



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

February 2, 2018

American Landfill, Inc.
7916 Chapel St., SE
Waynesburg, Ohio 44688

**Re: American Landfill, Inc.
Director's Final Findings and Orders (DFFO)
DFFO
Municipal Solid Waste Landfills
Stark County
MSWL018809**

Subject: American Landfill, Inc. Director's Final Findings & Orders

Dear Sir or Madam:

Transmitted herewith are the Final Findings and Orders of the Director concerning the matter indicated for American Landfill, Inc.

If you have any questions, please contact Troy Harter at (614) 644-3037.

Sincerely,

Brian Dearth, Administrative Officer 1
Division of Materials & Waste Management

Enclosure

cc: Troy Harter, Legal
Teri Finfrock, Legal
Drew Bergman, Legal
Carl Mussenden, DMWM, CO
Bruce McCoy, DMWM, CO
Jim Kavelac, DAPC, CO
Lynn Sowers, DMWM, NEDO
Josh Adams, DMWM, NEDO



BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

American Landfill, Inc.	:	Director's Interim Findings
7916 Chapel St., SE	:	and Orders
Waynesburg, Ohio 44688	:	

PREAMBLE

It is agreed by the parties hereto as follows:

Ohio EPA FEB 27/18
Entered Directors Journal

I. JURISDICTION

These Director's Interim Findings and Orders ("Interim Orders") are issued to American Landfill, Inc. ("Respondent") pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") Sections 3704.03, 3734.13, and 3745.01. A set of Director's Final Findings and Orders will be issued later to require Respondent to take additional action.

II. PARTIES BOUND

These Interim Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the facility shall in any way alter Respondent's obligations under these Interim Orders.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Interim Orders shall have the same meaning as defined in ORC Chapters 3704 and 3734 and the rules promulgated thereunder.

IV. FINDINGS

The Director of Ohio EPA makes the following findings:

1. Respondent owns and operates a sanitary landfill facility (Facility IDs MSWL018809 and 1576181541) located at 7916 Chapel St., SE, Waynesburg, Stark County, Ohio 44688 ("Facility"). This facility is a Title V source as defined in Ohio Administrative Code ("OAC") Rule 3745-77-01(PP).

Division of Air Pollution Control Findings

2. The Canton City Health Department, Air Pollution Control Division ("Canton

APC") is a contractual agent for Ohio EPA's Division of Air Pollution Control in Stark County.

3. ORC Section 3704.05(A) states, in part, that "no person shall cause, permit, or allow emission of an air contaminant in violation of any rule adopted by the director of environmental protection.
4. ORC Section 3704.05(J) states, in part, that, "no person shall violate any applicable requirement of a Title V permit or any permit condition."
5. On December 12, 2016, Ohio EPA issued a renewal Title V permit (P0117333), with an effective date of January 2, 2017, to Respondent for various emissions units ("EU"). This permit replaced the previous permit (P0101478) with an effective date of January 19, 2010. The EUs listed in P0117333 are "air contaminant sources" as defined in Ohio Administrative Code ("OAC") Rule 3745-15-01(I) and ORC § 3704.01(C). Respondent is subject to the requirements of USEPA's Standards of Performance for New Stationary Sources ("NSPS"), 40 CFR, Part 60, Subpart WWW. The NSPS for municipal solid waste landfills 40 CFR §60.753(c) states in part: "Each owner or operator of a municipal solid waste (MSW) landfill with a gas collection and control system (GCCS) used to comply with 40 CFR, Part 60, Subpart WWW, shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C (131°F) and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value (HOV) demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens."
6. Since at least May of 2014, Respondent has had gas wells that have exceeded NSPS operating parameters with either elevated temperatures or oxygen concentrations in excess of five percent. From 2014 until as recently as August of 2017, Respondent submitted alternative timeline requests and HOV demonstrations to Canton APC and/or Ohio EPA, as provided in 40 CFR, Part 60, Subpart WWW. Most of these requests and demonstrations have been approved by Ohio EPA and/or Canton APC.
7. In September of 2016, Respondent submitted another HOV request to Ohio EPA for gas wells at the facility including AMEN80RR, AMER122A, AMERN126, and AMERN140. In addition, Respondent identified ten additional gas "wells of interest" ("WOI") to be operating above the 55°C (131°F) identified in 40 CFR, Part 60, Subpart WWW. Between November of 2016 and February of 2017, Canton APC and Ohio EPA's HOV

committee requested further information from Respondent to evaluate this request. On December 9, 2016, Respondent indicated that it would forgo the HOV request for the ten WOIs (AME103AR, AMEN126A, AMENW134, AMER102M, AMER105R, AMER116R, AMERN113, AMERN115, AMERN122, and AMERN144). On April 13, 2017, Ohio EPA issued Respondent a letter denying the HOV request for AMEN80RR, AMER122A, AMERN126, and AMERN140 because Ohio EPA's investigation found significant inhibition of anaerobic decomposition. On April 26, 2017, Respondent identified four additional gas wells (AMERN101, AMERN142, AMENW135, and AMER106R) to be added as WOI.

8. On May 5, 2017, Canton APC issued a Notice of Violation ("NOV") letter to Respondent due to above-mentioned eighteen gas wells not operating within acceptable operating parameters of the NSPS and the denial of the HOV requests. In this NOV, Ohio EPA requested Respondent to submit a compliance plan and schedule detailing how the facility intends to return to compliance.
9. On June 7, 2017, Respondent submitted a response to the May 5, 2017 NOV that included the above-mentioned fourteen WOI (AME103AR, AMEN126A, AMENW134, AMER102M, AMER105R, AMER116R, AMERN113, AMERN115, AMERN122, AMERN144, AMERN101, AMERN142, AMENW135, and AMER106R) and added one additional gas well (AMERNTP3). A revision was submitted on June 14, 2017 to include the four gas wells (AMEN80RR, AMER122A, AMERN126, and AMERN140) which had been denied HOV requests for a total of nineteen WOI. The response also included a compliance plan that included the following:
 - a. Installation of additional gas wells in the area where WOI are located to be completed by December 1, 2017.
 - b. The new wells will be spaced closely to the WOI and equipped with a dewatering mechanism as needed based upon field observations.
 - c. Update the list of gas wells that are WOI by doing the following:
 - i. Evaluate the results of the routine monthly monitoring that is conducted for other gas wells at the facility (not currently on the WOI list). If the monitoring of any other gas well shows the CH₄:CO₂ ratio is less than 0.90 and the temperature is above 131°F, then re-monitor the gas well within fifteen (15) days. If the re-monitored readings show CH₄:CO₂ ratio is less than 0.90 and the temperature is above 131°F, then within thirty (30) days of re-

monitoring, a Hydrogen sample and Carbon Monoxide ("CO") reading will be taken. If the results of this 30-day sampling shows a ratio of less than 0.90, well head temperature above 131 °F, Hydrogen greater than 5% and a CO of 100 PPM, then the gas well will be designated as a WOI and be added to the WOI list.

- ii. Gas wells designated as WOI will continue to be WOI until the well head temperature drops below 131°F and the CH₄:CO₂ ratio is greater than 1.0 for three consecutive months and the quarterly gas sample results are below 100 ppm for CO and less than 5% hydrogen, at which point the well would be re-designated as a normal gas well.
 - d. Conduct monthly monitoring on the WOI and the landfill gas (LFG) control device with a typical field instrument for the following constituents: CH₄, O₂, CO₂, balance gas, temperature, and pressure.
 - e. Conduct semi-annual LFG sampling on the WOI with a Gas Analyzer for the following constituents: CH₄, O₂, CO₂, CO, and Hydrogen. (Outside lab confirmation will be used as-needed.)
 - f. Provide updates on the WOIs on a monthly basis. The update will be submitted to Canton APC by the 15th of the following month via Ohio EPA's eBusiness Center: Air Services.
10. Starting in July 2017, Respondent has submitted monthly WOI Update Reports to Canton APC via Ohio EPA's eBusiness Center: Air Services. The number of WOI has since increased because of the installation of new wells in close proximity to existing WOI. The WOIs do not include AMERNW85, which was previously listed as a WOI but has been abandoned. Respondent also indicates that daily odor monitoring is conducted at six onsite locations and eight offsite locations as needed with records maintained onsite. Monthly Reporting also includes a summary of expansion project and results of settlement surveys.
11. On August 14, 2017, Respondent met with Canton APC, Stark County Health Department, and Ohio EPA NEDO DMWM representatives to discuss its well expansion project. At this time, Respondent indicated that an additional leachate collection tank, liquid/gas separator, and LFG flare would be installed as part of the project, which covered a portion of the north section of the landfill. LFG flare would help control any additional LFG collected by the additional wells around the WOI and would allow diversion of the LFG from the gas plant during times of poor gas quality.

12. On August 22, 2017, Respondent submitted an air permit application for installation of the above-mentioned LFG flare. On October 6, 2017, Ohio EPA DAPC issued a Chapter 31 modification Permit to Install (PTI) (P0123314) with an effective date of October 6, 2017, to Respondent for EU P902 – MSW Landfill that includes the requirements for the LFG collection and control system. This permit replaced the previous PTI (P0115400) with an effective date of March 22, 2014.
13. Respondent has not achieved compliance with the temperature parameters as specified in P0117333 for some of its gas wells. Respondent is in violation of the terms and conditions of P0117333, 40 CFR Part 60, Subpart WWW, and ORC Sections 3704.05(A) and (J).

Division of Materials and Waste Management Findings

14. Respondent is the "owner" and the "operator" of the Facility as those terms are defined in Ohio Administrative Code ("OAC") Rules 3745-27-01(O)(7) & (5), respectively, and is also the license holder for the Facility.
15. The Facility is a "sanitary landfill facility" as that term is defined under OAC Rule 3745-27-01(S)(4) and is authorized to accept "solid waste" as that term is defined under ORC Section 3734.01(E) and OAC Rule 3745-27-01(S)(23).
16. OAC Rule 3745-27-19(B)(2) provides that the owner or operator shall conduct all operations at the Facility in strict compliance with its authorizing documents. As set forth in Finding number 13 above, Respondent is in violation of Title V Permit P0117333, which is also a violation of OAC Rule 3745-27-19(B)(2).
17. ORC Section 3734.13(A) states that the Director may issue Orders to any person in order to abate a violation or prevent a threatened violation of any section of ORC 3734 and the rules adopted thereunder.

V. ORDERS

The Director hereby issues the following Interim Orders:

1. As of November 30, 2017, the wells listed in Exhibit "A" to these Interim Orders shall be considered WOI.
2. Upon the effective date of these Orders, Respondent shall submit all data collected pursuant to paragraphs 3, 4, 6, 7, and 9 in a Monthly Report by the 15th of each following month via the contact information provided below

in Section XI. Notice. The official submission shall be in pdf format. A courtesy copy of numeric data shall also be submitted electronically in an Excel-readable format.

3. Upon the effective date of these Interim Orders, Respondent shall implement the following compliance plan, which modifies the compliance plan in paragraph 9 of the above Findings:
 - a. Submit a proposed gas well installation schedule by January 31, 2018 for all currently-planned new wells. Respondent shall provide Ohio EPA with installation schedules for all additional wells beyond those already scheduled for installation at least 30 days prior to beginning installation.
 - b. Installation of additional gas wells as necessary in the area where WOI are located.
 - c. The new wells shall be spaced closely to the WOI as appropriate and equipped with a dewatering mechanism as needed based on liquid level determination from well sounding performed within the first thirty (30) days of well completion/construction. Respondent shall install a pump and pump cycle counter to monitor the pump on a new well if:
 - i. During well sounding, liquid levels cover at least 50% of the perforation length; and
 - ii. The well is maintained under negative pressure value with well head temperature below 185°F for 30 days.
 - d. Update the list of gas wells that are WOI by doing the following:
 - i. Evaluate the results of the routine monthly monitoring for methane, carbon dioxide, oxygen, balance gas, temperature, CH₄:CO₂ ratio, and pressure that is conducted for all gas wells at the facility not currently on the WOI list. If the routine monitoring of any non-WOI gas well shows the CH₄:CO₂ ratio is 0.9 or lower and/or the temperature is above 131°F, re-monitor the gas well within fifteen (15) days to verify the earlier reading. If the re-monitored readings verify CH₄:CO₂ ratio is 0.9 or lower and the temperature is above 131°F, then the well shall be designated a WOI and added to the WOI list. Within thirty (30) days of designation as a WOI, a gas sample will be collected from the new WOI and analyzed with a NOVA Gas Analyzer (or equivalent device that can detect the same constituents and concentration

levels as the NOVA Gas Analyzer) to determine the Hydrogen and Carbon Monoxide ("CO") content within the gas sample. All gas analysis shall be performed with instrumental methods of sufficient resolution to determine gas compositions at the levels present in all samples. Respondent shall calibrate all instruments and perform quality assurance and quality control in accordance with manufacturing specifications.

- ii. Gas wells designated as WOI shall continue to be WOI until the well head temperature drops below 131°F and the CH₄:CO₂ ratio is greater than or equal to 1.0 for three consecutive months, and the monthly gas sample results are below 100 ppm for CO and less than 5% hydrogen, at which point the well would be re-designated as a normal gas well
 - e. Conduct twice monthly monitoring on the WOI and the landfill gas (LFG) control device with a Landtec GEM, Envision Landfill Gas Monitoring Device or equivalent device for the following constituents: methane, oxygen, carbon dioxide, balance gas, temperature, CH₄:CO₂ ratio, and pressure.
 - f. Conduct quarterly LFG monitoring on the WOI with a NOVA Gas Analyzer (or equivalent device) for methane, oxygen, carbon dioxide, carbon monoxide, hydrogen, and using Tedlar Bags or SUMMA canisters for outside lab analysis for nitrogen. If site conditions dictate, Ohio EPA may reasonably request Respondent to conduct monthly monitoring of specific wells for these constituents for a specified period of time.
 - g. Provide updates on the WOIs in the Monthly Report.
4. As part of the Monthly Report, Respondent shall provide a plan view showing the location of all wells (current and newly installed). The boring logs for all existing wells including waste temperatures and identification of the top and bottom elevations of the perforations in the wells shall be submitted in the next available Monthly Report following issuance of these Orders. In addition, a profile view of all existing WOI with respect to top of the landfill and the bottom liner of the landfill shall be submitted in the next available Monthly Report following issuance of these Orders. For new wells scheduled to be installed pursuant to Order 3.a. above and for all potential future wells beyond those currently scheduled for installation, a profile view and boring logs shall be submitted on the next available Monthly Report following installation.

5. Within 14 days of installation of the new LFG flare, Respondent shall submit notification of installation to Canton APC.
6. Upon the effective date of these Orders, liquid level measurements shall be collected no less than semi-annually from any WOI that is not under positive pressure and had a temperature less than 185 °F. This information shall be included in the next available Monthly Report. Routine evaluation of the effectiveness of liquid removal will be determined via review of gas quality and pressure. If pump flow indicates a noticeable decrease in quantity, the WOI equipped with pumps shall be evaluated to determine if continued pumping is warranted, or if pump maintenance may be required. Pump cycle counter values shall be recorded twice per month to ensure each pump is operating properly, and these values shall be included in the Monthly Report. All WOI pumps shall be pulled and cleaned promptly if evaluation of pump data indicates pump maintenance may be required. Respondent shall collect and record a liquid level measurement on any pump undergoing maintenance activities, and this measurement shall be included in the next available Monthly Report.
7. Respondent shall provide monthly leachate and condensate volume disposed and accumulated in the Monthly Report.
8. Within 30 days of the effective date of these Interim Orders, Respondent shall submit an Odor Monitoring and Mitigation Plan that contains at a minimum:
 - a. Odor surveillance route with frequency;
 - b. Standards of measure to determine/evaluate odors,
 - c. Staff training and a process to implement the plan;
 - d. Communication protocols with complainants, government officials, and Ohio EPA;
 - e. A plan to evaluate other odor control measures and to determine when they may become necessary to implement.
9. Upon the effective date of these Interim Orders, Respondent shall take corrective action pursuant to NSPS timeline requirements to address any WOI above 5% oxygen or 20% nitrogen. All corrective action taken shall be reported in the Monthly Report. Acknowledging that Respondent's goal is to remove as much landfill gas as reasonably possible, Respondent shall also balance the applied pressure on any WOI to minimize air intrusion.

10. By February 15, 2018, Respondent shall have in place back up power sources for the landfill's gas extraction and leachate collection systems to ensure continuous operations in the event of a widespread power failure. Those sources shall be identified in correspondence to Ohio EPA once installed.

VI. REVIEW OF SUBMITTALS

Ohio EPA may review any work plan, report, or other item required to be submitted pursuant to these Interim Orders in accordance with this Section. Upon review, Ohio EPA may in its sole discretion: (a) approve the submission in whole or in part; (b) approve the submission upon specified conditions; (c) modify the submission; (d) disapprove the submission in whole or in part, notifying Respondent of deficiencies; or (e) any combination of the above. The results of Ohio EPA's review shall be provided in writing to Respondent.

In the event of approval as is, approval upon condition, or approval as modified of any submission by the Ohio EPA, Respondent shall proceed to take any action required by the submission as approved, conditionally approved, or approved as modified by Ohio EPA, if Respondent does not contest Ohio EPA's conditions or modifications.

In the event that Ohio EPA initially disapproves a submission, in whole or in part and notifies Respondent in writing of the deficiencies, Respondent shall within thirty (30) days, or such longer period of time as specified by Ohio EPA in writing, either (a) correct the deficiencies and incorporate all changes, additions, and/or deletions, and submit the revised submission to Ohio EPA for approval, or (b) submit to Ohio EPA an explanation, in writing and including Respondent's technical rationale, supporting its revised submission. Revised submissions shall be accompanied by a letter indicating how and where each Ohio EPA comment was incorporated into the submission, or an explanation on how and why an Ohio EPA comment was modified or not incorporated. Any other changes made to the submission by Respondent shall also be identified in the letter. Ohio EPA and Respondent shall meet and confer promptly thereafter, and in no instance more than twenty-one (21) days after submission of Respondent's written response, to resolve any matters still outstanding in the revised submission.

If Respondent fails to submit a revised submission incorporating all changes, additions and/or deletions, or fails to provide written justification with the revised submission that explains why any comment was not incorporated, within thirty (30) days, or such period of time as specified by Ohio EPA in writing, Respondent shall be considered in breach and/or violation of these Interim Orders. If Respondent is in breach and/or violation of these Interim Orders, Ohio EPA retains the right to terminate these Interim Orders, perform any additional investigation, conduct any work to address conditions at the Facility, and/or enforce the terms of these Interim Orders.

VII. TERMINATION

Respondent's obligations under these Interim Orders shall terminate upon the issuance of a Director's Final Findings and Orders or by the mutual written agreement of Respondent and the Chiefs of Ohio EPA's Division of Air Pollution Control, Division of Materials and Waste Management.

VIII. OTHER CLAIMS

Nothing in these Interim Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Interim Orders, for any liability arising from, or related to, operations by Respondent.

IX. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Interim Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Interim Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

X. MODIFICATIONS

These Interim Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

XI. NOTICE

All documents required to be submitted by Respondent pursuant to these Interim Orders shall be addressed to:

Ohio Environmental Protection Agency
2110 East Aurora Road
Twinsburg, Ohio 44087-1924
Attn: Lynn Sowers
(and electronically to:
NEDODMWM.Submittals@epa.ohio.gov)

and to:

Canton City Health Department

Air Pollution Control Division
420 Market Avenue North
Canton, Ohio 44702-1544
Attention: Terri Dzienis (and electronically to the Air Services Portal)

and to:

Ohio Environmental Protection Agency
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049
Attn: James Kavalec (and electronically to the Air Services Portal)

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XII. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XIII of these Interim Orders. Ohio EPA reserves the right to require Respondent to undertake additional actions in future orders concerning this facility.

XIII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, Respondent consents to the issuance of these Interim Orders and agrees to comply with these Interim Orders.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Interim Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Interim Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Interim Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Interim Orders notwithstanding such appeal and intervention unless these Interim Orders are stayed, vacated or modified.

XIV. EFFECTIVE DATE

The effective date of these Interim Orders is the date these Interim Orders are entered into the Ohio EPA Director's journal.

XV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Interim Orders certifies that he or she is fully authorized to enter into these Interim Orders and to legally bind such party to these Interim Orders.

IT IS SO ORDERED AND AGREED:

Ohio Environmental Protection Agency



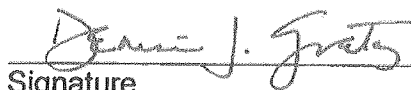
Craig W. Butler
Director

2/1/18

Date

IT IS SO AGREED:

American Landfill, Inc.



Signature

1-24-18

Date

DENISE J. GRETZ

Printed or Typed Name



Title

EXHIBIT A

American Landfill, Inc.

Wells of Interest as of November 30, 2017

- 26 existing wells that have been identified in previous correspondence between the parties.

AME103AR	AMER102M	AMERN113	AMERN144
AMEN126A	AMER105R	AMERN115	AMERN44R
AMEN80RR	AMER106R	AMERN122	AMERN56R
AMENW125	AMER116R	AMERN126	AMERNTP3
AMENW133	AMER122A	AMERN127	AMERNW54
AMENW134	AMER122B	AMERN140	
AMENW135	AMERN101	AMERN142	

- 23 newly installed wells.

AMEN139R	AMEN250B*	AMERN239*	AMERN255*
AMEN243B	AMEN250T*	AMERN240*	AMERN263*
AMEN243T	AMEN256B*	AMERN251	AMERN285*
AMEN246B*	AMEN292B*	AMERN252	AMERN290*
AMEN246T*	AMEN292T*	AMERN253	AMERN291*
AMEN249B*	AMEN92R2	AMERN254	

*Well became WOI during the month of November 2017.

EXHIBIT B

American Landfill, Inc.

Monitoring and Sampling Schedule

Description	Technique	Frequency	Monitoring Constituents	Well(s)
LFG Monitoring/Well Tuning ¹	Landtec GEM, Envision or Equivalent	Twice Monthly	CH, O ₂ , CO ₂ , Balance Gas, Temperature, CH ₄ :CO ₂ ratio, Pressure	WOI
Overall LFG Quality	Landtec GEM, Envision or Equivalent	Twice Monthly	CH, O ₂ , CO ₂ , Balance Gas, Temperature, CH ₄ :CO ₂ ratio, Pressure	Gas Control Device
LFG Sampling/Analysis	Field Gas Analyzer ²	Quarterly	CH, O ₂ , CO ₂ , CO, H ₂ ,	WOI
	Tedlar or SUMMA with Outside Lab Confirmation	Quarterly	N ₂	WOI

1 Gas wells not specified within this table will be monitored, tuned, and inspected as required per NSPS regulations.

2 Field Gas Analyzer which provides real-time results