

FILL MATERIAL SAMPLING REPORT

**6096 CHOPIN STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48210**



NOVEMBER 3, 2025

PREPARED FOR:

THE CITY OF DETROIT DEMOLITION DEPARTMENT

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



FILL MATERIAL SAMPLING REPORT

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DETROIT, WAYNE COUNTY, MICHIGAN 48210**

PREPARED BY: 

OLIVIA MITCHELL

ENVIRONMENTAL SCIENTIST

REVIEWED BY: 

MARK SCHULT, PHD, CPG

SENIOR PROJECT MANAGER

REVIEWED AND
APPROVED BY: 

RYAN MONTRI, CPG

SENIOR PROJECT MANAGER

EXECUTIVE SUMMARY

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to perform sampling and analysis of fill materials at the property commonly addressed as 6096 Chopin Street, Detroit, Wayne County, Michigan (hereinafter, the "Site"). The Site location, as referenced to nearby roads and major geographic features, is shown on Figure 1, *Site Location Map*. Figure 2, *Site Layout*, depicts the current layout of the Site.

This Executive Summary is provided to summarize the results of the work performed at the Site. The Executive Summary is general in nature and should not be used to replace or be considered apart from the entirety of this report.

The purpose of the work was to assist the COD's blight remediation efforts with the sampling and analysis of fill material at the Site through soil sample collection from pre-determined depths, as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. Sample analyses associated with this work included volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); polychlorinated biphenyls (PCBs); arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc (10 Michigan metals); chloride; herbicides; and pesticides. Analytical results were compared to the current generic residential cleanup criteria (GRCC) promulgated under Part 201 of the *Natural Resources and Environmental Protection Act* (NREPA), 1994 P.A. 451, as amended (Part 201).

Pursuant to a request by the COD, MSG has completed sampling and analysis of fill material at the Site, as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. Results of this work, which are subject to the limitations presented in *Appendix A, Limitations*, incorporated by reference herewith, revealed the following:

- The stratigraphy encountered during soil boring advancement of 6096 Chopin SB-1, 6096 Chopin SB-2, and 6096 Chopin SB-3 generally consisted of five feet of brown sand underlain by brown silty clay to six feet below ground surface (bgs), the maximum depth explored for this investigation. Field photoionization detector (PID) readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.
- Concentrations of arsenic, benzo(a)pyrene, benzo(b)fluoranthene, carbazole, dibenzo(a,h)anthracene, fluoranthene, and phenanthrene were detected in soil samples 6096 Chopin SB-1 (1'-2'), 6096 Chopin SB-2 (3'-4'), and/or 6096 Chopin SB-3 (5'-6') in excess of their respective Part 201 groundwater surface water interface protection criteria (GSIPC), drinking water protection criteria (DWPC), and/or direct contact criteria (DCC).
- Concentrations of naphthalene and phenanthrene were detected in soil sample 6096 Chopin SB-3 (5'-6') in excess of their respective soil volatilization to indoor air pathway (SVIAP).
- Concentrations of 1,1-biphenyl, 1-methylnaphthalene, 2-methylnaphthalene, 3,3'-dichlorobenzidine, acenaphthene, acenaphthylene, anthracene, barium, benzo(a)anthracene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl), phthalate, cadmium, chloride, chromium (Total), chrysene, copper, dibenzofuran, fluorene, indeno(1,2,3-cd)pyrene, lead, mercury, pyrene, and zinc were detected in soil samples 6096 Chopin SB-1 (1'-2'), 6096 Chopin SB-2 (3'-4'), and/or 6096 Chopin SB-3 (5'-6') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- VOCs, PCBs, pesticides, and herbicides were not detected above laboratory method detection reporting limits.
- Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or

surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable. Since the building on site has been razed, the soil volatilization to indoor air pathway is not currently complete, however, consideration may need to be given to this pathway if future construction is planned. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

MSG has evaluated the analytical results of the fill material. Based upon the analytical results, we have determined that the material is contaminated above the state's Part 201 GRCC, as applicable.

MSG warrants that no substantive information or documentation was deleted, omitted, or changed that would otherwise cause the MSG to reach a different conclusion. Furthermore, MSG understands that the COD and its agencies and authorities may rely upon the overall completeness, accuracy, and conclusions in this report and hereby provides reliance on the contents presented herein.

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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to conduct sampling and analysis of fill materials at the property commonly addressed as 6096 Chopin Street, Detroit, Wayne County, Michigan (hereinafter, the "Site"). The Site location as referenced to nearby roads and major geographic features is presented as *Figure 1, Site Location Map*. *Figure 2, Site Layout*, depicts the current layout of the Site.

The purpose of this work was to assist the COD's blight remediation efforts with the sampling and analysis of fill material at the Site through soil sample collection from pre-determined depths. The scope of work for this investigation was performed in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. This report presents the findings of this investigation. Soil samples were collected by MSG on October 14, 2025. The findings of this report are valid as of the report date, subject to the limitations presented in *Appendix A, Limitations*.

At the time of this investigation, the Site was vacant and formerly occupied by residential structures. Former Site building(s) had been demolished as part of the Blight Removal Program prior to commencement of this work.

2.0 PURPOSE AND SCOPE OF WORK

The purpose of the work was to assist the COD's blight remediation efforts with the sampling and analysis of fill material at the Site through soil sample collection from pre-determined depths, as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and modified in the field (when necessary) based on encountered conditions and professional judgment of the MSG field geologist.

MSG performed the following scope of work in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025:

- Advanced three (3) onsite soil borings to a maximum depth of six feet below ground surface (bgs) utilizing a hand auger at the locations depicted on *Figure 2*.
- Collected one (1) discrete soil sample for laboratory analysis from each soil boring at a depth of 1-2 feet bgs, 3-4 feet bgs, or 5-6 feet bgs, depending on the soil boring.
- Submitted soil samples to an independent analytical laboratory for chemical analysis.
- Prepared this report summarizing the activities and results of this work.

Per the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, sample analyses included volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); polychlorinated biphenyls (PCBs); arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc (10 Michigan metals); chloride; herbicides; and pesticides. Soil sample analytical results were compared to the current generic residential cleanup criteria (GRCC) promulgated under Part 201 of the *Natural Resources and Environmental Protection Act* (NREPA), 1994 P.A. 451, as amended (Part 201).

3.0 SITE ASSESSMENT METHODOLOGY

The following subsections describe the methodologies employed by MSG at the Site during sampling activities that were conducted on October 14, 2025. A daily field activity report prepared by MSG is presented in *Appendix B, Daily Field Report*.

3.1 Preliminary Site Work Activities

Prior to conducting subsurface soil sampling activities, MSG contacted the MISSDIG utility locating system to identify and physically mark underground utilities. If necessary, proposed soil boring locations were modified based on the results of the utility markings. Additionally, MSG reviewed readily available Site building records

or documents to ensure that this scope of work was conducted on the correct property and in the areas of the former Site structure.

3.2 Soil Sample Collection

The sampling plan for the Site was based on the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and modified in the field (if necessary) based on encountered conditions and professional judgment of MSG's field personnel. MSG advanced three (3) soil borings, designated 6096 Chopin SB-1, 6096 Chopin SB-2, and 6096 Chopin SB-3, using a direct push drill rig at the locations depicted on Figure 2. Photographs collected during completion of this work are provided in *Appendix C, Investigation Photographs*.

Soils were continuously profiled at each soil boring location from the ground surface to the termination depth of six feet bgs using a 5-foot long, closed-piston Macro-Core® sampling device. A new disposable high-density polyethylene (HDPE) liner was placed within the sampler between each 5-foot sample interval. The recovered soil samples were examined and logged in the field by the MSG field geologist. The soils were classified by MSG's field geologist in general accordance with *ASTM D 2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*. Soil descriptions were based on visual examination and interpretation by the field geologist.

Soil samples were examined for visual and olfactory indications of impact in accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and were continuously screened upon retrieval of each sample interval with a MiniRAE 10.6 electron volt (eV) photoionization detector (PID) calibrated with isobutylene span gas. The PID measures the concentration of airborne ionizable gasses and vapors and automatically displays any detected concentrations in parts per million (PPM). The PID measures total concentrations of VOC vapors present and cannot distinguish between individual VOC constituents. PID readings for each sample interval were recorded on the individual soil boring logs, which are included in *Appendix D, Soil Boring Logs*.

Soil samples were collected in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. The soil samples were placed into appropriate pre-preserved and unpreserved laboratory-supplied sample containers, as appropriate for the associated laboratory analyses. Soil samples collected for VOC analysis were placed in laboratory supplied pre-tared 40-milliliter (ml) vials with septum sealed threaded caps that were pre-preserved with methanol provided by the analytical laboratory. Groundwater was not encountered during the investigation.

3.3 Decontamination

Before initiation of sampling and drilling activities and between each sampling/soil boring, equipment was cleaned to avoid the potential for cross-contamination during field activities. Pertinent equipment and tooling were thoroughly cleaned using a phosphate-free soap to remove chemical residue and caked-on soils. After sample collection was completed, each soil boring location was abandoned with the soil cuttings generated at each soil boring location and finished to match the original surface.

3.4 Analytical Methods

A total of three (3) soil samples designated 6096 Chopin SB-1 (1'-2'), 6096 Chopin SB-2 (3'-4'), and 6096 Chopin SB-3 (5'-6'), were collected as part of this investigation. These soil samples were submitted to ALS Environmental Laboratory (ALS) in Holland, Michigan for laboratory analysis of the following parameters per the requested parameters as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025:

- VOCs by United States Environmental Protection Agency (USEPA) Method SW8260D;
- SVOCs by USEPA Method SW8270E;

- PCBs by USEPA Method SW8082A;
- 10 Michigan metals by USEPA Method SW6020B and SW7471B;
- Chloride by USEPA Method SW9056A;
- Herbicides by USEPA Method SW8151A; and
- Pesticides by USEPA Method SW8081B.

3.5 Quality Assurance/Quality Control

Quality assurance and quality control (QA/QC) was achieved in the field by using MSG's standard operating procedures (SOPs) for sample collection, sample screening, sample preservation, and chain-of-custody protocols to ensure sample integrity. Per the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, duplicate soil samples and field blanks were not collected.

Laboratory QC was achieved by using standard analytical methods, the analyses of spiked and laboratory quality control samples, and the use of internal laboratory quality assurance protocols. Review of the laboratory's QC data indicated the validity of the data and that it is able to be used for assessing soil samples collected during this work.

4.0 SUMMARY OF RESULTS

The following subsections include a discussion of the soil samples that were collected from the Site on October 14, 2025.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 6096 Chopin SB-1, 6096 Chopin SB-2, and 6096 Chopin SB-3 generally consisted of five feet of brown sand underlain by brown silty clay to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.

Groundwater was not encountered during soil boring activities completed as part of this investigation.

4.2 Soil Sample Analytical Results

Three (3) soil samples, designated 6096 Chopin SB-1 (1'-2'), 6096 Chopin SB-2 (3'-4'), and 6096 Chopin SB-3 (5'-6'), were collected from the Site and submitted to ALS for laboratory analysis of VOCs, SVOCs, PCBs, Michigan 10 Metals, chloride, herbicides, and pesticides.

The analytical results and comparisons to applicable Part 201 GRCC are summarized in *Table 1, Soil Sample Analytical Detection Summary*. Copies of the laboratory analytical data reports and chain of custody forms are included in *Appendix E, Laboratory Analytical Reports and Chain of Custody Forms*.

A summary of the soil sample analytical detections in excess of Part 201 GRCC is provided below:

Chemical	CAS Number	Soil Sample (feet bgs)	Part 201 GRCC Exceeded / Concentration ($\mu\text{g}/\text{kg}^1$)	Maximum Detected Concentration ($\mu\text{g}/\text{kg}$)
Arsenic	7440-38-2	6096 Chopin SB-1 (1-2) 6096 Chopin SB-2 (3-4) 6096 Chopin SB-3 (5-6)	GSIPC ² / 4,600 DWPC ³ / 4,600 DCC ⁴ / 7,600	9,460
Benzo(a)pyrene	50-32-8	6096 Chopin SB-3 (5-6)	DCC / 2,000	16,600
Benzo(b)fluoranthene	205-99-2	6096 Chopin SB-3 (5-6)	DCC / 20,000	22,300
Carbazole	86-74-8	6096 Chopin SB-3 (5-6)	GSIPC / 1,100	1,950
Dibenzo(a,h)anthracene	53-70-3	6096 Chopin SB-3 (5-6)	DCC / 2,000	2,530
Fluoranthene	206-44-0	6096 Chopin SB-3 (5-6)	GSIPC / 5,500	42,900
Phenanthrene	85-01-8	6096 Chopin SB-3 (5-6)	GSIPC / 2,100	22,400

¹ $\mu\text{g}/\text{kg}$ – micrograms per kilogram;

²GSIPC – Groundwater Surface Water Interface Protection Criteria

³DWPC – Drinking Water Protection Criteria

⁴DCC – Direct Contact Criteria

4.3 Exposure Evaluation

MSG has completed a preliminary evaluation for the Site and associated exposure pathways. Cleanup criteria are applicable if it is reasonable and relevant for the corresponding exposure pathway to be or become complete.

Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable. Since the building on site has been razed, the soil volatilization to indoor air pathway is not currently complete, however, consideration may need to be given to this pathway if future construction is planned. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

5.0 FINDINGS

MSG has evaluated the analytical results of the fill material samples collected at the Site in general accordance with the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025. The findings of this investigation are presented below:

- The stratigraphy encountered during soil boring advancement of 6096 Chopin SB-1, 6096 Chopin SB-2, and 6096 Chopin SB-3 generally consisted of five feet of brown sand underlain by brown silty clay to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores were below instrument detection limits. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.
- Concentrations of arsenic, benzo(a)pyrene, benzo(b)fluoranthene, carbazole, dibenzo(a,h)anthracene, fluoranthene, and phenanthrene were detected in soil samples 6096 Chopin SB-1 (1'-2'), 6096 Chopin SB-2 (3'-4'), and/or 6096 Chopin SB-3 (5'-6') in excess of their respective Part 201 GSIPC, DWPC, and/or DCC.

- Concentrations of naphthalene and phenanthrene were detected in soil sample 6096 Chopin SB-3 (5'-6') in excess of their respective SVIAP.
- Concentrations of 1,1-biphenyl, 1-methylnaphthalene, 2-methylnaphthalene, 3,3'-dichlorobenzidine, acenaphthene, acenaphthylene, anthracene, barium, benzo(a)anthracene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl), phthalate, cadmium, chloride, chromium (Total), chrysene, copper, dibenzofuran, fluorene, indeno(1,2,3-cd)pyrene, lead, mercury, pyrene, and zinc were detected in soil samples 6096 Chopin SB-1 (1'-2'), 6096 Chopin SB-2 (3'-4'), and/or 6096 Chopin SB-3 (5'-6') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- VOCs, PCBs, pesticides, and herbicides were not detected above laboratory method detection reporting limits.
- Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable. Since the building on site has been razed, the soil volatilization to indoor air pathway is not currently complete, however, consideration may need to be given to this pathway if future construction is planned. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

MSG has evaluated the analytical results of the fill material. Based upon the analytical results, we have determined that the material is contaminated above the state's Part 201 GRCC, as applicable.

MSG warrants that no substantive information or documentation was deleted, omitted, or changed that would otherwise cause the MSG to reach a different conclusion. Furthermore, MSG understands that the COD and its agencies and authorities may rely upon the overall completeness, accuracy, and conclusions in this report and hereby provides reliance on the contents presented herein.

FIGURES





Date Saved: 10/31/2025 3:09 PM Coordinate System: GCS WGS 1984
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★ Site Location

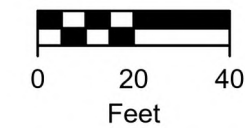


FIGURE 1
SITE LOCATION

6096 Chopin, Detroit, MI

DATE 10/31/2025	DRAWN BY JWW	DESIGNED BY JWW	PROJECT NO. DETRO060
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- Sample Locations
- - - Parcels (Current)
- - - Subject Property

Notes
• Parcel boundaries are approximate
• Basemap Credits: Wayne - 2020 - 6in - 4-band:



FIGURE 2
Site Layout

6096 Chopin, Detroit, MI

DATE 10/31/2025	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. DETR0060
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TABLE



**Table 1
Soil Sample Analytical Detection Summary
6096 Chopin
Detroit, Michigan**

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 and Volatilization to Indoor Air Pathway Screening Levels Revised February 26, 2024 Units: µg/kg	Inorganic Anions/Ions	Metals									Semivolatile Organic Compounds (SVOCs)										
	Chloride	Arsenic (B)	Barium (B)	Cadmium (B)	Chromium, Total (B)	Copper (B)	Lead (B)	Mercury (B)	Zinc (B)	1,1-Biphenyl	1-Methylnaphthalene	2-Methylnaphthalene	3,3-Dichlorobenzidine	Acenaphthene	Acenaphthylene	Anthracene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene		
CAS Number	16887-00-6	7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7440-66-6	92-52-4	90-12-0	91-57-6	91-94-1	83-32-9	208-96-8	120-12-7	56-55-3	50-32-8	205-99-2		
Statewide Default Background Levels	NC	5,800	75,000	1,200	18,000	32,000	21,000	130	47,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Drinking Water Protection Criteria (DWPC)	5.00E+06	4,600	1.30E+06	6,000	30,000	5.80E+06	7.00E+05	1,700	2.40E+06	NC	NC	57,000	2,000 ^(M,28)	3.00E+05	5,900	41,000	NLL	NLL	NLL		
Groundwater Surface Water Interface Protection Criteria (GSIPC)	NC	4,600	4.40E+05 ^(G)	3,600 ^(G)	3,300	75,000 ^(G)	6.00E+06 ^(G)	50 ^(M,1,2)	1.60E+05	NC	NC	4,200	2,000 ^(M,7,4)	8,700	ID	ID	NLL	NLL	NLL		
Soil Volatilization to Indoor Air Inhalation (SVIIC)	NC	NLV	NLV	NLV	NLV	NLV	NLV	48,000	NC	NC	NC	2.70E+06	NLV	1.90E+08	1.60E+06	1.00E+09	NLV	NLV	ID		
Soil Volatilization to Indoor Air Pathway (SVIAP)	NC	NC	NC	NC	NC	NC	NC	22 ^(M)	NC	NC	NC	1,700	NC	2.00E+05	NC	1.30E+07	1.60E+05 ^(M)	NC	NC		
Infinite Source Volatile Soil Inhalation Criteria (VSIC)	NC	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NC	NC	NC	1.50E+06	NLV	8.10E+07	2.20E+06	1.40E+09	NLV	NLV	ID		
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)	NC	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NC	NC	NC	1.50E+06	NLV	8.10E+07	2.20E+06	1.40E+09	NLV	NLV	ID		
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)	NC	NLV	NLV	NLV	NC	NLV	NLV	52,000	NC	NC	NC	1.50E+06	NLV	8.10E+07	2.20E+06	1.40E+09	NLV	NLV	ID		
Particulate Soil Inhalation Criteria (PSIC)	NC	7.20E+05	3.30E+08	1.70E+06	2.60E+05	1.30E+08	1.00E+08	2.00E+07	NC	NC	NC	6.70E+08	6.50E+06	1.40E+10	2.30E+09	6.70E+10	ID	1.50E+06	ID		
Direct Contact Criteria (DCC)	5.00E+05	7,600	3.70E+07	5.50E+05	2.50E+06	2.00E+07	4.00E+05	1.60E+05	1.70E+08	NC	NC	8.10E+06	6,600	4.10E+07	1.60E+06	2.30E+08	20,000	2,000	20,000		
Soil Saturation Concentration Screening Levels (Csat)	NC	NA	NA	NA	NA	NA	NA	NA	NC	NC	NC	NA	NA	NA	NA	NA	NA	NA	NA		
Sample ID	Sample Depth (ft)	Sample Date																			
6096 Chopin SB-1	1-2	10/14/2025	7,100 J	5,810	22,200	180 J	7,880	15,200	9,930	53.5	41,300	< 13.5	< 12	< 8.44	54.8 J	< 12	< 14.4	< 11.7	43.2	51.5	78.1
6096 Chopin SB-2	3-4	10/14/2025	7,300 J	6,090	15,300	170 J	6,640	13,400	5,380	47.5	37,100	< 14.2	< 12.6	< 8.87	< 40.7	< 12.6	< 15.1	< 12.3	38.4	48.8	59.3
6096 Chopin SB-3	5-6	10/14/2025	54,800	9,460	83,500	150 J	15,100	25,200	8,600	17.4 J	47,300	57.5 J	123	121	< 44.8	2,260	49.9	6,370	17,700	16,600	22,300

Notes

µg/kg = Micrograms per Kilogram.

Exceeds Generic Drinking Water Protection Criteria.

Exceeds Groundwater Surface Water Interface Protection Criteria.

Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels.

Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels.

Exceeds PSIC, DCC, and/or Csat, likely exceeds others.

Bold indicates concentration above laboratory reporting limits.

NC = No Criteria; NA = Not Applicable; NLV = Not Likely to Volatize; NLL = Not Likely to Leach.

ND= Not Detected above laboratory reporting limits

J = Result detected above detection limit, but below reporting limit. Value is considered to be estimated.

Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, updated October 12, 2023.

**Table 1
Soil Sample Analytical Detection Summary
6096 Chopin
Detroit, Michigan**

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 and Volatilization to Indoor Air Pathway Screening Levels Revised February 26, 2024 Units: µg/kg	Semivolatile Organic Compounds (SVOCs)													Volatile Organic Compounds (VOCs)	Polychlorinated Biphenyls (PCBs)	Pesticides/Herbicides		
	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Bis(2-ethylhexyl)phthalate	Carbazole	Chrysene	Dibenzo(A,H)Anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-Cd)Pyrene	Naphthalene	Phenanthrene	Pyrene					
CAS Number	191-24-2	207-08-9	117-81-7	86-74-8	218-01-9	53-70-3	132-64-9	206-44-0	86-73-7	193-39-5	91-20-3	85-01-8	129-00-0					
Statewide Default Background Levels	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC					
Drinking Water Protection Criteria (DWPC)	NLL	NLL	NLL	9,400	NLL	NLL	ID	7.30E+05	3.90E+05	NLL	35,000	56,000	4.80E+05					
Groundwater Surface Water Interface Protection Criteria (GSIPC)	NLL	NLL	NLL	1,100	NLL	NLL	1,700	5,500	5,300	NLL	730	2,100	ID					
Soil Volatilization to Indoor Air Inhalation (SVIIC)	NLV	NLV	NLV	NLV	ID	NLV	2.00E+06	1.00E+09	5.80E+08	NLV	2.50E+05	2.80E+06	1.00E+09					
Soil Volatilization to Indoor Air Pathway (SVIAP)	NC	NC	NC	NC	NC	NC	7.10E+06	NC	4.70E+05	NC	67 ^(M)	1,700	2.50E+07					
Infinite Source Volatile Soil Inhalation Criteria (VSIC)	NLV	NLV	NLV	NLV	ID	NLV	1.30E+05	7.40E+08	1.30E+08	NLV	3.00E+05	1.60E+05	6.50E+08					
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)	NLV	NLV	NLV	NLV	ID	NLV	1.30E+05	7.40E+08	1.30E+08	NLV	3.00E+05	1.60E+05	6.50E+08					
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)	NLV	NLV	NLV	NLV	ID	NLV	1.30E+05	7.40E+08	1.30E+08	NLV	3.00E+05	1.60E+05	6.50E+08					
Particulate Soil Inhalation Criteria (PSIC)	8.00E+08	ID	7.00E+08	6.20E+07	ID	ID	6.70E+06	9.30E+09	9.30E+09	ID	2.00E+08	6.70E+06	6.70E+09					
Direct Contact Criteria (DCC)	2.50E+06	2.00E+05	2.80E+06	5.30E+05	2.00E+06	2,000	ID	4.60E+07	2.70E+07	20,000	1.60E+07	1.60E+06	2.90E+07					
Soil Saturation Concentration Screening Levels (Csat)	NA	NA	1.00E+07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Sample ID	Sample Depth (ft)	Sample Date																
6096 Chopin SB-1	1-2	10/14/2025	48.2	28.2	< 68.7	< 24.5	33.2	< 8.97	< 12.2	81.4	< 12.1	51.5	< 10.6	26.6	69.8	ND	ND	ND
6096 Chopin SB-2	3-4	10/14/2025	43.6	29.7	< 72.1	< 25.7	22.7	19.2 J	< 12.8	85.5	< 12.7	48.8	< 11.1	22.7	66.3	ND	ND	ND
6096 Chopin SB-3	5-6	10/14/2025	12,000	6,980	173	1,950	15,300	2,530	999	42,900	2,060	13,200	192	22,400	35,800	ND	ND	ND

Notes

µg/kg = Micrograms per Kilogram.

Exceeds Generic Drinking Water Protection Criteria.

Exceeds Groundwater Surface Water Interface Protection Criteria.

Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels.

Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation Criteria/Screening Levels.

Exceeds PSIC, DCC, and/or Csat, likely exceeds others.

Bold indicates concentration above laboratory reporting limits.

NC = No Criteria; NA = Not Applicable; NLV = Not Likely to Volatilize; NLL = Not Likely to Leach.

ND= Not Detected above laboratory reporting limits

J = Result detected above detection limit, but below reporting limit. Value is considered to be estimated.

Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, updated October 12, 2023.

APPENDIX A
LIMITATIONS



LIMITATIONS

This investigation and related documentation are site-specific, which means they pertain to the environmental conditions of the Site only.

The Mannik & Smith Group, Inc. (MSG) performed its services associated with the investigation in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in these reports are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

Contaminants may be hidden in subsurface material, covered by pavement, vegetation, or other substances. Additionally, contamination may not be present in predictable locations. MSG has prepared a logical investigation program to reduce the client's risk of discovering unknown contamination. This risk may be reduced by more extensive exploration on the Site. Even with additional exploration, it is not possible to completely eliminate the risk of discovering contamination on the Site. It can not be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

Some environmental assessments are undertaken to satisfy "due diligence", "all appropriate inquiry," or other regulatory requirements provided in federal, state, or local law. Although MSG strives to investigate a site in accordance with the scope of work as defined by written agreement with a client, it cannot warrant that the work undertaken for this report will satisfy "due diligence", "all appropriate inquiry," or any other similar standard under any federal, state, or local law.

Due to changing environmental regulatory conditions and potential on-site activities after the completion of investigation, the client may rely upon the conditions within this investigation report for a period of six months from the report's issuance date.

APPENDIX B
DAILY FIELD REPORT





DAILY FIELD REPORT

Client: City of Detroit Demolition Department
Project: Sampling and Analysis of Fill Material – 6096 Chopin

Report No.: 1
Job No.: DETR0060

Date: <u>10/14/2025</u>	Day: <u>Tuesday</u>	Temp: <u>57° F</u> (AM) <u>- ° F</u> (PM)
MSG Personnel: <u>EMB, BSM</u>	Cloud Cover: <u>0%</u> (AM) <u>-</u> (PM)	Precip.: <u>None</u> (AM) <u>-</u> (PM)
Personnel: <u>MSG</u>	Wind: <u>2 mph N</u> (AM) <u>-</u> (PM)	
MSG Hours On-Site: <u>~0.75 hours</u>		

Contractors Information		
Contractor: <u>MSG</u>	No. Men and Type: <u>2; Helper/Geologist/Driller</u>	Equipment Type: <u>Geoprobe 7822DT</u>

Summary of Work Performed:
<ul style="list-style-type: none"> Advanced three (3) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) Collected soil samples from each soil borings (from the interval with the greatest potential to be impacted based on field indicators) and a composite of all three (3) borings.

Field Notes:
<ul style="list-style-type: none"> 0915 – MSG onsite (6096 Chopin). 1030 – Collected 6096 Chopin SB-1 (1'-2'). 1032 - Collected 6096 Chopin SB-2 (3'-4'). 1034 - Collected 6096 Chopin SB-3 (5'-6'). 1036 - Collected 6096 Chopin SB-1,2,3 (0'-6') Comp. MSG GPS'd each SB location. 1130 – MSG off site.

Supporting Documentation								
Photograph Taken	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Samples Collected	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Boring/MW Logs	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Photo Log Attached	<input type="checkbox"/>	<input checked="" type="checkbox"/>	COC Attached	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Field Note Book Taken	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Problem Identification and Corrective Measures
N/A
Resolved? Yes <input type="checkbox"/> No <input type="checkbox"/>

APPENDIX C
INVESTIGATION PHOTOGRAPHS





Photo 1: View of the Site

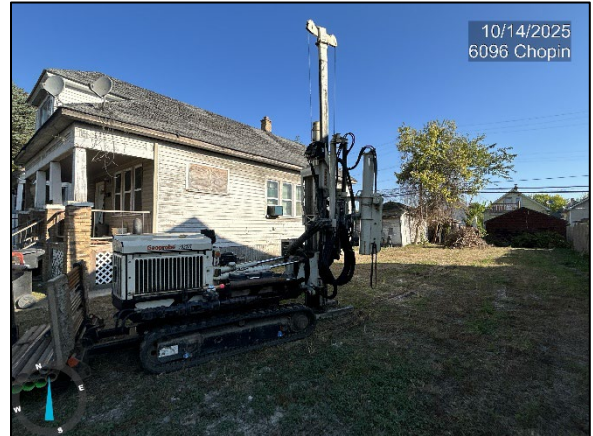


Photo 2: Viewing advancement of 6096 Chopin SB-1



Photo 3: Viewing advancement of 6096 Chopin SB-2



Photo 4: Viewing advancement of 6096 Chopin SB-3



Photo 5: Viewing soil recovery from 6096 Chopin SB-1, SB-2, and SB-3



Photo 6: Viewing the Site post-drilling

APPENDIX D
SOIL BORING LOGS





The Mannik & Smith Group, Inc.
 2365 Haggerty Road South, Canton, MI 48188
 ph: (734) 397-3100 fax: (734) 397-3131
 www.manniksmithgroup.com

BOREHOLE NUMBER SB-1

Sheet 1 of 1

CLIENT City of Detroit
PROJECT NUMBER DETR0060.BFS28
DATE STARTED 10-14-2025 **COMPLETED** 10-14-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 7822DT **Operator** BM

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 6096 Chopin, Detroit, MI
POSITION _____
SURFACE ELEVATION _____ **FINAL DEPTH** 6.0 ft
LOGGED BY EMB **CHECKED BY** PDH
REMARKS _____

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
				0.5 TOPSOIL		
				Brown clayey SAND, trace gravel; moist	0	Collected soil sample 6096 Chopin SB-1 (1-2') at 10:30
	ES	33			0	
5				5.0 Brown silty CLAY, trace sand; moist	0	
				6.0 Terminated at 6.00 ft.	0	
10						
15						

LEGEND:

- ▽ AT TIME OF DRILLING _____
- ▼ AT END OF DRILLING _____
- ▽ AFTER DRILLING _____



The Mannik & Smith Group, Inc.
 2365 Haggerty Road South, Canton, MI 48188
 ph: (734) 397-3100 fax: (734) 397-3131
 www.manniksmithgroup.com

BOREHOLE NUMBER SB-3

Sheet 1 of 1

CLIENT <u>City of Detroit</u>	PROJECT NAME <u>Backfill Soil Sampling</u>
PROJECT NUMBER <u>DETR0060.BFS28</u>	PROJECT LOCATION <u>6096 Chopin, Detroit, MI</u>
DATE STARTED <u>10-14-2025</u> COMPLETED <u>10-14-2025</u>	POSITION _____
DRILLING CONTRACTOR <u>MSG</u>	SURFACE ELEVATION _____ FINAL DEPTH <u>6.0 ft</u>
DRILLING METHOD <u>Direct Push</u>	LOGGED BY <u>EMB</u> CHECKED BY <u>PDH</u>
EQUIPMENT <u>Geoprobe 7822DT</u> Operator <u>BM</u>	REMARKS _____

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
				0.5 TOPSOIL		
				Brown clayey SAND, trace gravel; moist	0	
	ES	42			0	
					0	
					0	
5				5.0 Brown silty CLAY, trace sand; moist	0	Collected soil sample 6096 Chopin SB-3 (5-6') at 10:34
				6.0	0	
				Terminated at 6.00 ft.		
10						
15						

LEGEND:

- ▽ AT TIME OF DRILLING _____
- ▼ AT END OF DRILLING _____
- ▽ AFTER DRILLING _____

APPENDIX E
LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS





right solutions.
right partner.

October 31, 2025

Ryan Montri
The Mannik & Smith Group, Inc.
2365 Haggerty Road South
Suite 100
Canton, MI 48188

Re: **DETR0060**

Date Received: **10/15/2025**

Work Order: **HN2515360**

Dear Ryan,

Enclosed are the results of the sample(s) submitted to our laboratory.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Dale Schipper

/S/ CHAD WHELTON on behalf of PM listed above

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2515360
Date Received: 15-Oct-2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt

3 soil/solid samples were received for analysis at ALS Environmental on 15-Oct-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 8151A-S

Run ID: 3623707

Surrogate DCAA is outside the control limits for the MB and LCS.

Surrogate DCAA is outside the control limits for the MS and MSD due to matrix interference.

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Surrogate Spike DCAA.

HN2515360-001: Surrogate high due to matrix interference. DCAA.

HN2515360-003: Surrogate high due to matrix interference. DCAA.

EPA 8260D-FULL HN-5035A-10mL-S

Run ID: 3615873

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: chloroethane

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: 6096 Chopin SB-1 (1'-2')	Lab ID: HN2515360-001
--	------------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
3,3'-Dichlorobenzidine	54.8	J	38.8	415	µg/kg	EPA 8270E
Arsenic	5.81		0.197	0.303	mg/kg	EPA 6010D
Barium	22.2		0.376	0.606	mg/kg	EPA 6010D
Benzo(a)anthracene	43.2		14.3	16.6	µg/kg	EPA 8270E
Benzo(a)pyrene	51.5		10.2	16.6	µg/kg	EPA 8270E
Benzo(b)fluoranthene	78.1		12.4	16.6	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	48.2		12.7	16.6	µg/kg	EPA 8270E
Benzo(k)fluoranthene	28.2		12.6	16.6	µg/kg	EPA 8270E
Cadmium	0.18	J	0.0497	0.606	mg/kg	EPA 6010D
Chloride	7.1	J	3.29	10.6	mg/kg	EPA 9056A
Chromium	7.88		0.182	0.303	mg/kg	EPA 6010D
Chrysene	33.2		13.4	16.6	µg/kg	EPA 8270E
Copper	15.2		0.448	0.606	mg/kg	EPA 6010D
Fluoranthene	81.4		7.97	16.6	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	51.5		11.6	16.6	µg/kg	EPA 8270E
Lead	9.93		0.242	0.303	mg/kg	EPA 6010D
Mercury	0.0535		0.0136	0.0200	mg/kg	EPA 7471B
Percent Moisture	5.2		0.1	0.1	%	EPA 3550C
Phenanthrene	26.6		7.72	16.6	µg/kg	EPA 8270E
Pyrene	69.8		8.29	16.6	µg/kg	EPA 8270E
Zinc	41.3		0.582	0.606	mg/kg	EPA 6010D

CLIENT ID: 6096 Chopin SB-2 (3'-4')	Lab ID: HN2515360-002
--	------------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	6.09		0.200	0.307	mg/kg	EPA 6010D
Barium	15.3		0.381	0.615	mg/kg	EPA 6010D
Benzo(a)anthracene	38.4		15.1	17.4	µg/kg	EPA 8270E
Benzo(a)pyrene	48.8		10.7	17.4	µg/kg	EPA 8270E
Benzo(b)fluoranthene	59.3		13.0	17.4	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	43.6		13.4	17.4	µg/kg	EPA 8270E
Benzo(k)fluoranthene	29.7		13.2	17.4	µg/kg	EPA 8270E
Cadmium	0.17	J	0.0504	0.615	mg/kg	EPA 6010D
Chloride	7.3	J	3.28	10.6	mg/kg	EPA 9056A
Chromium	6.64		0.184	0.307	mg/kg	EPA 6010D
Chrysene	22.7		14.1	17.4	µg/kg	EPA 8270E
Copper	13.4		0.455	0.615	mg/kg	EPA 6010D
Dibenz(a,h) anthracene	19.2	J	9.42	86.3	µg/kg	EPA 8270E
Fluoranthene	85.5		8.37	17.4	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	48.8		12.1	17.4	µg/kg	EPA 8270E
Lead	5.38		0.246	0.307	mg/kg	EPA 6010D
Mercury	0.0475		0.0136	0.0200	mg/kg	EPA 7471B

SAMPLE DETECTION SUMMARY

This form includes only detections above the limits as presented.

For a full listing of sample results, continue to the Sample Results section of this Report.



CLIENT ID: 6096 Chopin SB-2 (3'-4')	Lab ID: HN2515360-002
--	------------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Percent Moisture	6.3		0.1	0.1	%	EPA 3550C
Phenanthrene	22.7		8.11	17.4	µg/kg	EPA 8270E
Pyrene	66.3		8.70	17.4	µg/kg	EPA 8270E
Zinc	37.1		0.590	0.615	mg/kg	EPA 6010D

CLIENT ID: 6096 Chopin SB-3 (5'-6')	Lab ID: HN2515360-003
--	------------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1'-Biphenyl (BZ-0)	57.5	J	15.6	94.9	µg/kg	EPA 8270E
1-Methylnaphthalene	123		13.8	19.2	µg/kg	EPA 8270E
2-Methylnaphthalene	121		9.75	19.2	µg/kg	EPA 8270E
Acenaphthene	2260		13.9	19.2	µg/kg	EPA 8270E
Acenaphthylene	49.9		16.6	19.2	µg/kg	EPA 8270E
Anthracene	6370		13.5	19.2	µg/kg	EPA 8270E
Arsenic	9.46		0.243	0.372	mg/kg	EPA 6010D
Barium	83.5		0.461	0.744	mg/kg	EPA 6010D
Benzo(a)anthracene	17700		166	192	µg/kg	EPA 8270E
Benzo(a)pyrene	16600		118	192	µg/kg	EPA 8270E
Benzo(b)fluoranthene	22300		143	192	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	12000		147	192	µg/kg	EPA 8270E
Benzo(k)fluoranthene	6980		14.5	19.2	µg/kg	EPA 8270E
Cadmium	0.15	J	0.0610	0.744	mg/kg	EPA 6010D
Carbazole	1950		28.3	94.9	µg/kg	EPA 8270E
Chloride	54.8		3.81	12.3	mg/kg	EPA 9056A
Chromium	15.1		0.223	0.372	mg/kg	EPA 6010D
Chrysene	15300		155	192	µg/kg	EPA 8270E
Copper	25.2		0.551	0.744	mg/kg	EPA 6010D
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	173		79.3	94.9	µg/kg	EPA 8270E
Dibenz(a,h) anthracene	2530		10.4	94.9	µg/kg	EPA 8270E
Dibenzofuran	999		14.1	94.9	µg/kg	EPA 8270E
Fluoranthene	42900		92.0	192	µg/kg	EPA 8270E
Fluorene	2060		13.9	19.2	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	13200		133	192	µg/kg	EPA 8270E
Lead	8.60		0.298	0.372	mg/kg	EPA 6010D
Mercury	0.0174	J	0.0158	0.0232	mg/kg	EPA 7471B
Naphthalene	192		12.3	19.2	µg/kg	EPA 8270E
Percent Moisture	17.8		0.1	0.1	%	EPA 3550C
Phenanthrene	22400		89.2	192	µg/kg	EPA 8270E
Pyrene	35800		95.7	192	µg/kg	EPA 8270E
Zinc	47.3		0.714	0.744	mg/kg	EPA 6010D

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Workorder: HN2515360

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2515360-001	6096 Chopin SB-1 (1'-2')	SOIL/SOLID	10/14/25 10:30	10/15/25 08:00
HN2515360-002	6096 Chopin SB-2 (3'-4')	SOIL/SOLID	10/14/25 10:32	10/15/25 08:00
HN2515360-003	6096 Chopin SB-3 (5'-6')	SOIL/SOLID	10/14/25 10:34	10/15/25 08:00



ALS Environmental

Laboratory location:

Chain of Custody Form

Page 1 of 1

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	6096 chopin	A	VOCs (U.S. EPA Method 8260C (or Method 8260))
Work Order	Quote ID - 11631	Project Number	DETR0060	B	SVOCs (U.S. EPA Method 8270D (or Method 8270))
Company Name	The Mannik and Smith Group	Bill To Company	The Mannik and Smith Group	C	PCBs (U.S. EPA Method 8082)
Send Report To	Ryan Montri	Invoice Attn.		D	Mi 10 Metals (U.S. EPA 6000/7000 Series Methods)
Address	2365 Haggerty Rd South Suite 100	Address	2365 Haggerty Rd South Suite 100	E	Chorides (U.S. EPA Method 9056A)
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188	F	Pesticides (U.S. EPA Method 8081B (or Method 8081))
Phone	734-397-3100	Phone	734-397-3100	G	Herbicides (U.S. EPA Method 8151A (or Method 8151))
Fax		Fax		H	Put on Hold - TCLP Pending Data
e-Mail Address	RMontri@manniksmithgroup.com	e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	6096 chopin SB-1 (1'-2')	10-14-25	1030	Soil	7	4	X										
2	6096 chopin SB-2 (3'-4')	↓	1032	Soil	7	4	X										
3	6096 chopin SB-3 (5'-6')	↓	1034	Soil	7	4	X										
4	6096 chopin SB-4,2,3 (6'-6') COMP	↓	1036	Soil	—	2								X			X
5																	
6																	
7																	
8																	
9																	
10																	

Environmental Division
Holland
Work Order Reference
HN2515360



Telephone : +1 616 399 6070

Sampler(s): Please Print & Sign <i>Eddie Bosas / Edmund Bosas</i>		Shipment Method:		Required Turnaround Time: <input type="checkbox"/> STD 10 Wk Days <input checked="" type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Other _____	
Relinquished by: <i>Eddie Bosas</i>	Date: 10-14-25	Time: 1510	Received by: <i>[Signature]</i>	Notes:		Quote# HN-061825-M&S	
Relinquished by: <i>[Signature]</i>	Date: 10/14/25	Time: 1700	Received by (Laboratory): <i>QS</i>	Cooler Temp.:	QC Package: (Check Box)		
Logged by (Laboratory): <i>AB</i>	Date: 10/15/25	Time: 1425	Checked by (Laboratory):	<i>2.4c</i> <i>1126</i>	Level II: Standard QC	TRRP-Checklist	
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035				Level III: Std QC + Raw Data		TRRP Level IV	
				Level IV: SW846 CLP-Like			
				Other: _____			

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.
Signature denotes acceptance of ALS Group USA, Corp. Terms and Conditions - Please click the link below for detailed Terms & Conditions:

<https://www.alsglobal.com/ALSGroupUSACorpTC>

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ALS Holland Sample Receiving Checklist

Received by:

Chyssa B

Date/Time:

10/15/25 0800

Carrier Name:

QS

Shipping container/cooler in good condition?

Yes / No / Not Present

Custody seals intact on shipping container/cooler?

Yes / No / Not Present

Custody seals intact on sample bottles?

Yes / No / Not Present

Chain of Custody present?

Yes / No

COC signed when relinquished and received?

Yes / No

COC agrees with sample labels?

Yes / No

Samples in proper container/bottle?

Yes / No

Sample containers intact?

Yes / No

Sufficient sample volume for indicated test?

Yes / No

All samples received within holding time?

Yes / No

Container/Temp Blank temperature in compliance?

Yes / No

Temperature(s) (°C):

2.4c / 7.4c

Thermometer(s):

1R6

Sample(s) received on ice?

Yes / No

Matrix/Matrices:

Soil

Cooler(s)/Kit(s):

—

Date/Time sample(s) sent to storage:

10/15/25 1425

Water – VOA vials have zero headspace?

Yes / No / No Vials

Water – pH acceptable upon receipt?

Yes / No / N/A

pH strip lot #: _____ < 2 _____ > 12 _____ Other _____

pH adjusted (note adjustments below)?

Yes / No / N/A

pH adjusted by:

—

Login Notes:

REPORT QUALIFIERS AND DEFINITIONS

*	Value exceeds Regulatory Limit (if MCL displayed)
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
NC	Not Calculated
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
V	The Continuing Calibration Verification was outside of control criteria
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Holland Laboratory Certifications¹

Agency	Type	ID	Issued	Expires
Alabama	Drinking Water (Secondary)	42500	12/17/2024	12/31/2025
Colorado	UST		07/01/2025	06/30/2026
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2025	06/30/2026
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2025	04/01/2026
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/26/2025	6/30/2026
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	06/07/2025	08/31/2026
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

¹ - Scope available upon request

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2515360

Sample Name: 6096 Chopin SB-1 (1'-2')
Laboratory Code: HN2515360-001
Sample Matrix: SOIL/SOLID

Date Collected: 10/14/25
Date Received: 10/15/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AB	2277718		3591101	Jessica Bacon
EPA 6010D	EPA 3050B	001-AA	2288068	Weston Kotecki	3613920	Denise Coffey
EPA 7471B	Method	001-AA	2283800	Maxx Richey	3604481	Maxx Richey
EPA 8081B	EPA 3546	001-AA	2281829	Rachel Plantinga	3613228	Madison Vandenberg
EPA 8082A	EPA 3546	001-AA	2279037	Rachel Plantinga	3605127	Nathaniel Dietlin
EPA 8151A	Method	001-AA	2293135	Rachel Plantinga	3623707	Kathy Malmyga
EPA 8260D	EPA 5035A	001-AC	2279131	Jonathan Vazquez	3611612	Sean Bradfield
EPA 8270E	EPA 3546	001-AA	2291398	Willow Julien	3630819	Erin Wall
EPA 9056A	EPA 9056A	001-AA	2285104	Quoc Nguyen	3604290	Sage Hansen

Sample Name: 6096 Chopin SB-2 (3'-4')
Laboratory Code: HN2515360-002
Sample Matrix: SOIL/SOLID

Date Collected: 10/14/25
Date Received: 10/15/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		002-AB	2277718		3591101	Jessica Bacon
EPA 6010D	EPA 3050B	002-AA	2288068	Weston Kotecki	3613920	Denise Coffey
EPA 7471B	Method	002-AA	2283800	Maxx Richey	3604481	Maxx Richey
EPA 8081B	EPA 3546	002-AA	2281829	Rachel Plantinga	3613228	Madison Vandenberg
EPA 8082A	EPA 3546	002-AA	2279037	Rachel Plantinga	3605127	Nathaniel Dietlin
EPA 8151A	Method	002-AA	2293135	Rachel Plantinga	3623707	Kathy Malmyga
EPA 8260D	EPA 5035A	002-AC	2279131	Jonathan Vazquez	3615873	Sean Bradfield
EPA 8270E	EPA 3546	002-AA	2303031	Willow Julien	3639941	Erin Wall
EPA 9056A	EPA 9056A	002-AA	2286473	Quoc Nguyen	3606696	Sage Hansen

Sample Name: 6096 Chopin SB-3 (5'-6')
Laboratory Code: HN2515360-003
Sample Matrix: SOIL/SOLID

Date Collected: 10/14/25
Date Received: 10/15/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AB	2277718		3591101	Jessica Bacon

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060

Work Order: HN2515360

Sample Name: 6096 Chopin SB-3 (5'-6')
Laboratory Code: HN2515360-003
Sample Matrix: SOIL/SOLID

Date Collected: 10/14/25
Date Received: 10/15/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6010D	EPA 3050B	003-AA	2288068	Weston Kotecki	3613920	Denise Coffey
EPA 7471B	Method	003-AA	2283801	Maxx Richey	3604481	Maxx Richey
EPA 8081B	EPA 3546	003-AA	2281829	Rachel Plantinga	3613228	Madison VandenBer
EPA 8082A	EPA 3546	003-AA	2279037	Rachel Plantinga	3605127	Nathaniel Dietlin
EPA 8151A	Method	003-AA	2293135	Rachel Plantinga	3623707	Kathy Malmyga
EPA 8260D	EPA 5035A	003-AC	2279131	Jonathan Vazquez	3615873	Sean Bradfield
EPA 8270E	EPA 3546	003-AA	2291398	Willow Julien	3630819	Erin Wall
EPA 8270E	EPA 3546	003-AA	2291398	Willow Julien	3638138	Erin Wall
EPA 9056A	EPA 9056A	003-AA	2286473	Quoc Nguyen	3606696	Sage Hansen

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2') **Lab ID: HN2515360-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD									
2,4,5-T	EPA 8151A	<2.10	U	µg/kg	2.10	11.4	1	10/24/25 14:49	10/23/25 07:55
2,4,5-TP (Silvex)	EPA 8151A	<3.75	U	µg/kg	3.75	11.4	1	10/24/25 14:49	10/23/25 07:55
2,4-D	EPA 8151A	<6.10	U	µg/kg	6.10	22.8	1	10/24/25 14:49	10/23/25 07:55
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	146	<i>S</i>	<i>%REC</i>		<i>10-116</i>	<i>1</i>	<i>10/24/25 14:49</i>	<i>10/23/25 07:55</i>
General Chemistry Parameters									
Percent Moisture	EPA 3550C	5.2		%	0.1	0.1	1	10/15/25 19:27	NA
Chloride	EPA 9056A	7.1	J	mg/kg	3.29	10.6	1	10/20/25 00:44	10/19/25 13:54
Metals									
Arsenic	EPA 6010D	5.81		mg/kg	0.197	0.303	1	10/22/25 16:32	10/21/25 10:23
Barium	EPA 6010D	22.2		mg/kg	0.376	0.606	1	10/22/25 16:32	10/21/25 10:23
Cadmium	EPA 6010D	0.18	J	mg/kg	0.0497	0.606	1	10/22/25 16:32	10/21/25 10:23
Chromium	EPA 6010D	7.88		mg/kg	0.182	0.303	1	10/22/25 16:32	10/21/25 10:23
Copper	EPA 6010D	15.2		mg/kg	0.448	0.606	1	10/22/25 16:32	10/21/25 10:23
Lead	EPA 6010D	9.93		mg/kg	0.242	0.303	1	10/22/25 16:32	10/21/25 10:23
Selenium	EPA 6010D	<0.170	U	mg/kg	0.170	0.606	1	10/22/25 16:32	10/21/25 10:23
Silver	EPA 6010D	<0.145	U	mg/kg	0.145	0.303	1	10/22/25 16:32	10/21/25 10:23
Zinc	EPA 6010D	41.3		mg/kg	0.582	0.606	1	10/22/25 16:32	10/21/25 10:23
Mercury	EPA 7471B	0.0535		mg/kg	0.0136	0.0200	1	10/20/25 18:12	10/20/25 10:44
Organochlorine Pesticides by GC/ECD									
4,4'-DDD	EPA 8081B	<16.0	U	µg/kg	16.0	25.0	1	10/21/25 12:22	10/17/25 11:28
4,4'-DDE	EPA 8081B	<16.5	U	µg/kg	16.5	25.0	1	10/21/25 12:22	10/17/25 11:28
4,4'-DDT	EPA 8081B	<16.6	U	µg/kg	16.6	25.0	1	10/21/25 12:22	10/17/25 11:28
Aldrin	EPA 8081B	<16.3	U	µg/kg	16.3	25.0	1	10/21/25 12:22	10/17/25 11:28
alpha-BHC	EPA 8081B	<16.5	U	µg/kg	16.5	25.0	1	10/21/25 12:22	10/17/25 11:28
beta-BHC	EPA 8081B	<16.4	U	µg/kg	16.4	25.0	1	10/21/25 12:22	10/17/25 11:28
Chlordane, Technical	EPA 8081B	<24.8	U	µg/kg	24.8	62.5	1	10/21/25 12:22	10/17/25 11:28
cis-Chlordane	EPA 8081B	<16.7	U	µg/kg	16.7	25.0	1	10/21/25 12:22	10/17/25 11:28
delta-BHC	EPA 8081B	<16.4	U	µg/kg	16.4	25.0	1	10/21/25 12:22	10/17/25 11:28
Dieldrin	EPA 8081B	<17.5	U	µg/kg	17.5	25.0	1	10/21/25 12:22	10/17/25 11:28

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2') **Lab ID: HN2515360-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<16.8	U	µg/kg	16.8	25.0	1	10/21/25 12:22	10/17/25 11:28
Endosulfan II	EPA 8081B	<16.6	U	µg/kg	16.6	25.0	1	10/21/25 12:22	10/17/25 11:28
Endosulfan sulfate	EPA 8081B	<15.4	U	µg/kg	15.4	25.0	1	10/21/25 12:22	10/17/25 11:28
Endrin	EPA 8081B	<20.2	U	µg/kg	20.2	25.0	1	10/21/25 12:22	10/17/25 11:28
Endrin aldehyde	EPA 8081B	<15.8	U	µg/kg	15.8	25.0	1	10/21/25 12:22	10/17/25 11:28
Endrin ketone	EPA 8081B	<15.2	U	µg/kg	15.2	25.0	1	10/21/25 12:22	10/17/25 11:28
gamma-BHC (Lindane)	EPA 8081B	<16.4	U	µg/kg	16.4	25.0	1	10/21/25 12:22	10/17/25 11:28
Heptachlor	EPA 8081B	<16.1	U	µg/kg	16.1	25.0	1	10/21/25 12:22	10/17/25 11:28
Heptachlor epoxide	EPA 8081B	<16.5	U	µg/kg	16.5	25.0	1	10/21/25 12:22	10/17/25 11:28
Methoxychlor	EPA 8081B	<16.7	U	µg/kg	16.7	25.0	1	10/21/25 12:22	10/17/25 11:28
Toxaphene	EPA 8081B	<27.0	U	µg/kg	27.0	150	1	10/21/25 12:22	10/17/25 11:28
trans-Chlordane	EPA 8081B	<16.6	U	µg/kg	16.6	25.0	1	10/21/25 12:22	10/17/25 11:28
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	147		<i>%REC</i>		<i>53-151</i>	<i>1</i>	<i>10/21/25 12:22</i>	<i>10/17/25 11:28</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	111		<i>%REC</i>		<i>67-127</i>	<i>1</i>	<i>10/21/25 12:22</i>	<i>10/17/25 11:28</i>

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<24.0	U	µg/kg	24.0	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1221	EPA 8082A	<24.0	U	µg/kg	24.0	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1232	EPA 8082A	<24.0	U	µg/kg	24.0	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1242	EPA 8082A	<24.0	U	µg/kg	24.0	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1248	EPA 8082A	<24.0	U	µg/kg	24.0	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1254	EPA 8082A	<19.5	U	µg/kg	19.5	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1260	EPA 8082A	<19.5	U	µg/kg	19.5	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1262	EPA 8082A	<19.5	U	µg/kg	19.5	69.9	1	10/18/25 14:23	10/17/25 13:38
Aroclor 1268	EPA 8082A	<19.5	U	µg/kg	19.5	69.9	1	10/18/25 14:23	10/17/25 13:38
Total PCB	EPA 8082A	<19.5	U	µg/kg	19.5	69.9	1	10/18/25 14:23	10/17/25 13:38
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	100		<i>%REC</i>		<i>54-146</i>	<i>1</i>	<i>10/18/25 14:23</i>	<i>10/17/25 13:38</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	84.8		<i>%REC</i>		<i>58-140</i>	<i>1</i>	<i>10/18/25 14:23</i>	<i>10/17/25 13:38</i>

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<13.5	U	µg/kg	13.5	82.2	1	10/27/25 20:15	10/23/25 16:35
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<19.1	U	µg/kg	19.1	830	1	10/27/25 20:15	10/23/25 16:35

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2') **Lab ID: HN2515360-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<59.5	U	µg/kg	59.5	415	1	10/27/25 20:15	10/23/25 16:35
1-Methylnaphthalene	EPA 8270E	<12.0	U	µg/kg	12.0	16.6	1	10/27/25 20:15	10/23/25 16:35
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	<19.5	U	µg/kg	19.5	82.2	1	10/27/25 20:15	10/23/25 16:35
2,3,4,6-Tetrachlorophenol	EPA 8270E	<60.8	U	µg/kg	60.8	166	1	10/27/25 20:15	10/23/25 16:35
2,4,5-Trichlorophenol	EPA 8270E	<49.2	U	µg/kg	49.2	82.2	1	10/27/25 20:15	10/23/25 16:35
2,4,6-Trichlorophenol	EPA 8270E	<22.1	U	µg/kg	22.1	82.2	1	10/27/25 20:15	10/23/25 16:35
2,4-Dichlorophenol	EPA 8270E	<44.7	U	µg/kg	44.7	82.2	1	10/27/25 20:15	10/23/25 16:35
2,4-Dimethylphenol	EPA 8270E	<42.7	U	µg/kg	42.7	82.2	1	10/27/25 20:15	10/23/25 16:35
2,4-Dinitrophenol	EPA 8270E	<607	U	µg/kg	607	830	1	10/27/25 20:15	10/23/25 16:35
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<53.9	U	µg/kg	53.9	82.2	1	10/27/25 20:15	10/23/25 16:35
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<21.2	U	µg/kg	21.2	82.2	1	10/27/25 20:15	10/23/25 16:35
2-Chloronaphthalene	EPA 8270E	<11.6	U	µg/kg	11.6	16.6	1	10/27/25 20:15	10/23/25 16:35
2-Chlorophenol	EPA 8270E	<54.3	U	µg/kg	54.3	82.2	1	10/27/25 20:15	10/23/25 16:35
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<69.4	U	µg/kg	69.4	82.2	1	10/27/25 20:15	10/23/25 16:35
2-Methylnaphthalene	EPA 8270E	<8.44	U	µg/kg	8.44	16.6	1	10/27/25 20:15	10/23/25 16:35
2-Methylphenol (o-Cresol)	EPA 8270E	<22.4	U	µg/kg	22.4	82.2	1	10/27/25 20:15	10/23/25 16:35
2-Nitroaniline	EPA 8270E	<46.1	U	µg/kg	46.1	82.2	1	10/27/25 20:15	10/23/25 16:35
2-Nitrophenol	EPA 8270E	<23.7	U	µg/kg	23.7	82.2	1	10/27/25 20:15	10/23/25 16:35
3&4-Methylphenol	EPA 8270E	<45.3	U	µg/kg	45.3	82.2	1	10/27/25 20:15	10/23/25 16:35
3,3'-Dichlorobenzidine	EPA 8270E	54.8	J	µg/kg	38.8	415	1	10/27/25 20:15	10/23/25 16:35
3-Nitroaniline	EPA 8270E	<48.2	U	µg/kg	48.2	82.2	1	10/27/25 20:15	10/23/25 16:35
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<45.5	U	µg/kg	45.5	82.2	1	10/27/25 20:15	10/23/25 16:35
4-Chloro-3-methylphenol	EPA 8270E	<23.7	U	µg/kg	23.7	82.2	1	10/27/25 20:15	10/23/25 16:35
4-Chloroaniline	EPA 8270E	<42.2	U	µg/kg	42.2	166	1	10/27/25 20:15	10/23/25 16:35
4-Chlorophenyl phenylether	EPA 8270E	<22.9	U	µg/kg	22.9	82.2	1	10/27/25 20:15	10/23/25 16:35
4-Nitroaniline	EPA 8270E	<129	U	µg/kg	129	415	1	10/27/25 20:15	10/23/25 16:35
4-Nitrophenol	EPA 8270E	<194	U	µg/kg	194	830	1	10/27/25 20:15	10/23/25 16:35

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2')

Lab ID: HN2515360-001

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthene	EPA 8270E	<12.0	U	µg/kg	12.0	16.6	1	10/27/25 20:15	10/23/25 16:35
Acenaphthylene	EPA 8270E	<14.4	U	µg/kg	14.4	16.6	1	10/27/25 20:15	10/23/25 16:35
Acetophenone	EPA 8270E	<13.0	U	µg/kg	13.0	82.2	1	10/27/25 20:15	10/23/25 16:35
Anthracene	EPA 8270E	<11.7	U	µg/kg	11.7	16.6	1	10/27/25 20:15	10/23/25 16:35
Atrazine	EPA 8270E	<48.7	SU	µg/kg	48.7	82.2	1	10/27/25 20:15	10/23/25 16:35
Benzaldehyde	EPA 8270E	<128	U	µg/kg	128	166	1	10/27/25 20:15	10/23/25 16:35
Benzo(a)anthracene	EPA 8270E	43.2		µg/kg	14.3	16.6	1	10/27/25 20:15	10/23/25 16:35
Benzo(a)pyrene	EPA 8270E	51.5		µg/kg	10.2	16.6	1	10/27/25 20:15	10/23/25 16:35
Benzo(b)fluoranthene	EPA 8270E	78.1		µg/kg	12.4	16.6	1	10/27/25 20:15	10/23/25 16:35
Benzo(g,h,i)perylene	EPA 8270E	48.2		µg/kg	12.7	16.6	1	10/27/25 20:15	10/23/25 16:35
Benzo(k)fluoranthene	EPA 8270E	28.2		µg/kg	12.6	16.6	1	10/27/25 20:15	10/23/25 16:35
bis(2-Chloroethoxy) methane	EPA 8270E	<52.6	U	µg/kg	52.6	82.2	1	10/27/25 20:15	10/23/25 16:35
bis(2-Chloroethyl) ether	EPA 8270E	<23.5	U	µg/kg	23.5	82.2	1	10/27/25 20:15	10/23/25 16:35
Butyl benzyl phthalate	EPA 8270E	<104	U	µg/kg	104	166	1	10/27/25 20:15	10/23/25 16:35
Caprolactam	EPA 8270E	<74.9	U	µg/kg	74.9	82.2	1	10/27/25 20:15	10/23/25 16:35
Carbazole	EPA 8270E	<24.5	U	µg/kg	24.5	82.2	1	10/27/25 20:15	10/23/25 16:35
Chrysene	EPA 8270E	33.2		µg/kg	13.4	16.6	1	10/27/25 20:15	10/23/25 16:35
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	<68.7	U	µg/kg	68.7	82.2	1	10/27/25 20:15	10/23/25 16:35
Dibenz(a,h) anthracene	EPA 8270E	<8.97	U	µg/kg	8.97	82.2	1	10/27/25 20:15	10/23/25 16:35
Dibenzofuran	EPA 8270E	<12.2	U	µg/kg	12.2	82.2	1	10/27/25 20:15	10/23/25 16:35
Diethyl phthalate	EPA 8270E	<28.2	U	µg/kg	28.2	82.2	1	10/27/25 20:15	10/23/25 16:35
Dimethyl phthalate	EPA 8270E	<16.2	U	µg/kg	16.2	82.2	1	10/27/25 20:15	10/23/25 16:35
Fluoranthene	EPA 8270E	81.4		µg/kg	7.97	16.6	1	10/27/25 20:15	10/23/25 16:35
Fluorene	EPA 8270E	<12.1	U	µg/kg	12.1	16.6	1	10/27/25 20:15	10/23/25 16:35
Hexachlorobenzene	EPA 8270E	<24.2	U	µg/kg	24.2	82.2	1	10/27/25 20:15	10/23/25 16:35
Hexachlorobutadiene	EPA 8270E	<19.6	U	µg/kg	19.6	82.2	1	10/27/25 20:15	10/23/25 16:35
Hexachlorocyclopentadiene	EPA 8270E	<78.7	U	µg/kg	78.7	82.2	1	10/27/25 20:15	10/23/25 16:35
Hexachloroethane	EPA 8270E	<34.4	U	µg/kg	34.4	82.2	1	10/27/25 20:15	10/23/25 16:35
Indeno(1,2,3-cd) pyrene	EPA 8270E	51.5		µg/kg	11.6	16.6	1	10/27/25 20:15	10/23/25 16:35
Isophorone	EPA 8270E	<16.2	U	µg/kg	16.2	415	1	10/27/25 20:15	10/23/25 16:35

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2') **Lab ID: HN2515360-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methylphenol, Total	EPA 8270E	<22.4	U	µg/kg	22.4	82.2	1	10/27/25 20:15	10/23/25 16:35
Naphthalene	EPA 8270E	<10.6	U	µg/kg	10.6	16.6	1	10/27/25 20:15	10/23/25 16:35
Nitrobenzene	EPA 8270E	<27.9	U	µg/kg	27.9	415	1	10/27/25 20:15	10/23/25 16:35
n-Nitrosodi-n-propylamine	EPA 8270E	<13.7	U	µg/kg	13.7	82.2	1	10/27/25 20:15	10/23/25 16:35
N-Nitrosodiphenylamine	EPA 8270E	<48.1	U	µg/kg	48.1	82.2	1	10/27/25 20:15	10/23/25 16:35
Pentachlorophenol	EPA 8270E	<66.0	U	µg/kg	66.0	82.2	1	10/27/25 20:15	10/23/25 16:35
Phenanthrene	EPA 8270E	26.6		µg/kg	7.72	16.6	1	10/27/25 20:15	10/23/25 16:35
Phenol	EPA 8270E	<41.7	U	µg/kg	41.7	82.2	1	10/27/25 20:15	10/23/25 16:35
Pyrene	EPA 8270E	69.8		µg/kg	8.29	16.6	1	10/27/25 20:15	10/23/25 16:35
Pyridine	EPA 8270E	<163	U	µg/kg	163	415	1	10/27/25 20:15	10/23/25 16:35
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	64.1		<i>%REC</i>		<i>48-94</i>	<i>1</i>	<i>10/27/25 20:15</i>	<i>10/23/25 16:35</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	69.4		<i>%REC</i>		<i>50-103</i>	<i>1</i>	<i>10/27/25 20:15</i>	<i>10/23/25 16:35</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	64.1		<i>%REC</i>		<i>43-105</i>	<i>1</i>	<i>10/27/25 20:15</i>	<i>10/23/25 16:35</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	72.6		<i>%REC</i>		<i>55-111</i>	<i>1</i>	<i>10/27/25 20:15</i>	<i>10/23/25 16:35</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	59.1		<i>%REC</i>		<i>47-100</i>	<i>1</i>	<i>10/27/25 20:15</i>	<i>10/23/25 16:35</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	69.1		<i>%REC</i>		<i>49-110</i>	<i>1</i>	<i>10/27/25 20:15</i>	<i>10/23/25 16:35</i>

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<15.2	U	µg/kg	15.2	33.4	1	10/21/25 17:21	10/16/25 12:58
1,1,2,2-Tetrachloroethane	EPA 8260D	<14.8	U	µg/kg	14.8	33.4	1	10/21/25 17:21	10/16/25 12:58
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<21.2	U	µg/kg	21.2	33.4	1	10/21/25 17:21	10/16/25 12:58
1,1,2-Trichloroethane	EPA 8260D	<14.2	U	µg/kg	14.2	33.4	1	10/21/25 17:21	10/16/25 12:58
1,1-Dichloroethane	EPA 8260D	<12.2	U	µg/kg	12.2	33.4	1	10/21/25 17:21	10/16/25 12:58
1,1-Dichloroethylene	EPA 8260D	<10.8	U	µg/kg	10.8	33.4	1	10/21/25 17:21	10/16/25 12:58
1,2,3-Trichlorobenzene	EPA 8260D	<40.1	U	µg/kg	40.1	111	1	10/21/25 17:21	10/16/25 12:58
1,2,3-Trichloropropane	EPA 8260D	<14.0	U	µg/kg	14.0	33.4	1	10/21/25 17:21	10/16/25 12:58
1,2,4-Trichlorobenzene	EPA 8260D	<37.9	U	µg/kg	37.9	111	1	10/21/25 17:21	10/16/25 12:58
1,2,4-Trimethylbenzene	EPA 8260D	<24.5	U	µg/kg	24.5	33.4	1	10/21/25 17:21	10/16/25 12:58
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<30.8	U	µg/kg	30.8	111	1	10/21/25 17:21	10/16/25 12:58
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<19.7	U	µg/kg	19.7	33.4	1	10/21/25 17:21	10/16/25 12:58
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<12.7	U	µg/kg	12.7	33.4	1	10/21/25 17:21	10/16/25 12:58

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2') **Lab ID: HN2515360-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<19.7	U	µg/kg	19.7	111	1	10/21/25 17:21	10/16/25 12:58
1,2-Dichloropropane	EPA 8260D	<24.6	U	µg/kg	24.6	33.4	1	10/21/25 17:21	10/16/25 12:58
1,3,5-Trimethylbenzene	EPA 8260D	<23.6	U	µg/kg	23.6	111	1	10/21/25 17:21	10/16/25 12:58
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	<23.1	U	µg/kg	23.1	33.4	1	10/21/25 17:21	10/16/25 12:58
1,3-Dichloropropene	EPA 8260D	<18.7	U	µg/kg	18.7	66.9	1	10/21/25 17:21	10/16/25 12:58
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	<27.2	U	µg/kg	27.2	33.4	1	10/21/25 17:21	10/16/25 12:58
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<79.6	U	µg/kg	79.6	223	1	10/21/25 17:21	10/16/25 12:58
2-Hexanone	EPA 8260D	<16.6	U	µg/kg	16.6	33.4	1	10/21/25 17:21	10/16/25 12:58
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<31.2	U	µg/kg	31.2	33.4	1	10/21/25 17:21	10/16/25 12:58
Acetone	EPA 8260D	<99.2	U	µg/kg	99.2	111	1	10/21/25 17:21	10/16/25 12:58
Benzene	EPA 8260D	<16.2	U	µg/kg	16.2	33.4	1	10/21/25 17:21	10/16/25 12:58
Bromochloromethane	EPA 8260D	<17.0	U	µg/kg	17.0	33.4	1	10/21/25 17:21	10/16/25 12:58
Bromodichloromethane	EPA 8260D	<18.7	U	µg/kg	18.7	33.4	1	10/21/25 17:21	10/16/25 12:58
Bromoform	EPA 8260D	<14.1	U	µg/kg	14.1	33.4	1	10/21/25 17:21	10/16/25 12:58
Carbon disulfide	EPA 8260D	<17.3	U	µg/kg	17.3	33.4	1	10/21/25 17:21	10/16/25 12:58
Carbon tetrachloride	EPA 8260D	<13.1	U	µg/kg	13.1	33.4	1	10/21/25 17:21	10/16/25 12:58
Chlorobenzene	EPA 8260D	<11.1	U	µg/kg	11.1	33.4	1	10/21/25 17:21	10/16/25 12:58
Chlorodibromomethane	EPA 8260D	<18.8	U	µg/kg	18.8	33.4	1	10/21/25 17:21	10/16/25 12:58
Chloroethane (Ethyl chloride)	EPA 8260D	<93.6	U	µg/kg	93.6	111	1	10/21/25 17:21	10/16/25 12:58
Chloroform	EPA 8260D	<12.2	U	µg/kg	12.2	33.4	1	10/21/25 17:21	10/16/25 12:58
cis-1,2-Dichloroethylene	EPA 8260D	<21.5	U	µg/kg	21.5	33.4	1	10/21/25 17:21	10/16/25 12:58
cis-1,3-Dichloropropene	EPA 8260D	<25.2	U	µg/kg	25.2	33.4	1	10/21/25 17:21	10/16/25 12:58
Cyclohexane	EPA 8260D	<25.6	U	µg/kg	25.6	111	1	10/21/25 17:21	10/16/25 12:58
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<40.5	U	µg/kg	40.5	111	1	10/21/25 17:21	10/16/25 12:58
Ethylbenzene	EPA 8260D	<23.7	U	µg/kg	23.7	33.4	1	10/21/25 17:21	10/16/25 12:58
Isopropylbenzene	EPA 8260D	<21.1	U	µg/kg	21.1	33.4	1	10/21/25 17:21	10/16/25 12:58
m+p-Xylene	EPA 8260D	<44.6	U	µg/kg	44.6	66.9	1	10/21/25 17:21	10/16/25 12:58
Methyl bromide (Bromomethane)	EPA 8260D	<64.0	U	µg/kg	64.0	111	1	10/21/25 17:21	10/16/25 12:58

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:30
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-1 (1'-2') **Lab ID: HN2515360-001**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<91.4	U	µg/kg	91.4	111	1	10/21/25 17:21	10/16/25 12:58
Methyl tert-butyl ether (MTBE)	EPA 8260D	<24.4	U	µg/kg	24.4	33.4	1	10/21/25 17:21	10/16/25 12:58
Methylcyclohexane	EPA 8260D	<12.8	U	µg/kg	12.8	33.4	1	10/21/25 17:21	10/16/25 12:58
Methylene chloride (Dichloromethane)	EPA 8260D	<88.7	U	µg/kg	88.7	279	1	10/21/25 17:21	10/16/25 12:58
o-Xylene	EPA 8260D	<12.9	U	µg/kg	12.9	33.4	1	10/21/25 17:21	10/16/25 12:58
Styrene	EPA 8260D	<13.3	U	µg/kg	13.3	33.4	1	10/21/25 17:21	10/16/25 12:58
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<20.1	U	µg/kg	20.1	33.4	1	10/21/25 17:21	10/16/25 12:58
Toluene	EPA 8260D	<27.6	U	µg/kg	27.6	33.4	1	10/21/25 17:21	10/16/25 12:58
Total Xylene	EPA 8260D	<12.9	U	µg/kg	12.9	100	1	10/21/25 17:21	10/16/25 12:58
trans-1,2-Dichloroethylene	EPA 8260D	<27.6	U	µg/kg	27.6	33.4	1	10/21/25 17:21	10/16/25 12:58
trans-1,3-Dichloropropylene	EPA 8260D	<18.7	U	µg/kg	18.7	33.4	1	10/21/25 17:21	10/16/25 12:58
Trichloroethene (Trichloroethylene)	EPA 8260D	<15.0	U	µg/kg	15.0	33.4	1	10/21/25 17:21	10/16/25 12:58
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<17.1	U	µg/kg	17.1	33.4	1	10/21/25 17:21	10/16/25 12:58
Vinyl chloride (Chloroethene)	EPA 8260D	<22.2	U	µg/kg	22.2	33.4	1	10/21/25 17:21	10/16/25 12:58
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	102		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/21/25 17:21</i>	<i>10/16/25 12:58</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	103		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/21/25 17:21</i>	<i>10/16/25 12:58</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	87.6		<i>%REC</i>		<i>72-120</i>	<i>1</i>	<i>10/21/25 17:21</i>	<i>10/16/25 12:58</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/21/25 17:21</i>	<i>10/16/25 12:58</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4')
Lab ID: HN2515360-002

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD									
2,4,5-T	EPA 8151A	<2.10	U	µg/kg	2.10	11.4	1	10/24/25 15:02	10/23/25 07:55
2,4,5-TP (Silvex)	EPA 8151A	<3.74	U	µg/kg	3.74	11.4	1	10/24/25 15:02	10/23/25 07:55
2,4-D	EPA 8151A	<6.09	U	µg/kg	6.09	22.8	1	10/24/25 15:02	10/23/25 07:55
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	88.0		<i>%REC</i>		<i>10-116</i>	<i>1</i>	<i>10/24/25 15:02</i>	<i>10/23/25 07:55</i>
General Chemistry Parameters									
Percent Moisture	EPA 3550C	6.3		%	0.1	0.1	1	10/15/25 19:27	NA
Chloride	EPA 9056A	7.3	J	mg/kg	3.28	10.6	1	10/20/25 22:06	10/20/25 15:35
Metals									
Arsenic	EPA 6010D	6.09		mg/kg	0.200	0.307	1	10/22/25 16:54	10/21/25 10:23
Barium	EPA 6010D	15.3		mg/kg	0.381	0.615	1	10/22/25 16:54	10/21/25 10:23
Cadmium	EPA 6010D	0.17	J	mg/kg	0.0504	0.615	1	10/22/25 16:54	10/21/25 10:23
Chromium	EPA 6010D	6.64		mg/kg	0.184	0.307	1	10/22/25 16:54	10/21/25 10:23
Copper	EPA 6010D	13.4		mg/kg	0.455	0.615	1	10/22/25 16:54	10/21/25 10:23
Lead	EPA 6010D	5.38		mg/kg	0.246	0.307	1	10/22/25 16:54	10/21/25 10:23
Selenium	EPA 6010D	<0.172	U	mg/kg	0.172	0.615	1	10/22/25 16:54	10/21/25 10:23
Silver	EPA 6010D	<0.148	U	mg/kg	0.148	0.307	1	10/22/25 16:54	10/21/25 10:23
Zinc	EPA 6010D	37.1		mg/kg	0.590	0.615	1	10/22/25 16:54	10/21/25 10:23
Mercury	EPA 7471B	0.0475		mg/kg	0.0136	0.0200	1	10/20/25 18:13	10/20/25 10:44
Organochlorine Pesticides by GC/ECD									
4,4'-DDD	EPA 8081B	<16.7	U	µg/kg	16.7	26.2	1	10/21/25 12:34	10/17/25 11:28
4,4'-DDE	EPA 8081B	<17.2	U	µg/kg	17.2	26.2	1	10/21/25 12:34	10/17/25 11:28
4,4'-DDT	EPA 8081B	<17.4	U	µg/kg	17.4	26.2	1	10/21/25 12:34	10/17/25 11:28
Aldrin	EPA 8081B	<17.0	U	µg/kg	17.0	26.2	1	10/21/25 12:34	10/17/25 11:28
alpha-BHC	EPA 8081B	<17.2	U	µg/kg	17.2	26.2	1	10/21/25 12:34	10/17/25 11:28
beta-BHC	EPA 8081B	<17.2	U	µg/kg	17.2	26.2	1	10/21/25 12:34	10/17/25 11:28
Chlordane, Technical	EPA 8081B	<25.9	U	µg/kg	25.9	65.4	1	10/21/25 12:34	10/17/25 11:28
cis-Chlordane	EPA 8081B	<17.5	U	µg/kg	17.5	26.2	1	10/21/25 12:34	10/17/25 11:28
delta-BHC	EPA 8081B	<17.1	U	µg/kg	17.1	26.2	1	10/21/25 12:34	10/17/25 11:28
Dieldrin	EPA 8081B	<18.3	U	µg/kg	18.3	26.2	1	10/21/25 12:34	10/17/25 11:28

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4') **Lab ID: HN2515360-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<17.6	U	µg/kg	17.6	26.2	1	10/21/25 12:34	10/17/25 11:28
Endosulfan II	EPA 8081B	<17.3	U	µg/kg	17.3	26.2	1	10/21/25 12:34	10/17/25 11:28
Endosulfan sulfate	EPA 8081B	<16.1	U	µg/kg	16.1	26.2	1	10/21/25 12:34	10/17/25 11:28
Endrin	EPA 8081B	<21.2	U	µg/kg	21.2	26.2	1	10/21/25 12:34	10/17/25 11:28
Endrin aldehyde	EPA 8081B	<16.6	U	µg/kg	16.6	26.2	1	10/21/25 12:34	10/17/25 11:28
Endrin ketone	EPA 8081B	<15.9	U	µg/kg	15.9	26.2	1	10/21/25 12:34	10/17/25 11:28
gamma-BHC (Lindane)	EPA 8081B	<17.2	U	µg/kg	17.2	26.2	1	10/21/25 12:34	10/17/25 11:28
Heptachlor	EPA 8081B	<16.9	U	µg/kg	16.9	26.2	1	10/21/25 12:34	10/17/25 11:28
Heptachlor epoxide	EPA 8081B	<17.3	U	µg/kg	17.3	26.2	1	10/21/25 12:34	10/17/25 11:28
Methoxychlor	EPA 8081B	<17.5	U	µg/kg	17.5	26.2	1	10/21/25 12:34	10/17/25 11:28
Toxaphene	EPA 8081B	<28.3	U	µg/kg	28.3	157	1	10/21/25 12:34	10/17/25 11:28
trans-Chlordane	EPA 8081B	<17.4	U	µg/kg	17.4	26.2	1	10/21/25 12:34	10/17/25 11:28
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	148		<i>%REC</i>		<i>53-151</i>	<i>1</i>	<i>10/21/25 12:34</i>	<i>10/17/25 11:28</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	110		<i>%REC</i>		<i>67-127</i>	<i>1</i>	<i>10/21/25 12:34</i>	<i>10/17/25 11:28</i>

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<23.9	U	µg/kg	23.9	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1221	EPA 8082A	<23.9	U	µg/kg	23.9	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1232	EPA 8082A	<23.9	U	µg/kg	23.9	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1242	EPA 8082A	<23.9	U	µg/kg	23.9	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1248	EPA 8082A	<23.9	U	µg/kg	23.9	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1254	EPA 8082A	<19.5	U	µg/kg	19.5	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1260	EPA 8082A	<19.5	U	µg/kg	19.5	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1262	EPA 8082A	<19.5	U	µg/kg	19.5	69.8	1	10/18/25 14:34	10/17/25 13:38
Aroclor 1268	EPA 8082A	<19.5	U	µg/kg	19.5	69.8	1	10/18/25 14:34	10/17/25 13:38
Total PCB	EPA 8082A	<19.5	U	µg/kg	19.5	69.8	1	10/18/25 14:34	10/17/25 13:38
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	106		<i>%REC</i>		<i>54-146</i>	<i>1</i>	<i>10/18/25 14:34</i>	<i>10/17/25 13:38</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	95.4		<i>%REC</i>		<i>58-140</i>	<i>1</i>	<i>10/18/25 14:34</i>	<i>10/17/25 13:38</i>

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<14.2	U	µg/kg	14.2	86.3	1	10/29/25 15:23	10/28/25 11:33
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<20.1	U	µg/kg	20.1	871	1	10/29/25 15:23	10/28/25 11:33

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4') **Lab ID: HN2515360-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<62.5	U	µg/kg	62.5	436	1	10/29/25 15:23	10/28/25 11:33
1-Methylnaphthalene	EPA 8270E	<12.6	U	µg/kg	12.6	17.4	1	10/29/25 15:23	10/28/25 11:33
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	<20.4	U	µg/kg	20.4	86.3	1	10/29/25 15:23	10/28/25 11:33
2,3,4,6-Tetrachlorophenol	EPA 8270E	<63.9	U	µg/kg	63.9	174	1	10/29/25 15:23	10/28/25 11:33
2,4,5-Trichlorophenol	EPA 8270E	<51.7	U	µg/kg	51.7	86.3	1	10/29/25 15:23	10/28/25 11:33
2,4,6-Trichlorophenol	EPA 8270E	<23.2	U	µg/kg	23.2	86.3	1	10/29/25 15:23	10/28/25 11:33
2,4-Dichlorophenol	EPA 8270E	<46.9	U	µg/kg	46.9	86.3	1	10/29/25 15:23	10/28/25 11:33
2,4-Dimethylphenol	EPA 8270E	<44.8	U	µg/kg	44.8	86.3	1	10/29/25 15:23	10/28/25 11:33
2,4-Dinitrophenol	EPA 8270E	<638	U	µg/kg	638	871	1	10/29/25 15:23	10/28/25 11:33
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<56.6	U	µg/kg	56.6	86.3	1	10/29/25 15:23	10/28/25 11:33
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<22.3	U	µg/kg	22.3	86.3	1	10/29/25 15:23	10/28/25 11:33
2-Chloronaphthalene	EPA 8270E	<12.2	U	µg/kg	12.2	17.4	1	10/29/25 15:23	10/28/25 11:33
2-Chlorophenol	EPA 8270E	<57.1	U	µg/kg	57.1	86.3	1	10/29/25 15:23	10/28/25 11:33
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<72.8	U	µg/kg	72.8	86.3	1	10/29/25 15:23	10/28/25 11:33
2-Methylnaphthalene	EPA 8270E	<8.87	U	µg/kg	8.87	17.4	1	10/29/25 15:23	10/28/25 11:33
2-Methylphenol (o-Cresol)	EPA 8270E	<23.6	U	µg/kg	23.6	86.3	1	10/29/25 15:23	10/28/25 11:33
2-Nitroaniline	EPA 8270E	<48.4	U	µg/kg	48.4	86.3	1	10/29/25 15:23	10/28/25 11:33
2-Nitrophenol	EPA 8270E	<24.9	U	µg/kg	24.9	86.3	1	10/29/25 15:23	10/28/25 11:33
3&4-Methylphenol	EPA 8270E	<47.5	U	µg/kg	47.5	86.3	1	10/29/25 15:23	10/28/25 11:33
3,3'-Dichlorobenzidine	EPA 8270E	<40.7	U	µg/kg	40.7	436	1	10/29/25 15:23	10/28/25 11:33
3-Nitroaniline	EPA 8270E	<50.6	U	µg/kg	50.6	86.3	1	10/29/25 15:23	10/28/25 11:33
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<47.8	U	µg/kg	47.8	86.3	1	10/29/25 15:23	10/28/25 11:33
4-Chloro-3-methylphenol	EPA 8270E	<24.9	U	µg/kg	24.9	86.3	1	10/29/25 15:23	10/28/25 11:33
4-Chloroaniline	EPA 8270E	<44.3	U	µg/kg	44.3	174	1	10/29/25 15:23	10/28/25 11:33
4-Chlorophenyl phenylether	EPA 8270E	<24.1	U	µg/kg	24.1	86.3	1	10/29/25 15:23	10/28/25 11:33
4-Nitroaniline	EPA 8270E	<135	U	µg/kg	135	436	1	10/29/25 15:23	10/28/25 11:33
4-Nitrophenol	EPA 8270E	<204	U	µg/kg	204	871	1	10/29/25 15:23	10/28/25 11:33

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4') **Lab ID: HN2515360-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthene	EPA 8270E	<12.6	U	µg/kg	12.6	17.4	1	10/29/25 15:23	10/28/25 11:33
Acenaphthylene	EPA 8270E	<15.1	U	µg/kg	15.1	17.4	1	10/29/25 15:23	10/28/25 11:33
Acetophenone	EPA 8270E	<13.7	U	µg/kg	13.7	86.3	1	10/29/25 15:23	10/28/25 11:33
Anthracene	EPA 8270E	<12.3	U	µg/kg	12.3	17.4	1	10/29/25 15:23	10/28/25 11:33
Atrazine	EPA 8270E	<51.1	U	µg/kg	51.1	86.3	1	10/29/25 15:23	10/28/25 11:33
Benzaldehyde	EPA 8270E	<134	U	µg/kg	134	174	1	10/29/25 15:23	10/28/25 11:33
Benzo(a)anthracene	EPA 8270E	38.4		µg/kg	15.1	17.4	1	10/29/25 15:23	10/28/25 11:33
Benzo(a)pyrene	EPA 8270E	48.8		µg/kg	10.7	17.4	1	10/29/25 15:23	10/28/25 11:33
Benzo(b)fluoranthene	EPA 8270E	59.3		µg/kg	13.0	17.4	1	10/29/25 15:23	10/28/25 11:33
Benzo(g,h,i)perylene	EPA 8270E	43.6		µg/kg	13.4	17.4	1	10/29/25 15:23	10/28/25 11:33
Benzo(k)fluoranthene	EPA 8270E	29.7		µg/kg	13.2	17.4	1	10/29/25 15:23	10/28/25 11:33
bis(2-Chloroethoxy) methane	EPA 8270E	<55.2	U	µg/kg	55.2	86.3	1	10/29/25 15:23	10/28/25 11:33
bis(2-Chloroethyl) ether	EPA 8270E	<24.7	U	µg/kg	24.7	86.3	1	10/29/25 15:23	10/28/25 11:33
Butyl benzyl phthalate	EPA 8270E	<109	U	µg/kg	109	174	1	10/29/25 15:23	10/28/25 11:33
Caprolactam	EPA 8270E	<78.7	U	µg/kg	78.7	86.3	1	10/29/25 15:23	10/28/25 11:33
Carbazole	EPA 8270E	<25.7	U	µg/kg	25.7	86.3	1	10/29/25 15:23	10/28/25 11:33
Chrysene	EPA 8270E	22.7		µg/kg	14.1	17.4	1	10/29/25 15:23	10/28/25 11:33
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	<72.1	U	µg/kg	72.1	86.3	1	10/29/25 15:23	10/28/25 11:33
Dibenz(a,h) anthracene	EPA 8270E	19.2	J	µg/kg	9.42	86.3	1	10/29/25 15:23	10/28/25 11:33
Dibenzofuran	EPA 8270E	<12.8	U	µg/kg	12.8	86.3	1	10/29/25 15:23	10/28/25 11:33
Diethyl phthalate	EPA 8270E	<29.7	U	µg/kg	29.7	86.3	1	10/29/25 15:23	10/28/25 11:33
Dimethyl phthalate	EPA 8270E	<17.0	U	µg/kg	17.0	86.3	1	10/29/25 15:23	10/28/25 11:33
Fluoranthene	EPA 8270E	85.5		µg/kg	8.37	17.4	1	10/29/25 15:23	10/28/25 11:33
Fluorene	EPA 8270E	<12.7	U	µg/kg	12.7	17.4	1	10/29/25 15:23	10/28/25 11:33
Hexachlorobenzene	EPA 8270E	<25.4	U	µg/kg	25.4	86.3	1	10/29/25 15:23	10/28/25 11:33
Hexachlorobutadiene	EPA 8270E	<20.5	U	µg/kg	20.5	86.3	1	10/29/25 15:23	10/28/25 11:33
Hexachlorocyclopentadiene	EPA 8270E	<82.7	U	µg/kg	82.7	86.3	1	10/29/25 15:23	10/28/25 11:33
Hexachloroethane	EPA 8270E	<36.1	U	µg/kg	36.1	86.3	1	10/29/25 15:23	10/28/25 11:33
Indeno(1,2,3-cd) pyrene	EPA 8270E	48.8		µg/kg	12.1	17.4	1	10/29/25 15:23	10/28/25 11:33
Isophorone	EPA 8270E	<17.0	U	µg/kg	17.0	436	1	10/29/25 15:23	10/28/25 11:33

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4') **Lab ID: HN2515360-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methylphenol, Total	EPA 8270E	<23.6	U	µg/kg	23.6	86.3	1	10/29/25 15:23	10/28/25 11:33
Naphthalene	EPA 8270E	<11.1	U	µg/kg	11.1	17.4	1	10/29/25 15:23	10/28/25 11:33
Nitrobenzene	EPA 8270E	<29.3	U	µg/kg	29.3	436	1	10/29/25 15:23	10/28/25 11:33
n-Nitrosodi-n-propylamine	EPA 8270E	<14.4	U	µg/kg	14.4	86.3	1	10/29/25 15:23	10/28/25 11:33
N-Nitrosodiphenylamine	EPA 8270E	<50.5	U	µg/kg	50.5	86.3	1	10/29/25 15:23	10/28/25 11:33
Pentachlorophenol	EPA 8270E	<69.3	U	µg/kg	69.3	86.3	1	10/29/25 15:23	10/28/25 11:33
Phenanthrene	EPA 8270E	22.7		µg/kg	8.11	17.4	1	10/29/25 15:23	10/28/25 11:33
Phenol	EPA 8270E	<43.8	U	µg/kg	43.8	86.3	1	10/29/25 15:23	10/28/25 11:33
Pyrene	EPA 8270E	66.3		µg/kg	8.70	17.4	1	10/29/25 15:23	10/28/25 11:33
Pyridine	EPA 8270E	<172	U	µg/kg	172	436	1	10/29/25 15:23	10/28/25 11:33
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	79.3		<i>%REC</i>		<i>48-94</i>	<i>1</i>	<i>10/29/25 15:23</i>	<i>10/28/25 11:33</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	73.3		<i>%REC</i>		<i>50-103</i>	<i>1</i>	<i>10/29/25 15:23</i>	<i>10/28/25 11:33</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	65.0		<i>%REC</i>		<i>43-105</i>	<i>1</i>	<i>10/29/25 15:23</i>	<i>10/28/25 11:33</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	73.5		<i>%REC</i>		<i>55-111</i>	<i>1</i>	<i>10/29/25 15:23</i>	<i>10/28/25 11:33</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	65.2		<i>%REC</i>		<i>47-100</i>	<i>1</i>	<i>10/29/25 15:23</i>	<i>10/28/25 11:33</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	67.8		<i>%REC</i>		<i>49-110</i>	<i>1</i>	<i>10/29/25 15:23</i>	<i>10/28/25 11:33</i>

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<15.1	U	µg/kg	15.1	33.3	1	10/22/25 13:26	10/16/25 12:58
1,1,2,2-Tetrachloroethane	EPA 8260D	<14.7	U	µg/kg	14.7	33.3	1	10/22/25 13:26	10/16/25 12:58
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<21.1	U	µg/kg	21.1	33.3	1	10/22/25 13:26	10/16/25 12:58
1,1,2-Trichloroethane	EPA 8260D	<14.2	U	µg/kg	14.2	33.3	1	10/22/25 13:26	10/16/25 12:58
1,1-Dichloroethane	EPA 8260D	<12.2	U	µg/kg	12.2	33.3	1	10/22/25 13:26	10/16/25 12:58
1,1-Dichloroethylene	EPA 8260D	<10.8	U	µg/kg	10.8	33.3	1	10/22/25 13:26	10/16/25 12:58
1,2,3-Trichlorobenzene	EPA 8260D	<40.0	U	µg/kg	40.0	111	1	10/22/25 13:26	10/16/25 12:58
1,2,3-Trichloropropane	EPA 8260D	<14.0	U	µg/kg	14.0	33.3	1	10/22/25 13:26	10/16/25 12:58
1,2,4-Trichlorobenzene	EPA 8260D	<37.8	U	µg/kg	37.8	111	1	10/22/25 13:26	10/16/25 12:58
1,2,4-Trimethylbenzene	EPA 8260D	<24.4	U	µg/kg	24.4	33.3	1	10/22/25 13:26	10/16/25 12:58
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<30.7	U	µg/kg	30.7	111	1	10/22/25 13:26	10/16/25 12:58
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<19.6	U	µg/kg	19.6	33.3	1	10/22/25 13:26	10/16/25 12:58
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<12.6	U	µg/kg	12.6	33.3	1	10/22/25 13:26	10/16/25 12:58

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4') **Lab ID: HN2515360-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution	Date	Date
							Factor	Analyzed	Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<19.6	U	µg/kg	19.6	111	1	10/22/25 13:26	10/16/25 12:58
1,2-Dichloropropane	EPA 8260D	<24.6	U	µg/kg	24.6	33.3	1	10/22/25 13:26	10/16/25 12:58
1,3,5-Trimethylbenzene	EPA 8260D	<23.5	U	µg/kg	23.5	111	1	10/22/25 13:26	10/16/25 12:58
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	<23.0	U	µg/kg	23.0	33.3	1	10/22/25 13:26	10/16/25 12:58
1,3-Dichloropropene	EPA 8260D	<18.6	U	µg/kg	18.6	66.7	1	10/22/25 13:26	10/16/25 12:58
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	<27.1	U	µg/kg	27.1	33.3	1	10/22/25 13:26	10/16/25 12:58
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<79.3	U	µg/kg	79.3	222	1	10/22/25 13:26	10/16/25 12:58
2-Hexanone	EPA 8260D	<16.5	U	µg/kg	16.5	33.3	1	10/22/25 13:26	10/16/25 12:58
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<31.1	U	µg/kg	31.1	33.3	1	10/22/25 13:26	10/16/25 12:58
Acetone	EPA 8260D	<98.9	U	µg/kg	98.9	111	1	10/22/25 13:26	10/16/25 12:58
Benzene	EPA 8260D	<16.1	U	µg/kg	16.1	33.3	1	10/22/25 13:26	10/16/25 12:58
Bromochloromethane	EPA 8260D	<17.0	U	µg/kg	17.0	33.3	1	10/22/25 13:26	10/16/25 12:58
Bromodichloromethane	EPA 8260D	<18.7	U	µg/kg	18.7	33.3	1	10/22/25 13:26	10/16/25 12:58
Bromoform	EPA 8260D	<14.0	U	µg/kg	14.0	33.3	1	10/22/25 13:26	10/16/25 12:58
Carbon disulfide	EPA 8260D	<17.3	U	µg/kg	17.3	33.3	1	10/22/25 13:26	10/16/25 12:58
Carbon tetrachloride	EPA 8260D	<13.0	U	µg/kg	13.0	33.3	1	10/22/25 13:26	10/16/25 12:58
Chlorobenzene	EPA 8260D	<11.1	U	µg/kg	11.1	33.3	1	10/22/25 13:26	10/16/25 12:58
Chlorodibromomethane	EPA 8260D	<18.7	U	µg/kg	18.7	33.3	1	10/22/25 13:26	10/16/25 12:58
Chloroethane (Ethyl chloride)	EPA 8260D	<93.3	VU	µg/kg	93.3	111	1	10/22/25 13:26	10/16/25 12:58
Chloroform	EPA 8260D	<12.2	U	µg/kg	12.2	33.3	1	10/22/25 13:26	10/16/25 12:58
cis-1,2-Dichloroethylene	EPA 8260D	<21.4	U	µg/kg	21.4	33.3	1	10/22/25 13:26	10/16/25 12:58
cis-1,3-Dichloropropene	EPA 8260D	<25.1	U	µg/kg	25.1	33.3	1	10/22/25 13:26	10/16/25 12:58
Cyclohexane	EPA 8260D	<25.5	U	µg/kg	25.5	111	1	10/22/25 13:26	10/16/25 12:58
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<40.3	U	µg/kg	40.3	111	1	10/22/25 13:26	10/16/25 12:58
Ethylbenzene	EPA 8260D	<23.6	U	µg/kg	23.6	33.3	1	10/22/25 13:26	10/16/25 12:58
Isopropylbenzene	EPA 8260D	<21.1	U	µg/kg	21.1	33.3	1	10/22/25 13:26	10/16/25 12:58
m+p-Xylene	EPA 8260D	<44.4	U	µg/kg	44.4	66.7	1	10/22/25 13:26	10/16/25 12:58
Methyl bromide (Bromomethane)	EPA 8260D	<63.7	U	µg/kg	63.7	111	1	10/22/25 13:26	10/16/25 12:58

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:32
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-2 (3'-4') **Lab ID: HN2515360-002**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<91.1	U	µg/kg	91.1	111	1	10/22/25 13:26	10/16/25 12:58
Methyl tert-butyl ether (MTBE)	EPA 8260D	<24.3	U	µg/kg	24.3	33.3	1	10/22/25 13:26	10/16/25 12:58
Methylcyclohexane	EPA 8260D	<12.7	U	µg/kg	12.7	33.3	1	10/22/25 13:26	10/16/25 12:58
Methylene chloride (Dichloromethane)	EPA 8260D	<88.4	U	µg/kg	88.4	278	1	10/22/25 13:26	10/16/25 12:58
o-Xylene	EPA 8260D	<12.9	U	µg/kg	12.9	33.3	1	10/22/25 13:26	10/16/25 12:58
Styrene	EPA 8260D	<13.2	U	µg/kg	13.2	33.3	1	10/22/25 13:26	10/16/25 12:58
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<20.1	U	µg/kg	20.1	33.3	1	10/22/25 13:26	10/16/25 12:58
Toluene	EPA 8260D	<27.5	U	µg/kg	27.5	33.3	1	10/22/25 13:26	10/16/25 12:58
Total Xylene	EPA 8260D	<12.9	U	µg/kg	12.9	100.0	1	10/22/25 13:26	10/16/25 12:58
trans-1,2-Dichloroethylene	EPA 8260D	<27.5	U	µg/kg	27.5	33.3	1	10/22/25 13:26	10/16/25 12:58
trans-1,3-Dichloropropylene	EPA 8260D	<18.6	U	µg/kg	18.6	33.3	1	10/22/25 13:26	10/16/25 12:58
Trichloroethene (Trichloroethylene)	EPA 8260D	<14.9	U	µg/kg	14.9	33.3	1	10/22/25 13:26	10/16/25 12:58
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<17.0	U	µg/kg	17.0	33.3	1	10/22/25 13:26	10/16/25 12:58
Vinyl chloride (Chloroethene)	EPA 8260D	<22.2	U	µg/kg	22.2	33.3	1	10/22/25 13:26	10/16/25 12:58
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	110		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/22/25 13:26</i>	<i>10/16/25 12:58</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	101		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/22/25 13:26</i>	<i>10/16/25 12:58</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	89.2		<i>%REC</i>		<i>72-120</i>	<i>1</i>	<i>10/22/25 13:26</i>	<i>10/16/25 12:58</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/22/25 13:26</i>	<i>10/16/25 12:58</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD									
2,4,5-T	EPA 8151A	<2.70	U	µg/kg	2.70	14.7	1	10/24/25 15:15	10/23/25 07:55
2,4,5-TP (Silvex)	EPA 8151A	<4.82	U	µg/kg	4.82	14.7	1	10/24/25 15:15	10/23/25 07:55
2,4-D	EPA 8151A	<7.84	U	µg/kg	7.84	29.4	1	10/24/25 15:15	10/23/25 07:55
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	<i>200</i>	<i>SU</i>	<i>%REC</i>		<i>10-116</i>	<i>1</i>	<i>10/24/25 15:15</i>	<i>10/23/25 07:55</i>
General Chemistry Parameters									
Percent Moisture	EPA 3550C	17.8		%	0.1	0.1	1	10/15/25 19:27	NA
Chloride	EPA 9056A	54.8		mg/kg	3.81	12.3	1	10/20/25 22:35	10/20/25 15:35
Metals									
Arsenic	EPA 6010D	9.46		mg/kg	0.243	0.372	1	10/22/25 17:00	10/21/25 10:23
Barium	EPA 6010D	83.5		mg/kg	0.461	0.744	1	10/22/25 17:00	10/21/25 10:23
Cadmium	EPA 6010D	0.15	J	mg/kg	0.0610	0.744	1	10/22/25 17:00	10/21/25 10:23
Chromium	EPA 6010D	15.1		mg/kg	0.223	0.372	1	10/22/25 17:00	10/21/25 10:23
Copper	EPA 6010D	25.2		mg/kg	0.551	0.744	1	10/22/25 17:00	10/21/25 10:23
Lead	EPA 6010D	8.60		mg/kg	0.298	0.372	1	10/22/25 17:00	10/21/25 10:23
Selenium	EPA 6010D	<0.208	U	mg/kg	0.208	0.744	1	10/22/25 17:00	10/21/25 10:23
Silver	EPA 6010D	<0.179	U	mg/kg	0.179	0.372	1	10/22/25 17:00	10/21/25 10:23
Zinc	EPA 6010D	47.3		mg/kg	0.714	0.744	1	10/22/25 17:00	10/21/25 10:23
Mercury	EPA 7471B	0.0174	J	mg/kg	0.0158	0.0232	1	10/20/25 17:06	10/20/25 10:43
Organochlorine Pesticides by GC/ECD									
4,4'-DDD	EPA 8081B	<17.6	U	µg/kg	17.6	27.5	1	10/21/25 12:45	10/17/25 11:28
4,4'-DDE	EPA 8081B	<18.1	U	µg/kg	18.1	27.5	1	10/21/25 12:45	10/17/25 11:28
4,4'-DDT	EPA 8081B	<18.3	U	µg/kg	18.3	27.5	1	10/21/25 12:45	10/17/25 11:28
Aldrin	EPA 8081B	<17.9	U	µg/kg	17.9	27.5	1	10/21/25 12:45	10/17/25 11:28
alpha-BHC	EPA 8081B	<18.1	U	µg/kg	18.1	27.5	1	10/21/25 12:45	10/17/25 11:28
beta-BHC	EPA 8081B	<18.1	U	µg/kg	18.1	27.5	1	10/21/25 12:45	10/17/25 11:28
Chlordane, Technical	EPA 8081B	<27.3	U	µg/kg	27.3	68.8	1	10/21/25 12:45	10/17/25 11:28
cis-Chlordane	EPA 8081B	<18.4	U	µg/kg	18.4	27.5	1	10/21/25 12:45	10/17/25 11:28
delta-BHC	EPA 8081B	<18.0	U	µg/kg	18.0	27.5	1	10/21/25 12:45	10/17/25 11:28
Dieldrin	EPA 8081B	<19.2	U	µg/kg	19.2	27.5	1	10/21/25 12:45	10/17/25 11:28

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<18.5	U	µg/kg	18.5	27.5	1	10/21/25 12:45	10/17/25 11:28
Endosulfan II	EPA 8081B	<18.2	U	µg/kg	18.2	27.5	1	10/21/25 12:45	10/17/25 11:28
Endosulfan sulfate	EPA 8081B	<16.9	U	µg/kg	16.9	27.5	1	10/21/25 12:45	10/17/25 11:28
Endrin	EPA 8081B	<22.3	U	µg/kg	22.3	27.5	1	10/21/25 12:45	10/17/25 11:28
Endrin aldehyde	EPA 8081B	<17.4	U	µg/kg	17.4	27.5	1	10/21/25 12:45	10/17/25 11:28
Endrin ketone	EPA 8081B	<16.7	U	µg/kg	16.7	27.5	1	10/21/25 12:45	10/17/25 11:28
gamma-BHC (Lindane)	EPA 8081B	<18.1	U	µg/kg	18.1	27.5	1	10/21/25 12:45	10/17/25 11:28
Heptachlor	EPA 8081B	<17.8	U	µg/kg	17.8	27.5	1	10/21/25 12:45	10/17/25 11:28
Heptachlor epoxide	EPA 8081B	<18.2	U	µg/kg	18.2	27.5	1	10/21/25 12:45	10/17/25 11:28
Methoxychlor	EPA 8081B	<18.4	U	µg/kg	18.4	27.5	1	10/21/25 12:45	10/17/25 11:28
Toxaphene	EPA 8081B	<29.7	U	µg/kg	29.7	165	1	10/21/25 12:45	10/17/25 11:28
trans-Chlordane	EPA 8081B	<18.3	U	µg/kg	18.3	27.5	1	10/21/25 12:45	10/17/25 11:28
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	127		<i>%REC</i>		<i>53-151</i>	<i>1</i>	<i>10/21/25 12:45</i>	<i>10/17/25 11:28</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	102		<i>%REC</i>		<i>67-127</i>	<i>1</i>	<i>10/21/25 12:45</i>	<i>10/17/25 11:28</i>

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<65.4	U	µg/kg	65.4	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1221	EPA 8082A	<65.4	U	µg/kg	65.4	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1232	EPA 8082A	<65.4	U	µg/kg	65.4	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1242	EPA 8082A	<65.4	U	µg/kg	65.4	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1248	EPA 8082A	<65.4	U	µg/kg	65.4	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1254	EPA 8082A	<53.3	U	µg/kg	53.3	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1260	EPA 8082A	<53.3	U	µg/kg	53.3	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1262	EPA 8082A	<53.3	U	µg/kg	53.3	191	1	10/18/25 14:46	10/17/25 13:38
Aroclor 1268	EPA 8082A	<53.3	U	µg/kg	53.3	191	1	10/18/25 14:46	10/17/25 13:38
Total PCB	EPA 8082A	<53.3	U	µg/kg	53.3	191	1	10/18/25 14:46	10/17/25 13:38
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	100		<i>%REC</i>		<i>54-146</i>	<i>1</i>	<i>10/18/25 14:46</i>	<i>10/17/25 13:38</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	105		<i>%REC</i>		<i>58-140</i>	<i>1</i>	<i>10/18/25 14:46</i>	<i>10/17/25 13:38</i>

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	57.5	J	µg/kg	15.6	94.9	1	10/27/25 20:57	10/23/25 16:35
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<22.1	U	µg/kg	22.1	958	1	10/27/25 20:57	10/23/25 16:35

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<68.7	U	µg/kg	68.7	479	1	10/27/25 20:57	10/23/25 16:35
1-Methylnaphthalene	EPA 8270E	123		µg/kg	13.8	19.2	1	10/27/25 20:57	10/23/25 16:35
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	<22.5	U	µg/kg	22.5	94.9	1	10/27/25 20:57	10/23/25 16:35
2,3,4,6-Tetrachlorophenol	EPA 8270E	<70.2	U	µg/kg	70.2	192	1	10/27/25 20:57	10/23/25 16:35
2,4,5-Trichlorophenol	EPA 8270E	<56.8	U	µg/kg	56.8	94.9	1	10/27/25 20:57	10/23/25 16:35
2,4,6-Trichlorophenol	EPA 8270E	<25.5	U	µg/kg	25.5	94.9	1	10/27/25 20:57	10/23/25 16:35
2,4-Dichlorophenol	EPA 8270E	<51.6	U	µg/kg	51.6	94.9	1	10/27/25 20:57	10/23/25 16:35
2,4-Dimethylphenol	EPA 8270E	<49.3	U	µg/kg	49.3	94.9	1	10/27/25 20:57	10/23/25 16:35
2,4-Dinitrophenol	EPA 8270E	<701	U	µg/kg	701	958	1	10/27/25 20:57	10/23/25 16:35
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<62.3	U	µg/kg	62.3	94.9	1	10/27/25 20:57	10/23/25 16:35
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<24.5	U	µg/kg	24.5	94.9	1	10/27/25 20:57	10/23/25 16:35
2-Chloronaphthalene	EPA 8270E	<13.4	U	µg/kg	13.4	19.2	1	10/27/25 20:57	10/23/25 16:35
2-Chlorophenol	EPA 8270E	<62.7	U	µg/kg	62.7	94.9	1	10/27/25 20:57	10/23/25 16:35
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<80.1	U	µg/kg	80.1	94.9	1	10/27/25 20:57	10/23/25 16:35
2-Methylnaphthalene	EPA 8270E	121		µg/kg	9.75	19.2	1	10/27/25 20:57	10/23/25 16:35
2-Methylphenol (o-Cresol)	EPA 8270E	<25.9	U	µg/kg	25.9	94.9	1	10/27/25 20:57	10/23/25 16:35
2-Nitroaniline	EPA 8270E	<53.2	U	µg/kg	53.2	94.9	1	10/27/25 20:57	10/23/25 16:35
2-Nitrophenol	EPA 8270E	<27.3	U	µg/kg	27.3	94.9	1	10/27/25 20:57	10/23/25 16:35
3&4-Methylphenol	EPA 8270E	<52.3	U	µg/kg	52.3	94.9	1	10/27/25 20:57	10/23/25 16:35
3,3'-Dichlorobenzidine	EPA 8270E	<44.8	U	µg/kg	44.8	479	1	10/27/25 20:57	10/23/25 16:35
3-Nitroaniline	EPA 8270E	<55.7	U	µg/kg	55.7	94.9	1	10/27/25 20:57	10/23/25 16:35
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<52.5	U	µg/kg	52.5	94.9	1	10/27/25 20:57	10/23/25 16:35
4-Chloro-3-methylphenol	EPA 8270E	<27.3	U	µg/kg	27.3	94.9	1	10/27/25 20:57	10/23/25 16:35
4-Chloroaniline	EPA 8270E	<48.7	U	µg/kg	48.7	192	1	10/27/25 20:57	10/23/25 16:35
4-Chlorophenyl phenylether	EPA 8270E	<26.5	U	µg/kg	26.5	94.9	1	10/27/25 20:57	10/23/25 16:35
4-Nitroaniline	EPA 8270E	<149	U	µg/kg	149	479	1	10/27/25 20:57	10/23/25 16:35
4-Nitrophenol	EPA 8270E	<225	U	µg/kg	225	958	1	10/27/25 20:57	10/23/25 16:35

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthene	EPA 8270E	2260		µg/kg	13.9	19.2	1	10/27/25 20:57	10/23/25 16:35
Acenaphthylene	EPA 8270E	49.9		µg/kg	16.6	19.2	1	10/27/25 20:57	10/23/25 16:35
Acetophenone	EPA 8270E	<15.0	U	µg/kg	15.0	94.9	1	10/27/25 20:57	10/23/25 16:35
Anthracene	EPA 8270E	6370		µg/kg	13.5	19.2	1	10/27/25 20:57	10/23/25 16:35
Atrazine	EPA 8270E	<56.2	SU	µg/kg	56.2	94.9	1	10/27/25 20:57	10/23/25 16:35
Benzaldehyde	EPA 8270E	<147	U	µg/kg	147	192	1	10/27/25 20:57	10/23/25 16:35
Benzo(a)anthracene	EPA 8270E	17700		µg/kg	166	192	10	10/28/25 09:30	10/23/25 16:35
Benzo(a)pyrene	EPA 8270E	16600		µg/kg	118	192	10	10/28/25 09:30	10/23/25 16:35
Benzo(b)fluoranthene	EPA 8270E	22300		µg/kg	143	192	10	10/28/25 09:30	10/23/25 16:35
Benzo(g,h,i)perylene	EPA 8270E	12000		µg/kg	147	192	10	10/28/25 09:30	10/23/25 16:35
Benzo(k)fluoranthene	EPA 8270E	6980		µg/kg	14.5	19.2	1	10/27/25 20:57	10/23/25 16:35
bis(2-Chloroethoxy) methane	EPA 8270E	<60.7	U	µg/kg	60.7	94.9	1	10/27/25 20:57	10/23/25 16:35
bis(2-Chloroethyl) ether	EPA 8270E	<27.2	U	µg/kg	27.2	94.9	1	10/27/25 20:57	10/23/25 16:35
Butyl benzyl phthalate	EPA 8270E	<120	U	µg/kg	120	192	1	10/27/25 20:57	10/23/25 16:35
Caprolactam	EPA 8270E	<86.5	U	µg/kg	86.5	94.9	1	10/27/25 20:57	10/23/25 16:35
Carbazole	EPA 8270E	1950		µg/kg	28.3	94.9	1	10/27/25 20:57	10/23/25 16:35
Chrysene	EPA 8270E	15300		µg/kg	155	192	10	10/28/25 09:30	10/23/25 16:35
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	173		µg/kg	79.3	94.9	1	10/27/25 20:57	10/23/25 16:35
Dibenz(a,h) anthracene	EPA 8270E	2530		µg/kg	10.4	94.9	1	10/27/25 20:57	10/23/25 16:35
Dibenzofuran	EPA 8270E	999		µg/kg	14.1	94.9	1	10/27/25 20:57	10/23/25 16:35
Diethyl phthalate	EPA 8270E	<32.6	U	µg/kg	32.6	94.9	1	10/27/25 20:57	10/23/25 16:35
Dimethyl phthalate	EPA 8270E	<18.7	U	µg/kg	18.7	94.9	1	10/27/25 20:57	10/23/25 16:35
Fluoranthene	EPA 8270E	42900		µg/kg	92.0	192	10	10/28/25 09:30	10/23/25 16:35
Fluorene	EPA 8270E	2060		µg/kg	13.9	19.2	1	10/27/25 20:57	10/23/25 16:35
Hexachlorobenzene	EPA 8270E	<27.9	U	µg/kg	27.9	94.9	1	10/27/25 20:57	10/23/25 16:35
Hexachlorobutadiene	EPA 8270E	<22.6	U	µg/kg	22.6	94.9	1	10/27/25 20:57	10/23/25 16:35
Hexachlorocyclopentadiene	EPA 8270E	<90.9	U	µg/kg	90.9	94.9	1	10/27/25 20:57	10/23/25 16:35
Hexachloroethane	EPA 8270E	<39.7	U	µg/kg	39.7	94.9	1	10/27/25 20:57	10/23/25 16:35
Indeno(1,2,3-cd) pyrene	EPA 8270E	13200		µg/kg	133	192	10	10/28/25 09:30	10/23/25 16:35
Isophorone	EPA 8270E	<18.7	U	µg/kg	18.7	479	1	10/27/25 20:57	10/23/25 16:35

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methylphenol, Total	EPA 8270E	<25.9	U	µg/kg	25.9	94.9	1	10/27/25 20:57	10/23/25 16:35
Naphthalene	EPA 8270E	192		µg/kg	12.3	19.2	1	10/27/25 20:57	10/23/25 16:35
Nitrobenzene	EPA 8270E	<32.2	U	µg/kg	32.2	479	1	10/27/25 20:57	10/23/25 16:35
n-Nitrosodi-n-propylamine	EPA 8270E	<15.8	U	µg/kg	15.8	94.9	1	10/27/25 20:57	10/23/25 16:35
N-Nitrosodiphenylamine	EPA 8270E	<55.5	U	µg/kg	55.5	94.9	1	10/27/25 20:57	10/23/25 16:35
Pentachlorophenol	EPA 8270E	<76.2	U	µg/kg	76.2	94.9	1	10/27/25 20:57	10/23/25 16:35
Phenanthrene	EPA 8270E	22400		µg/kg	89.2	192	10	10/28/25 09:30	10/23/25 16:35
Phenol	EPA 8270E	<48.2	U	µg/kg	48.2	94.9	1	10/27/25 20:57	10/23/25 16:35
Pyrene	EPA 8270E	35800		µg/kg	95.7	192	10	10/28/25 09:30	10/23/25 16:35
Pyridine	EPA 8270E	<189	U	µg/kg	189	479	1	10/27/25 20:57	10/23/25 16:35
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	54.6		<i>%REC</i>		<i>48-94</i>	<i>1</i>	<i>10/27/25 20:57</i>	<i>10/23/25 16:35</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	66.4		<i>%REC</i>		<i>50-103</i>	<i>1</i>	<i>10/27/25 20:57</i>	<i>10/23/25 16:35</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	61.1		<i>%REC</i>		<i>43-105</i>	<i>1</i>	<i>10/27/25 20:57</i>	<i>10/23/25 16:35</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	66.2		<i>%REC</i>		<i>55-111</i>	<i>1</i>	<i>10/27/25 20:57</i>	<i>10/23/25 16:35</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	58.7		<i>%REC</i>		<i>47-100</i>	<i>1</i>	<i>10/27/25 20:57</i>	<i>10/23/25 16:35</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	63.1		<i>%REC</i>		<i>49-110</i>	<i>1</i>	<i>10/27/25 20:57</i>	<i>10/23/25 16:35</i>

Volatile Organic Compounds by GC-MS									
1,1,1-Trichloroethane	EPA 8260D	<19.4	U	µg/kg	19.4	42.7	1	10/22/25 13:42	10/16/25 12:58
1,1,2,2-Tetrachloroethane	EPA 8260D	<18.9	U	µg/kg	18.9	42.7	1	10/22/25 13:42	10/16/25 12:58
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<27.1	U	µg/kg	27.1	42.7	1	10/22/25 13:42	10/16/25 12:58
1,1,2-Trichloroethane	EPA 8260D	<18.2	U	µg/kg	18.2	42.7	1	10/22/25 13:42	10/16/25 12:58
1,1-Dichloroethane	EPA 8260D	<15.6	U	µg/kg	15.6	42.7	1	10/22/25 13:42	10/16/25 12:58
1,1-Dichloroethylene	EPA 8260D	<13.9	U	µg/kg	13.9	42.7	1	10/22/25 13:42	10/16/25 12:58
1,2,3-Trichlorobenzene	EPA 8260D	<51.3	U	µg/kg	51.3	142	1	10/22/25 13:42	10/16/25 12:58
1,2,3-Trichloropropane	EPA 8260D	<17.9	U	µg/kg	17.9	42.7	1	10/22/25 13:42	10/16/25 12:58
1,2,4-Trichlorobenzene	EPA 8260D	<48.4	U	µg/kg	48.4	142	1	10/22/25 13:42	10/16/25 12:58
1,2,4-Trimethylbenzene	EPA 8260D	<31.3	U	µg/kg	31.3	42.7	1	10/22/25 13:42	10/16/25 12:58
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<39.4	U	µg/kg	39.4	142	1	10/22/25 13:42	10/16/25 12:58
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<25.1	U	µg/kg	25.1	42.7	1	10/22/25 13:42	10/16/25 12:58
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<16.2	U	µg/kg	16.2	42.7	1	10/22/25 13:42	10/16/25 12:58

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<25.1	U	µg/kg	25.1	142	1	10/22/25 13:42	10/16/25 12:58
1,2-Dichloropropane	EPA 8260D	<31.5	U	µg/kg	31.5	42.7	1	10/22/25 13:42	10/16/25 12:58
1,3,5-Trimethylbenzene	EPA 8260D	<30.2	U	µg/kg	30.2	142	1	10/22/25 13:42	10/16/25 12:58
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	<29.5	U	µg/kg	29.5	42.7	1	10/22/25 13:42	10/16/25 12:58
1,3-Dichloropropene	EPA 8260D	<23.9	U	µg/kg	23.9	85.5	1	10/22/25 13:42	10/16/25 12:58
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	<34.7	U	µg/kg	34.7	42.7	1	10/22/25 13:42	10/16/25 12:58
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<102	U	µg/kg	102	285	1	10/22/25 13:42	10/16/25 12:58
2-Hexanone	EPA 8260D	<21.2	U	µg/kg	21.2	42.7	1	10/22/25 13:42	10/16/25 12:58
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<39.8	U	µg/kg	39.8	42.7	1	10/22/25 13:42	10/16/25 12:58
Acetone	EPA 8260D	<127	U	µg/kg	127	142	1	10/22/25 13:42	10/16/25 12:58
Benzene	EPA 8260D	<20.7	U	µg/kg	20.7	42.7	1	10/22/25 13:42	10/16/25 12:58
Bromochloromethane	EPA 8260D	<21.7	U	µg/kg	21.7	42.7	1	10/22/25 13:42	10/16/25 12:58
Bromodichloromethane	EPA 8260D	<23.9	U	µg/kg	23.9	42.7	1	10/22/25 13:42	10/16/25 12:58
Bromoform	EPA 8260D	<18.0	U	µg/kg	18.0	42.7	1	10/22/25 13:42	10/16/25 12:58
Carbon disulfide	EPA 8260D	<22.1	U	µg/kg	22.1	42.7	1	10/22/25 13:42	10/16/25 12:58
Carbon tetrachloride	EPA 8260D	<16.7	U	µg/kg	16.7	42.7	1	10/22/25 13:42	10/16/25 12:58
Chlorobenzene	EPA 8260D	<14.2	U	µg/kg	14.2	42.7	1	10/22/25 13:42	10/16/25 12:58
Chlorodibromomethane	EPA 8260D	<24.0	U	µg/kg	24.0	42.7	1	10/22/25 13:42	10/16/25 12:58
Chloroethane (Ethyl chloride)	EPA 8260D	<120	VU	µg/kg	120	142	1	10/22/25 13:42	10/16/25 12:58
Chloroform	EPA 8260D	<15.7	U	µg/kg	15.7	42.7	1	10/22/25 13:42	10/16/25 12:58
cis-1,2-Dichloroethylene	EPA 8260D	<27.5	U	µg/kg	27.5	42.7	1	10/22/25 13:42	10/16/25 12:58
cis-1,3-Dichloropropene	EPA 8260D	<32.2	U	µg/kg	32.2	42.7	1	10/22/25 13:42	10/16/25 12:58
Cyclohexane	EPA 8260D	<32.7	U	µg/kg	32.7	142	1	10/22/25 13:42	10/16/25 12:58
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<51.7	U	µg/kg	51.7	142	1	10/22/25 13:42	10/16/25 12:58
Ethylbenzene	EPA 8260D	<30.3	U	µg/kg	30.3	42.7	1	10/22/25 13:42	10/16/25 12:58
Isopropylbenzene	EPA 8260D	<27.0	U	µg/kg	27.0	42.7	1	10/22/25 13:42	10/16/25 12:58
m+p-Xylene	EPA 8260D	<57.0	U	µg/kg	57.0	85.5	1	10/22/25 13:42	10/16/25 12:58
Methyl bromide (Bromomethane)	EPA 8260D	<81.8	U	µg/kg	81.8	142	1	10/22/25 13:42	10/16/25 12:58

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID

Work Order: HN2515360
Date Collected: 10/14/25 10:34
Date Received: 10/15/25 08:00

CLIENT ID: 6096 Chopin SB-3 (5'-6') **Lab ID: HN2515360-003**

Analyte	Method	Results	Qual	Units	MDL	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<117	U	µg/kg	117	142	1	10/22/25 13:42	10/16/25 12:58
Methyl tert-butyl ether (MTBE)	EPA 8260D	<31.2	U	µg/kg	31.2	42.7	1	10/22/25 13:42	10/16/25 12:58
Methylcyclohexane	EPA 8260D	<16.3	U	µg/kg	16.3	42.7	1	10/22/25 13:42	10/16/25 12:58
Methylene chloride (Dichloromethane)	EPA 8260D	<113	U	µg/kg	113	356	1	10/22/25 13:42	10/16/25 12:58
o-Xylene	EPA 8260D	<16.5	U	µg/kg	16.5	42.7	1	10/22/25 13:42	10/16/25 12:58
Styrene	EPA 8260D	<16.9	U	µg/kg	16.9	42.7	1	10/22/25 13:42	10/16/25 12:58
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<25.7	U	µg/kg	25.7	42.7	1	10/22/25 13:42	10/16/25 12:58
Toluene	EPA 8260D	<35.2	U	µg/kg	35.2	42.7	1	10/22/25 13:42	10/16/25 12:58
Total Xylene	EPA 8260D	<16.5	U	µg/kg	16.5	128	1	10/22/25 13:42	10/16/25 12:58
trans-1,2-Dichloroethylene	EPA 8260D	<35.3	U	µg/kg	35.3	42.7	1	10/22/25 13:42	10/16/25 12:58
trans-1,3-Dichloropropylene	EPA 8260D	<23.9	U	µg/kg	23.9	42.7	1	10/22/25 13:42	10/16/25 12:58
Trichloroethene (Trichloroethylene)	EPA 8260D	<19.2	U	µg/kg	19.2	42.7	1	10/22/25 13:42	10/16/25 12:58
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<21.9	U	µg/kg	21.9	42.7	1	10/22/25 13:42	10/16/25 12:58
Vinyl chloride (Chloroethene)	EPA 8260D	<28.4	U	µg/kg	28.4	42.7	1	10/22/25 13:42	10/16/25 12:58
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	110		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/22/25 13:42</i>	<i>10/16/25 12:58</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	99.3		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/22/25 13:42</i>	<i>10/16/25 12:58</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	88.8		<i>%REC</i>		<i>72-120</i>	<i>1</i>	<i>10/22/25 13:42</i>	<i>10/16/25 12:58</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		<i>%REC</i>		<i>80-120</i>	<i>1</i>	<i>10/22/25 13:42</i>	<i>10/16/25 12:58</i>



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2293135

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3623707

Chlorinated Herbicides by GC/ECD

MB CLIENT ID: Method Blank Lab ID: QC-2293135-001

Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/24/25 10:44
Prep Date: 10/23/25 07:56

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	<0.920	µg/kg	0.920	5.00							U
2,4,5-TP (Silvex)	<1.64	µg/kg	1.64	5.00							U
2,4-D	<2.67	µg/kg	2.67	10.0							U
Surr: DCAA	266	µg/kg			50		532	10-116			S

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2293135-002

Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/24/25 10:59
Prep Date: 10/23/25 07:56

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	31.0	µg/kg	0.920	5.00	50		62.0	10-119			
2,4,5-TP (Silvex)	33.0	µg/kg	1.64	5.00	50		66.0	10-101			
2,4-D	36.0	µg/kg	2.67	10.0	50		72.0	10-128			
Surr: DCAA	99.0	µg/kg			50		198	10-116			S

MS CLIENT ID: 6096 Chopin SB-2 (3'-4') Lab ID: QC-2293135-005

Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/24/25 11:25
Prep Date: 10/23/25 07:56

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	64.0	µg/kg	1.96	11.4	106.61	<1.96	60.0	10-119			
2,4,5-TP (Silvex)	61.8	µg/kg	3.50	11.4	106.61	<3.50	58.0	10-101			
2,4-D	104	µg/kg	5.69	22.8	106.61	<5.69	98.0	10-128			
Surr: DCAA	203	µg/kg			106.61		190	10-116			S

MSD CLIENT ID: 6096 Chopin SB-2 (3'-4') Lab ID: QC-2293135-006

Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 10/24/25 11:38
Prep Date: 10/23/25 07:56

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	62.3	µg/kg	1.98	11.5	107.41	<1.98	58.0	10-119	2.64	30	
2,4,5-TP (Silvex)	64.4	µg/kg	3.52	11.5	107.41	<3.52	60.0	10-101	4.14	30	
2,4-D	85.9	µg/kg	5.74	22.9	107.41	<5.74	80.0	10-128	19.5	30	
Surr: DCAA	90.2	µg/kg			107.41		84.0	10-116	76.7	30	R

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2277718

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3591101

General Chemistry Parameters

MB CLIENT ID: Method Blank Lab ID: QC-2277718-001

Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 10/15/25 19:27
Prep Date: NA

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	<0.1	%	0.1	0.1							U

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2277718-002

Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 10/15/25 19:27
Prep Date: NA

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	100	%	0.1	0.1	100		100.0	98-102			

DUP CLIENT ID: Batch QC Lab ID: QC-2277718-004

Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 10/15/25 19:27
Prep Date: NA

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	18.8	%	0.1	0.1		19.4			2.98	10	

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2277718

Work Order: HN2515360
Date Collected: 10/14/25 13:50
Date Received: 10/15/25 08:00
Run ID: 3595774

General Chemistry Parameters

DUP CLIENT ID: Batch QC Lab ID: QC-2277718-015

Method: EPA 3550C Dilution: 1 Analysis Date: 10/16/25 20:46
Prep Date: NA

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	8.0	%	0.1	0.1	<0.1				15.4	10	R

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2285104

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3604290

General Chemistry Parameters

MB CLIENT ID: Method Blank Lab ID: QC-2285104-001

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/19/25 21:19
Prep Date: 10/19/25 13:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	<3.10	mg/kg	3.10	10.0							U

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2285104-002

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/19/25 21:28
Prep Date: 10/19/25 13:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	95.8	mg/kg	3.10	10.0	100		95.8	87-110			

MS CLIENT ID: Batch QC Lab ID: QC-2285104-004

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/19/25 21:48
Prep Date: 10/19/25 13:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	494	mg/kg	15.8	51.0	510.2	<15.8	94.3	87-110			

MSD CLIENT ID: Batch QC Lab ID: QC-2285104-005

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/19/25 21:58
Prep Date: 10/19/25 13:55

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	494	mg/kg	15.8	51.0	510.2	<15.8	94.3	87-110	0.0898	15	

The following samples were analyzed in this batch: HN2515360-001



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2286473

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3606696

General Chemistry Parameters

MB CLIENT ID: Method Blank Lab ID: QC-2286473-001

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/20/25 21:46
Prep Date: 10/20/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	3.5	mg/kg	3.10	10.0							J

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2286473-002

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/20/25 21:56
Prep Date: 10/20/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	96.3	mg/kg	3.10	10.0	100		96.3	87-110			

MS CLIENT ID: 6096 Chopin SB-2 (3'-4') Lab ID: QC-2286473-004

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/20/25 22:16
Prep Date: 10/20/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	105	mg/kg	3.10	10.6	99.602	7.3	98.2	87-110			

MSD CLIENT ID: 6096 Chopin SB-2 (3'-4') Lab ID: QC-2286473-005

Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 10/20/25 22:25
Prep Date: 10/20/25 15:35

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	105	mg/kg	3.12	10.7	100.6	7.3	97.9	87-110	0.680	15	

The following samples were analyzed in this batch: HN2515360-002, HN2515360-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2283800

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3604481

Metals

MB CLIENT ID: Method Blank Lab ID: QC-2283800-001

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 17:22
Prep Date: 10/20/25 10:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.0136	mg/kg	0.0136	0.0200							U

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2283800-002

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 17:23
Prep Date: 10/20/25 10:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.173	mg/kg	0.0136	0.0200	0.1665		104	80-120			

MS CLIENT ID: Batch QC Lab ID: QC-2283800-004

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 17:27
Prep Date: 10/20/25 10:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.158	mg/kg	0.0136	0.0200	0.12629	<0.0136	116	75-125			

MSD CLIENT ID: Batch QC Lab ID: QC-2283800-005

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 17:29
Prep Date: 10/20/25 10:45

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.147	mg/kg	0.0136	0.0200	0.13355	<0.0136	102	75-125	7.19	35	

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2283801

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3604481

Metals

MB CLIENT ID: Method Blank Lab ID: QC-2283801-001

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 16:25
Prep Date: 10/20/25 10:44

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.0136	mg/kg	0.0136	0.0200							U

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2283801-002

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 16:27
Prep Date: 10/20/25 10:44

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.170	mg/kg	0.0136	0.0200	0.1665		102	80-120			

MS CLIENT ID: Batch QC Lab ID: QC-2283801-004

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 16:39
Prep Date: 10/20/25 10:44

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.155	mg/kg	0.0125	0.0192	0.15345	<0.0125	101	75-125			

MSD CLIENT ID: Batch QC Lab ID: QC-2283801-005

Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 10/20/25 16:41
Prep Date: 10/20/25 10:44

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.156	mg/kg	0.0136	0.0200	0.15488	<0.0136	101	75-125	0.430	35	

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2288068

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3613920

Metals

MB CLIENT ID: Method Blank Lab ID: QC-2288068-001

Method: EPA 6010D **Dilution:** 1 **Analysis Date:** 10/22/25 14:29
Prep Date: 10/21/25 10:24

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	<0.163	mg/kg	0.163	0.250							U
Barium	<0.310	mg/kg	0.310	0.500							U
Cadmium	<0.0410	mg/kg	0.0410	0.500							U
Chromium	<0.150	mg/kg	0.150	0.250							U
Copper	<0.370	mg/kg	0.370	0.500							U
Lead	<0.200	mg/kg	0.200	0.250							U
Selenium	<0.140	mg/kg	0.140	0.500							U
Silver	<0.120	mg/kg	0.120	0.250							U
Zinc	<0.480	mg/kg	0.480	0.500							U

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2288068-002

Method: EPA 6010D **Dilution:** 1 **Analysis Date:** 10/22/25 14:35
Prep Date: 10/21/25 10:24

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.83	mg/kg	0.163	0.250	5		96.7	80-120			
Barium	5.24	mg/kg	0.310	0.500	5		105	80-120			
Cadmium	4.92	mg/kg	0.0410	0.500	5		98.4	80-120			
Chromium	5.19	mg/kg	0.150	0.250	5		104	80-120			
Copper	5.06	mg/kg	0.370	0.500	5		101	80-120			
Lead	4.74	mg/kg	0.200	0.250	5		94.8	80-120			
Selenium	4.76	mg/kg	0.140	0.500	5		95.3	80-120			
Silver	5.03	mg/kg	0.120	0.250	5		101	80-120			
Zinc	5.13	mg/kg	0.480	0.500	5		103	80-120			

MS CLIENT ID: Batch QC Lab ID: QC-2288068-004

Method: EPA 6010D **Dilution:** 1 **Analysis Date:** 10/22/25 14:52
Prep Date: 10/21/25 10:24

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.2	mg/kg	0.193	0.359	5.9242	7.54	83.7	75-125			
Barium	42.3	mg/kg	0.367	0.717	5	45.7	NC	75-125			O
Cadmium	5.46	mg/kg	0.0486	0.717	5.9242	0.16	89.9	75-125			
Chromium	17.0	mg/kg	0.178	0.359	5.9242	14.3	87.8	75-125			
Copper	20.9	mg/kg	0.438	0.717	5.9242	18.3	97.7	75-125			
Lead	18.2	mg/kg	0.237	0.359	5.9242	12.4	135	75-125			S
Selenium	4.39	mg/kg	0.166	0.717	5.9242	<0.166	80.3	75-125			
Silver	6.00	mg/kg	0.142	0.359	5.9242	<0.142	102	75-125			
Zinc	42.4	mg/kg	0.569	0.717	5	43.1	NC	75-125			O

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2288068

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3613920

MSD CLIENT ID: Batch QC Lab ID: QC-2288068-005

Method: EPA 6010D **Dilution:** 1 **Analysis Date:** 10/22/25 14:57
Prep Date: 10/21/25 10:24

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.1	mg/kg	0.186	0.345	5.7012	7.54	84.6	75-125	1.18	20	
Barium	56.7	mg/kg	0.353	0.690	5	45.7	NC	75-125	29.1	20	OR
Cadmium	4.98	mg/kg	0.0468	0.690	5.7012	0.16	85.0	75-125	9.14	20	
Chromium	20.7	mg/kg	0.171	0.345	5.7012	14.3	155	75-125	19.2	20	S
Copper	24.6	mg/kg	0.422	0.690	5.7012	18.3	166	75-125	16.1	20	S
Lead	17.1	mg/kg	0.228	0.345	5.7012	12.4	120	75-125	6.51	20	
Selenium	4.06	mg/kg	0.160	0.690	5.7012	<0.160	77.6	75-125	7.82	20	
Silver	5.58	mg/kg	0.137	0.345	5.7012	<0.137	98.6	75-125	7.18	20	
Zinc	46.2	mg/kg	0.547	0.690	5	43.1	NC	75-125	8.67	20	O

PDS CLIENT ID: Batch QC Lab ID: QC-2288068-006

Method: EPA 6010D **Dilution:** 1 **Analysis Date:** 10/22/25 15:03
Prep Date: 10/21/25 10:24

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.5	mg/kg	0.187	0.347	5.7405	7.54	92.1	75-125			
Barium	41.0	mg/kg	0.356	0.695	5	45.7	NC	75-125			O
Cadmium	5.57	mg/kg	0.0471	0.695	5.7405	0.16	94.8	75-125			
Chromium	17.5	mg/kg	0.172	0.347	5.7405	14.3	97.8	75-125			
Copper	21.2	mg/kg	0.425	0.695	5.7405	18.3	105	75-125			
Lead	14.8	mg/kg	0.230	0.347	5.7405	12.4	79.0	75-125			
Selenium	4.55	mg/kg	0.161	0.695	5.7405	<0.161	85.6	75-125			
Silver	6.07	mg/kg	0.138	0.347	5.7405	<0.138	106	75-125			
Zinc	40.2	mg/kg	0.551	0.695	5	43.1	NC	75-125			O

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2281829

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3605782

Organochlorine Pesticides by GC/ECD

MB CLIENT ID: Method Blank Lab ID: QC-2281829-001

Method: EPA 8081B **Dilution:** 1 **Analysis Date:** 10/17/25 23:33
Prep Date: 10/17/25 11:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	<6.39	µg/kg	6.39	10.0							U
4,4'-DDE	<6.59	µg/kg	6.59	10.0							U
4,4'-DDT	<6.65	µg/kg	6.65	10.0							U
Aldrin	<6.50	µg/kg	6.50	10.0							U
alpha-BHC	<6.58	µg/kg	6.58	10.0							U
beta-BHC	<6.57	µg/kg	6.57	10.0							U
Chlordane, Technical	<9.92	µg/kg	9.92	25.0							U
cis-Chlordane	<6.68	µg/kg	6.68	10.0							U
delta-BHC	<6.55	µg/kg	6.55	10.0							U
Dieldrin	<6.99	µg/kg	6.99	10.0							U
Endosulfan I	<6.72	µg/kg	6.72	10.0							U
Endosulfan II	<6.62	µg/kg	6.62	10.0							U
Endosulfan sulfate	<6.15	µg/kg	6.15	10.0							U
Endrin	<8.09	µg/kg	8.09	10.0							U
Endrin aldehyde	<6.34	µg/kg	6.34	10.0							U
Endrin ketone	<6.08	µg/kg	6.08	10.0							U
gamma-BHC (Lindane)	<6.56	µg/kg	6.56	10.0							U
Heptachlor	<6.45	µg/kg	6.45	10.0							U
Heptachlor epoxide	<6.62	µg/kg	6.62	10.0							U
Methoxychlor	<6.69	µg/kg	6.69	10.0							U
Toxaphene	<10.8	µg/kg	10.8	60.0							U
trans-Chlordane	<6.64	µg/kg	6.64	10.0							U
<i>Surr: Decachlorobiphenyl</i>	44.9	µg/kg			33.33		135	53-151			
<i>Surr: Tetrachloro-m-xylene</i>	35.7	µg/kg			33.33		107	67-127			

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2281829-002

Method: EPA 8081B **Dilution:** 1 **Analysis Date:** 10/17/25 23:45
Prep Date: 10/17/25 11:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	28.6	µg/kg	6.39	10.0	33.33		85.8	55-141			
4,4'-DDE	31.4	µg/kg	6.59	10.0	33.33		94.0	55-143			
4,4'-DDT	30.3	µg/kg	6.65	10.0	33.33		90.8	50-144			
Aldrin	30.5	µg/kg	6.50	10.0	33.33		91.6	57-141			
alpha-BHC	28.9	µg/kg	6.58	10.0	33.33		86.6	58-144			
beta-BHC	28.3	µg/kg	6.57	10.0	33.33		85.0	55-147			
cis-Chlordane	30.0	µg/kg	6.68	10.0	33.33		90.0	58-142			
delta-BHC	24.4	µg/kg	6.55	10.0	33.33		73.1	59-142			
Dieldrin	31.1	µg/kg	6.99	10.0	33.33		93.3	59-142			
Endosulfan I	29.1	µg/kg	6.72	10.0	33.33		87.2	57-145			
Endosulfan II	29.5	µg/kg	6.62	10.0	33.33		88.4	58-138			
Endosulfan sulfate	30.0	µg/kg	6.15	10.0	33.33		90.0	54-136			
Endrin	28.3	µg/kg	8.09	10.0	33.33		85.0	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2281829

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3605782

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2281829-002

Method: EPA 8081B **Dilution:** 1 **Analysis Date:** 10/17/25 23:45
Prep Date: 10/17/25 11:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin aldehyde	34.4	µg/kg	6.34	10.0	33.33		103	41-147			
Endrin ketone	29.8	µg/kg	6.08	10.0	33.33		89.2	54-146			
gamma-BHC (Lindane)	28.2	µg/kg	6.56	10.0	33.33		84.7	58-145			
Heptachlor	28.3	µg/kg	6.45	10.0	33.33		84.9	51-145			
Heptachlor epoxide	29.2	µg/kg	6.62	10.0	33.33		87.6	59-143			
Methoxychlor	30.2	µg/kg	6.69	10.0	33.33		90.7	43-144			
trans-Chlordane	29.6	µg/kg	6.64	10.0	33.33		88.8	56-145			
Surr: Decachlorobiphenyl	42.4	µg/kg			33.33		127	51-151			
Surr: Tetrachloro-m-xylene	31.5	µg/kg			33.33		94.4	67-127			

MS CLIENT ID: Batch QC Lab ID: QC-2281829-005

Method: EPA 8081B **Dilution:** 1 **Analysis Date:** 10/18/25 09:29
Prep Date: 10/17/25 11:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	90.7	µg/kg	15.6	26.2	81.293	<15.6	112	55-141			
4,4'-DDE	85.2	µg/kg	16.1	26.2	81.293	<16.1	105	55-143			
4,4'-DDT	88.0	µg/kg	16.2	26.2	81.293	<16.2	108	50-144			
Aldrin	87.4	µg/kg	15.8	26.2	81.293	<15.8	108	57-141			
alpha-BHC	84.1	µg/kg	16.0	26.2	81.293	<16.0	103	58-144			
beta-BHC	85.6	µg/kg	16.0	26.2	81.293	<16.0	105	55-147			
cis-Chlordane	89.3	µg/kg	16.3	26.2	81.293	<16.3	102	58-142			
delta-BHC	72.0	µg/kg	16.0	26.2	81.293	<16.0	88.6	59-142			
Dieldrin	94.3	µg/kg	17.0	26.2	81.293	<17.0	116	59-142			
Endosulfan I	88.2	µg/kg	16.4	26.2	81.293	<16.4	108	57-145			
Endosulfan II	90.4	µg/kg	16.2	26.2	81.293	<16.2	111	58-138			
Endosulfan sulfate	92.0	µg/kg	15.0	26.2	81.293	<15.0	113	54-135			
Endrin	86.2	µg/kg	19.7	26.2	81.293	<19.7	106	45-150			
Endrin aldehyde	110	µg/kg	15.4	26.2	81.293	<15.4	135	41-147			
Endrin ketone	92.8	µg/kg	14.8	26.2	81.293	<14.8	114	54-146			
gamma-BHC (Lindane)	85.8	µg/kg	16.0	26.2	81.293	<16.0	106	58-145			
Heptachlor	82.3	µg/kg	15.7	26.2	81.293	<15.7	101	51-145			
Heptachlor epoxide	90.0	µg/kg	16.1	26.2	81.293	<16.1	111	59-143			
Methoxychlor	89.9	µg/kg	16.3	26.2	81.293	<16.3	110	43-144			
trans-Chlordane	90.1	µg/kg	16.2	26.2	81.293	<16.2	106	56-145			
Surr: Decachlorobiphenyl	108	µg/kg			81.293		133	53-151			
Surr: Tetrachloro-m-xylene	76.1	µg/kg			81.293		93.6	67-127			

MSD CLIENT ID: Batch QC Lab ID: QC-2281829-006

Method: EPA 8081B **Dilution:** 1 **Analysis Date:** 10/18/25 09:41
Prep Date: 10/17/25 11:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	89.0	µg/kg	15.5	26.1	80.898	<15.5	110	55-141	1.98	20	



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2281829

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3605782

MSD CLIENT ID: Batch QC Lab ID: QC-2281829-006

Method: EPA 8081B **Dilution:** 1 **Analysis Date:** 10/18/25 09:41
Prep Date: 10/17/25 11:29

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDE	83.7	µg/kg	16.0	26.1	80.898	<16.0	103	55-143	1.78	20	
4,4'-DDT	84.0	µg/kg	16.1	26.1	80.898	<16.1	104	50-144	4.68	20	
Aldrin	85.7	µg/kg	15.8	26.1	80.898	<15.8	106	57-141	1.98	20	
alpha-BHC	81.6	µg/kg	16.0	26.1	80.898	<16.0	101	58-144	3.03	20	
beta-BHC	83.4	µg/kg	15.9	26.1	80.898	<15.9	103	55-147	2.64	20	
cis-Chlordane	87.4	µg/kg	16.2	26.1	80.898	<16.2	100	58-142	2.18	20	
delta-BHC	70.2	µg/kg	15.9	26.1	80.898	<15.9	86.8	59-142	2.54	20	
Dieldrin	91.7	µg/kg	17.0	26.1	80.898	<17.0	113	59-142	2.75	20	
Endosulfan I	86.4	µg/kg	16.3	26.1	80.898	<16.3	107	57-145	2.11	20	
Endosulfan II	88.7	µg/kg	16.1	26.1	80.898	<16.1	110	58-138	1.89	20	
Endosulfan sulfate	89.4	µg/kg	14.9	26.1	80.898	<14.9	110	54-135	2.90	20	
Endrin	84.1	µg/kg	19.6	26.1	80.898	<19.6	104	45-150	2.49	20	
Endrin aldehyde	107	µg/kg	15.4	26.1	80.898	<15.4	132	41-147	2.77	20	
Endrin ketone	90.6	µg/kg	14.8	26.1	80.898	<14.8	112	54-146	2.39	20	
gamma-BHC (Lindane)	83.0	µg/kg	15.9	26.1	80.898	<15.9	102	58-145	3.42	20	
Heptachlor	79.8	µg/kg	15.7	26.1	80.898	<15.7	98.6	51-145	3.09	20	
Heptachlor epoxide	87.9	µg/kg	16.0	26.1	80.898	<16.0	109	59-143	2.36	20	
Methoxychlor	84.7	µg/kg	16.2	26.1	80.898	<16.2	105	43-144	5.97	20	
trans-Chlordane	88.1	µg/kg	16.1	26.1	80.898	<16.1	104	56-145	2.17	20	
Surr: Decachlorobiphenyl	107	µg/kg			80.898		132	53-151	1.66	30	
Surr: Tetrachloro-m-xylene	74.5	µg/kg			80.898		92.0	67-127	2.16	30	

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279037

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3605127

Polychlorinated Biphenyls (PCBs) by GC/ECD

MB CLIENT ID: Method Blank Lab ID: QC-2279037-001

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 10/18/25 09:39
Prep Date: 10/17/25 13:39

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	<22.9	µg/kg	22.9	66.7							U
Aroclor 1221	<22.9	µg/kg	22.9	66.7							U
Aroclor 1232	<22.9	µg/kg	22.9	66.7							U
Aroclor 1242	<22.9	µg/kg	22.9	66.7							U
Aroclor 1248	<22.9	µg/kg	22.9	66.7							U
Aroclor 1254	<18.6	µg/kg	18.6	66.7							U
Aroclor 1260	<18.6	µg/kg	18.6	66.7							U
Aroclor 1262	<18.6	µg/kg	18.6	66.7							U
Aroclor 1268	<18.6	µg/kg	18.6	66.7							U
Total PCB	<18.6	µg/kg	18.6	66.7							U
Surr: Decachlorobiphenyl	37.0	µg/kg			33.3		111	54-146			
Surr: Tetrachloro-m-xylene	38.5	µg/kg			33.3		116	58-140			

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2279037-002

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 10/18/25 09:51
Prep Date: 10/17/25 13:39

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	907	µg/kg	22.9	66.7	833		109	71-135			
Aroclor 1260	928	µg/kg	18.6	66.7	833		111	67-135			
Surr: Decachlorobiphenyl	37.3	µg/kg			33.3		112	54-146			
Surr: Tetrachloro-m-xylene	36.0	µg/kg			33.3		108	58-140			

MS CLIENT ID: Batch QC Lab ID: QC-2279037-005

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 10/18/25 10:03
Prep Date: 10/17/25 13:39

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	1910	µg/kg	56.7	237	2067.8	<56.7	92.5	71-135			
Aroclor 1260	2000	µg/kg	46.2	237	2067.8	<46.2	96.6	67-135			
Surr: Decachlorobiphenyl	80.0	µg/kg			82.662		96.8	54-146			
Surr: Tetrachloro-m-xylene	72.3	µg/kg			82.662		87.5	58-140			

MSD CLIENT ID: Batch QC Lab ID: QC-2279037-006

Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 10/18/25 10:14
Prep Date: 10/17/25 13:39

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	2150	µg/kg	56.7	237	2065.4	<56.7	104	71-135	11.6	20	
Aroclor 1260	2290	µg/kg	46.2	237	2065.4	<46.2	111	67-135	13.6	20	
Surr: Decachlorobiphenyl	96.3	µg/kg			82.565		117	54-146	18.5	30	
Surr: Tetrachloro-m-xylene	82.0	µg/kg			82.565		99.3	58-140	12.6	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279037

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3605127

The following samples were analyzed in this batch: HN2515360-001, HN2515360-002, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279010

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3608651

Semivolatile Organic Compounds by GC-MS

MB CLIENT ID: Method Blank Lab ID: QC-2279010-001

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/20/25 14:50
Prep Date: 10/16/25 15:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	<5.41	µg/kg	5.41	33.0							U
1,2,4,5-Tetrachlorobenzene	<7.69	µg/kg	7.69	333							U
1,4-Dioxane (1,4- Diethyleneoxide)	<23.9	µg/kg	23.9	167							U
1-Methylnaphthalene	<4.80	µg/kg	4.80	6.67							U
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	<7.81	µg/kg	7.81	33.0							U
2,3,4,6-Tetrachlorophenol	<24.4	µg/kg	24.4	67.0							U
2,4,5-Trichlorophenol	<19.8	µg/kg	19.8	33.0							U
2,4,6-Trichlorophenol	<8.87	µg/kg	8.87	33.0							U
2,4-Dichlorophenol	<17.9	µg/kg	17.9	33.0							U
2,4-Dimethylphenol	<17.1	µg/kg	17.1	33.0							U
2,4-Dinitrophenol	<244	µg/kg	244	333							U
2,4-Dinitrotoluene (2,4-DNT)	<21.6	µg/kg	21.6	33.0							U
2,6-Dinitrotoluene (2,6-DNT)	<8.51	µg/kg	8.51	33.0							U
2-Chloronaphthalene	<4.66	µg/kg	4.66	6.67							U
2-Chlorophenol	<21.8	µg/kg	21.8	33.0							U
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	<27.8	µg/kg	27.8	33.0							U
2-Methylnaphthalene	<3.39	µg/kg	3.39	6.67							U
2-Methylphenol (o-Cresol)	<9.01	µg/kg	9.01	33.0							U
2-Nitroaniline	<18.5	µg/kg	18.5	33.0							U
2-Nitrophenol	<9.50	µg/kg	9.50	33.0							U
3&4-Methylphenol	<18.2	µg/kg	18.2	33.0							U
3,3'-Dichlorobenzidine	<15.6	µg/kg	15.6	167							U
3-Nitroaniline	<19.4	µg/kg	19.4	33.0							U
4-Bromophenyl phenyl ether (BDE-3)	<18.3	µg/kg	18.3	33.0							U
4-Chloro-3-methylphenol	<9.50	µg/kg	9.50	33.0							U
4-Chloroaniline	<16.9	µg/kg	16.9	67.0							U
4-Chlorophenyl phenylether	<9.21	µg/kg	9.21	33.0							U
4-Nitroaniline	<51.7	µg/kg	51.7	167							U
4-Nitrophenol	<78.1	µg/kg	78.1	333							U
Acenaphthene	<4.82	µg/kg	4.82	6.67							U
Acenaphthylene	<5.78	µg/kg	5.78	6.67							U
Acetophenone	<5.22	µg/kg	5.22	33.0							U
Anthracene	<4.70	µg/kg	4.70	6.67							U
Atrazine	<19.5	µg/kg	19.5	33.0							U
Benzaldehyde	<51.2	µg/kg	51.2	67.0							U
Benzo(a)anthracene	<5.76	µg/kg	5.76	6.67							U
Benzo(a)pyrene	<4.09	µg/kg	4.09	6.67							U
Benzo(b)fluoranthene	<4.97	µg/kg	4.97	6.67							U
Benzo(g,h,i)perylene	<5.11	µg/kg	5.11	6.67							U
Benzo(k)fluoranthene	<5.05	µg/kg	5.05	6.67							U
bis(2-Chloroethoxy)methane	<21.1	µg/kg	21.1	33.0							U
bis(2-Chloroethyl) ether	<9.44	µg/kg	9.44	33.0							U

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279010

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3608651

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2279010-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/20/25 15:15
Prep Date: 10/16/25 15:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	
									RPD	Limit Qual
2,4,5-Trichlorophenol	897	µg/kg	19.8	33.0	1333		67.3	54-98		
2,4,6-Trichlorophenol	851	µg/kg	8.87	33.0	1333		63.8	56-97		
2,4-Dichlorophenol	841	µg/kg	17.9	33.0	1333		63.1	54-99		
2,4-Dimethylphenol	814	µg/kg	17.1	33.0	1333		61.1	47-102		
2,4-Dinitrophenol	755	µg/kg	244	333	1333		56.6	10-100		
2,4-Dinitrotoluene (2,4-DNT)	1080	µg/kg	21.6	33.0	1333		81.0	62-105		
2,6-Dinitrotoluene (2,6-DNT)	1050	µg/kg	8.51	33.0	1333		78.5	62-103		
2-Chloronaphthalene	843	µg/kg	4.66	6.67	1333		63.3	57-101		
2-Chlorophenol	831	µg/kg	21.8	33.0	1333		62.3	52-102		
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1060	µg/kg	27.8	33.0	1333		79.8	42-104		
2-Methylnaphthalene	779	µg/kg	3.39	6.67	1333		58.5	55-102		
2-Methylphenol (o-Cresol)	781	µg/kg	9.01	33.0	1333		58.6	54-103		
2-Nitroaniline	1130	µg/kg	18.5	33.0	1333		84.4	57-103		
2-Nitrophenol	1180	µg/kg	9.50	33.0	1333		88.3	52-102		
3&4-Methylphenol	806	µg/kg	18.2	33.0	1333		60.5	56-103		
3,3'-Dichlorobenzidine	727	µg/kg	15.6	167	1333		54.6	41-91		
3-Nitroaniline	861	µg/kg	19.4	33.0	1333		64.6	35-107		
4-Bromophenyl phenyl ether (BDE-3)	835	µg/kg	18.3	33.0	1333		62.7	63-104		S
4-Chloro-3-methylphenol	839	µg/kg	9.50	33.0	1333		63.0	57-103		
4-Chloroaniline	734	µg/kg	16.9	67.0	1333		55.1	32-99		
4-Chlorophenyl phenylether	851	µg/kg	9.21	33.0	1333		63.8	62-100		
4-Nitroaniline	606	µg/kg	51.7	167	1333		45.5	19-124		
4-Nitrophenol	926	µg/kg	78.1	333	1333		69.5	44-106		
Acenaphthene	851	µg/kg	4.82	6.67	1333		63.9	60-101		
Acenaphthylene	854	µg/kg	5.78	6.67	1333		64.1	59-101		
Acetophenone	771	µg/kg	5.22	33.0	1333		57.9	54-102		
Anthracene	817	µg/kg	4.70	6.67	1333		61.3	63-96		S
Atrazine	969	µg/kg	19.5	33.0	1333		72.7	60-110		
Benzaldehyde	346	µg/kg	51.2	67.0	1333		26.0	10-143		
Benzo(a)anthracene	834	µg/kg	5.76	6.67	1333		62.6	66-102		S
Benzo(a)pyrene	873	µg/kg	4.09	6.67	1333		65.5	66-105		S
Benzo(b)fluoranthene	848	µg/kg	4.97	6.67	1333		63.6	67-105		S
Benzo(g,h,i)perylene	897	µg/kg	5.11	6.67	1333		67.3	59-110		
Benzo(k)fluoranthene	818	µg/kg	5.05	6.67	1333		61.4	68-106		S
bis(2-Chloroethoxy)methane	718	µg/kg	21.1	33.0	1333		53.9	54-102		S
bis(2-Chloroethyl) ether	749	µg/kg	9.44	33.0	1333		56.2	51-101		
Butyl benzyl phthalate	899	µg/kg	41.7	67.0	1333		67.4	59-107		
Caprolactam	828	µg/kg	30.1	33.0	1333		62.1	49-103		
Carbazole	815	µg/kg	9.82	33.0	1333		61.2	63-103		S
Chrysene	842	µg/kg	5.39	6.67	1333		63.2	66-105		S
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	895	µg/kg	27.6	33.0	1333		67.1	63-101		
Dibenz(a,h) anthracene	893	µg/kg	3.60	33.0	1333		67.0	61-109		
Dibenzofuran	869	µg/kg	4.90	33.0	1333		65.2	61-101		
Diethyl phthalate	854	µg/kg	11.3	33.0	1333		64.1	63-105		

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279010

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3608651

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2279010-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/20/25 15:15
Prep Date: 10/16/25 15:06

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dimethyl phthalate	868	µg/kg	6.50	33.0	1333		65.1	64-104			
Fluoranthene	825	µg/kg	3.20	6.67	1333		61.9	66-105			S
Fluorene	855	µg/kg	4.84	6.67	1333		64.2	62-101			
Hexachlorobenzene	793	µg/kg	9.70	33.0	1333		59.5	61-104			S
Hexachlorobutadiene	827	µg/kg	7.85	33.0	1333		62.0	52-99			
Hexachlorocyclopentadiene	850	µg/kg	31.6	33.0	1333		63.8	39-106			
Hexachloroethane	789	µg/kg	13.8	33.0	1333		59.2	59-99			
Indeno(1,2,3-cd) pyrene	978	µg/kg	4.64	6.67	1333		73.4	57-114			
Isophorone	783	µg/kg	6.51	167	1333		58.8	55-101			
Methylphenol, Total	1590	µg/kg	9.01	67.0	2667		59.5	54-103			
Naphthalene	784	µg/kg	4.26	6.67	1333		58.8	54-99			
Nitrobenzene	943	µg/kg	11.2	167	1333		70.7	53-100			
n-Nitrosodi-n-propylamine	755	µg/kg	5.50	33.0	1333		56.6	52-104			
N-Nitrosodiphenylamine	804	µg/kg	19.3	33.0	1333		60.3	61-104			S
Pentachlorophenol	709	µg/kg	26.5	33.0	1333		53.2	35-100			
Phenanthrene	831	µg/kg	3.10	6.67	1333		62.3	64-101			S
Phenol	807	µg/kg	16.7	33.0	1333		60.5	51-107			
Pyrene	834	µg/kg	3.33	6.67	1333		62.6	62-114			
Pyridine	743	µg/kg	65.6	167	1333		55.7	40-84			
Surr: 2,4,6-Tribromophenol	2090	µg/kg			3333		62.6	48-94			
Surr: 2-Fluorobiphenyl	2080	µg/kg			3333		62.4	50-103			
Surr: 2-Fluorophenol	2030	µg/kg			3333		60.9	43-105			
Surr: 4-Terphenyl-d14	2080	µg/kg			3333		62.4	55-111			
Surr: Nitrobenzene-d5	2130	µg/kg			3333		64.0	47-100			
Surr: Phenol-d6	2070	µg/kg			3333		62.0	49-110			

The following samples were analyzed in this batch:



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

Semivolatile Organic Compounds by GC-MS

MB		CLIENT ID: Method Blank			Lab ID: QC-2291398-001						
Method: EPA 8270E		Dilution: 1			Analysis Date: 10/27/25 13:57						
					Prep Date: 10/23/25 16:36						
Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	<5.41	µg/kg	5.41	33.0							U
1,2,4,5-Tetrachlorobenzene	<7.69	µg/kg	7.69	33.0							U
1,4-Dioxane (1,4- Diethyleneoxide)	<23.9	µg/kg	23.9	167							U
1-Methylnaphthalene	<4.80	µg/kg	4.80	6.67							U
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	<7.81	µg/kg	7.81	33.0							U
2,3,4,6-Tetrachlorophenol	<24.4	µg/kg	24.4	67.0							U
2,4,5-Trichlorophenol	<19.8	µg/kg	19.8	33.0							U
2,4,6-Trichlorophenol	<8.87	µg/kg	8.87	33.0							U
2,4-Dichlorophenol	<17.9	µg/kg	17.9	33.0							U
2,4-Dimethylphenol	<17.1	µg/kg	17.1	33.0							U
2,4-Dinitrophenol	<244	µg/kg	244	333							U
2,4-Dinitrotoluene (2,4-DNT)	<21.6	µg/kg	21.6	33.0							U
2,6-Dinitrotoluene (2,6-DNT)	<8.51	µg/kg	8.51	33.0							U
2-Chloronaphthalene	<4.66	µg/kg	4.66	6.67							U
2-Chlorophenol	<21.8	µg/kg	21.8	33.0							U
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	<27.8	µg/kg	27.8	33.0							U
2-Methylnaphthalene	<3.39	µg/kg	3.39	6.67							U
2-Methylphenol (o-Cresol)	<9.01	µg/kg	9.01	33.0							U
2-Nitroaniline	<18.5	µg/kg	18.5	33.0							U
2-Nitrophenol	<9.50	µg/kg	9.50	33.0							U
3&4-Methylphenol	<18.2	µg/kg	18.2	33.0							U
3,3'-Dichlorobenzidine	<15.6	µg/kg	15.6	167							U
3-Nitroaniline	<19.4	µg/kg	19.4	33.0							U
4-Bromophenyl phenyl ether (BDE-3)	<18.3	µg/kg	18.3	33.0							U
4-Chloro-3-methylphenol	<9.50	µg/kg	9.50	33.0							U
4-Chloroaniline	<16.9	µg/kg	16.9	67.0							U
4-Chlorophenyl phenylether	<9.21	µg/kg	9.21	33.0							U
4-Nitroaniline	<51.7	µg/kg	51.7	167							U
4-Nitrophenol	<78.1	µg/kg	78.1	333							U
Acenaphthene	<4.82	µg/kg	4.82	6.67							U
Acenaphthylene	<5.78	µg/kg	5.78	6.67							U
Acetophenone	<5.22	µg/kg	5.22	33.0							U
Anthracene	<4.70	µg/kg	4.70	6.67							U
Atrazine	<19.5	µg/kg	19.5	33.0							U
Benzaldehyde	<51.2	µg/kg	51.2	67.0							U
Benzo(a)anthracene	<5.76	µg/kg	5.76	6.67							U
Benzo(a)pyrene	4.67	µg/kg	4.09	6.67							J
Benzo(b)fluoranthene	<4.97	µg/kg	4.97	6.67							U
Benzo(g,h,i)perylene	<5.11	µg/kg	5.11	6.67							U
Benzo(k)fluoranthene	<5.05	µg/kg	5.05	6.67							U
bis(2-Chloroethoxy)methane	<21.1	µg/kg	21.1	33.0							U
bis(2-Chloroethyl) ether	<9.44	µg/kg	9.44	33.0							U

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

MB CLIENT ID: Method Blank Lab ID: QC-2291398-001

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 13:57
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	<41.7	µg/kg	41.7	67.0							U
Caprolactam	<30.1	µg/kg	30.1	33.0							U
Carbazole	<9.82	µg/kg	9.82	33.0							U
Chrysene	<5.39	µg/kg	5.39	6.67							U
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	<27.6	µg/kg	27.6	33.0							U
Dibenz(a,h) anthracene	<3.60	µg/kg	3.60	33.0							U
Dibenzofuran	<4.90	µg/kg	4.90	33.0							U
Diethyl phthalate	<11.3	µg/kg	11.3	33.0							U
Dimethyl phthalate	<6.50	µg/kg	6.50	33.0							U
Fluoranthene	<3.20	µg/kg	3.20	6.67							U
Fluorene	<4.84	µg/kg	4.84	6.67							U
Hexachlorobenzene	<9.70	µg/kg	9.70	33.0							U
Hexachlorobutadiene	<7.85	µg/kg	7.85	33.0							U
Hexachlorocyclopentadiene	<31.6	µg/kg	31.6	33.0							U
Hexachloroethane	<13.8	µg/kg	13.8	33.0							U
Indeno(1,2,3-cd) pyrene	6.00	µg/kg	4.64	6.67							J
Isophorone	<6.51	µg/kg	6.51	167							U
Methylphenol, Total	<9.01	µg/kg	9.01	67.0							U
Naphthalene	<4.26	µg/kg	4.26	6.67							U
Nitrobenzene	<11.2	µg/kg	11.2	167							U
n-Nitrosodi-n-propylamine	<5.50	µg/kg	5.50	33.0							U
N-Nitrosodiphenylamine	<19.3	µg/kg	19.3	33.0							U
Pentachlorophenol	<26.5	µg/kg	26.5	33.0							U
Phenanthrene	<3.10	µg/kg	3.10	6.67							U
Phenol	<16.7	µg/kg	16.7	33.0							U
Pyrene	<3.33	µg/kg	3.33	6.67							U
Pyridine	<65.6	µg/kg	65.6	167							U
Surr: 2,4,6-Tribromophenol	2370	µg/kg			3333		71.0	48-94			
Surr: 2-Fluorobiphenyl	2530	µg/kg			3333		75.9	50-103			
Surr: 2-Fluorophenol	2580	µg/kg			3333		77.3	43-105			
Surr: 4-Terphenyl-d14	2550	µg/kg			3333		76.4	55-111			
Surr: Nitrobenzene-d5	2190	µg/kg			3333		65.8	47-100			
Surr: Phenol-d6	2570	µg/kg			3333		77.0	49-110			

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2291398-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 14:18
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1020	µg/kg	5.41	33.0	1333		76.7	57-101			
1,2,4,5-Tetrachlorobenzene	1010	µg/kg	7.69	33.0	1333		75.8	54-98			
1-Methylnaphthalene	1020	µg/kg	4.80	6.67	1333		76.3	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	960	µg/kg	7.81	33.0	1333		72.0	50-101			
2,3,4,6-Tetrachlorophenol	1020	µg/kg	24.4	67.0	1333		76.5	48-103			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

LCS
CLIENT ID: Laboratory Control Sample
Lab ID: QC-2291398-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 14:18
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	1060	µg/kg	19.8	33.0	1333		79.3	54-98			
2,4,6-Trichlorophenol	1050	µg/kg	8.87	33.0	1333		78.5	56-97			
2,4-Dichlorophenol	995	µg/kg	17.9	33.0	1333		74.6	54-99			
2,4-Dimethylphenol	961	µg/kg	17.1	33.0	1333		72.1	47-102			
2,4-Dinitrophenol	852	µg/kg	244	333	1333		63.9	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1080	µg/kg	21.6	33.0	1333		80.7	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1070	µg/kg	8.51	33.0	1333		80.0	62-103			
2-Chloronaphthalene	1040	µg/kg	4.66	6.67	1333		78.1	57-101			
2-Chlorophenol	1020	µg/kg	21.8	33.0	1333		76.7	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	984	µg/kg	27.8	33.0	1333		73.8	42-104			
2-Methylnaphthalene	1010	µg/kg	3.39	6.67	1333		75.8	55-102			
2-Methylphenol (o-Cresol)	1030	µg/kg	9.01	33.0	1333		77.0	54-103			
2-Nitroaniline	1000	µg/kg	18.5	33.0	1333		75.4	57-103			
2-Nitrophenol	1030	µg/kg	9.50	33.0	1333		77.1	52-102			
3&4-Methylphenol	997	µg/kg	18.2	33.0	1333		74.8	56-103			
3,3'-Dichlorobenzidine	779	µg/kg	15.6	167	1333		58.5	41-91			
3-Nitroaniline	719	µg/kg	19.4	33.0	1333		54.0	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1050	µg/kg	18.3	33.0	1333		79.1	63-104			
4-Chloro-3-methylphenol	1010	µg/kg	9.50	33.0	1333		75.5	57-103			
4-Chloroaniline	1070	µg/kg	16.9	67.0	1333		80.0	32-99			
4-Chlorophenyl phenylether	1080	µg/kg	9.21	33.0	1333		81.0	62-100			
4-Nitroaniline	476	µg/kg	51.7	167	1333		35.7	19-124			
4-Nitrophenol	972	µg/kg	78.1	333	1333		72.9	44-106			
Acenaphthene	1040	µg/kg	4.82	6.67	1333		77.7	60-101			
Acenaphthylene	1080	µg/kg	5.78	6.67	1333		81.4	59-101			
Acetophenone	1010	µg/kg	5.22	33.0	1333		75.4	54-102			
Anthracene	1060	µg/kg	4.70	6.67	1333		79.6	63-96			
Atrazine	<19.5	µg/kg	19.5	33.0	1333		0.00	60-110			SU
Benzaldehyde	214	µg/kg	51.2	67.0	1333		16.1	10-143			
Benzo(a)anthracene	1040	µg/kg	5.76	6.67	1333		78.1	66-102			
Benzo(a)pyrene	1070	µg/kg	4.09	6.67	1333		80.2	66-105			
Benzo(b)fluoranthene	1060	µg/kg	4.97	6.67	1333		79.5	67-105			
Benzo(g,h,i)perylene	1070	µg/kg	5.11	6.67	1333		80.6	59-110			
Benzo(k)fluoranthene	1070	µg/kg	5.05	6.67	1333		80.2	68-106			
bis(2-Chloroethoxy)methane	960	µg/kg	21.1	33.0	1333		72.0	54-102			
bis(2-Chloroethyl) ether	1020	µg/kg	9.44	33.0	1333		76.5	51-101			
Butyl benzyl phthalate	971	µg/kg	41.7	67.0	1333		72.8	59-107			
Caprolactam	957	µg/kg	30.1	33.0	1333		71.8	49-103			
Carbazole	1040	µg/kg	9.82	33.0	1333		78.2	63-103			
Chrysene	1080	µg/kg	5.39	6.67	1333		80.9	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1010	µg/kg	27.6	33.0	1333		75.7	63-101			
Dibenz(a,h) anthracene	1090	µg/kg	3.60	33.0	1333		82.0	61-109			
Dibenzofuran	1060	µg/kg	4.90	33.0	1333		79.8	61-101			
Diethyl phthalate	1060	µg/kg	11.3	33.0	1333		79.8	63-105			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2291398-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 14:18
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dimethyl phthalate	1070	µg/kg	6.50	33.0	1333		80.2	64-104			
Fluoranthene	1050	µg/kg	3.20	6.67	1333		79.1	66-105			
Fluorene	1070	µg/kg	4.84	6.67	1333		80.2	62-101			
Hexachlorobenzene	1030	µg/kg	9.70	33.0	1333		77.5	61-104			
Hexachlorobutadiene	1010	µg/kg	7.85	33.0	1333		75.7	52-99			
Hexachlorocyclopentadiene	874	µg/kg	31.6	33.0	1333		65.6	39-106			
Hexachloroethane	999	µg/kg	13.8	33.0	1333		75.0	59-99			
Indeno(1,2,3-cd) pyrene	1170	µg/kg	4.64	6.67	1333		87.8	57-114			
Isophorone	978	µg/kg	6.51	167	1333		73.4	55-101			
Methylphenol, Total	2020	µg/kg	9.01	67.0	2667		75.9	54-103			
Naphthalene	1010	µg/kg	4.26	6.67	1333		76.0	54-99			
Nitrobenzene	1000	µg/kg	11.2	167	1333		75.2	53-100			
n-Nitrosodi-n-propylamine	1000	µg/kg	5.50	33.0	1333		75.4	52-104			
N-Nitrosodiphenylamine	1030	µg/kg	19.3	33.0	1333		77.1	61-104			
Pentachlorophenol	1040	µg/kg	26.5	33.0	1333		77.7	35-100			
Phenanthrene	1050	µg/kg	3.10	6.67	1333		78.6	64-101			
Phenol	990	µg/kg	16.7	33.0	1333		74.3	51-107			
Pyrene	1060	µg/kg	3.33	6.67	1333		79.4	62-114			
Pyridine	855	µg/kg	65.6	167	1333		64.1	40-84			
Surr: 2,4,6-Tribromophenol	2670	µg/kg			3333		80.1	48-94			
Surr: 2-Fluorobiphenyl	2570	µg/kg			3333		77.0	50-103			
Surr: 2-Fluorophenol	2500	µg/kg			3333		75.0	43-105			
Surr: 4-Terphenyl-d14	2570	µg/kg			3333		77.0	55-111			
Surr: Nitrobenzene-d5	2280	µg/kg			3333		68.5	47-100			
Surr: Phenol-d6	2630	µg/kg			3333		78.8	49-110			

MS CLIENT ID: Batch QC Lab ID: QC-2291398-005

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 14:39
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	2250	µg/kg	11.8	77.4	2908.4	<11.8	77.0	57-101			
1,2,4,5-Tetrachlorobenzene	2220	µg/kg	16.8	781	2908.4	<16.8	76.2	54-98			
1-Methylnaphthalene	2210	µg/kg	10.5	15.6	2908.4	<10.5	76.0	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	2090	µg/kg	17.0	77.4	2908.4	<17.0	71.7	50-101			
2,3,4,6-Tetrachlorophenol	2290	µg/kg	53.3	156	2908.4	<53.3	78.7	48-103			
2,4,5-Trichlorophenol	2370	µg/kg	43.1	77.4	2908.4	<43.1	81.5	54-98			
2,4,6-Trichlorophenol	2290	µg/kg	19.4	77.4	2908.4	<19.4	78.6	56-97			
2,4-Dichlorophenol	2140	µg/kg	39.1	77.4	2908.4	<39.1	73.7	54-99			
2,4-Dimethylphenol	1340	µg/kg	37.4	77.4	2908.4	<37.4	46.2	47-102			S
2,4-Dinitrophenol	764	µg/kg	532	781	2908.4	<532	26.3	10-100			J
2,4-Dinitrotoluene (2,4-DNT)	2280	µg/kg	47.2	77.4	2908.4	<47.2	78.3	62-105			
2,6-Dinitrotoluene (2,6-DNT)	2330	µg/kg	18.6	77.4	2908.4	<18.6	80.0	62-103			
2-Chloronaphthalene	2300	µg/kg	10.2	15.6	2908.4	<10.2	79.2	57-101			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

MS **CLIENT ID: Batch QC** **Lab ID: QC-2291398-005**

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 14:39
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2-Chlorophenol	2170	µg/kg	47.6	77.4	2908.4	<47.6	74.5	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1840	µg/kg	60.7	77.4	2908.4	<60.7	63.4	42-104			
2-Methylnaphthalene	2220	µg/kg	7.40	15.6	2908.4	<7.40	76.2	55-102			
2-Methylphenol (o-Cresol)	2060	µg/kg	19.7	77.4	2908.4	<19.7	70.8	54-103			
2-Nitroaniline	2190	µg/kg	40.4	77.4	2908.4	<40.4	75.2	57-103			
2-Nitrophenol	2270	µg/kg	20.7	77.4	2908.4	<20.7	78.2	52-102			
3&4-Methylphenol	2070	µg/kg	39.6	77.4	2908.4	<39.6	71.3	56-103			
3,3'-Dichlorobenzidine	1790	µg/kg	33.9	391	2908.4	<33.9	61.5	41-91			
3-Nitroaniline	1570	µg/kg	42.2	77.4	2908.4	<42.2	53.8	35-107			
4-Bromophenyl phenyl ether (BDE-3)	2200	µg/kg	39.8	77.4	2908.4	<39.8	75.7	63-104			
4-Chloro-3-methylphenol	2160	µg/kg	20.7	77.4	2908.4	<20.7	74.1	57-103			
4-Chloroaniline	2230	µg/kg	37.0	156	2908.4	<37.0	76.7	32-99			
4-Chlorophenyl phenylether	2320	µg/kg	20.1	77.4	2908.4	<20.1	79.8	62-100			
4-Nitroaniline	967	µg/kg	113	391	2908.4	<113	33.3	19-124			
4-Nitrophenol	2090	µg/kg	170	781	2908.4	<170	71.9	44-106			
Acenaphthene	2290	µg/kg	10.5	15.6	2908.4	<10.5	78.6	60-101			
Acenaphthylene	2290	µg/kg	12.6	15.6	2908.4	<12.6	78.9	59-101			
Acetophenone	2170	µg/kg	11.4	77.4	2908.4	<11.4	74.7	54-102			
Anthracene	2270	µg/kg	10.3	15.6	2908.4	<10.3	78.2	63-96			
Atrazine	<42.6	µg/kg	42.6	77.4	2908.4	<42.6	0.00	60-110			SU
Benzaldehyde	534	µg/kg	112	156	2908.4	<112	18.4	10-143			
Benzo(a)anthracene	2240	µg/kg	12.6	15.6	2908.4	<12.6	77.0	66-102			
Benzo(a)pyrene	2320	µg/kg	8.92	15.6	2908.4	<8.92	79.8	66-105			
Benzo(b)fluoranthene	2320	µg/kg	10.8	15.6	2908.4	<10.8	79.8	67-105			
Benzo(g,h,i)perylene	2290	µg/kg	11.1	15.6	2908.4	<11.1	78.8	59-110			
Benzo(k)fluoranthene	2320	µg/kg	11.0	15.6	2908.4	<11.0	79.9	68-106			
bis(2-Chloroethoxy)methane	2150	µg/kg	46.1	77.4	2908.4	<46.1	74.1	54-102			
bis(2-Chloroethyl) ether	2240	µg/kg	20.6	77.4	2908.4	<20.6	77.0	51-101			
Butyl benzyl phthalate	2190	µg/kg	91.0	156	2908.4	<91.0	73.6	59-107			
Caprolactam	2110	µg/kg	65.6	77.4	2908.4	<65.6	72.5	49-103			
Carbazole	2240	µg/kg	21.4	77.4	2908.4	<21.4	77.0	63-103			
Chrysene	2200	µg/kg	12.4	15.6	2908.4	<12.4	75.7	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	2190	µg/kg	60.2	77.4	2908.4	<60.2	73.6	63-101			
Dibenz(a,h) anthracene	2360	µg/kg	7.85	77.4	2908.4	<7.85	81.2	61-109			
Dibenzofuran	2300	µg/kg	10.7	77.4	2908.4	<10.7	79.2	61-101			
Diethyl phthalate	2300	µg/kg	24.7	77.4	2908.4	<24.7	79.2	63-105			
Dimethyl phthalate	2330	µg/kg	14.2	77.4	2908.4	<14.2	80.1	64-104			
Fluoranthene	2250	µg/kg	6.98	15.6	2908.4	<6.98	77.2	66-105			
Fluorene	2290	µg/kg	10.6	15.6	2908.4	<10.6	78.8	62-101			
Hexachlorobenzene	2240	µg/kg	21.2	77.4	2908.4	<21.2	77.2	61-104			
Hexachlorobutadiene	2190	µg/kg	17.1	77.4	2908.4	<17.1	75.4	52-99			
Hexachlorocyclopentadiene	1850	µg/kg	71.1	77.4	2908.4	<71.1	63.6	39-106			
Hexachloroethane	2150	µg/kg	30.1	77.4	2908.4	<30.1	73.8	59-99			
Indeno(1,2,3-cd) pyrene	2560	µg/kg	10.1	15.6	2908.4	<10.1	88.1	57-114			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

MS CLIENT ID: Batch QC Lab ID: QC-2291398-005

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 14:39
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isophorone	2160	µg/kg	14.2	391	2908.4	<14.2	74.3	55-101			
Methylphenol, Total	4130	µg/kg	19.7	77.4	5819	<19.7	71.0	54-103			
Naphthalene	2180	µg/kg	9.29	15.6	2908.4	<9.29	74.9	54-99			
Nitrobenzene	2170	µg/kg	24.4	391	2908.4	<24.4	74.7	53-100			
n-Nitrosodi-n-propylamine	2150	µg/kg	12.0	77.4	2908.4	<12.0	74.1	52-104			
N-Nitrosodiphenylamine	2220	µg/kg	42.1	77.4	2908.4	<42.1	76.4	61-104			
Pentachlorophenol	2190	µg/kg	57.8	77.4	2908.4	<57.8	75.3	35-100			
Phenanthrene	2230	µg/kg	6.76	15.6	2908.4	<6.76	76.7	64-101			
Phenol	2140	µg/kg	36.5	77.4	2908.4	<36.5	73.4	51-107			
Pyrene	2310	µg/kg	7.26	15.6	2908.4	<7.26	79.3	52-114			
Pyridine	1970	µg/kg	143	391	2908.4	<143	67.8	40-84			
Surr: 2,4,6-Tribromophenol	5550	µg/kg			7272.1		76.3	48-94			
Surr: 2-Fluorobiphenyl	5450	µg/kg			7272.1		74.9	50-103			
Surr: 2-Fluorophenol	5250	µg/kg			7272.1		72.1	43-105			
Surr: 4-Terphenyl-d14	5460	µg/kg			7272.1		75.1	55-111			
Surr: Nitrobenzene-d5	4850	µg/kg			7272.1		66.6	47-100			
Surr: Phenol-d6	5560	µg/kg			7272.1		76.5	49-110			

MSD CLIENT ID: Batch QC Lab ID: QC-2291398-006

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 15:00
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	2240	µg/kg	11.8	77.4	2908	<11.8	76.8	57-101	0.207	30	
1,2,4,5-Tetrachlorobenzene	2310	µg/kg	16.8	781	2908	<16.8	79.5	54-98	4.23	30	
1-Methylnaphthalene	2240	µg/kg	10.5	15.6	2908	<10.5	76.9	56-100	1.16	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	2110	µg/kg	17.0	77.4	2908	<17.0	72.4	50-101	0.958	30	
2,3,4,6-Tetrachlorophenol	2340	µg/kg	53.3	156	2908	<53.3	80.3	48-103	2.00	30	
2,4,5-Trichlorophenol	2350	µg/kg	43.1	77.4	2908	<43.1	80.9	54-98	0.814	30	
2,4,6-Trichlorophenol	2340	µg/kg	19.4	77.4	2908	<19.4	80.4	56-97	2.25	30	
2,4-Dichlorophenol	2150	µg/kg	39.1	77.4	2908	<39.1	73.8	54-99	0.190	30	
2,4-Dimethylphenol	1250	µg/kg	37.4	77.4	2908	<37.4	43.0	47-102	7.20	30	S
2,4-Dinitrophenol	608	µg/kg	532	781	2908	<532	20.9	10-100			J
2,4-Dinitrotoluene (2,4-DNT)	2330	µg/kg	47.2	77.4	2908	<47.2	80.2	62-105	2.38	30	
2,6-Dinitrotoluene (2,6-DNT)	2360	µg/kg	18.6	77.4	2908	<18.6	81.1	62-103	1.29	30	
2-Chloronaphthalene	2310	µg/kg	10.2	15.6	2908	<10.2	79.5	57-101	0.302	30	
2-Chlorophenol	2200	µg/kg	47.6	77.4	2908	<47.6	75.6	52-102	1.45	30	
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1710	µg/kg	60.7	77.4	2908	<60.7	58.9	42-104	7.37	30	
2-Methylnaphthalene	2220	µg/kg	7.40	15.6	2908	<7.40	76.3	55-102	0.118	30	
2-Methylphenol (o-Cresol)	2070	µg/kg	19.7	77.4	2908	<19.7	71.0	54-103	0.340	30	
2-Nitroaniline	2180	µg/kg	40.4	77.4	2908	<40.4	75.0	57-103	0.280	30	
2-Nitrophenol	2220	µg/kg	20.7	77.4	2908	<20.7	76.4	52-102	2.34	30	
3&4-Methylphenol	2100	µg/kg	39.6	77.4	2908	<39.6	72.4	56-103	1.45	30	
3,3'-Dichlorobenzidine	1860	µg/kg	33.9	391	2908	<33.9	63.8	41-91	3.66	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

MSD CLIENT ID: Batch QC Lab ID: QC-2291398-006

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 15:00
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
3-Nitroaniline	1530	µg/kg	42.2	77.4	2908	<42.2	52.6	35-107	2.27	30	
4-Bromophenyl phenyl ether (BDE-3)	2280	µg/kg	39.8	77.4	2908	<39.8	78.6	63-104	3.75	30	
4-Chloro-3-methylphenol	2150	µg/kg	20.7	77.4	2908	<20.7	73.8	57-103	0.487	30	
4-Chloroaniline	2290	µg/kg	37.0	156	2908	<37.0	78.7	32-99	2.56	30	
4-Chlorophenyl phenylether	2330	µg/kg	20.1	77.4	2908	<20.1	80.0	62-100	0.300	30	
4-Nitroaniline	892	µg/kg	113	391	2908	<113	30.7	19-124	8.15	30	
4-Nitrophenol	2140	µg/kg	170	781	2908	<170	73.7	44-106	2.46	30	
Acenaphthene	2280	µg/kg	10.5	15.6	2908	<10.5	78.4	60-101	0.268	30	
Acenaphthylene	2320	µg/kg	12.6	15.6	2908	<12.6	79.9	59-101	1.25	30	
Acetophenone	2180	µg/kg	11.4	77.4	2908	<11.4	75.1	54-102	0.521	30	
Anthracene	2310	µg/kg	10.3	15.6	2908	<10.3	79.3	63-96	1.32	30	
Atrazine	<42.6	µg/kg	42.6	77.4	2908	<42.6	0.00	60-110			US
Benzaldehyde	369	µg/kg	112	156	2908	<112	12.7	10-143	36.4	30	R
Benzo(a)anthracene	2310	µg/kg	12.6	15.6	2908	<12.6	79.5	66-102	3.18	30	
Benzo(a)pyrene	2420	µg/kg	8.92	15.6	2908	<8.92	83.4	66-105	4.40	30	
Benzo(b)fluoranthene	2370	µg/kg	10.8	15.6	2908	<10.8	81.7	67-105	2.34	30	
Benzo(g,h,i)perylene	2380	µg/kg	11.1	15.6	2908	<11.1	81.8	59-110	3.66	30	
Benzo(k)fluoranthene	2420	µg/kg	11.0	15.6	2908	<11.0	83.3	68-106	4.22	30	
bis(2-Chloroethoxy)methane	2110	µg/kg	46.1	77.4	2908	<46.1	72.4	54-102	2.27	30	
bis(2-Chloroethyl) ether	2320	µg/kg	20.6	77.4	2908	<20.6	79.8	51-101	3.50	30	
Butyl benzyl phthalate	2210	µg/kg	91.0	156	2908	<91.0	74.3	59-107	0.912	30	
Caprolactam	2120	µg/kg	65.6	77.4	2908	<65.6	72.9	49-103	0.469	30	
Carbazole	2290	µg/kg	21.4	77.4	2908	<21.4	78.7	63-103	2.11	30	
Chrysene	2330	µg/kg	12.4	15.6	2908	<12.4	80.3	66-105	5.82	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	2310	µg/kg	60.1	77.4	2908	<60.1	77.7	63-101	5.29	30	
Dibenz(a,h) anthracene	2430	µg/kg	7.85	77.4	2908	<7.85	83.7	61-109	3.08	30	
Dibenzofuran	2330	µg/kg	10.7	77.4	2908	<10.7	80.2	61-101	1.24	30	
Diethyl phthalate	2310	µg/kg	24.7	77.4	2908	<24.7	79.3	63-105	0.0500	30	
Dimethyl phthalate	2300	µg/kg	14.2	77.4	2908	<14.2	79.2	64-104	1.14	30	
Fluoranthene	2340	µg/kg	6.98	15.6	2908	<6.98	80.4	66-105	3.99	30	
Fluorene	2340	µg/kg	10.6	15.6	2908	<10.6	80.6	62-101	2.18	30	
Hexachlorobenzene	2220	µg/kg	21.2	77.4	2908	<21.2	76.3	61-104	1.19	30	
Hexachlorobutadiene	2230	µg/kg	17.1	77.4	2908	<17.1	76.5	52-99	1.50	30	
Hexachlorocyclopentadiene	1850	µg/kg	71.1	77.4	2908	<71.1	63.7	39-106	0.0655	30	
Hexachloroethane	2220	µg/kg	30.1	77.4	2908	<30.1	76.3	59-99	3.25	30	
Indeno(1,2,3-cd) pyrene	2650	µg/kg	10.1	15.6	2908	<10.1	91.2	57-114	3.44	30	
Isophorone	2140	µg/kg	14.2	391	2908	<14.2	73.7	55-101	0.824	30	
Methylphenol, Total	4170	µg/kg	19.7	77.4	5818.2	<19.7	71.7	54-103	0.898	30	
Naphthalene	2160	µg/kg	9.29	15.6	2908	<9.29	74.4	54-99	0.750	30	
Nitrobenzene	2180	µg/kg	24.4	391	2908	<24.4	74.8	53-100	0.188	30	
n-Nitrosodi-n-propylamine	2180	µg/kg	12.0	77.4	2908	<12.0	75.0	52-104	1.26	30	
N-Nitrosodiphenylamine	2270	µg/kg	42.1	77.4	2908	<42.1	77.9	61-104	1.93	30	
Pentachlorophenol	2180	µg/kg	57.8	77.4	2908	<57.8	74.9	35-100	0.546	30	
Phenanthrene	2310	µg/kg	6.76	15.6	2908	<6.76	79.3	64-101	3.32	30	
Phenol	2160	µg/kg	36.5	77.4	2908	<36.5	74.4	51-107	1.34	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2291398

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3630819

MSD CLIENT ID: Batch QC Lab ID: QC-2291398-006

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/27/25 15:00
Prep Date: 10/23/25 16:36

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Pyrene	2360	µg/kg	7.26	15.6	2908	<7.26	81.1	52-114	2.29	30	
Pyridine	1940	µg/kg	143	391	2908	<143	66.9	40-84	1.42	30	
<i>Surr: 2,4,6-Tribromophenol</i>	5650	µg/kg			7271.2		77.6	48-94	1.78	30	
<i>Surr: 2-Fluorobiphenyl</i>	5590	µg/kg			7271.2		76.9	50-103	2.57	30	
<i>Surr: 2-Fluorophenol</i>	5430	µg/kg			7271.2		74.6	43-105	3.42	30	
<i>Surr: 4-Terphenyl-d14</i>	5660	µg/kg			7271.2		77.8	55-111	3.54	30	
<i>Surr: Nitrobenzene-d5</i>	4910	µg/kg			7271.2		67.6	47-100	1.39	30	
<i>Surr: Phenol-d6</i>	5620	µg/kg			7271.2		77.3	49-110	1.03	30	

The following samples were analyzed in this batch: HN2515360-001, HN2515360-003



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2303031

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3639941

Semivolatile Organic Compounds by GC-MS

MB CLIENT ID: Method Blank Lab ID: QC-2303031-001

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 13:38

Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	<5.41	µg/kg	5.41	33.0							U
1,2,4,5-Tetrachlorobenzene	<7.69	µg/kg	7.69	333							U
1,4-Dioxane (1,4- Diethyleneoxide)	<23.9	µg/kg	23.9	167							U
1-Methylnaphthalene	<4.80	µg/kg	4.80	6.67							U
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	<7.81	µg/kg	7.81	33.0							U
2,3,4,6-Tetrachlorophenol	<24.4	µg/kg	24.4	67.0							U
2,4,5-Trichlorophenol	<19.8	µg/kg	19.8	33.0							U
2,4,6-Trichlorophenol	<8.87	µg/kg	8.87	33.0							U
2,4-Dichlorophenol	<17.9	µg/kg	17.9	33.0							U
2,4-Dimethylphenol	<17.1	µg/kg	17.1	33.0							U
2,4-Dinitrophenol	<244	µg/kg	244	333							U
2,4-Dinitrotoluene (2,4-DNT)	<21.6	µg/kg	21.6	33.0							U
2,6-Dinitrotoluene (2,6-DNT)	<8.51	µg/kg	8.51	33.0							U
2-Chloronaphthalene	<4.66	µg/kg	4.66	6.67							U
2-Chlorophenol	<21.8	µg/kg	21.8	33.0							U
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	<27.8	µg/kg	27.8	33.0							U
2-Methylnaphthalene	<3.39	µg/kg	3.39	6.67							U
2-Methylphenol (o-Cresol)	<9.01	µg/kg	9.01	33.0							U
2-Nitroaniline	<18.5	µg/kg	18.5	33.0							U
2-Nitrophenol	<9.50	µg/kg	9.50	33.0							U
3&4-Methylphenol	<18.2	µg/kg	18.2	33.0							U
3,3'-Dichlorobenzidine	<15.6	µg/kg	15.6	167							U
3-Nitroaniline	<19.4	µg/kg	19.4	33.0							U
4-Bromophenyl phenyl ether (BDE-3)	<18.3	µg/kg	18.3	33.0							U
4-Chloro-3-methylphenol	<9.50	µg/kg	9.50	33.0							U
4-Chloroaniline	<16.9	µg/kg	16.9	67.0							U
4-Chlorophenyl phenylether	<9.21	µg/kg	9.21	33.0							U
4-Nitroaniline	<51.7	µg/kg	51.7	167							U
4-Nitrophenol	<78.1	µg/kg	78.1	333							U
Acenaphthene	<4.82	µg/kg	4.82	6.67							U
Acenaphthylene	<5.78	µg/kg	5.78	6.67							U
Acetophenone	<5.22	µg/kg	5.22	33.0							U
Anthracene	<4.70	µg/kg	4.70	6.67							U
Atrazine	<19.5	µg/kg	19.5	33.0							U
Benzaldehyde	<51.2	µg/kg	51.2	67.0							U
Benzo(a)anthracene	<5.76	µg/kg	5.76	6.67							U
Benzo(a)pyrene	<4.09	µg/kg	4.09	6.67							U
Benzo(b)fluoranthene	<4.97	µg/kg	4.97	6.67							U
Benzo(g,h,i)perylene	<5.11	µg/kg	5.11	6.67							U
Benzo(k)fluoranthene	<5.05	µg/kg	5.05	6.67							U
bis(2-Chloroethoxy)methane	<21.1	µg/kg	21.1	33.0							U
bis(2-Chloroethyl) ether	<9.44	µg/kg	9.44	33.0							U



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2303031

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3639941

MB CLIENT ID: Method Blank Lab ID: QC-2303031-001

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 13:38
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	<41.7	µg/kg	41.7	67.0							U
Caprolactam	<30.1	µg/kg	30.1	33.0							U
Carbazole	<9.82	µg/kg	9.82	33.0							U
Chrysene	<5.39	µg/kg	5.39	6.67							U
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	32.7	µg/kg	27.6	33.0							J
Dibenz(a,h) anthracene	<3.60	µg/kg	3.60	33.0							U
Dibenzofuran	<4.90	µg/kg	4.90	33.0							U
Diethyl phthalate	<11.3	µg/kg	11.3	33.0							U
Dimethyl phthalate	<6.50	µg/kg	6.50	33.0							U
Fluoranthene	<3.20	µg/kg	3.20	6.67							U
Fluorene	<4.84	µg/kg	4.84	6.67							U
Hexachlorobenzene	<9.70	µg/kg	9.70	33.0							U
Hexachlorobutadiene	<7.85	µg/kg	7.85	33.0							U
Hexachlorocyclopentadiene	<31.6	µg/kg	31.6	33.0							U
Hexachloroethane	<13.8	µg/kg	13.8	33.0							U
Indeno(1,2,3-cd) pyrene	<4.64	µg/kg	4.64	6.67							U
Isophorone	<6.51	µg/kg	6.51	167							U
Methylphenol, Total	<9.01	µg/kg	9.01	67.0							U
Naphthalene	<4.26	µg/kg	4.26	6.67							U
Nitrobenzene	<11.2	µg/kg	11.2	167							U
n-Nitrosodi-n-propylamine	<5.50	µg/kg	5.50	33.0							U
N-Nitrosodiphenylamine	<19.3	µg/kg	19.3	33.0							U
Pentachlorophenol	<26.5	µg/kg	26.5	33.0							U
Phenanthrene	<3.10	µg/kg	3.10	6.67							U
Phenol	<16.7	µg/kg	16.7	33.0							U
Pyrene	<3.33	µg/kg	3.33	6.67							U
Pyridine	<65.6	µg/kg	65.6	167							U
Surr: 2,4,6-Tribromophenol	2610	µg/kg			3333		78.4	48-94			
Surr: 2-Fluorobiphenyl	2430	µg/kg			3333		72.8	50-103			
Surr: 2-Fluorophenol	2210	µg/kg			3333		66.3	43-105			
Surr: 4-Terphenyl-d14	2450	µg/kg			3333		73.4	55-111			
Surr: Nitrobenzene-d5	2160	µg/kg			3333		64.9	47-100			
Surr: Phenol-d6	2280	µg/kg			3333		68.4	49-110			

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2303031-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 13:58
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1010	µg/kg	5.41	33.0	1333		75.7	57-101			
1,2,4,5-Tetrachlorobenzene	1100	µg/kg	7.69	33.0	1333		82.4	54-98			
1-Methylnaphthalene	985	µg/kg	4.80	6.67	1333		73.9	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	821	µg/kg	7.81	33.0	1333		61.6	50-101			
2,3,4,6-Tetrachlorophenol	1320	µg/kg	24.4	67.0	1333		99.4	48-103			



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2303031

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3639941

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2303031-002

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 13:58
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dimethyl phthalate	1070	µg/kg	6.50	33.0	1333		80.6	64-104			
Fluoranthene	1080	µg/kg	3.20	6.67	1333		81.3	66-105			
Fluorene	1070	µg/kg	4.84	6.67	1333		80.3	62-101			
Hexachlorobenzene	1110	µg/kg	9.70	33.0	1333		83.6	61-104			
Hexachlorobutadiene	1120	µg/kg	7.85	33.0	1333		84.0	52-99			
Hexachlorocyclopentadiene	969	µg/kg	31.6	33.0	1333		72.7	39-106			
Hexachloroethane	977	µg/kg	13.8	33.0	1333		73.3	59-99			
Indeno(1,2,3-cd) pyrene	1250	µg/kg	4.64	6.67	1333		94.0	57-114			
Isophorone	920	µg/kg	6.51	167	1333		69.0	55-101			
Methylphenol, Total	1850	µg/kg	9.01	67.0	2667		69.2	54-103			
Naphthalene	939	µg/kg	4.26	6.67	1333		70.5	54-99			
Nitrobenzene	939	µg/kg	11.2	167	1333		70.5	53-100			
n-Nitrosodi-n-propylamine	953	µg/kg	5.50	33.0	1333		71.5	52-104			
N-Nitrosodiphenylamine	988	µg/kg	19.3	33.0	1333		74.1	61-104			
Pentachlorophenol	1170	µg/kg	26.5	33.0	1333		87.5	35-100			
Phenanthrene	983	µg/kg	3.10	6.67	1333		73.7	64-101			
Phenol	820	µg/kg	16.7	33.0	1333		61.5	51-107			
Pyrene	983	µg/kg	3.33	6.67	1333		73.8	62-114			
Pyridine	703	µg/kg	65.6	167	1333		52.8	40-84			
Surr: 2,4,6-Tribromophenol	2880	µg/kg			3333		86.4	48-94			
Surr: 2-Fluorobiphenyl	2550	µg/kg			3333		76.4	50-103			
Surr: 2-Fluorophenol	2190	µg/kg			3333		65.8	43-105			
Surr: 4-Terphenyl-d14	2460	µg/kg			3333		73.9	55-111			
Surr: Nitrobenzene-d5	2350	µg/kg			3333		70.5	47-100			
Surr: Phenol-d6	2310	µg/kg			3333		69.4	49-110			

MS CLIENT ID: Batch QC Lab ID: QC-2303031-005

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 14:20
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1640	µg/kg	8.49	53.6	2091.5	<8.49	78.6	57-101			
1,2,4,5-Tetrachlorobenzene	1780	µg/kg	12.1	541	2091.5	<12.1	85.3	54-98			
1-Methylnaphthalene	1640	µg/kg	7.53	10.8	2091.5	<7.53	78.3	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1360	µg/kg	12.3	53.6	2091.5	<12.3	65.0	50-101			
2,3,4,6-Tetrachlorophenol	2070	µg/kg	38.3	108	2091.5	<38.3	99.1	48-103			
2,4,5-Trichlorophenol	1960	µg/kg	31.0	53.6	2091.5	<31.0	93.7	54-98			
2,4,6-Trichlorophenol	1920	µg/kg	13.9	53.6	2091.5	<13.9	91.9	56-97			
2,4-Dichlorophenol	1760	µg/kg	28.1	53.6	2091.5	<28.1	84.3	54-99			
2,4-Dimethylphenol	1530	µg/kg	26.9	53.6	2091.5	<26.9	73.3	47-102			
2,4-Dinitrophenol	1380	µg/kg	382	541	2091.5	<382	65.8	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1910	µg/kg	34.0	53.6	2091.5	<34.0	91.3	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1890	µg/kg	13.4	53.6	2091.5	<13.4	90.4	62-103			
2-Chloronaphthalene	1680	µg/kg	7.31	10.8	2091.5	<7.31	80.4	57-101			



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2303031

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3639941

MS CLIENT ID: Batch QC Lab ID: QC-2303031-005

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 14:20
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isophorone	1530	µg/kg	10.2	271	2091.5	<10.2	73.2	55-101			
Methylphenol, Total	3120	µg/kg	14.1	53.6	4184.6	<14.1	74.5	54-103			
Naphthalene	1560	µg/kg	6.68	10.8	2091.5	<6.68	74.4	54-99			
Nitrobenzene	1570	µg/kg	17.6	271	2091.5	<17.6	75.1	53-100			
n-Nitrosodi-n-propylamine	1580	µg/kg	8.63	53.6	2091.5	<8.63	75.4	52-104			
N-Nitrosodiphenylamine	1610	µg/kg	30.3	53.6	2091.5	<30.3	76.8	61-104			
Pentachlorophenol	2040	µg/kg	41.5	53.6	2091.5	<41.5	97.4	35-100			
Phenanthrene	1570	µg/kg	4.86	10.8	2091.5	<4.86	74.9	64-101			
Phenol	1350	µg/kg	26.3	53.6	2091.5	<26.3	64.8	51-107			
Pyrene	1640	µg/kg	5.22	10.8	2091.5	<5.22	78.3	52-114			
Pyridine	1290	µg/kg	103	271	2091.5	<103	61.7	40-84			
Surr: 2,4,6-Tribromophenol	4720	µg/kg			5229.6		90.3	48-94			
Surr: 2-Fluorobiphenyl	4230	µg/kg			5229.6		80.9	50-103			
Surr: 2-Fluorophenol	3770	µg/kg			5229.6		72.0	43-105			
Surr: 4-Terphenyl-d14	4090	µg/kg			5229.6		78.2	55-111			
Surr: Nitrobenzene-d5	3890	µg/kg			5229.6		74.5	47-100			
Surr: Phenol-d6	3840	µg/kg			5229.6		73.4	49-110			

MSD CLIENT ID: Batch QC Lab ID: QC-2303031-006

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 14:41
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1650	µg/kg	8.54	54.0	2104.7	<8.54	78.4	57-101	0.375	30	
1,2,4,5-Tetrachlorobenzene	1790	µg/kg	12.1	54.4	2104.7	<12.1	84.9	54-98	0.101	30	
1-Methylnaphthalene	1610	µg/kg	7.58	10.9	2104.7	<7.58	76.7	56-100	1.44	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1350	µg/kg	12.3	54.0	2104.7	<12.3	64.4	50-101	0.375	30	
2,3,4,6-Tetrachlorophenol	2250	µg/kg	38.5	109	2104.7	<38.5	107	48-103	8.25	30	S
2,4,5-Trichlorophenol	1970	µg/kg	31.2	54.0	2104.7	<31.2	93.6	54-98	0.469	30	
2,4,6-Trichlorophenol	1970	µg/kg	14.0	54.0	2104.7	<14.0	93.8	56-97	2.73	30	
2,4-Dichlorophenol	1790	µg/kg	28.3	54.0	2104.7	<28.3	84.9	54-99	1.34	30	
2,4-Dimethylphenol	1720	µg/kg	27.1	54.0	2104.7	<27.1	81.6	47-102	11.4	30	
2,4-Dinitrophenol	1280	µg/kg	385	54.4	2104.7	<385	60.7	10-100	7.36	30	
2,4-Dinitrotoluene (2,4-DNT)	1930	µg/kg	34.2	54.0	2104.7	<34.2	91.7	62-105	1.07	30	
2,6-Dinitrotoluene (2,6-DNT)	1890	µg/kg	13.4	54.0	2104.7	<13.4	89.8	62-103	0.0920	30	
2-Chloronaphthalene	1680	µg/kg	7.36	10.9	2104.7	<7.36	79.8	57-101	0.182	30	
2-Chlorophenol	1620	µg/kg	34.4	54.0	2104.7	<34.4	77.2	52-102	0.594	30	
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	2030	µg/kg	44.0	54.0	2104.7	<44.0	96.3	42-104	1.25	30	
2-Methylnaphthalene	1620	µg/kg	5.35	10.9	2104.7	<5.35	77.0	55-102	0.597	30	
2-Methylphenol (o-Cresol)	1550	µg/kg	14.2	54.0	2104.7	<14.2	73.5	54-103	0.0865	30	
2-Nitroaniline	1840	µg/kg	29.2	54.0	2104.7	<29.2	87.6	57-103	0.801	30	
2-Nitrophenol	2120	µg/kg	15.0	54.0	2104.7	<15.0	101	52-102	0.333	30	
3&4-Methylphenol	1610	µg/kg	28.7	54.0	2104.7	<28.7	76.6	56-103	2.54	30	
3,3'-Dichlorobenzidine	1620	µg/kg	24.6	273	2104.7	<24.6	77.1	41-91	0.306	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2303031

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3639941

MSD	CLIENT ID: Batch QC	Lab ID: QC-2303031-006
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Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 14:41
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
3-Nitroaniline	1020	µg/kg	30.6	54.0	2104.7	<30.6	48.5	35-107	3.03	30	
4-Bromophenyl phenyl ether (BDE-3)	1820	µg/kg	28.8	54.0	2104.7	<28.8	86.3	63-104	2.84	30	
4-Chloro-3-methylphenol	1670	µg/kg	15.0	54.0	2104.7	<15.0	79.1	57-103	0.251	30	
4-Chloroaniline	1770	µg/kg	26.7	109	2104.7	<26.7	84.2	32-99	0.434	30	
4-Chlorophenyl phenylether	1840	µg/kg	14.5	54.0	2104.7	<14.5	87.5	62-100	0.230	30	
4-Nitroaniline	1010	µg/kg	81.6	273	2104.7	<81.6	48.0	19-124	9.84	30	
4-Nitrophenol	1860	µg/kg	123	544	2104.7	<123	88.4	44-106	2.38	30	
Acenaphthene	1700	µg/kg	7.61	10.9	2104.7	<7.61	80.7	60-101	0.320	30	
Acenaphthylene	1720	µg/kg	9.13	10.9	2104.7	<9.13	81.5	59-101	1.37	30	
Acetophenone	1490	µg/kg	8.24	54.0	2104.7	<8.24	71.0	54-102	2.42	30	
Anthracene	1670	µg/kg	7.42	10.9	2104.7	<7.42	79.5	63-96	1.61	30	
Atrazine	2100	µg/kg	30.8	54.0	2104.7	<30.8	99.8	60-110	0.680	30	
Benzaldehyde	394	µg/kg	80.8	109	2104.7	<80.8	18.7	10-143	8.41	30	
Benzo(a)anthracene	1680	µg/kg	9.09	10.9	2104.7	<9.09	79.8	66-102	1.35	30	
Benzo(a)pyrene	1850	µg/kg	6.46	10.9	2104.7	<6.46	87.8	66-105	1.18	30	
Benzo(b)fluoranthene	1820	µg/kg	7.85	10.9	2104.7	<7.85	86.4	67-105	0.745	30	
Benzo(g,h,i)perylene	1820	µg/kg	8.07	10.9	2104.7	<8.07	86.4	59-110	1.32	30	
Benzo(k)fluoranthene	1660	µg/kg	7.97	10.9	2104.7	<7.97	78.9	68-106	4.98	30	
bis(2-Chloroethoxy)methane	1350	µg/kg	33.3	54.0	2104.7	<33.3	64.4	54-102	14.0	30	
bis(2-Chloroethyl) ether	1480	µg/kg	14.9	54.0	2104.7	<14.9	70.2	51-101	1.90	30	
Butyl benzyl phthalate	1810	µg/kg	65.9	109	2104.7	<65.9	86.0	59-107	0.757	30	
Caprolactam	1620	µg/kg	47.5	54.0	2104.7	<47.5	77.1	49-103	0.146	30	
Carbazole	1610	µg/kg	15.5	54.0	2104.7	<15.5	76.7	63-103	0.304	30	
Chrysene	1670	µg/kg	8.98	10.9	2104.7	<8.98	79.2	66-105	1.31	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1840	µg/kg	43.5	54.0	2104.7	<43.5	87.5	63-101	0.116	30	
Dibenz(a,h) anthracene	1860	µg/kg	5.68	54.0	2104.7	<5.68	88.4	61-109	0.0472	30	
Dibenzofuran	1750	µg/kg	7.74	54.0	2104.7	<7.74	83.0	61-101	2.58	30	
Diethyl phthalate	1810	µg/kg	17.9	54.0	2104.7	<17.9	85.9	63-105	2.63	30	
Dimethyl phthalate	1790	µg/kg	10.3	54.0	2104.7	31.9	83.7	64-104	1.93	30	
Fluoranthene	1740	µg/kg	5.05	10.9	2104.7	5.70	82.4	66-105	1.41	30	
Fluorene	1740	µg/kg	7.64	10.9	2104.7	<7.64	82.8	62-101	0.0873	30	
Hexachlorobenzene	1780	µg/kg	15.3	54.0	2104.7	<15.3	84.8	61-104	3.59	30	
Hexachlorobutadiene	1850	µg/kg	12.4	54.0	2104.7	<12.4	87.9	52-99	2.99	30	
Hexachlorocyclopentadiene	1820	µg/kg	51.5	54.0	2104.7	<51.5	86.5	39-106	3.27	30	
Hexachloroethane	1630	µg/kg	21.8	54.0	2104.7	<21.8	77.4	59-99	0.0499	30	
Indeno(1,2,3-cd) pyrene	2030	µg/kg	7.33	10.9	2104.7	<7.33	96.4	57-114	0.454	30	
Isophorone	1550	µg/kg	10.3	273	2104.7	<10.3	73.5	55-101	0.971	30	
Methylphenol, Total	3160	µg/kg	14.2	67.0	4211.1	<14.2	75.0	54-103	1.33	30	
Naphthalene	1560	µg/kg	6.73	10.9	2104.7	<6.73	74.0	54-99	0.0905	30	
Nitrobenzene	1570	µg/kg	17.7	273	2104.7	<17.7	74.4	53-100	0.307	30	
n-Nitrosodi-n-propylamine	1590	µg/kg	8.68	54.0	2104.7	<8.68	75.4	52-104	0.630	30	
N-Nitrosodiphenylamine	1630	µg/kg	30.5	54.0	2104.7	<30.5	77.3	61-104	1.28	30	
Pentachlorophenol	2050	µg/kg	41.8	54.0	2104.7	<41.8	97.6	35-100	0.835	30	
Phenanthrene	1600	µg/kg	4.89	10.9	2104.7	<4.89	75.9	64-101	1.89	30	
Phenol	1360	µg/kg	26.4	54.0	2104.7	<26.4	64.5	51-107	0.165	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2303031

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3639941

MSD CLIENT ID: Batch QC Lab ID: QC-2303031-006

Method: EPA 8270E **Dilution:** 1 **Analysis Date:** 10/29/25 14:41
Prep Date: 10/28/25 11:34

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Pyrene	1660	µg/kg	5.25	10.9	2104.7	<5.25	78.8	52-114	1.20	30	
Pyridine	1320	µg/kg	104	273	2104.7	<104	62.7	40-84	2.24	30	
Surr: 2,4,6-Tribromophenol	4670	µg/kg			5262.6		88.8	48-94	1.09	30	
Surr: 2-Fluorobiphenyl	4230	µg/kg			5262.6		80.3	50-103	0.140	30	
Surr: 2-Fluorophenol	3690	µg/kg			5262.6		70.1	43-105	2.10	30	
Surr: 4-Terphenyl-d14	4000	µg/kg			5262.6		76.0	55-111	2.23	30	
Surr: Nitrobenzene-d5	3870	µg/kg			5262.6		73.5	47-100	0.641	30	
Surr: Phenol-d6	3820	µg/kg			5262.6		72.5	49-110	0.631	30	

The following samples were analyzed in this batch: HN2515360-002



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279131

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3607599

Volatile Organic Compounds by GC-MS

MB CLIENT ID: Method Blank Lab ID: QC-2279131-001

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/20/25 22:54

Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	<13.6	µg/kg	13.6	30.0							U
1,1,2,2-Tetrachloroethane	<13.2	µg/kg	13.2	30.0							U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<19.0	µg/kg	19.0	30.0							U
1,1,2-Trichloroethane	<12.8	µg/kg	12.8	30.0							U
1,1-Dichloroethane	<10.9	µg/kg	10.9	30.0							U
1,1-Dichloroethylene	<9.72	µg/kg	9.72	30.0							U
1,2,3-Trichlorobenzene	<36.0	µg/kg	36.0	100							U
1,2,3-Trichloropropane	<12.6	µg/kg	12.6	30.0							U
1,2,4-Trichlorobenzene	<34.0	µg/kg	34.0	100							U
1,2,4-Trimethylbenzene	<22.0	µg/kg	22.0	30.0							U
1,2-Dibromo-3-chloropropane (DBCP)	<27.6	µg/kg	27.6	100							U
1,2-Dibromoethane (EDB, Ethylene dibromide)	<17.6	µg/kg	17.6	30.0							U
1,2-Dichlorobenzene (o-Dichlorobenzene)	<11.4	µg/kg	11.4	30.0							U
1,2-Dichloroethane (Ethylene dichloride)	<26.3	µg/kg	26.3	100							U
1,2-Dichloropropane	<22.1	µg/kg	22.1	30.0							U
1,3,5-Trimethylbenzene	<21.2	µg/kg	21.2	100							U
1,3-Dichlorobenzene (m-Dichlorobenzene)	<20.7	µg/kg	20.7	30.0							U
1,3-Dichloropropene	<16.8	µg/kg	16.8	60.0							U
1,4-Dichlorobenzene (p-Dichlorobenzene)	<24.4	µg/kg	24.4	30.0							U
2-Butanone (Methyl ethyl ketone, MEK)	<71.4	µg/kg	71.4	200							U
2-Hexanone	<14.9	µg/kg	14.9	30.0							U
4-Methyl-2-pentanone (MIBK)	<28.0	µg/kg	28.0	30.0							U
Acetone	<89.0	µg/kg	89.0	100							U
Benzene	<14.5	µg/kg	14.5	30.0							U
Bromochloromethane	<15.3	µg/kg	15.3	30.0							U
Bromodichloromethane	<16.8	µg/kg	16.8	30.0							U
Bromoform	<12.6	µg/kg	12.6	30.0							U
Carbon disulfide	<15.5	µg/kg	15.5	30.0							U
Carbon tetrachloride	<11.7	µg/kg	11.7	30.0							U
Chlorobenzene	<9.96	µg/kg	9.96	30.0							U
Chlorodibromomethane	<16.8	µg/kg	16.8	30.0							U
Chloroethane (Ethyl chloride)	<84.0	µg/kg	84.0	100							U
Chloroform	<11.0	µg/kg	11.0	30.0							U
cis-1,2-Dichloroethylene	<19.3	µg/kg	19.3	30.0							U
cis-1,3-Dichloropropene	<22.6	µg/kg	22.6	30.0							U
Cyclohexane	<23.0	µg/kg	23.0	100							U
Dichlorodifluoromethane (Freon-12)	<36.3	µg/kg	36.3	100							U
Ethylbenzene	<21.3	µg/kg	21.3	30.0							U



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279131

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3607599

MB CLIENT ID: Method Blank Lab ID: QC-2279131-001

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/20/25 22:54
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isopropylbenzene	<19.0	µg/kg	19.0	30.0							U
m+p-Xylene	<40.0	µg/kg	40.0	60.0							U
Methyl bromide (Bromomethane)	<57.4	µg/kg	57.4	100							U
Methyl chloride (Chloromethane)	<82.0	µg/kg	82.0	100							U
Methyl tert-butyl ether (MTBE)	<21.9	µg/kg	21.9	30.0							U
Methylcyclohexane	<11.4	µg/kg	11.4	30.0							U
Methylene chloride (Dichloromethane)	<79.6	µg/kg	79.6	250							U
o-Xylene	<11.6	µg/kg	11.6	30.0							U
Styrene	<11.9	µg/kg	11.9	30.0							U
Tetrachloroethylene (Perchloroethylene)	<18.1	µg/kg	18.1	30.0							U
Toluene	<24.7	µg/kg	24.7	30.0							U
Total Xylene	<11.6	µg/kg	11.6	90.0							U
trans-1,2-Dichloroethylene	<24.8	µg/kg	24.8	30.0							U
trans-1,3-Dichloropropylene	<16.8	µg/kg	16.8	30.0							U
Trichloroethene (Trichloroethylene)	<13.4	µg/kg	13.4	30.0							U
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	<15.3	µg/kg	15.3	30.0							U
Vinyl chloride (Chloroethene)	<19.9	µg/kg	19.9	30.0							U
Surr: 1,2-Dichloroethane-d4	1010	µg/kg			1000		101	80-120			
Surr: 4-Bromofluorobenzene	984	µg/kg			1000		98.4	80-120			
Surr: Dibromofluoromethane	991	µg/kg			1000		99.1	72-120			
Surr: Toluene-d8	992	µg/kg			1000		99.2	80-120			

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2279131-002

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/20/25 21:57
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1070	µg/kg	13.6	30.0	1000		107	75-121			
1,1,2,2-Tetrachloroethane	910	µg/kg	13.2	30.0	1000		91.0	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	974	µg/kg	19.0	30.0	1000		97.4	62-129			
1,1,2-Trichloroethane	880	µg/kg	12.8	30.0	1000		88.0	80-123			
1,1-Dichloroethane	892	µg/kg	10.9	30.0	1000		89.2	74-124			
1,1-Dichloroethylene	928	µg/kg	9.72	30.0	1000		92.8	68-131			
1,2,3-Trichlorobenzene	950	µg/kg	36.0	100	1000		95.0	60-135			
1,2,3-Trichloropropane	880	µg/kg	12.6	30.0	1000		88.0	77-121			
1,2,4-Trichlorobenzene	970	µg/kg	34.0	100	1000		97.0	63-130			
1,2,4-Trimethylbenzene	960	µg/kg	22.0	30.0	1000		96.0	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	853	µg/kg	27.6	100	1000		85.3	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	945	µg/kg	17.6	30.0	1000		94.5	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	956	µg/kg	11.4	30.0	1000		95.6	77-122			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279131

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3607599

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2279131-002

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/20/25 21:57
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	917	µg/kg	26.3	100	1000		91.7	70-130			
1,2-Dichloropropane	860	µg/kg	22.1	30.0	1000		86.0	71-130			
1,3,5-Trimethylbenzene	1000	µg/kg	21.2	100	1000		100	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	914	µg/kg	20.7	30.0	1000		91.4	78-121			
1,3-Dichloropropene	1690	µg/kg	16.8	60.0	2000		84.6	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	985	µg/kg	24.4	30.0	1000		98.5	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	790	µg/kg	71.4	200	1000		79.0	47-164			
2-Hexanone	892	µg/kg	14.9	30.0	1000		89.2	70-137			
4-Methyl-2-pentanone (MIBK)	1220	µg/kg	28.0	30.0	1000		122	57-200			
Acetone	758	µg/kg	89.0	100	1000		75.8	52-190			
Benzene	950	µg/kg	14.5	30.0	1000		95.0	78-122			
Bromochloromethane	815	µg/kg	15.3	30.0	1000		81.5	68-130			
Bromodichloromethane	880	µg/kg	16.8	30.0	1000		88.0	75-125			
Bromoform	914	µg/kg	12.6	30.0	1000		91.4	59-120			
Carbon disulfide	986	µg/kg	15.5	30.0	1000		98.6	60-163			
Carbon tetrachloride	1110	µg/kg	11.7	30.0	1000		111	69-123			
Chlorobenzene	946	µg/kg	9.96	30.0	1000		94.6	79-120			
Chlorodibromomethane	888	µg/kg	16.8	30.0	1000		88.8	57-123			
Chloroethane (Ethyl chloride)	990	µg/kg	84.0	100	1000		99.0	38-132			
Chloroform	833	µg/kg	11.0	30.0	1000		83.3	72-122			
cis-1,2-Dichloroethylene	843	µg/kg	19.3	30.0	1000		84.3	74-125			
cis-1,3-Dichloropropene	842	µg/kg	22.6	30.0	1000		84.2	62-124			
Dichlorodifluoromethane (Freon-12)	722	µg/kg	36.3	100	1000		72.2	28-137			
Ethylbenzene	992	µg/kg	21.3	30.0	1000		99.2	75-121			
Isopropylbenzene	970	µg/kg	19.0	30.0	1000		97.0	74-121			
m+p-Xylene	1970	µg/kg	40.0	60.0	2000		98.4	67-129			
Methyl bromide (Bromomethane)	1240	µg/kg	57.4	100	1000		124	31-169			
Methyl chloride (Chloromethane)	799	µg/kg	82.0	100	1000		79.9	24-119			
Methyl tert-butyl ether (MTBE)	969	µg/kg	21.9	30.0	1000		96.9	79-139			
Methylene chloride (Dichloromethane)	826	µg/kg	79.6	250	1000		82.6	62-135			
o-Xylene	979	µg/kg	11.6	30.0	1000		97.9	75-120			
Styrene	914	µg/kg	11.9	30.0	1000		91.4	74-126			
Tetrachloroethylene (Perchloroethylene)	1070	µg/kg	18.1	30.0	1000		107	76-128			
Toluene	960	µg/kg	24.7	30.0	1000		96.0	76-120			
Total Xylene	2950	µg/kg	11.6	90.0	3000		98.2	67-129			
trans-1,2-Dichloroethylene	886	µg/kg	25.8	30.0	1000		88.6	72-127			
trans-1,3-Dichloropropylene	850	µg/kg	16.8	30.0	1000		85.0	66-120			
Trichloroethene (Trichloroethylene)	1010	µg/kg	13.4	30.0	1000		101	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	1010	µg/kg	15.3	30.0	1000		101	51-115			
Vinyl chloride (Chloroethene)	830	µg/kg	19.9	30.0	1000		83.0	43-128			
Surr: 1,2-Dichloroethane-d4	958	µg/kg			1000		95.8	80-120			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279131

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3607599

LCS CLIENT ID: Laboratory Control Sample Lab ID: QC-2279131-002

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/20/25 21:57
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 4-Bromofluorobenzene	1010	µg/kg			1000		101	80-120			
Surr: Dibromofluoromethane	1000	µg/kg			1000		100	72-120			
Surr: Toluene-d8	972	µg/kg			1000		97.2	80-120			

MS CLIENT ID: Batch QC Lab ID: QC-2279131-005

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/21/25 06:25
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	813	µg/kg	12.0	38.4	883.39	<12.0	92.0	75-121			
1,1,2,2-Tetrachloroethane	689	µg/kg	11.7	38.4	883.39	<11.7	78.0	79-125			S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	879	µg/kg	16.8	38.4	883.39	<16.8	99.5	62-129			
1,1,2-Trichloroethane	755	µg/kg	11.3	38.4	883.39	<11.3	85.5	80-123			
1,1-Dichloroethane	742	µg/kg	9.66	38.4	883.39	<9.66	84.0	74-124			
1,1-Dichloroethylene	880	µg/kg	8.59	38.4	883.39	<8.59	99.6	68-131			
1,2,3-Trichlorobenzene	428	µg/kg	31.8	128	883.39	<31.8	48.5	60-135			S
1,2,3-Trichloropropane	718	µg/kg	11.1	38.4	883.39	<11.1	81.2	77-121			
1,2,4-Trichlorobenzene	492	µg/kg	30.0	128	883.39	<30.0	55.6	63-130			S
1,2,4-Trimethylbenzene	657	µg/kg	19.4	38.4	883.39	<19.4	74.4	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	461	µg/kg	24.4	128	883.39	<24.4	52.2	55-135			S
1,2-Dibromoethane (EDB, Ethylene dibromide)	803	µg/kg	15.6	38.4	883.39	<15.6	91.0	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	700	µg/kg	10.1	38.4	883.39	<10.1	79.2	77-122			
1,2-Dichloroethane (Ethylene dichloride)	780	µg/kg	23.3	128	883.39	<23.3	88.3	70-130			
1,2-Dichloropropane	740	µg/kg	19.5	38.4	883.39	<19.5	83.8	71-130			
1,3,5-Trimethylbenzene	774	µg/kg	18.7	128	883.39	<18.7	87.6	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	766	µg/kg	18.3	38.4	883.39	<18.3	86.7	78-121			
1,3-Dichloropropene	1370	µg/kg	14.8	76.8	1766.8	<14.8	77.4	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	786	µg/kg	21.5	38.4	883.39	<21.5	89.0	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	722	µg/kg	63.1	256	883.39	<63.1	81.8	47-164			
2-Hexanone	825	µg/kg	13.1	38.4	883.39	<13.1	93.4	70-137			
4-Methyl-2-pentanone (MIBK)	897	µg/kg	24.7	38.4	883.39	<24.7	102	57-200			
Acetone	1180	µg/kg	78.6	128	883.39	<78.6	130	52-190			
Benzene	815	µg/kg	12.8	38.4	883.39	<12.8	92.3	78-122			
Bromochloromethane	771	µg/kg	13.5	38.4	883.39	<13.5	87.2	68-130			
Bromodichloromethane	731	µg/kg	14.8	38.4	883.39	<14.8	82.8	75-125			
Bromoform	727	µg/kg	11.2	38.4	883.39	<11.2	82.3	59-120			
Carbon disulfide	922	µg/kg	13.7	38.4	883.39	<13.7	104	60-163			
Carbon tetrachloride	870	µg/kg	10.4	38.4	883.39	<10.4	98.5	69-123			
Chlorobenzene	822	µg/kg	8.80	38.4	883.39	<8.80	93.1	79-120			
Chlorodibromomethane	716	µg/kg	14.9	38.4	883.39	<14.9	81.0	57-123			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279131

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3607599

MS CLIENT ID: Batch QC Lab ID: QC-2279131-005

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/21/25 06:25
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloroethane (Ethyl chloride)	379	µg/kg	74.2	128	883.39	<74.2	42.8	38-132			
Chloroform	778	µg/kg	9.71	38.4	883.39	<9.71	88.1	72-122			
cis-1,2-Dichloroethylene	784	µg/kg	17.0	38.4	883.39	<17.0	88.7	74-125			
cis-1,3-Dichloropropene	671	µg/kg	20.0	38.4	883.39	<20.0	76.0	62-124			
Dichlorodifluoromethane (Freon-12)	757	µg/kg	32.1	128	883.39	<32.1	85.6	28-137			
Ethylbenzene	840	µg/kg	18.8	38.4	883.39	<18.8	95.1	75-121			
Isopropylbenzene	788	µg/kg	16.7	38.4	883.39	<16.7	89.2	74-121			
m+p-Xylene	1690	µg/kg	35.3	76.8	1766.8	<35.3	95.7	67-129			
Methyl bromide (Bromomethane)	480	µg/kg	50.7	128	883.39	<50.7	54.3	31-169			
Methyl chloride (Chloromethane)	809	µg/kg	72.4	128	883.39	<72.4	91.6	24-119			
Methyl tert-butyl ether (MTBE)	772	µg/kg	19.3	38.4	883.39	<19.3	87.4	79-139			
Methylene chloride (Dichloromethane)	772	µg/kg	70.3	320	883.39	<70.3	87.4	62-135			
o-Xylene	818	µg/kg	10.2	38.4	883.39	<10.2	92.6	75-120			
Styrene	751	µg/kg	10.5	38.4	883.39	<10.5	85.0	74-126			
Tetrachloroethylene (Perchloroethylene)	1580	µg/kg	16.0	38.4	883.39	<16.0	178	76-128			S
Toluene	882	µg/kg	21.8	38.4	883.39	<21.8	99.8	76-120			
Total Xylene	2510	µg/kg	10.2	115	2650.2	<10.2	94.7	67-129			
trans-1,2-Dichloroethylene	746	µg/kg	21.9	38.4	883.39	<21.9	84.4	72-127			
trans-1,3-Dichloropropylene	697	µg/kg	14.8	38.4	883.39	<14.8	78.8	66-120			
Trichloroethene (Trichloroethylene)	926	µg/kg	11.9	38.4	883.39	<11.9	105	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	1000	µg/kg	13.6	38.4	883.39	<13.6	114	51-115			
Vinyl chloride (Chloroethene)	836	µg/kg	17.6	38.4	883.39	<17.6	94.6	43-128			
Surr: 1,2-Dichloroethane-d4	891	µg/kg			883.39		101	80-120			
Surr: 4-Bromofluorobenzene	872	µg/kg			883.39		98.7	80-120			
Surr: Dibromofluoromethane	874	µg/kg			883.39		99.0	72-120			
Surr: Toluene-d8	905	µg/kg			883.39		102	80-120			

MSD CLIENT ID: Batch QC Lab ID: QC-2279131-006

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/21/25 06:44
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	890	µg/kg	13.6	38.4	883.39	<13.6	101	75-121	9.07	30	
1,1,2,2-Tetrachloroethane	758	µg/kg	13.2	38.4	883.39	<13.2	85.8	79-125	9.46	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1020	µg/kg	19.0	38.4	883.39	<19.0	115	62-129	14.5	30	
1,1,2-Trichloroethane	858	µg/kg	12.8	38.4	883.39	<12.8	97.1	80-123	12.7	30	
1,1-Dichloroethane	841	µg/kg	10.9	38.4	883.39	<10.9	95.2	74-124	12.4	30	
1,1-Dichloroethylene	1050	µg/kg	9.72	38.4	883.39	<9.72	118	68-131	17.3	30	
1,2,3-Trichlorobenzene	858	µg/kg	36.0	128	883.39	<36.0	97.2	60-135	66.8	30	R
1,2,3-Trichloropropane	858	µg/kg	12.6	38.4	883.39	<12.6	97.2	77-121	17.8	30	
1,2,4-Trichlorobenzene	860	µg/kg	34.0	128	883.39	<34.0	97.3	63-130	54.5	30	R
1,2,4-Trimethylbenzene	897	µg/kg	22.0	38.4	883.39	<22.0	102	64-126	30.9	30	R
1,2-Dibromo-3-chloropropane (DBCP)	794	µg/kg	27.6	128	883.39	<27.6	89.8	55-135	53.1	30	R

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2279131

Work Order: HN2515360
Date Collected: NA
Date Received: NA
Run ID: 3607599

MSD **CLIENT ID: Batch QC** **Lab ID: QC-2279131-006**

Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 10/21/25 06:44
Prep Date: 10/16/25 12:59

Analyte	Result	Units	MDL	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dibromoethane (EDB, Ethylene dibromide)	892	µg/kg	17.6	38.4	883.39	<17.6	101	63-155	10.4	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	909	µg/kg	11.4	38.4	883.39	<11.4	103	77-122	26.0	30	
1,2-Dichloroethane (Ethylene dichloride)	880	µg/kg	26.3	128	883.39	<26.3	99.6	70-130	12.1	30	
1,2-Dichloropropane	832	µg/kg	22.1	38.4	883.39	<22.1	94.2	71-130	11.6	30	
1,3,5-Trimethylbenzene	945	µg/kg	21.2	128	883.39	<21.2	107	66-130	19.9	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	853	µg/kg	20.7	38.4	883.39	<20.7	96.6	78-121	10.8	30	
1,3-Dichloropropene	1580	µg/kg	16.8	76.8	1766.8	<16.8	89.5	62-124	14.5	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	902	µg/kg	24.4	38.4	883.39	<24.4	102	78-122	13.8	30	
2-Butanone (Methyl ethyl ketone, MEK)	1070	µg/kg	71.4	256	883.39	<71.4	121	47-164	38.7	30	R
2-Hexanone	1090	µg/kg	14.9	38.4	883.39	<14.9	123	70-137	27.3	30	
4-Methyl-2-pentanone (MIBK)	990	µg/kg	28.0	38.4	883.39	<28.0	112	57-200	9.88	30	
Acetone	1710	µg/kg	89.0	128	883.39	<89.0	190	52-190	36.6	30	R
Benzene	886	µg/kg	14.5	38.4	883.39	<14.5	100	78-122	8.36	30	
Bromochloromethane	894	µg/kg	15.3	38.4	883.39	<15.3	101	68-130	14.8	30	
Bromodichloromethane	856	µg/kg	16.8	38.4	883.39	<16.8	96.8	75-125	15.7	30	
Bromoform	821	µg/kg	12.6	38.4	883.39	<12.6	93.0	59-120	12.2	30	
Carbon disulfide	1080	µg/kg	15.5	38.4	883.39	<15.5	122	60-163	15.8	30	
Carbon tetrachloride	954	µg/kg	11.7	38.4	883.39	<11.7	108	69-123	9.20	30	
Chlorobenzene	941	µg/kg	9.96	38.4	883.39	<9.96	107	79-120	13.5	30	
Chlorodibromomethane	799	µg/kg	16.8	38.4	883.39	<16.8	90.5	57-123	11.1	30	
Chloroethane (Ethyl chloride)	451	µg/kg	84.0	128	883.39	<84.0	51.0	38-132	17.5	30	
Chloroform	916	µg/kg	11.0	38.4	883.39	<11.0	104	72-122	16.3	30	
cis-1,2-Dichloroethylene	894	µg/kg	19.3	38.4	883.39	<19.3	101	74-125	13.2	30	
cis-1,3-Dichloropropene	796	µg/kg	22.6	38.4	883.39	<22.6	90.1	62-124	17.0	30	
Dichlorodifluoromethane (Freon-12)	924	µg/kg	36.3	128	883.39	<36.3	105	28-137	20.0	30	
Ethylbenzene	973	µg/kg	21.3	38.4	883.39	<21.3	110	75-121	14.6	30	
Isopropylbenzene	924	µg/kg	19.0	38.4	883.39	<19.0	105	74-121	15.9	30	
m+p-Xylene	1920	µg/kg	40.0	76.8	1766.8	<40.0	109	67-129	12.6	30	
Methyl bromide (Bromomethane)	598	µg/kg	57.4	128	883.39	<57.4	67.8	31-169	22.0	30	
Methyl chloride (Chloromethane)	943	µg/kg	82.0	128	883.39	<82.0	107	24-119	15.2	30	
Methyl tert-butyl ether (MTBE)	933	µg/kg	21.9	38.4	883.39	<21.9	106	79-139	19.0	30	
Methylene chloride (Dichloromethane)	931	µg/kg	79.6	320	883.39	<79.6	105	62-135	18.7	30	
o-Xylene	932	µg/kg	11.6	38.4	883.39	<11.6	106	75-120	13.0	30	
Styrene	853	µg/kg	11.9	38.4	883.39	<11.9	96.6	74-126	12.7	30	
Tetrachloroethylene (Perchloroethylene)	1850	µg/kg	18.1	38.4	883.39	<18.1	210	76-128	16.0	30	S
Toluene	975	µg/kg	24.7	38.4	883.39	<24.7	110	76-120	10.0	30	
Total Xylene	2850	µg/kg	11.6	115	2650.2	<11.6	108	67-129	12.7	30	
trans-1,2-Dichloroethylene	833	µg/kg	24.8	38.4	883.39	<24.8	94.3	72-127	11.0	30	
trans-1,3-Dichloropropylene	786	µg/kg	16.8	38.4	883.39	<16.8	89.0	66-120	12.0	30	
Trichloroethene (Trichloroethylene)	1060	µg/kg	13.4	38.4	883.39	<13.4	120	75-122	13.4	30	

