INVENTUM ENGINEERING

December 22, 2020

To: Benjamin McPherson (NYSDEC)

From: John Black (Inventum)

CC: Jon Williams (Riverview); John Yensan (OSC); Dan Flanagan (OSC); Craig Slater (CS Law); Todd Waldrop and James Edwards (Inventum)

RE: Mixing Pad Dewatering IRM Work Plan – Solid Material Analysis, Closure, and Reuse
Riverview Innovation & Technology Campus, Inc.
Brownfield Cleanup Program Site No. C915353
Town of Tonawanda, New York

Inventum Engineering, P.C. (Inventum), on behalf of Riverview Innovation & Technology Campus, Inc. (Riverview), is submitting this supplemental Interim Remedial Measures Work Plan for the closure of the Mixing Pad. This supplemental work plan includes the sample results for the Mixing Pad Dewatering IRM Work Plan (Mixing Pad Water IRM) previously submitted to, and approved by, the New York State Department of Environmental Conservation (NYSDEC) for the Riverview Brownfield Cleanup Program (BCP) Site (#C915353) located at 3875 River Road, Tonawanda, New York. This supplemental Work Plan includes the data associated with two samples of solids materials collected within the former mixing pad and the proposed approach to close the unit so that it can be used to manage materials beneficially and effectively during future IRMs and the remedial actions at the site. The data for the materials at the site of the nearby spill are transmitted under separate cover.

Summary and Background

The mixing pad at the property (Grids AE23 to AF24, Figure 2) was used by the Tonawanda Coke Corporation for blending Tar Decanter Sludge (Listed Waste K087 if not recycled) and other spill materials with coal and coke breeze prior to the blended product being charged to the battery for coke production. The mixing pad has not been actively used since the coke plant was shut down in October 2018. The mixing pad had accumulated precipitation over the period since shutdown. On July 25, 2020, the mixing pad dewatering work plan (Inventum, 2020) was approved by the NYSDEC. In accordance with the work plan, water in the mixing pad was pumped, treated, and discharged to the Town of Tonawanda Publicly Owned Treatment Works (POTW), in compliance with the pre-treatment Permit No. 331. A sample of the treated water was collected and analyzed by Paradigm Environmental (Appendix A) for the POTW parameters and the results were submitted to the Town Pre-Treatment Coordinator (Tables 1, 2 and 3).

After the mixing pad was dewatered two distinct piles of material were observed. Representative samples were collected from each pile. The results are discussed in subsequent section of this work plan. The piles were each moved and kept separate to the east end of the mixing pad.

481 Carlisle Drive
Suite 202
Herndon, Virginia 20170

Mixing Pad, May 2020 View Looking Down and toward the East

Mixing Pad, June 18, 2020 View Looking Down and Toward the East

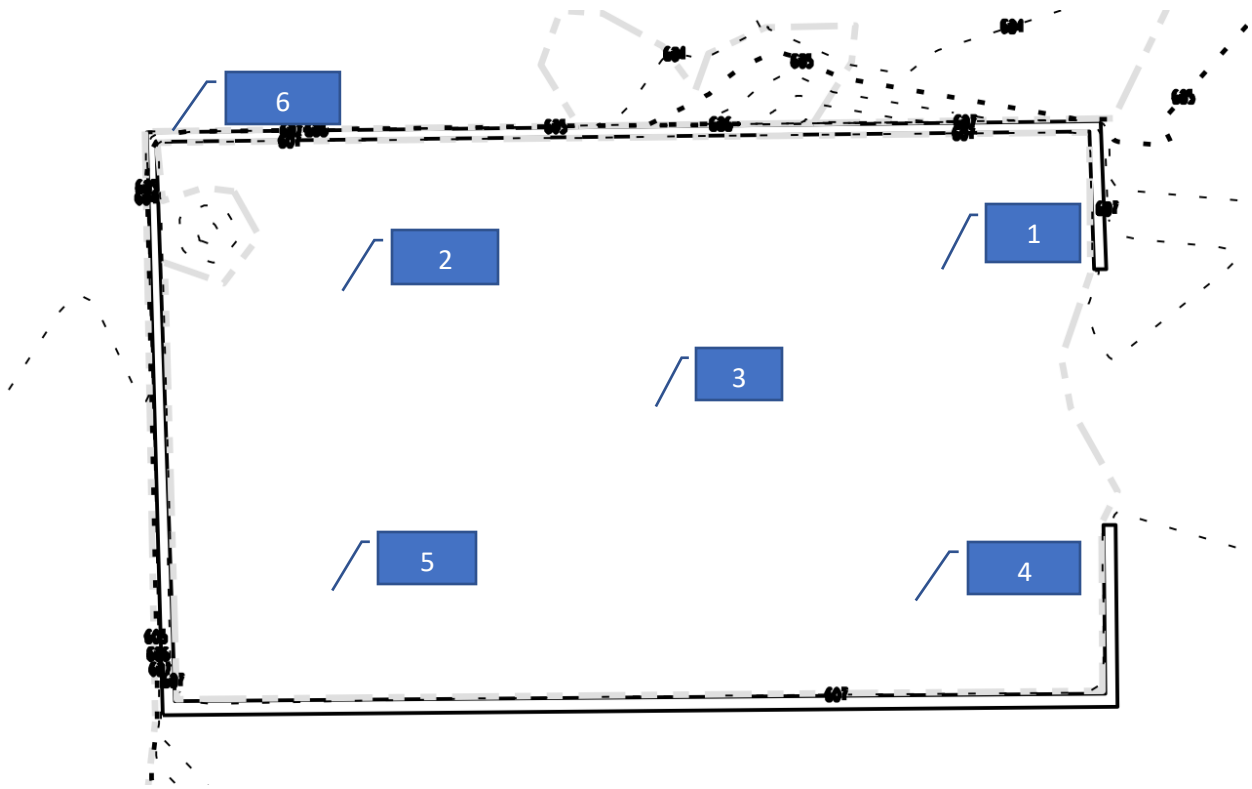
Mixing Pad, August 13, 2020 View Looking Down and Toward the East

Sampling Summary

Although three employees of the former Tonawanda Coke Corporation are currently employed on the property by OSC and Inventum, there is no site-specific knowledge of the source of the materials in the two plies. None of the OSC or Inventum employees who worked at the TCC Facility have direct knowledge of the source of the materials in the mixing pad.

Samples of the solids in the mixing pad were collected and tested for inorganic compounds; Volatile Organic Compounds (VOCs); Semi-volatile Organic Compounds (SVOCs); PCBs, Pesticides and Herbicides; and the characteristics of Corrosivity, Ignitability and for the paint filter test. The sample results are summarized in the attached Tables 4 through 8. The results for compounds that were detected are in bold font. For comparison, if detected at concentrations above the NYSDEC Contained-in Policy, the font is bold and highlighted in yellow. All inorganic compounds concentrations were below Contained-in criteria and no VOCs were detected. Neither of the sample results exceeded the criteria for a characteristic hazardous waste. Two inorganic compounds and five semi-volatile organic compounds were detected at concentration that exceeded the Contained-in criteria in the West Pile sample, and two inorganic compounds and two semi-volatile organic compounds were detected at concentration that exceeded the Contained-in criteria in the East Pile sample. The sample from the west pile contained higher concentrations of SVOCs, typically three to four times higher than the sample from the east pile.

The concrete base and one sample of the concrete walls were collected and analyzed. The sample locations are shown Below:



Concrete Core Locations
Mixing Pad – Pre-closure

Key:

1	MP-BNE-100720201
2	MP-BNW-100720201
3	MP-BCNTR-10072020
4	MP-BSE-10072020
5	MP-BSW-10072020
6	MP-NSWL-10072020 (through wall)

Proposed Closure

The proposed closure will be conducted by Ontario Specialty Contracting of Buffalo, New York and Lake Effect Dry Ice Cleaning of Grand Island, New York. Disposal will be by Heritage Thermal Services, Inc., 1250 Saint Georges Street, Unit 1, East Liverpool, Ohio 43920.

All closure work and air monitoring will be overseen by Inventum Engineering, specifically Keith Adderley. The attached inspection report will be completed daily, indicating activity and locations of the referenced activity. The inspection of the final cleaning will be conducted by John Black of Inventum.

The following actions are proposed to Close the Mixing Pad:

1. Dewater the mixing pad. Water will be pumped, treated, and disposed in accordance with the Town of Tonawanda Pre-treatment Permit No. 331;
2. The DEC will be provided no less than 5 days' notice of the cleaning activity. Note: cleaning is weather dependent, so consecutive cleaning days may not be possible.
3. Establish a Community Air Monitoring Plan station within 100 feet East-northeast (or as required to remain downwind) of the Mixing Pad during all active materials handling and washing.
4. The loose material within the limits of the mixing pad will be moved or removed and placed in a container or vehicle for offsite transport;
5. The concrete surface (sides [inside and out] and bottom) will be scraped with a flat bladed excavator bucket to remove any loose or heavy accumulations (> 0ne-eigth [1/8] inch thick) of tar. The material will be added to the loose material previously removed for transport;
6. The locations on the mixing pad will be referenced with respect to Walls – Inner North, Outer North, etc. and the slab divided into a grid, NW, NE, SW, SE for documentation purposes. Photographs, no less than 24 (10 of the inside walls, 10 of outside walls, and four of the slab), before and after will be taken and noted on the inspection form (Attachment B). The before and after photographs will be taken from similar locations.
7. The entire surface will be ice (dry or water) blasted to clean all loose residual from the interior and exterior surfaces. The resulting water will be filtered. The filters and filtrate will be added to the materials for transport. Water will be treated through GAC and discharged to the POTW;
8. The surfaces will be inspected to document any fractures or discontinuities;
9. The materials will be transported offsite for treatment (incineration) and disposal of the treated residual; and
10. A Construction Completion/Closure Report (CCR) will be submitted to the NYSDEC within 10 days of completion of the final inspection.

The closure is expected to take three weeks, weather permitting:

- Notify DEC of closure - Day 0
- Dewater Mixing Pad - Days 1 to 5
- Before Photographs - Day 5
- Remove Solids/Scraping Walls and Slab - Days 5 to 10
- Cleaning - Days 11 to 20
- Solids and Residuals Loaded for Transportation - Day 20
- Final Inspection/After Photographs - Day 20
- CCR - Day 30

Following closure, the mixing pad will be used for management of materials during IRMs, demolition and the remedial action.

Proposed Disposal

Although the solid materials in the two piles are not identical, the fact they share two compounds above the Contained-in criteria (if they were compared to soil), Inventum is proposing to combine the two piles, the material washed in at the entrance, any material scraped from the base of the pad (limited volume), and the solid residues from the blasting (limited volume); and transport and dispose the materials as hazardous waste. Disposal will be by Heritage Thermal Services, Inc., 1250 Saint Georges Street, Unit 1, East Liverpool, Ohio 43920.

The liquids from the cleaning, like the water from precipitation will be filtered, pass through activated carbon, and be discharged to the POTW under Permit No. 331. Decontamination wash waters are specifically allowed under the pre-treatment permit.

Tables

Table 1
Inorganic Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		Mixing Pad MP West Pile - 08032020 Grab		Mixing Pad MP East Pile - 08032020 Grab	
Total Inorganics (mg/kg)		**Contained In Criteria**				
ALUMINUM	7429-90-5	-	1,650		2860	
ANTIMONY	7440-36-0	31	2.88	U	3.58	U
ARSENIC	7440-38-2	0.4	2.6		5.79	
BARIUM	7440-39-3	5,500	22.7		66.1	
BERYLIUM	7440-41-7	0.15	0.240	U	1.13	
CADMIUM	7440-43-9	3,100	0.516		0.663	
CALCIUM	7440-70-2	-	2,750		2010	
CHROMIUM, TOTAL	7440-47-3	75,000	13.2		8.90	
COBALT	7440-48-4	-	2.40	U	5.05	
COPPER	7440-50-8	-	21		28.9	
IRON	7439-89-6	-	6,110		7,640	
LEAD	7439-92-1	400	18.2		43.6	
MAGNESIUM	7439-95-4	-	414		957	
MANGANESE	7439-96-5	11,000	55.5		113	
MERCURY	7439-97-6	23.0	3.71		0.964	
NICKEL	7440-02-0	1,600	8.5		11.4	
POTASSIUM	7440-09-7	-	224		444	
SELENIUM	7782-49-2	-	1.33		2.41	
SILVER	7440-22-4	390	0.481	U	0.597	U
SODIUM	7440-23-5	-	120	U	149	U
THALLIUM	7440-28-0	2.8	1.20	U	1.49	U
VANADIUM	7440-62-2	550	3.06		9.64	
ZINC	7440-66-6	23,000	55.8		53.4	
TCLP Metals (mg/L)		**US EPA TCLP REGULATORY LEVEL**				
ARSENIC		5	0.500	U	0.500	U
BARIUM		100	0.500	U	0.768	
CADMIUM		1	0.0250	U	0.0250	U
CHROMIUM		5	0.500	U	0.500	U
LEAD		5	0.500	U	0.500	U
MERCURY		0	0.002	U	0.002	U
SELENIUM		1	0.200	U	0.200	U
SILVER		5	0.500	U	0.500	U

Table 2
Volatile Organic Compound Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		Mixing Pad MP West Pile - 08032020 Grab		Mixing Pad MP East Pile - 08032020 Grab	
Volatile Organic Compounds (ug/kg)		**Contained In Criteria**				
1,1,1-TRICHLOROETHANE	71-55-6		16.1	U	11.5	U
1,1,2,2-TETRACHLOROETHANE			16.1	U	11.5	U
1,1,2-TRICHLOROETHANE			16.1	U	11.5	U
1,1-DICHLOROETHANE	75-34-3		16.1	U	11.5	U
1,1-DICHLOROETHENE	75-35-4		16.1	U	11.5	U
1,2,3-TRICHLOROBENZENE			40.3	U	28.9	U
1,2,4-TRICHLOROBENZENE			40.3	U	28.9	U
1,2-DIBROMO-3-CHLOROPROPANE			80.6	U	57.7	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)			16.1	U	11.5	U
1,2-DICHLOROBENZENE	95-50-1		16.1	U	11.5	U
1,2-DICHLOROETHANE	107-06-2		16.1	U	11.5	U
1,2-DICHLOROPROPANE			16.1	U	11.5	U
1,3-DICHLOROBENZENE	541-73-1		16.1	U	11.5	U
1,4-DICHLOROBENZENE	106-46-7		16.1	U	11.5	U
1,4-DIOXANE	123-91-1		161	U	115	U
2-BUTANONE			80.6	U	57.7	U
2-HEXANONE			40.3	U	28.9	U
4-METHYL-2-PENTANONE			40.3	U	28.9	U
ACETONE	67-64-1		80.6	U	57.7	U
BENZENE	71-43-2		16.1	U	11.5	U
BROMOCHLOROMETHANE			40.3	U	28.9	U
BROMODICHLOROMETHANE			16.1	U	11.5	U
BROMOFORM			40.3	U	11.5	U
BROMOMETHANE			16.1	U	11.5	U
CARBON DISULFIDE			16.1	U	11.5	U
CARBON TETRACHLORIDE	56-23-5		16.1	U	11.5	U
CHLOROBENZENE	108-90-7		16.1	U	11.5	U
CHLOROETHANE			16.1	U	11.5	U
CHLOROFORM	67-66-3		16.1	U	11.5	U
CHLOROMETHANE			16.1	U	11.5	U
CIS-1,2-DICHLOROETHYLENE			16.1	U	11.5	U
CIS-1,3-DICHLOROPROPENE			16.1	U	11.5	U
CYCLOHEXANE			80.6	U	57.7	U
DIBROMOCHLOROMETHANE			16.1	U	11.5	U
DICHLORODIFLUOROMETHANE			16.1	U	11.5	U
ETHYLBENZENE	100-41-4		16.1	U	11.5	U
FREON 113			16.1	U	11.5	U
ISOPROPYLBENZENE (CUMENE)			16.1	U	11.5	U
M,P-XYLENE	1330-20-7		16.1	U	11.5	U
METHYL ACETATE			16.1	U	11.5	U
METHYL TERT-BUTYL ETHER	1634-04-4		16.1	U	11.5	U
METHYLCYCLOHEXANE			16.1	U	11.5	U
METHYLENE CHLORIDE	75-09-2		40.3	U	28.9	U
O-XYLENE	1330-20-7		16.1	U	11.5	U
STYRENE			40.3	U	28.9	U
TETRACHLOROETHYLENE (PCE)	127-18-4		16.1	U	11.5	U
TOLUENE	108-88-3		16.1	U	11.5	U
TRANS-1,2-DICHLOROETHENE			16.1	U	11.5	U
TRANS-1,3-DICHLOROPROPENE			16.1	U	11.5	U
TRICHLOROETHENE (TCE)	79-01-6		16.1	U	11.5	U
TRICHLOROFLUOROMETHANE			16.1	U	11.5	U
VINYL CHLORIDE	75-01-4		16.1	U	11.5	U

Table 2
Volatile Organic Compound Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		Mixing Pad		Mixing Pad	
			MP West Pile - 08032020		MP East Pile - 08032020	
			Grab		Grab	
TCLP VOCs (ug/L)		US EPA TCLP REGULATORY LEVEL				
1,1-DICHLOROETHENE		700	20	U	20	U
1,2-DICHLOROETHANE		500	20	U	20	U
2-BUTANONE		200,000	100	U	100	U
BENZENE		500	20	U	20	U
CARBON TETRACHLORIDE		500	20	U	20	U
CHLOROBENZENE		100,000	20	U	20	U
CHLOROFORM		6,000	20	U	20	U
TETRACHLOROETHENE		700	20	U	20	U
TRICHLOROETHENE		500	20	U	20	U
VINYL CHLORIDE		200	20	U	20	U

Table 3
Semi-volatile Organic Compound Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		Mixing Pad		Mixing Pad	
			MP West Pile - 08032020		MP East Pile - 08032020	
			Grab		Grab	
Semi-volatile Organic Compounds (ug/kg)		Contained In Criteria				
1,1-BIPHENYL		-	69,800	U	9,860	
1,2,4,5-TETRACHLOROBENZENE		-	69,800	U	9,410	U
1,2,4-TRICHLOROBENZENE		-	69,800	U	9,410	U
1,2-DICHLOROBENZENE	95-50-1	-	69,800	U	9,410	U
1,3-DICHLOROBENZENE	541-73-1	-	69,800	U	9,410	U
1,4-DICHLOROBENZENE	106-46-7	-	69,800	U	9,410	U
2,2-OXYBIS (1-CHLOROBENZENE)		-	69,800	U	9,410	U
2,3,4,6-TETRACHLOROPHENOL		-	69,800	U	9,410	U
2,4,5-TRICHLOROPHENOL		-	69,800	U	9,410	U
2,4,6-TRICHLOROPHENOL		-	69,800	U	9,410	U
2,4-DICHLOROPHENOL		-	69,800	U	9,410	U
2,4-DIMETHYLPHENOL		-	69,800	U	9,410	U
2,4-DINITROPHENOL		-	279,000	U	37,600	U
2,4-DINITROTOLUENE		-	69,800	U	9,410	U
2,6-DINITROTOLUENE		-	69,800	U	9,410	U
2-CHLORONAPHTHALENE		-	69,800	U	9,410	U
2-CHLOROPHENOL		-	69,800	U	9,410	U
2-METHYLNAPHTHALENE		-	69,800	U	19,700	
2-METHYLPHENOL (O-CRESOL)		-	69,800	U	9,410	U
2-NITROANILINE		-	69,800	U	9,410	U
2-NITROPHENOL		-	69,800	U	9,410	U
3&4-METHYLPHENOL		-	69,800	U	9,410	U
3,3'-DICHLOROBENZIDINE		-	69,800	U	9,410	U
3-NITROANILINE		-	69,800	U	9,410	U
4,6-DINITRO-2-METHYLPHENOL		-	93,400	U	12,600	U
4-BROMOPHENYL PHENYL ETHER		-	69,800	U	9,410	U
4-CHLORO-3-METHYLPHENOL		-	69,800	U	9,410	U
4-CHLOROANILINE		-	69,800	U	9,410	U
4-CHLOROPHENYL PHENYL ETHER		-	69,800	U	9,410	U
4-NITROANILINE		-	69,800	U	9,410	U
4-NITROPHENOL		-	69,800	U	9,410	U
ACENAPHTHENE	208-96-8	47,000,000	69,800	U	315,000	
ACENAPHTHYLENE	83-32-9	-	157,000		30,700	
ACETOPHENONE		-	69,800	U	9,410	U
ANTHRACENE	120-12-7	23,000,000	259,000		71,000	
ATRAZINE		-	69,800	U	9,410	U
BENZALDEHYDE		-	69,800	U	9,410	U
BENZO(A)ANTHRACENE	56-55-3	90,000	321,000		86,900	
BENZO(A)PYRENE	50-32-8	900,000	195,000		70,500	
BENZO(B)FLUORANTHENE	205-99-2	90,000	221,000		73,500	
BENZO(G,H,I)PERYLENE		-	106,000		36,400	
BENZO(K)FLUORANTHENE	207-08-9	9,000	160,000		47,700	
BIS (2-CHLOROETHOXY) METHANE		-	69,800	U	9,410	U
BIS (2-CHLOROETHYL) ETHER		-	69,800	U	9,410	U
BIS (2-ETHYLHEXYL) PHTHALATE		-	69,800	U	9,410	U
BENZYL BUTYL PHTHALATE (BUTYLBENZYLPHTHALATE)		-	69,800	U	9,410	U
CAPROLACTAM		-	69,800	U	9,410	U
CARBAZOLE		-	110,000		22,600	

Table 3
Semi-volatile Organic Compound Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		Mixing Pad		Mixing Pad	
			MP West Pile - 08032020		MP East Pile - 08032020	
			Grab		Grab	
Semi-volatile Organic Compounds (ug/kg)		**Contained In Criteria**				
CHRYSENE	218-01-9	68,000	332,000		78,500	
DIBENZ(A,H)ANTHRACENE	53-70-3	900,000	69,800	U	12,100	
DIBENZOFURAN	132-64-9	-	152,000		38,200	
DIETHYL PHTHALATE		-	69,800	U	9,410	U
DIMETHYL PHTHALATE		-	69,800	U	9,410	U
DI-N-BUTYL PHTHALATE		-	69,800	U	9,410	U
DI-N-OCTYLPHTHALATE		-	69,800	U	9,410	U
FLUORANTHENE	206-44-0	3,100,000	707,000		204,000	
FLUORENE	86-73-7	3,100,000	281,000		56,000	
HEXACHLOROBENZENE		-	69,800	U	9,410	U
HEXACHLOROBUTADIENE		-	69,800	U	9,410	U
HEXACHLOROCYCLOPENTADIENE		-	279,000	U	37,600	U
HEXACHLOROETHANE		-	69,800	U	9,410	U
INDENO(1,2,3-CD)PYRENE	193-39-5	90,000	98,900		33,900	
ISOPHORONE		-	69,800	U	9,410	U
NAPHTHALENE	91-20-3	310,000	69,800	U	145,000	
NITROBENZENE		39,000	69,800	U	9,410	U
N-NITROSO-DI-N-PROPYLAMINE		-	69,800	U	9,410	U
N-NITROSODIPHENYLAMINE		-	69,800	U	9,410	U
PENTACHLOROPHENOL	87-86-5	-	140,000	U	18,800	U
PHENANTHRENE	85-01-8	-	969,000		194,000	
PHENOL	108-95-2	47,000,000	69,800	U	9,410	U
PYRENE	129-00-0	2,300,000	456,000		138,000	
TCLP SVOCs (ug/L)		**US EPA TCLP REGULATORY LEVEL**				
1,4-ICHLOROBENZENE		7,500	40	U	40	U
2,4,5-TRICHLOROPHENOL		400,000	40	U	40	U
2,4,6-TRICHLOROPHENOL		2,000	40	U	40	U
2,4-DINITROTOLUENE		130	40	U	40	U
CREOSOLS (M,P,O-CREOSOL)		200,000	80	U	80	U
HEXACHLOROBENZENE		130	40	U	40	U
HEXACHLOROBUTADIENE		500	40	U	40	U
HEXACHLOROETHANE		3,000	40	U	40	U
NITROBENZENE		2,000	40	U	40	U
PENTACHLOROPHENOL		100,000	80	U	80	U
PYRIDINE		5,000	40	U	40	U

Table 4
Pesticide/Herbicide Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes		Mixing Pad		Mixing Pad	
		MP West Pile - 08032020		MP East Pile - 08032020	
		Grab		Grab	
TCLP Herbicides (ug/kg)	**Contained In Criteria**				
2,4,5-TP (SILVEX)		0.10	U	0.10	U
2,4-D (DICHLOROPHENOXYACETIC ACID)		0.50	U	0.50	U
TCLP Pesticides (ug/L)	**US EPA TCLP REGULATORY LEVEL**				
CHLORDANE	30	2.00	U	2.00	U
ENDRIN	20	1.00	U	1.00	U
GAMA-BHC (LINDANE0	400	1.00	U	1.00	U
HEPTACHLOR	8	**1.39**		**3.07**	
HEPTACHLOR EPOXIDE	8	2.00	U	2.00	U
METHOXYCHLOR	10,000	1.00	U	1.00	U
TOXAPHENE	500	20.0	U	20.0	U

Table 5
HazCat Data - Soilds
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes		Mixing Pad	Mixing Pad
		MP West Pile - 08032020	MP East Pile - 08032020
		Grab	Grab
HazCat			
Corrosivity as pH	<3 or >12.5	6.74	6.59
Ignitability (mm / sec)		No Burn	No Burn
Paint Filter (pass / fail)		Pass	Pass

Table 6
Inorganic Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
			Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
Total Inorganics (mg/kg)		**Commercial Restricted Use Standards**												
ALUMINUM	7429-90-5	-	8,760		7,250		7,610		7,190		8,020		9,280	
ANTIMONY	7440-36-0	-	2.97	U	2.88	U	2.73	U	2.97	U	2.88	U	2.97	U
ARSENIC	7440-38-2	5.9	5		4.25		4.4		3.31		5.4		5.86	
BARIUM	7440-39-3	400	57.7		53.8		48.4		34		56		56.9	
BERYLIUM	7440-41-7	590	0.248	U	0.24	U	0.227	U	0.248	U	0.24	U	0.248	U
CADMIUM	7440-43-9	60	0.922		0.769		0.821	U	0.511		0.92		1.15	
CALCIUM	7440-70-2	-	156,000		113,000		130,000		10,300		123,000		173,000	
CHROMIUM, TOTAL	7440-47-3	1,500	19.2		16.9		17.2		10.8		19.2		20.9	
COBALT	7440-48-4	-	3.84		3.59		3.73		3.85		4.01		4.04	
COPPER	7440-50-8	270	14.6		17		12.7		7.88		56.7		16.5	
IRON	7439-89-6	-	11,000		9,920		10,600		11,800		11,600		11,300	
LEAD	7439-92-1	1,000	35.9		31.8		29.3		15.9		39.8		38.7	
MAGNESIUM	7439-95-4		16,300		9,660		26,900		16,300		13,600		17,100	
MANGANESE	7439-96-5	15,000	330		364		468		570		494		330	
MERCURY	7439-97-6	2.8	0.000071		0.0002	U	0.00017	U	0.000002	U	0.000094		0.000046	
NICKEL	7440-02-0	310	10		9.51		9.62		11		11.9		10.1	
POTASSIUM	7440-09-7	-	1,290		1,300		1,190		1,260		1,390		1,150	
SELENIUM	7782-49-2	1,500	2.97	U	1.92	U	2.73	U	1.98	U	1.92	U	2.97	U
SILVER	7440-22-4	1,500	0.495	U	0.481	U	0.455	U	0.495	U	0.481	U	0.495	U
SODIUM	7440-23-5	-	397		406	U	285		320		373		331	
THALLIUM	7440-28-0	-	2.48	U	2.4	U	1.14	U	1.24	U	1.2	U	2.48	U
VANADIUM	7440-62-2	-	16.4		14.4		14.1		11.7		16.8		18.6	
ZINC	7440-66-6	89,000	369		316		311		166		344		445	
CYANIDE		27	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U	0.001	U
SULFIDE		-	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U	0.01	U
TCLP Metals (mg/L)		**US EPA TCLP REGULATORY LEVEL**												
ARSENIC		5	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U
BARIUM		100	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U
CADMIUM		1	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U	0.025	U
CHROMIUM		5	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U
LEAD		5	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U
MERCURY		0.2	0.002	U	0.002	U	0.002	U	0.002	U	0.002	U		
SELENIUM		1	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U	0.200	U
SILVER		5	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U	0.500	U

Table 7
Volitile Organic Compound Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
			Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
Volatile Organic Compounds (ug/kg)		Commercial Restiricted Use Standards												
1,1,1-TRICHLOROETHANE	71-55-6	53,000,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,1,2,2-TETRACHLOROETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,1,2-TRICHLOROETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,1-DICHLOROETHANE	75-34-3	2,400,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,1-DICHLOROETHENE	75-35-4	5,500,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,2,3-TRICHLOROBENZENE		-	31.1	U	20.7	U	21.7	U	22.7	U	23.6	U	22.7	U
1,2,4-TRICHLOROBENZENE		-	31.1	U	20.7	U	21.7	U	22.7	U	23.6	U	22.7	U
1,2-DIBROMO-3-CHLOROPROPANE		-	62.3	U	41.3	U	43.5	U	45.5	U	47.2	U	45.5	U
1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,2-DICHLOROBENZENE	95-50-1	4,600,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,2-DICHLOROETHANE	107-06-2	60,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,2-DICHLOROPROPANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,3-DICHLOROBENZENE	541-73-1	280,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,4-DICHLOROBENZENE	106-46-7	250,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
1,4-DIOXANE	123-91-1	130,000	125	U	82.6	U	87	U	9.09	U	94.3	U	9.09	U
2-BUTANONE		-	62.3	U	41.3	U	43.5	U	45.5	U	47.2	U	45.5	U
2-HEXANONE		-	31.1	U	20.7	U	21.7	U	22.7	U	23.6	U	22.7	U
4-METHYL-2-PENTANONE		-	31.1	U	8.26	U	21.7	U	22.7	U	23.6	U	22.7	U
ACETONE	67-64-1	260,000,000	62.3	U	41.3	U	43.5	U	9.09	U	47.2	U	45.5	U
BENZENE	71-43-2	44,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
BROMOCHLOROMETHANE		-	31.1	U	20.7	U	21.7	U	22.7	U	23.6	U	22.7	U
BROMODICHLOROMETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
BROMOFORM		-	31.1	U	20.7	U	8.7	U	22.7	U	23.6	U	22.7	U
BROMOMETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CARBON DISULFIDE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CARBON TETRACHLORIDE	56-23-5	22,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CHLOROBENZENE	108-90-7	1,700,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CHLOROETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CHLOROFORM	67-66-3	350,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CHLOROMETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CIS-1,2-DICHLOROETHYLENE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CIS-1,3-DICHLOROPROPENE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
CYCLOHEXANE		-	62.3	U	41.3	U	43.5	U	45.5	U	47.2	U	45.5	U
DIBROMOCHLOROMETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
DICHLORODIFLUOROMETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
ETHYLBENZENE	100-41-4	390,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
FREON 113		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
ISOPROPYLBENZENE (CUMENE)		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
M,P-XYLENE	1330-20-7	3,100,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
METHYL ACETATE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
METHYL TERT-BUTYL ETHER	1634-04-4	1,100,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
METHYLCYCLOHEXANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
METHYLENE CHLORIDE	75-09-2	1,600,000	31.1	U	20.7	U	21.7	U	22.7	U	23.6	U	22.7	U
O-XYLENE	1330-20-7	3,100,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
STYRENE		-	31.1	U	20.7	U	21.7	U	22.7	U	23.6	U	22.7	U
TETRACHLOROETHYLENE (PCE)	127-18-4	150,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
TOLUENE	108-88-3	8,900,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
TRANS-1,2-DICHLOROETHENE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
TRANS-1,3-DICHLOROPROPENE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
TRICHLOROETHENE (TCE)	79-01-6	200,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
TRICHLOROFLUOROMETHANE		-	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U
VINYL CHLORIDE	75-01-4	13,000	12.5	U	8.26	U	8.7	U	9.09	U	9.43	U	9.09	U

Table 7
Volitile Organic Compound Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353

Analytes	CAS Number		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
			Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
TCLP VOCs (ug/L)		**US EPA TCLP REGULATORY LEVEL**												
1,1-DICHLOROETHENE		700	20	U	20	U	20	U	20	U	20	U	20	U
1,2-DICHLOROETHANE		500	20	U	20	U	20	U	20	U	20	U	20	U
2-BUTANONE		200,000	100	U	100	U	100	U	100	U	100	U	100	U
BENZENE		500	20	U	20	U	20	U	20	U	20	U	20	U
CARBON TETRACHLORIDE		500	20	U	20	U	20	U	20	U	20	U	20	U
CHLOROBENZENE		100,000	20	U	20	U	20	U	20	U	20	U	20	U
CHLOROFORM		6,000	20	U	20	U	20	U	20	U	20	U	20	U
TETRACHLOROETHENE		700	20	U	20	U	20	U	20	U	20	U	20	U
TRICHLOROETHENE		500	20	U	20	U	20	U	20	U	20	U	20	U
VINYL CHLORIDE		200	20	U	20	U	20	U	20	U	20	U	20	U

Table 8
Semi-volitile Organic Compound Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
			Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
Semi-volatile Organic Compounds (ug/kg)		**Commercial Restiricted Use Standards**												
1,1-BIPHENYL		-	279	U	284	U	282	U	273	U	262	U	275	U
1,2,4,5-TETRACHLOROBENZENE		-	279	U	284	U	282	U	273	U	262	U	275	U
1,2,4-TRICHLOROBENZENE		-	279	U	284	U	282	U	273	U	262	U	275	U
1,2-DICHLOROBENZENE	95-50-1	4,600,000	279	U	284	U	282	U	273	U	262	U	275	U
1,3-DICHLOROBENZENE	541-73-1	2,800,000	279	U	284	U	282	U	273	U	262	U	275	U
1,4-DICHLOROBENZENE	106-46-7	130,000	279	U	284	U	282	U	273	U	262	U	275	U
2,2-OXYBIS (1-CHLOROBENZENE)		-	279	U	284	U	282	U	273	U	262	U	275	U
2,3,4,6-TETRACHLOROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
2,4,5-TRICHLOROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
2,4,6-TRICHLOROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
2,4-DICHLOROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
2,4-DIMETHYLPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
2,4-DINITROPHENOL		-	1,120	U	1,140	U	1,130	U	1,090	U	1,050	U	1,100	
2,4-DINITROTOLUENE		-	279	U	284	U	282	U	273	U	262	U	275	U
2,6-DINITROTOLUENE		-	279	U	284	U	282	U	273	U	262	U	275	U
2-CHLORONAPHTHALENE		-	279	U	284	U	282	U	273	U	262	U	275	U
2-CHLOROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
2-METHYLNAPHTHALENE		-	**397**		284	U	282	U	273	U	262	U	275	U
2-METHYLPHENOL (O-CRESOL)		-	279	U	663		282	U	657	U	262	U	275	U
2-NITROANILINE		-	279	U	284	U	282	U	273	U	262	U	275	U
2-NITROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
3&4-METHYLPHENOL		-	**943**		**1,890**		**815**		1,990	U	262	U	275	U
3,3'-DICHLOROBENZIDINE		-	279	U	284	U	282	U	273	U	262	U	275	U
3-NITROANILINE		-	279	U	284	U	282	U	273	U	262	U	275	U
4,6-DINITRO-2-METHYLPHENOL		-	279	U	380	U	378	U	366	U	350	U	368	U
4-BROMOPHENYL PHENYL ETHER		-	279	U	284	U	282	U	273	U	262	U	275	U
4-CHLORO-3-METHYLPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
4-CHLOROANILINE		-	279	U	284	U	282	U	273	U	262	U	275	U
4-CHLOROPHENYL PHENYL ETHER		-	279	U	284	U	282	U	273	U	262	U	275	U
4-NITROANILINE		-	279	U	284	U	282	U	273	U	262	U	275	U
4-NITROPHENOL		-	279	U	284	U	282	U	273	U	262	U	275	U
ACENAPHTHENE	208-96-8	9,200,000	279	U	284	U	282	U	273	U	262	U	275	U
ACENAPHTHYLENE	83-32-9	9,200,000	279	U	284	U	282	U	**623**		262	U	275	U
ACETOPHENONE		-	279	U	284	U	282	U	273	U	262	U	275	U
ANTHRACENE	120-12-7	46,000,000	**654**		284	U	282	U	**1,220**		262	U	275	U
ATRAZINE		-	279	U	284	U	282	U	273	U	262	U	275	U
BENZALDEHYDE		-	279	U	284	U	282	U	273	U	262	U	275	U
BENZO(A)ANTHRACENE	56-55-3	5,600	**998**		284	U	282	U	2,410		262	U	275	U
BENZO(A)PYRENE	50-32-8	560	**466**		284	U	282	U	**1,970**		262	U	275	U
BENZO(B)FLUORANTHENE	205-99-2	5,600	**605**		284	U	282	U	**2,040**		262	U	275	U
BENZO(G,H,I)PERYLENE		4,600,000	**312**		284	U	282	U	**853**		262	U	275	U
BENZO(K)FLUORANTHENE	207-08-9	56,000	**686**		284	U	282	U	**1,490**		262	U	275	U
BIPHENOL									273	U	262	U	275	U

Table 8
Semi-volitile Organic Compound Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
			Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
Semi-volatile Organic Compounds (ug/kg)		**Commercial Restiricted Use Standards**	***p=***											
BIS (2-CHLOROETHOXY) METHANE		-	279	U	284	U	282	U	273	U	262	U	275	U
BIS (2-CHLOROETHYL) ETHER		-	279	U	284	U	282	U	273	U	262	U	275	U
BIS (2-ETHYLHEXYL) PHTHALATE		-	279	U	284	U	282	U	273	U	262	U	275	U
BENZYL BUTYL PHTHALATE (BUTYLBENZYLPHTHALATE)		-	279	U	284	U	282	U	273	U	262	U	275	U
CAPROLACTAM		-	279	U	284	U	282	U	273	U	262	U	275	U
CARBAZOLE		-	**325**		284	U	282	U	**777**		262	U	275	U
CHRYSENE	218-01-9	56,000	**875**		284	U	282	U	**1,950**		262	U	275	U
DIBENZ(A,H)ANTHRACENE	53-70-3	560	279	U	284	U	282	U	**356**		262	U	275	U
DIBENZOFURAN	132-64-9	350,000	**699**		284	U	282	U	**345**		262	U	275	U
DIMETHYL PHTHALATE		-	279	U	284	U	282	U	273	U	262	U	275	U
DI-N-BUTYL PHTHALATE		-	279	U	284	U	282	U	273	U	262	U	275	U
DI-N-OCTYLPHTHALATE		-	279	U	284	U	282	U	273	U	262	U	275	U
FLUORANTHENE	206-44-0	6,200,000	**3,230**		353		**351**		**5,800**		262	U	275	U
FLUORENE	86-73-7	6,200,000	**768**		284	U	282	U	841		262	U	275	U
HEXACHLOROBENZENE		-	279	U	284	U	282	U	273	U	262	U	275	U
HEXACHLOROBUTADIENE		-	279	U	284	U	282	U	273	U	262	U	275	U
HEXACHLOROCYCLOPENTADIENE		-	1,120	U	1,140	U	1,130	U	1,090	U	1,050	U	1,100	U
HEXACHLOROETHANE		-	279	U	284	U	282	U	273	U	262	U	275	U
INDENO(1,2,3-CD)PYRENE	193-39-5	5,600	**350**		284	U	282	U	**894**		262	U	275	U
ISOPHORONE		-	279	U	284	U	282	U	273	U	262	U	275	U
NAPHTHALENE	91-20-3	3,500,000	**1,160**		284	U	338		**568**		262	U	275	U
N-NITROSODIPHENYLAMINE		-	279	U	284	U	282	U	273	U	262	U	275	U
PENTACHLOROPHENOL	87-86-5	6,700	**559**		568	U	565	U	546	U	524	U	549	U
PHENANTHRENE	85-01-8	4,600,000	**4,800**		**697**		**581**		**3,450**		262	U	275	U
PHENOL	108-95-2	800,000	**2,490**		**3,910**		**1,660**		**4,550**		262	U	275	U
PYRENE	129-00-0	4,600,000	**2,240**		284	U	282	U	3,610		262	U	275	U

Table 8
Semi-volitile Organic Compound Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes	CAS Number		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
			Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
TCLP SVOCs (ug/L)		**US EPA TCLP REGULATORY LEVEL**												
1,4-DICHLOROBENZENE		7,500	40	U	40	U	40	U	40	U	40	U	40	U
2,4,5-TRICHLOROPHENOL		400,000	40	U	40	U	40	U	40	U	40	U	40	U
2,4,6-TRICHLOROPHENOL		2,000	40	U	40	U	40	U	40	U	40	U	40	U
2,4-DINITROTOLUENE		130	40	U	40	U	40	U	40	U	40	U	40	U
CREOSOLS (M,P-CREOSOL)		200,000	80	U	**266**		80	U	**159**		80	U	80	U
CREOSOLS (O-CREOSOL)		200,000	40	U	40	U	40	U	40	U	40	U	40	U
HEXACHLOROBENZENE		130	40	U	40	U	40	U	40	U	40	U	40	U
HEXACHLOROBUTADIENE		500	40	U	40	U	40	U	40	U	40	U	40	U
HEXACHLOROETHANE		3,000	40	U	40	U	40	U	40	U	40	U	40	U
NITROBENZENE		2,000	40	U	40	U	40	U	40	U	40	U	40	U
PENTACHLOROPHENOL		100,000	80	U	80	U	80	U	80	U	80	U	80	U
PYRIDINE		5,000	40	U	40	U	40	U	40	U	40	U	40	U

Table 9
Pesticide/Herbicide Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
PCBs (mg/Kg)	Commercial Restricted Use Standards												
PCB 1016	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1221	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1232	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1242	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1248	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1254	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1260	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1262	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
PCB 1268	1	0.0279	U	0.0284	U	0.0267	U	0.0275	U	0.0275	U	0.0275	U
Chlorinated Pesticides (ug/Kg)	Commercial Restricted Use Standards												
4,4'-DDD	92,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
4,4'-DDE	62,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
4,4'-DDT	47,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ALDRIN	680	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ALPHA-BHC	3,400	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
CIS-CHLORDANE	2,400	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
BETA-BHC	3,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
DELTA-BHC	7,400,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
DIELDRIN	1,400	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ENDOSULFAN I	200,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ENDOSULFAN II	200,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ENDOSULFAN SULFATE	200,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ENDRIN	89,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ENDRIN ALDEHYDE	-	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
ENDRIN KETONE	-	**3.11**		2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
GAMMA-BHC (LINDANE)	-	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
TRANS-CHLORDANE	-	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
HEPTACHLOR	15,000	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
HEPTACHLOR EPOXIDE	-	2.79	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
METHOXYCHLOR	-	**4.34**		2.84	U	2.67	U	2.75	U	2.75	U	2.75	U
TOXAPHENE	-	27.90	U	2.84	U	2.67	U	2.75	U	2.75	U	2.75	U

Table 9
Pesticide/Herbicide Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
TCLP Pesticides (ug/kg)	**US EPA TCLP REGULATORY LEVEL**												
CHLORDANE	30	2.00	U	2.00	U	2.00	U	2.00	U	2.00	U	2.00	U
ENDRIN	20	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
GAMMA-BHC (LINDANE)	400	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
HEPTACHLOR	8	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
HEPTACHLOR EPOXIDE	8	2.00	U	2.00	U	2.00	U	2.00	U	2.00	U	2.00	U
METHOXYCHLOR	10,000	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U	1.00	U
TOXAPHENE	500	20.00	U	20.00	U	20.00	U	20.00	U	20.00	U	20.00	U
Chlorinated Herbicides (ug/kg)	**US EPA TCLP REGULATORY LEVEL**												
2,4-D	100,000	1,200	U	1,200	U	1,200	U	1,200	U	1,200	U	1,200	U
2,4,5-TP (SILVEX)	-	300	U	300	U	300	U	300	U	300	U	300	U
2,4-D (DICHLOROPHENOXYACETIC ACID)	-	300	U	300	U	300	U	300	U	300	U	300	U
TCLP Herbicides (mg/L)	**US EPA TCLP REGULATORY LEVEL**												
2,4,5-TP (SILVEX)	1	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
2,4-D (DICHLOROPHENOXYACETIC ACID)	10	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U

Table 10
Characteristic Data - Concrete Cores
Mixing Pad
Riverview Innovation Technology Campus
Site # C915353
Town of Tonawanda, New York

Analytes		MP-BNE-10072020		MP-BNW-10072020		MP-BCNTR-10072020		MP-BSE-10072020		MP-BSW-10072020		MP-NSWL-10072020	
		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core		Concrete Core	
HazCat													
Corrosivity as pH	<3 or >12.5	11.9		12		11.81		11.04		12.07		12.15	
Ignitability (mm / sec)		No Burn		No Burn		No Burn		No Burn		No Burn		No Burn	
Reactivity		Non Reactive		Non Reactive		Non Reactive		Non Reactive		Non Reactive		Non Reactive	

Attachment A

Laboratory Reports

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report For

Inventum Engineering, P.C.

For Lab Project ID

203634

Referencing

Riverview

Prepared

Wednesday, August 12, 2020

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: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	6.74 @ 22.1 C	S.U.		8/7/2020 10:53

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		8/10/2020

Method Reference(s): EPA 1030

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**3.71**	mg/Kg		8/6/2020

Method Reference(s): EPA 7471B
Subcontractor ELAP ID: 10709

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**1650**	mg/Kg		8/10/2020 14:31
Antimony	< 2.88	mg/Kg		8/10/2020 09:34
Arsenic	**2.60**	mg/Kg		8/10/2020 09:34
Barium	**22.7**	mg/Kg		8/10/2020 09:34
Beryllium	< 0.240	mg/Kg		8/10/2020 09:34
Cadmium	**0.516**	mg/Kg		8/10/2020 09:34
Calcium	**2750**	mg/Kg		8/10/2020 09:34
Chromium	**13.2**	mg/Kg		8/10/2020 09:34
Cobalt	< 2.40	mg/Kg		8/10/2020 09:34
Copper	**21.0**	mg/Kg		8/10/2020 09:34
Iron	**6110**	mg/Kg		8/10/2020 09:34
Lead	**18.2**	mg/Kg		8/10/2020 09:34
Magnesium	**414**	mg/Kg		8/10/2020 09:34

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

Manganese	**55.5**	mg/Kg		8/10/2020 09:34
Nickel	**8.50**	mg/Kg		8/10/2020 14:31
Potassium	**224**	mg/Kg		8/10/2020 14:31
Selenium	**1.33**	mg/Kg		8/10/2020 14:31
Silver	< 0.481	mg/Kg		8/10/2020 09:34
Sodium	< 120	mg/Kg		8/10/2020 09:34
Thallium	< 1.20	mg/Kg		8/10/2020 09:34
Vanadium	**3.06**	mg/Kg		8/10/2020 14:31
Zinc	**55.8**	mg/Kg		8/10/2020 09:34

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 8/6/2020
Data File: 200810B

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		8/11/2020

Method Reference(s): EPA 9095B

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 69800	ug/Kg		8/6/2020 11:23
1,2,4,5-Tetrachlorobenzene	< 69800	ug/Kg		8/6/2020 11:23
1,2,4-Trichlorobenzene	< 69800	ug/Kg		8/6/2020 11:23
1,2-Dichlorobenzene	< 69800	ug/Kg		8/6/2020 11:23
1,3-Dichlorobenzene	< 69800	ug/Kg		8/6/2020 11:23
1,4-Dichlorobenzene	< 69800	ug/Kg		8/6/2020 11:23
2,2-Oxybis (1-chloropropane)	< 69800	ug/Kg		8/6/2020 11:23
2,3,4,6-Tetrachlorophenol	< 69800	ug/Kg		8/6/2020 11:23
2,4,5-Trichlorophenol	< 69800	ug/Kg		8/6/2020 11:23
2,4,6-Trichlorophenol	< 69800	ug/Kg		8/6/2020 11:23
2,4-Dichlorophenol	< 69800	ug/Kg		8/6/2020 11:23

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

2,4-Dimethylphenol	< 69800	ug/Kg	8/6/2020	11:23
2,4-Dinitrophenol	< 279000	ug/Kg	8/6/2020	11:23
2,4-Dinitrotoluene	< 69800	ug/Kg	8/6/2020	11:23
2,6-Dinitrotoluene	< 69800	ug/Kg	8/6/2020	11:23
2-Chloronaphthalene	< 69800	ug/Kg	8/6/2020	11:23
2-Chlorophenol	< 69800	ug/Kg	8/6/2020	11:23
2-Methylnapthalene	< 69800	ug/Kg	8/6/2020	11:23
2-Methylphenol	< 69800	ug/Kg	8/6/2020	11:23
2-Nitroaniline	< 69800	ug/Kg	8/6/2020	11:23
2-Nitrophenol	< 69800	ug/Kg	8/6/2020	11:23
3&4-Methylphenol	< 69800	ug/Kg	8/6/2020	11:23
3,3'-Dichlorobenzidine	< 69800	ug/Kg	8/6/2020	11:23
3-Nitroaniline	< 69800	ug/Kg	8/6/2020	11:23
4,6-Dinitro-2-methylphenol	< 93400	ug/Kg	8/6/2020	11:23
4-Bromophenyl phenyl ether	< 69800	ug/Kg	8/6/2020	11:23
4-Chloro-3-methylphenol	< 69800	ug/Kg	8/6/2020	11:23
4-Chloroaniline	< 69800	ug/Kg	8/6/2020	11:23
4-Chlorophenyl phenyl ether	< 69800	ug/Kg	8/6/2020	11:23
4-Nitroaniline	< 69800	ug/Kg	8/6/2020	11:23
4-Nitrophenol	< 69800	ug/Kg	8/6/2020	11:23
Acenaphthene	< 69800	ug/Kg	8/6/2020	11:23
Acenaphthylene	**157000**	ug/Kg	8/6/2020	11:23
Acetophenone	< 69800	ug/Kg	8/6/2020	11:23
Anthracene	**259000**	ug/Kg	8/6/2020	11:23
Atrazine	< 69800	ug/Kg	8/6/2020	11:23
Benzaldehyde	< 69800	ug/Kg	8/6/2020	11:23
Benzo (a) anthracene	**321000**	ug/Kg	8/6/2020	11:23
Benzo (a) pyrene	**195000**	ug/Kg	8/6/2020	11:23
Benzo (b) fluoranthene	**221000**	ug/Kg	8/6/2020	11:23
Benzo (g,h,i) perylene	**106000**	ug/Kg	8/6/2020	11:23

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

Benzo (k) fluoranthene	**160000**	ug/Kg	8/6/2020	11:23
Bis (2-chloroethoxy) methane	< 69800	ug/Kg	8/6/2020	11:23
Bis (2-chloroethyl) ether	< 69800	ug/Kg	8/6/2020	11:23
Bis (2-ethylhexyl) phthalate	< 69800	ug/Kg	8/6/2020	11:23
Butylbenzylphthalate	< 69800	ug/Kg	8/6/2020	11:23
Caprolactam	< 69800	ug/Kg	8/6/2020	11:23
Carbazole	**110000**	ug/Kg	8/6/2020	11:23
Chrysene	**332000**	ug/Kg	8/6/2020	11:23
Dibenz (a,h) anthracene	< 69800	ug/Kg	8/6/2020	11:23
Dibenzofuran	**152000**	ug/Kg	8/6/2020	11:23
Diethyl phthalate	< 69800	ug/Kg	8/6/2020	11:23
Dimethyl phthalate	< 69800	ug/Kg	8/6/2020	11:23
Di-n-butyl phthalate	< 69800	ug/Kg	8/6/2020	11:23
Di-n-octylphthalate	< 69800	ug/Kg	8/6/2020	11:23
Fluoranthene	**707000**	ug/Kg	8/6/2020	11:23
Fluorene	**281000**	ug/Kg	8/6/2020	11:23
Hexachlorobenzene	< 69800	ug/Kg	8/6/2020	11:23
Hexachlorobutadiene	< 69800	ug/Kg	8/6/2020	11:23
Hexachlorocyclopentadiene	< 279000	ug/Kg	8/6/2020	11:23
Hexachloroethane	< 69800	ug/Kg	8/6/2020	11:23
Indeno (1,2,3-cd) pyrene	**98900**	ug/Kg	8/6/2020	11:23
Isophorone	< 69800	ug/Kg	8/6/2020	11:23
Naphthalene	< 69800	ug/Kg	8/6/2020	11:23
Nitrobenzene	< 69800	ug/Kg	8/6/2020	11:23
N-Nitroso-di-n-propylamine	< 69800	ug/Kg	8/6/2020	11:23
N-Nitrosodiphenylamine	< 69800	ug/Kg	8/6/2020	11:23
Pentachlorophenol	< 140000	ug/Kg	8/6/2020	11:23
Phenanthrene	**969000**	ug/Kg	8/6/2020	11:23
Phenol	< 69800	ug/Kg	8/6/2020	11:23
Pyrene	**456000**	ug/Kg	8/6/2020	11:23

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	NC	37.8 - 85.8		8/6/2020 11:23
2-Fluorobiphenyl	NC	40.4 - 80.4		8/6/2020 11:23
2-Fluorophenol	NC	38.8 - 77.4		8/6/2020 11:23
Nitrobenzene-d5	NC	37.4 - 75.9		8/6/2020 11:23
Phenol-d5	NC	40.4 - 78		8/6/2020 11:23
Terphenyl-d14	NC	40.2 - 90		8/6/2020 11:23

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 8/5/2020
Data File: B48434.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 16.1	ug/Kg		8/10/2020 16:53
1,1,2,2-Tetrachloroethane	< 16.1	ug/Kg		8/10/2020 16:53
1,1,2-Trichloroethane	< 16.1	ug/Kg		8/10/2020 16:53
1,1-Dichloroethane	< 16.1	ug/Kg		8/10/2020 16:53
1,1-Dichloroethene	< 16.1	ug/Kg		8/10/2020 16:53
1,2,3-Trichlorobenzene	< 40.3	ug/Kg		8/10/2020 16:53
1,2,4-Trichlorobenzene	< 40.3	ug/Kg		8/10/2020 16:53
1,2-Dibromo-3-Chloropropane	< 80.6	ug/Kg		8/10/2020 16:53
1,2-Dibromoethane	< 16.1	ug/Kg		8/10/2020 16:53
1,2-Dichlorobenzene	< 16.1	ug/Kg		8/10/2020 16:53
1,2-Dichloroethane	< 16.1	ug/Kg		8/10/2020 16:53
1,2-Dichloropropane	< 16.1	ug/Kg		8/10/2020 16:53
1,3-Dichlorobenzene	< 16.1	ug/Kg		8/10/2020 16:53
1,4-Dichlorobenzene	< 16.1	ug/Kg		8/10/2020 16:53
1,4-Dioxane	< 161	ug/Kg		8/10/2020 16:53
2-Butanone	< 80.6	ug/Kg		8/10/2020 16:53
2-Hexanone	< 40.3	ug/Kg		8/10/2020 16:53
4-Methyl-2-pentanone	< 40.3	ug/Kg		8/10/2020 16:53

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

Acetone	< 80.6	ug/Kg	8/10/2020	16:53
Benzene	< 16.1	ug/Kg	8/10/2020	16:53
Bromochloromethane	< 40.3	ug/Kg	8/10/2020	16:53
Bromodichloromethane	< 16.1	ug/Kg	8/10/2020	16:53
Bromoform	< 40.3	ug/Kg	8/10/2020	16:53
Bromomethane	< 16.1	ug/Kg	8/10/2020	16:53
Carbon disulfide	< 16.1	ug/Kg	8/10/2020	16:53
Carbon Tetrachloride	< 16.1	ug/Kg	8/10/2020	16:53
Chlorobenzene	< 16.1	ug/Kg	8/10/2020	16:53
Chloroethane	< 16.1	ug/Kg	8/10/2020	16:53
Chloroform	< 16.1	ug/Kg	8/10/2020	16:53
Chloromethane	< 16.1	ug/Kg	8/10/2020	16:53
cis-1,2-Dichloroethene	< 16.1	ug/Kg	8/10/2020	16:53
cis-1,3-Dichloropropene	< 16.1	ug/Kg	8/10/2020	16:53
Cyclohexane	< 80.6	ug/Kg	8/10/2020	16:53
Dibromochloromethane	< 16.1	ug/Kg	8/10/2020	16:53
Dichlorodifluoromethane	< 16.1	ug/Kg	8/10/2020	16:53
Ethylbenzene	< 16.1	ug/Kg	8/10/2020	16:53
Freon 113	< 16.1	ug/Kg	8/10/2020	16:53
Isopropylbenzene	< 16.1	ug/Kg	8/10/2020	16:53
m,p-Xylene	< 16.1	ug/Kg	8/10/2020	16:53
Methyl acetate	< 16.1	ug/Kg	8/10/2020	16:53
Methyl tert-butyl Ether	< 16.1	ug/Kg	8/10/2020	16:53
Methylcyclohexane	< 16.1	ug/Kg	8/10/2020	16:53
Methylene chloride	< 40.3	ug/Kg	8/10/2020	16:53
o-Xylene	< 16.1	ug/Kg	8/10/2020	16:53
Styrene	< 40.3	ug/Kg	8/10/2020	16:53
Tetrachloroethene	< 16.1	ug/Kg	8/10/2020	16:53
Toluene	< 16.1	ug/Kg	8/10/2020	16:53
trans-1,2-Dichloroethene	< 16.1	ug/Kg	8/10/2020	16:53

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01	**Date Sampled:**	8/3/2020
Matrix:	Solid	**Date Received:**	8/4/2020

trans-1,3-Dichloropropene	< 16.1	ug/Kg	8/10/2020	16:53
Trichloroethene	< 16.1	ug/Kg	8/10/2020	16:53
Trichlorofluoromethane	< 16.1	ug/Kg	8/10/2020	16:53
Vinyl chloride	< 16.1	ug/Kg	8/10/2020	16:53

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**116**	75 - 134		8/10/2020	16:53
4-Bromofluorobenzene	**54.0**	59.5 - 129	*	8/10/2020	16:53
Pentafluorobenzene	**95.9**	88.8 - 118		8/10/2020	16:53
Toluene-D8	**79.1**	84 - 114	*	8/10/2020	16:53

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72415.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01A	**Date Sampled:**	8/3/2020
Matrix:	TCLP Extract	**Date Received:**	8/4/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		8/11/2020 22:52
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		8/11/2020 22:52
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		8/11/2020 22:52
2,4-Dinitrotoluene	< 40.0	ug/L	130		8/11/2020 22:52
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		8/11/2020 22:52
Hexachlorobenzene	< 40.0	ug/L	130		8/11/2020 22:52
Hexachlorobutadiene	< 40.0	ug/L	500		8/11/2020 22:52
Hexachloroethane	< 40.0	ug/L	3000		8/11/2020 22:52
Nitrobenzene	< 40.0	ug/L	2000		8/11/2020 22:52
Pentachlorophenol	< 80.0	ug/L	100000		8/11/2020 22:52
Pyridine	< 40.0	ug/L	5000		8/11/2020 22:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**83.2**	53.8 - 116		8/11/2020 22:52
2-Fluorobiphenyl	**74.9**	36.5 - 95.3		8/11/2020 22:52
2-Fluorophenol	**75.0**	11.1 - 99.3		8/11/2020 22:52
Nitrobenzene-d5	**84.7**	49.4 - 100		8/11/2020 22:52
Phenol-d5	**74.6**	10 - 103		8/11/2020 22:52
Terphenyl-d14	**72.4**	54.3 - 109		8/11/2020 22:52

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 8/11/2020
Data File: B48529.D

TCLP Herbicides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.10	mg/L	1		8/7/2020
2,4-D	<0.50	mg/L	10		8/7/2020

Sample Identifier:	MP West Pile-08032020		
Lab Sample ID:	203634-01A	**Date Sampled:**	8/3/2020
Matrix:	TCLP Extract	**Date Received:**	8/4/2020

Surrogate outliers indicate probable matrix effects.

Method Reference(s): EPA 8321B
EPA 1311

Subcontractor ELAP ID: 10709

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	<0.002	mg/L	0.2		8/7/2020

Method Reference(s): EPA 7470A
EPA 1311

Subcontractor ELAP ID: 10709

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		8/11/2020 11:46
Endrin	< 1.00	ug/L	20		8/11/2020 11:46
gamma-BHC (Lindane)	< 1.00	ug/L	400		8/11/2020 11:46
Heptachlor	**1.39**	ug/L	8		8/11/2020 11:46
Heptachlor Epoxide	< 2.00	ug/L	8		8/11/2020 11:46
Methoxychlor	< 1.00	ug/L	10000		8/11/2020 11:46
Toxaphene	< 20.0	ug/L	500		8/11/2020 11:46

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**81.1**	19.3 - 157		8/11/2020 11:46
Tetrachloro-m-xylene (1)	**65.8**	33.3 - 107		8/11/2020 11:46

Method Reference(s): EPA 8081B
EPA 1311 / 3510C

Preparation Date: 8/10/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		8/10/2020 19:57
Barium	< 0.500	mg/L	100		8/10/2020 19:57
Cadmium	< 0.0250	mg/L	1		8/10/2020 19:57

Sample Identifier: MP West Pile-08032020
Lab Sample ID: 203634-01A **Date Sampled:** 8/3/2020
Matrix: TCLP Extract **Date Received:** 8/4/2020

Chromium	< 0.500	mg/L	5	8/10/2020 19:57
Lead	< 0.500	mg/L	5	8/10/2020 19:57
Selenium	< 0.200	mg/L	1	8/10/2020 19:57
Silver	< 0.500	mg/L	5	8/10/2020 19:57

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 8/10/2020
Data File: 200810B

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		8/10/2020 15:00
1,2-Dichloroethane	< 20.0	ug/L	500		8/10/2020 15:00
2-Butanone	< 100	ug/L	200000		8/10/2020 15:00
Benzene	< 20.0	ug/L	500		8/10/2020 15:00
Carbon Tetrachloride	< 20.0	ug/L	500		8/10/2020 15:00
Chlorobenzene	< 20.0	ug/L	100000		8/10/2020 15:00
Chloroform	< 20.0	ug/L	6000		8/10/2020 15:00
Tetrachloroethene	< 20.0	ug/L	700		8/10/2020 15:00
Trichloroethene	< 20.0	ug/L	500		8/10/2020 15:00
Vinyl chloride	< 20.0	ug/L	200		8/10/2020 15:00

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**115**	70.9 - 139		8/10/2020 15:00
4-Bromofluorobenzene	**65.2**	59.5 - 129		8/10/2020 15:00
Pentafluorobenzene	**100**	89.3 - 117		8/10/2020 15:00
Toluene-D8	**84.3**	82.9 - 115		8/10/2020 15:00

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x72410.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	6.59 @ 22.2 C	S.U.		8/7/2020 10:55

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		8/10/2020

Method Reference(s): EPA 1030

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.964**	mg/Kg		8/6/2020

Method Reference(s): EPA 7471B
Subcontractor ELAP ID: 10709

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**2860**	mg/Kg		8/10/2020 15:20
Antimony	< 3.58	mg/Kg		8/10/2020 11:16
Arsenic	**5.79**	mg/Kg		8/10/2020 11:16
Barium	**66.1**	mg/Kg		8/10/2020 11:16
Beryllium	**1.13**	mg/Kg		8/10/2020 11:16
Cadmium	**0.663**	mg/Kg		8/10/2020 11:16
Calcium	**2010**	mg/Kg		8/10/2020 11:16
Chromium	**8.90**	mg/Kg		8/10/2020 11:16
Cobalt	**5.05**	mg/Kg		8/10/2020 11:16
Copper	**28.9**	mg/Kg		8/10/2020 11:16
Iron	**7640**	mg/Kg		8/10/2020 11:16
Lead	**43.6**	mg/Kg		8/10/2020 11:16
Magnesium	**957**	mg/Kg		8/10/2020 11:16

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

Manganese	**113**	mg/Kg		8/10/2020 11:16
Nickel	**11.4**	mg/Kg		8/10/2020 15:20
Potassium	**444**	mg/Kg		8/10/2020 11:16
Selenium	**2.41**	mg/Kg		8/10/2020 11:16
Silver	< 0.597	mg/Kg		8/10/2020 11:16
Sodium	< 149	mg/Kg		8/10/2020 11:16
Thallium	< 1.49	mg/Kg		8/10/2020 11:16
Vanadium	**9.64**	mg/Kg		8/10/2020 15:20
Zinc	**53.4**	mg/Kg		8/10/2020 11:16

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 8/7/2020
Data File: 200810B

Paint Filter Test

Analyte	Result	Units	Qualifier	Date Analyzed
Paint Filter Test	Pass	N/A		8/11/2020

Method Reference(s): EPA 9095B

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	**9860**	ug/Kg		8/6/2020 11:53
1,2,4,5-Tetrachlorobenzene	< 9410	ug/Kg		8/6/2020 11:53
1,2,4-Trichlorobenzene	< 9410	ug/Kg		8/6/2020 11:53
1,2-Dichlorobenzene	< 9410	ug/Kg		8/6/2020 11:53
1,3-Dichlorobenzene	< 9410	ug/Kg		8/6/2020 11:53
1,4-Dichlorobenzene	< 9410	ug/Kg		8/6/2020 11:53
2,2-Oxybis (1-chloropropane)	< 9410	ug/Kg		8/6/2020 11:53
2,3,4,6-Tetrachlorophenol	< 9410	ug/Kg		8/6/2020 11:53
2,4,5-Trichlorophenol	< 9410	ug/Kg		8/6/2020 11:53
2,4,6-Trichlorophenol	< 9410	ug/Kg		8/6/2020 11:53
2,4-Dichlorophenol	< 9410	ug/Kg		8/6/2020 11:53

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

2,4-Dimethylphenol	< 9410	ug/Kg	8/6/2020	11:53
2,4-Dinitrophenol	< 37600	ug/Kg	8/6/2020	11:53
2,4-Dinitrotoluene	< 9410	ug/Kg	8/6/2020	11:53
2,6-Dinitrotoluene	< 9410	ug/Kg	8/6/2020	11:53
2-Chloronaphthalene	< 9410	ug/Kg	8/6/2020	11:53
2-Chlorophenol	< 9410	ug/Kg	8/6/2020	11:53
2-Methylnapthalene	**19700**	ug/Kg	8/6/2020	11:53
2-Methylphenol	< 9410	ug/Kg	8/6/2020	11:53
2-Nitroaniline	< 9410	ug/Kg	8/6/2020	11:53
2-Nitrophenol	< 9410	ug/Kg	8/6/2020	11:53
3&4-Methylphenol	< 9410	ug/Kg	8/6/2020	11:53
3,3'-Dichlorobenzidine	< 9410	ug/Kg	8/6/2020	11:53
3-Nitroaniline	< 9410	ug/Kg	8/6/2020	11:53
4,6-Dinitro-2-methylphenol	< 12600	ug/Kg	8/6/2020	11:53
4-Bromophenyl phenyl ether	< 9410	ug/Kg	8/6/2020	11:53
4-Chloro-3-methylphenol	< 9410	ug/Kg	8/6/2020	11:53
4-Chloroaniline	< 9410	ug/Kg	8/6/2020	11:53
4-Chlorophenyl phenyl ether	< 9410	ug/Kg	8/6/2020	11:53
4-Nitroaniline	< 9410	ug/Kg	8/6/2020	11:53
4-Nitrophenol	< 9410	ug/Kg	8/6/2020	11:53
Acenaphthene	**31500**	ug/Kg	8/6/2020	11:53
Acenaphthylene	**30700**	ug/Kg	8/6/2020	11:53
Acetophenone	< 9410	ug/Kg	8/6/2020	11:53
Anthracene	**71000**	ug/Kg	8/6/2020	11:53
Atrazine	< 9410	ug/Kg	8/6/2020	11:53
Benzaldehyde	< 9410	ug/Kg	8/6/2020	11:53
Benzo (a) anthracene	**86900**	ug/Kg	8/6/2020	11:53
Benzo (a) pyrene	**70500**	ug/Kg	8/6/2020	11:53
Benzo (b) fluoranthene	**73500**	ug/Kg	8/6/2020	11:53
Benzo (g,h,i) perylene	**36400**	ug/Kg	8/6/2020	11:53

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

Benzo (k) fluoranthene	**47700**	ug/Kg	8/6/2020	11:53
Bis (2-chloroethoxy) methane	< 9410	ug/Kg	8/6/2020	11:53
Bis (2-chloroethyl) ether	< 9410	ug/Kg	8/6/2020	11:53
Bis (2-ethylhexyl) phthalate	< 9410	ug/Kg	8/6/2020	11:53
Butylbenzylphthalate	< 9410	ug/Kg	8/6/2020	11:53
Caprolactam	< 9410	ug/Kg	8/6/2020	11:53
Carbazole	**22600**	ug/Kg	8/6/2020	11:53
Chrysene	**78500**	ug/Kg	8/6/2020	11:53
Dibenz (a,h) anthracene	**12100**	ug/Kg	8/6/2020	11:53
Dibenzofuran	**38200**	ug/Kg	8/6/2020	11:53
Diethyl phthalate	< 9410	ug/Kg	8/6/2020	11:53
Dimethyl phthalate	< 9410	ug/Kg	8/6/2020	11:53
Di-n-butyl phthalate	< 9410	ug/Kg	8/6/2020	11:53
Di-n-octylphthalate	< 9410	ug/Kg	8/6/2020	11:53
Fluoranthene	**204000**	ug/Kg	8/6/2020	11:53
Fluorene	**56000**	ug/Kg	8/6/2020	11:53
Hexachlorobenzene	< 9410	ug/Kg	8/6/2020	11:53
Hexachlorobutadiene	< 9410	ug/Kg	8/6/2020	11:53
Hexachlorocyclopentadiene	< 37600	ug/Kg	8/6/2020	11:53
Hexachloroethane	< 9410	ug/Kg	8/6/2020	11:53
Indeno (1,2,3-cd) pyrene	**33900**	ug/Kg	8/6/2020	11:53
Isophorone	< 9410	ug/Kg	8/6/2020	11:53
Naphthalene	**145000**	ug/Kg	8/6/2020	11:53
Nitrobenzene	< 9410	ug/Kg	8/6/2020	11:53
N-Nitroso-di-n-propylamine	< 9410	ug/Kg	8/6/2020	11:53
N-Nitrosodiphenylamine	< 9410	ug/Kg	8/6/2020	11:53
Pentachlorophenol	< 18800	ug/Kg	8/6/2020	11:53
Phenanthrene	**194000**	ug/Kg	8/6/2020	11:53
Phenol	< 9410	ug/Kg	8/6/2020	11:53
Pyrene	**138000**	ug/Kg	8/6/2020	11:53

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	NC	37.8 - 85.8		8/6/2020 11:53
2-Fluorobiphenyl	NC	40.4 - 80.4		8/6/2020 11:53
2-Fluorophenol	NC	38.8 - 77.4		8/6/2020 11:53
Nitrobenzene-d5	NC	37.4 - 75.9		8/6/2020 11:53
Phenol-d5	NC	40.4 - 78		8/6/2020 11:53
Terphenyl-d14	NC	40.2 - 90		8/6/2020 11:53

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 8/5/2020
Data File: B48435.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 11.5	ug/Kg		8/10/2020 17:16
1,1,2,2-Tetrachloroethane	< 11.5	ug/Kg		8/10/2020 17:16
1,1,2-Trichloroethane	< 11.5	ug/Kg		8/10/2020 17:16
1,1-Dichloroethane	< 11.5	ug/Kg		8/10/2020 17:16
1,1-Dichloroethene	< 11.5	ug/Kg		8/10/2020 17:16
1,2,3-Trichlorobenzene	< 28.9	ug/Kg		8/10/2020 17:16
1,2,4-Trichlorobenzene	< 28.9	ug/Kg		8/10/2020 17:16
1,2-Dibromo-3-Chloropropane	< 57.7	ug/Kg		8/10/2020 17:16
1,2-Dibromoethane	< 11.5	ug/Kg		8/10/2020 17:16
1,2-Dichlorobenzene	< 11.5	ug/Kg		8/10/2020 17:16
1,2-Dichloroethane	< 11.5	ug/Kg		8/10/2020 17:16
1,2-Dichloropropane	< 11.5	ug/Kg		8/10/2020 17:16
1,3-Dichlorobenzene	< 11.5	ug/Kg		8/10/2020 17:16
1,4-Dichlorobenzene	< 11.5	ug/Kg		8/10/2020 17:16
1,4-Dioxane	< 115	ug/Kg		8/10/2020 17:16
2-Butanone	< 57.7	ug/Kg		8/10/2020 17:16
2-Hexanone	< 28.9	ug/Kg		8/10/2020 17:16
4-Methyl-2-pentanone	< 28.9	ug/Kg		8/10/2020 17:16

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

Acetone	< 57.7	ug/Kg	8/10/2020	17:16
Benzene	< 11.5	ug/Kg	8/10/2020	17:16
Bromochloromethane	< 28.9	ug/Kg	8/10/2020	17:16
Bromodichloromethane	< 11.5	ug/Kg	8/10/2020	17:16
Bromoform	< 28.9	ug/Kg	8/10/2020	17:16
Bromomethane	< 11.5	ug/Kg	8/10/2020	17:16
Carbon disulfide	< 11.5	ug/Kg	8/10/2020	17:16
Carbon Tetrachloride	< 11.5	ug/Kg	8/10/2020	17:16
Chlorobenzene	< 11.5	ug/Kg	8/10/2020	17:16
Chloroethane	< 11.5	ug/Kg	8/10/2020	17:16
Chloroform	< 11.5	ug/Kg	8/10/2020	17:16
Chloromethane	< 11.5	ug/Kg	8/10/2020	17:16
cis-1,2-Dichloroethene	< 11.5	ug/Kg	8/10/2020	17:16
cis-1,3-Dichloropropene	< 11.5	ug/Kg	8/10/2020	17:16
Cyclohexane	< 57.7	ug/Kg	8/10/2020	17:16
Dibromochloromethane	< 11.5	ug/Kg	8/10/2020	17:16
Dichlorodifluoromethane	< 11.5	ug/Kg	8/10/2020	17:16
Ethylbenzene	< 11.5	ug/Kg	8/10/2020	17:16
Freon 113	< 11.5	ug/Kg	8/10/2020	17:16
Isopropylbenzene	< 11.5	ug/Kg	8/10/2020	17:16
m,p-Xylene	< 11.5	ug/Kg	8/10/2020	17:16
Methyl acetate	< 11.5	ug/Kg	8/10/2020	17:16
Methyl tert-butyl Ether	< 11.5	ug/Kg	8/10/2020	17:16
Methylcyclohexane	< 11.5	ug/Kg	8/10/2020	17:16
Methylene chloride	< 28.9	ug/Kg	8/10/2020	17:16
o-Xylene	< 11.5	ug/Kg	8/10/2020	17:16
Styrene	< 28.9	ug/Kg	8/10/2020	17:16
Tetrachloroethene	< 11.5	ug/Kg	8/10/2020	17:16
Toluene	< 11.5	ug/Kg	8/10/2020	17:16
trans-1,2-Dichloroethene	< 11.5	ug/Kg	8/10/2020	17:16

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02	**Date Sampled:**	8/3/2020
Matrix:	Sludge	**Date Received:**	8/4/2020

trans-1,3-Dichloropropene	< 11.5	ug/Kg	8/10/2020	17:16
Trichloroethene	< 11.5	ug/Kg	8/10/2020	17:16
Trichlorofluoromethane	< 11.5	ug/Kg	8/10/2020	17:16
Vinyl chloride	< 11.5	ug/Kg	8/10/2020	17:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**148**	75 - 134	*	8/10/2020	17:16
4-Bromofluorobenzene	**46.2**	59.5 - 129	*	8/10/2020	17:16
Pentafluorobenzene	**88.2**	88.8 - 118	*	8/10/2020	17:16
Toluene-D8	**56.6**	84 - 114	*	8/10/2020	17:16

Internal standard outliers indicate probable matrix interference

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72416.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02A	**Date Sampled:**	8/3/2020
Matrix:	TCLP Extract	**Date Received:**	8/4/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		8/6/2020 16:04
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		8/6/2020 16:04
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		8/6/2020 16:04
2,4-Dinitrotoluene	< 40.0	ug/L	130		8/6/2020 16:04
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		8/6/2020 16:04
Hexachlorobenzene	< 40.0	ug/L	130		8/6/2020 16:04
Hexachlorobutadiene	< 40.0	ug/L	500		8/6/2020 16:04
Hexachloroethane	< 40.0	ug/L	3000		8/6/2020 16:04
Nitrobenzene	< 40.0	ug/L	2000		8/6/2020 16:04
Pentachlorophenol	< 80.0	ug/L	100000		8/6/2020 16:04
Pyridine	< 40.0	ug/L	5000		8/6/2020 16:04

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**89.0**	53.8 - 116		8/6/2020 16:04
2-Fluorobiphenyl	**74.5**	36.5 - 95.3		8/6/2020 16:04
2-Fluorophenol	**78.3**	11.1 - 99.3		8/6/2020 16:04
Nitrobenzene-d5	**86.3**	49.4 - 100		8/6/2020 16:04
Phenol-d5	**76.7**	10 - 103		8/6/2020 16:04
Terphenyl-d14	**78.5**	54.3 - 109		8/6/2020 16:04

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 8/6/2020
Data File: B48443.D

TCLP Herbicides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
2,4,5-TP (Silvex)	<0.10	mg/L	1		8/7/2020
2,4-D	<0.50	mg/L	10		8/7/2020

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP East Pile-08032020		
Lab Sample ID:	203634-02A	**Date Sampled:**	8/3/2020
Matrix:	TCLP Extract	**Date Received:**	8/4/2020

Surrogate outliers indicate probable matrix effects.

Method Reference(s): EPA 8321B
EPA 1311

Subcontractor ELAP ID: 10709

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	<0.002	mg/L	0.2		8/7/2020

Method Reference(s): EPA 7470A
EPA 1311

Subcontractor ELAP ID: 8/7

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		8/6/2020 18:22
Endrin	< 1.00	ug/L	20		8/6/2020 18:22
gamma-BHC (Lindane)	< 1.00	ug/L	400		8/6/2020 18:22
Heptachlor	**3.07**	ug/L	8		8/6/2020 18:22
Heptachlor Epoxide	< 2.00	ug/L	8		8/6/2020 18:22
Methoxychlor	< 1.00	ug/L	10000		8/6/2020 18:22
Toxaphene	< 20.0	ug/L	500		8/6/2020 18:22

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**19.8**	19.3 - 157		8/6/2020 18:22
Tetrachloro-m-xylene (1)	**37.7**	33.3 - 107		8/6/2020 18:22

Method Reference(s): EPA 8081B
EPA 1311 / 3510C

Preparation Date: 8/6/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		8/10/2020 14:12
Barium	**0.768**	mg/L	100		8/10/2020 14:12
Cadmium	< 0.0250	mg/L	1		8/10/2020 14:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 203634

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier: MP East Pile-08032020
Lab Sample ID: 203634-02A **Date Sampled:** 8/3/2020
Matrix: TCLP Extract **Date Received:** 8/4/2020

Chromium	< 0.500	mg/L	5	8/10/2020	14:12
Lead	< 0.500	mg/L	5	8/10/2020	14:12
Selenium	< 0.200	mg/L	1	8/10/2020	14:12
Silver	< 0.500	mg/L	5	8/10/2020	14:12

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 8/7/2020
Data File: 200810B

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed	
1,1-Dichloroethene	< 20.0	ug/L	700		8/10/2020	15:23
1,2-Dichloroethane	< 20.0	ug/L	500		8/10/2020	15:23
2-Butanone	< 100	ug/L	200000		8/10/2020	15:23
Benzene	< 20.0	ug/L	500		8/10/2020	15:23
Carbon Tetrachloride	< 20.0	ug/L	500		8/10/2020	15:23
Chlorobenzene	< 20.0	ug/L	100000		8/10/2020	15:23
Chloroform	< 20.0	ug/L	6000		8/10/2020	15:23
Tetrachloroethene	< 20.0	ug/L	700		8/10/2020	15:23
Trichloroethene	< 20.0	ug/L	500		8/10/2020	15:23
Vinyl chloride	< 20.0	ug/L	200		8/10/2020	15:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**117**	70.9 - 139		8/10/2020	15:23
4-Bromofluorobenzene	**64.4**	59.5 - 129		8/10/2020	15:23
Pentafluorobenzene	**99.0**	89.3 - 117		8/10/2020	15:23
Toluene-D8	**81.8**	82.9 - 115	*	8/10/2020	15:23

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x72411.D

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Solid

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Aluminum	<23.8	mg/Kg		8/10/2020	13:35
Antimony	<2.86	mg/Kg		8/7/2020	19:15
Arsenic	<0.476	mg/Kg		8/7/2020	19:15
Barium	<4.76	mg/Kg		8/7/2020	19:15
Beryllium	<0.238	mg/Kg		8/7/2020	19:15
Cadmium	<0.238	mg/Kg		8/7/2020	19:15
Calcium	<119	mg/Kg		8/7/2020	19:15
Chromium	<0.476	mg/Kg		8/10/2020	09:02
Cobalt	<2.38	mg/Kg		8/7/2020	19:15
Copper	<0.952	mg/Kg		8/7/2020	19:15
Iron	<9.52	mg/Kg		8/7/2020	19:15
Lead	<0.476	mg/Kg		8/7/2020	19:15
Magnesium	<119	mg/Kg		8/7/2020	19:15
Manganese	<0.714	mg/Kg		8/7/2020	19:15
Nickel	<1.90	mg/Kg		8/7/2020	19:15
Potassium	<119	mg/Kg		8/7/2020	19:15
Selenium	<0.952	mg/Kg		8/7/2020	19:15
Silver	<0.476	mg/Kg		8/7/2020	19:15
Sodium	<119	mg/Kg		8/7/2020	19:15
Thallium	<1.19	mg/Kg		8/7/2020	19:15
Vanadium	<1.19	mg/Kg		8/7/2020	19:15
Zinc	<2.86	mg/Kg		8/7/2020	19:15

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 8/6/2020
Data File: 200810B
QC Batch ID: QC200806soil
QC Number: Blk 1

Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Solid

Part 375 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	119	106	mg/Kg	115	102	96.5	96.1	80 - 120			0.415	20		8/10/2020
Antimony	119	106	mg/Kg	118	102	98.9	96.0	80 - 120			3.01	20		8/7/2020
Arsenic	119	106	mg/Kg	114	98.5	95.6	92.9	80 - 120			2.85	20		8/7/2020
Barium	119	106	mg/Kg	122	107	102	101	80 - 120			1.08	20		8/7/2020
Beryllium	23.8	21.2	mg/Kg	21.4	18.6	89.8	88.0	80 - 120			2.04	20		8/7/2020
Cadmium	47.6	42.4	mg/Kg	48.5	42.5	102	100	80 - 120			1.67	20		8/7/2020
Calcium	190	169	mg/Kg	181	163	94.9	96.3	80 - 120			1.52	20		8/7/2020
Chromium	119	106	mg/Kg	116	102	97.0	96.0	80 - 120			1.04	20		8/10/2020
Cobalt	47.6	42.4	mg/Kg	48.8	42.9	103	101	80 - 120			1.21	20		8/7/2020
Copper	119	106	mg/Kg	112	98.4	94.0	92.9	80 - 120			1.24	20		8/7/2020
Iron	119	106	mg/Kg	108	95.0	90.7	89.7	80 - 120			1.16	20		8/7/2020
Lead	119	106	mg/Kg	117	102	98.4	95.8	80 - 120			2.65	20		8/7/2020
Magnesium	381	339	mg/Kg	376	329	98.7	97.1	80 - 120			1.65	20		8/7/2020
Manganese	47.6	42.4	mg/Kg	48.5	42.7	102	101	80 - 120			1.02	20		8/7/2020
Nickel	238	212	mg/Kg	224	196	94.0	92.7	80 - 120			1.41	20		8/7/2020
Potassium	2020	1800	mg/Kg	1910	1700	94.3	94.6	80 - 120			0.290	20		8/7/2020

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Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Solid

Part 375 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	119	106	mg/Kg	106	89.9	88.6	84.9	80 - 120			4.36	20		8/7/2020
Silver	11.9	10.6	mg/Kg	11.6	10.1	97.3	95.1	80 - 120			2.27	20		8/7/2020
Sodium	571	508	mg/Kg	536	479	93.8	94.2	80 - 120			0.397	20		8/7/2020
Thallium	119	106	mg/Kg	123	106	103	100	80 - 120			3.01	20		8/7/2020
Vanadium	47.6	42.4	mg/Kg	44.2	38.8	92.7	91.7	80 - 120			1.15	20		8/7/2020
Zinc	119	106	mg/Kg	116	101	97.8	95.7	80 - 120			2.10	20		8/7/2020

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 8/6/2020
Data File: 200810B
QC Number: 1
QC Batch ID: QC200806soil

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Report Prepared *Tuesday, August 11, 2020*

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Sludge

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Aluminum	<23.1	mg/Kg		8/10/2020	14:53
Antimony	<2.78	mg/Kg		8/10/2020	10:20
Arsenic	<0.463	mg/Kg		8/10/2020	10:20
Barium	<4.63	mg/Kg		8/10/2020	10:20
Beryllium	<0.231	mg/Kg		8/10/2020	10:20
Cadmium	<0.231	mg/Kg		8/10/2020	10:20
Calcium	<116	mg/Kg		8/10/2020	10:20
Chromium	<0.463	mg/Kg		8/10/2020	10:20
Cobalt	<2.31	mg/Kg		8/10/2020	10:20
Copper	<0.926	mg/Kg		8/10/2020	10:20
Iron	<9.26	mg/Kg		8/10/2020	10:20
Lead	<0.463	mg/Kg		8/10/2020	10:20
Magnesium	<116	mg/Kg		8/10/2020	10:20
Manganese	<0.694	mg/Kg		8/10/2020	10:20
Nickel	<1.85	mg/Kg		8/10/2020	10:20
Potassium	<116	mg/Kg		8/10/2020	10:20
Selenium	<0.926	mg/Kg		8/10/2020	10:20
Silver	<0.463	mg/Kg		8/10/2020	10:20
Sodium	<116	mg/Kg		8/10/2020	10:20
Thallium	<1.16	mg/Kg		8/10/2020	10:20
Vanadium	<1.16	mg/Kg		8/10/2020	10:20
Zinc	<2.78	mg/Kg		8/10/2020	10:20

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 8/7/2020
Data File: 200810B
QC Batch ID: QC200807soil
QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Sludge

Metals

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	119	121	mg/Kg	117	116	98.0	95.4	80 - 120			2.69	20		8/10/2020
Antimony	119	121	mg/Kg	115	119	96.9	98.4	80 - 120			1.55	20		8/10/2020
Arsenic	119	121	mg/Kg	120	123	100	102	80 - 120			1.15	20		8/10/2020
Barium	119	121	mg/Kg	127	129	107	106	80 - 120			0.415	20		8/10/2020
Beryllium	23.8	24.3	mg/Kg	22.3	22.6	93.6	93.1	80 - 120			0.554	20		8/10/2020
Cadmium	47.6	48.5	mg/Kg	49.5	50.2	104	103	80 - 120			0.536	20		8/10/2020
Calcium	190	194	mg/Kg	192	193	101	99.4	80 - 120			1.30	20		8/10/2020
Chromium	119	121	mg/Kg	122	124	102	102	80 - 120			0.225	20		8/10/2020
Cobalt	47.6	48.5	mg/Kg	48.5	49.3	102	101	80 - 120			0.309	20		8/10/2020
Copper	119	121	mg/Kg	109	112	91.8	92.5	80 - 120			0.786	20		8/10/2020
Iron	119	121	mg/Kg	107	112	90.1	92.2	80 - 120			2.26	20		8/10/2020
Lead	119	121	mg/Kg	115	119	96.8	98.2	80 - 120			1.42	20		8/10/2020
Magnesium	381	388	mg/Kg	382	387	100	99.8	80 - 120			0.543	20		8/10/2020
Manganese	47.6	48.5	mg/Kg	50.2	51.3	105	106	80 - 120			0.345	20		8/10/2020
Nickel	238	243	mg/Kg	209	213	87.7	87.9	80 - 120			0.176	20		8/10/2020
Potassium	2020	2060	mg/Kg	1840	1870	90.9	90.7	80 - 120			0.197	20		8/10/2020

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Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Sludge

Metals

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	119	121	mg/Kg	103	107	86.8	88.1	80 - 120			1.42	20		8/10/2020
Silver	11.9	12.1	mg/Kg	11.1	11.3	93.3	93.2	80 - 120			0.0784	20		8/10/2020
Sodium	571	583	mg/Kg	527	539	92.3	92.6	80 - 120			0.299	20		8/10/2020
Thallium	119	121	mg/Kg	124	129	104	106	80 - 120			1.81	20		8/10/2020
Vanadium	47.6	48.5	mg/Kg	41.9	42.5	88.0	87.6	80 - 120			0.429	20		8/10/2020
Zinc	119	121	mg/Kg	114	117	95.9	96.0	80 - 120			0.106	20		8/10/2020

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 8/7/2020
Data File: 200810B
QC Number: 1
QC Batch ID: QC200807soil

Report Prepared Tuesday, August 11, 2020

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	<2.00	ug/Kg		8/10/2020	16:08
1,1,2,2-Tetrachloroethane	<2.00	ug/Kg		8/10/2020	16:08
1,1,2-Trichloroethane	<2.00	ug/Kg		8/10/2020	16:08
1,1-Dichloroethane	<2.00	ug/Kg		8/10/2020	16:08
1,1-Dichloroethene	<2.00	ug/Kg		8/10/2020	16:08
1,2,3-Trichlorobenzene	<5.00	ug/Kg		8/10/2020	16:08
1,2,4-Trichlorobenzene	<5.00	ug/Kg		8/10/2020	16:08
1,2-Dibromo-3-Chloropropane	<10.0	ug/Kg		8/10/2020	16:08
1,2-Dibromoethane	<2.00	ug/Kg		8/10/2020	16:08
1,2-Dichlorobenzene	<2.00	ug/Kg		8/10/2020	16:08
1,2-Dichloroethane	<2.00	ug/Kg		8/10/2020	16:08
1,2-Dichloropropane	<2.00	ug/Kg		8/10/2020	16:08
1,3-Dichlorobenzene	<2.00	ug/Kg		8/10/2020	16:08
1,4-Dichlorobenzene	<2.00	ug/Kg		8/10/2020	16:08
1,4-Dioxane	<20.0	ug/Kg		8/10/2020	16:08
2-Butanone	<10.0	ug/Kg		8/10/2020	16:08
2-Hexanone	<5.00	ug/Kg		8/10/2020	16:08
4-Methyl-2-pentanone	<5.00	ug/Kg		8/10/2020	16:08
Acetone	<10.0	ug/Kg		8/10/2020	16:08
Benzene	<2.00	ug/Kg		8/10/2020	16:08
Bromochloromethane	<5.00	ug/Kg		8/10/2020	16:08
Bromodichloromethane	<2.00	ug/Kg		8/10/2020	16:08
Bromoform	<5.00	ug/Kg		8/10/2020	16:08
Bromomethane	<2.00	ug/Kg		8/10/2020	16:08
Carbon disulfide	<2.00	ug/Kg		8/10/2020	16:08
Carbon Tetrachloride	<2.00	ug/Kg		8/10/2020	16:08
Chlorobenzene	<2.00	ug/Kg		8/10/2020	16:08

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
Chloroethane	<2.00	ug/Kg		8/10/2020	16:08
Chloroform	<2.00	ug/Kg		8/10/2020	16:08
Chloromethane	<2.00	ug/Kg		8/10/2020	16:08
cis-1,2-Dichloroethene	<2.00	ug/Kg		8/10/2020	16:08
cis-1,3-Dichloropropene	<2.00	ug/Kg		8/10/2020	16:08
Cyclohexane	<10.0	ug/Kg		8/10/2020	16:08
Dibromochloromethane	<2.00	ug/Kg		8/10/2020	16:08
Dichlorodifluoromethane	<2.00	ug/Kg		8/10/2020	16:08
Ethylbenzene	<2.00	ug/Kg		8/10/2020	16:08
Freon 113	<2.00	ug/Kg		8/10/2020	16:08
Isopropylbenzene	<2.00	ug/Kg		8/10/2020	16:08
m,p-Xylene	<2.00	ug/Kg		8/10/2020	16:08
Methyl acetate	<2.00	ug/Kg		8/10/2020	16:08
Methyl tert-butyl Ether	<2.00	ug/Kg		8/10/2020	16:08
Methylcyclohexane	<2.00	ug/Kg		8/10/2020	16:08
Methylene chloride	<5.00	ug/Kg		8/10/2020	16:08
o-Xylene	<2.00	ug/Kg		8/10/2020	16:08
Styrene	<5.00	ug/Kg		8/10/2020	16:08
Tetrachloroethene	<2.00	ug/Kg		8/10/2020	16:08
Toluene	<2.00	ug/Kg		8/10/2020	16:08
trans-1,2-Dichloroethene	<2.00	ug/Kg		8/10/2020	16:08
trans-1,3-Dichloropropene	<2.00	ug/Kg		8/10/2020	16:08
Trichloroethene	<2.00	ug/Kg		8/10/2020	16:08
Trichlorofluoromethane	<2.00	ug/Kg		8/10/2020	16:08
Vinyl chloride	<2.00	ug/Kg		8/10/2020	16:08

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**115**	75 - 134		8/10/2020 16:08
4-Bromofluorobenzene	**60.1**	59.5 - 129		8/10/2020 16:08
Pentafluorobenzene	**104**	88.8 - 118		8/10/2020 16:08
Toluene-D8	**86.5**	84 - 114		8/10/2020 16:08

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x72413.D

QC Batch ID: voas200810

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/Kg	22.5	113	64.9 - 133		8/10/2020
1,1,2,2-Tetrachloroethane	20.0	ug/Kg	24.4	122	71.9 - 134		8/10/2020
1,1,2-Trichloroethane	20.0	ug/Kg	22.4	112	74.2 - 129		8/10/2020
1,1-Dichloroethane	20.0	ug/Kg	22.0	110	61.6 - 134		8/10/2020
1,1-Dichloroethene	20.0	ug/Kg	22.8	114	60.6 - 128		8/10/2020
1,2-Dichlorobenzene	20.0	ug/Kg	21.1	106	70.9 - 129		8/10/2020
1,2-Dichloroethane	20.0	ug/Kg	23.3	117	67.2 - 143		8/10/2020
1,2-Dichloropropane	20.0	ug/Kg	17.8	89.2	68 - 123		8/10/2020
1,3-Dichlorobenzene	20.0	ug/Kg	19.0	95.1	67.2 - 124		8/10/2020
1,4-Dichlorobenzene	20.0	ug/Kg	19.5	97.3	66.8 - 123		8/10/2020
Benzene	20.0	ug/Kg	23.3	117	72.2 - 129		8/10/2020
Bromodichloromethane	20.0	ug/Kg	20.8	104	64.2 - 129		8/10/2020
Bromoform	20.0	ug/Kg	19.8	99.1	55.2 - 123		8/10/2020
Bromomethane	20.0	ug/Kg	22.7	114	65.2 - 146		8/10/2020
Carbon Tetrachloride	20.0	ug/Kg	23.2	116	61.2 - 137		8/10/2020
Chlorobenzene	20.0	ug/Kg	21.9	109	71.6 - 127		8/10/2020

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/Kg	21.9	109	60.4 - 137		8/10/2020
Chloroform	20.0	ug/Kg	22.7	113	69.4 - 134		8/10/2020
Chloromethane	20.0	ug/Kg	20.4	102	47.5 - 173		8/10/2020
cis-1,3-Dichloropropene	20.0	ug/Kg	14.3	71.7	61 - 115		8/10/2020
Dibromochloromethane	20.0	ug/Kg	20.7	103	65.3 - 130		8/10/2020
Ethylbenzene	20.0	ug/Kg	16.6	82.8	69.3 - 132		8/10/2020
Methylene chloride	20.0	ug/Kg	22.0	110	58.6 - 138		8/10/2020
Tetrachloroethene	20.0	ug/Kg	21.3	106	62.8 - 140		8/10/2020
Toluene	20.0	ug/Kg	18.2	90.8	74.9 - 130		8/10/2020
trans-1,2-Dichloroethene	20.0	ug/Kg	24.1	121	67.9 - 134		8/10/2020
trans-1,3-Dichloropropene	20.0	ug/Kg	16.8	83.9	54 - 117		8/10/2020
Trichloroethene	20.0	ug/Kg	20.5	102	73.5 - 122		8/10/2020
Trichlorofluoromethane	20.0	ug/Kg	23.4	117	60.6 - 155		8/10/2020
Vinyl chloride	20.0	ug/Kg	19.1	95.3	60.9 - 150		8/10/2020

Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x72412.D
QC Number: LCS 1
QC Batch ID: voas200810

Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

SDG #: 3

Matrix: Sludge

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Biphenyl	<262	ug/Kg		8/5/2020	13:57
1,2,4,5-Tetrachlorobenzene	<262	ug/Kg		8/5/2020	13:57
1,2,4-Trichlorobenzene	<262	ug/Kg		8/5/2020	13:57
1,2-Dichlorobenzene	<262	ug/Kg		8/5/2020	13:57
1,3-Dichlorobenzene	<262	ug/Kg		8/5/2020	13:57
1,4-Dichlorobenzene	<262	ug/Kg		8/5/2020	13:57
2,2-Oxybis (1-chloropropane)	<262	ug/Kg		8/5/2020	13:57
2,3,4,6-Tetrachlorophenol	<262	ug/Kg		8/5/2020	13:57
2,4,5-Trichlorophenol	<262	ug/Kg		8/5/2020	13:57
2,4,6-Trichlorophenol	<262	ug/Kg		8/5/2020	13:57
2,4-Dichlorophenol	<262	ug/Kg		8/5/2020	13:57
2,4-Dimethylphenol	<262	ug/Kg		8/5/2020	13:57
2,4-Dinitrophenol	<1050	ug/Kg		8/5/2020	13:57
2,4-Dinitrotoluene	<262	ug/Kg		8/5/2020	13:57
2,6-Dinitrotoluene	<262	ug/Kg		8/5/2020	13:57
2-Chloronaphthalene	<262	ug/Kg		8/5/2020	13:57
2-Chlorophenol	<262	ug/Kg		8/5/2020	13:57
2-Methylnapthalene	<262	ug/Kg		8/5/2020	13:57
2-Methylphenol	<262	ug/Kg		8/5/2020	13:57
2-Nitroaniline	<262	ug/Kg		8/5/2020	13:57
2-Nitrophenol	<262	ug/Kg		8/5/2020	13:57
3&4-Methylphenol	<262	ug/Kg		8/5/2020	13:57
3,3'-Dichlorobenzidine	<262	ug/Kg		8/5/2020	13:57
3-Nitroaniline	<262	ug/Kg		8/5/2020	13:57
4,6-Dinitro-2-methylphenol	<524	ug/Kg		8/5/2020	13:57
4-Bromophenyl phenyl ether	<262	ug/Kg		8/5/2020	13:57
4-Chloro-3-methylphenol	<262	ug/Kg		8/5/2020	13:57
4-Chloroaniline	<262	ug/Kg		8/5/2020	13:57

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
SDG #: 3
Matrix: Sludge

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
4-Chlorophenyl phenyl ether	<262	ug/Kg		8/5/2020	13:57
4-Nitroaniline	<262	ug/Kg		8/5/2020	13:57
4-Nitrophenol	<262	ug/Kg		8/5/2020	13:57
Acenaphthene	<262	ug/Kg		8/5/2020	13:57
Acenaphthylene	<262	ug/Kg		8/5/2020	13:57
Acetophenone	<262	ug/Kg		8/5/2020	13:57
Anthracene	<262	ug/Kg		8/5/2020	13:57
Atrazine	<262	ug/Kg		8/5/2020	13:57
Benzaldehyde	<262	ug/Kg		8/5/2020	13:57
Benzo (a) anthracene	<262	ug/Kg		8/5/2020	13:57
Benzo (a) pyrene	<262	ug/Kg		8/5/2020	13:57
Benzo (b) fluoranthene	<262	ug/Kg		8/5/2020	13:57
Benzo (g,h,i) perylene	<262	ug/Kg		8/5/2020	13:57
Benzo (k) fluoranthene	<262	ug/Kg		8/5/2020	13:57
Bis (2-chloroethoxy) methane	<262	ug/Kg		8/5/2020	13:57
Bis (2-chloroethyl) ether	<262	ug/Kg		8/5/2020	13:57
Bis (2-ethylhexyl) phthalate	<262	ug/Kg		8/5/2020	13:57
Butylbenzylphthalate	<262	ug/Kg		8/5/2020	13:57
Caprolactam	<262	ug/Kg		8/5/2020	13:57
Carbazole	<262	ug/Kg		8/5/2020	13:57
Chrysene	<262	ug/Kg		8/5/2020	13:57
Dibenz (a,h) anthracene	<262	ug/Kg		8/5/2020	13:57
Dibenzofuran	<262	ug/Kg		8/5/2020	13:57
Diethyl phthalate	<262	ug/Kg		8/5/2020	13:57
Dimethyl phthalate	<262	ug/Kg		8/5/2020	13:57
Di-n-butyl phthalate	<262	ug/Kg		8/5/2020	13:57
Di-n-octylphthalate	<262	ug/Kg		8/5/2020	13:57
Fluoranthene	<262	ug/Kg		8/5/2020	13:57

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
SDG #: 3
Matrix: Sludge

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
Fluorene	<262	ug/Kg		8/5/2020	13:57
Hexachlorobenzene	<262	ug/Kg		8/5/2020	13:57
Hexachlorobutadiene	<262	ug/Kg		8/5/2020	13:57
Hexachlorocyclopentadiene	<1050	ug/Kg		8/5/2020	13:57
Hexachloroethane	<262	ug/Kg		8/5/2020	13:57
Indeno (1,2,3-cd) pyrene	<262	ug/Kg		8/5/2020	13:57
Isophorone	<262	ug/Kg		8/5/2020	13:57
Naphthalene	<262	ug/Kg		8/5/2020	13:57
Nitrobenzene	<262	ug/Kg		8/5/2020	13:57
N-Nitroso-di-n-propylamine	<262	ug/Kg		8/5/2020	13:57
N-Nitrosodiphenylamine	<262	ug/Kg		8/5/2020	13:57
Pentachlorophenol	<524	ug/Kg		8/5/2020	13:57
Phenanthrene	<262	ug/Kg		8/5/2020	13:57
Phenol	<262	ug/Kg		8/5/2020	13:57
Pyrene	<262	ug/Kg		8/5/2020	13:57

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**68.1**	37.8 - 85.8		8/5/2020	13:57
2-Fluorobiphenyl	**62.2**	40.4 - 80.4		8/5/2020	13:57
2-Fluorophenol	**62.1**	38.8 - 77.4		8/5/2020	13:57
Nitrobenzene-d5	**61.5**	37.4 - 75.9		8/5/2020	13:57
Phenol-d5	**67.9**	40.4 - 78		8/5/2020	13:57
Terphenyl-d14	**61.9**	40.2 - 90		8/5/2020	13:57

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 8/5/2020
Data File: B48413.D
QC Batch ID: QC200805ABNS
QC Number: 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: Sludge

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,2,4-Trichlorobenzene	2720	ug/Kg	1660	61.1	45.7 - 73.3		8/5/2020
1,4-Dichlorobenzene	2720	ug/Kg	1580	58.2	43.1 - 68.3		8/5/2020
2,4-Dinitrotoluene	2720	ug/Kg	1910	70.4	44.4 - 83.4		8/5/2020
2-Chlorophenol	4080	ug/Kg	2680	65.8	48.8 - 77.3		8/5/2020
4-Chloro-3-methylphenol	4080	ug/Kg	3000	73.7	50 - 82.5		8/5/2020
4-Nitrophenol	4080	ug/Kg	3170	77.9	42.7 - 85.9		8/5/2020
Acenaphthene	2720	ug/Kg	1830	67.2	46.4 - 78.8		8/5/2020
N-Nitroso-di-n-propylamine	2720	ug/Kg	1880	69.2	43.2 - 78.2		8/5/2020
Pentachlorophenol	4080	ug/Kg	2850	70.0	32.1 - 116		8/5/2020
Phenol	4080	ug/Kg	2890	71.0	47.5 - 78		8/5/2020
Pyrene	2720	ug/Kg	1950	71.9	47.1 - 88.4		8/5/2020

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 8/5/2020
Data File: B48414.D
QC Number: 1
QC Batch ID: QC200805ABNS

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, August 10, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
SDG #: .
Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,4-Dichlorobenzene	<40.0	ug/L		8/6/2020	13:07
2,4,5-Trichlorophenol	<40.0	ug/L		8/6/2020	13:07
2,4,6-Trichlorophenol	<40.0	ug/L		8/6/2020	13:07
2,4-Dinitrotoluene	<40.0	ug/L		8/6/2020	13:07
Cresols (as m,p,o-Cresol)	<80.0	ug/L		8/6/2020	13:07
Hexachlorobenzene	<40.0	ug/L		8/6/2020	13:07
Hexachlorobutadiene	<40.0	ug/L		8/6/2020	13:07
Hexachloroethane	<40.0	ug/L		8/6/2020	13:07
Nitrobenzene	<40.0	ug/L		8/6/2020	13:07
Pentachlorophenol	<80.0	ug/L		8/6/2020	13:07
Pyridine	<40.0	ug/L		8/6/2020	13:07

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**86.8**	53.8 - 116		8/6/2020	13:07
2-Fluorobiphenyl	**69.0**	36.5 - 95.3		8/6/2020	13:07
2-Fluorophenol	**71.6**	11.1 - 99.3		8/6/2020	13:07
Nitrobenzene-d5	**79.7**	49.4 - 100		8/6/2020	13:07
Phenol-d5	**71.3**	10 - 103		8/6/2020	13:07
Terphenyl-d14	**76.0**	54.3 - 109		8/6/2020	13:07

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 8/6/2020
Data File: B48437.D
QC Batch ID: QC200806ABNT
QC Number: 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,4-Dichlorobenzene	200	ug/L	133	66.3	22.8 - 90.1		8/6/2020
2,4,6-Trichlorophenol	300	ug/L	267	89.0	66.2 - 109		8/6/2020
2,4-Dinitrotoluene	200	ug/L	171	85.5	58.7 - 105		8/6/2020
Pentachlorophenol	300	ug/L	269	89.8	35.8 - 159		8/6/2020

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 8/6/2020
Data File: B48438.D
QC Number: 1
QC Batch ID: QC200806ABNT

Report Prepared Monday, August 10, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,4-Dichlorobenzene	<40.0	ug/L		8/11/2020 18:28
2,4,5-Trichlorophenol	<40.0	ug/L		8/11/2020 18:28
2,4,6-Trichlorophenol	<40.0	ug/L		8/11/2020 18:28
2,4-Dinitrotoluene	<40.0	ug/L		8/11/2020 18:28
Cresols (as m,p,o-Cresol)	<80.0	ug/L		8/11/2020 18:28
Hexachlorobenzene	<40.0	ug/L		8/11/2020 18:28
Hexachlorobutadiene	<40.0	ug/L		8/11/2020 18:28
Hexachloroethane	<40.0	ug/L		8/11/2020 18:28
Nitrobenzene	<40.0	ug/L		8/11/2020 18:28
Pentachlorophenol	<80.0	ug/L		8/11/2020 18:28
Pyridine	<40.0	ug/L		8/11/2020 18:28

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**83.3**	53.8 - 116		8/11/2020 18:28
2-Fluorobiphenyl	**71.2**	36.5 - 95.3		8/11/2020 18:28
2-Fluorophenol	**76.8**	11.1 - 99.3		8/11/2020 18:28
Nitrobenzene-d5	**85.1**	49.4 - 100		8/11/2020 18:28
Phenol-d5	**77.6**	10 - 103		8/11/2020 18:28
Terphenyl-d14	**74.6**	54.3 - 109		8/11/2020 18:28

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 8/11/2020
Data File: B48520.D
QC Batch ID: QC200811ABNT
QC Number: 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,4-Dichlorobenzene	200	ug/L	142	71.2	22.8 - 90.1		8/11/2020
2,4,6-Trichlorophenol	300	ug/L	270	90.1	66.2 - 109		8/11/2020
2,4-Dinitrotoluene	200	ug/L	178	89.2	58.7 - 105		8/11/2020
Pentachlorophenol	300	ug/L	272	90.8	35.8 - 159		8/11/2020

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 8/11/2020
Data File: B48521.D
QC Number: 1
QC Batch ID: QC200811ABNT

Report Prepared Wednesday, August 12, 2020

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed	
Chlordane	<2.00	ug/L		8/6/2020	16:30
Endrin	<1.00	ug/L		8/6/2020	16:30
gamma-BHC (Lindane)	<1.00	ug/L		8/6/2020	16:30
Heptachlor	<1.00	ug/L		8/6/2020	16:30
Heptachlor Epoxide	<2.00	ug/L		8/6/2020	16:30
Methoxychlor	<1.00	ug/L		8/6/2020	16:30
Toxaphene	<20.0	ug/L		8/6/2020	16:30

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	**49.0**	19.3 - 157		8/6/2020	16:30
Tetrachloro-m-xylene (1)	**48.9**	33.3 - 107		8/6/2020	16:30

Method Reference(s): EPA 8081B
EPA 3510C

Preparation Date: 8/6/2020

QC Batch ID: QC200806PESTT

QC Number: 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP Pesticides

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chlordane (1)	10.0	ug/L	6.14	61.4	47.1 - 115		
Endrin (1)	5.00	ug/L	2.58	51.5	29.5 - 129		8/6/2020
gamma-BHC (Lindane) (1)	5.00	ug/L	3.01	60.2	39.6 - 120		8/6/2020
Heptachlor (1)	5.00	ug/L	3.33	66.7	30.1 - 129		8/6/2020
Heptachlor Epoxide (1)	5.00	ug/L	3.23	64.6	45.3 - 128		8/6/2020
Methoxychlor (1)	5.00	ug/L	3.90	77.9	47.9 - 156		8/6/2020

Method Reference(s): EPA 8081B
EPA 3510C
Preparation Date: 8/6/2020
Data File: ST034347.D
QC Number: 1
QC Batch ID: QC200806PESTT

Report Prepared Monday, August 10, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP Pesticides

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chlordane (1)	10.0	ug/L	8.01	80.1	47.1 - 115		
Endrin (1)	5.00	ug/L	3.34	66.9	29.5 - 129		8/11/2020
gamma-BHC (Lindane) (1)	5.00	ug/L	3.92	78.4	39.6 - 120		8/11/2020
Heptachlor (1)	5.00	ug/L	3.64	72.8	30.1 - 129		8/11/2020
Heptachlor Epoxide (1)	5.00	ug/L	4.16	83.3	45.3 - 128		8/11/2020
Methoxychlor (1)	5.00	ug/L	3.80	76.0	47.9 - 156		8/11/2020

Method Reference(s): EPA 8081B
EPA 3510C
Preparation Date: 8/10/2020
Data File: ST034393.D
QC Number: LCS 1
QC Batch ID: QC200810PESTT

Report Prepared *Tuesday, August 11, 2020*

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed	
Chlordane	<2.00	ug/L			
Endrin	<1.00	ug/L		8/11/2020	10:50
gamma-BHC (Lindane)	<1.00	ug/L		8/11/2020	10:50
Heptachlor	<1.00	ug/L		8/11/2020	10:50
Heptachlor Epoxide	<2.00	ug/L		8/11/2020	10:50
Methoxychlor	<1.00	ug/L		8/11/2020	10:50
Toxaphene	<20.0	ug/L		8/11/2020	10:50

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	**68.3**	19.3 - 157		8/11/2020	10:50
Tetrachloro-m-xylene (1)	**63.6**	33.3 - 107		8/11/2020	10:50

Method Reference(s): EPA 8081B
EPA 3510C

Preparation Date: 8/10/2020

QC Batch ID: QC200810PESTT

QC Number: Blk 1

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Arsenic	<0.500	mg/L		8/10/2020	19:43
Barium	<0.500	mg/L		8/10/2020	19:43
Cadmium	<0.0250	mg/L		8/10/2020	19:43
Chromium	<0.500	mg/L		8/10/2020	19:43
Lead	<0.500	mg/L		8/10/2020	19:43
Selenium	<0.200	mg/L		8/10/2020	19:43
Silver	<0.500	mg/L		8/10/2020	19:43

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 8/10/2020
Data File: 200810B
QC Batch ID: QC200810tclp
QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP RCRA 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
Arsenic	12.5	12.5	mg/L	13.1	13.1	105	105	80 - 120			0.149	20		8/7/2020
Barium	12.5	12.5	mg/L	12.9	12.7	103	102	80 - 120			1.10	20		8/7/2020
Cadmium	5.00	5.00	mg/L	5.05	4.98	101	99.5	80 - 120			1.44	20		8/7/2020
Chromium	12.5	12.5	mg/L	12.3	12.1	98.1	97.0	80 - 120			1.12	20		8/7/2020
Lead	12.5	12.5	mg/L	11.7	11.7	93.8	93.5	80 - 120			0.295	20		8/7/2020
Selenium	12.5	12.5	mg/L	12.6	12.5	101	100	80 - 120			0.902	20		8/7/2020
Silver	1.25	1.25	mg/L	1.25	1.23	99.9	98.6	80 - 120			1.32	20		8/7/2020

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 8/7/2020
Data File: 200807A
QC Number: 1
QC Batch ID: QC200807tclp

Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Arsenic	<0.500	mg/L		8/7/2020	12:45
Barium	<0.500	mg/L		8/7/2020	12:45
Cadmium	<0.0250	mg/L		8/7/2020	12:45
Chromium	<0.500	mg/L		8/7/2020	12:45
Lead	<0.500	mg/L		8/7/2020	12:45
Selenium	<0.200	mg/L		8/7/2020	12:45
Silver	<0.500	mg/L		8/7/2020	12:45

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 8/7/2020
Data File: 200807A
QC Batch ID: QC200807tclp
QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP RCRA 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
Arsenic	12.5	12.5	mg/L	12.5	12.4	100	99.4	80 - 120			0.618	20		8/10/2020
Barium	12.5	12.5	mg/L	12.7	12.7	102	101	80 - 120			0.120	20		8/10/2020
Cadmium	5.00	5.00	mg/L	5.05	5.07	101	101	80 - 120			0.482	20		8/10/2020
Chromium	12.5	12.5	mg/L	12.0	12.0	96.3	96.3	80 - 120			0.0277	20		8/10/2020
Lead	12.5	12.5	mg/L	12.1	12.1	96.9	96.9	80 - 120			0.0360	20		8/10/2020
Selenium	12.5	12.5	mg/L	12.6	12.6	101	101	80 - 120			0.125	20		8/10/2020
Silver	1.25	1.25	mg/L	1.23	1.23	98.6	98.7	80 - 120			0.0716	20		8/10/2020

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 8/10/2020
Data File: 200810B
QC Number: 1
QC Batch ID: QC200810tclp

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, August 11, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 203634

Matrix: TCLP Fluid

TCLP Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Dichloroethene	<20.0	ug/L		8/10/2020	14:37
1,2-Dichloroethane	<20.0	ug/L		8/10/2020	14:37
2-Butanone	<100	ug/L		8/10/2020	14:37
Benzene	<20.0	ug/L		8/10/2020	14:37
Carbon Tetrachloride	<20.0	ug/L		8/10/2020	14:37
Chlorobenzene	<20.0	ug/L		8/10/2020	14:37
Chloroform	<20.0	ug/L		8/10/2020	14:37
Tetrachloroethene	<20.0	ug/L		8/10/2020	14:37
Trichloroethene	<20.0	ug/L		8/10/2020	14:37
Vinyl chloride	<20.0	ug/L		8/10/2020	14:37

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**99.3**	70.9 - 139		8/10/2020	14:37
4-Bromofluorobenzene	**63.4**	59.5 - 129		8/10/2020	14:37
Pentafluorobenzene	**99.1**	89.3 - 117		8/10/2020	14:37
Toluene-D8	**85.1**	82.9 - 115		8/10/2020	14:37

Method Reference(s): EPA 8260C
EPA 5030

Data File: x72409.D

QC Batch ID: voax200810

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 203634
Matrix: TCLP Fluid

TCLP Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1-Dichloroethene	20.0	ug/L	17.7	88.3	59.9 - 127		8/10/2020
1,2-Dichloroethane	20.0	ug/L	19.0	94.9	62.8 - 144		8/10/2020
Benzene	20.0	ug/L	18.7	93.4	71.3 - 128		8/10/2020
Carbon Tetrachloride	20.0	ug/L	18.0	89.8	59 - 136		8/10/2020
Chlorobenzene	20.0	ug/L	18.8	94.0	70.2 - 125		8/10/2020
Chloroform	20.0	ug/L	18.6	92.8	66.2 - 134		8/10/2020
Tetrachloroethene	20.0	ug/L	17.8	89.0	60.6 - 139		8/10/2020
Trichloroethene	20.0	ug/L	16.5	82.7	72.2 - 122		8/10/2020
Vinyl chloride	20.0	ug/L	15.7	78.5	60.8 - 149		8/10/2020

Method Reference(s): EPA 8260C
EPA 5030
Data File: x72408.D
QC Number: LCS 1
QC Batch ID: voax200810

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, August 11, 2020

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, tern 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.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

Inventium Client TO: mw 8/4/2020

REPORT TO:	INVOICE TO:	
CLIENT: John Black	CLIENT: Same	LAB PROJECT ID: 203634
ADDRESS: 481 Carlisle Dr. #202	ADDRESS:	Quotation #:
CITY: Herndon STATE: VA ZIP 20170	CITY: STATE: ZIP:	Email: john.black@inventumeng.com
PHONE: (571) 217-6761	PHONE:	
ATTN: John Black	ATTN:	

PROJECT REFERENCE: Riverview

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCL VOC's	TCL SVOC's	TAL Metals	TCLP VOC's	TCLP SVOC's	Corrosivity	Ignitability	TCLP Herb	Paint Filter	TCLP Metals	TCLP Pest	REMARKS	PARADIGM LAB SAMPLE NUMBER
8/3/20	2:30pm		✓	MP West Pile-08032020	SD	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		01A
8/6/2020			✓	MP East Pile-08032020	SD	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		02A
					Sludge per visual mw 8/4/2020														
																		Low vol for 01+02 client to send in more mw 8/4/2020 additional sample rcvd 8/7/2020	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	✓	None Required	☐	None Required	☐
10 day	☐	Batch QC	✓	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	✓
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Date Needed _____ please indicate date needed: _____		Other please indicate package needed: _____	☐	Other EDD please indicate EDD needed: _____	☐

Keith Addesky — Sampled By — 8/3/20 — Date/Time

Keith Addesky — Relinquished By — 8/4/20 — Date/Time

Brian Black — Received By — 8/4/20 9:30 — Date/Time

Total Cost:

P.I.F.

Molly Wait — Received @ Lab By — 8/4/2020 1628 — Date/Time

2°C iced 8/4/2020 16:13

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

2063

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT:	John Black	CLIENT:	Same	203634
ADDRESS:	481 Carlisle Dr. #202	ADDRESS:		Quotation #:
CITY:	Herndon STATE: VA ZIP 20170	CITY: STATE: ZIP:		Email: john.black@inventumeng.com
PHONE:	(517) 217-6761	PHONE:		
ATTN:	John Black	ATTN:		

PROJECT REFERENCE

Rivervien

Matrix Codes:

AQ - Aqueous Liquid; **NQ** - Non-Aqueous Liquid; **WA** - Water; **WG** - Groundwater; **DW** - Drinking Water; **WW** - Wastewater; **SO** - Soil; **SL** - Sludge; **SD** - Solid; **PT** - Paint; **WP** - Wipe; **CK** - Caulk; **OL** - Oil; **AR** - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCL VOC's	TCL SVOC's	TAL Metals	TCLP VOC's	TCLP SVOC's	Corrosivity	Ignitability	TCLP Herb	Paint Filter	TCLP Metals	REMARKS	PARADIGM LAB SAMPLE NUMBER
8/6/20			✓	MP East Pile - 08062020	SD		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	* This is	02A
			✓	MP West Pile - 0806 2020	SD		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	additional sample	01A
																	for a prior sample	
																	sent with the	
																	ID's:	
																	MP East Pile - 08032020	
																	and	
																	MP West Pile - 0803 2020	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	✓	None Required	☐	None Required	☐
10 day	☐	Batch QC	✓	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	✓
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Date Needed _____ please indicate date needed:		Other please indicate package needed:	☐	Other EDD please indicate EDD needed:	☐

Keith Adderley — 8/6/20 / 2:00pm
Sampled By — Date/Time

Keith Adderley — 8/6/20
Relinquished By — Date/Time

Brian Zuch — 8-6-20 4:00
Received By — Date/Time

Molly Wait — 8/7/2020 1149
Received @ Lab By — Date/Time

4°C iced 8/7/2020 11:48

Total Cost:

P.I.F.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

rcvd 8/7/2020
2 of 2
3 of 3

Chain of Custody Supplement

Client: Inventium **Completed by:** Molly Kail

Lab Project ID: 203634 **Date:** 8/4/2020

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)		TrpVOA 01+02	
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		met
Comments	2°C Iwd		
Compliant Sample Quantity/Type	X	Lovol 01+02	
Comments		client to send more	

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179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

200805023

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID:

200805023

REPORT TO:		INVOICE TO: NEC			
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJEC
ADDRESS:		ADDRESS:			
CITY: STATE: ZIP:		CITY: STATE: ZIP:		TURNAROUND TIME: (WORKING DAYS)	
PHONE: FAX:		PHONE: FAX:			STD
PROJECT NAME/SITE NAME:		ATTN:	Reporting	ATTN:	Accounts Payable	1 2 3 X 5
		COMMENTS:	Please email results to reporting@paradigmenv.com	Date Due: 8/12/2020	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	Total Hg	TCLP Hg	TCLP Mercury							REMARKS	PARADIGM SAMPLE NUMBER
001	1 8/3/2020	1430			203634-01	Solid	1	X	X	X							Spin for TCLP	
002	2 "	"			-02	Sludge	1	X	X	X							extract	
	3																	
	4																Batch QC	
	5																	
	6																	
	7																	
	8																	
	9																	
	10																	

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 1°C	Y ☐	N ☐
Comments:		

Client

Sampled By: Molly Vail Date/Time: 8/5/2020 0830

Relinquished By: Date/Time:

Received By: Kmg Date/Time: 8/5/20 8:15pm

Received @ Lab By: Date/Time:

Total Cost:

P.I.F.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Inventum Engineering, P.C.

For Lab Project ID

204873

Referencing

Riverview

Prepared

Tuesday, October 20, 2020

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below:

Portions of the enclosed report reflects analysis that has been subcontracted and are presented in their original form.

Certifies that this report has been approved by the Technical Director or Designee

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PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	11.90 @ 22.4 C	S.U.		10/19/2020 11:51

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/20/2020

Method Reference(s): EPA 1030

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**8760**	mg/Kg		10/16/2020 16:01
Antimony	< 2.97	mg/Kg		10/14/2020 18:36
Arsenic	**5.00**	mg/Kg		10/14/2020 18:36
Barium	**57.7**	mg/Kg		10/14/2020 18:36
Beryllium	< 0.248	mg/Kg		10/14/2020 18:36
Cadmium	**0.922**	mg/Kg		10/14/2020 18:36
Calcium	**156000**	mg/Kg		10/16/2020 15:19
Chromium	**19.2**	mg/Kg		10/14/2020 18:36
Cobalt	**3.84**	mg/Kg		10/14/2020 18:36
Copper	**14.6**	mg/Kg		10/14/2020 18:36
Iron	**11000**	mg/Kg		10/16/2020 16:01
Lead	**35.9**	mg/Kg		10/14/2020 18:36
Magnesium	**16300**	mg/Kg		10/14/2020 18:36
Manganese	**330**	mg/Kg		10/16/2020 16:01
Nickel	**10.1**	mg/Kg		10/14/2020 18:36
Potassium	**1290**	mg/Kg		10/14/2020 18:36
Selenium	< 2.97	mg/Kg		10/16/2020 15:57
Silver	< 0.495	mg/Kg		10/14/2020 18:36

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Sodium	**397**	mg/Kg		10/14/2020 18:36
Thallium	< 2.48	mg/Kg		10/16/2020 16:01
Vanadium	**16.4**	mg/Kg		10/14/2020 18:36
Zinc	**369**	mg/Kg		10/16/2020 16:01

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 201016B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1221	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1232	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1242	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1248	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1254	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1260	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1262	< 0.0279	mg/Kg		10/14/2020 17:15
PCB-1268	< 0.0279	mg/Kg		10/14/2020 17:15

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**74.6**	15.1 - 91		10/14/2020 17:15

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.79	ug/Kg		10/13/2020 18:05
4,4-DDE	< 2.79	ug/Kg		10/13/2020 18:05
4,4-DDT	< 2.79	ug/Kg		10/13/2020 18:05
Aldrin	< 2.79	ug/Kg		10/13/2020 18:05
alpha-BHC	< 2.79	ug/Kg		10/13/2020 18:05

Sample Identifier: MP-BNE-10072020
Lab Sample ID: 204873-01 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

beta-BHC	< 2.79	ug/Kg			10/13/2020 18:05
cis-Chlordane	< 2.79	ug/Kg			10/13/2020 18:05
delta-BHC	< 2.79	ug/Kg			10/13/2020 18:05
Dieldrin	< 2.79	ug/Kg			10/13/2020 18:05
Endosulfan I	< 2.79	ug/Kg			10/13/2020 18:05
Endosulfan II	< 2.79	ug/Kg			10/13/2020 18:05
Endosulfan Sulfate	< 2.79	ug/Kg			10/13/2020 18:05
Endrin	< 2.79	ug/Kg			10/13/2020 18:05
Endrin Aldehyde	< 2.79	ug/Kg			10/13/2020 18:05
Endrin Ketone	**3.11**	ug/Kg		P	10/13/2020 18:05
gamma-BHC (Lindane)	< 2.79	ug/Kg			10/13/2020 18:05
Heptachlor	< 2.79	ug/Kg			10/13/2020 18:05
Heptachlor Epoxide	< 2.79	ug/Kg			10/13/2020 18:05
Methoxychlor	**4.34**	ug/Kg		P	10/13/2020 18:05
Toxaphene	< 27.9	ug/Kg			10/13/2020 18:05
trans-Chlordane	< 2.79	ug/Kg			10/13/2020 18:05

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**118**	16.8 - 119		10/13/2020 18:05
Tetrachloro-m-xylene (1)	**69.2**	20.8 - 112		10/13/2020 18:05

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 10/13/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 279	ug/Kg		10/14/2020 17:03
1,2,4,5-Tetrachlorobenzene	< 279	ug/Kg		10/14/2020 17:03
1,2,4-Trichlorobenzene	< 279	ug/Kg		10/14/2020 17:03
1,2-Dichlorobenzene	< 279	ug/Kg		10/14/2020 17:03
1,3-Dichlorobenzene	< 279	ug/Kg		10/14/2020 17:03
1,4-Dichlorobenzene	< 279	ug/Kg		10/14/2020 17:03

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

2,2-Oxybis (1-chloropropane)	< 279	ug/Kg	10/14/2020	17:03
2,3,4,6-Tetrachlorophenol	< 279	ug/Kg	10/14/2020	17:03
2,4,5-Trichlorophenol	< 279	ug/Kg	10/14/2020	17:03
2,4,6-Trichlorophenol	< 279	ug/Kg	10/14/2020	17:03
2,4-Dichlorophenol	< 279	ug/Kg	10/14/2020	17:03
2,4-Dimethylphenol	< 279	ug/Kg	10/14/2020	17:03
2,4-Dinitrophenol	< 1120	ug/Kg	10/14/2020	17:03
2,4-Dinitrotoluene	< 279	ug/Kg	10/14/2020	17:03
2,6-Dinitrotoluene	< 279	ug/Kg	10/14/2020	17:03
2-Chloronaphthalene	< 279	ug/Kg	10/14/2020	17:03
2-Chlorophenol	< 279	ug/Kg	10/14/2020	17:03
2-Methylnapthalene	**397**	ug/Kg	10/14/2020	17:03
2-Methylphenol	< 279	ug/Kg	10/14/2020	17:03
2-Nitroaniline	< 279	ug/Kg	10/14/2020	17:03
2-Nitrophenol	< 279	ug/Kg	10/14/2020	17:03
3&4-Methylphenol	**943**	ug/Kg	10/14/2020	17:03
3,3'-Dichlorobenzidine	< 279	ug/Kg	10/14/2020	17:03
3-Nitroaniline	< 279	ug/Kg	10/14/2020	17:03
4,6-Dinitro-2-methylphenol	< 374	ug/Kg	10/14/2020	17:03
4-Bromophenyl phenyl ether	< 279	ug/Kg	10/14/2020	17:03
4-Chloro-3-methylphenol	< 279	ug/Kg	10/14/2020	17:03
4-Chloroaniline	< 279	ug/Kg	10/14/2020	17:03
4-Chlorophenyl phenyl ether	< 279	ug/Kg	10/14/2020	17:03
4-Nitroaniline	< 279	ug/Kg	10/14/2020	17:03
4-Nitrophenol	< 279	ug/Kg	10/14/2020	17:03
Acenaphthene	< 279	ug/Kg	10/14/2020	17:03
Acenaphthylene	< 279	ug/Kg	10/14/2020	17:03
Acetophenone	< 279	ug/Kg	10/14/2020	17:03
Anthracene	**654**	ug/Kg	10/14/2020	17:03
Atrazine	< 279	ug/Kg	10/14/2020	17:03

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Benzaldehyde	< 279	ug/Kg	10/14/2020 17:03
Benzo (a) anthracene	**998**	ug/Kg	10/14/2020 17:03
Benzo (a) pyrene	**466**	ug/Kg	10/14/2020 17:03
Benzo (b) fluoranthene	**605**	ug/Kg	10/14/2020 17:03
Benzo (g,h,i) perylene	**312**	ug/Kg	10/14/2020 17:03
Benzo (k) fluoranthene	**686**	ug/Kg	10/14/2020 17:03
Bis (2-chloroethoxy) methane	< 279	ug/Kg	10/14/2020 17:03
Bis (2-chloroethyl) ether	< 279	ug/Kg	10/14/2020 17:03
Bis (2-ethylhexyl) phthalate	< 279	ug/Kg	10/14/2020 17:03
Butylbenzylphthalate	< 279	ug/Kg	10/14/2020 17:03
Caprolactam	< 279	ug/Kg	10/14/2020 17:03
Carbazole	**325**	ug/Kg	10/14/2020 17:03
Chrysene	**875**	ug/Kg	10/14/2020 17:03
Dibenz (a,h) anthracene	< 279	ug/Kg	10/14/2020 17:03
Dibenzofuran	**699**	ug/Kg	10/14/2020 17:03
Diethyl phthalate	< 279	ug/Kg	10/14/2020 17:03
Dimethyl phthalate	< 279	ug/Kg	10/14/2020 17:03
Di-n-butyl phthalate	< 279	ug/Kg	10/14/2020 17:03
Di-n-octylphthalate	< 279	ug/Kg	10/14/2020 17:03
Fluoranthene	**3230**	ug/Kg	10/14/2020 17:03
Fluorene	**768**	ug/Kg	10/14/2020 17:03
Hexachlorobenzene	< 279	ug/Kg	10/14/2020 17:03
Hexachlorobutadiene	< 279	ug/Kg	10/14/2020 17:03
Hexachlorocyclopentadiene	< 1120	ug/Kg	10/14/2020 17:03
Hexachloroethane	< 279	ug/Kg	10/14/2020 17:03
Indeno (1,2,3-cd) pyrene	**350**	ug/Kg	10/14/2020 17:03
Isophorone	< 279	ug/Kg	10/14/2020 17:03
Naphthalene	**1160**	ug/Kg	10/14/2020 17:03
Nitrobenzene	< 279	ug/Kg	10/14/2020 17:03
N-Nitroso-di-n-propylamine	< 279	ug/Kg	10/14/2020 17:03

Sample Identifier: MP-BNE-10072020
Lab Sample ID: 204873-01 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

N-Nitrosodiphenylamine	< 279	ug/Kg		10/14/2020 17:03
Pentachlorophenol	< 559	ug/Kg		10/14/2020 17:03
Phenanthrene	**4800**	ug/Kg		10/14/2020 17:03
Phenol	**2490**	ug/Kg		10/14/2020 17:03
Pyrene	**2240**	ug/Kg		10/14/2020 17:03

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**0.896**	40.1 - 84.5	*	10/14/2020 17:03
2-Fluorobiphenyl	**61.9**	43.3 - 79.9		10/14/2020 17:03
2-Fluorophenol	**11.4**	42.4 - 75.9	*	10/14/2020 17:03
Nitrobenzene-d5	**66.9**	39.8 - 77.5		10/14/2020 17:03
Phenol-d5	**44.9**	43 - 78.8		10/14/2020 17:03
Terphenyl-d14	**65.4**	43.1 - 87.7		10/14/2020 17:03

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50025.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 12.5	ug/Kg		10/15/2020 19:09
1,1,2,2-Tetrachloroethane	< 12.5	ug/Kg		10/15/2020 19:09
1,1,2-Trichloroethane	< 12.5	ug/Kg		10/15/2020 19:09
1,1-Dichloroethane	< 12.5	ug/Kg		10/15/2020 19:09
1,1-Dichloroethene	< 12.5	ug/Kg		10/15/2020 19:09
1,2,3-Trichlorobenzene	< 31.1	ug/Kg		10/15/2020 19:09
1,2,4-Trichlorobenzene	< 31.1	ug/Kg		10/15/2020 19:09
1,2-Dibromo-3-Chloropropane	< 62.3	ug/Kg		10/15/2020 19:09
1,2-Dibromoethane	< 12.5	ug/Kg		10/15/2020 19:09
1,2-Dichlorobenzene	< 12.5	ug/Kg		10/15/2020 19:09
1,2-Dichloroethane	< 12.5	ug/Kg		10/15/2020 19:09
1,2-Dichloropropane	< 12.5	ug/Kg		10/15/2020 19:09
1,3-Dichlorobenzene	< 12.5	ug/Kg		10/15/2020 19:09

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

1,4-Dichlorobenzene	< 12.5	ug/Kg	10/15/2020	19:09
1,4-Dioxane	< 125	ug/Kg	10/15/2020	19:09
2-Butanone	< 62.3	ug/Kg	10/15/2020	19:09
2-Hexanone	< 31.1	ug/Kg	10/15/2020	19:09
4-Methyl-2-pentanone	< 31.1	ug/Kg	10/15/2020	19:09
Acetone	< 62.3	ug/Kg	10/15/2020	19:09
Benzene	< 12.5	ug/Kg	10/15/2020	19:09
Bromochloromethane	< 31.1	ug/Kg	10/15/2020	19:09
Bromodichloromethane	< 12.5	ug/Kg	10/15/2020	19:09
Bromoform	< 31.1	ug/Kg	10/15/2020	19:09
Bromomethane	< 12.5	ug/Kg	10/15/2020	19:09
Carbon disulfide	< 12.5	ug/Kg	10/15/2020	19:09
Carbon Tetrachloride	< 12.5	ug/Kg	10/15/2020	19:09
Chlorobenzene	< 12.5	ug/Kg	10/15/2020	19:09
Chloroethane	< 12.5	ug/Kg	10/15/2020	19:09
Chloroform	< 12.5	ug/Kg	10/15/2020	19:09
Chloromethane	< 12.5	ug/Kg	10/15/2020	19:09
cis-1,2-Dichloroethene	< 12.5	ug/Kg	10/15/2020	19:09
cis-1,3-Dichloropropene	< 12.5	ug/Kg	10/15/2020	19:09
Cyclohexane	< 62.3	ug/Kg	10/15/2020	19:09
Dibromochloromethane	< 12.5	ug/Kg	10/15/2020	19:09
Dichlorodifluoromethane	< 12.5	ug/Kg	10/15/2020	19:09
Ethylbenzene	< 12.5	ug/Kg	10/15/2020	19:09
Freon 113	< 12.5	ug/Kg	10/15/2020	19:09
Isopropylbenzene	< 12.5	ug/Kg	10/15/2020	19:09
m,p-Xylene	< 12.5	ug/Kg	10/15/2020	19:09
Methyl acetate	< 12.5	ug/Kg	10/15/2020	19:09
Methyl tert-butyl Ether	< 12.5	ug/Kg	10/15/2020	19:09
Methylcyclohexane	< 12.5	ug/Kg	10/15/2020	19:09
Methylene chloride	< 31.1	ug/Kg	10/15/2020	19:09

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

o-Xylene	< 12.5	ug/Kg		10/15/2020	19:09
Styrene	< 31.1	ug/Kg		10/15/2020	19:09
Tetrachloroethene	< 12.5	ug/Kg		10/15/2020	19:09
Toluene	< 12.5	ug/Kg		10/15/2020	19:09
trans-1,2-Dichloroethene	< 12.5	ug/Kg		10/15/2020	19:09
trans-1,3-Dichloropropene	< 12.5	ug/Kg		10/15/2020	19:09
Trichloroethene	< 12.5	ug/Kg		10/15/2020	19:09
Trichlorofluoromethane	< 12.5	ug/Kg		10/15/2020	19:09
Vinyl chloride	< 12.5	ug/Kg		10/15/2020	19:09

Surrogate	**Percent Recovery**	**Limits**	**Outliers**	**Date Analyzed**	
1,2-Dichloroethane-d4	**113**	61 - 146		10/15/2020	19:09
4-Bromofluorobenzene	**69.6**	48.8 - 138		10/15/2020	19:09
Pentafluorobenzene	**99.7**	65.4 - 141		10/15/2020	19:09
Toluene-D8	**80.8**	62.8 - 133		10/15/2020	19:09

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74047.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/15/2020 01:21
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/15/2020 01:21
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/15/2020 01:21
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/15/2020 01:21
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		10/15/2020 01:21
Hexachlorobenzene	< 40.0	ug/L	130		10/15/2020 01:21
Hexachlorobutadiene	< 40.0	ug/L	500		10/15/2020 01:21
Hexachloroethane	< 40.0	ug/L	3000		10/15/2020 01:21
Nitrobenzene	< 40.0	ug/L	2000		10/15/2020 01:21
Pentachlorophenol	< 80.0	ug/L	100000		10/15/2020 01:21
Pyridine	< 40.0	ug/L	5000		10/15/2020 01:21

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**83.8**	54.2 - 113		10/15/2020 01:21
2-Fluorobiphenyl	**70.8**	34.3 - 96.3		10/15/2020 01:21
2-Fluorophenol	**77.7**	13.3 - 103		10/15/2020 01:21
Nitrobenzene-d5	**93.5**	50.5 - 103		10/15/2020 01:21
Phenol-d5	**72.6**	10 - 107		10/15/2020 01:21
Terphenyl-d14	**80.0**	53 - 108		10/15/2020 01:21

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/14/2020
Data File: B50042.D

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		10/14/2020 16:52
Endrin	< 1.00	ug/L	20		10/14/2020 16:52
gamma-BHC (Lindane)	< 1.00	ug/L	400		10/14/2020 16:52
Heptachlor	< 1.00	ug/L	8		10/14/2020 16:52

Sample Identifier: MP-BNE-10072020
Lab Sample ID: 204873-01A **Date Sampled:** 10/7/2020
Matrix: TCLP Extract **Date Received:** 10/12/2020

Heptachlor Epoxide	< 2.00	ug/L	8		10/14/2020 16:52
Methoxychlor	< 1.00	ug/L	10000		10/14/2020 16:52
Toxaphene	< 20.0	ug/L	500		10/14/2020 16:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**165**	10 - 165		10/14/2020 16:52
Tetrachloro-m-xylene (1)	**83.4**	22.1 - 126		10/14/2020 16:52

Method Reference(s): EPA 8081B
EPA 1311 / 3510C
Preparation Date: 10/14/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/16/2020 08:25
Barium	< 0.500	mg/L	100		10/16/2020 08:25
Cadmium	< 0.0250	mg/L	1		10/16/2020 08:25
Chromium	< 0.500	mg/L	5		10/16/2020 08:25
Lead	< 0.500	mg/L	5		10/16/2020 08:25
Selenium	< 0.200	mg/L	1		10/16/2020 08:25
Silver	< 0.500	mg/L	5		10/16/2020 08:25

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/14/2020
Data File: 201016A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/16/2020 16:42
1,2-Dichloroethane	< 20.0	ug/L	500		10/16/2020 16:42
2-Butanone	< 100	ug/L	200000		10/16/2020 16:42
Benzene	< 20.0	ug/L	500		10/16/2020 16:42
Carbon Tetrachloride	< 20.0	ug/L	500		10/16/2020 16:42
Chlorobenzene	< 20.0	ug/L	100000		10/16/2020 16:42
Chloroform	< 20.0	ug/L	6000		10/16/2020 16:42

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNE-10072020		
Lab Sample ID:	204873-01A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Tetrachloroethene	< 20.0	ug/L	700		10/16/2020 16:42
Trichloroethene	< 20.0	ug/L	500		10/16/2020 16:42
Vinyl chloride	< 20.0	ug/L	200		10/16/2020 16:42

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**85.2**	59.4 - 149		10/16/2020 16:42
4-Bromofluorobenzene	**75.8**	49 - 138		10/16/2020 16:42
Pentafluorobenzene	**101**	90.1 - 115		10/16/2020 16:42
Toluene-D8	**91.8**	77.3 - 118		10/16/2020 16:42

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74088.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	12.00 @ 22.4 C	S.U.		10/19/2020 11:53

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/20/2020

Method Reference(s): EPA 1030

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**7250**	mg/Kg		10/16/2020 16:06
Antimony	< 2.88	mg/Kg		10/14/2020 18:40
Arsenic	**4.25**	mg/Kg		10/14/2020 18:40
Barium	**53.8**	mg/Kg		10/14/2020 18:40
Beryllium	< 0.240	mg/Kg		10/14/2020 18:40
Cadmium	**0.769**	mg/Kg		10/14/2020 18:40
Calcium	**113000**	mg/Kg		10/16/2020 15:24
Chromium	**16.9**	mg/Kg		10/14/2020 18:40
Cobalt	**3.59**	mg/Kg		10/14/2020 18:40
Copper	**17.0**	mg/Kg		10/14/2020 18:40
Iron	**9920**	mg/Kg		10/16/2020 16:06
Lead	**31.8**	mg/Kg		10/14/2020 18:40
Magnesium	**9660**	mg/Kg		10/14/2020 18:40
Manganese	**364**	mg/Kg		10/16/2020 16:06
Nickel	**9.51**	mg/Kg		10/14/2020 18:40
Potassium	**1300**	mg/Kg		10/14/2020 18:40
Selenium	< 1.92	mg/Kg		10/16/2020 16:06
Silver	< 0.481	mg/Kg		10/14/2020 18:40

Sample Identifier: MP-BNW-10072020
Lab Sample ID: 204873-02 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

Sodium	**406**	mg/Kg		10/14/2020 18:40
Thallium	< 2.40	mg/Kg		10/16/2020 16:06
Vanadium	**14.4**	mg/Kg		10/14/2020 18:40
Zinc	**316**	mg/Kg		10/16/2020 16:06

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 201016B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1221	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1232	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1242	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1248	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1254	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1260	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1262	< 0.0284	mg/Kg		10/14/2020 17:40
PCB-1268	< 0.0284	mg/Kg		10/14/2020 17:40

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**61.7**	15.1 - 91		10/14/2020 17:40

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.84	ug/Kg		10/13/2020 18:24
4,4-DDE	< 2.84	ug/Kg		10/13/2020 18:24
4,4-DDT	< 2.84	ug/Kg		10/13/2020 18:24
Aldrin	< 2.84	ug/Kg		10/13/2020 18:24
alpha-BHC	< 2.84	ug/Kg		10/13/2020 18:24

Sample Identifier: MP-BNW-10072020
Lab Sample ID: 204873-02 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

beta-BHC	< 2.84	ug/Kg		10/13/2020 18:24
cis-Chlordane	< 2.84	ug/Kg		10/13/2020 18:24
delta-BHC	< 2.84	ug/Kg		10/13/2020 18:24
Dieldrin	< 2.84	ug/Kg		10/13/2020 18:24
Endosulfan I	< 2.84	ug/Kg		10/13/2020 18:24
Endosulfan II	< 2.84	ug/Kg		10/13/2020 18:24
Endosulfan Sulfate	< 2.84	ug/Kg		10/13/2020 18:24
Endrin	< 2.84	ug/Kg		10/13/2020 18:24
Endrin Aldehyde	< 2.84	ug/Kg		10/13/2020 18:24
Endrin Ketone	< 2.84	ug/Kg		10/13/2020 18:24
gamma-BHC (Lindane)	< 2.84	ug/Kg		10/13/2020 18:24
Heptachlor	< 2.84	ug/Kg		10/13/2020 18:24
Heptachlor Epoxide	< 2.84	ug/Kg		10/13/2020 18:24
Methoxychlor	< 2.84	ug/Kg		10/13/2020 18:24
Toxaphene	< 28.4	ug/Kg		10/13/2020 18:24
trans-Chlordane	< 2.84	ug/Kg		10/13/2020 18:24

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**108**	16.8 - 119		10/13/2020 18:24
Tetrachloro-m-xylene (1)	**65.2**	20.8 - 112		10/13/2020 18:24

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 10/13/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 284	ug/Kg		10/14/2020 17:32
1,2,4,5-Tetrachlorobenzene	< 284	ug/Kg		10/14/2020 17:32
1,2,4-Trichlorobenzene	< 284	ug/Kg		10/14/2020 17:32
1,2-Dichlorobenzene	< 284	ug/Kg		10/14/2020 17:32
1,3-Dichlorobenzene	< 284	ug/Kg		10/14/2020 17:32
1,4-Dichlorobenzene	< 284	ug/Kg		10/14/2020 17:32

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

2,2-Oxybis (1-chloropropane)	< 284	ug/Kg	10/14/2020 17:32
2,3,4,6-Tetrachlorophenol	< 284	ug/Kg	10/14/2020 17:32
2,4,5-Trichlorophenol	< 284	ug/Kg	10/14/2020 17:32
2,4,6-Trichlorophenol	< 284	ug/Kg	10/14/2020 17:32
2,4-Dichlorophenol	< 284	ug/Kg	10/14/2020 17:32
2,4-Dimethylphenol	< 284	ug/Kg	10/14/2020 17:32
2,4-Dinitrophenol	< 1140	ug/Kg	10/14/2020 17:32
2,4-Dinitrotoluene	< 284	ug/Kg	10/14/2020 17:32
2,6-Dinitrotoluene	< 284	ug/Kg	10/14/2020 17:32
2-Chloronaphthalene	< 284	ug/Kg	10/14/2020 17:32
2-Chlorophenol	< 284	ug/Kg	10/14/2020 17:32
2-Methylnapthalene	< 284	ug/Kg	10/14/2020 17:32
2-Methylphenol	**663**	ug/Kg	10/14/2020 17:32
2-Nitroaniline	< 284	ug/Kg	10/14/2020 17:32
2-Nitrophenol	< 284	ug/Kg	10/14/2020 17:32
3&4-Methylphenol	**1890**	ug/Kg	10/14/2020 17:32
3,3'-Dichlorobenzidine	< 284	ug/Kg	10/14/2020 17:32
3-Nitroaniline	< 284	ug/Kg	10/14/2020 17:32
4,6-Dinitro-2-methylphenol	< 380	ug/Kg	10/14/2020 17:32
4-Bromophenyl phenyl ether	< 284	ug/Kg	10/14/2020 17:32
4-Chloro-3-methylphenol	< 284	ug/Kg	10/14/2020 17:32
4-Chloroaniline	< 284	ug/Kg	10/14/2020 17:32
4-Chlorophenyl phenyl ether	< 284	ug/Kg	10/14/2020 17:32
4-Nitroaniline	< 284	ug/Kg	10/14/2020 17:32
4-Nitrophenol	< 284	ug/Kg	10/14/2020 17:32
Acenaphthene	< 284	ug/Kg	10/14/2020 17:32
Acenaphthylene	< 284	ug/Kg	10/14/2020 17:32
Acetophenone	< 284	ug/Kg	10/14/2020 17:32
Anthracene	< 284	ug/Kg	10/14/2020 17:32
Atrazine	< 284	ug/Kg	10/14/2020 17:32

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Benzaldehyde	< 284	ug/Kg	10/14/2020	17:32
Benzo (a) anthracene	< 284	ug/Kg	10/14/2020	17:32
Benzo (a) pyrene	< 284	ug/Kg	10/14/2020	17:32
Benzo (b) fluoranthene	< 284	ug/Kg	10/14/2020	17:32
Benzo (g,h,i) perylene	< 284	ug/Kg	10/14/2020	17:32
Benzo (k) fluoranthene	< 284	ug/Kg	10/14/2020	17:32
Bis (2-chloroethoxy) methane	< 284	ug/Kg	10/14/2020	17:32
Bis (2-chloroethyl) ether	< 284	ug/Kg	10/14/2020	17:32
Bis (2-ethylhexyl) phthalate	< 284	ug/Kg	10/14/2020	17:32
Butylbenzylphthalate	< 284	ug/Kg	10/14/2020	17:32
Caprolactam	< 284	ug/Kg	10/14/2020	17:32
Carbazole	< 284	ug/Kg	10/14/2020	17:32
Chrysene	< 284	ug/Kg	10/14/2020	17:32
Dibenz (a,h) anthracene	< 284	ug/Kg	10/14/2020	17:32
Dibenzofuran	< 284	ug/Kg	10/14/2020	17:32
Diethyl phthalate	< 284	ug/Kg	10/14/2020	17:32
Dimethyl phthalate	< 284	ug/Kg	10/14/2020	17:32
Di-n-butyl phthalate	< 284	ug/Kg	10/14/2020	17:32
Di-n-octylphthalate	< 284	ug/Kg	10/14/2020	17:32
Fluoranthene	**353**	ug/Kg	10/14/2020	17:32
Fluorene	< 284	ug/Kg	10/14/2020	17:32
Hexachlorobenzene	< 284	ug/Kg	10/14/2020	17:32
Hexachlorobutadiene	< 284	ug/Kg	10/14/2020	17:32
Hexachlorocyclopentadiene	< 1140	ug/Kg	10/14/2020	17:32
Hexachloroethane	< 284	ug/Kg	10/14/2020	17:32
Indeno (1,2,3-cd) pyrene	< 284	ug/Kg	10/14/2020	17:32
Isophorone	< 284	ug/Kg	10/14/2020	17:32
Naphthalene	< 284	ug/Kg	10/14/2020	17:32
Nitrobenzene	< 284	ug/Kg	10/14/2020	17:32
N-Nitroso-di-n-propylamine	< 284	ug/Kg	10/14/2020	17:32

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

N-Nitrosodiphenylamine	< 284	ug/Kg		10/14/2020 17:32
Pentachlorophenol	< 568	ug/Kg		10/14/2020 17:32
Phenanthrene	**697**	ug/Kg		10/14/2020 17:32
Phenol	**3910**	ug/Kg		10/14/2020 17:32
Pyrene	< 284	ug/Kg		10/14/2020 17:32

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**0.00**	40.1 - 84.5	*	10/14/2020 17:32
2-Fluorobiphenyl	**67.6**	43.3 - 79.9		10/14/2020 17:32
2-Fluorophenol	**7.08**	42.4 - 75.9	*	10/14/2020 17:32
Nitrobenzene-d5	**68.4**	39.8 - 77.5		10/14/2020 17:32
Phenol-d5	**38.5**	43 - 78.8	*	10/14/2020 17:32
Terphenyl-d14	**66.7**	43.1 - 87.7		10/14/2020 17:32

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50026.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.26	ug/Kg		10/16/2020 15:12
1,1,2,2-Tetrachloroethane	< 8.26	ug/Kg		10/16/2020 15:12
1,1,2-Trichloroethane	< 8.26	ug/Kg		10/16/2020 15:12
1,1-Dichloroethane	< 8.26	ug/Kg		10/16/2020 15:12
1,1-Dichloroethene	< 8.26	ug/Kg		10/16/2020 15:12
1,2,3-Trichlorobenzene	< 20.7	ug/Kg		10/16/2020 15:12
1,2,4-Trichlorobenzene	< 20.7	ug/Kg		10/16/2020 15:12
1,2-Dibromo-3-Chloropropane	< 41.3	ug/Kg		10/16/2020 15:12
1,2-Dibromoethane	< 8.26	ug/Kg		10/16/2020 15:12
1,2-Dichlorobenzene	< 8.26	ug/Kg		10/16/2020 15:12
1,2-Dichloroethane	< 8.26	ug/Kg		10/16/2020 15:12
1,2-Dichloropropane	< 8.26	ug/Kg		10/16/2020 15:12
1,3-Dichlorobenzene	< 8.26	ug/Kg		10/16/2020 15:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

1,4-Dichlorobenzene	< 8.26	ug/Kg	10/16/2020	15:12
1,4-Dioxane	< 82.6	ug/Kg	10/16/2020	15:12
2-Butanone	< 41.3	ug/Kg	10/16/2020	15:12
2-Hexanone	< 20.7	ug/Kg	10/16/2020	15:12
4-Methyl-2-pentanone	< 20.7	ug/Kg	10/16/2020	15:12
Acetone	< 41.3	ug/Kg	10/16/2020	15:12
Benzene	< 8.26	ug/Kg	10/16/2020	15:12
Bromochloromethane	< 20.7	ug/Kg	10/16/2020	15:12
Bromodichloromethane	< 8.26	ug/Kg	10/16/2020	15:12
Bromoform	< 20.7	ug/Kg	10/16/2020	15:12
Bromomethane	< 8.26	ug/Kg	10/16/2020	15:12
Carbon disulfide	< 8.26	ug/Kg	10/16/2020	15:12
Carbon Tetrachloride	< 8.26	ug/Kg	10/16/2020	15:12
Chlorobenzene	< 8.26	ug/Kg	10/16/2020	15:12
Chloroethane	< 8.26	ug/Kg	10/16/2020	15:12
Chloroform	< 8.26	ug/Kg	10/16/2020	15:12
Chloromethane	< 8.26	ug/Kg	10/16/2020	15:12
cis-1,2-Dichloroethene	< 8.26	ug/Kg	10/16/2020	15:12
cis-1,3-Dichloropropene	< 8.26	ug/Kg	10/16/2020	15:12
Cyclohexane	< 41.3	ug/Kg	10/16/2020	15:12
Dibromochloromethane	< 8.26	ug/Kg	10/16/2020	15:12
Dichlorodifluoromethane	< 8.26	ug/Kg	10/16/2020	15:12
Ethylbenzene	< 8.26	ug/Kg	10/16/2020	15:12
Freon 113	< 8.26	ug/Kg	10/16/2020	15:12
Isopropylbenzene	< 8.26	ug/Kg	10/16/2020	15:12
m,p-Xylene	< 8.26	ug/Kg	10/16/2020	15:12
Methyl acetate	< 8.26	ug/Kg	10/16/2020	15:12
Methyl tert-butyl Ether	< 8.26	ug/Kg	10/16/2020	15:12
Methylcyclohexane	< 8.26	ug/Kg	10/16/2020	15:12
Methylene chloride	< 20.7	ug/Kg	10/16/2020	15:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

o-Xylene	< 8.26	ug/Kg	10/16/2020	15:12
Styrene	< 20.7	ug/Kg	10/16/2020	15:12
Tetrachloroethene	< 8.26	ug/Kg	10/16/2020	15:12
Toluene	< 8.26	ug/Kg	10/16/2020	15:12
trans-1,2-Dichloroethene	< 8.26	ug/Kg	10/16/2020	15:12
trans-1,3-Dichloropropene	< 8.26	ug/Kg	10/16/2020	15:12
Trichloroethene	< 8.26	ug/Kg	10/16/2020	15:12
Trichlorofluoromethane	< 8.26	ug/Kg	10/16/2020	15:12
Vinyl chloride	< 8.26	ug/Kg	10/16/2020	15:12

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**82.7**	61 - 146		10/16/2020	15:12
4-Bromofluorobenzene	**97.6**	48.8 - 138		10/16/2020	15:12
Pentafluorobenzene	**106**	65.4 - 141		10/16/2020	15:12
Toluene-D8	**97.6**	62.8 - 133		10/16/2020	15:12

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74084.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/15/2020 01:50
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/15/2020 01:50
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/15/2020 01:50
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/15/2020 01:50
Cresols (as m,p,o-Cresol)	**266**	ug/L	200000		10/15/2020 01:50
Hexachlorobenzene	< 40.0	ug/L	130		10/15/2020 01:50
Hexachlorobutadiene	< 40.0	ug/L	500		10/15/2020 01:50
Hexachloroethane	< 40.0	ug/L	3000		10/15/2020 01:50
Nitrobenzene	< 40.0	ug/L	2000		10/15/2020 01:50
Pentachlorophenol	< 80.0	ug/L	100000		10/15/2020 01:50
Pyridine	< 40.0	ug/L	5000		10/15/2020 01:50

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**86.0**	54.2 - 113		10/15/2020 01:50
2-Fluorobiphenyl	**74.0**	34.3 - 96.3		10/15/2020 01:50
2-Fluorophenol	**73.8**	13.3 - 103		10/15/2020 01:50
Nitrobenzene-d5	**91.4**	50.5 - 103		10/15/2020 01:50
Phenol-d5	**69.4**	10 - 107		10/15/2020 01:50
Terphenyl-d14	**82.9**	53 - 108		10/15/2020 01:50

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/14/2020
Data File: B50043.D

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		10/14/2020 17:11
Endrin	< 1.00	ug/L	20		10/14/2020 17:11
gamma-BHC (Lindane)	< 1.00	ug/L	400		10/14/2020 17:11
Heptachlor	< 1.00	ug/L	8		10/14/2020 17:11

Sample Identifier: MP-BNW-10072020
Lab Sample ID: 204873-02A **Date Sampled:** 10/7/2020
Matrix: TCLP Extract **Date Received:** 10/12/2020

Heptachlor Epoxide	< 2.00	ug/L	8		10/14/2020 17:11
Methoxychlor	< 1.00	ug/L	10000		10/14/2020 17:11
Toxaphene	< 20.0	ug/L	500		10/14/2020 17:11

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**165**	10 - 165		10/14/2020 17:11
Tetrachloro-m-xylene (1)	**88.7**	22.1 - 126		10/14/2020 17:11

Method Reference(s): EPA 8081B
EPA 1311 / 3510C
Preparation Date: 10/14/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/16/2020 08:29
Barium	< 0.500	mg/L	100		10/16/2020 08:29
Cadmium	< 0.0250	mg/L	1		10/16/2020 08:29
Chromium	< 0.500	mg/L	5		10/16/2020 08:29
Lead	< 0.500	mg/L	5		10/16/2020 08:29
Selenium	< 0.200	mg/L	1		10/16/2020 08:29
Silver	< 0.500	mg/L	5		10/16/2020 08:29

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/14/2020
Data File: 201016A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/16/2020 17:04
1,2-Dichloroethane	< 20.0	ug/L	500		10/16/2020 17:04
2-Butanone	< 100	ug/L	200000		10/16/2020 17:04
Benzene	< 20.0	ug/L	500		10/16/2020 17:04
Carbon Tetrachloride	< 20.0	ug/L	500		10/16/2020 17:04
Chlorobenzene	< 20.0	ug/L	100000		10/16/2020 17:04
Chloroform	< 20.0	ug/L	6000		10/16/2020 17:04

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BNW-10072020		
Lab Sample ID:	204873-02A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Tetrachloroethene	< 20.0	ug/L	700		10/16/2020 17:04
Trichloroethene	< 20.0	ug/L	500		10/16/2020 17:04
Vinyl chloride	< 20.0	ug/L	200		10/16/2020 17:04

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**89.2**	59.4 - 149		10/16/2020 17:04
4-Bromofluorobenzene	**76.7**	49 - 138		10/16/2020 17:04
Pentafluorobenzene	**107**	90.1 - 115		10/16/2020 17:04
Toluene-D8	**93.0**	77.3 - 118		10/16/2020 17:04

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74089.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	11.81 @ 22.2 C	S.U.		10/19/2020 12:03

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/20/2020

Method Reference(s): EPA 1030

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**7610**	mg/Kg		10/16/2020 16:11
Antimony	< 2.73	mg/Kg		10/14/2020 18:45
Arsenic	**4.40**	mg/Kg		10/14/2020 18:45
Barium	**48.4**	mg/Kg		10/14/2020 18:45
Beryllium	< 0.227	mg/Kg		10/14/2020 18:45
Cadmium	**0.821**	mg/Kg		10/14/2020 18:45
Calcium	**130000**	mg/Kg		10/16/2020 15:29
Chromium	**17.2**	mg/Kg		10/14/2020 18:45
Cobalt	**3.73**	mg/Kg		10/14/2020 18:45
Copper	**12.7**	mg/Kg		10/14/2020 18:45
Iron	**10600**	mg/Kg		10/16/2020 16:11
Lead	**29.3**	mg/Kg		10/14/2020 18:45
Magnesium	**26900**	mg/Kg		10/16/2020 16:11
Manganese	**468**	mg/Kg		10/16/2020 16:11
Nickel	**9.62**	mg/Kg		10/14/2020 18:45
Potassium	**1190**	mg/Kg		10/14/2020 18:45
Selenium	< 2.73	mg/Kg		10/16/2020 16:11
Silver	< 0.455	mg/Kg		10/14/2020 18:45

Sample Identifier: MP-BCNTR-10072020
Lab Sample ID: 204873-03 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

Sodium	**285**	mg/Kg		10/14/2020 18:45
Thallium	< 1.14	mg/Kg		10/14/2020 18:45
Vanadium	**14.1**	mg/Kg		10/14/2020 18:45
Zinc	**311**	mg/Kg		10/16/2020 16:11

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 201016B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1221	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1232	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1242	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1248	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1254	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1260	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1262	< 0.0267	mg/Kg		10/14/2020 18:04
PCB-1268	< 0.0267	mg/Kg		10/14/2020 18:04

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**65.6**	15.1 - 91		10/14/2020 18:04

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.67	ug/Kg		10/13/2020 18:42
4,4-DDE	< 2.67	ug/Kg		10/13/2020 18:42
4,4-DDT	< 2.67	ug/Kg		10/13/2020 18:42
Aldrin	< 2.67	ug/Kg		10/13/2020 18:42
alpha-BHC	< 2.67	ug/Kg		10/13/2020 18:42

Sample Identifier: MP-BCNTR-10072020
Lab Sample ID: 204873-03 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

beta-BHC	< 2.67	ug/Kg			10/13/2020 18:42
cis-Chlordane	< 2.67	ug/Kg			10/13/2020 18:42
delta-BHC	< 2.67	ug/Kg			10/13/2020 18:42
Dieldrin	< 2.67	ug/Kg			10/13/2020 18:42
Endosulfan I	< 2.67	ug/Kg			10/13/2020 18:42
Endosulfan II	< 2.67	ug/Kg			10/13/2020 18:42
Endosulfan Sulfate	< 2.67	ug/Kg			10/13/2020 18:42
Endrin	< 2.67	ug/Kg			10/13/2020 18:42
Endrin Aldehyde	< 2.67	ug/Kg			10/13/2020 18:42
Endrin Ketone	< 2.67	ug/Kg			10/13/2020 18:42
gamma-BHC (Lindane)	< 2.67	ug/Kg			10/13/2020 18:42
Heptachlor	< 2.67	ug/Kg			10/13/2020 18:42
Heptachlor Epoxide	< 2.67	ug/Kg			10/13/2020 18:42
Methoxychlor	< 2.67	ug/Kg			10/13/2020 18:42
Toxaphene	< 26.7	ug/Kg			10/13/2020 18:42
trans-Chlordane	< 2.67	ug/Kg			10/13/2020 18:42

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**129**	16.8 - 119	*	10/13/2020 18:42
Tetrachloro-m-xylene (1)	**73.0**	20.8 - 112		10/13/2020 18:42

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 10/13/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 282	ug/Kg		10/14/2020 18:02
1,2,4,5-Tetrachlorobenzene	< 282	ug/Kg		10/14/2020 18:02
1,2,4-Trichlorobenzene	< 282	ug/Kg		10/14/2020 18:02
1,2-Dichlorobenzene	< 282	ug/Kg		10/14/2020 18:02
1,3-Dichlorobenzene	< 282	ug/Kg		10/14/2020 18:02
1,4-Dichlorobenzene	< 282	ug/Kg		10/14/2020 18:02

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

2,2-Oxybis (1-chloropropane)	< 282	ug/Kg	10/14/2020	18:02
2,3,4,6-Tetrachlorophenol	< 282	ug/Kg	10/14/2020	18:02
2,4,5-Trichlorophenol	< 282	ug/Kg	10/14/2020	18:02
2,4,6-Trichlorophenol	< 282	ug/Kg	10/14/2020	18:02
2,4-Dichlorophenol	< 282	ug/Kg	10/14/2020	18:02
2,4-Dimethylphenol	< 282	ug/Kg	10/14/2020	18:02
2,4-Dinitrophenol	< 1130	ug/Kg	10/14/2020	18:02
2,4-Dinitrotoluene	< 282	ug/Kg	10/14/2020	18:02
2,6-Dinitrotoluene	< 282	ug/Kg	10/14/2020	18:02
2-Chloronaphthalene	< 282	ug/Kg	10/14/2020	18:02
2-Chlorophenol	< 282	ug/Kg	10/14/2020	18:02
2-Methylnapthalene	< 282	ug/Kg	10/14/2020	18:02
2-Methylphenol	< 282	ug/Kg	10/14/2020	18:02
2-Nitroaniline	< 282	ug/Kg	10/14/2020	18:02
2-Nitrophenol	< 282	ug/Kg	10/14/2020	18:02
3&4-Methylphenol	**815**	ug/Kg	10/14/2020	18:02
3,3'-Dichlorobenzidine	< 282	ug/Kg	10/14/2020	18:02
3-Nitroaniline	< 282	ug/Kg	10/14/2020	18:02
4,6-Dinitro-2-methylphenol	< 378	ug/Kg	10/14/2020	18:02
4-Bromophenyl phenyl ether	< 282	ug/Kg	10/14/2020	18:02
4-Chloro-3-methylphenol	< 282	ug/Kg	10/14/2020	18:02
4-Chloroaniline	< 282	ug/Kg	10/14/2020	18:02
4-Chlorophenyl phenyl ether	< 282	ug/Kg	10/14/2020	18:02
4-Nitroaniline	< 282	ug/Kg	10/14/2020	18:02
4-Nitrophenol	< 282	ug/Kg	10/14/2020	18:02
Acenaphthene	< 282	ug/Kg	10/14/2020	18:02
Acenaphthylene	< 282	ug/Kg	10/14/2020	18:02
Acetophenone	< 282	ug/Kg	10/14/2020	18:02
Anthracene	< 282	ug/Kg	10/14/2020	18:02
Atrazine	< 282	ug/Kg	10/14/2020	18:02

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Benzaldehyde	< 282	ug/Kg	10/14/2020	18:02
Benzo (a) anthracene	< 282	ug/Kg	10/14/2020	18:02
Benzo (a) pyrene	< 282	ug/Kg	10/14/2020	18:02
Benzo (b) fluoranthene	< 282	ug/Kg	10/14/2020	18:02
Benzo (g,h,i) perylene	< 282	ug/Kg	10/14/2020	18:02
Benzo (k) fluoranthene	< 282	ug/Kg	10/14/2020	18:02
Bis (2-chloroethoxy) methane	< 282	ug/Kg	10/14/2020	18:02
Bis (2-chloroethyl) ether	< 282	ug/Kg	10/14/2020	18:02
Bis (2-ethylhexyl) phthalate	< 282	ug/Kg	10/14/2020	18:02
Butylbenzylphthalate	< 282	ug/Kg	10/14/2020	18:02
Caprolactam	< 282	ug/Kg	10/14/2020	18:02
Carbazole	< 282	ug/Kg	10/14/2020	18:02
Chrysene	< 282	ug/Kg	10/14/2020	18:02
Dibenz (a,h) anthracene	< 282	ug/Kg	10/14/2020	18:02
Dibenzofuran	< 282	ug/Kg	10/14/2020	18:02
Diethyl phthalate	< 282	ug/Kg	10/14/2020	18:02
Dimethyl phthalate	< 282	ug/Kg	10/14/2020	18:02
Di-n-butyl phthalate	< 282	ug/Kg	10/14/2020	18:02
Di-n-octylphthalate	< 282	ug/Kg	10/14/2020	18:02
Fluoranthene	**351**	ug/Kg	10/14/2020	18:02
Fluorene	< 282	ug/Kg	10/14/2020	18:02
Hexachlorobenzene	< 282	ug/Kg	10/14/2020	18:02
Hexachlorobutadiene	< 282	ug/Kg	10/14/2020	18:02
Hexachlorocyclopentadiene	< 1130	ug/Kg	10/14/2020	18:02
Hexachloroethane	< 282	ug/Kg	10/14/2020	18:02
Indeno (1,2,3-cd) pyrene	< 282	ug/Kg	10/14/2020	18:02
Isophorone	< 282	ug/Kg	10/14/2020	18:02
Naphthalene	**338**	ug/Kg	10/14/2020	18:02
Nitrobenzene	< 282	ug/Kg	10/14/2020	18:02
N-Nitroso-di-n-propylamine	< 282	ug/Kg	10/14/2020	18:02

Sample Identifier: MP-BCNTR-10072020
Lab Sample ID: 204873-03 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

N-Nitrosodiphenylamine	< 282	ug/Kg		10/14/2020 18:02
Pentachlorophenol	< 565	ug/Kg		10/14/2020 18:02
Phenanthrene	**581**	ug/Kg		10/14/2020 18:02
Phenol	**1660**	ug/Kg		10/14/2020 18:02
Pyrene	< 282	ug/Kg		10/14/2020 18:02

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**0.00**	40.1 - 84.5	*	10/14/2020 18:02
2-Fluorobiphenyl	**64.7**	43.3 - 79.9		10/14/2020 18:02
2-Fluorophenol	**0.00**	42.4 - 75.9	*	10/14/2020 18:02
Nitrobenzene-d5	**71.1**	39.8 - 77.5		10/14/2020 18:02
Phenol-d5	**47.9**	43 - 78.8		10/14/2020 18:02
Terphenyl-d14	**68.5**	43.1 - 87.7		10/14/2020 18:02

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50027.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.70	ug/Kg		10/16/2020 15:34
1,1,2,2-Tetrachloroethane	< 8.70	ug/Kg		10/16/2020 15:34
1,1,2-Trichloroethane	< 8.70	ug/Kg		10/16/2020 15:34
1,1-Dichloroethane	< 8.70	ug/Kg		10/16/2020 15:34
1,1-Dichloroethene	< 8.70	ug/Kg		10/16/2020 15:34
1,2,3-Trichlorobenzene	< 21.7	ug/Kg		10/16/2020 15:34
1,2,4-Trichlorobenzene	< 21.7	ug/Kg		10/16/2020 15:34
1,2-Dibromo-3-Chloropropane	< 43.5	ug/Kg		10/16/2020 15:34
1,2-Dibromoethane	< 8.70	ug/Kg		10/16/2020 15:34
1,2-Dichlorobenzene	< 8.70	ug/Kg		10/16/2020 15:34
1,2-Dichloroethane	< 8.70	ug/Kg		10/16/2020 15:34
1,2-Dichloropropane	< 8.70	ug/Kg		10/16/2020 15:34
1,3-Dichlorobenzene	< 8.70	ug/Kg		10/16/2020 15:34

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

1,4-Dichlorobenzene	< 8.70	ug/Kg	10/16/2020	15:34
1,4-Dioxane	< 87.0	ug/Kg	10/16/2020	15:34
2-Butanone	< 43.5	ug/Kg	10/16/2020	15:34
2-Hexanone	< 21.7	ug/Kg	10/16/2020	15:34
4-Methyl-2-pentanone	< 21.7	ug/Kg	10/16/2020	15:34
Acetone	< 43.5	ug/Kg	10/16/2020	15:34
Benzene	< 8.70	ug/Kg	10/16/2020	15:34
Bromochloromethane	< 21.7	ug/Kg	10/16/2020	15:34
Bromodichloromethane	< 8.70	ug/Kg	10/16/2020	15:34
Bromoform	< 21.7	ug/Kg	10/16/2020	15:34
Bromomethane	< 8.70	ug/Kg	10/16/2020	15:34
Carbon disulfide	< 8.70	ug/Kg	10/16/2020	15:34
Carbon Tetrachloride	< 8.70	ug/Kg	10/16/2020	15:34
Chlorobenzene	< 8.70	ug/Kg	10/16/2020	15:34
Chloroethane	< 8.70	ug/Kg	10/16/2020	15:34
Chloroform	< 8.70	ug/Kg	10/16/2020	15:34
Chloromethane	< 8.70	ug/Kg	10/16/2020	15:34
cis-1,2-Dichloroethene	< 8.70	ug/Kg	10/16/2020	15:34
cis-1,3-Dichloropropene	< 8.70	ug/Kg	10/16/2020	15:34
Cyclohexane	< 43.5	ug/Kg	10/16/2020	15:34
Dibromochloromethane	< 8.70	ug/Kg	10/16/2020	15:34
Dichlorodifluoromethane	< 8.70	ug/Kg	10/16/2020	15:34
Ethylbenzene	< 8.70	ug/Kg	10/16/2020	15:34
Freon 113	< 8.70	ug/Kg	10/16/2020	15:34
Isopropylbenzene	< 8.70	ug/Kg	10/16/2020	15:34
m,p-Xylene	< 8.70	ug/Kg	10/16/2020	15:34
Methyl acetate	< 8.70	ug/Kg	10/16/2020	15:34
Methyl tert-butyl Ether	< 8.70	ug/Kg	10/16/2020	15:34
Methylcyclohexane	< 8.70	ug/Kg	10/16/2020	15:34
Methylene chloride	< 21.7	ug/Kg	10/16/2020	15:34

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

o-Xylene	< 8.70	ug/Kg		10/16/2020 15:34
Styrene	< 21.7	ug/Kg		10/16/2020 15:34
Tetrachloroethene	< 8.70	ug/Kg		10/16/2020 15:34
Toluene	< 8.70	ug/Kg		10/16/2020 15:34
trans-1,2-Dichloroethene	< 8.70	ug/Kg		10/16/2020 15:34
trans-1,3-Dichloropropene	< 8.70	ug/Kg		10/16/2020 15:34
Trichloroethene	< 8.70	ug/Kg		10/16/2020 15:34
Trichlorofluoromethane	< 8.70	ug/Kg		10/16/2020 15:34
Vinyl chloride	< 8.70	ug/Kg		10/16/2020 15:34

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**83.4**	61 - 146		10/16/2020 15:34
4-Bromofluorobenzene	**80.8**	48.8 - 138		10/16/2020 15:34
Pentafluorobenzene	**102**	65.4 - 141		10/16/2020 15:34
Toluene-D8	**93.3**	62.8 - 133		10/16/2020 15:34

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74085.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/15/2020 02:20
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/15/2020 02:20
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/15/2020 02:20
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/15/2020 02:20
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		10/15/2020 02:20
Hexachlorobenzene	< 40.0	ug/L	130		10/15/2020 02:20
Hexachlorobutadiene	< 40.0	ug/L	500		10/15/2020 02:20
Hexachloroethane	< 40.0	ug/L	3000		10/15/2020 02:20
Nitrobenzene	< 40.0	ug/L	2000		10/15/2020 02:20
Pentachlorophenol	< 80.0	ug/L	100000		10/15/2020 02:20
Pyridine	< 40.0	ug/L	5000		10/15/2020 02:20

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**87.8**	54.2 - 113		10/15/2020 02:20
2-Fluorobiphenyl	**74.4**	34.3 - 96.3		10/15/2020 02:20
2-Fluorophenol	**78.8**	13.3 - 103		10/15/2020 02:20
Nitrobenzene-d5	**98.4**	50.5 - 103		10/15/2020 02:20
Phenol-d5	**73.4**	10 - 107		10/15/2020 02:20
Terphenyl-d14	**85.2**	53 - 108		10/15/2020 02:20

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/14/2020
Data File: B50044.D

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		10/14/2020 17:29
Endrin	< 1.00	ug/L	20		10/14/2020 17:29
gamma-BHC (Lindane)	< 1.00	ug/L	400		10/14/2020 17:29
Heptachlor	< 1.00	ug/L	8		10/14/2020 17:29

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Heptachlor Epoxide	< 2.00	ug/L	8		10/14/2020 17:29
Methoxychlor	< 1.00	ug/L	10000		10/14/2020 17:29
Toxaphene	< 20.0	ug/L	500		10/14/2020 17:29

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**154**	10 - 165		10/14/2020 17:29
Tetrachloro-m-xylene (1)	**87.9**	22.1 - 126		10/14/2020 17:29

Method Reference(s): EPA 8081B
EPA 1311 / 3510C
Preparation Date: 10/14/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/16/2020 08:34
Barium	< 0.500	mg/L	100		10/16/2020 08:34
Cadmium	< 0.0250	mg/L	1		10/16/2020 08:34
Chromium	< 0.500	mg/L	5		10/16/2020 08:34
Lead	< 0.500	mg/L	5		10/16/2020 08:34
Selenium	< 0.200	mg/L	1		10/16/2020 08:34
Silver	< 0.500	mg/L	5		10/16/2020 08:34

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/14/2020
Data File: 201016A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/16/2020 17:27
1,2-Dichloroethane	< 20.0	ug/L	500		10/16/2020 17:27
2-Butanone	< 100	ug/L	200000		10/16/2020 17:27
Benzene	< 20.0	ug/L	500		10/16/2020 17:27
Carbon Tetrachloride	< 20.0	ug/L	500		10/16/2020 17:27
Chlorobenzene	< 20.0	ug/L	100000		10/16/2020 17:27
Chloroform	< 20.0	ug/L	6000		10/16/2020 17:27

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BCNTR-10072020		
Lab Sample ID:	204873-03A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Tetrachloroethene	< 20.0	ug/L	700		10/16/2020 17:27
Trichloroethene	< 20.0	ug/L	500		10/16/2020 17:27
Vinyl chloride	< 20.0	ug/L	200		10/16/2020 17:27

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**90.1**	59.4 - 149		10/16/2020 17:27
4-Bromofluorobenzene	**75.1**	49 - 138		10/16/2020 17:27
Pentafluorobenzene	**103**	90.1 - 115		10/16/2020 17:27
Toluene-D8	**91.4**	77.3 - 118		10/16/2020 17:27

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74090.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	11.04 @ 22.1 C	S.U.		10/19/2020 12:03

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/20/2020

Method Reference(s): EPA 1030

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**7190**	mg/Kg		10/16/2020 16:15
Antimony	< 2.97	mg/Kg		10/14/2020 18:50
Arsenic	**3.31**	mg/Kg		10/14/2020 18:50
Barium	**34.0**	mg/Kg		10/14/2020 18:50
Beryllium	< 0.248	mg/Kg		10/14/2020 18:50
Cadmium	**0.511**	mg/Kg		10/14/2020 18:50
Calcium	**103000**	mg/Kg		10/16/2020 15:33
Chromium	**10.8**	mg/Kg		10/14/2020 18:50
Cobalt	**3.85**	mg/Kg		10/14/2020 18:50
Copper	**7.88**	mg/Kg		10/14/2020 18:50
Iron	**11800**	mg/Kg		10/16/2020 16:15
Lead	**15.9**	mg/Kg		10/14/2020 18:50
Magnesium	**16300**	mg/Kg		10/14/2020 18:50
Manganese	**570**	mg/Kg		10/16/2020 16:15
Nickel	**11.0**	mg/Kg		10/14/2020 18:50
Potassium	**1260**	mg/Kg		10/14/2020 18:50
Selenium	< 1.98	mg/Kg		10/16/2020 16:15
Silver	< 0.495	mg/Kg		10/14/2020 18:50

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Sodium	**320**	mg/Kg		10/14/2020 18:50
Thallium	< 1.24	mg/Kg		10/14/2020 18:50
Vanadium	**11.7**	mg/Kg		10/14/2020 18:50
Zinc	**166**	mg/Kg		10/16/2020 16:15

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 101016B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1221	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1232	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1242	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1248	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1254	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1260	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1262	< 0.0276	mg/Kg		10/14/2020 18:28
PCB-1268	< 0.0276	mg/Kg		10/14/2020 18:28

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**71.7**	15.1 - 91		10/14/2020 18:28

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.76	ug/Kg		10/13/2020 19:01
4,4-DDE	< 2.76	ug/Kg		10/13/2020 19:01
4,4-DDT	< 2.76	ug/Kg		10/13/2020 19:01
Aldrin	< 2.76	ug/Kg		10/13/2020 19:01
alpha-BHC	< 2.76	ug/Kg		10/13/2020 19:01

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

beta-BHC	**5.40**	ug/Kg		P	10/13/2020 19:01
cis-Chlordane	< 2.76	ug/Kg			10/13/2020 19:01
delta-BHC	< 2.76	ug/Kg			10/13/2020 19:01
Dieldrin	< 2.76	ug/Kg			10/13/2020 19:01
Endosulfan I	< 2.76	ug/Kg			10/13/2020 19:01
Endosulfan II	< 2.76	ug/Kg			10/13/2020 19:01
Endosulfan Sulfate	**13.7**	ug/Kg		P	10/13/2020 19:01
Endrin	< 2.76	ug/Kg			10/13/2020 19:01
Endrin Aldehyde	< 2.76	ug/Kg			10/13/2020 19:01
Endrin Ketone	< 2.76	ug/Kg			10/13/2020 19:01
gamma-BHC (Lindane)	< 2.76	ug/Kg			10/13/2020 19:01
Heptachlor	< 2.76	ug/Kg			10/13/2020 19:01
Heptachlor Epoxide	< 2.76	ug/Kg			10/13/2020 19:01
Methoxychlor	**13.1**	ug/Kg		P	10/13/2020 19:01
Toxaphene	< 27.6	ug/Kg			10/13/2020 19:01
trans-Chlordane	< 2.76	ug/Kg			10/13/2020 19:01

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**214**	16.8 - 119	*	10/13/2020 19:01
Tetrachloro-m-xylene (1)	**34.1**	20.8 - 112		10/13/2020 19:01

Method Reference(s): EPA 8081B
EPA 3546

Preparation Date: 10/13/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 273	ug/Kg		10/14/2020 18:31
1,2,4,5-Tetrachlorobenzene	< 273	ug/Kg		10/14/2020 18:31
1,2,4-Trichlorobenzene	< 273	ug/Kg		10/14/2020 18:31
1,2-Dichlorobenzene	< 273	ug/Kg		10/14/2020 18:31
1,3-Dichlorobenzene	< 273	ug/Kg		10/14/2020 18:31
1,4-Dichlorobenzene	< 273	ug/Kg		10/14/2020 18:31

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

2,2-Oxybis (1-chloropropane)	< 273	ug/Kg	10/14/2020	18:31
2,3,4,6-Tetrachlorophenol	< 273	ug/Kg	10/14/2020	18:31
2,4,5-Trichlorophenol	< 273	ug/Kg	10/14/2020	18:31
2,4,6-Trichlorophenol	< 273	ug/Kg	10/14/2020	18:31
2,4-Dichlorophenol	< 273	ug/Kg	10/14/2020	18:31
2,4-Dimethylphenol	< 273	ug/Kg	10/14/2020	18:31
2,4-Dinitrophenol	< 1090	ug/Kg	10/14/2020	18:31
2,4-Dinitrotoluene	< 273	ug/Kg	10/14/2020	18:31
2,6-Dinitrotoluene	< 273	ug/Kg	10/14/2020	18:31
2-Chloronaphthalene	< 273	ug/Kg	10/14/2020	18:31
2-Chlorophenol	< 273	ug/Kg	10/14/2020	18:31
2-Methylnapthalene	< 273	ug/Kg	10/14/2020	18:31
2-Methylphenol	**657**	ug/Kg	10/14/2020	18:31
2-Nitroaniline	< 273	ug/Kg	10/14/2020	18:31
2-Nitrophenol	< 273	ug/Kg	10/14/2020	18:31
3&4-Methylphenol	**1990**	ug/Kg	10/14/2020	18:31
3,3'-Dichlorobenzidine	< 273	ug/Kg	10/14/2020	18:31
3-Nitroaniline	< 273	ug/Kg	10/14/2020	18:31
4,6-Dinitro-2-methylphenol	< 366	ug/Kg	10/14/2020	18:31
4-Bromophenyl phenyl ether	< 273	ug/Kg	10/14/2020	18:31
4-Chloro-3-methylphenol	< 273	ug/Kg	10/14/2020	18:31
4-Chloroaniline	< 273	ug/Kg	10/14/2020	18:31
4-Chlorophenyl phenyl ether	< 273	ug/Kg	10/14/2020	18:31
4-Nitroaniline	< 273	ug/Kg	10/14/2020	18:31
4-Nitrophenol	< 273	ug/Kg	10/14/2020	18:31
Acenaphthene	< 273	ug/Kg	10/14/2020	18:31
Acenaphthylene	**623**	ug/Kg	10/14/2020	18:31
Acetophenone	< 273	ug/Kg	10/14/2020	18:31
Anthracene	**1220**	ug/Kg	10/14/2020	18:31
Atrazine	< 273	ug/Kg	10/14/2020	18:31

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Benzaldehyde	< 273	ug/Kg	10/14/2020	18:31
Benzo (a) anthracene	**2410**	ug/Kg	10/14/2020	18:31
Benzo (a) pyrene	**1970**	ug/Kg	10/14/2020	18:31
Benzo (b) fluoranthene	**2040**	ug/Kg	10/14/2020	18:31
Benzo (g,h,i) perylene	**853**	ug/Kg	10/14/2020	18:31
Benzo (k) fluoranthene	**1490**	ug/Kg	10/14/2020	18:31
Bis (2-chloroethoxy) methane	< 273	ug/Kg	10/14/2020	18:31
Bis (2-chloroethyl) ether	< 273	ug/Kg	10/14/2020	18:31
Bis (2-ethylhexyl) phthalate	< 273	ug/Kg	10/14/2020	18:31
Butylbenzylphthalate	< 273	ug/Kg	10/14/2020	18:31
Caprolactam	< 273	ug/Kg	10/14/2020	18:31
Carbazole	**777**	ug/Kg	10/14/2020	18:31
Chrysene	**1950**	ug/Kg	10/14/2020	18:31
Dibenz (a,h) anthracene	**356**	ug/Kg	10/14/2020	18:31
Dibenzofuran	**345**	ug/Kg	10/14/2020	18:31
Diethyl phthalate	< 273	ug/Kg	10/14/2020	18:31
Dimethyl phthalate	< 273	ug/Kg	10/14/2020	18:31
Di-n-butyl phthalate	< 273	ug/Kg	10/14/2020	18:31
Di-n-octylphthalate	< 273	ug/Kg	10/14/2020	18:31
Fluoranthene	**5800**	ug/Kg	10/14/2020	18:31
Fluorene	**841**	ug/Kg	10/14/2020	18:31
Hexachlorobenzene	< 273	ug/Kg	10/14/2020	18:31
Hexachlorobutadiene	< 273	ug/Kg	10/14/2020	18:31
Hexachlorocyclopentadiene	< 1090	ug/Kg	10/14/2020	18:31
Hexachloroethane	< 273	ug/Kg	10/14/2020	18:31
Indeno (1,2,3-cd) pyrene	**894**	ug/Kg	10/14/2020	18:31
Isophorone	< 273	ug/Kg	10/14/2020	18:31
Naphthalene	**568**	ug/Kg	10/14/2020	18:31
Nitrobenzene	< 273	ug/Kg	10/14/2020	18:31
N-Nitroso-di-n-propylamine	< 273	ug/Kg	10/14/2020	18:31

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

N-Nitrosodiphenylamine	< 273	ug/Kg		10/14/2020 18:31
Pentachlorophenol	< 546	ug/Kg		10/14/2020 18:31
Phenanthrene	**3450**	ug/Kg		10/14/2020 18:31
Phenol	**4550**	ug/Kg		10/14/2020 18:31
Pyrene	**3610**	ug/Kg		10/14/2020 18:31

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**0.00**	40.1 - 84.5	*	10/14/2020 18:31
2-Fluorobiphenyl	**66.5**	43.3 - 79.9		10/14/2020 18:31
2-Fluorophenol	**40.9**	42.4 - 75.9	*	10/14/2020 18:31
Nitrobenzene-d5	**59.1**	39.8 - 77.5		10/14/2020 18:31
Phenol-d5	**61.9**	43 - 78.8		10/14/2020 18:31
Terphenyl-d14	**66.6**	43.1 - 87.7		10/14/2020 18:31

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50028.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 9.09	ug/Kg		10/15/2020 20:17
1,1,2,2-Tetrachloroethane	< 9.09	ug/Kg		10/15/2020 20:17
1,1,2-Trichloroethane	< 9.09	ug/Kg		10/15/2020 20:17
1,1-Dichloroethane	< 9.09	ug/Kg		10/15/2020 20:17
1,1-Dichloroethene	< 9.09	ug/Kg		10/15/2020 20:17
1,2,3-Trichlorobenzene	< 22.7	ug/Kg		10/15/2020 20:17
1,2,4-Trichlorobenzene	< 22.7	ug/Kg		10/15/2020 20:17
1,2-Dibromo-3-Chloropropane	< 45.5	ug/Kg		10/15/2020 20:17
1,2-Dibromoethane	< 9.09	ug/Kg		10/15/2020 20:17
1,2-Dichlorobenzene	< 9.09	ug/Kg		10/15/2020 20:17
1,2-Dichloroethane	< 9.09	ug/Kg		10/15/2020 20:17
1,2-Dichloropropane	< 9.09	ug/Kg		10/15/2020 20:17
1,3-Dichlorobenzene	< 9.09	ug/Kg		10/15/2020 20:17

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

1,4-Dichlorobenzene	< 9.09	ug/Kg	10/15/2020 20:17
1,4-Dioxane	< 90.9	ug/Kg	10/15/2020 20:17
2-Butanone	< 45.5	ug/Kg	10/15/2020 20:17
2-Hexanone	< 22.7	ug/Kg	10/15/2020 20:17
4-Methyl-2-pentanone	< 22.7	ug/Kg	10/15/2020 20:17
Acetone	< 45.5	ug/Kg	10/15/2020 20:17
Benzene	< 9.09	ug/Kg	10/15/2020 20:17
Bromochloromethane	< 22.7	ug/Kg	10/15/2020 20:17
Bromodichloromethane	< 9.09	ug/Kg	10/15/2020 20:17
Bromoform	< 22.7	ug/Kg	10/15/2020 20:17
Bromomethane	< 9.09	ug/Kg	10/15/2020 20:17
Carbon disulfide	< 9.09	ug/Kg	10/15/2020 20:17
Carbon Tetrachloride	< 9.09	ug/Kg	10/15/2020 20:17
Chlorobenzene	< 9.09	ug/Kg	10/15/2020 20:17
Chloroethane	< 9.09	ug/Kg	10/15/2020 20:17
Chloroform	< 9.09	ug/Kg	10/15/2020 20:17
Chloromethane	< 9.09	ug/Kg	10/15/2020 20:17
cis-1,2-Dichloroethene	< 9.09	ug/Kg	10/15/2020 20:17
cis-1,3-Dichloropropene	< 9.09	ug/Kg	10/15/2020 20:17
Cyclohexane	< 45.5	ug/Kg	10/15/2020 20:17
Dibromochloromethane	< 9.09	ug/Kg	10/15/2020 20:17
Dichlorodifluoromethane	< 9.09	ug/Kg	10/15/2020 20:17
Ethylbenzene	< 9.09	ug/Kg	10/15/2020 20:17
Freon 113	< 9.09	ug/Kg	10/15/2020 20:17
Isopropylbenzene	< 9.09	ug/Kg	10/15/2020 20:17
m,p-Xylene	< 9.09	ug/Kg	10/15/2020 20:17
Methyl acetate	< 9.09	ug/Kg	10/15/2020 20:17
Methyl tert-butyl Ether	< 9.09	ug/Kg	10/15/2020 20:17
Methylcyclohexane	< 9.09	ug/Kg	10/15/2020 20:17
Methylene chloride	< 22.7	ug/Kg	10/15/2020 20:17

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

o-Xylene	< 9.09	ug/Kg		10/15/2020 20:17
Styrene	< 22.7	ug/Kg		10/15/2020 20:17
Tetrachloroethene	< 9.09	ug/Kg		10/15/2020 20:17
Toluene	< 9.09	ug/Kg		10/15/2020 20:17
trans-1,2-Dichloroethene	< 9.09	ug/Kg		10/15/2020 20:17
trans-1,3-Dichloropropene	< 9.09	ug/Kg		10/15/2020 20:17
Trichloroethene	< 9.09	ug/Kg		10/15/2020 20:17
Trichlorofluoromethane	< 9.09	ug/Kg		10/15/2020 20:17
Vinyl chloride	< 9.09	ug/Kg		10/15/2020 20:17

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**115**	61 - 146		10/15/2020 20:17
4-Bromofluorobenzene	**69.1**	48.8 - 138		10/15/2020 20:17
Pentafluorobenzene	**104**	65.4 - 141		10/15/2020 20:17
Toluene-D8	**79.5**	62.8 - 133		10/15/2020 20:17

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74050.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/15/2020 02:49
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/15/2020 02:49
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/15/2020 02:49
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/15/2020 02:49
Cresols (as m,p,o-Cresol)	**159**	ug/L	200000		10/15/2020 02:49
Hexachlorobenzene	< 40.0	ug/L	130		10/15/2020 02:49
Hexachlorobutadiene	< 40.0	ug/L	500		10/15/2020 02:49
Hexachloroethane	< 40.0	ug/L	3000		10/15/2020 02:49
Nitrobenzene	< 40.0	ug/L	2000		10/15/2020 02:49
Pentachlorophenol	< 80.0	ug/L	100000		10/15/2020 02:49
Pyridine	< 40.0	ug/L	5000		10/15/2020 02:49

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**88.1**	54.2 - 113		10/15/2020 02:49
2-Fluorobiphenyl	**73.5**	34.3 - 96.3		10/15/2020 02:49
2-Fluorophenol	**75.9**	13.3 - 103		10/15/2020 02:49
Nitrobenzene-d5	**92.9**	50.5 - 103		10/15/2020 02:49
Phenol-d5	**69.5**	10 - 107		10/15/2020 02:49
Terphenyl-d14	**85.4**	53 - 108		10/15/2020 02:49

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/14/2020
Data File: B50045.D

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		10/14/2020 17:48
Endrin	< 1.00	ug/L	20		10/14/2020 17:48
gamma-BHC (Lindane)	< 1.00	ug/L	400		10/14/2020 17:48
Heptachlor	< 1.00	ug/L	8		10/14/2020 17:48

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Heptachlor Epoxide	< 2.00	ug/L	8		10/14/2020 17:48
Methoxychlor	< 1.00	ug/L	10000		10/14/2020 17:48
Toxaphene	< 20.0	ug/L	500		10/14/2020 17:48

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**179**	10 - 165	*	10/14/2020 17:48
Tetrachloro-m-xylene (1)	**92.7**	22.1 - 126		10/14/2020 17:48

Method Reference(s): EPA 8081B
EPA 1311 / 3510C
Preparation Date: 10/14/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/16/2020 08:39
Barium	< 0.500	mg/L	100		10/16/2020 08:39
Cadmium	< 0.0250	mg/L	1		10/16/2020 08:39
Chromium	< 0.500	mg/L	5		10/16/2020 08:39
Lead	< 0.500	mg/L	5		10/16/2020 08:39
Selenium	< 0.200	mg/L	1		10/16/2020 08:39
Silver	< 0.500	mg/L	5		10/16/2020 08:39

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/14/2020
Data File: 201016A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/16/2020 17:49
1,2-Dichloroethane	< 20.0	ug/L	500		10/16/2020 17:49
2-Butanone	< 100	ug/L	200000		10/16/2020 17:49
Benzene	< 20.0	ug/L	500		10/16/2020 17:49
Carbon Tetrachloride	< 20.0	ug/L	500		10/16/2020 17:49
Chlorobenzene	< 20.0	ug/L	100000		10/16/2020 17:49
Chloroform	< 20.0	ug/L	6000		10/16/2020 17:49

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSE-10072020		
Lab Sample ID:	204873-04A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Tetrachloroethene	< 20.0	ug/L	700		10/16/2020 17:49
Trichloroethene	< 20.0	ug/L	500		10/16/2020 17:49
Vinyl chloride	< 20.0	ug/L	200		10/16/2020 17:49

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**94.6**	59.4 - 149		10/16/2020 17:49
4-Bromofluorobenzene	**72.9**	49 - 138		10/16/2020 17:49
Pentafluorobenzene	**105**	90.1 - 115		10/16/2020 17:49
Toluene-D8	**90.2**	77.3 - 118		10/16/2020 17:49

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74091.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	12.07 @ 22.1 C	S.U.		10/19/2020 12:04

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/20/2020

Method Reference(s): EPA 1030

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**8020**	mg/Kg		10/16/2020 16:20
Antimony	< 2.88	mg/Kg		10/14/2020 19:04
Arsenic	**5.40**	mg/Kg		10/14/2020 19:04
Barium	**56.0**	mg/Kg		10/14/2020 19:04
Beryllium	< 0.240	mg/Kg		10/14/2020 19:04
Cadmium	**0.920**	mg/Kg		10/14/2020 19:04
Calcium	**123000**	mg/Kg		10/16/2020 15:38
Chromium	**19.2**	mg/Kg		10/14/2020 19:04
Cobalt	**4.01**	mg/Kg		10/14/2020 19:04
Copper	**56.7**	mg/Kg		10/14/2020 19:04
Iron	**11600**	mg/Kg		10/16/2020 16:20
Lead	**39.8**	mg/Kg		10/14/2020 19:04
Magnesium	**13600**	mg/Kg		10/14/2020 19:04
Manganese	**494**	mg/Kg		10/16/2020 16:20
Nickel	**11.9**	mg/Kg		10/14/2020 19:04
Potassium	**1390**	mg/Kg		10/14/2020 19:04
Selenium	< 1.92	mg/Kg		10/16/2020 16:20
Silver	< 0.481	mg/Kg		10/14/2020 19:04

Sample Identifier: MP-BSW-10072020
Lab Sample ID: 204873-05 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

Sodium	**373**	mg/Kg		10/14/2020 19:04
Thallium	< 1.20	mg/Kg		10/14/2020 19:04
Vanadium	**16.8**	mg/Kg		10/14/2020 19:04
Zinc	**344**	mg/Kg		10/16/2020 16:20

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 101016B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1221	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1232	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1242	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1248	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1254	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1260	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1262	< 0.0275	mg/Kg		10/14/2020 18:52
PCB-1268	< 0.0275	mg/Kg		10/14/2020 18:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**76.4**	15.1 - 91		10/14/2020 18:52

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.75	ug/Kg		10/13/2020 19:20
4,4-DDE	< 2.75	ug/Kg		10/13/2020 19:20
4,4-DDT	< 2.75	ug/Kg		10/13/2020 19:20
Aldrin	< 2.75	ug/Kg		10/13/2020 19:20
alpha-BHC	< 2.75	ug/Kg		10/13/2020 19:20

Sample Identifier: MP-BSW-10072020
Lab Sample ID: 204873-05 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

beta-BHC	< 2.75	ug/Kg		10/13/2020 19:20
cis-Chlordane	< 2.75	ug/Kg		10/13/2020 19:20
delta-BHC	< 2.75	ug/Kg		10/13/2020 19:20
Dieldrin	< 2.75	ug/Kg		10/13/2020 19:20
Endosulfan I	< 2.75	ug/Kg		10/13/2020 19:20
Endosulfan II	< 2.75	ug/Kg		10/13/2020 19:20
Endosulfan Sulfate	< 2.75	ug/Kg		10/13/2020 19:20
Endrin	< 2.75	ug/Kg		10/13/2020 19:20
Endrin Aldehyde	< 2.75	ug/Kg		10/13/2020 19:20
Endrin Ketone	< 2.75	ug/Kg		10/13/2020 19:20
gamma-BHC (Lindane)	< 2.75	ug/Kg		10/13/2020 19:20
Heptachlor	< 2.75	ug/Kg		10/13/2020 19:20
Heptachlor Epoxide	< 2.75	ug/Kg		10/13/2020 19:20
Methoxychlor	< 2.75	ug/Kg		10/13/2020 19:20
Toxaphene	< 27.5	ug/Kg		10/13/2020 19:20
trans-Chlordane	< 2.75	ug/Kg		10/13/2020 19:20

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**52.6**	16.8 - 119		10/13/2020 19:20
Tetrachloro-m-xylene (1)	**65.7**	20.8 - 112		10/13/2020 19:20

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 10/13/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 262	ug/Kg		10/14/2020 19:01
1,2,4,5-Tetrachlorobenzene	< 262	ug/Kg		10/14/2020 19:01
1,2,4-Trichlorobenzene	< 262	ug/Kg		10/14/2020 19:01
1,2-Dichlorobenzene	< 262	ug/Kg		10/14/2020 19:01
1,3-Dichlorobenzene	< 262	ug/Kg		10/14/2020 19:01
1,4-Dichlorobenzene	< 262	ug/Kg		10/14/2020 19:01

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

2,2-Oxybis (1-chloropropane)	< 262	ug/Kg	10/14/2020 19:01
2,3,4,6-Tetrachlorophenol	< 262	ug/Kg	10/14/2020 19:01
2,4,5-Trichlorophenol	< 262	ug/Kg	10/14/2020 19:01
2,4,6-Trichlorophenol	< 262	ug/Kg	10/14/2020 19:01
2,4-Dichlorophenol	< 262	ug/Kg	10/14/2020 19:01
2,4-Dimethylphenol	< 262	ug/Kg	10/14/2020 19:01
2,4-Dinitrophenol	< 1050	ug/Kg	10/14/2020 19:01
2,4-Dinitrotoluene	< 262	ug/Kg	10/14/2020 19:01
2,6-Dinitrotoluene	< 262	ug/Kg	10/14/2020 19:01
2-Chloronaphthalene	< 262	ug/Kg	10/14/2020 19:01
2-Chlorophenol	< 262	ug/Kg	10/14/2020 19:01
2-Methylnapthalene	< 262	ug/Kg	10/14/2020 19:01
2-Methylphenol	< 262	ug/Kg	10/14/2020 19:01
2-Nitroaniline	< 262	ug/Kg	10/14/2020 19:01
2-Nitrophenol	< 262	ug/Kg	10/14/2020 19:01
3&4-Methylphenol	< 262	ug/Kg	10/14/2020 19:01
3,3'-Dichlorobenzidine	< 262	ug/Kg	10/14/2020 19:01
3-Nitroaniline	< 262	ug/Kg	10/14/2020 19:01
4,6-Dinitro-2-methylphenol	< 350	ug/Kg	10/14/2020 19:01
4-Bromophenyl phenyl ether	< 262	ug/Kg	10/14/2020 19:01
4-Chloro-3-methylphenol	< 262	ug/Kg	10/14/2020 19:01
4-Chloroaniline	< 262	ug/Kg	10/14/2020 19:01
4-Chlorophenyl phenyl ether	< 262	ug/Kg	10/14/2020 19:01
4-Nitroaniline	< 262	ug/Kg	10/14/2020 19:01
4-Nitrophenol	< 262	ug/Kg	10/14/2020 19:01
Acenaphthene	< 262	ug/Kg	10/14/2020 19:01
Acenaphthylene	< 262	ug/Kg	10/14/2020 19:01
Acetophenone	< 262	ug/Kg	10/14/2020 19:01
Anthracene	< 262	ug/Kg	10/14/2020 19:01
Atrazine	< 262	ug/Kg	10/14/2020 19:01

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Benzaldehyde	< 262	ug/Kg	10/14/2020	19:01
Benzo (a) anthracene	< 262	ug/Kg	10/14/2020	19:01
Benzo (a) pyrene	< 262	ug/Kg	10/14/2020	19:01
Benzo (b) fluoranthene	< 262	ug/Kg	10/14/2020	19:01
Benzo (g,h,i) perylene	< 262	ug/Kg	10/14/2020	19:01
Benzo (k) fluoranthene	< 262	ug/Kg	10/14/2020	19:01
Bis (2-chloroethoxy) methane	< 262	ug/Kg	10/14/2020	19:01
Bis (2-chloroethyl) ether	< 262	ug/Kg	10/14/2020	19:01
Bis (2-ethylhexyl) phthalate	< 262	ug/Kg	10/14/2020	19:01
Butylbenzylphthalate	< 262	ug/Kg	10/14/2020	19:01
Caprolactam	< 262	ug/Kg	10/14/2020	19:01
Carbazole	< 262	ug/Kg	10/14/2020	19:01
Chrysene	< 262	ug/Kg	10/14/2020	19:01
Dibenz (a,h) anthracene	< 262	ug/Kg	10/14/2020	19:01
Dibenzofuran	< 262	ug/Kg	10/14/2020	19:01
Diethyl phthalate	< 262	ug/Kg	10/14/2020	19:01
Dimethyl phthalate	< 262	ug/Kg	10/14/2020	19:01
Di-n-butyl phthalate	< 262	ug/Kg	10/14/2020	19:01
Di-n-octylphthalate	< 262	ug/Kg	10/14/2020	19:01
Fluoranthene	< 262	ug/Kg	10/14/2020	19:01
Fluorene	< 262	ug/Kg	10/14/2020	19:01
Hexachlorobenzene	< 262	ug/Kg	10/14/2020	19:01
Hexachlorobutadiene	< 262	ug/Kg	10/14/2020	19:01
Hexachlorocyclopentadiene	< 1050	ug/Kg	10/14/2020	19:01
Hexachloroethane	< 262	ug/Kg	10/14/2020	19:01
Indeno (1,2,3-cd) pyrene	< 262	ug/Kg	10/14/2020	19:01
Isophorone	< 262	ug/Kg	10/14/2020	19:01
Naphthalene	< 262	ug/Kg	10/14/2020	19:01
Nitrobenzene	< 262	ug/Kg	10/14/2020	19:01
N-Nitroso-di-n-propylamine	< 262	ug/Kg	10/14/2020	19:01

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

N-Nitrosodiphenylamine	< 262	ug/Kg		10/14/2020 19:01
Pentachlorophenol	< 524	ug/Kg		10/14/2020 19:01
Phenanthrene	< 262	ug/Kg		10/14/2020 19:01
Phenol	< 262	ug/Kg		10/14/2020 19:01
Pyrene	< 262	ug/Kg		10/14/2020 19:01

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**0.00**	40.1 - 84.5	*	10/14/2020 19:01
2-Fluorobiphenyl	**67.6**	43.3 - 79.9		10/14/2020 19:01
2-Fluorophenol	**0.00**	42.4 - 75.9	*	10/14/2020 19:01
Nitrobenzene-d5	**63.9**	39.8 - 77.5		10/14/2020 19:01
Phenol-d5	**31.3**	43 - 78.8	*	10/14/2020 19:01
Terphenyl-d14	**68.6**	43.1 - 87.7		10/14/2020 19:01

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50029.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 9.43	ug/Kg		10/15/2020 20:39
1,1,2,2-Tetrachloroethane	< 9.43	ug/Kg		10/15/2020 20:39
1,1,2-Trichloroethane	< 9.43	ug/Kg		10/15/2020 20:39
1,1-Dichloroethane	< 9.43	ug/Kg		10/15/2020 20:39
1,1-Dichloroethene	< 9.43	ug/Kg		10/15/2020 20:39
1,2,3-Trichlorobenzene	< 23.6	ug/Kg		10/15/2020 20:39
1,2,4-Trichlorobenzene	< 23.6	ug/Kg		10/15/2020 20:39
1,2-Dibromo-3-Chloropropane	< 47.2	ug/Kg		10/15/2020 20:39
1,2-Dibromoethane	< 9.43	ug/Kg		10/15/2020 20:39
1,2-Dichlorobenzene	< 9.43	ug/Kg		10/15/2020 20:39
1,2-Dichloroethane	< 9.43	ug/Kg		10/15/2020 20:39
1,2-Dichloropropane	< 9.43	ug/Kg		10/15/2020 20:39
1,3-Dichlorobenzene	< 9.43	ug/Kg		10/15/2020 20:39

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

1,4-Dichlorobenzene	< 9.43	ug/Kg	10/15/2020 20:39
1,4-Dioxane	< 94.3	ug/Kg	10/15/2020 20:39
2-Butanone	< 47.2	ug/Kg	10/15/2020 20:39
2-Hexanone	< 23.6	ug/Kg	10/15/2020 20:39
4-Methyl-2-pentanone	< 23.6	ug/Kg	10/15/2020 20:39
Acetone	< 47.2	ug/Kg	10/15/2020 20:39
Benzene	< 9.43	ug/Kg	10/15/2020 20:39
Bromochloromethane	< 23.6	ug/Kg	10/15/2020 20:39
Bromodichloromethane	< 9.43	ug/Kg	10/15/2020 20:39
Bromoform	< 23.6	ug/Kg	10/15/2020 20:39
Bromomethane	< 9.43	ug/Kg	10/15/2020 20:39
Carbon disulfide	< 9.43	ug/Kg	10/15/2020 20:39
Carbon Tetrachloride	< 9.43	ug/Kg	10/15/2020 20:39
Chlorobenzene	< 9.43	ug/Kg	10/15/2020 20:39
Chloroethane	< 9.43	ug/Kg	10/15/2020 20:39
Chloroform	< 9.43	ug/Kg	10/15/2020 20:39
Chloromethane	< 9.43	ug/Kg	10/15/2020 20:39
cis-1,2-Dichloroethene	< 9.43	ug/Kg	10/15/2020 20:39
cis-1,3-Dichloropropene	< 9.43	ug/Kg	10/15/2020 20:39
Cyclohexane	< 47.2	ug/Kg	10/15/2020 20:39
Dibromochloromethane	< 9.43	ug/Kg	10/15/2020 20:39
Dichlorodifluoromethane	< 9.43	ug/Kg	10/15/2020 20:39
Ethylbenzene	< 9.43	ug/Kg	10/15/2020 20:39
Freon 113	< 9.43	ug/Kg	10/15/2020 20:39
Isopropylbenzene	< 9.43	ug/Kg	10/15/2020 20:39
m,p-Xylene	< 9.43	ug/Kg	10/15/2020 20:39
Methyl acetate	< 9.43	ug/Kg	10/15/2020 20:39
Methyl tert-butyl Ether	< 9.43	ug/Kg	10/15/2020 20:39
Methylcyclohexane	< 9.43	ug/Kg	10/15/2020 20:39
Methylene chloride	< 23.6	ug/Kg	10/15/2020 20:39

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

o-Xylene	< 9.43	ug/Kg	10/15/2020	20:39
Styrene	< 23.6	ug/Kg	10/15/2020	20:39
Tetrachloroethene	< 9.43	ug/Kg	10/15/2020	20:39
Toluene	< 9.43	ug/Kg	10/15/2020	20:39
trans-1,2-Dichloroethene	< 9.43	ug/Kg	10/15/2020	20:39
trans-1,3-Dichloropropene	< 9.43	ug/Kg	10/15/2020	20:39
Trichloroethene	< 9.43	ug/Kg	10/15/2020	20:39
Trichlorofluoromethane	< 9.43	ug/Kg	10/15/2020	20:39
Vinyl chloride	< 9.43	ug/Kg	10/15/2020	20:39

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**119**	61 - 146		10/15/2020	20:39
4-Bromofluorobenzene	**69.2**	48.8 - 138		10/15/2020	20:39
Pentafluorobenzene	**98.5**	65.4 - 141		10/15/2020	20:39
Toluene-D8	**80.6**	62.8 - 133		10/15/2020	20:39

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74051.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/15/2020 03:19
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/15/2020 03:19
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/15/2020 03:19
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/15/2020 03:19
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		10/15/2020 03:19
Hexachlorobenzene	< 40.0	ug/L	130		10/15/2020 03:19
Hexachlorobutadiene	< 40.0	ug/L	500		10/15/2020 03:19
Hexachloroethane	< 40.0	ug/L	3000		10/15/2020 03:19
Nitrobenzene	< 40.0	ug/L	2000		10/15/2020 03:19
Pentachlorophenol	< 80.0	ug/L	100000		10/15/2020 03:19
Pyridine	< 40.0	ug/L	5000		10/15/2020 03:19

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**87.7**	54.2 - 113		10/15/2020 03:19
2-Fluorobiphenyl	**75.2**	34.3 - 96.3		10/15/2020 03:19
2-Fluorophenol	**78.7**	13.3 - 103		10/15/2020 03:19
Nitrobenzene-d5	**86.2**	50.5 - 103		10/15/2020 03:19
Phenol-d5	**71.8**	10 - 107		10/15/2020 03:19
Terphenyl-d14	**84.5**	53 - 108		10/15/2020 03:19

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/14/2020
Data File: B50046.D

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		10/14/2020 18:07
Endrin	< 1.00	ug/L	20		10/14/2020 18:07
gamma-BHC (Lindane)	< 1.00	ug/L	400		10/14/2020 18:07
Heptachlor	< 1.00	ug/L	8		10/14/2020 18:07

Sample Identifier: MP-BSW-10072020
Lab Sample ID: 204873-05A **Date Sampled:** 10/7/2020
Matrix: TCLP Extract **Date Received:** 10/12/2020

Heptachlor Epoxide	< 2.00	ug/L	8		10/14/2020 18:07
Methoxychlor	< 1.00	ug/L	10000		10/14/2020 18:07
Toxaphene	< 20.0	ug/L	500		10/14/2020 18:07

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**148**	10 - 165		10/14/2020 18:07
Tetrachloro-m-xylene (1)	**85.6**	22.1 - 126		10/14/2020 18:07

Method Reference(s): EPA 8081B
EPA 1311 / 3510C
Preparation Date: 10/14/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/16/2020 08:43
Barium	< 0.500	mg/L	100		10/16/2020 08:43
Cadmium	< 0.0250	mg/L	1		10/16/2020 08:43
Chromium	< 0.500	mg/L	5		10/16/2020 08:43
Lead	< 0.500	mg/L	5		10/16/2020 08:43
Selenium	< 0.200	mg/L	1		10/16/2020 08:43
Silver	< 0.500	mg/L	5		10/16/2020 08:43

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/14/2020
Data File: 201016A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/16/2020 18:12
1,2-Dichloroethane	< 20.0	ug/L	500		10/16/2020 18:12
2-Butanone	< 100	ug/L	200000		10/16/2020 18:12
Benzene	< 20.0	ug/L	500		10/16/2020 18:12
Carbon Tetrachloride	< 20.0	ug/L	500		10/16/2020 18:12
Chlorobenzene	< 20.0	ug/L	100000		10/16/2020 18:12
Chloroform	< 20.0	ug/L	6000		10/16/2020 18:12

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-BSW-10072020		
Lab Sample ID:	204873-05A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Tetrachloroethene	< 20.0	ug/L	700		10/16/2020 18:12
Trichloroethene	< 20.0	ug/L	500		10/16/2020 18:12
Vinyl chloride	< 20.0	ug/L	200		10/16/2020 18:12

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**96.6**	59.4 - 149		10/16/2020 18:12
4-Bromofluorobenzene	**73.9**	49 - 138		10/16/2020 18:12
Pentafluorobenzene	**98.8**	90.1 - 115		10/16/2020 18:12
Toluene-D8	**85.7**	77.3 - 118		10/16/2020 18:12

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74092.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Corrosivity as pH

Analyte	Result	Units	Qualifier	Date Analyzed
Corrosivity (as pH)	12.15 @ 22.1 C	S.U.		10/19/2020 12:06

Method Reference(s): EPA 9045D

Ignitability

Analyte	Result	Units	Qualifier	Date Analyzed
Ignitability	No Burn	mm / sec		10/20/2020

Method Reference(s): EPA 1030

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed
Aluminum	**9280**	mg/Kg		10/16/2020 16:24
Antimony	< 2.97	mg/Kg		10/14/2020 19:09
Arsenic	**5.86**	mg/Kg		10/14/2020 19:09
Barium	**56.9**	mg/Kg		10/14/2020 19:09
Beryllium	< 0.248	mg/Kg		10/14/2020 19:09
Cadmium	**1.15**	mg/Kg		10/14/2020 19:09
Calcium	**173000**	mg/Kg		10/16/2020 15:52
Chromium	**20.9**	mg/Kg		10/14/2020 19:09
Cobalt	**4.04**	mg/Kg		10/14/2020 19:09
Copper	**16.5**	mg/Kg		10/14/2020 19:09
Iron	**11300**	mg/Kg		10/16/2020 16:24
Lead	**38.7**	mg/Kg		10/14/2020 19:09
Magnesium	**17100**	mg/Kg		10/14/2020 19:09
Manganese	**330**	mg/Kg		10/16/2020 16:24
Nickel	**10.1**	mg/Kg		10/14/2020 19:09
Potassium	**1150**	mg/Kg		10/14/2020 19:09
Selenium	< 2.97	mg/Kg		10/16/2020 16:24
Silver	< 0.495	mg/Kg		10/14/2020 19:09

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Sodium	**331**	mg/Kg		10/14/2020 19:09
Thallium	< 2.48	mg/Kg		10/16/2020 16:29
Vanadium	**18.6**	mg/Kg		10/14/2020 19:09
Zinc	**445**	mg/Kg		10/16/2020 16:24

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 201016B

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1221	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1232	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1242	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1248	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1254	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1260	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1262	< 0.0275	mg/Kg		10/14/2020 19:15
PCB-1268	< 0.0275	mg/Kg		10/14/2020 19:15

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**81.8**	15.1 - 91		10/14/2020 19:15

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.75	ug/Kg		10/13/2020 19:38
4,4-DDE	< 2.75	ug/Kg		10/13/2020 19:38
4,4-DDT	< 2.75	ug/Kg		10/13/2020 19:38
Aldrin	< 2.75	ug/Kg		10/13/2020 19:38
alpha-BHC	< 2.75	ug/Kg		10/13/2020 19:38

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

beta-BHC	< 2.75	ug/Kg		10/13/2020 19:38
cis-Chlordane	< 2.75	ug/Kg		10/13/2020 19:38
delta-BHC	< 2.75	ug/Kg		10/13/2020 19:38
Dieldrin	< 2.75	ug/Kg		10/13/2020 19:38
Endosulfan I	< 2.75	ug/Kg		10/13/2020 19:38
Endosulfan II	< 2.75	ug/Kg		10/13/2020 19:38
Endosulfan Sulfate	< 2.75	ug/Kg		10/13/2020 19:38
Endrin	< 2.75	ug/Kg		10/13/2020 19:38
Endrin Aldehyde	< 2.75	ug/Kg		10/13/2020 19:38
Endrin Ketone	< 2.75	ug/Kg		10/13/2020 19:38
gamma-BHC (Lindane)	< 2.75	ug/Kg		10/13/2020 19:38
Heptachlor	< 2.75	ug/Kg		10/13/2020 19:38
Heptachlor Epoxide	< 2.75	ug/Kg		10/13/2020 19:38
Methoxychlor	< 2.75	ug/Kg		10/13/2020 19:38
Toxaphene	< 27.5	ug/Kg		10/13/2020 19:38
trans-Chlordane	< 2.75	ug/Kg		10/13/2020 19:38

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**64.3**	16.8 - 119		10/13/2020 19:38
Tetrachloro-m-xylene (1)	**69.0**	20.8 - 112		10/13/2020 19:38

Method Reference(s): EPA 8081B
EPA 3546

Preparation Date: 10/13/2020

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 275	ug/Kg		10/14/2020 19:30
1,2,4,5-Tetrachlorobenzene	< 275	ug/Kg		10/14/2020 19:30
1,2,4-Trichlorobenzene	< 275	ug/Kg		10/14/2020 19:30
1,2-Dichlorobenzene	< 275	ug/Kg		10/14/2020 19:30
1,3-Dichlorobenzene	< 275	ug/Kg		10/14/2020 19:30
1,4-Dichlorobenzene	< 275	ug/Kg		10/14/2020 19:30

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

2,2-Oxybis (1-chloropropane)	< 275	ug/Kg	10/14/2020	19:30
2,3,4,6-Tetrachlorophenol	< 275	ug/Kg	10/14/2020	19:30
2,4,5-Trichlorophenol	< 275	ug/Kg	10/14/2020	19:30
2,4,6-Trichlorophenol	< 275	ug/Kg	10/14/2020	19:30
2,4-Dichlorophenol	< 275	ug/Kg	10/14/2020	19:30
2,4-Dimethylphenol	< 275	ug/Kg	10/14/2020	19:30
2,4-Dinitrophenol	< 1100	ug/Kg	10/14/2020	19:30
2,4-Dinitrotoluene	< 275	ug/Kg	10/14/2020	19:30
2,6-Dinitrotoluene	< 275	ug/Kg	10/14/2020	19:30
2-Chloronaphthalene	< 275	ug/Kg	10/14/2020	19:30
2-Chlorophenol	< 275	ug/Kg	10/14/2020	19:30
2-Methylnapthalene	< 275	ug/Kg	10/14/2020	19:30
2-Methylphenol	< 275	ug/Kg	10/14/2020	19:30
2-Nitroaniline	< 275	ug/Kg	10/14/2020	19:30
2-Nitrophenol	< 275	ug/Kg	10/14/2020	19:30
3&4-Methylphenol	< 275	ug/Kg	10/14/2020	19:30
3,3'-Dichlorobenzidine	< 275	ug/Kg	10/14/2020	19:30
3-Nitroaniline	< 275	ug/Kg	10/14/2020	19:30
4,6-Dinitro-2-methylphenol	< 368	ug/Kg	10/14/2020	19:30
4-Bromophenyl phenyl ether	< 275	ug/Kg	10/14/2020	19:30
4-Chloro-3-methylphenol	< 275	ug/Kg	10/14/2020	19:30
4-Chloroaniline	< 275	ug/Kg	10/14/2020	19:30
4-Chlorophenyl phenyl ether	< 275	ug/Kg	10/14/2020	19:30
4-Nitroaniline	< 275	ug/Kg	10/14/2020	19:30
4-Nitrophenol	< 275	ug/Kg	10/14/2020	19:30
Acenaphthene	< 275	ug/Kg	10/14/2020	19:30
Acenaphthylene	< 275	ug/Kg	10/14/2020	19:30
Acetophenone	< 275	ug/Kg	10/14/2020	19:30
Anthracene	< 275	ug/Kg	10/14/2020	19:30
Atrazine	< 275	ug/Kg	10/14/2020	19:30

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

Benzaldehyde	< 275	ug/Kg	10/14/2020	19:30
Benzo (a) anthracene	< 275	ug/Kg	10/14/2020	19:30
Benzo (a) pyrene	< 275	ug/Kg	10/14/2020	19:30
Benzo (b) fluoranthene	< 275	ug/Kg	10/14/2020	19:30
Benzo (g,h,i) perylene	< 275	ug/Kg	10/14/2020	19:30
Benzo (k) fluoranthene	< 275	ug/Kg	10/14/2020	19:30
Bis (2-chloroethoxy) methane	< 275	ug/Kg	10/14/2020	19:30
Bis (2-chloroethyl) ether	< 275	ug/Kg	10/14/2020	19:30
Bis (2-ethylhexyl) phthalate	< 275	ug/Kg	10/14/2020	19:30
Butylbenzylphthalate	< 275	ug/Kg	10/14/2020	19:30
Caprolactam	< 275	ug/Kg	10/14/2020	19:30
Carbazole	< 275	ug/Kg	10/14/2020	19:30
Chrysene	< 275	ug/Kg	10/14/2020	19:30
Dibenz (a,h) anthracene	< 275	ug/Kg	10/14/2020	19:30
Dibenzofuran	< 275	ug/Kg	10/14/2020	19:30
Diethyl phthalate	< 275	ug/Kg	10/14/2020	19:30
Dimethyl phthalate	< 275	ug/Kg	10/14/2020	19:30
Di-n-butyl phthalate	< 275	ug/Kg	10/14/2020	19:30
Di-n-octylphthalate	< 275	ug/Kg	10/14/2020	19:30
Fluoranthene	< 275	ug/Kg	10/14/2020	19:30
Fluorene	< 275	ug/Kg	10/14/2020	19:30
Hexachlorobenzene	< 275	ug/Kg	10/14/2020	19:30
Hexachlorobutadiene	< 275	ug/Kg	10/14/2020	19:30
Hexachlorocyclopentadiene	< 1100	ug/Kg	10/14/2020	19:30
Hexachloroethane	< 275	ug/Kg	10/14/2020	19:30
Indeno (1,2,3-cd) pyrene	< 275	ug/Kg	10/14/2020	19:30
Isophorone	< 275	ug/Kg	10/14/2020	19:30
Naphthalene	< 275	ug/Kg	10/14/2020	19:30
Nitrobenzene	< 275	ug/Kg	10/14/2020	19:30
N-Nitroso-di-n-propylamine	< 275	ug/Kg	10/14/2020	19:30

Sample Identifier: MP-NSWL-10072020
Lab Sample ID: 204873-06 **Date Sampled:** 10/7/2020
Matrix: Solid **Date Received:** 10/12/2020

N-Nitrosodiphenylamine	< 275	ug/Kg		10/14/2020 19:30
Pentachlorophenol	< 549	ug/Kg		10/14/2020 19:30
Phenanthrene	< 275	ug/Kg		10/14/2020 19:30
Phenol	< 275	ug/Kg		10/14/2020 19:30
Pyrene	< 275	ug/Kg		10/14/2020 19:30

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**4.05**	40.1 - 84.5	*	10/14/2020 19:30
2-Fluorobiphenyl	**65.5**	43.3 - 79.9		10/14/2020 19:30
2-Fluorophenol	**0.00**	42.4 - 75.9	*	10/14/2020 19:30
Nitrobenzene-d5	**60.1**	39.8 - 77.5		10/14/2020 19:30
Phenol-d5	**19.8**	43 - 78.8	*	10/14/2020 19:30
Terphenyl-d14	**66.5**	43.1 - 87.7		10/14/2020 19:30

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50030.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 9.09	ug/Kg		10/16/2020 15:57
1,1,2,2-Tetrachloroethane	< 9.09	ug/Kg		10/16/2020 15:57
1,1,2-Trichloroethane	< 9.09	ug/Kg		10/16/2020 15:57
1,1-Dichloroethane	< 9.09	ug/Kg		10/16/2020 15:57
1,1-Dichloroethene	< 9.09	ug/Kg		10/16/2020 15:57
1,2,3-Trichlorobenzene	< 22.7	ug/Kg		10/16/2020 15:57
1,2,4-Trichlorobenzene	< 22.7	ug/Kg		10/16/2020 15:57
1,2-Dibromo-3-Chloropropane	< 45.5	ug/Kg		10/16/2020 15:57
1,2-Dibromoethane	< 9.09	ug/Kg		10/16/2020 15:57
1,2-Dichlorobenzene	< 9.09	ug/Kg		10/16/2020 15:57
1,2-Dichloroethane	< 9.09	ug/Kg		10/16/2020 15:57
1,2-Dichloropropane	< 9.09	ug/Kg		10/16/2020 15:57
1,3-Dichlorobenzene	< 9.09	ug/Kg		10/16/2020 15:57

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

1,4-Dichlorobenzene	< 9.09	ug/Kg	10/16/2020	15:57
1,4-Dioxane	< 90.9	ug/Kg	10/16/2020	15:57
2-Butanone	< 45.5	ug/Kg	10/16/2020	15:57
2-Hexanone	< 22.7	ug/Kg	10/16/2020	15:57
4-Methyl-2-pentanone	< 22.7	ug/Kg	10/16/2020	15:57
Acetone	< 45.5	ug/Kg	10/16/2020	15:57
Benzene	< 9.09	ug/Kg	10/16/2020	15:57
Bromochloromethane	< 22.7	ug/Kg	10/16/2020	15:57
Bromodichloromethane	< 9.09	ug/Kg	10/16/2020	15:57
Bromoform	< 22.7	ug/Kg	10/16/2020	15:57
Bromomethane	< 9.09	ug/Kg	10/16/2020	15:57
Carbon disulfide	< 9.09	ug/Kg	10/16/2020	15:57
Carbon Tetrachloride	< 9.09	ug/Kg	10/16/2020	15:57
Chlorobenzene	< 9.09	ug/Kg	10/16/2020	15:57
Chloroethane	< 9.09	ug/Kg	10/16/2020	15:57
Chloroform	< 9.09	ug/Kg	10/16/2020	15:57
Chloromethane	< 9.09	ug/Kg	10/16/2020	15:57
cis-1,2-Dichloroethene	< 9.09	ug/Kg	10/16/2020	15:57
cis-1,3-Dichloropropene	< 9.09	ug/Kg	10/16/2020	15:57
Cyclohexane	< 45.5	ug/Kg	10/16/2020	15:57
Dibromochloromethane	< 9.09	ug/Kg	10/16/2020	15:57
Dichlorodifluoromethane	< 9.09	ug/Kg	10/16/2020	15:57
Ethylbenzene	< 9.09	ug/Kg	10/16/2020	15:57
Freon 113	< 9.09	ug/Kg	10/16/2020	15:57
Isopropylbenzene	< 9.09	ug/Kg	10/16/2020	15:57
m,p-Xylene	< 9.09	ug/Kg	10/16/2020	15:57
Methyl acetate	< 9.09	ug/Kg	10/16/2020	15:57
Methyl tert-butyl Ether	< 9.09	ug/Kg	10/16/2020	15:57
Methylcyclohexane	< 9.09	ug/Kg	10/16/2020	15:57
Methylene chloride	< 22.7	ug/Kg	10/16/2020	15:57

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06	**Date Sampled:**	10/7/2020
Matrix:	Solid	**Date Received:**	10/12/2020

o-Xylene	< 9.09	ug/Kg			10/16/2020 15:57
Styrene	< 22.7	ug/Kg			10/16/2020 15:57
Tetrachloroethene	< 9.09	ug/Kg			10/16/2020 15:57
Toluene	< 9.09	ug/Kg			10/16/2020 15:57
trans-1,2-Dichloroethene	< 9.09	ug/Kg			10/16/2020 15:57
trans-1,3-Dichloropropene	< 9.09	ug/Kg			10/16/2020 15:57
Trichloroethene	< 9.09	ug/Kg			10/16/2020 15:57
Trichlorofluoromethane	< 9.09	ug/Kg			10/16/2020 15:57
Vinyl chloride	< 9.09	ug/Kg			10/16/2020 15:57

Surrogate	**Percent Recovery**	**Limits**	**Outliers**	**Date Analyzed**
1,2-Dichloroethane-d4	**84.9**	61 - 146		10/16/2020 15:57
4-Bromofluorobenzene	**77.7**	48.8 - 138		10/16/2020 15:57
Pentafluorobenzene	**102**	65.4 - 141		10/16/2020 15:57
Toluene-D8	**93.8**	62.8 - 133		10/16/2020 15:57

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74086.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		10/15/2020 03:49
2,4,5-Trichlorophenol	< 40.0	ug/L	400000		10/15/2020 03:49
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		10/15/2020 03:49
2,4-Dinitrotoluene	< 40.0	ug/L	130		10/15/2020 03:49
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		10/15/2020 03:49
Hexachlorobenzene	< 40.0	ug/L	130		10/15/2020 03:49
Hexachlorobutadiene	< 40.0	ug/L	500		10/15/2020 03:49
Hexachloroethane	< 40.0	ug/L	3000		10/15/2020 03:49
Nitrobenzene	< 40.0	ug/L	2000		10/15/2020 03:49
Pentachlorophenol	< 80.0	ug/L	100000		10/15/2020 03:49
Pyridine	< 40.0	ug/L	5000		10/15/2020 03:49

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**86.1**	54.2 - 113		10/15/2020 03:49
2-Fluorobiphenyl	**73.7**	34.3 - 96.3		10/15/2020 03:49
2-Fluorophenol	**73.6**	13.3 - 103		10/15/2020 03:49
Nitrobenzene-d5	**89.9**	50.5 - 103		10/15/2020 03:49
Phenol-d5	**66.3**	10 - 107		10/15/2020 03:49
Terphenyl-d14	**83.3**	53 - 108		10/15/2020 03:49

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 10/14/2020
Data File: B50047.D

TCLP Pesticides

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Chlordane	< 2.00	ug/L	30		10/14/2020 18:26
Endrin	< 1.00	ug/L	20		10/14/2020 18:26
gamma-BHC (Lindane)	< 1.00	ug/L	400		10/14/2020 18:26
Heptachlor	< 1.00	ug/L	8		10/14/2020 18:26

Sample Identifier: MP-NSWL-10072020
Lab Sample ID: 204873-06A **Date Sampled:** 10/7/2020
Matrix: TCLP Extract **Date Received:** 10/12/2020

Heptachlor Epoxide	< 2.00	ug/L	8		10/14/2020 18:26
Methoxychlor	< 1.00	ug/L	10000		10/14/2020 18:26
Toxaphene	< 20.0	ug/L	500		10/14/2020 18:26

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**153**	10 - 165		10/14/2020 18:26
Tetrachloro-m-xylene (1)	**98.0**	22.1 - 126		10/14/2020 18:26

Method Reference(s): EPA 8081B
EPA 1311 / 3510C
Preparation Date: 10/14/2020

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		10/16/2020 08:48
Barium	< 0.500	mg/L	100		10/16/2020 08:48
Cadmium	< 0.0250	mg/L	1		10/16/2020 08:48
Chromium	< 0.500	mg/L	5		10/16/2020 08:48
Lead	< 0.500	mg/L	5		10/16/2020 08:48
Selenium	< 0.200	mg/L	1		10/16/2020 08:48
Silver	< 0.500	mg/L	5		10/16/2020 08:48

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 10/14/2020
Data File: 201016A

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		10/16/2020 18:35
1,2-Dichloroethane	< 20.0	ug/L	500		10/16/2020 18:35
2-Butanone	< 100	ug/L	200000		10/16/2020 18:35
Benzene	< 20.0	ug/L	500		10/16/2020 18:35
Carbon Tetrachloride	< 20.0	ug/L	500		10/16/2020 18:35
Chlorobenzene	< 20.0	ug/L	100000		10/16/2020 18:35
Chloroform	< 20.0	ug/L	6000		10/16/2020 18:35

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 204873

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Sample Identifier:	MP-NSWL-10072020		
Lab Sample ID:	204873-06A	**Date Sampled:**	10/7/2020
Matrix:	TCLP Extract	**Date Received:**	10/12/2020

Tetrachloroethene	< 20.0	ug/L	700		10/16/2020 18:35
Trichloroethene	< 20.0	ug/L	500		10/16/2020 18:35
Vinyl chloride	< 20.0	ug/L	200		10/16/2020 18:35

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**90.6**	59.4 - 149		10/16/2020 18:35
4-Bromofluorobenzene	**75.0**	49 - 138		10/16/2020 18:35
Pentafluorobenzene	**105**	90.1 - 115		10/16/2020 18:35
Toluene-D8	**88.1**	77.3 - 118		10/16/2020 18:35

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x74093.D

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ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

TAL Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Aluminum	<24.0	mg/Kg		10/14/2020	17:20
Antimony	<2.88	mg/Kg		10/14/2020	17:20
Arsenic	<0.481	mg/Kg		10/14/2020	17:20
Barium	<4.81	mg/Kg		10/14/2020	17:20
Beryllium	<0.240	mg/Kg		10/14/2020	17:20
Cadmium	<0.240	mg/Kg		10/14/2020	17:20
Calcium	<120	mg/Kg		10/14/2020	17:20
Chromium	<0.481	mg/Kg		10/15/2020	11:01
Cobalt	<2.40	mg/Kg		10/14/2020	17:20
Copper	<0.962	mg/Kg		10/14/2020	17:20
Iron	<9.62	mg/Kg		10/14/2020	17:20
Lead	<0.481	mg/Kg		10/14/2020	17:20
Magnesium	<120	mg/Kg		10/14/2020	17:20
Manganese	<0.721	mg/Kg		10/14/2020	17:20
Nickel	<1.92	mg/Kg		10/14/2020	17:20
Potassium	<120	mg/Kg		10/14/2020	17:20
Selenium	<0.962	mg/Kg		10/14/2020	17:20
Silver	<0.481	mg/Kg		10/14/2020	17:20
Sodium	<120	mg/Kg		10/14/2020	17:20
Thallium	<1.20	mg/Kg		10/14/2020	17:20
Vanadium	<1.20	mg/Kg		10/14/2020	17:20
Zinc	<2.88	mg/Kg		10/14/2020	17:20

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 201014B
QC Batch ID: QC201013Soil
QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Part 375 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	120	125	mg/Kg	115	119	95.4	95.5	80 - 120			0.175	20		10/14/2020
Antimony	120	125	mg/Kg	117	120	97.6	96.1	80 - 120			1.51	20		10/14/2020
Arsenic	120	125	mg/Kg	113	116	94.3	92.7	80 - 120			1.63	20		10/14/2020
Barium	120	125	mg/Kg	125	129	104	103	80 - 120			0.429	20		10/14/2020
Beryllium	24.0	25.0	mg/Kg	22.8	23.5	94.8	94.1	80 - 120			0.732	20		10/14/2020
Cadmium	48.1	50.0	mg/Kg	50.1	51.9	104	104	80 - 120			0.556	20		10/14/2020
Calcium	192	200	mg/Kg	193	200	101	100	80 - 120			0.304	20		10/14/2020
Chromium	120	125	mg/Kg	121	125	100	100	80 - 120			0.295	20		10/14/2020
Cobalt	48.1	50.0	mg/Kg	48.9	50.4	102	101	80 - 120			0.917	20		10/14/2020
Copper	120	125	mg/Kg	113	117	94.0	93.9	80 - 120			0.0184	20		10/14/2020
Iron	120	125	mg/Kg	116	121	96.5	96.9	80 - 120			0.379	20		10/14/2020
Lead	120	125	mg/Kg	120	123	99.5	98.4	80 - 120			1.07	20		10/14/2020
Magnesium	385	400	mg/Kg	387	400	101	100	80 - 120			0.639	20		10/14/2020
Manganese	48.1	50.0	mg/Kg	50.2	52.1	104	104	80 - 120			0.220	20		10/14/2020
Nickel	240	250	mg/Kg	238	245	98.8	98.2	80 - 120			0.690	20		10/14/2020
Potassium	2040	2120	mg/Kg	2010	2070	98.6	97.6	80 - 120			1.02	20		10/14/2020

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Report Prepared Monday, October 19, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Part 375 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	120	125	mg/Kg	105	107	87.6	85.7	80 - 120			2.20	20		10/14/2020
Silver	12.0	12.5	mg/Kg	11.2	11.6	93.5	92.6	80 - 120			0.958	20		10/14/2020
Sodium	577	600	mg/Kg	559	578	97.0	96.3	80 - 120			0.718	20		10/14/2020
Thallium	120	125	mg/Kg	119	123	99.0	98.1	80 - 120			0.846	20		10/14/2020
Vanadium	48.1	50.0	mg/Kg	49.2	50.8	102	102	80 - 120			0.600	20		10/14/2020
Zinc	120	125	mg/Kg	115	118	95.7	94.7	80 - 120			0.991	20		10/14/2020

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 10/13/2020
Data File: 201014B
QC Number: 1
QC Batch ID: QC201013Soil

Report Prepared Monday, October 19, 2020

PARADIGM

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ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1221	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1232	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1242	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1248	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1254	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1260	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1262	<0.0266	mg/Kg		10/14/2020 03:18
PCB-1268	<0.0266	mg/Kg		10/14/2020 03:18

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**73.8**	15.1 - 91		10/14/2020 03:18

Method Reference(s): EPA 8082A
EPA 3546

Preparation Date: 10/13/2020

Data File: PC099266.D

QC Batch ID: QC201013PCBS

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 204873
Matrix: Solid

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1221	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1232	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1242	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1248	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1254	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1260	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1262	<0.0256	mg/Kg		10/14/2020 12:10
PCB-1268	<0.0256	mg/Kg		10/14/2020 12:10

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**50.5**	15.1 - 91		10/14/2020 12:10

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020
Data File: EC037163.D
QC Batch ID: QC201013PCBS
QC Number: Blk 2

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

PCBs

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
PCB-1016/1260	0.137	mg/Kg	0.0791	57.6	10 - 88.1		10/14/2020

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020
Data File: PC099267.D
QC Number: LCS 1
QC Batch ID: QC201013PCBS

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Report Prepared Thursday, October 15, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

PCBs

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
PCB-1016/1260	0.136	mg/Kg	0.0658	48.4	10 - 88.1		10/14/2020

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 10/13/2020
Data File: EC037164.D
QC Number: LCS 2
QC Batch ID: QC201013PCBS

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Report Prepared Thursday, October 15, 2020

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: LaBella Associates, P.C.

Project Reference: E. Auburn, 2190583.175

Lab Project ID: 204843

Matrix: Soil

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed	
4,4-DDD	<2.66	ug/Kg		10/13/2020	15:35
4,4-DDE	<2.66	ug/Kg		10/13/2020	15:35
4,4-DDT	<2.66	ug/Kg		10/13/2020	15:35
Aldrin	<2.66	ug/Kg		10/13/2020	15:35
alpha-BHC	<2.66	ug/Kg		10/13/2020	15:35
beta-BHC	<2.66	ug/Kg		10/13/2020	15:35
cis-Chlordane	<2.66	ug/Kg		10/13/2020	15:35
delta-BHC	<2.66	ug/Kg		10/13/2020	15:35
Dieldrin	<2.66	ug/Kg		10/13/2020	15:35
Endosulfan I	<2.66	ug/Kg		10/13/2020	15:35
Endosulfan II	<2.66	ug/Kg		10/13/2020	15:35
Endosulfan Sulfate	<2.66	ug/Kg		10/13/2020	15:35
Endrin	<2.66	ug/Kg		10/13/2020	15:35
Endrin Aldehyde	<2.66	ug/Kg		10/13/2020	15:35
Endrin Ketone	<2.66	ug/Kg		10/13/2020	15:35
gamma-BHC (Lindane)	<2.66	ug/Kg		10/13/2020	15:35
Heptachlor	<2.66	ug/Kg		10/13/2020	15:35
Heptachlor Epoxide	<2.66	ug/Kg		10/13/2020	15:35
Methoxychlor	<2.66	ug/Kg		10/13/2020	15:35
Toxaphene	<26.6	ug/Kg		10/13/2020	15:35
trans-Chlordane	<2.66	ug/Kg		10/13/2020	15:35

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: LaBella Associates, P.C.

Project Reference: E. Auburn, 2190583.175

Lab Project ID: 204843

Matrix: Soil

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**86.6**	16.8 - 119		10/13/2020 15:35
Tetrachloro-m-xylene (1)	**70.1**	20.8 - 112		10/13/2020 15:35

Method Reference(s): EPA 8081B
EPA 3546

Preparation Date: 10/13/2020

QC Batch ID: QC201013PESTS

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: LaBella Associates, P.C.

Project Reference: E. Auburn, 2190583.175

Lab Project ID: 204843

Matrix: Soil

Chlorinated Pesticides

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
4,4-DDD (1)	13.8	ug/Kg	9.27	67.1	10 - 109		10/13/2020
4,4-DDE (1)	13.8	ug/Kg	11.2	81.3	10 - 106		10/13/2020
4,4-DDT (1)	13.8	ug/Kg	10.4	75.2	10 - 115		10/13/2020
Aldrin (1)	13.8	ug/Kg	10.2	73.8	11.1 - 106		10/13/2020
alpha-BHC (1)	13.8	ug/Kg	9.82	71.1	10.7 - 102		10/13/2020
beta-BHC (1)	13.8	ug/Kg	9.96	72.1	10 - 108		10/13/2020
cis-Chlordane (1)	13.8	ug/Kg	10.8	78.3	10 - 110		10/13/2020
delta-BHC (1)	13.8	ug/Kg	8.59	62.2	10 - 109		10/13/2020
Dieldrin (1)	13.8	ug/Kg	10.7	77.2	10 - 105		10/13/2020
Endosulfan I (1)	13.8	ug/Kg	8.14	59.0	11.4 - 97.3		10/13/2020
Endosulfan II (1)	13.8	ug/Kg	10.5	76.0	10 - 106		10/13/2020
Endosulfan Sulfate (1)	13.8	ug/Kg	10.7	77.1	10 - 112		10/13/2020
Endrin (1)	13.8	ug/Kg	9.00	65.2	10 - 94.3		10/13/2020
Endrin Aldehyde (1)	13.8	ug/Kg	10.7	77.8	10 - 111		10/13/2020
Endrin Ketone (1)	13.8	ug/Kg	12.4	89.9	10 - 132		10/13/2020
gamma-BHC (Lindane) (1)	13.8	ug/Kg	8.96	64.8	11 - 101		10/13/2020

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Report Prepared Wednesday, October 14, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: LaBella Associates, P.C.

Project Reference: E. Auburn, 2190583.175

Lab Project ID: 204843

Matrix: Soil

Chlorinated Pesticides

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Heptachlor (1)	13.8	ug/Kg	10.1	73.3	13 - 107		10/13/2020
Heptachlor Epoxide (1)	13.8	ug/Kg	12.3	89.2	12.4 - 105		10/13/2020
Methoxychlor (1)	13.8	ug/Kg	11.3	81.8	10 - 121		10/13/2020
trans-Chlordane (1)	13.8	ug/Kg	10.7	77.7	10.6 - 101		10/13/2020

Method Reference(s): EPA 8081B
EPA 3546
Preparation Date: 10/13/2020
Data File: ST032820.D
QC Number: LCS 1
QC Batch ID: QC201013PESTS

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Report Prepared Wednesday, October 14, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Biphenyl	<270	ug/Kg		10/14/2020	11:35
1,2,4,5-Tetrachlorobenzene	<270	ug/Kg		10/14/2020	11:35
1,2,4-Trichlorobenzene	<270	ug/Kg		10/14/2020	11:35
1,2-Dichlorobenzene	<270	ug/Kg		10/14/2020	11:35
1,3-Dichlorobenzene	<270	ug/Kg		10/14/2020	11:35
1,4-Dichlorobenzene	<270	ug/Kg		10/14/2020	11:35
2,2-Oxybis (1-chloropropane)	<270	ug/Kg		10/14/2020	11:35
2,3,4,6-Tetrachlorophenol	<270	ug/Kg		10/14/2020	11:35
2,4,5-Trichlorophenol	<270	ug/Kg		10/14/2020	11:35
2,4,6-Trichlorophenol	<270	ug/Kg		10/14/2020	11:35
2,4-Dichlorophenol	<270	ug/Kg		10/14/2020	11:35
2,4-Dimethylphenol	<270	ug/Kg		10/14/2020	11:35
2,4-Dinitrophenol	<1080	ug/Kg		10/14/2020	11:35
2,4-Dinitrotoluene	<270	ug/Kg		10/14/2020	11:35
2,6-Dinitrotoluene	<270	ug/Kg		10/14/2020	11:35
2-Chloronaphthalene	<270	ug/Kg		10/14/2020	11:35
2-Chlorophenol	<270	ug/Kg		10/14/2020	11:35
2-Methylnapthalene	<270	ug/Kg		10/14/2020	11:35
2-Methylphenol	<270	ug/Kg		10/14/2020	11:35
2-Nitroaniline	<270	ug/Kg		10/14/2020	11:35
2-Nitrophenol	<270	ug/Kg		10/14/2020	11:35
3&4-Methylphenol	<270	ug/Kg		10/14/2020	11:35
3,3'-Dichlorobenzidine	<270	ug/Kg		10/14/2020	11:35
3-Nitroaniline	<270	ug/Kg		10/14/2020	11:35
4,6-Dinitro-2-methylphenol	<541	ug/Kg		10/14/2020	11:35
4-Bromophenyl phenyl ether	<270	ug/Kg		10/14/2020	11:35
4-Chloro-3-methylphenol	<270	ug/Kg		10/14/2020	11:35
4-Chloroaniline	<270	ug/Kg		10/14/2020	11:35

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
4-Chlorophenyl phenyl ether	<270	ug/Kg		10/14/2020	11:35
4-Nitroaniline	<270	ug/Kg		10/14/2020	11:35
4-Nitrophenol	<270	ug/Kg		10/14/2020	11:35
Acenaphthene	<270	ug/Kg		10/14/2020	11:35
Acenaphthylene	<270	ug/Kg		10/14/2020	11:35
Acetophenone	<270	ug/Kg		10/14/2020	11:35
Anthracene	<270	ug/Kg		10/14/2020	11:35
Atrazine	<270	ug/Kg		10/14/2020	11:35
Benzaldehyde	<270	ug/Kg		10/14/2020	11:35
Benzo (a) anthracene	<270	ug/Kg		10/14/2020	11:35
Benzo (a) pyrene	<270	ug/Kg		10/14/2020	11:35
Benzo (b) fluoranthene	<270	ug/Kg		10/14/2020	11:35
Benzo (g,h,i) perylene	<270	ug/Kg		10/14/2020	11:35
Benzo (k) fluoranthene	<270	ug/Kg		10/14/2020	11:35
Bis (2-chloroethoxy) methane	<270	ug/Kg		10/14/2020	11:35
Bis (2-chloroethyl) ether	<270	ug/Kg		10/14/2020	11:35
Bis (2-ethylhexyl) phthalate	<270	ug/Kg		10/14/2020	11:35
Butylbenzylphthalate	<270	ug/Kg		10/14/2020	11:35
Caprolactam	<270	ug/Kg		10/14/2020	11:35
Carbazole	<270	ug/Kg		10/14/2020	11:35
Chrysene	<270	ug/Kg		10/14/2020	11:35
Dibenz (a,h) anthracene	<270	ug/Kg		10/14/2020	11:35
Dibenzofuran	<270	ug/Kg		10/14/2020	11:35
Diethyl phthalate	<270	ug/Kg		10/14/2020	11:35
Dimethyl phthalate	<270	ug/Kg		10/14/2020	11:35
Di-n-butyl phthalate	<270	ug/Kg		10/14/2020	11:35
Di-n-octylphthalate	<270	ug/Kg		10/14/2020	11:35
Fluoranthene	<270	ug/Kg		10/14/2020	11:35

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PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed	
Fluorene	<270	ug/Kg		10/14/2020	11:35
Hexachlorobenzene	<270	ug/Kg		10/14/2020	11:35
Hexachlorobutadiene	<270	ug/Kg		10/14/2020	11:35
Hexachlorocyclopentadiene	<1080	ug/Kg		10/14/2020	11:35
Hexachloroethane	<270	ug/Kg		10/14/2020	11:35
Indeno (1,2,3-cd) pyrene	<270	ug/Kg		10/14/2020	11:35
Isophorone	<270	ug/Kg		10/14/2020	11:35
Naphthalene	<270	ug/Kg		10/14/2020	11:35
Nitrobenzene	<270	ug/Kg		10/14/2020	11:35
N-Nitroso-di-n-propylamine	<270	ug/Kg		10/14/2020	11:35
N-Nitrosodiphenylamine	<270	ug/Kg		10/14/2020	11:35
Pentachlorophenol	<541	ug/Kg		10/14/2020	11:35
Phenanthrene	<270	ug/Kg		10/14/2020	11:35
Phenol	<270	ug/Kg		10/14/2020	11:35
Pyrene	<270	ug/Kg		10/14/2020	11:35

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**57.0**	40.1 - 84.5		10/14/2020	11:35
2-Fluorobiphenyl	**59.4**	43.3 - 79.9		10/14/2020	11:35
2-Fluorophenol	**63.0**	42.4 - 75.9		10/14/2020	11:35
Nitrobenzene-d5	**65.6**	39.8 - 77.5		10/14/2020	11:35
Phenol-d5	**62.7**	43 - 78.8		10/14/2020	11:35
Terphenyl-d14	**63.1**	43.1 - 87.7		10/14/2020	11:35

Method Reference(s): EPA 8270D
EPA 3546
Preparation Date: 10/13/2020
Data File: B50014.D
QC Batch ID: QC201013ABNS
QC Number: 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Semi-Volatile Organics (Acid/Base Neutrals)

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
1,2,4-Trichlorobenzene	2810	2790	ug/Kg	1740	1740	61.8	62.4	47.4 - 72.6			1.02	21.8		10/16/2020
1,4-Dichlorobenzene	2810	2790	ug/Kg	1720	1740	61.1	62.2	45 - 67.6			1.70	22.1		10/16/2020
2,4-Dinitrotoluene	2810	2790	ug/Kg	1740	1730	62.1	61.9	46.1 - 84			0.257	36.6		10/16/2020
2-Chlorophenol	4210	4190	ug/Kg	2710	2900	64.4	69.1	50.8 - 77.9			7.07	20		10/16/2020
4-Chloro-3-methylphenol	4210	4190	ug/Kg	2650	2770	62.9	66.1	51.3 - 84.5			5.01	24.3		10/16/2020
4-Nitrophenol	4210	4190	ug/Kg	2660	2620	63.0	62.6	39.2 - 92.1			0.738	38.7		10/16/2020
Acenaphthene	2810	2790	ug/Kg	1860	1860	66.1	66.5	49.2 - 78.5			0.522	25.2		10/16/2020
N-Nitroso-di-n-propylamine	2810	2790	ug/Kg	2110	2180	75.3	78.0	45.4 - 79.1			3.50	26.7		10/16/2020
Pentachlorophenol	4210	4190	ug/Kg	2190	2540	52.0	60.5	32.8 - 112			15.3	33		10/16/2020
Phenol	4210	4190	ug/Kg	2830	3000	67.1	71.6	48.7 - 80.3			6.44	21.2		10/16/2020
Pyrene	2810	2790	ug/Kg	1910	2100	68.0	75.3	50.8 - 87.6			10.1	28.5		10/16/2020

Method Reference(s): EPA 8270D
EPA 3546

Preparation Date: 10/13/2020

Data File: B50106.D
B50107.D

QC Number: 1

QC Batch ID: QC201013ABNS

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Report Prepared Friday, October 16, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	<2.00	ug/Kg		10/15/2020	12:22
1,1,2,2-Tetrachloroethane	<2.00	ug/Kg		10/15/2020	12:22
1,1,2-Trichloroethane	<2.00	ug/Kg		10/15/2020	12:22
1,1-Dichloroethane	<2.00	ug/Kg		10/15/2020	12:22
1,1-Dichloroethene	<2.00	ug/Kg		10/15/2020	12:22
1,2,3-Trichlorobenzene	<5.00	ug/Kg		10/15/2020	12:22
1,2,4-Trichlorobenzene	<5.00	ug/Kg		10/15/2020	12:22
1,2-Dibromo-3-Chloropropane	<10.0	ug/Kg		10/15/2020	12:22
1,2-Dibromoethane	<2.00	ug/Kg		10/15/2020	12:22
1,2-Dichlorobenzene	<2.00	ug/Kg		10/15/2020	12:22
1,2-Dichloroethane	<2.00	ug/Kg		10/15/2020	12:22
1,2-Dichloropropane	<2.00	ug/Kg		10/15/2020	12:22
1,3-Dichlorobenzene	<2.00	ug/Kg		10/15/2020	12:22
1,4-Dichlorobenzene	<2.00	ug/Kg		10/15/2020	12:22
1,4-Dioxane	<20.0	ug/Kg		10/15/2020	12:22
2-Butanone	<10.0	ug/Kg		10/15/2020	12:22
2-Hexanone	<5.00	ug/Kg		10/15/2020	12:22
4-Methyl-2-pentanone	<5.00	ug/Kg		10/15/2020	12:22
Acetone	<10.0	ug/Kg		10/15/2020	12:22
Benzene	<2.00	ug/Kg		10/15/2020	12:22
Bromochloromethane	<5.00	ug/Kg		10/15/2020	12:22
Bromodichloromethane	<2.00	ug/Kg		10/15/2020	12:22
Bromoform	<5.00	ug/Kg		10/15/2020	12:22
Bromomethane	<2.00	ug/Kg		10/15/2020	12:22
Carbon disulfide	<2.00	ug/Kg		10/15/2020	12:22
Carbon Tetrachloride	<2.00	ug/Kg		10/15/2020	12:22
Chlorobenzene	<2.00	ug/Kg		10/15/2020	12:22

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.
Project Reference: Riverview
Lab Project ID: 204873
Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
Chloroethane	<2.00	ug/Kg		10/15/2020	12:22
Chloroform	<2.00	ug/Kg		10/15/2020	12:22
Chloromethane	<2.00	ug/Kg		10/15/2020	12:22
cis-1,2-Dichloroethene	<2.00	ug/Kg		10/15/2020	12:22
cis-1,3-Dichloropropene	<2.00	ug/Kg		10/15/2020	12:22
Cyclohexane	<10.0	ug/Kg		10/15/2020	12:22
Dibromochloromethane	<2.00	ug/Kg		10/15/2020	12:22
Dichlorodifluoromethane	<2.00	ug/Kg		10/15/2020	12:22
Ethylbenzene	<2.00	ug/Kg		10/15/2020	12:22
Freon 113	<2.00	ug/Kg		10/15/2020	12:22
Isopropylbenzene	<2.00	ug/Kg		10/15/2020	12:22
m,p-Xylene	<2.00	ug/Kg		10/15/2020	12:22
Methyl acetate	<2.00	ug/Kg		10/15/2020	12:22
Methyl tert-butyl Ether	<2.00	ug/Kg		10/15/2020	12:22
Methylcyclohexane	<2.00	ug/Kg		10/15/2020	12:22
Methylene chloride	<5.00	ug/Kg		10/15/2020	12:22
o-Xylene	<2.00	ug/Kg		10/15/2020	12:22
Styrene	<5.00	ug/Kg		10/15/2020	12:22
Tetrachloroethene	<2.00	ug/Kg		10/15/2020	12:22
Toluene	<2.00	ug/Kg		10/15/2020	12:22
trans-1,2-Dichloroethene	<2.00	ug/Kg		10/15/2020	12:22
trans-1,3-Dichloropropene	<2.00	ug/Kg		10/15/2020	12:22
Trichloroethene	<2.00	ug/Kg		10/15/2020	12:22
Trichlorofluoromethane	<2.00	ug/Kg		10/15/2020	12:22
Vinyl chloride	<2.00	ug/Kg		10/15/2020	12:22

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**105**	61 - 146		10/15/2020 12:22
4-Bromofluorobenzene	**67.6**	48.8 - 138		10/15/2020 12:22
Pentafluorobenzene	**105**	65.4 - 141		10/15/2020 12:22
Toluene-D8	**84.5**	62.8 - 133		10/15/2020 12:22

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74029.D

QC Batch ID: voainv201015

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/Kg	20.2	101	56.1 - 137		10/15/2020
1,1,2,2-Tetrachloroethane	20.0	ug/Kg	24.2	121	63.5 - 145		10/15/2020
1,1,2-Trichloroethane	20.0	ug/Kg	21.4	107	71 - 131		10/15/2020
1,1-Dichloroethane	20.0	ug/Kg	20.4	102	60.9 - 129		10/15/2020
1,1-Dichloroethene	20.0	ug/Kg	19.4	96.9	58 - 128		10/15/2020
1,2-Dichlorobenzene	20.0	ug/Kg	22.7	113	68.4 - 134		10/15/2020
1,2-Dichloroethane	20.0	ug/Kg	23.0	115	53.2 - 155		10/15/2020
1,2-Dichloropropane	20.0	ug/Kg	19.4	97.1	68.2 - 114		10/15/2020
1,3-Dichlorobenzene	20.0	ug/Kg	21.6	108	64.9 - 126		10/15/2020
1,4-Dichlorobenzene	20.0	ug/Kg	20.4	102	65.8 - 123		10/15/2020
Benzene	20.0	ug/Kg	22.0	110	73.2 - 126		10/15/2020
Bromodichloromethane	20.0	ug/Kg	20.6	103	59 - 128		10/15/2020
Bromoform	20.0	ug/Kg	19.3	96.7	51.7 - 121		10/15/2020
Bromomethane	20.0	ug/Kg	22.3	112	56.3 - 149		10/15/2020
Carbon Tetrachloride	20.0	ug/Kg	20.6	103	53.3 - 139		10/15/2020
Chlorobenzene	20.0	ug/Kg	22.0	110	69.7 - 129		10/15/2020

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Report Prepared Friday, October 16, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/Kg	20.2	101	57.3 - 138		10/15/2020
Chloroform	20.0	ug/Kg	21.5	107	62.4 - 137		10/15/2020
Chloromethane	20.0	ug/Kg	21.6	108	40.7 - 173		10/15/2020
cis-1,3-Dichloropropene	20.0	ug/Kg	16.4	82.2	51.1 - 114		10/15/2020
Dibromochloromethane	20.0	ug/Kg	20.1	101	60.8 - 130		10/15/2020
Ethylbenzene	20.0	ug/Kg	18.7	93.4	59.7 - 128		10/15/2020
Methylene chloride	20.0	ug/Kg	21.9	110	47.1 - 149		10/15/2020
Tetrachloroethene	20.0	ug/Kg	19.8	98.9	71.1 - 125		10/15/2020
Toluene	20.0	ug/Kg	22.1	111	74.4 - 124		10/15/2020
trans-1,2-Dichloroethene	20.0	ug/Kg	21.8	109	64.4 - 136		10/15/2020
trans-1,3-Dichloropropene	20.0	ug/Kg	16.4	82.1	45.9 - 119		10/15/2020
Trichloroethene	20.0	ug/Kg	19.2	96.1	73.3 - 118		10/15/2020
Trichlorofluoromethane	20.0	ug/Kg	21.0	105	47.9 - 161		10/15/2020
Vinyl chloride	20.0	ug/Kg	20.9	105	58.1 - 142		10/15/2020

Report Prepared Friday, October 16, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74028.D

QC Number: LCS 1

QC Batch ID: voainv201015

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Report Prepared Friday, October 16, 2020

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ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	<2.00	ug/Kg		10/16/2020	12:34
1,1,2,2-Tetrachloroethane	<2.00	ug/Kg		10/16/2020	12:34
1,1,2-Trichloroethane	<2.00	ug/Kg		10/16/2020	12:34
1,1-Dichloroethane	<2.00	ug/Kg		10/16/2020	12:34
1,1-Dichloroethene	<2.00	ug/Kg		10/16/2020	12:34
1,2,3-Trichlorobenzene	<5.00	ug/Kg		10/16/2020	12:34
1,2,4-Trichlorobenzene	<5.00	ug/Kg		10/16/2020	12:34
1,2-Dibromo-3-Chloropropane	<10.0	ug/Kg		10/16/2020	12:34
1,2-Dibromoethane	<2.00	ug/Kg		10/16/2020	12:34
1,2-Dichlorobenzene	<2.00	ug/Kg		10/16/2020	12:34
1,2-Dichloroethane	<2.00	ug/Kg		10/16/2020	12:34
1,2-Dichloropropane	<2.00	ug/Kg		10/16/2020	12:34
1,3-Dichlorobenzene	<2.00	ug/Kg		10/16/2020	12:34
1,4-Dichlorobenzene	<2.00	ug/Kg		10/16/2020	12:34
1,4-Dioxane	<20.0	ug/Kg		10/16/2020	12:34
2-Butanone	<10.0	ug/Kg		10/16/2020	12:34
2-Hexanone	<5.00	ug/Kg		10/16/2020	12:34
4-Methyl-2-pentanone	<5.00	ug/Kg		10/16/2020	12:34
Acetone	<10.0	ug/Kg		10/16/2020	12:34
Benzene	<2.00	ug/Kg		10/16/2020	12:34
Bromochloromethane	<5.00	ug/Kg		10/16/2020	12:34
Bromodichloromethane	<2.00	ug/Kg		10/16/2020	12:34
Bromoform	<5.00	ug/Kg		10/16/2020	12:34
Bromomethane	<2.00	ug/Kg		10/16/2020	12:34
Carbon disulfide	<2.00	ug/Kg		10/16/2020	12:34
Carbon Tetrachloride	<2.00	ug/Kg		10/16/2020	12:34
Chlorobenzene	<2.00	ug/Kg		10/16/2020	12:34

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
Chloroethane	<2.00	ug/Kg		10/16/2020	12:34
Chloroform	<2.00	ug/Kg		10/16/2020	12:34
Chloromethane	<2.00	ug/Kg		10/16/2020	12:34
cis-1,2-Dichloroethene	<2.00	ug/Kg		10/16/2020	12:34
cis-1,3-Dichloropropene	<2.00	ug/Kg		10/16/2020	12:34
Cyclohexane	<10.0	ug/Kg		10/16/2020	12:34
Dibromochloromethane	<2.00	ug/Kg		10/16/2020	12:34
Dichlorodifluoromethane	<2.00	ug/Kg		10/16/2020	12:34
Ethylbenzene	<2.00	ug/Kg		10/16/2020	12:34
Freon 113	<2.00	ug/Kg		10/16/2020	12:34
Isopropylbenzene	<2.00	ug/Kg		10/16/2020	12:34
m,p-Xylene	<2.00	ug/Kg		10/16/2020	12:34
Methyl acetate	<2.00	ug/Kg		10/16/2020	12:34
Methyl tert-butyl Ether	<2.00	ug/Kg		10/16/2020	12:34
Methylcyclohexane	<2.00	ug/Kg		10/16/2020	12:34
Methylene chloride	<5.00	ug/Kg		10/16/2020	12:34
o-Xylene	<2.00	ug/Kg		10/16/2020	12:34
Styrene	<5.00	ug/Kg		10/16/2020	12:34
Tetrachloroethene	<2.00	ug/Kg		10/16/2020	12:34
Toluene	<2.00	ug/Kg		10/16/2020	12:34
trans-1,2-Dichloroethene	<2.00	ug/Kg		10/16/2020	12:34
trans-1,3-Dichloropropene	<2.00	ug/Kg		10/16/2020	12:34
Trichloroethene	<2.00	ug/Kg		10/16/2020	12:34
Trichlorofluoromethane	<2.00	ug/Kg		10/16/2020	12:34
Vinyl chloride	<2.00	ug/Kg		10/16/2020	12:34

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**76.8**	61 - 146		10/16/2020 12:34
4-Bromofluorobenzene	**68.0**	48.8 - 138		10/16/2020 12:34
Pentafluorobenzene	**116**	65.4 - 141		10/16/2020 12:34
Toluene-D8	**87.9**	62.8 - 133		10/16/2020 12:34

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74077.D

QC Batch ID: voainv201016

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1,1-Trichloroethane	20.0	ug/Kg	17.9	89.6	56.1 - 137		10/16/2020
1,1,2,2-Tetrachloroethane	20.0	ug/Kg	20.3	102	63.5 - 145		10/16/2020
1,1,2-Trichloroethane	20.0	ug/Kg	19.2	95.8	71 - 131		10/16/2020
1,1-Dichloroethane	20.0	ug/Kg	16.2	81.0	60.9 - 129		10/16/2020
1,1-Dichloroethene	20.0	ug/Kg	18.1	90.6	58 - 128		10/16/2020
1,2-Dichlorobenzene	20.0	ug/Kg	22.9	114	68.4 - 134		10/16/2020
1,2-Dichloroethane	20.0	ug/Kg	18.2	91.0	53.2 - 155		10/16/2020
1,2-Dichloropropane	20.0	ug/Kg	19.1	95.3	68.2 - 114		10/16/2020
1,3-Dichlorobenzene	20.0	ug/Kg	22.0	110	64.9 - 126		10/16/2020
1,4-Dichlorobenzene	20.0	ug/Kg	21.0	105	65.8 - 123		10/16/2020
Benzene	20.0	ug/Kg	21.1	105	73.2 - 126		10/16/2020
Bromodichloromethane	20.0	ug/Kg	18.0	89.9	59 - 128		10/16/2020
Bromoform	20.0	ug/Kg	16.4	82.0	51.7 - 121		10/16/2020
Bromomethane	20.0	ug/Kg	21.3	107	56.3 - 149		10/16/2020
Carbon Tetrachloride	20.0	ug/Kg	17.7	88.7	53.3 - 139		10/16/2020
Chlorobenzene	20.0	ug/Kg	22.2	111	69.7 - 129		10/16/2020

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, October 19, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chloroethane	20.0	ug/Kg	19.1	95.6	57.3 - 138		10/16/2020
Chloroform	20.0	ug/Kg	18.4	92.0	62.4 - 137		10/16/2020
Chloromethane	20.0	ug/Kg	19.3	96.7	40.7 - 173		10/16/2020
cis-1,3-Dichloropropene	20.0	ug/Kg	17.3	86.4	51.1 - 114		10/16/2020
Dibromochloromethane	20.0	ug/Kg	19.0	94.8	60.8 - 130		10/16/2020
Ethylbenzene	20.0	ug/Kg	18.9	94.3	59.7 - 128		10/16/2020
Methylene chloride	20.0	ug/Kg	19.2	96.0	47.1 - 149		10/16/2020
Tetrachloroethene	20.0	ug/Kg	19.9	99.6	71.1 - 125		10/16/2020
Toluene	20.0	ug/Kg	22.2	111	74.4 - 124		10/16/2020
trans-1,2-Dichloroethene	20.0	ug/Kg	20.6	103	64.4 - 136		10/16/2020
trans-1,3-Dichloropropene	20.0	ug/Kg	16.6	82.9	45.9 - 119		10/16/2020
Trichloroethene	20.0	ug/Kg	20.6	103	73.3 - 118		10/16/2020
Trichlorofluoromethane	20.0	ug/Kg	18.1	90.4	47.9 - 161		10/16/2020
Vinyl chloride	20.0	ug/Kg	20.1	101	58.1 - 142		10/16/2020

Report Prepared Monday, October 19, 2020

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC

QC Report for Laboratory Control Sample

Client: **Inventum Engineering, P.C.**

Project Reference: Riverview

Lab Project ID: 204873

Matrix: Solid

Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x74076.D

QC Number: LCS 1

QC Batch ID: voainv201016

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, October 19, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,4-Dichlorobenzene	<40.0	ug/L		10/15/2020	00:23
2,4,5-Trichlorophenol	<40.0	ug/L		10/15/2020	00:23
2,4,6-Trichlorophenol	<40.0	ug/L		10/15/2020	00:23
2,4-Dinitrotoluene	<40.0	ug/L		10/15/2020	00:23
Cresols (as m,p,o-Cresol)	<80.0	ug/L		10/15/2020	00:23
Hexachlorobenzene	<40.0	ug/L		10/15/2020	00:23
Hexachlorobutadiene	<40.0	ug/L		10/15/2020	00:23
Hexachloroethane	<40.0	ug/L		10/15/2020	00:23
Nitrobenzene	<40.0	ug/L		10/15/2020	00:23
Pentachlorophenol	<80.0	ug/L		10/15/2020	00:23
Pyridine	<40.0	ug/L		10/15/2020	00:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**83.9**	54.2 - 113		10/15/2020	00:23
2-Fluorobiphenyl	**69.9**	34.3 - 96.3		10/15/2020	00:23
2-Fluorophenol	**75.6**	13.3 - 103		10/15/2020	00:23
Nitrobenzene-d5	**92.9**	50.5 - 103		10/15/2020	00:23
Phenol-d5	**70.7**	10 - 107		10/15/2020	00:23
Terphenyl-d14	**83.7**	53 - 108		10/15/2020	00:23

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 10/14/2020
Data File: B50040.D
QC Batch ID: QC201014ABNT
QC Number: 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP Semi-Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,4-Dichlorobenzene	200	ug/L	141	70.3	23.2 - 89.4		10/16/2020
2,4,6-Trichlorophenol	300	ug/L	269	89.8	67.4 - 108		10/16/2020
2,4-Dinitrotoluene	200	ug/L	174	86.8	59.1 - 105		10/16/2020
Pentachlorophenol	300	ug/L	292	97.3	39.7 - 155		10/16/2020

Method Reference(s): EPA 8270D
EPA 3510C
Preparation Date: 10/14/2020
Data File: B50108.D
QC Number: 1
QC Batch ID: QC201014ABNT

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Friday, October 16, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed	
Chlordane	<2.00	ug/L		10/14/2020	15:55
Endrin	<1.00	ug/L		10/14/2020	15:55
gamma-BHC (Lindane)	<1.00	ug/L		10/14/2020	15:55
Heptachlor	<1.00	ug/L		10/14/2020	15:55
Heptachlor Epoxide	<2.00	ug/L		10/14/2020	15:55
Methoxychlor	<1.00	ug/L		10/14/2020	15:55
Toxaphene	<20.0	ug/L		10/14/2020	15:55

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
Decachlorobiphenyl (1)	**140**	10 - 165		10/14/2020	15:55
Tetrachloro-m-xylene (1)	**85.9**	22.1 - 126		10/14/2020	15:55

Method Reference(s): EPA 8081B
EPA 3510C

Preparation Date: 10/14/2020

QC Batch ID: QC201014PESTT

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP Pesticides

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Chlordane (1)	10.0	ug/L	9.90	99.0	47.1 - 115		10/14/2020
Endrin (1)	5.00	ug/L	4.65	93.0	14.1 - 155		10/14/2020
gamma-BHC (Lindane) (1)	5.00	ug/L	4.12	82.3	31.5 - 137		10/14/2020
Heptachlor (1)	5.00	ug/L	4.12	82.3	24.3 - 138		10/14/2020
Heptachlor Epoxide (1)	5.00	ug/L	4.90	97.9	25.7 - 151		10/14/2020
Methoxychlor (1)	5.00	ug/L	6.20	124	20 - 184		10/14/2020

Method Reference(s): EPA 8081B
EPA 3510C
Preparation Date: 10/14/2020
QC Number: LCS 1
QC Batch ID: QC201014PESTT

Report Prepared Thursday, October 15, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Qualifier	Date Analyzed	
Arsenic	<0.500	mg/L		10/14/2020	11:23
Barium	<0.500	mg/L		10/14/2020	11:23
Cadmium	<0.0250	mg/L		10/14/2020	11:23
Chromium	<0.500	mg/L		10/14/2020	11:23
Lead	<0.500	mg/L		10/14/2020	11:23
Selenium	<0.200	mg/L		10/14/2020	11:23
Silver	<0.500	mg/L		10/14/2020	11:23

Method Reference(s): EPA 6010C
EPA 3005
Preparation Date: 10/14/2020
Data File: 201014A
QC Batch ID: QC201014Tclp
QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample and Control Sample Duplicate

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP 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
Arsenic	12.5	12.5	mg/L	12.9	13.0	103	104	80 - 120			0.836	20		10/14/2020
Barium	12.5	12.5	mg/L	12.9	12.8	103	103	80 - 120			0.439	20		10/14/2020
Cadmium	5.00	5.00	mg/L	5.22	5.19	104	104	80 - 120			0.556	20		10/14/2020
Chromium	12.5	12.5	mg/L	12.3	12.2	98.5	98.0	80 - 120			0.496	20		10/14/2020
Lead	12.5	12.5	mg/L	12.4	12.5	99.0	100	80 - 120			0.982	20		10/14/2020
Selenium	12.5	12.5	mg/L	13.1	13.2	105	105	80 - 120			0.676	20		10/14/2020
Silver	1.25	1.25	mg/L	1.24	1.24	99.2	99.3	80 - 120			0.0233	20		10/14/2020

Method Reference(s): EPA 6010C
EPA 3005

Preparation Date: 10/14/2020

Data File: 201014A

QC Number: 1

QC Batch ID: QC201014Tclp

Report Prepared Monday, October 19, 2020

PARADIGM
ENVIRONMENTAL SERVICES, INC

Method Blank Report

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed	
1,1-Dichloroethene	<20.0	ug/L		10/16/2020	13:41
1,2-Dichloroethane	<20.0	ug/L		10/16/2020	13:41
2-Butanone	<100	ug/L		10/16/2020	13:41
Benzene	<20.0	ug/L		10/16/2020	13:41
Carbon Tetrachloride	<20.0	ug/L		10/16/2020	13:41
Chlorobenzene	<20.0	ug/L		10/16/2020	13:41
Chloroform	<20.0	ug/L		10/16/2020	13:41
Tetrachloroethene	<20.0	ug/L		10/16/2020	13:41
Trichloroethene	<20.0	ug/L		10/16/2020	13:41
Vinyl chloride	<20.0	ug/L		10/16/2020	13:41

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**94.1**	59.4 - 149		10/16/2020	13:41
4-Bromofluorobenzene	**72.9**	49 - 138		10/16/2020	13:41
Pentafluorobenzene	**106**	90.1 - 115		10/16/2020	13:41
Toluene-D8	**92.4**	77.3 - 118		10/16/2020	13:41

Method Reference(s): EPA 8260C
EPA 5030

Data File: x74080.D

QC Batch ID: voax201016

QC Number: Blk 1

PARADIGM
ENVIRONMENTAL SERVICES, INC.

QC Report for Laboratory Control Sample

Client: Inventum Engineering, P.C.

Project Reference: Riverview

Lab Project ID: 204873

Matrix: TCLP Fluid

TCLP Volatile Organics

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
1,1-Dichloroethene	20.0	ug/L	17.0	84.8	58.6 - 128		10/16/2020
1,2-Dichloroethane	20.0	ug/L	18.2	91.2	58.7 - 148		10/16/2020
Benzene	20.0	ug/L	20.3	101	70 - 130		10/16/2020
Carbon Tetrachloride	20.0	ug/L	16.5	82.7	56 - 137		10/16/2020
Chlorobenzene	20.0	ug/L	20.9	105	69 - 129		10/16/2020
Chloroform	20.0	ug/L	18.4	92.2	62.4 - 137		10/16/2020
Tetrachloroethene	20.0	ug/L	19.7	98.4	67 - 127		10/16/2020
Trichloroethene	20.0	ug/L	19.3	96.5	71.8 - 120		10/16/2020
Vinyl chloride	20.0	ug/L	18.4	91.9	56.7 - 147		10/16/2020

Method Reference(s): EPA 8260C
EPA 5030

Data File: x74079.D

QC Number: LCS 1

QC Batch ID: voax201016

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Report Prepared Monday, October 19, 2020

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, tern 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.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM

Client mr 10/12/2020 Inventium

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		
CLIENT:	John Black	CLIENT:	Same	LAB PROJECT ID: 204873
ADDRESS:	481 Carlisle Dr.	ADDRESS:		Quotation #:
CITY: Herndon	STATE: VA ZIP: 20170	CITY:	STATE: ZIP:	Email: john.black@inventumeng.com
PHONE:	(571) 217-6761	PHONE:		
ATTN:		ATTN:		

PROJECT REFERENCE

Riverview

Matrix Codes:

AQ - Aqueous Liquid, NQ - Non-Aqueous Liquid, WA - Water, WG - Groundwater, DW - Drinking Water, WW - Wastewater, SO - Soil, SL - Sludge, SD - Solid, PT - Paint, WP - Wipe, CK - Caulk, OL - Oil, AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCLP SVOCs	TCLP VOCs	TCLP Metals	TCLP Mercury	TCLP Pest/Herb	Flash Point	Corrosivity	Reactivity (Cyanide and sulfide)	TCL VOCs (Xylenes)	TCL SVOCs	TAL Metals	PCBs/Pest/Herb	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/7/20				MP-BNE-10072020	SD	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		01A
↓				MP-BNW-10072020	SD	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		02A
				MP-BCNTR-10072020	SD	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		03A
				MP-BSE-10072020	SD	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		04A
				MP-BSW-10072020	SD	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		05A
				MP-NSWL-10072020	SD	4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		06A

Solid per visual mr 10/12/2020

Turnaround Time / **Report Supplements**

Availability contingent upon lab approval; additional fees may apply.

Turnaround Time		Report Supplements			
Standard 5 day	✓	None Required	☐	None Required	☐
10 day	☐	Batch QC	✓	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	✓
Rush 2 day	☐	Category B	☐		
Rush 1 day	☐				
Date Needed ____ please indicate date needed:		Other ☐ please indicate package needed:		Other EDD ☐ please indicate EDD needed:	

Sampled By: Keith Adderley — Date/Time: 10/7/20

Relinquished By: Keith Adderley — Date/Time: 10/9/20

Received By: [signature] — Date/Time: 10/9/20 4:30

Received @ Lab By: [signature] — Date/Time: 10/12/2020 1629

6°C iced 10/12/2020 16:12

Total Cost: ☐

P.I.F. ☐

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: Inventium **Completed by:** Molly Vail

Lab Project ID: 204673 **Date:** 10/12/2020

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	5035	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)		~~TCLP~~ VOA	X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		met
Comments	6°C iced		
Compliant Sample Quantity/Type	X		
Comments			

Experience is the solution
314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

October 20, 2020

Sarah Conlon
Paradigm Environmental
179 Lake Avenue
Rochester, NY 14608

TEL: (800) 724-1997

Work Order No: 201014004

RE: Analysis of Samples
Project# 204873

Dear Sarah Conlon:

Adirondack Environmental Services, Inc received 12 samples on 10/14/2020 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Christopher Hess
QA Manager

Adirondack Environmental Services, Inc CASE NARRATIVE

CLIENT:	Paradigm Environmental	**Date:**	*20-Oct-20*
Project:	Analysis of Samples		
Lab Order:	201014004		

Sample containers were not supplied by Adirondack Environmental Services.

The client performed the TCLP extraction procedure. The TCLP extract was provided for analysis.

Definitions - RL: Reporting Limit DF: Dilution factor

Qualifiers:

ND : Not Detected at reporting limit	C: CCV below acceptable Limits
J: Analyte detected below quantitation limit	C+: CCV above acceptable Limits
B: Analyte detected in Blank	S: LCS Spike recovery is below acceptable limits
X : Exceeds maximum contamination limit	S+: LCS Spike recovery is above acceptable limits
H: Hold time exceeded	Z: Duplication outside acceptable limits
N: Matrix Spike below acceptable limits	T : Tentatively Identified Compound-Estimated
N+: Matrix Spike is above acceptable limits	E :Above quantitation range-Estimated

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

CLIENT: Paradigm Environmental
Project: Analysis of Samples
Project# 204873

LabWork Order: **201014004**
PO#:

Lab SampleID: 201014004-001 **Collection Date:** 10/7/2020
Client Sample ID: 204873-01 **Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B (**Prep: SW3545A - 10/16/2020**)						Analyst: **KF**
2,4-D	**ND**	1200	S	µg/Kg	1	10/16/2020 3:03:30 PM
2,4,5-T	**ND**	300		µg/Kg	1	10/16/2020 3:03:30 PM
2,4,5-TP (Silvex)	**ND**	300	S	µg/Kg	1	10/16/2020 3:03:30 PM
Surr: Acifluorfen	**170**	51.2-145	S	%REC	1	10/16/2020 3:03:30 PM
MERCURY - SW 7471B (**Prep: SW7471B - 10/16/2020**)						Analyst: **AVB**
Mercury	**0.071**	0.020		µg/g	1	10/16/2020 11:58:47 AM
SW 7.3.3.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	10/20/2020 1:37:21 PM
SW 7.3.4.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	10/20/2020
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	10/20/2020

Lab SampleID: 201014004-002 **Collection Date:** 10/7/2020
Client Sample ID: 204873-01A **Matrix:** TCLP-EXTRACT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP HERBICIDES - EPA 8321B (**Prep: SW3535A - 10/16/2020**)						Analyst: **KF**
2,4,5-TP (Silvex)-TCLP	**ND**	0.10		mg/L	1	10/16/2020 7:58:24 PM
2,4-D-TCLP	**ND**	0.10		mg/L	1	10/16/2020 7:58:24 PM
Surr: Acifluorfen	**78.8**	52.5-128		%REC	1	10/16/2020 7:58:24 PM
Surr: DCAA	**99.1**	56.2-139		%REC	1	10/16/2020 7:58:24 PM
TCLP MERCURY - SW1311/7470A (**Prep: SW7470A - 10/15/2020**)						Analyst: **AVB**
Mercury-TCLP	**ND**	0.002		mg/L	1	10/15/2020 2:12:05 PM

Lab SampleID: 201014004-003 **Collection Date:** 10/7/2020
Client Sample ID: 204873-02 **Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B (Prep: SW3545A - 10/16/2020)						Analyst: **KF**
2,4-D	**ND**	1200	S	µg/Kg	1	10/16/2020 2:16:19 PM
2,4,5-T	**ND**	300		µg/Kg	1	10/16/2020 2:16:19 PM
2,4,5-TP (Silvex)	**ND**	300	S	µg/Kg	1	10/16/2020 2:16:19 PM
Surr: Acifluorfen	**86.2**	51.2-145		%REC	1	10/16/2020 2:16:19 PM
MERCURY - SW 7471B (Prep: SW7471B - 10/16/2020)						Analyst: **AVB**
Mercury	**ND**	0.020		µg/g	1	10/16/2020 12:53:27 PM
SW 7.3.3.2, NOT ELAP CERTIFIED (Prep: E335.4 - 10/16/2020)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	10/20/2020 1:39:04 PM
SW 7.3.4.2, NOT ELAP CERTIFIED (Prep: E335.4 - 10/16/2020)						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	10/20/2020
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	10/20/2020

Lab SampleID: 201014004-004 **Collection Date:** 10/7/2020
Client Sample ID: 204873-02A **Matrix:** TCLP-EXTRACT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP HERBICIDES - EPA 8321B (Prep: SW3535A - 10/16/2020)						Analyst: **KF**
2,4,5-TP (Silvex)-TCLP	**ND**	0.10		mg/L	1	10/16/2020 8:18:56 PM
2,4-D-TCLP	**ND**	0.10		mg/L	1	10/16/2020 8:18:56 PM
Surr: Acifluorfen	**95.7**	52.5-128		%REC	1	10/16/2020 8:18:56 PM
Surr: DCAA	**87.3**	56.2-139		%REC	1	10/16/2020 8:18:56 PM
TCLP MERCURY - SW1311/7470A (Prep: SW7470A - 10/15/2020)						Analyst: **AVB**
Mercury-TCLP	**ND**	0.002		mg/L	1	10/15/2020 2:13:47 PM

Lab SampleID: 201014004-005 **Collection Date:** 10/7/2020
Client Sample ID: 204873-03 **Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B (**Prep: SW3545A - 10/16/2020**)						Analyst: **KF**
2,4-D	**ND**	1200	S	µg/Kg	1	10/16/2020 2:39:54 PM
2,4,5-T	**ND**	300		µg/Kg	1	10/16/2020 2:39:54 PM
2,4,5-TP (Silvex)	**ND**	300	S	µg/Kg	1	10/16/2020 2:39:54 PM
Surr: Acifluorfen	**162**	51.2-145	S	%REC	1	10/16/2020 2:39:54 PM
MERCURY - SW 7471B (**Prep: SW7471B - 10/16/2020**)						Analyst: **AVB**
Mercury	**0.170**	0.020		µg/g	1	10/16/2020 12:55:09 PM
SW 7.3.3.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	10/20/2020 1:40:47 PM
SW 7.3.4.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	10/20/2020
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	10/20/2020

Lab SampleID: 201014004-006 **Collection Date:** 10/7/2020
Client Sample ID: 204873-03A **Matrix:** TCLP-EXTRACT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP HERBICIDES - EPA 8321B (**Prep: SW3535A - 10/16/2020**)						Analyst: **KF**
2,4,5-TP (Silvex)-TCLP	**ND**	0.10		mg/L	1	10/16/2020 9:41:12 PM
2,4-D-TCLP	**ND**	0.10		mg/L	1	10/16/2020 9:41:12 PM
Surr: Acifluorfen	**119**	52.5-128		%REC	1	10/16/2020 9:41:12 PM
Surr: DCAA	**78.6**	56.2-139		%REC	1	10/16/2020 9:41:12 PM
TCLP MERCURY - SW1311/7470A (**Prep: SW7470A - 10/15/2020**)						Analyst: **AVB**
Mercury-TCLP	**ND**	0.002		mg/L	1	10/15/2020 2:15:29 PM

Lab SampleID: 201014004-007 **Collection Date:** 10/7/2020
Client Sample ID: 204873-04 **Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B (**Prep: SW3545A - 10/16/2020**)						Analyst: **KF**
2,4-D	**ND**	1200	SN	µg/Kg	1	10/16/2020 3:27:07 PM
2,4,5-T	**ND**	300		µg/Kg	1	10/16/2020 3:27:07 PM
2,4,5-TP (Silvex)	**ND**	300	S	µg/Kg	1	10/16/2020 3:27:07 PM
Surr: Acifluorfen	**129**	51.2-145		%REC	1	10/16/2020 3:27:07 PM
MERCURY - SW 7471B (**Prep: SW7471B - 10/16/2020**)						Analyst: **AVB**
Mercury	**ND**	0.020		µg/g	1	10/16/2020 12:56:52 PM
SW 7.3.3.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	10/20/2020 1:42:33 PM
SW 7.3.4.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	10/20/2020
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	10/20/2020

Lab SampleID: 201014004-008 **Collection Date:** 10/7/2020
Client Sample ID: 204873-04A **Matrix:** TCLP-EXTRACT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP HERBICIDES - EPA 8321B (**Prep: SW3535A - 10/16/2020**)						Analyst: **KF**
2,4,5-TP (Silvex)-TCLP	**ND**	0.10		mg/L	1	10/16/2020 8:39:30 PM
2,4-D-TCLP	**ND**	0.10		mg/L	1	10/16/2020 8:39:30 PM
Surr: Acifluorfen	**114**	52.5-128		%REC	1	10/16/2020 8:39:30 PM
Surr: DCAA	**116**	56.2-139		%REC	1	10/16/2020 8:39:30 PM
TCLP MERCURY - SW1311/7470A (**Prep: SW7470A - 10/15/2020**)						Analyst: **AVB**
Mercury-TCLP	**ND**	0.002		mg/L	1	10/15/2020 2:17:12 PM

Lab SampleID: 201014004-009 **Collection Date:** 10/7/2020
Client Sample ID: 204873-05 **Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B (**Prep: SW3545A - 10/16/2020**)						Analyst: **KF**
2,4-D	**ND**	1200	S	µg/Kg	1	10/16/2020 4:37:54 PM
2,4,5-T	**ND**	300		µg/Kg	1	10/16/2020 4:37:54 PM
2,4,5-TP (Silvex)	**ND**	300	S	µg/Kg	1	10/16/2020 4:37:54 PM
Surr: Acifluorfen	**46.5**	51.2-145	S	%REC	1	10/16/2020 4:37:54 PM
MERCURY - SW 7471B (**Prep: SW7471B - 10/16/2020**)						Analyst: **AVB**
Mercury	**0.094**	0.020		µg/g	1	10/16/2020 12:58:33 PM
SW 7.3.3.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	10/20/2020 1:44:19 PM
SW 7.3.4.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	10/20/2020
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	10/20/2020

Lab SampleID: 201014004-010 **Collection Date:** 10/7/2020
Client Sample ID: 204873-05A **Matrix:** TCLP-EXTRACT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP HERBICIDES - EPA 8321B (**Prep: SW3535A - 10/16/2020**)						Analyst: **KF**
2,4,5-TP (Silvex)-TCLP	**ND**	0.10		mg/L	1	10/16/2020 9:00:03 PM
2,4-D-TCLP	**ND**	0.10		mg/L	1	10/16/2020 9:00:03 PM
Surr: Acifluorfen	**73.7**	52.5-128		%REC	1	10/16/2020 9:00:03 PM
Surr: DCAA	**102**	56.2-139		%REC	1	10/16/2020 9:00:03 PM
TCLP MERCURY - SW1311/7470A (**Prep: SW7470A - 10/15/2020**)						Analyst: **AVB**
Mercury-TCLP	**ND**	0.002		mg/L	1	10/15/2020 2:18:55 PM

CLIENT: Paradigm Environmental
Project: Analysis of Samples
Project# 204873

LabWork Order: **201014004**
PO#:

Lab SampleID: 201014004-011 **Collection Date:** 10/7/2020
Client Sample ID: 204873-06 **Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
CHLORINATED HERBICIDES - EPA 8321B (**Prep: SW3545A - 10/16/2020**)						Analyst: **KF**
2,4-D	**ND**	1200	S	µg/Kg	1	10/16/2020 5:01:27 PM
2,4,5-T	**ND**	300		µg/Kg	1	10/16/2020 5:01:27 PM
2,4,5-TP (Silvex)	**ND**	300	S	µg/Kg	1	10/16/2020 5:01:27 PM
Surr: Acifluorfen	**52.9**	51.2-145		%REC	1	10/16/2020 5:01:27 PM
MERCURY - SW 7471B (**Prep: SW7471B - 10/16/2020**)						Analyst: **AVB**
Mercury	**0.046**	0.020		µg/g	1	10/16/2020 12:03:57 PM
SW 7.3.3.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **KB**
Reactive Cyanide	**ND**	1.0		µg/g	1	10/20/2020 1:46:01 PM
SW 7.3.4.2, NOT ELAP CERTIFIED (**Prep: E335.4 - 10/16/2020**)						Analyst: **NK**
Reactive Sulfide	**ND**	10		µg/g	1	10/20/2020
REACTIVITY - SW 7.3.4.2, NOT ELAP CERTIFIED						Analyst: **NK**
Reactivity	**Non Reactive**	0			1	10/20/2020

Lab SampleID: 201014004-012 **Collection Date:** 10/7/2020
Client Sample ID: 204873-06A **Matrix:** TCLP-EXTRACT

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP HERBICIDES - EPA 8321B (**Prep: SW3535A - 10/16/2020**)						Analyst: **KF**
2,4,5-TP (Silvex)-TCLP	**ND**	0.10		mg/L	1	10/16/2020 9:20:38 PM
2,4-D-TCLP	**ND**	0.10		mg/L	1	10/16/2020 9:20:38 PM
Surr: Acifluorfen	**57.6**	52.5-128		%REC	1	10/16/2020 9:20:38 PM
Surr: DCAA	**120**	56.2-139		%REC	1	10/16/2020 9:20:38 PM
TCLP MERCURY - SW1311/7470A (**Prep: SW7470A - 10/15/2020**)						Analyst: **AVB**
Mercury-TCLP	**ND**	0.002		mg/L	1	10/15/2020 2:20:37 PM

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

201014004

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 1(

201014004

REPORT TO:		INVOICE TO: NEC Mg	
COMPANY: Paradigm Environmental		COMPANY: Same	LAB PROJECT #: / CLIENT PROJECT #:
ADDRESS:		ADDRESS:	
CITY:	STATE: ZIP:	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS) STD 1 2 3 5
PHONE:	FAX:	PHONE: FAX:	
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	
	COMMENTS: Please email results to reporting@paradigmenv.com		Date Due: 10/20/2020

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	TCLP Herb	TCLP Mg	Total Herb	Total Mg	reactivity						REMARKS	PARADIGM SAMPLE NUMBER
																		Batch QC	
1	10/7/2020				204873-01	Solid	1			X	X	X						Sample Span	
2					204873-01A	TCLP extract	2	X	X									at Paradigm	
3					204873-02	Solid	1			X	X	X							
4					204873-02A	TCLP extract	2	X	X										
5					204873-03	Solid	1			X	X	X							
6					204873-03A	TCLP extract	2	X	X										
7					204873-04	Solid	1			X	X	X							
8					204873-04A	TCLP extract	2	X	X										
9					204873-05	Solid	1			X	X	X							
10					204873-05A	TCLP extract	2	X	X										

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 2°C	Y ☐	N ☐
Comments:		

Client

Sampled By: MyNail Date/Time: 10/14/2020 0830

Relinquished By: Date/Time:

Received By: Date/Time:

Received @ Lab By: Date/Time: 10/14/20 8:30pm

Total Cost:

P.I.F.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

2052

20614004

CHAIN OF CUSTODY

ADIRONDACK: ELAP ID: 10709

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO: NEC Mg	
COMPANY: Paradigm Environmental		COMPANY: Same	LAB PROJECT #: / CLIENT PROJECT #:
ADDRESS:		ADDRESS:	
CITY: STATE: ZIP:		CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS) STD OTHER
PHONE: FAX:		PHONE: FAX:	☐ 1 ☐ 2 ☐ 3 ☐ 5 ☐
PROJECT NAME/SITE NAME:	ATTN: Reporting	ATTN: Accounts Payable	
	COMMENTS: Please email results to reporting@paradigmenv.com		Date Due: 10/20/2020

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	TCLP Merb	TCLP Mg	Total Herb	Total Hg	reactivity						REMARKS	PARADIGM LAB SAMPLE NUMBER
																		Batch QC	
1	10/7/2020				204873-06	solid	1			X	X	X						Samples Spun at	
2	↓				204873-06A	Extract	2	X	X									Paradigm	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 2°C	Y ☐	N ☐
Comments:		

Client

Sampled By: Mail — Date/Time: 10/14/2020 0830

Relinquished By — Date/Time

Received By — Date/Time

Received @ Lab By: K — Date/Time: 10/14/20 3:15pm

Total Cost:

P.I.F.

Adirondack Environmental Services Inc.
Experience is the solution
314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

(a) Neither **Adirondack Environmental Services, Inc.,** nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.'s** performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.

(b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.

(c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.

(d) In no event shall **Adirondack Environmental Services, Inc.,** its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.

(e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**

(f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.

(g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

Attachment B

Inspection Form

Inspection Form
Closure
Mixing Pad

Inspected By: _____
Date: _____

Activity: _____

_____

_____

Activity/Photograph: Mark locations on Figure Below