

PHASE II ENVIRONMENTAL SITE ASSESSMENT

11201 CONNER STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48213



MARCH 21, 2025; REVISED APRIL 8, 2025

PREPARED FOR:

KIMLEY-HORN OF MICHIGAN, INC.

3000 TOWN CENTER #200

SOUTHFIELD, MICHIGAN 48075



PHASE II ENVIRONMENTAL SITE ASSESSMENT

11201 CONNER STREET
DETROIT, WAYNE COUNTY, MICHIGAN 48213

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EXECUTIVE SUMMARY

The Mannik & Smith Group, Inc. (MSG) was retained by Kimley-Horn of Michigan, Inc. (Kimley-Horn) to perform a Phase II Environmental Site Assessment (ESA) at the property commonly addressed as 11201 Conner Street (hereinafter, the "Site"). The Site is located in Detroit, Wayne County, Michigan and is comprised of a reported 60 acres of real property that is associated with the Coleman A. Young Municipal Airport Runway 7/25 Area Land Sale Project. The Site as referenced to nearby roads and major topographical features is presented on *Figure 1, Site Location Map*. The current layout of the Site, pertinent Site features, sample locations, and analytical detections are presented on *Figure 2, Soil Sample Analytical Results Map*.

This executive summary is provided to summarize the results of the Phase II ESA performed at the Site. The executive summary is general in nature and should not be used to replace or be considered apart from the entire text of this report.

The purpose of this investigation was to assess recognized environmental conditions (RECs) identified in the *Phase I Environmental Site Assessment*, prepared by MSG, dated September 30, 2024. A summary of which is as follows:

REC-1 *"The current and historical use of the southern and western adjoining properties as heavy industrial use, including Michigan Chrome and Chemical Company, Motor City Electric, Quality First Coating, and Detroit Public Lighting represents a REC relative to the Site. Multiple adjoining industrial properties were found in the Remediation Information Data Exchange (RIDE) database as having risks that are classified as requiring long-term action based on the "migration of contaminants and a potential for exposure or threat to human health, safety, or welfare, or to the environment, or sensitive environmental receptors in the long term."*

A list of contaminants with a documented release from southern and western adjoining properties associated with industrial activities is as follows:

- *Metals (lead, mercury);*
- *Other inorganics;*
- *Chlorinated volatile and semi-volatile organic compounds (VOCs and SVOCs);*
- *Petroleum;*
- *Chlorinated polycyclic aromatic hydrocarbons (PAH's); and Per- and polyfluoroalkyl substances (PFAS)."*

REC-2 *"Historically, the Site has been used for aviation services using petroleum products to fuel aircrafts prior to the promulgation of environmental regulations. From at least 1969 until at least 1976, a gas station operated on the Site. In addition, five ASTs and 10 USTs containing jet aviation fuel, hazardous substances, and kerosene have been historically associated with the airport form at least 1961 until at least 2001. No evidence implies that a release to the environment has occurred. However, based on the historical use of petroleum products prior to the promulgation of environmental regulations, it is likely that petroleum products and other hazardous substances were released into the environment and therefore, is considered a REC."*

REC-3 *"Upon review of Licensing and Regulatory Affairs (LARA) documentation received as part of MSG's FOIA request; multiple violations were discovered. Two 30,000-gallon tanks containing jet aviation fuel failed an inspection dated August 17, 1992, due to a failure to maintain the tanks that resulted in a valve at the rear end of the tank bottoms to have a drip leak. No further information was provided regarding if the leaking jet aviation fuel entered the subsurface and when the tanks were repaired. Therefore, it is likely that jet aviation fuel contaminated the subsurface and was not investigated further by regulatory authorities."*

- REC-4 *"At the time of MSG's site reconnaissance, two 55-gallon steel drums were observed in the southwestern side of the hangar. The drums appeared to be empty; however, a clear fluid with a sheen was observed leaking from one of the drums in addition to stained concrete in other areas of the hangar. Additionally, unnatural mounds were observed along the northern boundary of the Site, near the northeastern adjoining fire station building. In general, observed contents included asphalt millings, wooden pallets, construction masonry unit blocks, and concrete chunks. Reportedly, the unnatural mound is the leftover contents of a portion of the runway that was removed five years ago. The presence of the 55-gallon steel drums, stained concrete and unnatural mound represents a REC relative to the Site because it may have a material environmental or environmentally-driven impact associated with the future planned use of the Site."*
- REC-5 *"Upon review of city directory images, the current and historical uses of the eastern adjoining properties as filling stations, cleaners, and airport-related services is a concern based on the historical use of petroleum products prior to the promulgation of environmental regulations, it is likely that petroleum products and other hazardous substances were released into the environment, therefore, is considered a REC."*

To assess potential impacts associated with these RECs, MSG advanced 13 soil borings, designated SB-1 through SB-13, to a maximum depth of 10 feet below the existing ground surface (bgs) utilizing a Geoprobe® direct push drilling rig at the locations depicted on Figure 2. Concurrent with drilling activities, MSG collected 14 soil samples designated SB-1 through SB-13, and DUP-1. Groundwater was not encountered during soil advancements.

Sample analyses selected to assess potential impacts associated with the RECs included volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); polychlorinated biphenyls (PCBs); gasoline range organics (GROs); diesel range organics (DROs); PFAS; and/or arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc (10 Michigan Metals).

Laboratory analytical results were compared to the current generic ~~non~~-residential cleanup criteria (GNRCC) promulgated under Part 201 of the *Natural Resources and Environmental Protection Act* (NREPA), 1994 P.A. 451, as amended (Part 201) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Remediation and Redevelopment Division (RRD) nonresidential media – specific Volatilization to Indoor Air Pathway (VIAP) Screening Levels, dated February 26, 2024.

Results of this investigation, which are subject to the limitations presented in *Appendix A, Limitations*, of this report and incorporated by reference herewith, revealed the following:

- The stratigraphy encountered during soil boring advancement of SB-1 through SB-13 generally consisted of 0.5 feet of topsoil underlain by one to two feet of brown sandy clay, underlain by six to eight feet of silty clay with trace gravel to approximately 10 feet bgs, the maximum depth explored as part of this investigation. The observed trace gravel was poorly sorted and slightly rounded, consistent with glacial till deposited in the lower east side of Detroit. Photoionization detector (PID) field readings of the soil profiles associated with SB-2 and SB-7 revealed a maximum PID reading of 1.1 and 0.8 parts per million (ppm). Remaining soil profiles revealed a PID reading of 0.0 ppm. There were no visual (staining) or olfactory (e.g., petroleum-like odors) observations of contamination encountered during soil sampling activities and groundwater was not encountered during the advancement of SB-1 through SB-13.
- Arsenic, total chromium, and selenium were detected in soil samples SB-2 (10'), SB-3 (10'), SB-5 (10'), SB-6 (10'), SB-7 (3'), SB-8 (10'), SB-10 (10'), and SB-13 (10') at concentrations in excess of Part 201 GNRCC for drinking water protection criteria (DWPC) and/or groundwater surface water interface protection criteria

(GSIPC); however, were below the Huron-Erie Glacial Lobe background concentration for clay. Concluding that the detected concentrations of these metals are not in exceedance of Part 201 GMRCC.

- 4-methyl-2-pentanone, naphthalene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, caprolactam, chrysene, diethyl phthalate, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, barium, cadmium, copper, lead, mercury, and zinc were detected in soil samples SB-2 (10'), SB-8 (10'), SB-9 (10'), SB-10 (10'), SB-11 (3'), SB-12 (10'), and/or SB-13 (10') at concentrations in excess of laboratory method detection limits; however, detected concentrations were below their respective Part 201 GMRCC.
- VOCs, PCBs, PFAS, GROs, and/or DROs were not detected above laboratory method detection reporting limits.
- The Site does not meet the definition of a "Facility", pursuant to Part 201.



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1.0 INTRODUCTION

The Mannik & Smith Group, Inc. (MSG) was retained by Kimley-Horn of Michigan, Inc. (Kimley-Horn) to perform a Phase II Environmental Site Assessment (ESA) at the property commonly addressed as 11201 Conner Street (hereinafter, the "Site"). The Site is located in Detroit, Wayne County, Michigan and is comprised of a reported 60 acres of real property that is associated with the Coleman A. Young Municipal Airport Runway 7/25 Area Land Sale Project. The Site as referenced to nearby roads and major topographical features is presented on *Figure 1, Site Location Map*. The current layout of the Site, pertinent Site features, sample locations, and analytical detections are presented on *Figure 2, Soil Sample Analytical Results Map*.

The scope of work for this investigation was completed in general accordance with scope of work presented in MSG's proposal dated March 4, 2024, authorized by the User on March 8, 2024, and modified scope of work based on the Phase II Investigation Scope of Work and Sample Rational dated December 9, 2024, and additional soil boring locations request from the City of Detroit Brownfield Redevelopment Authority. This report presents the findings of this investigation that was conducted by MSG personnel on February 17 and 18, 2025. The findings of this report are valid as of the report date, subject to the limitations presented in *Appendix A, Limitations*.

The stated purpose of this Phase II ESA was to assess the recognized environmental conditions (RECs) identified in the *Phase I Environmental Site Assessment*, dated September 30, 2024, prepared for the Site by MSG.

The following includes the RECs identified in the Phase I ESA for the Site:

REC-1 *"The current and historical use of the southern and western adjoining properties as heavy industrial use, including Michigan Chrome and Chemical Company, Motor City Electric, Quality First Coating, and Detroit Public Lighting represents a REC relative to the Site. Multiple adjoining industrial properties were found in the Remediation Information Data Exchange (RIDE) database as having risks that are classified as requiring long-term action based on the "migration of contaminants and a potential for exposure or threat to human health, safety, or welfare, or to the environment, or sensitive environmental receptors in the long term."*

A list of contaminants with a documented release from southern and western adjoining properties associated with industrial activities is as follows:

- *Metals (lead, mercury);*
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REC-2 *"Historically, the Site has been used for aviation services using petroleum products to fuel aircrafts prior to the promulgation of environmental regulations. From at least 1969 until at least 1976, a gas station operated on the Site. In addition, five ASTs and 10 USTs containing jet aviation fuel, hazardous substances, and kerosene have been historically associated with the airport from at least 1961 until at least 2001. No evidence implies that a release to the environment has occurred. However, based on the historical use of petroleum products prior to the promulgation of environmental regulations, it is likely that petroleum products and other hazardous substances were released into the environment and therefore, is considered a REC."*

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inspection dated August 17, 1992, due to a failure to maintain the tanks that resulted in a valve at the rear end of the tank bottoms to have a drip leak. No further information was provided regarding if the leaking jet aviation fuel entered the subsurface and when the tanks were repaired. Therefore, it is likely that jet aviation fuel contaminated the subsurface and was not investigated further by regulatory authorities."

- REC-4 *"At the time of MSG's site reconnaissance, two 55-gallon steel drums were observed in the southwestern side of the hangar. The drums appeared to be empty; however, a clear fluid with a sheen was observed leaking from one of the drums in addition to stained concrete in other areas of the hangar. Additionally, unnatural mounds were observed along the northern boundary of the Site, near the northeastern adjoining fire station building. In general, observed contents included asphalt millings, wooden pallets, construction masonry unit blocks, and concrete chunks. Reportedly, the unnatural mound is the leftover contents of a portion of the runway that was removed five years ago. The presence of the 55-gallon steel drums, stained concrete and unnatural mound represents a REC relative to the Site because it may have a material environmental or environmentally-driven impact associated with the future planned use of the Site."*
- REC-5 *"Upon review of city directory images, the current and historical uses of the eastern adjoining properties as filling stations, cleaners, and airport-related services is a concern based on the historical use of petroleum products prior to the promulgation of environmental regulations, it is likely that petroleum products and other hazardous substances were released into the environment, therefore, is considered a REC."*

1.1 Site Description

At the time of this investigation, the Site consisted of vacated airplane runways, a hangar, and an aboveground storage tank (AST) associated with the western portion of the Coleman A. Young Airport. Figure 2 depicts the current layout of the Site, including pertinent Site features and soil boring locations advanced during this Phase II ESA.

1.2 Local Topography and Regional Hydrogeology and Geology and Soils

The United States Geological Survey (USGS) 7.5-minute topographical map titled *Highland Park, Michigan* (2019) was reviewed for topographical information in the vicinity of the Site. The ground surface elevation of the Site is approximately 625 feet above mean sea level (MSL). The nearest surface water body is Detroit River, which is located approximately 3.8 miles south of the Site. The Detroit River is hydraulically downgradient of the Site at an elevation of approximately 569 feet above MSL. Based on surrounding ground elevations and under natural conditions, groundwater appears likely to move/flow in a southern direction.

The surface topography in the vicinity of the Site is generally flat, with a gentle slope to the southeast. The direction of shallow groundwater flow typically mimics the ground surface contours, moving from topographic highs to topographic lows. This assumes that all lakes, rivers, streams, wetlands, and/or other surface water bodies are interconnected expressions of the water table. As such, regional groundwater is expected to flow in a southern direction towards the Detroit River.

According to the map *Quaternary Geology of Michigan*, W. R. Farrand (1982), the geology in the vicinity of the Site consists of lacustrine clay and silt. Upon review of the *Bedrock Geology of Michigan*, R. L. Milstein (1987), the bedrock geology in the vicinity of Site consists of the Bass Island Group.

The *Soil Survey of Wayne County, Michigan* (issued 2024) was consulted for soil classifications. The following is a brief description of the individual soil mapping unit present on the Site:

- *Riverfront- Urban land complex (RvfubB)* –The Riverfront-Urban land complex is described as being gently sloping (0 to 4 percent slopes) and being a well-drained, human transported, sandy loam with a low runoff class. Landforms can be described as water-lain moraines, lakebeds (relict), wave-worked till plains, till-floored lake plains, and raised beaches. The depth to restrictive feature is more than 80 inches. Urban land consists of human-altered and/or human-transported soils. Urban Land can exhibit a wide variety of conditions, and is often covered with impervious surfaces (e.g., pavement), which may intensely alter the surface geomorphology and hydrology of the Site.

2.0 PURPOSE AND SCOPE OF WORK

This Phase II ESA was designed to assess whether remnant hazardous substances and/or petroleum are present in the soil and/or groundwater at the Site resulting from historical activities at or near the Site, and if detected, at what concentrations. The sampling plan for the Site was developed, in part, based upon the locations of the RECs identified in the September 30, 2024, Phase I ESA for the Site, and modified in the field based on encountered conditions, the professional judgment of MSG's field geologist, and in consultation with Kimley-Horn and the City of Detroit Brownfield Redevelopment Authority.

MSG completed the following scope of work in general conformance with MSG's proposal dated March 4, 2024, authorized by the User on March 8, 2024, and modified scope of work based on the Phase II Investigation Scope of Work and Sample Rational dated December 9, 2024, and additional soil boring locations request from the City of Detroit Brownfield Redevelopment Authority:

- Conducted ground penetrating radar (GPR) clearance at each of the proposed soil boring locations;
- Advanced 13 on-Site soil borings to a maximum depth of 10 feet below the existing ground surface (bgs);
- Collected soil samples from each soil boring based on the interval exhibiting indications of visual staining or sheen, olfactory indicators (petroleum odors), the highest photoionization detector (PID) readings, ~~and/or~~ changes in soil type, and/or boring termination depth; and
- Prepared this report summarizing the activities and results of the investigation.

Sample analyses selected to assess potential impacts associated with the RECs included VOCs; SVOCs; polychlorinated biphenyls (PCBs); gasoline range organics (GROs); diesel range organics (DROs); polyfluoroalkyl substances (PFAS); and/or arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc (10 Michigan Metals). Laboratory analytical results were compared to the current generic ~~non~~-residential cleanup criteria (GNRCC) promulgated under Part 201 of the *Natural Resources and Environmental Protection Act (NREPA)*, 1994 P.A. 451, as amended (Part 201) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Remediation and Redevelopment Division (RRD) ~~non~~-residential media – specific Volatilization to Indoor Air Pathway (VIAP) Screening Levels, dated February 26, 2024.

3.0 SITE ASSESSMENT METHODOLOGY

The following subsections describe the methodologies employed by MSG at the Site during sampling activities, which was conducted on February 17 and 18, 2025. Daily Field Reports (DFRs) are included in *Appendix B, Daily Field Reports*.

3.1 Soil Sample Collection

The sampling plan for the Site was developed, in part, based on the locations of the RECs identified in the Phase I ESA Report dated September 30, 2024, and modified in the field, when warranted, based on encountered conditions (i.e. location of utilities, accessibility, etc.) and professional judgment of MSG's field

geologist. MSG advanced 13 soil borings, designated SB-1 through SB-13, utilizing a Geoprobe® direct-push drilling rig at the locations depicted on Figure 2.

Soil boring locations were strategically placed to address the aforementioned RECs and additional soil boring locations based on request from the City of Detroit Brownfield Redevelopment Authority. All of the soil borings, SB-1 to SB-13, were located throughout the Site to investigate the potential presence of hazardous substances and petroleum products on the Site as a result of historical use of petroleum products on or adjoining the Site (REC-2, REC-3, REC-4, REC-5) in addition to the potential migration of contaminants resulting from industrial activities from properties adjoining south and west of the Site (REC-1). In concert with the Phase II Investigation Scope of Work and Sample Rational dated December 9, 2024, the below table provides a summary of sample rationale for each soil boring location and corresponding requested laboratory analyses.

RECs	Soil Boring #	Laboratory Analysis						
		VOCs	SVOCs	PCBs	10 MI Metals	PFAS	GROs	DROs
REC-1	7, 9, 10, 11, 12	x	x	x	x	x	x	x
REC-2	1, 2, 3, 5, 7, 8, 9, 10, 11, 12	x	x	x	x	x	x	x
REC-3	1, 2	x	x	x	x	-	x	x
REC-4	4, 6, 3	x	x	x	x	x	x	x
REC-5	2, 3	x	x	x	x	-	x	x

Soils were continuously profiled at each soil boring location from the ground surface to the termination depth (10 feet bgs), using a 5-foot long, closed-piston Macro-Core® sampling device. A new clear polyvinyl chloride (PVC) liner was placed within the sampler between each 5-foot sample interval. The recovered soil samples were examined and logged in the field by MSG's geologist. Soil descriptions were based on MSG's professional examination and interpretation of the soils encountered and classified in general accordance with ASTM D 2488, *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*. Color photographs collected at the time of soil boring advancement are provided in *Appendix C, Investigation Photographs*.

Soil samples were examined for visual and olfactory indications of impact by MSG's field geologist and were continuously screened with a MiniRAE 10.6 eV PID calibrated with isobutylene span gas upon retrieval of each 5-foot sample interval. 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 the total concentrations of ionizable vapors present and cannot distinguish between individual VOC constituents. PID readings for each sample interval were recorded on individual soil boring logs, which are included in *Appendix D, Soil Boring Logs*.

Soil samples were selected from each soil boring based on highest PID readings, visual and olfactory indications of contamination, changes in soil type, and the professional judgement of MSG's geologist. The soil samples were placed into laboratory-supplied jars. Soil samples for VOC analysis were methanol preserved using United States Environmental Protection Agency (USEPA) Method 5035. 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.

3.2 Decontamination and Restoration Procedures

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 Alconox® and/or phosphate-free soap to remove chemical residue and caked-on soils from the tooling and a new clear PVC liner was placed within the sampler between each 5-foot sample interval.

PFAS soil sampling activities were conducted in general accordance with EGLE's General PFAS Sampling Guidance, dated January 2024 and MSG's Standard Operating Procedures. In general, during the sample collection process, it is critical that any dust or fibers remain outside of the sample container. Any type of outside unknown material can potentially be a source of cross contamination. Only sample containers provided by the analytical laboratory for the specific sample matrix and analytical method were used. Powderless nitrile gloves were worn and changed between each sample collected. Samples were placed in a laboratory supplied cooler immediately upon completion of sampling.

Field Gear

Field clothing and personal protective equipment (PPE) containing water and/or stain-resistant synthetics were avoided and field personnel wore pre-laundered clothing that was not stain-resistant or waterproof. Precautionary contact between clothing and sampling equipment, containers, labels, and sampled media was avoided. Ballpoint pens and fine-point Sharpie® markers were used for field notes, chain-of-custodies, and sample container labeling.

Personal Care Products

The EGLE General PFAS Sampling Guidance document recommends that field personnel have an awareness of products that could potentially contain PFAS compounds and proactively ensure such products do not come into contact with the sample media or the sampling equipment. The following general precautions were taken prior to the sampling events:

- Shower at night and only apply personal care products on an as-needed basis.
- Use only personal care product known to be PFAS- free.
- Do not handle or apply personal care products in the sampling area.
- Do not handle or apply personal care products while wearing PPE that will be present during sampling events.
- Move to the staging area and remove PPE if applying personal care products becomes necessary.
- Wash hands thoroughly after the handling or application of personal care products and when finished, don new, powderless nitrile gloves.

PFAS have been used by the paper industry as a protective coating against grease, oil, and water for food packaging. Food packaging applications include paper products that come into contact with food such as paper plates, food containers, bags, and wraps. Prewrapped food or snacks (e.g., candy bars, microwave popcorn, etc.) were not used or stored in the sampling or staging area. In the event that lunch was taken, field staff thoroughly washed their hands and donned fresh powderless nitrile gloves prior to returning to work area.

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 (asphalt, concrete, grass. Asphalt and concrete will be patched to at least the original thickness with matching material.

3.3 Analytical Methods

A total of 14 soil samples, designated SB-1 (10'), SB-2 (10'), SB-3 (10'), SB-4 (10'), SB-5 (10'), SB-6 (10'), SB-7 (3'), SB-8 (10'), SB-9 (10'), SB-10 (10'), SB-11 (3'), SB-12 (10'), SB-13 (10'), and DUP-1 were collected and retained for laboratory analyses. The soil samples were submitted to ALS Environmental for laboratory analysis of one or more of the following parameters:

- VOCs by USEPA Method EPA 8260D;
- PCBs by USEPA Method EPA 8082A;
- Metals by USEPA Method EPA 6020B/7471B;
- SVOCs by USEPA Method EPA 8082A/EPA 8270E;
- GROs by USEPA Method EPA 8015C;
- DROs by USEPA Method EPA 8015C; and
- PFAS by USEPA Method EPA 537Mod.

3.4 Quality Assurance and Quality Control Procedures

Quality assurance and quality control (QA/QC) was achieved in the field by following standard operating procedures (SOPs) for sample collection, sample screening, sample preservation, and strict chain-of-custody protocols to ensure sample integrity. One (1) duplicate soil sample (DUP-1) was collected by MSG, which corresponds with soil sample SB-8. The data associated with the duplicate soil sample was used to demonstrate a generally acceptable degree of precision with respect to the analyzed parameters.

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 FINDINGS AND RESULTS

The following subsections include a discussion of the soil samples that were collected from the Site on February 17 and 18, 2025.

4.1 Site Geology and Hydrogeology

The stratigraphy encountered during soil boring advancement of SB-1 through SB-13 generally consisted of 0.5 feet of topsoil underlain by one to two feet of brown sandy clay, underlain by six to eight feet of silty clay with trace gravel to approximately 10 feet bgs, the maximum depth explored as part of this investigation. The observed trace gravel was poorly sorted and slightly rounded, consistent with glacial till deposited in the lower east side of Detroit. PID field readings collected from ~~of~~ the soil profiles during soil sampling activities at SB-2 and SB-7 revealed a maximum PID reading of 1.1 and 0.8 ppm. Remaining soil profiles revealed a PID reading of 0.0 ppm. There were no visual (staining) or olfactory (e.g., petroleum-like odors) observations of contamination encountered during soil sampling activities and groundwater was not encountered during the advancement of SB-1 through SB-13.

4.2 Soil Sample Analytical Results

A total of 14 soil samples, designated SB-1 (10'), SB-2 (10'), SB-3 (10'), SB-4 (10'), SB-5 (10'), SB-6 (10'), SB-7 (3'), SB-8 (10'), SB-9 (10'), SB-10 (10'), SB-11 (3'), SB-12 (10'), SB-13 (10'), and DUP-1, were collected from the Site and submitted to ALS Environmental for laboratory analysis of VOCs, SVOCs, GROs, DROs,



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401.2401045

PCBs, PFAS, and/or 10 Michigan Metals. [Soil sample intervals were based on the Phase II Investigation Scope of Work and Sample Rational dated December 9, 2024.](#)

The soil sample analytical data were compared to current Part 201 GNRCC and are summarized in *Table 1, Soil Sample Analytical Detection Summary*. Figure 2 depicts the current layout of the Site, including pertinent Site features, sample location, and analytical detections. Copies of the laboratory analytical data reports and chain of custody are included in *Appendix E, Laboratory Analytical Report and Chains of Custody*. A summary of the soil sample analytical detections compared to Part 201 GNRCC is provided below:

Chemical	CAS Number	Soil Sample (feet bgs)	Criteria Exceeded / Concentration (µg/kg ¹)	Maximum Detected Concentration (µg/kg)
Arsenic	7440-38-2	SB-1 (10'), SB-2 (10') SB-3 (10'), SB-4 (10') SB-5 (10'), SB-6 (10') SB-7 (3'), SB-8 (10') SB-9 (10'), SB-10 (10') SB-12 (10'), SB-13 (10'), DUP-1 (10')	GSIPC ² / 4,600 DWPC ³ / 4,600	8,680
Chromium (Total)	7440-47-3	SB-1 (10'), SB-2 (10') SB-3 (10'), SB-4 (10') SB-5 (10'), SB-6 (10') SB-7 (3'), SB-8 (10') SB-9 (10'), SB-10 (10') SB-11 (3'), SB-12 (10') SB-13 (10'), DUP-1 (10')	GSIPC / 3,300	20,500
Selenium	7782-49-2	SB-2 (10'), SB-11 (3'), SB-13 (10')	GSIPC / 400	602

¹ µg/kg – micrograms per kilogram

² GSIPC – groundwater surface water interface protection criteria

³ DWPC – drinking water protection criteria

Review of the analytical data identified arsenic, total chromium, and selenium in soil samples SB-1 (10'), SB-2 (10'), SB-3 (10'), SB-4 (10'), SB-5 (10'), SB-6 (10'), SB-7 (3'), SB-8 (10'), SB-9 (10'), SB-10 (10'), SB-11 (3'), SB-12 (10'), SB-13 (10') and/or DUP-1 (10') at concentrations in excess of Part 201 drinking water protection criteria (DWPC) and/or groundwater surface water interface protection criteria (GSIPC).

Additionally, 4-methyl-2-pentanone, naphthalene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, caprolactam, chrysene, diethyl phthalate, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, barium, cadmium, copper, lead, mercury, and zinc were detected in soil samples SB-2 (10'), SB-8 (10'), SB-9 (10') SB-10 (10') SB-11 (3'), SB-12 (10'), and/or SB-13 (10') at concentrations in excess of laboratory method detection limits; however, detected concentrations were below their respective Part 201 GNRCC.

VOCs, SVOCs, PCBs, PFAS, GROs, and DROs were not detected above laboratory method detection limits in any of the soil samples collected as part of this investigation.

4.3 Naturally Occurring Background Concentrations of Metals in Michigan Soils

Arsenic, total chromium, and selenium were detected at concentrations in excess of their respected statewide default background levels and Part 201 GNRC for DWPC and/or GSIPC in soil samples SB-2 (10'), SB-3 (10'), SB-5 (10'), SB-6 (10'), SB-7 (3'), SB-8 (10'), SB-10 (10'), SB-13 (10'), and/or DUP-1.

Part 201 allows for comparison of soil analytical data for metals to regional background concentration values using the *2005 Michigan Background Soil Survey (MBSS)*, dated September 2019, revised January 2023, guidance document. According to Appendix E, Application of Soil Background for Fill Material in the MBSS, "All of the background concentrations in the Statewide Default Background Levels and the Michigan Background Soil Survey are based on naturally occurring concentrations, and do not represent anthropogenic concentrations." The soil samples were collected from the Site at an interval that did not exhibit soil that was altered by human activity and was observed to have characteristics consistent with soils native to the region.

The regional background concentrations of arsenic, chromium, and selenium in clay soils located in the Huron-Erie Glacial Lobe, where the Site is located, are of comparable types as those found at the Site (clay). The table below includes the laboratory analytical data in comparison to statewide and regional background levels of clay in the Huron-Erie Glacial Lobe:

	Arsenic	Chromium	Selenium
Maximum Concentration Detected at the Site	8,680 µg/kg	20,500 µg/kg	602 µg/kg
Statewide Default Background Levels	5,800 µg/kg	18,000 µg/kg	410 µg/kg
Huron-Erie Glacial Lobe Regional Background Levels for Clay	31,400 µg/kg	77,000 µg/kg	1,200 µg/kg

According to Section 20120a (10), *"If the...background concentration for a hazardous substance is greater than a cleanup criterion developed for a category pursuant to subsection (1), the criterion is the...background concentration, whichever is larger, for that hazardous substance in that category."* Therefore, the arsenic, total chromium, and selenium concentrations detected at the Site are below the Huron-Erie Glacial Lobe background concentration for clay. Concluding that the detected concentrations of arsenic, chromium, and selenium are not in exceedance of Part 201 GNRC.

4.4 Assessment of the Recognized Environmental Conditions

MSG conducted this Phase II ESA to evaluate RECs that were identified during MSG's Phase I ESA of the Site. The following is a discussion of the aforementioned results as they relate to these RECs.

REC-1

- MSG advanced soil borings SB-7, SB-9, SB-10, SB-11, and SB-12 along the southwest and northwest border of the Site to assess the potential for migration of contaminants onto the Site related to the historical heavy industrial use of the southern and western adjoining properties. The soil sample results revealed metals at concentrations in excess of their respective Part 201 GNRC; however, were below the Huron-Erie Glacial Lobe background concentration for clay.
- SVOCs were detected at concentrations in excess of laboratory method detection reporting limits; however, were below their respective Part 201 GNRC.

- VOCs, PCBs, PFAS, GROs, and DROs were not detected above laboratory method detection reporting limits.

REC-2

- MSG advanced soil borings SB-1, SB-2, SB-3, SB-5, SB-7, SB-8, SB-9, SB-10, SB-11, and SB-12 to assess the presence of petroleum products on the Site suspected to be present based on the historical use of petroleum products associated with aviation services on the Site prior to the promulgation of environmental regulations. The soil sample results revealed metals at concentrations in excess of their respective Part 201 GNRCC; however, were below the Huron-Erie Glacial Lobe background concentration for clay.
- SVOCs were detected at concentrations in excess of laboratory method detection reporting limits; however, were below their respective Part 201 GNRCC.
- VOCs, PCBs, PFAS, GROs, and DROs were not detected above laboratory method detection reporting limits.

REC-3

- MSG advanced soil borings SB-1 and SB-2 to assess if petroleum products, specifically jet aviation fuel, was present on the Site, as a result of a reported release in 1992. These borings are located south of the runway where the release was suspected to occur. The soil sample results revealed metals at concentrations in excess of their respective Part 201 GNRCC; however, were below the Huron-Erie Glacial Lobe background concentration for clay.
- SVOCs were detected at concentrations in excess of laboratory method detection reporting limits; however, detected concentrations were below their respective Part 201 GNRCC.
- VOCs, PCBs, PFAS, GROs, and DROs were not detected above laboratory method detection reporting limits.

REC-4

- MSG advanced soil borings SB-4, SB-6, and SB-13 to assess the potential presence of contaminants related to staining within the hangar on the Site, in addition to the unknown contents of unnatural mounds present on the northern portion of the Site. The soil sample results revealed metals at concentrations in excess of their respective Part 201 GNRCC; however, were below the Huron-Erie Glacial Lobe background concentration for clay.
- SVOCs were detected in SB-13 at concentrations in excess of laboratory method detection reporting limits; however, were below their respective Part 201 GNRCC.
- VOCs, PCBs, PFAS, GROs, and DROs were not detected above laboratory method detection reporting limits.

REC-5

- MSG advanced soil borings SB-2 and SB-3 to assess the potential migration of contaminants from eastern adjoining properties that operated as filling stations, cleaners, and airport-related services prior to the promulgation of environmental regulation. The soil sample results revealed metals at concentrations in excess of their respective Part 201 GNRCC; however, were below the Huron-Erie Glacial Lobe background concentration for clay.
- SVOCs were detected in SB-2 at concentrations in excess of laboratory method detection reporting limits; however, were below their respective Part 201 GNRCC.
- VOCs, PCBs, PFAS, GROs, and DROs were not detected above laboratory method detection reporting limits.

5.0 CONCLUSIONS AND RECOMMENDATIONS

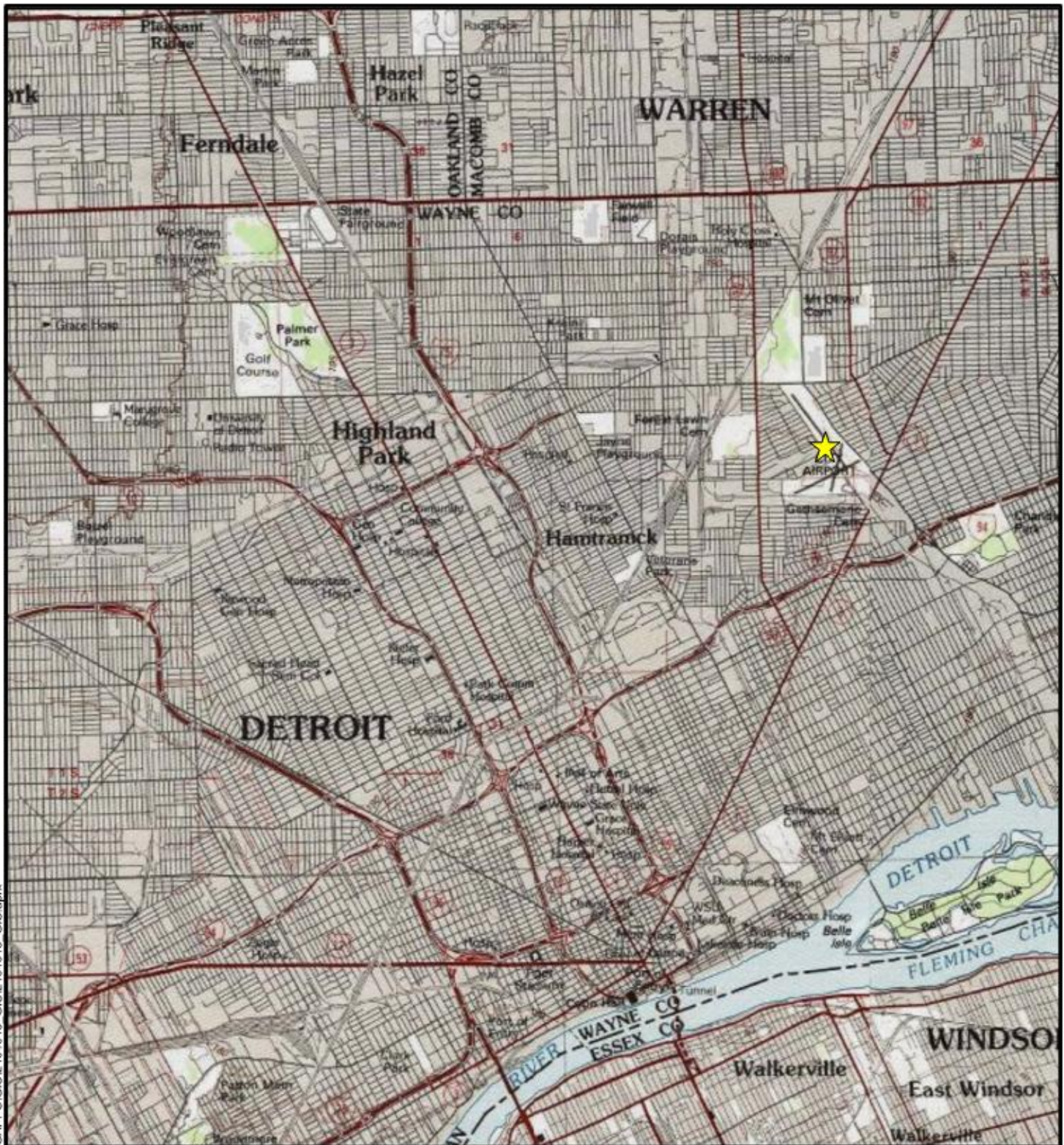
Pursuant to a request by the User, MSG has completed a Phase II ESA for the Site. Results of this investigation, which are subject to the limitations presented in Appendix A, revealed the following:

- The stratigraphy encountered during soil boring advancement of SB-1 through SB-13 generally consisted of 0.5 feet of topsoil underlain by one to two feet of brown sandy clay, underlain by six to eight feet of silty clay with trace gravel to approximately 10 feet bgs, the maximum depth explored as part of this investigation. The observed trace gravel was poorly sorted and slightly rounded, consistent with glacial till deposited in the lower east side of Detroit. PID field readings collected from ~~of~~ the soil profiles associated with SB-2 and SB-7 revealed a maximum PID reading of 1.1 and 0.8 parts ~~per million (ppm)~~. Remaining soil profiles revealed a PID reading of 0.0 ppm. There were no visual (staining) or olfactory (e.g., petroleum-like odors) observations of contamination encountered during soil sampling activities and groundwater was not encountered during the advancement of SB-1 through SB-13.
- Arsenic, total chromium, and selenium were detected in soil samples SB-2 (10'), SB-3 (10'), SB-5 (10'), SB-6 (10'), SB-7 (3'), SB-8 (10'), SB-10 (10') and SB-13 (10') at concentrations in excess of Part 201 ~~GNRCC~~ for DWPC and/or GSIPC; however, were below the Huron-Erie Glacial Lobe background concentration for clay. Concluding that the detected concentrations of these metals are not in exceedance of Part 201 ~~GNRCC~~.
- 4-methyl-2-pentanone, naphthalene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, caprolactam, chrysene, diethyl phthalate, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, pyrene, barium, cadmium, copper, lead, mercury, and zinc were detected in soil samples SB-2 (10'), SB-8 (10'), SB-9 (10') SB-10 (10') SB-11 (3'), SB-12 (10'), and/or SB-13 (10') at concentrations in excess of laboratory method detection limits; however, detected concentrations were below their respective Part 201 ~~GNRCC~~.
- VOCs, PCBs, PFAS, DROs, and/or GROs were not detected above laboratory method detection reporting limits.
- The Site does not meet the definition of a "Facility", pursuant to Part 201.

FIGURES



Date Saved: 3/20/2025 5:04 PM Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
 Path: W:\Projects\2024\1045\ENG\APPS\GIS\2401045_GIS.aprx



★ Site Location



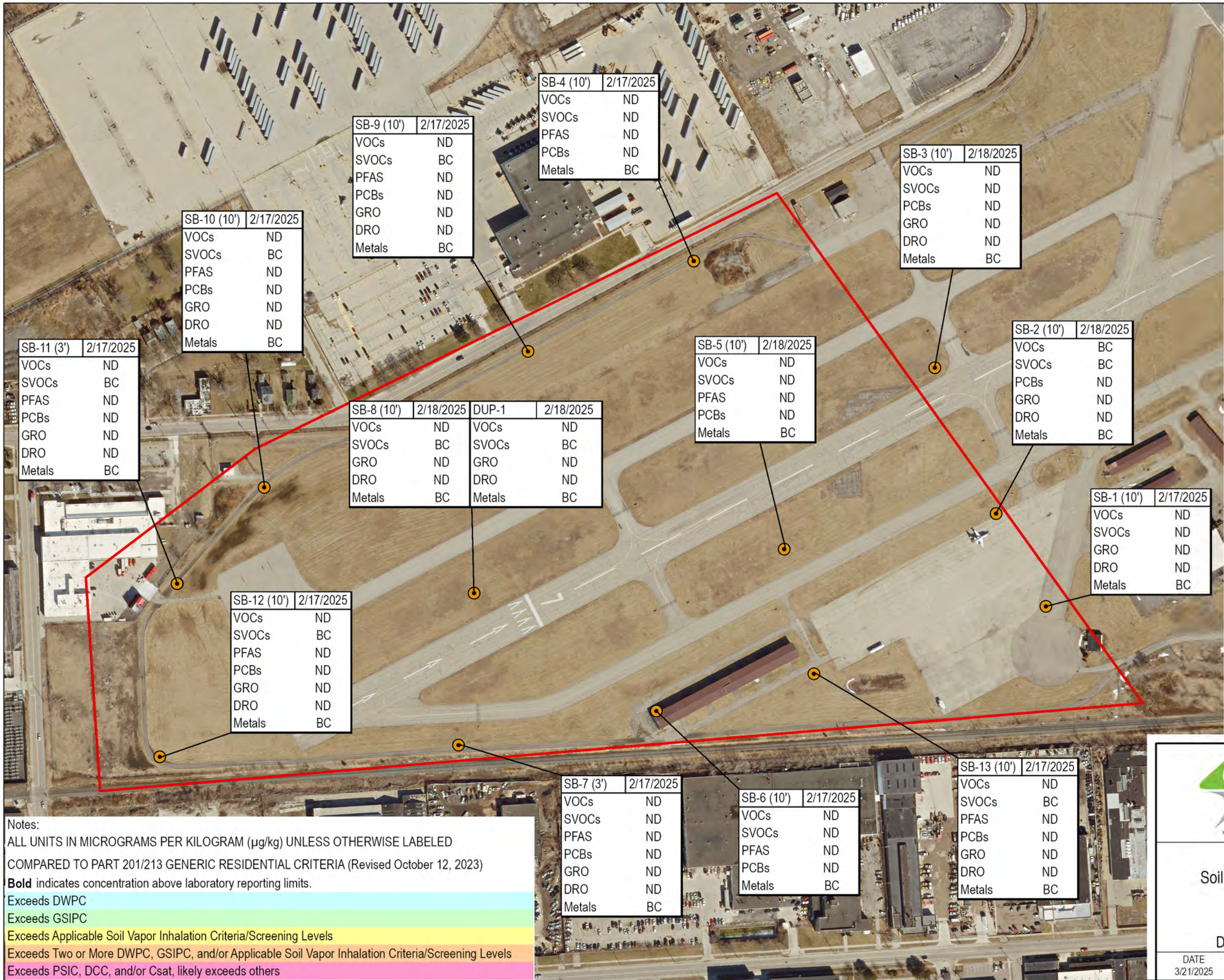
FIGURE 1
SITE LOCATION

11201 Conner Street
 Detroit, Wayne County, Michigan

DATE	DRAWN BY	DESIGNED BY	PROJECT NO.
3/21/2025	JWW	JWW	401.2401045.000

Basemap Source: ESRI USA_Topo_Maps Web Service

Date Saved: 3/21/2025 4:05 PM
Path: W:\Projects\2024\1000-1199\2401045\ENGAPPS\GIS\2401045_GIS.aprx



● Sample Locations
▭ Site Boundary

CHEMICAL ABBREVIATIONS

Metals = MI 10 Metals
SVOCs = Semi-Volatile Organic Compounds
VOCs = Volatile Organic Compounds
PCBs = Polychlorinated Biphenyls
PFAS = Polyfluoroalkyl Substances
GRO = Gasoline Range Organics
DRO = Diesel Range Organics
BC = Below Criteria
ND = Not Detected

Notes:
ALL UNITS IN MICROGRAMS PER KILOGRAM (µg/kg) UNLESS OTHERWISE LABELED
COMPARED TO PART 201/213 GENERIC RESIDENTIAL CRITERIA (Revised October 12, 2023)
Bold indicates concentration above laboratory reporting limits.
Exceeds DWPC
Exceeds GSIPC
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



FIGURE 2
Soil Sample Analytical Results Map

11201 Conner Street
Detroit, Wayne County, Michigan

DATE 3/21/2025	DRAWN BY JWW	DESIGNED BY KRB	PROJECT NO. 401.2401045.000
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TABLE



Table 1
Soil Sample Analytical Detection Summary
Portion of the Coleman A. Young Airport
11201 Conner Street
Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 Units: µg/kg			Volatile Organic Compounds (VOCs)	Semivolatile Organic Compounds (SVOCs)														
				Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Bis(2-ethylhexyl) phthalate	Caprolactam	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
CAS Number				120-12-7	56-55-3	50-32-8	205-99-2	191-24-2	207-08-9	117-81-7	105-60-2	218-01-9	206-44-0	193-39-5	91-57-6	91-20-3	85-01-8	129-00-0
Statewide Default Background Levels				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calculated Soil Background Levels				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Drinking Water Protection Criteria (DWPC)				41,000	NLL	NLL	NLL	NLL	NLL	NLL	1.2E+05	NLL	7.3E+05	NLL	57,000	35,000	56,000	4.8E+05
Groundwater Surface Water Interface Protection Criteria (GSIPC)				ID	NLL	NLL	NLL	NLL	NLL	NLL	NA	NLL	5,500	NLL	4,200	730	2,100	ID
Soil Volatilization to Indoor Air Inhalation (SVIIC)				1.0E+09 (D)	NLV	NLV	ID	NLV	NLV	NLV	NLV	ID	1.0E+09 (D)	NLV	2.7E+06	2.5E+05	2.8E+06	1.0E+09 (D)
Soil Volatilization to Indoor Air Pathway (SVIAP)				1.3E+07	1.6E+05 (MM)	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,700	67 (M)	1,700	2.5E+07
Infinite Source Volatile Soil Inhalation Criteria (VSIC)				1.4E+09	NLV	NLV	ID	NLV	NLV	NLV	NLV	ID	7.4E+08	NLV	1.5E+06	3.0E+05	1.6E+05	6.5E+08
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)				1.4E+09	NLV	NLV	ID	NLV	NLV	NLV	NLV	ID	7.4E+08	NLV	1.5E+06	3.0E+05	1.6E+05	6.5E+08
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)				1.4E+09	NLV	NLV	ID	NLV	NLV	NLV	NLV	ID	7.4E+08	NLV	1.5E+06	3.0E+05	1.6E+05	6.5E+08
Particulate Soil Inhalation Criteria (PSIC)				6.7E+10	ID	1.5E+06	ID	8.0E+08	ID	7.0E+08	6.7E+08	ID	9.3E+09	ID	6.7E+08	2.0E+08	6.7E+06	6.7E+09
Direct Contact Criteria (DCC)				2.3E+08	20,000	2,000	20,000	2.5E+06	2.0E+05	2.8E+06	5.3E+07 (DD)	2.0E+06	4.6E+07	20,000	8.1E+06	1.6E+07	1.6E+06	2.9E+07
Soil Saturation Concentration Screening Levels (C _{sat})				NA	NA	NA	NA	NA	NA	1.0E+07	NA	NA	NA	NA	NA	NA	NA	NA
Recommended Interim Action Screening Level (RIASL)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SAMPLE ID	DEPTH	SAMPLE DATE																
SB-1	10'	2/17/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-2	10'	2/18/2025	ND	68.6	358	347	526	278	172	ND	ND	393	595	267	64.8	53.4	320	556
SB-3	10'	2/18/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-4	10'	2/17/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-5	10'	2/18/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-6	10'	2/17/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-7	3'	2/17/2025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-8	10'	2/18/2025	ND	ND	ND	ND	7.46	10.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-8 (DUP-1)	10'	2/18/2025	ND	ND	ND	ND	ND	11.7	ND	40.2	ND	ND	ND	ND	ND	ND	ND	ND
SB-9	10'	2/17/2025	ND	ND	ND	ND	7.40	8.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-10	10'	2/17/2025	ND	ND	ND	ND	7.44	9.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-11	3'	2/17/2025	ND	ND	57.7	57.7	78.1	44.2	37.4	ND	173	37.4	105	ND	ND	ND	44.2	98.5
SB-12	10'	2/17/2025	ND	ND	7.16	ND	8.6	10	ND	ND	ND	ND	ND	7.16	ND	ND	ND	ND
SB-13	10'	2/17/2025	ND	ND	8.36	ND	11.4	12.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
Bold indicates concentration above laboratory reporting limits.
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation screening level
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, updated October 12, 2023
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated February 26, 2024

Table 1
Soil Sample Analytical Detection Summary
Portion of the Coleman A. Young Airport
11201 Conner Street
Detroit, Michigan

SOIL: Part 201/213 Generic Residential Cleanup Criteria Revised October 12, 2023 Units: µg/kg			Metals/Inorganics										Polyfluoroalkyl Substances (PFAS)	Polychlorinated Biphenyls (PCBs)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)
			Arsenic	Barium (B)	Cadmium (B)	Chromium (Total)	Copper (B)	Lead (B)	Mercury (B,Z)	Selenium (B)	Silver (B)	Zinc (B)				
CAS Number			7440-38-2	7440-39-3	7440-43-9	7440-47-3	7440-50-8	7439-92-1	7439-97-6	7782-49-2	7440-22-4	7440-66-6				
Statewide Default Background Levels			5,800	75,000	1,200	18,000	32,000	21,000	130	410	1,000	47,000				
Calculated Soil Background Levels			31,400	227,000	3,100	77,000	46,900	26,200	580	1,200	6,000	102,000				
Drinking Water Protection Criteria (DWPC)			4,600	1.3E+06	6,000	30,000	5.8E+06	7.0E+05	1,700	4,000	4,500	2.4E+06				
Groundwater Surface Water Interface Protection Criteria (GSIPC)			4,600	(G)	(G,X)	3,300	(G)	(G,X)	50 (M); 1.2	400	100 (M); 27	(G)				
Soil Volatilization to Indoor Air Inhalation (SVIIC)			NLV	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV				
Soil Volatilization to Indoor Air Pathway (SVIAP)			NA	NA	NA	--	NA	NA	22 (M)	NA	NA	NA				
Infinite Source Volatile Soil Inhalation Criteria (VSIC)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV				
Finite Source Volatile Soil Inhalation Criteria (5 m) (VSIC 5m)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV				
Finite Source Volatile Soil Inhalation Criteria (2 m) (VSIC 2m)			NLV	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV				
Particulate Soil Inhalation Criteria (PSIC)			7.2E+05	3.3E+08	1.7E+06	2.6E+05	1.3E+08	1.0E+08	2.0E+07	1.3E+08	6.7E+06	ID				
Direct Contact Criteria (DCC)			7,600	3.7E+07	5.5E+05	2.5E+06	2.0E+07	4.0E+05	1.6E+05	2.6E+06	2.5E+06	1.7E+08				
Soil Saturation Concentration Screening Levels (C _{sat})			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Recommended Interim Action Screening Level (RIASL)			NA	NA	NA	NA	NA	NA	2.7E-02	NA	NA	NA				
SAMPLE ID	DEPTH	SAMPLE DATE														
SB-1	10'	2/17/2025	4,990	54,000	ND	15,700	10,200	7,880	ND	ND	ND	30,700	NS	NS	ND	ND
SB-2	10'	2/18/2025	8,680	88,400	221	9,990	48,600	46,400	59.4	602	ND	176,000	NS	ND	ND	ND
SB-3	10'	2/18/2025	6,480	58,700	ND	15,300	14,400	9,220	ND	ND	ND	39,300	NS	ND	ND	ND
SB-4	10'	2/17/2025	5,760	57,400	ND	17,500	12,500	9,490	ND	ND	ND	36,500	ND	ND	NS	NS
SB-5	10'	2/18/2025	7,330	86,300	ND	17,700	12,300	8,140	ND	ND	ND	36,000	ND	ND	NS	NS
SB-6	10'	2/17/2025	6,420	83,400	ND	13,200	13,800	7,980	ND	ND	ND	40,000	ND	ND	NS	NS
SB-7	3'	2/17/2025	7,160	69,200	ND	20,500	12,000	9,990	29.2	ND	ND	39,400	ND	ND	ND	ND
SB-8	10'	2/18/2025	6,080	66,600	ND	18,300	10,800	8,770	ND	ND	ND	35,800	NS	NS	ND	ND
SB-8 (DUP-1)	10'	2/18/2025	6,620	37,700	ND	13,400	12,600	8,220	ND	ND	ND	35,900	NS	NS	ND	ND
SB-9	10'	2/17/2025	5,140	59,000	ND	17,400	12,000	8,010	ND	ND	ND	36,000	ND	ND	ND	ND
SB-10	10'	2/17/2025	6,500	54,400	ND	18,300	11,900	8,990	ND	ND	ND	33,600	ND	ND	ND	ND
SB-11	3'	2/17/2025	3,440	85,000	140	20,200	8,920	15,900	34.8	409	ND	35,900	ND	ND	ND	ND
SB-12	10'	2/17/2025	5,430	41,700	ND	16,000	9,720	6,930	ND	ND	ND	35,400	ND	ND	ND	ND
SB-13	10'	2/17/2025	6,200	56,500	ND	18,400	12,300	10,100	ND	401	ND	38,500	ND	ND	ND	ND

Notes:
Bold indicates concentration above laboratory reporting limits.
Exceeds DWPC
Exceeds GSIPC
Exceeds Applicable Soil Vapor Inhalation screening level
Exceeds Two or More DWPC, GSIPC, and/or Applicable Soil Vapor Inhalation screening levels
Exceeds PSIC, DCC, and/or Csat, likely exceeds others
ND = Not Detected above laboratory reporting limits
NS = Not Sampled or Not Analyzed
NR = Not Reported (Data missing from provided report)
Notes in parentheses and standard abbreviations from Part 201 Rules 299.1 through 299.50, updated October 12, 2023
VIAP Screening Levels and notes from EGLE Guidance Document For The Vapor Intrusion Pathway, Appendix D.1 Vapor Intrusion Screening Values, May 2013, updated February 26, 2024

APPENDIX A

LIMITATIONS



PHASE II ENVIRONMENTAL SITE ASSESSMENT LIMITATIONS

This Phase II Environmental Site Assessment (ESA) and related documentation are site-specific, which means they pertain to the environmental conditions of the subject property only.

The Mannik & Smith Group, Inc. (MSG) performed its services associated with the Phase II ESA 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 assessment 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 site. It can not be assumed that samples collected and conditions observed are representative of an area that has not been sampled and/or tested.

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

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

APPENDIX B

DAILY FIELD REPORTS





DAILY FIELD REPORT

Client: Kimley-Horn of Michigan, Inc.
Project: Phase II Investigation

Report No.: 1
Job No.: 401.2401045

Date: 02/17/2025	Day: Monday	Temp: 16° F (AM) 19° F (PM)
MSG Personnel: SCD/RJS/ERR		Cloud Cover: 100% (AM) 100% (PM)
		Precip.: N/A (AM) N/A (PM)
Personnel: MSG		1' of snow cover across Site
MSG Hours On-Site: ~ 8 hours		

Contractors Information		
Contractor: MSG	No. Men and Type: 3; Operator/Helper/Geologist	Equipment Type: Geoprobe3230DT; GPR

Summary of Work Performed:
<ul style="list-style-type: none">Cleared 13 soil borings using the GPR.Advanced eight (8) onsite soil borings to a maximum depth of 10 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:
<ul style="list-style-type: none">0730 – MSG onsite; met with Kyran of airport security0825 – ERR onsite; Kiaha of City Airport escorts MSG to work area0925 – Located SB-060935 – Begin GPR to clear SB-060945 – Begin advancement of SB-061015 – SB-07 GPR cleared1025 – Begin advancement of SB-071035 – SB-12 GPR cleared1050 – Begin advancement of SB-121055 – SB-11 GPR cleared1125 – Begin advancement of SB-111130 – SB-10 GPR cleared1155 – Begin advancement of SB-10; SB-09 GPR cleared1225 – Begin advancement of SB-091230 – SB-04 GPR cleared1255 – Begin advancement of SB-041300 – SB-13 GPR cleared1310 – SB-01 GPR cleared1340 – Begin advancement of SB-131350 – ERR offsite; all remaining boring locations GPR cleared1450 – Begin advancement of SB-011520 – Begin move back to hangar to stage rig1535 – Escorted by Kyran to exit gate off French Road. MSG offsite.

Supporting Documentation

Photograph Taken	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Samples Collected	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Boring/MW Logs	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Photo Log Attached	<input checked="" type="checkbox"/>	<input type="checkbox"/>	COC Attached	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Field Note Book Taken	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Problem Identification and Corrective Measures								
N/A								
Resolved? Yes <input type="checkbox"/> No <input type="checkbox"/>								



DAILY FIELD REPORT

Client: Kimley-Horn of Michigan, Inc.

Project: Phase II Investigation

Report No.: 2

Job No.: 401.2401045

Date: 02/18/2025	Day: Tuesday	Temp: 4° F (AM) 17° F (PM)
MSG Personnel: SCD/RJS	Cloud Cover: Sunny (AM) Fair (PM)	Precip.: N/A (AM) N/A (PM)
Personnel: MSG		
MSG Hours On-Site: ~ 7 hours		
Contractors Information		
Contractor: MSG	No. Men and Type: 3; Operator/Helper/Geologist	Equipment Type: Geoprobe3230DT; GPR
Summary of Work Performed:		
<ul style="list-style-type: none">Advanced four (4) onsite soil borings to a maximum depth of 10 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:		
<ul style="list-style-type: none">0730 – MSG onsite; contacted Kyran0835 – Woody escorted MSG onsite0845 – Begin warming up rig0955 – Begin advancement of SB-08 (DUP-1 collected)1055 – Begin advancement of SB-051135 – Begin advancement of SB-031225 – Begin advancement of SB-021310 – Begin collecting GPS coordinates of sample locations and site features. RJS begins securing the drill rig1435 – Woody escorts MSG offsite, gate secured		

Supporting Documentation								
Photograph Taken	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Samples Collected	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Boring/MW Logs	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Photo Log Attached	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	COC Attached	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Field Note Book Taken	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Problem Identification and Corrective Measures								
N/A								
Resolved? Yes <input type="checkbox"/> No <input type="checkbox"/>								

APPENDIX C

INVESTIGATION PHOTOGRAPHS





Photo 1. Viewing Subject Property



Photo 2. Viewing SB-6 location



Photo 3. Viewing SB-6 soil cores



Photo 4. Viewing SB-12 location



Photo 5. Viewing SB-12 soil cores



Photo 6. Viewing SB-11 soil cores



Photo 7. Viewing SB-10 soil cores



Photo 8. Viewing SB-13 soil cores



Photo 9. Viewing SB-2 soil cores



Photo 10. Viewing SB-2 location

APPENDIX D

SOIL BORING LOGS





The Mannik & Smith Group, Inc.
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ph: (734) 397-3100 fax: (734) 397-3131
www.manniksmithgroup.com

BOREHOLE NUMBER SB-2

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-18-2025 **COMPLETED** 02-18-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.2 TOPSOIL 624.8	0	
					1.2 ORGANIC SOIL with sand: brown; dry. 623.8	0	
					Sandy CLAY: brown; dry; trace debris (cinders, glass, metal).	0	
		ES	60		3.5 SILTY CLAY: gray/brown; dry; trace gravel. 621.5	0	
5	620					0	
						0	
		ES	80			0	
						1	
10	615				10.0 Terminated at 10.00 ft. 615.0	1	Sample SB-2 (10') collected
15	610						
20	605						
25	600						

LEGEND:

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



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www.manniksmithgroup.com

BOREHOLE NUMBER SB-3

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-18-2025 **COMPLETED** 02-18-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.2 TOPSOIL 624.8	0	
					Sandy CLAY: brown; dry; trace gravel.	0	
					1.5 623.5	0	
					SILTY CLAY: brown/orange mottled; dry; trace gravel.	0	
		ES	70			0	
5	620					0	
						0	
		ES	100			0	
						0	
10	615				10.0 615.0	0	Sample SB-3 (10') collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

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



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www.manniksmithgroup.com

BOREHOLE NUMBER SB-4

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-17-2025 **COMPLETED** 02-17-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.2 TOPSOIL 624.8	0	
					Sandy CLAY: dry; trace organics and gravel.	0	
					1.5 623.5	0	
					SILTY CLAY: brown/gray/orange mottled; dry; trace gravel.	0	
		ES	75			0	
5	620					0	
						0	
		ES	100			0	
						0	
10	615				10.0 615.0	0	Sample SB-4 (10') collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

▽ AT TIME OF DRILLING

▼ AT END OF DRILLING

▽ AFTER DRILLING



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BOREHOLE NUMBER SB-5

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-18-2025 **COMPLETED** 02-18-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					TOPSOIL: becomes sandy at 0.2 ft bgs	0	
					2.2	622.8	
		ES	60		SILTY CLAY: brown/orange mottled; dry; trace gravel.	0	
5	620					0	
		ES	100			0	
10	615				10.0	615.0	Sample SB-5 (10') collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

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



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www.manniksmithgroup.com

BOREHOLE NUMBER SB-6

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-17-2025 **COMPLETED** 02-17-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.5 CONCRETE 624.5	0	
					1.0 Base Aggregate 624.0	0	
					SILTY CLAY: brown/gray; dry; trace gravel and sand.	0	
		ES	80			0	
5	620					0	
		ES	100			0	
10	615				10.0 Terminated at 10.00 ft. 615.0	0	Sample SB-6 (10') collected
15	610						
20	605						
25	600						

LEGEND:

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



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BOREHOLE NUMBER SB-7

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-17-2025 **COMPLETED** 02-17-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.2 TOPSOIL 624.8	0	
					Well-graded GRAVEL with sand: brown; dry.	0	
					1.5 Well-graded GRAVEL with sand: black/red; dry; trace brick fragments. 623.5	0	
		ES	75		3.0 SILTY CLAY: brown/gray; dry; trace gravel. 622.0	1	Sample SB-7 (3') collected
5	620					0	
		ES	90			0	
10	615				10.0 Terminated at 10.00 ft. 615.0	0	
15	610						
20	605						
25	600						
30	595						

LEGEND:

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



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BOREHOLE NUMBER SB-8

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-18-2025 **COMPLETED** 02-18-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					TOPSOIL	0	
					1.3	623.7	
		ES	75		Sandy Fat CLAY: brown/orange; dry; trace gravel.	0	
					3.2	621.8	
					SILTY CLAY: brown/orange mottled; dry; trace gravel.	0	
5	620					0	
		ES	100			0	
10	615				10.0	615.0	Sample SB-8 (10') collected DUP-1 collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

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



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BOREHOLE NUMBER SB-9

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-17-2025 **COMPLETED** 02-17-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.2 TOPSOIL 624.8	0	
					Sandy CLAY: brown; dry; trace gravel and organics.	0	
		ES	85		2.0 623.0	0	
					SILTY CLAY: brown/gray; dry.	0	
5	620					0	
		ES	100			0	
10	615				10.0 615.0	0	Sample SB-9 (10') collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

▽ AT TIME OF DRILLING

▼ AT END OF DRILLING

▽ AFTER DRILLING



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BOREHOLE NUMBER SB-12

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-17-2025 **COMPLETED** 02-17-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.2 TOPSOIL 624.0	0	
					Sandy CLAY: brown; dry; trace organics.	0	
		ES	80		3.0 622.0	0	
					SILTY CLAY: brown/gray; dry; trace gravel.	0	
5	620					0	
		ES	100			0	
10	615				10.0 615.0	0	Sample SB-12 (10') collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

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



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BOREHOLE NUMBER SB-13

Sheet 1 of 1

CLIENT Kimley-Horn of Michigan Inc.
PROJECT NUMBER 401.2401045
DATE STARTED 02-17-2025 **COMPLETED** 02-17-2025
DRILLING CONTRACTOR MSG
DRILLING METHOD Direct Push
EQUIPMENT Geoprobe 3230DT **Operator** Rob Shippert

PROJECT NAME Coleman A. Young Airport
PROJECT LOCATION Detroit, Michigan
POSITION Lat.: 42.240000° Long.: -83.000000°
SURFACE ELEVATION 625.0 ft **FINAL DEPTH** 10.0 ft
LOGGED BY SCD **CHECKED BY** PDH
REMARKS N/A

DEPTH (ft)	ELEVATION (ft)	SAMPLE INTERVALS	RECOVERY %	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (PPM)	REMARKS
					0.4 TOPSOIL 624.6		
					Sandy CLAY: dry; trace organics and gravel.	0	
					2.0 623.0	0	
					SILTY CLAY: brown/gray/orange mottled; dry; trace gravel.	0	
5	620	ES	80			0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
10	615	ES	100		10.0 615.0	0	Sample SB-13 (10') collected
					Terminated at 10.00 ft.		
15	610						
20	605						
25	600						

LEGEND:

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

APPENDIX E

LABORATORY ANALYTICAL REPORT AND CHAIN OF CUSTODY





right solutions.
right partner.

CERTIFICATE OF ANALYSIS

Work Order

HN2502090

Client

The Mannik & Smith Group, Inc.

Project

Coleman A. Young Airport

Project Date

February 19, 2025

Reporting Contact

Ryan Montri



right solutions.
right partner.

February 28, 2025

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

Work Order: **HN2502090**

Re: **Coleman A. Young Airport**

Dear Ryan,

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

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

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

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

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

Bill Carey

/S/ BILL CAREY

Project Manager



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090
Date Received: 19-Feb-2025

CASE NARRATIVE

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

Sample Receipt

14 soil/solid samples were received for analysis at ALS Environmental on 19-Feb-2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organics

EPA 8082A-3546-S (High)

Batch ID: 2954408

The MS recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Aroclor 1260 QC-LOT#1885234

The RPD between the MS and MSD was outside of the control limit. The corresponding result should be considered estimated for this compound: Aroclor 1260 QC-LOT 1885234

Batch ID: 2944606

HN2502090-001: One or more of the surrogates were below the limits due to matrix interference.

HN2502090-008: One or more of the surrogates were below the limits due to matrix interference.

EPA 8015C-5035A-10mL-GRO-S

Batch ID: 2945649

The MS recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary: C6-C10

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

Batch ID: 2950626

The MSD recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for the following analyte(s): 1,1,2,2-tetrachloroethane

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

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

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

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: 1,1,2,2-tetrachloroethane

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: methylcyclohexane

HN2502090-002: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-005: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-006: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090
Date Received: 19-Feb-2025

CASE NARRATIVE

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

Batch ID: 2950626

HN2502090-008: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-009: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-010: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-011: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-012: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

HN2502090-014: One or more surrogate recoveries were above the upper control limits. The sample was non-detect, therefore, no qualification is needed.

EPA 8270E-FULL HN-3546-S

Batch ID: 2949222

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

The LCS recovery was above the upper control limit. All the sample results in the batch were non-detect. No qualification is necessary for this analyte: 2,4-Dinitrophenol; 4,6-Dinitro-2-methylphenol

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: 4-Chloroaniline

EPA 537 Mod-S

Batch ID: 2944947

HN2502090-001: 2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA) - The MSD recovery was outside of the control limit. However, the MS recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte:

Metals

EPA 6020B-3050B-S

Batch ID: 2945658

The MSD recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba, Zn batch 1881523

The MS recovery was outside of the control limit; however, the result in the parent sample is greater than 4x the spike amount. No qualification is required for this analyte: Ba, Zn batch 1881523

Batch ID: 2948714

The MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: Cu batch 1881523

The MS recovery was outside of the control limit. However, the MSD recovery and the RPD between the MS and MSD was in control. No qualification is required for this analyte: As batch 1881523

The MS recovery was below the lower control limit. The corresponding result in the parent sample may be biased low for this analyte: Cu batch 1881523

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

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



CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.42	S	2.97	mg/kg	EPA 6020B
Barium	83.4		0.297	mg/kg	EPA 6020B
Chromium	13.2		0.297	mg/kg	EPA 6020B
Copper	13.8	S	2.97	mg/kg	EPA 6020B
Lead	7.98		0.297	mg/kg	EPA 6020B
Percent Moisture	11.6		0.1	%	EPA 3550C
Zinc	40.0		0.595	mg/kg	EPA 6020B

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	7.16		0.342	mg/kg	EPA 6020B
Barium	69.2		0.342	mg/kg	EPA 6020B
Chromium	20.5		3.42	mg/kg	EPA 6020B
Copper	12.0		0.342	mg/kg	EPA 6020B
Lead	9.99		0.342	mg/kg	EPA 6020B
Mercury	0.0292		0.0200	mg/kg	EPA 7471B
Percent Moisture	13.7		0.1	%	EPA 3550C
Zinc	39.4		0.684	mg/kg	EPA 6020B

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	5.43		0.338	mg/kg	EPA 6020B
Barium	41.7		0.338	mg/kg	EPA 6020B
Benzo(a)anthracene	7.16		7.16	µg/kg	EPA 8270E
Benzo(b)fluoranthene	8.60		7.16	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	10.0		7.16	µg/kg	EPA 8270E
Chromium	16.0		3.38	mg/kg	EPA 6020B
Copper	9.72		0.338	mg/kg	EPA 6020B
Indeno(1,2,3-cd) pyrene	7.16		7.16	µg/kg	EPA 8270E
Lead	6.93		0.338	mg/kg	EPA 6020B
Percent Moisture	11.0		0.1	%	EPA 3550C
Zinc	35.4		0.677	mg/kg	EPA 6020B

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	3.44		0.326	mg/kg	EPA 6020B
Barium	85.0		0.326	mg/kg	EPA 6020B
Benzo(a)anthracene	57.7		34.0	µg/kg	EPA 8270E
Benzo(a)pyrene	57.7		34.0	µg/kg	EPA 8270E
Benzo(b)fluoranthene	78.1		34.0	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	44.2		34.0	µg/kg	EPA 8270E
Benzo(k)fluoranthene	37.4		34.0	µg/kg	EPA 8270E

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

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



CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Results	Flag	MRL	Units	Method
Cadmium	0.140		0.130	mg/kg	EPA 6020B
Caprolactam	173		168	µg/kg	EPA 8270E
Chromium	20.2		3.26	mg/kg	EPA 6020B
Chrysene	37.4		34.0	µg/kg	EPA 8270E
Copper	8.92		0.326	mg/kg	EPA 6020B
Fluoranthene	105		34.0	µg/kg	EPA 8270E
Lead	15.9		0.326	mg/kg	EPA 6020B
Mercury	0.0348		0.0208	mg/kg	EPA 7471B
Percent Moisture	19.1		0.1	%	EPA 3550C
Phenanthrene	44.2		34.0	µg/kg	EPA 8270E
Pyrene	98.5		34.0	µg/kg	EPA 8270E
Selenium	0.409		0.326	mg/kg	EPA 6020B
Zinc	35.9		0.651	mg/kg	EPA 6020B

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.50		0.308	mg/kg	EPA 6020B
Barium	54.4		0.308	mg/kg	EPA 6020B
Benzo(b)fluoranthene	7.44		7.44	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	9.67		7.44	µg/kg	EPA 8270E
Chromium	18.3		3.08	mg/kg	EPA 6020B
Copper	11.9		0.308	mg/kg	EPA 6020B
Lead	8.99		0.308	mg/kg	EPA 6020B
Percent Moisture	12.2		0.1	%	EPA 3550C
Zinc	33.6		0.615	mg/kg	EPA 6020B

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	5.14		0.314	mg/kg	EPA 6020B
Barium	59.0		0.314	mg/kg	EPA 6020B
Benzo(b)fluoranthene	7.40		7.40	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	8.14		7.40	µg/kg	EPA 8270E
Chromium	17.4		3.14	mg/kg	EPA 6020B
Copper	12.0		0.314	mg/kg	EPA 6020B
Lead	8.01		0.314	mg/kg	EPA 6020B
Percent Moisture	11.6		0.1	%	EPA 3550C
Zinc	36.0		0.628	mg/kg	EPA 6020B

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	5.76		0.336	mg/kg	EPA 6020B
Barium	57.4		0.336	mg/kg	EPA 6020B

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

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



CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Results	Flag	MRL	Units	Method
Chromium	17.5		3.36	mg/kg	EPA 6020B
Copper	12.5		0.336	mg/kg	EPA 6020B
Lead	9.49		0.336	mg/kg	EPA 6020B
Percent Moisture	11.6		0.1	%	EPA 3550C
Zinc	36.5		0.672	mg/kg	EPA 6020B

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.20		0.329	mg/kg	EPA 6020B
Barium	56.5		0.329	mg/kg	EPA 6020B
Benzo(a)anthracene	8.36		7.60	µg/kg	EPA 8270E
Benzo(b)fluoranthene	11.4		7.60	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	12.9		7.60	µg/kg	EPA 8270E
Chromium	18.4		3.29	mg/kg	EPA 6020B
Copper	12.3		0.329	mg/kg	EPA 6020B
Lead	10.1		0.329	mg/kg	EPA 6020B
Percent Moisture	13.7		0.1	%	EPA 3550C
Selenium	0.401		0.329	mg/kg	EPA 6020B
Zinc	38.5		0.658	mg/kg	EPA 6020B

CLIENT ID: SB-1 (10')	Lab ID: HN2502090-009
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	4.99		0.309	mg/kg	EPA 6020B
Barium	54.0		0.309	mg/kg	EPA 6020B
Chromium	15.7		3.09	mg/kg	EPA 6020B
Copper	10.2		0.309	mg/kg	EPA 6020B
Lead	7.88		0.309	mg/kg	EPA 6020B
Percent Moisture	11.7		0.1	%	EPA 3550C
Zinc	30.7		0.618	mg/kg	EPA 6020B

CLIENT ID: SB-8 (10')	Lab ID: HN2502090-010
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.08		0.286	mg/kg	EPA 6020B
Barium	66.6		0.286	mg/kg	EPA 6020B
Benzo(b)fluoranthene	7.46		7.46	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	10.4		7.46	µg/kg	EPA 8270E
Chromium	18.3		2.86	mg/kg	EPA 6020B
Copper	10.8		0.286	mg/kg	EPA 6020B
Lead	8.77		0.286	mg/kg	EPA 6020B
Percent Moisture	11.4		0.1	%	EPA 3550C
Zinc	35.8		0.572	mg/kg	EPA 6020B

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

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



CLIENT ID: SB-5 (10')

Lab ID: HN2502090-011

Analyte	Results	Flag	MRL	Units	Method
Arsenic	7.33		0.338	mg/kg	EPA 6020B
Barium	86.3		0.338	mg/kg	EPA 6020B
Chromium	17.7		3.38	mg/kg	EPA 6020B
Copper	12.3		0.338	mg/kg	EPA 6020B
Lead	8.14		0.338	mg/kg	EPA 6020B
Percent Moisture	12.5		0.1	%	EPA 3550C
Zinc	36.0		0.676	mg/kg	EPA 6020B

CLIENT ID: SB-3 (10')

Lab ID: HN2502090-012

Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.48		0.330	mg/kg	EPA 6020B
Barium	58.7		0.330	mg/kg	EPA 6020B
Chromium	15.3		0.330	mg/kg	EPA 6020B
Copper	14.4		0.330	mg/kg	EPA 6020B
Lead	9.22		0.330	mg/kg	EPA 6020B
Percent Moisture	11.7		0.1	%	EPA 3550C
Zinc	39.3		0.661	mg/kg	EPA 6020B

CLIENT ID: SB-2 (10')

Lab ID: HN2502090-013

Analyte	Results	Flag	MRL	Units	Method
2-Methylnaphthalene	64.8		38.1	µg/kg	EPA 8270E
Anthracene	68.6		38.1	µg/kg	EPA 8270E
Arsenic	8.68		0.361	mg/kg	EPA 6020B
Barium	88.4		0.361	mg/kg	EPA 6020B
Benzo(a)anthracene	358		38.1	µg/kg	EPA 8270E
Benzo(a)pyrene	347		38.1	µg/kg	EPA 8270E
Benzo(b)fluoranthene	526		38.1	µg/kg	EPA 8270E
Benzo(g,h,i)perylene	278		38.1	µg/kg	EPA 8270E
Benzo(k)fluoranthene	172		38.1	µg/kg	EPA 8270E
Cadmium	0.221		0.144	mg/kg	EPA 6020B
Chromium	9.99		0.361	mg/kg	EPA 6020B
Chrysene	393		38.1	µg/kg	EPA 8270E
Copper	48.6		0.361	mg/kg	EPA 6020B
Fluoranthene	595		38.1	µg/kg	EPA 8270E
Indeno(1,2,3-cd) pyrene	267		38.1	µg/kg	EPA 8270E
Lead	46.4		0.361	mg/kg	EPA 6020B
Mercury	0.0594		0.0241	mg/kg	EPA 7471B
Naphthalene	53.4		38.1	µg/kg	EPA 8270E
Percent Moisture	18.2		0.1	%	EPA 3550C
Phenanthrene	320		38.1	µg/kg	EPA 8270E
Pyrene	556		38.1	µg/kg	EPA 8270E

SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting limits.

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



CLIENT ID: SB-2 (10')	Lab ID: HN2502090-013
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Analyte	Results	Flag	MRL	Units	Method
Selenium	0.602		0.361	mg/kg	EPA 6020B
Zinc	176		7.21	mg/kg	EPA 6020B

CLIENT ID: DUP-1	Lab ID: HN2502090-014
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Analyte	Results	Flag	MRL	Units	Method
Arsenic	6.62		0.317	mg/kg	EPA 6020B
Barium	37.7		0.317	mg/kg	EPA 6020B
Benzo(g,h,i)perylene	11.7		7.30	µg/kg	EPA 8270E
Chromium	13.4		0.317	mg/kg	EPA 6020B
Copper	12.6		0.317	mg/kg	EPA 6020B
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	40.2		36.2	µg/kg	EPA 8270E
Lead	8.22		0.317	mg/kg	EPA 6020B
Percent Moisture	11.8		0.1	%	EPA 3550C
Zinc	35.9		0.634	mg/kg	EPA 6020B

SAMPLE SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Workorder: HN2502090

Laboratory Sample ID	Client Sample ID	Sample Matrix	Collection Date	Date Received
HN2502090-001	SB-6 (10')	SOIL/SOLID	02/17/25 10:00	02/19/25 07:00
HN2502090-002	SB-7 (3')	SOIL/SOLID	02/17/25 10:40	02/19/25 07:00
HN2502090-003	SB-12 (10')	SOIL/SOLID	02/17/25 11:15	02/19/25 07:00
HN2502090-004	SB-11 (3')	SOIL/SOLID	02/17/25 11:40	02/19/25 07:00
HN2502090-005	SB-10 (10')	SOIL/SOLID	02/17/25 12:05	02/19/25 07:00
HN2502090-006	SB-9 (10')	SOIL/SOLID	02/17/25 12:35	02/19/25 07:00
HN2502090-007	SB-4 (10')	SOIL/SOLID	02/17/25 13:10	02/19/25 07:00
HN2502090-008	SB-13 (10')	SOIL/SOLID	02/17/25 14:20	02/19/25 07:00
HN2502090-009	SB-1 (10')	SOIL/SOLID	02/17/25 15:10	02/19/25 07:00
HN2502090-010	SB-8 (10')	SOIL/SOLID	02/18/25 10:15	02/19/25 07:00
HN2502090-011	SB-5 (10')	SOIL/SOLID	02/18/25 11:15	02/19/25 07:00
HN2502090-012	SB-3 (10')	SOIL/SOLID	02/18/25 12:00	02/19/25 07:00
HN2502090-013	SB-2 (10')	SOIL/SOLID	02/18/25 12:40	02/19/25 07:00
HN2502090-014	DUP-1	SOIL/SOLID	02/18/25	02/19/25 07:00



ALS Holland Sample Receiving Checklist

Received by:

Brittany Hayward

Date/Time:

2/19/25 0700

Carrier Name:

GS

Shipping container/cooler in good condition?

☒ Yes / No / Not Present

Custody seals intact on shipping container/cooler?

☒ Yes / No / Not Present

Custody seals intact on sample bottles?

Yes / No / ☒ Not Present

Chain of Custody present?

☒ Yes / No

COC signed when relinquished and received?

☒ Yes / No

COC agrees with sample labels?

☒ Yes / No

Samples in proper container/bottle?

☒ Yes / No

Sample containers intact?

☒ Yes / No

Sufficient sample volume for indicated test?

☒ Yes / No

All samples received within holding time?

☒ Yes / No

Container/Temp Blank temperature in compliance?

☒ Yes / No

Temperature(s) (°C):

3.9/3.9C

Thermometer(s):

IR6

Sample(s) received on ice?

☒ Yes / No

Matrix/Matrices:

Soil

Cooler(s)/Kit(s):

1

Date/Time sample(s) sent to storage:

2/19/25 0940

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		06/21/2024	06/30/2025
Connecticut	Drinking Water (Secondary)	PH-0155	12/10/2024	12/31/2026
Florida	NELAP (Primary)	E871106	07/01/2024	06/30/2025
Illinois	NELAP (Secondary)	200076	11/14/2024	12/31/2025
Indiana	Drinking Water (Secondary)	C-MI-08	12/31/2024	09/04/2026
Iowa	State Specific	403	09/18/2023	09/01/2025
Kansas	NELAP (Secondary)	E-10411	07/09/2024	07/31/2025
Kentucky	Waste Water	KY98004	12/20/2024	12/31/2025
Kentucky	UST	120474	06/24/2024	06/30/2025
Michigan	Drinking Water (Primary)	0022	12/19/2023	09/04/2026
Minnesota	NELAP (Secondary)	026-999-449	12/17/2024	12/31/2025
Missouri	Drinking Water (Secondary)	01262	11/14/2024	12/30/2027
New Jersey	NELAP (Secondary)	MI015	07/01/2024	6/30/2025
New York	NELAP (Secondary)	12128	04/01/2024	04/01/2025
North Dakota	State Specific	R-192	11/18/2024	06/30/2025
Ohio	Drinking Water (Secondary)	87783	06/25/2024	6/30/2025
Pennsylvania	NELAP (Secondary)	68-03827	06/14/2024	07/31/2025
Texas	NELAP (Secondary)	T104704494	02/12/2025	01/31/2026
USDA	Domestic CA	Soil-MI-007	02/06/2025	08/07/2026
USDA	Soil Import	525-23-62-77572	03/03/2023	03/03/2026
West Virginia	State Specific	355	02/04/2025	08/31/2025
Wisconsin	State Specific	399084510	08/15/2024	08/31/2025

¹ - Scope available upon request

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-6 (10')
Laboratory Code: HN2502090-001
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-7 (3')
Laboratory Code: HN2502090-002
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-12 (10')
Laboratory Code: HN2502090-003
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-12 (10') **Date Collected:** 02/17/25
Laboratory Code: HN2502090-003 **Date Received:** 02/19/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1885234	Gwen Pickering	2954408	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-11 (3') **Date Collected:** 02/17/25
Laboratory Code: HN2502090-004 **Date Received:** 02/19/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-10 (10')
Laboratory Code: HN2502090-005
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2945649	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-9 (10')
Laboratory Code: HN2502090-006
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-4 (10')
Laboratory Code: HN2502090-007
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-13 (10')
Laboratory Code: HN2502090-008
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-1 (10')
Laboratory Code: HN2502090-009
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878493		2939110	Jeffrey Blakeman

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-1 (10')
Laboratory Code: HN2502090-009
Sample Matrix: SOIL/SOLID

Date Collected: 02/17/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8260D	1878459	Jonathan Vazquez	2959941	Nathan Jenkins
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-8 (10')
Laboratory Code: HN2502090-010
Sample Matrix: SOIL/SOLID

Date Collected: 02/18/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878493		2939110	Jeffrey Blakeman
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8260D	1878459	Jonathan Vazquez	2955786	Nathan Jenkins
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-5 (10')
Laboratory Code: HN2502090-011
Sample Matrix: SOIL/SOLID

Date Collected: 02/18/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878490		2939107	Jeffrey Blakeman
EPA 537Mod	1880110	Clayton Rzepka	2944947	Morgan Morehouse

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-5 (10')
Laboratory Code: HN2502090-011
Sample Matrix: SOIL/SOLID

Date Collected: 02/18/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8260D	1878459	Jonathan Vazquez	2955786	Nathan Jenkins
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-3 (10')
Laboratory Code: HN2502090-012
Sample Matrix: SOIL/SOLID

Date Collected: 02/18/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878493		2939110	Jeffrey Blakeman
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8260D	1878459	Jonathan Vazquez	2955786	Nathan Jenkins
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: SB-2 (10')
Laboratory Code: HN2502090-013
Sample Matrix: SOIL/SOLID

Date Collected: 02/18/25
Date Received: 02/19/25

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878493		2939110	Jeffrey Blakeman
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 6020B	1881523	Chloe Patrick	2948714	Stephanie Pierson

ANALYST SUMMARY



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport

Work Order: HN2502090

Sample Name: SB-2 (10') **Date Collected:** 02/18/25
Laboratory Code: HN2502090-013 **Date Received:** 02/19/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8082A	1879774	Gwen Pickering	2944606	Sam Bruzan
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Sample Name: DUP-1 **Date Collected:** 02/18/25
Laboratory Code: HN2502090-014 **Date Received:** 02/19/25
Sample Matrix: SOIL/SOLID

Analysis Method	Preparation Lot	Prepared By	Analysis Lot	Analyzed By
EPA 3550C	1878493		2939110	Jeffrey Blakeman
EPA 6020B	1881523	Chloe Patrick	2945658	Stephanie Pierson
EPA 7471B	1879981	Hunter Johnson	2942415	Hunter Johnson
EPA 8015C	1878463	Jonathan Vazquez	2941833	Elizabeth Horrocks
EPA 8015C	1885236	Gwen Pickering	2953239	Elizabeth Horrocks
EPA 8260D	1878459	Jonathan Vazquez	2950626	Caroline Cox
EPA 8270E	1879776	Gwen Pickering	2949222	Trevor Beardsley

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.6		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:16	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.10	1	02/20/25 20:16	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 20:16	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 20:16	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND	S	µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:16	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 20:16	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	1.02	1	02/20/25 20:16	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.11	1	02/20/25 20:16	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 20:16	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	98.3		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	136		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	125		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	116		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	134		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	113		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	110		%REC	21-170	1	02/20/25 20:16	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C4-PFHpA</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	112		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	117		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	121		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	99.0		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	107		%REC	50-150	1	02/20/25 20:16	02/20/25 16:40

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	73.3	1	02/20/25 20:01	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	61.7	S	%REC	68-137	1	02/20/25 20:01	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	91.6		%REC	71-126	1	02/20/25 20:01	02/20/25 08:40

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND	S	µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND	S	µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,1-Dichloroethylene	EPA 8260D	ND	S	µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	76.9	1	02/25/25 02:17	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	256	1	02/25/25 02:17	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Chlorobenzene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	76.9	1	02/25/25 02:17	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Cyclohexane	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	76.9	1	02/25/25 02:17	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	320	1	02/25/25 02:17	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND	S	µg/kg	128	1	02/25/25 02:17	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	320	1	02/25/25 02:17	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND	S	µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	115	1	02/25/25 02:17	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND	S	µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND	S	µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	38.5	1	02/25/25 02:17	02/19/25 10:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	<i>117</i>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 02:17</i>	<i>02/19/25 10:25</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	<i>106</i>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 02:17</i>	<i>02/19/25 10:25</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	<i>115</i>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 02:17</i>	<i>02/19/25 10:25</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	<i>96.8</i>		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 02:17</i>	<i>02/19/25 10:25</i>

Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	368	1	02/21/25 17:25	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	184	1	02/21/25 17:25	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	73.7	1	02/21/25 17:25	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 17:25	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	368	1	02/21/25 17:25	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 17:25	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	184	1	02/21/25 17:25	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	73.7	1	02/21/25 17:25	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	184	1	02/21/25 17:25	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	368	1	02/21/25 17:25	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	73.7	1	02/21/25 17:25	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	73.7	1	02/21/25 17:25	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Fluorene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	184	1	02/21/25 17:25	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-6 (10')	Lab ID: HN2502090-001
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 17:25	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	184	1	02/21/25 17:25	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 17:25	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.37	1	02/21/25 17:25	02/20/25 10:19
Pyridine	EPA 8270E	ND	S	µg/kg	184	1	02/21/25 17:25	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	61.0		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>02/21/25 17:25</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	60.2		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>02/21/25 17:25</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	84.3		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>02/21/25 17:25</i>	<i>02/20/25 10:19</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	69.3		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>02/21/25 17:25</i>	<i>02/20/25 10:19</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	71.3		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>02/21/25 17:25</i>	<i>02/20/25 10:19</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	89.9		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>02/21/25 17:25</i>	<i>02/20/25 10:19</i>
Metals								
Arsenic	EPA 6020B	6.42	S	mg/kg	2.97	10	02/24/25 14:25	02/21/25 08:00
Barium	EPA 6020B	83.4		mg/kg	0.297	1	02/21/25 18:59	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.119	1	02/21/25 18:59	02/21/25 08:00
Chromium	EPA 6020B	13.2		mg/kg	0.297	1	02/21/25 18:59	02/21/25 08:00
Copper	EPA 6020B	13.8	S	mg/kg	2.97	10	02/24/25 14:25	02/21/25 08:00
Lead	EPA 6020B	7.98		mg/kg	0.297	1	02/21/25 18:59	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.297	1	02/21/25 18:59	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	2.97	10	02/24/25 14:25	02/21/25 08:00
Zinc	EPA 6020B	40.0		mg/kg	0.595	1	02/21/25 18:59	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:17	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	13.7		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:30	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 20:30	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 20:30	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:30	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:30	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 20:30	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	1.01	1	02/20/25 20:30	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.10	1	02/20/25 20:30	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 20:30	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	94.5		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	124		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	112		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	106		%REC	21-170	1	02/20/25 20:30	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	101		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	107		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	99.0		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C4-PFHpa</i>	<i>EPA 537Mod</i>	98.5		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	107		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	88.6		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	94.2		%REC	50-150	1	02/20/25 20:30	02/20/25 16:40

Semivolatile Organic Compounds by GC

Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.4	1	02/26/25 08:00	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.4	1	02/26/25 08:00	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	44.3		%REC	10-131	1	02/26/25 08:00	02/25/25 10:15
Aroclor 1016	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	75.7	1	02/20/25 20:13	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	70.1		%REC	68-137	1	02/20/25 20:13	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	110		%REC	71-126	1	02/20/25 20:13	02/20/25 08:40

Gasoline Range Organics by GC-FID

Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	6570	1	02/19/25 19:31	02/19/25 10:26
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Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	98.2		%REC	75-120	1	02/19/25 19:31	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	78.8	1	02/25/25 02:35	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	263	1	02/25/25 02:35	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	78.8	1	02/25/25 02:35	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	78.8	1	02/25/25 02:35	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	328	1	02/25/25 02:35	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	131	1	02/25/25 02:35	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	328	1	02/25/25 02:35	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	118	1	02/25/25 02:35	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	39.4	1	02/25/25 02:35	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	123	S	%REC	80-120	1	02/25/25 02:35	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	105		%REC	80-120	1	02/25/25 02:35	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	118		%REC	80-120	1	02/25/25 02:35	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	95.1		%REC	80-120	1	02/25/25 02:35	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	1700	1	02/21/25 17:47	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	849	1	02/21/25 17:47	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	340	1	02/21/25 17:47	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	170	1	02/21/25 17:47	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	1700	1	02/21/25 17:47	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	170	1	02/21/25 17:47	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	849	1	02/21/25 17:47	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	340	1	02/21/25 17:47	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	849	1	02/21/25 17:47	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	1700	1	02/21/25 17:47	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	340	1	02/21/25 17:47	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	340	1	02/21/25 17:47	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')	Lab ID: HN2502090-002
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	849	1	02/21/25 17:47	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	849	1	02/21/25 17:47	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 17:47	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 17:47	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	849	1	02/21/25 17:47	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	64.2		%REC	48-94	1	02/21/25 17:47	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	68.1		%REC	50-103	1	02/21/25 17:47	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	91.0		%REC	43-105	1	02/21/25 17:47	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	80.9		%REC	55-111	1	02/21/25 17:47	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	75.8		%REC	47-100	1	02/21/25 17:47	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	96.7		%REC	49-110	1	02/21/25 17:47	02/20/25 10:19
Metals								
Arsenic	EPA 6020B	7.16		mg/kg	0.342	1	02/21/25 19:08	02/21/25 08:00
Barium	EPA 6020B	69.2		mg/kg	0.342	1	02/21/25 19:08	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.137	1	02/21/25 19:08	02/21/25 08:00
Chromium	EPA 6020B	20.5		mg/kg	3.42	10	02/24/25 14:34	02/21/25 08:00
Copper	EPA 6020B	12.0		mg/kg	0.342	1	02/21/25 19:08	02/21/25 08:00
Lead	EPA 6020B	9.99		mg/kg	0.342	1	02/21/25 19:08	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.342	1	02/21/25 19:08	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.342	1	02/21/25 19:08	02/21/25 08:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 10:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-7 (3')

Lab ID: HN2502090-002

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Zinc	EPA 6020B	39.4		mg/kg	0.684	1	02/21/25 19:08	02/21/25 08:00
Mercury	EPA 7471B	0.0292		mg/kg	0.0200	1	02/21/25 11:22	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.0		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 20:45	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:45	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.05	1	02/20/25 20:45	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 20:45	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 20:45	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.05	1	02/20/25 20:45	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	0.994	1	02/20/25 20:45	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 20:45	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 20:45	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	100		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	131		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	127		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	126		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	112		%REC	21-170	1	02/20/25 20:45	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C4-PFHpa</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	112		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	100		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 20:45	02/20/25 16:40

Semivolatile Organic Compounds by GC

Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.0	1	02/26/25 10:08	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.0	1	02/26/25 10:08	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	48.3		%REC	10-131	1	02/26/25 10:08	02/25/25 10:15
Aroclor 1016	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1221	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1232	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1242	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1248	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1254	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1260	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1262	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Aroclor 1268	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
Total PCB	EPA 8082A	ND		µg/kg	168	1	02/25/25 22:17	02/25/25 08:57
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	102		%REC	68-137	1	02/25/25 22:17	02/25/25 08:57
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	101		%REC	71-126	1	02/25/25 22:17	02/25/25 08:57

Gasoline Range Organics by GC-FID

Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	6380	1	02/19/25 19:53	02/19/25 10:26
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Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	106		%REC	75-120	1	02/19/25 19:53	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	76.6	1	02/25/25 02:53	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	255	1	02/25/25 02:53	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	76.6	1	02/25/25 02:53	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	76.6	1	02/25/25 02:53	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	319	1	02/25/25 02:53	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	128	1	02/25/25 02:53	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	319	1	02/25/25 02:53	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	115	1	02/25/25 02:53	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	38.3	1	02/25/25 02:53	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	118		%REC	80-120	1	02/25/25 02:53	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	103		%REC	80-120	1	02/25/25 02:53	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	116		%REC	80-120	1	02/25/25 02:53	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	96.2		%REC	80-120	1	02/25/25 02:53	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	358	1	02/21/25 18:09	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	179	1	02/21/25 18:09	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	71.6	1	02/21/25 18:09	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	35.8	1	02/21/25 18:09	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	358	1	02/21/25 18:09	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	35.8	1	02/21/25 18:09	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	179	1	02/21/25 18:09	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	71.6	1	02/21/25 18:09	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	179	1	02/21/25 18:09	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	358	1	02/21/25 18:09	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	71.6	1	02/21/25 18:09	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	7.16		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	8.60		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	10.0		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	71.6	1	02/21/25 18:09	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')	Lab ID: HN2502090-003
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	7.16		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	179	1	02/21/25 18:09	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 18:09	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	179	1	02/21/25 18:09	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	35.4	1	02/21/25 18:09	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.16	1	02/21/25 18:09	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	179	1	02/21/25 18:09	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	65.0		%REC	48-94	1	02/21/25 18:09	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	66.8		%REC	50-103	1	02/21/25 18:09	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	88.5		%REC	43-105	1	02/21/25 18:09	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	77.8		%REC	55-111	1	02/21/25 18:09	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	73.4		%REC	47-100	1	02/21/25 18:09	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	96.5		%REC	49-110	1	02/21/25 18:09	02/20/25 10:19
Metals								
Arsenic	EPA 6020B	5.43		mg/kg	0.338	1	02/21/25 19:10	02/21/25 08:00
Barium	EPA 6020B	41.7		mg/kg	0.338	1	02/21/25 19:10	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.135	1	02/21/25 19:10	02/21/25 08:00
Chromium	EPA 6020B	16.0		mg/kg	3.38	10	02/24/25 14:39	02/21/25 08:00
Copper	EPA 6020B	9.72		mg/kg	0.338	1	02/21/25 19:10	02/21/25 08:00
Lead	EPA 6020B	6.93		mg/kg	0.338	1	02/21/25 19:10	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.338	1	02/21/25 19:10	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.338	1	02/21/25 19:10	02/21/25 08:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-12 (10')

Lab ID: HN2502090-003

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Zinc	EPA 6020B	35.4		mg/kg	0.677	1	02/21/25 19:10	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0213	1	02/21/25 11:24	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	19.1		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.21	1	02/20/25 21:00	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.23	1	02/20/25 21:00	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:00	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.22	1	02/20/25 21:00	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.21	1	02/20/25 21:00	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:00	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:00	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.24	1	02/20/25 21:00	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.22	1	02/20/25 21:00	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.29	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	94.7		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	127		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	116		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	102		%REC	21-170	1	02/20/25 21:00	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	97.7		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	98.6		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C4-PFHpa</i>	<i>EPA 537Mod</i>	99.4		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	107		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	89.4		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	98.2		%REC	50-150	1	02/20/25 21:00	02/20/25 16:40

Semivolatile Organic Compounds by GC

Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	61.0	1	02/26/25 10:34	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	61.0	1	02/26/25 10:34	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	52.3		%REC	10-131	1	02/26/25 10:34	02/25/25 10:15
Aroclor 1016	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	384	1	02/20/25 20:37	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	97.4		%REC	68-137	1	02/20/25 20:37	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	104		%REC	71-126	1	02/20/25 20:37	02/20/25 08:40

Gasoline Range Organics by GC-FID

Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	6850	1	02/19/25 20:15	02/19/25 10:26
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Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	103		%REC	75-120	1	02/19/25 20:15	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	82.2	1	02/25/25 03:11	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	274	1	02/25/25 03:11	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	82.2	1	02/25/25 03:11	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	82.2	1	02/25/25 03:11	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	343	1	02/25/25 03:11	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	137	1	02/25/25 03:11	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	343	1	02/25/25 03:11	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	123	1	02/25/25 03:11	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	41.1	1	02/25/25 03:11	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	116		%REC	80-120	1	02/25/25 03:11	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	106		%REC	80-120	1	02/25/25 03:11	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	113		%REC	80-120	1	02/25/25 03:11	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	96.2		%REC	80-120	1	02/25/25 03:11	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	1700	1	02/21/25 18:31	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	849	1	02/21/25 18:31	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	340	1	02/21/25 18:31	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	170	1	02/21/25 18:31	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	1700	1	02/21/25 18:31	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	170	1	02/21/25 18:31	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	849	1	02/21/25 18:31	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	340	1	02/21/25 18:31	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	849	1	02/21/25 18:31	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	1700	1	02/21/25 18:31	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	340	1	02/21/25 18:31	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	57.7		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	57.7		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	78.1		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	44.2		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	37.4		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	340	1	02/21/25 18:31	02/20/25 10:19
Caprolactam	EPA 8270E	173		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Chrysene	EPA 8270E	37.4		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Fluoranthene	EPA 8270E	105		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')	Lab ID: HN2502090-004
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	849	1	02/21/25 18:31	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	849	1	02/21/25 18:31	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Phenanthrene	EPA 8270E	44.2		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	168	1	02/21/25 18:31	02/20/25 10:19
Pyrene	EPA 8270E	98.5		µg/kg	34.0	1	02/21/25 18:31	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	849	1	02/21/25 18:31	02/20/25 10:19
Surr: 2,4,6-Tribromophenol	EPA 8270E	66.4		%REC	48-94	1	02/21/25 18:31	02/20/25 10:19
Surr: 2-Fluorobiphenyl	EPA 8270E	68.3		%REC	50-103	1	02/21/25 18:31	02/20/25 10:19
Surr: 2-Fluorophenol	EPA 8270E	87.2		%REC	43-105	1	02/21/25 18:31	02/20/25 10:19
Surr: 4-Terphenyl-d14	EPA 8270E	78.7		%REC	55-111	1	02/21/25 18:31	02/20/25 10:19
Surr: Nitrobenzene-d5	EPA 8270E	75.0		%REC	47-100	1	02/21/25 18:31	02/20/25 10:19
Surr: Phenol-d6	EPA 8270E	95.8		%REC	49-110	1	02/21/25 18:31	02/20/25 10:19
Metals								
Arsenic	EPA 6020B	3.44		mg/kg	0.326	1	02/21/25 19:12	02/21/25 08:00
Barium	EPA 6020B	85.0		mg/kg	0.326	1	02/21/25 19:12	02/21/25 08:00
Cadmium	EPA 6020B	0.140		mg/kg	0.130	1	02/21/25 19:12	02/21/25 08:00
Chromium	EPA 6020B	20.2		mg/kg	3.26	10	02/24/25 14:40	02/21/25 08:00
Copper	EPA 6020B	8.92		mg/kg	0.326	1	02/21/25 19:12	02/21/25 08:00
Lead	EPA 6020B	15.9		mg/kg	0.326	1	02/21/25 19:12	02/21/25 08:00
Selenium	EPA 6020B	0.409		mg/kg	0.326	1	02/21/25 19:12	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.326	1	02/21/25 19:12	02/21/25 08:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 11:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-11 (3')

Lab ID: HN2502090-004

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Zinc	EPA 6020B	35.9		mg/kg	0.651	1	02/21/25 19:12	02/21/25 08:00
Mercury	EPA 7471B	0.0348		mg/kg	0.0208	1	02/21/25 11:26	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	12.2		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 21:14	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.11	1	02/20/25 21:14	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:14	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.10	1	02/20/25 21:14	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 21:14	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:14	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	1.03	1	02/20/25 21:14	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:14	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.11	1	02/20/25 21:14	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.16	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	143		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	128		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	120		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	136		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	118		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	112		%REC	21-170	1	02/20/25 21:14	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	113		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	112		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C4-PFHpa</i>	<i>EPA 537Mod</i>	112		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	123		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	122		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	119		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	115		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	125		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 21:14	02/20/25 16:40

Semivolatile Organic Compounds by GC

Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.2	1	02/26/25 11:00	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.2	1	02/26/25 11:00	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	44.3		%REC	10-131	1	02/26/25 11:00	02/25/25 10:15
Aroclor 1016	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	75.0	1	02/20/25 20:48	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	78.0		%REC	68-137	1	02/20/25 20:48	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	104		%REC	71-126	1	02/20/25 20:48	02/20/25 08:40

Gasoline Range Organics by GC-FID

Gasoline Range Organics C6-C10	EPA 8015C	ND	S	µg/kg	6010	1	02/20/25 15:52	02/19/25 10:26
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Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	108		%REC	75-120	1	02/20/25 15:52	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	72.2	1	02/25/25 03:29	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	240	1	02/25/25 03:29	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	72.2	1	02/25/25 03:29	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	72.2	1	02/25/25 03:29	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	301	1	02/25/25 03:29	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	120	1	02/25/25 03:29	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	301	1	02/25/25 03:29	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	108	1	02/25/25 03:29	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	36.1	1	02/25/25 03:29	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	124	S	%REC	80-120	1	02/25/25 03:29	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	104		%REC	80-120	1	02/25/25 03:29	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	118		%REC	80-120	1	02/25/25 03:29	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	95.2		%REC	80-120	1	02/25/25 03:29	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	372	1	02/21/25 18:53	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	186	1	02/21/25 18:53	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	74.4	1	02/21/25 18:53	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	37.2	1	02/21/25 18:53	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	372	1	02/21/25 18:53	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	37.2	1	02/21/25 18:53	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	186	1	02/21/25 18:53	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')	Lab ID: HN2502090-005
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	74.4	1	02/21/25 18:53	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	186	1	02/21/25 18:53	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	372	1	02/21/25 18:53	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	74.4	1	02/21/25 18:53	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	7.44		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	9.67		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	74.4	1	02/21/25 18:53	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10') **Lab ID: HN2502090-005**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	186	1	02/21/25 18:53	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 18:53	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	186	1	02/21/25 18:53	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.8	1	02/21/25 18:53	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.44	1	02/21/25 18:53	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	186	1	02/21/25 18:53	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	60.5		%REC	48-94	1	02/21/25 18:53	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	62.3		%REC	50-103	1	02/21/25 18:53	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	83.8		%REC	43-105	1	02/21/25 18:53	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	73.9		%REC	55-111	1	02/21/25 18:53	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	69.3		%REC	47-100	1	02/21/25 18:53	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	90.9		%REC	49-110	1	02/21/25 18:53	02/20/25 10:19
Metals								
Arsenic	EPA 6020B	6.50		mg/kg	0.308	1	02/21/25 19:14	02/21/25 08:00
Barium	EPA 6020B	54.4		mg/kg	0.308	1	02/21/25 19:14	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.123	1	02/21/25 19:14	02/21/25 08:00
Chromium	EPA 6020B	18.3		mg/kg	3.08	10	02/24/25 14:42	02/21/25 08:00
Copper	EPA 6020B	11.9		mg/kg	0.308	1	02/21/25 19:14	02/21/25 08:00
Lead	EPA 6020B	8.99		mg/kg	0.308	1	02/21/25 19:14	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.308	1	02/21/25 19:14	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.308	1	02/21/25 19:14	02/21/25 08:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

CLIENT ID: SB-10 (10')

Lab ID: HN2502090-005

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Zinc	EPA 6020B	33.6		mg/kg	0.615	1	02/21/25 19:14	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:28	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.6		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 21:29	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:29	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.05	1	02/20/25 21:29	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 21:29	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 21:29	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.05	1	02/20/25 21:29	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	0.995	1	02/20/25 21:29	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:29	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 21:29	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	130		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	134		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	121		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	130		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	115		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	119		%REC	21-170	1	02/20/25 21:29	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	114		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	113		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C4-PFHpa</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	122		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	120		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	119		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	115		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	111		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	115		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:29	02/20/25 16:40

Semivolatile Organic Compounds by GC

Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.0	1	02/26/25 11:26	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.0	1	02/26/25 11:26	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	44.3		%REC	10-131	1	02/26/25 11:26	02/25/25 10:15
Aroclor 1016	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	74.8	1	02/20/25 21:24	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	73.5		%REC	68-137	1	02/20/25 21:24	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	101		%REC	71-126	1	02/20/25 21:24	02/20/25 08:40

Gasoline Range Organics by GC-FID

Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	6550	1	02/19/25 21:00	02/19/25 10:26
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Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	102		%REC	75-120	1	02/19/25 21:00	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	78.6	1	02/25/25 03:47	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	262	1	02/25/25 03:47	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	78.6	1	02/25/25 03:47	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	78.6	1	02/25/25 03:47	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	327	1	02/25/25 03:47	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	131	1	02/25/25 03:47	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	327	1	02/25/25 03:47	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	118	1	02/25/25 03:47	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	39.3	1	02/25/25 03:47	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	123	S	%REC	80-120	1	02/25/25 03:47	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	107		%REC	80-120	1	02/25/25 03:47	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	117		%REC	80-120	1	02/25/25 03:47	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	100		%REC	80-120	1	02/25/25 03:47	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	369	1	02/21/25 19:15	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	185	1	02/21/25 19:15	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	74.0	1	02/21/25 19:15	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:15	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	369	1	02/21/25 19:15	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:15	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	185	1	02/21/25 19:15	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	74.0	1	02/21/25 19:15	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	185	1	02/21/25 19:15	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	369	1	02/21/25 19:15	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	74.0	1	02/21/25 19:15	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	7.40		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	8.14		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	74.0	1	02/21/25 19:15	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')	Lab ID: HN2502090-006
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	185	1	02/21/25 19:15	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 19:15	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	185	1	02/21/25 19:15	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.6	1	02/21/25 19:15	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.40	1	02/21/25 19:15	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	185	1	02/21/25 19:15	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	58.2		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>02/21/25 19:15</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	62.2		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>02/21/25 19:15</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	85.2		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>02/21/25 19:15</i>	<i>02/20/25 10:19</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	71.6		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>02/21/25 19:15</i>	<i>02/20/25 10:19</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	71.9		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>02/21/25 19:15</i>	<i>02/20/25 10:19</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	90.6		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>02/21/25 19:15</i>	<i>02/20/25 10:19</i>
Metals								
Arsenic	EPA 6020B	5.14		mg/kg	0.314	1	02/21/25 19:16	02/21/25 08:00
Barium	EPA 6020B	59.0		mg/kg	0.314	1	02/21/25 19:16	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.126	1	02/21/25 19:16	02/21/25 08:00
Chromium	EPA 6020B	17.4		mg/kg	3.14	10	02/24/25 14:44	02/21/25 08:00
Copper	EPA 6020B	12.0		mg/kg	0.314	1	02/21/25 19:16	02/21/25 08:00
Lead	EPA 6020B	8.01		mg/kg	0.314	1	02/21/25 19:16	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.314	1	02/21/25 19:16	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.314	1	02/21/25 19:16	02/21/25 08:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 12:35
Date Received: 02/19/25 07:00

CLIENT ID: SB-9 (10')

Lab ID: HN2502090-006

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Zinc	EPA 6020B	36.0		mg/kg	0.628	1	02/21/25 19:16	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0226	1	02/21/25 11:29	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.6		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:43	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.10	1	02/20/25 21:43	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 21:43	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:43	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 21:43	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 21:43	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	1.01	1	02/20/25 21:43	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.10	1	02/20/25 21:43	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.09	1	02/20/25 21:43	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	90.9		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	116		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	118		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	99.0		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C2-PFTEa</i>	<i>EPA 537Mod</i>	105		%REC	21-170	1	02/20/25 21:43	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	96.5		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	96.9		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C4-PFHpA</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	107		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	99.8		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	97.4		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	92.2		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	94.8		%REC	50-150	1	02/20/25 21:43	02/20/25 16:40

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 21:36	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	73.9		%REC	68-137	1	02/20/25 21:36	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	93.3		%REC	71-126	1	02/20/25 21:36	02/20/25 08:40

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10') **Lab ID: HN2502090-007**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	73.9	1	02/25/25 04:05	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	246	1	02/25/25 04:05	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Chlorobenzene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	73.9	1	02/25/25 04:05	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Cyclohexane	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	73.9	1	02/25/25 04:05	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	308	1	02/25/25 04:05	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	123	1	02/25/25 04:05	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	308	1	02/25/25 04:05	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	111	1	02/25/25 04:05	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	36.9	1	02/25/25 04:05	02/19/25 10:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	117		%REC	80-120	1	02/25/25 04:05	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	105		%REC	80-120	1	02/25/25 04:05	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	115		%REC	80-120	1	02/25/25 04:05	02/19/25 10:25
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	94.0		%REC	80-120	1	02/25/25 04:05	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	373	1	02/21/25 19:37	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	187	1	02/21/25 19:37	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	74.7	1	02/21/25 19:37	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	37.4	1	02/21/25 19:37	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	373	1	02/21/25 19:37	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	37.4	1	02/21/25 19:37	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	187	1	02/21/25 19:37	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	74.7	1	02/21/25 19:37	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	187	1	02/21/25 19:37	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	373	1	02/21/25 19:37	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	74.7	1	02/21/25 19:37	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	74.7	1	02/21/25 19:37	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Fluorene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	187	1	02/21/25 19:37	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 13:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-4 (10')	Lab ID: HN2502090-007
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 19:37	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	187	1	02/21/25 19:37	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	37.0	1	02/21/25 19:37	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.47	1	02/21/25 19:37	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	187	1	02/21/25 19:37	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	60.7		%REC	48-94	1	02/21/25 19:37	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	61.0		%REC	50-103	1	02/21/25 19:37	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	82.4		%REC	43-105	1	02/21/25 19:37	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	72.5		%REC	55-111	1	02/21/25 19:37	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	70.7		%REC	47-100	1	02/21/25 19:37	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	89.9		%REC	49-110	1	02/21/25 19:37	02/20/25 10:19
Metals								
Arsenic	EPA 6020B	5.76		mg/kg	0.336	1	02/21/25 19:18	02/21/25 08:00
Barium	EPA 6020B	57.4		mg/kg	0.336	1	02/21/25 19:18	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.134	1	02/21/25 19:18	02/21/25 08:00
Chromium	EPA 6020B	17.5		mg/kg	3.36	10	02/24/25 14:45	02/21/25 08:00
Copper	EPA 6020B	12.5		mg/kg	0.336	1	02/21/25 19:18	02/21/25 08:00
Lead	EPA 6020B	9.49		mg/kg	0.336	1	02/21/25 19:18	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.336	1	02/21/25 19:18	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.336	1	02/21/25 19:18	02/21/25 08:00
Zinc	EPA 6020B	36.5		mg/kg	0.672	1	02/21/25 19:18	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:37	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	13.7		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:58	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:58	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:58	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.13	1	02/20/25 21:58	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 21:58	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.11	1	02/20/25 21:58	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 21:58	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.15	1	02/20/25 21:58	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.14	1	02/20/25 21:58	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.20	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	95.1		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	124		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	126		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	107		%REC	21-170	1	02/20/25 21:58	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	102		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	97.7		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C4-PFHpa</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	101		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	110		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C5-PFPeA</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	99.6		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: 18O2-PFHxS</i>	<i>EPA 537Mod</i>	113		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	94.4		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 21:58	02/20/25 16:40

Semivolatile Organic Compounds by GC

Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.5	1	02/26/25 11:51	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.5	1	02/26/25 11:51	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	48.3		%REC	10-131	1	02/26/25 11:51	02/25/25 10:15
Aroclor 1016	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	75.8	1	02/20/25 21:47	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	63.4	S	%REC	68-137	1	02/20/25 21:47	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	93.8		%REC	71-126	1	02/20/25 21:47	02/20/25 08:40

Gasoline Range Organics by GC-FID

Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	6700	1	02/19/25 22:30	02/19/25 10:26
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Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	106		%REC	75-120	1	02/19/25 22:30	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	80.4	1	02/25/25 04:23	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	268	1	02/25/25 04:23	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	80.4	1	02/25/25 04:23	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	80.4	1	02/25/25 04:23	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	335	1	02/25/25 04:23	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	134	1	02/25/25 04:23	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	335	1	02/25/25 04:23	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	121	1	02/25/25 04:23	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	40.2	1	02/25/25 04:23	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
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CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	122	S	%REC	80-120	1	02/25/25 04:23	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	108		%REC	80-120	1	02/25/25 04:23	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	120		%REC	80-120	1	02/25/25 04:23	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	92.6		%REC	80-120	1	02/25/25 04:23	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	380	1	02/21/25 19:59	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	190	1	02/21/25 19:59	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	76.0	1	02/21/25 19:59	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	38.0	1	02/21/25 19:59	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	380	1	02/21/25 19:59	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	38.0	1	02/21/25 19:59	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	190	1	02/21/25 19:59	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	76.0	1	02/21/25 19:59	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	190	1	02/21/25 19:59	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	380	1	02/21/25 19:59	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	76.0	1	02/21/25 19:59	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	8.36		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	11.4		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	12.9		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	76.0	1	02/21/25 19:59	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')	Lab ID: HN2502090-008
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	190	1	02/21/25 19:59	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 19:59	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	190	1	02/21/25 19:59	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 19:59	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.60	1	02/21/25 19:59	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	190	1	02/21/25 19:59	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	<i>57.9</i>		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>02/21/25 19:59</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	<i>60.7</i>		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>02/21/25 19:59</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	<i>80.0</i>		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>02/21/25 19:59</i>	<i>02/20/25 10:19</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	<i>72.5</i>		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>02/21/25 19:59</i>	<i>02/20/25 10:19</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	<i>67.9</i>		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>02/21/25 19:59</i>	<i>02/20/25 10:19</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	<i>87.4</i>		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>02/21/25 19:59</i>	<i>02/20/25 10:19</i>
Metals								
Arsenic	EPA 6020B	6.20		mg/kg	0.329	1	02/21/25 19:20	02/21/25 08:00
Barium	EPA 6020B	56.5		mg/kg	0.329	1	02/21/25 19:20	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.132	1	02/21/25 19:20	02/21/25 08:00
Chromium	EPA 6020B	18.4		mg/kg	3.29	10	02/24/25 14:47	02/21/25 08:00
Copper	EPA 6020B	12.3		mg/kg	0.329	1	02/21/25 19:20	02/21/25 08:00
Lead	EPA 6020B	10.1		mg/kg	0.329	1	02/21/25 19:20	02/21/25 08:00
Selenium	EPA 6020B	0.401		mg/kg	0.329	1	02/21/25 19:20	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.329	1	02/21/25 19:20	02/21/25 08:00

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 14:20
Date Received: 02/19/25 07:00

CLIENT ID: SB-13 (10')

Lab ID: HN2502090-008

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Zinc	EPA 6020B	38.5		mg/kg	0.658	1	02/21/25 19:20	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:38	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 15:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-1 (10')	Lab ID: HN2502090-009
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.7		%	0.1	1	02/19/25 15:00	NA
Metals								
Arsenic	EPA 6020B	4.99		mg/kg	0.309	1	02/21/25 19:22	02/21/25 08:00
Barium	EPA 6020B	54.0		mg/kg	0.309	1	02/21/25 19:22	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.124	1	02/21/25 19:22	02/21/25 08:00
Chromium	EPA 6020B	15.7		mg/kg	3.09	10	02/24/25 14:49	02/21/25 08:00
Copper	EPA 6020B	10.2		mg/kg	0.309	1	02/21/25 19:22	02/21/25 08:00
Lead	EPA 6020B	7.88		mg/kg	0.309	1	02/21/25 19:22	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.309	1	02/21/25 19:22	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.309	1	02/21/25 19:22	02/21/25 08:00
Zinc	EPA 6020B	30.7		mg/kg	0.618	1	02/21/25 19:22	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0215	1	02/21/25 11:40	02/20/25 12:10
Semivolatile Organic Compounds by GC								
Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.0	1	02/26/25 12:17	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.0	1	02/26/25 12:17	02/25/25 10:15
Surr: 4-Terphenyl-d14	EPA 8015C	48.3		%REC	10-131	1	02/26/25 12:17	02/25/25 10:15
Gasoline Range Organics by GC-FID								
Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	5530	1	02/19/25 22:52	02/19/25 10:26
Surr: Toluene-d8	EPA 8015C	106		%REC	75-120	1	02/19/25 22:52	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 15:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-1 (10')	Lab ID: HN2502090-009
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	66.4	1	02/28/25 12:46	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	221	1	02/28/25 12:46	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Chlorobenzene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	66.4	1	02/28/25 12:46	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 15:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-1 (10')	Lab ID: HN2502090-009
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Isopropylbenzene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	66.4	1	02/28/25 12:46	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	276	1	02/28/25 12:46	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	111	1	02/28/25 12:46	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	276	1	02/28/25 12:46	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	99.6	1	02/28/25 12:46	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	33.2	1	02/28/25 12:46	02/19/25 10:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	102		%REC	80-120	1	02/28/25 12:46	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	100		%REC	80-120	1	02/28/25 12:46	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	95.2		%REC	80-120	1	02/28/25 12:46	02/19/25 10:25
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	106		%REC	80-120	1	02/28/25 12:46	02/19/25 10:25
Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	365	1	02/21/25 20:21	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	182	1	02/21/25 20:21	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 15:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-1 (10') **Lab ID: HN2502090-009**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 20:21	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 20:21	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	365	1	02/21/25 20:21	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 20:21	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	182	1	02/21/25 20:21	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 20:21	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	182	1	02/21/25 20:21	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	365	1	02/21/25 20:21	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 15:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-1 (10')	Lab ID: HN2502090-009
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Atrazine	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 20:21	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 20:21	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Fluorene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	182	1	02/21/25 20:21	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 20:21	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	182	1	02/21/25 20:21	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/17/25 15:10
Date Received: 02/19/25 07:00

CLIENT ID: SB-1 (10')

Lab ID: HN2502090-009

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 20:21	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 20:21	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	182	1	02/21/25 20:21	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	66.0		%REC	48-94	1	02/21/25 20:21	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	67.0		%REC	50-103	1	02/21/25 20:21	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	89.0		%REC	43-105	1	02/21/25 20:21	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	80.0		%REC	55-111	1	02/21/25 20:21	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	74.4		%REC	47-100	1	02/21/25 20:21	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	95.6		%REC	49-110	1	02/21/25 20:21	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 10:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-8 (10')	Lab ID: HN2502090-010
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.4		%	0.1	1	02/19/25 15:00	NA
Metals								
Arsenic	EPA 6020B	6.08		mg/kg	0.286	1	02/21/25 19:24	02/21/25 08:00
Barium	EPA 6020B	66.6		mg/kg	0.286	1	02/21/25 19:24	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.114	1	02/21/25 19:24	02/21/25 08:00
Chromium	EPA 6020B	18.3		mg/kg	2.86	10	02/24/25 14:50	02/21/25 08:00
Copper	EPA 6020B	10.8		mg/kg	0.286	1	02/21/25 19:24	02/21/25 08:00
Lead	EPA 6020B	8.77		mg/kg	0.286	1	02/21/25 19:24	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.286	1	02/21/25 19:24	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.286	1	02/21/25 19:24	02/21/25 08:00
Zinc	EPA 6020B	35.8		mg/kg	0.572	1	02/21/25 19:24	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:42	02/20/25 12:10
Semivolatile Organic Compounds by GC								
Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.2	1	02/26/25 12:43	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.2	1	02/26/25 12:43	02/25/25 10:15
Surr: 4-Terphenyl-d14	EPA 8015C	48.3		%REC	10-131	1	02/26/25 12:43	02/25/25 10:15
Gasoline Range Organics by GC-FID								
Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	5900	1	02/19/25 23:15	02/19/25 10:26
Surr: Toluene-d8	EPA 8015C	102		%REC	75-120	1	02/19/25 23:15	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 10:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-8 (10')	Lab ID: HN2502090-010
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	70.8	1	02/26/25 17:29	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	236	1	02/26/25 17:29	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Chlorobenzene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	70.8	1	02/26/25 17:29	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 10:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-8 (10')	Lab ID: HN2502090-010
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Isopropylbenzene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	70.8	1	02/26/25 17:29	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	295	1	02/26/25 17:29	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	118	1	02/26/25 17:29	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	295	1	02/26/25 17:29	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	106	1	02/26/25 17:29	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	35.4	1	02/26/25 17:29	02/19/25 10:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	109		%REC	80-120	1	02/26/25 17:29	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	104		%REC	80-120	1	02/26/25 17:29	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	111		%REC	80-120	1	02/26/25 17:29	02/19/25 10:25
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	95.2		%REC	80-120	1	02/26/25 17:29	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	373	1	02/21/25 20:44	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	186	1	02/21/25 20:44	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 10:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-8 (10')	Lab ID: HN2502090-010
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	74.6	1	02/21/25 20:44	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 20:44	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	373	1	02/21/25 20:44	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 20:44	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	186	1	02/21/25 20:44	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	74.6	1	02/21/25 20:44	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	186	1	02/21/25 20:44	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	373	1	02/21/25 20:44	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 10:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-8 (10')	Lab ID: HN2502090-010
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Atrazine	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	74.6	1	02/21/25 20:44	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	7.46		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	10.4		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	74.6	1	02/21/25 20:44	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Fluorene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	186	1	02/21/25 20:44	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 20:44	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	186	1	02/21/25 20:44	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 10:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-8 (10')

Lab ID: HN2502090-010

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.9	1	02/21/25 20:44	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.46	1	02/21/25 20:44	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	186	1	02/21/25 20:44	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	63.2		%REC	48-94	1	02/21/25 20:44	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	62.8		%REC	50-103	1	02/21/25 20:44	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	85.9		%REC	43-105	1	02/21/25 20:44	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	71.9		%REC	55-111	1	02/21/25 20:44	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	73.4		%REC	47-100	1	02/21/25 20:44	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	92.6		%REC	49-110	1	02/21/25 20:44	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	12.5		%	0.1	1	02/19/25 13:05	NA
Per- and Polyfluorinated Alkyl Substances by LC-MS								
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 22:12	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 22:12	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	EPA 537Mod	ND		µg/kg	1.05	1	02/20/25 22:12	02/20/25 16:40
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 22:12	02/20/25 16:40
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	EPA 537Mod	ND		µg/kg	1.06	1	02/20/25 22:12	02/20/25 16:40
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	EPA 537Mod	ND		µg/kg	1.05	1	02/20/25 22:12	02/20/25 16:40
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorobutane sulfonic acid (PFBS)	EPA 537Mod	ND		µg/kg	0.995	1	02/20/25 22:12	02/20/25 16:40
Perfluorobutanoic acid (PFBA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Perfluorobutylsulfonamide (PFBSA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorodecane sulfonic acid (PFDS)	EPA 537Mod	ND		µg/kg	1.08	1	02/20/25 22:12	02/20/25 16:40
Perfluorodecanoic acid (PFDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorododecanoic acid (PFDOA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluoroheptane sulfonic acid (PFHpS)	EPA 537Mod	ND		µg/kg	1.07	1	02/20/25 22:12	02/20/25 16:40
Perfluoroheptanoic acid (PFHpA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorohexane sulfonic acid (PFHxS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorohexanesulfonamide (PFHxSA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorohexanoic acid (PFHxA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorononane sulfonic acid (PFNS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorononanoic acid (PFNA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorooctane sulfonamide (PFOSAm)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorooctane sulfonic acid (PFOS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorooctanoic acid (PFOA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluoropentane sulfonic acid (PFPeS)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluoropentanoic acid (PFPeA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorotetradecanoic acid (PFTDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluorotridecanoic acid (PFTrDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
Perfluoroundecanoic acid (PFUnDA)	EPA 537Mod	ND		µg/kg	1.12	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-FtS 4:2</i>	<i>EPA 537Mod</i>	94.0		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-FtS 6:2</i>	<i>EPA 537Mod</i>	121		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-FtS 8:2</i>	<i>EPA 537Mod</i>	117		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-PFDA</i>	<i>EPA 537Mod</i>	108		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-PFDoA</i>	<i>EPA 537Mod</i>	109		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-PFHxA</i>	<i>EPA 537Mod</i>	103		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C2-PFTeA</i>	<i>EPA 537Mod</i>	105		%REC	21-170	1	02/20/25 22:12	02/20/25 16:40

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 13C2-PFUnA</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C3-HFPO-DA</i>	<i>EPA 537Mod</i>	104		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C3-PFBS</i>	<i>EPA 537Mod</i>	97.4		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C4-PFBA</i>	<i>EPA 537Mod</i>	97.5		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C4-PFH_pA</i>	<i>EPA 537Mod</i>	97.3		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C4-PFOA</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C4-PFOS</i>	<i>EPA 537Mod</i>	106		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C5-PFNA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C5-PFP_eA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 13C8-FOSA</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: 18O2-PFH_xS</i>	<i>EPA 537Mod</i>	105		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: d3-N-MeFOSAA</i>	<i>EPA 537Mod</i>	97.0		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40
<i>Surr: d5-N-EtFOSAA</i>	<i>EPA 537Mod</i>	98.2		%REC	50-150	1	02/20/25 22:12	02/20/25 16:40

Semivolatile Organic Compounds by GC

Aroclor 1016	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	73.8	1	02/20/25 21:59	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	77.5		%REC	68-137	1	02/20/25 21:59	02/20/25 08:40
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	98.1		%REC	71-126	1	02/20/25 21:59	02/20/25 08:40

Volatile Organic Compounds by GC-MS

1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10') **Lab ID: HN2502090-011**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	74.0	1	02/26/25 18:05	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	246	1	02/26/25 18:05	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Chlorobenzene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	74.0	1	02/26/25 18:05	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Cyclohexane	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	74.0	1	02/26/25 18:05	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	308	1	02/26/25 18:05	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	123	1	02/26/25 18:05	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	308	1	02/26/25 18:05	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	111	1	02/26/25 18:05	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	37.0	1	02/26/25 18:05	02/19/25 10:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	111		%REC	80-120	1	02/26/25 18:05	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	107		%REC	80-120	1	02/26/25 18:05	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	111		%REC	80-120	1	02/26/25 18:05	02/19/25 10:25
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	97.1		%REC	80-120	1	02/26/25 18:05	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	364	1	02/21/25 21:06	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	182	1	02/21/25 21:06	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 21:06	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 21:06	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	364	1	02/21/25 21:06	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 21:06	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	182	1	02/21/25 21:06	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 21:06	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	182	1	02/21/25 21:06	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	364	1	02/21/25 21:06	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Acenaphthylene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 21:06	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 21:06	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Fluorene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	182	1	02/21/25 21:06	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 11:15
Date Received: 02/19/25 07:00

CLIENT ID: SB-5 (10')	Lab ID: HN2502090-011
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 21:06	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	182	1	02/21/25 21:06	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.1	1	02/21/25 21:06	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 21:06	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	182	1	02/21/25 21:06	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	61.7		%REC	48-94	1	02/21/25 21:06	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	61.2		%REC	50-103	1	02/21/25 21:06	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	83.7		%REC	43-105	1	02/21/25 21:06	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	71.2		%REC	55-111	1	02/21/25 21:06	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	70.5		%REC	47-100	1	02/21/25 21:06	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	91.3		%REC	49-110	1	02/21/25 21:06	02/20/25 10:19
Metals								
Arsenic	EPA 6020B	7.33		mg/kg	0.338	1	02/21/25 19:26	02/21/25 08:00
Barium	EPA 6020B	86.3		mg/kg	0.338	1	02/21/25 19:26	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.135	1	02/21/25 19:26	02/21/25 08:00
Chromium	EPA 6020B	17.7		mg/kg	3.38	10	02/24/25 14:52	02/21/25 08:00
Copper	EPA 6020B	12.3		mg/kg	0.338	1	02/21/25 19:26	02/21/25 08:00
Lead	EPA 6020B	8.14		mg/kg	0.338	1	02/21/25 19:26	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.338	1	02/21/25 19:26	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.338	1	02/21/25 19:26	02/21/25 08:00
Zinc	EPA 6020B	36.0		mg/kg	0.676	1	02/21/25 19:26	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:44	02/20/25 12:10

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-3 (10')	Lab ID: HN2502090-012
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.7		%	0.1	1	02/19/25 15:00	NA
Metals								
Arsenic	EPA 6020B	6.48		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Barium	EPA 6020B	58.7		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.132	1	02/21/25 20:00	02/21/25 08:00
Chromium	EPA 6020B	15.3		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Copper	EPA 6020B	14.4		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Lead	EPA 6020B	9.22		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.330	1	02/21/25 20:00	02/21/25 08:00
Zinc	EPA 6020B	39.3		mg/kg	0.661	1	02/21/25 20:00	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0200	1	02/21/25 11:46	02/20/25 12:10
Semivolatile Organic Compounds by GC								
Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	26.9	1	02/26/25 13:08	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	26.9	1	02/26/25 13:08	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	<i>52.3</i>		<i>%REC</i>	<i>10-131</i>	<i>1</i>	<i>02/26/25 13:08</i>	<i>02/25/25 10:15</i>
Aroclor 1016	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	73.9	1	02/20/25 22:11	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	<i>73.3</i>		<i>%REC</i>	<i>68-137</i>	<i>1</i>	<i>02/20/25 22:11</i>	<i>02/20/25 08:40</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	<i>101</i>		<i>%REC</i>	<i>71-126</i>	<i>1</i>	<i>02/20/25 22:11</i>	<i>02/20/25 08:40</i>
Gasoline Range Organics by GC-FID								
Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	5620	1	02/19/25 23:37	02/19/25 10:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-3 (10') **Lab ID: HN2502090-012**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	107		%REC	75-120	1	02/19/25 23:37	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	67.4	1	02/26/25 18:41	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	225	1	02/26/25 18:41	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-3 (10')	Lab ID: HN2502090-012
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	67.4	1	02/26/25 18:41	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	67.4	1	02/26/25 18:41	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	281	1	02/26/25 18:41	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	112	1	02/26/25 18:41	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	281	1	02/26/25 18:41	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	101	1	02/26/25 18:41	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	33.7	1	02/26/25 18:41	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-3 (10')	Lab ID: HN2502090-012
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	118		%REC	80-120	1	02/26/25 18:41	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	102		%REC	80-120	1	02/26/25 18:41	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	112		%REC	80-120	1	02/26/25 18:41	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	96.7		%REC	80-120	1	02/26/25 18:41	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	376	1	02/21/25 21:28	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	188	1	02/21/25 21:28	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	75.3	1	02/21/25 21:28	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 21:28	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	376	1	02/21/25 21:28	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	37.6	1	02/21/25 21:28	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	188	1	02/21/25 21:28	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-3 (10')	Lab ID: HN2502090-012
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	75.3	1	02/21/25 21:28	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	188	1	02/21/25 21:28	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	376	1	02/21/25 21:28	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	75.3	1	02/21/25 21:28	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	75.3	1	02/21/25 21:28	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:00
Date Received: 02/19/25 07:00

CLIENT ID: SB-3 (10')	Lab ID: HN2502090-012
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	188	1	02/21/25 21:28	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 21:28	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	188	1	02/21/25 21:28	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	37.3	1	02/21/25 21:28	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.53	1	02/21/25 21:28	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	188	1	02/21/25 21:28	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	63.2		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>02/21/25 21:28</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	62.4		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>02/21/25 21:28</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	86.0		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>02/21/25 21:28</i>	<i>02/20/25 10:19</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	72.4		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>02/21/25 21:28</i>	<i>02/20/25 10:19</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	73.6		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>02/21/25 21:28</i>	<i>02/20/25 10:19</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	92.2		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>02/21/25 21:28</i>	<i>02/20/25 10:19</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-2 (10')	Lab ID: HN2502090-013
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	18.2		%	0.1	1	02/19/25 15:00	NA
Metals								
Arsenic	EPA 6020B	8.68		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Barium	EPA 6020B	88.4		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Cadmium	EPA 6020B	0.221		mg/kg	0.144	1	02/21/25 20:02	02/21/25 08:00
Chromium	EPA 6020B	9.99		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Copper	EPA 6020B	48.6		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Lead	EPA 6020B	46.4		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Selenium	EPA 6020B	0.602		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.361	1	02/21/25 20:02	02/21/25 08:00
Zinc	EPA 6020B	176		mg/kg	7.21	10	02/24/25 14:54	02/21/25 08:00
Mercury	EPA 7471B	0.0594		mg/kg	0.0241	1	02/21/25 11:47	02/20/25 12:10
Semivolatile Organic Compounds by GC								
Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	58.6	1	02/26/25 14:26	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	58.6	1	02/26/25 14:26	02/25/25 10:15
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8015C</i>	<i>52.3</i>		<i>%REC</i>	<i>10-131</i>	<i>1</i>	<i>02/26/25 14:26</i>	<i>02/25/25 10:15</i>
Aroclor 1016	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1221	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1232	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1242	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1248	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1254	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1260	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1262	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Aroclor 1268	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
Total PCB	EPA 8082A	ND		µg/kg	375	1	02/20/25 22:23	02/20/25 08:40
<i>Surr: Decachlorobiphenyl</i>	<i>EPA 8082A</i>	<i>96.9</i>		<i>%REC</i>	<i>68-137</i>	<i>1</i>	<i>02/20/25 22:23</i>	<i>02/20/25 08:40</i>
<i>Surr: Tetrachloro-m-xylene</i>	<i>EPA 8082A</i>	<i>113</i>		<i>%REC</i>	<i>71-126</i>	<i>1</i>	<i>02/20/25 22:23</i>	<i>02/20/25 08:40</i>
Gasoline Range Organics by GC-FID								
Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	6650	1	02/20/25 00:00	02/19/25 10:26

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-2 (10') **Lab ID: HN2502090-013**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: Toluene-d8</i>	<i>EPA 8015C</i>	107		%REC	75-120	1	02/20/25 00:00	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	79.8	1	02/25/25 05:52	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	266	1	02/25/25 05:52	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-2 (10')	Lab ID: HN2502090-013
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Chlorobenzene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	79.8	1	02/25/25 05:52	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Isopropylbenzene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	79.8	1	02/25/25 05:52	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	333	1	02/25/25 05:52	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	133	1	02/25/25 05:52	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	333	1	02/25/25 05:52	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	120	1	02/25/25 05:52	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	39.9	1	02/25/25 05:52	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-2 (10')	Lab ID: HN2502090-013
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
<i>Surr: 1,2-Dichloroethane-d4</i>	EPA 8260D	117		%REC	80-120	1	02/25/25 05:52	02/19/25 10:25
<i>Surr: 4-Bromofluorobenzene</i>	EPA 8260D	106		%REC	80-120	1	02/25/25 05:52	02/19/25 10:25
<i>Surr: Dibromofluoromethane</i>	EPA 8260D	114		%REC	80-120	1	02/25/25 05:52	02/19/25 10:25
<i>Surr: Toluene-d8</i>	EPA 8260D	96.6		%REC	80-120	1	02/25/25 05:52	02/19/25 10:25

Semivolatile Organic Compounds by GC-MS

1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	1900	1	02/21/25 21:50	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	953	1	02/21/25 21:50	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	381	1	02/21/25 21:50	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	191	1	02/21/25 21:50	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	1900	1	02/21/25 21:50	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	191	1	02/21/25 21:50	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	64.8		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	953	1	02/21/25 21:50	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-2 (10')	Lab ID: HN2502090-013
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	381	1	02/21/25 21:50	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	953	1	02/21/25 21:50	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	1900	1	02/21/25 21:50	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Anthracene	EPA 8270E	68.6		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Atrazine	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	381	1	02/21/25 21:50	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	358		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	347		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	526		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	278		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	172		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	381	1	02/21/25 21:50	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Chrysene	EPA 8270E	393		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Fluoranthene	EPA 8270E	595		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25 12:40
Date Received: 02/19/25 07:00

CLIENT ID: SB-2 (10') **Lab ID: HN2502090-013**

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Fluorene	EPA 8270E	ND		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	267		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	953	1	02/21/25 21:50	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Naphthalene	EPA 8270E	53.4		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	953	1	02/21/25 21:50	02/20/25 10:19
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Phenanthrene	EPA 8270E	320		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	189	1	02/21/25 21:50	02/20/25 10:19
Pyrene	EPA 8270E	556		µg/kg	38.1	1	02/21/25 21:50	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	953	1	02/21/25 21:50	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	68.9		<i>%REC</i>	<i>48-94</i>	<i>1</i>	<i>02/21/25 21:50</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	68.1		<i>%REC</i>	<i>50-103</i>	<i>1</i>	<i>02/21/25 21:50</i>	<i>02/20/25 10:19</i>
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	89.3		<i>%REC</i>	<i>43-105</i>	<i>1</i>	<i>02/21/25 21:50</i>	<i>02/20/25 10:19</i>
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	79.3		<i>%REC</i>	<i>55-111</i>	<i>1</i>	<i>02/21/25 21:50</i>	<i>02/20/25 10:19</i>
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	71.2		<i>%REC</i>	<i>47-100</i>	<i>1</i>	<i>02/21/25 21:50</i>	<i>02/20/25 10:19</i>
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	97.3		<i>%REC</i>	<i>49-110</i>	<i>1</i>	<i>02/21/25 21:50</i>	<i>02/20/25 10:19</i>

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25
Date Received: 02/19/25 07:00

CLIENT ID: DUP-1

Lab ID: HN2502090-014

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
General Chemistry Parameters								
Percent Moisture	EPA 3550C	11.8		%	0.1	1	02/19/25 15:00	NA
Metals								
Arsenic	EPA 6020B	6.62		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Barium	EPA 6020B	37.7		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Cadmium	EPA 6020B	ND		mg/kg	0.127	1	02/21/25 20:04	02/21/25 08:00
Chromium	EPA 6020B	13.4		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Copper	EPA 6020B	12.6		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Lead	EPA 6020B	8.22		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Selenium	EPA 6020B	ND		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Silver	EPA 6020B	ND		mg/kg	0.317	1	02/21/25 20:04	02/21/25 08:00
Zinc	EPA 6020B	35.9		mg/kg	0.634	1	02/21/25 20:04	02/21/25 08:00
Mercury	EPA 7471B	ND		mg/kg	0.0219	1	02/21/25 11:49	02/20/25 12:10
Semivolatile Organic Compounds by GC								
Diesel Range Organics C10-C20	EPA 8015C	ND		mg/kg	11.1	1	02/26/25 14:51	02/25/25 10:15
Oil Range Organics C20-C34	EPA 8015C	ND		mg/kg	11.1	1	02/26/25 14:51	02/25/25 10:15
Surr: 4-Terphenyl-d14	EPA 8015C	48.3		%REC	10-131	1	02/26/25 14:51	02/25/25 10:15
Gasoline Range Organics by GC-FID								
Gasoline Range Organics C6-C10	EPA 8015C	ND		µg/kg	5850	1	02/19/25 20:38	02/19/25 10:26
Surr: Toluene-d8	EPA 8015C	103		%REC	75-120	1	02/19/25 20:38	02/19/25 10:26
Volatile Organic Compounds by GC-MS								
1,1,1-Trichloroethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,1,2,2-Tetrachloroethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,1,2-Trichloroethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,1-Dichloroethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,1-Dichloroethylene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,2,3-Trichlorobenzene	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
1,2,3-Trichloropropane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,2,4-Trichlorobenzene	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25
Date Received: 02/19/25 07:00

CLIENT ID: DUP-1	Lab ID: HN2502090-014
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
1,2,4-Trimethylbenzene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,2-Dibromoethane (EDB, Ethylene dibromide)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,2-Dichlorobenzene (o-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,2-Dichloroethane (Ethylene dichloride)	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
1,2-Dichloropropane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,3,5-Trimethylbenzene	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
1,3-Dichlorobenzene (m-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
1,3-Dichloropropene	EPA 8260D	ND		µg/kg	70.2	1	02/25/25 06:10	02/19/25 10:25
1,4-Dichlorobenzene (p-Dichlorobenzene)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
2-Butanone (Methyl ethyl ketone, MEK)	EPA 8260D	ND		µg/kg	234	1	02/25/25 06:10	02/19/25 10:25
2-Hexanone	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
4-Methyl-2-pentanone (MIBK)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Acetone	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
Benzene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Bromochloromethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Bromodichloromethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Bromoform	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Carbon disulfide	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Carbon tetrachloride	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Chlorobenzene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Chlorodibromomethane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Chloroethane (Ethyl chloride)	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
Chloroform	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
cis & trans-1,2-Dichloroethene	EPA 8260D	ND		µg/kg	70.2	1	02/25/25 06:10	02/19/25 10:25
cis-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
cis-1,3-Dichloropropene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Cyclohexane	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
Dichlorodifluoromethane (Freon-12)	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
Ethylbenzene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25
Date Received: 02/19/25 07:00

CLIENT ID: DUP-1

Lab ID: HN2502090-014

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Isopropylbenzene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
m+p-Xylene	EPA 8260D	ND		µg/kg	70.2	1	02/25/25 06:10	02/19/25 10:25
Methyl acetate	EPA 8260D	ND		µg/kg	292	1	02/25/25 06:10	02/19/25 10:25
Methyl bromide (Bromomethane)	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
Methyl chloride (Chloromethane)	EPA 8260D	ND		µg/kg	117	1	02/25/25 06:10	02/19/25 10:25
Methyl tert-butyl ether (MTBE)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Methylcyclohexane	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Methylene chloride (Dichloromethane)	EPA 8260D	ND		µg/kg	292	1	02/25/25 06:10	02/19/25 10:25
o-Xylene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Styrene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Tetrachloroethylene (Perchloroethylene)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Toluene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Total Xylene	EPA 8260D	ND		µg/kg	105	1	02/25/25 06:10	02/19/25 10:25
trans-1,2-Dichloroethylene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
trans-1,3-Dichloropropylene	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Trichloroethene (Trichloroethylene)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
Vinyl chloride (Chloroethene)	EPA 8260D	ND		µg/kg	35.1	1	02/25/25 06:10	02/19/25 10:25
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>EPA 8260D</i>	122	<i>S</i>	<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 06:10</i>	<i>02/19/25 10:25</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>EPA 8260D</i>	105		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 06:10</i>	<i>02/19/25 10:25</i>
<i>Surr: Dibromofluoromethane</i>	<i>EPA 8260D</i>	116		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 06:10</i>	<i>02/19/25 10:25</i>
<i>Surr: Toluene-d8</i>	<i>EPA 8260D</i>	95.2		<i>%REC</i>	<i>80-120</i>	<i>1</i>	<i>02/25/25 06:10</i>	<i>02/19/25 10:25</i>
Semivolatile Organic Compounds by GC-MS								
1,1'-Biphenyl (BZ-0)	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
1,2,4,5-Tetrachlorobenzene	EPA 8270E	ND		µg/kg	365	1	02/21/25 22:12	02/20/25 10:19
1,4-Dioxane (1,4-Diethyleneoxide)	EPA 8270E	ND		µg/kg	183	1	02/21/25 22:12	02/20/25 10:19
1-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25
Date Received: 02/19/25 07:00

CLIENT ID: DUP-1	Lab ID: HN2502090-014
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl) ether	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2,3,4,6-Tetrachlorophenol	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 22:12	02/20/25 10:19
2,4,5-Trichlorophenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2,4,6-Trichlorophenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2,4-Dichlorophenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2,4-Dimethylphenol	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 22:12	02/20/25 10:19
2,4-Dinitrophenol	EPA 8270E	ND	S	µg/kg	365	1	02/21/25 22:12	02/20/25 10:19
2,4-Dinitrotoluene (2,4-DNT)	EPA 8270E	ND		µg/kg	36.5	1	02/21/25 22:12	02/20/25 10:19
2,6-Dinitrotoluene (2,6-DNT)	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2-Chloronaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
2-Chlorophenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	EPA 8270E	ND	S	µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2-Methylnaphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
2-Methylphenol (o-Cresol)	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2-Nitroaniline	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
2-Nitrophenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
3&4-Methylphenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
3,3'-Dichlorobenzidine	EPA 8270E	ND		µg/kg	183	1	02/21/25 22:12	02/20/25 10:19
3-Nitroaniline	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
4-Bromophenyl phenyl ether (BDE-3)	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
4-Chloro-3-methylphenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
4-Chloroaniline	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 22:12	02/20/25 10:19
4-Chlorophenyl phenylether	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
4-Nitroaniline	EPA 8270E	ND		µg/kg	183	1	02/21/25 22:12	02/20/25 10:19
4-Nitrophenol	EPA 8270E	ND		µg/kg	365	1	02/21/25 22:12	02/20/25 10:19
Acenaphthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Acenaphthylene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Acetophenone	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Anthracene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25
Date Received: 02/19/25 07:00

CLIENT ID: DUP-1	Lab ID: HN2502090-014
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Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
Atrazine	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Benzaldehyde	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 22:12	02/20/25 10:19
Benzo(a)anthracene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Benzo(a)pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Benzo(b)fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Benzo(g,h,i)perylene	EPA 8270E	11.7		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Benzo(k)fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
bis(2-Chloroethoxy) methane	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
bis(2-Chloroethyl) ether	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Butyl benzyl phthalate	EPA 8270E	ND		µg/kg	73.0	1	02/21/25 22:12	02/20/25 10:19
Caprolactam	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Carbazole	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Chrysene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl) phthalate, DEHP)	EPA 8270E	40.2		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Dibenz(a,h) anthracene	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Dibenzofuran	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Diethyl phthalate	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Dimethyl phthalate	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Di-n-butyl phthalate	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Di-n-octyl phthalate	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Fluoranthene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Fluorene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Hexachlorobenzene	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Hexachlorobutadiene	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Hexachlorocyclopentadiene	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Hexachloroethane	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Indeno(1,2,3-cd) pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Isophorone	EPA 8270E	ND		µg/kg	183	1	02/21/25 22:12	02/20/25 10:19
Methylphenol, Total	EPA 8270E	ND		µg/kg	67.0	1	02/21/25 22:12	02/20/25 10:19
Naphthalene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Nitrobenzene	EPA 8270E	ND		µg/kg	183	1	02/21/25 22:12	02/20/25 10:19

Analytical Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID

Work Order: HN2502090
Date Collected: 02/18/25
Date Received: 02/19/25 07:00

CLIENT ID: DUP-1

Lab ID: HN2502090-014

Analyte	Method	Results	Qual	Units	MRL	Dilution Factor	Date Analyzed	Date Extracted
n-Nitrosodi-n-propylamine	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
N-Nitrosodiphenylamine	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Pentachlorophenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Phenanthrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Phenol	EPA 8270E	ND		µg/kg	36.2	1	02/21/25 22:12	02/20/25 10:19
Pyrene	EPA 8270E	ND		µg/kg	7.30	1	02/21/25 22:12	02/20/25 10:19
Pyridine	EPA 8270E	ND		µg/kg	183	1	02/21/25 22:12	02/20/25 10:19
<i>Surr: 2,4,6-Tribromophenol</i>	<i>EPA 8270E</i>	62.5		%REC	48-94	1	02/21/25 22:12	02/20/25 10:19
<i>Surr: 2-Fluorobiphenyl</i>	<i>EPA 8270E</i>	64.5		%REC	50-103	1	02/21/25 22:12	02/20/25 10:19
<i>Surr: 2-Fluorophenol</i>	<i>EPA 8270E</i>	86.2		%REC	43-105	1	02/21/25 22:12	02/20/25 10:19
<i>Surr: 4-Terphenyl-d14</i>	<i>EPA 8270E</i>	75.9		%REC	55-111	1	02/21/25 22:12	02/20/25 10:19
<i>Surr: Nitrobenzene-d5</i>	<i>EPA 8270E</i>	72.5		%REC	47-100	1	02/21/25 22:12	02/20/25 10:19
<i>Surr: Phenol-d6</i>	<i>EPA 8270E</i>	93.0		%REC	49-110	1	02/21/25 22:12	02/20/25 10:19



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2941833

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Gasoline Range Organics by GC-FID

MB	CLIENT ID: Method Blank	Lab ID: QC-1878463-001
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/19/25 18:01
Prep Date: 02/19/25 10:27

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Gasoline Range Organics C6-C10	ND	µg/kg	5000							
<i>Surr: Toluene-d8</i>	5250	µg/kg		5000		105	75-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1878463-002
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/19/25 17:16
Prep Date: 02/19/25 10:27

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Gasoline Range Organics C6-C10	261000	µg/kg	5000	250000		104	63-126			
<i>Surr: Toluene-d8</i>	5100	µg/kg		5000		102	75-120			

The following samples were analyzed in this batch: HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-006,
 HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-012,
 HN2502090-013, HN2502090-014



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2945649

Work Order: HN2502090
Date Collected: 02/17/25 12:05
Date Received: 02/19/25 07:00

Gasoline Range Organics by GC-FID

MS	CLIENT ID: SB-10 (10')	Lab ID: QC-1878463-005
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/20/25 16:14
Prep Date: 02/19/25 10:27

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Gasoline Range Organics C6-C10	314000	µg/kg	6010	233640	ND	134	63-126			S
<i>Surr: Toluene-d8</i>	5580	µg/kg		4672.9		119	75-120			

MSD	CLIENT ID: SB-10 (10')	Lab ID: QC-1878463-006
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/20/25 16:37
Prep Date: 02/19/25 10:27

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Gasoline Range Organics C6-C10	293000	µg/kg	6010	233640	ND	124	63-126	7.20	30	
<i>Surr: Toluene-d8</i>	5390	µg/kg		4672.9		115	75-120	3.43	30	

The following samples were analyzed in this batch: HN2502090-005



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2939107

Work Order: HN2502090
Date Collected: NA
Date Received: NA

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-1878490-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 02/19/25 13:05
Prep Date: NA

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1878490-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 02/19/25 13:05
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: SB-10 (10')	Lab ID: QC-1878490-015
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 02/19/25 13:05
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	12.0	%	0.1		12.2			0.991	10	

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004,
 HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008,
 HN2502090-011



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2939110

Work Order: HN2502090
Date Collected: NA
Date Received: NA

General Chemistry Parameters

MB	CLIENT ID: Method Blank	Lab ID: QC-1878493-001
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 02/19/25 15:00
Prep Date: NA

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1878493-002
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 02/19/25 15:00
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	98-102			

DUP	CLIENT ID: SB-1 (10')	Lab ID: QC-1878493-004
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Method: EPA 3550C **Dilution:** 1 **Analysis Date:** 02/19/25 15:00
Prep Date: NA

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Percent Moisture	11.6	%	0.1		11.7			0.856	10	

The following samples were analyzed in this batch: HN2502090-009, HN2502090-010, HN2502090-012, HN2502090-013, HN2502090-014

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2942415

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Metals

MB	CLIENT ID: Method Blank						Lab ID: QC-1879981-001			
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 02/21/25 11:13
Prep Date: 02/20/25 12:11

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

LCS	CLIENT ID: Laboratory Control Sample						Lab ID: QC-1879981-002			
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 02/21/25 11:15
Prep Date: 02/20/25 12:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.166	mg/kg	0.0200	0.1665		99.6	80-120			

MS	CLIENT ID: SB-6 (10')						Lab ID: QC-1879981-004			
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 02/21/25 11:19
Prep Date: 02/20/25 12:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.149	mg/kg	0.0200	0.1405	ND	98.7	75-125			

MSD	CLIENT ID: SB-6 (10')						Lab ID: QC-1879981-005			
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Method: EPA 7471B **Dilution:** 1 **Analysis Date:** 02/21/25 11:21
Prep Date: 02/20/25 12:11

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Mercury	0.141	mg/kg	0.0200	0.13591	ND	96.4	75-125	5.22	35	

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-011, HN2502090-012, HN2502090-013, HN2502090-014

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2945658

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Metals

MB	CLIENT ID: Method Blank	Lab ID: QC-1881523-001
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 02/21/25 18:56
Prep Date: 02/21/25 08:01

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

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1881523-002
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 02/21/25 18:58
Prep Date: 02/21/25 08:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	4.90	mg/kg	0.250	5		98.0	80-120			
Barium	5.30	mg/kg	0.250	5		106	80-120			
Cadmium	5.21	mg/kg	0.100	5		104	80-120			
Chromium	4.81	mg/kg	0.250	5		96.2	80-120			
Copper	4.86	mg/kg	0.250	5		97.2	80-120			
Lead	5.35	mg/kg	0.250	5		107	80-120			
Selenium	5.02	mg/kg	0.250	5		100	80-120			
Silver	5.19	mg/kg	0.250	5		104	80-120			
Zinc	5.02	mg/kg	0.500	5		100	80-120			

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1881523-004
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Method: EPA 6020B **Dilution:** 1 **Analysis Date:** 02/21/25 19:01
Prep Date: 02/21/25 08:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	52.0	mg/kg	0.289	5	83.4	NC	75-125			O
Cadmium	4.07	mg/kg	0.115	5.102	ND	80.4	75-125			
Chromium	17.1	mg/kg	0.289	5.102	13.2	108	75-125			
Lead	11.2	mg/kg	0.289	5.102	7.98	81.2	75-125			
Selenium	4.14	mg/kg	0.289	5.102	ND	78.6	75-125			
Zinc	38.5	mg/kg	0.577	5	40.0	NC	75-125			O

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2945658

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1881523-005
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Method: EPA 6020B

Dilution: 1

Analysis Date: 02/21/25 19:03

Prep Date: 02/21/25 08:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Barium	81.8	mg/kg	0.295	5	83.4	NC	75-125	44.4	20	OR
Cadmium	4.07	mg/kg	0.118	5.2192	ND	78.6	75-125	0.0236	20	
Chromium	17.0	mg/kg	0.295	5.2192	13.2	103	75-125	0.845	20	
Lead	12.2	mg/kg	0.295	5.2192	7.98	99.0	75-125	8.75	20	
Selenium	4.35	mg/kg	0.295	5.2192	ND	80.7	75-125	4.81	20	
Zinc	36.8	mg/kg	0.590	5	40.0	NC	75-125	4.43	20	O

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-011, HN2502090-012, HN2502090-013, HN2502090-014

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2948714

Work Order: HN2502090
Date Collected: 02/17/25 10:00
Date Received: 02/19/25 07:00

Metals

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1881523-004
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 02/24/25 14:27
Prep Date: 02/21/25 08:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	9.49	mg/kg	2.89	5.102	6.42	74.7	75-125			S
Copper	15.7	mg/kg	2.89	5.102	13.8	68.4	75-125			S
Silver	5.10	mg/kg	2.89	5.102	ND	99.4	75-125			

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1881523-005
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 02/24/25 14:29
Prep Date: 02/21/25 08:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	11.0	mg/kg	2.95	5.2192	6.42	102	75-125	14.6	20	
Copper	19.1	mg/kg	2.95	5.2192	13.8	133	75-125	19.8	20	S
Silver	5.62	mg/kg	2.95	5.2192	ND	107	75-125	9.67	20	

PDS	CLIENT ID: SB-6 (10')	Lab ID: QC-1881523-006
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Method: EPA 6020B **Dilution:** 10 **Analysis Date:** 02/24/25 14:32
Prep Date: 02/21/25 08:01

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Arsenic	61.6	mg/kg	2.97	52.576	6.42	106	75-125			
Copper	67.7	mg/kg	2.97	52.576	13.8	106	75-125			
Silver	50.9	mg/kg	2.97	52.576	ND	96.8	75-125			

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-011, HN2502090-013



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Per- and Polyfluorinated Alkyl Substances by LC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-1880110-001
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 17:07

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	ND	µg/kg	0.942							
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	ND	µg/kg	0.958							
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	ND	µg/kg	0.934							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	ND	µg/kg	0.948							
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	ND	µg/kg	1.00							
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	ND	µg/kg	1.00							
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	ND	µg/kg	1.00							
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	ND	µg/kg	0.942							
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	ND	µg/kg	0.932							
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	ND	µg/kg	1.00							
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	ND	µg/kg	1.00							
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	ND	µg/kg	1.00							
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	ND	µg/kg	1.00							
Perfluorobutane sulfonic acid (PFBS)	ND	µg/kg	0.884							
Perfluorobutanoic acid (PFBA)	ND	µg/kg	1.00							
Perfluorobutylsulfonamide (PFBSA)	ND	µg/kg	1.00							
Perfluorodecane sulfonic acid (PFDS)	ND	µg/kg	0.964							
Perfluorodecanoic acid (PFDA)	ND	µg/kg	1.00							
Perfluorododecanoic acid (PFDOA)	ND	µg/kg	1.00							
Perfluoroheptane sulfonic acid (PFHpS)	ND	µg/kg	0.952							
Perfluoroheptanoic acid (PFHpA)	ND	µg/kg	1.00							
Perfluorohexane sulfonic acid (PFHxS)	ND	µg/kg	1.00							
Perfluorohexanesulfonamide (PFHxSA)	ND	µg/kg	1.00							
Perfluorohexanoic acid (PFHxA)	ND	µg/kg	1.00							
Perfluorononane sulfonic acid (PFNS)	ND	µg/kg	1.00							
Perfluorononanoic acid (PFNA)	ND	µg/kg	1.00							
Perfluorooctane sulfonamide (PFOSAm)	ND	µg/kg	1.00							



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MB	CLIENT ID: Method Blank	Lab ID: QC-1880110-001
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Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 02/20/25 17:07
Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorooctane sulfonic acid (PFOS)	ND	µg/kg	1.00							
Perfluorooctanoic acid (PFOA)	ND	µg/kg	1.00							
Perfluoropentane sulfonic acid (PFPeS)	ND	µg/kg	1.00							
Perfluoropentanoic acid (PFPeA)	ND	µg/kg	1.00							
Perfluorotetradecanoic acid (PFTDA)	ND	µg/kg	1.00							
Perfluorotridecanoic acid (PFTrDA)	ND	µg/kg	1.00							
Perfluoroundecanoic acid (PFUnDA)	ND	µg/kg	1.00							
<i>Surr: 13C2-FtS 4:2</i>	18.4	µg/kg		18.7		98.5	50-150			
<i>Surr: 13C2-FtS 6:2</i>	24.4	µg/kg		19		128	50-150			
<i>Surr: 13C2-FtS 8:2</i>	19.9	µg/kg		19.2		104	50-150			
<i>Surr: 13C2-PFDA</i>	20.7	µg/kg		20		104	50-150			
<i>Surr: 13C2-PFDoA</i>	25.5	µg/kg		20		128	50-150			
<i>Surr: 13C2-PFHxA</i>	20.7	µg/kg		20		104	50-150			
<i>Surr: 13C2-PFTeA</i>	19.1	µg/kg		20		95.5	21-170			
<i>Surr: 13C2-PFUnA</i>	20.3	µg/kg		20		102	50-150			
<i>Surr: 13C3-HFPO-DA</i>	20.8	µg/kg		20		104	50-150			
<i>Surr: 13C3-PFBS</i>	17.5	µg/kg		18.6		94.3	50-150			
<i>Surr: 13C4-PFBA</i>	20.4	µg/kg		20		102	50-150			
<i>Surr: 13C4-PFHpA</i>	19.8	µg/kg		20		99.1	50-150			
<i>Surr: 13C4-PFOA</i>	20.7	µg/kg		20		103	50-150			
<i>Surr: 13C4-PFOS</i>	21.4	µg/kg		19.1		112	50-150			
<i>Surr: 13C5-PFNA</i>	21.3	µg/kg		20		106	50-150			
<i>Surr: 13C5-PFPeA</i>	21.1	µg/kg		20		106	50-150			
<i>Surr: 13C8-FOSA</i>	20.2	µg/kg		20		101	50-150			
<i>Surr: 18O2-PFHxS</i>	19.7	µg/kg		18.9		104	50-150			
<i>Surr: d3-N-MeFOSAA</i>	21.1	µg/kg		20		105	50-150			
<i>Surr: d5-N-EtFOSAA</i>	20.2	µg/kg		20		101	50-150			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1880110-002
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Method: EPA 537Mod **Dilution:** 1 **Analysis Date:** 02/20/25 17:21
Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	3.90	µg/kg	0.942	3.77		103	56-146			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.11	µg/kg	0.958	3.83		107	65-137			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	3.91	µg/kg	0.934	3.74		105	62-145			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	3.47	µg/kg	0.948	3.79		91.5	64-140			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1880110-002
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 17:21

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	3.58	µg/kg	1.00	4		89.6	70-130			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	3.44	µg/kg	1.00	4		86.0	70-130			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	3.68	µg/kg	1.00	4		92.0	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	3.67	µg/kg	0.942	3.77		97.5	52-144			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	3.69	µg/kg	0.932	3.73		99.0	66-140			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	3.77	µg/kg	1.00	4		94.2	66-141			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.34	µg/kg	1.00	4		108	61-139			
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.00	µg/kg	1.00	4		100.0	63-144			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.58	µg/kg	1.00	3.6		99.4	70-130			
Perfluorobutane sulfonic acid (PFBS)	3.60	µg/kg	0.884	3.54		102	72-128			
Perfluorobutanoic acid (PFBA)	3.94	µg/kg	1.00	4		98.6	71-135			
Perfluorobutylsulfonamide (PFBSA)	3.64	µg/kg	1.00	4		91.0	70-130			
Perfluorodecane sulfonic acid (PFDS)	4.03	µg/kg	0.964	3.86		104	59-134			
Perfluorodecanoic acid (PFDA)	3.90	µg/kg	1.00	4		97.6	69-133			
Perfluorododecanoic acid (PFDOA)	4.22	µg/kg	1.00	4		105	69-135			
Perfluoroheptane sulfonic acid (PFHpS)	3.74	µg/kg	0.952	3.81		98.2	70-132			
Perfluoroheptanoic acid (PFHpA)	4.24	µg/kg	1.00	4		106	71-131			
Perfluorohexane sulfonic acid (PFHxS)	3.33	µg/kg	1.00	3.64		91.4	67-130			
Perfluorohexanesulfonamide (PFHxSA)	3.95	µg/kg	1.00	4		98.7	70-130			
Perfluorohexanoic acid (PFHxA)	3.68	µg/kg	1.00	4		91.9	70-132			
Perfluorononane sulfonic acid (PFNS)	3.65	µg/kg	1.00	3.84		95.0	69-125			
Perfluorononanoic acid (PFNA)	3.96	µg/kg	1.00	4		98.9	72-129			
Perfluorooctane sulfonamide (PFOSAm)	4.02	µg/kg	1.00	4		100	67-137			
Perfluorooctane sulfonic acid (PFOS)	3.65	µg/kg	1.00	3.71		98.5	68-136			
Perfluorooctanoic acid (PFOA)	3.54	µg/kg	1.00	4		88.6	69-133			
Perfluoropentane sulfonic acid (PFPeS)	3.55	µg/kg	1.00	3.75		94.6	73-123			
Perfluoropentanoic acid (PFPeA)	3.63	µg/kg	1.00	4		90.7	69-132			
Perfluorotetradecanoic acid (PFTDA)	4.17	µg/kg	1.00	4		104	69-133			
Perfluorotridecanoic acid (PFTTrDA)	4.24	µg/kg	1.00	4		106	66-139			
Perfluoroundecanoic acid (PFUnDA)	3.97	µg/kg	1.00	4		99.3	64-136			
Surr: 13C2-FtS 4:2	17.8	µg/kg		18.7		95.3	50-150			
Surr: 13C2-FtS 6:2	21.5	µg/kg		19		113	50-150			
Surr: 13C2-FtS 8:2	20.8	µg/kg		19.2		108	50-150			
Surr: 13C2-PFDA	22.2	µg/kg		20		111	50-150			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1880110-002
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 17:21

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 13C2-PFDoA	25.5	µg/kg		20		128	50-150			
Surr: 13C2-PFHxA	22.0	µg/kg		20		110	50-150			
Surr: 13C2-PFTeA	21.7	µg/kg		20		108	21-170			
Surr: 13C2-PFUnA	20.6	µg/kg		20		103	50-150			
Surr: 13C3-HFPO-DA	22.0	µg/kg		20		110	50-150			
Surr: 13C3-PFBS	18.8	µg/kg		18.6		101	50-150			
Surr: 13C4-PFBA	20.8	µg/kg		20		104	50-150			
Surr: 13C4-PFHpA	21.0	µg/kg		20		105	50-150			
Surr: 13C4-PFOA	23.5	µg/kg		20		117	50-150			
Surr: 13C4-PFOS	20.6	µg/kg		19.1		108	50-150			
Surr: 13C5-PFNA	22.4	µg/kg		20		112	50-150			
Surr: 13C5-PFPeA	22.6	µg/kg		20		113	50-150			
Surr: 13C8-FOSA	22.3	µg/kg		20		111	50-150			
Surr: 18O2-PFHxS	20.8	µg/kg		18.9		110	50-150			
Surr: d3-N-MeFOSAA	21.6	µg/kg		20		108	50-150			
Surr: d5-N-EtFOSAA	21.9	µg/kg		20		110	50-150			

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1880110-005
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 19:47

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	3.44	µg/kg	1.06	3.7327	ND	92.2	56-146			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.39	µg/kg	1.07	3.7921	ND	116	65-137			
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	3.68	µg/kg	1.05	3.703	ND	99.2	62-145			
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	3.55	µg/kg	1.06	3.7525	ND	94.6	64-140			
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	2.89	µg/kg	1.12	3.9604	ND	72.4	70-130			
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	2.81	µg/kg	1.12	3.9604	ND	70.9	70-130			
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.94	µg/kg	1.12	3.9604	ND	74.0	70-130			
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	3.68	µg/kg	1.06	3.7327	ND	98.7	52-144			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	3.63	µg/kg	1.04	3.6931	ND	98.4	66-140			
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	3.55	µg/kg	1.12	3.9604	ND	89.6	66-141			
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	3.85	µg/kg	1.12	3.9604	ND	95.5	61-139			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1880110-005
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 19:47

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	3.82	µg/kg	1.12	3.9604	ND	95.0	63-144			
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.28	µg/kg	1.12	3.5644	ND	92.0	70-130			
Perfluorobutane sulfonic acid (PFBS)	3.40	µg/kg	0.990	3.505	ND	97.0	72-128			
Perfluorobutanoic acid (PFBA)	3.72	µg/kg	1.12	3.9604	ND	90.6	71-135			
Perfluorobutylsulfonamide (PFBSA)	4.07	µg/kg	1.12	3.9604	ND	103	70-130			
Perfluorodecane sulfonic acid (PFDS)	3.58	µg/kg	1.08	3.8218	ND	93.6	59-134			
Perfluorodecanoic acid (PFDA)	3.81	µg/kg	1.12	3.9604	ND	95.9	69-133			
Perfluorododecanoic acid (PFDOA)	3.91	µg/kg	1.12	3.9604	ND	98.3	69-135			
Perfluoroheptane sulfonic acid (PFHpS)	3.90	µg/kg	1.07	3.7723	ND	103	70-132			
Perfluoroheptanoic acid (PFHpA)	4.11	µg/kg	1.12	3.9604	ND	104	71-131			
Perfluorohexane sulfonic acid (PFHxS)	3.36	µg/kg	1.12	3.604	ND	91.7	67-130			
Perfluorohexanesulfonamide (PFHxSA)	4.25	µg/kg	1.12	3.9604	ND	107	70-130			
Perfluorohexanoic acid (PFHxA)	3.67	µg/kg	1.12	3.9604	ND	92.2	70-132			
Perfluorononane sulfonic acid (PFNS)	3.80	µg/kg	1.12	3.802	ND	99.9	69-125			
Perfluorononanoic acid (PFNA)	4.11	µg/kg	1.12	3.9604	ND	104	72-129			
Perfluorooctane sulfonamide (PFOSAm)	3.90	µg/kg	1.12	3.9604	ND	98.2	67-137			
Perfluorooctane sulfonic acid (PFOS)	3.52	µg/kg	1.12	3.6733	ND	95.5	68-136			
Perfluorooctanoic acid (PFOA)	3.48	µg/kg	1.12	3.9604	ND	85.8	69-133			
Perfluoropentane sulfonic acid (PFPeS)	3.49	µg/kg	1.12	3.7129	ND	94.1	73-123			
Perfluoropentanoic acid (PFPeA)	3.60	µg/kg	1.12	3.9604	ND	90.2	69-132			
Perfluorotetradecanoic acid (PFTDA)	4.09	µg/kg	1.12	3.9604	ND	103	69-133			
Perfluorotridecanoic acid (PFTTrDA)	4.20	µg/kg	1.12	3.9604	ND	106	66-139			
Perfluoroundecanoic acid (PFUnDA)	3.83	µg/kg	1.12	3.9604	ND	96.3	64-136			
Surr: 13C2-FtS 4:2	17.8	µg/kg		18.515		96.3	50-150			
Surr: 13C2-FtS 6:2	21.2	µg/kg		18.812		112	50-150			
Surr: 13C2-FtS 8:2	21.4	µg/kg		19.01		112	50-150			
Surr: 13C2-PFDA	21.2	µg/kg		19.802		107	50-150			
Surr: 13C2-PFDoA	22.6	µg/kg		19.802		114	50-150			
Surr: 13C2-PFHxA	20.3	µg/kg		19.802		102	50-150			
Surr: 13C2-PFTeA	20.2	µg/kg		19.802		102	21-170			
Surr: 13C2-PFUnA	20.2	µg/kg		19.802		102	50-150			
Surr: 13C3-HFPO-DA	22.0	µg/kg		19.802		111	50-150			
Surr: 13C3-PFBS	18.4	µg/kg		18.416		100	50-150			
Surr: 13C4-PFBA	19.4	µg/kg		19.802		98.0	50-150			
Surr: 13C4-PFHpA	19.8	µg/kg		19.802		99.9	50-150			
Surr: 13C4-PFOA	20.7	µg/kg		19.802		105	50-150			
Surr: 13C4-PFOS	19.8	µg/kg		18.911		105	50-150			
Surr: 13C5-PFNA	19.9	µg/kg		19.802		100	50-150			
Surr: 13C5-PFPeA	21.0	µg/kg		19.802		106	50-150			
Surr: 13C8-FOSA	19.4	µg/kg		19.802		98.1	50-150			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1880110-005
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 19:47

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Surr: 18O2-PFHxS	19.4	µg/kg		18.713		104	50-150			
Surr: d3-N-MeFOSAA	18.0	µg/kg		19.802		90.7	50-150			
Surr: d5-N-EtFOSAA	18.9	µg/kg		19.802		95.5	50-150			

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1880110-006
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 20:01

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	3.11	µg/kg	1.02	3.6077	ND	86.2	56-146	10.0	30	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	3.96	µg/kg	1.04	3.6651	ND	108	65-137	10.1	30	
1H, 1H, 2H, 2H-Perfluorohexanesulfonic acid (4:2 FTS)	3.66	µg/kg	1.01	3.5789	ND	102	62-145	0.298	30	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	3.26	µg/kg	1.03	3.6268	ND	90.0	64-140	8.38	30	
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	2.90	µg/kg	1.08	3.8277	ND	75.1	70-130	0.294	30	
2H,2H,3H,3H-Perfluorohexanoic acid (3:3 FTCA)	2.47	µg/kg	1.08	3.8277	ND	64.4	70-130	13.0	30	S
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	2.86	µg/kg	1.08	3.8277	ND	74.6	70-130	2.63	30	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	3.29	µg/kg	1.02	3.6077	ND	91.3	52-144	11.2	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	3.41	µg/kg	1.01	3.5694	ND	95.5	66-140	6.35	30	
Hexafluoropropyleneoxide dimer acid (HFPO-DA) (GenX)	3.23	µg/kg	1.08	3.8277	ND	84.4	66-141	9.37	30	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	3.46	µg/kg	1.08	3.8277	ND	88.7	61-139	10.5	30	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	3.74	µg/kg	1.08	3.8277	ND	96.2	63-144	2.13	30	
Perfluoro-4-ethylcyclohexanesulfonic Acid (PFecHS)	3.20	µg/kg	1.08	3.445	ND	93.0	70-130	2.32	30	
Perfluorobutane sulfonic acid (PFBS)	3.29	µg/kg	0.957	3.3876	ND	97.1	72-128	3.34	30	
Perfluorobutanoic acid (PFBA)	3.70	µg/kg	1.08	3.8277	ND	93.4	71-135	0.415	30	
Perfluorobutylsulfonamide (PFBSA)	3.61	µg/kg	1.08	3.8277	ND	94.3	70-130	11.9	30	
Perfluorodecane sulfonic acid (PFDS)	3.77	µg/kg	1.04	3.6938	ND	102	59-134	5.22	30	
Perfluorodecanoic acid (PFDA)	3.58	µg/kg	1.08	3.8277	ND	93.1	69-133	6.35	30	
Perfluorododecanoic acid (PFDOA)	3.95	µg/kg	1.08	3.8277	ND	103	69-135	0.977	30	
Perfluoroheptane sulfonic acid (PFHpS)	3.60	µg/kg	1.03	3.6459	ND	98.8	70-132	7.93	30	
Perfluoroheptanoic acid (PFHpA)	3.74	µg/kg	1.08	3.8277	ND	97.5	71-131	9.46	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944947

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1880110-006
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Method: EPA 537Mod

Dilution: 1

Analysis Date: 02/20/25 20:01

Prep Date: 02/20/25 16:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Perfluorohexane sulfonic acid (PFHxS)	3.14	µg/kg	1.08	3.4832	ND	88.8	67-130	6.56	30	
Perfluorohexanesulfonamide (PFHxSA)	3.80	µg/kg	1.08	3.8277	ND	99.4	70-130	11.0	30	
Perfluorohexanoic acid (PFHxA)	3.64	µg/kg	1.08	3.8277	ND	94.7	70-132	0.723	30	
Perfluorononane sulfonic acid (PFNS)	3.24	µg/kg	1.08	3.6746	ND	88.3	69-125	15.7	30	
Perfluorononanoic acid (PFNA)	3.71	µg/kg	1.08	3.8277	ND	96.7	72-129	10.2	30	
Perfluorooctane sulfonamide (PFOSAm)	3.70	µg/kg	1.08	3.8277	ND	96.6	67-137	5.10	30	
Perfluorooctane sulfonic acid (PFOS)	3.29	µg/kg	1.08	3.5502	ND	92.3	68-136	6.78	30	
Perfluorooctanoic acid (PFOA)	3.44	µg/kg	1.08	3.8277	ND	88.0	69-133	0.942	30	
Perfluoropentane sulfonic acid (PFPeS)	3.32	µg/kg	1.08	3.5885	ND	92.4	73-123	5.24	30	
Perfluoropentanoic acid (PFPeA)	3.38	µg/kg	1.08	3.8277	ND	87.7	69-132	6.21	30	
Perfluorotetradecanoic acid (PFTDA)	3.78	µg/kg	1.08	3.8277	ND	98.1	69-133	7.84	30	
Perfluorotridecanoic acid (PFTrDA)	4.15	µg/kg	1.08	3.8277	ND	108	66-139	1.18	30	
Perfluoroundecanoic acid (PFUnDA)	3.71	µg/kg	1.08	3.8277	ND	96.7	64-136	2.99	30	
Surr: 13C2-FtS 4:2	17.2	µg/kg		17.895		96.4	50-150	3.31	30	
Surr: 13C2-FtS 6:2	22.5	µg/kg		18.182		124	50-150	6.02	30	
Surr: 13C2-FtS 8:2	23.5	µg/kg		18.373		128	50-150	9.35	30	
Surr: 13C2-PFDA	21.1	µg/kg		19.139		110	50-150	0.293	30	
Surr: 13C2-PFDoA	22.2	µg/kg		19.139		116	50-150	1.38	30	
Surr: 13C2-PFHxA	19.4	µg/kg		19.139		101	50-150	4.66	30	
Surr: 13C2-PFTeA	20.6	µg/kg		19.139		108	21-170	1.85	30	
Surr: 13C2-PFUnA	20.0	µg/kg		19.139		105	50-150	1.11	30	
Surr: 13C3-HFPO-DA	21.6	µg/kg		19.139		113	50-150	1.92	30	
Surr: 13C3-PFBS	18.2	µg/kg		17.799		102	50-150	1.43	30	
Surr: 13C4-PFBA	19.3	µg/kg		19.139		101	50-150	0.724	30	
Surr: 13C4-PFHpA	19.9	µg/kg		19.139		104	50-150	0.673	30	
Surr: 13C4-PFOA	20.6	µg/kg		19.139		108	50-150	0.461	30	
Surr: 13C4-PFOS	20.1	µg/kg		18.278		110	50-150	1.35	30	
Surr: 13C5-PFNA	21.2	µg/kg		19.139		111	50-150	6.54	30	
Surr: 13C5-PFPeA	21.3	µg/kg		19.139		111	50-150	1.55	30	
Surr: 13C8-FOSA	20.6	µg/kg		19.139		107	50-150	5.60	30	
Surr: 18O2-PFHxS	19.9	µg/kg		18.086		110	50-150	2.40	30	
Surr: d3-N-MeFOSAA	18.5	µg/kg		19.139		96.7	50-150	3.01	30	
Surr: d5-N-EtFOSAA	19.7	µg/kg		19.139		103	50-150	3.95	30	

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-011



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2944606

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-1879774-001
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Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 02/20/25 19:02
Prep Date: 02/20/25 08:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	ND	µg/kg	66.7							
Aroclor 1221	ND	µg/kg	66.7							
Aroclor 1232	ND	µg/kg	66.7							
Aroclor 1242	ND	µg/kg	66.7							
Aroclor 1248	ND	µg/kg	66.7							
Aroclor 1254	ND	µg/kg	66.7							
Aroclor 1260	ND	µg/kg	66.7							
Aroclor 1262	ND	µg/kg	66.7							
Aroclor 1268	ND	µg/kg	66.7							
Total PCB	ND	µg/kg	66.7							
<i>Surr: Decachlorobiphenyl</i>	32.0	µg/kg		33.3		96.1	68-137			
<i>Surr: Tetrachloro-m-xylene</i>	33.8	µg/kg		33.3		102	71-126			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1879774-002
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Method: EPA 8082A **Dilution:** 1 **Analysis Date:** 02/20/25 19:14
Prep Date: 02/20/25 08:41

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	806	µg/kg	66.7	833		96.8	75-129			
Aroclor 1260	763	µg/kg	66.7	833		91.6	69-127			
<i>Surr: Decachlorobiphenyl</i>	36.3	µg/kg		33.3		109	68-137			
<i>Surr: Tetrachloro-m-xylene</i>	41.0	µg/kg		33.3		123	71-126			

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-011, HN2502090-012, HN2502090-013



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2954408

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-1885234-001
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Method: EPA 8082A

Dilution: 1

Analysis Date: 02/25/25 13:33

Prep Date: 02/25/25 08:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	ND	µg/kg	66.7							
Aroclor 1221	ND	µg/kg	66.7							
Aroclor 1232	ND	µg/kg	66.7							
Aroclor 1242	ND	µg/kg	66.7							
Aroclor 1248	ND	µg/kg	66.7							
Aroclor 1254	ND	µg/kg	66.7							
Aroclor 1260	ND	µg/kg	66.7							
Aroclor 1262	ND	µg/kg	66.7							
Aroclor 1268	ND	µg/kg	66.7							
Total PCB	ND	µg/kg	66.7							
<i>Surr: Decachlorobiphenyl</i>	31.8	µg/kg		33.3		95.6	68-137			
<i>Surr: Tetrachloro-m-xylene</i>	30.2	µg/kg		33.3		90.7	71-126			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1885234-002
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Method: EPA 8082A

Dilution: 1

Analysis Date: 02/25/25 13:45

Prep Date: 02/25/25 08:57

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Aroclor 1016	865	µg/kg	66.7	833		104	75-129			
Aroclor 1260	887	µg/kg	66.7	833		106	69-127			
<i>Surr: Decachlorobiphenyl</i>	35.7	µg/kg		33.3		107	68-137			
<i>Surr: Tetrachloro-m-xylene</i>	33.8	µg/kg		33.3		102	71-126			

The following samples were analyzed in this batch: HN2502090-003



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2953239

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Semivolatile Organic Compounds by GC

MB	CLIENT ID: Method Blank	Lab ID: QC-1885236-001
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/25/25 19:07
Prep Date: 02/25/25 10:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Diesel Range Organics C10-C20	ND	mg/kg	10.0							
Oil Range Organics C20-C34	ND	mg/kg	10.0							
Surr: 4-Terphenyl-d14	0.400	mg/kg		0.828		48.3	10-131			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1885236-002
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/25/25 19:33
Prep Date: 02/25/25 10:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Diesel Range Organics C10-C20	357	mg/kg	10.0	417		85.7	50-142			
Oil Range Organics C20-C34	372	mg/kg	10.0	417		89.2	54-106			
Surr: 4-Terphenyl-d14	0.700	mg/kg		0.828		84.5	10-131			

MS	CLIENT ID: SB-7 (3')	Lab ID: QC-1885236-005
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/26/25 19:09
Prep Date: 02/25/25 10:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Diesel Range Organics C10-C20	365	mg/kg	11.6	416.86	ND	87.6	50-142			
Oil Range Organics C20-C34	389	mg/kg	11.6	416.86	ND	92.3	54-106			
Surr: 4-Terphenyl-d14	0.750	mg/kg		0.82772		90.6	10-131			

MSD	CLIENT ID: SB-7 (3')	Lab ID: QC-1885236-006
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Method: EPA 8015C **Dilution:** 1 **Analysis Date:** 02/26/25 19:35
Prep Date: 02/25/25 10:16

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Diesel Range Organics C10-C20	375	mg/kg	11.6	416.23	ND	90.1	50-142	2.60	30	
Oil Range Organics C20-C34	387	mg/kg	11.6	416.23	ND	92.0	54-106	0.387	30	
Surr: 4-Terphenyl-d14	0.715	mg/kg		0.82647		86.6	10-131	4.70	30	

The following samples were analyzed in this batch: HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-012, HN2502090-013, HN2502090-014



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Semivolatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-1879776-001
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 14:50

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	ND	µg/kg	33.0							
1,2,4,5-Tetrachlorobenzene	ND	µg/kg	333							
1,4-Dioxane (1,4- Diethyleneoxide)	ND	µg/kg	167							
1-Methylnaphthalene	ND	µg/kg	6.67							
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	ND	µg/kg	33.0							
2,3,4,6-Tetrachlorophenol	ND	µg/kg	67.0							
2,4,5-Trichlorophenol	ND	µg/kg	33.0							
2,4,6-Trichlorophenol	ND	µg/kg	33.0							
2,4-Dichlorophenol	ND	µg/kg	33.0							
2,4-Dimethylphenol	ND	µg/kg	33.3							
2,4-Dinitrophenol	ND	µg/kg	333							
2,4-Dinitrotoluene (2,4-DNT)	ND	µg/kg	33.3							
2,6-Dinitrotoluene (2,6-DNT)	ND	µg/kg	33.0							
2-Chloronaphthalene	ND	µg/kg	6.67							
2-Chlorophenol	ND	µg/kg	33.0							
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	ND	µg/kg	33.0							
2-Methylnaphthalene	ND	µg/kg	6.67							
2-Methylphenol (o-Cresol)	ND	µg/kg	33.0							
2-Nitroaniline	ND	µg/kg	33.0							
2-Nitrophenol	ND	µg/kg	33.0							
3&4-Methylphenol	ND	µg/kg	33.0							
3,3'-Dichlorobenzidine	ND	µg/kg	167							
3-Nitroaniline	ND	µg/kg	33.0							
4-Bromophenyl phenyl ether (BDE-3)	ND	µg/kg	33.0							
4-Chloro-3-methylphenol	ND	µg/kg	33.0							
4-Chloroaniline	ND	µg/kg	67.0							
4-Chlorophenyl phenylether	ND	µg/kg	33.0							
4-Nitroaniline	ND	µg/kg	167							
4-Nitrophenol	ND	µg/kg	333							
Acenaphthene	ND	µg/kg	6.67							
Acenaphthylene	ND	µg/kg	6.67							
Acetophenone	ND	µg/kg	33.0							
Anthracene	ND	µg/kg	6.67							
Atrazine	ND	µg/kg	33.0							
Benzaldehyde	ND	µg/kg	67.0							
Benzo(a)anthracene	ND	µg/kg	6.67							
Benzo(a)pyrene	ND	µg/kg	6.67							
Benzo(b)fluoranthene	ND	µg/kg	6.67							
Benzo(g,h,i)perylene	ND	µg/kg	6.67							
Benzo(k)fluoranthene	ND	µg/kg	6.67							
bis(2-Chloroethoxy)methane	ND	µg/kg	33.0							
bis(2-Chloroethyl) ether	ND	µg/kg	33.0							



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MB	CLIENT ID: Method Blank	Lab ID: QC-1879776-001
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 14:50

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Butyl benzyl phthalate	ND	µg/kg	67.0							
Caprolactam	ND	µg/kg	33.0							
Carbazole	ND	µg/kg	33.0							
Chrysene	ND	µg/kg	6.67							
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	ND	µg/kg	33.0							
Dibenz(a,h) anthracene	ND	µg/kg	33.0							
Dibenzofuran	ND	µg/kg	33.0							
Diethyl phthalate	ND	µg/kg	33.0							
Dimethyl phthalate	ND	µg/kg	33.0							
Di-n-butyl phthalate	ND	µg/kg	33.0							
Di-n-octyl phthalate	ND	µg/kg	33.0							
Fluoranthene	ND	µg/kg	6.67							
Fluorene	ND	µg/kg	6.67							
Hexachlorobenzene	ND	µg/kg	33.0							
Hexachlorobutadiene	ND	µg/kg	33.0							
Hexachlorocyclopentadiene	ND	µg/kg	33.0							
Hexachloroethane	ND	µg/kg	33.0							
Indeno(1,2,3-cd) pyrene	ND	µg/kg	6.67							
Isophorone	ND	µg/kg	167							
Methylphenol, Total	ND	µg/kg	67.0							
Naphthalene	ND	µg/kg	6.67							
Nitrobenzene	ND	µg/kg	167							
n-Nitrosodi-n-propylamine	ND	µg/kg	33.0							
N-Nitrosodiphenylamine	ND	µg/kg	33.0							
Pentachlorophenol	ND	µg/kg	33.0							
Phenanthrene	ND	µg/kg	6.67							
Phenol	ND	µg/kg	33.0							
Pyrene	ND	µg/kg	6.67							
Pyridine	ND	µg/kg	167							
Surr: 2,4,6-Tribromophenol	2020	µg/kg		3333		60.6	48-94			
Surr: 2-Fluorobiphenyl	2240	µg/kg		3333		67.1	50-103			
Surr: 2-Fluorophenol	2950	µg/kg		3333		88.6	43-105			
Surr: 4-Terphenyl-d14	2760	µg/kg		3333		82.9	55-111			
Surr: Nitrobenzene-d5	2380	µg/kg		3333		71.3	47-100			
Surr: Phenol-d6	3140	µg/kg		3333		94.2	49-110			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1879776-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 16:18

Prep Date: 02/20/25 10:20

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	1020	µg/kg	333	1333		76.5	54-98			
1-Methylnaphthalene	1060	µg/kg	6.67	1333		79.4	56-100			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1879776-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 16:18

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	990	µg/kg	33.0	1333		74.3	50-101			
2,3,4,6-Tetrachlorophenol	1160	µg/kg	67.0	1333		86.8	48-103			
2,4,5-Trichlorophenol	1170	µg/kg	33.0	1333		87.5	54-98			
2,4,6-Trichlorophenol	1060	µg/kg	33.0	1333		79.5	56-97			
2,4-Dichlorophenol	1060	µg/kg	33.0	1333		79.6	54-99			
2,4-Dimethylphenol	1140	µg/kg	33.3	1333		85.6	47-102			
2,4-Dinitrophenol	1360	µg/kg	333	1333		102	10-100			S
2,4-Dinitrotoluene (2,4-DNT)	1360	µg/kg	33.3	1333		102	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1250	µg/kg	33.0	1333		94.0	62-103			
2-Chloronaphthalene	1050	µg/kg	6.67	1333		78.6	57-101			
2-Chlorophenol	1100	µg/kg	33.0	1333		82.7	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1430	µg/kg	33.0	1333		107	42-104			S
2-Methylnaphthalene	1050	µg/kg	6.67	1333		78.9	55-102			
2-Methylphenol (o-Cresol)	1150	µg/kg	33.0	1333		86.2	54-103			
2-Nitroaniline	1350	µg/kg	33.0	1333		102	57-103			
2-Nitrophenol	1340	µg/kg	33.0	1333		100	52-102			
3&4-Methylphenol	1130	µg/kg	33.0	1333		84.5	56-103			
3,3'-Dichlorobenzidine	679	µg/kg	167	1333		51.0	41-91			
3-Nitroaniline	1130	µg/kg	33.0	1333		84.6	35-107			
4-Bromophenyl phenyl ether (BDE-3)	1060	µg/kg	33.0	1333		79.5	63-104			
4-Chloro-3-methylphenol	1080	µg/kg	33.0	1333		81.4	57-103			
4-Chloroaniline	754	µg/kg	67.0	1333		56.6	32-99			
4-Chlorophenyl phenylether	1070	µg/kg	33.0	1333		80.1	62-100			
4-Nitroaniline	1130	µg/kg	167	1333		85.0	19-124			
4-Nitrophenol	1150	µg/kg	333	1333		86.5	44-106			
Acenaphthene	1060	µg/kg	6.67	1333		79.9	60-101			
Acenaphthylene	1050	µg/kg	6.67	1333		78.9	59-101			
Acetophenone	1150	µg/kg	33.0	1333		86.1	54-102			
Anthracene	1080	µg/kg	6.67	1333		81.3	63-96			
Atrazine	1090	µg/kg	33.0	1333		81.6	60-110			
Benzaldehyde	796	µg/kg	67.0	1333		59.7	10-143			
Benzo(a)anthracene	1190	µg/kg	6.67	1333		89.6	66-102			
Benzo(a)pyrene	1270	µg/kg	6.67	1333		95.1	66-105			
Benzo(b)fluoranthene	1260	µg/kg	6.67	1333		94.7	67-105			
Benzo(g,h,i)perylene	1260	µg/kg	6.67	1333		94.5	59-110			
Benzo(k)fluoranthene	1180	µg/kg	6.67	1333		88.7	68-106			
bis(2-Chloroethoxy)methane	990	µg/kg	33.0	1333		74.3	54-102			
bis(2-Chloroethyl) ether	1140	µg/kg	33.0	1333		85.3	51-101			
Butyl benzyl phthalate	1210	µg/kg	67.0	1333		90.7	59-107			
Caprolactam	1200	µg/kg	33.0	1333		90.0	49-103			
Carbazole	1130	µg/kg	33.0	1333		85.1	63-103			
Chrysene	1250	µg/kg	6.67	1333		93.6	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1260	µg/kg	33.0	1333		94.9	63-101			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1879776-002
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 16:18

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Dibenz(a,h) anthracene	1350	µg/kg	33.0	1333		101	61-109			
Dibenzofuran	1080	µg/kg	33.0	1333		81.2	61-101			
Diethyl phthalate	1070	µg/kg	33.0	1333		80.5	63-105			
Dimethyl phthalate	1070	µg/kg	33.0	1333		80.6	64-104			
Di-n-butyl phthalate	1140	µg/kg	33.0	1333		85.6	66-108			
Di-n-octyl phthalate	1280	µg/kg	33.0	1333		96.4	53-126			
Fluoranthene	1150	µg/kg	6.67	1333		86.3	66-105			
Fluorene	1090	µg/kg	6.67	1333		81.6	62-101			
Hexachlorobenzene	1050	µg/kg	33.0	1333		78.5	61-104			
Hexachlorobutadiene	1000	µg/kg	33.0	1333		75.4	52-99			
Hexachlorocyclopentadiene	1010	µg/kg	33.0	1333		75.9	39-106			
Hexachloroethane	1080	µg/kg	33.0	1333		80.9	59-99			
Indeno(1,2,3-cd) pyrene	1280	µg/kg	6.67	1333		96.2	57-114			
Isophorone	1170	µg/kg	167	1333		87.6	55-101			
Methylphenol, Total	2280	µg/kg	67.0	2667		85.3	54-103			
Naphthalene	1040	µg/kg	6.67	1333		78.3	54-99			
Nitrobenzene	1260	µg/kg	167	1333		94.9	53-100			
n-Nitrosodi-n-propylamine	1190	µg/kg	33.0	1333		89.4	52-104			
N-Nitrosodiphenylamine	1070	µg/kg	33.0	1333		80.5	61-104			
Pentachlorophenol	1240	µg/kg	33.0	1333		93.3	35-100			
Phenanthrene	1070	µg/kg	6.67	1333		80.0	64-101			
Phenol	1190	µg/kg	33.0	1333		89.6	51-107			
Pyrene	1180	µg/kg	6.67	1333		88.9	62-114			
Pyridine	1010	µg/kg	167	1333		75.9	40-84			
Surr: 2,4,6-Tribromophenol	2570	µg/kg		3333		77.2	48-94			
Surr: 2-Fluorobiphenyl	2340	µg/kg		3333		70.3	50-103			
Surr: 2-Fluorophenol	2870	µg/kg		3333		86.1	43-105			
Surr: 4-Terphenyl-d14	2710	µg/kg		3333		81.3	55-111			
Surr: Nitrobenzene-d5	2650	µg/kg		3333		79.4	47-100			
Surr: Phenol-d6	3160	µg/kg		3333		94.7	49-110			

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1879776-005
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 16:41

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	907	µg/kg	37.2	1327.2	ND	68.3	57-101			
1,2,4,5-Tetrachlorobenzene	840	µg/kg	375	1327.2	ND	63.3	54-98			
1-Methylnaphthalene	911	µg/kg	7.51	1327.2	ND	68.6	56-100			
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	875	µg/kg	37.2	1327.2	ND	66.0	50-101			
2,3,4,6-Tetrachlorophenol	919	µg/kg	75.1	1327.2	ND	69.2	48-103			
2,4,5-Trichlorophenol	956	µg/kg	37.2	1327.2	ND	72.0	54-98			
2,4,6-Trichlorophenol	890	µg/kg	37.2	1327.2	ND	67.1	56-97			
2,4-Dichlorophenol	915	µg/kg	37.2	1327.2	ND	69.0	54-99			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1879776-005
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 16:41

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2,4-Dimethylphenol	989	µg/kg	37.5	1327.2	ND	74.5	47-102			
2,4-Dinitrophenol	499	µg/kg	375	1327.2	ND	37.6	10-100			
2,4-Dinitrotoluene (2,4-DNT)	1120	µg/kg	37.5	1327.2	ND	84.2	62-105			
2,6-Dinitrotoluene (2,6-DNT)	1060	µg/kg	37.2	1327.2	ND	79.6	62-103			
2-Chloronaphthalene	890	µg/kg	7.51	1327.2	ND	67.1	57-101			
2-Chlorophenol	971	µg/kg	37.2	1327.2	ND	73.2	52-102			
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	960	µg/kg	37.2	1327.2	ND	72.4	42-104			
2-Methylnaphthalene	890	µg/kg	7.51	1327.2	ND	67.1	55-102			
2-Methylphenol (o-Cresol)	1020	µg/kg	37.2	1327.2	ND	76.8	54-103			
2-Nitroaniline	1170	µg/kg	37.2	1327.2	ND	88.1	57-103			
2-Nitrophenol	1200	µg/kg	37.2	1327.2	ND	90.1	52-102			
3&4-Methylphenol	982	µg/kg	37.2	1327.2	ND	74.0	56-103			
3,3'-Dichlorobenzidine	589	µg/kg	188	1327.2	ND	44.4	41-91			
3-Nitroaniline	810	µg/kg	37.2	1327.2	ND	61.0	35-107			
4-Bromophenyl phenyl ether (BDE-3)	899	µg/kg	37.2	1327.2	ND	67.7	63-104			
4-Chloro-3-methylphenol	907	µg/kg	37.2	1327.2	ND	68.4	57-103			
4-Chloroaniline	874	µg/kg	75.1	1327.2	ND	65.9	32-99			
4-Chlorophenyl phenylether	892	µg/kg	37.2	1327.2	ND	67.2	62-100			
4-Nitroaniline	573	µg/kg	188	1327.2	ND	43.2	19-124			
4-Nitrophenol	942	µg/kg	375	1327.2	ND	71.0	44-106			
Acenaphthene	872	µg/kg	7.51	1327.2	ND	65.7	60-101			
Acenaphthylene	889	µg/kg	7.51	1327.2	ND	67.0	59-101			
Acetophenone	1000	µg/kg	37.2	1327.2	ND	75.5	54-102			
Anthracene	918	µg/kg	7.51	1327.2	ND	69.2	63-96			
Atrazine	938	µg/kg	37.2	1327.2	ND	70.7	60-110			
Benzaldehyde	239	µg/kg	75.1	1327.2	ND	18.0	10-143			
Benzo(a)anthracene	998	µg/kg	7.51	1327.2	ND	75.0	66-102			
Benzo(a)pyrene	1070	µg/kg	7.51	1327.2	ND	80.5	66-105			
Benzo(b)fluoranthene	1020	µg/kg	7.51	1327.2	ND	77.3	67-105			
Benzo(g,h,i)perylene	1040	µg/kg	7.51	1327.2	ND	78.3	59-110			
Benzo(k)fluoranthene	992	µg/kg	7.51	1327.2	ND	74.8	68-106			
bis(2-Chloroethoxy)methane	875	µg/kg	37.2	1327.2	ND	66.0	54-102			
bis(2-Chloroethyl) ether	1030	µg/kg	37.2	1327.2	ND	77.8	51-101			
Butyl benzyl phthalate	1040	µg/kg	75.1	1327.2	ND	78.5	59-107			
Caprolactam	941	µg/kg	37.2	1327.2	ND	70.9	49-103			
Carbazole	951	µg/kg	37.2	1327.2	ND	71.7	63-103			
Chrysene	1040	µg/kg	7.51	1327.2	ND	77.9	66-105			
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1070	µg/kg	37.2	1327.2	ND	80.5	63-101			
Dibenz(a,h) anthracene	1180	µg/kg	37.2	1327.2	ND	88.7	61-109			
Dibenzofuran	905	µg/kg	37.2	1327.2	ND	68.2	61-101			
Diethyl phthalate	889	µg/kg	37.2	1327.2	ND	67.0	63-105			
Dimethyl phthalate	909	µg/kg	37.2	1327.2	ND	68.5	64-104			
Di-n-butyl phthalate	960	µg/kg	37.2	1327.2	ND	72.3	66-108			
Di-n-octyl phthalate	1090	µg/kg	37.2	1327.2	ND	82.0	53-126			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1879776-005
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 16:41

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Fluoranthene	975	µg/kg	7.51	1327.2	ND	73.5	66-105			
Fluorene	911	µg/kg	7.51	1327.2	ND	68.6	62-101			
Hexachlorobenzene	873	µg/kg	37.2	1327.2	ND	65.8	61-104			
Hexachlorobutadiene	853	µg/kg	37.2	1327.2	ND	64.3	52-99			
Hexachlorocyclopentadiene	839	µg/kg	37.2	1327.2	ND	63.2	39-106			
Hexachloroethane	935	µg/kg	37.2	1327.2	ND	70.5	59-99			
Indeno(1,2,3-cd) pyrene	1100	µg/kg	7.51	1327.2	ND	83.2	57-114			
Isophorone	998	µg/kg	188	1327.2	ND	75.2	55-101			
Methylphenol, Total	2000	µg/kg	67.0	2655.3	ND	75.4	54-103			
Naphthalene	898	µg/kg	7.51	1327.2	ND	67.7	54-99			
Nitrobenzene	1090	µg/kg	188	1327.2	ND	82.1	53-100			
n-Nitrosodi-n-propylamine	1040	µg/kg	37.2	1327.2	ND	78.3	52-104			
N-Nitrosodiphenylamine	911	µg/kg	37.2	1327.2	ND	68.7	61-104			
Pentachlorophenol	780	µg/kg	37.2	1327.2	ND	58.8	35-100			
Phenanthrene	926	µg/kg	7.51	1327.2	ND	69.8	64-101			
Phenol	1040	µg/kg	37.2	1327.2	ND	78.8	51-107			
Pyrene	1010	µg/kg	7.51	1327.2	ND	76.0	52-114			
Pyridine	1080	µg/kg	188	1327.2	ND	81.6	40-84			
Surr: 2,4,6-Tribromophenol	2200	µg/kg		3318.4		66.4	48-94			
Surr: 2-Fluorobiphenyl	1990	µg/kg		3318.4		60.1	50-103			
Surr: 2-Fluorophenol	2540	µg/kg		3318.4		76.5	43-105			
Surr: 4-Terphenyl-d14	2300	µg/kg		3318.4		69.5	55-111			
Surr: Nitrobenzene-d5	2380	µg/kg		3318.4		71.7	47-100			
Surr: Phenol-d6	2690	µg/kg		3318.4		80.9	49-110			

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1879776-006
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 17:03

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1'-Biphenyl (BZ-0)	975	µg/kg	36.7	1310.6	ND	74.4	57-101	7.23	30	
1,2,4,5-Tetrachlorobenzene	940	µg/kg	370	1310.6	ND	71.7	54-98	11.3	30	
1-Methylnaphthalene	985	µg/kg	7.42	1310.6	ND	75.2	56-100	7.86	30	
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methylethyl)ether	946	µg/kg	36.7	1310.6	ND	72.2	50-101	7.73	30	
2,3,4,6-Tetrachlorophenol	1040	µg/kg	74.2	1310.6	ND	79.4	48-103	12.5	30	
2,4,5-Trichlorophenol	1030	µg/kg	36.7	1310.6	ND	78.7	54-98	7.58	30	
2,4,6-Trichlorophenol	967	µg/kg	36.7	1310.6	ND	73.8	56-97	8.33	30	
2,4-Dichlorophenol	1010	µg/kg	36.7	1310.6	ND	76.9	54-99	9.59	30	
2,4-Dimethylphenol	1090	µg/kg	37.1	1310.6	ND	82.9	47-102	9.42	30	
2,4-Dinitrophenol	526	µg/kg	370	1310.6	ND	40.1	10-100	5.18	30	
2,4-Dinitrotoluene (2,4-DNT)	1230	µg/kg	37.1	1310.6	ND	93.9	62-105	9.70	30	
2,6-Dinitrotoluene (2,6-DNT)	1180	µg/kg	36.7	1310.6	ND	90.1	62-103	11.1	30	
2-Chloronaphthalene	952	µg/kg	7.42	1310.6	ND	72.7	57-101	6.76	30	
2-Chlorophenol	1040	µg/kg	36.7	1310.6	ND	79.6	52-102	7.13	30	



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1879776-006
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 17:03

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylphenol)	1050	µg/kg	36.7	1310.6	ND	80.0	42-104	8.79	30	
2-Methylnaphthalene	956	µg/kg	7.42	1310.6	ND	72.9	55-102	7.11	30	
2-Methylphenol (o-Cresol)	1100	µg/kg	36.7	1310.6	ND	83.9	54-103	7.58	30	
2-Nitroaniline	1290	µg/kg	36.7	1310.6	ND	98.6	57-103	10.0	30	
2-Nitrophenol	1310	µg/kg	36.7	1310.6	ND	99.7	52-102	8.81	30	
3&4-Methylphenol	1080	µg/kg	36.7	1310.6	ND	82.1	56-103	9.07	30	
3,3'-Dichlorobenzidine	693	µg/kg	185	1310.6	ND	52.9	41-91	16.2	30	
3-Nitroaniline	906	µg/kg	36.7	1310.6	ND	69.1	35-107	11.2	30	
4-Bromophenyl phenyl ether (BDE-3)	950	µg/kg	36.7	1310.6	ND	72.5	63-104	5.59	30	
4-Chloro-3-methylphenol	1020	µg/kg	36.7	1310.6	ND	77.7	57-103	11.5	30	
4-Chloroaniline	973	µg/kg	74.2	1310.6	ND	74.3	32-99	10.7	30	
4-Chlorophenyl phenylether	964	µg/kg	36.7	1310.6	ND	73.6	62-100	7.77	30	
4-Nitroaniline	626	µg/kg	185	1310.6	ND	47.8	19-124	8.75	30	
4-Nitrophenol	1100	µg/kg	370	1310.6	ND	84.0	44-106	15.5	30	
Acenaphthene	952	µg/kg	7.42	1310.6	ND	72.6	60-101	8.73	30	
Acenaphthylene	954	µg/kg	7.42	1310.6	ND	72.8	59-101	7.12	30	
Acetophenone	1070	µg/kg	36.7	1310.6	ND	82.0	54-102	6.94	30	
Anthracene	984	µg/kg	7.42	1310.6	ND	75.1	63-96	6.93	30	
Atrazine	1020	µg/kg	36.7	1310.6	ND	77.9	60-110	8.38	30	
Benzaldehyde	269	µg/kg	74.2	1310.6	ND	20.5	10-143	11.7	30	
Benzo(a)anthracene	1060	µg/kg	7.42	1310.6	ND	80.6	66-102	5.93	30	
Benzo(a)pyrene	1150	µg/kg	7.42	1310.6	ND	88.0	66-105	7.65	30	
Benzo(b)fluoranthene	1090	µg/kg	7.42	1310.6	ND	83.4	67-105	6.40	30	
Benzo(g,h,i)perylene	1080	µg/kg	7.42	1310.6	ND	82.6	59-110	4.16	30	
Benzo(k)fluoranthene	1060	µg/kg	7.42	1310.6	ND	80.9	68-106	6.59	30	
bis(2-Chloroethoxy)methane	1070	µg/kg	36.7	1310.6	ND	81.8	54-102	20.2	30	
bis(2-Chloroethyl) ether	1110	µg/kg	36.7	1310.6	ND	84.5	51-101	6.94	30	
Butyl benzyl phthalate	1170	µg/kg	74.2	1310.6	ND	89.2	59-107	11.5	30	
Caprolactam	1070	µg/kg	36.7	1310.6	ND	82.0	49-103	13.3	30	
Carbazole	1040	µg/kg	36.7	1310.6	ND	79.0	63-103	8.51	30	
Chrysene	1090	µg/kg	7.42	1310.6	ND	83.0	66-105	5.08	30	
Di(2-ethylhexyl) phthalate (bis(2-Ethylhexyl)phthalate, DEHP)	1180	µg/kg	36.7	1310.6	ND	89.9	63-101	9.78	30	
Dibenz(a,h) anthracene	1170	µg/kg	36.7	1310.6	ND	89.3	61-109	0.579	30	
Dibenzofuran	981	µg/kg	36.7	1310.6	ND	74.9	61-101	8.04	30	
Diethyl phthalate	975	µg/kg	36.7	1310.6	ND	74.4	63-105	9.29	30	
Dimethyl phthalate	992	µg/kg	36.7	1310.6	ND	75.7	64-104	8.81	30	
Di-n-butyl phthalate	1040	µg/kg	36.7	1310.6	ND	79.6	66-108	8.30	30	
Di-n-octyl phthalate	1240	µg/kg	36.7	1310.6	ND	94.6	53-126	13.0	30	
Fluoranthene	1050	µg/kg	7.42	1310.6	ND	80.3	66-105	7.66	30	
Fluorene	981	µg/kg	7.42	1310.6	ND	74.9	62-101	7.46	30	
Hexachlorobenzene	941	µg/kg	36.7	1310.6	ND	71.8	61-104	7.47	30	
Hexachlorobutadiene	910	µg/kg	36.7	1310.6	ND	69.5	52-99	6.53	30	
Hexachlorocyclopentadiene	898	µg/kg	36.7	1310.6	ND	68.5	39-106	6.80	30	
Hexachloroethane	1010	µg/kg	36.7	1310.6	ND	76.9	59-99	7.50	30	

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2949222

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1879776-006
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Method: EPA 8270E

Dilution: 1

Analysis Date: 02/21/25 17:03

Prep Date: 02/20/25 10:20

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Indeno(1,2,3-cd) pyrene	1160	µg/kg	7.42	1310.6	ND	88.6	57-114	4.98	30	
Isophorone	1110	µg/kg	185	1310.6	ND	84.7	55-101	10.6	30	
Methylphenol, Total	2180	µg/kg	67.0	2622.2	ND	83.0	54-103	8.31	30	
Naphthalene	980	µg/kg	7.42	1310.6	ND	74.8	54-99	8.79	30	
Nitrobenzene	1180	µg/kg	185	1310.6	ND	90.1	53-100	8.04	30	
n-Nitrosodi-n-propylamine	1150	µg/kg	36.7	1310.6	ND	87.6	52-104	9.97	30	
N-Nitrosodiphenylamine	996	µg/kg	36.7	1310.6	ND	76.0	61-104	8.91	30	
Pentachlorophenol	935	µg/kg	36.7	1310.6	ND	71.4	35-100	18.0	30	
Phenanthrene	1000	µg/kg	7.42	1310.6	ND	76.6	64-101	8.11	30	
Phenol	1130	µg/kg	36.7	1310.6	ND	86.0	51-107	7.49	30	
Pyrene	1060	µg/kg	7.42	1310.6	ND	80.6	52-114	4.68	30	
Pyridine	1170	µg/kg	185	1310.6	ND	89.4	40-84	7.93	30	S
Surr: 2,4,6-Tribromophenol	2310	µg/kg		3277.1		70.5	48-94	4.74	30	
Surr: 2-Fluorobiphenyl	2140	µg/kg		3277.1		65.3	50-103	7.04	30	
Surr: 2-Fluorophenol	2660	µg/kg		3277.1		81.1	43-105	4.51	30	
Surr: 4-Terphenyl-d14	2440	µg/kg		3277.1		74.5	55-111	5.75	30	
Surr: Nitrobenzene-d5	2520	µg/kg		3277.1		76.9	47-100	5.80	30	
Surr: Phenol-d6	2880	µg/kg		3277.1		88.0	49-110	7.13	30	

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-011, HN2502090-012, HN2502090-013, HN2502090-014



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

Volatile Organic Compounds by GC-MS

MB	CLIENT ID: Method Blank	Lab ID: QC-1878459-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 01:59

Prep Date: 02/19/25 10:26

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



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MB	CLIENT ID: Method Blank	Lab ID: QC-1878459-001
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 01:59

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Isopropylbenzene	ND	µg/kg	30.0							
m+p-Xylene	ND	µg/kg	60.0							
Methyl acetate	ND	µg/kg	250							
Methyl bromide (Bromomethane)	ND	µg/kg	100							
Methyl chloride (Chloromethane)	ND	µg/kg	100							
Methyl tert-butyl ether (MTBE)	ND	µg/kg	30.0							
Methylcyclohexane	ND	µg/kg	30.0							
Methylene chloride (Dichloromethane)	ND	µg/kg	250							
o-Xylene	ND	µg/kg	30.0							
Styrene	ND	µg/kg	30.0							
Tetrachloroethylene (Perchloroethylene)	ND	µg/kg	30.0							
Toluene	ND	µg/kg	30.0							
Total Xylene	ND	µg/kg	90.0							
trans-1,2-Dichloroethylene	ND	µg/kg	30.0							
trans-1,3-Dichloropropylene	ND	µg/kg	30.0							
Trichloroethene (Trichloroethylene)	ND	µg/kg	30.0							
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	ND	µg/kg	30.0							
Vinyl chloride (Chloroethene)	ND	µg/kg	30.0							
Surr: 1,2-Dichloroethane-d4	1210	µg/kg		1000		121	80-120			
Surr: 4-Bromofluorobenzene	1100	µg/kg		1000		110	80-120			
Surr: Dibromofluoromethane	1170	µg/kg		1000		117	80-120			
Surr: Toluene-d8	950	µg/kg		1000		95.0	80-120			

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1878459-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 01:05

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1020	µg/kg	30.0	1000		102	75-121			
1,1,2,2-Tetrachloroethane	932	µg/kg	30.0	1000		93.2	79-125			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1110	µg/kg	30.0	1000		111	62-129			
1,1,2-Trichloroethane	945	µg/kg	30.0	1000		94.5	80-123			
1,1-Dichloroethane	1090	µg/kg	30.0	1000		109	74-124			
1,1-Dichloroethylene	1220	µg/kg	30.0	1000		122	68-131			
1,2,3-Trichlorobenzene	1170	µg/kg	100	1000		117	60-135			
1,2,3-Trichloropropane	926	µg/kg	30.0	1000		92.6	77-121			
1,2,4-Trichlorobenzene	1140	µg/kg	100	1000		114	63-130			
1,2,4-Trimethylbenzene	969	µg/kg	30.0	1000		96.9	64-126			
1,2-Dibromoethane (EDB, Ethylene dibromide)	964	µg/kg	30.0	1000		96.4	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	950	µg/kg	30.0	1000		95.0	77-122			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1878459-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 01:05

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2-Dichloroethane (Ethylene dichloride)	1050	µg/kg	100	1000		105	70-130			
1,2-Dichloropropane	1010	µg/kg	30.0	1000		101	71-130			
1,3,5-Trimethylbenzene	884	µg/kg	100	1000		88.4	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	985	µg/kg	30.0	1000		98.5	78-121			
1,3-Dichloropropene	1940	µg/kg	60.0	2000		97.0	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	970	µg/kg	30.0	1000		97.0	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	891	µg/kg	200	1000		89.1	47-164			
2-Hexanone	948	µg/kg	30.0	1000		94.8	70-137			
4-Methyl-2-pentanone (MIBK)	926	µg/kg	30.0	1000		92.6	57-200			
Acetone	1000	µg/kg	100	1000		100	52-190			
Benzene	1050	µg/kg	30.0	1000		105	78-122			
Bromochloromethane	1120	µg/kg	30.0	1000		112	68-130			
Bromodichloromethane	1030	µg/kg	30.0	1000		103	75-125			
Bromoform	954	µg/kg	30.0	1000		95.4	59-120			
Carbon disulfide	1250	µg/kg	30.0	1000		125	60-163			
Carbon tetrachloride	978	µg/kg	30.0	1000		97.8	69-123			
Chlorobenzene	946	µg/kg	30.0	1000		94.6	79-120			
Chlorodibromomethane	878	µg/kg	30.0	1000		87.8	57-123			
Chloroethane (Ethyl chloride)	1100	µg/kg	100	1000		110	38-132			
Chloroform	1080	µg/kg	30.0	1000		108	72-122			
cis & trans-1,2-Dichloroethene	2170	µg/kg	60.0	2000		108	72-127			
cis-1,2-Dichloroethylene	1060	µg/kg	30.0	1000		106	74-125			
cis-1,3-Dichloropropene	1070	µg/kg	30.0	1000		107	62-124			
Dichlorodifluoromethane (Freon-12)	1010	µg/kg	100	1000		101	28-137			
Ethylbenzene	956	µg/kg	30.0	1000		95.6	75-121			
Isopropylbenzene	980	µg/kg	30.0	1000		98.0	74-121			
m+p-Xylene	1890	µg/kg	60.0	2000		94.6	67-129			
Methyl acetate	682	µg/kg	250	1000		68.2	61-125			
Methyl bromide (Bromomethane)	1470	µg/kg	100	1000		147	31-169			
Methyl chloride (Chloromethane)	1000	µg/kg	100	1000		100	24-119			
Methyl tert-butyl ether (MTBE)	1210	µg/kg	30.0	1000		121	79-139			
Methylene chloride (Dichloromethane)	1150	µg/kg	250	1000		115	62-135			
o-Xylene	947	µg/kg	30.0	1000		94.7	75-120			
Styrene	980	µg/kg	30.0	1000		98.0	74-126			
Tetrachloroethylene (Perchloroethylene)	1010	µg/kg	30.0	1000		101	76-128			
Toluene	954	µg/kg	30.0	1000		95.4	76-120			
Total Xylene	2840	µg/kg	90.0	3000		94.6	67-129			
trans-1,2-Dichloroethylene	1110	µg/kg	30.0	1000		111	72-127			
trans-1,3-Dichloropropylene	866	µg/kg	30.0	1000		86.6	66-120			
Trichloroethene (Trichloroethylene)	1020	µg/kg	30.0	1000		102	75-122			
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	1040	µg/kg	30.0	1000		104	51-115			



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

LCS	CLIENT ID: Laboratory Control Sample	Lab ID: QC-1878459-002
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 01:05

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Vinyl chloride (Chloroethene)	1020	µg/kg	30.0	1000		102	43-128			
Surr: 1,2-Dichloroethane-d4	992	µg/kg		1000		99.2	80-120			
Surr: 4-Bromofluorobenzene	996	µg/kg		1000		99.6	80-120			
Surr: Dibromofluoromethane	1000	µg/kg		1000		100	80-120			
Surr: Toluene-d8	946	µg/kg		1000		94.6	80-120			

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1878459-005
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 08:52

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1190	µg/kg	38.5	1017.3	ND	117	75-121			
1,1,2,2-Tetrachloroethane	95.1	µg/kg	38.5	1017.3	ND	9.35	79-125			S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1450	µg/kg	38.5	1017.3	ND	143	62-129			S
1,1,2-Trichloroethane	969	µg/kg	38.5	1017.3	ND	95.3	80-123			
1,1-Dichloroethane	1180	µg/kg	38.5	1017.3	ND	116	74-124			
1,1-Dichloroethylene	1520	µg/kg	38.5	1017.3	ND	149	68-131			S
1,2,3-Trichlorobenzene	1090	µg/kg	128	1017.3	ND	107	60-135			
1,2,3-Trichloropropane	991	µg/kg	38.5	1017.3	ND	97.4	77-121			
1,2,4-Trichlorobenzene	1030	µg/kg	128	1017.3	ND	102	63-130			
1,2,4-Trimethylbenzene	967	µg/kg	38.5	1017.3	ND	95.1	64-126			
1,2-Dibromoethane (EDB, Ethylene dibromide)	999	µg/kg	38.5	1017.3	ND	98.2	63-155			
1,2-Dichlorobenzene (o-Dichlorobenzene)	944	µg/kg	38.5	1017.3	ND	92.8	77-122			
1,2-Dichloroethane (Ethylene dichloride)	1120	µg/kg	128	1017.3	ND	110	70-130			
1,2-Dichloropropane	1070	µg/kg	38.5	1017.3	ND	105	71-130			
1,3,5-Trimethylbenzene	880	µg/kg	128	1017.3	ND	86.6	66-130			
1,3-Dichlorobenzene (m-Dichlorobenzene)	984	µg/kg	38.5	1017.3	ND	96.8	78-121			
1,3-Dichloropropene	1880	µg/kg	76.9	2034.6	ND	92.2	62-124			
1,4-Dichlorobenzene (p-Dichlorobenzene)	967	µg/kg	38.5	1017.3	ND	95.0	78-122			
2-Butanone (Methyl ethyl ketone, MEK)	974	µg/kg	256	1017.3	ND	95.7	47-164			
2-Hexanone	1290	µg/kg	38.5	1017.3	ND	127	70-137			
4-Methyl-2-pentanone (MIBK)	962	µg/kg	38.5	1017.3	ND	94.6	57-200			
Acetone	1720	µg/kg	128	1017.3	ND	170	52-190			
Benzene	1140	µg/kg	38.5	1017.3	ND	112	78-122			
Bromochloromethane	1080	µg/kg	38.5	1017.3	ND	106	68-130			
Bromodichloromethane	1080	µg/kg	38.5	1017.3	ND	106	75-125			
Bromoform	1010	µg/kg	38.5	1017.3	ND	99.2	59-120			
Carbon disulfide	1480	µg/kg	38.5	1017.3	ND	146	60-163			
Carbon tetrachloride	1180	µg/kg	38.5	1017.3	ND	116	69-123			

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MS	CLIENT ID: SB-6 (10')	Lab ID: QC-1878459-005
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 02/25/25 08:52**Prep Date:** 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Chlorobenzene	991	µg/kg	38.5	1017.3	ND	97.4	79-120			
Chlorodibromomethane	853	µg/kg	38.5	1017.3	ND	83.8	57-123			
Chloroethane (Ethyl chloride)	676	µg/kg	128	1017.3	ND	66.5	38-132			
Chloroform	1140	µg/kg	38.5	1017.3	ND	112	72-122			
cis & trans-1,2-Dichloroethene	2420	µg/kg	76.9	2034.6	ND	119	72-127			
cis-1,2-Dichloroethylene	1150	µg/kg	38.5	1017.3	ND	113	74-125			
cis-1,3-Dichloropropene	1020	µg/kg	38.5	1017.3	ND	101	62-124			
Dichlorodifluoromethane (Freon-12)	1390	µg/kg	128	1017.3	ND	136	28-137			
Ethylbenzene	1020	µg/kg	38.5	1017.3	ND	101	75-121			
Isopropylbenzene	1090	µg/kg	38.5	1017.3	ND	107	74-121			
m+p-Xylene	2040	µg/kg	76.9	2034.6	ND	100	67-129			
Methyl acetate	815	µg/kg	320	1017.3	ND	80.1	61-125			
Methyl bromide (Bromomethane)	1150	µg/kg	128	1017.3	<128	105	31-169			
Methyl chloride (Chloromethane)	1270	µg/kg	128	1017.3	ND	122	24-119			S
Methyl tert-butyl ether (MTBE)	1240	µg/kg	38.5	1017.3	ND	122	79-139			
Methylene chloride (Dichloromethane)	1280	µg/kg	320	1017.3	ND	126	62-135			
o-Xylene	1040	µg/kg	38.5	1017.3	ND	102	75-120			
Styrene	1020	µg/kg	38.5	1017.3	ND	101	74-126			
Tetrachloroethylene (Perchloroethylene)	1930	µg/kg	38.5	1017.3	ND	190	76-128			S
Toluene	1010	µg/kg	38.5	1017.3	ND	99.1	76-120			
Total Xylene	3080	µg/kg	115	3051.9	ND	101	67-129			
trans-1,2-Dichloroethylene	1270	µg/kg	38.5	1017.3	ND	125	72-127			
trans-1,3-Dichloropropylene	851	µg/kg	38.5	1017.3	ND	83.7	66-120			
Trichloroethene (Trichloroethylene)	1990	µg/kg	38.5	1017.3	ND	196	75-122			S
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	1300	µg/kg	38.5	1017.3	ND	127	51-115			S
Vinyl chloride (Chloroethene)	1220	µg/kg	38.5	1017.3	ND	120	43-128			
Surr: 1,2-Dichloroethane-d4	1040	µg/kg		1017.3		102	80-120			
Surr: 4-Bromofluorobenzene	1030	µg/kg		1017.3		102	80-120			
Surr: Dibromofluoromethane	1070	µg/kg		1017.3		105	80-120			
Surr: Toluene-d8	962	µg/kg		1017.3		94.6	80-120			

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1878459-006
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Method: EPA 8260D**Dilution:** 1**Analysis Date:** 02/25/25 09:10**Prep Date:** 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1160	µg/kg	38.5	1017.3	ND	114	75-121	1.90	30	
1,1,2,2-Tetrachloroethane	104	µg/kg	38.5	1017.3	ND	10.2	79-125	8.70	30	S
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1370	µg/kg	38.5	1017.3	ND	135	62-129	5.72	30	S
1,1,2-Trichloroethane	995	µg/kg	38.5	1017.3	ND	97.8	80-123	2.64	30	
1,1-Dichloroethane	1180	µg/kg	38.5	1017.3	ND	116	74-124	0.732	30	
1,1-Dichloroethylene	1500	µg/kg	38.5	1017.3	ND	147	68-131	1.35	30	S

QA/QC Report



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1878459-006
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Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 09:10

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
1,2,3-Trichlorobenzene	1150	µg/kg	128	1017.3	ND	113	60-135	5.00	30	
1,2,3-Trichloropropane	963	µg/kg	38.5	1017.3	ND	94.6	77-121	2.86	30	
1,2,4-Trichlorobenzene	1080	µg/kg	128	1017.3	ND	106	63-130	4.52	30	
1,2,4-Trimethylbenzene	975	µg/kg	38.5	1017.3	ND	95.8	64-126	0.786	30	
1,2-Dibromoethane (EDB, Ethylene dibromide)	1000	µg/kg	38.5	1017.3	ND	98.4	63-155	0.203	30	
1,2-Dichlorobenzene (o-Dichlorobenzene)	969	µg/kg	38.5	1017.3	ND	95.2	77-122	2.55	30	
1,2-Dichloroethane (Ethylene dichloride)	1120	µg/kg	128	1017.3	ND	110	70-130	0.136	30	
1,2-Dichloropropane	1060	µg/kg	38.5	1017.3	ND	105	71-130	0.572	30	
1,3,5-Trimethylbenzene	881	µg/kg	128	1017.3	ND	86.6	66-130	0.0578	30	
1,3-Dichlorobenzene (m-Dichlorobenzene)	984	µg/kg	38.5	1017.3	ND	96.7	78-121	0.0517	30	
1,3-Dichloropropene	1900	µg/kg	76.9	2034.6	ND	93.2	62-124	0.998	30	
1,4-Dichlorobenzene (p-Dichlorobenzene)	991	µg/kg	38.5	1017.3	ND	97.4	78-122	2.49	30	
2-Butanone (Methyl ethyl ketone, MEK)	1050	µg/kg	256	1017.3	ND	103	47-164	7.35	30	
2-Hexanone	1230	µg/kg	38.5	1017.3	ND	121	70-137	4.51	30	
4-Methyl-2-pentanone (MIBK)	995	µg/kg	38.5	1017.3	ND	97.8	57-200	3.33	30	
Acetone	1670	µg/kg	128	1017.3	ND	164	52-190	3.08	30	
Benzene	1140	µg/kg	38.5	1017.3	ND	112	78-122	0.267	30	
Bromochloromethane	1080	µg/kg	38.5	1017.3	ND	106	68-130	0.518	30	
Bromodichloromethane	1060	µg/kg	38.5	1017.3	ND	104	75-125	2.43	30	
Bromoform	964	µg/kg	38.5	1017.3	ND	94.8	59-120	4.59	30	
Carbon disulfide	1470	µg/kg	38.5	1017.3	ND	144	60-163	0.966	30	
Carbon tetrachloride	1160	µg/kg	38.5	1017.3	ND	114	69-123	1.92	30	
Chlorobenzene	1020	µg/kg	38.5	1017.3	ND	101	79-120	3.43	30	
Chlorodibromomethane	877	µg/kg	38.5	1017.3	ND	86.2	57-123	2.82	30	
Chloroethane (Ethyl chloride)	554	µg/kg	128	1017.3	ND	54.4	38-132	19.9	30	
Chloroform	1140	µg/kg	38.5	1017.3	ND	112	72-122	0.624	30	
cis & trans-1,2-Dichloroethene	2390	µg/kg	76.9	2034.6	ND	117	72-127	1.48	30	
cis-1,2-Dichloroethylene	1140	µg/kg	38.5	1017.3	ND	112	74-125	1.07	30	
cis-1,3-Dichloropropene	1040	µg/kg	38.5	1017.3	ND	102	62-124	1.13	30	
Dichlorodifluoromethane (Freon-12)	1310	µg/kg	128	1017.3	ND	129	28-137	5.42	30	
Ethylbenzene	1050	µg/kg	38.5	1017.3	ND	103	75-121	2.21	30	
Isopropylbenzene	1090	µg/kg	38.5	1017.3	ND	108	74-121	0.140	30	
m+p-Xylene	2040	µg/kg	76.9	2034.6	ND	100	67-129	0.0747	30	
Methyl acetate	771	µg/kg	320	1017.3	ND	75.8	61-125	5.58	30	
Methyl bromide (Bromomethane)	1050	µg/kg	128	1017.3	<128	95.1	31-169	9.13	30	
Methyl chloride (Chloromethane)	1290	µg/kg	128	1017.3	ND	124	24-119	1.83	30	S
Methyl tert-butyl ether (MTBE)	1220	µg/kg	38.5	1017.3	ND	120	79-139	1.86	30	
Methylene chloride (Dichloromethane)	1240	µg/kg	320	1017.3	ND	122	62-135	3.02	30	
o-Xylene	1020	µg/kg	38.5	1017.3	ND	101	75-120	0.988	30	
Styrene	1040	µg/kg	38.5	1017.3	ND	103	74-126	1.87	30	



Client: The Mannik & Smith Group, Inc.
Project: Coleman A. Young Airport
Matrix: SOIL/SOLID
Batch: 2950626

Work Order: HN2502090
Date Collected: NA
Date Received: NA

MSD	CLIENT ID: SB-6 (10')	Lab ID: QC-1878459-006
-----	-----------------------	------------------------

Method: EPA 8260D

Dilution: 1

Analysis Date: 02/25/25 09:10

Prep Date: 02/19/25 10:26

Analyte	Result	Units	MRL	Spike Amount	Spike Ref. Amount	% Rec	% Rec Limits	RPD	RPD Limit	Qual
Tetrachloroethylene (Perchloroethylene)	1960	µg/kg	38.5	1017.3	ND	193	76-128	1.80	30	S
Toluene	1040	µg/kg	38.5	1017.3	ND	102	76-120	2.98	30	
Total Xylene	3070	µg/kg	115	3051.9	ND	100	67-129	0.281	30	
trans-1,2-Dichloroethylene	1250	µg/kg	38.5	1017.3	ND	123	72-127	1.85	30	
trans-1,3-Dichloropropylene	858	µg/kg	38.5	1017.3	ND	84.4	66-120	0.833	30	
Trichloroethene (Trichloroethylene)	1970	µg/kg	38.5	1017.3	ND	193	75-122	1.31	30	S
Trichlorofluoromethane (Fluorotrichloromethane, Freon 11)	1300	µg/kg	38.5	1017.3	ND	128	51-115	0.314	30	S
Vinyl chloride (Chloroethene)	1260	µg/kg	38.5	1017.3	ND	124	43-128	3.20	30	
Surr: 1,2-Dichloroethane-d4	1030	µg/kg		1017.3		101	80-120	1.18	30	
Surr: 4-Bromofluorobenzene	1040	µg/kg		1017.3		102	80-120	0.246	30	
Surr: Dibromofluoromethane	1040	µg/kg		1017.3		102	80-120	2.51	30	
Surr: Toluene-d8	1000	µg/kg		1017.3		98.3	80-120	3.84	30	

The following samples were analyzed in this batch: HN2502090-001, HN2502090-002, HN2502090-003, HN2502090-004, HN2502090-005, HN2502090-006, HN2502090-007, HN2502090-008, HN2502090-009, HN2502090-010, HN2502090-011, HN2502090-012, HN2502090-013, HN2502090-014



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Chain of Custody Form

Page 2 of 2

COC ID: **075734**

Customer Information

Project Information

ALS Project Manager:

ALS Work Order #:

Parameter/Method Request for Analysis

Purchase Order		Project Name	Cokeran A. Young Airport																	
Quote #		Project Number	401.2401045.000																	
Company Name	Manik Smith Group	Bill To Company	Manik Smith Group																	
Send Report To	Ryan Mentri	Invoice Attn	Ryan Mentri																	
Address	23605 Haggerty Rd	Address	Same																	
City/State/Zip	Canton, MI 48188	City/State/Zip	Same																	
Phone	734-397-3100	Phone	Same																	
Fax	734-397-3131	Fax	Same																	
e-Mail Address	mentri@maniksmithgroup.com	e-Mail Address	Same																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold			
1	SB-5 (10')	2/18/25	1115	SOIL MeOH	S	5	X	X	X	X	X									
2	SB-3 (10')	2/18/25	1200	SOIL MeOH	S	5	X	X	X	X	X									
3	SB-2 (10')	2/18/25	1240	SOIL MeOH	S	5	X	X	X	X	X									
4	DUP-1	2/18/25	-	SOIL MeOH	S	5	X	X	X	X	X									
5																				
6																				
7																				
8																				
9																				
10																				
Sampler(s) Please Print & Sign		Shipment Method		Turnaround Time in Business Days (BD)														Results Due Date:		
Shane C. Dailey		Propell		X10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 3 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> 1 BD																
Relinquished by:		Date:	Time:	Received by:		Date:	Time:	Notes:										Cooler ID		Cooler Temp.
Shane C. Dailey		2/18/25	1300	Ryan Mentri		2/18/25	1500													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Date:	Time:													
Shane C. Dailey		2/18/25	1200	Ryan Mentri		2/18/25	1700													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Date:	Time:													
Preservative Key:		1-HCl	2-HNO ₃	3-H ₂ SO ₄	4-NaOH	5-Na ₂ S ₂ O ₃	6-NaHSO ₄	7-Other	8-4°C	9-5036										

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.



ALS Holland Sample Receiving Checklist

Received by:

Brittany Hayward

Date/Time:

2/19/25 0700

Carrier Name:

GS

Shipping container/cooler in good condition?

☒ Yes / No / Not Present

Custody seals intact on shipping container/cooler?

☒ Yes / No / Not Present

Custody seals intact on sample bottles?

Yes / No / ☒ Not Present

Chain of Custody present?

☒ Yes / No

COC signed when relinquished and received?

☒ Yes / No

COC agrees with sample labels?

☒ Yes / No

Samples in proper container/bottle?

☒ Yes / No

Sample containers intact?

☒ Yes / No

Sufficient sample volume for indicated test?

☒ Yes / No

All samples received within holding time?

☒ Yes / No

Container/Temp Blank temperature in compliance?

☒ Yes / No

Temperature(s) (°C):

3.9/3.9C

Thermometer(s):

IR6

Sample(s) received on ice?

☒ Yes / No

Matrix/Matrices:

Soil

Cooler(s)/Kit(s):

1

Date/Time sample(s) sent to storage:

2/19/25 0940

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: