

July 26, 2024
File No. 270485224

Ashley Groves
Mayor of Galena
211 W 7th St.
Galena, KS 66739

Subject: Proposal for Subsurface Air Testing
City of Galena C&D Landfill
Galena, Kansas

Dear Mayor Groves:

SCS Engineers (SCS) appreciates the opportunity to assist the City of Galena, Kansas. This proposal outlines SCS's approach to conduct subsurface air sampling at the Galena C&D Landfill.

BACKGROUND

The City of Galena owns the Galena Construction and Demolition (C&D) Landfill (Kansas Solid Waste Permit #738), which is operated by Jordan Disposal LLC. Galena residents have expressed concerns regarding odors emitted from the Landfill. Ongoing ambient air sampling for sulfur compounds has been conducted near the Landfill and within the surrounding community. In response to community questions about other gases potentially emitted from the Landfill, the City of Galena requested that SCS conduct broader air sampling to evaluate common landfill gas (LFG) constituents. SCS recommended shallow subsurface sampling within the waste mass for constituents including methane, carbon dioxide, oxygen, volatile organic compounds (VOCs), and sulfur gases. Sampling directly from the suspected source increases the likelihood of obtaining representative data regarding emissions from the Landfill.

EXECUTIVE SUMMARY

SCS will mobilize our Geoprobe to the Landfill to collect 15 shallow subsurface gas samples and 2 duplicates and will order one spare canister. The gas sample will be collected within 0-10 feet of the surface of the landfill. This will most likely be a concentrated source of the gas that is being emitted from the Landfill. The Technician will first monitor the hole with a QED GEM to record gas concentrations of Methane, Oxygen and Carbon Dioxide. If the gas is representative of atmospheric air, approximately 21% Oxygen and 79% Nitrogen, then the hole will be determined not to be representative of LFG and the hole will be pushed deeper until gas is found or the hole will be relocated until a representative sample is found. Please note that the Geoprobe is only able to push and does not have a drilling head and therefore once stable debris is encountered the hole will not be able to progress any deeper and there will be no option except to relocate the hole. The attached Proposed Subsurface Sampling Location map has been prepared for the City of Galena to review. Previously identified areas of high temperature and other key areas of concern will be targeted for sampling.



SCOPE OF SERVICES

SCS will collect the samples, submit them for laboratory analysis, and provide the City with an electronic copy of the laboratory report for discussion during a follow-up meeting. Testing will include collecting gas samples from Geoprobe® boring locations at the landfill. The sample containers will be shipped to SGS North America Inc. Laboratory for analysis using the following methods:

ASTM D1946 for:

- Fixed Gases: Methane, Oxygen, Nitrogen, Carbon Monoxide, Carbon Dioxide

ASTM D5504 for:

- Sulfur compounds found in natural gas

EPA T015 for:

- Various VOCs

Collection of Samples

A total of 15 sample probes will be pushed at the C&D Landfill. SCS also recommends 2 duplicate samples in case of issues during shipping (such as atmospheric intrusion). The 36.4 acres will be sampled via installation of surface probes using a direct push rig. The sample probe locations will be pre-determined; however, SCS requires the flexibility to move the locations based on:

- Refusal of probe prior to reaching the desired depth;
- The Geoprobe® operator and equipment cannot safely access the proposed location.

If the probe locations are moved, an attempt will be made to position the new probe location within the same area of the landfill.

The landfill gas will be sampled using a Geoprobe System with steel probe rods pushed into the waste. The steel probe will be equipped with a sampling head and an expendable drive point to allow driving the probe into the waste. At the desired depth, the probe rod will be withdrawn approximately six inches leaving the expendable point at depth and allowing the end of the sampling head to be open. Polyethylene tubing will then be inserted through the rods and threaded onto the purge and sampling train via a 3-way purge/sample valve, which is connected to both a portable landfill gas analyzer and the constant rate flow controller equipped with a vacuum gauge.

A minimum of two tubing and sampling train volumes will be purged prior to sampling. During purging, the GEM-5000 will be used to determine methane content, carbon dioxide content, oxygen content, and balance gas (assumed to be primarily nitrogen).

Gas samples will be collected in specially prepared, evacuated 1-liter SilcoCan canisters. At each probe location, landfill gas will be drawn through a constant-rate flow controller set at 150 milliliters per minute into the SilcoCan canister. Canister vacuum pressure readings will be recorded before and after sample collection. After sampling, methane, carbon dioxide, oxygen, and balance gas concentrations will be recorded again to confirm that landfill gas was collected throughout the

sampling period. Time, ambient temperature, and atmospheric pressure will also be recorded at each sampling location.

Laboratory Analysis

Upon completion of sample collection, the samples will be shipped under standard chain-of-custody procedures to a certified laboratory, tentatively identified as SGS North America in City of Industry, California, for analysis of fixed gases analysis by ASTM D1946 (Fixed Gases & CO), sulfur compounds by ASTM D 5504 (Total Reduced Sulfur) and Volatile Organic Compounds by EPA Method TO15.

RESPONSIBILITY OF THE CITY

It is our understanding that City will provide SCS with all available information pertinent to the assignment, including previous reports and data. SCS shall rely on information made available by the City as accurate without independent verification.

The costs for the services provided herein are based on the following assumptions:

- The City will provide site access and all pertinent data for use by SCS.
- The City will review and acknowledge the Proposed Sampling Locations
- The City will coordinate with Jordan Disposal to provide access to proposed sampling locations.

PROJECT FEE

SCS will complete the scope of services described above for the fee of \$27,800. These below activities will be billed on a time and materials basis in accordance with the attached 2026 fee schedule.

Mobilization & On-Site Field Sampling.....	\$6,500
Laboratory Costs.....	\$13,300
Follow Up & Meeting.....	\$8,000
Total Fee	\$27,800

GENERAL CONDITIONS

SCS has attached for your review our Terms and Conditions for completing the scope of services. If you are in agreement with the above scope, fees, and terms and conditions, please sign and date the last page of the Terms and Conditions and return one copy to SCS as authorization to proceed with the project. A scanned copy is acceptable.

SCS appreciates the opportunity to work with the City of Galena. We look forward to discussing any questions or comments you may have concerning this submittal. Please contact Marilyn Jones at (816) 752-7900 with any questions or comments. Thank you for your consideration.

Sincerely,



Bret Clements, P.E.
Vice President
SCS Engineers



Marilyn Jones
Project Manager
SCS Engineers

MBJ/BHC

Attachments: Proposed Subsurface Sampling Locations
Terms and Conditions
2026 Fee Schedule



Proposed Subsurface Sampling Locations



Legend

Approximate Landfill Waste Boundary (36.40 acres)

Proposed Sample Location

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, MO911ServiceBoard,MDC, Microsoft, Vantor

0 50 100 200 Feet

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FIGURE 1

SCS ENGINEERS		CITY OF GALENA CONSTRUCTION & DEMOLITION LANDFILL GALENA, KANSAS		PROJECT NO:		DRAWN BY: MO	
				PROJECT MNGR: MJ		CHECKED BY: MJ	
				DESIGNED BY: MO		DATE: 6/26/2026	
PROJECT TITLE: Proposed Sampling Locations							
PROJECT NAME: Summa NMOC & VOC Testing							
PROJECT LOCATION: 1040 East Front Street, Galena, Kansas							
FIGURE 1							



Terms & Conditions

TERMS AND CONDITIONS FOR PROFESSIONAL CONSULTING SERVICES

1. **SCOPE OF SERVICES:** SCS Engineers will perform the services set forth in the Scope of Service Proposal for this project, of which these terms and conditions are a part. Initiation of services by SCS Engineers will automatically incorporate these terms and conditions into this project. All amendments to the Scope of Service Proposal shall be made in writing, and signed by SCS Engineers and Client.
2. **PAYMENTS:** SCS Engineers will submit invoices to Client monthly and a final bill upon completion of services. Unless expressly provided and denominated as such in a Scope of Services Proposal, no retainage shall be withheld by Client. Time is of the essence in payment of invoices and timely payment is a material part of the consideration of this Agreement. Payment is due upon presentation of invoice, and is past due thirty 30 days from the date of invoice. Client agrees to pay a finance charge of one and one half percent per month on past due accounts. Client also agrees to pay all costs and expenses, including reasonable attorney fees incurred by SCS Engineers relating to collection proceedings on overdue accounts. Failure of client to abide by the provisions of this section will be considered grounds for termination by SCS Engineers.
3. **OWNERSHIP OF DOCUMENTS:** All documents, including but not limited to, reports, plans, designs, boring logs, field data, field notes, laboratory test data, calculations, estimates, and all electronic media prepared by SCS Engineers are considered its work product and to be instruments of service. SCS Engineers shall retain all common law, statutory and other reserved rights, including the copyrights on said work product and instruments of service. However, all work product and instruments of service specific to an executed Scope of Services Proposal shall be supplied to Client for use, but not ownership. SCS Engineers shall not be responsible for any conclusions, interpretations, or recommendations generated or made by others, which are based, in whole or in part, on SCS Engineers generated work product or instruments of service. Any reuse of work product or instruments of service by Client without a specific agreement with SCS Engineers in each case shall be at Client's risk. At Client's request, SCS Engineers may provide a letter authorizing limited reliance on certain documents by a third party, but only if the third party agrees to pay a reliance fee and be bound by the terms and conditions in this Agreement between SCS Engineers and Client.
4. **INSURANCE:** SCS Engineers will maintain appropriate workers compensation/employers liability; automobile; general liability; and professional liability insurance coverages at all times. An insurance certificate will be provided upon request.
5. **INDEMNITY:** To the fullest extent permitted by law, SCS Engineers hereby indemnifies and agrees to hold harmless Client, including Client's officers, directors, agents, and employees, to the extent a loss, damage, expense (including reasonable attorney's fees), or injury is caused by SCS Engineers, or its employees by the negligent performance of professional services, limited, however, as provided elsewhere in this Agreement.

To the fullest extent permitted by law, Client hereby indemnifies, releases, and agrees to hold harmless SCS Engineers including SCS Engineers' officers, directors, agents, and employees, to the extent a loss, damage, expense (including reasonable attorney's fees), or injury is: (a) caused by any cause other than the negligent errors or omissions of SCS Engineers, or (b) is based on a claim that SCS Engineers is a generator, disposer, or arranger of hazardous materials or substances at Clients site.

The terms of this Article shall survive the expiration or termination of this Agreement.

- 6. STANDARD OF CARE:** SCS Engineers agrees to perform its services in a manner consistent with that level of care and skill ordinarily exercised by other members of its profession currently practicing under similar circumstances, in the same locale, at the time the services are performed and with the information available to SCS Engineers.
- 7. LIMITATION OF LIABILITY:** Client agrees that, to the fullest extent permitted by law, SCS Engineers' total aggregate liability per Scope of Services Proposal to Client for injuries, claims, losses, expenses, damages, or claim expenses arising out of this Agreement from any cause(s), shall not exceed the fee in the Scope of Services Proposal which included the services under which the claim arose, or \$50,000, whichever is greater, and Client releases SCS Engineers from any liability above such amount. This release applies to any loss and all damages, injuries, claims, and expenses (including attorney's fees and expert witness fees and expenses), regardless of the cause, whether, but not limited to, strict liability, statutory liability, the negligence, errors or omissions of SCS Engineers, breach of contract, breach of warranty, negligent misrepresentation, or other contract or tort claims, and whether, but not limited to, special, indirect, or consequential or punitive damages. SCS Engineers shall not be responsible for damages or costs resulting from hidden conditions or latent defects in design, materials, or construction of existing facilities. Unless expressly provided and denominated as such on a Scope of Services Proposal, there shall be no liquidated damages.
- 8. MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES:** SCS Engineers and Client agree that neither shall be liable to the other, or anyone claiming on their behalf, for any special, indirect or consequential damages of any type, whether arising in tort (including negligence), contract, warranty (express or implied), strict liability, statutory liability or any other cause of action, including but not limited to loss of profit, loss of use, loss of business, reputation or financing.
- 9. SAFETY:** SCS Engineers is not responsible and shall not be liable for injuries or damages incurred by third parties who are not employees of SCS Engineers. It is agreed that SCS Engineers is not responsible for job or site safety on this project, unless specifically agreed to in writing. Job site safety in, on or about the site is the sole and exclusive responsibility of the contractor.
- 10. THIRD PARTY RELIANCE:** All documents produced by SCS Engineers are for client's use only. At Client's request, SCS Engineers may provide a letter authorizing limited reliance on certain documents by a third party, but only if the third party agrees to pay a fee and be bound by the terms and conditions in this Agreement between SCS Engineers and Client.
- 11. UTILITIES AND SUBTERRANEAN STRUCTURES:** SCS Engineers will take reasonable precautions to avoid causing damage to utilities and subterranean structures. SCS Engineers is not responsible for any loss, damage or injury arising from damage to, or contact with, any utilities or subterranean structures that were not properly called to SCS Engineers' attention, were not properly located on drawings, or was caused by the providing of inaccurate or incomplete information regarding their location.
- 12. CHANGED CONDITIONS:** If, during the performance of this Agreement, unexpected conditions or circumstances are discovered, SCS Engineers will notify Client and the parties will renegotiate the previously agreed upon Scope of Services Proposal. SCS Engineers and Client will promptly and in good faith enter into a renegotiation process. If renegotiated terms cannot be agreed to within sixty (60) days, SCS Engineers will have the right to terminate this Scope of Service Proposal without penalty.
- 13. DISPUTE RESOLUTION:** In the event of any dispute between the parties arising out of or in connection with this Agreement or the services or work contemplated herein, the parties agree to first make a good faith effort to resolve the dispute informally. Negotiations shall take place between the principals of

each party. If the parties are unable to resolve the dispute through negotiation within forty-five (45) days, then either party may give written notice that it elects to proceed with non-binding mediation pursuant to the Commercial Mediation Rules of the American Arbitration Association then in effect. In the event that mediation is not invoked by the parties within fifty-five (55) days or that the mediation is unsuccessful in resolving the dispute, then either party may submit the controversy to a court of competent jurisdiction. The foregoing is a condition precedent to the filing of any action other than an action for injunctive relief or if a statute of limitations may expire.

Each party shall be responsible for its own costs and expenses, including attorneys' fees and court costs incurred in the course of any dispute, mediation, or legal proceeding. The fees of the mediator and any filing fees shall be shared equally by the parties.

- 14. TESTING AND OBSERVATION SERVICES:** If SCS Engineers is hired by Client to provide a site representative for the purpose of testing or observing specific portions of the work, this work will not include supervision or direction of the actual work of any contractors, their employees or agents. SCS Engineers will observe only the portion of the work we have been hired for and perform tests, the results being delivered to Client or others if directed by Client. Client understands that even with very careful field testing and observation, field testing and observation is conducted to reduce, not eliminate, the risk of problems arising, and that providing these services does not create a warranty or guarantee of any type by SCS Engineers.
- 15. SOIL BORING AND TEST LOCATIONS:** The accuracy of test locations and elevations will commensurate only with pacing and approximate measurements or estimates. SCS Engineers can provide a professional surveyor if greater accuracy is required or desired. SCS Engineers reserves the right to deviate a reasonable distance from the boring and test locations unless this right is specifically revoked in writing.
- 16. ON SITE SERVICES:** Project site visits by SCS Engineers, or the furnishing of employees to work on the project, will not make SCS Engineers responsible for construction means, methods, techniques or procedures; or for any construction contractor's failure to perform its work in accordance with the drawings and specifications.
- 17. TERMINATION:** Either party may terminate this Agreement or an executed Scope of Services Proposal, or both, with or without cause, by providing seven (7) days written notice. SCS Engineers shall be paid for all services performed and all expenses incurred prior to the effective date of the Notice of Termination, and for all additional services or expenses authorized by Client thereafter. Following termination, Client shall not utilize any consultant or subcontractor of SCS Engineers for any services related to Client's project without the prior written consent of SCS Engineers.
- 18. CONFIDENTIALITY:** SCS Engineers will keep confidential all documents, reports and information generated for Client on this project and will not release or disclose said information without Client's consent, except to the extent required by court order, subpoena, governmental directive, or by law.
- 19. SEVERABILITY:** If any provision contained in this Agreement is held illegal, invalid or unenforceable, the enforceability of the remaining provisions will not be impaired.
- 20. GENERAL RESPONSIBILITIES OF CLIENT:** Client will, within a reasonable period of time, so as not to delay the services of SCS Engineers: place at SCS Engineers' disposal all available information pertinent to the project; SCS Engineers may rely on the information provided as being accurate without independent verification; client will provide prompt written notice to SCS Engineers whenever Client observes or otherwise becomes aware of any defect in SCS Engineers' services; and Client will arrange for access to public and private property as required for SCS Engineers to provide its services.

21. GOVERNING LAW: Unless otherwise provided, the substantive law of the state of Kansas will govern the validity of this Agreement, its interpretation and performance and remedies for contract breach or any other claims related to this Agreement.

COMPLIANCE WITH IMMIGRATION REFORM AND CONTROL ACT

During the performance of this Agreement, Client acknowledges the applicability of the Federal Immigration Reform Control Act of 1986 (“IRCA”). Client agrees to comply with the law in performing under this Agreement.

22. ENTIRE AGREEMENT—PRECEDENCE: These Terms and Conditions and SCS Engineers Scope of Service Proposal contain the entire agreement between SCS Engineers and Client. All previous or contemporaneous agreements, representations, promises and conditions relating to SCS Engineers services are superseded. Since terms contained in purchase orders do not generally apply to professional services, in the event client issues to SCS Engineers a purchase order, no preprinted terms thereon will become part of the agreement of the parties; any purchase order document, whether or not signed by SCS Engineers, shall be considered a document for Client’s internal management of its operations.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly Authorized Representatives, as follows:

SCS Engineers _____

By _____
Signature

Typed Name

Title

Date of Signature

By _____
Signature

Typed Name

Title

Date of Signature



2026 Fee Schedule

2026 STANDARD FEE SCHEDULE

Labor Category	Rate (per hour)
Administrative Assistant	\$85
Technician I	\$95
Technician II	\$100
Senior Technician.....	\$110
Project Administrator	\$110
Designer/Graphics.....	\$125
Technical Associate	\$120
Associate Professional.....	\$130
Staff Professional I.....	\$140
Staff Professional II.....	\$145
Project Professional I.....	\$155
Project Professional II	\$165
Senior Project Professional	\$180
Project Manager.....	\$195
Senior Project Manager	\$230
Project Advisor.....	\$225
Project Director	\$245
Senior Project Director.....	\$270
Senior Project Advisor.....	\$280
Principal.....	\$295

Note: Increase hourly rate by 1.5 for Saturday, Sunday, and holiday work or off-shift work when required by client.

General Terms:

1. Rates for expert services (expert reports and testimony), and special limited consultations, may be negotiated on a project-specific basis.
2. Schedule rates are effective through December 31, 2026. Work performed thereafter is subject to a new Fee Schedule.
3. Schedule labor rates include overhead and profit on labor. Costs for sub-consultants, sub-contractors, job-related employee travel and subsistence, equipment, supplies, and other direct costs are billed at cost plus a 15 percent administration fee.

Support Services

Standard Design Software Packages (GIS, CAD).....	\$10.00 per hour, \$2,500 per project
Specialty Software Packages (Geochemical, Stability)	\$2,500 to \$7,500
Large Drawing Plots.....	\$25.00 each

Support Vehicles

Support Vehicle	\$0.75 per mile
SCS Support Vehicle.....	\$65 per day plus \$0.75 per mile
SCS Support Truck with Trailer.....	\$85 per day plus \$0.90 per mile
Rental Vehicle.....	Cost plus 15%

Per Diem and Travel

Hotel, Airfare	Cost plus 15%
Full-Day Meal Allowance	\$60 per day
Half-Day Meal Allowance (breakfast + lunch).....	\$30 per day
Half-Day Meal Allowance (lunch + dinner).....	\$42 per day

Field Equipment

Track-mounted Direct Push/Drilling Geoprobe®	\$1,250 per day
Utility Terrain Vehicle (UTV).....	\$150 per day
GPS Equipment (hand held)	\$25 per day
GPS (Trimble Survey System)	\$60/day; \$225/wk; \$850/month
GPS (R10 System).....	\$250/day; \$750/wk; \$2,500/month
Tablet computers (field use).....	\$10 per day
Drone.....	\$3,000 per day
Drone Processing	\$500 each
Nuclear Density Gauge/E-Gauge.....	\$125/day; \$500/wk; \$1,300/month
Water Level Indicator (≤300 foot)	\$40 per day
Oil/Water Interface Probe	\$75 per day
pH/Temperature/Conductivity Meter.....	\$25 per day
Peristaltic Pump.....	\$60 per day
Low-Flow Pump.....	\$75 per day
QED Pump Controller.....	\$220 per day
Flow-Thru Multi-Parameter Meter.....	\$180 per day
Turbidimeter	\$50 per day
Composite Sampler (ISCO).....	\$150 per day
Composite Sampler (Global Water).....	\$105 per day
Photoionization Detector (PID)	\$110 per day
SEM Unit.....	\$230 per day
Gas Meter (GEM, etc.).....	\$160/day; \$500/week; \$1,500/month
Generator	\$100 per day
Electro fusion Machine	\$135 per day
Misc. Tools/Equipment	\$25 per day
Expendable Equipment, Supplies & Rentals	Cost + 15%