

DRAFT

FILL MATERIAL SAMPLING REPORT

**5161 S. MARTINDALE STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48204**



DECEMBER 18, 2025

PREPARED FOR:

THE CITY OF DETROIT DEMOLITION DEPARTMENT

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



FILL MATERIAL SAMPLING REPORT

**5161 S. MARTINDALE STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48204**

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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 5161 S. Martindale 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); semivolatile 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 5161 SB01, 5161 SB02, and 5161 SB03 generally consisted of brown silty clay, with some sand and gravel to six feet below ground surface (bgs), the maximum depth explored for this investigation. Field photoionization detector (PID) readings of the recovered soil cores ranged from 0.0 to 1.9 parts per million (ppm). There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.
- Concentrations of arsenic and chromium (Total) were detected in soil samples 5161 SB01 (1-2'), 5161 SB02 (5-6'), and/or 5161 SB03 (3-5') in excess of their respective Part 201 drinking water protection criteria (DWPC), groundwater surface water interface protection criteria (GSIPC), and/or direct contact criteria (DCC).
- Concentrations of 4,4-DDD, 4,4-DDE, acetone, anthracene, barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl) phthalate, cadmium, cis-chlordane, chloride, chrysene, copper, fluoranthene, fluorene, heptachlor epoxide, indeno(1,2,3-cd)pyrene, lead, mercury, phenanthrene, pyrene, technical chlordane, trans-chlordane, and zinc were detected in soil samples 5161 SB01 (1-2'), 5161 SB02 (5-6'), 5161 SB03 (3-5'), 5161 S Martindale SB01 (1-2')-R, and/or SB-03 (3-5') at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- Toxicity Characteristic Leaching Procedure (TCLP) laboratory analytical results revealed that concentrations of arsenic, chromium, and pesticides were not in excess of 40 C.F.R. § 261.24 Title 40 - *Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261-Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste*.
- PCBs 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. Given that the site is residential, exceedances of DCC 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 5161 S. Martindale 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 August 11, 2025, October 7, 2025, October 27, 2025, and November 24, 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 (6) feet below ground surface (bgs) utilizing a direct push drill rig 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, 3-5 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); semivolatile 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 August 11, 2025, October 7, 2025, October 27, 2025, and November 24, 2025. Daily field activity reports prepared by MSG are presented in *Appendix B, Daily Field Reports*.

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) initial soil borings, designated 5161 SB01, 5161 SB02, and 5161 SB03, 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 Toxicity Characteristic Leaching Procedure (TCLP) Soil Sample Collection

On October 7, 2025, MSG mobilized to the Site to collect an additional soil sample based on request from the COD. Sample location and analyte(s) were based on the laboratory results of the initial soil investigation. MSG personnel advanced one soil boring in the immediate vicinity of the soil boring location that exhibited the highest laboratory result(s) in excess of Part 201 GRCC. Soils were continuously profiled from the ground surface to the termination depth of six feet bgs utilizing a direct push drill rig. These soils were homogenized in a stainless-steel bowl (or equivalent) to produce a single, composite soil sample. The composite soil sample was placed into unpreserved laboratory-supplied sample containers, as appropriate for the associated laboratory analyses.

The composite soil sample was collected to create a single, representative sample to provide a laboratory result that includes the overlying and/or underlying soils in the area of concern to comprehensively represent the backfill soils that may be removed.

On October 27, 2025 and November 24, 2025, MSG mobilized to the Site to collect an additional soil sample based on request from the COD in order to fulfill waste characterization parameters required at a Type II landfill. Sample location and analyte(s) were based on the laboratory results of the initial soil sampling event,

as compared to 40 C.F.R. § 261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261 - Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste. Soils were continuously profiled at the supplemental soil boring locations from the ground surface to the termination depth using a 5-foot long, closed-piston Macro-Core® sampling device. When warranted, 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.

3.4 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.

3.5 Analytical Methods

A total of seven (7) soil samples designated 5161 SB01 (1-2'), 5161 SB02 (5-6'), 5161 SB03 (3-5'), 5161 S Martindale SB01 (1-2')-R, 5161 S Martindale SB01 TCLP, SB-01 (1-2') R, and SB-03 (3-5') R 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, and individual TCLP analysis:

- 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.

3.6 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 August 11, 2025, October 7, 2025, October 27, 2025, and November 24, 2025.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 5161 SB01, 5161 SB02, and 5161 SB03 generally consisted of brown silty clay, with some sand and gravel to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from 0.0 to 1.9 ppm. 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

Six (6) soil samples, designated 5161 SB01 (1-2'), 5161 SB02 (5-6'), 5161 SB03 (3-5'), 5161 S Martindale SB01 (1-2')-R, SB-01 (1-2') R, and SB-03 (3-5') R were collected from the Site and submitted to ALS for laboratory analysis of VOCs, SVOCs, PCBs, Michigan 10 Metals, chloride, herbicides, and/or 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 (µg/kg ¹)	Maximum Detected Concentration (µg/kg)
Arsenic	7440-38-2	5161 SB01 (1-2') 5161 SB02 (5-6') 5161 SB03 (3-5')	² DWPC / 4,600 ³ GSIPC / 4,600 ⁴ DCC / 7,600	7,860
Chromium (Total)	7440-47-3	5161 SB01 (1-2') 5161 SB03 (3-5')	GSIPC / 3,300	19,100

¹µg/kg – micrograms per kilogram;

²DWPC – Drinking Water Protection Criteria

³GSIPC – Groundwater Surface Water Interface Protection Criteria

⁴DCC – Direct Contact Criteria

4.3 TCLP Analytical Results

Arsenic, chromium, and pesticides were analyzed following leach testing using USEPA method EPA 6020 B. Laboratory results are summarized and compared to 40 C.F.R. § 261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261 - Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste in *Table 2, TCLP Analytical Detection Summary Table*. Upon comparison, the laboratory analytical results following TCLP testing was below laboratory method detection limits.

Copies of the laboratory analytical data report and chain of custody forms are included in Appendix E.

4.4 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. Given that the site is residential, exceedances of DCC 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:

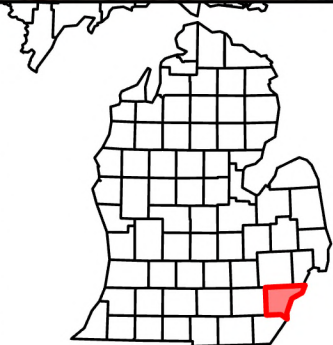
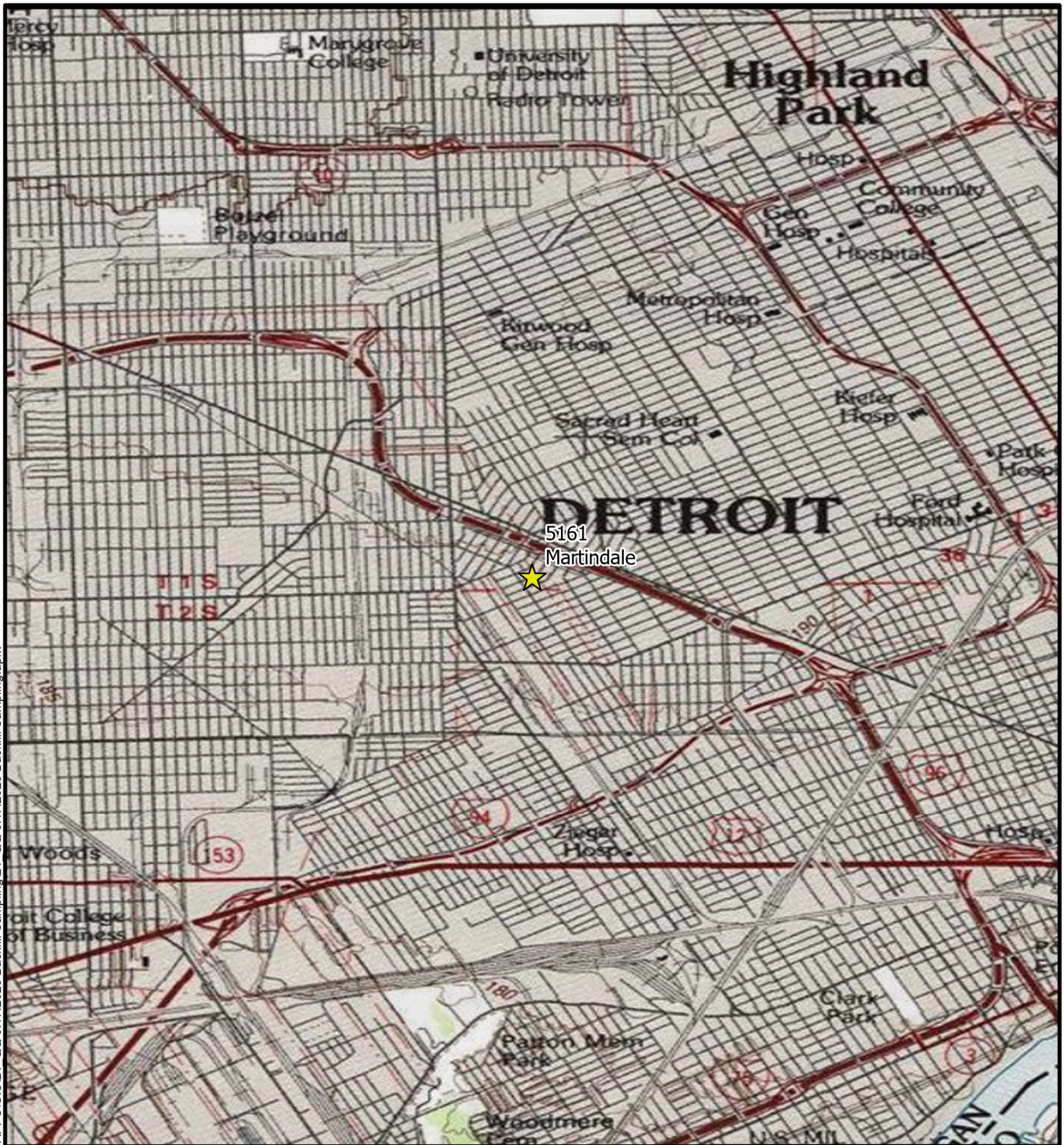
- The stratigraphy encountered during soil boring advancement of 5161 SB01, 5161 SB02, and 5161 SB03 generally consisted of brown silty clay, with some sand and gravel to six feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from 0.0 to 1.9 ppm. There were no visual (staining) and/or olfactory (e.g., petroleum-like odors) indications of contamination observed during soil sampling activities.
- Concentrations of arsenic and chromium (Total) were detected in soil samples 5161 SB01 (1-2'), 5161 SB02 (5-6'), and/or 5161 SB03 (3-5') in excess of their respective Part 201 DWPC, GSIPC, and/or DCC.
- Concentrations of 4,4-DDD, 4,4-DDE, acetone, anthracene, barium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl) phthalate, cadmium, cis-chlordane, chloride, chrysene, copper, fluoranthene, fluorene, heptachlor epoxide, indeno(1,2,3-cd)pyrene, lead, mercury, phenanthrene, pyrene, technical chlordane, trans-chlordane, and zinc were detected in soil samples 5161 SB01 (1-2'), 5161 SB02 (5-6'), 5161 SB03 (3-5'), 5161 S Martindale SB01 (1-2')-R, and/or SB-03 (3-5') R at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- TCLP laboratory analytical results revealed that concentrations of arsenic, chromium, and pesticides were not in excess of 40 C.F.R. § 261.24 Title 40 - Protection of Environment, Chapter I - Environmental Protection Agency, Subchapter I - Solid Wastes, Part 261- Identification and Listing of Hazardous Waste, Subpart C - Characteristics of Hazardous Waste.
- PCBs 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 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. Given that the site is residential, exceedances of DCC 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





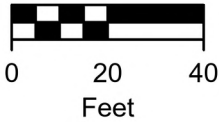
★ Site Location



FIGURE 1
SITE LOCATION

5161 Martindale, Detroit, MI

DATE 9/23/2025	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

5161 S Martindale, Detroit, MI

DATE 9/23/2025	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. DETR0060
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TABLES



Table 1
Soil Sample Analytical Detection Summary

Detroit Backfill Sampling
5161 S Martindale, Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 Units: µg/kg			Volatile Organic Compounds (VOCs)	Semi-Volatile Organic Compounds (SVOCs)												
			Acetone	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Bis(2-ethylhexyl) phthalate	Chrysene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene
CAS Number			67-64-1	120-12-7	56-55-3	205-99-2	207-08-9	191-24-2	50-32-8	117-81-7	218-01-9	206-44-0	86-73-7	193-39-5	85-01-8	129-00-0
Statewide Default Background Levels			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection Criteria (DWPC)			15,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.3E+05	3.9E+05	NLL	56,000	4.8E+05
Groundwater Surface Water Interface Protection Criteria (GSIPC)			34,000	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	2,100	ID
Soil Volatilization to Indoor Air Inhalation (SVIIC)			2.9E+8 (C)	1.0E+09 (D)	NLV	ID	NLV	NLV	NLV	NLV	ID	1.0E+09 (D)	5.8E+08	NLV	2.8E+06	1.0E+09 (D)
Soil Volatilization to Indoor Air Pathway (SVIAP)			2.6E+05 (EE)	1.3E+07	1.6E+05 (MM)	NA	NA	NA	NA	NA	NA	NA	4.7E+05	NA	1,700	2.5E+07
Infinite Source Volatile Soil Inhalation Criteria (VSIC)			1.3E+08	1.4E+09	NLV	ID	NLV	NLV	NLV	NLV	ID	7.4E+08	1.3E+08	NLV	1.6E+05	6.5E+08
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)			1.3E+08	1.4E+09	NLV	ID	NLV	NLV	NLV	NLV	ID	7.4E+08	1.3E+08	NLV	1.6E+05	6.5E+08
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)			1.9E+08	1.4E+09	NLV	ID	NLV	NLV	NLV	NLV	ID	7.4E+08	1.3E+08	NLV	1.6E+05	6.5E+08
Particulate Soil Inhalation Criteria (PSIC)			3.9E+11	6.7E+10	ID	ID	ID	8.0E+08	1.5E+06	7.0E+08	ID	9.3E+09	9.3E+09	ID	6.7E+06	6.7E+09
Direct Contact Criteria (DCC)			2.3E+07	2.3E+08	20,000	20,000	2.0E+05	2.5E+06	2,000	2.8E+06	2.0E+06	4.6E+07	2.7E+07	20,000	1.6E+06	2.9E+07
Soil Saturation Concentration Screening Levels (C _{sat})			1.1E+08	NA	NA	NA	NA	NA	NA	1.0E+07	NA	NA	NA	NA	NA	NA
Recommended Interim Action Screening Level (RIASL)			2.6E+05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SAMPLE ID	DEPTH (ft)	SAMPLE DATE														
5161 SB01	1-2	8/11/2025	<125	163	647	874	363	530	640	212	624	1,420	49.2	492	484	1,290
5161 SB02	5-6	8/11/2025	<116	<94.0	244	479	179	329	310	<465	226	583	<94.0	263	197	564
5161 SB03	3-5	8/11/2025	348	165	569	835	266	431	560	<454	542	1,310	<91.8	523	486	1,020
5161 S Martindale SB01 - R	1-2	10/27/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-01 R	1-2	11/24/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SB-03 R	3-5	11/24/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Bold indicates concentration above laboratory reporting limits.

Exceeds DWPC

Exceeds GSIPC

Exceeds Applicable Soil Vapor Inhalation screening level

Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels

Exceeds PSIC, DCC, and/or C_{sat}, likely exceeds others

ND = Not Detected above laboratory reporting limits

NS = Not Sampled or Not Analyzed

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

VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated February 26, 2024

Table 1
Soil Sample Analytical Detection Summary

Detroit Backfill Sampling
5161 S Martindale, Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 Units: µg/kg	Michigan 10 Metals										Pesticides/Herbicides						Polychlorinated Biphenyls (PCBs)	Inorganic Anions/Ions	
	Arsenic	Barium (B)	Cadmium (B)	Chromium (Total)	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)	4,4'-DDD	4,4'-DDE	cis-Chlordane	trans-Chlordane	Chlordane, Technical	Heptachlor Epoxide		Chloride	
CAS Number	7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6	72548	72559	5103-71-9	5103-74-2	12789-03-6	76-44-8	16887006		
Statewide Default Background Levels	5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000	NA	NA	NA	NA	NA	NA	NA		
Drinking Water Protection Criteria (DWPC)	4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06	NLL	NLL	NA	NA	NA	NA	5.00E+06		
Groundwater Surface Water Interface Protection Criteria (GSI PC)	4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)	NLL	NLL	NA	NA	NA	NA	(X)		
Soil Volatilization to Indoor Air Inhalation (SVI IC)	NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV	NLV	NLV	NA	NA	NA	NA	NLV		
Soil Volatilization to Indoor Air Pathway (SVI AP)	NA	NA	NA	--	NA	NA	22 (M)	NA	NA	NA	NLV	NA	NA	NA	NA	NA	--		
Infinite Source Volatile Soil Inhalation Criteria (VSIC)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NLV	NLV	NA	NA	NA	NA	NLV		
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NLV	NLV	NA	NA	NA	NA	NLV		
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)	NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV	NLV	NLV	NA	NA	NA	NA	NLV		
Particulate Soil Inhalation Criteria (PSIC)	7.2E+05	3.3E+08	1.7E+06	2.6E+05	1.3E+08	1.0E+08	2.0E+07	1.3E+08	6.7E+06	ID	4.4E+07	3.20E+07	NA	NA	NA	NA	ID		
Direct Contact Criteria (DCC)	7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08	95,000	45,000	NA	NA	NA	NA	5.0E+5 (F)		
Soil Saturation Concentration Screening Levels (C _{sat})	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Recommended Interim Action Screening Level (RIASL)	NA	NA	NA	NA	NA	NA	2.7E-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	--		
SAMPLE ID	DEPTH (ft)	SAMPLE DATE																	
5161 SB01	1-2	8/11/2025	7,860	85,000	<1,260	19,100	19,800	53,900	39.4	<3,140	<314	83,800	<1,130	<1,130	<1,130	<1,130	<2,830	ND	60,900
5161 SB02	5-6	8/11/2025	7,430	64,900	220	17,800	32,600	30,500	57.8	<345	<345	81,700	59.7	77	<26.6	<26.6	<66.4	ND	45,300
5161 SB03	3-5	8/11/2025	6,420	79,300	264	18,400	23,700	61,000	76.6	<344	<3,440	101,000	<2,380	<2,380	<2,380	<2,380	<5,950	ND	42,700
5161 S Martindale SB01 - R	1-2	10/27/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<73.1	310	182	132	132	ND	NS
SB-01 R	1-2	11/24/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<16.8	<17.4	<17.6	<17.5	<26.1	<17.4	NS
SB-03 R	3-5	11/24/2025	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	69.2	86.0	116	80.3	436	32.4	NS

Bold indicates concentration above laboratory reporting limits.

Exceeds DWPC

Exceeds GSI PC

Exceeds Applicable Soil Vapor Inhalation screening level

Exceeds Two or More DWPC, GSI PC, and/or Applicable Soil Vapor Inhalation screening levels

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

ND = Not Detected above laboratory reporting limits

NS = Not Sampled or Not Analyzed

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

VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated February 26, 2024

Table 2
TCLP Analytical Detection Summary

Table 2
TCLP Analytical Detection Summary

Detroit Backfill Sampling
5161 S. Martindale, Detroit, Michigan

40 C.F.R. § 261.24 Code of Federal Regulations Title 40 - Protection of Environment Chapter I - Environmental Protection Agency Subchapter I - Solid Wastes Part 261- Identification and Listing of Hazardous Waste Subpart C - Characteristics of Hazardous Waste <i>Units: mg/L</i>		TCLP Metals		TCLP Pesticides						
		Chromium	Arsenic	Chlordane, Technical	Endrin	Lindane	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
Maximum Concentration of Contaminants for the Toxicity Characteristic		5.00	5.00	-	0.002	0.4	0.008	0.008	10.0	0.5
SAMPLE ID	SAMPLE DATE									
5161 S Martindale SB01 TCLP	10/7/2025	<0.0499	<0.0499	NS	NS	NS	NS	NS	NS	NS
SB-01 (1-2') R	11/24/2025	NS	NS	<0.0000338	<0.00000845	<0.00000826	<0.00000775	<0.00000788	<0.00000982	<0.000109
SB-03 (3-5') R	11/24/2025	NS	NS	<0.0000333	<0.00000834	<0.00000815	<0.00000745	0.0000220	<0.00000970	<0.000108

Notes:
Bold indicates concentration above method detection limits.
Exceeds Maximum Concentration of Contaminates for the Toxicity Characteristic

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 REPORTS



**DAILY FIELD REPORT****Client:** City of Detroit Demolition Department**Project:** Sampling and Analysis of Fill Material**Report No.:** 1**Job No.:** DETR0060

Date: 08/11/2025	Day: Monday	Temp: 82° F	(AM) N/A	(PM)
MSG Personnel: WRD, ZRG, JDF		Cloud Cover: 0%	(AM) N/A	(PM)
		Precip.: None	(AM) N/A	(PM)
Personnel: MSG				
MSG Hours On-Site: 0.75 hours				
Contractors Information				
Contractor: MSG		No. Men and Type: 3; Helper/Geologist/Driller		Equipment Type: Geoprobe 7822DT
Summary of Work Performed:				
- Advanced three (3) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) - Collected soil samples from each soil boring (from the interval with the greatest potential to be impacted based on field indicators).				
Field Notes:				
0929 – ZRG & WRD onsite (5161 Martindale St) 0930 – Unloaded equipment and checked boring locations 0934– Began hand drilling SB01 0940 – Finished drilling SB01 0940 – Began drilling SB02 0945 – Finished drilling SB02 0947 – Began drilling SB03 0953 – Finished drilling SB03 0955 – Sampled 5161 SB01 (1-2') 1000 – Sampled 5161 SB02 (5-6') 1005 – Sampled 5161 SB03 (3-4') 1011 – Packed up equipment 1013 – MSG off site				

Supporting Documentation					
Photograph Taken	Yes ☐	No ☒	Samples Collected	Yes ☒	No ☐
Photo Log Attached	☐	☒	COC Attached	☒	☐
Boring/MW Logs	☒	☐	Field Note Book Taken	☐	☒
Problem Identification and Corrective Measures					
N/A					
Resolved?	Yes ☐	No ☐			

**DAILY FIELD REPORT****Client:** City of Detroit Demolition Department**Project:** Sampling and Analysis of Fill Material**Report No.:** 2**Job No.:** DETR0060

Date: 10/7/2025	Day: Tuesday	Temp: 60 ° F	(AM)	N/A	(PM)
MSG Personnel: SRK, JF		Cloud Cover: 100%	(AM)	N/A	(PM)
		Precip.: Light Rain	(AM)	N/A	(PM)
Personnel: MSG					
MSG Hours On-Site: ~ 1 hours					
Contractors Information					
Contractor: MSG		No. Men and Type: 2; Operator/Geologist		Equipment Type: Geoprobe 7822DT	
Summary of Work Performed:					
- Advanced one (1) onsite soil borings to a maximum depth of 6 feet below ground surface (bgs) - Collected TCLP of fill material from soil boring (composite sample of from zero to 6 feet bgs).					
Field Notes:					
0928 – SRK (5161 S Martindale) 0930 – Attempted to locate previous boring locations. Marked out new boring location. 0940 – JF onsite 0950 – Began drilling SB01 TCLP 0952 – Finished drilling SB01 TCLP 1005 – Sampled 5161 S Martindale SB01 TCLP 1010 – Collected GPS points 1020 – Packed up equipment 1030 – MSG off site					

Supporting Documentation					
Photograph Taken	Yes ☒	No ☐	Samples Collected	Yes ☒	No ☐
Photo Log Attached	Yes ☒	No ☐	COC Attached	Yes ☒	No ☐
			Boring/MW Logs	Yes ☒	No ☐
			Field Note Book Taken	Yes ☒	No ☐
Problem Identification and Corrective Measures					
N/A					
Resolved? Yes ☐ No ☐					

**DAILY FIELD REPORT****Client:** City of Detroit Demolition Department**Project:** Sampling and Analysis of Fill Material**Report No.:** 3**Job No.:** DETR0060

Date: 10/27/2025	Day: Monday	Temp: 49 ° F	(AM)	N/A	(PM)
MSG Personnel: WRD, BSM		Cloud Cover: ~5%	(AM)	N/A	(PM)
		Precip.: N/A	(AM)	N/A	(PM)
Personnel: MSG					
MSG Hours On-Site: ~ 0.7 hours					
Contractors Information					
Contractor: MSG		No. Men and Type: 2; Operator/Geologist		Equipment Type: Geoprobe 7822DT	
Summary of Work Performed:					
- Advanced one (1) onsite soil borings to a maximum depth of 2 feet below ground surface (bgs) - Collected soil sample from soil boring (from the interval 1-2' to analyze for Pesticides and Herbicides).					
Field Notes:					
1056 – MSG (WRD, BSM) onsite (5161 S Martindale) 1102 – Attempted to locate previous boring locations. Marked out new boring location. 1108 – Began drilling SB01 (1-2')-R 1116 – Finished drilling SB01 (1-2')-R 1123 – Sampled 5161 S Martindale SB01 (1-2')-R 1128 – Packed up equipment 1137 – MSG off site					

Supporting Documentation								
Photograph Taken	Yes ☒	No ☐	Samples Collected	Yes ☒	No ☐	Boring/MW Logs	Yes ☐	No ☒
Photo Log Attached	Yes ☒	No ☐	COC Attached	Yes ☒	No ☐	Field Note Book Taken	Yes ☐	No ☒
Problem Identification and Corrective Measures								
N/A								
Resolved? Yes ☐ No ☐								

APPENDIX C

INVESTIGATION PHOTOGRAPHS





Photo 1. View of Site at the time of TCLP soil boring activities



Photo 2. View of soil recovery at the time of TCLP soil boring activities



Photo 3. View of soil recovery at the time of TCLP soil boring activities



Photo 4. View of soil recovery at the time of TCLP soil boring activities



Photo 5. View of TCLP soil boring location



Photo 6. View of the Site at the time of supplemental soil sampling activities



Photo 7. View of soil recovery at the time of supplemental soil sampling activities



Photo 8. Viewing soil boring location at the time of supplemental soil sampling activities

APPENDIX D

SOIL BORING LOGS





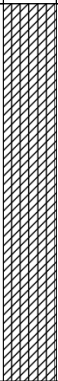
The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
ph: (734) 397-3100 fax: (734) 397-3131
www.manniksmithgroup.com

BOREHOLE NUMBER SB01

Sheet 1 of 1

CLIENT City of Detroit
PROJECT NUMBER DETR0060.BFS10
DATE STARTED 08-11-2025 **COMPLETED** 08-11-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 7822DT **Operator** JDF

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 5161 Martindale, Detroit, MI
POSITION
SURFACE ELEVATION **FINAL DEPTH** 6.0 ft
LOGGED BY WRD **CHECKED BY** PDH
REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	29		Brown Silty CLAY, some Sand & Gravel with Concrete debris; dry	0.0 0.1 0.1 0.2 0.4 0.5	Collected soil sample 5161 SB01 (1-2) at 09:55
6.0				Terminated at 6.00 ft.		
10						
15						
20						

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 SB02

Sheet 1 of 1

CLIENT City of Detroit

PROJECT NAME Backfill Soil Sampling

PROJECT NUMBER DETR0060.BFS10

PROJECT LOCATION 5161 Martindale, Detroit, MI

DATE STARTED 08-11-2025 COMPLETED 08-11-2025

POSITION _____

DRILLING CONTRACTOR MSG

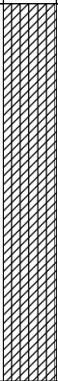
SURFACE ELEVATION _____ FINAL DEPTH 6.0 ft

DRILLING METHOD Direct Push

LOGGED BY WRD CHECKED BY PDH

EQUIPMENT Geoprobe 7822DT Operator JDF

REMARKS _____

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	33		Brown Silty CLAY, some Sand & Gravel with Concrete debris; dry	0.0	
					0.1	
					0.3	
					0.9	
					0.4	
					0.5	Collected soil sample 5161 SB02 (5-6) at 10:00
6.0				Terminated at 6.00 ft.		
10						
15						
20						

LEGEND:

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



The Mannik & Smith Group, Inc.
2365 Haggerty Road South, Canton, MI 48188
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www.manniksmithgroup.com

BOREHOLE NUMBER SB03

Sheet 1 of 1

CLIENT City of Detroit

PROJECT NAME Backfill Soil Sampling

PROJECT NUMBER DETR0060.BFS10

PROJECT LOCATION 5161 Martindale, Detroit, MI

DATE STARTED 08-11-2025 COMPLETED 08-11-2025

POSITION _____

DRILLING CONTRACTOR MSG

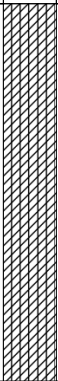
SURFACE ELEVATION _____ FINAL DEPTH 6.0 ft

DRILLING METHOD Direct Push

LOGGED BY WRD CHECKED BY PDH

EQUIPMENT Geoprobe 7822DT Operator JDF

REMARKS _____

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
5	ES	50		Brown Silty CLAY, some Sand & Gravel with Concrete debris; dry	0.1 0.1 0.3 1.9 1.1 0.1	Collected soil sample 5161 SB03 (3-5) at 10:05
6.0				Terminated at 6.00 ft.		
10						
15						
20						

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.

CERTIFICATE OF ANALYSIS

Work Order

HN2511204

Client

The Mannik & Smith Group, Inc.

Project

5161 Martindale

Project Date

August 12, 2025

Reporting Contact

Ryan Montri



right solutions.
right partner.

August 29, 2025

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

Work Order: **HN2511204**

Re: **5161 Martindale**

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

Bill Carey
/S/ **BILL CAREY**
Project Manager



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale

Work Order: HN2511204
Date Received: 12-Aug-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 12-Aug-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 8081B-3546-S (High)

Run ID: 3440418

The matrix spike recoveries are unavailable due to dilution below the calibration range.
The matrix spike recoveries are unavailable due to dilution below the calibration range.
The matrix spike recoveries are unavailable due to dilution below the calibration range.
The MSD recoveries are unavailable due to dilution below the calibration range.
The MSD recoveries are unavailable due to dilution below the calibration range.
The MSD recoveries are unavailable due to dilution below the calibration range.
HN2511204-001: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.
HN2511204-002: The reporting limit is due to dilution needed to eliminate matrix-related interference.
HN2511204-003: One or more surrogate recoveries were below the lower control limit due to sample dilution.
HN2511204-003: The reporting limit is due to dilution needed to eliminate matrix-related interference.

Run ID: 3436023

HN2511204-002: The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: a-BHC, g-BHC, b-BHC, d-BHC, Heptachlor, Heptachlor epoxide
HN2511204-002: The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: DCB

Run ID: 3433721

HN2511204-003: The Continuing Calibration Verification did not meet method acceptance criteria for the following analytes, results are to be considered estimated: DCB

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

Run ID: 3411029

The Continuing Calibration Verification did not meet acceptance criteria with low bias. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: trichlorofluoromethane
The following analytes failed calibration refit conditions. All samples in this batch were non-detect. No qualification is necessary for these analytes: chloroethane
The LCS recovery was below the lower control limit. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: methyl acetate



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale

Work Order: HN2511204
Date Received: 12-Aug-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.

Run ID: 3402646

The Continuing Calibration Verification did not meet acceptance criteria with low bias. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: trichlorofluoromethane

The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene

The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene

The following analytes failed calibration refit conditions. All samples in this batch were non-detect. No qualification is necessary for these analytes: chloroethane

Run ID: 3402980

The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene

The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: tetrachloroethene

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

The LCS recovery was below the lower control limit. Instrument sensitivity was verified as sufficient through the analysis of a low-level standard. The following non-detects are reported without qualification: methyl acetate

EPA 8082A-3546-S (High)

Run ID: 3425747

HN2511204-003: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

Run ID: 3420913

<Enter AdHoc Comment> sample reduced due to clay

<Enter AdHoc Comment> sample reduced due to clay

HN2511204-002: <Enter AdHoc Comment> SAMPLE REDUCED DUE TO CLAY

HN2511204-003: <Enter AdHoc Comment> sample reduced due to clay

Run ID: 3433151

HN2511204-002: <Enter AdHoc Comment> Mass reduced due to clay in sample

HN2511204-003: <Enter AdHoc Comment> Mass reduced due to clay in sample

Metals

EPA 6020B-3050B-S

Run ID: 3410505

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Cd, Se, Ag batch 2162042

The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: Ni batch 2162042

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cr batch 2162039

The MS recovery was outside of the control limit. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: Cr, Mo batch 2162042

The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): Cd, Se, Ag batch 2162042

The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cr batch 2162039

HN2511204-001: Selenium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se

HN2511204-001: Cadmium - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Cd, Se

HN2511204-003: Silver - The reporting limit is elevated due to dilution for high concentrations of non-target analytes. Ag

Run ID: 3405974

The MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba, Pb, Mn, Zn batch 2162039

The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba, Pb, Mn, Zn batch 2162039

EPA 7471B-S (Mid)

Run ID: 3402960

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Hg Batch 2159501

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Hg Batch 2159501

Inorganics

EPA 9056A-S (High)

Run ID: 3403361

Matrix spike value was outside upper limit of calibration. Processed at equivalent dilution level as the parent - Chloride.

The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): Chloride, Bromide

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: 5161 SB01 (1-2)	Lab ID: HN2511204-001
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Analyte	Results	Flag	MRL	Units	Method
Anthracene	163		37.8	µg/kg	EPA 8270E
Arsenic	7.86		0.314	mg/kg	EPA 6020B
Barium	85.0		0.314	mg/kg	EPA 6020B
Benzo(a)anthracene	647		37.8	µg/kg	EPA 8270E
Benzo(a)pyrene	640		37.8	µg/kg	EPA 8270E
Benzo(b)fluoranthene	874		37.8	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	530		37.8	µg/kg	EPA 8270E
Benzo(k)fluoranthene	363		37.8	µg/kg	EPA 8270E
Chloride	60.9		11.5	mg/kg	EPA 9056A
Chromium	19.1	S	3.14	mg/kg	EPA 6020B
Chrysene	624	S	37.8	µg/kg	EPA 8270E
Copper	19.8		3.14	mg/kg	EPA 6020B
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	212		187	µg/kg	EPA 8270E
Fluoranthene	1420		37.8	µg/kg	EPA 8270E
Fluorene	49.2		37.8	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	492		37.8	µg/kg	EPA 8270E
Lead	53.9		0.314	mg/kg	EPA 6020B
Mercury	0.0394		0.0211	mg/kg	EPA 7471B
Percent Moisture	12.8		0.1	%	EPA 3550C
Phenanthrene	484		37.8	µg/kg	EPA 8270E
Pyrene	1290		37.8	µg/kg	EPA 8270E
Zinc	83.8		0.628	mg/kg	EPA 6020B

CLIENT ID: 5161 SB02 (5-6)	Lab ID: HN2511204-002
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Analyte	Results	Flag	MRL	Units	Method
4,4'-DDD	59.7		26.6	µg/kg	EPA 8081B
4,4'-DDE	77.2		26.6	µg/kg	EPA 8081B
Arsenic	7.43		0.345	mg/kg	EPA 6020B
Barium	64.9		0.345	mg/kg	EPA 6020B
Benzo(a)anthracene	244		94.0	µg/kg	EPA 8270E
Benzo(a)pyrene	310		94.0	µg/kg	EPA 8270E
Benzo(b)fluoranthene	479		94.0	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	329		94.0	µg/kg	EPA 8270E
Benzo(k)fluoranthene	179		94.0	µg/kg	EPA 8270E
Cadmium	0.220		0.138	mg/kg	EPA 6020B
Chloride	45.3		11.3	mg/kg	EPA 9056A
Chromium	17.8		3.45	mg/kg	EPA 6020B
Chrysene	226		94.0	µg/kg	EPA 8270E
Copper	32.6		3.45	mg/kg	EPA 6020B
Fluoranthene	583		94.0	µg/kg	EPA 8270E

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: 5161 SB02 (5-6)	Lab ID: HN2511204-002
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Analyte	Results	Flag	MRL	Units	Method
Indeno(1,2,3-cd) pyrene	263		94.0	µg/kg	EPA 8270E
Lead	30.5		0.345	mg/kg	EPA 6020B
Mercury	0.0578		0.0200	mg/kg	EPA 7471B
Percent Moisture	11.8		0.1	%	EPA 3550C
Phenanthrene	197		94.0	µg/kg	EPA 8270E
Pyrene	564		94.0	µg/kg	EPA 8270E
Zinc	81.7		6.90	mg/kg	EPA 6020B

CLIENT ID: 5161 SB03 (3-5)	Lab ID: HN2511204-003
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Analyte	Results	Flag	MRL	Units	Method
Acetone	348		113	µg/kg	EPA 8260D
Anthracene	165		91.8	µg/kg	EPA 8270E
Arsenic	6.42		0.344	mg/kg	EPA 6020B
Barium	79.3		0.344	mg/kg	EPA 6020B
Benzo(a)anthracene	569		91.8	µg/kg	EPA 8270E
Benzo(a)pyrene	560		91.8	µg/kg	EPA 8270E
Benzo(b)fluoranthene	835		91.8	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	431		91.8	µg/kg	EPA 8270E
Benzo(k)fluoranthene	266		91.8	µg/kg	EPA 8270E
Cadmium	0.264		0.138	mg/kg	EPA 6020B
Chloride	42.7		11.7	mg/kg	EPA 9056A
Chromium	18.4		3.44	mg/kg	EPA 6020B
Chrysene	542		91.8	µg/kg	EPA 8270E
Copper	23.7		3.44	mg/kg	EPA 6020B
Fluoranthene	1310		91.8	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	523		91.8	µg/kg	EPA 8270E
Lead	61.0		0.344	mg/kg	EPA 6020B
Mercury	0.0766		0.0224	mg/kg	EPA 7471B
Percent Moisture	14.7		0.1	%	EPA 3550C
Phenanthrene	486		91.8	µg/kg	EPA 8270E
Pyrene	1020		91.8	µg/kg	EPA 8270E
Zinc	101		6.89	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Workorder: HN2511204

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2511204-001	5161 SB01 (1-2)	SOIL/SOLID	08/11/25 09:55	08/12/25 08:00
HN2511204-002	5161 SB02 (5-6)	SOIL/SOLID	08/11/25 10:00	08/12/25 08:00
HN2511204-003	5161 SB03 (3-5)	SOIL/SOLID	08/11/25 10:05	08/12/25 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	5161 Martindale	A VOCs (U.S. EPA Method 8260C (or Method 8260))													
Work Order		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 Chlorides (U.S. EPA Method 9056A)													
				F Pesticides (U.S. EPA Method 8081B (or Method 8081))													
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188	G Herbicides (U.S. EPA Method 8151A (or Method 8151))													
Phone	734-397-3100	Phone	734-397-3100	H													
Fax		Fax		I													
e-Mail Address	RMontri@manniksmithgroup.com	e-Mail Address		J													

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	5161 SB01 (1-2)	8/11/25	0955	Soil	METH	3	X	X	X	X	X	X	X				
2	5161 SB02 (5-6)	I	1000	Soil	I	3	X	X	X	X	X	X	X				
3	5161 SB03 (3-5)	I	1005	Soil	I	3	X	X	X	X	X	X	X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign WILEY DAVENPORT		Shipment Method:		Required Turnaround Time: ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:			
Relinquished by: [Signature]		Date: 8/11/25	Time: 1644	Received by: [Signature]		Notes: Quote# HN-061825-M&S-MA					
Relinquished by: [Signature]		Date: 8/11/25	Time: 1645	Received by (Laboratory): QS		Cooler Temp. 52.0C ± 1.0					
Logged by (Laboratory): BC		Date: 8/12/25	Time: 0840	Checked by (Laboratory):		QC Package: (Check Box Below) ☐ Level II: Standard QC ☐ TRRP-Checklist ☐ Level III: Std QC + Raw Data ☐ TRRP Level IV ☐ Level IV: SW846 CLP-Like					
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035						Other: _____					

Environmental Division
Holland
Work Order Reference
HN2511204

Telephone : +1 616 399 6070



ALS Holland Sample Receiving Checklist

Received by: BC

Date/Time: 8/12/25 8:00

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): 5.2°C

Thermometer(s): IR6

Sample(s) received on ice? Yes / No

Matrix/Matrices: Soil

Cooler(s)/Kit(s): _____

Date/Time sample(s) sent to storage: 8/12/25 0930

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: 5161 Martindale

Work Order: HN2511204

Sample Name: 5161 SB01 (1-2)
Laboratory Code: HN2511204-001
Sample Matrix: SOIL/SOLID

Date Collected: 08/11/25
Date Received: 08/12/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AC	2158508		3397652	Nicole Maleski
EPA 6020B	EPA 3050B	001-AC	2162039	Chloe Patrick	3405974	Stephanie Pierson
EPA 6020B	EPA 3050B	001-AC	2162039	Chloe Patrick	3410505	Stephanie Pierson
EPA 7471B	Method	001-AC	2159501	Maxx Richey	3402960	Maxx Richey
EPA 8081B	EPA 3546	001-AC	2173198	Sam Bruzan	3444430	Madison VandenBer
EPA 8082A	EPA 3546	001-AC	2173203	Rachel Plantinga	3425747	Nathaniel Dietlin
EPA 8151A	Method	001-AC	2177088	Sam Bruzan	3436396	Kathy Malmyga
EPA 8260D	EPA 5035A	001-AA	2155600	Jonathan Vazquez	3402646	Bailey Gilmore
EPA 8260D	EPA 5035A	001-AA	2155600	Jonathan Vazquez	3404799	Sean Bradfield
EPA 8260D	EPA 5035A	001-AA	2166529	Jonathan Vazquez	3411029	Ali Cook
EPA 8260D	EPA 5035A	001-AA	2166529	Jonathan Vazquez	3413518	Ali Cook
EPA 8270E	EPA 3546	001-AC	2180635	Rachel Plantinga	3442024	Erin Wall
EPA 9056A	EPA 9056A	001-AC	2158214	Quoc Nguyen	3403361	Quoc Nguyen

Sample Name: 5161 SB02 (5-6)
Laboratory Code: HN2511204-002
Sample Matrix: SOIL/SOLID

Date Collected: 08/11/25
Date Received: 08/12/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		002-AC	2158508		3397652	Nicole Maleski
EPA 6020B	EPA 3050B	002-AC	2162039	Chloe Patrick	3405974	Stephanie Pierson
EPA 6020B	EPA 3050B	002-AC	2162039	Chloe Patrick	3410505	Stephanie Pierson
EPA 7471B	Method	002-AC	2159501	Maxx Richey	3402960	Maxx Richey
EPA 8081B	EPA 3546	002-AC	2173198	Sam Bruzan	3433721	Madison VandenBer
EPA 8081B	EPA 3546	002-AC	2173198	Sam Bruzan	3440418	Madison VandenBer
EPA 8082A	EPA 3546	002-AC	2173203	Rachel Plantinga	3425747	Nathaniel Dietlin
EPA 8151A	Method	002-AC	2177088	Sam Bruzan	3436396	Kathy Malmyga
EPA 8260D	EPA 5035A	002-AA	2155600	Jonathan Vazquez	3402980	John Garvale
EPA 8260D	EPA 5035A	002-AA	2155600	Jonathan Vazquez	3409777	Sean Bradfield
EPA 8270E	EPA 3546	002-AC	2180635	Rachel Plantinga	3442024	Erin Wall
EPA 9056A	EPA 9056A	002-AC	2158214	Quoc Nguyen	3403361	Quoc Nguyen

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale

Work Order: HN2511204

Sample Name: 5161 SB03 (3-5)
Laboratory Code: HN2511204-003
Sample Matrix: SOIL/SOLID

Date Collected: 08/11/25
Date Received: 08/12/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AC	2158508		3397652	Nicole Maleski
EPA 6020B	EPA 3050B	003-AC	2162039	Chloe Patrick	3405974	Stephanie Pierson
EPA 6020B	EPA 3050B	003-AC	2162039	Chloe Patrick	3410505	Stephanie Pierson
EPA 7471B	Method	003-AC	2159501	Maxx Richey	3402960	Maxx Richey
EPA 8081B	EPA 3546	003-AC	2173198	Sam Bruzan	3440418	Madison VandenBer
EPA 8082A	EPA 3546	003-AC	2173203	Rachel Plantinga	3425747	Nathaniel Dietlin
EPA 8151A	Method	003-AC	2177088	Sam Bruzan	3436396	Kathy Malmyga
EPA 8260D	EPA 5035A	003-AA	2155600	Jonathan Vazquez	3402980	John Garvale
EPA 8260D	EPA 5035A	003-AA	2155600	Jonathan Vazquez	3409777	Sean Bradfield
EPA 8270E	EPA 3546	003-AC	2180635	Rachel Plantinga	3442024	Erin Wall
EPA 9056A	EPA 9056A	003-AC	2158214	Quoc Nguyen	3403361	Quoc Nguyen

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2) **Lab ID: HN2511204-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	12.8		%	0.1	1	08/13/25 16:53	NA
Chloride	EPA 9056A	60.9		mg/kg	11.5	1	08/14/25 15:28	08/13/25 16:10
Metals								
Arsenic	EPA 6020B	7.86		mg/kg	0.314	1	08/16/25 01:00	08/15/25 08:18
Barium	EPA 6020B	85.0		mg/kg	0.314	1	08/16/25 01:00	08/15/25 08:18
Cadmium	EPA 6020B	ND		mg/kg	1.26	10	08/18/25 16:07	08/15/25 08:18
Chromium	EPA 6020B	19.1	S	mg/kg	3.14	10	08/18/25 16:07	08/15/25 08:18
Copper	EPA 6020B	19.8		mg/kg	3.14	10	08/18/25 16:07	08/15/25 08:18
Lead	EPA 6020B	53.9		mg/kg	0.314	1	08/16/25 01:00	08/15/25 08:18
Selenium	EPA 6020B	ND		mg/kg	3.14	10	08/18/25 16:07	08/15/25 08:18
Silver	EPA 6020B	ND		mg/kg	0.314	1	08/16/25 01:00	08/15/25 08:18
Zinc	EPA 6020B	83.8		mg/kg	0.628	1	08/16/25 01:00	08/15/25 08:18
Mercury	EPA 7471B	0.0394		mg/kg	0.0211	1	08/15/25 09:53	08/15/25 07:58
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
4,4'-DDE	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
4,4'-DDT	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Aldrin	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
alpha-BHC	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
beta-BHC	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Chlordane, Technical	EPA 8081B	ND		µg/kg	2830	100	08/27/25 23:46	08/21/25 13:43
cis-Chlordane	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
delta-BHC	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Dieldrin	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Endosulfan I	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Endosulfan II	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Endosulfan sulfate	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Endrin	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Endrin aldehyde	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Endrin ketone	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
gamma-BHC (Lindane)	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2) **Lab ID: HN2511204-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Heptachlor	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Heptachlor epoxide	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Methoxychlor	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
Toxaphene	EPA 8081B	ND		µg/kg	6800	100	08/27/25 23:46	08/21/25 13:43
trans-Chlordane	EPA 8081B	ND		µg/kg	1130	100	08/27/25 23:46	08/21/25 13:43
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	125		%REC	53-151	100	08/27/25 23:46	08/21/25 13:43
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	75.0		%REC	67-127	100	08/27/25 23:46	08/21/25 13:43

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1221	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1232	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1242	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1248	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1254	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1260	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1262	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Aroclor 1268	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
Total PCB	EPA 8082A	ND		µg/kg	75.6	1	08/22/25 00:55	08/21/25 11:57
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	88.3		%REC	54-146	1	08/22/25 00:55	08/21/25 11:57
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	62.4		%REC	58-140	1	08/22/25 00:55	08/21/25 11:57
2,4,5-T	EPA 8151A	ND		µg/kg	5.65	1	08/26/25 19:19	08/25/25 16:58
2,4,5-TP (Silvex)	EPA 8151A	ND		µg/kg	5.65	1	08/26/25 19:19	08/25/25 16:58
2,4-D	EPA 8151A	ND		µg/kg	11.3	1	08/26/25 19:19	08/25/25 16:58
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	48.0		%REC	10-116	1	08/26/25 19:19	08/25/25 16:58

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	1890	5	08/27/25 23:00	08/25/25 16:39
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	946	5	08/27/25 23:00	08/25/25 16:39
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2) **Lab ID: HN2511204-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	378	5	08/27/25 23:00	08/25/25 16:39
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2,4-Dimethylphenol	EPA 8270E	ND	B	µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	1890	5	08/27/25 23:00	08/25/25 16:39
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
2-Chlorophenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2-Nitroaniline	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
2-Nitrophenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
3&4-Methylphenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	946	5	08/27/25 23:00	08/25/25 16:39
3-Nitroaniline	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
4-Chloroaniline	EPA 8270E	ND		µg/kg	378	5	08/27/25 23:00	08/25/25 16:39
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
4-Nitroaniline	EPA 8270E	ND		µg/kg	946	5	08/27/25 23:00	08/25/25 16:39
4-Nitrophenol	EPA 8270E	ND		µg/kg	1890	5	08/27/25 23:00	08/25/25 16:39
Acenaphthene	EPA 8270E	ND		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Acenaphthylene	EPA 8270E	ND		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Acetophenone	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Anthracene	EPA 8270E	163		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Atrazine	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Benzaldehyde	EPA 8270E	ND		µg/kg	378	5	08/27/25 23:00	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2)	Lab ID: HN2511204-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Benzo(a)anthracene	EPA 8270E	647		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Benzo(a)pyrene	EPA 8270E	640		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Benzo(b)fluoranthene	EPA 8270E	874		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Benzo(g,h,i)perylene	EPA 8270E	530		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Benzo(k)fluoranthene	EPA 8270E	363		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	378	5	08/27/25 23:00	08/25/25 16:39
Caprolactam	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Carbazole	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Chrysene	EPA 8270E	624	S	µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	212		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Dibenzofuran	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Diethyl phthalate	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Dimethyl phthalate	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Fluoranthene	EPA 8270E	1420		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Fluorene	EPA 8270E	49.2		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Hexachlorobenzene	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Hexachlorocyclopentadiene	EPA 8270E	ND	S	µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Hexachloroethane	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Indeno(1,2,3-cd) pyrene	EPA 8270E	492		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Isophorone	EPA 8270E	ND		µg/kg	946	5	08/27/25 23:00	08/25/25 16:39
Methylphenol, Total	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Naphthalene	EPA 8270E	ND		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Nitrobenzene	EPA 8270E	ND		µg/kg	946	5	08/27/25 23:00	08/25/25 16:39
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2) **Lab ID: HN2511204-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Pentachlorophenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Phenanthrene	EPA 8270E	484		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Phenol	EPA 8270E	ND		µg/kg	187	5	08/27/25 23:00	08/25/25 16:39
Pyrene	EPA 8270E	1290		µg/kg	37.8	5	08/27/25 23:00	08/25/25 16:39
Pyridine	EPA 8270E	ND		µg/kg	946	5	08/27/25 23:00	08/25/25 16:39
Surr: 2,4,6-Tribromophenol	EPA 8270E	79.5		%REC	48-94	5	08/27/25 23:00	08/25/25 16:39
Surr: 2-Fluorobiphenyl	EPA 8270E	74.4		%REC	50-103	5	08/27/25 23:00	08/25/25 16:39
Surr: 2-Fluorophenol	EPA 8270E	69.6		%REC	43-105	5	08/27/25 23:00	08/25/25 16:39
Surr: 4-Terphenyl-d14	EPA 8270E	81.9		%REC	55-111	5	08/27/25 23:00	08/25/25 16:39
Surr: Nitrobenzene-d5	EPA 8270E	80.7		%REC	47-100	5	08/27/25 23:00	08/25/25 16:39
Surr: Phenol-d6	EPA 8270E	68.3		%REC	49-110	5	08/27/25 23:00	08/25/25 16:39

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	74.9	1	08/14/25 19:30	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2) **Lab ID: HN2511204-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	250	1	08/14/25 19:30	08/12/25 13:19
2-Hexanone	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Acetone	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
Benzene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Bromochloromethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Bromodichloromethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Bromoform	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Carbon disulfide	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Carbon tetrachloride	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Chlorobenzene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Chlorodibromomethane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
Chloroform	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	74.9	1	08/14/25 19:30	08/12/25 13:19
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Cyclohexane	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
Ethylbenzene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Isopropylbenzene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
m+p-Xylene	EPA 8260D	ND		µg/kg	74.9	1	08/14/25 19:30	08/12/25 13:19
Methyl acetate	EPA 8260D	ND		µg/kg	312	1	08/18/25 16:27	08/18/25 14:22
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	125	1	08/14/25 19:30	08/12/25 13:19
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Methylcyclohexane	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	312	1	08/14/25 19:30	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB01 (1-2) **Lab ID: HN2511204-001**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
o-Xylene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Styrene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND	S	µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Toluene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Total Xylene	EPA 8260D	ND		µg/kg	112	1	08/14/25 19:30	08/12/25 13:19
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	37.5	1	08/14/25 19:30	08/12/25 13:19
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	93.5		%REC	80-120	1	08/14/25 19:30	08/12/25 13:19
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	88.1		%REC	80-120	1	08/14/25 19:30	08/12/25 13:19
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	82.5		%REC	80-120	1	08/14/25 19:30	08/12/25 13:19
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/14/25 19:30	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6) **Lab ID: HN2511204-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.8		%	0.1	1	08/13/25 16:53	NA
Chloride	EPA 9056A	45.3		mg/kg	11.3	1	08/14/25 15:36	08/13/25 16:10
Metals								
Arsenic	EPA 6020B	7.43		mg/kg	0.345	1	08/16/25 01:11	08/15/25 08:18
Barium	EPA 6020B	64.9		mg/kg	0.345	1	08/16/25 01:11	08/15/25 08:18
Cadmium	EPA 6020B	0.220		mg/kg	0.138	1	08/16/25 01:11	08/15/25 08:18
Chromium	EPA 6020B	17.8		mg/kg	3.45	10	08/18/25 16:20	08/15/25 08:18
Copper	EPA 6020B	32.6		mg/kg	3.45	10	08/18/25 16:20	08/15/25 08:18
Lead	EPA 6020B	30.5		mg/kg	0.345	1	08/16/25 01:11	08/15/25 08:18
Selenium	EPA 6020B	ND		mg/kg	0.345	1	08/16/25 01:11	08/15/25 08:18
Silver	EPA 6020B	ND		mg/kg	0.345	1	08/16/25 01:11	08/15/25 08:18
Zinc	EPA 6020B	81.7		mg/kg	6.90	10	08/18/25 16:20	08/15/25 08:18
Mercury	EPA 7471B	0.0578		mg/kg	0.0200	1	08/15/25 09:55	08/15/25 07:58
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	59.7		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
4,4'-DDE	EPA 8081B	77.2		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
4,4'-DDT	EPA 8081B	ND		µg/kg	2660	100	08/26/25 23:42	08/21/25 13:43
Aldrin	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
alpha-BHC	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
beta-BHC	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Chlordane, Technical	EPA 8081B	ND		µg/kg	66.4	1	08/23/25 00:02	08/21/25 13:43
cis-Chlordane	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
delta-BHC	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Dieldrin	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Endosulfan I	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Endosulfan II	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Endosulfan sulfate	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Endrin	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Endrin aldehyde	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Endrin ketone	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
gamma-BHC (Lindane)	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6) **Lab ID: HN2511204-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Heptachlor	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Heptachlor epoxide	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Methoxychlor	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
Toxaphene	EPA 8081B	ND		µg/kg	159	1	08/23/25 00:02	08/21/25 13:43
trans-Chlordane	EPA 8081B	ND		µg/kg	26.6	1	08/23/25 00:02	08/21/25 13:43
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	101		%REC	53-151	1	08/23/25 00:02	08/21/25 13:43
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	96.4		%REC	67-127	1	08/23/25 00:02	08/21/25 13:43

Semivolatile Organic Compounds by GC								
Aroclor 1016	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1221	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1232	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1242	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1248	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1254	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1260	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1262	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Aroclor 1268	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
Total PCB	EPA 8082A	ND		µg/kg	177	1	08/22/25 01:06	08/21/25 11:57
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	119		%REC	54-146	1	08/22/25 01:06	08/21/25 11:57
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	88.1		%REC	58-140	1	08/22/25 01:06	08/21/25 11:57
2,4,5-T	EPA 8151A	ND		µg/kg	5.60	1	08/26/25 19:58	08/25/25 16:58
2,4,5-TP (Silvex)	EPA 8151A	ND		µg/kg	5.60	1	08/26/25 19:58	08/25/25 16:58
2,4-D	EPA 8151A	ND		µg/kg	11.2	1	08/26/25 19:58	08/25/25 16:58
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	56.0		%REC	10-116	1	08/26/25 19:58	08/25/25 16:58

Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	4700	5	08/27/25 23:21	08/25/25 16:39
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	2350	5	08/27/25 23:21	08/25/25 16:39
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6) **Lab ID: HN2511204-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	940	5	08/27/25 23:21	08/25/25 16:39
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2,4-Dimethylphenol	EPA 8270E	ND	B	µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2,4-Dinitrophenol	EPA 8270E	ND		µg/kg	4700	5	08/27/25 23:21	08/25/25 16:39
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
2-Chlorophenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2-Nitroaniline	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
2-Nitrophenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
3&4-Methylphenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	2350	5	08/27/25 23:21	08/25/25 16:39
3-Nitroaniline	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
4-Chloroaniline	EPA 8270E	ND		µg/kg	940	5	08/27/25 23:21	08/25/25 16:39
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
4-Nitroaniline	EPA 8270E	ND		µg/kg	2350	5	08/27/25 23:21	08/25/25 16:39
4-Nitrophenol	EPA 8270E	ND		µg/kg	4700	5	08/27/25 23:21	08/25/25 16:39
Acenaphthene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Acenaphthylene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Acetophenone	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Anthracene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Atrazine	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Benzaldehyde	EPA 8270E	ND		µg/kg	940	5	08/27/25 23:21	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6)	Lab ID: HN2511204-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Benzo(a)anthracene	EPA 8270E	244		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Benzo(a)pyrene	EPA 8270E	310		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Benzo(b)fluoranthene	EPA 8270E	479		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Benzo(g,h,i)perylene	EPA 8270E	329		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Benzo(k)fluoranthene	EPA 8270E	179		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	940	5	08/27/25 23:21	08/25/25 16:39
Caprolactam	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Carbazole	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Chrysene	EPA 8270E	226		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Dibenzofuran	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Diethyl phthalate	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Dimethyl phthalate	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Fluoranthene	EPA 8270E	583		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Fluorene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Hexachlorobenzene	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Hexachloroethane	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Indeno(1,2,3-cd) pyrene	EPA 8270E	263		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Isophorone	EPA 8270E	ND		µg/kg	2350	5	08/27/25 23:21	08/25/25 16:39
Methylphenol, Total	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Naphthalene	EPA 8270E	ND		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Nitrobenzene	EPA 8270E	ND		µg/kg	2350	5	08/27/25 23:21	08/25/25 16:39
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6)	Lab ID: HN2511204-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Pentachlorophenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Phenanthrene	EPA 8270E	197		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Phenol	EPA 8270E	ND		µg/kg	465	5	08/27/25 23:21	08/25/25 16:39
Pyrene	EPA 8270E	564		µg/kg	94.0	5	08/27/25 23:21	08/25/25 16:39
Pyridine	EPA 8270E	ND		µg/kg	2350	5	08/27/25 23:21	08/25/25 16:39
Surr: 2,4,6-Tribromophenol	EPA 8270E	84.9		%REC	48-94	5	08/27/25 23:21	08/25/25 16:39
Surr: 2-Fluorobiphenyl	EPA 8270E	73.7		%REC	50-103	5	08/27/25 23:21	08/25/25 16:39
Surr: 2-Fluorophenol	EPA 8270E	70.8		%REC	43-105	5	08/27/25 23:21	08/25/25 16:39
Surr: 4-Terphenyl-d14	EPA 8270E	77.5		%REC	55-111	5	08/27/25 23:21	08/25/25 16:39
Surr: Nitrobenzene-d5	EPA 8270E	81.8		%REC	47-100	5	08/27/25 23:21	08/25/25 16:39
Surr: Phenol-d6	EPA 8270E	69.0		%REC	49-110	5	08/27/25 23:21	08/25/25 16:39

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	69.5	1	08/15/25 02:08	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6)	Lab ID: HN2511204-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	232	1	08/15/25 02:08	08/12/25 13:19
2-Hexanone	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Acetone	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
Benzene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Bromochloromethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Bromodichloromethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Bromoform	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Carbon disulfide	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Carbon tetrachloride	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Chlorobenzene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Chlorodibromomethane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
Chloroform	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	69.5	1	08/15/25 02:08	08/12/25 13:19
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Cyclohexane	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
Ethylbenzene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Isopropylbenzene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
m+p-Xylene	EPA 8260D	ND		µg/kg	69.5	1	08/15/25 02:08	08/12/25 13:19
Methyl acetate	EPA 8260D	ND		µg/kg	290	1	08/15/25 02:08	08/12/25 13:19
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	116	1	08/15/25 02:08	08/12/25 13:19
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Methylcyclohexane	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	290	1	08/15/25 02:08	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:00
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB02 (5-6) **Lab ID: HN2511204-002**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
o-Xylene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Styrene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Toluene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Total Xylene	EPA 8260D	ND		µg/kg	104	1	08/15/25 02:08	08/12/25 13:19
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	34.8	1	08/15/25 02:08	08/12/25 13:19
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	97.4		%REC	80-120	1	08/15/25 02:08	08/12/25 13:19
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	92.4		%REC	80-120	1	08/15/25 02:08	08/12/25 13:19
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	80.4		%REC	80-120	1	08/15/25 02:08	08/12/25 13:19
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	106		%REC	80-120	1	08/15/25 02:08	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5) **Lab ID: HN2511204-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	14.7		%	0.1	1	08/13/25 16:53	NA
Chloride	EPA 9056A	42.7		mg/kg	11.7	1	08/14/25 15:44	08/13/25 16:10
Metals								
Arsenic	EPA 6020B	6.42		mg/kg	0.344	1	08/16/25 01:13	08/15/25 08:18
Barium	EPA 6020B	79.3		mg/kg	0.344	1	08/16/25 01:13	08/15/25 08:18
Cadmium	EPA 6020B	0.264		mg/kg	0.138	1	08/16/25 01:13	08/15/25 08:18
Chromium	EPA 6020B	18.4		mg/kg	3.44	10	08/18/25 16:22	08/15/25 08:18
Copper	EPA 6020B	23.7		mg/kg	3.44	10	08/18/25 16:22	08/15/25 08:18
Lead	EPA 6020B	61.0		mg/kg	0.344	1	08/16/25 01:13	08/15/25 08:18
Selenium	EPA 6020B	ND		mg/kg	0.344	1	08/16/25 01:13	08/15/25 08:18
Silver	EPA 6020B	ND		mg/kg	3.44	10	08/18/25 16:22	08/15/25 08:18
Zinc	EPA 6020B	101		mg/kg	6.89	10	08/18/25 16:22	08/15/25 08:18
Mercury	EPA 7471B	0.0766		mg/kg	0.0224	1	08/15/25 09:57	08/15/25 07:58
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
4,4'-DDE	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
4,4'-DDT	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Aldrin	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
alpha-BHC	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
beta-BHC	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Chlordane, Technical	EPA 8081B	ND		µg/kg	5950	100	08/26/25 23:57	08/21/25 13:43
cis-Chlordane	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
delta-BHC	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Dieldrin	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Endosulfan I	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Endosulfan II	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Endosulfan sulfate	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Endrin	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Endrin aldehyde	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Endrin ketone	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
gamma-BHC (Lindane)	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5)	Lab ID: HN2511204-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Heptachlor	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Heptachlor epoxide	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Methoxychlor	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
Toxaphene	EPA 8081B	ND		µg/kg	14300	100	08/26/25 23:57	08/21/25 13:43
trans-Chlordane	EPA 8081B	ND		µg/kg	2380	100	08/26/25 23:57	08/21/25 13:43
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	175	<i>S</i>	<i>%REC</i>	<i>53-151</i>	<i>100</i>	<i>08/26/25 23:57</i>	<i>08/21/25 13:43</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	95.0		<i>%REC</i>	<i>67-127</i>	<i>100</i>	<i>08/26/25 23:57</i>	<i>08/21/25 13:43</i>

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1221	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1232	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1242	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1248	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1254	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1260	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1262	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Aroclor 1268	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
Total PCB	EPA 8082A	ND		µg/kg	159	1	08/22/25 01:18	08/21/25 11:57
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	60.6		<i>%REC</i>	<i>54-146</i>	<i>1</i>	<i>08/22/25 01:18</i>	<i>08/21/25 11:57</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	49.6	<i>S</i>	<i>%REC</i>	<i>58-140</i>	<i>1</i>	<i>08/22/25 01:18</i>	<i>08/21/25 11:57</i>
2,4,5-T	EPA 8151A	ND		µg/kg	5.78	1	08/26/25 20:07	08/25/25 16:58
2,4,5-TP (Silvex)	EPA 8151A	ND		µg/kg	5.78	1	08/26/25 20:07	08/25/25 16:58
2,4-D	EPA 8151A	ND		µg/kg	11.6	1	08/26/25 20:07	08/25/25 16:58
<i>Surr: DCAA</i>	<i>EPA 8151A</i>	58.0		<i>%REC</i>	<i>10-116</i>	<i>1</i>	<i>08/26/25 20:07</i>	<i>08/25/25 16:58</i>

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	4580	5	08/27/25 23:42	08/25/25 16:39
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	2300	5	08/27/25 23:42	08/25/25 16:39
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5) **Lab ID: HN2511204-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	918	5	08/27/25 23:42	08/25/25 16:39
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2,4-Dimethylphenol	EPA 8270E	ND	B	µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2,4-Dinitrophenol	EPA 8270E	ND		µg/kg	4580	5	08/27/25 23:42	08/25/25 16:39
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
2-Chlorophenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2-Nitroaniline	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
2-Nitrophenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
3&4-Methylphenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	2300	5	08/27/25 23:42	08/25/25 16:39
3-Nitroaniline	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
4-Chloroaniline	EPA 8270E	ND		µg/kg	918	5	08/27/25 23:42	08/25/25 16:39
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
4-Nitroaniline	EPA 8270E	ND		µg/kg	2300	5	08/27/25 23:42	08/25/25 16:39
4-Nitrophenol	EPA 8270E	ND		µg/kg	4580	5	08/27/25 23:42	08/25/25 16:39
Acenaphthene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Acenaphthylene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Acetophenone	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Anthracene	EPA 8270E	165		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Atrazine	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Benzaldehyde	EPA 8270E	ND		µg/kg	918	5	08/27/25 23:42	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5)	Lab ID: HN2511204-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Benzo(a)anthracene	EPA 8270E	569		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Benzo(a)pyrene	EPA 8270E	560		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Benzo(b)fluoranthene	EPA 8270E	835		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Benzo(g,h,i)perylene	EPA 8270E	431		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Benzo(k)fluoranthene	EPA 8270E	266		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	918	5	08/27/25 23:42	08/25/25 16:39
Caprolactam	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Carbazole	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Chrysene	EPA 8270E	542		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Dibenzofuran	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Diethyl phthalate	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Dimethyl phthalate	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Fluoranthene	EPA 8270E	1310		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Fluorene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Hexachlorobenzene	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Hexachloroethane	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Indeno(1,2,3-cd) pyrene	EPA 8270E	523		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Isophorone	EPA 8270E	ND		µg/kg	2300	5	08/27/25 23:42	08/25/25 16:39
Methylphenol, Total	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Naphthalene	EPA 8270E	ND		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Nitrobenzene	EPA 8270E	ND		µg/kg	2300	5	08/27/25 23:42	08/25/25 16:39
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5)	Lab ID: HN2511204-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Pentachlorophenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Phenanthrene	EPA 8270E	486		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Phenol	EPA 8270E	ND		µg/kg	454	5	08/27/25 23:42	08/25/25 16:39
Pyrene	EPA 8270E	1020		µg/kg	91.8	5	08/27/25 23:42	08/25/25 16:39
Pyridine	EPA 8270E	ND		µg/kg	2300	5	08/27/25 23:42	08/25/25 16:39
Surr: 2,4,6-Tribromophenol	EPA 8270E	84.6		%REC	48-94	5	08/27/25 23:42	08/25/25 16:39
Surr: 2-Fluorobiphenyl	EPA 8270E	69.1		%REC	50-103	5	08/27/25 23:42	08/25/25 16:39
Surr: 2-Fluorophenol	EPA 8270E	67.7		%REC	43-105	5	08/27/25 23:42	08/25/25 16:39
Surr: 4-Terphenyl-d14	EPA 8270E	78.5		%REC	55-111	5	08/27/25 23:42	08/25/25 16:39
Surr: Nitrobenzene-d5	EPA 8270E	76.8		%REC	47-100	5	08/27/25 23:42	08/25/25 16:39
Surr: Phenol-d6	EPA 8270E	65.9		%REC	49-110	5	08/27/25 23:42	08/25/25 16:39

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	67.8	1	08/15/25 02:24	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5) **Lab ID: HN2511204-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	226	1	08/15/25 02:24	08/12/25 13:19
2-Hexanone	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Acetone	EPA 8260D	348		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
Benzene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Bromochloromethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Bromodichloromethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Bromoform	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Carbon disulfide	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Carbon tetrachloride	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Chlorobenzene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Chlorodibromomethane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
Chloroform	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	67.8	1	08/15/25 02:24	08/12/25 13:19
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Cyclohexane	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
Ethylbenzene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Isopropylbenzene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
m+p-Xylene	EPA 8260D	ND		µg/kg	67.8	1	08/15/25 02:24	08/12/25 13:19
Methyl acetate	EPA 8260D	ND		µg/kg	282	1	08/15/25 02:24	08/12/25 13:19
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	113	1	08/15/25 02:24	08/12/25 13:19
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Methylcyclohexane	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	282	1	08/15/25 02:24	08/12/25 13:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID

Work Order: HN2511204
Date Collected: 08/11/25 10:05
Date Received: 08/12/25 08:00

CLIENT ID: 5161 SB03 (3-5) **Lab ID: HN2511204-003**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
o-Xylene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Styrene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Toluene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Total Xylene	EPA 8260D	ND		µg/kg	102	1	08/15/25 02:24	08/12/25 13:19
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	33.9	1	08/15/25 02:24	08/12/25 13:19
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	98.1		%REC	80-120	1	08/15/25 02:24	08/12/25 13:19
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	101		%REC	80-120	1	08/15/25 02:24	08/12/25 13:19
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	91.3		%REC	80-120	1	08/15/25 02:24	08/12/25 13:19
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	98.8		%REC	80-120	1	08/15/25 02:24	08/12/25 13:19



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2158214

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3403361

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2158214-001
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/14/25 13:19
Prep Date: 08/13/25 16:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	ND	mg/kg	10.0							

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2158214-002
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 08/14/25 13:27
Prep Date: 08/13/25 16:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	99.2	mg/kg	10.0	100		99.2	87-110			

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2158508

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3397652

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2158508-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/13/25 16:53
Prep Date: NA

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2158508-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 08/13/25 16:53
Prep Date: NA

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

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2159501

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402960

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2159501-001
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/15/25 09:34
Prep Date: 08/15/25 07:59

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	ND	mg/kg	0.0200							

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2159501-002
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 08/15/25 09:36
Prep Date: 08/15/25 07:59

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

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2162039

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3405974

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2162039-001
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Method: EPA 6020B

Dilution: 1

Analysis Date: 08/16/25 00:57

Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	ND	mg/kg	0.250							
Barium	ND	mg/kg	0.250							
Cadmium	ND	mg/kg	0.100							
Chromium	ND	mg/kg	0.250							
Copper	ND	mg/kg	0.250							
Lead	ND	mg/kg	0.250							
Selenium	ND	mg/kg	0.250							
Silver	ND	mg/kg	0.250							
Zinc	ND	mg/kg	0.500							

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2162039-002
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Method: EPA 6020B

Dilution: 1

Analysis Date: 08/16/25 00:59

Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.71	mg/kg	0.250	5		94.1	80-120			
Barium	4.47	mg/kg	0.250	5		89.4	80-120			
Cadmium	4.87	mg/kg	0.100	5		97.3	80-120			
Chromium	4.66	mg/kg	0.250	5		93.3	80-120			
Copper	4.73	mg/kg	0.250	5		94.6	80-120			
Lead	4.74	mg/kg	0.250	5		94.9	80-120			
Selenium	4.75	mg/kg	0.250	5		94.9	80-120			
Silver	4.74	mg/kg	0.250	5		94.7	80-120			
Zinc	4.64	mg/kg	0.500	5		92.8	80-120			

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2162039-004
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Method: EPA 6020B

Dilution: 1

Analysis Date: 08/16/25 01:03

Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.8	mg/kg	0.322	5.6117	7.86	89.0	75-125			
Barium	72.2	mg/kg	0.322	5	85.0	NC	75-125			O
Lead	46.0	mg/kg	0.322	5	53.9	NC	75-125			O
Silver	5.90	mg/kg	0.322	5.6117	<0.314	104	75-125			
Zinc	76.1	mg/kg	0.644	5	83.8	NC	75-125			O

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2162039-005
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Method: EPA 6020B

Dilution: 1

Analysis Date: 08/16/25 01:05

Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.3	mg/kg	0.301	5.2466	7.86	85.2	75-125	4.54	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2162039

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3405974

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2162039-005
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 08/16/25 01:05

Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	75.6	mg/kg	0.301	5	85.0	NC	75-125	4.61	20	O
Lead	46.4	mg/kg	0.301	5	53.9	NC	75-125	0.784	20	O
Silver	5.79	mg/kg	0.301	5.2466	<0.314	109	75-125	1.78	20	
Zinc	84.5	mg/kg	0.602	5	83.8	NC	75-125	10.4	20	O

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2162039

Work Order: HN2511204
Date Collected: 08/11/25 09:55
Date Received: 08/12/25 08:00
Run ID: 3410505

Metals

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2162039-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 16:09
Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Cadmium	5.37	mg/kg	1.29	5.6117	<1.26	91.0	75-125			
Chromium	24.3	mg/kg	3.22	5.6117	19.1	136	75-125			S
Copper	23.0	mg/kg	3.22	5.6117	19.8	102	75-125			
Selenium	5.54	mg/kg	3.22	5.6117	ND	89.0	75-125			

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2162039-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 16:10
Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Cadmium	5.07	mg/kg	1.20	5.2466	<1.26	91.5	75-125	5.91	20	
Chromium	23.8	mg/kg	3.01	5.2466	19.1	136	75-125	2.00	20	S
Copper	23.4	mg/kg	3.01	5.2466	19.8	117	75-125	1.76	20	
Selenium	4.80	mg/kg	3.01	5.2466	ND	81.0	75-125	14.4	20	

PDS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2162039-007
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 08/18/25 16:17
Prep Date: 08/15/25 08:19

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Cadmium	50.1	mg/kg	1.26	54.765	<1.26	91.0	75-125			
Chromium	68.9	mg/kg	3.14	54.765	19.1	95.5	75-125			
Copper	70.6	mg/kg	3.14	54.765	19.8	97.4	75-125			
Selenium	49.3	mg/kg	3.14	54.765	ND	88.9	75-125			

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2173198

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3433721

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2173198-001
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Method: EPA 8081B

Dilution: 1

Analysis Date: 08/22/25 22:19

Prep Date: 08/21/25 13:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	ND	µg/kg	10.0							
4,4'-DDE	ND	µg/kg	10.0							
4,4'-DDT	ND	µg/kg	10.0							
Aldrin	ND	µg/kg	10.0							
alpha-BHC	ND	µg/kg	10.0							
beta-BHC	ND	µg/kg	10.0							
Chlordane, Technical	ND	µg/kg	25.0							
cis-Chlordane	ND	µg/kg	10.0							
delta-BHC	ND	µg/kg	10.0							
Dieldrin	ND	µg/kg	10.0							
Endosulfan I	ND	µg/kg	10.0							
Endosulfan II	ND	µg/kg	10.0							
Endosulfan sulfate	ND	µg/kg	10.0							
Endrin	ND	µg/kg	10.0							
Endrin aldehyde	ND	µg/kg	10.0							
Endrin ketone	ND	µg/kg	10.0							
gamma-BHC (Lindane)	ND	µg/kg	10.0							
Heptachlor	ND	µg/kg	10.0							
Heptachlor epoxide	ND	µg/kg	10.0							
Methoxychlor	ND	µg/kg	10.0							
Toxaphene	ND	µg/kg	60.0							
trans-Chlordane	ND	µg/kg	10.0							
Surr: Decachlorobiphenyl	42.0	µg/kg		33.33		126	53-151			
Surr: Tetrachloro-m-xylene	34.6	µg/kg		33.33		104	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2173198-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 08/22/25 22:49

Prep Date: 08/21/25 13:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	38.0	µg/kg	10.0	33.33		114	55-141			
4,4'-DDE	36.9	µg/kg	10.0	33.33		111	55-143			
4,4'-DDT	40.0	µg/kg	10.0	33.33		120	50-144			
Aldrin	37.4	µg/kg	10.0	33.33		112	57-141			
alpha-BHC	37.6	µg/kg	10.0	33.33		113	58-144			
beta-BHC	36.4	µg/kg	10.0	33.33		109	55-147			
cis-Chlordane	37.2	µg/kg	10.0	33.33		112	58-142			
delta-BHC	37.5	µg/kg	10.0	33.33		112	59-142			
Dieldrin	37.8	µg/kg	10.0	33.33		113	59-142			
Endosulfan I	37.8	µg/kg	10.0	33.33		113	57-145			
Endosulfan II	38.5	µg/kg	10.0	33.33		115	58-138			
Endosulfan sulfate	37.4	µg/kg	10.0	33.33		112	54-136			
Endrin	38.8	µg/kg	10.0	33.33		116	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2173198

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3433721

LCS		CLIENT ID: Laboratory Control Sample				Lab ID: QC-2173198-002			
Method: EPA 8081B		Dilution: 1		Analysis Date: 08/22/25 22:49		Prep Date: 08/21/25 13:44			
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit Qual
Endrin aldehyde	43.8	µg/kg	10.0	33.33		132	41-147		
Endrin ketone	38.2	µg/kg	10.0	33.33		114	54-146		
gamma-BHC (Lindane)	36.7	µg/kg	10.0	33.33		110	58-145		
Heptachlor	38.5	µg/kg	10.0	33.33		116	51-145		
Heptachlor epoxide	37.6	µg/kg	10.0	33.33		113	59-143		
Methoxychlor	37.2	µg/kg	10.0	33.33		112	43-144		
trans-Chlordane	37.4	µg/kg	10.0	33.33		112	56-145		
Surr: Decachlorobiphenyl	41.8	µg/kg		33.33		126	51-151		
Surr: Tetrachloro-m-xylene	35.0	µg/kg		33.33		105	67-127		

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2173203

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3425747

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-2173203-001
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Method: EPA 8082A

Dilution: 1

Analysis Date: 08/21/25 23:56

Prep Date: 08/21/25 11:58

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	ND	µg/kg	66.7							
Aroclor 1221	ND	µg/kg	66.7							
Aroclor 1232	ND	µg/kg	66.7							
Aroclor 1242	ND	µg/kg	66.7							
Aroclor 1248	ND	µg/kg	66.7							
Aroclor 1254	ND	µg/kg	66.7							
Aroclor 1260	ND	µg/kg	66.7							
Aroclor 1262	ND	µg/kg	66.7							
Aroclor 1268	ND	µg/kg	66.7							
Total PCB	ND	µg/kg	66.7							
Surr: Decachlorobiphenyl	40.3	µg/kg		33.3		121	54-146			
Surr: Tetrachloro-m-xylene	35.0	µg/kg		33.3		105	58-140			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2173203-002
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Method: EPA 8082A

Dilution: 1

Analysis Date: 08/22/25 00:07

Prep Date: 08/21/25 11:58

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	717	µg/kg	66.7	833		86.0	71-135			
Aroclor 1260	682	µg/kg	66.7	833		81.9	67-135			
Surr: Decachlorobiphenyl	31.5	µg/kg		33.3		94.5	54-146			
Surr: Tetrachloro-m-xylene	27.5	µg/kg		33.3		82.5	58-140			

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2177088

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3436396

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-2177088-001
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/26/25 18:53
Prep Date: 08/25/25 16:58

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	ND	µg/kg	5.00							
2,4,5-TP (Silvex)	ND	µg/kg	5.00							
2,4-D	ND	µg/kg	10.0							
Surr: DCAA	30.0	µg/kg		50		60.0	10-116			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2177088-002
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/26/25 19:06
Prep Date: 08/25/25 16:58

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

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2177088-005
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/26/25 19:32
Prep Date: 08/25/25 16:58

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	23.5	µg/kg	5.61	48.928	ND	48.0	10-119			
2,4,5-TP (Silvex)	22.5	µg/kg	5.61	48.928	ND	46.0	10-101			
2,4-D	26.4	µg/kg	11.2	48.928	ND	54.0	10-128			
Surr: DCAA	27.4	µg/kg		48.928		56.0	10-116			

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2177088-006
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 08/26/25 19:45
Prep Date: 08/25/25 16:58

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	24.2	µg/kg	5.55	48.369	ND	50.0	10-119	2.93	30	
2,4,5-TP (Silvex)	19.3	µg/kg	5.55	48.369	ND	40.0	10-101	15.1	30	
2,4-D	24.2	µg/kg	11.1	48.369	ND	50.0	10-128	8.84	30	
Surr: DCAA	26.1	µg/kg		48.369		54.0	10-116	4.78	30	

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

Semivolatile Organic Compounds by GC-MS

MB **CLIENT ID:** Method Blank **Lab ID:** QC-2180635-001

Method: EPA 8270E

Dilution: 1

Analysis Date: 08/27/25 20:14

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	ND	µg/kg	33.0							
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	333							
1,4-Dioxane (1,4- Diethyleneoxide)	ND	µg/kg	167							
1-Methylnaphthalene	ND	µg/kg	6.67							
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	ND	µg/kg	33.0							
2,3,4,6-Tetrachlorophenol	ND	µg/kg	67.0							
2,4,5-Trichlorophenol	ND	µg/kg	33.0							
2,4,6-Trichlorophenol	ND	µg/kg	33.0							
2,4-Dichlorophenol	ND	µg/kg	33.0							
2,4-Dimethylphenol	46.7	µg/kg	33.0							B
2,4-Dinitrophenol	ND	µg/kg	333							
2,4-Dinitrotoluene (2,4-DNT)	ND	µg/kg	33.0							
2,6-Dinitrotoluene (2,6-DNT)	ND	µg/kg	33.0							
2-Chloronaphthalene	ND	µg/kg	6.67							
2-Chlorophenol	ND	µg/kg	33.0							
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	ND	µg/kg	33.0							
2-Methylnaphthalene	ND	µg/kg	6.67							
2-Methylphenol (o-Cresol)	ND	µg/kg	33.0							
2-Nitroaniline	ND	µg/kg	33.0							
2-Nitrophenol	ND	µg/kg	33.0							
3&4-Methylphenol	ND	µg/kg	33.0							
3,3'-Dichlorobenzidine	ND	µg/kg	167							
3-Nitroaniline	ND	µg/kg	33.0							
4-Bromophenyl phenyl ether (BDE-3)	ND	µg/kg	33.0							
4-Chloro-3-methylphenol	ND	µg/kg	33.0							
4-Chloroaniline	ND	µg/kg	67.0							
4-Chlorophenyl phenylether	ND	µg/kg	33.0							
4-Nitroaniline	ND	µg/kg	167							
4-Nitrophenol	ND	µg/kg	333							
Acenaphthene	ND	µg/kg	6.67							
Acenaphthylene	ND	µg/kg	6.67							
Acetophenone	ND	µg/kg	33.0							
Anthracene	ND	µg/kg	6.67							
Atrazine	ND	µg/kg	33.0							
Benzaldehyde	ND	µg/kg	67.0							
Benzo(a)anthracene	ND	µg/kg	6.67							
Benzo(a)pyrene	ND	µg/kg	6.67							
Benzo(b)fluoranthene	ND	µg/kg	6.67							
Benzo(g,h,i)perylene	ND	µg/kg	6.67							
Benzo(k)fluoranthene	ND	µg/kg	6.67							
bis(2-Chloroethoxy)methane	ND	µg/kg	33.0							
bis(2-Chloroethyl) ether	ND	µg/kg	33.0							

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

MB	CLIENT ID: Method Blank	Lab ID: QC-2180635-001
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/27/25 20:14

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	ND	µg/kg	67.0							
Caprolactam	ND	µg/kg	33.0							
Carbazole	ND	µg/kg	33.0							
Chrysene	ND	µg/kg	6.67							
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	ND	µg/kg	33.0							
Dibenz(a,h) anthracene	ND	µg/kg	33.0							
Dibenzofuran	ND	µg/kg	33.0							
Diethyl phthalate	ND	µg/kg	33.0							
Dimethyl phthalate	ND	µg/kg	33.0							
Di-n-butyl phthalate	ND	µg/kg	33.0							
Di-n-octyl phthalate	ND	µg/kg	33.0							
Fluoranthene	ND	µg/kg	6.67							
Fluorene	ND	µg/kg	6.67							
Hexachlorobenzene	ND	µg/kg	33.0							
Hexachlorobutadiene	ND	µg/kg	33.0							
Hexachlorocyclopentadiene	ND	µg/kg	33.0							
Hexachloroethane	ND	µg/kg	33.0							
Indeno(1,2,3-cd) pyrene	ND	µg/kg	6.67							
Isophorone	ND	µg/kg	167							
Methylphenol, Total	ND	µg/kg	67.0							
Naphthalene	ND	µg/kg	6.67							
Nitrobenzene	ND	µg/kg	167							
n-Nitrosodi-n-propylamine	ND	µg/kg	33.0							
N-Nitrosodiphenylamine	ND	µg/kg	33.0							
Pentachlorophenol	ND	µg/kg	33.0							
Phenanthrene	ND	µg/kg	6.67							
Phenol	ND	µg/kg	33.0							
Pyrene	ND	µg/kg	6.67							
Pyridine	ND	µg/kg	167							
Surr: 2,4,6-Tribromophenol	3060	µg/kg		3333		91.9	48-94			
Surr: 2-Fluorobiphenyl	2560	µg/kg		3333		77.0	50-103			
Surr: 2-Fluorophenol	2610	µg/kg		3333		78.3	43-105			
Surr: 4-Terphenyl-d14	3100	µg/kg		3333		93.0	55-111			
Surr: Nitrobenzene-d5	2580	µg/kg		3333		77.5	47-100			
Surr: Phenol-d6	2670	µg/kg		3333		80.1	49-110			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2180635-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/27/25 21:58

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1040	µg/kg	33.0	1333		78.2	57-101			
1,2,4,5-Tetrachlorobenzene	1120	µg/kg	33.0	1333		83.8	54-98			
1-Methylnaphthalene	1070	µg/kg	6.67	1333		80.0	56-100			



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2180635-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/27/25 21:58

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	927	µg/kg	33.0	1333		69.6	50-101			
2,3,4,6-Tetrachlorophenol	1080	µg/kg	67.0	1333		81.4	48-103			
2,4,5-Trichlorophenol	1050	µg/kg	33.0	1333		79.0	54-98			
2,4,6-Trichlorophenol	1060	µg/kg	33.0	1333		79.9	56-97			
2,4-Dichlorophenol	1050	µg/kg	33.0	1333		79.0	54-99			
2,4-Dimethylphenol	1040	µg/kg	33.0	1333		77.7	47-102			
2,4-Dinitrophenol	851	µg/kg	333	1333		63.9	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1190	µg/kg	33.0	1333		89.5	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1210	µg/kg	33.0	1333		90.6	62-103			
2-Chloronaphthalene	1060	µg/kg	6.67	1333		79.5	57-101			
2-Chlorophenol	1050	µg/kg	33.0	1333		79.0	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1250	µg/kg	33.0	1333		94.0	42-104			
2-Methylnaphthalene	1030	µg/kg	6.67	1333		77.6	55-102			
2-Methylphenol (o-Cresol)	1020	µg/kg	33.0	1333		76.5	54-103			
2-Nitroaniline	1260	µg/kg	33.0	1333		94.8	57-103			
2-Nitrophenol	1360	µg/kg	33.0	1333		102	52-102			
3&4-Methylphenol	1050	µg/kg	33.0	1333		78.8	56-103			
3,3'-Dichlorobenzidine	868	µg/kg	167	1333		65.1	41-91			
3-Nitroaniline	651	µg/kg	33.0	1333		48.9	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1170	µg/kg	33.0	1333		87.9	63-104			
4-Chloro-3-methylphenol	1080	µg/kg	33.0	1333		81.0	57-103			
4-Chloroaniline	979	µg/kg	67.0	1333		73.4	32-99			
4-Chlorophenyl phenylether	1110	µg/kg	33.0	1333		83.2	62-100			
4-Nitroaniline	702	µg/kg	167	1333		52.7	19-124			
4-Nitrophenol	998	µg/kg	333	1333		74.9	44-106			
Acenaphthene	1050	µg/kg	6.67	1333		79.1	60-101			
Acenaphthylene	1050	µg/kg	6.67	1333		79.0	59-101			
Acetophenone	1030	µg/kg	33.0	1333		77.1	54-102			
Anthracene	1080	µg/kg	6.67	1333		80.7	63-96			
Atrazine	1190	µg/kg	33.0	1333		89.4	60-110			
Benzaldehyde	257	µg/kg	67.0	1333		19.3	10-143			
Benzo(a)anthracene	1040	µg/kg	6.67	1333		77.9	66-102			
Benzo(a)pyrene	1060	µg/kg	6.67	1333		79.7	66-105			
Benzo(b)fluoranthene	1060	µg/kg	6.67	1333		79.3	67-105			
Benzo(g,h,i)perylene	1210	µg/kg	6.67	1333		90.7	59-110			
Benzo(k)fluoranthene	1060	µg/kg	6.67	1333		79.8	68-106			
bis(2-Chloroethoxy)methane	927	µg/kg	33.0	1333		69.6	54-102			
bis(2-Chloroethyl) ether	1100	µg/kg	33.0	1333		82.2	51-101			
Butyl benzyl phthalate	1110	µg/kg	67.0	1333		83.5	59-107			
Caprolactam	957	µg/kg	33.0	1333		71.8	49-103			
Carbazole	986	µg/kg	33.0	1333		74.0	63-103			
Chrysene	1070	µg/kg	6.67	1333		80.2	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1110	µg/kg	33.0	1333		83.1	63-101			



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2180635-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 08/27/25 21:58

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dibenz(a,h) anthracene	1230	µg/kg	33.0	1333		92.0	61-109			
Dibenzofuran	1070	µg/kg	33.0	1333		80.6	61-101			
Diethyl phthalate	1080	µg/kg	33.0	1333		81.4	63-105			
Dimethyl phthalate	1070	µg/kg	33.0	1333		80.6	64-104			
Di-n-butyl phthalate	1080	µg/kg	33.0	1333		80.8	66-108			
Di-n-octyl phthalate	1050	µg/kg	33.0	1333		79.0	53-126			
Fluoranthene	1010	µg/kg	6.67	1333		75.7	66-105			
Fluorene	1080	µg/kg	6.67	1333		80.7	62-101			
Hexachlorobenzene	1240	µg/kg	33.0	1333		93.1	61-104			
Hexachlorobutadiene	1160	µg/kg	33.0	1333		87.4	52-99			
Hexachlorocyclopentadiene	1100	µg/kg	33.0	1333		82.5	39-106			
Hexachloroethane	1090	µg/kg	33.0	1333		81.6	59-99			
Indeno(1,2,3-cd) pyrene	1180	µg/kg	6.67	1333		88.5	57-114			
Isophorone	1050	µg/kg	167	1333		78.6	55-101			
Methylphenol, Total	2070	µg/kg	67.0	2667		77.6	54-103			
Naphthalene	1000	µg/kg	6.67	1333		75.0	54-99			
Nitrobenzene	1120	µg/kg	167	1333		84.0	53-100			
n-Nitrosodi-n-propylamine	1070	µg/kg	33.0	1333		80.3	52-104			
N-Nitrosodiphenylamine	1090	µg/kg	33.0	1333		81.7	61-104			
Pentachlorophenol	914	µg/kg	33.0	1333		68.6	35-100			
Phenanthrene	1030	µg/kg	6.67	1333		77.2	64-101			
Phenol	993	µg/kg	33.0	1333		74.5	51-107			
Pyrene	1110	µg/kg	6.67	1333		83.2	62-114			
Pyridine	761	µg/kg	167	1333		57.1	40-84			
Surr: 2,4,6-Tribromophenol	3140	µg/kg		3333		94.1	48-94			S
Surr: 2-Fluorobiphenyl	2480	µg/kg		3333		74.3	50-103			
Surr: 2-Fluorophenol	2470	µg/kg		3333		74.1	43-105			
Surr: 4-Terphenyl-d14	2670	µg/kg		3333		80.2	55-111			
Surr: Nitrobenzene-d5	2610	µg/kg		3333		78.2	47-100			
Surr: Phenol-d6	2460	µg/kg		3333		73.8	49-110			

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2180635-005
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Method: EPA 8270E

Dilution: 5

Analysis Date: 08/27/25 22:19

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	923	µg/kg	187	1318.3	ND	70.0	57-101			
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	1890	1318.3	ND	73.0	54-98			
1-Methylnaphthalene	989	µg/kg	37.8	1318.3	ND	75.0	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	791	µg/kg	187	1318.3	ND	60.0	50-101			
2,3,4,6-Tetrachlorophenol	900	µg/kg	378	1318.3	ND	68.3	48-103			
2,4,5-Trichlorophenol	930	µg/kg	187	1318.3	ND	70.5	54-98			
2,4,6-Trichlorophenol	870	µg/kg	187	1318.3	ND	66.0	56-97			
2,4-Dichlorophenol	887	µg/kg	187	1318.3	ND	67.3	54-99			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2180635-005
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Method: EPA 8270E

Dilution: 5

Analysis Date: 08/27/25 22:19

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4-Dimethylphenol	996	µg/kg	187	1318.3	ND	75.5	47-102			
2,4-Dinitrophenol	ND	µg/kg	1890	1318.3	ND	0.00	10-100			S
2,4-Dinitrotoluene (2,4-DNT)	1170	µg/kg	187	1318.3	ND	88.5	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1340	µg/kg	187	1318.3	ND	102	62-103			
2-Chloronaphthalene	966	µg/kg	37.8	1318.3	ND	73.3	57-101			
2-Chlorophenol	860	µg/kg	187	1318.3	ND	65.3	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	752	µg/kg	187	1318.3	ND	57.0	42-104			
2-Methylnaphthalene	962	µg/kg	37.8	1318.3	<37.8	71.5	55-102			
2-Methylphenol (o-Cresol)	867	µg/kg	187	1318.3	ND	65.8	54-103			
2-Nitroaniline	1240	µg/kg	187	1318.3	ND	93.8	57-103			
2-Nitrophenol	1260	µg/kg	187	1318.3	ND	95.5	52-102			
3&4-Methylphenol	808	µg/kg	187	1318.3	ND	61.3	56-103			
3,3'-Dichlorobenzidine	ND	µg/kg	945	1318.3	ND	46.8	41-91			
3-Nitroaniline	956	µg/kg	187	1318.3	ND	72.5	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1050	µg/kg	187	1318.3	ND	79.8	63-104			
4-Chloro-3-methylphenol	890	µg/kg	187	1318.3	ND	67.5	57-103			
4-Chloroaniline	574	µg/kg	378	1318.3	ND	43.5	32-99			
4-Chlorophenyl phenylether	996	µg/kg	187	1318.3	ND	75.5	62-100			
4-Nitroaniline	1060	µg/kg	945	1318.3	ND	80.5	19-124			
4-Nitrophenol	ND	µg/kg	1890	1318.3	ND	60.8	44-106			
Acenaphthene	1020	µg/kg	37.8	1318.3	ND	77.8	60-101			
Acenaphthylene	969	µg/kg	37.8	1318.3	ND	73.5	59-101			
Acetophenone	906	µg/kg	187	1318.3	ND	68.8	54-102			
Anthracene	1160	µg/kg	37.8	1318.3	163	77.5	63-96			
Atrazine	982	µg/kg	187	1318.3	ND	74.5	60-110			
Benzaldehyde	379	µg/kg	378	1318.3	ND	28.8	10-143			
Benzo(a)anthracene	1450	µg/kg	37.8	1318.3	647	67.5	66-102			
Benzo(a)pyrene	1520	µg/kg	37.8	1318.3	640	73.2	66-105			
Benzo(b)fluoranthene	1680	µg/kg	37.8	1318.3	874	70.0	67-105			
Benzo(g,h,i)perylene	1420	µg/kg	37.8	1318.3	530	72.5	59-110			
Benzo(k)fluoranthene	1330	µg/kg	37.8	1318.3	363	76.7	68-106			
bis(2-Chloroethoxy)methane	791	µg/kg	187	1318.3	ND	60.0	54-102			
bis(2-Chloroethyl) ether	959	µg/kg	187	1318.3	ND	72.8	51-101			
Butyl benzyl phthalate	1110	µg/kg	378	1318.3	ND	84.3	59-107			
Caprolactam	1010	µg/kg	187	1318.3	ND	76.5	49-103			
Carbazole	982	µg/kg	187	1318.3	<187	70.3	63-103			
Chrysene	1420	µg/kg	37.8	1318.3	624	66.7	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1200	µg/kg	187	1318.3	212	76.8	63-101			
Dibenz(a,h) anthracene	1050	µg/kg	187	1318.3	<187	75.0	61-109			
Dibenzofuran	996	µg/kg	187	1318.3	ND	75.5	61-101			
Diethyl phthalate	1030	µg/kg	187	1318.3	ND	78.3	63-105			
Dimethyl phthalate	1010	µg/kg	187	1318.3	ND	76.5	64-104			
Di-n-butyl phthalate	1140	µg/kg	187	1318.3	ND	86.8	66-108			
Di-n-octyl phthalate	1180	µg/kg	187	1318.3	ND	89.5	53-126			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2180635-005
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Method: EPA 8270E**Dilution:** 5**Analysis Date:** 08/27/25 22:19**Prep Date:** 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Fluoranthene	2110	µg/kg	37.8	1318.3	1420	66.2	66-105			
Fluorene	1020	µg/kg	37.8	1318.3	49.2	74.3	62-101			
Hexachlorobenzene	1080	µg/kg	187	1318.3	ND	81.8	61-104			
Hexachlorobutadiene	1020	µg/kg	187	1318.3	ND	77.0	52-99			
Hexachlorocyclopentadiene	415	µg/kg	187	1318.3	ND	31.5	39-106			S
Hexachloroethane	976	µg/kg	187	1318.3	ND	74.0	59-99			
Indeno(1,2,3-cd) pyrene	1430	µg/kg	37.8	1318.3	492	76.2	57-114			
Isophorone	ND	µg/kg	945	1318.3	ND	68.5	55-101			
Methylphenol, Total	1670	µg/kg	187	2637.5	ND	63.5	54-103			
Naphthalene	906	µg/kg	37.8	1318.3	ND	67.5	54-99			
Nitrobenzene	989	µg/kg	945	1318.3	ND	75.0	53-100			
n-Nitrosodi-n-propylamine	976	µg/kg	187	1318.3	ND	74.0	52-104			
N-Nitrosodiphenylamine	1060	µg/kg	187	1318.3	ND	80.3	61-104			
Pentachlorophenol	544	µg/kg	187	1318.3	ND	41.3	35-100			
Phenanthrene	1410	µg/kg	37.8	1318.3	484	75.0	64-101			
Phenol	821	µg/kg	187	1318.3	ND	62.3	51-107			
Pyrene	1950	µg/kg	37.8	1318.3	1290	62.4	52-114			
Pyridine	ND	µg/kg	945	1318.3	ND	53.5	40-84			
Surr: 2,4,6-Tribromophenol	2700	µg/kg		3296.2		82.0	48-94			
Surr: 2-Fluorobiphenyl	2380	µg/kg		3296.2		72.1	50-103			
Surr: 2-Fluorophenol	1980	µg/kg		3296.2		60.1	43-105			
Surr: 4-Terphenyl-d14	2440	µg/kg		3296.2		74.1	55-111			
Surr: Nitrobenzene-d5	2490	µg/kg		3296.2		75.6	47-100			
Surr: Phenol-d6	2020	µg/kg		3296.2		61.2	49-110			

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2180635-006
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Method: EPA 8270E**Dilution:** 5**Analysis Date:** 08/27/25 22:39**Prep Date:** 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1000	µg/kg	187	1318.7	ND	76.0	57-101	8.25	30	
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	1890	1318.7	ND	75.0	54-98	0		
1-Methylnaphthalene	1000	µg/kg	37.8	1318.7	ND	76.0	56-100	1.35	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	841	µg/kg	187	1318.7	ND	63.8	50-101	6.09	30	
2,3,4,6-Tetrachlorophenol	936	µg/kg	378	1318.7	ND	71.0	48-103	3.98	30	
2,4,5-Trichlorophenol	1030	µg/kg	187	1318.7	ND	78.3	54-98	10.4	30	
2,4,6-Trichlorophenol	979	µg/kg	187	1318.7	ND	74.3	56-97	11.8	30	
2,4-Dichlorophenol	1010	µg/kg	187	1318.7	ND	76.8	54-99	13.2	30	
2,4-Dimethylphenol	1190	µg/kg	187	1318.7	ND	90.3	47-102	17.8	30	
2,4-Dinitrophenol	ND	µg/kg	1890	1318.7	ND	0.00	10-100	0		S
2,4-Dinitrotoluene (2,4-DNT)	1380	µg/kg	187	1318.7	ND	105	62-105	16.8	30	
2,6-Dinitrotoluene (2,6-DNT)	1160	µg/kg	187	1318.7	ND	88.0	62-103	14.7	30	
2-Chloronaphthalene	986	µg/kg	37.8	1318.7	ND	74.8	57-101	2.06	30	
2-Chlorophenol	844	µg/kg	187	1318.7	ND	64.0	52-102	1.90	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2180635-006
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Method: EPA 8270E

Dilution: 5

Analysis Date: 08/27/25 22:39

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	709	µg/kg	187	1318.7	ND	53.8	42-104	5.84	30	
2-Methylnaphthalene	992	µg/kg	37.8	1318.7	<37.8	73.8	55-102	3.06	30	
2-Methylphenol (o-Cresol)	874	µg/kg	187	1318.7	ND	66.3	54-103	0.788	30	
2-Nitroaniline	1300	µg/kg	187	1318.7	ND	98.3	57-103	4.72	30	
2-Nitrophenol	1250	µg/kg	187	1318.7	ND	94.8	52-102	0.758	30	
3&4-Methylphenol	844	µg/kg	187	1318.7	ND	64.0	56-103	4.42	30	
3,3'-Dichlorobenzidine	ND	µg/kg	945	1318.7	ND	45.8	41-91	0.0303	30	
3-Nitroaniline	1030	µg/kg	187	1318.7	ND	78.3	35-107	7.66	30	
4-Bromophenyl phenyl ether (BDE-3)	1130	µg/kg	187	1318.7	ND	85.5	63-104	6.99	30	
4-Chloro-3-methylphenol	992	µg/kg	187	1318.7	ND	75.3	57-103	10.9	30	
4-Chloroaniline	673	µg/kg	378	1318.7	ND	51.0	32-99	15.9	30	
4-Chlorophenyl phenylether	1070	µg/kg	187	1318.7	ND	81.5	62-100	7.67	30	
4-Nitroaniline	1180	µg/kg	945	1318.7	ND	89.5	19-124	10.6	30	
4-Nitrophenol	ND	µg/kg	1890	1318.7	ND	58.3	44-106	0		
Acenaphthene	1040	µg/kg	37.8	1318.7	ND	78.8	60-101	1.31	30	
Acenaphthylene	992	µg/kg	37.8	1318.7	ND	75.3	59-101	2.38	30	
Acetophenone	920	µg/kg	187	1318.7	ND	69.8	54-102	1.47	30	
Anthracene	1240	µg/kg	37.8	1318.7	163	83.5	63-96	6.60	30	
Atrazine	1370	µg/kg	187	1318.7	ND	104	60-110	32.8	30	R
Benzaldehyde	412	µg/kg	378	1318.7	ND	31.2	10-143	8.36	30	
Benzo(a)anthracene	1500	µg/kg	37.8	1318.7	647	71.2	66-102	3.37	30	
Benzo(a)pyrene	1570	µg/kg	37.8	1318.7	640	76.7	66-105	3.02	30	
Benzo(b)fluoranthene	1640	µg/kg	37.8	1318.7	874	67.0	67-105	2.34	30	
Benzo(g,h,i)perylene	1510	µg/kg	37.8	1318.7	530	79.7	59-110	6.55	30	
Benzo(k)fluoranthene	1400	µg/kg	37.8	1318.7	363	82.0	68-106	5.11	30	
bis(2-Chloroethoxy)methane	966	µg/kg	187	1318.7	ND	73.3	54-102	19.9	30	
bis(2-Chloroethyl) ether	940	µg/kg	187	1318.7	ND	71.3	51-101	2.05	30	
Butyl benzyl phthalate	1290	µg/kg	378	1318.7	ND	98.0	59-107	15.1	30	
Caprolactam	877	µg/kg	187	1318.7	ND	66.5	49-103	14.0	30	
Carbazole	1120	µg/kg	187	1318.7	<187	80.8	63-103	13.2	30	
Chrysene	1380	µg/kg	37.8	1318.7	624	63.7	66-105	2.79	30	S
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1420	µg/kg	187	1318.7	212	94.0	63-101	17.4	30	
Dibenz(a,h) anthracene	1130	µg/kg	187	1318.7	<187	81.3	61-109	7.57	30	
Dibenzofuran	1050	µg/kg	187	1318.7	ND	79.5	61-101	5.19	30	
Diethyl phthalate	1090	µg/kg	187	1318.7	ND	82.8	63-105	5.62	30	
Dimethyl phthalate	1060	µg/kg	187	1318.7	ND	80.8	64-104	5.44	30	
Di-n-butyl phthalate	1270	µg/kg	187	1318.7	ND	96.3	66-108	10.4	30	
Di-n-octyl phthalate	1490	µg/kg	187	1318.7	ND	113	53-126	23.2	30	
Fluoranthene	2140	µg/kg	37.8	1318.7	1420	68.7	66-105	1.58	30	
Fluorene	1040	µg/kg	37.8	1318.7	49.2	75.8	62-101	1.95	30	
Hexachlorobenzene	1240	µg/kg	187	1318.7	ND	94.0	61-104	14.0	30	
Hexachlorobutadiene	1060	µg/kg	187	1318.7	ND	80.5	52-99	4.47	30	
Hexachlorocyclopentadiene	336	µg/kg	187	1318.7	ND	25.5	39-106	21.0	30	S
Hexachloroethane	923	µg/kg	187	1318.7	ND	70.0	59-99	5.52	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2180635

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3442024

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2180635-006
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Method: EPA 8270E

Dilution: 5

Analysis Date: 08/27/25 22:39

Prep Date: 08/25/25 16:40

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Indeno(1,2,3-cd) pyrene	1540	µg/kg	37.8	1318.7	492	84.0	57-114	6.91	30	
Isophorone	953	µg/kg	945	1318.7	ND	72.3	55-101	0.819	30	
Methylphenol, Total	1720	µg/kg	187	2638.3	ND	65.1	54-103	2.56	30	
Naphthalene	950	µg/kg	37.8	1318.7	ND	70.8	54-99	4.65	30	
Nitrobenzene	1060	µg/kg	945	1318.7	ND	80.3	53-100	6.79	30	
n-Nitrosodi-n-propylamine	940	µg/kg	187	1318.7	ND	71.3	52-104	3.76	30	
N-Nitrosodiphenylamine	1080	µg/kg	187	1318.7	ND	82.3	61-104	2.49	30	
Pentachlorophenol	673	µg/kg	187	1318.7	ND	51.0	35-100	21.2	30	
Phenanthrene	1420	µg/kg	37.8	1318.7	484	75.5	64-101	0.496	30	
Phenol	795	µg/kg	187	1318.7	ND	60.3	51-107	3.23	30	
Pyrene	1870	µg/kg	37.8	1318.7	1290	56.2	52-114	4.29	30	
Pyridine	ND	µg/kg	945	1318.7	ND	53.8	40-84	0.0303	30	
Surr: 2,4,6-Tribromophenol	3120	µg/kg		3297.2		94.5	48-94	14.2	30	S
Surr: 2-Fluorobiphenyl	2410	µg/kg		3297.2		73.2	50-103	1.54	30	
Surr: 2-Fluorophenol	1790	µg/kg		3297.2		54.4	43-105	9.93	30	
Surr: 4-Terphenyl-d14	2690	µg/kg		3297.2		81.6	55-111	9.66	30	
Surr: Nitrobenzene-d5	2540	µg/kg		3297.2		76.9	47-100	1.74	30	
Surr: Phenol-d6	1980	µg/kg		3297.2		59.9	49-110	2.12	30	

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

Volatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2155600-001
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/14/25 13:51**Prep Date:** 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	µg/kg	30.0							
1,1,2,2-Tetrachloroethane	ND	µg/kg	30.0							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	µg/kg	30.0							
1,1,2-Trichloroethane	ND	µg/kg	30.0							
1,1-Dichloroethane	ND	µg/kg	30.0							
1,1-Dichloroethylene	ND	µg/kg	30.0							
1,2,3-Trichlorobenzene	ND	µg/kg	100							
1,2,3-Trichloropropane	ND	µg/kg	30.0							
1,2,4-Trichlorobenzene	ND	µg/kg	100							
1,2,4-Trimethylbenzene	ND	µg/kg	30.0							
1,2-Dibromo-3-chloropropane (DBCP)	ND	µg/kg	100							
1,2-Dibromoethane (EDB, Ethylene dibromide)	ND	µg/kg	30.0							
1,2-Dichlorobenzene (o-Dichlorobenzene)	ND	µg/kg	30.0							
1,2-Dichloroethane (Ethylene dichloride)	ND	µg/kg	100							
1,2-Dichloropropane	ND	µg/kg	30.0							
1,3,5-Trimethylbenzene	ND	µg/kg	100							
1,3-Dichlorobenzene (m-Dichlorobenzene)	ND	µg/kg	30.0							
1,3-Dichloropropene	ND	µg/kg	60.0							
1,4-Dichlorobenzene (p-Dichlorobenzene)	ND	µg/kg	30.0							
2-Butanone (Methyl ethyl ketone, MEK)	ND	µg/kg	200							
2-Hexanone	ND	µg/kg	30.0							
4-Methyl-2-pentanone (MIBK)	ND	µg/kg	30.0							
Acetone	ND	µg/kg	100							
Benzene	ND	µg/kg	30.0							
Bromochloromethane	ND	µg/kg	30.0							
Bromodichloromethane	ND	µg/kg	30.0							
Bromoform	ND	µg/kg	30.0							
Carbon disulfide	ND	µg/kg	30.0							
Carbon tetrachloride	ND	µg/kg	30.0							
Chlorobenzene	ND	µg/kg	30.0							
Chlorodibromomethane	ND	µg/kg	30.0							
Chloroethane (Ethyl chloride)	ND	µg/kg	100							
Chloroform	ND	µg/kg	30.0							
cis & trans-1,2-Dichloroethene	ND	µg/kg	60.0							
cis-1,2-Dichloroethylene	ND	µg/kg	30.0							
cis-1,3-Dichloropropene	ND	µg/kg	30.0							
Cyclohexane	ND	µg/kg	100							
Dichlorodifluoromethane (Freon-12)	ND	µg/kg	100							

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

MB	CLIENT ID: Method Blank	Lab ID: QC-2155600-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/14/25 13:51

Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Ethylbenzene	ND	µg/kg	30.0							
Isopropylbenzene	ND	µg/kg	30.0							
m+p-Xylene	ND	µg/kg	60.0							
Methyl acetate	ND	µg/kg	250							
Methyl bromide (Bromomethane)	ND	µg/kg	100							
Methyl chloride (Chloromethane)	ND	µg/kg	100							
Methyl tert-butyl ether (MTBE)	ND	µg/kg	30.0							
Methylcyclohexane	ND	µg/kg	30.0							
Methylene chloride (Dichloromethane)	ND	µg/kg	250							
o-Xylene	ND	µg/kg	30.0							
Styrene	ND	µg/kg	30.0							
Tetrachloroethylene (Perchloroethylene)	ND	µg/kg	30.0							
Toluene	ND	µg/kg	30.0							
Total Xylene	ND	µg/kg	90.0							
trans-1,2-Dichloroethylene	ND	µg/kg	30.0							
trans-1,3-Dichloropropylene	ND	µg/kg	30.0							
Trichloroethene (Trichloroethylene)	ND	µg/kg	30.0							
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	ND	µg/kg	30.0							
Vinyl chloride (Chloroethene)	ND	µg/kg	30.0							
Surr: 1,2-Dichloroethane-d4	986	µg/kg		1000		98.6	80-120			
Surr: 4-Bromofluorobenzene	896	µg/kg		1000		89.6	80-120			
Surr: Dibromofluoromethane	920	µg/kg		1000		92.0	80-120			
Surr: Toluene-d8	1030	µg/kg		1000		103	80-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2155600-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/14/25 13:03

Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	883	µg/kg	30.0	1000		88.3	75-121			
1,1,2,2-Tetrachloroethane	878	µg/kg	30.0	1000		87.8	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	896	µg/kg	30.0	1000		89.6	62-129			
1,1,2-Trichloroethane	896	µg/kg	30.0	1000		89.6	80-123			
1,1-Dichloroethane	898	µg/kg	30.0	1000		89.8	74-124			
1,1-Dichloroethylene	894	µg/kg	30.0	1000		89.4	68-131			
1,2,3-Trichlorobenzene	892	µg/kg	100	1000		89.2	60-135			
1,2,3-Trichloropropane	774	µg/kg	30.0	1000		77.4	77-121			
1,2,4-Trichlorobenzene	870	µg/kg	100	1000		87.0	63-130			
1,2,4-Trimethylbenzene	850	µg/kg	30.0	1000		85.0	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	820	µg/kg	100	1000		82.0	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	846	µg/kg	30.0	1000		84.6	63-155			



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2155600-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/14/25 13:03

Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichlorobenzene (o-Dichlorobenzene)	900	µg/kg	30.0	1000		90.0	77-122			
1,2-Dichloroethane (Ethylene dichloride)	884	µg/kg	100	1000		88.4	70-130			
1,2-Dichloropropane	922	µg/kg	30.0	1000		92.2	71-130			
1,3,5-Trimethylbenzene	869	µg/kg	100	1000		86.9	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	868	µg/kg	30.0	1000		86.8	78-121			
1,3-Dichloropropene	1750	µg/kg	60.0	2000		87.4	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	876	µg/kg	30.0	1000		87.6	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	885	µg/kg	200	1000		88.5	47-164			
2-Hexanone	982	µg/kg	30.0	1000		98.2	70-137			
4-Methyl-2-pentanone (MIBK)	1390	µg/kg	30.0	1000		139	57-200			
Acetone	1040	µg/kg	100	1000		104	52-190			
Benzene	916	µg/kg	30.0	1000		91.6	78-122			
Bromochloromethane	826	µg/kg	30.0	1000		82.6	68-130			
Bromodichloromethane	906	µg/kg	30.0	1000		90.6	75-125			
Bromoform	854	µg/kg	30.0	1000		85.4	59-120			
Carbon disulfide	1020	µg/kg	30.0	1000		102	60-163			
Carbon tetrachloride	1070	µg/kg	30.0	1000		107	69-123			
Chlorobenzene	884	µg/kg	30.0	1000		88.4	79-120			
Chlorodibromomethane	846	µg/kg	30.0	1000		84.6	57-123			
Chloroethane (Ethyl chloride)	867	µg/kg	100	1000		86.7	38-132			
Chloroform	890	µg/kg	30.0	1000		89.0	72-122			
cis & trans-1,2-Dichloroethene	1790	µg/kg	60.0	2000		89.6	72-127			
cis-1,2-Dichloroethylene	882	µg/kg	30.0	1000		88.2	74-125			
cis-1,3-Dichloropropene	928	µg/kg	30.0	1000		92.8	62-124			
Dichlorodifluoromethane (Freon-12)	923	µg/kg	100	1000		92.3	28-137			
Ethylbenzene	894	µg/kg	30.0	1000		89.4	75-121			
Isopropylbenzene	880	µg/kg	30.0	1000		88.0	74-121			
m+p-Xylene	1780	µg/kg	60.0	2000		88.8	67-129			
Methyl acetate	620	µg/kg	250	1000		62.0	61-125			
Methyl bromide (Bromomethane)	919	µg/kg	100	1000		91.9	31-169			
Methyl chloride (Chloromethane)	803	µg/kg	100	1000		80.3	24-119			
Methyl tert-butyl ether (MTBE)	998	µg/kg	30.0	1000		99.8	79-139			
Methylene chloride (Dichloromethane)	994	µg/kg	250	1000		99.4	62-135			
o-Xylene	925	µg/kg	30.0	1000		92.5	75-120			
Styrene	892	µg/kg	30.0	1000		89.2	74-126			
Tetrachloroethylene (Perchloroethylene)	924	µg/kg	30.0	1000		92.4	76-128			
Toluene	917	µg/kg	30.0	1000		91.7	76-120			
Total Xylene	2700	µg/kg	90.0	3000		90.0	67-129			
trans-1,2-Dichloroethylene	910	µg/kg	30.0	1000		91.0	72-127			
trans-1,3-Dichloropropylene	820	µg/kg	30.0	1000		82.0	66-120			
Trichloroethene (Trichloroethylene)	862	µg/kg	30.0	1000		86.2	75-122			



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2155600-002
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Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 08/14/25 13:03
Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Trichlorofluoromethane	739	µg/kg	30.0	1000		73.9	51-115			
(Fluorotrichloromethane, Freon 11)										
Vinyl chloride (Chloroethene)	966	µg/kg	30.0	1000		96.6	43-128			
Surr: 1,2-Dichloroethane-d4	946	µg/kg		1000		94.6	80-120			
Surr: 4-Bromofluorobenzene	976	µg/kg		1000		97.6	80-120			
Surr: Dibromofluoromethane	1070	µg/kg		1000		107	80-120			
Surr: Toluene-d8	962	µg/kg		1000		96.2	80-120			

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2155600-005
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Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 08/14/25 20:18
Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	802	µg/kg	37.5	960.61	ND	83.4	75-121			
1,1,2,2-Tetrachloroethane	793	µg/kg	37.5	960.61	ND	82.6	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	807	µg/kg	37.5	960.61	ND	84.0	62-129			
1,1,2-Trichloroethane	876	µg/kg	37.5	960.61	ND	91.2	80-123			
1,1-Dichloroethane	892	µg/kg	37.5	960.61	ND	92.8	74-124			
1,1-Dichloroethylene	914	µg/kg	37.5	960.61	ND	95.2	68-131			
1,2,3-Trichlorobenzene	982	µg/kg	125	960.61	ND	102	60-135			
1,2,3-Trichloropropane	802	µg/kg	37.5	960.61	ND	83.4	77-121			
1,2,4-Trichlorobenzene	986	µg/kg	125	960.61	ND	103	63-130			
1,2,4-Trimethylbenzene	887	µg/kg	37.5	960.61	ND	90.3	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	885	µg/kg	125	960.61	ND	92.2	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	787	µg/kg	37.5	960.61	ND	82.0	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	911	µg/kg	37.5	960.61	ND	94.8	77-122			
1,2-Dichloroethane (Ethylene dichloride)	866	µg/kg	125	960.61	ND	90.2	70-130			
1,2-Dichloropropane	911	µg/kg	37.5	960.61	ND	94.8	71-130			
1,3,5-Trimethylbenzene	917	µg/kg	125	960.61	ND	95.4	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	824	µg/kg	37.5	960.61	ND	85.8	78-121			
1,3-Dichloropropene	1550	µg/kg	74.9	1921.2	ND	80.7	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	861	µg/kg	37.5	960.61	ND	89.6	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1120	µg/kg	250	960.61	ND	116	47-164			
2-Hexanone	1250	µg/kg	37.5	960.61	ND	130	70-137			
4-Methyl-2-pentanone (MIBK)	1360	µg/kg	37.5	960.61	ND	141	57-200			
Acetone	1470	µg/kg	125	960.61	ND	146	52-190			
Benzene	948	µg/kg	37.5	960.61	ND	98.7	78-122			
Bromochloromethane	860	µg/kg	37.5	960.61	ND	89.6	68-130			
Bromodichloromethane	817	µg/kg	37.5	960.61	ND	85.1	75-125			
Bromoform	766	µg/kg	37.5	960.61	ND	79.8	59-120			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

MS	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2155600-005
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/14/25 20:18**Prep Date:** 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Carbon disulfide	917	µg/kg	37.5	960.61	ND	95.4	60-163			
Carbon tetrachloride	1080	µg/kg	37.5	960.61	ND	112	69-123			
Chlorobenzene	909	µg/kg	37.5	960.61	ND	94.6	79-120			
Chlorodibromomethane	710	µg/kg	37.5	960.61	ND	74.0	57-123			
Chloroethane (Ethyl chloride)	857	µg/kg	125	960.61	ND	89.2	38-132			
Chloroform	841	µg/kg	37.5	960.61	ND	87.6	72-122			
cis & trans-1,2-Dichloroethene	1720	µg/kg	74.9	1921.2	ND	89.7	72-127			
cis-1,2-Dichloroethylene	854	µg/kg	37.5	960.61	ND	88.9	74-125			
cis-1,3-Dichloropropene	848	µg/kg	37.5	960.61	ND	88.2	62-124			
Dichlorodifluoromethane (Freon-12)	1180	µg/kg	125	960.61	ND	123	28-137			
Ethylbenzene	929	µg/kg	37.5	960.61	ND	96.8	75-121			
Isopropylbenzene	920	µg/kg	37.5	960.61	ND	95.8	74-121			
m+p-Xylene	1830	µg/kg	74.9	1921.2	ND	95.4	67-129			
Methyl bromide (Bromomethane)	1070	µg/kg	125	960.61	ND	111	31-169			
Methyl chloride (Chloromethane)	1130	µg/kg	125	960.61	ND	118	24-119			
Methyl tert-butyl ether (MTBE)	950	µg/kg	37.5	960.61	ND	99.0	79-139			
Methylene chloride (Dichloromethane)	840	µg/kg	312	960.61	ND	87.4	62-135			
o-Xylene	900	µg/kg	37.5	960.61	ND	93.8	75-120			
Styrene	845	µg/kg	37.5	960.61	ND	88.0	74-126			
Tetrachloroethylene (Perchloroethylene)	1650	µg/kg	37.5	960.61	ND	172	76-128			S
Toluene	974	µg/kg	37.5	960.61	ND	101	76-120			
Total Xylene	2730	µg/kg	112	2881.8	ND	94.8	67-129			
trans-1,2-Dichloroethylene	870	µg/kg	37.5	960.61	ND	90.6	72-127			
trans-1,3-Dichloropropylene	702	µg/kg	37.5	960.61	ND	73.1	66-120			
Trichloroethene (Trichloroethylene)	956	µg/kg	37.5	960.61	ND	99.6	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	995	µg/kg	37.5	960.61	ND	104	51-115			
Vinyl chloride (Chloroethene)	1080	µg/kg	37.5	960.61	ND	112	43-128			
Surr: 1,2-Dichloroethane-d4	934	µg/kg		960.61		97.2	80-120			
Surr: 4-Bromofluorobenzene	933	µg/kg		960.61		97.2	80-120			
Surr: Dibromofluoromethane	969	µg/kg		960.61		101	80-120			
Surr: Toluene-d8	982	µg/kg		960.61		102	80-120			

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2155600-006
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 08/14/25 20:34**Prep Date:** 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	807	µg/kg	37.5	960.61	ND	84.0	75-121	0.657	30	
1,1,2,2-Tetrachloroethane	903	µg/kg	37.5	960.61	ND	94.0	79-125	13.0	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	937	µg/kg	37.5	960.61	ND	97.6	62-129	14.9	30	
1,1,2-Trichloroethane	893	µg/kg	37.5	960.61	ND	93.0	80-123	1.84	30	
1,1-Dichloroethane	874	µg/kg	37.5	960.61	ND	91.0	74-124	2.01	30	
1,1-Dichloroethylene	936	µg/kg	37.5	960.61	ND	97.4	68-131	2.34	30	



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2155600-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/14/25 20:34

Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2,3-Trichlorobenzene	1030	µg/kg	125	960.61	ND	108	60-135	5.05	30	
1,2,3-Trichloropropane	938	µg/kg	37.5	960.61	ND	97.6	77-121	15.7	30	
1,2,4-Trichlorobenzene	969	µg/kg	125	960.61	ND	101	63-130	1.77	30	
1,2,4-Trimethylbenzene	991	µg/kg	37.5	960.61	ND	101	64-126	11.1	30	
1,2-Dibromo-3-chloropropane (DBCP)	849	µg/kg	125	960.61	ND	88.4	55-135	4.15	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	837	µg/kg	37.5	960.61	ND	87.1	63-155	6.09	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	885	µg/kg	37.5	960.61	ND	92.1	77-122	2.94	30	
1,2-Dichloroethane (Ethylene dichloride)	859	µg/kg	125	960.61	ND	89.4	70-130	0.835	30	
1,2-Dichloropropane	893	µg/kg	37.5	960.61	ND	93.0	71-130	1.97	30	
1,3,5-Trimethylbenzene	970	µg/kg	125	960.61	ND	101	66-130	5.65	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	878	µg/kg	37.5	960.61	ND	91.4	78-121	6.26	30	
1,3-Dichloropropene	1600	µg/kg	74.9	1921.2	ND	83.6	62-124	3.50	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	864	µg/kg	37.5	960.61	ND	89.9	78-122	0.278	30	
2-Butanone (Methyl ethyl ketone, MEK)	1030	µg/kg	250	960.61	ND	107	47-164	8.54	30	
2-Hexanone	1320	µg/kg	37.5	960.61	ND	137	70-137	5.57	30	
4-Methyl-2-pentanone (MIBK)	1510	µg/kg	37.5	960.61	ND	158	57-200	11.0	30	
Acetone	1370	µg/kg	125	960.61	ND	136	52-190	6.82	30	
Benzene	986	µg/kg	37.5	960.61	ND	103	78-122	3.87	30	
Bromochloromethane	814	µg/kg	37.5	960.61	ND	84.8	68-130	5.51	30	
Bromodichloromethane	858	µg/kg	37.5	960.61	ND	89.4	75-125	4.87	30	
Bromoform	826	µg/kg	37.5	960.61	ND	86.0	59-120	7.48	30	
Carbon disulfide	986	µg/kg	37.5	960.61	ND	103	60-163	7.22	30	
Carbon tetrachloride	1100	µg/kg	37.5	960.61	ND	115	69-123	1.98	30	
Chlorobenzene	939	µg/kg	37.5	960.61	ND	97.8	79-120	3.27	30	
Chlorodibromomethane	770	µg/kg	37.5	960.61	ND	80.2	57-123	8.05	30	
Chloroethane (Ethyl chloride)	878	µg/kg	125	960.61	ND	91.4	38-132	2.38	30	
Chloroform	854	µg/kg	37.5	960.61	ND	89.0	72-122	1.53	30	
cis & trans-1,2-Dichloroethene	1730	µg/kg	74.9	1921.2	ND	90.0	72-127	0.306	30	
cis-1,2-Dichloroethylene	894	µg/kg	37.5	960.61	ND	93.1	74-125	4.62	30	
cis-1,3-Dichloropropene	880	µg/kg	37.5	960.61	ND	91.6	62-124	3.72	30	
Dichlorodifluoromethane (Freon-12)	1150	µg/kg	125	960.61	ND	119	28-137	2.89	30	
Ethylbenzene	976	µg/kg	37.5	960.61	ND	102	75-121	4.84	30	
Isopropylbenzene	1000	µg/kg	37.5	960.61	ND	104	74-121	8.60	30	
m+p-Xylene	1960	µg/kg	74.9	1921.2	ND	102	67-129	6.74	30	
Methyl bromide (Bromomethane)	997	µg/kg	125	960.61	ND	104	31-169	6.98	30	
Methyl chloride (Chloromethane)	1070	µg/kg	125	960.61	ND	111	24-119	5.72	30	
Methyl tert-butyl ether (MTBE)	911	µg/kg	37.5	960.61	ND	94.8	79-139	4.23	30	
Methylene chloride (Dichloromethane)	864	µg/kg	312	960.61	ND	90.0	62-135	2.87	30	
o-Xylene	998	µg/kg	37.5	960.61	ND	104	75-120	10.3	30	
Styrene	968	µg/kg	37.5	960.61	ND	101	74-126	13.6	30	



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2155600

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3402646

MSD	CLIENT ID: 5161 SB01 (1-2)	Lab ID: QC-2155600-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/14/25 20:34

Prep Date: 08/12/25 13:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Tetrachloroethylene (Perchloroethylene)	1820	µg/kg	37.5	960.61	ND	189	76-128	9.56	30	S
Toluene	997	µg/kg	37.5	960.61	ND	104	76-120	2.34	30	
Total Xylene	2960	µg/kg	112	2881.8	ND	103	67-129	7.93	30	
trans-1,2-Dichloroethylene	835	µg/kg	37.5	960.61	ND	86.9	72-127	4.11	30	
trans-1,3-Dichloropropylene	725	µg/kg	37.5	960.61	ND	75.5	66-120	3.23	30	
Trichloroethene (Trichloroethylene)	965	µg/kg	37.5	960.61	ND	100	75-122	0.950	30	
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	990	µg/kg	37.5	960.61	ND	103	51-115	0.484	30	
Vinyl chloride (Chloroethene)	1070	µg/kg	37.5	960.61	ND	111	43-128	0.760	30	
Surr: 1,2-Dichloroethane-d4	977	µg/kg		960.61		102	80-120	4.47	30	
Surr: 4-Bromofluorobenzene	959	µg/kg		960.61		99.8	80-120	2.74	30	
Surr: Dibromofluoromethane	1000	µg/kg		960.61		105	80-120	3.75	30	
Surr: Toluene-d8	1020	µg/kg		960.61		106	80-120	4.07	30	

The following samples were analyzed in this batch: HN2511204-001, HN2511204-002, HN2511204-003



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2166529

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3413473

Volatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2166529-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/19/25 12:36

Prep Date: 08/18/25 14:23

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	µg/kg	30.0							
1,1,2,2-Tetrachloroethane	ND	µg/kg	30.0							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	µg/kg	30.0							
1,1,2-Trichloroethane	ND	µg/kg	30.0							
1,1-Dichloroethane	ND	µg/kg	30.0							
1,1-Dichloroethylene	ND	µg/kg	30.0							
1,2,3-Trichlorobenzene	ND	µg/kg	100							
1,2,3-Trichloropropane	ND	µg/kg	30.0							
1,2,4-Trichlorobenzene	ND	µg/kg	100							
1,2,4-Trimethylbenzene	ND	µg/kg	30.0							
1,2-Dibromo-3-chloropropane (DBCP)	ND	µg/kg	100							
1,2-Dibromoethane (EDB, Ethylene dibromide)	ND	µg/kg	30.0							
1,2-Dichlorobenzene (o-Dichlorobenzene)	ND	µg/kg	30.0							
1,2-Dichloroethane (Ethylene dichloride)	ND	µg/kg	100							
1,2-Dichloropropane	ND	µg/kg	30.0							
1,3,5-Trimethylbenzene	ND	µg/kg	100							
1,3-Dichlorobenzene (m-Dichlorobenzene)	ND	µg/kg	30.0							
1,3-Dichloropropene	ND	µg/kg	60.0							
1,4-Dichlorobenzene (p-Dichlorobenzene)	ND	µg/kg	30.0							
2-Butanone (Methyl ethyl ketone, MEK)	ND	µg/kg	200							
2-Hexanone	ND	µg/kg	30.0							
4-Methyl-2-pentanone (MIBK)	ND	µg/kg	30.0							
Acetone	ND	µg/kg	100							
Benzene	ND	µg/kg	30.0							
Bromochloromethane	ND	µg/kg	30.0							
Bromodichloromethane	ND	µg/kg	30.0							
Bromoform	ND	µg/kg	30.0							
Carbon disulfide	ND	µg/kg	30.0							
Carbon tetrachloride	ND	µg/kg	30.0							
Chlorobenzene	ND	µg/kg	30.0							
Chlorodibromomethane	ND	µg/kg	30.0							
Chloroethane (Ethyl chloride)	ND	µg/kg	100							
Chloroform	ND	µg/kg	30.0							
cis & trans-1,2-Dichloroethene	ND	µg/kg	60.0							
cis-1,2-Dichloroethylene	ND	µg/kg	30.0							
cis-1,3-Dichloropropene	ND	µg/kg	30.0							
Cyclohexane	ND	µg/kg	100							
Dichlorodifluoromethane (Freon-12)	ND	µg/kg	100							

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2166529

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3413473

MB	CLIENT ID: Method Blank	Lab ID: QC-2166529-001
----	-------------------------	------------------------

Method: EPA 8260D

Dilution: 1

Analysis Date: 08/19/25 12:36

Prep Date: 08/18/25 14:23

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Ethylbenzene	ND	µg/kg	30.0							
Isopropylbenzene	ND	µg/kg	30.0							
m+p-Xylene	ND	µg/kg	60.0							
Methyl acetate	ND	µg/kg	250							
Methyl bromide (Bromomethane)	ND	µg/kg	100							
Methyl chloride (Chloromethane)	ND	µg/kg	100							
Methyl tert-butyl ether (MTBE)	ND	µg/kg	30.0							
Methylcyclohexane	ND	µg/kg	30.0							
Methylene chloride (Dichloromethane)	ND	µg/kg	250							
o-Xylene	ND	µg/kg	30.0							
Styrene	ND	µg/kg	30.0							
Tetrachloroethylene (Perchloroethylene)	ND	µg/kg	30.0							
Toluene	ND	µg/kg	30.0							
Total Xylene	ND	µg/kg	90.0							
trans-1,2-Dichloroethylene	ND	µg/kg	30.0							
trans-1,3-Dichloropropylene	ND	µg/kg	30.0							
Trichloroethene (Trichloroethylene)	ND	µg/kg	30.0							
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	ND	µg/kg	30.0							
Vinyl chloride (Chloroethene)	ND	µg/kg	30.0							
Surr: 1,2-Dichloroethane-d4	981	µg/kg		1000		98.1	80-120			
Surr: 4-Bromofluorobenzene	948	µg/kg		1000		94.8	80-120			
Surr: Dibromofluoromethane	881	µg/kg		1000		88.1	72-120			
Surr: Toluene-d8	1000	µg/kg		1000		100	80-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2166529-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/19/25 12:36

Prep Date: 08/18/25 14:23

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	932	µg/kg	30.0	1000		93.2	75-121			
1,1,2,2-Tetrachloroethane	1020	µg/kg	30.0	1000		102	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	995	µg/kg	30.0	1000		99.5	62-129			
1,1,2-Trichloroethane	968	µg/kg	30.0	1000		96.8	80-123			
1,1-Dichloroethane	964	µg/kg	30.0	1000		96.4	74-124			
1,1-Dichloroethylene	912	µg/kg	30.0	1000		91.2	68-131			
1,2,3-Trichlorobenzene	1100	µg/kg	100	1000		110	60-135			
1,2,3-Trichloropropane	968	µg/kg	30.0	1000		96.8	77-121			
1,2,4-Trichlorobenzene	1080	µg/kg	100	1000		108	63-130			
1,2,4-Trimethylbenzene	1020	µg/kg	30.0	1000		102	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	998	µg/kg	100	1000		99.8	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	943	µg/kg	30.0	1000		94.3	63-155			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2166529

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3413473

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2166529-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/19/25 12:36

Prep Date: 08/18/25 14:23

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichlorobenzene (o-Dichlorobenzene)	1040	µg/kg	30.0	1000		104	77-122			
1,2-Dichloroethane (Ethylene dichloride)	947	µg/kg	100	1000		94.7	70-130			
1,2-Dichloropropane	964	µg/kg	30.0	1000		96.4	71-130			
1,3,5-Trimethylbenzene	1040	µg/kg	100	1000		104	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	1050	µg/kg	30.0	1000		105	78-121			
1,3-Dichloropropene	1660	µg/kg	60.0	2000		83.0	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	1040	µg/kg	30.0	1000		104	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1090	µg/kg	200	1000		109	47-164			
2-Hexanone	1050	µg/kg	30.0	1000		105	70-137			
4-Methyl-2-pentanone (MIBK)	1410	µg/kg	30.0	1000		141	57-200			
Acetone	1180	µg/kg	100	1000		118	52-190			
Benzene	970	µg/kg	30.0	1000		97.0	78-122			
Bromochloromethane	942	µg/kg	30.0	1000		94.2	68-130			
Bromodichloromethane	914	µg/kg	30.0	1000		91.4	75-125			
Bromoform	872	µg/kg	30.0	1000		87.2	59-120			
Carbon disulfide	880	µg/kg	30.0	1000		88.0	60-163			
Carbon tetrachloride	991	µg/kg	30.0	1000		99.1	69-123			
Chlorobenzene	998	µg/kg	30.0	1000		99.8	79-120			
Chlorodibromomethane	772	µg/kg	30.0	1000		77.2	57-123			
Chloroethane (Ethyl chloride)	669	µg/kg	100	1000		66.9	38-132			
Chloroform	929	µg/kg	30.0	1000		92.9	72-122			
cis & trans-1,2-Dichloroethene	1870	µg/kg	60.0	2000		93.4	72-127			
cis-1,2-Dichloroethylene	954	µg/kg	30.0	1000		95.4	74-125			
cis-1,3-Dichloropropene	896	µg/kg	30.0	1000		89.6	62-124			
Dichlorodifluoromethane (Freon-12)	437	µg/kg	100	1000		43.7	28-137			
Ethylbenzene	1010	µg/kg	30.0	1000		101	75-121			
Isopropylbenzene	1040	µg/kg	30.0	1000		104	74-121			
m+p-Xylene	2050	µg/kg	60.0	2000		102	67-129			
Methyl acetate	893	µg/kg	250	1000		89.3	61-125			
Methyl bromide (Bromomethane)	722	µg/kg	100	1000		72.2	31-169			
Methyl chloride (Chloromethane)	650	µg/kg	100	1000		65.0	24-119			
Methyl tert-butyl ether (MTBE)	1010	µg/kg	30.0	1000		101	79-139			
Methylene chloride (Dichloromethane)	950	µg/kg	250	1000		95.0	62-135			
o-Xylene	1020	µg/kg	30.0	1000		102	75-120			
Styrene	1070	µg/kg	30.0	1000		107	74-126			
Tetrachloroethylene (Perchloroethylene)	1040	µg/kg	30.0	1000		104	76-128			
Toluene	994	µg/kg	30.0	1000		99.4	76-120			
Total Xylene	3070	µg/kg	90.0	3000		102	67-129			
trans-1,2-Dichloroethylene	914	µg/kg	30.0	1000		91.4	72-127			
trans-1,3-Dichloropropylene	764	µg/kg	30.0	1000		76.4	66-120			
Trichloroethene (Trichloroethylene)	962	µg/kg	30.0	1000		96.2	75-122			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5161 Martindale
Matrix: SOIL/SOLID
QC Lot: 2166529

Work Order: HN2511204
Date Collected: NA
Date Received: NA
Run ID: 3413473

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2166529-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 08/19/25 12:36

Prep Date: 08/18/25 14:23

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	704	µg/kg	30.0	1000		70.4	51-115			
Vinyl chloride (Chloroethene)	652	µg/kg	30.0	1000		65.2	43-128			
<i>Surr: 1,2-Dichloroethane-d4</i>	1000	<i>µg/kg</i>		1000		100	80-120			
<i>Surr: 4-Bromofluorobenzene</i>	994	<i>µg/kg</i>		1000		99.4	80-120			
<i>Surr: Dibromofluoromethane</i>	1070	<i>µg/kg</i>		1000		107	72-120			
<i>Surr: Toluene-d8</i>	1010	<i>µg/kg</i>		1000		101	80-120			

The following samples were analyzed in this batch: HN2511204-001



right solutions.
right partner.

October 20, 2025

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

Re: **DETR0060**

Date Received: **10/08/2025**
Work Order: **HN2514815**
Revision: **1**

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/ DALE SCHIPPER

Project Manager



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

Work Order: HN2514815
Date Received: 08-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

1 soil/solid sample was received for analysis at ALS Environmental on 08-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.

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Workorder: HN2514815

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2514815-001	5161 S Martindale SB01 TCLP	SOIL/SOLID	10/07/25 10:05	10/08/25 07:00

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

Analytical Report



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

Work Order: HN2514815
Date Collected: 10/07/25 10:05
Date Received: 10/08/25 07:00

CLIENT ID: 5161 S Martindale SB01 TCLP	Lab ID: HN2514815-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
TCLP Metals								
Arsenic	EPA 6020B	ND		mg/L	0.0499	1	10/14/25 18:32	10/12/25 09:34
Chromium	EPA 6020B	ND		mg/L	0.0499	1	10/14/25 18:32	10/12/25 09:34

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2272800

Work Order: HN2514815
Date Collected: NA
Date Received: NA
Run ID: 3584478

TCLP Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2272800-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/13/25 22:50
Prep Date: 10/12/25 09:35

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	ND	mg/L	0.0499							

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2272800-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/13/25 22:52
Prep Date: 10/12/25 09:35

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	0.926	mg/L	0.0499	1		92.6	80-120			

The following samples were analyzed in this batch: HN2514815-001

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060
Matrix: SOIL/SOLID
QC Lot: 2272800

Work Order: HN2514815
Date Collected: NA
Date Received: NA
Run ID: 3586409

TCLP Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2272800-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/14/25 18:14
Prep Date: 10/12/25 09:35

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Spike Amount</u>	<u>Spike Ref. Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>RPD</u>	<u>RPD Limit</u>	<u>Qual</u>
Chromium	ND	mg/L	0.0499							

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2272800-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 10/14/25 18:16
Prep Date: 10/12/25 09:35

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Spike Amount</u>	<u>Spike Ref. Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>RPD</u>	<u>RPD Limit</u>	<u>Qual</u>
Chromium	0.932	mg/L	0.0499	1		93.2	80-120			

The following samples were analyzed in this batch: HN2514815-001

ANALYST SUMMARY



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

Work Order: HN2514815

Sample Name: 5161 S Martindale SB01 TCLP
Laboratory Code: HN2514815-001
Sample Matrix: SOIL/SOLID

Date Collected: 10/07/25
Date Received: 10/08/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6020B	EPA 3015A	001-AD	2272800	Nicolee Allen	3586409	Denise Coffey



ALS Environmental

Laboratory location:

Chain of Custody Form

Page 1 of 1

Customer Information		Project Information		Work Order #:	
Purchase Order		Project Name	5161 S. Martindale	A	TCLP Asbestos Arsenic
Work Order	Quote ID - 11631	Project Number	DETR0060	B	
Company Name	Mannik Smith Group	Bill To Company	Mannik Smith Group	C	
Send Report To	Ryan Montri	Invoice Attn.		D	
Address	2365 South Haggerty Road	Address	2365 South Haggerty Road	E	
City/State/Zip	Canton, MI 48188	City/State/Zip	Canton, MI 48188	F	
Phone	734-397-3100	Phone	734-397-3100	G	
Fax		Fax		H	
e-Mail Address	rmontri@manniksmithgroup.com	e-Mail Address		I	
				J	

Environmental Division
Holland
Work Order Reference
HN2514815

Telephone : +1 616 399 6070

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	Hold
1	5161 S Martindale SBO1 TCLP	10/7/25	10:05	Soil		2	X					
2												
3												
4												
5												
6												
7												
8												
9												
10												

Sampler(s): Please Print & Sign
Shannon Kaczmarek
Shipment Method:
Required Turnaround Time:
☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour
Results Due Date:

Relinquished by: Shannon Kaczmarek
Date: 10/7/25 Time: 1440
Received by: Edward Basny
Date: 10/7/25 Time: 1529
Notes: Rel: 10/7/25 1700
Rel: 10/7/25 1700
Cooler Temp. 127
1.5c
QC Package: (Check Box Below)
☐ Level II: Standard QC
☐ Level III: Std QC + Raw Data
☐ Level IV: SW846 CLP-Like
TRRP-Checklist
TRRP Level IV
Other:

Logged by (Laboratory): BH
Date: 10/8/25 Time: 11:27
Checked by (Laboratory):
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

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: Brittany H

Date/Time: 10/8/25 0700

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): 1.5/1.5c

Thermometer(s): 127

Sample(s) received on ice? (Yes) / No

Matrix/Matrices: Soil

Cooler(s)/Kit(s): 1

Date/Time sample(s) sent to storage: 10/8/25 11:27

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:



right solutions.
right partner.

November 07, 2025

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

Re: **DETR0060 - 5161 S. Martindale**

Date Received: **10/28/2025**

Work Order: **HN2516051**

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

Kathy Jones-Gronda

/S/ KATHY JONES-GRONDA

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale

Work Order: HN2516051
Date Received: 28-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

1 soil/solid sample was received for analysis at ALS Environmental on 28-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 8081B-3546-S (High)

Run ID: 3660741

The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: See QC

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: trans-Chlordane

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: See QC

The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: See QC

HN2516051-001: The reporting limit is elevated due to dilution needed to eliminate matrix-related interference.

HN2516051-001: One or more surrogate recoveries were below the lower control limits. The sample results may be biased low.

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: 5161 S Martindale SB01(1-2')-R

Lab ID: HN2516051-001

Analyte	Results	Flag	MRL	Units	Method
4,4'-DDE	310		114	µg/kg	EPA 8081B
Chlordane, Technical	736		28.6	µg/kg	EPA 8081B
cis-Chlordane	182		114	µg/kg	EPA 8081B
Percent Moisture	13.6		0.1	%	EPA 3550C
trans-Chlordane	132	S	114	µg/kg	EPA 8081B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Workorder: HN2516051

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2516051-001	5161 S Martindale SB01(1-2') -R	SOIL/SOLID	10/27/25 11:23	10/28/25 06:00



ALS Holland Sample Receiving Checklist

Received by: Bittany H

Date/Time: 10/28/25 0600

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): 5.8 / 5.8c

Thermometer(s): 127

Sample(s) received on ice? Yes / No

Matrix/Matrices: Soil

Cooler(s)/Kit(s): 1

Date/Time sample(s) sent to storage: 10/28/25 0802

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 - 5161 S. Martindale

Work Order: HN2516051

Sample Name: 5161 S Martindale SB01(1-2')-R
Laboratory Code: HN2516051-001
Sample Matrix: SOIL/SOLID

Date Collected: 10/27/25
Date Received: 10/28/25

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AA	2302720		3631423	Nicole Maleski
EPA 8081B	EPA 3546	001-AA	2314664	Benjamin Farmer	3660741	Sam Bruzan
EPA 8081B	EPA 3546	001-AA	2314664	Benjamin Farmer	3667665	Sam Bruzan
EPA 8151A	Method	001-AA	2309163	Sam Bruzan	3642247	Kathy Malmyga

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID

Work Order: HN2516051
Date Collected: 10/27/25 11:23
Date Received: 10/28/25 06:00

CLIENT ID: 5161 S Martindale SB01(1-2')-R

Lab ID: HN2516051-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.60	U	µg/kg	14.1	1	10/30/25 20:03	10/29/25 10:50
2,4,5-TP (Silvex)	EPA 8151A	<4.64	U	µg/kg	14.1	1	10/30/25 20:03	10/29/25 10:50
2,4-D	EPA 8151A	<7.55	U	µg/kg	28.3	1	10/30/25 20:03	10/29/25 10:50
Surr: DCAA	EPA 8151A	66.0		%REC	10-116	1	10/30/25 20:03	10/29/25 10:50
General Chemistry Parameters								
Percent Moisture	EPA 3550C	13.6		%	0.1	1	10/28/25 11:36	NA
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<73.1	SU	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
4,4'-DDE	EPA 8081B	310		µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
4,4'-DDT	EPA 8081B	<76.1	SU	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Aldrin	EPA 8081B	<74.3	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
alpha-BHC	EPA 8081B	<75.3	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
beta-BHC	EPA 8081B	<75.1	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Chlordane, Technical	EPA 8081B	736		µg/kg	28.6	1	11/06/25 23:01	11/03/25 17:41
cis-Chlordane	EPA 8081B	182		µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
delta-BHC	EPA 8081B	<74.9	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Dieldrin	EPA 8081B	<80.0	SU	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Endosulfan I	EPA 8081B	<76.9	SU	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Endosulfan II	EPA 8081B	<75.8	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Endosulfan sulfate	EPA 8081B	<70.4	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Endrin	EPA 8081B	<92.6	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Endrin aldehyde	EPA 8081B	<72.5	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Endrin ketone	EPA 8081B	<69.6	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
gamma-BHC (Lindane)	EPA 8081B	<75.1	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Heptachlor	EPA 8081B	<73.8	SU	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Heptachlor epoxide	EPA 8081B	<75.7	SU	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Methoxychlor	EPA 8081B	<76.5	U	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41
Toxaphene	EPA 8081B	<124	U	µg/kg	686	10	11/05/25 15:01	11/03/25 17:41
trans-Chlordane	EPA 8081B	132	S	µg/kg	114	10	11/05/25 15:01	11/03/25 17:41

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID

Work Order: HN2516051
Date Collected: 10/27/25 11:23
Date Received: 10/28/25 06:00

CLIENT ID: 5161 S Martindale SB01(1-2')-R

Lab ID: HN2516051-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Surr: Decachlorobiphenyl	EPA 8081B	85.5		%REC	53-151	10	11/05/25 15:01	11/03/25 17:41
Surr: Tetrachloro-m-xylene	EPA 8081B	61.5	S	%REC	67-127	10	11/05/25 15:01	11/03/25 17:41



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2309163

Work Order: HN2516051
Date Collected: NA
Date Received: NA
Run ID: 3642247

Chlorinated Herbicides by GC/ECD

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2309163-002
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Method: EPA 8151A

Dilution: 1

Analysis Date: 10/30/25 16:49

Prep Date: 10/29/25 10:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	30.0	µg/kg	5.00	50		60.0	10-119			
2,4,5-TP (Silvex)	29.0	µg/kg	5.00	50		58.0	10-101			
2,4-D	26.0	µg/kg	10.0	50		52.0	10-128			
Surr: DCAA	27.0	µg/kg		50		54.0	10-116			

MB	CLIENT ID: Method Blank	Lab ID: QC-MRG2-2309163001
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Method: EPA 8151A

Dilution: 1

Analysis Date: 10/30/25 16:36

Prep Date: 10/29/25 10:50

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	<0.920	µg/kg	5.00	0		NC	0-0			U
2,4,5-TP (Silvex)	<1.64	µg/kg	5.00	0		NC	0-0			U
2,4-D	<2.67	µg/kg	10.0	0		NC	0-0			U
Surr: DCAA	30.0	µg/kg		50		60.0	10-116			

The following samples were analyzed in this batch: HN2516051-001



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2302720

Work Order: HN2516051
Date Collected: NA
Date Received: NA
Run ID: 3631423

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2302720-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 10/28/25 11:36
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	<0.1	%	0.1	0		NC	0-0			U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2302720-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 10/28/25 11:36
Prep Date: NA

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

The following samples were analyzed in this batch: HN2516051-001



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2314664

Work Order: HN2516051
Date Collected: NA
Date Received: NA
Run ID: 3660741

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2314664-001
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 11/05/25 14:31**Prep Date:** 11/03/25 17:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	<6.39	µg/kg	10.0	0		NC	0-0			U
4,4'-DDE	<6.59	µg/kg	10.0	0		NC	0-0			U
4,4'-DDT	<6.65	µg/kg	10.0	0		NC	0-0			U
Aldrin	<6.50	µg/kg	10.0	0		NC	0-0			U
alpha-BHC	<6.58	µg/kg	10.0	0		NC	0-0			U
beta-BHC	<6.57	µg/kg	10.0	0		NC	0-0			U
Chlordane, Technical	<9.92	µg/kg	25.0	0		NC	0-0			U
cis-Chlordane	<6.68	µg/kg	10.0	0		NC	0-0			U
delta-BHC	<6.55	µg/kg	10.0	0		NC	0-0			U
Dieldrin	<6.99	µg/kg	10.0	0		NC	0-0			U
Endosulfan I	<6.72	µg/kg	10.0	0		NC	0-0			U
Endosulfan II	<6.62	µg/kg	10.0	0		NC	0-0			U
Endosulfan sulfate	<6.15	µg/kg	10.0	0		NC	0-0			U
Endrin	<8.09	µg/kg	10.0	0		NC	0-0			U
Endrin aldehyde	<6.34	µg/kg	10.0	0		NC	0-0			U
Endrin ketone	<6.08	µg/kg	10.0	0		NC	0-0			U
gamma-BHC (Lindane)	<6.56	µg/kg	10.0	0		NC	0-0			U
Heptachlor	<6.45	µg/kg	10.0	0		NC	0-0			U
Heptachlor epoxide	<6.62	µg/kg	10.0	0		NC	0-0			U
Methoxychlor	<6.69	µg/kg	10.0	0		NC	0-0			U
Toxaphene	<10.8	µg/kg	60.0	0		NC	0-0			U
trans-Chlordane	<6.64	µg/kg	10.0	0		NC	0-0			U
Surr: Decachlorobiphenyl	41.4	µg/kg		33.33		124	53-151			
Surr: Tetrachloro-m-xylene	34.0	µg/kg		33.33		102	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2314664-002
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 11/05/25 14:46**Prep Date:** 11/03/25 17:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	32.6	µg/kg	10.0	33.33		97.7	55-141			
4,4'-DDE	32.6	µg/kg	10.0	33.33		97.8	55-143			
4,4'-DDT	37.0	µg/kg	10.0	33.33		111	50-144			
Aldrin	32.7	µg/kg	10.0	33.33		98.0	57-141			
alpha-BHC	31.8	µg/kg	10.0	33.33		95.4	58-144			
beta-BHC	32.5	µg/kg	10.0	33.33		97.5	55-147			
cis-Chlordane	32.7	µg/kg	10.0	33.33		98.1	58-142			
delta-BHC	26.5	µg/kg	10.0	33.33		79.4	59-142			
Dieldrin	33.1	µg/kg	10.0	33.33		99.2	59-142			
Endosulfan I	32.3	µg/kg	10.0	33.33		96.9	57-145			
Endosulfan II	33.1	µg/kg	10.0	33.33		99.2	58-138			
Endosulfan sulfate	31.8	µg/kg	10.0	33.33		95.6	54-136			
Endrin	35.6	µg/kg	10.0	33.33		107	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2314664

Work Order: HN2516051
Date Collected: NA
Date Received: NA
Run ID: 3660741

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2314664-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 11/05/25 14:46

Prep Date: 11/03/25 17:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin aldehyde	35.1	µg/kg	10.0	33.33		105	41-147			
Endrin ketone	32.6	µg/kg	10.0	33.33		97.7	54-146			
gamma-BHC (Lindane)	32.5	µg/kg	10.0	33.33		97.5	58-145			
Heptachlor	34.8	µg/kg	10.0	33.33		104	51-145			
Heptachlor epoxide	32.8	µg/kg	10.0	33.33		98.4	59-143			
Methoxychlor	36.8	µg/kg	10.0	33.33		111	43-144			
trans-Chlordane	32.8	µg/kg	10.0	33.33		98.5	56-145			
Surr: Decachlorobiphenyl	34.2	µg/kg		33.33		103	51-151			
Surr: Tetrachloro-m-xylene	27.9	µg/kg		33.33		83.6	67-127			

MS	CLIENT ID: 5161 S Martindale SB01(1-2')-R	Lab ID: QC-2314664-005
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Method: EPA 8081B

Dilution: 10

Analysis Date: 11/05/25 15:16

Prep Date: 11/03/25 17:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	<63.5	µg/kg	115	33.094	<63.5	94.8	55-141			U
4,4'-DDE	271	µg/kg	115	33.33	310	NC	55-143			O
4,4'-DDT	<66.0	µg/kg	115	33.094	<66.0	114	50-144			U
Aldrin	<64.5	µg/kg	115	33.094	<64.5	95.5	57-141			U
alpha-BHC	<65.4	µg/kg	115	33.094	<65.4	86.5	58-144			U
beta-BHC	<65.2	µg/kg	115	33.094	<65.2	79.5	55-147			U
cis-Chlordane	148	µg/kg	115	33.33	182	NC	58-142			O
delta-BHC	<65.0	µg/kg	115	33.094	<65.0	74.5	59-142			U
Dieldrin	<69.4	µg/kg	115	33.094	<69.4	92.1	59-142			U
Endosulfan I	<66.7	µg/kg	115	33.094	<66.7	117	57-145			U
Endosulfan II	<65.8	µg/kg	115	33.094	<65.8	96.5	58-138			U
Endosulfan sulfate	<61.1	µg/kg	115	33.094	<61.1	94.5	54-135			U
Endrin	<80.3	µg/kg	115	33.094	<80.3	108	45-150			U
Endrin aldehyde	<62.9	µg/kg	115	33.094	<62.9	98.5	41-147			U
Endrin ketone	<60.4	µg/kg	115	33.094	<60.4	95.5	54-146			U
gamma-BHC (Lindane)	<65.2	µg/kg	115	33.094	<65.2	93.5	58-145			U
Heptachlor	<64.1	µg/kg	115	33.094	<64.1	142	51-145			U
Heptachlor epoxide	<65.7	µg/kg	115	33.094	<65.7	96.1	59-143			U
Methoxychlor	<66.4	µg/kg	115	33.094	<66.4	113	43-144			U
trans-Chlordane	121	µg/kg	115	33.094	132	22.2	56-145			S
Surr: Decachlorobiphenyl	33.4	µg/kg		33.094		101	53-151			
Surr: Tetrachloro-m-xylene	25.0	µg/kg		33.094		75.5	67-127			

MSD	CLIENT ID: 5161 S Martindale SB01(1-2')-R	Lab ID: QC-2314664-006
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Method: EPA 8081B

Dilution: 10

Analysis Date: 11/05/25 15:31

Prep Date: 11/03/25 17:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	136	µg/kg	115	33.109	<63.5	343	55-141	NC		S

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2314664

Work Order: HN2516051
Date Collected: NA
Date Received: NA
Run ID: 3660741

MSD	CLIENT ID: 5161 S Martindale SB01(1-2')-R	Lab ID: QC-2314664-006
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Method: EPA 8081B

Dilution: 10

Analysis Date: 11/05/25 15:31

Prep Date: 11/03/25 17:42

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDE	638	µg/kg	115	33.33	310	NC	55-143	80.6	20	O
4,4'-DDT	187	µg/kg	115	33.109	<66.1	367	50-144	NC		S
Aldrin	<64.6	µg/kg	115	33.109	<64.6	114	57-141	NC		U
alpha-BHC	<65.4	µg/kg	115	33.109	<65.4	91.0	58-144	NC		U
beta-BHC	<65.2	µg/kg	115	33.109	<65.2	107	55-147	NC		U
cis-Chlordane	690	µg/kg	115	33.33	182	NC	58-142	129	20	O
delta-BHC	<65.0	µg/kg	115	33.109	<65.0	76.0	59-142	NC		U
Dieldrin	<69.5	µg/kg	115	33.109	<69.5	201	59-142	NC		SU
Endosulfan I	<66.8	µg/kg	115	33.109	<66.8	189	57-145	NC		SU
Endosulfan II	<65.8	µg/kg	115	33.109	<65.8	108	58-138	NC		U
Endosulfan sulfate	<61.1	µg/kg	115	33.109	<61.1	98.0	54-135	NC		U
Endrin	<80.4	µg/kg	115	33.109	<80.4	120	45-150	NC		U
Endrin aldehyde	<63.0	µg/kg	115	33.109	<63.0	85.5	41-147	NC		U
Endrin ketone	<60.4	µg/kg	115	33.109	<60.4	90.0	54-146	NC		U
gamma-BHC (Lindane)	<65.2	µg/kg	115	33.109	<65.2	98.0	58-145	NC		U
Heptachlor	<64.1	µg/kg	115	33.109	<64.1	157	51-145	NC		SU
Heptachlor epoxide	233	µg/kg	115	33.109	<65.7	584	59-143	NC		S
Methoxychlor	<66.4	µg/kg	115	33.109	<66.4	125	43-144	NC		U
trans-Chlordane	565	µg/kg	115	33.109	132	1360	56-145	129	20	S
Surr: Decachlorobiphenyl	32.1	µg/kg		33.109		97.0	53-151	3.99	30	
Surr: Tetrachloro-m-xylene	23.2	µg/kg		33.109		70.0	67-127	7.51	30	

The following samples were analyzed in this batch: HN2516051-001



right solutions.
right partner.

December 18, 2025

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

Re: **DETR0060 - 5161 S. Martindale**

Date Received: **11/25/2025**
Work Order: **HN2517860**
Revision: **2**

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

Kathy Jones-Gronda

/S/ KATHY JONES-GRONDA

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale

Work Order: HN2517860
Date Received: 25-Nov-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

2 soil/solid samples were received for analysis at ALS Environmental on 25-Nov-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.

WorkOrder: HN2517860

Soil/solid results are reported on a dry-weight basis, corrected using laboratory-determined percent moisture content, unless explicitly identified otherwise.

Analytical report amended to update the description for sample -002; this supersedes the report dated 12 October 2025.

Analytical report amended to include TCLP Pesticide analysis per client's request. This supersedes report dated 12/4/25.

Organics

EPA 8081B-3546-S (High)

Run ID: 3739493

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: 4,4'-DDE, Dieldrin

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

The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: Dieldrin

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: SB-03 (3-5') R			Lab ID: HN2517860-002		
Analyte	Results	Flag	MRL	Units	Method
4,4'-DDE	69.2		28.2	µg/kg	EPA 8081B
4,4'-DDT	86.0		28.2	µg/kg	EPA 8081B
Chlordane, Technical	436		70.6	µg/kg	EPA 8081B
cis-Chlordane	116		28.2	µg/kg	EPA 8081B
Heptachlor epoxide	32.4		28.2	µg/kg	EPA 8081B
Heptachlor epoxide	0.0220		0.00980	µg/L	EPA 8081B
trans-Chlordane	80.3		28.2	µg/kg	EPA 8081B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Workorder: HN2517860

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2517860-001	SB-01 (1-2') R	SOIL/SOLID	11/24/25 10:30	11/25/25 08:00
HN2517860-002	SB-03 (3-5') R	SOIL/SOLID	11/24/25 11:15	11/25/25 08:00



ALS Environmental

Chain of Custody Form

Laboratory location:

Page ____ of ____

Environmental Division

Holland ____

Work Order Reference

HN2517860



Telephone : +1 616 399 6070

Customer Information				Project Information				Parameter/Method Ref											
Purchase Order		Project Name	5161 S Martindale	A	Pesticides														
Work Order	Quote ID - 11631	Project Number	DETR0060	B															
Company Name	Mannik Smith Group	Bill To Company	Mannik Smith Group	C															
Send Report To	Ryan Montri	Invoice Attn		D															
Address	2365 South Haggerty Road	Address	2365 South Haggerty Road	E															
City/State/Zip	Canton, Mi 48188	City/State/Zip	Canton, Mi 48188	F															
Phone	734-397-3100	Phone	734-397-3100	G															
Fax		Fax		H															
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	SB-01 (1-2')R	11/24/25	10:30	S	NA	1	X												
2	SB-02 (3-4')R SB-03 (3-5') R	11/24/25	11:15	S	NA	1	X												
3	OMM 12/17/2025																		
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s): Please Print & Sign				Shipment Method:		Required Turnaround Time:				Other				Results Due Date:					
						☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour													
Relinquished by:		Date:	Time:	Received by:		Notes:													
[Signature]		11/24/25	2:42 pm	[Signature]		11/25/25 0800													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler Temp.													
[Signature]		11/24/25	1700	[Signature]		3.4°C													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check Box Below)													
[Signature]		11/25/25	1050			☐ Level II: Standard QC ☐ TRRP-Checklist													
						☐ Level III: Std QC + Raw Data ☐ TRRP Level IV													
						☐ Level IV: SW846 CLP-Like													
						Other: _____													
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035																			

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 Environmental

Laboratory location:

Chain of Custody Form

Page _____ of _____

Environmental Division

Holland _____

Work Order Reference

HN2517860



Telephone : +1 616 399 6070

Customer Information				Project Information				Parameter/Method Req											
Purchase Order		Project Name	5161 S Martindale	A	Pesticides														
Work Order	Quote ID - 11631	Project Number	DETR0060	B															
Company Name	Mannik Smith Group	Bill To Company	Mannik Smith Group	C															
Send Report To	Ryan Montri	Invoice Attn		D															
Address	2365 South Haggerty Road	Address	2365 South Haggerty Road	E															
				F															
City/State/Zip	Canton, Mi 48188	City/State/Zip	Canton, Mi 48188	G															
Phone	734-397-3100	Phone	734-397-3100	H															
Fax		Fax		I															
e-Mail Address	rmontri@manniksmithgroup.com	e-Mail Address		J															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	SB-01 (1-2')R	11/24/25	10:30	S	NA	1	X												
2	SB-02 (3-4')R	11/24/25	11:15	S	NA	1	X												
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
Sampler(s): Please Print & Sign				Shipment Method:		Required Turnaround Time:				Other				Results Due Date:					
						☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour													
Relinquished by:		Date:	Time:	Received by:		Notes:													
my		11/24/25	2:42 pm	Colin M		11/25/25 0800													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler Temp.													
Colin M		11/24/25	1700	QS		3.4°C													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		QC Package: (Check Box Below)													
RK		11/25/25	1050			☐ Level II: Standard QC ☐ TRRP-Checklist													
						☐ Level III: Std QC + Raw Data ☐ TRRP Level IV													
						☐ Level IV: SW846 CLP-Like													
						Other: _____													
Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035																			

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
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by: Keira

Date/Time: 11/25/25 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): 3.4/3.4°C

Thermometer(s): 127

Sample(s) received on ice? Yes / No

Matrix/Matrices: Soil

Cooler(s)/Kit(s): _____

Date/Time sample(s) sent to storage: 11/25/25 1050

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:

HN-SHT-160-R01, Sample Receipt Checklist

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	09/01/2025	09/01/2027
Kansas	NELAP (Secondary)	E-10411	08/01/2025	07/31/2026
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	07/07/2025	06/30/2026
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	07/01/2025	6/30/2026
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	11/25/2025	07/31/2026
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	08/08/2025	08/31/2026

¹ - Scope available upon request

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale

Work Order: HN2517860

Sample Name: SB-01 (1-2') R **Date Collected:** 11/24/25
Laboratory Code: HN2517860-001 **Date Received:** 11/25/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 8081B	EPA 3546	001-AA	2364772	Rachel Plantinga	3739493	Nathaniel Dietlin
EPA 8081B	EPA 3546	001-AA	2364772	Rachel Plantinga	3742697	Madison VandenBer
EPA 8081B	EPA 3511	001-AC	2376269	Mara Norton	3757753	Sam Bruzan

Sample Name: SB-03 (3-5') R **Date Collected:** 11/24/25
Laboratory Code: HN2517860-002 **Date Received:** 11/25/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 8081B	EPA 3546	002-AA	2364772	Rachel Plantinga	3739493	Nathaniel Dietlin
EPA 8081B	EPA 3546	002-AA	2364772	Rachel Plantinga	3742697	Madison VandenBer
EPA 8081B	EPA 3511	002-AC	2376269	Mara Norton	3757753	Sam Bruzan

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID

Work Order: HN2517860
Date Collected: 11/24/25 10:30
Date Received: 11/25/25 08:00

CLIENT ID: SB-01 (1-2') R

Lab ID: HN2517860-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<16.8	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
4,4'-DDE	EPA 8081B	<17.4	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
4,4'-DDT	EPA 8081B	<17.5	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Aldrin	EPA 8081B	<17.1	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
alpha-BHC	EPA 8081B	<17.3	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
beta-BHC	EPA 8081B	<17.3	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Chlordane, Technical	EPA 8081B	<26.1	U	µg/kg	65.9	1	12/04/25 01:21	12/02/25 12:20
cis-Chlordane	EPA 8081B	<17.6	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
delta-BHC	EPA 8081B	<17.3	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Dieldrin	EPA 8081B	<18.4	SU	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Endosulfan I	EPA 8081B	<17.7	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Endosulfan II	EPA 8081B	<17.5	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Endosulfan sulfate	EPA 8081B	<16.2	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Endrin	EPA 8081B	<21.3	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Endrin aldehyde	EPA 8081B	<16.7	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Endrin ketone	EPA 8081B	<16.0	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
gamma-BHC (Lindane)	EPA 8081B	<17.3	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Heptachlor	EPA 8081B	<17.0	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Heptachlor epoxide	EPA 8081B	<17.4	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Methoxychlor	EPA 8081B	<17.6	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
Toxaphene	EPA 8081B	<28.5	U	µg/kg	158	1	12/03/25 02:26	12/02/25 12:20
trans-Chlordane	EPA 8081B	<17.5	U	µg/kg	26.3	1	12/03/25 02:26	12/02/25 12:20
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	109		%REC	53-151	1	12/03/25 02:26	12/02/25 12:20
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	95.0		%REC	67-127	1	12/03/25 02:26	12/02/25 12:20
TCLP Organochlorine Pesticides by GC/ECD								
Chlordane, Technical	EPA 8081B	<0.0338	U	µg/L	0.497	1	12/10/25 08:44	12/09/25 09:08
Endrin	EPA 8081B	<0.00845	U	µg/L	0.00993	1	12/10/25 08:44	12/09/25 09:08
gamma-BHC (Lindane)	EPA 8081B	<0.00826	U	µg/L	0.00993	1	12/10/25 08:44	12/09/25 09:08
Heptachlor	EPA 8081B	<0.00755	U	µg/L	0.00993	1	12/10/25 08:44	12/09/25 09:08
Heptachlor epoxide	EPA 8081B	<0.00788	U	µg/L	0.00993	1	12/10/25 08:44	12/09/25 09:08

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID

Work Order: HN2517860
Date Collected: 11/24/25 10:30
Date Received: 11/25/25 08:00

CLIENT ID: SB-01 (1-2') R

Lab ID: HN2517860-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methoxychlor	EPA 8081B	<0.00982	U	µg/L	0.00993	1	12/10/25 08:44	12/09/25 09:08
Toxaphene	EPA 8081B	<0.109	U	µg/L	1.99	1	12/10/25 08:44	12/09/25 09:08
Surr: Decachlorobiphenyl	EPA 8081B	91.1		%REC	42-148	1	12/10/25 08:44	12/09/25 09:08
Surr: Tetrachloro-m-xylene	EPA 8081B	102		%REC	57-141	1	12/10/25 08:44	12/09/25 09:08

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID

Work Order: HN2517860
Date Collected: 11/24/25 11:15
Date Received: 11/25/25 08:00

CLIENT ID: SB-03 (3-5') R

Lab ID: HN2517860-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<18.0	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
4,4'-DDE	EPA 8081B	69.2		µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
4,4'-DDT	EPA 8081B	86.0		µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Aldrin	EPA 8081B	<18.4	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
alpha-BHC	EPA 8081B	<18.6	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
beta-BHC	EPA 8081B	<18.5	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Chlordane, Technical	EPA 8081B	436		µg/kg	70.6	1	12/04/25 01:35	12/02/25 12:20
cis-Chlordane	EPA 8081B	116		µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
delta-BHC	EPA 8081B	<18.5	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Dieldrin	EPA 8081B	<19.7	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Endosulfan I	EPA 8081B	<19.0	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Endosulfan II	EPA 8081B	<18.7	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Endosulfan sulfate	EPA 8081B	<17.4	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Endrin	EPA 8081B	<22.8	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Endrin aldehyde	EPA 8081B	<17.9	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Endrin ketone	EPA 8081B	<17.2	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
gamma-BHC (Lindane)	EPA 8081B	<18.5	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Heptachlor	EPA 8081B	<18.2	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Heptachlor epoxide	EPA 8081B	32.4		µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Methoxychlor	EPA 8081B	<18.9	U	µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
Toxaphene	EPA 8081B	<30.5	U	µg/kg	169	1	12/03/25 02:41	12/02/25 12:20
trans-Chlordane	EPA 8081B	80.3		µg/kg	28.2	1	12/03/25 02:41	12/02/25 12:20
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	103		%REC	53-151	1	12/03/25 02:41	12/02/25 12:20
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	98.1		%REC	67-127	1	12/03/25 02:41	12/02/25 12:20
TCLP Organochlorine Pesticides by GC/ECD								
Chlordane, Technical	EPA 8081B	<0.0333	U	µg/L	0.490	1	12/10/25 08:59	12/09/25 09:08
Endrin	EPA 8081B	<0.00834	U	µg/L	0.00980	1	12/10/25 08:59	12/09/25 09:08
gamma-BHC (Lindane)	EPA 8081B	<0.00815	U	µg/L	0.00980	1	12/10/25 08:59	12/09/25 09:08
Heptachlor	EPA 8081B	<0.00745	U	µg/L	0.00980	1	12/10/25 08:59	12/09/25 09:08
Heptachlor epoxide	EPA 8081B	0.0220		µg/L	0.00980	1	12/10/25 08:59	12/09/25 09:08

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID

Work Order: HN2517860
Date Collected: 11/24/25 11:15
Date Received: 11/25/25 08:00

CLIENT ID: SB-03 (3-5') R

Lab ID: HN2517860-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methoxychlor	EPA 8081B	<0.00970	U	µg/L	0.00980	1	12/10/25 08:59	12/09/25 09:08
Toxaphene	EPA 8081B	<0.108	U	µg/L	1.96	1	12/10/25 08:59	12/09/25 09:08
Surr: Decachlorobiphenyl	EPA 8081B	97.8		%REC	42-148	1	12/10/25 08:59	12/09/25 09:08
Surr: Tetrachloro-m-xylene	EPA 8081B	94.6		%REC	57-141	1	12/10/25 08:59	12/09/25 09:08



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2364772

Work Order: HN2517860
Date Collected: NA
Date Received: NA
Run ID: 3739493

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2364772-001
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 12/03/25 00:42**Prep Date:** 12/02/25 12:21

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	<6.39	µg/kg	10.0							U
4,4'-DDE	<6.59	µg/kg	10.0							U
4,4'-DDT	<6.65	µg/kg	10.0							U
Aldrin	<6.50	µg/kg	10.0							U
alpha-BHC	<6.58	µg/kg	10.0							U
beta-BHC	<6.57	µg/kg	10.0							U
Chlordane, Technical	<9.92	µg/kg	25.0							U
cis-Chlordane	<6.68	µg/kg	10.0							U
delta-BHC	<6.55	µg/kg	10.0							U
Dieldrin	<6.99	µg/kg	10.0							U
Endosulfan I	<6.72	µg/kg	10.0							U
Endosulfan II	<6.62	µg/kg	10.0							U
Endosulfan sulfate	<6.15	µg/kg	10.0							U
Endrin	<8.09	µg/kg	10.0							U
Endrin aldehyde	<6.34	µg/kg	10.0							U
Endrin ketone	<6.08	µg/kg	10.0							U
gamma-BHC (Lindane)	<6.56	µg/kg	10.0							U
Heptachlor	<6.45	µg/kg	10.0							U
Heptachlor epoxide	<6.62	µg/kg	10.0							U
Methoxychlor	<6.69	µg/kg	10.0							U
Toxaphene	<10.8	µg/kg	60.0							U
trans-Chlordane	<6.64	µg/kg	10.0							U
Surr: Decachlorobiphenyl	45.6	µg/kg		33.33		137	53-151			
Surr: Tetrachloro-m-xylene	37.1	µg/kg		33.33		111	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364772-002
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 12/03/25 00:57**Prep Date:** 12/02/25 12:21

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	38.1	µg/kg	10.0	33.33		114	55-141			
4,4'-DDE	37.5	µg/kg	10.0	33.33		113	55-143			
4,4'-DDT	38.9	µg/kg	10.0	33.33		117	50-144			
Aldrin	38.1	µg/kg	10.0	33.33		114	57-141			
alpha-BHC	37.4	µg/kg	10.0	33.33		112	58-144			
beta-BHC	38.0	µg/kg	10.0	33.33		114	55-147			
cis-Chlordane	37.7	µg/kg	10.0	33.33		113	58-142			
delta-BHC	30.9	µg/kg	10.0	33.33		92.6	59-142			
Dieldrin	37.9	µg/kg	10.0	33.33		114	59-142			
Endosulfan I	37.1	µg/kg	10.0	33.33		111	57-145			
Endosulfan II	37.2	µg/kg	10.0	33.33		112	58-138			
Endosulfan sulfate	35.8	µg/kg	10.0	33.33		107	54-136			
Endrin	38.4	µg/kg	10.0	33.33		115	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2364772

Work Order: HN2517860
Date Collected: NA
Date Received: NA
Run ID: 3739493

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2364772-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/03/25 00:57

Prep Date: 12/02/25 12:21

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin aldehyde	36.4	µg/kg	10.0	33.33		109	41-147			
Endrin ketone	36.5	µg/kg	10.0	33.33		110	54-146			
gamma-BHC (Lindane)	37.0	µg/kg	10.0	33.33		111	58-145			
Heptachlor	38.1	µg/kg	10.0	33.33		114	51-145			
Heptachlor epoxide	37.9	µg/kg	10.0	33.33		114	59-143			
Methoxychlor	43.7	µg/kg	10.0	33.33		131	43-144			
trans-Chlordane	37.6	µg/kg	10.0	33.33		113	56-145			
Surr: Decachlorobiphenyl	47.1	µg/kg		33.33		141	51-151			
Surr: Tetrachloro-m-xylene	39.1	µg/kg		33.33		117	67-127			

MS	CLIENT ID: SB-01 (1-2') R	Lab ID: QC-2364772-005
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/03/25 01:56

Prep Date: 12/02/25 12:21

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	83.0	µg/kg	26.7	83.137	<15.9	98.0	55-141			
4,4'-DDE	89.0	µg/kg	26.7	83.137	<16.4	94.8	55-143			
4,4'-DDT	98.5	µg/kg	26.7	83.137	<16.6	111	50-144			
Aldrin	84.6	µg/kg	26.7	83.137	<16.2	102	57-141			
alpha-BHC	82.1	µg/kg	26.7	83.137	<16.4	98.8	58-144			
beta-BHC	79.7	µg/kg	26.7	83.137	<16.4	95.8	55-147			
cis-Chlordane	94.9	µg/kg	26.7	83.137	<16.7	102	58-142			
delta-BHC	66.4	µg/kg	26.7	83.137	<16.3	79.9	59-142			
Dieldrin	127	µg/kg	26.7	83.137	<17.4	138	59-142			
Endosulfan I	82.8	µg/kg	26.7	83.137	<16.8	99.6	57-145			
Endosulfan II	76.7	µg/kg	26.7	83.137	<16.5	92.3	58-138			
Endosulfan sulfate	67.3	µg/kg	26.7	83.137	<15.3	80.9	54-135			
Endrin	86.3	µg/kg	26.7	83.137	<20.2	104	45-150			
Endrin aldehyde	72.9	µg/kg	26.7	83.137	<15.8	87.7	41-147			
Endrin ketone	72.9	µg/kg	26.7	83.137	<15.2	87.7	54-146			
gamma-BHC (Lindane)	82.4	µg/kg	26.7	83.137	<16.4	99.2	58-145			
Heptachlor	88.3	µg/kg	26.7	83.137	<16.1	106	51-145			
Heptachlor epoxide	88.8	µg/kg	26.7	83.137	<16.5	103	59-143			
Methoxychlor	98.8	µg/kg	26.7	83.137	<16.7	119	43-144			
trans-Chlordane	86.8	µg/kg	26.7	83.137	<16.6	96.1	56-145			
Surr: Decachlorobiphenyl	97.2	µg/kg		83.137		117	53-151			
Surr: Tetrachloro-m-xylene	84.1	µg/kg		83.137		101	67-127			

MSD	CLIENT ID: SB-01 (1-2') R	Lab ID: QC-2364772-006
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/03/25 02:11

Prep Date: 12/02/25 12:21

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	87.0	µg/kg	26.7	82.997	<15.9	103	55-141	4.72	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2364772

Work Order: HN2517860
Date Collected: NA
Date Received: NA
Run ID: 3739493

MSD	CLIENT ID: SB-01 (1-2') R	Lab ID: QC-2364772-006
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/03/25 02:11

Prep Date: 12/02/25 12:21

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDE	109	µg/kg	26.7	82.997	<16.4	119	55-143	20.3	20	R
4,4'-DDT	106	µg/kg	26.7	82.997	<16.6	120	50-144	7.07	20	
Aldrin	88.9	µg/kg	26.7	82.997	<16.2	107	57-141	4.91	20	
alpha-BHC	86.7	µg/kg	26.7	82.997	<16.4	104	58-144	5.44	20	
beta-BHC	86.3	µg/kg	26.7	82.997	<16.4	104	55-147	8.04	20	
cis-Chlordane	113	µg/kg	26.7	82.997	<16.6	124	58-142	17.3	20	
delta-BHC	68.2	µg/kg	26.7	82.997	<16.3	82.2	59-142	2.67	20	
Dieldrin	183	µg/kg	26.7	82.997	<17.4	205	59-142	35.8	20	RS
Endosulfan I	88.0	µg/kg	26.7	82.997	<16.7	106	57-145	6.16	20	
Endosulfan II	76.2	µg/kg	26.7	82.997	<16.5	91.8	58-138	0.711	20	
Endosulfan sulfate	67.5	µg/kg	26.7	82.997	<15.3	81.4	54-135	0.387	20	
Endrin	88.7	µg/kg	26.7	82.997	<20.1	107	45-150	2.78	20	
Endrin aldehyde	72.4	µg/kg	26.7	82.997	<15.8	87.3	41-147	0.625	20	
Endrin ketone	72.9	µg/kg	26.7	82.997	<15.2	87.9	54-146	0.0601	20	
gamma-BHC (Lindane)	87.4	µg/kg	26.7	82.997	<16.3	105	58-145	5.90	20	
Heptachlor	91.4	µg/kg	26.7	82.997	<16.1	110	51-145	3.48	20	
Heptachlor epoxide	96.8	µg/kg	26.7	82.997	<16.5	113	59-143	8.60	20	
Methoxychlor	95.7	µg/kg	26.7	82.997	<16.6	115	43-144	3.16	20	
trans-Chlordane	99.0	µg/kg	26.7	82.997	<16.5	111	56-145	13.2	20	
Surr: Decachlorobiphenyl	102	µg/kg		82.997		123	53-151	4.68	30	
Surr: Tetrachloro-m-xylene	88.7	µg/kg		82.997		107	67-127	5.41	30	

The following samples were analyzed in this batch: HN2517860-001, HN2517860-002



Client: The Mannik & Smith Group, Inc.
Project: DETR0060 - 5161 S. Martindale
Matrix: SOIL/SOLID
QC Lot: 2376269

Work Order: HN2517860
Date Collected: NA
Date Received: NA
Run ID: 3757753

TCLP Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2376269-001
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/09/25 15:32

Prep Date: 12/09/25 09:09

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chlordane, Technical	<0.0340	µg/L	0.500							U
Endrin	<0.00851	µg/L	0.0100							U
gamma-BHC (Lindane)	<0.00832	µg/L	0.0100							U
Heptachlor	<0.00760	µg/L	0.0100							U
Heptachlor epoxide	<0.00796	µg/L	0.0100							U
Methoxychlor	<0.00989	µg/L	0.0100							U
Toxaphene	<0.110	µg/L	2.00							U
Surr: Decachlorobiphenyl	0.350	µg/L		0.25		140	0.42-148			
Surr: Tetrachloro-m-xylene	0.270	µg/L		0.25		108	57-141			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2376269-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/09/25 15:47

Prep Date: 12/09/25 09:09

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin	0.232	µg/L	0.0100	0.2		116	43-176			
gamma-BHC (Lindane)	0.213	µg/L	0.0100	0.2		107	63-158			
Heptachlor	0.214	µg/L	0.0100	0.2		107	47-166			
Heptachlor epoxide	0.226	µg/L	0.0100	0.2		113	63-164			
Methoxychlor	0.259	µg/L	0.0100	0.2		130	36-176			
Surr: Decachlorobiphenyl	0.317	µg/L		0.25		127	42-148			
Surr: Tetrachloro-m-xylene	0.240	µg/L		0.25		96.0	57-141			

DLCS	CLIENT ID: Laboratory Control Sample Duplicate	Lab ID: QC-2376269-003
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Method: EPA 8081B

Dilution: 1

Analysis Date: 12/09/25 16:01

Prep Date: 12/09/25 09:09

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin	0.235	µg/L	0.0100	0.2		118	43-176	1.37	20	
gamma-BHC (Lindane)	0.213	µg/L	0.0100	0.2		106	63-158	0.188	20	
Heptachlor	0.220	µg/L	0.0100	0.2		110	47-166	3.04	20	
Heptachlor epoxide	0.230	µg/L	0.0100	0.2		115	63-164	1.75	20	
Methoxychlor	0.267	µg/L	0.0100	0.2		134	36-176	3.04	20	
Surr: Decachlorobiphenyl	0.310	µg/L		0.25		124	42-148	2.30	30	
Surr: Tetrachloro-m-xylene	0.247	µg/L		0.25		98.9	57-141	2.96	30	

The following samples were analyzed in this batch: HN2517860-001, HN2517860-002