buckets shall be routed so that no employee, or the fewest number of employees, are exposed to the hazards associated with falling concrete buckets. A limited access zone shall be established whenever a masonry wall is being constructed. All masonry walls over eight feet in height shall be adequately braced to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. The bracing shall remain in place until permanent supporting elements of the structure are in place.
☐	Confined Spaces (tanks, vaults, vessels, trenches, manholes, some excavations, etc.)	The scope of this project does entail entry into confined spaces. Confined spaces will not be entered unless a confined space entry permit has been completed, signed, and approved, and all participating personnel are trained in confined space entry procedures, including safety, and rescue procedures. All potential hazards of confined space may not be addressed by this hazard assessment, and health and safety plan.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Cutting Tools	Stay clear of contractors' cutting tools, especially saws and torches. Be aware that cutting operations could create other hazards, such as falling objects, or shifting materials, etc. Safety glasses should be worn while using cutting tools. Spark-proof tools should be used when working in areas of potential explosive or flammable conditions. Fixed-open blade knives are prohibited.
☒	Demolition Activities	Stay clear of walls, ceilings, roofs, etc., as they are being demolished.
☒	Demolition Debris	Demolition material should only be handled by appropriate equipment because of sharp points, edges, etc. Demolition material may also pose a trip hazard, fall, or puncture hazard, so avoid walking or climbing on debris piles, etc.
☒	Drums	If drums are used on-site, they should be clearly labeled with the name of the contents and the appropriate label. Drums should only be handled with the appropriate equipment. Drums discovered during excavations, etc., shall not be opened or moved until appropriate identification can be performed. At a minimum, Level B protection is required for sampling any unlabeled drums discovered during remediation procedures.
☒	Dust/Particulates (Particulates Not Otherwise Regulated) (PNOR) (OSHA PEL = 15 mg./m^3, total) (OSHA PEL = 5 mg./m^3, respirable)	For general dust, work should be performed up-wind if possible. <u>If conditions warrant it</u>, monitoring should be done with a PM-10. Monitoring should occur at least 3 times per day, and every time re-entering the site. Readings should be taken downwind from the work area or inside the equipment as indicated by the conditions on site. If the OSHA PEL is exceeded, or is likely to be exceeded, engineering or administrative controls should be used, or a dust respirator must be worn. For hazardous dusts, a detailed air monitoring plan and a respiratory protection plan should be developed for the site activities.
☐	Elevated Work	For any construction work activities elevated 6 feet or more, or other non-construction activities elevated 4 feet or more, fall protection must be provided. Caution should be taken on catwalks and ladders because of potential slippery conditions, or the potential for footwear to catch on the surfaces.
☒	Energized Sources (electrical equipment or hookups, lines, etc.,) (Lockout/Tagout)	Contractors for all electrical activities, and any facility equipment with moving parts should follow proper lock-out/tag-out procedures, and only properly trained employees will perform the work. Employees will not perform any lock-out/tag-out activities unless personnel are properly trained in lockout/tagout procedures. Heed any caution signs or labels.
☒	Equipment Exhaust	Equipment exhaust should be ventilated away from the work area while drilling inside structures. Industrial fans can be used to move exhaust out of the area.
☒	Ergonomic Issues (job hazard analysis)	Ergonomic hazards will be addressed on a site-specific basis once mobilization to the field has occurred. Workstations will be evaluated on an individual basis.
☒	Evening Work	If work is performed during the evening hours, work shall be limited by the availability and the quality of artificial lighting. Care should also be taken to avoid slip, trip, and fall hazards that are not as easy to identify during low light conditions.
☒	Excavations	Stay clear of excavation walls. INVENTUM personnel will not enter an excavation, in accordance with 1926 Sub Part P. Subcontractor must provide a Competent Person on site, if one is required by the planned activities. Side cuts should conform to 1926 Subpart P requirements, or shoring should be used. All open excavations should be secured using traffic cones, barrier tape, or barricade signs stating "Do Not Enter Excavations", especially if left open overnight.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Explosives	Be aware of potential explosive materials and how to identify them. No smoking is allowed on-site or near where potential explosive materials may be present.
☒	Facility Conveyors (product or waste lines)	Stay clear of facility conveyors, product process lines, and waste disposal lines. Be aware of any client-specific health and safety requirements to work in these areas.
☒	Facility Equipment/Machinery	Be aware of active and moving client equipment on site.
☒	Facility Piping - aboveground	Stay clear of aboveground pipes. Client is responsible for identifying all applicable aboveground facility pipes prior to any work activities in the area. Pipes can be overhead hazards, or trip hazards. Pipes can be hazardous because of the material flowing through them, such as steam, natural gas, toxic chemicals, etc. Some pipes are also coated with hazardous material such as asbestos.
☒	Facility Piping - belowground	Client is responsible to identify all applicable underground facility pipe locations prior to any subsurface activities.
☒	Fall Hazard	Proper tie-off, harnesses, railings, etc. should be used when performing work on ladders, scaffolding, man-lifts, or on the roof of buildings, etc. Stay clear of the edges of pits, trenches, quarries, etc.
☒	Falling Objects	Be aware of any potential falling objects or materials on site. Stay clear of any areas identified as potential falling object areas.
☒	Fences	Be aware of fences in disrepair that may be trip hazards or may have materials that could cause punctures or cuts. Use caution when crossing over or under fences.
☒	Field Equipment	If field equipment is heavy or awkward to carry, get assistance or use carts to help move around the site.
☒	Field Vehicle	Inventum personnel shall follow all applicable state and federal traffic laws while traveling to and from the site, and while working on the site. In particular, the following laws should be followed: speed limits, parking restrictions, use of wipers and lights during precipitation events, limiting cell phone use, etc. It is the responsibility of the driver to verify that all safety equipment on the vehicle is working properly before driving the vehicle. In particular, the following items should be checked: tire pressure, tire tread, windshield wipers, windshield washer, headlights, tail lights, brake lights, spare tire, fire extinguisher, first aid kit, etc.
☒	Fire Hazards	Eliminate sources of ignition in work areas that have ignitable materials. Provide an ABC fire extinguisher in close proximity to the support zone.
☒	Flooded Areas	Do not drive through flooded areas or standing water. Do not wade into moving water, or water deeper than 2 feet without adequate assistance.
☒	Flying Debris/ Eye Injuries	Be aware of any flying debris on site and wear protective eyewear when necessary.
☒	Fork Lifts	Be aware of forklift patterns and stay clear of those routes.
☒	Hand Tools	Use only the appropriate tool for the task at hand. Use the tool(s) as designed, described, and intended by the manufacturer.
☒	Heat Stress	The work schedule may be modified if the ambient temperature is more than 80° F. Take breaks as necessary, and drink plenty of fluids. If necessary, wear sunscreen and sunglasses on bright days. Monitor site personnel for signs of heat stress symptoms (heat rash, heat cramps, heat exhaustion, or heat stroke).

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Heavy Equipment	Contractor is responsible for safe operation of equipment. All mobile heavy equipment must have a functioning backup alarm, and operators must comply with equipment manufacturer's instructions. Maintain proper distance and remain in line of sight of operator and out of reach of equipment. Isolate equipment swings, if possible. Make eye contact with the equipment operator before approaching the equipment. Understand and review hand signals, and wear orange safety vest, if necessary.
☒	Heavy Lifting	Use proper lifting procedures and equipment when handling heavy objects such as drums, manhole covers, tank covers, etc.
☒	High Pressure Gas Lines, etc.	Be aware of high-pressure gas lines and follow approved safety precautions when working with or around the lines.
☐	Highway Traffic	Traffic control within the right-of-way will be in accordance with the WDOT "Work Zone Safety – Guidelines for Construction, Maintenance, and Utility Operations" procedures. Work may be restricted within specific lanes during peak traffic times. Verify peak traffic times, and review planned activities with the WDOT, so that appropriate lane closures can be coordinated.
☒	Housekeeping	All field vehicles, job trailers, and field offices will be properly cleaned and organized to prevent cluttered work and storage areas.
☐	Hunters/Firing Range, etc.	Be aware of surrounding activities that may involve hunting, firearms, etc. that may not be in your immediate area, but could create an unsafe work environment.
☒	Ice (thin)	When project activities include either crossing ice or working directly on the ice, a detailed plan should be developed that will be used to continually evaluate the ice conditions, and to determine when work should be terminated due to unsafe conditions. All staff working on the ice will wear an appropriate and approved personal floatation device. Other emergency equipment such as ropes, a throwable floatation device, a means to warm a wet and cold worker, etc. must be available. A buddy system should also be used for this type of work, such that one person is always on shore or at least on previously determined safe ice.
☒	Insects (ticks, bees, spiders, etc.)	Site workers with known allergies to insect bites should carry their own medication. In case of emergencies, inform fellow workers of any severe allergies. Use insect repellant as necessary, and as specifically allowed on site. If possible, wear long-sleeved shirts and pants. If appropriate, check for ticks at the end of each day. Have other appropriate first aid supplies handy for bites.
☒	Stakeholders	Be aware of the potential for irate neighbors or outsiders that may interfere with work activities, or that may potentially damage equipment or on-site materials, etc.
☐	Ladders	Ladders should only be used if they are in good condition, conform to OSHA requirements, and if they will be used in an appropriate manner. Be especially cautious of slipping on ladders when the ladder or footwear is wet or dirty.
☐	Landfill Gas (Methane, CO2, Hydrogen Sulfide)	Avoid breathing gas, especially in low oxygen areas (simple asphyxiant). Potentially flammable and explosive, so keep ignition sources away from gas. Explosive conditions of LEL >5% in a work area should be ventilated as soon as possible, or the area should be evacuated.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☐	Leachate (Municipal Solid Waste (MSW))	MSW leachate may contain hazardous biological substances, so avoid physical contact with leachate and, if possible, stay up-wind. If contact is made with leachate, wash affected areas thoroughly with soap and water. If boots contact leachate, they should be thoroughly washed with soap and water also.
☒	Lead	Wear gloves when in contact with lead contaminated soil, etc. Thoroughly wash hands and arms when daily work is completed.
☒	Long Hours/Fatigue	Long work hours can lead to fatigue, and fatigue can lead to the physical inability to perform the work in a safe manner, or travel to or from, a work site in a safe manner. If long work hours are scheduled, or if the scheduled work takes longer than planned, field staff should determine if fatigue is, or will be, an issue. Field staff should evaluate whether they are able to complete the work in a safe manner, or whether they are able to travel in a safe manner. If fatigue is an issue, appropriate breaks should be planned or taken, including overnight stays when necessary.
☒	Material Handling	Move containers and heavy material only with the proper equipment, and secure them to prevent dropping, falling, or loss of control during transport. Stay clear of material handling operations, especially near slopes. Do not stand down the slope from equipment, supplies or materials being moved above on the slope, or being deployed onto the slope.
☒	Material Storage	Stored material may be a falling hazard, or a crush hazard. Do not stand adjacent to materials stacked up, such as pipes, geosynthetic rolls, etc., or in the area of deployment.
☐	Methane Gas (Landfill Gas)	Explosive conditions (5% LEL) will be ventilated, if encountered, prior to working in an area. Methane is a simple asphyxiant.
☐	Mine or Quarry	No work shall be performed within 15 feet (or other designated client setback, whichever is greatest) of the mine or quarry walls. Be aware of the potential for falling rocks or slope failures.
☒	Municipal Solid Waste (MSW)	MSW may contain hazardous biological substances, so avoid physical contact, and if possible, stay up-wind. Wear appropriate PPE, such as gloves, safety shoes, and safety glasses. Wash hands, arms, and face after working near MSW. Reusable PPE and equipment should be thoroughly decontaminated after exposure to MSW. MSW may also contain sharp objects with the potential to puncture PPE.
☒	Natural Gas	Natural gas is flammable and explosive. Keep ignition sources away from gas sources. Use spark-proof tools when working with gas lines, etc.
☒	Noise	Hearing protection must be worn when noise levels exceed 85 dBA in the work area. If you need to raise your voice to be heard at the work site, then hearing protection should be worn. Hearing protection will be worn near drill rigs.
☒	Overhead Hazards	Pay attention to overhead equipment, piping, and structures. A hard hat must be worn at all times when overhead hazards are present on site including the operation of a drill rig.
☒	Pedestrian Traffic (public, client, workers)	Be aware of pedestrian traffic patterns and, route traffic around the exclusion zone(s), as necessary, to avoid distractions and the potential for exposures or accidents. Use appropriate barricades and caution tape to mark work areas.
☒	Poisonous Plants	Be able to identify any local poisonous plants and avoid them if possible or wear protective clothing as necessary. When removing potentially exposed clothing or PPE, the clothing or PPE should be carefully and thoroughly washed or decontaminated.
☒	Portable Heaters	Be aware of portable heater locations and stay a safe distance from them.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Power Washing Equipment	Stay clear of the power washing nozzles and equipment.
☒	Propane Tanks	Be aware of propane tank locations, and any gas lines leading to or from the tanks.
☐	Radiation (ionizing)	Exposure to ionizing radiation can be controlled by one of three methods: time, distance, or shielding. Limit your time near the radioactive source. Keep your distance from the radioactive source. Shield yourself from the radioactive source with appropriate shielding material. If the radioactive source(s) are from INVENTUM equipment, the INVENTUM employee using the equipment needs required training to use the equipment and must be monitored using a dosimeter badge.
☐	Rock Blasting	Contractor is responsible for following safe blasting protocol. Heed all contractor warnings at time of blasting and stay well clear until safe to return to area, as indicated by the contractor.
☒	Sample Preservative Chemicals:	Wear safety glasses and nitrile gloves when adding preservative chemicals to sample bottles or vials. Have clean wash water nearby.
☐	Scaffolding	Stay clear of scaffolding. Be aware of the OSHA safety requirements for using constructing and scaffolding.
☒	Severe Weather	Work may be suspended if dangerous weather conditions (lightning, tornadoes, high winds, heavy rain, freezing rain, etc.) occur. Be aware of changing weather conditions and be prepared to take shelter as necessary. Potential shelters should be identified prior to beginning work.
☒	Sharp Objects	Wear appropriate gloves when handling sharp objects or use appropriate equipment to move objects.
☒	Slippery Ground/Surfaces	Exercise caution, especially on slopes, field trailer floors and stairs, after a precipitation event. Use slip resistant boots or implement surface preparations to eliminate the slippery nature of the surface prior to accessing the area. Spill control measures and general housekeeping should be utilized to help prevent slipping on wet floors, wet pavement, and general work areas.
☒	Slips, Trips, and Falls:	Maintain clear walkways for work areas.
☒	Snakes	Be aware of the potential for snakes in the area and wear snake boots, snake chaps, gaiters, or leggings as needed.
☒	Steam Cleaning Equipment	Stay clear of the steam cleaning nozzles and equipment.
☐	Steel Erection	All materials, equipment, and tools, which are not in use while aloft, shall be secured against accidental displacement. The controlling contractor shall bar other construction processes below steel erection unless overhead protection for the employees below is provided. Employees engaged in steel erection activities on a walking/working surface with an unprotected side or edge more than 15 feet above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.
☐	Steep Slopes or Banks	Pay attention to footing and walking. Stay a safe distance from unstable or extremely steep slopes. Wear appropriate footwear. Be aware of potential slope or bank failures. Heavy equipment should not be operated on or near unstable slopes or banks.
☒	Strong Nuisance Odors	Strong odors should be ventilated before entering a work area, or a respirator shall be worn as needed.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Sunburn	For extended periods of time outdoors on sunny days, sunglasses, long-sleeved shirts and long pants should be worn to help prevent sunburn and eye problems. Wear sunscreen as appropriate for the project.
☒	Surface Water	Working next to or on, bodies of water shall be done using the buddy system. Staff shall wear USCG-approved personal floatation devices when on or adjacent to bodies of water.
☒	Terrain	Uneven or steep terrain can cause hazardous conditions for walking and transporting equipment around the site. Site personnel should use caution when working on uneven surfaces, and they should avoid working down-slope from heavy equipment, or materials being moved or stored.
☒	Traffic (client, contractors, public, semi-trucks, forklifts, etc.)	Obey all posted speed limits. Park in designated areas only. Be aware of traffic patterns on site, and during access to the site. Use orange traffic cones and barrier warning tape, as needed, or if within 25 feet of the right-of-way. INVENTUM personnel must wear orange safety vests when working in or near traffic areas. Class 2 traffic vests are required with traffic speeds 25 mph or higher. Class 3 traffic vests are required with traffic speeds 50 mph or higher.
☐	Trains/Railroad Tracks	Be aware of any train activities on the site, entering or leaving the site, or immediately adjacent to the site. Do not walk between the rails or on the railroad ties. When driving, stop at all railroad crossings, even if they are unmarked, and look in both directions before proceeding across the tracks.
☒	Transporting Hazardous Materials	INVENTUM personnel who transport hazardous materials shall have the required DOT training prior to transporting materials, and will comply with all applicable DOT regulations and requirements for labeling, packaging, etc.
☐	Tree Cutting	Stay clear of tree cutting activities.
☒	Trenching	INVENTUM personnel will enter trenches in accordance with 1926 Sub Part P. Be aware that some trenching conditions may result in a confined space condition.
☒	Trip Hazards (wires, cords, hoses, debris, corn stubble, uneven surfaces, etc.)	Temporary wires, cords, hoses, etc., should be properly located, marked, and protected to help prevent tripping and disruption to work activities. Trip hazards are particularly a problem early in the morning, late in the day, or under other poor lighting conditions.
☒	Underground Storage Tanks (USTs) (Septic Tanks)	If any unknown USTs are encountered, drilling or excavations will be terminated in that location until a new scope of work, Risk Assessment and Health & Safety Plan can be developed.
☒	Uneven Surfaces	Be aware of uneven walking or driving surfaces and exercise caution when moving around the site.
☒	Utilities – Overhead (electrical, telephone, cable TV, etc.)	A subcontractor, the client, or INVENTUM will locate and identify all overhead utilities. The owner or client will be responsible for identifying all applicable overhead utilities, product lines, pipes, and aboveground tanks. A minimum clearance of 20 feet must be maintained between equipment and overhead utility lines.
☒	Utilities – Underground (electric, gas, telephone, water, storm sewer, sanitary sewer, cable TV, etc.)	A subcontractor, the client, or INVENTUM will call Digger's Hotline to locate all underground utilities. The owner or client will be responsible for marking all applicable on-site underground utilities, product lines, pipes, and tanks.

Risk Analysis (RA)

(Required for all Inventum Type 2 or Type 3 field projects.)

Other Common Physical Hazards

(modify as needed, but include with all project hazard assessments)

☒	PHYSICAL HAZARD	GENERAL CONTROL MEASURE
☒	Waterways	Exercise caution near, around, or in waterways. Harnesses should be worn when working in, or within 4 feet of, the waterway, especially when attempting to sample from shore or a boat or barge. All applicable laws and regulations will be followed when navigating a boat or barge to and from a work site.
☒	Welding Tools	Stay clear of welding operations, and do not look directly at the welding process without appropriate eyewear and shield.
☐	Traffic Control	Traffic Control: Traffic control within the right-of-way will be in accordance with the local Public Right-of-Way Agency. Work may be restricted within specific lanes during peak traffic times. Verify peak traffic times and review planned activities with the local Public Right-of-Way Agency, so that appropriate lane closures can be coordinated.

Proposed Date(s) of Inventum Work: March 2024

ON-SITE PROJECT TEAM MEMBER	ON-SITE PROJECT RESPONSIBILITIES
Todd Waldrop	Inventum Site Health and Safety Representative (Supervisor); Remedial Contractor Oversight
Peter Zaffram	Inventum Site Health and Safety Representative (Supervisor); Remedial Contractor Oversight

Any required construction/demolition activities: ☒ No ☐ Yes If Yes, complete Section 1

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

1. Construction Tasks: work tasks to be performed by Inventum staff or Inventum subcontractors

Civil

- ☐ Sewer (utility)
- ☐ Water (utility)
- ☐ Electric (utility)
- ☐ Communications (utility)
- ☐ Siding
- ☐ Roofing
- ☐ Drywall
- ☐ Flooring
- ☐ Ceilings
- ☐ Casework
- ☐ Masonry
- ☐ Escalator

- ☐ Steel (erection)
- ☐ Pre-cast (erection)
- ☐ Concrete (erection)
- ☐ Re-bar
- ☐ Elevator
- ☐ Fireproofing
- ☐ Windows
- ☐ Landscaping
- ☐ Painting
- ☐ Insulation
- ☐ Doors
- ☐ Finish Concrete

- ☐ Others
- ☐ Others
- ☐ Others

Mechanical

- ☐ Insulation
- ☐ Millwright
- ☐ Fire Protection
- ☐ Boiler
- ☐ Industrial Ventilation
- ☐ Steel Fabrication/Erection

Other

- ☐ Electrical
- ☐ Demolition (attach a detailed "Demolition Plan")

Estimated Direct-Hire Inventum Employees:

Home Office: ☐ Not Applicable ☐ Specify:

Craft Labor: ☐ Not Applicable ☐ Specify:

Craft	Quantity
Craft	Quantity

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

2. Applicable Safety Standards or Regulations:

☒ Federal OSHA ☐ State OSHA ☒ Owner/Client

Specific Standards:	29 CFR 1910 (OSHA)	29 CFR 1926 (Other Regulations)
☒ Medical Services and First Aid	1910.151	1926.50
☒ Hazard Communication (HAZCOM)	1910.1200	1926.59
☒ Lead Exposure	1910.1025	1926.62
☒ HAZWOPER	1910.120	1926.65
☒ Personal Protective Equipment (PPE)	1910.132-138	1926.95-107
☒ Respiratory Protection	1910.134	1926.103
☒ Ventilation	1910.94	1926.57
☒ Noise Exposure	1910.95	1926.52
☐ Illumination	N/A	1926.56
☐ Fire Protection	1910.157	1926.24 and 150-155
☐ Sanitation	1910.141	1926.51
☐ Materials Handling (rigging, etc.)	1910.176	1926.250-251
☐ Welding/Cutting	1910.251-255	1926.350-354
☐ Lockout/Tagout	1910.147	1926.417
☐ Electrical (flexible cords, etc.)	1910.305	1926.400-449
☐ Scaffolding	1910.28-29	1926.450-454
☐ Fall Protection (elevated work)	1910.23-29, 1910.66-68	1926.104-107; 500-503
☐ Ladders/Stairways	1910.25-27	1926.1050 and 1060
☐ Cranes, Derricks, Hoists, Elevators, etc.	1910.179-181	1926.550-555
☐ Aerial Lifts	1910.66-68	1926.556
☒ Earthmoving Equipment	N/A	1926.602
☐ Powered Industrial Trucks (forklifts)	1910.178	1926.602
☒ Excavations and Trenching	N/A	1926.650-652
☐ Concrete and Masonry	N/A	1926.700-706
☐ Steel Erection	N/A	1926.750-761
☐ Demolition	N/A	1926.850-860
☒ Asbestos	1910.1001	1926.1101
☐ Confined Space Entry	1910.146	1926.21

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

☐ Commercial Diving	1910.401-441	1926.1071-1092
☒ Compressed Gases	1910.101-105	N/A
☐ Ionizing Radiation	1910.1096	1926.53
☐ Benzene	1910.1028	1926.1128
☒ Cadmium	1910.1027	1926.1127
☒ Tools - Hand and Power	N/A	1926.300-307
☐ Blasting and Using Explosives	N/A	1926.900-914

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

3. Training Required

(* required for all "Type 3" sites; but minimum recommended)

Check "A" if training required for everyone, and check "T" if training required for specific task.

A	T	SUBJECT	REFERENCE	
			29 CFR 1910	29 CFR 1926 or Other
☒	☐	HAZWOPER 40 hour*	1910.120	1926.65
☐	☐	3-Day HAZWOPER Supervised On-Site*	1910.120	1926.65
☒	☐	8-Hour HAZWOPER Refresher*	1910.120	1926.65
☐	☐	8-Hour Supervisor HAZWOPER*	1910.120	1926.65
☐	☒	First Aid, CPR*	1910.151	1926.23,.50
☐	☒	Respiratory Protection	1910.134	1926.103
☐	☐	Confined Space ☐ Permit attached	1910.146	1926.21
☐	☐	Mine Safety (MSHA)	N/A	30 CFR 48.8
☐	☐	Lockout/Tagout ☐ Permit attached	1910.147	1926.417
☒	☐	Bloodborne Pathogens	1910.1030	N/A
☒	☐	Noise Exposure	1910.95	1926.52
☐	☒	Competent Person	N/A	1926.32,.450,.650
☐	☐	Construction Health and Safety OSHA 10-Hour	N/A	1926.21
☐	☐	Demolition	N/A	1926.850
☐	☐	Excavations ☐ Permit attached	N/A	1926.650-652
☐	☐	Electrical Work	1910.332	1926.400-.449
☐	☐	Ladders/Stairways	N/A	1926.1050-1060
☐	☐	Scaffolding	1910.28	1926.450-454
☐	☐	Fall Protection	1910.23-29; 1910.66-68	1926.104,.501
☐	☐	Commercial Diving	1910.410	1926.1071-1092
☐	☐	Hot Work ☐ Permit attached	1910.251-255	1926.350
☐	☐	Lead Awareness	1910.1025	1926.62
☐	☐	Asbestos Awareness	1910.1001	1926.1101
☐	☐	Cadmium	1910.1027	1926.1127
☐	☐	Benzene	1910.1028	1926.1128
☐	☐	Ionizing Radiation	1910.1096	1926.53; 10 CFR 19.12
☐	☐	Troxler or NITON Gauge User	1910.1096	10 CFR 19.12
☐	☐	Radiation Safety Program	1910.1096	10 CFR 20.1101
☒	☐	Hazard Communication (HAZCOM)	1910.1200	1926.59
☐	☒	DOT Hazardous Materials Shipping	1910.1201	49 CFR 172.704

Client-specific training: ☒ Not Applicable ☐ Specify

Site-specific orientation: ☒ Not Applicable ☐ Specify

Competent person: ☒ Not Applicable ☐ Specify

Direct-hire employee training/certification: ☒ Not Applicable ☐ Specify

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

4. Medical Surveillance

Surveillance Required: * required for all "Type 3" sites; baseline is minimum recommended
** Specify frequency below

	29 CFR 1910	29 CFR 1926 or Other
☒ HAZWOPER Physical - Baseline*	1910.120	1926.65
☒ HAZWOPER Physical – Annual	1910.120	1926.65
☐ HAZWOPER Physical - Biennial*	1910.120	1926.65
☒ OSHA Respiratory Protection Questionnaire	1910.134	1926.103
☐ Respiratory Certification Exam	1910.134	1926.103
☒ Arsenic (urine) ** Annual	1910.1018	N/A
☐ Asbestos **	1910.1001	1926.1101
☒ Cadmium (blood) **Annual	1910.1027	1926.1127
☒ Lead/ZPP (blood) **Annual	1910.1025	1926.62
☒ Mercury (blood) **Annual	N/A	N/A
☒ PCB **Annual	N/A	N/A
☐ Vinyl Chloride **	1910.1017	1926.117
☐ Hepatitis B Vaccine (series) **	1910.1030	N/A
☐ Tetanus/Diphtheria	N/A	Stay Current
☐ Stress Test	N/A	Only as requested
☒ Visual Acuity Test	N/A	Only as requested
☒ Hearing Test (Audiometry)	N/A	Only as requested
☒ Pulmonary Function	N/A	Only as requested

Client-specific drug testing: ☒ Not Applicable ☐ Specify

Client-specific medical monitoring[1]: ☒ Not Applicable ☐ Specify

Site-specific medical monitoring: ☒ Not Applicable ☐ Specify

**Frequency of medical monitoring: ☒ Not Applicable ☐ Specify

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

5. Personal Protective Equipment (PPE)

Based on evaluation of potential hazards, the following levels of personal protection have been designated for the applicable work tasks:

Specific Inventum Job Task or Function	Minimum Level of Protection
Task 1 – Site Meetings and Oversight	☒ D
Level D: safety glasses (ANSI), safety shoes (ANSI),; safety vest (ANSI)	
Task 2 –Soil Sampling	☒ D ☐ C ☐ B ☐ A
Level D: safety glasses (ANSI), safety shoes (ANSI), ear plugs (ANSI); safety vest (ANSI), nitrile gloves,	
Task 3 – Test Pit Excavations	☒ D ☐ C ☐ B ☐ A
Level D: Hard hat, safety glasses (ANSI), safety shoes (ANSI), nitrile gloves	

Criteria for changing protection levels are as follows:

EVACUATION(2) or PROTECTION LEVEL CHANGE(3) CRITERIA	APPROVALS REQUIRED (1)
	OSC
Site Evacuation Plan: ☒ Not Applicable ☐ Specify or Attach Plan:	
Change to Level D when: ☐ Not Applicable ☒	☒N/A All site work in Level D
Change to Level C when: ☒ Not Applicable ☐ dust levels exceed 2.5 mg/m^3 in the breathing zone continuously for 5 minutes.	☒ No work will be conducted in Level C. Site work will stop, controls reevaluated, and HASP updated as necessary
Change to Level B when: ☒ Not Applicable ☐ Specify	☒ Inventum will not conduct any work in Level B.
Change to Level A when: ☒ Not Applicable ☐ Specify	☒ Inventum will not conduct any work in Level A. ☒

(1) OSC: Office Safety Coordinator

(2) General Recommendations: Evacuate the area when LEL readings are >10% LEL in the atmosphere, or when PID readings are greater than the PEL in the breathing zone.

(3) General Recommendation: To Level C when PID readings are greater than the PEL in the breathing zone. To Level B or A only after detailed evaluation and planning.

Note: Changes to the level of protection shall be made only after the required approvals are obtained. All changes shall be recorded in the field log and reported to the Project Manager as soon as possible. Inventum's goal is to avoid using respiratory protection unless it is absolutely necessary or required. Administrative controls or engineering controls should always be considered as a means to reduce potential exposures, before PPE is required or considered.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

6. Air Monitoring (1)

The following monitoring instruments shall be used on site to measure airborne contaminant concentrations in either the breathing zone, or as part of the overall site Air Monitoring Plan (attach detailed plan):

MONITORING EQUIPMENT	LOCATION OF MONITORING	FREQUENCY OF MONITORING	ACTION LEVELS
☐ Combustible Gas Indicator	☐ N/A ☐ Monitoring Plan Attached ☐ Confined Space ☐ Manhole	☐ Continuously when potential combustible gases or lack of oxygen are suspected. ☐ Specify	5-10% LEL: continue with caution > 10 % LEL: evacuate the area ☐ Specify
☐ O2 Monitor ☐ CO Monitor ☐ H_2S Monitor	☐ N/A ☐ Confined Space ☐ Manhole – monitor oxygen, carbon monoxide, hydrogen sulfide , and lower explosive limit	☐ Continuously when excess oxygen (>22.5%) or lack of oxygen (<19.5%) are suspected. ☐ Test atmosphere prior to entry and continuous during confined space entry.	< 19.5% Oxygen: evacuate the area; supplied air may be needed. > 22.5% Oxygen: evacuate the area; potential fire hazard. ☐ Specify
☐ Colorimetric Tubes Type: Type: Type:	☐ N/A ☐ Specify ☐ Sample Container ☐ Confined Space ☐ Specify	☐ Periodically during sampling for analytical purposes only. ☐ Whenever noticeable odor is present. ☐ Specify	☐ Specify
☒ PID Lamp Needed: ☐ 9.8 eV ☒ 10.6 eV ☐ 11.7 eV Calibration Gas: Isobutylene Correction Factor:	☒ Personal Monitoring ☒ Sample Container ☐ Confined Space ☐ Specify	☒ Periodically during sampling for analytical purposes only. ☒ Continuously within the employee breathing zone. ☐ Specify ☐ Specify	☒ None. ☒ >5 ppm above background in breathing zone for 5+ min. Stop work and reevaluate potential sources and controls.
☐ FID	☐ N/A ☐ Specify	☐ Specify	☐ Specify
☐ Personal Dust Monitor	☐ N/A ☐ Personal Monitoring in Breathing Zone	☐ Continuously within the employee breathing zone	☐ >2.5 mg/m3 at work perimeter for 15 min sustained. Stop work and apply dust controls

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

☒Other: Perimeter Monitoring	☒ Perimeter Air Monitoring in accordance with the CAMP	☒ Specify Upwind and downwind particulate and VOC monitors in accordance with the CAMP	☒ Specify Follow VOC and particulate action levels specified in approved CAMP (summarized below)
☐Laboratory Supported ☒Personal ☐Area ☐Perimeter	☐ N/A ☒ Specify Work Area/breathing zone Employee breathing zone	☒ SpecifyVisual. Continuously. continuous	☒ When visible dust is present apply dust control measures (water spray) until abated.

(1) Whenever air monitoring is required to be performed, a detailed Air-Monitoring Plan should be developed and attached to the HASP. The plan should include Monitoring Locations, Frequency of Readings, and any Action Levels being used to control the work site.

Community Air Monitoring Plan Summary

Field monitoring of dust production is anticipated only during soil sampling (Task 2) and test pit installation (Task 3). A visual assessment of dust levels will be used continuously during the work and perimeter air monitoring in accordance with an approved Community Air Monitoring Program (CAMP). CAMP VOC and particulate action levels are summarized below:

- VOCs at downwind perimeter >5ppm above background (15-min average). Temporarily halt work and continue monitoring. Resume work activities if VOC concentrations readily decrease below 5ppm over background.
- VOCs at downwind perimeter >5 ppm and <25 ppm. Halt work activities, identify source of vapors, take corrective action to abate emissions, and continue monitoring. Resume work activities if VOC concentrations 200-feet down of exclusions zone, or half the distance to nearest potential receptor, whichever is less – but in no case less than 20-feet, is below 5 ppm over background (15-minute average).
- VOCs at downwind perimeter >25 ppm. Stop work and notify NYSDEC and NYSDOH

- Downwind PM-10 particulate level is 100 µg/m^3 greater than upwind perimeter for 15-min average or if airborne dust is observed leaving the work area. Apply dust suppression. Work may continue with dust suppressions provided downwind PM-10 particulate levels < 150 µg/m^3 above upwind (15-min average) and no visible dust migrating from work area.
- Downwind PM-10 particulate level is 150 µg/m^3 greater than upwind perimeter for 15-min average. Stop work and re-evaluate activities. Resume work if dust suppression measures or other controls reduce downwind PM-10 particulate levels to within 150 µg/m^3 of upwind level and prevent visible dust migration.
- Downwind PM-10 particulate level is 150 µg/m^3 greater than upwind perimeter for 15-min average after corrective actions implemented. Stop work and notify NYSDEC and NYSDOH.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

7. Site Controls and Work Zones (describe in detail)

Facility Alarms or Signals: ☒ Not Applicable ☐ Specify

Work Permits Required: ☒ Not Applicable ☐ Specify

Work Traffic Issues: ☒ Not Applicable ☐ Specify

Parking Issues: ☒ Not Applicable ☐ Specify

Railway Traffic Issues: ☒ Not Applicable ☐

Support Zone(s):

☒ Field vehicle ☒ Job Trailer On Site ☐ Other:

Contamination Reduction Zone(s):

☒ Field vehicle ☐ Facility restroom/utility room ☐ Other:

Exclusion Zone(s):

☒ Area immediately surrounding work area ☐ Other:

Site Entry Procedures:

☒ Notify Site Safety Contact Representative.

☒ Read HASP Plan and sign Acknowledgment Statement.

☒ Check in with the facility contact person. ☒ Check in with owners site representatives.

☐ Check in with facility security guard. ☐ All visitors must check in and sign visitor logbook in guard house.

☒ Wear proper personal protective equipment.

☐ Attend facility orientation. ☐

☒ Conduct daily safety meeting (document).

☐ Other: Confined space – do not enter the confined space if LEL >10%, oxygen <21% or >23.5%, carbon monoxide >35 ppm, or hydrogen sulfide >7 ppm. Exit the confined space if the atmospheric conditions become hazards as noted.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Decontamination Procedures:

Personnel: (specify)	Work will be performed in Level D or Modified Level D, and minimal contamination is expected. Follow standard decontamination procedures, and good personal hygiene. Disposable PPE should be removed, contained, and disposed in an appropriate manner. Prior arrangements should be made if disposal is planned for at the project site. Site workers should plan and stage for wash water and soap at the site, prior to beginning the work. Site workers should wash hands and any exposed skin extremely well with soap and water, prior to leaving the contamination reduction zone, eating, drinking, driving, or leaving the site. Any soiled or contaminated clothing should be removed and handled appropriately, by either washing as soon as possible, or if necessary, disposing. Soiled or contaminated clothing should be carefully bagged prior to disposal or washing, to reduce potential exposure.
Equipment: (specify)	Site workers should plan and stage for the appropriate decontamination method at the site prior to beginning the work. Any contaminated single-use disposable equipment or PPE should be appropriately containerized and disposed as soon as possible in an appropriate manner. Prior arrangements should be made if disposal is planned for at the project site. Contaminated equipment or PPE that will be re-used should be handled and cleaned while wearing the appropriate PPE. Typically, equipment is decontaminated using Alconox soap and deionized water.

Disposal of Investigation-derived Material:

☒ Leave on site for disposal. Location TBD ☐ Other:

Work Limitations (time of day, buddy system, etc.):

☐ Buddy system required for some tasks.

☒ Work will be performed during daylight hours only.

☐ Work will be performed using artificial light.

Describe or attach a lighting plan: A lighting plan is attached.

☒ No eating, drinking, or smoking in contamination reduction zone(s) or exclusion zone(s).

☒ When temperatures are either above 80°F or below 20°F, work schedules may be modified.

☐ Other site-specific limitations:

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Radiation Safety:

- ☒ Radiation information is not applicable to this project.
- ☐ Notify RSO.
- ☐ Wear dosimeter badge when handling gauge.
- ☐ Post applicable radiation signs and documents.
- ☐ Post emergency numbers.
- ☐ Provide at least two lock systems for overnight storage.
- ☐ Maintain storage at least 15 feet from full-time workstations.
- ☐ Block, brace, and securely lock the gauge during “all” transportation.
- ☐ Limit “public” exposure to gauge while in use.
- ☐ Provide sketch of gauge storage to RSO.

Site-Specific Health and Safety Plan

(Required for all Inventum Type 2 or Type 3 field projects.)

Acknowledgment Statement:

As an employee of Inventum, I have reviewed the Hazard Assessment (HA)/Health & Safety Plan (HASP). I hereby acknowledge that I have received the required level of training and medical surveillance as necessary, that I am knowledgeable about the contents of this site-specific RA/HSP, and that I will use personal protective equipment (PPE) and follow procedures specified in the HASP.

Signatures of Inventum Site Personnel:

	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	
	Date:	

INVENTUM SAFETY OBSERVATION FORM

Revised March 2019

Location/Project Name: _____	**Date:** _____
Observer Name: _____	
Observee Name: _____	**Time:** _____
Task Observed	
Description of Task Observed and Background Information	
Positive Comments	

INVENTUM SAFETY OBSERVATION FORM

Revised March 2019

Conclusions / Why the Questionable Items Occurred?

Feedback Session Conducted By: _____ **Date:** _____

Name of Observee's Supervisor: _____ **Time:** _____

At-Risk Observations/Root Cause Analysis

Personal Factor:
(1) Lack of skill or knowledge
(2) Correct way takes more time/requires more effort
(3) Shortcutting standard procedures is rewarded or appreciated
(4) In past, did not follow procedures or acceptable practices and no incident occurred

Job Factor:
(5) Lack of or inadequate operational procedures or work standards
(6) Inadequate communication of expectations or work standards
(7) Inadequate tools or equipment

At-Risk Observation #	Root Cause Analysis #	Solution(s) To Prevent Potential Incident from Occurring	Person Responsible	Agreed Due Date	Date Completed

Results of Verification (were solutions done?) and Validation (were solutions effective?)

Reviewed by (PM/Supervisor): _____ **Date:** _____

Approved by (Practice Safety Leader): _____ **Date:** _____

INVENTUM SAFETY OBSERVATION FORM

Revised March 2019

PERSONAL PROTECTIVE EQUIPMENT	Safe	At-Risk	Comments
1. Hearing Protection (e.g., Ear Plugs)			
2. Head Protection (e.g., Hard Hat)			
3. ANSI Rated Eye Protection (e.g., Safety Glasses)			
4. Hand Protection (e.g., Kevlar Gloves)			
5. Foot Protection (e.g., Safety Shoes)			
6. Respiratory Protection			
7. Fall Protection Inspected (e.g., Harness)			
8. ANSI Rated Reflective Vest/High Visibility Clothing			
9. Other (Specify)			
BODY USE AND POSITIONING	**Safe**	**At-Risk**	**Comments**
10. Correct Body Use and Positioning When Lifting/Pushing/Pulling			
11. Pinch Points/Moving Equipment - Hands/Body Clear			
12. Mounts/Dismounts Using 3-Points of Contact			
13. Other (Specify)			

INVENTUM SAFETY OBSERVATION FORM

Revised March 2019

WORK ENVIRONMENT	Safe	At-Risk	Comments
14. Work/Walk Surface Free of Obstructions (e.g., Tripping Hazards)			
15. Housekeeping/Storage			
16. Defined and Secured (e.g., warning devices, barricades, cones, flags)			
17. Suspended Load, Swing Radius & Lift Area is Barricaded			
18. Safety Shutdown Devices			
19. Proper Storage & Labeling /Disposal of Sample & Waste Materials			
20. Cylinders Stored Upright, Secured, & Caps in Place			
21. Manhole/vault Inspected for Hazards			
22. Other (Specify)			

INVENTUM SAFETY OBSERVATION FORM

Revised March 2019

OPERATING PROCEDURES	Safe	At-Risk	Comments
23. Job Planning (HASP reviewed, JSAs, etc.)			
24. Fire Extinguishers Accessible and Inspections Current			
25. Work Permit/Authorization to Work (Hot, Cold, LOTO, Confined Space)			
26. JSA Reviewed & Followed			
27. Hazard Assessment - Hazard Hunt			
28. Interfaces with Other Functions (awareness with other personnel on site)			
29. Operators Looking Behind Prior to Backing Up			
30. Operators Wearing Seat Belts While Operating Equipment			
31. Subsurface Structures Identified			
32. Proper Trench Protective Equipment in Place			
33. Adequate Egress Is Available for Excavation & Trench (within 25 ft. if depth is <4 ft.)			
34. All Materials Set Back at Least 2 Feet From Edge of Trench/Excavation			
35. Other (Specify)			

INVENTUM SAFETY OBSERVATION FORM

Revised March 2019

TOOLS/EQUIPMENT	Safe	At-Risk	Comments
36. Hand Tools (Proper Equipment Selection, Condition, and Use)			
37. Power Tools (Proper Equipment Selection, Condition, and Use)			
38. Equipment, Including Heavy (Proper Equipment Selection, Condition, and Use)			
39. Hoses Inspected			
40. Required Monitoring Equipment Calibrated & Used			
41. Ladders Set up Correctly & Inspected			
42. Right Tools for the Job are Available and in Good Condition - No Fixed Open Blade Knives (FOBKs)			
43. Other (Specify)			
Total #	0	0	

Daily Hazard Review Topic and Sign-In:

Daily Review Topic	Date

Acknowledgment Statement:

As an affected employee of Inventum Engineering, I hereby acknowledge that I have reviewed the contents of this site-specific HSP and the daily safety meeting topic, and that I will use the applicable personal protective equipment (PPE) and follow the procedures specified in the HASP.

Signatures of all onsite Inventum Personnel, including Direct-Hires (Required):

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

_____ Date: _____

Attachment C – Community Air Monitoring Plan

INVENTUM ENGINEERING, P.C.

Community Air Monitoring Plan

Parcel Reclassification Sampling

Tulip Molded Plastics Corporation Site

NYSDEC Site #932169

3125 Highland Avenue

Niagara Falls, New York

February 19, 2024

441 CARLISLE DRIVE
SUITE C
HERNDON, VA 20170
WWW.INVENTUMENG.COM

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1 Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at the 3125 Highland Avenue Site, located at 3125 Highland Avenue, Niagara Falls, New York. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required.

- *The CAMP will be activity specific. The 3125 Highland Avenue Site parcel reclassification sampling will have a short-duration and defined intrusive activity*[1].

Depending upon the proximity of potentially exposed individuals, more stringent monitoring, or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

- *There are no sensitive receptors on the property. Depending on wind direction; the closest residence is 1,000 feet east of the proposed activity boundary and more than 200 feet west of the activity boundary. There will be no on-site workers not directly involved with the subject work activities within 20 feet. Industrial/Commercial use properties are north and south of the proposed activities.*

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

2 Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

- *VOC and particulate monitoring will be incorporated into the reclassification sampling activities.*

  Continuous monitoring will be required for all ground intrusive activities during the demolition of contaminated or potentially contaminated structures, installing groundwater conveyance trenches,

[1] The text in *italic font* are comments inserted by Inventum Engineering in addition to the standard CAMP Template.

operation of a groundwater treatment system when housed indoors, and during the decontamination and deconstruction of Above Ground Storage Tanks (ASTs). Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells. Decontamination and deconstruction of ASTs include, but are not limited to, removal of residual products, decontamination of ASTs and ancillary piping and equipment, and emptying and decontamination of secondary containment structures.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

- *During sampling periodic monitoring will be implemented with hand-held instruments.*

3 VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

5. The NYSDEC and NYSDOH project managers for the Site will be notified within 24-hours by phone or email if there is an exceedance of the VOC action level of 25 ppm at the perimeter of the work area as described within Section 3. The notification shall include a description of the control measures implemented to prevent further exceedances.

4 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for New York State (DEC and NYSDOH) and County Health personnel to review.

4. Should the action level of 150 mcg/m3 above the upwind monitoring concentration be exceeded after corrective actions are taken, work must stop and NYDEC and NYSDOH project managers for the Site must be notified within 24-hours by phone or email. The notification shall include a description of the control measures implemented to prevent further exceedances.

Appendix A-1
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;

(b) Measurement Ranges: 0.001 to 400 mg/m^3 (1 to 400,000 :ug/m^3);

(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m^3 for one second averaging; and +/- 1.5 g/m^3 for sixty second averaging;

(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);

(e) Resolution: 0.1% of reading or $1g/m^3$, whichever is larger;

(f) Particle Size Range of Maximum Response: 0.1-10;

(g) Total Number of Data Points in Memory: 10,000;

(h) Logged Data: Each data point with average concentration, time/date and data point number

(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;

(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;

(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;

(l) Operating Temperature: -10 to 50^o C (14 to 122^o F);

(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m^3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m^3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m^3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m^3 above the upwind monitoring concentration be exceeded after corrective actions are taken, work must stop and DER and DOH must be notified within one hour. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential-- such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads and demolitions;

(b) Wetting equipment and excavation faces;

(c) Spraying water on buckets during excavation and dumping;

(d) Hauling materials in properly tarped or watertight containers;

(e) Restricting vehicle speeds to 10 mph;

(f) Covering excavated areas and material after excavation activity ceases; and

(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m^3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.