



November 3, 2022

Anthony Chavez
State of Oregon DEQ
165 E 7th Avenue, Suite 100
Eugene, Oregon 97401

Via email: anthony.chavez@state.or.us

Regarding: Soil Gas, Crawl Space, and Ambient Air Monitoring Plan
 Millpond Crossing
 1701 Chapel Drive
 Philomath, Oregon 97370
 PBS Project No. 24159.000

Dear Mr. Chavez:

PBS Engineering and Environmental Inc. (PBS) is pleased to provide this Soil Gas, Crawl Space, and Ambient Air Monitoring Plan to the Oregon Department of Environmental Quality (DEQ) on behalf of Millpond Crossing LLC and MPC Builders LLC (Client), for the Philomath Mill Site (ECSI 6296) located at 1701 Chapel Drive in Philomath, Oregon (Site) (Figure 1).

DEQ has requested data collection from soil gas monitoring points and crawl spaces to characterize the risk of vapor intrusion to homes.

PBS resumed routine monitoring of permanent soil gas monitoring points, crawl spaces, and select utility confined spaces twice monthly for a period of one year starting on October 7, 2022, to characterize and understand the potential seasonal risks of vapor intrusion of biogas at residences.

SOIL GAS READINGS

PBS plans to collect twice monthly soil gas readings at the following 20 permanent monitoring points:

- MP1, MP2A (following installation), through MP3
- MP5, MP6B (following installation), MP7 (or its replacement) and MP8
- MP9A and MP10A
- MP11A (following installation)
- MP20 through MP23
- MP27
- MP30
- MP32
- MP33 (following installation)
- MH1 and MH2

During the October 7, 2022, monitoring event, monitoring points MP2, MP6A, MP11 were observed to be missing. PBS plans to install replacement monitoring points for these during the next drilling event, slated for December 2022. Monitoring MP33 will also be installed along Willow Street, at the northern site boundary.

All permanent monitoring points site-wide will be monitored at least once quarterly. PBS completed screening of all permanent monitoring points on October 7, 2022. Quarterly monitoring events will include the points listed above in addition to the following points:

- MP4
- MP12A
- MP13
- MP15 through MP19
- MP24 through MP26
- MP28 and MP29
- MP31

MP14 was observed to be covered by the homeowners AstroTurf and was not accessible during the October 7, 2022 monitoring event. The monitoring point has never exhibited a detectable concentration of methane or hydrogen sulfide. Given its location beyond the extent of the former small log pond, it is unlikely that soil gas poses a risk at this location, and a replacement monitoring point may not be warranted. If DEQ agrees further monitoring is not required, the monitoring point should be decommissioned in accordance with state regulations.

The frequency of monitoring point screening or the network of points monitored may change depending on results or access limitations that will be communicated to DEQ. Monitoring points are indicated on Figure 2.

PBS plans to monitor points initially with two handheld direct-reading instruments for measuring soil gas concentrations. PBS will first complete readings using a LANDTEC GEM5000 (GEM), manufactured by QED. The GEM monitors for methane, carbon dioxide, oxygen, hydrogen sulfide (H₂S), temperature, atmospheric pressure, and static pressure.

In accordance with ASTM International (ASTM) standards,¹ initial readings of static pressure will be taken following connection of the GEM unit to the monitoring point and prior to purging and collection of any gas readings. Following static pressure measurements, the GEM unit's internal pump will be started and PBS will monitor readings, recording peak and steady state readings of biogas parameters, for a time equivalent to purge at least one well volume to be evacuated and stability of steady state readings of biogas parameters.

Because the GEM unit's H₂S detection limit (2 parts per million [ppm]) exceeds DEQ's proposed site-specific action levels for H₂S of 2.0 micrograms per cubic meter (µg/m³) or 0.0014 ppm for indoor air and 0.0467 ppm in soil gas, a separate more sensitive H₂S meter, such as a Jerome J605 H₂S meter or equivalent, will be used to monitor the points provided the GEM's H₂S readings are below 2 ppm. This measure will prevent damage to the more sensitive H₂S meter if elevated H₂S concentrations are observed. The Jerome J605 H₂S meter has a detection range of 0.003 ppm up to 10 ppm. The instrument cannot detect below DEQ's proposed site-specific action level for indoor air; however, it comes close and is the best instrument that is commercially available.

Monitoring of soil gas points will be completed in accordance with the standard operating procedures (SOP) included in Attachment 1.

¹ ASTM International. (2016). ASTM Designation: E2993 – 16, Standard Guide for Evaluating Potential Hazard as a Result of Methane in the Vadose Zone.

Limited Soil Gas Pump Tests

DEQ has requested that soil gas pump tests occur at select monitoring locations. Pump tests will be completed on a quarterly basis and will immediately follow the collection of regular soil gas readings.

Limited pump tests are proposed for the following points:

- MP3
- MP5
- MP10A
- MP11A (following installation)

DEQ has indicated that suitable recovery time be allowed to observe a return to static conditions, with careful attention to the initial and post-pump recovery static pressures.

Pump tests will begin by following the same procedures presented for monitoring in the previous section except that H₂S readings will not be obtained using the separate handheld meter. Instead, the GEM unit will be left attached and allowed to pump with a flow rate of 550 mL/minute for an additional four minutes, with readings collected every minute and logged on the field sheets. Following the pumping portion of the test, the GEM pump will be turned off and the meter will be monitored in passive gas monitoring mode. PBS will immediately begin to monitor the static pressure and gas readings, logging the results every 30 seconds in the logbook for a period of at least 5 minutes or longer until static pressure and gas readings have returned to at least 80% of the initial readings, but no longer than 10 minutes. PBS will also attempt to log the tests digitally for download from the unit. Results will be tabulated and plotted in charts for submittal to DEQ.

UTILITY CONFINED SPACE READINGS

Ambient air readings will be collected from select confined space monitoring points that will be monitored twice monthly using the GEM and H₂S meters as follows:

- CS25 – Underground phone vault
- CS42 – Large underground phone vault
- CS49 – Sewer cleanout
- CS52 – Sewer cleanout
- CS56 – Water meter
- CS70 – Water meter

These locations were selected based on a previous request from DEQ to monitor utility confined spaces from six existing locations and their proximity to known elevated soil gas concentrations at monitoring points MP5, MP11, and a transformer that exhibited trace methane readings at lot 70. Readings will be obtained with minimal disturbance to the features by inserting the sample tubing through open spaces in the vault lids such as pick holes or hinges, or by minimally opening the lid if necessary. The inlet of the sample tubing will be inserted within the approximate center of the air column, if access allows. Electrical transformers and pedestals will not be monitored by specific orders from Pacific Power given the electric shock risk. Peak and steady state readings will be recorded after readings have stabilized.

CRAWL SPACE READINGS

Crawl spaces will be monitored twice monthly on the existing homes for a period of one year. Homes are currently constructed approximately 10 feet apart from each other. To keep data collection achievable in one field day, PBS proposes alternating even and odd lot numbers per monitoring event. This will result in representative data, while

collecting monitoring data each home at least once monthly. Crawl space monitoring is currently recommended in lieu of indoor air and garage monitoring which requires homeowner coordination for access and is also subject to other variables that may interfere with readings. Depending on the results, follow up garage and/or indoor air monitoring may be required.

Crawl space readings will be obtained by removing a crawl space ventilation cover on the exterior of the home foundation. The same vent that was used at each home during the February 2022 events will be used for all future events. These are generally located across from the crawl space ventilation fans.

During the screening, PBS will record observations to determine if the crawl space fans are operating, or if alarms are sounding. Any deficiencies will be reported to the Client and DEQ for corrective action.

MPC will coordinate with homeowners to complete independent inspections of alarms in crawl spaces and garages at a frequency agreed upon by MPC and DEQ, independent of PBS inspections. PBS will not be entering homes as part of the routine monitoring.

Direct-Reading Instruments

Using a telescoping pole attached to the sample tubing of the GEM and H₂S meter, the pole will be inserted into the central air column of the crawl space, approximately central to the home footprint. The sample line will be evacuated during the purge (accounting for the calculated time to evacuate the sample line), and peak and steady state gas readings be obtained and recorded in the field notes.

PBS has proposed installation of permanent monitoring probes to be installed by MPC on each of the homes. MPC installed monitoring probes on all existing homes in October 2022, except on lots 11, 16, and 49, where homeowners declined to have these installed or did not respond to MPC's requests. The monitoring probes will result in consistent readings from the exact same point every event using the GEM and H₂S meters.

Passive Sorbent Samplers

As a potential future consideration, sampling for H₂S may utilize passive sorbent technology. This may be completed depending on results of the direct-read screening events and will follow additional consultation and planning with DEQ. A sampling strategy may include the deployment of Radiello RAD 170 chemiadsorbing cartridges and supporting equipment to collect samples of H₂S from the crawl spaces of homes as an additional line of evidence to supplement the observations made by the direct-reading instruments. PBS has been in communication with SGS – North America, who recommend a deployment time of 14 days to achieve method reporting limits of 1.20 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), or 0.00084 ppm, below the proposed indoor air site-specific action level. The results of the sampling will provide an average reading over the course of two weeks, which will include diurnal temperature changes and varying barometric pressure conditions.

RAD 170 samplers will be submitted to SGS – North America (or equivalent) under chain-of-custody documentation for H₂S by method RAD 170 and include all appropriate quality control samples including duplicates and trip blanks.

Trigger Actions

If observations of methane or H₂S above trigger levels or site-specific action levels are observed, PBS will promptly report the results to DEQ. In these cases, additional crawl space, or even indoor air and garage monitoring may be warranted. It may also warrant additional home mitigation measures than those already installed. These measures,

should they be necessary, were presented in a June 10, 2022, letter and discussed during a technical meeting between PBS and DEQ on July 13, 2022. These actions, if approved by DEQ, will be implemented following the approval of the Interim Remedial Action Work Plan for the Existing Homes.

OUTBUILDING READINGS

A plastic storage shed is located on lot 16. In an email dated August 3, 2022, DEQ requested that this structure be monitored during the routine monitoring events. PBS proposed to collect ambient readings from inside the shed using direct-reading instruments using the passive vents already installed on the structure, or by installing a sampling port on the structure if given authorization by the homeowner; however, the homeowner has denied access their property and requested that PBS skip monitoring their property. This was documented by MPC during the September 16, 2022 alarm and fan inspection event. If outbuildings are encountered on other properties, these will be documented and shared with DEQ to determine if monitoring of the outbuilding is warranted.

AMBIENT AIR READINGS

The site-specific action levels proposed by DEQ for H₂S, particularly for indoor air, are proposed at 0.0014 ppm. At these low concentrations, PBS is concerned about the possible interference of background concentrations of H₂S that are present in the indoor ambient air, but also external ambient air.

Ambient indoor readings within the home living or garage spaces are not currently proposed; however, external ambient air readings for methane and H₂S will be collected at the beginning of monitoring events from four predetermined locations at the Site perimeter and will be read using the GEM and Jerome H₂S meter (or equivalent). Ambient air reading locations are indicated on Figure 2. Concentrations and wind direction will be recorded in the field notes. If ambient concentrations are identified, they will be communicated to DEQ for consideration when reviewing crawl space concentrations, if warranted.

PHASE 2B HOME POST CONSTRUCTION MONITORING

A single post-construction screening program is proposed for each Phase 2B house, prior to occupation of the building. The screening will assess the biogas levels in the crawl space and garages and assess the static gauge pressure below the vapor barrier.

The post construction monitoring event is proposed to consist of the following:

- Vapor Barrier Monitoring Point – The vapor barrier monitoring points below the crawl space and garage vapor barrier will be screened for static gauge pressure, hydrogen sulfide, and methane concentration.
- Crawl space ambient air monitoring for hydrogen sulfide and methane.

These screenings will determine the appropriate activation level for the vapor collection system as described in the Home Mitigation Plan – Phase 2B, dated November 2022. Depending on the results of the post-construction monitoring, additional mitigation measures and monitoring of these spaces may be warranted. If not, the homes will be added to the regular twice monthly monitoring plan along with the other existing homes.

REPORTING

PBS will report the results of the twice monthly monitoring within five business days of collecting readings unless there are unusually elevated and/or anomalous detections. Results will be reported to DEQ in an updated monitoring table and updated Site figures. PBS is currently exploring digital data collection and database platforms, which may be presented as an alternative means to present data to DEQ. It is anticipated that once

operational, near live results may be available to both PBS and DEQ and will replace the need for updated tables and figures. PBS will provide DEQ with additional information on this resource following testing.

SUMMARY

PBS plans to complete monitoring on a twice-monthly basis for a period of one year, until October 2023. Select soil gas monitoring points will be monitored twice monthly, and all soil gas monitoring points will be monitored once quarterly. Crawl spaces at existing homes will be monitored at least once monthly, with PBS alternating even lots and odd lots every two weeks. Results of screening will be compared with applicable DEQ site-specific action levels, and if warranted corrective actions will be implemented as quickly as feasible to mitigate any potentially hazardous vapor intrusion conditions. Following a year of sampling PBS and MPC request to reduce the monitoring schedule to quarterly with the option to reduce or further eliminate monitoring requirements if they are no longer necessary.

Please feel free to contact me at 503.935.5514 or bret.waldron@pbsusa.com with any questions or comments.

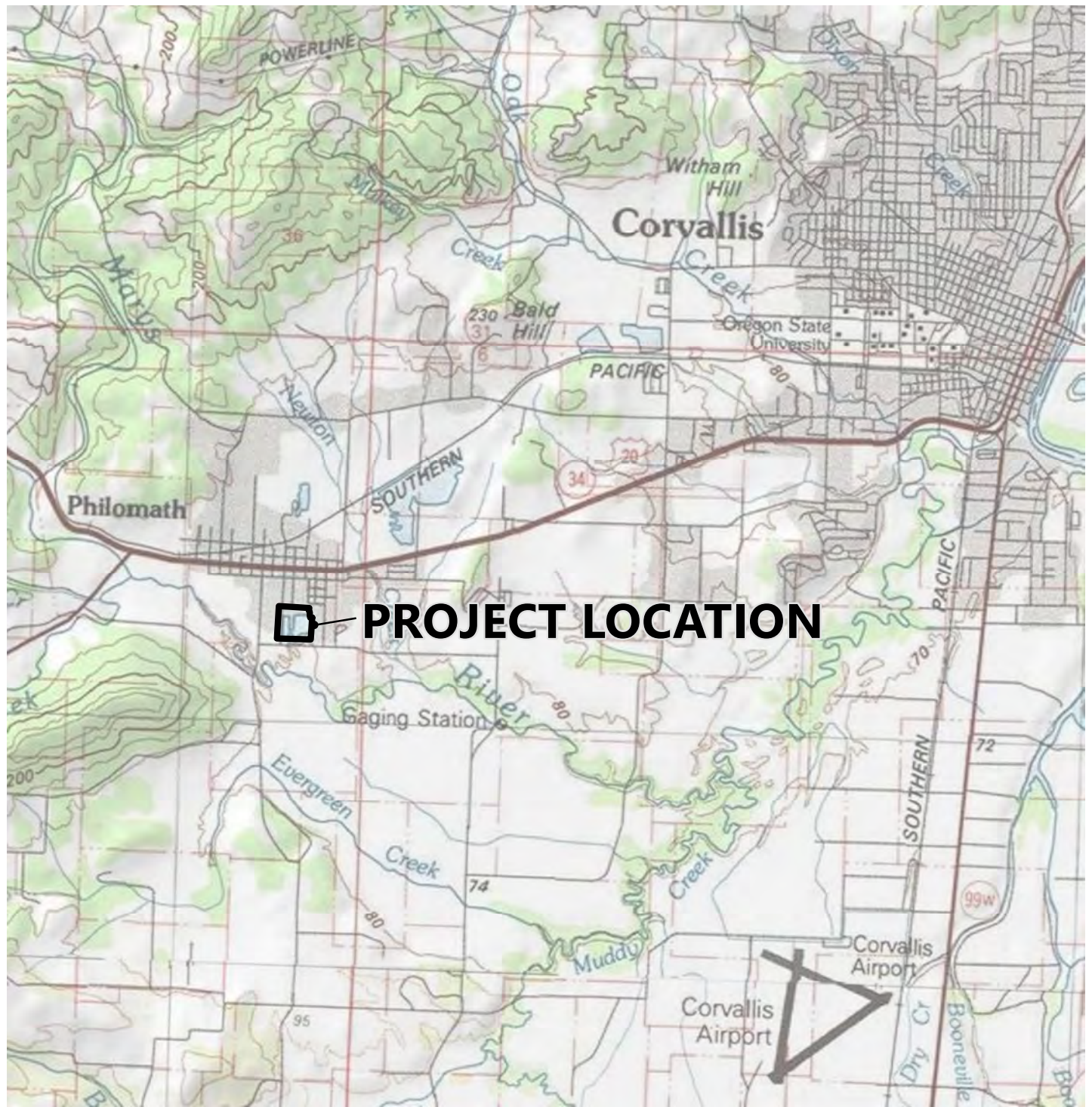
Sincerely,

Bret Waldron, RG
Senior Geologist

cc: Levi Miller – MPC LLC
Carson Bowler – SWW
Anna Laird - SWW

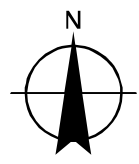
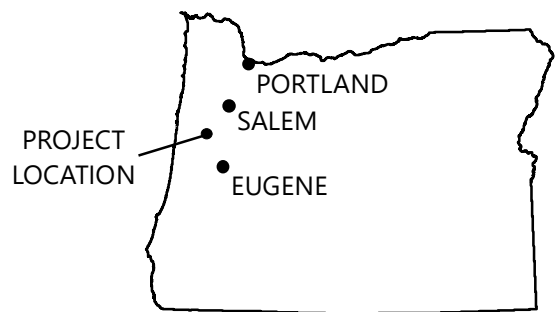
Attachment(s): Figure 1: Vicinity Map
Figure 2: Site Plan with Monitoring Points
Standard Operating Procedure – Biogas Monitoring Using a GEM5000

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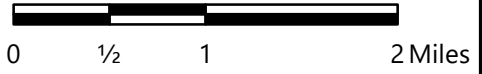


PROJECT LOCATION

SOURCES: USGS NATIONAL MAP
 PROJECTION: NAD 2011 OREGON STATEWIDE LAMBERT INTL FT



SCALE: 1" = 1 mile



PREPARED FOR: MPC BUILDERS

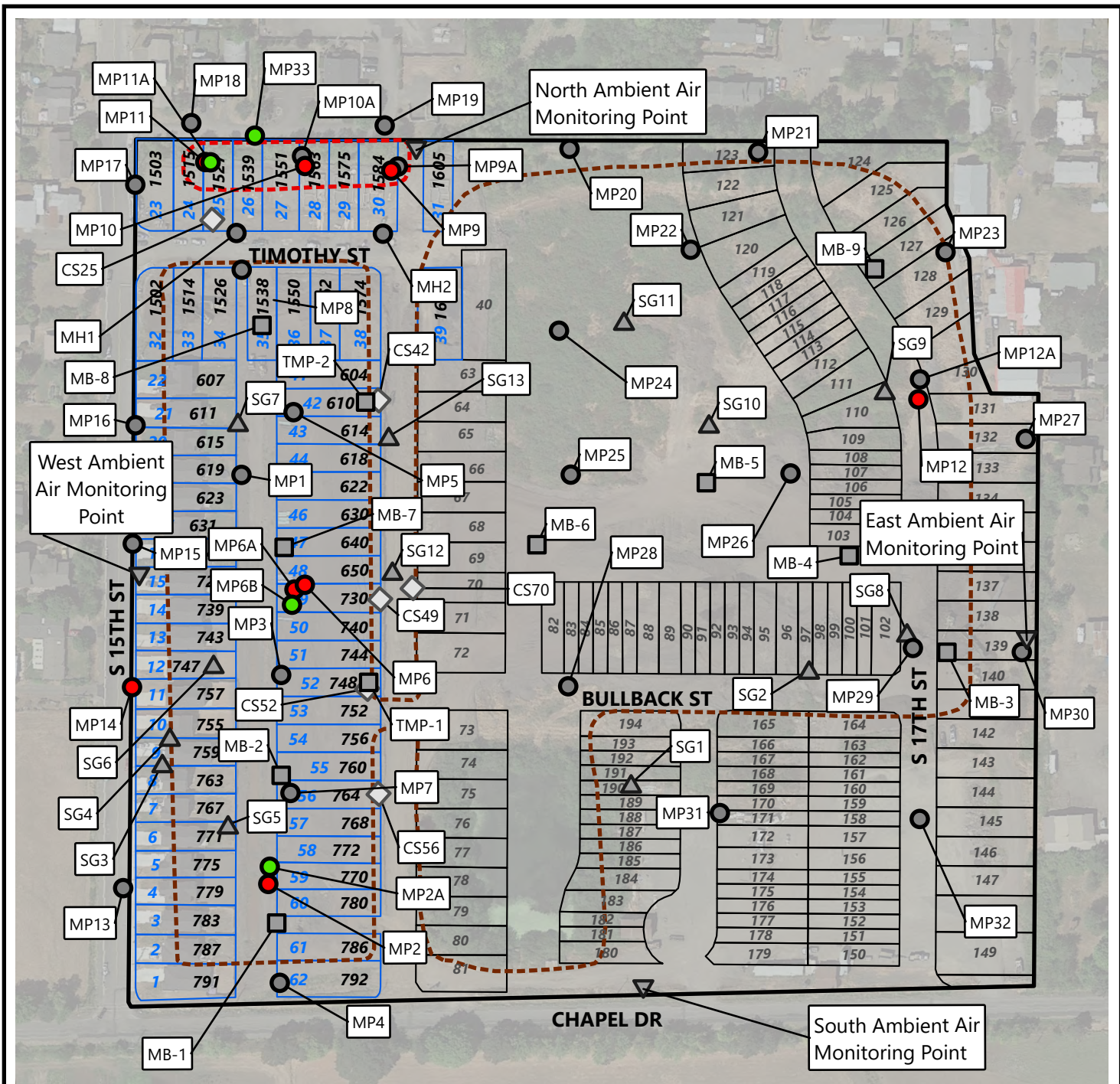


SITE VICINITY

1701 CHAPEL DRIVE
 PHILOMATH, OREGON

NOV 2022 24159.000
FIGURE
1

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LEGEND

- Historical Log Pond
- Northwest Elevated Methane Area
- Boundary of Site
- Plat of Completed House with **Lot Number** and **House Number**
- Plat of Future House with **Lot Number**

Monitoring Points

- Active
- Inactive/Missing
- Proposed Monitoring Point

Other Points

- Confined Space Points
- PBS Temporary Monitoring Points (2021)
- Ambient Air Monitoring Points
- Temporary Borings completed by Aerotech (June, 2020)

SOURCES: GOOGLE EARTH PRO; DATED AUGUST 2020
 PROJECTION: NAD 2011 OREGON STATEWIDE LAMBERT INTL FT



SCALE: 1:2,400



Notes:
 1. Plat lines are approximate.

PREPARED FOR: MPC BUILDERS



SITE PLAN WITH MONITORING POINTS
 1701 CHAPEL DRIVE, PHILOMATH, OREGON

NOV 2022
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 FIGURE
2



STANDARD OPERATING PROCEDURE

Biogas Monitoring Using a LANDTEC GEM 5000

1 PURPOSE

Biologically derived gases (biogas), such as methane (CH₄), may present emissions and explosion risks at current and former landfill sites, lumber mills, wetlands, or other areas where large or otherwise concentrated organics are in the subsurface. Vapor intrusion into structures is considered a critical migration pathway at these kinds of sites and assessment may be required where occupants of structures are at risk for vapor intrusion from potentially flammable or toxic biogas.

This PBS Engineering and Environmental Inc. (PBS) standard operating procedure (SOP) is intended to guide biogas monitoring efforts with ambient air readings and from temporary or permanent sampling points using a LANDTEC GEM 5000, manufactured by QED. If other sampling media is used, some steps in this SOP may not apply or may need to be modified.

The GEM 5000 detects and reports the following biogas compounds:

- CH₄
- Carbon dioxide (CO₂)
- Oxygen (O₂)
- Hydrogen sulfide (H₂S)
- Carbon monoxide (CO)

The GEM 5000 also reports the following atmospheric properties:

- Temperature
- Atmospheric pressure
- Static pressure

Biogas sampling is typically based on prior results from other environmental studies, such as soil or groundwater sampling, or if historical uses indicate a human health risk could be present. A variety of issues can significantly influence the results of biogas sampling. Adherence to this SOP will help ensure that sampling results are accurate, valid, and reliable.

2 EQUIPMENT LIST

The GEM 5000 is designed specifically for use on landfills to monitor landfill gas (LFG), which is a biogas, to determine concentrations at collection and control systems, which may include in situ monitoring points, and gas extraction systems.

The following table lists standard equipment and tools needed for sampling.

Equipment	
	<ul style="list-style-type: none">• LANTEC GEM 5000 and associated sample tubing and fittings• Calibration gases (typically CH₄/CO₂ and CO/H₂S)• GAST vacuum pump (GAST pump) – if additional purging volume is required• 12V Battery for GAST pump• Rotameter for GAST flow rate calibration

Other equipment	<ul style="list-style-type: none"> • Field notebook and/or field forms • Well key
Tools	<ul style="list-style-type: none"> • Scissors • Socket set and ratchet wrench (for flush mount completions) • Extra thin knife/flathead screwdriver • Water bailing tools – such as a small cup, syringe, pool pump, etc.
Supplemental supplies	<ul style="list-style-type: none"> • Additional water trap (for use with GAST pump and GEM 5000) if water is expected at sample locations • Spare GEM, poly, and silicone tubing

3 GEM 5000 INITIAL PROCEDURES

Complete the following prior to field activities:

- Review the field map and sampling plan for sample locations.
- Confirm the GEM 5000 has sufficient charge to complete monitoring.
- Confirm the battery for the GAST pump is charged.
- Confirm there is ample calibration gas pressure (>200 psi).

GEM 5000 Calibration (*complete at the office prior to departure*)

Calibration is a key step to ensure accurate data. Please note the GEM 5000 is extremely sensitive to moisture and should not be exposed to wet conditions. Calibration should be completed at the office, prior to departure, to confirm the unit is operating normally and prevent ambient site conditions from influencing the calibration.

- Turn on the GEM 5000. The instrument will inform you if it is operating correctly. If the unit is not operating correctly, consult with the instrument's user manual for tips on how to correct the issue and notify your project manager.
- Examine the calibration gas cylinders and make note of the gases and concentrations present in each.
- Connect the regulators to the two calibration gas cylinders paying special attention to use the properly threaded regulator that matches the calibration cylinder (note: there are two different styles of regulators). One calibration gas cylinder is for CH₄ and CO₂, the other is for H₂S, which may or may not contain CO. Be sure to confirm what cylinder you are using during calibration that it matches the calibration you are completing. Both calibration cylinders contain no oxygen. Record the calibration gas manufacturer, lot number, tank pressure, and expiration date in the field notes.
- Be sure you are using the same units (ppm may not always equal parts per million by volume [ppmv]: check your units).



WARNING

Inhaling H₂S or other harmful gases can cause death. CH₄ is highly flammable, and the meter and calibration gases must be kept away from high heat and other ignition sources. It is the responsibility of the user to ensure that they are adequately trained in the safety aspects of using H₂S, CH₄, and other harmful gases. In particular, where hazardous gases are being used the gas exhausted from the analyzer must be piped to an area where it is safe to discharge the gas. Hazardous gas can also be expelled from the instrument when purging with clean air. It is recommended that tubing is attached to the instrument during a calibration or gas check. The exhaust tubing must emerge in a well-ventilated area.

- On the GEM 5000, press the menu option (just above number 1). Press **"Gas Check"** (number 2). Press **"Gas Check"** again (number 1). Do NOT attach the gas supply to the gas analyzer before putting the analyzer into the "Gas Check" screen.
- Select to calibrate CH₄ high (this calibrates CH₄ and CO₂). Turn on the calibration gas and connect the analyzer tubing to the regulator. Wait for the gas concentrations to equilibrate, then start the calibration. Once the calibration timer has finished, the calibration is complete. Confirm concentration displayed on the GEM match the calibration cylinder values. Typical concentration for CH₄ is 50% and CO₂ is 35%.
- Calibrate H₂S high (this calibrates H₂S and CO). Turn on the calibration gas and connect the analyzer tubing to the regulator. Wait for the gas concentrations to equilibrate, then start the calibration. Once the calibration timer has finished, the calibration is complete. Confirm concentration displayed on GEM match calibration cylinder values. Typical concentrations for H₂S is 50 parts per million (ppm) and CO is 1,000 ppm.
- Calibrate O₂ high. This only calibrates ambient O₂ at 20.9%.
- Select fresh air and allow pump to run. Ensure all values are reading zero (except O₂ and CO₂). Calibrate again if values are not reading zero.
- Record calibration readings in the field notes.
- Exit the calibration menu.
- On the main page, click on special action, then click on **"System Pressure"** (number 4).
- Disconnect all tubing and allow reading to stabilize. Once stable, select the "zero transducers" to zero static pressure. Select **"Next"** (this will store the values, but also automatically starts the pump. Simply turn off the pump once back on the main screen).
- The GEM is now ready to collect readings.

4 AMBIENT AND BACKGROUND READINGS

Ambient air readings may provide valuable information if there are measurable emissions of target gases coming onto or from the ambient air that may influence soil gas or indoor air readings. Not all sites require ambient air readings, check with the project manager to determine if they are needed. Ambient readings should be collected from upwind, downwind, and crosswind locations. These may already be predetermined or may change depending on the day, scope, or weather conditions.

Record the ambient air conditions in the logbook or on the field form, noting the wind direction and estimated speed. Other atmospheric information, such as temperature and barometric pressure should also be recorded in the field notes.

5 GEM 5000 INITIAL PROCEDURES (NO GAST PURGING)

These instructions assume that all samples will be collected using a pre-installed in situ monitoring point, with an open/close valve and that no purging using a GAST will be required. These procedures may need to be adapted for temporary borings or readings collected from post-run tubing (PRT) drilling operations.

- Open monitoring point monument using a well key or appropriately sized tools. This could be an aboveground monument or a flush-mounted monument.
- Inspect the monitoring point for any visual signs of damage and ensure valve is in the closed position. *Do not open valve.*
- Connect GEM sample tubing to the monitoring point tubing using ¼-inch silicone tubing, ensuring that there is a tight seal. Navigate on the GEM 5000 to monitor system pressure. Click **“Special Action”** and then select option **“Number 4”**. Allow the reading to stabilize, once stable, **“Zero”** the transducers.
- Once the static pressure is reading zero, open the valve and record the static pressure reading in the field notes. The value should jump drastically in either a positive or negative direction but should stabilize. Click **“Next.”** This will start the pump.
- Purge at least two dead volumes (includes void casing/tubing volume, and pore volume of filter pack, and tubing volume to the analyzer) and wait for readings to stabilize. Consult the project work plan or with your project manager to determine the appropriate purge time. Purge times may vary by project, monitoring point construction details, and by regulatory requirements. *Pay close attention to water being drawn up in the sample line. If you see water, immediately turn off the pump by pushing the fan icon in the lower left. Then close the valve and drain the water from the tubing. A water trap can be used in-line to prevent water from entering the GEM. PBS requires using a water trap to prevent damage to the GEM and costly repairs.*
- Once values are recorded, stop pump. Before disconnecting tubing, close the valve.
- Close and secure monitoring point vault.

6 GEM 5000 INITIAL PROCEDURES WITH GAST PURGING

These instructions assume that all samples will be collected using a pre-installed point with an open/close valve, and that purging using a GAST will be required (typically used when purging of dead volume of monitoring points is required [includes tubing volume, casing volume, and filter pack void space]). The GAST pump can evacuate air faster than the GEM, and it has adjustable flow rates instead of the GEM fixed flow rate of 350 milliliters per minute (mL/min). Be sure to collect any initial readings as required by the project specific work plan prior to connecting the GAST.

- Verify the rotameter being used to calibrate the planned purge rate matches that listed in the work plan. If the range is not covered by the rotameter, it should be replaced with one that matches the planned purge rate. Calibrate the GAST pump using a rotameter to the flow rate listed in the work plan. Connect the exhaust tubing from the GAST pump to the bottom port of the rotameter. Connect the battery cables to the external battery (connecting the cables turns on the battery, there is no on/off switch). Once on, hold the rotameter vertical so the ball is stationary and adjust the flow controller to achieve desired purging rate. It is important to check the flow rate regularly to ensure it hasn't changed from the initial calibration while moving around to different sample points.

- Purge with the GAST as follows if required by the work plan. Once purged, continue with the steps below.
- Connect the GAST pump tubing and open the valve. Then purge the required amount as calculated by the flow rate and required purge volume. The GAST pump purges at a faster rate, and if there is potential for water to be present inside the sample point, it is wise to attach a water trap so the pump is not damaged. Once purging is completed, disconnect battery to stop the GAST pump, close the valve, and disconnect the GAST pump.
- Reconnect the GEM 5000, open the valve, start the pump, and record the readings upon stabilization. Once values are recorded, stop the pump. Before disconnecting tubing, close the valve. If monitoring for other parameters, such as H₂S using a finer resolution meter, such as a Jerome J605 H₂S meter or equivalent, connect the other meter and record readings in accordance with the manufacturer's instructions.
- Close and secure monitoring point after monitoring activities are completed.

7 POST-FIELD ACTIVITIES

- Retain all paperwork. This information must be retained in the permanent project file.
- Clean equipment (such as the water trap) as necessary, as these may get dirty between monitoring points and projects. Equipment should be clean prior to returning to the hard case.
- Return all rental equipment and PBS equipment.
- Compare readings to site- and compound-specific action levels. If you observe any exceedances, notify your PM immediately.