

DRAFT

FILL MATERIAL SAMPLING REPORT

5532 PENNSYLVANIA STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48213



FEBRUARY 16, 2026

PREPARED FOR:

THE CITY OF DETROIT DEMOLITION DEPARTMENT

1301 THIRD STREET, SUITE 606

DETROIT, MICHIGAN 48226



FILL MATERIAL SAMPLING REPORT

5532 PENNSYLVANIA STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48213

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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 5532 Pennsylvania Street, Detroit, Wayne County, Michigan (hereinafter, the "Site"). The Site location, as referenced to nearby roads and major geographic features, is shown on Figure 1, *Site Location Map*. Figure 2, *Site Layout*, depicts the current layout of the Site.

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

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

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

- The stratigraphy encountered during soil boring advancement of 5532 SB01, 5532 SB02, and 5532 SB03 generally consisted of gray and brown silty clay and sand to six (6) 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 0.4 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; however, concrete and wood debris was observed in 5532 SB02 and 5532 SB03.
- Concentrations of arsenic were detected in soil samples 5532 SB01 (1-2')_20260121, 5532 SB02 (3-4')_20260121, and/or 5532 SB03 (5-6')_20260121 in excess of Part 201 groundwater surface water interface protection criteria (GSIPC), drinking water protection criteria (DWPC), and/or direct contact criteria (DCC).
- Concentrations of anthracene, barium, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, bis(2-ethylhexyl) phthalate, chloride, chromium (Total), chrysene, copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, mercury, phenanthrene, pyrene, and zinc were detected in soil samples 5532 SB01 (1-2')_20260121, 5532 SB02 (3-4')_20260121, and/or 5532 SB03 (5-6')_20260121 at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- VOCs, PCBs, pesticides, and herbicides were not detected above laboratory method detection reporting limits.
- Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

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

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

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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by the City of Detroit (COD) to conduct sampling and analysis of fill materials at the property commonly addressed as 5532 Pennsylvania 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 January 21, 2026. The findings of this report are valid as of the report date, subject to the limitations presented in *Appendix A, Limitations*.

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

2.0 PURPOSE AND SCOPE OF WORK

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

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

- Advanced three (3) onsite soil borings to a maximum depth of six feet below ground surface (bgs) utilizing a 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, 3-4 feet bgs, or 5-6 feet bgs, depending on the soil boring.
- Submitted soil samples to an independent analytical laboratory for chemical analysis.
- Prepared this report summarizing the activities and results of this work.

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

3.0 SITE ASSESSMENT METHODOLOGY

The following subsections describe the methodologies employed by MSG at the Site during sampling activities that were conducted on January 21, 2026. A daily field activity report prepared by MSG is presented in *Appendix B, Daily Field Report*.

3.1 Preliminary Site Work Activities

Prior to conducting subsurface soil sampling activities, MSG contacted the MISSDIG utility locating system to identify and physically mark underground utilities. If necessary, proposed soil boring locations were modified based on the results of the utility markings. Additionally, MSG reviewed readily available Site building records or documents to ensure that this scope of work was conducted on the correct property and in the areas of the former Site structure.

3.2 Soil Sample Collection

The sampling plan for the Site was based on the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025, and modified in the field (if necessary) based on encountered conditions and professional judgment of MSG's field personnel. MSG advanced three (3) soil borings, designated 5535 SB01, 5535 SB02, and 5535 SB03, using a direct push drill rig at the locations depicted on Figure 2. Photographs collected during the completion of this work are provided in *Appendix C, Investigation Photographs*.

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

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

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

3.3 Decontamination

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

3.4 Analytical Methods

A total of three (3) soil samples designated 5532 SB01 (1-2') _20260121, 5532 SB02 (3-4') _20260121, and 5532 SB03 (5-6') _20260121, were collected as part of this investigation. These soil samples were submitted to ALS Environmental Laboratory (ALS) in Holland, Michigan for laboratory analysis of the following parameters per the requested parameters as described in the COD's *Sampling and Analysis of Fill Materials Scope of Services*, dated June 17, 2025:

- VOCs by United States Environmental Protection Agency (USEPA) Method SW8260D;
- SVOCs by USEPA Method SW8270E;
- PCBs by USEPA Method SW8082A;
- 10 Michigan metals by USEPA Method SW6020B and SW7471B;
- Chloride by USEPA Method SW9056A;
- Herbicides by USEPA Method SW8151A; and
- Pesticides by USEPA Method SW8081B.

3.5 Quality Assurance/Quality Control

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

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

4.0 SUMMARY OF RESULTS

The following subsections include a discussion of the soil samples that were collected from the Site on January 21, 2026.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of 5532 SB01, 5532 SB02, and 5532 SB03 generally consisted of gray and brown silty clay and sand to six (6) 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 0.4 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; however, concrete and wood debris was observed in 5532 SB02 and 5532 SB03.

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

4.2 Soil Sample Analytical Results

Three (3) soil samples, designated 5532 SB01 (1-2')_20260121, 5532 SB02 (3-4')_20260121, and 5532 SB03 (5-6')_20260121, were collected from the Site and submitted to ALS for laboratory analysis of VOCs, SVOCs, PCBs, Michigan 10 Metals, chloride, herbicides, and pesticides.

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

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

Chemical	CAS Number	Soil Sample (feet bgs)	Part 201 GRCC Exceeded / Concentration (µg/kg ¹)	Maximum Detected Concentration (µg/kg)
Arsenic	7440-38-2	5532 SB01 (1-2)_20260121	GSIPC ² / 4,600	8,230
		5532 SB03 (5-6)_20260121	DWPC ³ / 4,600	
		5532 SB02 (3-4)_20260121	DCC ⁴ / 7,600	

¹µg/kg – micrograms per kilogram;

²GSIPC – Groundwater Surface Water Interface Protection Criteria

³DWPC – Drinking Water Protection Criteria

⁴DCC – Direct Contact Criteria

4.3 Exposure Evaluation

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

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

5.0 FINDINGS

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

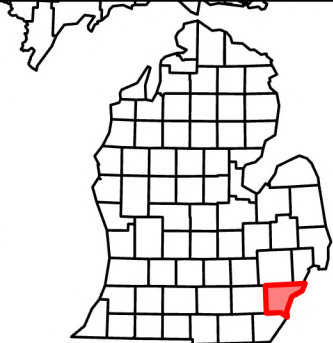
- The stratigraphy encountered during soil boring advancement of 5532 SB01, 5532 SB02, and 5532 SB03 generally consisted of gray and brown silty clay and sand to six (6) feet bgs, the maximum depth explored for this investigation. Field PID readings of the recovered soil cores ranged from 0.0 to 0.4 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; however, concrete and wood debris was observed in 5532 SB02 and 5532 SB03.
- Concentrations of arsenic were detected in soil samples 5532 SB01 (1-2')_20260121, 5532 SB02 (3-4')_20260121, and/or 5532 SB03 (5-6')_20260121 in excess of Part 201 GSIPC, DWPC, and/or DCC.
- Concentrations of anthracene, barium, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, bis(2-ethylhexyl) phthalate, chloride, chromium (Total), chrysene, copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, mercury, phenanthrene, pyrene, and zinc were detected in soil samples 5532 SB01 (1-2')_20260121, 5532 SB02 (3-4')_20260121, and/or 5532 SB03 (5-6')_20260121 at concentrations above laboratory method detection limits; however, detected concentrations were below their respective Part 201 GRCC and/or Statewide Default Background Levels.
- VOCs, PCBs, pesticides, and herbicides were not detected above laboratory method detection reporting limits.
- Groundwater was not encountered during soil boring activities completed as part of this investigation. Groundwater is not utilized as drinking water at or near the Site, as municipal water is supplied via the COD, and the general geology of the Site and surrounding area consists of fill materials underlain by clay overlying bedrock. Therefore, the drinking water (DW) exposure pathway can be considered not applicable. Additionally, groundwater was not encountered during this investigation to transport contaminants to either storm sewers or surface water and the clay layer also inhibits migration. Therefore, the groundwater surface water exposure pathway can be considered not applicable. Given that the site is residential, exceedances of direct contact criteria may merit further consideration.

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

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

FIGURES





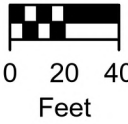
★ Site Location



FIGURE 1
SITE LOCATION

5532 Pennsylvania, Detroit, MI

DATE 1/8/2026	DRAWN BY JWW	DESIGNED BY JWW	PROJECT NO. DET0060
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- Sample Locations
- Parcels (Current)
- Subject Property

Notes
• Parcel boundaries are approximate
• Basemap Credits: SampleLocations:
GPS_Test:
All Roads:
Parcels (Current):
Wayne - 2020 - 6in - 4-band:



FIGURE 2
Site Layout

5532 Pennsylvania, Detroit, MI

DATE 1/6/2026	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. DETR0060
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TABLE



Table 1
Soil Sample Analytical Detection Summary

Detroit Backfill Sampling
5532 Pennsylvania, Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 and Volatilization to Indoor Air Pathway Screening Levels Revised February 26, 2024			Inorganic Anions/Ions	Metals						Semivolatile Organic Compounds (SVOCs)												
			Chloride	Arsenic (B)	Barium (B)	Chromium, Total (B)	Copper (B)	Lead (B)	Mercury (B)	Zinc (B)	Anthracene	Benzo(A)Anthracene	Benzo(A)Pyrene	Benzo(B)Fluoranthene	Benzo(G,H,I)Perylene	Benzo(K)Fluoranthene	Bis(2-ethylhexyl) phthalate	Chrysene	Fluoranthene	Indeno(1,2,3-Cd)Pyrene	Phenanthrene	Pyrene
CAS Number			16887-00-6	7440-38-2	7440-39-3	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7440-66-6	120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	117-81-7	218-01-9	206-44-0	193-39-5	85-01-8	129-00-0
Units			ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Statewide Default Background Levels			NC	5,800	75,000	18,000	32,000	21,000	130	47,000	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Drinking Water Protection Criteria (DWPC)			5.00E+06	4,600	1.30E+06	30,000	5.80E+06	7.00E+05	1,700	2.40E+06	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	NLL	56,000	4.80E+05
Groundwater Surface Water Interface Protection Criteria (GSIPC)			NC	4,600	4.40E+05 ^(G)	3,300	75,000 ^(G)	6.00E+06 ^(G)	50 ^(M,1,2)	1.60E+05	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	NLL	2,100	ID
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NC	NLV	NLV	NC	NLV	NLV	48,000	NC	1.00E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	1.00E+09	NLV	2.80E+06	1.00E+09
Soil Volatilization to Indoor Air Pathway (SVIAP)			NC	NC	NC	NC	NC	NC	22 ^(M)	NC	1.30E+07	1.60E+05 ^(M)	NC	NC	NC	NC	NC	NC	NC	NC	1,700	2.50E+07
Infinite Source Volatile Soil Inhalation Criteria (VSIC)			NC	NLV	NLV	NC	NLV	NLV	52,000	NC	1.40E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	7.40E+08	NLV	1.60E+05	6.50E+08
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)			NC	NLV	NLV	NC	NLV	NLV	52,000	NC	1.40E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	7.40E+08	NLV	1.60E+05	6.50E+08
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)			NC	NLV	NLV	NC	NLV	NLV	52,000	NC	1.40E+09	NLV	NLV	ID	NLV	NLV	NLV	ID	7.40E+08	NLV	1.60E+05	6.50E+08
Particulate Soil Inhalation Criteria (PSIC)			NC	7.20E+05	3.30E+08	2.60E+05	1.30E+08	1.00E+08	2.00E+07	NC	6.70E+10	ID	1.50E+06	ID	8.00E+08	ID	7.00E+08	ID	9.30E+09	ID	6.70E+06	6.70E+09
Direct Contact Criteria (DCC)			5.00E+05	7,600	3.70E+07	2.50E+06	2.00E+07	4.00E+05	1.60E+05	1.70E+08	2.30E+08	20,000	2,000	20,000	2.50E+06	2.00E+05	2.80E+06	2.00E+06	4.60E+07	20,000	1.60E+06	2.90E+07
Soil Saturation Concentration Screening Levels (Csat)			NC	NA	NA	NC	NA	NA	NA	NC	NA	NA	NA	NA	NA	NA	1.00E+07	NA	NA	NA	NA	NA
Sample ID	Sample Depth (ft)	Sample Date																				
5532 SB01	1.0 - 2.0	01/21/2026	22,000	8,230	76,700	16,600	17,800	11,400	27	48,200	<13.4	<16.5	<11.7	<14.2	<14.6	<14.4	<78.8	<15.4	<9.15	<13.3	<8.86	<9.51
5532 SB02	3.0 - 4.0	01/21/2026	16,300	6,860	46,000	12,600	14,800	8,090	21	44,700	<13	20.3	<11.3	27.7	<14.2	<14	<76.4	<14.9	31.4	<12.9	<8.59	29.6
5532 SB03	5.0 - 6.0	01/21/2026	32,200	6,510	56,200	13,700	13,700	51,100	38.5	65,500	36.7	122	106	139	67.5	46.3	98.4	104	276	79.1	172	285

Notes

Only parameters with one or more detections are shown.

ug/kg = Micrograms per Kilogram.

Exceeds Generic Drinking Water Protection Criteria.

Exceeds Groundwater Surface Water Interface Protection Criteria.

Exceeds Applicable Soil Vapor Inhalation Criteria/Screening Levels.

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

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

Bold indicates concentration above laboratory reporting limits.

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

Part 201 GSIPC Hardness specific criteria (G) calculated using a regional hardness value of the lower portion of the lower peninsula, 150 mg CaCO3/L.

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

APPENDIX A

LIMITATIONS



LIMITATIONS

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

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

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

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

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

APPENDIX B

DAILY FIELD REPORT



**DAILY FIELD REPORT**

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

Report No.: 1
Job No.: DETR0060

Date: 01/21/2026	Day: Wednesday	Temp: N/A (AM) 20° F (PM)
MSG Personnel: SRK, ZG, MW	Cloud Cover: N/A (AM) 100% (PM)	Precip.: N/A (AM) N/A (PM)
Personnel: MSG		
MSG Hours On-Site: ~ 1 hours		

Contractors Information		
Contractor: MSG	No. Men and Type: 3; Geologist/Helper/Operator	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:
1410 – SRK, ZG, and MW onsite (5532 Pennsylvania Street) 1412 – Unloaded and prepared equipment 1418 – Began drilling SB01 1420 – Finished drilling SB01 1423 – Began drilling SB02 1425 – Finished drilling SB02 1427 – Sampled 5532 SB01 (1-2')_20260121 1427 – Began drilling SB03 1429 – Finished drilling SB03 1437 – Sampled 5532 SB02 (3-4')_20260121 1448 – Sampled 5532 SB03 (5-6')_20260121 1450 – Packed up equipment 1500 – 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 ☐			

APPENDIX C

INVESTIGATION PHOTOGRAPHS





Photo 1: View of the Site pre-drilling, facing northeast.

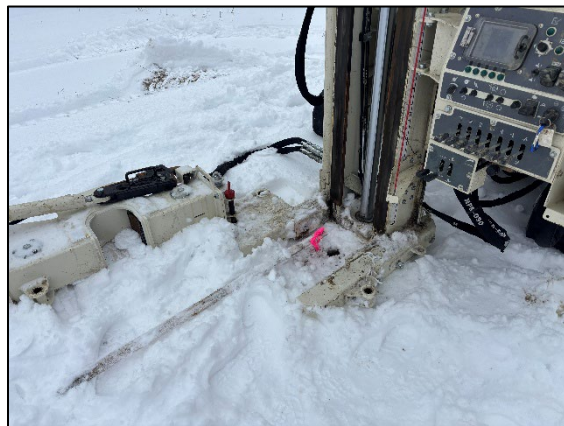


Photo 2: View of 5532 SB01, facing north.



Photo 3: Viewing 5532 SB01 soil recovery, facing northeast.

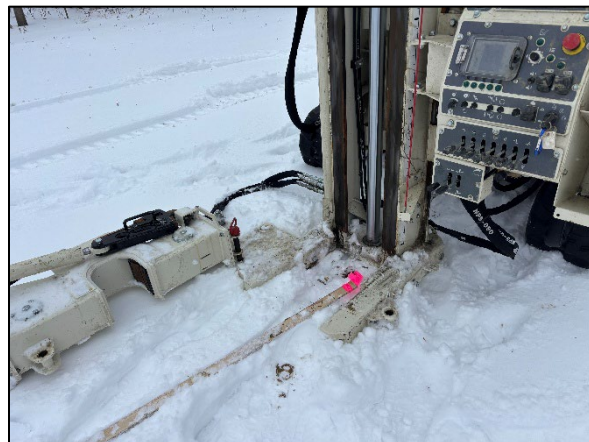


Photo 4: View of 5532 SB02, facing northeast.



Photo 5: Viewing 5532 SB02 soil recovery, facing northeast



Photo 6: View of 5532 SB03, facing northeast.



Photo 7: Viewing 5532 SB03 soil recovery, facing northeast



Photo 8: View of the Site post-drilling, facing northeast

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_5532 Pennsylvania
DATE STARTED 01-21-2026 **COMPLETED** 01-21-2026
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 7822DT **Operator** MW

PROJECT NAME Backfill Soil Sampling
PROJECT LOCATION 5532 Pennsylvania, Detroit, MI
POSITION
SURFACE ELEVATION **FINAL DEPTH** 6.0 ft
LOGGED BY SRK **CHECKED BY** PDH
REMARKS

DEPTH (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
				Gray and Brown, Silty CLAY, Trace Gravel, Dry	0.0	
					0.0	- Collected Soil Sample 5532 SB01 (1-2') _20260121 at 14:27
ES		67			0.0	
				- Becomes moist at 4' bgs	0.0	
5					0.0	
					0.0	
				Terminated at 6.00 ft.		
10						

LEGEND:

- ▽ AT TIME OF DRILLING Not Encountered
▼ AT END OF DRILLING
▽ AFTER DRILLING

APPENDIX E

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS





right solutions.
right partner.

January 29, 2026

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

Re: **5532 Pennsylvania**

Date Received: **01/22/2026**

Work Order: **HN2601020**

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: 5532 Pennsylvania

Work Order: HN2601020
Date Received: 22-Jan-2026

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 22-Jan-2026. 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: HN2601020

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

Organics

EPA 8270E-FULL HN-3546-S

Run ID: 3845047

The Continuing Calibration Verification did not meet acceptance criteria with high bias, however, the sample results were non-detect for the following analytes: N-Nitrosodimethylamine; 2,4-Dinitrophenol; 4,6-Dinitro-2-methylphenol; Di-n-octyl phthalate.

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

Run ID: 3838611

Parent Sample HN2601020-001: QC-2426227-005 and -006: The MS/MSD recoveries were below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): 1,1,2,2-Tetrachloroethane, Bromodichloromethane, Chloroethane (ethyl chloride)

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:

Dichlorodifluoromethane (Freon-12), Methyl chloride (Chloromethane), Vinyl chloride (Chloroethene)

Parent Sample HN2601020-001: QC-2426227-005 and -006: The MS/MSD recoveries were above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Tetrachloroethylene (Perchloroethylene), Trichloroethene (Trichloroethylene)

QC-2426227-006 The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Bromodichloromethane

Metals

EPA 6020B-3050B-S

Run ID: 3844403

Samples HN2601020-001 through -003: The reporting limits are elevated for Cd, Se and Ag due to the dilutions needed for high concentrations of non-target analytes.

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: 5532 SB01 (1-2')_20260121	Lab ID: HN2601020-001
---	------------------------------

Analyte	Results	Flag	MRL	Units	Method
Arsenic	8.23		3.13	mg/kg	EPA 6020B
Barium	76.7		3.13	mg/kg	EPA 6020B
Chloride	22.0		11.5	mg/kg	EPA 9056A
Chromium	16.6		3.13	mg/kg	EPA 6020B
Copper	17.8		3.13	mg/kg	EPA 6020B
Lead	11.4		3.13	mg/kg	EPA 6020B
Mercury	0.0270		0.0212	mg/kg	EPA 7471B
Percent Moisture	14.0		0.1	%	EPA 3550C
Zinc	48.2		6.25	mg/kg	EPA 6020B

CLIENT ID: 5532 SB02 (3-4')_20260121	Lab ID: HN2601020-002
---	------------------------------

Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.86		3.38	mg/kg	EPA 6020B
Barium	46.0		3.38	mg/kg	EPA 6020B
Benzo(a)anthracene	20.3		18.5	µg/kg	EPA 8270E
Benzo(b)fluoranthene	27.7		18.5	µg/kg	EPA 8270E
Chloride	16.3		11.6	mg/kg	EPA 9056A
Chromium	12.6		3.38	mg/kg	EPA 6020B
Copper	14.8		3.38	mg/kg	EPA 6020B
Fluoranthene	31.4		18.5	µg/kg	EPA 8270E
Lead	8.09		3.38	mg/kg	EPA 6020B
Mercury	0.0210		0.0200	mg/kg	EPA 7471B
Percent Moisture	14.5		0.1	%	EPA 3550C
Pyrene	29.6		18.5	µg/kg	EPA 8270E
Zinc	44.7		6.76	mg/kg	EPA 6020B

CLIENT ID: 5532 SB03 (5-6')_20260121	Lab ID: HN2601020-003
---	------------------------------

Analyte	Results	Flag	MRL	Units	Method
Anthracene	36.7		19.3	µg/kg	EPA 8270E
Arsenic	6.51		3.14	mg/kg	EPA 6020B
Barium	56.2		3.14	mg/kg	EPA 6020B
Benzo(a)anthracene	122		19.3	µg/kg	EPA 8270E
Benzo(a)pyrene	106		19.3	µg/kg	EPA 8270E
Benzo(b)fluoranthene	139		19.3	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	67.5		19.3	µg/kg	EPA 8270E
Benzo(k)fluoranthene	46.3		19.3	µg/kg	EPA 8270E
Chloride	32.2		12.3	mg/kg	EPA 9056A
Chromium	13.7		3.14	mg/kg	EPA 6020B
Chrysene	104		19.3	µg/kg	EPA 8270E
Copper	13.7		3.14	mg/kg	EPA 6020B
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	98.4		95.5	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: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Results	Flag	MRL	Units	Method
Fluoranthene	276		19.3	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	79.1		19.3	µg/kg	EPA 8270E
Lead	51.1		3.14	mg/kg	EPA 6020B
Mercury	0.0385		0.0236	mg/kg	EPA 7471B
Percent Moisture	19.0		0.1	%	EPA 3550C
Phenanthrene	172		19.3	µg/kg	EPA 8270E
Pyrene	285		19.3	µg/kg	EPA 8270E
Zinc	65.5		6.27	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Workorder: HN2601020

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2601020-001	5532 SB01 (1-2')_20260121	SOIL/SOLID	01/21/26 14:27	01/22/26 06:00
HN2601020-002	5532 SB02 (3-4')_20260121	SOIL/SOLID	01/21/26 14:37	01/22/26 06:00
HN2601020-003	5532 SB03 (5-6')_20260121	SOIL/SOLID	01/21/26 14:48	01/22/26 06:00

Chain of Custody Form

Page 1 of 1



Telephone : + 1 616 399 6070

ALS Project Manager:							Work Order #:											
Project Information							Parameter/Method Request for Analysis											
Project Name: 5532 Pennsylvania							A VOCs (U.S. EPA Method 8260C (or Method 8260))											
Project Number: DETR0060							B SVOCs (U.S. EPA Method 8270D (or Method 8270))											
Bill To Company: Mannik Smith Group							C PCBs (U.S. EPA Method 8082)											
Invoice Attn:							D Mi 10 Metals (U.S. EPA 6000/7000 Series Methods)											
Address: 2365 South Haggerty Road							E Chlorides (U.S. EPA Method 9056A)											
City/State/Zip: Canton, Mi 48188							F Pesticides (U.S. EPA Method 8081B (or Method 8081))											
Phone: 734-397-3100							G Herbicides (U.S. EPA Method 8151A (or Method 8151))											
Fax:							H											
e-Mail Address: montri@mankniksmithgroup.com							I											
e-Mail Address: omitchell@mankniksmithgroup.com							J											
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold	
1	5532 SB01 (1-2 ')_20260121	1/21/26	1427	Soil	7	3	✓	✓	✓	✓	✓	✓	✓					
2	5532 SB02 (3-4 ')_20260121	↓	1437	Soil	7	3	✓	✓	✓	✓	✓	✓	✓					
3	5532 SB03 (5-6 ')_20260121	1/21/26	1448	Soil	7	3	✓	✓	✓	✓	✓	✓	✓					
4																		
5																		
6																		
7																		
8																		
9																		
10																		
Sampler(s): Please Print & Sign <i>Shannon Macomber</i>							Shipment Method:				Required Turnaround Time: ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour				Results Due Date:			
Relinquished by: <i>[Signature]</i>		Date: 1/21/26	Time: 1555	Received by: <i>[Signature]</i>		1/21 1555		Notes: Rec'd 1/22/26 0600 Q ZQL										
Relinquished by: <i>[Signature]</i>		Date: 1/21/26	Time: 1700	Received by (Laboratory): <i>[Signature]</i>		1/21/26 1700		Cooler Temp. 18.6 2.9°C				QC Package: (Check Box Below)						
Logged by (Laboratory): DFS		Date: 1/22/26	Time: 0830	Checked by (Laboratory):						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:											



ALS Holland
3352 128th Ave., Holland MI 49424

ALS Holland Sample Receiving Checklist

Received by:

Diane F. Shaw

Date/Time:

1/22/26 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):

2.9 / 2.9 °C

Thermometer(s):

1R6

Sample(s) received on ice?

☒ Yes / No

Matrix/Matrices:

Soil

Cooler(s)/Kit(s):

1

Date/Time sample(s) sent to storage:

1/22/26 0845

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	09/01/2025	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: 5532 Pennsylvania

Work Order: HN2601020

Sample Name: 5532 SB01 (1-2')_20260121
Laboratory Code: HN2601020-001
Sample Matrix: SOIL/SOLID

Date Collected: 01/21/26
Date Received: 01/22/26

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		001-AC	2426213		3835783	Nicole Maleski
EPA 6020B	EPA 3050B	001-AC	2431011	Chloe Patrick	3844403	Hunter Johnson
EPA 7471B	Method	001-AC	2432805	Maxx Richey	3848639	Maxx Richey
EPA 8081B	EPA 3546	001-AC	2427577	Mya Harmer	3842917	Madison VandenBer
EPA 8082A	EPA 3546	001-AC	2427576	Mya Harmer	3842889	Nathaniel Dietlin
EPA 8151A	Method	001-AC	2426825	Willow Julien	3848846	Kathy Malmyga
EPA 8260D	EPA 5035A	001-AA	2426227	Jonathan Vazquez	3838611	Quoc Nguyen
EPA 8270E	EPA 3546	001-AC	2427579	Sam Bruzan	3844874	Sam Marcotte
EPA 8270E	EPA 3546	001-AC	2427579	Sam Bruzan	3845047	Alexa Montague
EPA 9056A	EPA 9056A	001-AC	2426447	Sage Hansen	3838208	Sage Hansen

Sample Name: 5532 SB02 (3-4')_20260121
Laboratory Code: HN2601020-002
Sample Matrix: SOIL/SOLID

Date Collected: 01/21/26
Date Received: 01/22/26

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		002-AC	2426213		3835783	Nicole Maleski
EPA 6020B	EPA 3050B	002-AC	2431011	Chloe Patrick	3844403	Hunter Johnson
EPA 7471B	Method	002-AC	2432805	Maxx Richey	3848639	Maxx Richey
EPA 8081B	EPA 3546	002-AC	2427577	Mya Harmer	3842917	Madison VandenBer
EPA 8082A	EPA 3546	002-AC	2427576	Mya Harmer	3842889	Nathaniel Dietlin
EPA 8151A	Method	002-AC	2426825	Willow Julien	3848846	Kathy Malmyga
EPA 8260D	EPA 5035A	002-AA	2426227	Jonathan Vazquez	3838611	Quoc Nguyen
EPA 8270E	EPA 3546	002-AC	2427579	Sam Bruzan	3844874	Sam Marcotte
EPA 8270E	EPA 3546	002-AC	2427579	Sam Bruzan	3845047	Alexa Montague
EPA 9056A	EPA 9056A	002-AC	2426447	Sage Hansen	3838208	Sage Hansen

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania

Work Order: HN2601020

Sample Name: 5532 SB03 (5-6')_20260121
Laboratory Code: HN2601020-003
Sample Matrix: SOIL/SOLID

Date Collected: 01/21/26
Date Received: 01/22/26

Analysis Method	Preparation Method	Container ID	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C		003-AC	2426213		3835783	Nicole Maleski
EPA 6020B	EPA 3050B	003-AC	2431011	Chloe Patrick	3844403	Hunter Johnson
EPA 7471B	Method	003-AC	2432805	Maxx Richey	3848639	Maxx Richey
EPA 8081B	EPA 3546	003-AC	2427577	Mya Harmer	3842917	Madison VandenBer
EPA 8082A	EPA 3546	003-AC	2427576	Mya Harmer	3842889	Nathaniel Dietlin
EPA 8151A	Method	003-AC	2426825	Willow Julien	3848846	Kathy Malmyga
EPA 8260D	EPA 5035A	003-AA	2426227	Jonathan Vazquez	3838611	Quoc Nguyen
EPA 8270E	EPA 3546	003-AC	2427579	Sam Bruzan	3844874	Sam Marcotte
EPA 8270E	EPA 3546	003-AC	2427579	Sam Bruzan	3845047	Alexa Montague
EPA 9056A	EPA 9056A	003-AC	2426447	Sage Hansen	3838208	Sage Hansen

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.49	U	µg/kg	13.5	1	01/28/26 15:03	01/22/26 15:09
2,4,5-TP (Silvex)	EPA 8151A	<4.44	U	µg/kg	13.5	1	01/28/26 15:03	01/22/26 15:09
2,4-D	EPA 8151A	<7.22	U	µg/kg	27.1	1	01/28/26 15:03	01/22/26 15:09
Surr: DCAA	EPA 8151A	50.0		%REC	10-116	1	01/28/26 15:03	01/22/26 15:09
General Chemistry Parameters								
Percent Moisture	EPA 3550C	14.0		%	0.1	1	01/22/26 11:24	NA
Chloride	EPA 9056A	22.0		mg/kg	11.5	1	01/22/26 21:25	01/22/26 15:48
Metals								
Arsenic	EPA 6020B	8.23		mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Barium	EPA 6020B	76.7		mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Cadmium	EPA 6020B	<0.188	U	mg/kg	1.25	10	01/27/26 17:10	01/27/26 08:01
Chromium	EPA 6020B	16.6		mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Copper	EPA 6020B	17.8		mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Lead	EPA 6020B	11.4		mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Selenium	EPA 6020B	<2.88	U	mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Silver	EPA 6020B	<0.413	U	mg/kg	3.13	10	01/27/26 17:10	01/27/26 08:01
Zinc	EPA 6020B	48.2		mg/kg	6.25	10	01/27/26 17:10	01/27/26 08:01
Mercury	EPA 7471B	0.0270		mg/kg	0.0212	1	01/29/26 10:51	01/28/26 11:03
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<18.2	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
4,4'-DDE	EPA 8081B	<18.8	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
4,4'-DDT	EPA 8081B	<18.9	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Aldrin	EPA 8081B	<18.5	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
alpha-BHC	EPA 8081B	<18.7	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
beta-BHC	EPA 8081B	<18.7	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Chlordane, Technical	EPA 8081B	<28.2	U	µg/kg	71.2	1	01/26/26 12:34	01/23/26 08:43
cis-Chlordane	EPA 8081B	<19.0	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
delta-BHC	EPA 8081B	<18.6	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Dieldrin	EPA 8081B	<19.9	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<19.1	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Endosulfan II	EPA 8081B	<18.9	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Endosulfan sulfate	EPA 8081B	<17.5	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Endrin	EPA 8081B	<23.0	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Endrin aldehyde	EPA 8081B	<18.0	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Endrin ketone	EPA 8081B	<17.3	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
gamma-BHC (Lindane)	EPA 8081B	<18.7	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Heptachlor	EPA 8081B	<18.4	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Heptachlor epoxide	EPA 8081B	<18.8	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Methoxychlor	EPA 8081B	<19.0	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
Toxaphene	EPA 8081B	<30.7	U	µg/kg	171	1	01/26/26 12:34	01/23/26 08:43
trans-Chlordane	EPA 8081B	<18.9	U	µg/kg	28.5	1	01/26/26 12:34	01/23/26 08:43
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	88.2		%REC	53-151	1	01/26/26 12:34	01/23/26 08:43
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	75.6		%REC	67-127	1	01/26/26 12:34	01/23/26 08:43

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<65.1	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1221	EPA 8082A	<65.1	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1232	EPA 8082A	<65.1	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1242	EPA 8082A	<65.1	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1248	EPA 8082A	<65.1	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1254	EPA 8082A	<53.0	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1260	EPA 8082A	<53.0	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1262	EPA 8082A	<53.0	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Aroclor 1268	EPA 8082A	<53.0	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
Total PCB	EPA 8082A	<53.0	U	µg/kg	190	1	01/24/26 05:56	01/23/26 08:24
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	90.1		%REC	54-146	1	01/24/26 05:56	01/23/26 08:24
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	83.3		%REC	58-140	1	01/24/26 05:56	01/23/26 08:24

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<15.5	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<22.0	U	µg/kg	952	1	01/27/26 01:17	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<68.3	U	µg/kg	477	1	01/27/26 01:17	01/23/26 09:37
1-Methylnaphthalene	EPA 8270E	<13.7	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<22.3	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2,3,4,6-Tetrachlorophenol	EPA 8270E	<69.8	U	µg/kg	191	1	01/27/26 01:17	01/23/26 09:37
2,4,5-Trichlorophenol	EPA 8270E	<56.5	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2,4,6-Trichlorophenol	EPA 8270E	<25.4	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2,4-Dichlorophenol	EPA 8270E	<51.3	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2,4-Dimethylphenol	EPA 8270E	<49.0	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2,4-Dinitrophenol	EPA 8270E	<697	U	µg/kg	952	1	01/27/26 01:17	01/23/26 09:37
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<61.9	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<24.3	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2-Chloronaphthalene	EPA 8270E	<13.3	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
2-Chlorophenol	EPA 8270E	<62.4	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<79.6	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2-Methylnaphthalene	EPA 8270E	<9.69	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
2-Methylphenol (o-Cresol)	EPA 8270E	<25.8	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2-Nitroaniline	EPA 8270E	<52.9	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
2-Nitrophenol	EPA 8270E	<27.2	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
3&4-Methylphenol	EPA 8270E	<52.0	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
3,3'-Dichlorobenzidine	EPA 8270E	<44.5	U	µg/kg	477	1	01/27/26 01:17	01/23/26 09:37
3-Nitroaniline	EPA 8270E	<55.3	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<52.2	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
4-Chloro-3-methylphenol	EPA 8270E	<27.2	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
4-Chloroaniline	EPA 8270E	<48.4	U	µg/kg	191	1	01/27/26 01:17	01/23/26 09:37
4-Chlorophenyl phenylether	EPA 8270E	<26.3	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
4-Nitroaniline	EPA 8270E	<148	U	µg/kg	477	1	01/27/26 01:17	01/23/26 09:37
4-Nitrophenol	EPA 8270E	<223	U	µg/kg	952	1	01/27/26 01:17	01/23/26 09:37
Acenaphthene	EPA 8270E	<13.8	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<16.5	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Acetophenone	EPA 8270E	<14.9	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Anthracene	EPA 8270E	<13.4	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Atrazine	EPA 8270E	<55.8	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Benzaldehyde	EPA 8270E	<146	U	µg/kg	191	1	01/27/26 18:00	01/23/26 09:37
Benzo(a)anthracene	EPA 8270E	<16.5	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Benzo(a)pyrene	EPA 8270E	<11.7	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Benzo(b)fluoranthene	EPA 8270E	<14.2	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Benzo(g,h,i)perylene	EPA 8270E	<14.6	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Benzo(k)fluoranthene	EPA 8270E	<14.4	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
bis(2-Chloroethoxy) methane	EPA 8270E	<60.4	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
bis(2-Chloroethyl) ether	EPA 8270E	<27.0	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Butyl benzyl phthalate	EPA 8270E	<119	U	µg/kg	191	1	01/27/26 01:17	01/23/26 09:37
Caprolactam	EPA 8270E	<86.0	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Carbazole	EPA 8270E	<28.1	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Chrysene	EPA 8270E	<15.4	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<78.8	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Dibenz(a,h) anthracene	EPA 8270E	<10.3	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Dibenzofuran	EPA 8270E	<14.0	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Diethyl phthalate	EPA 8270E	<32.4	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Dimethyl phthalate	EPA 8270E	<18.6	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Fluoranthene	EPA 8270E	<9.15	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Fluorene	EPA 8270E	<13.8	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Hexachlorobenzene	EPA 8270E	<27.7	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Hexachlorobutadiene	EPA 8270E	<22.5	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Hexachlorocyclopentadiene	EPA 8270E	<90.4	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Hexachloroethane	EPA 8270E	<39.5	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Indeno(1,2,3-cd) pyrene	EPA 8270E	<13.3	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Isophorone	EPA 8270E	<18.6	U	µg/kg	477	1	01/27/26 01:17	01/23/26 09:37
Methylphenol, Total	EPA 8270E	<25.8	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<12.2	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Nitrobenzene	EPA 8270E	<32.0	U	µg/kg	477	1	01/27/26 01:17	01/23/26 09:37
n-Nitrosodi-n-propylamine	EPA 8270E	<15.7	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
N-Nitrosodiphenylamine	EPA 8270E	<55.2	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Pentachlorophenol	EPA 8270E	<75.7	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Phenanthrene	EPA 8270E	<8.86	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Phenol	EPA 8270E	<47.9	U	µg/kg	94.4	1	01/27/26 01:17	01/23/26 09:37
Pyrene	EPA 8270E	<9.51	U	µg/kg	19.1	1	01/27/26 01:17	01/23/26 09:37
Pyridine	EPA 8270E	<188	U	µg/kg	477	1	01/27/26 01:17	01/23/26 09:37
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	<i>75.7</i>		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>01/27/26 01:17</i>	<i>01/23/26 09:37</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	<i>78.3</i>		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>01/27/26 01:17</i>	<i>01/23/26 09:37</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	<i>82.0</i>		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>01/27/26 01:17</i>	<i>01/23/26 09:37</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	<i>98.2</i>		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>01/27/26 01:17</i>	<i>01/23/26 09:37</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	<i>93.8</i>		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>01/27/26 01:17</i>	<i>01/23/26 09:37</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	<i>86.3</i>		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>01/27/26 01:17</i>	<i>01/23/26 09:37</i>

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<18.5	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,1,2,2-Tetrachloroethane	EPA 8260D	<18.0	SU	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<25.8	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,1,2-Trichloroethane	EPA 8260D	<17.3	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,1-Dichloroethane	EPA 8260D	<14.9	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,1-Dichloroethylene	EPA 8260D	<13.2	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,2,3-Trichlorobenzene	EPA 8260D	<48.9	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
1,2,3-Trichloropropane	EPA 8260D	<17.1	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,2,4-Trichlorobenzene	EPA 8260D	<46.2	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
1,2,4-Trimethylbenzene	EPA 8260D	<29.9	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<37.5	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<24.0	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<15.5	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<24.0	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
1,2-Dichloropropane	EPA 8260D	<30.0	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,3,5-Trimethylbenzene	EPA 8260D	<28.8	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
1,3-Dichlorobenzene (m- Dichlorobenzene)	EPA 8260D	<28.2	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
1,3-Dichloropropene	EPA 8260D	<22.8	U	µg/kg	81.5	1	01/23/26 04:08	01/22/26 11:01
1,4-Dichlorobenzene (p- Dichlorobenzene)	EPA 8260D	<33.1	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<97.1	U	µg/kg	272	1	01/23/26 04:08	01/22/26 11:01
2-Hexanone	EPA 8260D	<20.2	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<38.0	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Acetone	EPA 8260D	<121	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
Benzene	EPA 8260D	<19.7	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Bromochloromethane	EPA 8260D	<20.7	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Bromodichloromethane	EPA 8260D	<22.8	SU	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Bromoform	EPA 8260D	<17.2	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Carbon disulfide	EPA 8260D	<21.1	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Carbon tetrachloride	EPA 8260D	<16.0	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Chlorobenzene	EPA 8260D	<13.5	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Chlorodibromomethane	EPA 8260D	<22.9	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Chloroethane (Ethyl chloride)	EPA 8260D	<114	SU	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
Chloroform	EPA 8260D	<14.9	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
cis-1,2-Dichloroethylene	EPA 8260D	<26.2	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
cis-1,3-Dichloropropene	EPA 8260D	<30.7	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Cyclohexane	EPA 8260D	<31.2	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<49.3	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
Ethylbenzene	EPA 8260D	<28.9	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Isopropylbenzene	EPA 8260D	<25.8	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
m+p-Xylene	EPA 8260D	<54.4	U	µg/kg	81.5	1	01/23/26 04:08	01/22/26 11:01
Methyl acetate	EPA 8260D	<48.8	U	µg/kg	340	1	01/23/26 04:08	01/22/26 11:01
Methyl bromide (Bromomethane)	EPA 8260D	<78.0	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB01 (1-2')_20260121

Lab ID: HN2601020-001

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<111	U	µg/kg	136	1	01/23/26 04:08	01/22/26 11:01
Methyl tert-butyl ether (MTBE)	EPA 8260D	<29.7	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Methylcyclohexane	EPA 8260D	<15.5	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Methylene chloride (Dichloromethane)	EPA 8260D	<108	U	µg/kg	340	1	01/23/26 04:08	01/22/26 11:01
o-Xylene	EPA 8260D	<15.8	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Styrene	EPA 8260D	<16.2	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<24.6	SU	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Toluene	EPA 8260D	<33.6	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Total Xylene	EPA 8260D	<15.8	U	µg/kg	122	1	01/23/26 04:08	01/22/26 11:01
trans-1,2-Dichloroethylene	EPA 8260D	<33.6	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
trans-1,3-Dichloropropylene	EPA 8260D	<22.8	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Trichloroethene (Trichloroethylene)	EPA 8260D	<18.3	SU	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<20.8	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
Vinyl chloride (Chloroethene)	EPA 8260D	<27.1	U	µg/kg	40.8	1	01/23/26 04:08	01/22/26 11:01
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	99.0		%REC	<i>80-120</i>	<i>1</i>	<i>01/23/26 04:08</i>	<i>01/22/26 11:01</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	98.8		%REC	<i>80-120</i>	<i>1</i>	<i>01/23/26 04:08</i>	<i>01/22/26 11:01</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	96.2		%REC	<i>72-120</i>	<i>1</i>	<i>01/23/26 04:08</i>	<i>01/22/26 11:01</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	98.2		%REC	<i>80-120</i>	<i>1</i>	<i>01/23/26 04:08</i>	<i>01/22/26 11:01</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.59	U	µg/kg	14.1	1	01/28/26 15:16	01/22/26 15:09
2,4,5-TP (Silvex)	EPA 8151A	<4.61	U	µg/kg	14.1	1	01/28/26 15:16	01/22/26 15:09
2,4-D	EPA 8151A	<7.51	U	µg/kg	28.1	1	01/28/26 15:16	01/22/26 15:09
Surr: DCAA	EPA 8151A	28.0		%REC	10-116	1	01/28/26 15:16	01/22/26 15:09
General Chemistry Parameters								
Percent Moisture	EPA 3550C	14.5		%	0.1	1	01/22/26 11:24	NA
Chloride	EPA 9056A	16.3		mg/kg	11.6	1	01/22/26 21:49	01/22/26 15:48
Metals								
Arsenic	EPA 6020B	6.86		mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Barium	EPA 6020B	46.0		mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Cadmium	EPA 6020B	<0.203	U	mg/kg	1.35	10	01/27/26 17:11	01/27/26 08:01
Chromium	EPA 6020B	12.6		mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Copper	EPA 6020B	14.8		mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Lead	EPA 6020B	8.09		mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Selenium	EPA 6020B	<3.11	U	mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Silver	EPA 6020B	<0.446	U	mg/kg	3.38	10	01/27/26 17:11	01/27/26 08:01
Zinc	EPA 6020B	44.7		mg/kg	6.76	10	01/27/26 17:11	01/27/26 08:01
Mercury	EPA 7471B	0.0210		mg/kg	0.0200	1	01/29/26 10:53	01/28/26 11:03
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<17.6	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
4,4'-DDE	EPA 8081B	<18.1	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
4,4'-DDT	EPA 8081B	<18.3	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Aldrin	EPA 8081B	<17.9	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
alpha-BHC	EPA 8081B	<18.1	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
beta-BHC	EPA 8081B	<18.1	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Chlordane, Technical	EPA 8081B	<27.3	U	µg/kg	68.8	1	01/26/26 12:49	01/23/26 08:43
cis-Chlordane	EPA 8081B	<18.4	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
delta-BHC	EPA 8081B	<18.0	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Dieldrin	EPA 8081B	<19.3	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<18.5	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Endosulfan II	EPA 8081B	<18.2	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Endosulfan sulfate	EPA 8081B	<16.9	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Endrin	EPA 8081B	<22.3	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Endrin aldehyde	EPA 8081B	<17.5	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Endrin ketone	EPA 8081B	<16.8	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
gamma-BHC (Lindane)	EPA 8081B	<18.1	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Heptachlor	EPA 8081B	<17.8	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Heptachlor epoxide	EPA 8081B	<18.2	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Methoxychlor	EPA 8081B	<18.4	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
Toxaphene	EPA 8081B	<29.7	U	µg/kg	165	1	01/26/26 12:49	01/23/26 08:43
trans-Chlordane	EPA 8081B	<18.3	U	µg/kg	27.5	1	01/26/26 12:49	01/23/26 08:43
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	94.9		%REC	53-151	1	01/26/26 12:49	01/23/26 08:43
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	76.0		%REC	67-127	1	01/26/26 12:49	01/23/26 08:43

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<63.0	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1221	EPA 8082A	<63.0	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1232	EPA 8082A	<63.0	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1242	EPA 8082A	<63.0	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1248	EPA 8082A	<63.0	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1254	EPA 8082A	<51.3	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1260	EPA 8082A	<51.3	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1262	EPA 8082A	<51.3	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Aroclor 1268	EPA 8082A	<51.3	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
Total PCB	EPA 8082A	<51.3	U	µg/kg	184	1	01/24/26 16:32	01/23/26 08:24
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	126		%REC	54-146	1	01/24/26 16:32	01/23/26 08:24
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	97.3		%REC	58-140	1	01/24/26 16:32	01/23/26 08:24

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<15.0	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<21.3	U	µg/kg	923	1	01/27/26 01:45	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<66.2	U	µg/kg	462	1	01/27/26 01:45	01/23/26 09:37
1-Methylnaphthalene	EPA 8270E	<13.3	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<21.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2,3,4,6-Tetrachlorophenol	EPA 8270E	<67.6	U	µg/kg	185	1	01/27/26 01:45	01/23/26 09:37
2,4,5-Trichlorophenol	EPA 8270E	<54.7	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2,4,6-Trichlorophenol	EPA 8270E	<24.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2,4-Dichlorophenol	EPA 8270E	<49.7	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2,4-Dimethylphenol	EPA 8270E	<47.5	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2,4-Dinitrophenol	EPA 8270E	<675	U	µg/kg	923	1	01/27/26 01:45	01/23/26 09:37
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<60.0	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<23.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2-Chloronaphthalene	EPA 8270E	<12.9	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
2-Chlorophenol	EPA 8270E	<60.4	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<77.1	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2-Methylnaphthalene	EPA 8270E	<9.39	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
2-Methylphenol (o-Cresol)	EPA 8270E	<25.0	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2-Nitroaniline	EPA 8270E	<51.3	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
2-Nitrophenol	EPA 8270E	<26.3	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
3&4-Methylphenol	EPA 8270E	<50.3	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
3,3'-Dichlorobenzidine	EPA 8270E	<43.1	U	µg/kg	462	1	01/27/26 01:45	01/23/26 09:37
3-Nitroaniline	EPA 8270E	<53.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<50.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
4-Chloro-3-methylphenol	EPA 8270E	<26.3	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
4-Chloroaniline	EPA 8270E	<46.9	U	µg/kg	185	1	01/27/26 01:45	01/23/26 09:37
4-Chlorophenyl phenylether	EPA 8270E	<25.5	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
4-Nitroaniline	EPA 8270E	<143	U	µg/kg	462	1	01/27/26 01:45	01/23/26 09:37
4-Nitrophenol	EPA 8270E	<216	U	µg/kg	923	1	01/27/26 01:45	01/23/26 09:37
Acenaphthene	EPA 8270E	<13.4	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<16.0	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Acetophenone	EPA 8270E	<14.5	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Anthracene	EPA 8270E	<13.0	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Atrazine	EPA 8270E	<54.1	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Benzaldehyde	EPA 8270E	<142	U	µg/kg	185	1	01/27/26 18:21	01/23/26 09:37
Benzo(a)anthracene	EPA 8270E	20.3		µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Benzo(a)pyrene	EPA 8270E	<11.3	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Benzo(b)fluoranthene	EPA 8270E	27.7		µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Benzo(g,h,i)perylene	EPA 8270E	<14.2	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Benzo(k)fluoranthene	EPA 8270E	<14.0	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
bis(2-Chloroethoxy) methane	EPA 8270E	<58.5	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
bis(2-Chloroethyl) ether	EPA 8270E	<26.2	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Butyl benzyl phthalate	EPA 8270E	<116	U	µg/kg	185	1	01/27/26 01:45	01/23/26 09:37
Caprolactam	EPA 8270E	<83.3	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Carbazole	EPA 8270E	<27.2	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Chrysene	EPA 8270E	<14.9	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	<76.4	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Dibenz(a,h) anthracene	EPA 8270E	<9.98	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Dibenzofuran	EPA 8270E	<13.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Diethyl phthalate	EPA 8270E	<31.4	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Dimethyl phthalate	EPA 8270E	<18.0	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Fluoranthene	EPA 8270E	31.4		µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Fluorene	EPA 8270E	<13.4	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Hexachlorobenzene	EPA 8270E	<26.9	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Hexachlorobutadiene	EPA 8270E	<21.8	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Hexachlorocyclopentadiene	EPA 8270E	<87.6	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Hexachloroethane	EPA 8270E	<38.2	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Indeno(1,2,3-cd) pyrene	EPA 8270E	<12.9	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Isophorone	EPA 8270E	<18.0	U	µg/kg	462	1	01/27/26 01:45	01/23/26 09:37
Methylphenol, Total	EPA 8270E	<25.0	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<11.8	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Nitrobenzene	EPA 8270E	<31.0	U	µg/kg	462	1	01/27/26 01:45	01/23/26 09:37
n-Nitrosodi-n-propylamine	EPA 8270E	<15.2	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
N-Nitrosodiphenylamine	EPA 8270E	<53.5	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Pentachlorophenol	EPA 8270E	<73.4	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Phenanthrene	EPA 8270E	<8.59	U	µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Phenol	EPA 8270E	<46.4	U	µg/kg	91.4	1	01/27/26 01:45	01/23/26 09:37
Pyrene	EPA 8270E	29.6		µg/kg	18.5	1	01/27/26 01:45	01/23/26 09:37
Pyridine	EPA 8270E	<182	U	µg/kg	462	1	01/27/26 01:45	01/23/26 09:37
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	75.3		%REC	48-94	1	01/27/26 01:45	01/23/26 09:37
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	76.2		%REC	50-103	1	01/27/26 01:45	01/23/26 09:37
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	82.4		%REC	43-105	1	01/27/26 01:45	01/23/26 09:37
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	101		%REC	55-111	1	01/27/26 01:45	01/23/26 09:37
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	92.3		%REC	47-100	1	01/27/26 01:45	01/23/26 09:37
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	87.7		%REC	49-110	1	01/27/26 01:45	01/23/26 09:37

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<19.3	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,1,2,2-Tetrachloroethane	EPA 8260D	<18.8	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<27.0	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,1,2-Trichloroethane	EPA 8260D	<18.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,1-Dichloroethane	EPA 8260D	<15.5	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,1-Dichloroethylene	EPA 8260D	<13.8	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,2,3-Trichlorobenzene	EPA 8260D	<51.1	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
1,2,3-Trichloropropane	EPA 8260D	<17.8	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,2,4-Trichlorobenzene	EPA 8260D	<48.2	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
1,2,4-Trimethylbenzene	EPA 8260D	<31.2	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<39.2	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<25.0	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<16.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<25.0	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
1,2-Dichloropropane	EPA 8260D	<31.4	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,3,5-Trimethylbenzene	EPA 8260D	<30.1	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
1,3-Dichlorobenzene (m- Dichlorobenzene)	EPA 8260D	<29.4	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
1,3-Dichloropropene	EPA 8260D	<23.8	U	µg/kg	85.1	1	01/23/26 04:27	01/22/26 11:01
1,4-Dichlorobenzene (p- Dichlorobenzene)	EPA 8260D	<34.6	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<101	U	µg/kg	284	1	01/23/26 04:27	01/22/26 11:01
2-Hexanone	EPA 8260D	<21.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<39.7	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Acetone	EPA 8260D	<126	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
Benzene	EPA 8260D	<20.6	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Bromochloromethane	EPA 8260D	<21.6	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Bromodichloromethane	EPA 8260D	<23.8	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Bromoform	EPA 8260D	<17.9	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Carbon disulfide	EPA 8260D	<22.0	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Carbon tetrachloride	EPA 8260D	<16.7	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Chlorobenzene	EPA 8260D	<14.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Chlorodibromomethane	EPA 8260D	<23.9	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Chloroethane (Ethyl chloride)	EPA 8260D	<119	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
Chloroform	EPA 8260D	<15.6	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
cis-1,2-Dichloroethylene	EPA 8260D	<27.4	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
cis-1,3-Dichloropropene	EPA 8260D	<32.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Cyclohexane	EPA 8260D	<32.6	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<51.5	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
Ethylbenzene	EPA 8260D	<30.2	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Isopropylbenzene	EPA 8260D	<26.9	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
m+p-Xylene	EPA 8260D	<56.7	U	µg/kg	85.1	1	01/23/26 04:27	01/22/26 11:01
Methyl acetate	EPA 8260D	<51.0	U	µg/kg	355	1	01/23/26 04:27	01/22/26 11:01
Methyl bromide (Bromomethane)	EPA 8260D	<81.4	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:37
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB02 (3-4')_20260121

Lab ID: HN2601020-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<116	U	µg/kg	142	1	01/23/26 04:27	01/22/26 11:01
Methyl tert-butyl ether (MTBE)	EPA 8260D	<31.0	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Methylcyclohexane	EPA 8260D	<16.2	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Methylene chloride (Dichloromethane)	EPA 8260D	<113	U	µg/kg	355	1	01/23/26 04:27	01/22/26 11:01
o-Xylene	EPA 8260D	<16.5	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Styrene	EPA 8260D	<16.9	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<25.6	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Toluene	EPA 8260D	<35.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Total Xylene	EPA 8260D	<16.5	U	µg/kg	128	1	01/23/26 04:27	01/22/26 11:01
trans-1,2-Dichloroethylene	EPA 8260D	<35.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
trans-1,3-Dichloropropylene	EPA 8260D	<23.8	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Trichloroethene (Trichloroethylene)	EPA 8260D	<19.1	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<21.8	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Vinyl chloride (Chloroethene)	EPA 8260D	<28.3	U	µg/kg	42.6	1	01/23/26 04:27	01/22/26 11:01
Surr: 1,2-Dichloroethane-d4	EPA 8260D	96.4		%REC	80-120	1	01/23/26 04:27	01/22/26 11:01
Surr: 4-Bromofluorobenzene	EPA 8260D	99.8		%REC	80-120	1	01/23/26 04:27	01/22/26 11:01
Surr: Dibromofluoromethane	EPA 8260D	98.4		%REC	72-120	1	01/23/26 04:27	01/22/26 11:01
Surr: Toluene-d8	EPA 8260D	96.1		%REC	80-120	1	01/23/26 04:27	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorinated Herbicides by GC/ECD								
2,4,5-T	EPA 8151A	<2.54	U	µg/kg	13.8	1	01/28/26 15:29	01/22/26 15:09
2,4,5-TP (Silvex)	EPA 8151A	<4.53	U	µg/kg	13.8	1	01/28/26 15:29	01/22/26 15:09
2,4-D	EPA 8151A	<7.38	U	µg/kg	27.6	1	01/28/26 15:29	01/22/26 15:09
Surr: DCAA	EPA 8151A	38.0		%REC	10-116	1	01/28/26 15:29	01/22/26 15:09
General Chemistry Parameters								
Percent Moisture	EPA 3550C	19.0		%	0.1	1	01/22/26 11:24	NA
Chloride	EPA 9056A	32.2		mg/kg	12.3	1	01/22/26 21:57	01/22/26 15:48
Metals								
Arsenic	EPA 6020B	6.51		mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Barium	EPA 6020B	56.2		mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Cadmium	EPA 6020B	<0.188	U	mg/kg	1.25	10	01/27/26 17:13	01/27/26 08:01
Chromium	EPA 6020B	13.7		mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Copper	EPA 6020B	13.7		mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Lead	EPA 6020B	51.1		mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Selenium	EPA 6020B	<2.89	U	mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Silver	EPA 6020B	<0.414	U	mg/kg	3.14	10	01/27/26 17:13	01/27/26 08:01
Zinc	EPA 6020B	65.5		mg/kg	6.27	10	01/27/26 17:13	01/27/26 08:01
Mercury	EPA 7471B	0.0385		mg/kg	0.0236	1	01/29/26 10:55	01/28/26 11:03
Organochlorine Pesticides by GC/ECD								
4,4'-DDD	EPA 8081B	<19.5	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
4,4'-DDE	EPA 8081B	<20.1	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
4,4'-DDT	EPA 8081B	<20.3	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Aldrin	EPA 8081B	<19.9	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
alpha-BHC	EPA 8081B	<20.1	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
beta-BHC	EPA 8081B	<20.1	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Chlordane, Technical	EPA 8081B	<30.3	U	µg/kg	76.4	1	01/26/26 13:04	01/23/26 08:43
cis-Chlordane	EPA 8081B	<20.4	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
delta-BHC	EPA 8081B	<20.0	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Dieldrin	EPA 8081B	<21.4	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Endosulfan I	EPA 8081B	<20.5	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Endosulfan II	EPA 8081B	<20.2	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Endosulfan sulfate	EPA 8081B	<18.8	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Endrin	EPA 8081B	<24.7	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Endrin aldehyde	EPA 8081B	<19.4	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Endrin ketone	EPA 8081B	<18.6	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
gamma-BHC (Lindane)	EPA 8081B	<20.1	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Heptachlor	EPA 8081B	<19.7	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Heptachlor epoxide	EPA 8081B	<20.2	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Methoxychlor	EPA 8081B	<20.4	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
Toxaphene	EPA 8081B	<33.0	U	µg/kg	183	1	01/26/26 13:04	01/23/26 08:43
trans-Chlordane	EPA 8081B	<20.3	U	µg/kg	30.6	1	01/26/26 13:04	01/23/26 08:43
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8081B</i>	100		%REC	53-151	1	01/26/26 13:04	01/23/26 08:43
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8081B</i>	79.0		%REC	67-127	1	01/26/26 13:04	01/23/26 08:43

Polychlorinated Biphenyls (PCBs) by GC/ECD

Aroclor 1016	EPA 8082A	<69.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1221	EPA 8082A	<69.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1232	EPA 8082A	<69.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1242	EPA 8082A	<69.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1248	EPA 8082A	<69.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1254	EPA 8082A	<56.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1260	EPA 8082A	<56.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1262	EPA 8082A	<56.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Aroclor 1268	EPA 8082A	<56.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
Total PCB	EPA 8082A	<56.9	U	µg/kg	204	1	01/24/26 16:43	01/23/26 08:24
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	129		%REC	54-146	1	01/24/26 16:43	01/23/26 08:24
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	103		%REC	58-140	1	01/24/26 16:43	01/23/26 08:24

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	<15.7	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
1,2,4,5-Tetrachlorobenzene	EPA 8270E	<22.2	U	µg/kg	964	1	01/27/26 02:14	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	<69.2	U	µg/kg	482	1	01/27/26 02:14	01/23/26 09:37
1-Methylnaphthalene	EPA 8270E	<13.9	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	EPA 8270E	<22.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2,3,4,6-Tetrachlorophenol	EPA 8270E	<70.6	U	µg/kg	193	1	01/27/26 02:14	01/23/26 09:37
2,4,5-Trichlorophenol	EPA 8270E	<57.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2,4,6-Trichlorophenol	EPA 8270E	<25.7	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2,4-Dichlorophenol	EPA 8270E	<51.9	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2,4-Dimethylphenol	EPA 8270E	<49.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2,4-Dinitrophenol	EPA 8270E	<705	U	µg/kg	964	1	01/27/26 02:14	01/23/26 09:37
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	<62.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	<24.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2-Chloronaphthalene	EPA 8270E	<13.5	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
2-Chlorophenol	EPA 8270E	<63.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	<80.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2-Methylnaphthalene	EPA 8270E	<9.81	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
2-Methylphenol (o-Cresol)	EPA 8270E	<26.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2-Nitroaniline	EPA 8270E	<53.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
2-Nitrophenol	EPA 8270E	<27.5	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
3&4-Methylphenol	EPA 8270E	<52.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
3,3'-Dichlorobenzidine	EPA 8270E	<45.0	U	µg/kg	482	1	01/27/26 02:14	01/23/26 09:37
3-Nitroaniline	EPA 8270E	<56.0	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	<52.8	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
4-Chloro-3-methylphenol	EPA 8270E	<27.5	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
4-Chloroaniline	EPA 8270E	<49.0	U	µg/kg	193	1	01/27/26 02:14	01/23/26 09:37
4-Chlorophenyl phenylether	EPA 8270E	<26.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
4-Nitroaniline	EPA 8270E	<150	U	µg/kg	482	1	01/27/26 02:14	01/23/26 09:37
4-Nitrophenol	EPA 8270E	<226	U	µg/kg	964	1	01/27/26 02:14	01/23/26 09:37
Acenaphthene	EPA 8270E	<13.9	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	<16.7	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Acetophenone	EPA 8270E	<15.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Anthracene	EPA 8270E	36.7		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Atrazine	EPA 8270E	<56.5	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Benzaldehyde	EPA 8270E	<148	U	µg/kg	193	1	01/27/26 18:42	01/23/26 09:37
Benzo(a)anthracene	EPA 8270E	122		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Benzo(a)pyrene	EPA 8270E	106		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Benzo(b)fluoranthene	EPA 8270E	139		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Benzo(g,h,i)perylene	EPA 8270E	67.5		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Benzo(k)fluoranthene	EPA 8270E	46.3		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
bis(2-Chloroethoxy) methane	EPA 8270E	<61.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
bis(2-Chloroethyl) ether	EPA 8270E	<27.3	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Butyl benzyl phthalate	EPA 8270E	<121	U	µg/kg	193	1	01/27/26 02:14	01/23/26 09:37
Caprolactam	EPA 8270E	<87.0	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Carbazole	EPA 8270E	<28.4	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Chrysene	EPA 8270E	104		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	EPA 8270E	98.4		µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Dibenz(a,h) anthracene	EPA 8270E	<10.4	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Dibenzofuran	EPA 8270E	<14.2	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Diethyl phthalate	EPA 8270E	<32.8	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Dimethyl phthalate	EPA 8270E	<18.8	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Fluoranthene	EPA 8270E	276		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Fluorene	EPA 8270E	<14.0	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Hexachlorobenzene	EPA 8270E	<28.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Hexachlorobutadiene	EPA 8270E	<22.7	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Hexachlorocyclopentadiene	EPA 8270E	<91.4	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Hexachloroethane	EPA 8270E	<39.9	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Indeno(1,2,3-cd) pyrene	EPA 8270E	79.1		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Isophorone	EPA 8270E	<18.8	U	µg/kg	482	1	01/27/26 02:14	01/23/26 09:37
Methylphenol, Total	EPA 8270E	<26.1	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Naphthalene	EPA 8270E	<12.3	U	µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Nitrobenzene	EPA 8270E	<32.4	U	µg/kg	482	1	01/27/26 02:14	01/23/26 09:37
n-Nitrosodi-n-propylamine	EPA 8270E	<15.9	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
N-Nitrosodiphenylamine	EPA 8270E	<55.8	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Pentachlorophenol	EPA 8270E	<76.6	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Phenanthrene	EPA 8270E	172		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Phenol	EPA 8270E	<48.4	U	µg/kg	95.5	1	01/27/26 02:14	01/23/26 09:37
Pyrene	EPA 8270E	285		µg/kg	19.3	1	01/27/26 02:14	01/23/26 09:37
Pyridine	EPA 8270E	<190	U	µg/kg	482	1	01/27/26 02:14	01/23/26 09:37
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	70.0		%REC	48-94	1	01/27/26 02:14	01/23/26 09:37
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	67.9		%REC	50-103	1	01/27/26 02:14	01/23/26 09:37
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	71.3		%REC	43-105	1	01/27/26 02:14	01/23/26 09:37
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	85.9		%REC	55-111	1	01/27/26 02:14	01/23/26 09:37
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	80.8		%REC	47-100	1	01/27/26 02:14	01/23/26 09:37
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	78.2		%REC	49-110	1	01/27/26 02:14	01/23/26 09:37

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	<20.5	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,1,2,2-Tetrachloroethane	EPA 8260D	<20.0	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	<28.7	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,1,2-Trichloroethane	EPA 8260D	<19.2	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,1-Dichloroethane	EPA 8260D	<16.5	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,1-Dichloroethylene	EPA 8260D	<14.7	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,2,3-Trichlorobenzene	EPA 8260D	<54.3	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
1,2,3-Trichloropropane	EPA 8260D	<18.9	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,2,4-Trichlorobenzene	EPA 8260D	<51.3	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
1,2,4-Trimethylbenzene	EPA 8260D	<33.2	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,2-Dibromo-3-chloropropane (DBCP)	EPA 8260D	<41.7	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	<26.6	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	<17.2	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	<26.6	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
1,2-Dichloropropane	EPA 8260D	<33.4	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,3,5-Trimethylbenzene	EPA 8260D	<32.0	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
1,3-Dichlorobenzene (m- Dichlorobenzene)	EPA 8260D	<31.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
1,3-Dichloropropene	EPA 8260D	<25.3	U	µg/kg	90.5	1	01/23/26 04:46	01/22/26 11:01
1,4-Dichlorobenzene (p- Dichlorobenzene)	EPA 8260D	<36.8	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	<108	U	µg/kg	302	1	01/23/26 04:46	01/22/26 11:01
2-Hexanone	EPA 8260D	<22.4	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
4-Methyl-2-pentanone (MIBK)	EPA 8260D	<42.2	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Acetone	EPA 8260D	<134	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
Benzene	EPA 8260D	<21.9	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Bromochloromethane	EPA 8260D	<23.0	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Bromodichloromethane	EPA 8260D	<25.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Bromoform	EPA 8260D	<19.1	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Carbon disulfide	EPA 8260D	<23.4	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Carbon tetrachloride	EPA 8260D	<17.7	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Chlorobenzene	EPA 8260D	<15.0	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Chlorodibromomethane	EPA 8260D	<25.4	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Chloroethane (Ethyl chloride)	EPA 8260D	<127	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
Chloroform	EPA 8260D	<16.6	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
cis-1,2-Dichloroethylene	EPA 8260D	<29.1	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
cis-1,3-Dichloropropene	EPA 8260D	<34.1	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Cyclohexane	EPA 8260D	<34.7	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
Dichlorodifluoromethane (Freon-12)	EPA 8260D	<54.8	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
Ethylbenzene	EPA 8260D	<32.1	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Isopropylbenzene	EPA 8260D	<28.6	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
m+p-Xylene	EPA 8260D	<60.3	U	µg/kg	90.5	1	01/23/26 04:46	01/22/26 11:01
Methyl acetate	EPA 8260D	<54.2	U	µg/kg	377	1	01/23/26 04:46	01/22/26 11:01
Methyl bromide (Bromomethane)	EPA 8260D	<86.6	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID

Work Order: HN2601020
Date Collected: 01/21/26 14:48
Date Received: 01/22/26 06:00

CLIENT ID: 5532 SB03 (5-6')_20260121

Lab ID: HN2601020-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methyl chloride (Chloromethane)	EPA 8260D	<124	U	µg/kg	151	1	01/23/26 04:46	01/22/26 11:01
Methyl tert-butyl ether (MTBE)	EPA 8260D	<33.0	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Methylcyclohexane	EPA 8260D	<17.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Methylene chloride (Dichloromethane)	EPA 8260D	<120	U	µg/kg	377	1	01/23/26 04:46	01/22/26 11:01
o-Xylene	EPA 8260D	<17.5	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Styrene	EPA 8260D	<17.9	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	<27.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Toluene	EPA 8260D	<37.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Total Xylene	EPA 8260D	<17.5	U	µg/kg	136	1	01/23/26 04:46	01/22/26 11:01
trans-1,2-Dichloroethylene	EPA 8260D	<37.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
trans-1,3-Dichloropropylene	EPA 8260D	<25.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Trichloroethene (Trichloroethylene)	EPA 8260D	<20.3	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	<23.1	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
Vinyl chloride (Chloroethene)	EPA 8260D	<30.1	U	µg/kg	45.3	1	01/23/26 04:46	01/22/26 11:01
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	98.9		%REC	80-120	1	01/23/26 04:46	01/22/26 11:01
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	98.4		%REC	80-120	1	01/23/26 04:46	01/22/26 11:01
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	97.2		%REC	72-120	1	01/23/26 04:46	01/22/26 11:01
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	99.6		%REC	80-120	1	01/23/26 04:46	01/22/26 11:01



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426825

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3846327

Chlorinated Herbicides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2426825-001
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/28/26 10:05
Prep Date: 01/22/26 15:10

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							U
2,4,5-TP (Silvex)	<1.64	µg/kg	5.00							U
2,4-D	<2.67	µg/kg	10.0							U
Surr: DCAA	17.0	µg/kg		50		34.0	10-116			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426825-002
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/28/26 10:05
Prep Date: 01/22/26 15:10

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	28.0	µg/kg	5.00	50		56.0	10-119			
2,4,5-TP (Silvex)	26.0	µg/kg	5.00	50		52.0	10-101			
2,4-D	28.0	µg/kg	10.0	50		56.0	10-128			
Surr: DCAA	24.0	µg/kg		50		48.0	10-116			

MS	CLIENT ID: Batch QC	Lab ID: QC-2426825-005
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/28/26 10:05
Prep Date: 01/22/26 15:10

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	29.8	µg/kg	5.80	49.731	<0.915	60.0	10-119			
2,4,5-TP (Silvex)	25.9	µg/kg	5.80	49.731	<1.63	52.0	10-101			
2,4-D	30.8	µg/kg	11.6	49.731	<2.66	62.0	10-128			
Surr: DCAA	22.9	µg/kg		49.731		46.0	10-116			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2426825-006
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Method: EPA 8151A **Dilution:** 1 **Analysis Date:** 01/28/26 10:05
Prep Date: 01/22/26 15:10

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-T	28.7	µg/kg	5.77	49.515	<0.920	58.0	10-119	3.83	30	
2,4,5-TP (Silvex)	25.7	µg/kg	5.77	49.515	<1.64	52.0	10-101	0.437	30	
2,4-D	29.7	µg/kg	11.5	49.515	<2.67	60.0	10-128	3.72	30	
Surr: DCAA	24.8	µg/kg		49.515		50.0	10-116	7.90	30	

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426213

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3835783

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2426213-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/22/26 11:24
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							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426213-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/22/26 11:24
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			

DUP	CLIENT ID: 5532 SB01 (1-2')_20260121	Lab ID: QC-2426213-004
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/22/26 11:24
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	14.4	%	0.1		14.0			2.82	10	

DUP	CLIENT ID: Batch QC	Lab ID: QC-2426213-015
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 01/22/26 11:24
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	16.6	%	0.1		15.8			4.81	10	

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426447

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3838208

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-2426447-001
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/23/26 09:26
Prep Date: 01/22/26 15:49

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426447-002
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/22/26 21:17
Prep Date: 01/22/26 15:49

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	93.3	mg/kg	10.0	100		93.3	87-110			

MS	CLIENT ID: 5532 SB01 (1-2')_20260121	Lab ID: QC-2426447-004
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/22/26 21:33
Prep Date: 01/22/26 15:49

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	112	mg/kg	11.4	98.232	22.0	94.7	87-110			

MSD	CLIENT ID: 5532 SB01 (1-2')_20260121	Lab ID: QC-2426447-005
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Method: EPA 9056A **Dilution:** 1 **Analysis Date:** 01/22/26 21:41
Prep Date: 01/22/26 15:49

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chloride	113	mg/kg	11.5	99.01	22.0	95.5	87-110	1.35	15	

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2431011

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844403

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2431011-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 01/27/26 16:32
Prep Date: 01/27/26 08:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	<0.0300	mg/kg	0.250							U
Barium	<0.230	mg/kg	0.250							U
Cadmium	<0.0150	mg/kg	0.100							U
Chromium	<0.110	mg/kg	0.250							U
Copper	<0.250	mg/kg	0.250							U
Lead	<0.120	mg/kg	0.250							U
Selenium	<0.230	mg/kg	0.250							U
Silver	<0.0330	mg/kg	0.250							U
Zinc	<0.490	mg/kg	0.500							U

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2431011-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 01/27/26 16:34
Prep Date: 01/27/26 08:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	5.02	mg/kg	0.250	5		100	80-120			
Barium	5.11	mg/kg	0.250	5		102	80-120			
Cadmium	5.07	mg/kg	0.100	5		101	80-120			
Chromium	5.06	mg/kg	0.250	5		101	80-120			
Copper	4.94	mg/kg	0.250	5		98.8	80-120			
Lead	5.14	mg/kg	0.250	5		103	80-120			
Selenium	4.96	mg/kg	0.250	5		99.2	80-120			
Silver	5.05	mg/kg	0.250	5		101	80-120			
Zinc	4.95	mg/kg	0.500	5		99.0	80-120			

MS	CLIENT ID: Batch QC	Lab ID: QC-2431011-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 01/27/26 16:37
Prep Date: 01/27/26 08:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.3	mg/kg	3.86	5.9242	8.38	81.7	75-125			
Barium	158	mg/kg	3.86	5	209	NC	75-125			O
Cadmium	5.93	mg/kg	1.54	5.9242	<0.178	98.0	75-125			
Chromium	21.7	mg/kg	3.86	5.9242	18.6	126	75-125			S
Copper	16.5	mg/kg	3.86	5.9242	14.5	91.0	75-125			
Lead	18.4	mg/kg	3.86	5.9242	18.9	65.4	75-125			S
Selenium	5.90	mg/kg	3.86	5.9242	<2.73	86.4	75-125			
Silver	5.68	mg/kg	3.86	5.9242	<0.391	94.8	75-125			
Zinc	55.8	mg/kg	7.72	5	64.0	NC	75-125			O

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2431011

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844403

MSD	CLIENT ID: Batch QC	Lab ID: QC-2431011-005
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Method: EPA 6020B

Dilution: 10

Analysis Date: 01/27/26 16:39

Prep Date: 01/27/26 08:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.9	mg/kg	3.87	5.9382	8.38	92.8	75-125	5.78	20	
Barium	186	mg/kg	3.87	5	209	NC	75-125	16.4	20	O
Cadmium	6.16	mg/kg	1.55	5.9382	<0.178	102	75-125	3.73	20	
Chromium	21.7	mg/kg	3.87	5.9382	18.6	125	75-125	0.127	20	
Copper	17.2	mg/kg	3.87	5.9382	14.5	102	75-125	3.81	20	
Lead	23.3	mg/kg	3.87	5.9382	18.9	147	75-125	23.3	20	RS
Selenium	6.42	mg/kg	3.87	5.9382	<2.73	95.0	75-125	8.49	20	
Silver	6.09	mg/kg	3.87	5.9382	<0.392	101	75-125	6.86	20	
Zinc	66.5	mg/kg	7.74	5	64.0	NC	75-125	17.4	20	O

PDS	CLIENT ID: Batch QC	Lab ID: QC-2431011-007
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Method: EPA 6020B

Dilution: 10

Analysis Date: 01/27/26 16:42

Prep Date: 01/27/26 08:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	65.0	mg/kg	3.84	58.893	8.38	99.5	75-125			
Barium	211	mg/kg	3.84	58.893	209	85.8	75-125			
Cadmium	56.7	mg/kg	1.53	58.893	<0.177	96.0	75-125			
Chromium	71.1	mg/kg	3.84	58.893	18.6	96.6	75-125			
Copper	67.6	mg/kg	3.84	58.893	14.5	95.9	75-125			
Lead	72.2	mg/kg	3.84	58.893	18.9	98.0	75-125			
Selenium	57.7	mg/kg	3.84	58.893	<2.71	96.6	75-125			
Silver	47.2	mg/kg	3.84	58.893	<0.389	80.1	75-125			
Zinc	106	mg/kg	7.67	58.893	64.0	95.8	75-125			

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2432805

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3848639

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-2432805-001
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/29/26 10:42
Prep Date: 01/28/26 11:04

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2432805-002
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/29/26 10:44
Prep Date: 01/28/26 11:04

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.162	mg/kg	0.0200	0.1665		97.1	80-120			

MS	CLIENT ID: Batch QC	Lab ID: QC-2432805-004
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/29/26 10:48
Prep Date: 01/28/26 11:04

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.0123	mg/kg	2.01	0.15045	<0.0123	78.1	75-125			U

MSD	CLIENT ID: Batch QC	Lab ID: QC-2432805-005
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 01/29/26 10:49
Prep Date: 01/28/26 11:04

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	<0.0136	mg/kg	2.04	0.15298	<0.0136	77.1	75-125	NC		U

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427577

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3842917

Organochlorine Pesticides by GC/ECD

MB	CLIENT ID: Method Blank	Lab ID: QC-2427577-001
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 01/25/26 21:32**Prep Date:** 01/23/26 08:44

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	39.8	µg/kg		33.33		120	53-151			
Surr: Tetrachloro-m-xylene	28.6	µg/kg		33.33		85.9	67-127			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2427577-002
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Method: EPA 8081B**Dilution:** 1**Analysis Date:** 01/25/26 21:47**Prep Date:** 01/23/26 08:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	29.9	µg/kg	10.0	33.33		89.6	55-141			
4,4'-DDE	29.8	µg/kg	10.0	33.33		89.5	55-143			
4,4'-DDT	31.3	µg/kg	10.0	33.33		94.0	50-144			
Aldrin	30.4	µg/kg	10.0	33.33		91.4	57-141			
alpha-BHC	30.2	µg/kg	10.0	33.33		90.7	58-144			
beta-BHC	29.6	µg/kg	10.0	33.33		89.0	55-147			
cis-Chlordane	30.1	µg/kg	10.0	33.33		90.3	58-142			
delta-BHC	30.6	µg/kg	10.0	33.33		91.8	59-142			
Dieldrin	30.0	µg/kg	10.0	33.33		89.9	59-142			
Endosulfan I	29.8	µg/kg	10.0	33.33		89.3	57-145			
Endosulfan II	30.3	µg/kg	10.0	33.33		91.0	58-138			
Endosulfan sulfate	30.6	µg/kg	10.0	33.33		92.0	54-136			
Endrin	33.0	µg/kg	10.0	33.33		98.9	45-150			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427577

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3842917

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2427577-002
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/25/26 21:47

Prep Date: 01/23/26 08:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Endrin aldehyde	34.1	µg/kg	10.0	33.33		102	41-147			
Endrin ketone	31.4	µg/kg	10.0	33.33		94.1	54-146			
gamma-BHC (Lindane)	29.8	µg/kg	10.0	33.33		89.4	58-145			
Heptachlor	36.6	µg/kg	10.0	33.33		110	51-145			
Heptachlor epoxide	30.3	µg/kg	10.0	33.33		90.8	59-143			
Methoxychlor	33.1	µg/kg	10.0	33.33		99.4	43-144			
trans-Chlordane	29.8	µg/kg	10.0	33.33		89.6	56-145			
Surr: Decachlorobiphenyl	37.8	µg/kg		33.33		113	51-151			
Surr: Tetrachloro-m-xylene	28.3	µg/kg		33.33		85.0	67-127			

MS	CLIENT ID: Batch QC	Lab ID: QC-2427577-005
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/26/26 04:12

Prep Date: 01/23/26 08:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	31.0	µg/kg	10.9	33.065	<6.34	93.6	55-141			
4,4'-DDE	29.8	µg/kg	10.9	33.065	<6.54	90.2	55-143			
4,4'-DDT	33.5	µg/kg	10.9	33.065	<6.60	101	50-144			
Aldrin	31.5	µg/kg	10.9	33.065	<6.45	95.3	57-141			
alpha-BHC	31.8	µg/kg	10.9	33.065	<6.53	96.2	58-144			
beta-BHC	30.8	µg/kg	10.9	33.065	<6.51	93.1	55-147			
cis-Chlordane	31.1	µg/kg	10.9	33.065	<6.63	94.2	58-142			
delta-BHC	32.5	µg/kg	10.9	33.065	<6.50	98.2	59-142			
Dieldrin	30.8	µg/kg	10.9	33.065	<6.94	93.1	59-142			
Endosulfan I	30.8	µg/kg	10.9	33.065	<6.67	93.3	57-145			
Endosulfan II	32.3	µg/kg	10.9	33.065	<6.57	97.6	58-138			
Endosulfan sulfate	32.9	µg/kg	10.9	33.065	<6.10	99.5	54-135			
Endrin	34.6	µg/kg	10.9	33.065	<8.03	105	45-150			
Endrin aldehyde	38.8	µg/kg	10.9	33.065	<6.29	117	41-147			
Endrin ketone	33.2	µg/kg	10.9	33.065	<6.04	101	54-146			
gamma-BHC (Lindane)	31.6	µg/kg	10.9	33.065	<6.51	95.5	58-145			
Heptachlor	38.9	µg/kg	10.9	33.065	<6.40	118	51-145			
Heptachlor epoxide	31.5	µg/kg	10.9	33.065	<6.56	95.3	59-143			
Methoxychlor	35.9	µg/kg	10.9	33.065	<6.63	108	43-144			
trans-Chlordane	31.1	µg/kg	10.9	33.065	<6.59	93.9	56-145			
Surr: Decachlorobiphenyl	39.5	µg/kg		33.065		119	53-151			
Surr: Tetrachloro-m-xylene	29.4	µg/kg		33.065		88.8	67-127			

MSD	CLIENT ID: Batch QC	Lab ID: QC-2427577-006
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/26/26 04:27

Prep Date: 01/23/26 08:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDD	33.4	µg/kg	10.8	32.76	<6.39	102	55-141	7.71	20	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427577

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3842917

MSD	CLIENT ID: Batch QC	Lab ID: QC-2427577-006
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Method: EPA 8081B

Dilution: 1

Analysis Date: 01/26/26 04:27

Prep Date: 01/23/26 08:44

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4,4'-DDE	31.6	µg/kg	10.8	32.76	<6.59	96.4	55-143	5.72	20	
4,4'-DDT	36.9	µg/kg	10.8	32.76	<6.65	112	50-144	9.55	20	
Aldrin	33.7	µg/kg	10.8	32.76	<6.50	103	57-141	6.74	20	
alpha-BHC	34.3	µg/kg	10.8	32.76	<6.58	105	58-144	7.39	20	
beta-BHC	32.2	µg/kg	10.8	32.76	<6.57	98.4	55-147	4.61	20	
cis-Chlordane	33.4	µg/kg	10.8	32.76	<6.68	102	58-142	7.08	20	
delta-BHC	34.6	µg/kg	10.8	32.76	<6.55	106	59-142	6.29	20	
Dieldrin	33.3	µg/kg	10.8	32.76	<6.99	102	59-142	8.01	20	
Endosulfan I	33.0	µg/kg	10.8	32.76	<6.72	101	57-145	6.85	20	
Endosulfan II	33.7	µg/kg	10.8	32.76	<6.62	103	58-138	4.31	20	
Endosulfan sulfate	33.9	µg/kg	10.8	32.76	<6.15	104	54-135	3.11	20	
Endrin	37.1	µg/kg	10.8	32.76	<8.09	113	45-150	6.87	20	
Endrin aldehyde	39.4	µg/kg	10.8	32.76	<6.34	120	41-147	1.64	20	
Endrin ketone	34.8	µg/kg	10.8	32.76	<6.08	106	54-146	4.73	20	
gamma-BHC (Lindane)	33.9	µg/kg	10.8	32.76	<6.56	104	58-145	7.11	20	
Heptachlor	41.8	µg/kg	10.8	32.76	<6.45	128	51-145	7.06	20	
Heptachlor epoxide	33.8	µg/kg	10.8	32.76	<6.62	103	59-143	6.94	20	
Methoxychlor	38.3	µg/kg	10.8	32.76	<6.69	117	43-144	6.49	20	
trans-Chlordane	33.3	µg/kg	10.8	32.76	<6.64	102	56-145	7.05	20	
Surr: Decachlorobiphenyl	41.2	µg/kg		32.76		126	53-151	4.17	30	
Surr: Tetrachloro-m-xylene	30.1	µg/kg		32.76		91.9	67-127	2.45	30	

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427576

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3842889

Polychlorinated Biphenyls (PCBs) by GC/ECD

MB	CLIENT ID: Method Blank				Lab ID: QC-2427576-001					
Method: EPA 8082A			Dilution: 1		Analysis Date: 01/23/26 23:51					
					Prep Date: 01/23/26 08:25					
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	<22.9	µg/kg	66.7							U
Aroclor 1221	<22.9	µg/kg	66.7							U
Aroclor 1232	<22.9	µg/kg	66.7							U
Aroclor 1242	<22.9	µg/kg	66.7							U
Aroclor 1248	<22.9	µg/kg	66.7							U
Aroclor 1254	<18.6	µg/kg	66.7							U
Aroclor 1260	<18.6	µg/kg	66.7							U
Aroclor 1262	<18.6	µg/kg	66.7							U
Aroclor 1268	<18.6	µg/kg	66.7							U
Total PCB	<18.6	µg/kg	66.7							U
Surr: Decachlorobiphenyl	37.8	µg/kg		33.3		113	54-146			
Surr: Tetrachloro-m-xylene	34.4	µg/kg		33.3		103	58-140			

LCS		CLIENT ID: Laboratory Control Sample				Lab ID: QC-2427576-002				
Method: EPA 8082A		Dilution: 1		Analysis Date: 01/24/26 00:03						
				Prep Date: 01/23/26 08:25						
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	788	µg/kg	66.7	833		94.6	71-135			
Aroclor 1260	784	µg/kg	66.7	833		94.2	67-135			
Surr: Decachlorobiphenyl	37.0	µg/kg		33.3		111	54-146			
Surr: Tetrachloro-m-xylene	31.8	µg/kg		33.3		95.5	58-140			

MS		CLIENT ID: 5532 SB01 (1-2')_20260121					Lab ID: QC-2427576-005				
Method: EPA 8082A		Dilution: 1					Analysis Date: 01/24/26 05:32				
							Prep Date: 01/23/26 08:25				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual	
Aroclor 1016	1720	µg/kg	182	1953	<53.6	87.8	71-135				
Aroclor 1260	1680	µg/kg	182	1953	<43.7	86.1	67-135				
Surr: Decachlorobiphenyl	83.8	µg/kg		78.071		107	54-146				
Surr: Tetrachloro-m-xylene	68.9	µg/kg		78.071		88.2	58-140				

MSD		CLIENT ID: 5532 SB01 (1-2')_20260121					Lab ID: QC-2427576-006				
Method: EPA 8082A			Dilution: 1			Analysis Date: 01/24/26 05:44					
						Prep Date: 01/23/26 08:25					
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual	
Aroclor 1016	1850	µg/kg	192	2067.3	<56.7	89.6	71-135	7.63	20		
Aroclor 1260	1700	µg/kg	192	2067.3	<46.2	82.1	67-135	0.997	20		
Surr: Decachlorobiphenyl	83.5	µg/kg		82.644		101	54-146	0.362	30		
Surr: Tetrachloro-m-xylene	75.0	µg/kg		82.644		90.8	58-140	8.54	30		

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427576

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3842889

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

Semivolatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2427579-001
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/26/26 21:59

Prep Date: 01/23/26 09:38

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

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

MB	CLIENT ID: Method Blank	Lab ID: QC-2427579-001
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/26/26 21:59**Prep Date:** 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	<41.7	µg/kg	67.0							U
Caprolactam	<30.1	µg/kg	33.0							U
Carbazole	<9.82	µg/kg	33.0							U
Chrysene	<5.39	µg/kg	6.67							U
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	<27.6	µg/kg	33.0							U
Dibenz(a,h) anthracene	<3.60	µg/kg	33.0							U
Dibenzofuran	<4.90	µg/kg	33.0							U
Diethyl phthalate	<11.3	µg/kg	33.0							U
Dimethyl phthalate	<6.50	µg/kg	33.0							U
Fluoranthene	<3.20	µg/kg	6.67							U
Fluorene	<4.84	µg/kg	6.67							U
Hexachlorobenzene	<9.70	µg/kg	33.0							U
Hexachlorobutadiene	<7.85	µg/kg	33.0							U
Hexachlorocyclopentadiene	<31.6	µg/kg	33.0							U
Hexachloroethane	<13.8	µg/kg	33.0							U
Indeno(1,2,3-cd) pyrene	<4.64	µg/kg	6.67							U
Isophorone	<6.51	µg/kg	167							U
Methylphenol, Total	<9.01	µg/kg	67.0							U
Naphthalene	<4.26	µg/kg	6.67							U
Nitrobenzene	<11.2	µg/kg	167							U
n-Nitrosodi-n-propylamine	<5.50	µg/kg	33.0							U
N-Nitrosodiphenylamine	<19.3	µg/kg	33.0							U
Pentachlorophenol	<26.5	µg/kg	33.0							U
Phenanthrene	<3.10	µg/kg	6.67							U
Phenol	<16.7	µg/kg	33.0							U
Pyrene	<3.33	µg/kg	6.67							U
Pyridine	<65.6	µg/kg	167							U
Surr: 2,4,6-Tribromophenol	2280	µg/kg		3333		68.4	48-94			
Surr: 2-Fluorobiphenyl	2460	µg/kg		3333		73.7	50-103			
Surr: 2-Fluorophenol	2560	µg/kg		3333		76.7	43-105			
Surr: 4-Terphenyl-d14	3060	µg/kg		3333		91.8	55-111			
Surr: Nitrobenzene-d5	2880	µg/kg		3333		86.5	47-100			
Surr: Phenol-d6	2590	µg/kg		3333		77.8	49-110			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2427579-002
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/26/26 22:27**Prep Date:** 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1070	µg/kg	33.0	1333		80.3	57-101			
1,2,4,5-Tetrachlorobenzene	1050	µg/kg	33.0	1333		78.9	54-98			
1-Methylnaphthalene	1070	µg/kg	6.67	1333		80.0	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1010	µg/kg	33.0	1333		75.5	50-101			
2,3,4,6-Tetrachlorophenol	979	µg/kg	67.0	1333		73.5	48-103			



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2427579-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/26/26 22:27

Prep Date: 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	984	µg/kg	33.0	1333		73.8	54-98			
2,4,6-Trichlorophenol	943	µg/kg	33.0	1333		70.7	56-97			
2,4-Dichlorophenol	1030	µg/kg	33.0	1333		77.2	54-99			
2,4-Dimethylphenol	891	µg/kg	33.0	1333		66.8	47-102			
2,4-Dinitrophenol	705	µg/kg	333	1333		52.9	10-100			
2,4-Dinitrotoluene (2,4-DNT)	978	µg/kg	33.0	1333		73.4	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1010	µg/kg	33.0	1333		75.9	62-103			
2-Chloronaphthalene	935	µg/kg	6.67	1333		70.2	57-101			
2-Chlorophenol	981	µg/kg	33.0	1333		73.6	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	930	µg/kg	33.0	1333		69.8	42-104			
2-Methylnaphthalene	1050	µg/kg	6.67	1333		79.0	55-102			
2-Methylphenol (o-Cresol)	965	µg/kg	33.0	1333		72.4	54-103			
2-Nitroaniline	845	µg/kg	33.0	1333		63.4	57-103			
2-Nitrophenol	1050	µg/kg	33.0	1333		78.9	52-102			
3&4-Methylphenol	971	µg/kg	33.0	1333		72.9	56-103			
3,3'-Dichlorobenzidine	705	µg/kg	167	1333		52.9	41-91			
3-Nitroaniline	723	µg/kg	33.0	1333		54.2	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1060	µg/kg	33.0	1333		79.7	63-104			
4-Chloro-3-methylphenol	1050	µg/kg	33.0	1333		78.7	57-103			
4-Chloroaniline	983	µg/kg	67.0	1333		73.7	32-99			
4-Chlorophenyl phenylether	993	µg/kg	33.0	1333		74.5	62-100			
4-Nitroaniline	591	µg/kg	167	1333		44.3	19-124			
4-Nitrophenol	889	µg/kg	333	1333		66.7	44-106			
Acenaphthene	995	µg/kg	6.67	1333		74.7	60-101			
Acenaphthylene	997	µg/kg	6.67	1333		74.8	59-101			
Acetophenone	981	µg/kg	33.0	1333		73.6	54-102			
Anthracene	1050	µg/kg	6.67	1333		78.8	63-96			
Atrazine	1110	µg/kg	33.0	1333		83.2	60-110			
Benzaldehyde	415	µg/kg	67.0	1333		31.2	10-143			
Benzo(a)anthracene	1060	µg/kg	6.67	1333		79.6	66-102			
Benzo(a)pyrene	1070	µg/kg	6.67	1333		80.5	66-105			
Benzo(b)fluoranthene	923	µg/kg	6.67	1333		69.2	67-105			
Benzo(g,h,i)perylene	1100	µg/kg	6.67	1333		82.4	59-110			
Benzo(k)fluoranthene	1100	µg/kg	6.67	1333		82.8	68-106			
bis(2-Chloroethoxy)methane	1010	µg/kg	33.0	1333		75.5	54-102			
bis(2-Chloroethyl) ether	1020	µg/kg	33.0	1333		76.8	51-101			
Butyl benzyl phthalate	1150	µg/kg	67.0	1333		86.0	59-107			
Caprolactam	840	µg/kg	33.0	1333		63.0	49-103			
Carbazole	1040	µg/kg	33.0	1333		77.8	63-103			
Chrysene	1210	µg/kg	6.67	1333		91.0	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1220	µg/kg	33.0	1333		91.5	63-101			
Dibenz(a,h) anthracene	1030	µg/kg	33.0	1333		77.6	61-109			
Dibenzofuran	997	µg/kg	33.0	1333		74.8	61-101			
Diethyl phthalate	1010	µg/kg	33.0	1333		75.8	63-105			



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2427579-002
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/26/26 22:27**Prep Date:** 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dimethyl phthalate	1010	µg/kg	33.0	1333		76.1	64-104			
Fluoranthene	1030	µg/kg	6.67	1333		77.4	66-105			
Fluorene	964	µg/kg	6.67	1333		72.3	62-101			
Hexachlorobenzene	1040	µg/kg	33.0	1333		77.7	61-104			
Hexachlorobutadiene	1080	µg/kg	33.0	1333		81.0	52-99			
Hexachlorocyclopentadiene	1090	µg/kg	33.0	1333		81.7	39-106			
Hexachloroethane	989	µg/kg	33.0	1333		74.2	59-99			
Indeno(1,2,3-cd) pyrene	1080	µg/kg	6.67	1333		81.0	57-114			
Isophorone	1080	µg/kg	167	1333		81.3	55-101			
Methylphenol, Total	1940	µg/kg	67.0	2667		72.6	54-103			
Naphthalene	1020	µg/kg	6.67	1333		76.8	54-99			
Nitrobenzene	1090	µg/kg	167	1333		81.6	53-100			
n-Nitrosodi-n-propylamine	976	µg/kg	33.0	1333		73.2	52-104			
N-Nitrosodiphenylamine	1030	µg/kg	33.0	1333		77.2	61-104			
Pentachlorophenol	877	µg/kg	33.0	1333		65.8	35-100			
Phenanthrene	988	µg/kg	6.67	1333		74.1	64-101			
Phenol	992	µg/kg	33.0	1333		74.4	51-107			
Pyrene	1200	µg/kg	6.67	1333		90.4	62-114			
Pyridine	825	µg/kg	167	1333		61.9	40-84			
Surr: 2,4,6-Tribromophenol	2690	µg/kg		3333		80.6	48-94			
Surr: 2-Fluorobiphenyl	2620	µg/kg		3333		78.5	50-103			
Surr: 2-Fluorophenol	2640	µg/kg		3333		79.2	43-105			
Surr: 4-Terphenyl-d14	3020	µg/kg		3333		90.7	55-111			
Surr: Nitrobenzene-d5	3180	µg/kg		3333		95.5	47-100			
Surr: Phenol-d6	2730	µg/kg		3333		81.8	49-110			

MS	CLIENT ID: Batch QC	Lab ID: QC-2427579-005
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Method: EPA 8270E**Dilution:** 1**Analysis Date:** 01/26/26 22:55**Prep Date:** 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1100	µg/kg	34.6	1316.3	<5.34	83.5	57-101			
1,2,4,5-Tetrachlorobenzene	1070	µg/kg	349	1316.3	<7.59	81.2	54-98			
1-Methylnaphthalene	1080	µg/kg	6.98	1316.3	<4.74	82.4	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1020	µg/kg	34.6	1316.3	<7.71	77.4	50-101			
2,3,4,6-Tetrachlorophenol	1040	µg/kg	69.8	1316.3	<24.1	78.9	48-103			
2,4,5-Trichlorophenol	997	µg/kg	34.6	1316.3	<19.5	75.8	54-98			
2,4,6-Trichlorophenol	964	µg/kg	34.6	1316.3	<8.76	73.3	56-97			
2,4-Dichlorophenol	1050	µg/kg	34.6	1316.3	<17.7	79.6	54-99			
2,4-Dimethylphenol	900	µg/kg	34.6	1316.3	<16.9	68.4	47-102			
2,4-Dinitrophenol	<241	µg/kg	349	1316.3	<241	24.9	10-100			
2,4-Dinitrotoluene (2,4-DNT)	986	µg/kg	34.6	1316.3	<21.4	74.9	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1020	µg/kg	34.6	1316.3	<8.40	77.6	62-103			
2-Chloronaphthalene	925	µg/kg	6.98	1316.3	<4.60	70.3	57-101			

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QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

MS	CLIENT ID: Batch QC	Lab ID: QC-2427579-005
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/26/26 22:55

Prep Date: 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2-Chlorophenol	987	µg/kg	34.6	1316.3	<21.5	75.0	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	735	µg/kg	34.6	1316.3	<27.5	55.8	42-104			
2-Methylnaphthalene	1080	µg/kg	6.98	1316.3	<3.35	81.9	55-102			
2-Methylphenol (o-Cresol)	989	µg/kg	34.6	1316.3	<8.90	75.2	54-103			
2-Nitroaniline	849	µg/kg	34.6	1316.3	<18.3	64.5	57-103			
2-Nitrophenol	1060	µg/kg	34.6	1316.3	<9.38	80.3	52-102			
3&4-Methylphenol	1010	µg/kg	34.6	1316.3	<17.9	76.5	56-103			
3,3'-Dichlorobenzidine	347	µg/kg	175	1316.3	<15.4	26.4	41-91			S
3-Nitroaniline	668	µg/kg	34.6	1316.3	<19.1	50.8	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1050	µg/kg	34.6	1316.3	<18.0	79.4	63-104			
4-Chloro-3-methylphenol	1080	µg/kg	34.6	1316.3	<9.38	82.3	57-103			
4-Chloroaniline	844	µg/kg	69.8	1316.3	<16.7	64.1	32-99			
4-Chlorophenyl phenylether	1010	µg/kg	34.6	1316.3	<9.09	76.9	62-100			
4-Nitroaniline	591	µg/kg	175	1316.3	<51.1	44.9	19-124			
4-Nitrophenol	875	µg/kg	349	1316.3	<77.1	66.5	44-106			
Acenaphthene	998	µg/kg	6.98	1316.3	<4.76	75.8	60-101			
Acenaphthylene	996	µg/kg	6.98	1316.3	<5.71	75.7	59-101			
Acetophenone	1010	µg/kg	34.6	1316.3	<5.15	76.5	54-102			
Anthracene	1060	µg/kg	6.98	1316.3	<4.64	80.8	63-96			
Atrazine	1180	µg/kg	34.6	1316.3	<19.3	90.0	60-110			
Benzo(a)anthracene	1080	µg/kg	6.98	1316.3	17.4	80.4	66-102			
Benzo(a)pyrene	1100	µg/kg	6.98	1316.3	18.8	82.1	66-105			
Benzo(b)fluoranthene	1000	µg/kg	6.98	1316.3	30.0	74.0	67-105			
Benzo(g,h,i)perylene	1050	µg/kg	6.98	1316.3	15.3	78.4	59-110			
Benzo(k)fluoranthene	1070	µg/kg	6.98	1316.3	9.76	80.6	68-106			
bis(2-Chloroethoxy)methane	1020	µg/kg	34.6	1316.3	<20.8	77.4	54-102			
bis(2-Chloroethyl) ether	1080	µg/kg	34.6	1316.3	<9.32	81.9	51-101			
Butyl benzyl phthalate	1220	µg/kg	69.8	1316.3	<41.2	92.9	59-107			
Caprolactam	916	µg/kg	34.6	1316.3	<29.7	69.6	49-103			
Carbazole	1020	µg/kg	34.6	1316.3	<9.70	77.6	63-103			
Chrysene	1230	µg/kg	6.98	1316.3	18.8	92.4	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1260	µg/kg	34.6	1316.3	<27.2	95.4	63-101			
Dibenz(a,h) anthracene	997	µg/kg	34.6	1316.3	<3.55	75.8	61-109			
Dibenzofuran	998	µg/kg	34.6	1316.3	<4.84	75.8	61-101			
Diethyl phthalate	1030	µg/kg	34.6	1316.3	<11.2	78.3	63-105			
Dimethyl phthalate	1010	µg/kg	34.6	1316.3	<6.42	76.9	64-104			
Fluoranthene	1100	µg/kg	6.98	1316.3	31.4	81.5	66-105			
Fluorene	976	µg/kg	6.98	1316.3	<4.78	74.1	62-101			
Hexachlorobenzene	1030	µg/kg	34.6	1316.3	<9.58	78.4	61-104			
Hexachlorobutadiene	1060	µg/kg	34.6	1316.3	<7.75	80.7	52-99			
Hexachlorocyclopentadiene	972	µg/kg	34.6	1316.3	<32.2	73.8	39-106			
Hexachloroethane	965	µg/kg	34.6	1316.3	<13.6	73.3	59-99			
Indeno(1,2,3-cd) pyrene	1110	µg/kg	6.98	1316.3	19.5	82.9	57-114			
Isophorone	1090	µg/kg	175	1316.3	<6.43	82.5	55-101			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

MS		CLIENT ID: Batch QC				Lab ID: QC-2427579-005				
Method: EPA 8270E		Dilution: 1				Analysis Date: 01/26/26 22:55				
						Prep Date: 01/23/26 09:38				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Methylphenol, Total	2000	µg/kg	34.6	2633.6	<8.90	75.8	54-103			
Naphthalene	1040	µg/kg	6.98	1316.3	<4.21	79.2	54-99			
Nitrobenzene	1080	µg/kg	175	1316.3	<11.1	81.9	53-100			
n-Nitrosodi-n-propylamine	1020	µg/kg	34.6	1316.3	<5.43	77.2	52-104			
N-Nitrosodiphenylamine	1040	µg/kg	34.6	1316.3	<19.1	79.3	61-104			
Pentachlorophenol	844	µg/kg	34.6	1316.3	<26.1	64.1	35-100			
Phenanthrene	1030	µg/kg	6.98	1316.3	13.2	76.9	64-101			
Phenol	1070	µg/kg	34.6	1316.3	<16.5	81.3	51-107			
Pyrene	1280	µg/kg	6.98	1316.3	30.0	95.0	52-114			
Pyridine	922	µg/kg	175	1316.3	<64.8	70.1	40-84			
Surr: 2,4,6-Tribromophenol	2620	µg/kg		3291.3		79.7	48-94			
Surr: 2-Fluorobiphenyl	2480	µg/kg		3291.3		75.2	50-103			
Surr: 2-Fluorophenol	2430	µg/kg		3291.3		73.9	43-105			
Surr: 4-Terphenyl-d14	2990	µg/kg		3291.3		90.9	55-111			
Surr: Nitrobenzene-d5	3030	µg/kg		3291.3		91.9	47-100			
Surr: Phenol-d6	2670	µg/kg		3291.3		81.0	49-110			

MSD		CLIENT ID: Batch QC				Lab ID: QC-2427579-006				
Method: EPA 8270E		Dilution: 1				Analysis Date: 01/26/26 23:24				
						Prep Date: 01/23/26 09:38				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	1120	µg/kg	34.5	1313.7	<5.41	85.6	57-101	2.29	30	
1,2,4,5-Tetrachlorobenzene	1090	µg/kg	348	1313.7	<7.69	83.0	54-98	2.00	30	
1-Methylnaphthalene	1120	µg/kg	6.97	1313.7	<4.80	85.3	56-100	3.20	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	1060	µg/kg	34.5	1313.7	<7.81	81.0	50-101	4.35	30	
2,3,4,6-Tetrachlorophenol	1120	µg/kg	69.7	1313.7	<24.4	85.2	48-103	7.49	30	
2,4,5-Trichlorophenol	1040	µg/kg	34.5	1313.7	<19.8	78.9	54-98	3.88	30	
2,4,6-Trichlorophenol	999	µg/kg	34.5	1313.7	<8.87	76.1	56-97	3.55	30	
2,4-Dichlorophenol	1100	µg/kg	34.5	1313.7	<17.9	84.0	54-99	5.24	30	
2,4-Dimethylphenol	1030	µg/kg	34.5	1313.7	<17.1	78.5	47-102	13.6	30	
2,4-Dinitrophenol	378	µg/kg	348	1313.7	<244	28.8	10-100	NC		
2,4-Dinitrotoluene (2,4-DNT)	1010	µg/kg	34.5	1313.7	<21.6	76.8	62-105	2.24	30	
2,6-Dinitrotoluene (2,6-DNT)	1030	µg/kg	34.5	1313.7	<8.51	78.6	62-103	1.08	30	
2-Chloronaphthalene	937	µg/kg	6.97	1313.7	<4.66	71.3	57-101	1.29	30	
2-Chlorophenol	1040	µg/kg	34.5	1313.7	<21.8	79.0	52-102	5.00	30	
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	774	µg/kg	34.5	1313.7	<27.8	58.9	42-104	5.21	30	
2-Methylnaphthalene	1090	µg/kg	6.97	1313.7	<3.39	83.3	55-102	1.44	30	
2-Methylphenol (o-Cresol)	1060	µg/kg	34.5	1313.7	<9.01	80.5	54-103	6.62	30	
2-Nitroaniline	892	µg/kg	34.5	1313.7	<18.5	67.9	57-103	4.94	30	
2-Nitrophenol	1110	µg/kg	34.5	1313.7	<9.50	84.8	52-102	5.32	30	
3&4-Methylphenol	1070	µg/kg	34.5	1313.7	<18.2	81.7	56-103	6.38	30	
3,3'-Dichlorobenzidine	348	µg/kg	174	1313.7	<15.6	26.5	41-91	0.181	30	S
3-Nitroaniline	633	µg/kg	34.5	1313.7	<19.4	48.2	35-107	5.45	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

MSD	CLIENT ID: Batch QC	Lab ID: QC-2427579-006
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/26/26 23:24

Prep Date: 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
4-Bromophenyl phenyl ether (BDE-3)	1080	µg/kg	34.5	1313.7	<18.3	82.1	63-104	3.09	30	
4-Chloro-3-methylphenol	1150	µg/kg	34.5	1313.7	<9.50	87.4	57-103	5.87	30	
4-Chloroaniline	855	µg/kg	69.7	1313.7	<16.9	65.1	32-99	1.35	30	
4-Chlorophenyl phenylether	1030	µg/kg	34.5	1313.7	<9.21	78.7	62-100	2.12	30	
4-Nitroaniline	529	µg/kg	174	1313.7	<51.7	40.3	19-124	11.0	30	
4-Nitrophenol	936	µg/kg	348	1313.7	<78.1	71.2	44-106	6.70	30	
Acenaphthene	1020	µg/kg	6.97	1313.7	<4.82	77.3	60-101	1.76	30	
Acenaphthylene	1020	µg/kg	6.97	1313.7	<5.78	77.7	59-101	2.48	30	
Acetophenone	1050	µg/kg	34.5	1313.7	<5.22	79.6	54-102	3.71	30	
Anthracene	1060	µg/kg	6.97	1313.7	<4.70	80.7	63-96	0.321	30	
Atrazine	1210	µg/kg	34.5	1313.7	<19.5	92.0	60-110	1.95	30	
Benzo(a)anthracene	1070	µg/kg	6.97	1313.7	17.4	80.6	66-102	0.0138	30	
Benzo(a)pyrene	1140	µg/kg	6.97	1313.7	18.8	85.3	66-105	3.51	30	
Benzo(b)fluoranthene	1040	µg/kg	6.97	1313.7	30.0	76.8	67-105	3.35	30	
Benzo(g,h,i)perylene	1090	µg/kg	6.97	1313.7	15.3	81.7	59-110	3.87	30	
Benzo(k)fluoranthene	1100	µg/kg	6.97	1313.7	9.76	82.9	68-106	2.65	30	
bis(2-Chloroethoxy)methane	1060	µg/kg	34.5	1313.7	<21.1	81.0	54-102	4.35	30	
bis(2-Chloroethyl) ether	1140	µg/kg	34.5	1313.7	<9.44	87.0	51-101	5.84	30	
Butyl benzyl phthalate	1210	µg/kg	69.7	1313.7	<41.7	92.0	59-107	1.17	30	
Caprolactam	980	µg/kg	34.5	1313.7	<30.1	74.6	49-103	6.81	30	
Carbazole	1040	µg/kg	34.5	1313.7	<9.82	79.0	63-103	1.59	30	
Chrysene	1230	µg/kg	6.97	1313.7	18.8	91.9	66-105	0.679	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1260	µg/kg	34.5	1313.7	<27.6	96.0	63-101	0.482	30	
Dibenz(a,h) anthracene	1040	µg/kg	34.5	1313.7	<3.60	79.1	61-109	4.13	30	
Dibenzofuran	1030	µg/kg	34.5	1313.7	<4.90	78.5	61-101	3.30	30	
Diethyl phthalate	1050	µg/kg	34.5	1313.7	<11.3	79.8	63-105	1.70	30	
Dimethyl phthalate	1030	µg/kg	34.5	1313.7	<6.50	78.6	64-104	1.99	30	
Fluoranthene	1100	µg/kg	6.97	1313.7	31.4	81.4	66-105	0.317	30	
Fluorene	1010	µg/kg	6.97	1313.7	<4.84	76.8	62-101	3.32	30	
Hexachlorobenzene	1060	µg/kg	34.5	1313.7	<9.70	80.4	61-104	2.32	30	
Hexachlorobutadiene	1090	µg/kg	34.5	1313.7	<7.85	83.3	52-99	2.91	30	
Hexachlorocyclopentadiene	957	µg/kg	34.5	1313.7	<32.6	72.9	39-106	1.49	30	
Hexachloroethane	998	µg/kg	34.5	1313.7	<13.8	76.0	59-99	3.35	30	
Indeno(1,2,3-cd) pyrene	1150	µg/kg	6.97	1313.7	19.5	85.8	57-114	3.19	30	
Isophorone	1130	µg/kg	174	1313.7	<6.51	85.9	55-101	3.90	30	
Methylphenol, Total	2130	µg/kg	67.0	2628.4	<9.01	81.1	54-103	6.50	30	
Naphthalene	1060	µg/kg	6.97	1313.7	<4.26	80.5	54-99	1.37	30	
Nitrobenzene	1110	µg/kg	174	1313.7	<11.2	84.6	53-100	3.11	30	
n-Nitrosodi-n-propylamine	1060	µg/kg	34.5	1313.7	<5.50	80.8	52-104	4.42	30	
N-Nitrosodiphenylamine	1070	µg/kg	34.5	1313.7	<19.3	81.1	61-104	2.05	30	
Pentachlorophenol	913	µg/kg	34.5	1313.7	<26.5	69.5	35-100	7.89	30	
Phenanthrene	1030	µg/kg	6.97	1313.7	13.2	77.2	64-101	0.123	30	
Phenol	1130	µg/kg	34.5	1313.7	<16.7	86.2	51-107	5.65	30	
Pyrene	1280	µg/kg	6.97	1313.7	30.0	95.3	52-114	0.111	30	
Pyridine	970	µg/kg	174	1313.7	<65.6	73.8	40-84	5.02	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2427579

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3844874

MSD	CLIENT ID: Batch QC	Lab ID: QC-2427579-006
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Method: EPA 8270E

Dilution: 1

Analysis Date: 01/26/26 23:24

Prep Date: 01/23/26 09:38

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 2,4,6-Tribromophenol	2760	µg/kg		3284.8		84.0	48-94	5.03	30	
Surr: 2-Fluorobiphenyl	2540	µg/kg		3284.8		77.4	50-103	2.63	30	
Surr: 2-Fluorophenol	2600	µg/kg		3284.8		79.2	43-105	6.65	30	
Surr: 4-Terphenyl-d14	3050	µg/kg		3284.8		92.8	55-111	1.85	30	
Surr: Nitrobenzene-d5	3170	µg/kg		3284.8		96.6	47-100	4.77	30	
Surr: Phenol-d6	2860	µg/kg		3284.8		87.1	49-110	7.11	30	

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00
Run ID: 3838611

Volatile Organic Compounds by GC-MS

MS CLIENT ID: 5532 SB01 (1-2')_20260121 Lab ID: QC-2426227-005

Method: EPA 8260D

Dilution: 1

Analysis Date: 01/23/26 07:39

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1010	µg/kg	40.8	1028.8	<14.0	98.6	75-121			
1,1,2,2-Tetrachloroethane	598	µg/kg	40.8	1028.8	<13.6	58.2	79-125			S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1120	µg/kg	40.8	1028.8	<19.5	109	62-129			
1,1,2-Trichloroethane	930	µg/kg	40.8	1028.8	<13.1	90.4	80-123			
1,1-Dichloroethane	980	µg/kg	40.8	1028.8	<11.3	95.3	74-124			
1,1-Dichloroethylene	1080	µg/kg	40.8	1028.8	<10.0	105	68-131			
1,2,3-Trichlorobenzene	844	µg/kg	136	1028.8	<37.0	82.0	60-135			
1,2,3-Trichloropropane	920	µg/kg	40.8	1028.8	<12.9	89.4	77-121			
1,2,4-Trichlorobenzene	882	µg/kg	136	1028.8	<35.0	85.7	63-130			
1,2,4-Trimethylbenzene	985	µg/kg	40.8	1028.8	<22.6	95.7	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	751	µg/kg	136	1028.8	<28.4	73.0	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	965	µg/kg	40.8	1028.8	<18.1	93.8	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	952	µg/kg	40.8	1028.8	<11.7	92.5	77-122			
1,2-Dichloroethane (Ethylene dichloride)	982	µg/kg	136	1028.8	<27.1	95.4	70-130			
1,2-Dichloropropane	933	µg/kg	40.8	1028.8	<22.7	90.6	71-130			
1,3,5-Trimethylbenzene	1020	µg/kg	136	1028.8	<21.8	99.6	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	965	µg/kg	40.8	1028.8	<21.3	93.8	78-121			
1,3-Dichloropropene	1720	µg/kg	81.5	2057.6	<17.2	83.6	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	961	µg/kg	40.8	1028.8	<25.1	93.4	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	1040	µg/kg	272	1028.8	<73.5	102	47-164			
2-Hexanone	1130	µg/kg	40.8	1028.8	<15.3	110	70-137			
4-Methyl-2-pentanone (MIBK)	1240	µg/kg	40.8	1028.8	<28.8	120	57-200			
Acetone	1540	µg/kg	136	1028.8	<91.6	150	52-190			
Benzene	1040	µg/kg	40.8	1028.8	<14.9	101	78-122			
Bromochloromethane	959	µg/kg	40.8	1028.8	<15.7	93.2	68-130			
Bromodichloromethane	949	µg/kg	40.8	1028.8	<17.3	92.2	75-125			
Bromoform	844	µg/kg	40.8	1028.8	<13.0	82.0	59-120			
Carbon disulfide	1180	µg/kg	40.8	1028.8	<16.0	115	60-163			
Carbon tetrachloride	998	µg/kg	40.8	1028.8	<12.1	97.0	69-123			
Chlorobenzene	978	µg/kg	40.8	1028.8	<10.2	95.0	79-120			
Chlorodibromomethane	922	µg/kg	40.8	1028.8	<17.3	89.6	57-123			
Chloroethane (Ethyl chloride)	<86.4	µg/kg	136	1028.8	<86.4	7.35	38-132			SU
Chloroform	961	µg/kg	40.8	1028.8	<11.3	93.4	72-122			
cis-1,2-Dichloroethylene	946	µg/kg	40.8	1028.8	<19.8	92.0	74-125			
cis-1,3-Dichloropropene	883	µg/kg	40.8	1028.8	<23.3	85.8	62-124			
Dichlorodifluoromethane (Freon-12)	664	µg/kg	136	1028.8	<37.4	64.6	28-137			
Ethylbenzene	1030	µg/kg	40.8	1028.8	<21.9	99.9	75-121			
Isopropylbenzene	1030	µg/kg	40.8	1028.8	<19.5	101	74-121			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00
Run ID: 3838611

MS	CLIENT ID: 5532 SB01 (1-2')_20260121	Lab ID: QC-2426227-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/23/26 07:39

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
m+p-Xylene	2110	µg/kg	81.5	2057.6	<41.2	102	67-129			
Methyl acetate	982	µg/kg	340	1028.8	<37.0	95.4	61-125			
Methyl bromide (Bromomethane)	407	µg/kg	136	1028.8	<59.0	39.6	31-169			
Methyl chloride (Chloromethane)	673	µg/kg	136	1028.8	<84.4	65.4	24-119			
Methyl tert-butyl ether (MTBE)	941	µg/kg	40.8	1028.8	<22.5	91.4	79-139			
Methylene chloride (Dichloromethane)	744	µg/kg	340	1028.8	<81.9	72.3	62-135			
o-Xylene	1020	µg/kg	40.8	1028.8	<11.9	99.4	75-120			
Styrene	992	µg/kg	40.8	1028.8	<12.2	96.4	74-126			
Tetrachloroethylene (Perchloroethylene)	1930	µg/kg	40.8	1028.8	<18.6	188	76-128			S
Toluene	1010	µg/kg	40.8	1028.8	<25.4	98.6	76-120			
Total Xylene	3130	µg/kg	122	3086.4	<11.9	101	67-129			
trans-1,2-Dichloroethylene	1010	µg/kg	40.8	1028.8	<25.5	98.6	72-127			
trans-1,3-Dichloropropylene	837	µg/kg	40.8	1028.8	<17.2	81.4	66-120			
Trichloroethene (Trichloroethylene)	1300	µg/kg	40.8	1028.8	<13.8	126	75-122			S
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	830	µg/kg	40.8	1028.8	<15.8	80.7	51-115			
Vinyl chloride (Chloroethene)	766	µg/kg	40.8	1028.8	<20.5	74.5	43-128			
Surr: 1,2-Dichloroethane-d4	1020	µg/kg		1028.8		98.8	80-120			
Surr: 4-Bromofluorobenzene	1040	µg/kg		1028.8		101	80-120			
Surr: Dibromofluoromethane	1000	µg/kg		1028.8		97.6	72-120			
Surr: Toluene-d8	995	µg/kg		1028.8		96.8	80-120			

MSD	CLIENT ID: 5532 SB01 (1-2')_20260121	Lab ID: QC-2426227-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/23/26 07:58

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1070	µg/kg	40.8	1028.8	<14.0	104	75-121	5.76	30	
1,1,2,2-Tetrachloroethane	588	µg/kg	40.8	1028.8	<13.6	57.2	79-125	1.65	30	S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1120	µg/kg	40.8	1028.8	<19.5	109	62-129	0.0460	30	
1,1,2-Trichloroethane	925	µg/kg	40.8	1028.8	<13.1	90.0	80-123	0.499	30	
1,1-Dichloroethane	990	µg/kg	40.8	1028.8	<11.3	96.2	74-124	0.992	30	
1,1-Dichloroethylene	1050	µg/kg	40.8	1028.8	<10.0	102	68-131	3.58	30	
1,2,3-Trichlorobenzene	892	µg/kg	136	1028.8	<37.0	86.8	60-135	5.63	30	
1,2,3-Trichloropropane	896	µg/kg	40.8	1028.8	<12.9	87.1	77-121	2.61	30	
1,2,4-Trichlorobenzene	912	µg/kg	136	1028.8	<35.0	88.6	63-130	3.38	30	
1,2,4-Trimethylbenzene	979	µg/kg	40.8	1028.8	<22.6	95.2	64-126	0.524	30	
1,2-Dibromo-3-chloropropane (DBCP)	779	µg/kg	136	1028.8	<28.4	75.8	55-135	3.70	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	938	µg/kg	40.8	1028.8	<18.1	91.2	63-155	2.81	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	973	µg/kg	40.8	1028.8	<11.7	94.6	77-122	2.19	30	
1,2-Dichloroethane (Ethylene dichloride)	1010	µg/kg	136	1028.8	<27.1	98.4	70-130	3.09	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00
Run ID: 3838611

MSD		CLIENT ID: 5532 SB01 (1-2')_20260121				Lab ID: QC-2426227-006				
Method: EPA 8260D		Dilution: 1				Analysis Date: 01/23/26 07:58				
						Prep Date: 01/22/26 11:02				
Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloropropane	965	µg/kg	40.8	1028.8	<22.7	93.8	71-130	3.42	30	
1,3,5-Trimethylbenzene	1020	µg/kg	136	1028.8	<21.8	99.0	66-130	0.554	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	975	µg/kg	40.8	1028.8	<21.3	94.8	78-121	1.06	30	
1,3-Dichloropropene	1730	µg/kg	81.5	2057.6	<17.2	84.2	62-124	0.775	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	967	µg/kg	40.8	1028.8	<25.1	94.0	78-122	0.640	30	
2-Butanone (Methyl ethyl ketone, MEK)	1090	µg/kg	272	1028.8	<73.5	106	47-164	4.53	30	
2-Hexanone	1160	µg/kg	40.8	1028.8	<15.3	113	70-137	3.01	30	
4-Methyl-2-pentanone (MIBK)	1200	µg/kg	40.8	1028.8	<28.8	116	57-200	3.55	30	
Acetone	1530	µg/kg	136	1028.8	<91.6	149	52-190	0.871	30	
Benzene	1090	µg/kg	40.8	1028.8	<14.9	106	78-122	4.48	30	
Bromochloromethane	934	µg/kg	40.8	1028.8	<15.7	90.8	68-130	2.72	30	
Bromodichloromethane	452	µg/kg	40.8	1028.8	<17.3	44.0	75-125	70.9	30	RS
Bromoform	845	µg/kg	40.8	1028.8	<13.0	82.2	59-120	0.122	30	
Carbon disulfide	1200	µg/kg	40.8	1028.8	<16.0	116	60-163	1.21	30	
Carbon tetrachloride	1020	µg/kg	40.8	1028.8	<12.1	99.4	69-123	2.34	30	
Chlorobenzene	981	µg/kg	40.8	1028.8	<10.2	95.4	79-120	0.368	30	
Chlorodibromomethane	903	µg/kg	40.8	1028.8	<17.3	87.8	57-123	2.14	30	
Chloroethane (Ethyl chloride)	<86.4	µg/kg	136	1028.8	<86.4	9.60	38-132	0		US
Chloroform	972	µg/kg	40.8	1028.8	<11.3	94.5	72-122	1.12	30	
cis-1,2-Dichloroethylene	981	µg/kg	40.8	1028.8	<19.8	95.4	74-125	3.63	30	
cis-1,3-Dichloropropene	916	µg/kg	40.8	1028.8	<23.3	89.0	62-124	3.66	30	
Dichlorodifluoromethane (Freon-12)	673	µg/kg	136	1028.8	<37.4	65.4	28-137	1.38	30	
Ethylbenzene	1040	µg/kg	40.8	1028.8	<21.9	101	75-121	0.996	30	
Isopropylbenzene	1050	µg/kg	40.8	1028.8	<19.5	102	74-121	1.28	30	
m+p-Xylene	2090	µg/kg	81.5	2057.6	<41.2	101	67-129	0.981	30	
Methyl acetate	1040	µg/kg	340	1028.8	<37.0	101	61-125	6.00	30	
Methyl bromide (Bromomethane)	417	µg/kg	136	1028.8	<59.0	40.5	31-169	2.37	30	
Methyl chloride (Chloromethane)	708	µg/kg	136	1028.8	<84.4	68.8	24-119	5.07	30	
Methyl tert-butyl ether (MTBE)	967	µg/kg	40.8	1028.8	<22.5	94.0	79-139	2.70	30	
Methylene chloride (Dichloromethane)	717	µg/kg	340	1028.8	<81.9	69.6	62-135	3.73	30	
o-Xylene	1020	µg/kg	40.8	1028.8	<11.9	99.0	75-120	0.504	30	
Styrene	993	µg/kg	40.8	1028.8	<12.2	96.6	74-126	0.104	30	
Tetrachloroethylene (Perchloroethylene)	1910	µg/kg	40.8	1028.8	<18.6	186	76-128	1.23	30	S
Toluene	999	µg/kg	40.8	1028.8	<25.4	97.1	76-120	1.53	30	
Total Xylene	3100	µg/kg	122	3086.4	<11.9	101	67-129	0.825	30	
trans-1,2-Dichloroethylene	1030	µg/kg	40.8	1028.8	<25.5	99.8	72-127	1.26	30	
trans-1,3-Dichloropropylene	818	µg/kg	40.8	1028.8	<17.2	79.5	66-120	2.36	30	
Trichloroethene (Trichloroethylene)	1330	µg/kg	40.8	1028.8	<13.8	129	75-122	1.80	30	S
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	846	µg/kg	40.8	1028.8	<15.8	82.2	51-115	1.90	30	
Vinyl chloride (Chloroethene)	767	µg/kg	40.8	1028.8	<20.5	74.6	43-128	0.134	30	
Surr: 1,2-Dichloroethane-d4	1040	µg/kg		1028.8		101	80-120	2.25	30	
Surr: 4-Bromofluorobenzene	1010	µg/kg		1028.8		98.1	80-120	3.06	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: 01/21/26 14:27
Date Received: 01/22/26 06:00
Run ID: 3838611

MSD	CLIENT ID: 5532 SB01 (1-2')_20260121	Lab ID: QC-2426227-006
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Method: EPA 8260D **Dilution:** 1 **Analysis Date:** 01/23/26 07:58
Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
<i>Surr: Dibromofluoromethane</i>	1010	<i>µg/kg</i>		1028.8		98.1	72-120	0.562	30	
<i>Surr: Toluene-d8</i>	987	<i>µg/kg</i>		1028.8		96.0	80-120	0.830	30	

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3838855

Volatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-2426227-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/23/26 00:54

Prep Date: 01/22/26 11:02

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

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3838855

MB	CLIENT ID: Method Blank	Lab ID: QC-2426227-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/23/26 00:54

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isopropylbenzene	<19.0	µg/kg	30.0							U
m+p-Xylene	<40.0	µg/kg	60.0							U
Methyl acetate	<35.9	µg/kg	250							U
Methyl bromide (Bromomethane)	<57.4	µg/kg	100							U
Methyl chloride (Chloromethane)	<82.0	µg/kg	100							U
Methyl tert-butyl ether (MTBE)	<21.9	µg/kg	30.0							U
Methylcyclohexane	<11.4	µg/kg	30.0							U
Methylene chloride (Dichloromethane)	<79.6	µg/kg	250							U
o-Xylene	<11.6	µg/kg	30.0							U
Styrene	<11.9	µg/kg	30.0							U
Tetrachloroethylene (Perchloroethylene)	<18.1	µg/kg	30.0							U
Toluene	<24.7	µg/kg	30.0							U
Total Xylene	<11.6	µg/kg	90.0							U
trans-1,2-Dichloroethylene	<24.8	µg/kg	30.0							U
trans-1,3-Dichloropropylene	<16.8	µg/kg	30.0							U
Trichloroethene (Trichloroethylene)	<13.4	µg/kg	30.0							U
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	<15.3	µg/kg	30.0							U
Vinyl chloride (Chloroethene)	<19.9	µg/kg	30.0							U
Surr: 1,2-Dichloroethane-d4	978	µg/kg		1000		97.8	80-120			
Surr: 4-Bromofluorobenzene	1020	µg/kg		1000		102	80-120			
Surr: Dibromofluoromethane	979	µg/kg		1000		97.9	72-120			
Surr: Toluene-d8	944	µg/kg		1000		94.4	80-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426227-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/22/26 23:56

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	914	µg/kg	30.0	1000		91.4	75-121			
1,1,2,2-Tetrachloroethane	842	µg/kg	30.0	1000		84.2	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	938	µg/kg	30.0	1000		93.8	62-129			
1,1,2-Trichloroethane	842	µg/kg	30.0	1000		84.2	80-123			
1,1-Dichloroethane	882	µg/kg	30.0	1000		88.2	74-124			
1,1-Dichloroethylene	915	µg/kg	30.0	1000		91.5	68-131			
1,2,3-Trichlorobenzene	780	µg/kg	100	1000		78.0	60-135			
1,2,3-Trichloropropane	848	µg/kg	30.0	1000		84.8	77-121			
1,2,4-Trichlorobenzene	812	µg/kg	100	1000		81.2	63-130			
1,2,4-Trimethylbenzene	868	µg/kg	30.0	1000		86.8	64-126			
1,2-Dibromo-3-chloropropane (DBCP)	718	µg/kg	100	1000		71.8	55-135			
1,2-Dibromoethane (EDB, Ethylene dibromide)	882	µg/kg	30.0	1000		88.2	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	810	µg/kg	30.0	1000		81.0	77-122			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3838855

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426227-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/22/26 23:56

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	892	µg/kg	100	1000		89.2	70-130			
1,2-Dichloropropane	849	µg/kg	30.0	1000		84.9	71-130			
1,3,5-Trimethylbenzene	912	µg/kg	100	1000		91.2	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	828	µg/kg	30.0	1000		82.8	78-121			
1,3-Dichloropropene	1630	µg/kg	60.0	2000		81.6	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	820	µg/kg	30.0	1000		82.0	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	948	µg/kg	200	1000		94.8	47-164			
2-Hexanone	914	µg/kg	30.0	1000		91.4	70-137			
4-Methyl-2-pentanone (MIBK)	1390	µg/kg	30.0	1000		139	57-200			
Acetone	960	µg/kg	100	1000		96.0	52-190			
Benzene	942	µg/kg	30.0	1000		94.2	78-122			
Bromochloromethane	854	µg/kg	30.0	1000		85.4	68-130			
Bromodichloromethane	869	µg/kg	30.0	1000		86.9	75-125			
Bromoform	811	µg/kg	30.0	1000		81.1	59-120			
Carbon disulfide	1090	µg/kg	30.0	1000		109	60-163			
Carbon tetrachloride	894	µg/kg	30.0	1000		89.4	69-123			
Chlorobenzene	892	µg/kg	30.0	1000		89.2	79-120			
Chlorodibromomethane	836	µg/kg	30.0	1000		83.6	57-123			
Chloroethane (Ethyl chloride)	768	µg/kg	100	1000		76.8	38-132			
Chloroform	872	µg/kg	30.0	1000		87.2	72-122			
cis-1,2-Dichloroethylene	892	µg/kg	30.0	1000		89.2	74-125			
cis-1,3-Dichloropropene	846	µg/kg	30.0	1000		84.6	62-124			
Dichlorodifluoromethane (Freon-12)	582	µg/kg	100	1000		58.2	28-137			
Ethylbenzene	929	µg/kg	30.0	1000		92.9	75-121			
Isopropylbenzene	930	µg/kg	30.0	1000		93.0	74-121			
m+p-Xylene	1870	µg/kg	60.0	2000		93.7	67-129			
Methyl acetate	734	µg/kg	250	1000		73.4	61-125			
Methyl bromide (Bromomethane)	733	µg/kg	100	1000		73.3	31-169			
Methyl chloride (Chloromethane)	668	µg/kg	100	1000		66.8	24-119			
Methyl tert-butyl ether (MTBE)	886	µg/kg	30.0	1000		88.6	79-139			
Methylene chloride (Dichloromethane)	900	µg/kg	250	1000		90.0	62-135			
o-Xylene	919	µg/kg	30.0	1000		91.9	75-120			
Styrene	902	µg/kg	30.0	1000		90.2	74-126			
Tetrachloroethylene (Perchloroethylene)	1180	µg/kg	30.0	1000		118	76-128			
Toluene	908	µg/kg	30.0	1000		90.8	76-120			
Total Xylene	2790	µg/kg	90.0	3000		93.1	67-129			
trans-1,2-Dichloroethylene	906	µg/kg	30.0	1000		90.6	72-127			
trans-1,3-Dichloropropylene	784	µg/kg	30.0	1000		78.4	66-120			
Trichloroethene (Trichloroethylene)	934	µg/kg	30.0	1000		93.4	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	726	µg/kg	30.0	1000		72.6	51-115			
Vinyl chloride (Chloroethene)	670	µg/kg	30.0	1000		67.0	43-128			



Client: The Mannik & Smith Group, Inc.
Project: 5532 Pennsylvania
Matrix: SOIL/SOLID
QC Lot: 2426227

Work Order: HN2601020
Date Collected: NA
Date Received: NA
Run ID: 3838855

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-2426227-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 01/22/26 23:56

Prep Date: 01/22/26 11:02

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 1,2-Dichloroethane-d4	984	µg/kg		1000		98.4	80-120			
Surr: 4-Bromofluorobenzene	1040	µg/kg		1000		104	80-120			
Surr: Dibromofluoromethane	1000	µg/kg		1000		100	72-120			
Surr: Toluene-d8	968	µg/kg		1000		96.8	80-120			

The following samples were analyzed in this batch: HN2601020-001, HN2601020-002, HN2601020-003